

ALMANAC LV TRANSITS VISIBLE FROM URANUS IN BCE

The almanac LV contains a list of transits visible from Uranus from the 125th millennium BCE to the 1st millennium BCE.

During the period of 250 000 years, the total number of transits visible from Uranus is 196 824 transits visible from Uranus (73 928 transits of Mercury, 55 766 transits of Venus, 29 404 transits of Earth, 29 380 transits of Moon, 7 818 transits of Mars, 461 transits of Jupiter, 67 transits of Saturn).

125TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 125th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-124982-01-19 16:20 J		-43928233.94	-43928233.82	-43928233.65	0.0131	0.0105	
Moon	-124982-01-19 18:30 J		-43928233.84	-43928233.73	-43928233.57	0.0131	0.0110	*
Moon	-124981-01-23 12:15 J		-43927865.23	-43927864.99	-43927864.75	0.0131	0.0010	
Earth	-124981-01-23 14:54 J		-43927865.13	-43927864.88	-43927864.64	0.0131	0.0003	*
Earth	-124980-01-26 12:01 J		-43927496.13	-43927496.00	-43927495.87	0.0131	0.0110	
Moon	-124980-01-26 14:11 J		-43927496.06	-43927495.91	-43927495.75	0.0131	0.0103	*
Mercury	-124978-11-21 08:11 J		-43926467.16	-43926467.16	-43926467.16	0.0130	0.0130	
Mercury	-124977-02-17 11:03 J		-43926379.10	-43926379.04	-43926378.98	0.0130	0.0115	
Mercury	-124977-05-15 13:56 J		-43926291.00	-43926290.92	-43926290.83	0.0130	0.0100	
Mercury	-124977-08-11 16:49 J		-43926202.89	-43926202.80	-43926202.69	0.0130	0.0085	
Mercury	-124977-11-07 19:42 J		-43926114.78	-43926114.68	-43926114.56	0.0130	0.0070	
Mercury	-124976-02-03 22:35 J		-43926026.67	-43926026.56	-43926026.43	0.0130	0.0056	
Mercury	-124976-05-03 01:42 J		-43925938.56	-43925938.43	-43925938.30	0.0130	0.0040	
Mercury	-124976-07-30 04:35 J		-43925850.44	-43925850.31	-43925850.18	0.0130	0.0025	
Mercury	-124976-10-26 07:27 J		-43925762.32	-43925762.19	-43925762.06	0.0130	0.0010	
Mercury	-124975-01-22 10:20 J		-43925674.20	-43925674.07	-43925673.94	0.0130	0.0005	
Mercury	-124975-04-20 13:13 J		-43925586.08	-43925585.95	-43925585.82	0.0130	0.0020	
Mercury	-124975-07-17 16:06 J		-43925497.96	-43925497.83	-43925497.70	0.0131	0.0035	
Mercury	-124975-10-13 18:44 J		-43925409.83	-43925409.72	-43925409.59	0.0131	0.0051	
Mercury	-124974-01-09 21:37 J		-43925321.71	-43925321.60	-43925321.48	0.0131	0.0066	
Mercury	-124974-04-08 00:30 J		-43925233.58	-43925233.48	-43925233.37	0.0131	0.0080	

Mercury -124974-07-05 03:37 J -43925145.44 -43925145.35 -43925145.26 0.0131 0.0095
 Mercury -124974-10-01 06:15 J -43925057.30 -43925057.24 -43925057.17 0.0131 0.0110
 Mercury -124974-12-28 09:08 J -43924969.15 -43924969.12 -43924969.08 0.0131 0.0125
 Mars -124969-10-13 09:37 J -43923218.42 -43923218.10 -43923217.77 0.0132 0.0011
 Venus -124966-01-31 13:27 J -43922377.98 -43922377.94 -43922377.89 0.0133 0.0129
 Venus -124966-09-14 15:23 J -43922151.95 -43922151.86 -43922151.74 0.0133 0.0114
 Venus -124965-04-27 17:47 J -43921925.89 -43921925.76 -43921925.61 0.0133 0.0099
 Venus -124965-12-09 20:25 J -43921699.81 -43921699.65 -43921699.48 0.0134 0.0083
 Venus -124964-07-23 22:49 J -43921473.72 -43921473.55 -43921473.36 0.0134 0.0067
 Venus -124963-03-07 01:42 J -43921247.62 -43921247.43 -43921247.23 0.0134 0.0051
 Venus -124963-10-19 04:35 J -43921021.51 -43921021.31 -43921021.10 0.0135 0.0034
 Venus -124962-06-02 07:42 J -43920795.39 -43920795.18 -43920794.97 0.0135 0.0017
 Venus -124961-01-14 11:03 J -43920569.25 -43920569.04 -43920568.83 0.0135 0.0001
 Venus -124961-08-27 14:11 J -43920343.11 -43920342.91 -43920342.69 0.0136 0.0018
 Venus -124960-04-10 17:47 J -43920116.96 -43920116.76 -43920116.55 0.0136 0.0035
 Venus -124960-11-22 21:23 J -43919890.79 -43919890.61 -43919890.41 0.0136 0.0053
 Venus -124959-07-07 01:27 J -43919664.61 -43919664.44 -43919664.25 0.0137 0.0070
 Venus -124958-02-18 05:47 J -43919438.41 -43919438.26 -43919438.09 0.0137 0.0088
 Venus -124958-10-02 10:06 J -43919212.20 -43919212.08 -43919211.93 0.0138 0.0106
 Venus -124957-05-15 14:54 J -43918985.96 -43918985.88 -43918985.78 0.0138 0.0123
 Earth -124939-07-16 09:51 J -43912350.32 -43912350.09 -43912349.84 0.0148 0.0056
 Moon -124939-07-16 11:32 J -43912350.25 -43912350.02 -43912349.78 0.0148 0.0049 *
 Earth -124938-07-21 23:32 J -43911979.68 -43911979.52 -43911979.34 0.0148 0.0113
 Moon -124938-07-21 23:32 J -43911979.68 -43911979.52 -43911979.32 0.0148 0.0112 *
 Mercury -124935-05-22 15:51 J -43910943.86 -43910943.84 -43910943.79 0.0148 0.0146
 Mercury -124935-08-19 00:59 J -43910855.57 -43910855.46 -43910855.33 0.0148 0.0113
 Mercury -124935-11-15 09:51 J -43910767.24 -43910767.09 -43910766.92 0.0148 0.0082
 Mercury -124934-02-11 18:59 J -43910678.89 -43910678.71 -43910678.53 0.0148 0.0049
 Mercury -124934-05-11 04:06 J -43910590.52 -43910590.33 -43910590.14 0.0148 0.0017
 Mercury -124934-08-07 12:59 J -43910502.15 -43910501.96 -43910501.77 0.0148 0.0015

Mercury -124934-11-03 21:51 J -43910413.76 -43910413.59 -43910413.40 0.0148 0.0048

Mercury -124933-01-31 06:59 J -43910325.37 -43910325.21 -43910325.04 0.0148 0.0080

Mercury -124933-04-28 15:51 J -43910236.95 -43910236.84 -43910236.70 0.0148 0.0112

Mercury -124933-07-26 00:59 J -43910148.49 -43910148.46 -43910148.41 0.0148 0.0144

Mars -124928-03-10 06:30 J -43908460.51 -43908460.23 -43908459.94 0.0147 0.0028

Venus -124926-05-19 22:49 J -43907659.63 -43907659.55 -43907659.45 0.0146 0.0132

Venus -124925-01-01 14:54 J -43907433.01 -43907432.88 -43907432.71 0.0145 0.0110

Venus -124925-08-15 07:27 J -43907206.36 -43907206.19 -43907206.00 0.0145 0.0086

Venus -124924-03-29 23:32 J -43906979.72 -43906979.52 -43906979.31 0.0145 0.0063

Venus -124924-11-11 15:08 J -43906753.08 -43906752.87 -43906752.64 0.0144 0.0040

Venus -124923-06-26 06:59 J -43906526.44 -43906526.21 -43906525.99 0.0144 0.0017

Venus -124922-02-07 22:06 J -43906299.80 -43906299.58 -43906299.35 0.0143 0.0006

Venus -124922-09-22 12:59 J -43906073.17 -43906072.96 -43906072.73 0.0143 0.0028

Venus -124921-05-06 03:51 J -43905846.56 -43905846.34 -43905846.13 0.0143 0.0050

Venus -124921-12-18 18:01 J -43905619.94 -43905619.75 -43905619.55 0.0142 0.0072

Venus -124920-08-02 08:11 J -43905393.32 -43905393.16 -43905392.98 0.0142 0.0093

Venus -124919-03-16 21:51 J -43905166.71 -43905166.59 -43905166.45 0.0141 0.0114

Venus -124919-10-29 10:49 J -43904940.09 -43904940.05 -43904939.96 0.0141 0.0134

Earth -124898-01-20 04:06 J -43897552.48 -43897552.33 -43897552.17 0.0131 0.0100

Moon -124898-01-20 04:49 J -43897552.47 -43897552.30 -43897552.12 0.0131 0.0096 *

Moon -124897-01-24 01:42 J -43897183.66 -43897183.43 -43897183.19 0.0131 0.0003

Earth -124897-01-24 01:56 J -43897183.66 -43897183.42 -43897183.17 0.0131 0.0008 *

Earth -124896-01-26 23:03 J -43896814.63 -43896814.54 -43896814.40 0.0131 0.0115

Moon -124896-01-26 23:47 J -43896814.59 -43896814.51 -43896814.39 0.0131 0.0121 *

Mercury -124894-12-11 15:23 J -43895765.88 -43895765.86 -43895765.82 0.0130 0.0126

Mercury -124893-03-08 18:15 J -43895677.80 -43895677.74 -43895677.66 0.0130 0.0111

Mercury -124893-06-04 21:23 J -43895589.70 -43895589.61 -43895589.52 0.0130 0.0096

Mercury -124893-09-01 00:15 J -43895501.59 -43895501.49 -43895501.38 0.0130 0.0081

Mercury -124893-11-28 03:08 J -43895413.48 -43895413.37 -43895413.25 0.0130 0.0066

Mercury -124892-02-24 06:01 J -43895325.37 -43895325.25 -43895325.12 0.0130 0.0051

Mercury -124892-05-23 08:54 J -43895237.25 -43895237.13 -43895237.00 0.0130 0.0036

Mercury -124892-08-19 11:47 J -43895149.14 -43895149.01 -43895148.87 0.0130 0.0021

Mercury -124892-11-15 14:39 J -43895061.02 -43895060.89 -43895060.75 0.0131 0.0007

Mercury -124891-02-11 17:32 J -43894972.90 -43894972.77 -43894972.63 0.0131 0.0010

Mercury -124891-05-10 20:25 J -43894884.78 -43894884.65 -43894884.52 0.0131 0.0025

Mercury -124891-08-06 23:18 J -43894796.65 -43894796.53 -43894796.40 0.0131 0.0040

Mercury -124891-11-03 02:11 J -43894708.53 -43894708.41 -43894708.29 0.0131 0.0055

Mercury -124890-01-30 05:03 J -43894620.40 -43894620.29 -43894620.18 0.0131 0.0069

Mercury -124890-04-28 07:42 J -43894532.27 -43894532.18 -43894532.07 0.0131 0.0085

Mercury -124890-07-25 10:35 J -43894444.13 -43894444.06 -43894443.97 0.0131 0.0100

Mercury -124890-10-21 13:27 J -43894355.99 -43894355.94 -43894355.87 0.0131 0.0115

Mercury -124889-01-17 16:35 J -43894267.83 -43894267.81 -43894267.80 0.0131 0.0129

Mars -124886-07-06 22:20 J -43893001.67 -43893001.57 -43893001.40 0.0132 0.0120

Mars -124884-06-08 14:54 J -43892299.18 -43892298.88 -43892298.58 0.0132 0.0050

Venus -124882-05-15 04:06 J -43891593.39 -43891593.33 -43891593.23 0.0133 0.0123

Venus -124882-12-27 06:44 J -43891367.33 -43891367.22 -43891367.09 0.0133 0.0107

Venus -124881-08-09 09:08 J -43891141.26 -43891141.12 -43891140.96 0.0133 0.0092

Venus -124880-03-23 11:32 J -43890915.18 -43890915.02 -43890914.84 0.0134 0.0076

Venus -124880-11-04 14:11 J -43890689.09 -43890688.91 -43890688.71 0.0134 0.0059

Venus -124879-06-18 17:03 J -43890462.98 -43890462.79 -43890462.59 0.0134 0.0043

Venus -124878-01-30 20:11 J -43890236.86 -43890236.66 -43890236.45 0.0135 0.0026

Venus -124878-09-13 23:18 J -43890010.74 -43890010.53 -43890010.32 0.0135 0.0009

Venus -124877-04-27 02:25 J -43889784.61 -43889784.40 -43889784.19 0.0135 0.0009

Venus -124877-12-09 06:01 J -43889558.46 -43889558.25 -43889558.05 0.0136 0.0026

Venus -124876-07-23 09:23 J -43889332.30 -43889332.11 -43889331.91 0.0136 0.0044

Venus -124875-03-06 13:13 J -43889106.13 -43889105.95 -43889105.75 0.0137 0.0062

Venus -124875-10-18 17:32 J -43888879.94 -43888879.77 -43888879.60 0.0137 0.0079

Venus -124874-06-01 21:23 J -43888653.74 -43888653.61 -43888653.45 0.0137 0.0098

Venus -124873-01-14 02:11 J -43888427.52 -43888427.41 -43888427.29 0.0138 0.0115

Venus -124873-08-27 06:44 J -43888201.26 -43888201.22 -43888201.15 0.0138 0.0133

Earth -124855-07-16 16:35 J -43881669.04 -43881668.81 -43881668.55 0.0148 0.0055
 Moon -124855-07-16 19:13 J -43881668.92 -43881668.70 -43881668.46 0.0148 0.0063 *
 Moon -124854-07-22 04:06 J -43881298.48 -43881298.33 -43881298.16 0.0148 0.0118
 Earth -124854-07-22 06:01 J -43881298.40 -43881298.25 -43881298.07 0.0148 0.0114 *
 Mercury -124851-06-11 22:20 J -43880242.61 -43880242.57 -43880242.50 0.0148 0.0142
 Mercury -124851-09-08 07:27 J -43880154.32 -43880154.19 -43880154.06 0.0148 0.0110
 Mercury -124851-12-05 16:20 J -43880065.98 -43880065.82 -43880065.65 0.0148 0.0078
 Mercury -124850-03-04 01:27 J -43879977.63 -43879977.44 -43879977.26 0.0148 0.0046
 Mercury -124850-05-31 10:20 J -43879889.26 -43879889.07 -43879888.88 0.0148 0.0014
 Mercury -124850-08-27 19:13 J -43879800.89 -43879800.70 -43879800.51 0.0148 0.0019
 Mercury -124850-11-24 04:06 J -43879712.50 -43879712.33 -43879712.14 0.0148 0.0051
 Mercury -124849-02-20 12:59 J -43879624.11 -43879623.96 -43879623.79 0.0148 0.0084
 Mercury -124849-05-18 22:06 J -43879535.69 -43879535.58 -43879535.45 0.0148 0.0115
 Mercury -124849-08-15 07:13 J -43879447.21 -43879447.20 -43879447.18 0.0148 0.0147
 Mars -124846-12-01 13:13 J -43878244.11 -43878243.95 -43878243.74 0.0147 0.0114
 Mars -124844-11-03 06:44 J -43877541.42 -43877541.22 -43877540.98 0.0146 0.0097
 Venus -124842-08-31 16:06 J -43876874.94 -43876874.83 -43876874.70 0.0146 0.0124
 Venus -124841-04-14 08:25 J -43876648.31 -43876648.15 -43876647.98 0.0145 0.0100
 Venus -124841-11-27 00:30 J -43876421.67 -43876421.48 -43876421.28 0.0145 0.0077
 Venus -124840-07-11 16:49 J -43876195.02 -43876194.80 -43876194.59 0.0144 0.0054
 Venus -124839-02-23 08:11 J -43875968.37 -43875968.16 -43875967.93 0.0144 0.0031
 Venus -124839-10-07 23:47 J -43875741.74 -43875741.51 -43875741.28 0.0144 0.0008
 Venus -124838-05-22 14:39 J -43875515.11 -43875514.89 -43875514.66 0.0143 0.0015
 Venus -124837-01-04 05:32 J -43875288.48 -43875288.27 -43875288.05 0.0143 0.0038
 Venus -124837-08-17 20:11 J -43875061.86 -43875061.66 -43875061.45 0.0143 0.0060
 Venus -124836-04-01 10:20 J -43874835.25 -43874835.07 -43874834.88 0.0142 0.0081
 Venus -124836-11-14 00:01 J -43874608.64 -43874608.50 -43874608.33 0.0142 0.0103
 Venus -124835-06-28 13:27 J -43874382.03 -43874381.94 -43874381.81 0.0141 0.0124
 Moon -124814-01-20 12:15 J -43866871.15 -43866870.99 -43866870.81 0.0131 0.0097
 Earth -124814-01-20 13:42 J -43866871.08 -43866870.93 -43866870.75 0.0131 0.0097 *

Earth -124813-01-24 12:15 J -43866502.24 -43866501.99 -43866501.74 0.0131 0.0011
 Moon -124813-01-24 13:13 J -43866502.18 -43866501.95 -43866501.71 0.0131 0.0015 *
 Moon -124812-01-27 08:39 J -43866133.26 -43866133.14 -43866133.00 0.0131 0.0112
 Earth -124812-01-27 09:23 J -43866133.19 -43866133.11 -43866132.98 0.0131 0.0119 *
 Mercury -124810-12-31 22:35 J -43865064.60 -43865064.56 -43865064.51 0.0131 0.0123
 Mercury -124809-03-29 01:27 J -43864976.51 -43864976.44 -43864976.36 0.0131 0.0108
 Mercury -124809-06-25 04:20 J -43864888.41 -43864888.32 -43864888.22 0.0131 0.0093
 Mercury -124809-09-21 07:13 J -43864800.30 -43864800.20 -43864800.09 0.0131 0.0078
 Mercury -124809-12-18 10:06 J -43864712.19 -43864712.08 -43864711.95 0.0131 0.0063
 Mercury -124808-03-16 13:13 J -43864624.07 -43864623.95 -43864623.83 0.0131 0.0047
 Mercury -124808-06-12 16:06 J -43864535.96 -43864535.83 -43864535.70 0.0131 0.0032
 Mercury -124808-09-08 18:59 J -43864447.84 -43864447.71 -43864447.58 0.0131 0.0017
 Mercury -124808-12-05 21:51 J -43864359.72 -43864359.59 -43864359.46 0.0131 0.0002
 Mercury -124807-03-04 00:44 J -43864271.60 -43864271.47 -43864271.34 0.0131 0.0013
 Mercury -124807-05-31 03:37 J -43864183.48 -43864183.35 -43864183.22 0.0131 0.0028
 Mercury -124807-08-27 06:30 J -43864095.35 -43864095.23 -43864095.10 0.0131 0.0043
 Mercury -124807-11-23 09:08 J -43864007.23 -43864007.12 -43864006.99 0.0131 0.0059
 Mercury -124806-02-19 12:01 J -43863919.10 -43863919.00 -43863918.88 0.0131 0.0074
 Mercury -124806-05-18 15:08 J -43863830.97 -43863830.87 -43863830.77 0.0131 0.0088
 Mercury -124806-08-14 18:01 J -43863742.83 -43863742.75 -43863742.67 0.0131 0.0103
 Mercury -124806-11-10 20:54 J -43863654.69 -43863654.63 -43863654.58 0.0131 0.0118
 Mars -124801-03-01 02:11 J -43862082.67 -43862082.41 -43862082.09 0.0132 0.0060
 Mars -124799-02-01 18:30 J -43861379.87 -43861379.73 -43861379.52 0.0132 0.0112
 Venus -124798-01-12 17:18 J -43861034.79 -43861034.78 -43861034.74 0.0133 0.0132
 Venus -124798-08-26 19:27 J -43860808.77 -43860808.69 -43860808.57 0.0133 0.0117
 Venus -124797-04-08 21:51 J -43860582.71 -43860582.59 -43860582.44 0.0133 0.0101
 Venus -124797-11-21 00:15 J -43860356.63 -43860356.49 -43860356.31 0.0134 0.0085
 Venus -124796-07-05 02:54 J -43860130.54 -43860130.38 -43860130.19 0.0134 0.0068
 Venus -124795-02-16 05:47 J -43859904.44 -43859904.26 -43859904.06 0.0134 0.0052
 Venus -124795-09-30 08:39 J -43859678.33 -43859678.14 -43859677.93 0.0135 0.0035

Venus -124794-05-14 11:47 J -43859452.21 -43859452.01 -43859451.80 0.0135 0.0017

Venus -124794-12-26 14:54 J -43859226.08 -43859225.88 -43859225.67 0.0135 0.0003

Venus -124793-08-08 18:15 J -43858999.94 -43858999.74 -43858999.53 0.0136 0.0018

Venus -124792-03-22 21:37 J -43858773.79 -43858773.60 -43858773.39 0.0136 0.0036

Venus -124792-11-04 01:27 J -43858547.63 -43858547.44 -43858547.24 0.0136 0.0053

Venus -124791-06-18 05:32 J -43858321.45 -43858321.27 -43858321.09 0.0137 0.0071

Venus -124790-01-30 09:37 J -43858095.25 -43858095.10 -43858094.93 0.0137 0.0089

Venus -124790-09-13 13:56 J -43857869.04 -43857868.92 -43857868.78 0.0138 0.0108

Venus -124789-04-26 18:30 J -43857642.80 -43857642.73 -43857642.63 0.0138 0.0126

Earth -124771-07-17 03:51 J -43850987.58 -43850987.34 -43850987.09 0.0148 0.0049

Moon -124771-07-17 07:42 J -43850987.43 -43850987.18 -43850986.93 0.0148 0.0041 *

Moon -124770-07-22 13:56 J -43850617.08 -43850616.92 -43850616.73 0.0148 0.0112

Earth -124770-07-22 16:49 J -43850616.93 -43850616.80 -43850616.62 0.0148 0.0120 *

Mercury -124767-07-02 06:01 J -43849541.32 -43849541.25 -43849541.16 0.0148 0.0134

Mercury -124767-09-28 14:54 J -43849453.01 -43849452.88 -43849452.73 0.0148 0.0102

Mercury -124767-12-25 23:47 J -43849364.67 -43849364.51 -43849364.33 0.0148 0.0070

Mercury -124766-03-24 08:54 J -43849276.31 -43849276.13 -43849275.94 0.0148 0.0038

Mercury -124766-06-20 17:47 J -43849187.95 -43849187.76 -43849187.56 0.0148 0.0007

Mercury -124766-09-17 02:39 J -43849099.57 -43849099.39 -43849099.19 0.0148 0.0027

Mercury -124766-12-14 11:47 J -43849011.19 -43849011.01 -43849010.83 0.0148 0.0058

Mercury -124765-03-11 20:39 J -43848922.79 -43848922.64 -43848922.48 0.0148 0.0090

Mercury -124765-06-08 05:47 J -43848834.36 -43848834.26 -43848834.15 0.0148 0.0122

Mars -124761-07-26 22:06 J -43847324.85 -43847324.58 -43847324.29 0.0147 0.0041

Venus -124758-04-30 19:13 J -43846316.75 -43846316.70 -43846316.60 0.0146 0.0138

Venus -124758-12-13 11:47 J -43846090.14 -43846090.01 -43846089.86 0.0145 0.0114

Venus -124757-07-27 04:06 J -43845863.49 -43845863.33 -43845863.14 0.0145 0.0091

Venus -124756-03-10 20:25 J -43845636.85 -43845636.65 -43845636.45 0.0145 0.0067

Venus -124756-10-23 12:01 J -43845410.21 -43845410.00 -43845409.78 0.0144 0.0044

Venus -124755-06-07 03:37 J -43845183.57 -43845183.35 -43845183.12 0.0144 0.0020

Venus -124754-01-19 18:59 J -43844956.94 -43844956.71 -43844956.48 0.0144 0.0003

Venus -124754-09-03 09:51 J -43844730.31 -43844730.09 -43844729.86 0.0143 0.0026

Venus -124753-04-17 00:15 J -43844503.69 -43844503.49 -43844503.26 0.0143 0.0049

Venus -124753-11-29 14:39 J -43844277.08 -43844276.89 -43844276.68 0.0142 0.0071

Venus -124752-07-14 04:49 J -43844050.46 -43844050.30 -43844050.12 0.0142 0.0092

Venus -124751-02-25 18:15 J -43843823.85 -43843823.74 -43843823.58 0.0142 0.0114

Venus -124751-10-10 07:42 J -43843597.23 -43843597.18 -43843597.09 0.0141 0.0134

Moon -124730-01-20 22:35 J -43836189.72 -43836189.56 -43836189.37 0.0131 0.0094

Earth -124730-01-21 01:13 J -43836189.61 -43836189.45 -43836189.26 0.0131 0.0093 *

Earth -124729-01-24 23:47 J -43835820.76 -43835820.51 -43835820.26 0.0131 0.0016

Moon -124729-01-25 02:11 J -43835820.64 -43835820.41 -43835820.16 0.0131 0.0014 *

Moon -124728-01-27 18:44 J -43835451.77 -43835451.72 -43835451.64 0.0131 0.0126

Earth -124728-01-27 21:37 J -43835451.67 -43835451.60 -43835451.51 0.0131 0.0123 *

Mercury -124725-01-21 05:47 J -43834363.31 -43834363.26 -43834363.20 0.0131 0.0119

Mercury -124725-04-18 08:39 J -43834275.21 -43834275.14 -43834275.05 0.0131 0.0104

Mercury -124725-07-15 11:32 J -43834187.11 -43834187.02 -43834186.91 0.0131 0.0089

Mercury -124725-10-11 14:39 J -43834099.00 -43834098.89 -43834098.78 0.0131 0.0073

Mercury -124724-01-07 17:32 J -43834010.89 -43834010.77 -43834010.65 0.0131 0.0058

Mercury -124724-04-05 20:25 J -43833922.77 -43833922.65 -43833922.52 0.0131 0.0043

Mercury -124724-07-02 23:18 J -43833834.66 -43833834.53 -43833834.40 0.0131 0.0028

Mercury -124724-09-29 02:11 J -43833746.54 -43833746.41 -43833746.27 0.0131 0.0013

Mercury -124724-12-26 05:03 J -43833658.42 -43833658.29 -43833658.15 0.0131 0.0005

Mercury -124723-03-24 07:56 J -43833570.30 -43833570.17 -43833570.03 0.0131 0.0018

Mercury -124723-06-20 10:49 J -43833482.17 -43833482.05 -43833481.92 0.0131 0.0033

Mercury -124723-09-16 13:42 J -43833394.05 -43833393.93 -43833393.80 0.0131 0.0048

Mercury -124723-12-13 16:35 J -43833305.92 -43833305.81 -43833305.69 0.0131 0.0063

Mercury -124722-03-11 19:27 J -43833217.79 -43833217.69 -43833217.58 0.0131 0.0078

Mercury -124722-06-07 22:06 J -43833129.66 -43833129.58 -43833129.47 0.0131 0.0093

Mercury -124722-09-04 00:59 J -43833041.52 -43833041.46 -43833041.37 0.0131 0.0108

Mercury -124722-12-01 04:06 J -43832953.37 -43832953.33 -43832953.28 0.0131 0.0122

Mars -124717-10-25 08:39 J -43831163.46 -43831163.14 -43831162.81 0.0132 0.0002

Venus -124714-04-26 08:39 J -43830250.20 -43830250.14 -43830250.06 0.0133 0.0125
 Venus -124714-12-08 11:03 J -43830024.15 -43830024.04 -43830023.91 0.0133 0.0109
 Venus -124713-07-21 13:13 J -43829798.08 -43829797.95 -43829797.78 0.0134 0.0094
 Venus -124712-03-04 15:51 J -43829571.99 -43829571.84 -43829571.65 0.0134 0.0077
 Venus -124712-10-16 18:44 J -43829345.90 -43829345.72 -43829345.53 0.0134 0.0060
 Venus -124711-05-30 21:37 J -43829119.80 -43829119.60 -43829119.40 0.0135 0.0043
 Venus -124710-01-12 00:30 J -43828893.68 -43828893.48 -43828893.27 0.0135 0.0026
 Venus -124710-08-26 03:51 J -43828667.55 -43828667.34 -43828667.14 0.0135 0.0009
 Venus -124709-04-08 06:59 J -43828441.42 -43828441.21 -43828441.00 0.0136 0.0009
 Venus -124709-11-20 10:20 J -43828215.27 -43828215.07 -43828214.86 0.0136 0.0027
 Saturn -124708-05-22 23:03 J -43828031.99 -43828031.54 -43828031.03 0.0136 0.0086
 Venus -124708-07-04 13:56 J -43827989.11 -43827988.92 -43827988.72 0.0136 0.0045
 Venus -124707-02-15 18:01 J -43827762.93 -43827762.75 -43827762.56 0.0137 0.0063
 Venus -124707-09-29 22:06 J -43827536.74 -43827536.58 -43827536.41 0.0137 0.0081
 Venus -124706-05-14 02:11 J -43827310.54 -43827310.41 -43827310.25 0.0137 0.0100
 Venus -124706-12-26 06:44 J -43827084.31 -43827084.22 -43827084.10 0.0138 0.0118
 Venus -124705-08-08 11:32 J -43826858.04 -43826858.02 -43826857.97 0.0138 0.0136
 Earth -124687-07-17 17:18 J -43820306.02 -43820305.78 -43820305.52 0.0148 0.0039
 Moon -124687-07-17 20:54 J -43820305.87 -43820305.63 -43820305.37 0.0148 0.0045 *
 Moon -124686-07-23 02:54 J -43819935.48 -43819935.38 -43819935.28 0.0148 0.0136
 Earth -124686-07-23 06:15 J -43819935.35 -43819935.24 -43819935.09 0.0148 0.0129 *
 Mercury -124683-07-22 14:25 J -43818839.99 -43818839.90 -43818839.79 0.0148 0.0123
 Mercury -124683-10-18 23:18 J -43818751.67 -43818751.53 -43818751.37 0.0148 0.0091
 Mercury -124682-01-15 08:25 J -43818663.33 -43818663.15 -43818662.98 0.0148 0.0059
 Mercury -124682-04-13 17:18 J -43818574.97 -43818574.78 -43818574.59 0.0148 0.0028
 Mercury -124682-07-11 02:11 J -43818486.60 -43818486.41 -43818486.22 0.0148 0.0005
 Mercury -124682-10-07 11:03 J -43818398.22 -43818398.04 -43818397.85 0.0148 0.0037
 Mercury -124681-01-03 20:11 J -43818309.83 -43818309.66 -43818309.49 0.0148 0.0068
 Mercury -124681-04-01 05:03 J -43818221.43 -43818221.29 -43818221.15 0.0148 0.0101
 Mercury -124681-06-28 13:42 J -43818133.00 -43818132.93 -43818132.83 0.0148 0.0133

Mars -124676-03-22 08:25 J -43816405.43 -43816405.15 -43816404.86 0.0147 0.0035
 Venus -124674-08-12 16:20 J -43815531.91 -43815531.82 -43815531.69 0.0145 0.0128
 Venus -124673-03-26 08:54 J -43815305.28 -43815305.13 -43815304.97 0.0145 0.0103
 Venus -124673-11-08 00:44 J -43815078.65 -43815078.47 -43815078.27 0.0145 0.0080
 Venus -124672-06-22 16:35 J -43814852.00 -43814851.81 -43814851.59 0.0144 0.0057
 Venus -124671-02-04 08:25 J -43814625.37 -43814625.15 -43814624.92 0.0144 0.0033
 Venus -124671-09-18 23:47 J -43814398.73 -43814398.51 -43814398.28 0.0144 0.0009
 Venus -124670-05-03 14:54 J -43814172.11 -43814171.88 -43814171.66 0.0143 0.0014
 Venus -124670-12-16 05:32 J -43813945.49 -43813945.27 -43813945.05 0.0143 0.0037
 Venus -124669-07-29 19:56 J -43813718.87 -43813718.67 -43813718.45 0.0143 0.0060
 Venus -124668-03-13 09:51 J -43813492.26 -43813492.09 -43813491.89 0.0142 0.0083
 Venus -124668-10-25 23:47 J -43813265.65 -43813265.51 -43813265.34 0.0142 0.0104
 Venus -124667-06-09 13:13 J -43813039.04 -43813038.95 -43813038.83 0.0141 0.0125
 Moon -124646-01-21 08:39 J -43805508.32 -43805508.14 -43805507.93 0.0131 0.0084
 Earth -124646-01-21 12:30 J -43805508.16 -43805507.98 -43805507.79 0.0131 0.0087 *
 Earth -124645-01-25 10:49 J -43805139.28 -43805139.05 -43805138.80 0.0131 0.0021
 Moon -124645-01-25 14:11 J -43805139.14 -43805138.91 -43805138.66 0.0131 0.0020 *
 Moon -124644-01-28 05:32 J -43804770.33 -43804770.27 -43804770.19 0.0131 0.0125
 Earth -124644-01-28 08:39 J -43804770.17 -43804770.14 -43804770.08 0.0131 0.0128
 Mercury -124642-11-14 10:06 J -43803750.09 -43803750.08 -43803750.06 0.0131 0.0130
 Mercury -124641-02-10 12:59 J -43803662.02 -43803661.96 -43803661.89 0.0131 0.0115
 Mercury -124641-05-08 15:51 J -43803573.92 -43803573.84 -43803573.75 0.0131 0.0100
 Mercury -124641-08-04 18:44 J -43803485.81 -43803485.72 -43803485.61 0.0131 0.0085
 Mercury -124641-10-31 21:51 J -43803397.70 -43803397.59 -43803397.48 0.0131 0.0069
 Mercury -124640-01-28 00:44 J -43803309.59 -43803309.47 -43803309.35 0.0131 0.0054
 Mercury -124640-04-26 03:37 J -43803221.47 -43803221.35 -43803221.22 0.0131 0.0039
 Mercury -124640-07-23 06:30 J -43803133.36 -43803133.23 -43803133.10 0.0131 0.0024
 Mercury -124640-10-19 09:23 J -43803045.24 -43803045.11 -43803044.97 0.0131 0.0010
 Mercury -124639-01-15 12:15 J -43802957.12 -43802956.99 -43802956.85 0.0131 0.0008
 Mercury -124639-04-13 15:08 J -43802869.00 -43802868.87 -43802868.73 0.0131 0.0022

Mercury -124639-07-10 18:01 J -43802780.87 -43802780.75 -43802780.62 0.0131 0.0037

Mercury -124639-10-06 20:54 J -43802692.75 -43802692.63 -43802692.50 0.0131 0.0052

Mercury -124638-01-02 23:47 J -43802604.62 -43802604.51 -43802604.39 0.0131 0.0067

Mercury -124638-04-01 02:39 J -43802516.49 -43802516.39 -43802516.28 0.0131 0.0082

Mercury -124638-06-28 05:18 J -43802428.35 -43802428.28 -43802428.18 0.0131 0.0097

Mercury -124638-09-24 08:11 J -43802340.21 -43802340.16 -43802340.08 0.0131 0.0112

Mercury -124638-12-21 11:03 J -43802252.06 -43802252.04 -43802252.00 0.0131 0.0127

Mars -124634-07-18 19:13 J -43800946.86 -43800946.70 -43800946.49 0.0132 0.0109

Mars -124632-06-20 13:13 J -43800244.22 -43800243.95 -43800243.65 0.0132 0.0063

Venus -124630-08-07 23:47 J -43799465.59 -43799465.51 -43799465.41 0.0133 0.0118

Venus -124629-03-21 01:56 J -43799239.54 -43799239.42 -43799239.27 0.0134 0.0103

Venus -124629-11-02 04:35 J -43799013.46 -43799013.31 -43799013.14 0.0134 0.0086

Venus -124628-06-16 06:59 J -43798787.37 -43798787.21 -43798787.02 0.0134 0.0070

Venus -124627-01-28 09:51 J -43798561.27 -43798561.09 -43798560.88 0.0134 0.0053

Venus -124627-09-11 12:59 J -43798335.16 -43798334.96 -43798334.76 0.0135 0.0035

Venus -124626-04-25 15:51 J -43798109.04 -43798108.84 -43798108.63 0.0135 0.0018

Venus -124626-12-07 19:13 J -43797882.91 -43797882.70 -43797882.49 0.0135 0.0001

Venus -124625-07-20 22:35 J -43797656.77 -43797656.56 -43797656.35 0.0136 0.0018

Venus -124624-03-04 02:11 J -43797430.61 -43797430.41 -43797430.21 0.0136 0.0036

Venus -124624-10-16 05:47 J -43797204.44 -43797204.26 -43797204.06 0.0136 0.0055

Venus -124623-05-30 09:51 J -43796978.26 -43796978.09 -43796977.91 0.0137 0.0073

Venus -124622-01-11 13:56 J -43796752.06 -43796751.92 -43796751.75 0.0137 0.0092

Venus -124622-08-25 18:30 J -43796525.84 -43796525.73 -43796525.60 0.0138 0.0110

Venus -124621-04-07 23:18 J -43796299.60 -43796299.53 -43796299.45 0.0138 0.0128

Earth -124603-07-18 06:01 J -43789624.50 -43789624.25 -43789623.99 0.0148 0.0030

Moon -124603-07-18 09:08 J -43789624.38 -43789624.12 -43789623.85 0.0148 0.0024 *

Moon -124602-07-23 15:23 J -43789253.96 -43789253.86 -43789253.72 0.0148 0.0130

Earth -124602-07-23 19:13 J -43789253.80 -43789253.70 -43789253.61 0.0148 0.0138 *

Mercury -124599-05-15 13:56 J -43788226.95 -43788226.92 -43788226.87 0.0148 0.0144

Mercury -124599-08-11 22:49 J -43788138.67 -43788138.55 -43788138.42 0.0148 0.0113

Mercury -124599-11-08 07:42 J -43788050.34 -43788050.18 -43788050.02 0.0148 0.0081

Mercury -124598-02-04 16:35 J -43787961.99 -43787961.81 -43787961.62 0.0148 0.0049

Mercury -124598-05-04 01:42 J -43787873.63 -43787873.43 -43787873.24 0.0148 0.0018

Mercury -124598-07-31 10:20 J -43787785.25 -43787785.07 -43787784.87 0.0148 0.0016

Mercury -124598-10-27 19:27 J -43787696.87 -43787696.69 -43787696.51 0.0148 0.0047

Mercury -124597-01-24 04:06 J -43787608.48 -43787608.33 -43787608.15 0.0148 0.0079

Mercury -124597-04-21 12:59 J -43787520.07 -43787519.96 -43787519.82 0.0148 0.0111

Mercury -124597-07-18 22:06 J -43787431.62 -43787431.58 -43787431.52 0.0148 0.0143

Mars -124594-12-14 04:06 J -43786188.53 -43786188.33 -43786188.11 0.0147 0.0102

Mars -124592-11-15 20:39 J -43785485.82 -43785485.64 -43785485.43 0.0146 0.0110

Venus -124590-04-11 21:51 J -43784973.64 -43784973.59 -43784973.52 0.0146 0.0140

Venus -124590-11-24 14:11 J -43784747.03 -43784746.91 -43784746.77 0.0145 0.0116

Venus -124589-07-08 06:30 J -43784520.40 -43784520.23 -43784520.05 0.0145 0.0092

Venus -124588-02-19 22:20 J -43784293.76 -43784293.57 -43784293.36 0.0145 0.0069

Venus -124588-10-04 14:11 J -43784067.13 -43784066.91 -43784066.69 0.0144 0.0044

Venus -124587-05-19 05:32 J -43783840.50 -43783840.27 -43783840.05 0.0144 0.0021

Venus -124587-12-31 20:39 J -43783613.87 -43783613.64 -43783613.41 0.0144 0.0003

Venus -124586-08-15 11:32 J -43783387.24 -43783387.02 -43783386.79 0.0143 0.0026

Venus -124585-03-29 01:56 J -43783160.63 -43783160.42 -43783160.20 0.0143 0.0049

Venus -124585-11-10 16:06 J -43782934.02 -43782933.83 -43782933.62 0.0142 0.0072

Venus -124584-06-25 06:15 J -43782707.41 -43782707.24 -43782707.07 0.0142 0.0093

Venus -124583-02-06 19:42 J -43782480.80 -43782480.68 -43782480.54 0.0142 0.0115

Venus -124583-09-21 08:39 J -43782254.17 -43782254.14 -43782254.06 0.0141 0.0137

Moon -124562-01-21 20:25 J -43774826.82 -43774826.65 -43774826.46 0.0131 0.0088

Earth -124562-01-21 23:47 J -43774826.69 -43774826.51 -43774826.31 0.0131 0.0082 *

Earth -124561-01-25 22:06 J -43774457.81 -43774457.58 -43774457.33 0.0131 0.0026

Moon -124561-01-26 01:42 J -43774457.67 -43774457.43 -43774457.18 0.0131 0.0028 *

Mercury -124558-12-04 17:18 J -43773048.81 -43773048.78 -43773048.75 0.0131 0.0126

Mercury -124557-03-01 20:11 J -43772960.72 -43772960.66 -43772960.59 0.0131 0.0111

Mercury -124557-05-28 23:03 J -43772872.62 -43772872.54 -43772872.44 0.0131 0.0096

Mercury -124557-08-25 01:56 J -43772784.52 -43772784.42 -43772784.31 0.0131 0.0081
 Mercury -124557-11-21 04:49 J -43772696.41 -43772696.30 -43772696.18 0.0131 0.0066
 Mercury -124556-02-17 07:42 J -43772608.29 -43772608.18 -43772608.05 0.0131 0.0051
 Mercury -124556-05-16 10:49 J -43772520.18 -43772520.05 -43772519.92 0.0131 0.0035
 Mercury -124556-08-12 13:42 J -43772432.06 -43772431.93 -43772431.80 0.0131 0.0020
 Mercury -124556-11-08 16:35 J -43772343.94 -43772343.81 -43772343.68 0.0131 0.0005
 Mercury -124555-02-04 19:27 J -43772255.82 -43772255.69 -43772255.56 0.0131 0.0010
 Mercury -124555-05-03 22:20 J -43772167.70 -43772167.57 -43772167.44 0.0131 0.0025
 Mercury -124555-07-31 01:13 J -43772079.57 -43772079.45 -43772079.32 0.0131 0.0040
 Mercury -124555-10-27 04:06 J -43771991.45 -43771991.33 -43771991.21 0.0131 0.0055
 Mercury -124554-01-23 06:59 J -43771903.32 -43771903.21 -43771903.10 0.0131 0.0070
 Mercury -124554-04-21 09:51 J -43771815.19 -43771815.09 -43771814.99 0.0131 0.0085
 Mercury -124554-07-18 12:44 J -43771727.05 -43771726.97 -43771726.89 0.0131 0.0100
 Mercury -124554-10-14 15:37 J -43771638.91 -43771638.85 -43771638.79 0.0131 0.0115
 Mercury -124553-01-10 18:30 J -43771550.74 -43771550.73 -43771550.72 0.0131 0.0130
 Mars -124549-03-12 22:06 J -43770027.87 -43770027.58 -43770027.26 0.0132 0.0049
 Mars -124547-02-13 15:51 J -43769324.93 -43769324.84 -43769324.71 0.0133 0.0124
 Venus -124546-04-07 11:32 J -43768907.06 -43768907.02 -43768906.95 0.0133 0.0128
 Venus -124546-11-19 13:56 J -43768681.02 -43768680.92 -43768680.80 0.0133 0.0112
 Venus -124545-07-02 16:06 J -43768454.96 -43768454.83 -43768454.66 0.0134 0.0096
 Venus -124544-02-13 18:44 J -43768228.87 -43768228.72 -43768228.53 0.0134 0.0079
 Venus -124544-09-27 21:37 J -43768002.78 -43768002.60 -43768002.41 0.0134 0.0062
 Venus -124543-05-12 00:15 J -43767776.68 -43767776.49 -43767776.28 0.0135 0.0045
 Venus -124543-12-24 03:23 J -43767550.56 -43767550.36 -43767550.15 0.0135 0.0027
 Venus -124542-08-07 06:30 J -43767324.44 -43767324.23 -43767324.02 0.0135 0.0009
 Venus -124541-03-20 09:37 J -43767098.30 -43767098.10 -43767097.89 0.0136 0.0010
 Venus -124541-11-01 13:13 J -43766872.15 -43766871.95 -43766871.75 0.0136 0.0027
 Venus -124540-06-15 16:49 J -43766645.99 -43766645.80 -43766645.60 0.0136 0.0045
 Venus -124539-01-27 20:54 J -43766419.81 -43766419.63 -43766419.45 0.0137 0.0064
 Venus -124539-09-11 00:59 J -43766193.62 -43766193.46 -43766193.29 0.0137 0.0082

Venus -124538-04-25 05:03 J -43765967.42 -43765967.29 -43765967.14 0.0137 0.0101
 Venus -124538-12-07 09:37 J -43765741.19 -43765741.10 -43765740.98 0.0138 0.0120
 Earth -124519-07-18 15:37 J -43758943.10 -43758942.85 -43758942.58 0.0148 0.0025
 Moon -124519-07-18 16:49 J -43758943.06 -43758942.80 -43758942.53 0.0148 0.0027 *
 Earth -124518-07-24 04:20 J -43758572.36 -43758572.32 -43758572.23 0.0148 0.0143
 Mercury -124515-06-04 21:37 J -43757525.68 -43757525.60 -43757525.53 0.0148 0.0137
 Mercury -124515-09-01 06:01 J -43757437.37 -43757437.25 -43757437.10 0.0148 0.0106
 Mercury -124515-11-28 15:08 J -43757349.03 -43757348.87 -43757348.70 0.0148 0.0073
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 Mercury -124514-08-20 17:47 J -43757083.94 -43757083.76 -43757083.56 0.0148 0.0023
 Mercury -124514-11-17 02:39 J -43756995.56 -43756995.39 -43756995.20 0.0148 0.0055
 Mercury -124513-02-13 11:47 J -43756907.16 -43756907.01 -43756906.85 0.0148 0.0086
 Mercury -124513-05-11 20:39 J -43756818.75 -43756818.64 -43756818.52 0.0148 0.0118
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 Venus -124506-07-24 18:15 J -43754188.83 -43754188.74 -43754188.63 0.0145 0.0129
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 Earth -124478-01-22 09:23 J -43744145.29 -43744145.11 -43744144.90 0.0131 0.0079 *
 Earth -124477-01-26 07:56 J -43743776.41 -43743776.17 -43743775.93 0.0131 0.0029

Moon -124477-01-26 10:35 J -43743776.30 -43743776.06 -43743775.80 0.0131 0.0024 *
 Mercury -124474-12-25 00:01 J -43742347.53 -43742347.50 -43742347.45 0.0131 0.0123
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 Mercury -124472-06-05 17:32 J -43741818.89 -43741818.77 -43741818.63 0.0131 0.0033
 Mercury -124472-09-01 20:39 J -43741730.78 -43741730.64 -43741730.51 0.0131 0.0018
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 Mercury -124470-05-11 16:35 J -43741113.90 -43741113.81 -43741113.71 0.0131 0.0088
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 Mercury -124470-11-03 22:20 J -43740937.62 -43740937.57 -43740937.51 0.0131 0.0118
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 Venus -124462-07-20 00:44 J -43738122.55 -43738122.47 -43738122.38 0.0133 0.0122
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Venus -124455-05-11 10:06 J -43735635.25 -43735635.08 -43735634.89 0.0137 0.0073
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 Moon -124435-07-18 20:39 J -43728261.90 -43728261.64 -43728261.37 0.0148 0.0025
 Earth -124435-07-18 20:39 J -43728261.89 -43728261.64 -43728261.38 0.0148 0.0026 *
 Moon -124434-07-24 08:11 J -43727891.24 -43727891.16 -43727891.04 0.0148 0.0136
 Earth -124434-07-24 09:08 J -43727891.18 -43727891.12 -43727891.03 0.0148 0.0141 *
 Mercury -124431-06-25 03:23 J -43726824.44 -43726824.36 -43726824.28 0.0148 0.0135
 Mercury -124431-09-21 12:01 J -43726736.13 -43726736.00 -43726735.86 0.0148 0.0103
 Mercury -124431-12-18 20:54 J -43726647.79 -43726647.63 -43726647.46 0.0148 0.0071
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 Mercury -124430-06-13 14:54 J -43726471.07 -43726470.88 -43726470.69 0.0148 0.0008
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 Venus -124422-03-23 19:42 J -43723630.71 -43723630.68 -43723630.65 0.0146 0.0144
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Venus -124415-09-02 06:59 J -43720911.24 -43720911.21 -43720911.14 0.0141 0.0138
 Moon -124394-01-22 17:32 J -43713463.95 -43713463.77 -43713463.58 0.0131 0.0083
 Earth -124394-01-22 19:13 J -43713463.90 -43713463.70 -43713463.49 0.0131 0.0076 *
 Earth -124393-01-26 17:18 J -43713095.01 -43713094.78 -43713094.53 0.0131 0.0032
 Moon -124393-01-26 19:42 J -43713094.92 -43713094.68 -43713094.43 0.0131 0.0036 *
 Mercury -124389-01-14 06:59 J -43711646.26 -43711646.21 -43711646.16 0.0131 0.0121
 Mercury -124389-04-11 09:51 J -43711558.16 -43711558.09 -43711558.01 0.0131 0.0106
 Mercury -124389-07-08 12:44 J -43711470.06 -43711469.97 -43711469.87 0.0131 0.0091
 Mercury -124389-10-04 15:37 J -43711381.95 -43711381.85 -43711381.73 0.0131 0.0076
 Mercury -124389-12-31 18:44 J -43711293.84 -43711293.72 -43711293.60 0.0131 0.0060
 Mercury -124388-03-29 21:37 J -43711205.72 -43711205.60 -43711205.47 0.0131 0.0045
 Mercury -124388-06-26 00:30 J -43711117.61 -43711117.48 -43711117.35 0.0131 0.0030
 Mercury -124388-09-22 03:23 J -43711029.49 -43711029.36 -43711029.22 0.0131 0.0015
 Mercury -124388-12-19 06:15 J -43710941.37 -43710941.24 -43710941.10 0.0131 0.0003
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 Mercury -124387-06-13 12:01 J -43710765.13 -43710765.00 -43710764.87 0.0131 0.0031
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 Mercury -124386-05-31 23:18 J -43710412.61 -43710412.53 -43710412.42 0.0131 0.0091
 Mercury -124386-08-28 02:11 J -43710324.47 -43710324.41 -43710324.32 0.0131 0.0106
 Mercury -124386-11-24 05:03 J -43710236.33 -43710236.29 -43710236.23 0.0131 0.0121
 Mars -124382-07-30 01:27 J -43708892.63 -43708892.44 -43708892.22 0.0132 0.0103
 Mars -124380-07-01 18:59 J -43708189.97 -43708189.71 -43708189.42 0.0132 0.0071
 Venus -124378-03-19 11:32 J -43707564.04 -43707564.02 -43707563.99 0.0133 0.0131
 Venus -124378-10-31 13:27 J -43707338.03 -43707337.94 -43707337.82 0.0133 0.0115
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Venus -124375-12-05 02:39 J -43706207.59 -43706207.39 -43706207.19 0.0135 0.0029
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 Venus -124371-01-08 19:27 J -43705076.86 -43705076.69 -43705076.49 0.0136 0.0064
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 Venus -124370-11-18 08:25 J -43704398.24 -43704398.15 -43704398.04 0.0138 0.0120
 Moon -124351-07-18 22:06 J -43697580.83 -43697580.58 -43697580.30 0.0148 0.0029
 Earth -124351-07-18 23:32 J -43697580.77 -43697580.52 -43697580.26 0.0148 0.0030 *
 Earth -124350-07-24 12:15 J -43697210.09 -43697209.99 -43697209.89 0.0148 0.0136
 Moon -124350-07-24 11:18 J -43697210.07 -43697210.03 -43697209.94 0.0148 0.0142 *
 Mercury -124347-07-15 08:25 J -43696123.22 -43696123.15 -43696123.06 0.0148 0.0134
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 Mercury -124346-01-08 02:11 J -43695946.57 -43695946.41 -43695946.24 0.0148 0.0071
 Mercury -124346-04-06 11:03 J -43695858.22 -43695858.04 -43695857.85 0.0148 0.0039
 Mercury -124346-07-03 19:56 J -43695769.86 -43695769.67 -43695769.47 0.0148 0.0009
 Mercury -124346-09-30 04:49 J -43695681.48 -43695681.30 -43695681.10 0.0148 0.0025
 Mercury -124346-12-27 13:42 J -43695593.10 -43695592.93 -43695592.74 0.0148 0.0057
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 Mercury -124345-06-21 07:42 J -43695416.28 -43695416.18 -43695416.06 0.0148 0.0121
 Mars -124342-12-25 18:30 J -43694133.93 -43694133.73 -43694133.50 0.0147 0.0101
 Mars -124340-11-27 10:49 J -43693431.23 -43693431.05 -43693430.86 0.0146 0.0113
 Venus -124338-07-05 11:18 J -43692846.10 -43692846.03 -43692845.95 0.0146 0.0136
 Venus -124337-02-17 03:23 J -43692619.49 -43692619.36 -43692619.20 0.0145 0.0111
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Venus -124334-03-26 09:23 J -43691486.34 -43691486.11 -43691485.89 0.0143 0.0011
 Venus -124334-11-08 00:01 J -43691259.72 -43691259.50 -43691259.28 0.0143 0.0035
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 Venus -124331-05-02 08:25 J -43690353.24 -43690353.15 -43690353.04 0.0141 0.0126
 Moon -124310-01-23 01:13 J -43682782.64 -43682782.45 -43682782.23 0.0131 0.0070
 Earth -124310-01-23 02:54 J -43682782.56 -43682782.38 -43682782.16 0.0131 0.0076 *
 Earth -124309-01-27 01:42 J -43682413.67 -43682413.43 -43682413.19 0.0131 0.0032
 Moon -124309-01-27 03:23 J -43682413.60 -43682413.36 -43682413.11 0.0131 0.0027 *
 Mercury -124305-02-03 13:42 J -43680944.98 -43680944.93 -43680944.87 0.0131 0.0119
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 Mercury -124303-01-08 13:13 J -43680240.09 -43680239.95 -43680239.82 0.0131 0.0004
 Mercury -124303-04-06 16:06 J -43680151.97 -43680151.83 -43680151.70 0.0131 0.0018
 Mercury -124303-07-03 18:59 J -43680063.84 -43680063.71 -43680063.58 0.0131 0.0033
 Mercury -124303-09-29 21:37 J -43679975.72 -43679975.60 -43679975.47 0.0131 0.0048
 Mercury -124303-12-27 00:30 J -43679887.59 -43679887.48 -43679887.36 0.0131 0.0063
 Mercury -124302-03-25 03:23 J -43679799.46 -43679799.36 -43679799.25 0.0131 0.0078
 Mercury -124302-06-21 06:15 J -43679711.32 -43679711.24 -43679711.14 0.0131 0.0093
 Mercury -124302-09-17 09:08 J -43679623.18 -43679623.12 -43679623.04 0.0131 0.0108
 Mercury -124302-12-14 12:01 J -43679535.03 -43679535.00 -43679534.95 0.0131 0.0123
 Mars -124297-03-24 00:44 J -43677973.77 -43677973.47 -43677973.15 0.0132 0.0044
 Mars -124295-02-24 18:15 J -43677270.78 -43677270.74 -43677270.68 0.0133 0.0131
 Venus -124294-07-01 00:30 J -43676779.53 -43676779.48 -43676779.39 0.0133 0.0125

Venus -124293-02-12 02:54 J -43676553.48 -43676553.38 -43676553.24 0.0133 0.0109
 Venus -124293-09-25 05:18 J -43676327.42 -43676327.28 -43676327.11 0.0134 0.0092
 Venus -124292-05-09 07:56 J -43676101.34 -43676101.17 -43676100.99 0.0134 0.0074
 Venus -124292-12-21 10:35 J -43675875.24 -43675875.06 -43675874.86 0.0134 0.0057
 Venus -124291-08-04 13:27 J -43675649.14 -43675648.94 -43675648.74 0.0134 0.0039
 Venus -124290-03-18 16:20 J -43675423.02 -43675422.82 -43675422.61 0.0135 0.0021
 Venus -124290-10-30 19:42 J -43675196.89 -43675196.68 -43675196.48 0.0135 0.0004
 Venus -124289-06-12 22:49 J -43674970.75 -43674970.55 -43674970.34 0.0135 0.0016
 Venus -124288-01-25 02:25 J -43674744.60 -43674744.40 -43674744.19 0.0136 0.0035
 Venus -124288-09-08 06:15 J -43674518.43 -43674518.24 -43674518.05 0.0136 0.0054
 Venus -124287-04-22 10:06 J -43674292.25 -43674292.08 -43674291.90 0.0136 0.0073
 Venus -124287-12-04 13:56 J -43674066.06 -43674065.92 -43674065.75 0.0137 0.0092
 Venus -124286-07-18 18:30 J -43673839.84 -43673839.73 -43673839.60 0.0137 0.0111
 Venus -124285-02-29 23:18 J -43673613.59 -43673613.53 -43673613.46 0.0138 0.0130
 Moon -124267-07-19 03:08 J -43666899.62 -43666899.37 -43666899.10 0.0148 0.0033
 Earth -124267-07-19 04:49 J -43666899.55 -43666899.30 -43666899.05 0.0148 0.0032 *
 Moon -124266-07-24 17:03 J -43666528.91 -43666528.79 -43666528.67 0.0148 0.0129
 Earth -124266-07-24 16:35 J -43666528.90 -43666528.81 -43666528.69 0.0148 0.0134 *
 Mercury -124263-08-04 14:25 J -43665421.98 -43665421.90 -43665421.82 0.0148 0.0132
 Mercury -124263-10-31 23:03 J -43665333.67 -43665333.54 -43665333.39 0.0148 0.0101
 Mercury -124262-01-28 07:56 J -43665245.33 -43665245.17 -43665244.99 0.0148 0.0070
 Mercury -124262-04-26 16:49 J -43665156.98 -43665156.80 -43665156.61 0.0148 0.0038
 Mercury -124262-07-24 01:56 J -43665068.61 -43665068.42 -43665068.23 0.0148 0.0006
 Mercury -124262-10-20 10:49 J -43664980.24 -43664980.05 -43664979.86 0.0148 0.0026
 Mercury -124261-01-16 19:42 J -43664891.85 -43664891.68 -43664891.50 0.0148 0.0058
 Mercury -124261-04-14 04:49 J -43664803.45 -43664803.30 -43664803.15 0.0148 0.0090
 Mercury -124261-07-11 13:42 J -43664715.03 -43664714.93 -43664714.82 0.0148 0.0122
 Mars -124257-08-19 18:44 J -43663214.99 -43663214.72 -43663214.42 0.0147 0.0032
 Venus -124254-10-17 03:23 J -43662061.45 -43662061.36 -43662061.23 0.0145 0.0128
 Venus -124253-05-30 19:42 J -43661834.83 -43661834.68 -43661834.51 0.0145 0.0103

Venus -124252-01-12 11:32 J -43661608.20 -43661608.02 -43661607.82 0.0145 0.0078

Venus -124252-08-27 03:23 J -43661381.57 -43661381.36 -43661381.15 0.0144 0.0053

Venus -124251-04-10 18:44 J -43661154.94 -43661154.72 -43661154.49 0.0144 0.0028

Venus -124251-11-23 10:06 J -43660928.31 -43660928.08 -43660927.85 0.0144 0.0004

Venus -124250-07-08 01:13 J -43660701.68 -43660701.45 -43660701.23 0.0143 0.0021

Venus -124249-02-19 15:37 J -43660475.05 -43660474.85 -43660474.62 0.0143 0.0045

Venus -124249-10-03 06:01 J -43660248.43 -43660248.25 -43660248.04 0.0143 0.0069

Venus -124248-05-17 20:11 J -43660021.82 -43660021.66 -43660021.47 0.0142 0.0092

Venus -124248-12-30 10:06 J -43659795.20 -43659795.08 -43659794.93 0.0142 0.0114

Venus -124247-08-14 00:01 J -43659568.55 -43659568.50 -43659568.43 0.0141 0.0136

Moon -124226-01-23 10:35 J -43652101.24 -43652101.06 -43652100.87 0.0131 0.0082

Earth -124226-01-23 11:47 J -43652101.21 -43652101.01 -43652100.80 0.0131 0.0075 *

Earth -124225-01-27 10:20 J -43651732.30 -43651732.07 -43651731.83 0.0131 0.0033

Moon -124225-01-27 11:47 J -43651732.25 -43651732.01 -43651731.76 0.0131 0.0038 *

Mercury -124221-02-23 20:25 J -43650243.70 -43650243.65 -43650243.58 0.0131 0.0117

Mercury -124221-05-21 23:32 J -43650155.60 -43650155.52 -43650155.44 0.0131 0.0101

Mercury -124221-08-18 02:25 J -43650067.50 -43650067.40 -43650067.30 0.0131 0.0086

Mercury -124221-11-14 05:18 J -43649979.39 -43649979.28 -43649979.16 0.0131 0.0071

Mercury -124220-02-10 08:11 J -43649891.27 -43649891.16 -43649891.03 0.0131 0.0056

Mercury -124220-05-09 11:18 J -43649803.16 -43649803.03 -43649802.90 0.0131 0.0040

Mercury -124220-08-05 14:11 J -43649715.04 -43649714.91 -43649714.78 0.0131 0.0025

Mercury -124220-11-01 17:03 J -43649626.92 -43649626.79 -43649626.66 0.0131 0.0010

Mercury -124219-01-28 19:56 J -43649538.80 -43649538.67 -43649538.53 0.0131 0.0006

Mercury -124219-04-26 22:49 J -43649450.68 -43649450.55 -43649450.41 0.0131 0.0021

Mercury -124219-07-24 01:42 J -43649362.55 -43649362.43 -43649362.30 0.0131 0.0036

Mercury -124219-10-20 04:35 J -43649274.43 -43649274.31 -43649274.18 0.0131 0.0051

Mercury -124218-01-16 07:27 J -43649186.30 -43649186.19 -43649186.07 0.0131 0.0066

Mercury -124218-04-14 10:20 J -43649098.17 -43649098.07 -43649097.96 0.0131 0.0081

Mercury -124218-07-11 13:13 J -43649010.03 -43649009.95 -43649009.85 0.0131 0.0096

Mercury -124218-10-07 16:06 J -43648921.89 -43648921.83 -43648921.75 0.0131 0.0111

Mercury -124217-01-03 18:59 J -43648833.74 -43648833.71 -43648833.67 0.0131 0.0126

Mars -124213-11-17 01:13 J -43647054.77 -43647054.45 -43647054.13 0.0132 0.0016

Venus -124210-10-12 14:39 J -43645994.98 -43645994.89 -43645994.79 0.0133 0.0118

Venus -124209-05-25 16:49 J -43645768.92 -43645768.80 -43645768.65 0.0133 0.0102

Venus -124208-01-06 19:42 J -43645542.84 -43645542.68 -43645542.51 0.0134 0.0084

Venus -124208-08-20 22:20 J -43645316.75 -43645316.57 -43645316.39 0.0134 0.0066

Venus -124207-04-04 00:59 J -43645090.65 -43645090.46 -43645090.26 0.0134 0.0048

Venus -124207-11-16 03:51 J -43644864.54 -43644864.34 -43644864.13 0.0135 0.0030

Venus -124206-06-30 06:59 J -43644638.41 -43644638.21 -43644638.00 0.0135 0.0012

Venus -124205-02-11 10:35 J -43644412.27 -43644412.06 -43644411.85 0.0135 0.0007

Venus -124205-09-24 13:56 J -43644186.12 -43644185.92 -43644185.71 0.0136 0.0025

Venus -124204-05-08 17:32 J -43643959.97 -43643959.77 -43643959.57 0.0136 0.0044

Venus -124204-12-20 21:08 J -43643733.79 -43643733.62 -43643733.42 0.0136 0.0064

Venus -124203-08-04 01:13 J -43643507.61 -43643507.45 -43643507.27 0.0137 0.0083

Venus -124202-03-18 05:32 J -43643281.40 -43643281.27 -43643281.12 0.0137 0.0102

Venus -124202-10-30 10:20 J -43643055.17 -43643055.07 -43643054.98 0.0137 0.0121

Moon -124183-07-19 12:15 J -43636218.25 -43636217.99 -43636217.72 0.0148 0.0027

Earth -124183-07-19 14:11 J -43636218.16 -43636217.91 -43636217.65 0.0148 0.0028 *

Earth -124182-07-25 02:11 J -43635847.49 -43635847.41 -43635847.31 0.0148 0.0138

Moon -124182-07-25 02:39 J -43635847.44 -43635847.39 -43635847.32 0.0148 0.0143 *

Mercury -124179-08-24 21:23 J -43634720.69 -43634720.61 -43634720.50 0.0148 0.0126

Mercury -124179-11-21 06:30 J -43634632.37 -43634632.23 -43634632.08 0.0148 0.0094

Mercury -124178-02-17 15:08 J -43634544.03 -43634543.87 -43634543.69 0.0148 0.0063

Mercury -124178-05-17 00:15 J -43634455.68 -43634455.49 -43634455.30 0.0148 0.0031

Mercury -124178-08-13 09:08 J -43634367.31 -43634367.12 -43634366.93 0.0148 0.0001

Mercury -124178-11-09 18:01 J -43634278.93 -43634278.75 -43634278.56 0.0148 0.0033

Mercury -124177-02-06 02:54 J -43634190.55 -43634190.38 -43634190.20 0.0148 0.0065

Mercury -124177-05-04 11:47 J -43634102.15 -43634102.01 -43634101.86 0.0148 0.0097

Mercury -124177-07-31 20:39 J -43634013.72 -43634013.64 -43634013.53 0.0148 0.0129

Mars -124172-04-14 23:32 J -43632295.80 -43632295.52 -43632295.24 0.0147 0.0042

Venus -124170-06-16 06:15 J -43631503.28 -43631503.24 -43631503.18 0.0146 0.0142

Venus -124169-01-28 22:06 J -43631276.69 -43631276.58 -43631276.43 0.0145 0.0118

Venus -124169-09-11 14:11 J -43631050.07 -43631049.91 -43631049.72 0.0145 0.0092

Venus -124168-04-26 06:01 J -43630823.45 -43630823.25 -43630823.04 0.0145 0.0067

Venus -124168-12-08 21:23 J -43630596.82 -43630596.61 -43630596.38 0.0144 0.0043

Venus -124167-07-23 12:59 J -43630370.18 -43630369.96 -43630369.73 0.0144 0.0018

Venus -124166-03-07 04:20 J -43630143.55 -43630143.32 -43630143.09 0.0143 0.0007

Venus -124166-10-19 18:59 J -43629916.92 -43629916.71 -43629916.48 0.0143 0.0032

Venus -124165-06-02 09:37 J -43629690.30 -43629690.10 -43629689.89 0.0143 0.0056

Venus -124164-01-14 23:47 J -43629463.69 -43629463.51 -43629463.31 0.0142 0.0079

Venus -124164-08-29 14:11 J -43629237.06 -43629236.91 -43629236.75 0.0142 0.0102

Venus -124163-04-13 03:51 J -43629010.44 -43629010.34 -43629010.23 0.0141 0.0125

Moon -124142-01-23 19:27 J -43621419.89 -43621419.69 -43621419.48 0.0131 0.0067

Earth -124142-01-23 20:11 J -43621419.84 -43621419.66 -43621419.43 0.0131 0.0074 *

Earth -124141-01-27 19:13 J -43621050.94 -43621050.70 -43621050.46 0.0131 0.0035

Moon -124141-01-27 20:25 J -43621050.89 -43621050.65 -43621050.39 0.0131 0.0030 *

Mercury -124138-12-18 00:30 J -43619630.50 -43619630.48 -43619630.46 0.0131 0.0129

Mercury -124137-03-15 03:23 J -43619542.42 -43619542.36 -43619542.29 0.0131 0.0114

Mercury -124137-06-11 06:15 J -43619454.32 -43619454.24 -43619454.15 0.0131 0.0099

Mercury -124137-09-07 09:08 J -43619366.21 -43619366.12 -43619366.01 0.0131 0.0084

Mercury -124137-12-04 12:15 J -43619278.10 -43619277.99 -43619277.87 0.0131 0.0068

Mercury -124136-03-02 15:08 J -43619189.99 -43619189.87 -43619189.74 0.0131 0.0053

Mercury -124136-05-29 18:01 J -43619101.87 -43619101.75 -43619101.62 0.0131 0.0038

Mercury -124136-08-25 21:08 J -43619013.75 -43619013.62 -43619013.49 0.0131 0.0023

Mercury -124136-11-22 00:01 J -43618925.63 -43618925.50 -43618925.37 0.0131 0.0007

Mercury -124135-02-18 02:54 J -43618837.51 -43618837.38 -43618837.25 0.0131 0.0008

Mercury -124135-05-17 05:47 J -43618749.39 -43618749.26 -43618749.13 0.0131 0.0023

Mercury -124135-08-13 08:39 J -43618661.26 -43618661.14 -43618661.01 0.0131 0.0038

Mercury -124135-11-09 11:32 J -43618573.14 -43618573.02 -43618572.89 0.0131 0.0053

Mercury -124134-02-05 14:25 J -43618485.01 -43618484.90 -43618484.78 0.0131 0.0068

Mercury -124134-05-04 17:32 J -43618396.88 -43618396.77 -43618396.67 0.0131 0.0083

Mercury -124134-07-31 20:25 J -43618308.74 -43618308.65 -43618308.57 0.0131 0.0098

Mercury -124134-10-27 23:18 J -43618220.60 -43618220.53 -43618220.47 0.0131 0.0113

Mercury -124133-01-24 02:11 J -43618132.43 -43618132.41 -43618132.39 0.0131 0.0128

Mars -124130-08-10 07:13 J -43616838.40 -43616838.20 -43616837.97 0.0132 0.0098

Mars -124128-07-13 01:56 J -43616135.67 -43616135.42 -43616135.14 0.0132 0.0078

Venus -124126-06-12 02:11 J -43615436.45 -43615436.41 -43615436.35 0.0133 0.0129

Venus -124125-01-24 04:35 J -43615210.41 -43615210.31 -43615210.18 0.0133 0.0112

Venus -124125-09-06 07:13 J -43614984.34 -43614984.20 -43614984.04 0.0134 0.0094

Venus -124124-04-20 09:51 J -43614758.26 -43614758.09 -43614757.91 0.0134 0.0076

Venus -124124-12-02 12:30 J -43614532.16 -43614531.98 -43614531.78 0.0134 0.0059

Venus -124123-07-16 15:23 J -43614306.05 -43614305.86 -43614305.65 0.0135 0.0041

Venus -124122-02-27 18:44 J -43614079.92 -43614079.72 -43614079.51 0.0135 0.0022

Venus -124122-10-11 22:06 J -43613853.79 -43613853.58 -43613853.37 0.0135 0.0004

Venus -124121-05-25 01:27 J -43613627.65 -43613627.44 -43613627.23 0.0136 0.0016

Venus -124120-01-06 04:49 J -43613401.49 -43613401.30 -43613401.09 0.0136 0.0035

Venus -124120-08-20 08:39 J -43613175.33 -43613175.14 -43613174.94 0.0136 0.0054

Venus -124119-04-03 12:30 J -43612949.15 -43612948.98 -43612948.79 0.0137 0.0074

Venus -124119-11-15 16:35 J -43612722.95 -43612722.81 -43612722.65 0.0137 0.0093

Venus -124118-06-29 20:54 J -43612496.73 -43612496.63 -43612496.50 0.0137 0.0113

Venus -124117-02-11 01:42 J -43612270.48 -43612270.43 -43612270.36 0.0138 0.0132

Moon -124099-07-19 23:32 J -43605536.78 -43605536.52 -43605536.25 0.0148 0.0021

Earth -124099-07-20 01:42 J -43605536.69 -43605536.43 -43605536.17 0.0148 0.0020 *

Moon -124098-07-25 13:56 J -43605165.98 -43605165.92 -43605165.82 0.0148 0.0140

Earth -124098-07-25 13:42 J -43605165.97 -43605165.93 -43605165.88 0.0148 0.0145 *

Mercury -124095-06-17 20:54 J -43604107.63 -43604107.63 -43604107.63 0.0148 0.0148

Mercury -124095-09-14 05:18 J -43604019.38 -43604019.28 -43604019.15 0.0148 0.0117

Mercury -124095-12-11 14:25 J -43603931.05 -43603930.90 -43603930.74 0.0148 0.0085

Mercury -124094-03-09 23:18 J -43603842.70 -43603842.53 -43603842.35 0.0148 0.0054

Mercury -124094-06-06 08:11 J -43603754.35 -43603754.16 -43603753.97 0.0148 0.0022

Mercury -124094-09-02 17:03 J -43603665.98 -43603665.79 -43603665.59 0.0148 0.0011

Mercury -124094-11-30 01:56 J -43603577.60 -43603577.42 -43603577.23 0.0148 0.0042

Mercury -124093-02-26 10:49 J -43603489.21 -43603489.05 -43603488.88 0.0148 0.0074

Mercury -124093-05-24 19:42 J -43603400.80 -43603400.68 -43603400.54 0.0148 0.0106

Mercury -124093-08-21 04:35 J -43603312.36 -43603312.31 -43603312.23 0.0148 0.0138

Mars -124089-01-06 17:03 J -43602078.99 -43602078.79 -43602078.56 0.0147 0.0098

Mars -124088-12-09 07:13 J -43601376.35 -43601376.20 -43601376.00 0.0146 0.0118

Venus -124086-09-28 02:11 J -43600718.49 -43600718.41 -43600718.30 0.0145 0.0132

Venus -124085-05-11 18:15 J -43600491.88 -43600491.74 -43600491.58 0.0145 0.0106

Venus -124085-12-24 10:06 J -43600265.26 -43600265.08 -43600264.88 0.0145 0.0081

Venus -124084-08-08 01:56 J -43600038.62 -43600038.42 -43600038.20 0.0144 0.0056

Venus -124083-03-22 17:18 J -43599811.99 -43599811.78 -43599811.55 0.0144 0.0031

Venus -124083-11-04 08:39 J -43599585.36 -43599585.14 -43599584.91 0.0144 0.0006

Venus -124082-06-18 23:47 J -43599358.74 -43599358.51 -43599358.29 0.0143 0.0019

Venus -124081-01-31 14:11 J -43599132.11 -43599131.91 -43599131.68 0.0143 0.0044

Venus -124081-09-14 04:49 J -43598905.49 -43598905.30 -43598905.09 0.0142 0.0068

Venus -124080-04-28 18:59 J -43598678.87 -43598678.71 -43598678.53 0.0142 0.0091

Venus -124080-12-11 08:54 J -43598452.26 -43598452.13 -43598451.99 0.0142 0.0114

Venus -124079-07-25 22:35 J -43598225.61 -43598225.56 -43598225.49 0.0141 0.0137

Moon -124058-01-24 05:47 J -43590738.44 -43590738.26 -43590738.05 0.0131 0.0076

Earth -124058-01-24 06:30 J -43590738.43 -43590738.23 -43590738.01 0.0131 0.0069 *

Earth -124057-01-28 05:32 J -43590369.51 -43590369.27 -43590369.04 0.0131 0.0039

Moon -124057-01-28 06:01 J -43590369.49 -43590369.25 -43590369.01 0.0131 0.0043 *

Mercury -124053-01-07 07:27 J -43588929.22 -43588929.19 -43588929.15 0.0131 0.0126

Mercury -124053-04-04 10:20 J -43588841.13 -43588841.07 -43588840.99 0.0131 0.0111

Mercury -124053-07-01 13:13 J -43588753.03 -43588752.95 -43588752.85 0.0131 0.0096

Mercury -124053-09-27 16:20 J -43588664.92 -43588664.82 -43588664.71 0.0131 0.0080

Mercury -124053-12-24 19:13 J -43588576.81 -43588576.70 -43588576.58 0.0131 0.0065

Jupiter -124052-03-04 01:56 J -43588507.57 -43588507.42 -43588507.18 0.0131 0.0121

Mercury -124052-03-22 22:20 J -43588488.69 -43588488.57 -43588488.45 0.0131 0.0050

Mercury -124052-06-19 01:13 J -43588400.58 -43588400.45 -43588400.32 0.0131 0.0034

Mercury -124052-09-15 04:06 J -43588312.46 -43588312.33 -43588312.20 0.0131 0.0019

Mercury -124052-12-12 06:59 J -43588224.34 -43588224.21 -43588224.07 0.0131 0.0006

Mercury -124051-03-10 10:06 J -43588136.22 -43588136.08 -43588135.95 0.0131 0.0012

Mercury -124051-06-06 12:59 J -43588048.09 -43588047.96 -43588047.83 0.0131 0.0026

Mercury -124051-09-02 15:51 J -43587959.97 -43587959.84 -43587959.72 0.0131 0.0041

Mercury -124051-11-29 18:44 J -43587871.84 -43587871.72 -43587871.60 0.0131 0.0056

Mercury -124050-02-25 21:23 J -43587783.71 -43587783.61 -43587783.49 0.0131 0.0072

Mercury -124050-05-25 00:15 J -43587695.58 -43587695.49 -43587695.38 0.0131 0.0087

Mercury -124050-08-21 03:08 J -43587607.44 -43587607.37 -43587607.28 0.0131 0.0102

Mercury -124050-11-17 06:01 J -43587519.30 -43587519.25 -43587519.18 0.0131 0.0117

Mars -124045-04-04 07:56 J -43585919.47 -43585919.17 -43585918.84 0.0132 0.0038

Venus -124042-09-23 16:20 J -43584651.90 -43584651.82 -43584651.73 0.0133 0.0122

Venus -124041-05-06 18:30 J -43584425.84 -43584425.73 -43584425.59 0.0134 0.0105

Venus -124041-12-18 21:08 J -43584199.77 -43584199.62 -43584199.45 0.0134 0.0087

Venus -124040-08-02 00:01 J -43583973.67 -43583973.50 -43583973.32 0.0134 0.0069

Venus -124039-03-16 02:54 J -43583747.57 -43583747.38 -43583747.18 0.0134 0.0050

Venus -124039-10-28 06:01 J -43583521.45 -43583521.25 -43583521.05 0.0135 0.0032

Venus -124038-06-11 09:08 J -43583295.33 -43583295.12 -43583294.91 0.0135 0.0013

Venus -124037-01-23 12:30 J -43583069.19 -43583068.98 -43583068.77 0.0135 0.0006

Venus -124037-09-05 16:06 J -43582843.04 -43582842.83 -43582842.63 0.0136 0.0025

Venus -124036-04-19 19:42 J -43582616.88 -43582616.68 -43582616.48 0.0136 0.0044

Venus -124036-12-01 23:32 J -43582390.71 -43582390.52 -43582390.34 0.0136 0.0064

Venus -124035-07-16 03:08 J -43582164.52 -43582164.37 -43582164.19 0.0137 0.0084

Venus -124034-02-27 07:42 J -43581938.31 -43581938.18 -43581938.03 0.0137 0.0103

Venus -124034-10-11 12:01 J -43581712.08 -43581712.00 -43581711.89 0.0138 0.0123

Moon -124015-07-20 10:06 J -43574855.35 -43574855.08 -43574854.81 0.0148 0.0014

Earth -124015-07-20 12:30 J -43574855.24 -43574854.98 -43574854.72 0.0148 0.0014 *

Jupiter -124011-07-02 13:27 J -43573412.46 -43573411.94 -43573411.40 0.0148 0.0012

Mercury -124011-07-08 04:35 J -43573406.36 -43573406.31 -43573406.23 0.0148 0.0139

Mercury	-124011-10-04 13:42 J	-43573318.06	-43573317.93	-43573317.80	0.0148	0.0107
Mercury	-124011-12-31 22:20 J	-43573229.72	-43573229.57	-43573229.40	0.0148	0.0076
Mercury	-124010-03-30 07:27 J	-43573141.38	-43573141.19	-43573141.01	0.0148	0.0044
Mercury	-124010-06-26 16:20 J	-43573053.01	-43573052.82	-43573052.63	0.0148	0.0013
Mercury	-124010-09-23 01:13 J	-43572964.64	-43572964.45	-43572964.26	0.0148	0.0019
Mercury	-124010-12-20 10:06 J	-43572876.26	-43572876.08	-43572875.90	0.0148	0.0051
Mercury	-124009-03-17 18:59 J	-43572787.87	-43572787.71	-43572787.55	0.0148	0.0083
Mercury	-124009-06-14 03:51 J	-43572699.45	-43572699.34	-43572699.22	0.0148	0.0115
Mercury	-124009-09-10 12:44 J	-43572610.98	-43572610.97	-43572610.94	0.0148	0.0147
Mars	-124005-09-01 03:37 J	-43571159.64	-43571159.35	-43571159.06	0.0147	0.0021
Venus	-124002-05-28 06:59 J	-43570160.22	-43570160.21	-43570160.19	0.0146	0.0145
Venus	-124001-01-09 23:03 J	-43569933.66	-43569933.54	-43569933.41	0.0145	0.0120
Venus	-124001-08-23 15:08 J	-43569707.04	-43569706.87	-43569706.70	0.0145	0.0094

124TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 124th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-124000-04-07 06:44 J	-43569480.42	-43569480.22	-43569480.02	0.0145	0.0069		
Venus	-124000-11-19 21:51 J	-43569253.79	-43569253.59	-43569253.36	0.0144	0.0045		
Venus	-123999-07-04 13:27 J	-43569027.16	-43569026.94	-43569026.71	0.0144	0.0019		

Venus -123998-02-16 04:49 J -43568800.53 -43568800.30 -43568800.07 0.0143 0.0007

Venus -123998-09-30 19:27 J -43568573.90 -43568573.69 -43568573.46 0.0143 0.0032

Venus -123997-05-14 10:06 J -43568347.29 -43568347.08 -43568346.87 0.0143 0.0056

Venus -123997-12-27 00:01 J -43568120.67 -43568120.50 -43568120.29 0.0142 0.0081

Venus -123996-08-10 14:39 J -43567894.04 -43567893.89 -43567893.74 0.0142 0.0103

Venus -123995-03-25 04:06 J -43567667.42 -43567667.33 -43567667.22 0.0141 0.0126

Moon -123974-01-24 15:37 J -43560057.06 -43560056.85 -43560056.63 0.0131 0.0061

Earth -123974-01-24 15:37 J -43560057.05 -43560056.85 -43560056.63 0.0131 0.0067 *

Earth -123973-01-28 14:11 J -43559688.14 -43559687.91 -43559687.67 0.0131 0.0041

Moon -123973-01-28 14:54 J -43559688.12 -43559687.88 -43559687.63 0.0131 0.0036 *

Jupiter -123969-01-25 12:30 J -43558230.25 -43558229.98 -43558229.71 0.0131 0.0110

Mercury -123969-01-27 14:11 J -43558227.94 -43558227.91 -43558227.86 0.0131 0.0124

Mercury -123969-04-24 17:18 J -43558139.85 -43558139.78 -43558139.70 0.0131 0.0108

Mercury -123969-07-21 20:11 J -43558051.75 -43558051.66 -43558051.56 0.0131 0.0093

Mercury -123969-10-17 23:03 J -43557963.64 -43557963.54 -43557963.42 0.0131 0.0078

Mercury -123968-01-14 02:11 J -43557875.53 -43557875.41 -43557875.29 0.0131 0.0062

Mercury -123968-04-12 05:03 J -43557787.41 -43557787.29 -43557787.16 0.0131 0.0047

Mercury -123968-07-09 07:56 J -43557699.29 -43557699.17 -43557699.04 0.0131 0.0032

Mercury -123968-10-05 11:03 J -43557611.18 -43557611.04 -43557610.91 0.0131 0.0017

Mercury -123967-01-01 13:56 J -43557523.06 -43557522.92 -43557522.79 0.0131 0.0003

Mercury -123967-03-30 16:49 J -43557434.93 -43557434.80 -43557434.67 0.0131 0.0013

Mercury -123967-06-26 19:42 J -43557346.81 -43557346.68 -43557346.55 0.0131 0.0029

Mercury -123967-09-22 22:35 J -43557258.68 -43557258.56 -43557258.43 0.0131 0.0044

Mercury -123967-12-20 01:27 J -43557170.56 -43557170.44 -43557170.32 0.0131 0.0059

Mercury -123966-03-18 04:20 J -43557082.43 -43557082.32 -43557082.21 0.0131 0.0074

Mercury -123966-06-14 07:13 J -43556994.29 -43556994.20 -43556994.10 0.0131 0.0089

Mercury -123966-09-10 09:51 J -43556906.16 -43556906.09 -43556906.00 0.0131 0.0105

Mercury -123966-12-07 12:44 J -43556818.01 -43556817.97 -43556817.90 0.0131 0.0119

Mars -123961-11-28 05:47 J -43555000.58 -43555000.26 -43554999.93 0.0132 0.0022

Venus -123958-05-24 02:39 J -43554093.40 -43554093.39 -43554093.35 0.0133 0.0132

Venus -123957-01-05 05:18 J -43553867.38 -43553867.28 -43553867.17 0.0133 0.0115
 Venus -123957-08-18 07:56 J -43553641.31 -43553641.17 -43553641.03 0.0134 0.0097
 Venus -123956-04-01 10:20 J -43553415.23 -43553415.07 -43553414.89 0.0134 0.0079
 Venus -123956-11-13 12:59 J -43553189.13 -43553188.96 -43553188.76 0.0134 0.0062
 Venus -123955-06-27 16:06 J -43552963.02 -43552962.83 -43552962.62 0.0135 0.0043
 Venus -123954-02-08 19:27 J -43552736.89 -43552736.69 -43552736.48 0.0135 0.0024
 Venus -123954-09-22 22:35 J -43552510.76 -43552510.56 -43552510.35 0.0135 0.0005
 Venus -123953-05-06 01:56 J -43552284.63 -43552284.42 -43552284.21 0.0136 0.0015
 Venus -123953-12-18 05:32 J -43552058.47 -43552058.27 -43552058.07 0.0136 0.0034
 Venus -123952-08-01 09:08 J -43551832.31 -43551832.12 -43551831.92 0.0136 0.0054
 Venus -123951-03-15 12:59 J -43551606.13 -43551605.96 -43551605.77 0.0137 0.0074
 Venus -123951-10-27 17:03 J -43551379.93 -43551379.79 -43551379.63 0.0137 0.0093
 Venus -123950-06-10 21:37 J -43551153.72 -43551153.60 -43551153.48 0.0137 0.0113
 Venus -123949-01-23 01:56 J -43550927.46 -43550927.42 -43550927.36 0.0138 0.0133
 Moon -123931-07-20 16:49 J -43544174.06 -43544173.80 -43544173.53 0.0148 0.0013
 Earth -123931-07-20 19:56 J -43544173.93 -43544173.67 -43544173.41 0.0148 0.0012 *
 Mercury -123927-07-28 11:47 J -43542705.09 -43542705.01 -43542704.93 0.0148 0.0133
 Mercury -123927-10-24 20:25 J -43542616.78 -43542616.65 -43542616.51 0.0148 0.0102
 Mercury -123926-01-21 05:03 J -43542528.44 -43542528.29 -43542528.11 0.0148 0.0071
 Mercury -123926-04-19 14:11 J -43542440.09 -43542439.91 -43542439.72 0.0148 0.0039
 Mercury -123926-07-16 23:03 J -43542351.73 -43542351.54 -43542351.35 0.0148 0.0007
 Mercury -123926-10-13 07:56 J -43542263.36 -43542263.17 -43542262.98 0.0148 0.0025
 Mercury -123925-01-09 16:49 J -43542174.97 -43542174.80 -43542174.62 0.0148 0.0057
 Mercury -123925-04-07 01:42 J -43542086.58 -43542086.43 -43542086.27 0.0148 0.0089
 Mercury -123925-07-04 10:35 J -43541998.16 -43541998.06 -43541997.94 0.0148 0.0121
 Mars -123920-04-27 08:39 J -43540240.40 -43540240.14 -43540239.85 0.0147 0.0054
 Venus -123918-09-09 01:56 J -43539375.49 -43539375.42 -43539375.32 0.0145 0.0135
 Venus -123917-04-22 17:47 J -43539148.89 -43539148.76 -43539148.59 0.0145 0.0110
 Venus -123917-12-05 10:06 J -43538922.26 -43538922.08 -43538921.89 0.0145 0.0083
 Venus -123916-07-20 01:56 J -43538695.63 -43538695.42 -43538695.21 0.0144 0.0057

Venus -123915-03-03 17:18 J -43538468.99 -43538468.78 -43538468.55 0.0144 0.0032
 Venus -123915-10-16 08:39 J -43538242.36 -43538242.14 -43538241.91 0.0144 0.0007
 Venus -123914-05-30 23:32 J -43538015.74 -43538015.52 -43538015.29 0.0143 0.0019
 Venus -123913-01-12 14:11 J -43537789.11 -43537788.91 -43537788.68 0.0143 0.0044
 Venus -123913-08-26 04:35 J -43537562.49 -43537562.31 -43537562.09 0.0142 0.0069
 Venus -123912-04-09 18:59 J -43537335.87 -43537335.71 -43537335.53 0.0142 0.0092
 Venus -123912-11-22 08:39 J -43537109.25 -43537109.14 -43537108.99 0.0142 0.0116
 Venus -123911-07-06 22:20 J -43536882.60 -43536882.57 -43536882.51 0.0141 0.0139
 Earth -123890-01-25 00:15 J -43529375.69 -43529375.49 -43529375.26 0.0131 0.0065
 Moon -123890-01-25 00:44 J -43529375.67 -43529375.47 -43529375.27 0.0131 0.0071 *
 Moon -123889-01-28 22:35 J -43529006.79 -43529006.56 -43529006.31 0.0131 0.0048
 Earth -123889-01-28 23:03 J -43529006.76 -43529006.54 -43529006.30 0.0131 0.0043 *
 Mercury -123885-02-16 21:08 J -43527526.67 -43527526.62 -43527526.57 0.0131 0.0121
 Mercury -123885-05-15 00:01 J -43527438.57 -43527438.50 -43527438.42 0.0131 0.0106
 Mercury -123885-08-11 02:54 J -43527350.47 -43527350.38 -43527350.28 0.0131 0.0091
 Mercury -123885-11-07 05:47 J -43527262.36 -43527262.26 -43527262.14 0.0131 0.0076
 Mercury -123884-02-03 08:54 J -43527174.25 -43527174.13 -43527174.01 0.0131 0.0060
 Mercury -123884-05-02 11:47 J -43527086.13 -43527086.01 -43527085.88 0.0131 0.0045
 Mercury -123884-07-29 14:54 J -43526998.01 -43526997.88 -43526997.75 0.0131 0.0030
 Mercury -123884-10-25 17:47 J -43526909.89 -43526909.76 -43526909.63 0.0131 0.0015
 Mercury -123883-01-21 20:39 J -43526821.77 -43526821.64 -43526821.51 0.0131 0.0001
 Mercury -123883-04-19 23:32 J -43526733.65 -43526733.52 -43526733.39 0.0131 0.0015
 Mercury -123883-07-17 02:25 J -43526645.53 -43526645.40 -43526645.27 0.0131 0.0031
 Mercury -123883-10-13 05:18 J -43526557.40 -43526557.28 -43526557.15 0.0131 0.0046
 Mercury -123882-01-09 08:11 J -43526469.28 -43526469.16 -43526469.04 0.0131 0.0061
 Mercury -123882-04-07 10:49 J -43526381.15 -43526381.05 -43526380.93 0.0131 0.0076
 Mercury -123882-07-04 13:42 J -43526293.01 -43526292.93 -43526292.82 0.0131 0.0091
 Mercury -123882-09-30 16:35 J -43526204.88 -43526204.81 -43526204.72 0.0131 0.0106
 Mercury -123882-12-27 19:27 J -43526116.73 -43526116.69 -43526116.63 0.0131 0.0121
 Mars -123878-08-21 06:44 J -43524784.44 -43524784.22 -43524783.99 0.0132 0.0095

Mars -123876-07-24 01:42 J -43524081.66 -43524081.43 -43524081.15 0.0132 0.0083
 Venus -123874-09-04 15:23 J -43523308.92 -43523308.86 -43523308.79 0.0133 0.0126
 Venus -123873-04-17 17:18 J -43523082.88 -43523082.78 -43523082.64 0.0133 0.0109
 Venus -123873-11-29 20:25 J -43522856.80 -43522856.65 -43522856.50 0.0134 0.0090
 Venus -123872-07-13 22:49 J -43522630.71 -43522630.55 -43522630.36 0.0134 0.0072
 Venus -123871-02-25 01:42 J -43522404.61 -43522404.43 -43522404.23 0.0134 0.0054
 Venus -123871-10-09 04:49 J -43522178.50 -43522178.30 -43522178.10 0.0135 0.0035
 Venus -123870-05-23 07:42 J -43521952.38 -43521952.18 -43521951.97 0.0135 0.0016
 Venus -123869-01-04 11:03 J -43521726.25 -43521726.04 -43521725.83 0.0135 0.0004
 Venus -123869-08-17 14:25 J -43521500.10 -43521499.90 -43521499.69 0.0136 0.0023
 Venus -123868-03-31 17:47 J -43521273.95 -43521273.76 -43521273.55 0.0136 0.0043
 Venus -123868-11-12 21:37 J -43521047.78 -43521047.60 -43521047.41 0.0136 0.0063
 Venus -123867-06-27 01:13 J -43520821.60 -43520821.45 -43520821.27 0.0137 0.0083
 Venus -123866-02-08 05:47 J -43520595.39 -43520595.26 -43520595.12 0.0137 0.0102
 Venus -123866-09-22 09:51 J -43520369.17 -43520369.09 -43520368.98 0.0137 0.0123
 Moon -123847-07-20 20:11 J -43513492.92 -43513492.66 -43513492.40 0.0148 0.0015
 Earth -123847-07-20 23:18 J -43513492.79 -43513492.53 -43513492.27 0.0148 0.0015 *
 Mercury -123843-08-17 17:18 J -43512003.86 -43512003.78 -43512003.70 0.0148 0.0132
 Mercury -123843-11-14 01:56 J -43511915.55 -43511915.42 -43511915.27 0.0148 0.0101
 Mercury -123842-02-10 10:49 J -43511827.21 -43511827.05 -43511826.88 0.0148 0.0070
 Mercury -123842-05-09 19:42 J -43511738.86 -43511738.68 -43511738.49 0.0148 0.0038
 Mercury -123842-08-06 04:35 J -43511650.50 -43511650.31 -43511650.12 0.0148 0.0006
 Mercury -123842-11-02 13:27 J -43511562.13 -43511561.94 -43511561.75 0.0148 0.0026
 Mercury -123841-01-29 22:20 J -43511473.74 -43511473.57 -43511473.39 0.0148 0.0058
 Mercury -123841-04-27 07:13 J -43511385.35 -43511385.20 -43511385.04 0.0148 0.0090
 Mercury -123841-07-24 16:06 J -43511296.93 -43511296.83 -43511296.71 0.0148 0.0122
 Mars -123837-01-18 16:06 J -43510024.04 -43510023.83 -43510023.59 0.0147 0.0093
 Mars -123836-12-21 06:01 J -43509321.38 -43509321.25 -43509321.08 0.0146 0.0125
 Venus -123834-12-21 18:44 J -43508590.83 -43508590.72 -43508590.60 0.0145 0.0125
 Venus -123833-08-04 10:35 J -43508364.21 -43508364.06 -43508363.88 0.0145 0.0099

Venus -123832-03-19 02:39 J -43508137.57 -43508137.39 -43508137.18 0.0145 0.0073
 Venus -123832-10-31 18:15 J -43507910.94 -43507910.74 -43507910.51 0.0144 0.0047
 Venus -123831-06-15 10:06 J -43507684.31 -43507684.08 -43507683.86 0.0144 0.0021
 Venus -123830-01-28 01:13 J -43507457.68 -43507457.45 -43507457.22 0.0144 0.0005
 Venus -123830-09-11 16:06 J -43507231.05 -43507230.83 -43507230.60 0.0143 0.0030
 Venus -123829-04-25 06:44 J -43507004.43 -43507004.22 -43507004.01 0.0143 0.0055
 Venus -123829-12-07 20:54 J -43506777.80 -43506777.63 -43506777.43 0.0142 0.0080
 Venus -123828-07-22 11:18 J -43506551.18 -43506551.03 -43506550.87 0.0142 0.0103
 Venus -123827-03-06 00:59 J -43506324.55 -43506324.46 -43506324.35 0.0142 0.0127
 Earth -123806-01-25 08:25 J -43498694.35 -43498694.15 -43498693.92 0.0131 0.0064
 Moon -123806-01-25 09:23 J -43498694.32 -43498694.11 -43498693.89 0.0131 0.0058 *
 Moon -123805-01-29 06:59 J -43498325.45 -43498325.21 -43498324.96 0.0131 0.0039
 Earth -123805-01-29 06:59 J -43498325.43 -43498325.21 -43498324.96 0.0131 0.0044 *
 Mercury -123801-03-08 03:37 J -43496825.39 -43496825.35 -43496825.29 0.0131 0.0120
 Mercury -123801-06-04 06:30 J -43496737.30 -43496737.23 -43496737.14 0.0131 0.0105
 Mercury -123801-08-31 09:37 J -43496649.19 -43496649.10 -43496649.00 0.0131 0.0089
 Mercury -123801-11-27 12:30 J -43496561.08 -43496560.98 -43496560.86 0.0131 0.0074
 Mercury -123800-02-23 15:23 J -43496472.97 -43496472.86 -43496472.73 0.0131 0.0059
 Mercury -123800-05-22 18:30 J -43496384.86 -43496384.73 -43496384.60 0.0131 0.0043
 Mercury -123800-08-18 21:23 J -43496296.74 -43496296.61 -43496296.48 0.0131 0.0028
 Mercury -123800-11-15 00:15 J -43496208.62 -43496208.49 -43496208.35 0.0131 0.0014
 Mercury -123799-02-11 03:08 J -43496120.50 -43496120.37 -43496120.23 0.0131 0.0004
 Mercury -123799-05-10 06:01 J -43496032.38 -43496032.25 -43496032.11 0.0131 0.0017
 Mercury -123799-08-06 08:54 J -43495944.25 -43495944.13 -43495944.00 0.0131 0.0032
 Mercury -123799-11-02 12:01 J -43495856.13 -43495856.00 -43495855.88 0.0131 0.0047
 Mercury -123798-01-29 14:39 J -43495768.00 -43495767.89 -43495767.77 0.0131 0.0062
 Mercury -123798-04-27 17:32 J -43495679.87 -43495679.77 -43495679.66 0.0131 0.0077
 Mercury -123798-07-24 20:25 J -43495591.74 -43495591.65 -43495591.55 0.0131 0.0092
 Mercury -123798-10-20 23:18 J -43495503.60 -43495503.53 -43495503.45 0.0131 0.0107
 Mercury -123797-01-17 02:11 J -43495415.45 -43495415.41 -43495415.36 0.0131 0.0122

Mars -123793-04-15 01:56 J -43493865.73 -43493865.42 -43493865.10 0.0132 0.0036
 Venus -123790-12-17 03:23 J -43492524.44 -43492524.36 -43492524.25 0.0133 0.0119
 Venus -123789-07-30 06:15 J -43492298.38 -43492298.24 -43492298.11 0.0133 0.0101
 Venus -123788-03-13 08:25 J -43492072.30 -43492072.15 -43492071.97 0.0134 0.0083
 Venus -123788-10-25 11:18 J -43491846.21 -43491846.03 -43491845.84 0.0134 0.0064
 Venus -123787-06-08 14:11 J -43491620.11 -43491619.91 -43491619.71 0.0134 0.0045
 Venus -123786-01-20 17:03 J -43491393.99 -43491393.79 -43491393.58 0.0135 0.0027
 Venus -123786-09-03 20:11 J -43491167.87 -43491167.66 -43491167.45 0.0135 0.0007
 Venus -123785-04-16 23:18 J -43490941.73 -43490941.53 -43490941.32 0.0135 0.0013
 Venus -123785-11-29 02:39 J -43490715.59 -43490715.39 -43490715.18 0.0136 0.0032
 Venus -123784-07-13 06:01 J -43490489.43 -43490489.25 -43490489.04 0.0136 0.0052
 Venus -123783-02-24 10:06 J -43490263.25 -43490263.08 -43490262.90 0.0136 0.0072
 Venus -123783-10-08 13:56 J -43490037.06 -43490036.92 -43490036.75 0.0137 0.0092
 Venus -123782-05-22 18:15 J -43489810.86 -43489810.74 -43489810.62 0.0137 0.0112
 Venus -123781-01-03 22:35 J -43489584.61 -43489584.56 -43489584.49 0.0138 0.0132
 Moon -123763-07-20 21:51 J -43482811.84 -43482811.59 -43482811.32 0.0148 0.0023
 Earth -123763-07-21 01:27 J -43482811.69 -43482811.44 -43482811.17 0.0148 0.0021 *
 Earth -123762-07-26 13:27 J -43482440.97 -43482440.94 -43482440.87 0.0148 0.0145
 Moon -123762-07-26 15:51 J -43482440.90 -43482440.84 -43482440.74 0.0148 0.0140 *
 Mercury -123759-09-06 22:06 J -43481302.65 -43481302.58 -43481302.49 0.0148 0.0133
 Mercury -123759-12-04 06:44 J -43481214.34 -43481214.22 -43481214.07 0.0148 0.0103
 Mercury -123758-03-02 15:51 J -43481126.00 -43481125.84 -43481125.67 0.0148 0.0070
 Mercury -123758-05-30 00:30 J -43481037.65 -43481037.48 -43481037.28 0.0148 0.0039
 Mercury -123758-08-26 09:37 J -43480949.29 -43480949.10 -43480948.91 0.0148 0.0007
 Mercury -123758-11-22 18:30 J -43480860.92 -43480860.73 -43480860.54 0.0148 0.0025
 Mercury -123757-02-19 03:08 J -43480772.54 -43480772.37 -43480772.18 0.0148 0.0057
 Mercury -123757-05-17 12:01 J -43480684.14 -43480684.00 -43480683.83 0.0148 0.0089
 Mercury -123757-08-13 20:54 J -43480595.73 -43480595.63 -43480595.51 0.0148 0.0121
 Mars -123753-09-12 11:03 J -43479105.32 -43479105.04 -43479104.75 0.0147 0.0025
 Venus -123750-08-20 17:47 J -43478032.80 -43478032.76 -43478032.70 0.0145 0.0142

Venus -123749-04-03 09:37 J -43477806.22 -43477806.10 -43477805.94 0.0145 0.0116

Venus -123749-11-16 01:42 J -43477579.59 -43477579.43 -43477579.24 0.0145 0.0090

Venus -123748-06-30 17:47 J -43477352.95 -43477352.76 -43477352.55 0.0144 0.0064

Venus -123747-02-12 09:37 J -43477126.32 -43477126.10 -43477125.88 0.0144 0.0037

Venus -123747-09-27 00:59 J -43476899.69 -43476899.46 -43476899.23 0.0144 0.0011

Venus -123746-05-11 16:06 J -43476673.06 -43476672.83 -43476672.60 0.0143 0.0015

Venus -123746-12-24 06:44 J -43476446.43 -43476446.22 -43476445.99 0.0143 0.0040

Venus -123745-08-06 21:37 J -43476219.80 -43476219.60 -43476219.40 0.0143 0.0065

Venus -123744-03-21 11:47 J -43475993.18 -43475993.01 -43475992.83 0.0142 0.0090

Venus -123744-11-03 01:27 J -43475766.55 -43475766.44 -43475766.29 0.0142 0.0114

Venus -123743-06-17 15:08 J -43475539.90 -43475539.87 -43475539.80 0.0142 0.0138

Earth -123722-01-25 16:06 J -43468013.03 -43468012.83 -43468012.60 0.0131 0.0065

Moon -123722-01-25 17:03 J -43468012.99 -43468012.79 -43468012.58 0.0131 0.0070 *

Moon -123721-01-29 14:11 J -43467644.14 -43467643.91 -43467643.67 0.0131 0.0049

Earth -123721-01-29 15:08 J -43467644.09 -43467643.87 -43467643.62 0.0131 0.0044 *

Mercury -123717-03-28 10:20 J -43466124.12 -43466124.07 -43466124.01 0.0131 0.0118

Mercury -123717-06-24 13:13 J -43466036.02 -43466035.95 -43466035.86 0.0131 0.0103

Mercury -123717-09-20 16:06 J -43465947.92 -43465947.83 -43465947.72 0.0131 0.0088

Mercury -123717-12-17 19:13 J -43465859.81 -43465859.70 -43465859.58 0.0131 0.0072

Mercury -123716-03-15 22:20 J -43465771.69 -43465771.57 -43465771.45 0.0131 0.0057

Mercury -123716-06-12 01:13 J -43465683.58 -43465683.45 -43465683.33 0.0131 0.0042

Mercury -123716-09-08 04:06 J -43465595.46 -43465595.33 -43465595.20 0.0131 0.0027

Mercury -123716-12-05 06:59 J -43465507.34 -43465507.21 -43465507.08 0.0131 0.0012

Mercury -123715-03-03 09:51 J -43465419.22 -43465419.09 -43465418.95 0.0131 0.0004

Mercury -123715-05-30 12:44 J -43465331.10 -43465330.97 -43465330.83 0.0131 0.0019

Mercury -123715-08-26 15:37 J -43465242.97 -43465242.85 -43465242.72 0.0131 0.0034

Mercury -123715-11-22 18:30 J -43465154.85 -43465154.73 -43465154.60 0.0131 0.0049

Mercury -123714-02-18 21:23 J -43465066.72 -43465066.61 -43465066.49 0.0131 0.0064

Mercury -123714-05-18 00:15 J -43464978.59 -43464978.49 -43464978.38 0.0131 0.0079

Mercury -123714-08-14 03:08 J -43464890.46 -43464890.37 -43464890.27 0.0131 0.0094

Mercury -123714-11-10 06:01 J -43464802.32 -43464802.25 -43464802.17 0.0131 0.0109

Mercury -123713-02-06 08:54 J -43464714.17 -43464714.13 -43464714.09 0.0131 0.0124

Mars -123709-12-09 00:01 J -43462946.82 -43462946.50 -43462946.17 0.0132 0.0024

Venus -123706-08-16 14:11 J -43461965.94 -43461965.91 -43461965.85 0.0133 0.0130

Venus -123705-03-29 16:49 J -43461739.91 -43461739.80 -43461739.68 0.0133 0.0112

Venus -123705-11-10 18:59 J -43461513.84 -43461513.71 -43461513.55 0.0134 0.0094

Venus -123704-06-24 21:51 J -43461287.76 -43461287.59 -43461287.41 0.0134 0.0075

Venus -123703-02-06 00:44 J -43461061.66 -43461061.47 -43461061.28 0.0134 0.0056

Venus -123703-09-20 03:23 J -43460835.55 -43460835.36 -43460835.15 0.0134 0.0038

Venus -123702-05-04 06:30 J -43460609.44 -43460609.23 -43460609.02 0.0135 0.0018

Venus -123702-12-16 09:37 J -43460383.31 -43460383.10 -43460382.89 0.0135 0.0002

Venus -123701-07-29 12:44 J -43460157.17 -43460156.97 -43460156.76 0.0135 0.0022

Venus -123700-03-12 16:20 J -43459931.01 -43459930.82 -43459930.62 0.0136 0.0041

Venus -123700-10-24 19:56 J -43459704.85 -43459704.67 -43459704.48 0.0136 0.0061

Venus -123699-06-07 23:32 J -43459478.67 -43459478.52 -43459478.34 0.0137 0.0082

Venus -123698-01-20 03:37 J -43459252.47 -43459252.35 -43459252.19 0.0137 0.0102

Venus -123698-09-03 08:11 J -43459026.25 -43459026.16 -43459026.06 0.0137 0.0122

Moon -123679-07-21 03:22 J -43452130.62 -43452130.36 -43452130.10 0.0148 0.0022

Earth -123679-07-21 06:58 J -43452130.47 -43452130.21 -43452129.96 0.0148 0.0022 *

Earth -123678-07-26 18:30 J -43451759.78 -43451759.73 -43451759.65 0.0148 0.0143

Mercury -123675-09-27 04:06 J -43450601.41 -43450601.33 -43450601.24 0.0148 0.0131

Mercury -123675-12-24 12:44 J -43450513.10 -43450512.97 -43450512.82 0.0148 0.0100

Mercury -123674-03-22 21:22 J -43450424.76 -43450424.61 -43450424.43 0.0148 0.0069

Mercury -123674-06-19 06:30 J -43450336.41 -43450336.23 -43450336.04 0.0148 0.0037

Mercury -123674-09-15 15:22 J -43450248.05 -43450247.86 -43450247.67 0.0148 0.0005

Mercury -123674-12-13 00:15 J -43450159.68 -43450159.49 -43450159.30 0.0148 0.0027

Mercury -123673-03-10 09:08 J -43450071.30 -43450071.12 -43450070.94 0.0148 0.0058

Mercury -123673-06-06 18:01 J -43449982.90 -43449982.75 -43449982.60 0.0148 0.0090

Mercury -123673-09-03 02:54 J -43449894.48 -43449894.38 -43449894.27 0.0148 0.0122

Mars -123668-05-08 09:51 J -43448186.36 -43448186.09 -43448185.81 0.0147 0.0047

Venus -123666-12-02 10:20 J -43447248.14 -43447248.07 -43447247.96 0.0145 0.0133
 Venus -123665-07-16 02:39 J -43447021.53 -43447021.39 -43447021.22 0.0145 0.0106
 Venus -123664-02-27 18:44 J -43446794.90 -43446794.72 -43446794.52 0.0145 0.0080
 Venus -123664-10-12 10:20 J -43446568.27 -43446568.07 -43446567.85 0.0144 0.0054
 Venus -123663-05-27 01:56 J -43446341.64 -43446341.42 -43446341.19 0.0144 0.0027
 Venus -123662-01-08 17:18 J -43446115.01 -43446114.78 -43446114.55 0.0144 0.0001
 Venus -123662-08-23 08:25 J -43445888.37 -43445888.15 -43445887.93 0.0143 0.0025
 Venus -123661-04-05 22:49 J -43445661.75 -43445661.55 -43445661.33 0.0143 0.0051
 Venus -123661-11-18 13:27 J -43445435.13 -43445434.94 -43445434.75 0.0143 0.0076
 Venus -123660-07-03 03:22 J -43445208.51 -43445208.36 -43445208.19 0.0142 0.0101
 Venus -123659-02-14 17:03 J -43444981.88 -43444981.79 -43444981.67 0.0142 0.0125
 Earth -123638-01-25 23:46 J -43437331.71 -43437331.51 -43437331.28 0.0131 0.0064
 Moon -123638-01-26 01:27 J -43437331.65 -43437331.44 -43437331.22 0.0131 0.0058 *
 Moon -123637-01-29 22:06 J -43436962.81 -43436962.58 -43436962.32 0.0131 0.0040
 Earth -123637-01-29 23:03 J -43436962.77 -43436962.54 -43436962.30 0.0131 0.0044 *
 Mercury -123633-04-17 16:49 J -43435422.85 -43435422.80 -43435422.73 0.0131 0.0117
 Mercury -123633-07-14 19:56 J -43435334.75 -43435334.67 -43435334.58 0.0131 0.0101
 Mercury -123633-10-10 22:49 J -43435246.64 -43435246.55 -43435246.44 0.0131 0.0086
 Mercury -123632-01-07 01:56 J -43435158.53 -43435158.42 -43435158.31 0.0131 0.0071
 Mercury -123632-04-05 04:49 J -43435070.42 -43435070.30 -43435070.18 0.0131 0.0056
 Mercury -123632-07-02 07:42 J -43434982.30 -43434982.18 -43434982.05 0.0131 0.0041
 Mercury -123632-09-28 10:34 J -43434894.18 -43434894.06 -43434893.92 0.0131 0.0026
 Mercury -123632-12-25 13:42 J -43434806.07 -43434805.93 -43434805.80 0.0131 0.0010
 Mercury -123631-03-23 16:34 J -43434717.94 -43434717.81 -43434717.68 0.0131 0.0005
 Mercury -123631-06-19 19:27 J -43434629.82 -43434629.69 -43434629.56 0.0131 0.0020
 Mercury -123631-09-15 22:20 J -43434541.70 -43434541.57 -43434541.44 0.0131 0.0035
 Mercury -123631-12-13 01:13 J -43434453.57 -43434453.45 -43434453.33 0.0131 0.0050
 Mercury -123630-03-11 04:06 J -43434365.44 -43434365.33 -43434365.21 0.0131 0.0065
 Mercury -123630-06-07 06:44 J -43434277.31 -43434277.22 -43434277.10 0.0131 0.0081
 Mercury -123630-09-03 09:37 J -43434189.18 -43434189.10 -43434189.00 0.0131 0.0096

Mercury -123630-11-30 12:44 J -43434101.04 -43434100.97 -43434100.90 0.0131 0.0111

Mercury -123629-02-26 15:37 J -43434012.88 -43434012.85 -43434012.81 0.0131 0.0126

Mars -123626-09-01 02:10 J -43432730.63 -43432730.41 -43432730.18 0.0132 0.0094

Mars -123624-08-03 22:20 J -43432027.80 -43432027.57 -43432027.30 0.0132 0.0086

Venus -123622-11-28 03:51 J -43431181.42 -43431181.34 -43431181.26 0.0133 0.0123

Venus -123621-07-11 06:01 J -43430955.37 -43430955.25 -43430955.11 0.0134 0.0105

Venus -123620-02-22 08:39 J -43430729.29 -43430729.14 -43430728.97 0.0134 0.0086

Venus -123620-10-06 11:18 J -43430503.20 -43430503.03 -43430502.84 0.0134 0.0067

Venus -123619-05-20 13:56 J -43430277.10 -43430276.92 -43430276.71 0.0134 0.0049

Venus -123618-01-01 17:03 J -43430050.99 -43430050.79 -43430050.58 0.0135 0.0029

Venus -123618-08-15 20:10 J -43429824.86 -43429824.66 -43429824.45 0.0135 0.0009

Venus -123617-03-28 23:18 J -43429598.73 -43429598.53 -43429598.31 0.0135 0.0012

Venus -123617-11-10 02:39 J -43429372.59 -43429372.39 -43429372.18 0.0136 0.0031

Venus -123616-06-24 06:15 J -43429146.43 -43429146.24 -43429146.04 0.0136 0.0051

Venus -123615-02-05 10:06 J -43428920.25 -43428920.08 -43428919.89 0.0136 0.0071

Venus -123615-09-19 13:56 J -43428694.06 -43428693.92 -43428693.75 0.0137 0.0092

Venus -123614-05-03 18:01 J -43428467.85 -43428467.75 -43428467.61 0.0137 0.0112

Venus -123614-12-15 22:34 J -43428241.60 -43428241.56 -43428241.49 0.0137 0.0132

Moon -123595-07-21 12:44 J -43421449.23 -43421448.97 -43421448.71 0.0148 0.0019

Earth -123595-07-21 16:34 J -43421449.07 -43421448.81 -43421448.56 0.0148 0.0018 *

Earth -123594-07-27 03:51 J -43421078.35 -43421078.34 -43421078.29 0.0148 0.0147

Moon -123594-07-27 06:44 J -43421078.28 -43421078.22 -43421078.13 0.0148 0.0141

Mercury -123591-10-17 11:03 J -43419900.13 -43419900.04 -43419899.93 0.0148 0.0125

Mercury -123590-01-13 19:56 J -43419811.81 -43419811.67 -43419811.52 0.0148 0.0094

Mercury -123590-04-12 04:49 J -43419723.47 -43419723.30 -43419723.13 0.0148 0.0062

Mercury -123590-07-09 13:27 J -43419635.12 -43419634.94 -43419634.74 0.0148 0.0031

Mercury -123590-10-05 22:34 J -43419546.76 -43419546.56 -43419546.37 0.0148 0.0003

Mercury -123589-01-02 07:13 J -43419458.38 -43419458.20 -43419458.01 0.0148 0.0033

Mercury -123589-03-30 16:06 J -43419370.00 -43419369.83 -43419369.65 0.0148 0.0064

Mercury -123589-06-27 00:58 J -43419281.60 -43419281.46 -43419281.31 0.0148 0.0096

Mercury -123589-09-23 09:51 J -43419193.18 -43419193.09 -43419192.99 0.0148 0.0128
 Mars -123585-01-30 00:01 J -43417969.70 -43417969.50 -43417969.27 0.0147 0.0098
 Mars -123583-01-01 13:42 J -43417267.07 -43417266.93 -43417266.75 0.0146 0.0122
 Venus -123581-03-15 05:32 J -43416463.38 -43416463.27 -43416463.14 0.0145 0.0122
 Venus -123581-10-27 21:22 J -43416236.76 -43416236.61 -43416236.42 0.0145 0.0095
 Venus -123580-06-11 13:13 J -43416010.14 -43416009.95 -43416009.74 0.0145 0.0069
 Venus -123579-01-24 05:03 J -43415783.50 -43415783.29 -43415783.07 0.0144 0.0042
 Venus -123579-09-07 20:25 J -43415556.87 -43415556.65 -43415556.42 0.0144 0.0015
 Venus -123578-04-22 11:32 J -43415330.25 -43415330.02 -43415329.80 0.0143 0.0011
 Venus -123578-12-05 02:10 J -43415103.63 -43415103.41 -43415103.19 0.0143 0.0037
 Venus -123577-07-18 16:49 J -43414877.00 -43414876.80 -43414876.59 0.0143 0.0063
 Venus -123576-03-02 07:13 J -43414650.38 -43414650.20 -43414650.02 0.0142 0.0088
 Venus -123576-10-14 20:54 J -43414423.76 -43414423.63 -43414423.48 0.0142 0.0112
 Venus -123575-05-29 10:20 J -43414197.11 -43414197.07 -43414196.99 0.0142 0.0137
 Earth -123554-01-26 09:22 J -43406650.32 -43406650.11 -43406649.88 0.0131 0.0061
 Moon -123554-01-26 10:20 J -43406650.26 -43406650.07 -43406649.85 0.0131 0.0068 *
 Moon -123553-01-30 06:58 J -43406281.43 -43406281.21 -43406280.96 0.0131 0.0052
 Earth -123553-01-30 08:54 J -43406281.36 -43406281.13 -43406280.90 0.0131 0.0046 *
 Mercury -123549-02-09 20:54 J -43404809.64 -43404809.63 -43404809.61 0.0131 0.0129
 Mercury -123549-05-07 23:46 J -43404721.57 -43404721.51 -43404721.44 0.0131 0.0114
 Mercury -123549-08-04 02:39 J -43404633.46 -43404633.39 -43404633.29 0.0131 0.0099
 Mercury -123549-10-31 05:46 J -43404545.36 -43404545.26 -43404545.15 0.0131 0.0084
 Mercury -123548-01-27 08:54 J -43404457.25 -43404457.13 -43404457.02 0.0131 0.0068
 Mercury -123548-04-25 11:46 J -43404369.13 -43404369.01 -43404368.89 0.0131 0.0053
 Mercury -123548-07-22 14:39 J -43404281.02 -43404280.89 -43404280.76 0.0131 0.0038
 Mercury -123548-10-18 17:32 J -43404192.90 -43404192.77 -43404192.64 0.0131 0.0023
 Mercury -123547-01-14 20:25 J -43404104.78 -43404104.65 -43404104.51 0.0131 0.0009
 Mercury -123547-04-12 23:32 J -43404016.66 -43404016.52 -43404016.39 0.0131 0.0009
 Mercury -123547-07-10 02:25 J -43403928.53 -43403928.40 -43403928.27 0.0131 0.0023
 Mercury -123547-10-06 05:18 J -43403840.41 -43403840.28 -43403840.15 0.0131 0.0038

Mercury -123546-01-02 08:10 J -43403752.28 -43403752.16 -43403752.04 0.0131 0.0053

Mercury -123546-03-31 11:03 J -43403664.15 -43403664.04 -43403663.93 0.0131 0.0068

Mercury -123546-06-27 13:56 J -43403576.02 -43403575.92 -43403575.82 0.0131 0.0083

Mercury -123546-09-23 16:49 J -43403487.89 -43403487.80 -43403487.71 0.0131 0.0098

Mercury -123546-12-20 19:42 J -43403399.74 -43403399.68 -43403399.61 0.0131 0.0113

Mercury -123545-03-17 22:20 J -43403311.58 -43403311.57 -43403311.53 0.0131 0.0129

Mars -123541-04-26 03:08 J -43401811.67 -43401811.37 -43401811.04 0.0132 0.0033

Venus -123537-03-10 17:03 J -43400396.87 -43400396.79 -43400396.67 0.0133 0.0116

Venus -123537-10-22 19:42 J -43400170.81 -43400170.68 -43400170.52 0.0134 0.0097

Venus -123536-06-05 22:20 J -43399944.73 -43399944.57 -43399944.39 0.0134 0.0078

Venus -123535-01-18 01:27 J -43399718.63 -43399718.44 -43399718.25 0.0134 0.0059

Venus -123535-09-01 04:06 J -43399492.52 -43399492.33 -43399492.12 0.0135 0.0040

Venus -123534-04-15 07:13 J -43399266.41 -43399266.20 -43399265.99 0.0135 0.0020

Venus -123534-11-27 10:20 J -43399040.28 -43399040.07 -43399039.86 0.0135 0.0001

Venus -123533-07-10 13:42 J -43398814.14 -43398813.93 -43398813.72 0.0136 0.0020

Venus -123532-02-21 17:03 J -43398587.98 -43398587.79 -43398587.58 0.0136 0.0041

Venus -123532-10-05 20:39 J -43398361.81 -43398361.64 -43398361.44 0.0136 0.0062

Venus -123531-05-20 00:30 J -43398135.63 -43398135.48 -43398135.29 0.0137 0.0082

Venus -123530-01-01 04:49 J -43397909.43 -43397909.30 -43397909.15 0.0137 0.0102

Venus -123530-08-15 09:08 J -43397683.20 -43397683.12 -43397683.01 0.0137 0.0123

Moon -123511-07-22 00:01 J -43390767.76 -43390767.50 -43390767.24 0.0148 0.0012

Earth -123511-07-22 03:22 J -43390767.61 -43390767.36 -43390767.09 0.0148 0.0012 *

Mercury -123507-08-10 10:20 J -43389287.07 -43389287.07 -43389287.06 0.0148 0.0148

Mercury -123507-11-06 18:44 J -43389198.82 -43389198.72 -43389198.59 0.0148 0.0117

Mercury -123506-02-03 03:51 J -43389110.49 -43389110.34 -43389110.18 0.0148 0.0085

Mercury -123506-05-02 12:30 J -43389022.15 -43389021.98 -43389021.80 0.0148 0.0054

Mercury -123506-07-29 21:22 J -43388933.80 -43388933.61 -43388933.42 0.0148 0.0022

Mercury -123506-10-26 06:15 J -43388845.43 -43388845.24 -43388845.05 0.0148 0.0009

Mercury -123505-01-22 15:08 J -43388757.05 -43388756.87 -43388756.69 0.0148 0.0041

Mercury -123505-04-19 23:46 J -43388668.67 -43388668.51 -43388668.33 0.0148 0.0073

Mercury -123505-07-17 08:39 J -43388580.26 -43388580.14 -43388580.00 0.0148 0.0105

Mercury -123505-10-13 17:32 J -43388491.83 -43388491.77 -43388491.69 0.0148 0.0137

Mars -123501-09-24 09:37 J -43387050.38 -43387050.10 -43387049.81 0.0147 0.0021

Venus -123498-11-13 09:37 J -43385905.16 -43385905.10 -43385905.00 0.0145 0.0137

Venus -123497-06-27 01:56 J -43385678.55 -43385678.42 -43385678.26 0.0145 0.0109

Venus -123496-02-08 17:46 J -43385451.93 -43385451.76 -43385451.56 0.0145 0.0083

Venus -123496-09-23 09:37 J -43385225.31 -43385225.10 -43385224.89 0.0144 0.0055

Venus -123495-05-08 00:44 J -43384998.68 -43384998.47 -43384998.24 0.0144 0.0029

Venus -123495-12-20 16:06 J -43384772.06 -43384771.83 -43384771.60 0.0144 0.0002

Venus -123494-08-04 06:58 J -43384545.43 -43384545.21 -43384544.98 0.0143 0.0024

Venus -123493-03-17 21:37 J -43384318.81 -43384318.60 -43384318.38 0.0143 0.0050

Venus -123493-10-30 11:46 J -43384092.19 -43384092.01 -43384091.80 0.0143 0.0076

Venus -123492-06-14 01:56 J -43383865.57 -43383865.42 -43383865.25 0.0142 0.0100

Venus -123491-01-26 15:37 J -43383638.94 -43383638.85 -43383638.73 0.0142 0.0125

Earth -123470-01-26 18:58 J -43375968.92 -43375968.71 -43375968.48 0.0131 0.0059

Moon -123470-01-26 20:54 J -43375968.85 -43375968.63 -43375968.40 0.0131 0.0053 *

Moon -123469-01-30 17:03 J -43375600.03 -43375599.79 -43375599.55 0.0131 0.0046

Earth -123469-01-30 18:01 J -43375599.97 -43375599.75 -43375599.51 0.0131 0.0050 *

Mercury -123465-03-01 03:37 J -43374108.37 -43374108.35 -43374108.31 0.0131 0.0127

Mercury -123465-05-28 06:30 J -43374020.28 -43374020.23 -43374020.15 0.0131 0.0112

Mercury -123465-08-24 09:37 J -43373932.18 -43373932.10 -43373932.00 0.0131 0.0096

Mercury -123465-11-20 12:44 J -43373844.08 -43373843.97 -43373843.87 0.0131 0.0081

Mercury -123464-02-16 15:37 J -43373755.96 -43373755.85 -43373755.73 0.0131 0.0066

Mercury -123464-05-15 18:30 J -43373667.85 -43373667.73 -43373667.60 0.0131 0.0051

Mercury -123464-08-11 21:22 J -43373579.73 -43373579.61 -43373579.48 0.0131 0.0036

Mercury -123464-11-08 00:30 J -43373491.61 -43373491.48 -43373491.35 0.0131 0.0020

Mercury -123463-02-04 03:22 J -43373403.49 -43373403.36 -43373403.23 0.0131 0.0005

Mercury -123463-05-03 06:15 J -43373315.37 -43373315.24 -43373315.11 0.0131 0.0010

Mercury -123463-07-30 09:08 J -43373227.25 -43373227.12 -43373226.99 0.0131 0.0025

Mercury -123463-10-26 12:01 J -43373139.12 -43373139.00 -43373138.87 0.0131 0.0040

Mercury -123462-01-22 14:54 J -43373051.00 -43373050.88 -43373050.76 0.0131 0.0056

Mercury -123462-04-20 17:46 J -43372962.87 -43372962.76 -43372962.64 0.0131 0.0071

Mercury -123462-07-17 20:39 J -43372874.73 -43372874.64 -43372874.54 0.0131 0.0086

Mercury -123462-10-13 23:32 J -43372786.60 -43372786.52 -43372786.43 0.0131 0.0101

Mercury -123461-01-10 02:10 J -43372698.45 -43372698.41 -43372698.33 0.0131 0.0116

Mercury -123461-04-07 05:32 J -43372610.28 -43372610.27 -43372610.27 0.0131 0.0131

Mars -123457-12-20 02:10 J -43370892.71 -43370892.41 -43370892.07 0.0132 0.0030

Venus -123454-11-09 04:06 J -43369838.38 -43369838.33 -43369838.26 0.0133 0.0126

Venus -123453-06-22 06:30 J -43369612.34 -43369612.23 -43369612.10 0.0134 0.0108

Venus -123452-02-03 09:08 J -43369386.26 -43369386.12 -43369385.95 0.0134 0.0089

Venus -123452-09-17 11:46 J -43369160.17 -43369160.01 -43369159.82 0.0134 0.0070

Venus -123451-05-01 14:39 J -43368934.08 -43368933.89 -43368933.69 0.0134 0.0051

Venus -123451-12-13 17:46 J -43368707.96 -43368707.76 -43368707.56 0.0135 0.0031

Venus -123450-07-27 20:54 J -43368481.84 -43368481.63 -43368481.42 0.0135 0.0011

Venus -123449-03-10 00:15 J -43368255.70 -43368255.49 -43368255.28 0.0135 0.0009

Venus -123449-10-22 03:37 J -43368029.55 -43368029.35 -43368029.15 0.0136 0.0030

Venus -123448-06-05 07:13 J -43367803.39 -43367803.20 -43367803.00 0.0136 0.0050

Venus -123447-01-17 11:03 J -43367577.21 -43367577.04 -43367576.86 0.0136 0.0071

Venus -123447-08-31 14:54 J -43367351.02 -43367350.88 -43367350.71 0.0137 0.0092

Venus -123446-04-14 19:13 J -43367124.81 -43367124.70 -43367124.57 0.0137 0.0113

Venus -123446-11-26 23:32 J -43366898.55 -43366898.52 -43366898.45 0.0138 0.0134

Moon -123427-07-22 09:51 J -43360086.35 -43360086.09 -43360085.83 0.0148 0.0005

Earth -123427-07-22 13:42 J -43360086.19 -43360085.93 -43360085.67 0.0148 0.0006 *

Mercury -123423-08-30 17:46 J -43358585.81 -43358585.76 -43358585.69 0.0148 0.0140

Mercury -123423-11-27 02:54 J -43358497.51 -43358497.38 -43358497.26 0.0148 0.0109

Mercury -123422-02-23 11:32 J -43358409.18 -43358409.02 -43358408.86 0.0148 0.0077

Mercury -123422-05-22 20:10 J -43358320.83 -43358320.66 -43358320.47 0.0148 0.0046

Mercury -123422-08-19 05:03 J -43358232.48 -43358232.29 -43358232.09 0.0148 0.0014

Mercury -123422-11-15 13:56 J -43358144.11 -43358143.92 -43358143.73 0.0148 0.0018

Mercury -123421-02-11 22:34 J -43358055.73 -43358055.56 -43358055.37 0.0148 0.0050

Mercury -123421-05-10 07:42 J -43357967.34 -43357967.18 -43357967.02 0.0148 0.0081

Mercury -123421-08-06 16:34 J -43357878.93 -43357878.81 -43357878.68 0.0148 0.0113

Mercury -123421-11-03 01:27 J -43357790.47 -43357790.44 -43357790.40 0.0148 0.0145

Mars -123416-05-20 19:27 J -43356130.94 -43356130.69 -43356130.41 0.0146 0.0059

Venus -123413-02-25 06:58 J -43355120.32 -43355120.21 -43355120.09 0.0145 0.0124

Venus -123413-10-08 22:34 J -43354893.71 -43354893.56 -43354893.38 0.0145 0.0097

Venus -123412-05-23 14:10 J -43354667.10 -43354666.91 -43354666.70 0.0145 0.0070

Venus -123411-01-05 05:46 J -43354440.47 -43354440.26 -43354440.04 0.0144 0.0043

Venus -123411-08-19 21:08 J -43354213.84 -43354213.62 -43354213.39 0.0144 0.0016

Venus -123410-04-03 12:15 J -43353987.22 -43353986.99 -43353986.77 0.0143 0.0011

Venus -123410-11-16 02:54 J -43353760.60 -43353760.38 -43353760.16 0.0143 0.0037

Venus -123409-06-29 17:18 J -43353533.98 -43353533.78 -43353533.57 0.0143 0.0063

Venus -123408-02-11 07:27 J -43353307.36 -43353307.19 -43353307.01 0.0142 0.0089

Venus -123408-09-25 21:08 J -43353080.74 -43353080.62 -43353080.47 0.0142 0.0114

Venus -123407-05-10 10:49 J -43352854.08 -43352854.05 -43352853.99 0.0141 0.0138

Earth -123386-01-27 04:34 J -43345287.53 -43345287.31 -43345287.08 0.0131 0.0055

Moon -123386-01-27 06:01 J -43345287.45 -43345287.25 -43345287.03 0.0131 0.0061 *

Moon -123385-01-31 01:42 J -43344918.65 -43344918.43 -43344918.19 0.0131 0.0056

Earth -123385-01-31 03:37 J -43344918.57 -43344918.35 -43344918.12 0.0131 0.0052 *

Mercury -123381-03-21 10:34 J -43343407.09 -43343407.06 -43343407.02 0.0131 0.0124

Mercury -123381-06-17 13:27 J -43343319.00 -43343318.94 -43343318.86 0.0131 0.0109

Mercury -123381-09-13 16:20 J -43343230.90 -43343230.82 -43343230.72 0.0131 0.0094

Mercury -123381-12-10 19:27 J -43343142.79 -43343142.69 -43343142.58 0.0131 0.0078

Mercury -123380-03-08 22:34 J -43343054.68 -43343054.56 -43343054.45 0.0131 0.0063

Mercury -123380-06-05 01:27 J -43342966.57 -43342966.44 -43342966.32 0.0131 0.0048

Mercury -123380-09-01 04:20 J -43342878.45 -43342878.32 -43342878.19 0.0131 0.0033

Mercury -123380-11-28 07:13 J -43342790.33 -43342790.20 -43342790.07 0.0131 0.0018

Mercury -123379-02-24 10:06 J -43342702.21 -43342702.08 -43342701.94 0.0131 0.0004

Mercury -123379-05-23 12:58 J -43342614.09 -43342613.96 -43342613.82 0.0131 0.0014

Mercury -123379-08-19 16:06 J -43342525.96 -43342525.83 -43342525.70 0.0131 0.0028

Mercury -123379-11-15 18:44 J -43342437.84 -43342437.72 -43342437.59 0.0131 0.0043

Mercury -123378-02-11 21:37 J -43342349.71 -43342349.60 -43342349.47 0.0131 0.0058

Mercury -123378-05-11 00:30 J -43342261.58 -43342261.48 -43342261.36 0.0131 0.0073

Mercury -123378-08-07 03:22 J -43342173.45 -43342173.36 -43342173.25 0.0131 0.0088

Mercury -123378-11-03 06:15 J -43342085.31 -43342085.24 -43342085.15 0.0131 0.0103

Mercury -123377-01-30 09:08 J -43341997.16 -43341997.12 -43341997.05 0.0131 0.0118

Mars -123374-09-12 04:49 J -43340676.53 -43340676.30 -43340676.06 0.0132 0.0090

Mars -123372-08-15 00:58 J -43339973.67 -43339973.46 -43339973.20 0.0132 0.0092

Venus -123369-02-20 16:49 J -43339053.87 -43339053.80 -43339053.69 0.0133 0.0120

Venus -123369-10-03 19:42 J -43338827.82 -43338827.68 -43338827.54 0.0134 0.0100

Venus -123368-05-17 22:06 J -43338601.74 -43338601.58 -43338601.41 0.0134 0.0081

Venus -123368-12-30 00:58 J -43338375.64 -43338375.46 -43338375.27 0.0134 0.0062

Venus -123367-08-13 03:51 J -43338149.54 -43338149.34 -43338149.14 0.0135 0.0042

Venus -123366-03-27 06:44 J -43337923.42 -43337923.22 -43337923.01 0.0135 0.0022

Venus -123366-11-08 09:51 J -43337697.30 -43337697.09 -43337696.88 0.0135 0.0002

Venus -123365-06-21 13:13 J -43337471.16 -43337470.95 -43337470.74 0.0136 0.0019

Venus -123364-02-02 16:49 J -43337245.00 -43337244.80 -43337244.60 0.0136 0.0039

Venus -123364-09-16 20:25 J -43337018.83 -43337018.65 -43337018.45 0.0136 0.0060

Venus -123363-05-01 00:15 J -43336792.65 -43336792.49 -43336792.31 0.0137 0.0081

Venus -123363-12-13 04:20 J -43336566.44 -43336566.32 -43336566.17 0.0137 0.0102

Venus -123362-07-27 08:54 J -43336340.21 -43336340.13 -43336340.03 0.0137 0.0123

Moon -123343-07-22 16:34 J -43329405.07 -43329404.81 -43329404.55 0.0148 0.0007

Earth -123343-07-22 20:10 J -43329404.92 -43329404.66 -43329404.40 0.0148 0.0005 *

Mercury -123339-09-20 00:30 J -43327884.55 -43327884.48 -43327884.40 0.0148 0.0135

Mercury -123339-12-17 09:08 J -43327796.25 -43327796.12 -43327795.98 0.0148 0.0104

Mercury -123338-03-15 17:46 J -43327707.91 -43327707.76 -43327707.58 0.0148 0.0073

Mercury -123338-06-12 02:54 J -43327619.56 -43327619.38 -43327619.20 0.0148 0.0041

Mercury -123338-09-08 11:46 J -43327531.20 -43327531.01 -43327530.82 0.0148 0.0009

Mercury -123338-12-05 20:39 J -43327442.83 -43327442.64 -43327442.45 0.0148 0.0022

Mercury -123337-03-03 05:32 J -43327354.45 -43327354.27 -43327354.09 0.0148 0.0054

Mercury -123337-05-30 14:25 J -43327266.06 -43327265.90 -43327265.74 0.0148 0.0086

Mercury -123337-08-26 23:18 J -43327177.64 -43327177.53 -43327177.41 0.0148 0.0118

Mars -123333-02-11 09:51 J -43325914.31 -43325914.09 -43325913.84 0.0147 0.0087

Mars -123331-01-13 23:18 J -43325211.62 -43325211.53 -43325211.40 0.0146 0.0135

Venus -123330-10-25 09:51 J -43324562.14 -43324562.09 -43324562.02 0.0145 0.0139

Venus -123329-06-08 01:56 J -43324335.56 -43324335.42 -43324335.27 0.0145 0.0112

Venus -123328-01-20 17:46 J -43324108.94 -43324108.76 -43324108.57 0.0145 0.0084

Venus -123328-09-04 09:08 J -43323882.32 -43323882.12 -43323881.90 0.0144 0.0058

Venus -123327-04-19 00:30 J -43323655.69 -43323655.48 -43323655.25 0.0144 0.0031

Venus -123327-12-01 15:51 J -43323429.07 -43323428.84 -43323428.61 0.0144 0.0003

Venus -123326-07-16 06:44 J -43323202.44 -43323202.22 -43323201.99 0.0143 0.0024

Venus -123325-02-27 21:22 J -43322975.81 -43322975.61 -43322975.39 0.0143 0.0050

Venus -123325-10-11 11:32 J -43322749.19 -43322749.02 -43322748.81 0.0143 0.0077

Venus -123324-05-26 01:56 J -43322522.57 -43322522.42 -43322522.26 0.0142 0.0102

Venus -123323-01-07 15:22 J -43322295.94 -43322295.86 -43322295.74 0.0142 0.0127

Earth -123302-01-27 13:27 J -43314606.16 -43314605.94 -43314605.70 0.0131 0.0053

Moon -123302-01-27 15:51 J -43314606.07 -43314605.84 -43314605.62 0.0131 0.0047 *

Moon -123301-01-31 10:20 J -43314237.29 -43314237.07 -43314236.82 0.0131 0.0051

Earth -123301-01-31 12:15 J -43314237.20 -43314236.99 -43314236.75 0.0131 0.0054 *

Mercury -123297-04-10 17:18 J -43312705.82 -43312705.78 -43312705.73 0.0131 0.0122

Mercury -123297-07-07 20:10 J -43312617.73 -43312617.66 -43312617.58 0.0131 0.0107

Mercury -123297-10-03 23:03 J -43312529.63 -43312529.54 -43312529.44 0.0131 0.0092

Mercury -123297-12-31 02:10 J -43312441.52 -43312441.41 -43312441.30 0.0131 0.0076

Mercury -123296-03-29 05:03 J -43312353.40 -43312353.29 -43312353.17 0.0131 0.0061

Mercury -123296-06-25 07:56 J -43312265.29 -43312265.17 -43312265.04 0.0131 0.0046

Mercury -123296-09-21 11:03 J -43312177.17 -43312177.04 -43312176.91 0.0131 0.0031

Mercury -123296-12-18 13:56 J -43312089.05 -43312088.92 -43312088.79 0.0131 0.0016

Mercury -123295-03-16 16:49 J -43312000.93 -43312000.80 -43312000.67 0.0131 0.0001

Mercury -123295-06-12 19:42 J -43311912.81 -43311912.68 -43311912.55 0.0131 0.0014

Mercury -123295-09-08 22:34 J -43311824.69 -43311824.56 -43311824.43 0.0131 0.0029

Mercury -123295-12-06 01:27 J -43311736.56 -43311736.44 -43311736.31 0.0131 0.0045

Mercury -123294-03-04 04:20 J -43311648.43 -43311648.32 -43311648.20 0.0131 0.0060

Mercury -123294-05-31 07:13 J -43311560.30 -43311560.20 -43311560.09 0.0131 0.0075

Mercury -123294-08-27 10:06 J -43311472.17 -43311472.08 -43311471.98 0.0131 0.0090

Mercury -123294-11-23 12:58 J -43311384.03 -43311383.96 -43311383.88 0.0131 0.0105

Mercury -123293-02-19 15:51 J -43311295.88 -43311295.84 -43311295.78 0.0131 0.0120

Mars -123289-05-06 23:32 J -43309757.83 -43309757.52 -43309757.19 0.0132 0.0030

Venus -123286-10-21 02:25 J -43308495.43 -43308495.40 -43308495.36 0.0133 0.0131

Venus -123285-06-03 04:49 J -43308269.41 -43308269.30 -43308269.18 0.0133 0.0112

Venus -123284-01-15 07:13 J -43308043.34 -43308043.20 -43308043.04 0.0134 0.0093

Venus -123284-08-29 10:06 J -43307817.26 -43307817.08 -43307816.91 0.0134 0.0073

Venus -123283-04-12 12:44 J -43307591.16 -43307590.97 -43307590.78 0.0134 0.0054

Venus -123283-11-24 15:37 J -43307365.05 -43307364.85 -43307364.65 0.0135 0.0034

Venus -123282-07-08 18:30 J -43307138.93 -43307138.73 -43307138.52 0.0135 0.0014

Venus -123281-02-19 21:51 J -43306912.79 -43306912.59 -43306912.38 0.0135 0.0007

Venus -123281-10-03 01:13 J -43306686.65 -43306686.45 -43306686.24 0.0136 0.0028

Venus -123280-05-17 04:49 J -43306460.49 -43306460.30 -43306460.10 0.0136 0.0048

Venus -123280-12-29 08:25 J -43306234.32 -43306234.15 -43306233.96 0.0136 0.0069

Venus -123279-08-12 12:44 J -43306008.13 -43306007.97 -43306007.81 0.0137 0.0090

Venus -123278-03-26 16:49 J -43305781.91 -43305781.80 -43305781.67 0.0137 0.0111

Venus -123278-11-07 21:08 J -43305555.66 -43305555.62 -43305555.55 0.0137 0.0133

Moon -123259-07-22 19:13 J -43298723.96 -43298723.70 -43298723.44 0.0148 0.0008

Earth -123259-07-22 23:03 J -43298723.80 -43298723.54 -43298723.28 0.0148 0.0009 *

Mercury -123255-10-10 06:01 J -43297183.32 -43297183.25 -43297183.17 0.0148 0.0135

Mercury -123254-01-06 14:39 J -43297095.02 -43297094.89 -43297094.75 0.0148 0.0103

Mercury -123254-04-04 23:18 J -43297006.68 -43297006.53 -43297006.35 0.0148 0.0072

Mercury -123254-07-02 08:25 J -43296918.34 -43296918.15 -43296917.97 0.0148 0.0040

Mercury -123254-09-28 17:18 J -43296829.97 -43296829.78 -43296829.59 0.0148 0.0009

Mercury -123254-12-26 02:10 J -43296741.60 -43296741.41 -43296741.22 0.0148 0.0023

Mercury -123253-03-23 10:49 J -43296653.22 -43296653.05 -43296652.87 0.0148 0.0055

Mercury -123253-06-19 19:42 J -43296564.83 -43296564.68 -43296564.52 0.0148 0.0087

Mercury -123253-09-16 04:34 J -43296476.41 -43296476.31 -43296476.19 0.0148 0.0119

Mars -123249-10-06 08:25 J -43294995.44 -43294995.15 -43294994.86 0.0147 0.0014

Venus -123245-02-06 02:25 J -43293777.49 -43293777.40 -43293777.29 0.0145 0.0128

Venus -123245-09-19 18:15 J -43293550.89 -43293550.74 -43293550.57 0.0145 0.0101

Venus -123244-05-04 09:51 J -43293324.27 -43293324.09 -43293323.88 0.0145 0.0074

Venus -123244-12-17 01:42 J -43293097.64 -43293097.43 -43293097.21 0.0144 0.0046

Venus -123243-07-31 17:18 J -43292871.01 -43292870.78 -43292870.56 0.0144 0.0018

Venus -123242-03-15 08:25 J -43292644.38 -43292644.15 -43292643.92 0.0144 0.0009

Venus -123242-10-27 23:18 J -43292417.75 -43292417.53 -43292417.31 0.0143 0.0036

Venus -123241-06-10 13:42 J -43292191.13 -43292190.93 -43292190.72 0.0143 0.0062

Venus -123240-01-23 03:51 J -43291964.50 -43291964.34 -43291964.15 0.0142 0.0089

Venus -123240-09-06 18:30 J -43291737.87 -43291737.73 -43291737.60 0.0142 0.0113

Venus -123239-04-21 07:42 J -43291511.20 -43291511.18 -43291511.11 0.0142 0.0139

Earth -123218-01-27 22:20 J -43283924.79 -43283924.57 -43283924.33 0.0131 0.0052

Moon -123218-01-28 00:15 J -43283924.70 -43283924.49 -43283924.27 0.0131 0.0056 *

Moon -123217-01-31 18:58 J -43283555.93 -43283555.71 -43283555.47 0.0131 0.0058

Earth -123217-01-31 21:22 J -43283555.84 -43283555.61 -43283555.39 0.0131 0.0055 *

Mercury -123213-05-01 00:01 J -43282004.55 -43282004.50 -43282004.44 0.0131 0.0120

Mercury -123213-07-28 02:54 J -43281916.45 -43281916.38 -43281916.29 0.0131 0.0105

Mercury -123213-10-24 05:46 J -43281828.35 -43281828.26 -43281828.15 0.0131 0.0090

Mercury -123212-01-20 08:54 J -43281740.24 -43281740.13 -43281740.02 0.0131 0.0074

Mercury -123212-04-18 12:01 J -43281652.12 -43281652.00 -43281651.88 0.0131 0.0059

Mercury -123212-07-15 14:54 J -43281564.01 -43281563.88 -43281563.76 0.0131 0.0044

Mercury -123212-10-11 17:46 J -43281475.89 -43281475.76 -43281475.63 0.0131 0.0029

Mercury -123211-01-07 20:39 J -43281387.77 -43281387.64 -43281387.50 0.0131 0.0014

Mercury -123211-04-05 23:32 J -43281299.65 -43281299.52 -43281299.38 0.0131 0.0004

Mercury -123211-07-03 02:25 J -43281211.53 -43281211.40 -43281211.26 0.0131 0.0017

Mercury -123211-09-29 05:32 J -43281123.40 -43281123.27 -43281123.14 0.0131 0.0032

Mercury -123211-12-26 08:25 J -43281035.28 -43281035.15 -43281035.03 0.0131 0.0047

Mercury -123210-03-24 11:18 J -43280947.15 -43280947.03 -43280946.91 0.0131 0.0062

Mercury -123210-06-20 14:10 J -43280859.02 -43280858.91 -43280858.80 0.0131 0.0077

Mercury -123210-09-16 17:03 J -43280770.88 -43280770.79 -43280770.70 0.0131 0.0092

Mercury -123210-12-13 19:42 J -43280682.74 -43280682.68 -43280682.59 0.0131 0.0107

Mercury -123209-03-10 22:34 J -43280594.59 -43280594.56 -43280594.50 0.0131 0.0122

Mars -123205-12-30 20:54 J -43278838.94 -43278838.63 -43278838.30 0.0132 0.0032

Venus -123201-02-01 14:54 J -43277710.94 -43277710.88 -43277710.78 0.0133 0.0124

Venus -123201-09-14 17:18 J -43277484.89 -43277484.78 -43277484.63 0.0133 0.0105

Venus -123200-04-28 19:56 J -43277258.82 -43277258.67 -43277258.50 0.0134 0.0085

Venus -123200-12-10 22:34 J -43277032.73 -43277032.56 -43277032.37 0.0134 0.0065

Venus -123199-07-25 01:27 J -43276806.63 -43276806.44 -43276806.24 0.0134 0.0045

Venus -123198-03-08 04:34 J -43276580.51 -43276580.31 -43276580.10 0.0135 0.0025

Venus -123198-10-20 07:42 J -43276354.39 -43276354.18 -43276353.97 0.0135 0.0005

Venus -123197-06-02 10:49 J -43276128.25 -43276128.05 -43276127.84 0.0135 0.0016

Venus -123196-01-14 14:25 J -43275902.10 -43275901.90 -43275901.70 0.0136 0.0037

Venus -123196-08-28 18:01 J -43275675.93 -43275675.75 -43275675.56 0.0136 0.0058

Venus -123195-04-11 21:37 J -43275449.76 -43275449.60 -43275449.42 0.0136 0.0079

Venus -123195-11-24 01:56 J -43275223.56 -43275223.42 -43275223.28 0.0137 0.0100

Venus -123194-07-08 06:01 J -43274997.34 -43274997.25 -43274997.15 0.0137 0.0121

Moon -123175-07-22 21:37 J -43268042.85 -43268042.60 -43268042.34 0.0148 0.0017

Earth -123175-07-23 01:13 J -43268042.70 -43268042.45 -43268042.19 0.0148 0.0014 *

Mercury -123171-10-30 10:49 J -43266482.11 -43266482.05 -43266481.96 0.0148 0.0136

Mercury -123170-01-26 19:42 J -43266393.80 -43266393.68 -43266393.53 0.0148 0.0104

Mercury -123170-04-25 04:34 J -43266305.47 -43266305.31 -43266305.14 0.0148 0.0072

Mercury -123170-07-22 13:27 J -43266217.12 -43266216.94 -43266216.75 0.0148 0.0041

Mercury -123170-10-18 22:20 J -43266128.76 -43266128.57 -43266128.38 0.0148 0.0009

Mercury -123169-01-15 07:13 J -43266040.39 -43266040.20 -43266040.01 0.0148 0.0023

Mercury -123169-04-12 16:06 J -43265952.01 -43265951.83 -43265951.65 0.0148 0.0055

Mercury -123169-07-10 00:44 J -43265863.61 -43265863.47 -43265863.30 0.0148 0.0087

Mercury -123169-10-06 09:37 J -43265775.20 -43265775.10 -43265774.97 0.0148 0.0119

Mars -123164-06-01 03:51 J -43264076.60 -43264076.34 -43264076.06 0.0147 0.0057
 Venus -123161-05-19 17:46 J -43262992.88 -43262992.76 -43262992.62 0.0145 0.0119
 Venus -123160-01-01 09:37 J -43262766.26 -43262766.10 -43262765.91 0.0145 0.0091
 Venus -123160-08-16 01:42 J -43262539.63 -43262539.43 -43262539.22 0.0145 0.0063
 Venus -123159-03-30 17:03 J -43262313.00 -43262312.79 -43262312.56 0.0144 0.0036
 Venus -123159-11-12 08:39 J -43262086.37 -43262086.14 -43262085.92 0.0144 0.0008
 Venus -123158-06-26 23:32 J -43261859.74 -43261859.52 -43261859.29 0.0144 0.0020
 Venus -123157-02-08 14:39 J -43261633.11 -43261632.89 -43261632.68 0.0143 0.0047
 Venus -123157-09-22 05:03 J -43261406.48 -43261406.29 -43261406.09 0.0143 0.0073
 Venus -123156-05-06 19:13 J -43261179.85 -43261179.70 -43261179.53 0.0142 0.0099
 Venus -123156-12-19 09:08 J -43260953.21 -43260953.12 -43260953.00 0.0142 0.0125
 Earth -123134-01-28 06:15 J -43253243.46 -43253243.24 -43253243.00 0.0131 0.0051
 Moon -123134-01-28 08:25 J -43253243.36 -43253243.15 -43253242.91 0.0131 0.0047 *
 Moon -123133-02-01 03:08 J -43252874.60 -43252874.37 -43252874.13 0.0131 0.0053
 Earth -123133-02-01 05:03 J -43252874.50 -43252874.29 -43252874.05 0.0131 0.0057 *
 Mercury -123129-05-21 06:44 J -43251303.27 -43251303.22 -43251303.16 0.0131 0.0118
 Mercury -123129-08-17 09:37 J -43251215.17 -43251215.10 -43251215.01 0.0131 0.0103
 Mercury -123129-11-13 12:30 J -43251127.07 -43251126.98 -43251126.87 0.0131 0.0088
 Mercury -123128-02-09 15:37 J -43251038.96 -43251038.85 -43251038.73 0.0131 0.0072
 Mercury -123128-05-08 18:44 J -43250950.84 -43250950.72 -43250950.60 0.0131 0.0057
 Mercury -123128-08-04 21:37 J -43250862.73 -43250862.60 -43250862.47 0.0131 0.0042
 Mercury -123128-11-01 00:30 J -43250774.61 -43250774.48 -43250774.35 0.0131 0.0027
 Mercury -123127-01-28 03:22 J -43250686.49 -43250686.36 -43250686.22 0.0131 0.0012
 Mercury -123127-04-26 06:30 J -43250598.37 -43250598.23 -43250598.10 0.0131 0.0006
 Mercury -123127-07-23 09:22 J -43250510.24 -43250510.11 -43250509.98 0.0131 0.0019
 Mercury -123127-10-19 12:15 J -43250422.12 -43250421.99 -43250421.86 0.0131 0.0034
 Mercury -123126-01-15 15:08 J -43250333.99 -43250333.87 -43250333.75 0.0131 0.0049
 Mercury -123126-04-13 18:01 J -43250245.87 -43250245.75 -43250245.63 0.0131 0.0064
 Mercury -123126-07-10 20:54 J -43250157.73 -43250157.63 -43250157.52 0.0131 0.0079
 Mercury -123126-10-06 23:46 J -43250069.60 -43250069.51 -43250069.42 0.0131 0.0094

Mercury -123125-01-03 02:39 J -43249981.46 -43249981.39 -43249981.32 0.0131 0.0109

Mercury -123125-03-31 05:18 J -43249893.31 -43249893.28 -43249893.23 0.0131 0.0124

Mars -123122-09-22 23:18 J -43248622.76 -43248622.53 -43248622.27 0.0132 0.0088

Mars -123120-08-25 19:13 J -43247919.92 -43247919.70 -43247919.46 0.0132 0.0095

Venus -123117-05-15 04:06 J -43246926.42 -43246926.33 -43246926.22 0.0133 0.0115

Venus -123117-12-27 06:30 J -43246700.36 -43246700.23 -43246700.07 0.0134 0.0096

Venus -123116-08-10 09:08 J -43246474.28 -43246474.12 -43246473.94 0.0134 0.0077

Venus -123115-03-24 12:01 J -43246248.18 -43246248.00 -43246247.81 0.0134 0.0057

Venus -123115-11-05 14:54 J -43246022.08 -43246021.88 -43246021.67 0.0134 0.0036

Venus -123114-06-19 18:01 J -43245795.96 -43245795.75 -43245795.54 0.0135 0.0016

Venus -123113-01-31 21:22 J -43245569.82 -43245569.61 -43245569.40 0.0135 0.0005

Venus -123113-09-14 00:44 J -43245343.67 -43245343.47 -43245343.26 0.0135 0.0026

Venus -123112-04-28 04:06 J -43245117.52 -43245117.33 -43245117.13 0.0136 0.0047

Venus -123112-12-10 07:42 J -43244891.35 -43244891.18 -43244890.99 0.0136 0.0068

Venus -123111-07-24 11:32 J -43244665.16 -43244665.02 -43244664.85 0.0136 0.0090

Venus -123110-03-07 15:51 J -43244438.95 -43244438.84 -43244438.71 0.0137 0.0111

Venus -123110-10-19 20:10 J -43244212.70 -43244212.66 -43244212.60 0.0137 0.0132

Moon -123091-07-23 03:51 J -43237361.59 -43237361.34 -43237361.08 0.0148 0.0012

Earth -123091-07-23 07:56 J -43237361.43 -43237361.17 -43237360.92 0.0148 0.0014 *

Moon -123090-07-28 22:34 J -43236990.61 -43236990.56 -43236990.49 0.0148 0.0143

Mercury -123087-11-19 17:18 J -43235780.85 -43235780.78 -43235780.68 0.0148 0.0132

Mercury -123086-02-16 02:10 J -43235692.54 -43235692.41 -43235692.26 0.0148 0.0100

Mercury -123086-05-15 11:03 J -43235604.20 -43235604.04 -43235603.87 0.0148 0.0068

Mercury -123086-08-11 19:56 J -43235515.85 -43235515.67 -43235515.48 0.0148 0.0037

Mercury -123086-11-08 04:49 J -43235427.49 -43235427.30 -43235427.11 0.0148 0.0005

Mercury -123085-02-04 13:42 J -43235339.12 -43235338.93 -43235338.74 0.0148 0.0027

Mercury -123085-05-02 22:20 J -43235250.74 -43235250.57 -43235250.38 0.0148 0.0059

Mercury -123085-07-30 07:13 J -43235162.34 -43235162.20 -43235162.04 0.0148 0.0091

Mercury -123085-10-26 16:06 J -43235073.92 -43235073.83 -43235073.71 0.0148 0.0123

Mars -123081-02-22 15:51 J -43233860.06 -43233859.84 -43233859.61 0.0147 0.0092

Mars -123079-01-25 05:18 J -43233157.39 -43233157.28 -43233157.14 0.0146 0.0132
 Venus -123077-01-17 19:27 J -43232434.76 -43232434.69 -43232434.60 0.0146 0.0136
 Venus -123077-08-31 11:32 J -43232208.16 -43232208.02 -43232207.86 0.0145 0.0108
 Venus -123076-04-15 03:37 J -43231981.54 -43231981.35 -43231981.16 0.0145 0.0079
 Venus -123076-11-27 18:58 J -43231754.91 -43231754.71 -43231754.49 0.0144 0.0052
 Venus -123075-07-12 10:49 J -43231528.28 -43231528.05 -43231527.83 0.0144 0.0023
 Venus -123074-02-24 02:10 J -43231301.64 -43231301.41 -43231301.19 0.0144 0.0005
 Venus -123074-10-08 17:03 J -43231075.01 -43231074.79 -43231074.57 0.0143 0.0032
 Venus -123073-05-22 07:27 J -43230848.38 -43230848.19 -43230847.97 0.0143 0.0059
 Venus -123072-01-03 22:06 J -43230621.75 -43230621.58 -43230621.39 0.0143 0.0086
 Venus -123072-08-18 12:30 J -43230395.11 -43230394.98 -43230394.83 0.0142 0.0112
 Venus -123071-04-02 02:25 J -43230168.44 -43230168.40 -43230168.33 0.0142 0.0137
 Earth -123050-01-28 15:51 J -43222562.07 -43222561.84 -43222561.61 0.0131 0.0049
 Moon -123050-01-28 17:46 J -43222561.98 -43222561.76 -43222561.53 0.0131 0.0053 *
 Moon -123049-02-01 12:30 J -43222193.20 -43222192.98 -43222192.75 0.0131 0.0059
 Earth -123049-02-01 14:39 J -43222193.10 -43222192.89 -43222192.66 0.0131 0.0058 *
 Mercury -123045-03-14 10:34 J -43220690.06 -43220690.06 -43220690.04 0.0131 0.0131
 Mercury -123045-06-10 13:42 J -43220601.99 -43220601.93 -43220601.86 0.0131 0.0115
 Mercury -123045-09-06 16:34 J -43220513.89 -43220513.81 -43220513.72 0.0131 0.0100
 Mercury -123045-12-03 19:42 J -43220425.78 -43220425.68 -43220425.58 0.0131 0.0085
 Mercury -123044-03-01 22:34 J -43220337.67 -43220337.56 -43220337.44 0.0131 0.0070
 Jupiter -123044-05-20 12:44 J -43220258.26 -43220257.97 -43220257.66 0.0131 0.0105
 Mercury -123044-05-29 01:42 J -43220249.55 -43220249.43 -43220249.31 0.0131 0.0054
 Mercury -123044-08-25 04:34 J -43220161.44 -43220161.31 -43220161.18 0.0131 0.0039
 Mercury -123044-11-21 07:27 J -43220073.32 -43220073.19 -43220073.05 0.0131 0.0024
 Mercury -123043-02-17 10:20 J -43219985.20 -43219985.07 -43219984.93 0.0131 0.0010
 Mercury -123043-05-16 13:27 J -43219897.08 -43219896.94 -43219896.81 0.0131 0.0007
 Mercury -123043-08-12 16:20 J -43219808.95 -43219808.82 -43219808.69 0.0131 0.0022
 Mercury -123043-11-08 19:13 J -43219720.83 -43219720.70 -43219720.57 0.0131 0.0037
 Mercury -123042-02-04 22:06 J -43219632.70 -43219632.58 -43219632.46 0.0131 0.0052

Mercury -123042-05-04 00:58 J -43219544.57 -43219544.46 -43219544.34 0.0131 0.0067

Mercury -123042-07-31 03:51 J -43219456.44 -43219456.34 -43219456.23 0.0131 0.0082

Mercury -123042-10-27 06:44 J -43219368.30 -43219368.22 -43219368.13 0.0131 0.0097

Mercury -123041-01-23 09:37 J -43219280.16 -43219280.10 -43219280.03 0.0131 0.0112

Mercury -123041-04-20 12:30 J -43219192.00 -43219191.98 -43219191.95 0.0131 0.0127

Mars -123037-05-18 00:44 J -43217703.78 -43217703.47 -43217703.14 0.0132 0.0025

Venus -123033-01-13 15:51 J -43216367.89 -43216367.84 -43216367.77 0.0133 0.0126

Venus -123033-08-26 18:30 J -43216141.85 -43216141.73 -43216141.60 0.0133 0.0107

Venus -123032-04-09 20:39 J -43215915.78 -43215915.64 -43215915.46 0.0134 0.0088

Venus -123032-11-21 23:46 J -43215689.69 -43215689.51 -43215689.33 0.0134 0.0067

Venus -123031-07-06 02:25 J -43215463.58 -43215463.40 -43215463.19 0.0134 0.0048

Venus -123030-02-17 05:46 J -43215237.46 -43215237.26 -43215237.05 0.0135 0.0027

Venus -123030-10-01 08:54 J -43215011.34 -43215011.13 -43215010.92 0.0135 0.0006

Venus -123029-05-14 12:15 J -43214785.20 -43214784.99 -43214784.78 0.0135 0.0015

Venus -123029-12-26 15:37 J -43214559.05 -43214558.85 -43214558.65 0.0136 0.0036

Venus -123028-08-09 18:58 J -43214332.89 -43214332.71 -43214332.51 0.0136 0.0058

Venus -123027-03-23 22:49 J -43214106.71 -43214106.55 -43214106.37 0.0136 0.0080

Venus -123027-11-05 02:54 J -43213880.51 -43213880.38 -43213880.23 0.0137 0.0101

Venus -123026-06-19 07:13 J -43213654.29 -43213654.20 -43213654.10 0.0137 0.0122

Moon -123007-07-23 15:08 J -43206680.13 -43206679.87 -43206679.61 0.0148 0.0011

Earth -123007-07-23 18:30 J -43206679.99 -43206679.73 -43206679.47 0.0148 0.0008 *

Jupiter -123003-09-16 17:18 J -43205164.29 -43205163.78 -43205163.25 0.0148 0.0025

Mercury -123003-12-10 01:13 J -43205079.54 -43205079.45 -43205079.34 0.0148 0.0123

Mercury -123002-03-08 09:51 J -43204991.23 -43204991.09 -43204990.93 0.0148 0.0092

Mercury -123002-06-04 18:44 J -43204902.89 -43204902.72 -43204902.54 0.0148 0.0060

Mercury -123002-09-01 03:37 J -43204814.53 -43204814.35 -43204814.16 0.0148 0.0029

Mercury -123002-11-28 12:30 J -43204726.17 -43204725.98 -43204725.79 0.0148 0.0004

Mercury -123001-02-24 21:22 J -43204637.79 -43204637.61 -43204637.42 0.0148 0.0035

Mercury -123001-05-23 06:01 J -43204549.41 -43204549.25 -43204549.07 0.0148 0.0067

Mercury -123001-08-19 14:54 J -43204461.01 -43204460.88 -43204460.72 0.0148 0.0099

Mercury -123001-11-15 23:46 J -43204372.58 -43204372.51 -43204372.41 0.0148 0.0131

123RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 123rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-122997-10-17 23:32 J	-43202940.81	-43202940.52	-43202940.23	0.0147	0.0014		
Venus	-122993-04-30 15:37 J	-43201649.96	-43201649.85	-43201649.73	0.0145	0.0123		
Venus	-122993-12-13 07:13 J	-43201423.35	-43201423.20	-43201423.01	0.0145	0.0095		
Venus	-122992-07-27 23:18 J	-43201196.72	-43201196.53	-43201196.32	0.0145	0.0067		
Venus	-122991-03-11 15:08 J	-43200970.09	-43200969.87	-43200969.65	0.0144	0.0038		
Venus	-122991-10-24 06:30 J	-43200743.45	-43200743.23	-43200743.00	0.0144	0.0010		
Venus	-122990-06-07 21:37 J	-43200516.82	-43200516.60	-43200516.37	0.0144	0.0018		
Venus	-122989-01-20 12:30 J	-43200290.19	-43200289.98	-43200289.76	0.0143	0.0045		
Venus	-122989-09-03 03:22 J	-43200063.56	-43200063.36	-43200063.16	0.0143	0.0072		
Venus	-122988-04-17 17:46 J	-43199836.92	-43199836.76	-43199836.60	0.0142	0.0099		
Venus	-122988-11-30 07:27 J	-43199610.28	-43199610.19	-43199610.07	0.0142	0.0125		
Earth	-122966-01-29 02:10 J	-43191880.65	-43191880.41	-43191880.18	0.0131	0.0045		
Moon	-122966-01-29 04:20 J	-43191880.55	-43191880.32	-43191880.09	0.0131	0.0041	*	
Moon	-122965-02-01 22:34 J	-43191511.77	-43191511.56	-43191511.32	0.0131	0.0062		
Earth	-122965-02-02 00:58 J	-43191511.67	-43191511.46	-43191511.23	0.0131	0.0063	*	

Mercury -122961-04-03 17:46 J -43189988.78 -43189988.76 -43189988.72 0.0131 0.0127

Jupiter -122961-04-11 16:20 J -43189981.04 -43189980.82 -43189980.55 0.0131 0.0114

Mercury -122961-06-30 20:39 J -43189900.70 -43189900.64 -43189900.56 0.0131 0.0112

Mercury -122961-09-26 23:46 J -43189812.59 -43189812.51 -43189812.42 0.0131 0.0096

Mercury -122961-12-24 02:54 J -43189724.49 -43189724.38 -43189724.28 0.0131 0.0081

Mercury -122960-03-22 05:46 J -43189636.37 -43189636.26 -43189636.14 0.0131 0.0066

Mercury -122960-06-18 08:39 J -43189548.26 -43189548.14 -43189548.01 0.0131 0.0051

Mercury -122960-09-14 11:32 J -43189460.14 -43189460.02 -43189459.88 0.0131 0.0036

Mercury -122960-12-11 14:39 J -43189372.02 -43189371.89 -43189371.76 0.0131 0.0020

Mercury -122959-03-09 17:32 J -43189283.90 -43189283.77 -43189283.63 0.0131 0.0005

Mercury -122959-06-05 20:25 J -43189195.78 -43189195.65 -43189195.51 0.0131 0.0010

Mercury -122959-09-01 23:18 J -43189107.66 -43189107.53 -43189107.40 0.0131 0.0025

Mercury -122959-11-29 02:10 J -43189019.53 -43189019.41 -43189019.28 0.0131 0.0041

Mercury -122958-02-25 05:18 J -43188931.40 -43188931.28 -43188931.16 0.0131 0.0055

Mercury -122958-05-24 08:10 J -43188843.27 -43188843.16 -43188843.05 0.0131 0.0070

Mercury -122958-08-20 11:03 J -43188755.14 -43188755.04 -43188754.94 0.0131 0.0085

Mercury -122958-11-16 13:56 J -43188667.01 -43188666.92 -43188666.84 0.0131 0.0100

Mercury -122957-02-12 16:49 J -43188578.86 -43188578.80 -43188578.74 0.0131 0.0115

Mercury -122957-05-10 19:27 J -43188490.69 -43188490.69 -43188490.67 0.0131 0.0130

Mars -122952-01-11 02:39 J -43186784.69 -43186784.39 -43186784.07 0.0132 0.0039

Venus -122949-04-26 05:46 J -43185583.34 -43185583.26 -43185583.15 0.0133 0.0118

Venus -122949-12-08 08:25 J -43185357.28 -43185357.15 -43185356.99 0.0134 0.0099

Venus -122948-07-22 11:32 J -43185131.19 -43185131.02 -43185130.85 0.0134 0.0078

Venus -122947-03-05 14:10 J -43184905.09 -43184904.91 -43184904.71 0.0134 0.0058

Venus -122947-10-17 17:03 J -43184678.98 -43184678.79 -43184678.58 0.0134 0.0038

Venus -122946-05-31 20:10 J -43184452.86 -43184452.66 -43184452.45 0.0135 0.0017

Venus -122945-01-12 23:32 J -43184226.73 -43184226.52 -43184226.31 0.0135 0.0005

Venus -122945-08-26 02:54 J -43184000.58 -43184000.38 -43184000.17 0.0135 0.0026

Venus -122944-04-09 06:30 J -43183774.43 -43183774.23 -43183774.04 0.0136 0.0047

Venus -122944-11-21 09:51 J -43183548.26 -43183548.09 -43183547.90 0.0136 0.0069

Venus -122943-07-05 13:42 J -43183322.07 -43183321.93 -43183321.76 0.0137 0.0091
 Venus -122942-02-16 18:01 J -43183095.86 -43183095.75 -43183095.62 0.0137 0.0112
 Venus -122942-09-30 22:06 J -43182869.60 -43182869.58 -43182869.52 0.0137 0.0135
 Moon -122923-07-24 03:08 J -43175998.62 -43175998.37 -43175998.11 0.0148 0.0007
 Earth -122923-07-24 06:58 J -43175998.47 -43175998.21 -43175997.95 0.0148 0.0003 *
 Mercury -122919-10-03 00:58 J -43174466.49 -43174466.46 -43174466.40 0.0148 0.0143
 Mercury -122919-12-30 09:37 J -43174378.21 -43174378.10 -43174377.96 0.0148 0.0112
 Mercury -122918-03-28 18:44 J -43174289.88 -43174289.72 -43174289.56 0.0148 0.0080
 Mercury -122918-06-25 03:22 J -43174201.53 -43174201.36 -43174201.17 0.0148 0.0049
 Mercury -122918-09-21 12:15 J -43174113.18 -43174112.99 -43174112.80 0.0148 0.0017
 Mercury -122918-12-18 21:08 J -43174024.81 -43174024.62 -43174024.43 0.0148 0.0014
 Mercury -122917-03-16 06:01 J -43173936.43 -43173936.25 -43173936.07 0.0148 0.0046
 Mercury -122917-06-12 14:39 J -43173848.04 -43173847.89 -43173847.72 0.0148 0.0078
 Mercury -122917-09-08 23:32 J -43173759.64 -43173759.52 -43173759.38 0.0148 0.0110
 Mercury -122917-12-06 08:25 J -43173671.19 -43173671.15 -43173671.08 0.0148 0.0142
 Mars -122912-06-13 13:13 J -43172021.19 -43172020.95 -43172020.68 0.0147 0.0069
 Venus -122910-12-29 21:08 J -43171091.67 -43171091.62 -43171091.52 0.0146 0.0138
 Venus -122909-08-12 13:27 J -43170865.07 -43170864.94 -43170864.78 0.0145 0.0109
 Venus -122908-03-27 05:32 J -43170638.45 -43170638.27 -43170638.08 0.0145 0.0080
 Venus -122908-11-08 21:08 J -43170411.82 -43170411.62 -43170411.40 0.0144 0.0052
 Venus -122907-06-23 12:44 J -43170185.19 -43170184.97 -43170184.74 0.0144 0.0024
 Venus -122906-02-05 04:06 J -43169958.56 -43169958.33 -43169958.10 0.0144 0.0005
 Venus -122906-09-19 19:13 J -43169731.92 -43169731.70 -43169731.48 0.0143 0.0033
 Venus -122905-05-03 09:37 J -43169505.29 -43169505.10 -43169504.88 0.0143 0.0060
 Venus -122905-12-16 00:15 J -43169278.66 -43169278.49 -43169278.31 0.0143 0.0087
 Venus -122904-07-30 14:39 J -43169052.02 -43169051.89 -43169051.75 0.0142 0.0114
 Venus -122903-03-14 04:20 J -43168825.34 -43168825.32 -43168825.27 0.0142 0.0140
 Earth -122882-01-29 13:42 J -43161199.16 -43161198.93 -43161198.68 0.0131 0.0039
 Moon -122882-01-29 15:51 J -43161199.07 -43161198.84 -43161198.61 0.0131 0.0042 *
 Moon -122881-02-02 10:34 J -43160830.26 -43160830.06 -43160829.82 0.0131 0.0067

Earth -122881-02-02 12:30 J -43160830.17 -43160829.98 -43160829.75 0.0131 0.0068 *
 Mercury -122877-04-24 00:58 J -43159287.49 -43159287.46 -43159287.40 0.0131 0.0123
 Mercury -122877-07-21 03:51 J -43159199.40 -43159199.34 -43159199.25 0.0131 0.0108
 Mercury -122877-10-17 07:13 J -43159111.30 -43159111.20 -43159111.11 0.0131 0.0092
 Mercury -122876-01-13 10:06 J -43159023.19 -43159023.08 -43159022.97 0.0131 0.0077
 Mercury -122876-04-11 12:58 J -43158935.07 -43158934.96 -43158934.84 0.0131 0.0062
 Mercury -122876-07-08 15:51 J -43158846.96 -43158846.84 -43158846.71 0.0131 0.0047
 Mercury -122876-10-04 18:58 J -43158758.84 -43158758.71 -43158758.58 0.0131 0.0031
 Mercury -122876-12-31 21:51 J -43158670.72 -43158670.59 -43158670.46 0.0131 0.0016
 Mercury -122875-03-30 00:44 J -43158582.60 -43158582.47 -43158582.33 0.0131 0.0004
 Mercury -122875-06-26 03:37 J -43158494.48 -43158494.35 -43158494.21 0.0131 0.0015
 Mercury -122875-09-22 06:30 J -43158406.35 -43158406.23 -43158406.09 0.0131 0.0030
 Mercury -122875-12-19 09:22 J -43158318.23 -43158318.11 -43158317.98 0.0131 0.0045
 Mercury -122874-03-17 12:15 J -43158230.10 -43158229.99 -43158229.86 0.0131 0.0060
 Mercury -122874-06-13 15:08 J -43158141.97 -43158141.87 -43158141.75 0.0131 0.0075
 Mercury -122874-09-09 18:15 J -43158053.84 -43158053.74 -43158053.64 0.0131 0.0089
 Mercury -122874-12-06 21:08 J -43157965.70 -43157965.62 -43157965.54 0.0131 0.0104
 Mercury -122873-03-04 00:01 J -43157877.55 -43157877.50 -43157877.45 0.0131 0.0119
 Mars -122870-10-04 10:34 J -43156568.32 -43156568.06 -43156567.79 0.0132 0.0079
 Mars -122868-09-06 06:58 J -43155865.38 -43155865.21 -43155864.99 0.0132 0.0106
 Venus -122866-12-25 18:30 J -43155024.78 -43155024.73 -43155024.68 0.0133 0.0129
 Venus -122865-08-07 20:25 J -43154798.75 -43154798.65 -43154798.51 0.0133 0.0110
 Venus -122864-03-21 23:32 J -43154572.67 -43154572.52 -43154572.36 0.0134 0.0089
 Venus -122864-11-03 01:56 J -43154346.58 -43154346.42 -43154346.23 0.0134 0.0069
 Venus -122863-06-17 04:49 J -43154120.48 -43154120.30 -43154120.09 0.0134 0.0049
 Venus -122862-01-29 08:10 J -43153894.36 -43153894.16 -43153893.95 0.0135 0.0027
 Venus -122862-09-12 11:18 J -43153668.24 -43153668.03 -43153667.82 0.0135 0.0006
 Venus -122861-04-25 14:25 J -43153442.10 -43153441.90 -43153441.69 0.0135 0.0015
 Venus -122861-12-07 17:46 J -43153215.96 -43153215.76 -43153215.55 0.0136 0.0037
 Venus -122860-07-21 21:22 J -43152989.79 -43152989.61 -43152989.42 0.0136 0.0058

Venus -122859-03-05 01:13 J -43152763.61 -43152763.45 -43152763.27 0.0136 0.0080
 Venus -122859-10-17 05:18 J -43152537.41 -43152537.28 -43152537.14 0.0137 0.0102
 Venus -122858-05-31 09:08 J -43152311.19 -43152311.12 -43152311.02 0.0137 0.0124
 Moon -122839-07-24 15:08 J -43145317.12 -43145316.87 -43145316.61 0.0148 0.0004
 Earth -122839-07-24 18:44 J -43145316.98 -43145316.72 -43145316.46 0.0148 0.0009 *
 Mercury -122835-10-23 09:08 J -43143765.19 -43143765.12 -43143765.03 0.0148 0.0134
 Mercury -122834-01-19 18:01 J -43143676.88 -43143676.75 -43143676.61 0.0148 0.0102
 Mercury -122834-04-18 02:54 J -43143588.54 -43143588.38 -43143588.21 0.0148 0.0071
 Mercury -122834-07-15 11:32 J -43143500.20 -43143500.02 -43143499.83 0.0148 0.0040
 Mercury -122834-10-11 20:25 J -43143411.84 -43143411.65 -43143411.45 0.0148 0.0009
 Mercury -122833-01-08 05:18 J -43143323.46 -43143323.28 -43143323.09 0.0148 0.0025
 Mercury -122833-04-05 14:10 J -43143235.08 -43143234.91 -43143234.73 0.0148 0.0056
 Mercury -122833-07-02 23:03 J -43143146.69 -43143146.54 -43143146.38 0.0148 0.0088
 Mercury -122833-09-29 07:56 J -43143058.27 -43143058.17 -43143058.05 0.0148 0.0120
 Mars -122829-03-06 11:03 J -43141804.27 -43141804.04 -43141803.77 0.0147 0.0076
 Venus -122825-04-11 19:13 J -43140306.80 -43140306.70 -43140306.56 0.0145 0.0124
 Venus -122825-11-24 11:32 J -43140080.19 -43140080.02 -43140079.85 0.0145 0.0094
 Venus -122824-07-09 03:22 J -43139853.56 -43139853.36 -43139853.15 0.0145 0.0066
 Venus -122823-02-20 18:58 J -43139626.92 -43139626.71 -43139626.48 0.0144 0.0037
 Venus -122823-10-05 10:20 J -43139400.29 -43139400.07 -43139399.84 0.0144 0.0009
 Venus -122822-05-20 01:27 J -43139173.66 -43139173.44 -43139173.21 0.0144 0.0020
 Venus -122821-01-01 16:06 J -43138947.03 -43138946.83 -43138946.60 0.0143 0.0049
 Venus -122821-08-15 07:13 J -43138720.39 -43138720.20 -43138720.01 0.0143 0.0075
 Venus -122820-03-29 21:08 J -43138493.76 -43138493.62 -43138493.44 0.0142 0.0103
 Venus -122820-11-11 11:32 J -43138267.11 -43138267.02 -43138266.92 0.0142 0.0129
 Earth -122798-01-30 00:58 J -43130517.69 -43130517.46 -43130517.21 0.0131 0.0034
 Moon -122798-01-30 03:08 J -43130517.60 -43130517.37 -43130517.13 0.0131 0.0032 *
 Moon -122797-02-02 21:51 J -43130148.80 -43130148.59 -43130148.38 0.0131 0.0073
 Earth -122797-02-03 00:01 J -43130148.70 -43130148.50 -43130148.29 0.0131 0.0073 *
 Mercury -122793-05-14 08:10 J -43128586.21 -43128586.16 -43128586.10 0.0131 0.0119

Mercury -122793-08-10 11:03 J -43128498.11 -43128498.04 -43128497.95 0.0131 0.0104
 Mercury -122793-11-06 14:10 J -43128410.00 -43128409.91 -43128409.81 0.0131 0.0088
 Mercury -122792-02-02 17:18 J -43128321.89 -43128321.78 -43128321.67 0.0131 0.0073
 Mercury -122792-05-01 20:10 J -43128233.78 -43128233.66 -43128233.54 0.0131 0.0058
 Mercury -122792-07-28 23:03 J -43128145.66 -43128145.54 -43128145.41 0.0131 0.0043
 Mercury -122792-10-25 01:56 J -43128057.55 -43128057.42 -43128057.28 0.0131 0.0028
 Mercury -122791-01-21 05:03 J -43127969.43 -43127969.29 -43127969.16 0.0131 0.0013
 Mercury -122791-04-19 07:56 J -43127881.31 -43127881.17 -43127881.04 0.0131 0.0004
 Mercury -122791-07-16 10:49 J -43127793.18 -43127793.05 -43127792.92 0.0131 0.0018
 Mercury -122791-10-12 13:42 J -43127705.06 -43127704.93 -43127704.80 0.0131 0.0033
 Mercury -122790-01-08 16:34 J -43127616.93 -43127616.81 -43127616.69 0.0131 0.0048
 Mercury -122790-04-06 19:27 J -43127528.81 -43127528.69 -43127528.57 0.0131 0.0063
 Mercury -122790-07-03 22:20 J -43127440.68 -43127440.57 -43127440.46 0.0131 0.0078
 Mercury -122790-09-30 00:58 J -43127352.54 -43127352.46 -43127352.36 0.0131 0.0093
 Mercury -122790-12-27 03:51 J -43127264.40 -43127264.34 -43127264.25 0.0131 0.0108
 Mercury -122789-03-24 06:44 J -43127176.25 -43127176.22 -43127176.16 0.0131 0.0123
 Mars -122785-05-29 11:32 J -43125649.34 -43125649.02 -43125648.69 0.0132 0.0015
 Venus -122781-04-07 07:27 J -43124240.26 -43124240.19 -43124240.08 0.0133 0.0121
 Venus -122781-11-19 10:06 J -43124014.20 -43124014.08 -43124013.93 0.0133 0.0100
 Venus -122780-07-03 12:44 J -43123788.12 -43123787.97 -43123787.79 0.0134 0.0080
 Venus -122779-02-14 15:51 J -43123562.03 -43123561.84 -43123561.65 0.0134 0.0059
 Venus -122779-09-28 18:44 J -43123335.92 -43123335.72 -43123335.52 0.0134 0.0039
 Venus -122778-05-12 21:37 J -43123109.81 -43123109.60 -43123109.39 0.0135 0.0017
 Venus -122778-12-25 00:44 J -43122883.68 -43122883.47 -43122883.26 0.0135 0.0004
 Venus -122777-08-07 03:51 J -43122657.54 -43122657.34 -43122657.13 0.0135 0.0026
 Venus -122776-03-21 07:27 J -43122431.38 -43122431.19 -43122430.99 0.0136 0.0047
 Venus -122776-11-02 10:49 J -43122205.22 -43122205.05 -43122204.86 0.0136 0.0069
 Venus -122775-06-16 14:54 J -43121979.03 -43121978.88 -43121978.72 0.0137 0.0091
 Venus -122774-01-28 18:44 J -43121752.82 -43121752.72 -43121752.59 0.0137 0.0113
 Venus -122774-09-11 22:49 J -43121526.56 -43121526.55 -43121526.50 0.0137 0.0136

Moon -122755-07-24 23:03 J -43114635.80 -43114635.54 -43114635.28 0.0148 0.0018
 Earth -122755-07-25 02:54 J -43114635.64 -43114635.38 -43114635.12 0.0148 0.0012 *
 Mercury -122751-11-12 16:34 J -43113063.90 -43113063.81 -43113063.71 0.0148 0.0127
 Mercury -122750-02-09 01:13 J -43112975.59 -43112975.45 -43112975.30 0.0148 0.0095
 Mercury -122750-05-08 09:51 J -43112887.25 -43112887.09 -43112886.91 0.0148 0.0064
 Mercury -122750-08-04 18:44 J -43112798.90 -43112798.72 -43112798.53 0.0148 0.0033
 Mercury -122750-11-01 03:51 J -43112710.54 -43112710.34 -43112710.15 0.0148 0.0003
 Mercury -122749-01-28 12:30 J -43112622.16 -43112621.98 -43112621.79 0.0148 0.0032
 Mercury -122749-04-25 21:22 J -43112533.78 -43112533.61 -43112533.43 0.0148 0.0063
 Mercury -122749-07-23 06:15 J -43112445.38 -43112445.24 -43112445.09 0.0148 0.0095
 Mercury -122749-10-19 15:08 J -43112356.96 -43112356.87 -43112356.77 0.0148 0.0127
 Mars -122745-10-30 18:58 J -43110885.00 -43110884.71 -43110884.42 0.0147 0.0006
 Venus -122742-12-11 00:01 J -43109748.56 -43109748.50 -43109748.42 0.0146 0.0138
 Venus -122741-07-24 16:06 J -43109521.96 -43109521.83 -43109521.66 0.0145 0.0110
 Venus -122740-03-08 08:10 J -43109295.33 -43109295.16 -43109294.96 0.0145 0.0080
 Venus -122740-10-21 00:15 J -43109068.70 -43109068.49 -43109068.28 0.0145 0.0051
 Venus -122739-06-04 15:37 J -43108842.07 -43108841.85 -43108841.62 0.0144 0.0022
 Venus -122738-01-17 06:58 J -43108615.43 -43108615.21 -43108614.98 0.0144 0.0007
 Venus -122738-08-31 22:20 J -43108388.79 -43108388.57 -43108388.35 0.0143 0.0035
 Venus -122737-04-14 12:44 J -43108162.16 -43108161.97 -43108161.75 0.0143 0.0063
 Venus -122737-11-27 03:08 J -43107935.53 -43107935.37 -43107935.18 0.0143 0.0091
 Venus -122736-07-11 17:32 J -43107708.88 -43107708.77 -43107708.63 0.0142 0.0117
 Earth -122714-01-30 12:44 J -43099836.21 -43099835.97 -43099835.72 0.0131 0.0028
 Moon -122714-01-30 14:54 J -43099836.11 -43099835.88 -43099835.64 0.0131 0.0029 *
 Moon -122713-02-03 09:51 J -43099467.29 -43099467.09 -43099466.88 0.0131 0.0075
 Earth -122713-02-03 11:46 J -43099467.20 -43099467.01 -43099466.81 0.0131 0.0078 *
 Mercury -122709-03-07 12:30 J -43097972.99 -43097972.98 -43097972.96 0.0130 0.0130
 Mercury -122709-06-03 15:22 J -43097884.92 -43097884.86 -43097884.79 0.0130 0.0115
 Mercury -122709-08-30 18:15 J -43097796.81 -43097796.74 -43097796.64 0.0130 0.0100
 Mercury -122709-11-26 21:22 J -43097708.71 -43097708.61 -43097708.50 0.0130 0.0084

Mercury -122708-02-23 00:15 J -43097620.60 -43097620.49 -43097620.37 0.0130 0.0069

Mercury -122708-05-22 03:22 J -43097532.48 -43097532.36 -43097532.24 0.0131 0.0054

Mercury -122708-08-18 06:15 J -43097444.37 -43097444.24 -43097444.11 0.0131 0.0039

Mercury -122708-11-14 09:08 J -43097356.25 -43097356.12 -43097355.99 0.0131 0.0024

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Mercury -122707-05-09 14:54 J -43097180.01 -43097179.88 -43097179.74 0.0131 0.0008

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Mercury -122707-11-01 20:39 J -43097003.76 -43097003.64 -43097003.51 0.0131 0.0037

Mercury -122706-01-28 23:32 J -43096915.63 -43096915.52 -43096915.39 0.0131 0.0052

Mercury -122706-04-27 02:25 J -43096827.51 -43096827.40 -43096827.28 0.0131 0.0067

Mercury -122706-07-24 05:18 J -43096739.38 -43096739.28 -43096739.17 0.0131 0.0082

Mercury -122706-10-20 08:25 J -43096651.24 -43096651.15 -43096651.06 0.0131 0.0096

Mercury -122705-01-16 11:03 J -43096563.10 -43096563.04 -43096562.96 0.0131 0.0111

Mercury -122705-04-13 13:56 J -43096474.94 -43096474.92 -43096474.88 0.0131 0.0126

Mars -122700-01-22 12:15 J -43094730.27 -43094729.99 -43094729.66 0.0132 0.0051

Venus -122698-12-06 18:58 J -43093681.73 -43093681.71 -43093681.67 0.0133 0.0131

Venus -122697-07-19 21:22 J -43093455.71 -43093455.61 -43093455.48 0.0133 0.0112

Venus -122696-03-03 00:15 J -43093229.64 -43093229.49 -43093229.34 0.0134 0.0091

Venus -122696-10-15 02:39 J -43093003.56 -43093003.39 -43093003.21 0.0134 0.0071

Venus -122695-05-29 05:18 J -43092777.47 -43092777.28 -43092777.08 0.0134 0.0050

Venus -122694-01-10 08:25 J -43092551.36 -43092551.15 -43092550.95 0.0134 0.0029

Venus -122694-08-24 11:18 J -43092325.24 -43092325.03 -43092324.82 0.0135 0.0007

Venus -122693-04-06 14:25 J -43092099.11 -43092098.90 -43092098.69 0.0135 0.0014

Venus -122693-11-18 17:32 J -43091872.97 -43091872.77 -43091872.56 0.0135 0.0036

Venus -122692-07-02 20:54 J -43091646.81 -43091646.63 -43091646.43 0.0136 0.0058

Venus -122691-02-14 00:30 J -43091420.63 -43091420.48 -43091420.29 0.0136 0.0081

Venus -122691-09-28 04:34 J -43091194.44 -43091194.31 -43091194.16 0.0137 0.0102

Venus -122690-05-12 08:25 J -43090968.22 -43090968.15 -43090968.05 0.0137 0.0124

Moon -122671-07-25 04:49 J -43083954.56 -43083954.30 -43083954.04 0.0148 0.0005

Earth -122671-07-25 08:10 J -43083954.42 -43083954.16 -43083953.90 0.0148 0.0011 *

Mercury -122667-12-02 22:20 J -43082362.66 -43082362.57 -43082362.45 0.0148 0.0125

Mercury -122666-03-01 07:27 J -43082274.34 -43082274.19 -43082274.04 0.0148 0.0093

Mercury -122666-05-28 16:06 J -43082186.00 -43082185.83 -43082185.65 0.0148 0.0061

Mercury -122666-08-25 00:58 J -43082097.65 -43082097.46 -43082097.27 0.0148 0.0030

Mercury -122666-11-21 09:51 J -43082009.28 -43082009.09 -43082008.90 0.0148 0.0003

Mercury -122665-02-17 18:30 J -43081920.91 -43081920.73 -43081920.54 0.0148 0.0034

Mercury -122665-05-16 03:22 J -43081832.53 -43081832.36 -43081832.18 0.0148 0.0066

Mercury -122665-08-12 12:01 J -43081744.13 -43081744.00 -43081743.84 0.0148 0.0099

Mercury -122665-11-08 20:54 J -43081655.70 -43081655.63 -43081655.52 0.0148 0.0130

Mars -122662-07-24 05:32 J -43080668.27 -43080668.27 -43080668.23 0.0148 0.0148

Mars -122660-06-25 20:10 J -43079965.89 -43079965.66 -43079965.41 0.0147 0.0082

Venus -122657-03-23 18:15 J -43078963.85 -43078963.74 -43078963.63 0.0146 0.0126

Venus -122657-11-05 10:20 J -43078737.23 -43078737.07 -43078736.90 0.0145 0.0097

Venus -122656-06-20 02:25 J -43078510.60 -43078510.40 -43078510.20 0.0145 0.0067

Venus -122655-02-01 18:01 J -43078283.96 -43078283.75 -43078283.52 0.0145 0.0038

Venus -122655-09-16 09:37 J -43078057.32 -43078057.10 -43078056.87 0.0144 0.0009

Venus -122654-05-01 00:58 J -43077830.69 -43077830.46 -43077830.24 0.0144 0.0020

Venus -122654-12-13 15:51 J -43077604.05 -43077603.84 -43077603.62 0.0143 0.0048

Venus -122653-07-27 06:44 J -43077377.41 -43077377.22 -43077377.02 0.0143 0.0076

Venus -122652-03-10 21:08 J -43077150.77 -43077150.62 -43077150.46 0.0143 0.0104

Venus -122652-10-23 10:49 J -43076924.11 -43076924.05 -43076923.94 0.0142 0.0132

Earth -122631-01-27 00:01 J -43069523.50 -43069523.50 -43069523.47 0.0131 0.0131

Earth -122630-01-31 00:01 J -43069154.74 -43069154.50 -43069154.25 0.0131 0.0023

Moon -122630-01-31 01:56 J -43069154.65 -43069154.42 -43069154.18 0.0131 0.0024 *

Moon -122629-02-03 20:25 J -43068785.82 -43068785.65 -43068785.44 0.0131 0.0085

Earth -122629-02-03 22:49 J -43068785.73 -43068785.55 -43068785.34 0.0131 0.0083 *

Mercury -122625-03-27 19:42 J -43067271.71 -43067271.68 -43067271.65 0.0130 0.0126

Mercury -122625-06-23 22:34 J -43067183.62 -43067183.56 -43067183.49 0.0130 0.0111

Mercury -122625-09-20 01:27 J -43067095.52 -43067095.44 -43067095.34 0.0130 0.0096

Mercury -122625-12-17 04:20 J -43067007.41 -43067007.32 -43067007.20 0.0130 0.0081

Mercury -122624-03-15 07:27 J -43066919.30 -43066919.19 -43066919.07 0.0130 0.0065

Mercury -122624-06-11 10:20 J -43066831.19 -43066831.07 -43066830.94 0.0130 0.0050

Mercury -122624-09-07 13:13 J -43066743.07 -43066742.95 -43066742.81 0.0130 0.0036

Mercury -122624-12-04 16:20 J -43066654.95 -43066654.82 -43066654.69 0.0130 0.0020

Mercury -122623-03-02 19:13 J -43066566.83 -43066566.70 -43066566.57 0.0131 0.0005

Mercury -122623-05-29 22:06 J -43066478.71 -43066478.58 -43066478.45 0.0131 0.0010

Mercury -122623-08-26 00:58 J -43066390.59 -43066390.46 -43066390.33 0.0131 0.0025

Mercury -122623-11-22 03:51 J -43066302.47 -43066302.34 -43066302.21 0.0131 0.0040

Mercury -122622-02-18 06:44 J -43066214.34 -43066214.22 -43066214.10 0.0131 0.0055

Mercury -122622-05-17 09:37 J -43066126.21 -43066126.10 -43066125.99 0.0131 0.0070

Mercury -122622-08-13 12:30 J -43066038.08 -43066037.98 -43066037.88 0.0131 0.0085

Mercury -122622-11-09 15:22 J -43065949.94 -43065949.86 -43065949.77 0.0131 0.0100

Mercury -122621-02-05 18:01 J -43065861.80 -43065861.75 -43065861.68 0.0131 0.0115

Mercury -122621-05-03 20:54 J -43065773.63 -43065773.63 -43065773.60 0.0131 0.0130

Mars -122618-10-15 18:44 J -43064513.98 -43064513.72 -43064513.42 0.0131 0.0069

Mars -122616-09-17 14:25 J -43063811.02 -43063810.90 -43063810.72 0.0132 0.0117

Venus -122613-03-19 08:39 J -43062897.20 -43062897.14 -43062897.04 0.0133 0.0122

Venus -122613-10-31 11:03 J -43062671.16 -43062671.04 -43062670.89 0.0133 0.0102

Venus -122612-06-14 13:42 J -43062445.09 -43062444.93 -43062444.76 0.0134 0.0082

Venus -122611-01-26 16:20 J -43062219.00 -43062218.82 -43062218.63 0.0134 0.0061

Venus -122611-09-09 19:13 J -43061992.90 -43061992.70 -43061992.50 0.0134 0.0040

Venus -122610-04-23 21:51 J -43061766.79 -43061766.59 -43061766.38 0.0134 0.0019

Venus -122610-12-06 00:58 J -43061540.67 -43061540.46 -43061540.25 0.0135 0.0003

Venus -122609-07-19 04:06 J -43061314.53 -43061314.33 -43061314.12 0.0135 0.0025

Venus -122608-03-02 07:27 J -43061088.38 -43061088.19 -43061087.99 0.0136 0.0047

Venus -122608-10-14 10:49 J -43060862.22 -43060862.05 -43060861.86 0.0136 0.0069

Venus -122607-05-28 14:25 J -43060636.04 -43060635.90 -43060635.73 0.0136 0.0091

Venus -122606-01-09 18:15 J -43060409.84 -43060409.74 -43060409.61 0.0137 0.0113

Venus -122606-08-23 22:34 J -43060183.58 -43060183.56 -43060183.52 0.0137 0.0135

Moon -122587-07-25 09:51 J -43053273.34 -43053273.09 -43053272.83 0.0148 0.0017

Earth -122587-07-25 13:42 J -43053273.19 -43053272.93 -43053272.67 0.0148 0.0009 *
 Mercury -122583-12-23 04:34 J -43051661.41 -43051661.31 -43051661.20 0.0148 0.0121
 Mercury -122582-03-21 13:13 J -43051573.09 -43051572.95 -43051572.79 0.0148 0.0090
 Mercury -122582-06-17 22:06 J -43051484.75 -43051484.58 -43051484.40 0.0148 0.0059
 Mercury -122582-09-14 06:58 J -43051396.40 -43051396.21 -43051396.02 0.0148 0.0027
 Mercury -122582-12-11 15:51 J -43051308.03 -43051307.84 -43051307.65 0.0148 0.0005
 Mercury -122581-03-09 00:30 J -43051219.66 -43051219.48 -43051219.29 0.0148 0.0037
 Mercury -122581-06-05 09:37 J -43051131.27 -43051131.10 -43051130.93 0.0148 0.0069
 Mercury -122581-09-01 18:30 J -43051042.87 -43051042.73 -43051042.59 0.0148 0.0101
 Mercury -122581-11-29 02:54 J -43050954.44 -43050954.38 -43050954.28 0.0148 0.0134
 Mars -122577-03-18 06:44 J -43049749.46 -43049749.22 -43049748.95 0.0147 0.0071
 Venus -122574-11-21 19:56 J -43048405.70 -43048405.67 -43048405.63 0.0146 0.0143
 Venus -122573-07-05 12:15 J -43048179.12 -43048178.99 -43048178.84 0.0146 0.0114
 Venus -122572-02-17 04:20 J -43047952.49 -43047952.32 -43047952.13 0.0145 0.0084
 Venus -122572-10-01 20:25 J -43047725.86 -43047725.65 -43047725.44 0.0145 0.0054
 Venus -122571-05-16 12:01 J -43047499.22 -43047499.00 -43047498.78 0.0144 0.0025
 Venus -122571-12-29 03:22 J -43047272.58 -43047272.36 -43047272.13 0.0144 0.0005
 Venus -122570-08-12 18:30 J -43047045.94 -43047045.73 -43047045.50 0.0144 0.0034
 Venus -122569-03-26 09:22 J -43046819.30 -43046819.11 -43046818.89 0.0143 0.0062
 Venus -122569-11-08 00:01 J -43046592.66 -43046592.50 -43046592.31 0.0143 0.0090
 Venus -122568-06-22 14:10 J -43046366.02 -43046365.91 -43046365.76 0.0143 0.0118
 Moon -122547-01-27 08:54 J -43038842.19 -43038842.13 -43038842.03 0.0131 0.0124
 Earth -122547-01-27 11:18 J -43038842.08 -43038842.03 -43038841.95 0.0131 0.0127 *
 Earth -122546-01-31 11:32 J -43038473.26 -43038473.02 -43038472.77 0.0131 0.0019
 Moon -122546-01-31 13:56 J -43038473.16 -43038472.92 -43038472.68 0.0131 0.0018 *
 Moon -122545-02-04 08:39 J -43038104.32 -43038104.14 -43038103.93 0.0131 0.0083
 Earth -122545-02-04 10:49 J -43038104.23 -43038104.05 -43038103.87 0.0131 0.0087 *
 Mercury -122541-04-17 02:54 J -43036570.42 -43036570.38 -43036570.33 0.0131 0.0122
 Mercury -122541-07-14 05:46 J -43036482.33 -43036482.26 -43036482.18 0.0131 0.0107
 Mercury -122541-10-10 08:39 J -43036394.22 -43036394.14 -43036394.03 0.0131 0.0092

Mercury -122540-01-06 11:46 J -43036306.11 -43036306.01 -43036305.90 0.0131 0.0076

Mercury -122540-04-04 14:39 J -43036218.00 -43036217.89 -43036217.77 0.0131 0.0061

Mercury -122540-07-01 17:46 J -43036129.89 -43036129.76 -43036129.64 0.0131 0.0046

Mercury -122540-09-27 20:39 J -43036041.77 -43036041.64 -43036041.51 0.0131 0.0031

Mercury -122540-12-24 23:32 J -43035953.65 -43035953.52 -43035953.38 0.0131 0.0016

Mercury -122539-03-23 02:25 J -43035865.53 -43035865.40 -43035865.26 0.0131 0.0003

Mercury -122539-06-19 05:18 J -43035777.41 -43035777.28 -43035777.14 0.0131 0.0015

Mercury -122539-09-15 08:10 J -43035689.28 -43035689.16 -43035689.02 0.0131 0.0030

Mercury -122539-12-12 11:03 J -43035601.16 -43035601.04 -43035600.91 0.0131 0.0045

Mercury -122538-03-10 13:56 J -43035513.03 -43035512.92 -43035512.80 0.0131 0.0060

Mercury -122538-06-06 16:49 J -43035424.90 -43035424.80 -43035424.68 0.0131 0.0074

Mercury -122538-09-02 19:56 J -43035336.77 -43035336.67 -43035336.58 0.0131 0.0089

Mercury -122538-11-29 22:34 J -43035248.63 -43035248.56 -43035248.47 0.0131 0.0104

Mercury -122537-02-26 01:27 J -43035160.49 -43035160.44 -43035160.38 0.0131 0.0119

Mars -122533-06-10 01:42 J -43033594.76 -43033594.43 -43033594.10 0.0132 0.0002

Venus -122530-11-17 21:37 J -43032338.60 -43032338.60 -43032338.57 0.0133 0.0133

Venus -122529-07-01 00:01 J -43032112.60 -43032112.50 -43032112.38 0.0133 0.0113

Venus -122528-02-12 02:25 J -43031886.53 -43031886.40 -43031886.23 0.0133 0.0093

Venus -122528-09-26 05:18 J -43031660.46 -43031660.28 -43031660.10 0.0134 0.0071

Venus -122527-05-10 07:42 J -43031434.37 -43031434.18 -43031433.98 0.0134 0.0050

Venus -122527-12-22 10:34 J -43031208.26 -43031208.06 -43031207.85 0.0134 0.0029

Venus -122526-08-05 13:27 J -43030982.14 -43030981.94 -43030981.73 0.0135 0.0008

Venus -122525-03-18 16:34 J -43030756.01 -43030755.81 -43030755.60 0.0135 0.0015

Venus -122525-10-30 19:56 J -43030529.87 -43030529.67 -43030529.47 0.0135 0.0036

Venus -122524-06-13 23:03 J -43030303.72 -43030303.54 -43030303.34 0.0136 0.0059

Venus -122523-01-26 02:39 J -43030077.54 -43030077.39 -43030077.21 0.0136 0.0081

Venus -122523-09-09 06:30 J -43029851.35 -43029851.23 -43029851.08 0.0136 0.0104

Venus -122522-04-23 10:34 J -43029625.13 -43029625.06 -43029624.97 0.0137 0.0126

Earth -122504-07-20 13:13 J -43022961.96 -43022961.95 -43022961.90 0.0148 0.0147

Moon -122504-07-20 16:49 J -43022961.86 -43022961.80 -43022961.73 0.0148 0.0142

Moon -122503-07-25 20:54 J -43022591.88 -43022591.63 -43022591.37 0.0148 0.0009
 Earth -122503-07-26 00:30 J -43022591.74 -43022591.48 -43022591.23 0.0148 0.0015 *
 Mercury -122499-10-16 03:08 J -43021048.39 -43021048.37 -43021048.32 0.0148 0.0146
 Mercury -122498-01-12 12:01 J -43020960.11 -43020960.00 -43020959.87 0.0148 0.0114
 Mercury -122498-04-10 20:54 J -43020871.78 -43020871.63 -43020871.47 0.0148 0.0083
 Mercury -122498-07-08 05:32 J -43020783.44 -43020783.27 -43020783.08 0.0148 0.0051
 Mercury -122498-10-04 14:25 J -43020695.09 -43020694.90 -43020694.71 0.0148 0.0020
 Mercury -122498-12-31 23:18 J -43020606.72 -43020606.53 -43020606.34 0.0148 0.0012
 Mercury -122497-03-29 07:56 J -43020518.34 -43020518.17 -43020517.98 0.0148 0.0045
 Mercury -122497-06-25 16:49 J -43020429.95 -43020429.80 -43020429.63 0.0148 0.0076
 Mercury -122497-09-22 01:42 J -43020341.55 -43020341.43 -43020341.29 0.0148 0.0108
 Mercury -122497-12-19 10:34 J -43020253.11 -43020253.06 -43020252.99 0.0148 0.0140
 Mars -122493-11-11 15:08 J -43018830.16 -43018829.87 -43018829.58 0.0147 0.0010
 Venus -122489-03-04 16:06 J -43017620.91 -43017620.83 -43017620.71 0.0146 0.0130
 Venus -122489-10-17 08:10 J -43017394.30 -43017394.16 -43017393.98 0.0145 0.0101
 Venus -122488-06-01 00:15 J -43017167.68 -43017167.49 -43017167.28 0.0145 0.0071
 Venus -122487-01-13 16:06 J -43016941.04 -43016940.83 -43016940.60 0.0145 0.0041
 Venus -122487-08-28 07:56 J -43016714.40 -43016714.17 -43016713.94 0.0144 0.0011
 Venus -122486-04-11 23:03 J -43016487.76 -43016487.54 -43016487.31 0.0144 0.0019
 Venus -122486-11-24 14:10 J -43016261.12 -43016260.91 -43016260.69 0.0144 0.0048
 Venus -122485-07-08 04:49 J -43016034.48 -43016034.30 -43016034.10 0.0143 0.0076
 Venus -122484-02-19 19:27 J -43015807.84 -43015807.69 -43015807.53 0.0143 0.0104
 Venus -122484-10-04 09:37 J -43015581.17 -43015581.10 -43015581.01 0.0142 0.0132
 Moon -122463-01-27 20:39 J -43008160.71 -43008160.64 -43008160.53 0.0131 0.0123
 Earth -122463-01-27 23:32 J -43008160.60 -43008160.52 -43008160.40 0.0131 0.0120 *
 Earth -122462-01-31 23:46 J -43007791.75 -43007791.51 -43007791.26 0.0131 0.0013
 Moon -122462-02-01 02:25 J -43007791.64 -43007791.40 -43007791.16 0.0131 0.0014 *
 Moon -122461-02-04 19:42 J -43007422.83 -43007422.68 -43007422.49 0.0131 0.0096
 Earth -122461-02-04 22:34 J -43007422.71 -43007422.56 -43007422.36 0.0131 0.0094 *
 Mercury -122457-05-07 10:20 J -43005869.13 -43005869.07 -43005869.01 0.0131 0.0117

Mercury -122457-08-03 13:13 J -43005781.03 -43005780.95 -43005780.86 0.0131 0.0102

Mercury -122457-10-30 16:06 J -43005692.92 -43005692.83 -43005692.72 0.0131 0.0087

Mercury -122456-01-26 19:13 J -43005604.81 -43005604.70 -43005604.59 0.0131 0.0072

Mercury -122456-04-24 22:06 J -43005516.70 -43005516.58 -43005516.46 0.0131 0.0056

Mercury -122456-07-22 00:58 J -43005428.58 -43005428.46 -43005428.33 0.0131 0.0042

Mercury -122456-10-18 04:06 J -43005340.46 -43005340.33 -43005340.20 0.0131 0.0026

Mercury -122455-01-14 06:58 J -43005252.34 -43005252.21 -43005252.08 0.0131 0.0011

Mercury -122455-04-12 09:51 J -43005164.22 -43005164.09 -43005163.96 0.0131 0.0004

Mercury -122455-07-09 12:44 J -43005076.10 -43005075.97 -43005075.84 0.0131 0.0019

Mercury -122455-10-05 15:37 J -43004987.98 -43004987.85 -43004987.72 0.0131 0.0034

Mercury -122454-01-01 18:30 J -43004899.85 -43004899.73 -43004899.60 0.0131 0.0049

Mercury -122454-03-30 21:22 J -43004811.72 -43004811.61 -43004811.49 0.0131 0.0064

Mercury -122454-06-27 00:15 J -43004723.59 -43004723.49 -43004723.38 0.0131 0.0079

Mercury -122454-09-23 03:08 J -43004635.46 -43004635.37 -43004635.27 0.0131 0.0094

Mercury -122454-12-20 06:01 J -43004547.32 -43004547.25 -43004547.17 0.0131 0.0109

Mercury -122453-03-17 08:54 J -43004459.17 -43004459.13 -43004459.08 0.0131 0.0124

Mars -122450-03-03 11:46 J -43003378.12 -43003378.01 -43003377.85 0.0131 0.0120

Mars -122448-02-03 07:42 J -43002675.44 -43002675.18 -43002674.88 0.0132 0.0067

Venus -122445-02-29 12:58 J -43001554.02 -43001553.96 -43001553.87 0.0133 0.0123

Venus -122445-10-12 15:22 J -43001327.98 -43001327.86 -43001327.72 0.0133 0.0102

Venus -122444-05-26 17:46 J -43001101.91 -43001101.76 -43001101.58 0.0134 0.0082

Venus -122443-01-07 20:25 J -43000875.82 -43000875.65 -43000875.45 0.0134 0.0061

Venus -122443-08-21 23:18 J -43000649.73 -43000649.53 -43000649.33 0.0134 0.0039

Venus -122442-04-05 02:10 J -43000423.62 -43000423.41 -43000423.20 0.0134 0.0017

Venus -122442-11-17 05:18 J -43000197.49 -43000197.28 -43000197.08 0.0135 0.0005

Venus -122441-06-30 08:25 J -42999971.36 -42999971.15 -42999970.95 0.0135 0.0026

Venus -122440-02-11 11:46 J -42999745.20 -42999745.01 -42999744.81 0.0135 0.0049

Venus -122440-09-25 15:08 J -42999519.04 -42999518.87 -42999518.68 0.0136 0.0071

Venus -122439-05-09 18:58 J -42999292.86 -42999292.71 -42999292.56 0.0136 0.0093

Venus -122439-12-21 23:03 J -42999066.65 -42999066.54 -42999066.43 0.0137 0.0116

Earth -122420-07-21 03:22 J -42992280.45 -42992280.36 -42992280.26 0.0148 0.0136
 Moon -122420-07-21 04:20 J -42992280.40 -42992280.32 -42992280.19 0.0148 0.0136 *
 Moon -122419-07-26 11:18 J -42991910.27 -42991910.03 -42991909.78 0.0148 0.0031
 Earth -122419-07-26 14:10 J -42991910.17 -42991909.91 -42991909.65 0.0148 0.0025 *
 Mercury -122415-11-05 12:01 J -42990347.07 -42990347.00 -42990346.91 0.0149 0.0134
 Mercury -122414-02-01 20:39 J -42990258.76 -42990258.64 -42990258.49 0.0149 0.0103
 Mercury -122414-05-01 05:32 J -42990170.43 -42990170.27 -42990170.10 0.0149 0.0071
 Mercury -122414-07-28 14:25 J -42990082.08 -42990081.90 -42990081.72 0.0148 0.0040
 Mercury -122414-10-24 23:18 J -42989993.72 -42989993.53 -42989993.34 0.0148 0.0008
 Mercury -122413-01-21 07:56 J -42989905.35 -42989905.17 -42989904.98 0.0148 0.0024
 Mercury -122413-04-18 16:34 J -42989816.97 -42989816.81 -42989816.62 0.0148 0.0057
 Mercury -122413-07-16 01:27 J -42989728.58 -42989728.44 -42989728.27 0.0148 0.0089
 Mercury -122413-10-12 10:20 J -42989640.17 -42989640.07 -42989639.94 0.0148 0.0120
 Mars -122410-08-05 14:25 J -42988613.00 -42988612.90 -42988612.77 0.0148 0.0136
 Mars -122408-07-08 06:15 J -42987910.44 -42987910.24 -42987910.00 0.0147 0.0096
 Venus -122406-11-02 22:49 J -42987062.58 -42987062.55 -42987062.52 0.0146 0.0144
 Venus -122405-06-16 14:39 J -42986836.01 -42986835.89 -42986835.73 0.0146 0.0115
 Venus -122404-01-29 06:58 J -42986609.38 -42986609.21 -42986609.02 0.0145 0.0084
 Venus -122404-09-12 22:49 J -42986382.75 -42986382.55 -42986382.33 0.0145 0.0054
 Venus -122403-04-27 14:39 J -42986156.11 -42986155.89 -42986155.67 0.0145 0.0024
 Venus -122403-12-10 06:01 J -42985929.48 -42985929.25 -42985929.02 0.0144 0.0006
 Venus -122402-07-24 21:22 J -42985702.83 -42985702.61 -42985702.39 0.0144 0.0035
 Venus -122401-03-07 12:15 J -42985476.19 -42985475.99 -42985475.79 0.0143 0.0064
 Venus -122401-10-20 02:54 J -42985249.55 -42985249.38 -42985249.21 0.0143 0.0092
 Venus -122400-06-03 16:49 J -42985022.90 -42985022.80 -42985022.66 0.0143 0.0121
 Moon -122379-01-28 10:20 J -42977479.19 -42977479.07 -42977478.90 0.0131 0.0108
 Earth -122379-01-28 14:10 J -42977479.03 -42977478.91 -42977478.77 0.0131 0.0112 *
 Earth -122378-02-01 14:25 J -42977110.15 -42977109.90 -42977109.65 0.0131 0.0005
 Moon -122378-02-01 17:46 J -42977110.00 -42977109.76 -42977109.51 0.0131 0.0007 *
 Moon -122377-02-05 10:06 J -42976741.23 -42976741.08 -42976740.92 0.0131 0.0100

Earth -122377-02-05 12:58 J -42976741.09 -42976740.96 -42976740.78 0.0131 0.0102 *
 Mercury -122373-02-29 14:54 J -42975255.90 -42975255.88 -42975255.84 0.0131 0.0126
 Mercury -122373-05-27 18:01 J -42975167.82 -42975167.75 -42975167.68 0.0131 0.0111
 Mercury -122373-08-23 20:54 J -42975079.71 -42975079.63 -42975079.53 0.0131 0.0096
 Mercury -122373-11-19 23:46 J -42974991.61 -42974991.51 -42974991.40 0.0131 0.0081
 Mercury -122372-02-16 02:54 J -42974903.49 -42974903.38 -42974903.26 0.0131 0.0066
 Mercury -122372-05-15 05:46 J -42974815.38 -42974815.26 -42974815.13 0.0131 0.0051
 Mercury -122372-08-11 08:39 J -42974727.26 -42974727.14 -42974727.00 0.0131 0.0036
 Mercury -122372-11-07 11:46 J -42974639.14 -42974639.01 -42974638.88 0.0131 0.0020
 Mercury -122371-02-03 14:39 J -42974551.02 -42974550.89 -42974550.76 0.0131 0.0005
 Mercury -122371-05-02 17:32 J -42974462.90 -42974462.77 -42974462.63 0.0131 0.0010
 Mercury -122371-07-29 20:25 J -42974374.78 -42974374.65 -42974374.52 0.0131 0.0025
 Mercury -122371-10-25 23:18 J -42974286.65 -42974286.53 -42974286.40 0.0131 0.0040
 Mercury -122370-01-22 02:10 J -42974198.53 -42974198.41 -42974198.28 0.0131 0.0055
 Mercury -122370-04-20 05:03 J -42974110.40 -42974110.29 -42974110.17 0.0131 0.0070
 Mercury -122370-07-17 07:56 J -42974022.26 -42974022.17 -42974022.06 0.0131 0.0085
 Mercury -122370-10-13 10:49 J -42973934.13 -42973934.05 -42973933.96 0.0131 0.0100
 Mercury -122369-01-09 13:42 J -42973845.98 -42973845.93 -42973845.86 0.0131 0.0115
 Mercury -122369-04-06 16:34 J -42973757.82 -42973757.81 -42973757.79 0.0131 0.0130
 Mars -122366-10-27 23:03 J -42972458.83 -42972458.54 -42972458.23 0.0132 0.0051
 Venus -122362-10-30 02:54 J -42970995.38 -42970995.38 -42970995.36 0.0133 0.0133
 Venus -122361-06-12 05:18 J -42970769.38 -42970769.28 -42970769.16 0.0133 0.0112
 Venus -122360-01-24 07:42 J -42970543.32 -42970543.18 -42970543.02 0.0133 0.0092
 Venus -122360-09-07 10:06 J -42970317.24 -42970317.08 -42970316.89 0.0134 0.0071
 Venus -122359-04-21 12:58 J -42970091.15 -42970090.96 -42970090.76 0.0134 0.0049
 Venus -122359-12-03 15:51 J -42969865.04 -42969864.84 -42969864.63 0.0134 0.0027
 Venus -122358-07-17 18:44 J -42969638.92 -42969638.72 -42969638.51 0.0135 0.0006
 Venus -122357-02-28 22:06 J -42969412.79 -42969412.58 -42969412.37 0.0135 0.0017
 Venus -122357-10-12 01:13 J -42969186.64 -42969186.45 -42969186.24 0.0135 0.0039
 Venus -122356-05-26 04:34 J -42968960.49 -42968960.31 -42968960.11 0.0136 0.0062

Venus -122355-01-07 08:10 J -42968734.31 -42968734.16 -42968733.98 0.0136 0.0085
 Venus -122355-08-21 12:15 J -42968508.11 -42968507.99 -42968507.85 0.0136 0.0107
 Venus -122354-04-04 16:20 J -42968281.87 -42968281.82 -42968281.74 0.0137 0.0130
 Moon -122336-07-21 19:13 J -42961598.82 -42961598.70 -42961598.54 0.0148 0.0125
 Earth -122336-07-21 19:13 J -42961598.82 -42961598.70 -42961598.54 0.0148 0.0123 *
 Moon -122335-07-27 05:18 J -42961228.53 -42961228.28 -42961228.04 0.0148 0.0035
 Earth -122335-07-27 06:15 J -42961228.49 -42961228.24 -42961227.99 0.0148 0.0038 *
 Mercury -122331-11-25 21:37 J -42959645.71 -42959645.60 -42959645.48 0.0149 0.0120
 Mercury -122330-02-22 06:15 J -42959557.38 -42959557.24 -42959557.08 0.0149 0.0089
 Mercury -122330-05-21 15:08 J -42959469.04 -42959468.87 -42959468.69 0.0148 0.0057
 Mercury -122330-08-17 23:46 J -42959380.69 -42959380.51 -42959380.31 0.0148 0.0026
 Mercury -122330-11-14 08:39 J -42959292.33 -42959292.14 -42959291.94 0.0148 0.0008
 Mercury -122329-02-10 17:32 J -42959203.95 -42959203.77 -42959203.58 0.0148 0.0039
 Mercury -122329-05-09 02:25 J -42959115.56 -42959115.40 -42959115.23 0.0148 0.0071
 Mercury -122329-08-05 11:18 J -42959027.16 -42959027.03 -42959026.89 0.0148 0.0103
 Mercury -122329-11-01 20:10 J -42958938.73 -42958938.66 -42958938.57 0.0148 0.0135
 Mars -122325-03-31 10:06 J -42957693.35 -42957693.08 -42957692.80 0.0147 0.0048
 Venus -122321-02-14 22:49 J -42956277.64 -42956277.55 -42956277.43 0.0146 0.0128
 Venus -122321-09-28 14:54 J -42956051.04 -42956050.88 -42956050.70 0.0146 0.0098
 Venus -122320-05-13 06:44 J -42955824.41 -42955824.22 -42955824.01 0.0145 0.0068
 Venus -122320-12-25 22:34 J -42955597.78 -42955597.56 -42955597.34 0.0145 0.0037
 Venus -122319-08-09 14:10 J -42955371.13 -42955370.91 -42955370.68 0.0144 0.0008
 Venus -122318-03-24 05:18 J -42955144.49 -42955144.28 -42955144.05 0.0144 0.0024
 Venus -122318-11-05 20:25 J -42954917.86 -42954917.65 -42954917.43 0.0144 0.0052
 Venus -122317-06-19 10:49 J -42954691.22 -42954691.05 -42954690.85 0.0143 0.0082
 Venus -122316-02-01 01:42 J -42954464.57 -42954464.43 -42954464.28 0.0143 0.0109
 Venus -122316-09-15 16:06 J -42954237.89 -42954237.83 -42954237.77 0.0142 0.0137
 Moon -122295-01-29 01:56 J -42946797.55 -42946797.42 -42946797.28 0.0131 0.0109
 Earth -122295-01-29 05:03 J -42946797.44 -42946797.29 -42946797.13 0.0131 0.0102 *
 Earth -122294-02-02 04:49 J -42946428.55 -42946428.30 -42946428.05 0.0131 0.0005

Moon -122294-02-02 08:10 J -42946428.41 -42946428.16 -42946427.91 0.0131 0.0008 *
 Moon -122293-02-06 00:01 J -42946059.62 -42946059.50 -42946059.36 0.0131 0.0109
 Earth -122293-02-06 03:22 J -42946059.47 -42946059.36 -42946059.21 0.0131 0.0111 *
 Mercury -122289-03-20 22:49 J -42944554.60 -42944554.55 -42944554.50 0.0131 0.0120
 Mercury -122289-06-17 01:42 J -42944466.51 -42944466.43 -42944466.35 0.0131 0.0105
 Mercury -122289-09-13 04:34 J -42944378.40 -42944378.31 -42944378.21 0.0131 0.0090
 Mercury -122289-12-10 07:27 J -42944290.29 -42944290.19 -42944290.07 0.0131 0.0075
 Mercury -122288-03-08 10:34 J -42944202.18 -42944202.06 -42944201.94 0.0131 0.0059
 Mercury -122288-06-04 13:27 J -42944114.06 -42944113.94 -42944113.81 0.0131 0.0044
 Mercury -122288-08-31 16:20 J -42944025.94 -42944025.82 -42944025.68 0.0131 0.0030
 Mercury -122288-11-27 19:27 J -42943937.82 -42943937.69 -42943937.56 0.0131 0.0014
 Mercury -122287-02-23 22:20 J -42943849.70 -42943849.57 -42943849.44 0.0131 0.0001
 Mercury -122287-05-23 01:13 J -42943761.58 -42943761.45 -42943761.32 0.0131 0.0016
 Mercury -122287-08-19 04:06 J -42943673.46 -42943673.33 -42943673.20 0.0131 0.0031
 Mercury -122287-11-15 06:58 J -42943585.33 -42943585.21 -42943585.08 0.0131 0.0046
 Mercury -122286-02-11 09:51 J -42943497.20 -42943497.09 -42943496.97 0.0131 0.0061
 Mercury -122286-05-10 12:44 J -42943409.07 -42943408.97 -42943408.86 0.0131 0.0076
 Mercury -122286-08-06 15:37 J -42943320.94 -42943320.85 -42943320.75 0.0131 0.0091
 Mercury -122286-11-02 18:30 J -42943232.80 -42943232.73 -42943232.65 0.0131 0.0106
 Mercury -122285-01-29 21:22 J -42943144.65 -42943144.61 -42943144.56 0.0131 0.0121
 Mars -122281-06-22 07:56 J -42941539.48 -42941539.17 -42941538.83 0.0132 0.0020
 Venus -122277-02-10 18:44 J -42940210.79 -42940210.72 -42940210.63 0.0133 0.0122
 Venus -122277-09-23 21:08 J -42939984.75 -42939984.62 -42939984.48 0.0133 0.0102
 Venus -122276-05-07 23:18 J -42939758.68 -42939758.53 -42939758.35 0.0134 0.0081
 Venus -122276-12-20 02:10 J -42939532.60 -42939532.41 -42939532.22 0.0134 0.0059
 Venus -122275-08-03 04:49 J -42939306.50 -42939306.30 -42939306.10 0.0134 0.0038
 Venus -122274-03-17 07:42 J -42939080.38 -42939080.18 -42939079.97 0.0134 0.0016
 Venus -122274-10-29 10:49 J -42938854.26 -42938854.05 -42938853.84 0.0135 0.0007
 Venus -122273-06-11 13:56 J -42938628.12 -42938627.92 -42938627.71 0.0135 0.0029
 Venus -122272-01-23 17:18 J -42938401.97 -42938401.78 -42938401.58 0.0135 0.0052

Venus -122272-09-06 20:54 J -42938175.80 -42938175.63 -42938175.45 0.0136 0.0074

Venus -122271-04-21 00:30 J -42937949.61 -42937949.48 -42937949.32 0.0136 0.0097

Venus -122271-12-03 04:49 J -42937723.40 -42937723.30 -42937723.21 0.0137 0.0120

Moon -122252-07-22 05:46 J -42930917.42 -42930917.26 -42930917.06 0.0148 0.0108

Earth -122252-07-22 07:56 J -42930917.31 -42930917.17 -42930916.99 0.0148 0.0114 *

Earth -122251-07-27 18:44 J -42930546.95 -42930546.72 -42930546.46 0.0148 0.0048

Moon -122251-07-27 19:42 J -42930546.90 -42930546.68 -42930546.43 0.0148 0.0048 *

Mercury -122247-09-18 21:51 J -42929032.66 -42929032.59 -42929032.53 0.0149 0.0139

Mercury -122247-12-16 06:15 J -42928944.36 -42928944.24 -42928944.10 0.0149 0.0108

Mercury -122246-03-14 14:54 J -42928856.03 -42928855.88 -42928855.70 0.0149 0.0077

Mercury -122246-06-11 00:01 J -42928767.68 -42928767.50 -42928767.32 0.0149 0.0045

Mercury -122246-09-07 08:54 J -42928679.32 -42928679.13 -42928678.94 0.0149 0.0013

Mercury -122246-12-04 17:32 J -42928590.95 -42928590.77 -42928590.58 0.0149 0.0019

Mercury -122245-03-02 02:25 J -42928502.57 -42928502.40 -42928502.22 0.0149 0.0051

Mercury -122245-05-29 11:18 J -42928414.18 -42928414.03 -42928413.87 0.0148 0.0083

Mercury -122245-08-25 20:10 J -42928325.77 -42928325.66 -42928325.53 0.0148 0.0115

Mercury -122245-11-22 05:03 J -42928237.30 -42928237.29 -42928237.26 0.0148 0.0148

Mars -122241-11-25 02:10 J -42926773.67 -42926773.41 -42926773.12 0.0147 0.0042

Venus -122238-10-15 06:30 J -42925719.27 -42925719.23 -42925719.17 0.0146 0.0142

Venus -122237-05-28 22:34 J -42925492.69 -42925492.56 -42925492.40 0.0146 0.0111

Venus -122236-01-10 14:39 J -42925266.07 -42925265.89 -42925265.69 0.0145 0.0081

Venus -122236-08-25 06:30 J -42925039.43 -42925039.23 -42925039.01 0.0145 0.0050

Venus -122235-04-08 22:20 J -42924812.79 -42924812.57 -42924812.34 0.0145 0.0020

Venus -122235-11-21 13:42 J -42924586.16 -42924585.93 -42924585.70 0.0144 0.0011

Venus -122234-07-06 04:49 J -42924359.51 -42924359.30 -42924359.08 0.0144 0.0041

Venus -122233-02-17 19:42 J -42924132.87 -42924132.68 -42924132.47 0.0144 0.0070

Venus -122233-10-01 10:34 J -42923906.22 -42923906.06 -42923905.90 0.0143 0.0099

Venus -122232-05-16 00:44 J -42923679.56 -42923679.47 -42923679.36 0.0143 0.0127

Moon -122211-01-29 17:18 J -42916115.95 -42916115.78 -42916115.59 0.0131 0.0087

Earth -122211-01-29 19:42 J -42916115.85 -42916115.68 -42916115.50 0.0131 0.0093 *

Earth -122210-02-02 19:27 J -42915746.94 -42915746.69 -42915746.44 0.0131 0.0014
 Moon -122210-02-02 21:51 J -42915746.84 -42915746.59 -42915746.33 0.0131 0.0009 *
 Moon -122209-02-06 16:06 J -42915377.90 -42915377.83 -42915377.75 0.0131 0.0123
 Earth -122209-02-06 18:15 J -42915377.84 -42915377.74 -42915377.64 0.0131 0.0119 *
 Mercury -122205-01-13 03:37 J -42913941.37 -42913941.35 -42913941.34 0.0130 0.0129
 Mercury -122205-04-10 06:30 J -42913853.29 -42913853.23 -42913853.17 0.0130 0.0114
 Mercury -122205-07-07 09:22 J -42913765.19 -42913765.11 -42913765.02 0.0130 0.0099
 Mercury -122205-10-03 12:15 J -42913677.09 -42913676.99 -42913676.88 0.0130 0.0084
 Mercury -122205-12-30 15:22 J -42913588.97 -42913588.86 -42913588.75 0.0130 0.0068
 Mercury -122204-03-28 18:15 J -42913500.86 -42913500.74 -42913500.62 0.0130 0.0053
 Mercury -122204-06-24 21:08 J -42913412.74 -42913412.62 -42913412.49 0.0130 0.0038
 Mercury -122204-09-21 00:15 J -42913324.62 -42913324.49 -42913324.36 0.0130 0.0023
 Mercury -122204-12-18 03:08 J -42913236.50 -42913236.37 -42913236.24 0.0130 0.0008
 Mercury -122203-03-16 06:01 J -42913148.38 -42913148.25 -42913148.12 0.0130 0.0007
 Mercury -122203-06-12 08:54 J -42913060.26 -42913060.13 -42913060.00 0.0130 0.0022
 Mercury -122203-09-08 11:46 J -42912972.14 -42912972.01 -42912971.88 0.0130 0.0037
 Mercury -122203-12-05 14:39 J -42912884.01 -42912883.89 -42912883.76 0.0130 0.0052
 Mercury -122202-03-03 17:32 J -42912795.88 -42912795.77 -42912795.65 0.0130 0.0067
 Mercury -122202-05-30 20:25 J -42912707.75 -42912707.65 -42912707.54 0.0130 0.0082
 Mercury -122202-08-26 23:18 J -42912619.61 -42912619.53 -42912619.44 0.0131 0.0097
 Mercury -122202-11-23 02:10 J -42912531.47 -42912531.41 -42912531.34 0.0131 0.0112
 Mercury -122201-02-19 05:03 J -42912443.31 -42912443.29 -42912443.25 0.0131 0.0126
 Mars -122198-03-15 21:37 J -42911322.81 -42911322.60 -42911322.37 0.0131 0.0098
 Mars -122196-02-15 15:51 J -42910620.05 -42910619.84 -42910619.57 0.0132 0.0090
 Venus -122194-10-11 07:56 J -42909652.17 -42909652.17 -42909652.16 0.0133 0.0133
 Venus -122193-05-24 09:51 J -42909426.18 -42909426.09 -42909425.96 0.0133 0.0112
 Venus -122192-01-05 12:15 J -42909200.12 -42909199.99 -42909199.82 0.0133 0.0092
 Venus -122192-08-19 14:54 J -42908974.05 -42908973.88 -42908973.69 0.0134 0.0070
 Venus -122191-04-02 17:32 J -42908747.96 -42908747.77 -42908747.57 0.0134 0.0048
 Venus -122191-11-14 20:25 J -42908521.85 -42908521.65 -42908521.44 0.0134 0.0026

Venus -122190-06-28 23:18 J -42908295.73 -42908295.53 -42908295.32 0.0135 0.0005
 Venus -122189-02-10 02:39 J -42908069.60 -42908069.39 -42908069.18 0.0135 0.0019
 Venus -122189-09-23 05:46 J -42907843.45 -42907843.26 -42907843.06 0.0135 0.0041
 Venus -122188-05-07 09:22 J -42907617.30 -42907617.11 -42907616.93 0.0136 0.0064
 Venus -122188-12-19 12:44 J -42907391.12 -42907390.97 -42907390.80 0.0136 0.0087
 Venus -122187-08-02 16:20 J -42907164.92 -42907164.82 -42907164.68 0.0136 0.0111
 Venus -122186-03-16 20:54 J -42906938.67 -42906938.63 -42906938.58 0.0137 0.0133
 Moon -122168-07-22 15:37 J -42900236.00 -42900235.85 -42900235.67 0.0148 0.0115
 Earth -122168-07-22 19:27 J -42900235.87 -42900235.69 -42900235.51 0.0148 0.0107 *
 Earth -122167-07-28 05:32 J -42899865.50 -42899865.27 -42899865.02 0.0148 0.0054
 Moon -122167-07-28 08:10 J -42899865.39 -42899865.16 -42899864.92 0.0148 0.0056 *
 Mercury -122163-10-09 05:46 J -42898331.35 -42898331.26 -42898331.17 0.0149 0.0130
 Mercury -122162-01-05 14:10 J -42898243.04 -42898242.91 -42898242.76 0.0149 0.0099
 Mercury -122162-04-03 23:03 J -42898154.70 -42898154.54 -42898154.37 0.0149 0.0067
 Mercury -122162-07-01 07:56 J -42898066.35 -42898066.17 -42898065.98 0.0149 0.0035
 Mercury -122162-09-27 16:49 J -42897977.99 -42897977.80 -42897977.61 0.0149 0.0004
 Mercury -122162-12-25 01:42 J -42897889.62 -42897889.43 -42897889.24 0.0149 0.0028
 Mercury -122161-03-22 10:20 J -42897801.23 -42897801.07 -42897800.89 0.0149 0.0061
 Mercury -122161-06-18 19:13 J -42897712.84 -42897712.70 -42897712.54 0.0149 0.0093
 Mercury -122161-09-15 04:20 J -42897624.42 -42897624.32 -42897624.21 0.0148 0.0125
 Mars -122158-08-18 22:20 J -42896556.75 -42896556.57 -42896556.35 0.0148 0.0109
 Mars -122156-07-21 13:56 J -42895854.05 -42895853.92 -42895853.75 0.0147 0.0126
 Venus -122153-01-27 04:06 J -42894934.43 -42894934.33 -42894934.21 0.0146 0.0126
 Venus -122153-09-09 20:10 J -42894707.81 -42894707.66 -42894707.47 0.0146 0.0096
 Venus -122152-04-24 12:15 J -42894481.18 -42894480.99 -42894480.78 0.0145 0.0065
 Venus -122152-12-07 04:06 J -42894254.54 -42894254.33 -42894254.10 0.0145 0.0034
 Venus -122151-07-21 19:56 J -42894027.89 -42894027.67 -42894027.44 0.0145 0.0004
 Venus -122150-03-05 11:18 J -42893801.25 -42893801.03 -42893800.80 0.0144 0.0027
 Venus -122150-10-18 02:25 J -42893574.60 -42893574.40 -42893574.18 0.0144 0.0057
 Venus -122149-05-31 17:18 J -42893347.95 -42893347.78 -42893347.59 0.0143 0.0086

Venus -122148-01-13 07:56 J -42893121.30 -42893121.17 -42893121.03 0.0143 0.0115
 Moon -122127-01-30 09:08 J -42885434.27 -42885434.12 -42885433.92 0.0131 0.0092
 Earth -122127-01-30 09:51 J -42885434.26 -42885434.09 -42885433.88 0.0131 0.0084 *
 Earth -122126-02-03 09:37 J -42885065.34 -42885065.10 -42885064.85 0.0131 0.0023
 Moon -122126-02-03 10:06 J -42885065.32 -42885065.08 -42885064.82 0.0131 0.0029 *
 Moon -122125-02-07 06:58 J -42884696.27 -42884696.21 -42884696.11 0.0131 0.0123
 Earth -122125-02-07 07:56 J -42884696.20 -42884696.17 -42884696.10 0.0131 0.0128 *
 Mercury -122121-02-02 10:49 J -42883240.08 -42883240.05 -42883239.99 0.0130 0.0124
 Mercury -122121-04-30 14:10 J -42883151.99 -42883151.91 -42883151.84 0.0130 0.0108
 Mercury -122121-07-27 17:03 J -42883063.88 -42883063.79 -42883063.69 0.0130 0.0093
 Mercury -122121-10-23 19:56 J -42882975.77 -42882975.67 -42882975.56 0.0130 0.0078
 Mercury -122120-01-19 23:03 J -42882887.66 -42882887.54 -42882887.42 0.0130 0.0062
 Mercury -122120-04-18 01:56 J -42882799.54 -42882799.42 -42882799.29 0.0130 0.0047
 Mercury -122120-07-15 04:49 J -42882711.43 -42882711.30 -42882711.17 0.0130 0.0032
 Mercury -122120-10-11 07:42 J -42882623.31 -42882623.18 -42882623.04 0.0130 0.0018
 Mercury -122119-01-07 10:49 J -42882535.19 -42882535.05 -42882534.92 0.0130 0.0004
 Mercury -122119-04-05 13:42 J -42882447.07 -42882446.93 -42882446.80 0.0130 0.0013
 Mercury -122119-07-02 16:34 J -42882358.94 -42882358.81 -42882358.68 0.0130 0.0028
 Mercury -122119-09-28 19:27 J -42882270.82 -42882270.69 -42882270.56 0.0130 0.0043
 Mercury -122119-12-25 22:20 J -42882182.69 -42882182.57 -42882182.45 0.0130 0.0058
 Mercury -122118-03-24 01:13 J -42882094.56 -42882094.45 -42882094.34 0.0130 0.0072
 Mercury -122118-06-20 04:06 J -42882006.43 -42882006.33 -42882006.23 0.0130 0.0087
 Mercury -122118-09-16 06:44 J -42881918.29 -42881918.22 -42881918.13 0.0130 0.0103
 Mercury -122118-12-13 09:51 J -42881830.15 -42881830.09 -42881830.03 0.0130 0.0117
 Mars -122114-11-09 03:22 J -42880403.67 -42880403.36 -42880403.03 0.0131 0.0029
 Venus -122109-01-22 22:49 J -42878867.63 -42878867.55 -42878867.47 0.0133 0.0122
 Venus -122109-09-05 00:44 J -42878641.59 -42878641.47 -42878641.32 0.0133 0.0101
 Venus -122108-04-19 02:54 J -42878415.53 -42878415.38 -42878415.20 0.0133 0.0081
 Venus -122108-12-01 05:32 J -42878189.45 -42878189.27 -42878189.07 0.0134 0.0059
 Venus -122107-07-15 08:10 J -42877963.35 -42877963.16 -42877962.95 0.0134 0.0037

Venus -122106-02-26 11:18 J -42877737.24 -42877737.03 -42877736.82 0.0134 0.0015
 Venus -122106-10-10 14:10 J -42877511.11 -42877510.91 -42877510.70 0.0134 0.0008
 Venus -122105-05-23 17:18 J -42877284.98 -42877284.78 -42877284.57 0.0135 0.0031
 Venus -122104-01-04 20:25 J -42877058.83 -42877058.65 -42877058.45 0.0135 0.0054
 Venus -122104-08-18 23:46 J -42876832.67 -42876832.51 -42876832.32 0.0136 0.0077
 Venus -122103-04-02 03:51 J -42876606.49 -42876606.34 -42876606.20 0.0136 0.0099
 Venus -122103-11-14 07:27 J -42876380.27 -42876380.19 -42876380.10 0.0136 0.0123
 Moon -122084-07-22 21:08 J -42869554.79 -42869554.62 -42869554.42 0.0148 0.0100
 Earth -122084-07-23 00:58 J -42869554.63 -42869554.46 -42869554.28 0.0148 0.0108 *
 Earth -122083-07-28 11:32 J -42869184.26 -42869184.02 -42869183.77 0.0148 0.0053
 Moon -122083-07-28 15:08 J -42869184.10 -42869183.87 -42869183.61 0.0148 0.0047 *
 Mercury -122079-10-29 12:01 J -42867630.09 -42867630.00 -42867629.90 0.0149 0.0126
 Mercury -122078-01-25 20:39 J -42867541.78 -42867541.64 -42867541.49 0.0149 0.0095
 Mercury -122078-04-24 05:32 J -42867453.44 -42867453.27 -42867453.09 0.0149 0.0063
 Mercury -122078-07-21 14:25 J -42867365.09 -42867364.90 -42867364.71 0.0149 0.0031
 Mercury -122078-10-17 23:18 J -42867276.72 -42867276.53 -42867276.34 0.0149 0.0001
 Mercury -122077-01-14 08:10 J -42867188.35 -42867188.16 -42867187.97 0.0149 0.0033
 Mercury -122077-04-11 17:03 J -42867099.96 -42867099.79 -42867099.62 0.0149 0.0065
 Mercury -122077-07-09 01:56 J -42867011.56 -42867011.42 -42867011.27 0.0149 0.0097
 Mercury -122077-10-05 10:34 J -42866923.14 -42866923.06 -42866922.95 0.0149 0.0130
 Mars -122073-04-13 02:10 J -42865637.69 -42865637.41 -42865637.12 0.0148 0.0028
 Venus -122070-09-26 06:30 J -42864376.26 -42864376.23 -42864376.17 0.0146 0.0144
 Venus -122069-05-09 22:49 J -42864149.68 -42864149.55 -42864149.40 0.0146 0.0112
 Venus -122069-12-22 15:08 J -42863923.05 -42863922.87 -42863922.68 0.0146 0.0081
 Venus -122068-08-06 07:13 J -42863696.40 -42863696.20 -42863695.98 0.0145 0.0050
 Venus -122067-03-20 23:18 J -42863469.75 -42863469.53 -42863469.30 0.0145 0.0019
 Venus -122067-11-02 14:54 J -42863243.10 -42863242.88 -42863242.65 0.0145 0.0012
 Venus -122066-06-17 06:15 J -42863016.45 -42863016.24 -42863016.02 0.0144 0.0042
 Venus -122065-01-29 21:08 J -42862789.80 -42862789.62 -42862789.41 0.0144 0.0073
 Venus -122065-09-12 12:30 J -42862563.13 -42862562.98 -42862562.82 0.0143 0.0102

Venus -122064-04-27 02:54 J -42862336.45 -42862336.38 -42862336.28 0.0143 0.0131
 Earth -122043-01-30 23:46 J -42854752.70 -42854752.51 -42854752.30 0.0131 0.0077
 Moon -122043-01-31 00:58 J -42854752.64 -42854752.46 -42854752.24 0.0131 0.0073 *
 Moon -122042-02-03 22:34 J -42854383.81 -42854383.56 -42854383.30 0.0131 0.0023
 Earth -122042-02-03 23:18 J -42854383.76 -42854383.53 -42854383.28 0.0131 0.0030 *
 Mercury -122037-02-22 18:30 J -42852538.77 -42852538.73 -42852538.66 0.0130 0.0118
 Mercury -122037-05-20 21:51 J -42852450.67 -42852450.59 -42852450.51 0.0130 0.0102
 Mercury -122037-08-17 00:44 J -42852362.57 -42852362.47 -42852362.37 0.0130 0.0087
 Mercury -122037-11-13 03:37 J -42852274.45 -42852274.35 -42852274.23 0.0130 0.0072
 Mercury -122036-02-09 06:44 J -42852186.34 -42852186.22 -42852186.10 0.0130 0.0056
 Mercury -122036-05-08 09:37 J -42852098.22 -42852098.10 -42852097.97 0.0130 0.0041
 Mercury -122036-08-04 12:30 J -42852010.11 -42852009.98 -42852009.84 0.0130 0.0027
 Mercury -122036-10-31 15:37 J -42851921.99 -42851921.85 -42851921.72 0.0130 0.0012
 Mercury -122035-01-27 18:30 J -42851833.87 -42851833.73 -42851833.60 0.0130 0.0004
 Mercury -122035-04-25 21:22 J -42851745.74 -42851745.61 -42851745.48 0.0130 0.0019
 Mercury -122035-07-23 00:15 J -42851657.62 -42851657.49 -42851657.36 0.0130 0.0034
 Mercury -122035-10-19 03:08 J -42851569.49 -42851569.37 -42851569.24 0.0130 0.0049
 Mercury -122034-01-15 06:01 J -42851481.36 -42851481.25 -42851481.13 0.0130 0.0064
 Mercury -122034-04-13 08:54 J -42851393.23 -42851393.13 -42851393.02 0.0130 0.0078
 Mercury -122034-07-10 11:46 J -42851305.10 -42851305.01 -42851304.92 0.0130 0.0093
 Mercury -122034-10-06 14:25 J -42851216.96 -42851216.90 -42851216.81 0.0130 0.0109
 Mercury -122033-01-02 17:32 J -42851128.81 -42851128.77 -42851128.73 0.0130 0.0123
 Mars -122029-07-04 13:13 J -42849484.25 -42849483.95 -42849483.63 0.0131 0.0042
 Venus -122026-09-22 12:30 J -42848308.98 -42848308.98 -42848308.96 0.0132 0.0132
 Venus -122025-05-05 14:25 J -42848082.99 -42848082.90 -42848082.77 0.0133 0.0112
 Venus -122025-12-17 16:49 J -42847856.94 -42847856.80 -42847856.63 0.0133 0.0090
 Venus -122024-07-31 19:27 J -42847630.86 -42847630.69 -42847630.50 0.0133 0.0069
 Venus -122023-03-14 22:06 J -42847404.77 -42847404.58 -42847404.38 0.0134 0.0047
 Venus -122023-10-27 00:44 J -42847178.67 -42847178.47 -42847178.26 0.0134 0.0025
 Venus -122022-06-10 03:37 J -42846952.55 -42846952.35 -42846952.14 0.0134 0.0004

Venus	-122021-01-22 06:44 J	-42846726.42	-42846726.22	-42846726.01	0.0135	0.0021
Venus	-122021-09-04 09:37 J	-42846500.28	-42846500.10	-42846499.89	0.0135	0.0044
Venus	-122020-04-18 12:58 J	-42846274.13	-42846273.96	-42846273.77	0.0135	0.0067
Venus	-122020-11-30 16:20 J	-42846047.96	-42846047.82	-42846047.65	0.0136	0.0090
Venus	-122019-07-14 19:56 J	-42845821.77	-42845821.67	-42845821.54	0.0136	0.0113
Venus	-122018-02-26 00:01 J	-42845595.50	-42845595.50	-42845595.47	0.0136	0.0136

122ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 122nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-122000-07-23 07:56 J	-42838873.32	-42838873.17	-42838872.99	0.0148	0.0111		
Earth	-122000-07-23 10:20 J	-42838873.23	-42838873.07	-42838872.87	0.0148	0.0104	*	
Earth	-121999-07-28 20:54 J	-42838502.86	-42838502.63	-42838502.39	0.0148	0.0057		
Moon	-121999-07-29 00:15 J	-42838502.72	-42838502.49	-42838502.25	0.0148	0.0064	*	
Mercury	-121995-11-18 19:13 J	-42836928.80	-42836928.70	-42836928.58	0.0149	0.0120		
Jupiter	-121995-12-28 18:15 J	-42836889.11	-42836888.74	-42836888.28	0.0149	0.0092		
Mercury	-121994-02-15 04:06 J	-42836840.48	-42836840.33	-42836840.17	0.0149	0.0088		
Mercury	-121994-05-14 12:44 J	-42836752.13	-42836751.97	-42836751.78	0.0149	0.0057		
Mercury	-121994-08-10 21:37 J	-42836663.78	-42836663.60	-42836663.40	0.0149	0.0025		
Mercury	-121994-11-07 06:44 J	-42836575.41	-42836575.22	-42836575.03	0.0149	0.0008		

Mercury -121993-02-03 15:22 J -42836487.04 -42836486.86 -42836486.67 0.0149 0.0040

Mercury -121993-05-02 00:15 J -42836398.65 -42836398.49 -42836398.32 0.0149 0.0072

Mercury -121993-07-29 09:08 J -42836310.25 -42836310.12 -42836309.98 0.0149 0.0104

Mercury -121993-10-25 18:15 J -42836221.81 -42836221.74 -42836221.66 0.0149 0.0136

Mars -121989-12-07 08:39 J -42834718.39 -42834718.14 -42834717.85 0.0148 0.0055

Venus -121985-01-08 02:25 J -42833591.49 -42833591.40 -42833591.29 0.0146 0.0129

Venus -121985-08-21 18:44 J -42833364.87 -42833364.72 -42833364.54 0.0146 0.0098

Venus -121984-04-05 11:03 J -42833138.24 -42833138.04 -42833137.83 0.0146 0.0067

Venus -121984-11-18 03:08 J -42832911.59 -42832911.37 -42832911.15 0.0145 0.0035

Venus -121983-07-02 18:58 J -42832684.93 -42832684.71 -42832684.48 0.0145 0.0004

Venus -121982-02-14 10:34 J -42832458.28 -42832458.06 -42832457.83 0.0144 0.0027

Venus -121982-09-29 01:56 J -42832231.62 -42832231.42 -42832231.21 0.0144 0.0057

Venus -121981-05-12 16:49 J -42832004.97 -42832004.80 -42832004.61 0.0144 0.0088

Venus -121981-12-25 07:27 J -42831778.30 -42831778.19 -42831778.04 0.0143 0.0117

Earth -121959-01-31 12:58 J -42824071.16 -42824070.96 -42824070.74 0.0131 0.0070

Moon -121959-01-31 15:22 J -42824071.05 -42824070.86 -42824070.64 0.0131 0.0074 *

Moon -121958-02-04 09:51 J -42823702.32 -42823702.09 -42823701.84 0.0131 0.0042

Earth -121958-02-04 12:58 J -42823702.19 -42823701.96 -42823701.72 0.0131 0.0037 *

Mercury -121954-12-16 23:17 J -42821925.55 -42821925.53 -42821925.49 0.0130 0.0127

Mercury -121953-03-14 02:25 J -42821837.46 -42821837.40 -42821837.32 0.0130 0.0111

Mercury -121953-06-10 05:32 J -42821749.36 -42821749.27 -42821749.18 0.0130 0.0096

Jupiter -121953-07-26 23:03 J -42821703.05 -42821702.54 -42821702.03 0.0130 0.0001

Mercury -121953-09-06 08:25 J -42821661.25 -42821661.15 -42821661.04 0.0130 0.0081

Mercury -121953-12-03 11:32 J -42821573.14 -42821573.02 -42821572.91 0.0130 0.0065

Mercury -121952-03-01 14:25 J -42821485.02 -42821484.90 -42821484.77 0.0130 0.0050

Mercury -121952-05-28 17:17 J -42821396.90 -42821396.78 -42821396.65 0.0130 0.0035

Mercury -121952-08-24 20:25 J -42821308.79 -42821308.65 -42821308.52 0.0130 0.0020

Mercury -121952-11-20 23:17 J -42821220.66 -42821220.53 -42821220.40 0.0130 0.0005

Mercury -121951-02-17 02:10 J -42821132.54 -42821132.41 -42821132.28 0.0130 0.0010

Mercury -121951-05-16 05:03 J -42821044.42 -42821044.29 -42821044.16 0.0130 0.0025

Mercury -121951-08-12 07:56 J -42820956.29 -42820956.17 -42820956.04 0.0130 0.0040
 Mercury -121951-11-08 10:49 J -42820868.17 -42820868.05 -42820867.93 0.0130 0.0055
 Mercury -121950-02-04 13:41 J -42820780.04 -42820779.93 -42820779.81 0.0130 0.0070
 Mercury -121950-05-03 16:34 J -42820691.91 -42820691.81 -42820691.71 0.0130 0.0084
 Mercury -121950-07-30 19:27 J -42820603.77 -42820603.69 -42820603.60 0.0130 0.0099
 Mercury -121950-10-26 22:05 J -42820515.63 -42820515.58 -42820515.50 0.0130 0.0115
 Mercury -121949-01-23 01:13 J -42820427.46 -42820427.45 -42820427.43 0.0131 0.0129
 Mars -121946-03-28 04:49 J -42819267.55 -42819267.30 -42819267.01 0.0131 0.0076
 Mars -121944-02-27 22:34 J -42818564.71 -42818564.56 -42818564.37 0.0132 0.0113
 Venus -121941-01-04 04:34 J -42817524.37 -42817524.31 -42817524.21 0.0133 0.0122
 Venus -121941-08-17 06:58 J -42817298.33 -42817298.21 -42817298.06 0.0133 0.0100
 Venus -121940-03-31 09:22 J -42817072.27 -42817072.11 -42817071.93 0.0133 0.0079
 Venus -121940-11-12 12:01 J -42816846.18 -42816846.00 -42816845.81 0.0133 0.0056
 Venus -121939-06-26 14:39 J -42816620.09 -42816619.89 -42816619.68 0.0134 0.0034
 Venus -121938-02-07 17:32 J -42816393.97 -42816393.77 -42816393.56 0.0134 0.0012
 Venus -121938-09-21 20:25 J -42816167.85 -42816167.65 -42816167.44 0.0134 0.0012
 Venus -121937-05-04 23:32 J -42815941.72 -42815941.52 -42815941.32 0.0135 0.0034
 Venus -121937-12-17 02:25 J -42815715.58 -42815715.40 -42815715.20 0.0135 0.0057
 Venus -121936-07-31 05:46 J -42815489.41 -42815489.26 -42815489.08 0.0135 0.0080
 Venus -121935-03-14 09:22 J -42815263.23 -42815263.11 -42815262.96 0.0136 0.0104
 Venus -121935-10-26 12:58 J -42815037.01 -42815036.96 -42815036.87 0.0136 0.0127
 Moon -121916-07-23 21:51 J -42808191.77 -42808191.59 -42808191.39 0.0148 0.0092
 Earth -121916-07-23 22:49 J -42808191.74 -42808191.55 -42808191.35 0.0148 0.0096 *
 Earth -121915-07-29 08:53 J -42807821.35 -42807821.13 -42807820.88 0.0148 0.0065
 Moon -121915-07-29 11:03 J -42807821.27 -42807821.04 -42807820.78 0.0148 0.0057 *
 Mercury -121911-09-11 18:58 J -42806315.77 -42806315.71 -42806315.66 0.0149 0.0141
 Mercury -121911-12-09 03:22 J -42806227.48 -42806227.36 -42806227.22 0.0149 0.0110
 Mercury -121910-03-07 12:01 J -42806139.15 -42806139.00 -42806138.83 0.0149 0.0079
 Mercury -121910-06-03 21:08 J -42806050.80 -42806050.62 -42806050.44 0.0149 0.0047
 Mercury -121910-08-31 05:46 J -42805962.44 -42805962.26 -42805962.06 0.0149 0.0016

Mercury -121910-11-27 14:39 J -42805874.08 -42805873.89 -42805873.70 0.0149 0.0017

Mercury -121909-02-23 23:32 J -42805785.70 -42805785.52 -42805785.34 0.0149 0.0049

Mercury -121909-05-22 08:10 J -42805697.31 -42805697.16 -42805696.99 0.0149 0.0082

Mercury -121909-08-18 17:03 J -42805608.90 -42805608.79 -42805608.65 0.0149 0.0114

Mercury -121909-11-15 02:10 J -42805520.44 -42805520.41 -42805520.37 0.0149 0.0146

Mars -121906-08-31 03:37 J -42804501.55 -42804501.35 -42804501.11 0.0148 0.0098

Mars -121904-08-02 21:08 J -42803798.69 -42803798.62 -42803798.51 0.0147 0.0140

Venus -121902-09-07 07:13 J -42803033.20 -42803033.20 -42803033.16 0.0146 0.0146

Venus -121901-04-20 23:32 J -42802806.64 -42802806.52 -42802806.36 0.0146 0.0115

Venus -121901-12-03 16:05 J -42802580.01 -42802579.83 -42802579.63 0.0146 0.0082

Venus -121900-07-18 08:25 J -42802353.35 -42802353.15 -42802352.93 0.0145 0.0051

Venus -121899-03-02 00:29 J -42802126.70 -42802126.48 -42802126.25 0.0145 0.0019

Venus -121899-10-14 16:20 J -42801900.04 -42801899.82 -42801899.59 0.0145 0.0013

Venus -121898-05-29 07:56 J -42801673.39 -42801673.17 -42801672.96 0.0144 0.0044

Venus -121897-01-10 23:03 J -42801446.73 -42801446.54 -42801446.34 0.0144 0.0074

Venus -121897-08-24 13:56 J -42801220.05 -42801219.92 -42801219.75 0.0143 0.0105

Venus -121896-04-08 05:03 J -42800993.36 -42800993.29 -42800993.20 0.0143 0.0134

Earth -121875-02-01 04:05 J -42793389.54 -42793389.33 -42793389.10 0.0131 0.0060

Moon -121875-02-01 07:27 J -42793389.40 -42793389.19 -42793388.96 0.0131 0.0063 *

Moon -121874-02-05 00:29 J -42793020.69 -42793020.48 -42793020.23 0.0131 0.0047

Earth -121874-02-05 03:51 J -42793020.56 -42793020.34 -42793020.10 0.0131 0.0046 *

Mercury -121869-01-06 07:27 J -42791224.24 -42791224.19 -42791224.13 0.0130 0.0119

Mercury -121869-04-03 10:20 J -42791136.14 -42791136.07 -42791135.98 0.0130 0.0104

Mercury -121869-06-30 13:27 J -42791048.04 -42791047.94 -42791047.84 0.0130 0.0089

Mercury -121869-09-26 16:20 J -42790959.92 -42790959.82 -42790959.70 0.0130 0.0074

Mercury -121869-12-23 19:27 J -42790871.81 -42790871.69 -42790871.57 0.0130 0.0059

Mercury -121868-03-21 22:20 J -42790783.69 -42790783.57 -42790783.44 0.0130 0.0044

Mercury -121868-06-18 01:13 J -42790695.58 -42790695.45 -42790695.31 0.0130 0.0029

Mercury -121868-09-14 04:20 J -42790607.46 -42790607.32 -42790607.19 0.0130 0.0014

Mercury -121868-12-11 07:13 J -42790519.33 -42790519.20 -42790519.07 0.0130 0.0002

Mercury -121867-03-09 10:05 J -42790431.21 -42790431.08 -42790430.95 0.0130 0.0017

Mercury -121867-06-05 12:58 J -42790343.09 -42790342.96 -42790342.83 0.0130 0.0032

Mercury -121867-09-01 15:51 J -42790254.96 -42790254.84 -42790254.71 0.0130 0.0047

Mercury -121867-11-28 18:44 J -42790166.83 -42790166.72 -42790166.60 0.0130 0.0062

Mercury -121866-02-24 21:37 J -42790078.70 -42790078.60 -42790078.49 0.0131 0.0076

Mercury -121866-05-24 00:29 J -42789990.57 -42789990.48 -42789990.38 0.0131 0.0091

Mercury -121866-08-20 03:08 J -42789902.43 -42789902.37 -42789902.28 0.0131 0.0107

Mercury -121866-11-16 06:15 J -42789814.28 -42789814.24 -42789814.19 0.0131 0.0121

Mars -121862-11-21 17:46 J -42788348.08 -42788347.76 -42788347.42 0.0131 0.0005

Venus -121858-09-03 19:56 J -42786965.69 -42786965.67 -42786965.63 0.0133 0.0131

Venus -121857-04-16 21:51 J -42786739.69 -42786739.59 -42786739.45 0.0133 0.0110

Venus -121857-11-29 00:15 J -42786513.63 -42786513.49 -42786513.32 0.0133 0.0089

Venus -121856-07-13 02:53 J -42786287.55 -42786287.38 -42786287.19 0.0133 0.0066

Venus -121855-02-24 05:46 J -42786061.45 -42786061.26 -42786061.06 0.0134 0.0044

Venus -121855-10-08 08:39 J -42785835.35 -42785835.14 -42785834.94 0.0134 0.0021

Venus -121854-05-22 11:17 J -42785609.24 -42785609.03 -42785608.82 0.0134 0.0003

Venus -121853-01-03 14:25 J -42785383.11 -42785382.90 -42785382.70 0.0135 0.0025

Venus -121853-08-16 17:17 J -42785156.97 -42785156.78 -42785156.58 0.0135 0.0048

Venus -121852-03-30 20:25 J -42784930.81 -42784930.65 -42784930.46 0.0135 0.0072

Venus -121852-11-12 00:01 J -42784704.64 -42784704.50 -42784704.34 0.0136 0.0095

Venus -121851-06-26 03:37 J -42784478.44 -42784478.35 -42784478.24 0.0136 0.0118

Earth -121832-07-24 16:20 J -42777510.02 -42777509.82 -42777509.59 0.0148 0.0081

Moon -121832-07-24 19:56 J -42777509.88 -42777509.67 -42777509.45 0.0148 0.0076 *

Moon -121831-07-29 23:32 J -42777139.73 -42777139.52 -42777139.28 0.0148 0.0079

Earth -121831-07-30 03:08 J -42777139.58 -42777139.37 -42777139.15 0.0148 0.0080 *

Mercury -121827-10-02 04:34 J -42775614.39 -42775614.31 -42775614.20 0.0149 0.0126

Mercury -121827-12-29 13:13 J -42775526.08 -42775525.95 -42775525.79 0.0149 0.0095

Mercury -121826-03-27 22:05 J -42775437.74 -42775437.58 -42775437.40 0.0149 0.0063

Mercury -121826-06-24 07:13 J -42775349.39 -42775349.20 -42775349.02 0.0149 0.0031

Mercury -121826-09-20 15:51 J -42775261.03 -42775260.84 -42775260.65 0.0149 0.0002

Mercury -121826-12-18 00:44 J -42775172.66 -42775172.47 -42775172.28 0.0149 0.0033

Mercury -121825-03-15 09:37 J -42775084.27 -42775084.10 -42775083.93 0.0149 0.0065

Mercury -121825-06-11 18:29 J -42774995.87 -42774995.73 -42774995.59 0.0149 0.0097

Mercury -121825-09-08 03:22 J -42774907.45 -42774907.36 -42774907.27 0.0149 0.0129

Mars -121821-04-26 00:58 J -42773581.75 -42773581.46 -42773581.17 0.0148 0.0007

Venus -121818-12-20 07:41 J -42772248.27 -42772248.18 -42772248.05 0.0146 0.0129

Venus -121817-08-03 00:29 J -42772021.64 -42772021.48 -42772021.30 0.0146 0.0096

Venus -121816-03-17 16:34 J -42771795.00 -42771794.81 -42771794.59 0.0146 0.0065

Venus -121816-10-30 08:53 J -42771568.35 -42771568.13 -42771567.90 0.0145 0.0032

Venus -121815-06-14 00:44 J -42771341.69 -42771341.47 -42771341.24 0.0145 0.0003

Venus -121814-01-26 16:34 J -42771115.04 -42771114.81 -42771114.59 0.0144 0.0031

Venus -121814-09-10 07:41 J -42770888.37 -42770888.18 -42770887.96 0.0144 0.0062

Venus -121813-04-23 22:49 J -42770661.71 -42770661.55 -42770661.36 0.0144 0.0093

Venus -121813-12-06 13:41 J -42770435.03 -42770434.93 -42770434.80 0.0143 0.0122

Moon -121791-02-01 18:15 J -42762707.97 -42762707.74 -42762707.49 0.0131 0.0044

Earth -121791-02-01 20:10 J -42762707.89 -42762707.66 -42762707.42 0.0131 0.0049 *

Earth -121790-02-05 19:41 J -42762338.89 -42762338.68 -42762338.44 0.0131 0.0058

Moon -121790-02-05 20:53 J -42762338.84 -42762338.63 -42762338.40 0.0131 0.0051 *

Mercury -121786-10-30 12:29 J -42760611.00 -42760610.98 -42760610.94 0.0130 0.0127

Mercury -121785-01-26 15:37 J -42760522.92 -42760522.85 -42760522.78 0.0130 0.0112

Mercury -121785-04-23 18:29 J -42760434.81 -42760434.73 -42760434.63 0.0130 0.0097

Mercury -121785-07-20 21:22 J -42760346.70 -42760346.61 -42760346.50 0.0130 0.0082

Mercury -121785-10-17 00:29 J -42760258.59 -42760258.48 -42760258.36 0.0130 0.0066

Mercury -121784-01-13 03:22 J -42760170.48 -42760170.36 -42760170.23 0.0130 0.0051

Mercury -121784-04-11 06:29 J -42760082.36 -42760082.23 -42760082.10 0.0130 0.0036

Mercury -121784-07-08 09:22 J -42759994.24 -42759994.11 -42759993.98 0.0130 0.0021

Mercury -121784-10-04 12:15 J -42759906.12 -42759905.99 -42759905.85 0.0130 0.0007

Mercury -121784-12-31 15:08 J -42759818.00 -42759817.87 -42759817.73 0.0130 0.0010

Mercury -121783-03-29 18:01 J -42759729.88 -42759729.75 -42759729.61 0.0130 0.0025

Mercury -121783-06-25 20:53 J -42759641.75 -42759641.63 -42759641.50 0.0130 0.0040

Mercury -121783-09-21 23:46 J -42759553.62 -42759553.51 -42759553.38 0.0130 0.0055

Mercury -121783-12-19 02:53 J -42759465.49 -42759465.38 -42759465.27 0.0131 0.0069

Mercury -121782-03-17 05:46 J -42759377.36 -42759377.26 -42759377.16 0.0131 0.0084

Mercury -121782-06-13 08:25 J -42759289.23 -42759289.15 -42759289.06 0.0131 0.0099

Mercury -121782-09-09 11:17 J -42759201.08 -42759201.03 -42759200.96 0.0131 0.0114

Mercury -121782-12-06 14:10 J -42759112.92 -42759112.91 -42759112.88 0.0131 0.0128

Mars -121779-08-14 13:56 J -42758131.03 -42758130.92 -42758130.76 0.0131 0.0119

Mars -121777-07-17 08:10 J -42757428.43 -42757428.16 -42757427.87 0.0131 0.0070

Venus -121774-12-16 13:27 J -42756181.03 -42756180.94 -42756180.85 0.0133 0.0119

Venus -121773-07-29 15:51 J -42755954.98 -42755954.84 -42755954.70 0.0133 0.0097

Venus -121772-03-12 18:15 J -42755728.91 -42755728.74 -42755728.56 0.0133 0.0075

Venus -121772-10-24 20:25 J -42755502.83 -42755502.65 -42755502.44 0.0133 0.0054

Venus -121771-06-07 23:17 J -42755276.73 -42755276.53 -42755276.32 0.0134 0.0031

Venus -121770-01-20 02:10 J -42755050.62 -42755050.41 -42755050.20 0.0134 0.0008

Venus -121770-09-03 05:03 J -42754824.50 -42754824.29 -42754824.08 0.0134 0.0015

Venus -121769-04-16 07:56 J -42754598.37 -42754598.17 -42754597.97 0.0135 0.0039

Venus -121769-11-28 10:49 J -42754372.22 -42754372.05 -42754371.85 0.0135 0.0063

Venus -121768-07-12 14:10 J -42754146.06 -42754145.91 -42754145.74 0.0135 0.0086

Venus -121767-02-23 18:01 J -42753919.87 -42753919.75 -42753919.62 0.0136 0.0109

Venus -121767-10-07 21:51 J -42753693.63 -42753693.59 -42753693.55 0.0136 0.0133

Earth -121748-07-25 08:10 J -42746828.38 -42746828.16 -42746827.93 0.0148 0.0068

Moon -121748-07-25 08:53 J -42746828.35 -42746828.13 -42746827.89 0.0148 0.0074 *

Moon -121747-07-30 17:32 J -42746457.95 -42746457.77 -42746457.59 0.0148 0.0100

Earth -121747-07-30 18:44 J -42746457.91 -42746457.72 -42746457.51 0.0148 0.0093 *

Mercury -121743-07-26 05:17 J -42745001.31 -42745001.28 -42745001.21 0.0149 0.0143

Mercury -121743-10-22 14:10 J -42744913.03 -42744912.91 -42744912.78 0.0149 0.0112

Mercury -121742-01-18 23:03 J -42744824.70 -42744824.54 -42744824.38 0.0149 0.0080

Mercury -121742-04-17 07:41 J -42744736.35 -42744736.18 -42744736.00 0.0149 0.0049

Mercury -121742-07-14 16:34 J -42744648.00 -42744647.81 -42744647.62 0.0149 0.0017

Mercury -121742-10-11 01:13 J -42744559.63 -42744559.45 -42744559.25 0.0149 0.0016

Mercury -121741-01-07 10:05 J -42744471.25 -42744471.08 -42744470.89 0.0149 0.0047

Mercury -121741-04-04 18:44 J -42744382.87 -42744382.72 -42744382.54 0.0149 0.0080

Mercury -121741-07-02 03:37 J -42744294.46 -42744294.35 -42744294.21 0.0149 0.0112

Mercury -121741-09-28 12:29 J -42744206.01 -42744205.98 -42744205.91 0.0149 0.0144

Mars -121737-12-20 19:27 J -42742661.92 -42742661.69 -42742661.44 0.0148 0.0084

Venus -121734-08-19 15:51 J -42741689.87 -42741689.84 -42741689.77 0.0146 0.0143

Venus -121733-04-02 08:25 J -42741463.28 -42741463.15 -42741462.98 0.0146 0.0111

Venus -121733-11-15 00:58 J -42741236.64 -42741236.46 -42741236.26 0.0146 0.0078

Venus -121732-06-29 17:17 J -42741009.99 -42741009.78 -42741009.56 0.0145 0.0046

Venus -121731-02-11 09:22 J -42740783.34 -42740783.11 -42740782.88 0.0145 0.0013

Venus -121731-09-26 00:58 J -42740556.68 -42740556.46 -42740556.23 0.0145 0.0019

Venus -121730-05-10 16:34 J -42740330.02 -42740329.81 -42740329.60 0.0144 0.0050

Venus -121730-12-23 07:27 J -42740103.36 -42740103.19 -42740102.99 0.0144 0.0081

Venus -121729-08-05 22:34 J -42739876.68 -42739876.56 -42739876.40 0.0144 0.0112

Venus -121728-03-20 13:27 J -42739649.96 -42739649.94 -42739649.89 0.0143 0.0141

Moon -121707-02-02 09:37 J -42732026.32 -42732026.10 -42732025.85 0.0131 0.0037

Earth -121707-02-02 12:29 J -42732026.21 -42732025.98 -42732025.73 0.0131 0.0039 *

Earth -121706-02-06 12:01 J -42731657.20 -42731657.00 -42731656.77 0.0131 0.0068

Moon -121706-02-06 15:22 J -42731657.06 -42731656.86 -42731656.63 0.0131 0.0070 *

Mercury -121702-11-19 20:25 J -42729909.69 -42729909.65 -42729909.58 0.0130 0.0120

Mercury -121701-02-15 23:46 J -42729821.59 -42729821.51 -42729821.43 0.0130 0.0104

Mercury -121701-05-14 02:39 J -42729733.48 -42729733.39 -42729733.29 0.0130 0.0089

Mercury -121701-08-10 05:32 J -42729645.37 -42729645.27 -42729645.15 0.0130 0.0074

Mercury -121701-11-06 08:39 J -42729557.26 -42729557.14 -42729557.02 0.0130 0.0058

Mercury -121700-02-02 11:32 J -42729469.14 -42729469.02 -42729468.89 0.0130 0.0043

Mercury -121700-05-01 14:25 J -42729381.03 -42729380.90 -42729380.76 0.0130 0.0029

Mercury -121700-07-28 17:32 J -42729292.91 -42729292.77 -42729292.64 0.0130 0.0014

Mercury -121700-10-24 20:25 J -42729204.79 -42729204.65 -42729204.52 0.0130 0.0002

Mercury -121699-01-20 23:17 J -42729116.66 -42729116.53 -42729116.40 0.0130 0.0017

Mercury -121699-04-19 02:10 J -42729028.54 -42729028.41 -42729028.28 0.0130 0.0032

Mercury -121699-07-16 05:03 J -42728940.41 -42728940.29 -42728940.16 0.0130 0.0046

Mercury -121699-10-12 07:56 J -42728852.29 -42728852.17 -42728852.05 0.0130 0.0061

Mercury -121698-01-08 10:49 J -42728764.16 -42728764.05 -42728763.94 0.0130 0.0076

Mercury -121698-04-06 13:41 J -42728676.02 -42728675.93 -42728675.83 0.0130 0.0091

Mercury -121698-07-03 16:34 J -42728587.88 -42728587.81 -42728587.73 0.0131 0.0106

Mercury -121698-09-29 19:13 J -42728499.74 -42728499.70 -42728499.64 0.0131 0.0121

Mars -121694-04-10 03:51 J -42727211.64 -42727211.34 -42727211.03 0.0131 0.0047

Venus -121690-08-16 04:20 J -42725622.36 -42725622.32 -42725622.26 0.0132 0.0129

Venus -121689-03-29 06:29 J -42725396.34 -42725396.23 -42725396.09 0.0133 0.0107

Venus -121689-11-10 08:53 J -42725170.28 -42725170.13 -42725169.96 0.0133 0.0085

Venus -121688-06-24 11:32 J -42724944.20 -42724944.02 -42724943.84 0.0133 0.0063

Venus -121687-02-05 14:10 J -42724718.11 -42724717.91 -42724717.71 0.0134 0.0040

Venus -121687-09-19 16:49 J -42724492.01 -42724491.80 -42724491.59 0.0134 0.0017

Venus -121686-05-03 19:27 J -42724265.90 -42724265.69 -42724265.48 0.0134 0.0006

Venus -121686-12-15 22:05 J -42724039.77 -42724039.58 -42724039.36 0.0135 0.0030

Venus -121685-07-29 01:13 J -42723813.63 -42723813.45 -42723813.25 0.0135 0.0053

Venus -121684-03-12 04:34 J -42723587.47 -42723587.31 -42723587.13 0.0135 0.0076

Venus -121684-10-24 07:56 J -42723361.30 -42723361.17 -42723361.02 0.0136 0.0100

Venus -121683-06-07 11:46 J -42723135.10 -42723135.01 -42723134.93 0.0136 0.0123

Moon -121664-07-25 20:39 J -42716146.87 -42716146.64 -42716146.40 0.0148 0.0061

Earth -121664-07-26 00:15 J -42716146.72 -42716146.49 -42716146.24 0.0148 0.0055 *

Earth -121663-07-31 10:49 J -42715776.21 -42715776.05 -42715775.85 0.0148 0.0106

Moon -121663-07-31 14:10 J -42715776.07 -42715775.91 -42715775.72 0.0148 0.0106 *

Mercury -121659-08-15 14:53 J -42714299.96 -42714299.88 -42714299.77 0.0149 0.0129

Mercury -121659-11-11 23:46 J -42714211.65 -42714211.51 -42714211.36 0.0149 0.0097

Mercury -121658-02-08 08:25 J -42714123.31 -42714123.15 -42714122.97 0.0149 0.0066

Mercury -121658-05-07 17:17 J -42714034.96 -42714034.78 -42714034.59 0.0149 0.0034

Mercury -121658-08-04 02:10 J -42713946.60 -42713946.41 -42713946.22 0.0149 0.0003

Mercury -121658-10-31 10:49 J -42713858.23 -42713858.05 -42713857.86 0.0149 0.0030

Mercury -121657-01-27 19:41 J -42713769.85 -42713769.68 -42713769.50 0.0149 0.0062

Mercury -121657-04-25 04:34 J -42713681.45 -42713681.31 -42713681.16 0.0149 0.0094

Mercury -121657-07-22 13:27 J -42713593.03 -42713592.94 -42713592.83 0.0149 0.0126

Mars -121654-09-13 22:49 J -42712444.81 -42712444.55 -42712444.29 0.0148 0.0063

Venus -121650-12-01 17:17 J -42710904.90 -42710904.78 -42710904.66 0.0146 0.0124

Venus -121649-07-15 09:51 J -42710678.27 -42710678.09 -42710677.91 0.0146 0.0091

Venus -121648-02-27 01:56 J -42710451.62 -42710451.42 -42710451.20 0.0146 0.0059

Venus -121648-10-11 18:15 J -42710224.96 -42710224.74 -42710224.52 0.0145 0.0026

Venus -121647-05-26 10:05 J -42709998.31 -42709998.08 -42709997.86 0.0145 0.0006

Venus -121646-01-08 01:27 J -42709771.65 -42709771.44 -42709771.21 0.0145 0.0038

Venus -121646-08-22 17:03 J -42709544.98 -42709544.79 -42709544.59 0.0144 0.0069

Venus -121645-04-05 08:10 J -42709318.31 -42709318.16 -42709317.99 0.0144 0.0100

Venus -121645-11-17 22:49 J -42709091.63 -42709091.55 -42709091.44 0.0143 0.0130

Moon -121624-01-30 00:58 J -42701713.47 -42701713.46 -42701713.41 0.0132 0.0131

Earth -121623-02-03 04:34 J -42701344.55 -42701344.31 -42701344.06 0.0131 0.0027

Moon -121623-02-03 06:29 J -42701344.46 -42701344.23 -42701343.99 0.0131 0.0034 *

Moon -121622-02-07 01:56 J -42700975.61 -42700975.42 -42700975.22 0.0131 0.0085

Earth -121622-02-07 04:20 J -42700975.51 -42700975.32 -42700975.11 0.0131 0.0078 *

Mercury -121618-09-13 01:27 J -42699296.46 -42699296.44 -42699296.40 0.0130 0.0127

Mercury -121618-12-10 04:20 J -42699208.37 -42699208.32 -42699208.24 0.0130 0.0113

Mercury -121617-03-07 07:41 J -42699120.27 -42699120.18 -42699120.09 0.0130 0.0097

Mercury -121617-06-03 10:34 J -42699032.16 -42699032.06 -42699031.95 0.0130 0.0082

Mercury -121617-08-30 13:27 J -42698944.05 -42698943.94 -42698943.82 0.0130 0.0067

Mercury -121617-11-26 16:34 J -42698855.93 -42698855.81 -42698855.69 0.0130 0.0051

Mercury -121616-02-22 19:27 J -42698767.82 -42698767.69 -42698767.56 0.0130 0.0036

Mercury -121616-05-21 22:20 J -42698679.70 -42698679.57 -42698679.43 0.0130 0.0022

Mercury -121616-08-18 01:13 J -42698591.58 -42698591.45 -42698591.31 0.0130 0.0008

Mercury -121616-11-14 04:20 J -42698503.46 -42698503.32 -42698503.19 0.0130 0.0009

Mercury -121615-02-10 07:13 J -42698415.33 -42698415.20 -42698415.07 0.0130 0.0024

Mercury -121615-05-09 10:05 J -42698327.21 -42698327.08 -42698326.95 0.0130 0.0038

Mercury -121615-08-05 12:44 J -42698239.08 -42698238.97 -42698238.84 0.0130 0.0054

Mercury -121615-11-01 15:37 J -42698150.96 -42698150.85 -42698150.73 0.0130 0.0068

Mercury -121614-01-28 18:44 J -42698062.82 -42698062.72 -42698062.62 0.0130 0.0083

Mercury -121614-04-26 21:22 J -42697974.69 -42697974.61 -42697974.51 0.0130 0.0098

Mercury -121614-07-24 00:15 J -42697886.55 -42697886.49 -42697886.42 0.0130 0.0112

Mercury -121614-10-20 03:22 J -42697798.39 -42697798.36 -42697798.34 0.0130 0.0127

Mars -121610-12-04 14:25 J -42696292.21 -42696291.90 -42696291.57 0.0131 0.0026

Venus -121606-11-27 20:39 J -42694837.73 -42694837.64 -42694837.54 0.0132 0.0117

Venus -121605-07-10 22:49 J -42694611.69 -42694611.55 -42694611.40 0.0133 0.0095

Venus -121604-02-22 00:58 J -42694385.62 -42694385.46 -42694385.27 0.0133 0.0073

Venus -121604-10-06 03:37 J -42694159.54 -42694159.35 -42694159.15 0.0133 0.0050

Venus -121603-05-20 06:01 J -42693933.45 -42693933.25 -42693933.04 0.0134 0.0028

Venus -121602-01-01 08:53 J -42693707.34 -42693707.13 -42693706.92 0.0134 0.0005

Venus -121602-08-15 11:32 J -42693481.23 -42693481.02 -42693480.81 0.0134 0.0019

Venus -121601-03-28 14:25 J -42693255.10 -42693254.90 -42693254.70 0.0135 0.0042

Venus -121601-11-09 17:17 J -42693028.95 -42693028.78 -42693028.59 0.0135 0.0066

Venus -121600-06-23 20:39 J -42692802.79 -42692802.64 -42692802.48 0.0135 0.0090

Venus -121599-02-05 00:01 J -42692576.60 -42692576.50 -42692576.38 0.0136 0.0114

Earth -121580-07-26 09:51 J -42685465.32 -42685465.09 -42685464.83 0.0148 0.0051

Moon -121580-07-26 11:17 J -42685465.27 -42685465.03 -42685464.80 0.0148 0.0046 *

Earth -121579-07-31 20:39 J -42685094.80 -42685094.64 -42685094.46 0.0148 0.0110

Moon -121579-07-31 21:37 J -42685094.79 -42685094.60 -42685094.40 0.0148 0.0102 *

Mercury -121575-09-04 22:05 J -42683598.67 -42683598.58 -42683598.46 0.0149 0.0122

Mercury -121575-12-02 07:13 J -42683510.35 -42683510.20 -42683510.05 0.0149 0.0090

Mercury -121574-02-28 15:37 J -42683422.01 -42683421.85 -42683421.67 0.0149 0.0059

Mercury -121574-05-28 00:44 J -42683333.66 -42683333.47 -42683333.29 0.0149 0.0027

Mercury -121574-08-24 09:22 J -42683245.30 -42683245.11 -42683244.92 0.0149 0.0005

Mercury -121574-11-20 18:15 J -42683156.93 -42683156.74 -42683156.56 0.0149 0.0037

Mercury -121573-02-17 02:53 J -42683068.54 -42683068.38 -42683068.20 0.0149 0.0069

Mercury -121573-05-15 11:46 J -42682980.14 -42682980.01 -42682979.86 0.0149 0.0101

Mercury -121573-08-11 20:39 J -42682891.71 -42682891.64 -42682891.55 0.0149 0.0133

Mars -121569-05-09 07:27 J -42681525.48 -42681525.19 -42681524.90 0.0148 0.0022
 Venus -121566-07-31 21:22 J -42680346.66 -42680346.61 -42680346.53 0.0147 0.0141
 Venus -121565-03-14 14:25 J -42680120.05 -42680119.90 -42680119.75 0.0146 0.0108
 Venus -121565-10-27 06:29 J -42679893.41 -42679893.23 -42679893.02 0.0146 0.0075
 Venus -121564-06-10 23:03 J -42679666.76 -42679666.54 -42679666.32 0.0146 0.0042
 Venus -121563-01-23 15:08 J -42679440.10 -42679439.87 -42679439.64 0.0145 0.0009
 Venus -121563-09-07 06:58 J -42679213.43 -42679213.21 -42679212.98 0.0145 0.0023
 Venus -121562-04-21 22:34 J -42678986.77 -42678986.56 -42678986.35 0.0145 0.0055
 Venus -121562-12-04 13:41 J -42678760.10 -42678759.93 -42678759.74 0.0144 0.0087
 Venus -121561-07-18 05:03 J -42678533.42 -42678533.29 -42678533.16 0.0144 0.0117
 Moon -121540-01-30 17:03 J -42671031.87 -42671031.79 -42671031.68 0.0132 0.0121
 Earth -121540-01-30 18:44 J -42671031.77 -42671031.72 -42671031.62 0.0132 0.0126 *
 Earth -121539-02-03 19:56 J -42670662.92 -42670662.67 -42670662.42 0.0131 0.0018
 Moon -121539-02-03 22:34 J -42670662.81 -42670662.56 -42670662.31 0.0131 0.0020 *
 Moon -121538-02-07 17:32 J -42670293.94 -42670293.77 -42670293.58 0.0131 0.0088
 Earth -121538-02-07 19:13 J -42670293.86 -42670293.70 -42670293.49 0.0131 0.0088 *
 Mercury -121534-10-03 09:22 J -42668595.15 -42668595.11 -42668595.05 0.0130 0.0120
 Mercury -121534-12-30 12:15 J -42668507.06 -42668506.99 -42668506.90 0.0130 0.0106
 Mercury -121533-03-27 15:22 J -42668418.95 -42668418.86 -42668418.76 0.0130 0.0090
 Mercury -121533-06-23 18:15 J -42668330.84 -42668330.74 -42668330.62 0.0130 0.0075
 Mercury -121533-09-19 21:22 J -42668242.73 -42668242.61 -42668242.49 0.0130 0.0060
 Mercury -121533-12-17 00:15 J -42668154.61 -42668154.49 -42668154.36 0.0130 0.0045
 Mercury -121532-03-15 03:08 J -42668066.49 -42668066.37 -42668066.23 0.0130 0.0031
 Mercury -121532-06-11 06:15 J -42667978.37 -42667978.24 -42667978.11 0.0130 0.0015
 Mercury -121532-09-07 09:08 J -42667890.25 -42667890.12 -42667889.99 0.0130 0.0000
 Mercury -121532-12-04 12:01 J -42667802.13 -42667802.00 -42667801.87 0.0130 0.0015
 Mercury -121531-03-02 14:53 J -42667714.01 -42667713.88 -42667713.75 0.0130 0.0030
 Mercury -121531-05-29 17:46 J -42667625.88 -42667625.76 -42667625.63 0.0130 0.0045
 Mercury -121531-08-25 20:39 J -42667537.76 -42667537.64 -42667537.52 0.0130 0.0060
 Mercury -121531-11-21 23:32 J -42667449.63 -42667449.52 -42667449.41 0.0130 0.0074

Mercury -121530-02-18 02:25 J -42667361.49 -42667361.40 -42667361.30 0.0130 0.0089

Mercury -121530-05-17 05:17 J -42667273.36 -42667273.28 -42667273.20 0.0130 0.0104

Mercury -121530-08-13 08:10 J -42667185.21 -42667185.16 -42667185.10 0.0130 0.0118

Mars -121527-08-27 07:13 J -42666075.41 -42666075.20 -42666074.94 0.0131 0.0092

Mars -121525-07-30 00:15 J -42665372.68 -42665372.49 -42665372.24 0.0131 0.0098

Venus -121522-07-28 10:20 J -42664279.11 -42664279.07 -42664278.99 0.0132 0.0128

Venus -121521-03-10 12:29 J -42664053.09 -42664052.98 -42664052.83 0.0133 0.0106

Venus -121521-10-22 14:53 J -42663827.03 -42663826.88 -42663826.71 0.0133 0.0083

Venus -121520-06-05 17:17 J -42663600.96 -42663600.78 -42663600.59 0.0133 0.0060

Venus -121519-01-17 19:41 J -42663374.88 -42663374.68 -42663374.48 0.0133 0.0038

Venus -121519-08-31 22:05 J -42663148.78 -42663148.58 -42663148.37 0.0134 0.0015

Venus -121518-04-15 00:44 J -42662922.68 -42662922.47 -42662922.26 0.0134 0.0009

Venus -121518-11-27 03:22 J -42662696.56 -42662696.36 -42662696.15 0.0134 0.0032

Venus -121517-07-10 06:15 J -42662470.42 -42662470.24 -42662470.04 0.0135 0.0056

Venus -121516-02-21 09:37 J -42662244.26 -42662244.10 -42662243.93 0.0135 0.0079

Venus -121516-10-05 12:44 J -42662018.09 -42662017.97 -42662017.83 0.0135 0.0103

Venus -121515-05-19 16:20 J -42661791.89 -42661791.82 -42661791.75 0.0136 0.0127

Earth -121496-07-26 19:13 J -42654783.94 -42654783.70 -42654783.45 0.0148 0.0047

Moon -121496-07-26 22:34 J -42654783.81 -42654783.56 -42654783.31 0.0148 0.0041 *

Moon -121495-08-01 01:56 J -42654413.58 -42654413.42 -42654413.25 0.0148 0.0112

Earth -121495-08-01 06:01 J -42654413.42 -42654413.25 -42654413.09 0.0148 0.0113 *

Mercury -121491-06-28 20:39 J -42652985.65 -42652985.64 -42652985.60 0.0149 0.0147

Mercury -121491-09-25 05:17 J -42652897.38 -42652897.28 -42652897.15 0.0149 0.0116

Mercury -121491-12-22 14:10 J -42652809.06 -42652808.91 -42652808.75 0.0149 0.0084

Mercury -121490-03-20 22:49 J -42652720.72 -42652720.55 -42652720.37 0.0149 0.0053

Mercury -121490-06-17 07:41 J -42652632.37 -42652632.18 -42652631.99 0.0149 0.0021

Mercury -121490-09-13 16:34 J -42652544.00 -42652543.81 -42652543.62 0.0149 0.0011

Mercury -121490-12-11 01:13 J -42652455.63 -42652455.45 -42652455.26 0.0149 0.0043

Mercury -121489-03-08 10:05 J -42652367.24 -42652367.08 -42652366.91 0.0149 0.0075

Mercury -121489-06-04 18:58 J -42652278.84 -42652278.71 -42652278.57 0.0149 0.0107

Mercury -121489-09-01 04:05 J -42652190.40 -42652190.33 -42652190.27 0.0149 0.0139

Mars -121486-01-30 19:56 J -42651308.77 -42651308.67 -42651308.55 0.0148 0.0137

Mars -121484-01-02 14:10 J -42650606.11 -42650605.91 -42650605.70 0.0148 0.0106

Venus -121482-11-12 17:17 J -42649561.88 -42649561.78 -42649561.65 0.0146 0.0126

Venus -121481-06-26 10:05 J -42649335.25 -42649335.08 -42649334.90 0.0146 0.0093

Venus -121480-02-08 02:39 J -42649108.60 -42649108.39 -42649108.18 0.0146 0.0059

Venus -121480-09-22 18:44 J -42648881.94 -42648881.72 -42648881.49 0.0146 0.0026

Venus -121479-05-07 10:49 J -42648655.28 -42648655.05 -42648654.82 0.0145 0.0007

Venus -121479-12-20 02:25 J -42648428.61 -42648428.40 -42648428.18 0.0145 0.0039

Venus -121478-08-03 18:01 J -42648201.94 -42648201.75 -42648201.54 0.0144 0.0071

Venus -121477-03-17 09:22 J -42647975.26 -42647975.11 -42647974.95 0.0144 0.0103

Venus -121477-10-30 00:01 J -42647748.56 -42647748.50 -42647748.40 0.0144 0.0134

Earth -121456-01-31 08:53 J -42640350.22 -42640350.13 -42640350.00 0.0132 0.0118

Moon -121456-01-31 11:46 J -42640350.07 -42640350.01 -42640349.90 0.0132 0.0123 *

Moon -121455-02-04 06:58 J -42639981.46 -42639981.21 -42639980.96 0.0131 0.0004

Earth -121455-02-04 10:20 J -42639981.32 -42639981.07 -42639980.82 0.0131 0.0010 *

Earth -121454-02-08 10:20 J -42639612.24 -42639612.07 -42639611.90 0.0131 0.0096

Moon -121454-02-08 12:58 J -42639612.12 -42639611.96 -42639611.77 0.0131 0.0089 *

Mercury -121450-07-27 14:10 J -42637981.92 -42637981.91 -42637981.89 0.0130 0.0129

Mercury -121450-10-23 17:03 J -42637893.84 -42637893.79 -42637893.71 0.0130 0.0115

Mercury -121449-01-19 20:10 J -42637805.74 -42637805.66 -42637805.57 0.0130 0.0099

Mercury -121449-04-16 23:17 J -42637717.63 -42637717.53 -42637717.43 0.0130 0.0084

Mercury -121449-07-14 02:10 J -42637629.52 -42637629.41 -42637629.29 0.0130 0.0069

Mercury -121449-10-10 05:17 J -42637541.41 -42637541.28 -42637541.16 0.0130 0.0054

Mercury -121448-01-06 08:10 J -42637453.29 -42637453.16 -42637453.03 0.0130 0.0039

Mercury -121448-04-04 11:03 J -42637365.17 -42637365.04 -42637364.91 0.0130 0.0024

Mercury -121448-07-01 13:56 J -42637277.05 -42637276.92 -42637276.78 0.0130 0.0009

Mercury -121448-09-27 17:03 J -42637188.93 -42637188.79 -42637188.66 0.0130 0.0008

Mercury -121448-12-24 19:56 J -42637100.81 -42637100.67 -42637100.54 0.0130 0.0022

Mercury -121447-03-22 22:34 J -42637012.68 -42637012.56 -42637012.42 0.0130 0.0037

Mercury -121447-06-19 01:27 J -42636924.55 -42636924.44 -42636924.31 0.0130 0.0052

Mercury -121447-09-15 04:20 J -42636836.43 -42636836.32 -42636836.20 0.0130 0.0066

Mercury -121447-12-12 07:27 J -42636748.29 -42636748.19 -42636748.09 0.0130 0.0081

Mercury -121446-03-10 10:05 J -42636660.16 -42636660.08 -42636659.98 0.0130 0.0096

Mercury -121446-06-06 12:58 J -42636572.02 -42636571.96 -42636571.88 0.0130 0.0110

Mercury -121446-09-02 16:05 J -42636483.87 -42636483.83 -42636483.80 0.0130 0.0125

Mars -121442-04-22 19:27 J -42635156.01 -42635155.69 -42635155.35 0.0131 0.0020

Venus -121438-11-09 02:53 J -42633494.46 -42633494.38 -42633494.26 0.0132 0.0116

Venus -121437-06-22 05:17 J -42633268.42 -42633268.28 -42633268.12 0.0133 0.0093

Venus -121436-02-03 07:27 J -42633042.35 -42633042.19 -42633042.00 0.0133 0.0071

Venus -121436-09-17 10:05 J -42632816.28 -42632816.08 -42632815.89 0.0133 0.0048

Venus -121435-05-01 12:15 J -42632590.19 -42632589.99 -42632589.78 0.0133 0.0025

Venus -121435-12-13 14:53 J -42632364.09 -42632363.88 -42632363.67 0.0134 0.0001

Venus -121434-07-27 17:32 J -42632137.97 -42632137.77 -42632137.56 0.0134 0.0022

Venus -121433-03-09 20:25 J -42631911.84 -42631911.65 -42631911.45 0.0134 0.0046

Venus -121433-10-21 23:17 J -42631685.70 -42631685.53 -42631685.34 0.0135 0.0070

Venus -121432-06-05 02:25 J -42631459.54 -42631459.40 -42631459.24 0.0135 0.0093

Venus -121431-01-17 05:46 J -42631233.35 -42631233.26 -42631233.15 0.0135 0.0117

Moon -121412-07-27 02:39 J -42624102.64 -42624102.39 -42624102.13 0.0148 0.0047

Earth -121412-07-27 04:49 J -42624102.54 -42624102.30 -42624102.05 0.0148 0.0043 *

Earth -121411-08-01 14:39 J -42623732.03 -42623731.89 -42623731.72 0.0148 0.0117

Moon -121411-08-01 15:51 J -42623731.95 -42623731.84 -42623731.68 0.0148 0.0125 *

Mercury -121407-07-19 03:51 J -42622284.39 -42622284.34 -42622284.28 0.0149 0.0141

Mercury -121407-10-15 12:29 J -42622196.10 -42622195.98 -42622195.85 0.0149 0.0110

Mercury -121406-01-11 20:53 J -42622107.78 -42622107.63 -42622107.46 0.0149 0.0079

Mercury -121406-04-10 05:46 J -42622019.44 -42622019.26 -42622019.08 0.0149 0.0047

Mercury -121406-07-07 14:39 J -42621931.08 -42621930.89 -42621930.70 0.0149 0.0016

Mercury -121406-10-03 23:17 J -42621842.72 -42621842.53 -42621842.34 0.0149 0.0017

Mercury -121406-12-31 08:10 J -42621754.34 -42621754.16 -42621753.98 0.0149 0.0048

Mercury -121405-03-28 17:03 J -42621665.95 -42621665.79 -42621665.63 0.0149 0.0080

Mercury -121405-06-25 01:41 J -42621577.54 -42621577.43 -42621577.30 0.0149 0.0113

Mercury -121405-09-21 10:34 J -42621489.09 -42621489.06 -42621489.01 0.0149 0.0145

Mars -121402-09-26 01:56 J -42620389.68 -42620389.42 -42620389.13 0.0148 0.0054

Venus -121398-07-12 20:10 J -42619003.70 -42619003.66 -42619003.62 0.0147 0.0144

Venus -121397-02-24 12:44 J -42618777.11 -42618776.97 -42618776.82 0.0146 0.0111

Venus -121397-10-08 05:17 J -42618550.47 -42618550.28 -42618550.09 0.0146 0.0077

Venus -121396-05-22 21:37 J -42618323.82 -42618323.60 -42618323.39 0.0146 0.0044

Venus -121395-01-04 13:41 J -42618097.16 -42618096.93 -42618096.71 0.0145 0.0011

Venus -121395-08-19 05:32 J -42617870.49 -42617870.27 -42617870.04 0.0145 0.0022

Venus -121394-04-02 21:08 J -42617643.82 -42617643.62 -42617643.40 0.0145 0.0055

Venus -121394-11-15 12:29 J -42617417.15 -42617416.98 -42617416.79 0.0144 0.0087

Venus -121393-06-29 03:37 J -42617190.47 -42617190.35 -42617190.21 0.0144 0.0118

Earth -121372-01-31 22:49 J -42609668.68 -42609668.55 -42609668.41 0.0132 0.0110

Moon -121372-01-31 23:46 J -42609668.62 -42609668.51 -42609668.36 0.0132 0.0115 *

Moon -121371-02-04 23:17 J -42609299.77 -42609299.53 -42609299.29 0.0131 0.0001

Earth -121371-02-05 00:01 J -42609299.75 -42609299.50 -42609299.25 0.0131 0.0003 *

Earth -121370-02-08 23:46 J -42608930.65 -42608930.51 -42608930.34 0.0131 0.0103

Moon -121370-02-09 01:13 J -42608930.60 -42608930.45 -42608930.28 0.0131 0.0104 *

Mercury -121366-08-16 21:51 J -42607280.62 -42607280.59 -42607280.54 0.0131 0.0124

Mercury -121366-11-13 00:44 J -42607192.53 -42607192.47 -42607192.38 0.0130 0.0109

Mercury -121365-02-09 04:05 J -42607104.42 -42607104.33 -42607104.24 0.0130 0.0093

Mercury -121365-05-07 06:58 J -42607016.32 -42607016.21 -42607016.10 0.0130 0.0078

Mercury -121365-08-03 09:51 J -42606928.20 -42606928.09 -42606927.97 0.0130 0.0063

Mercury -121365-10-30 12:58 J -42606840.09 -42606839.96 -42606839.84 0.0130 0.0048

Mercury -121364-01-26 15:51 J -42606751.97 -42606751.84 -42606751.71 0.0130 0.0033

Mercury -121364-04-24 18:44 J -42606663.85 -42606663.72 -42606663.58 0.0130 0.0018

Mercury -121364-07-21 21:51 J -42606575.73 -42606575.59 -42606575.46 0.0130 0.0004

Mercury -121364-10-18 00:44 J -42606487.61 -42606487.47 -42606487.34 0.0130 0.0013

Mercury -121363-01-14 03:37 J -42606399.48 -42606399.35 -42606399.22 0.0130 0.0027

Mercury -121363-04-12 06:29 J -42606311.36 -42606311.23 -42606311.10 0.0130 0.0042

Mercury -121363-07-09 09:22 J -42606223.23 -42606223.11 -42606222.99 0.0130 0.0057

Mercury -121363-10-05 12:15 J -42606135.10 -42606134.99 -42606134.88 0.0130 0.0072

Mercury -121362-01-01 14:53 J -42606046.97 -42606046.88 -42606046.77 0.0130 0.0088

Mercury -121362-03-30 18:01 J -42605958.83 -42605958.75 -42605958.66 0.0130 0.0102

Mercury -121362-06-26 20:53 J -42605870.68 -42605870.63 -42605870.57 0.0130 0.0116

Mars -121358-12-17 06:44 J -42604236.50 -42604236.22 -42604235.90 0.0131 0.0053

Venus -121354-07-09 17:46 J -42602935.81 -42602935.76 -42602935.68 0.0132 0.0126

Venus -121353-02-20 20:25 J -42602709.78 -42602709.65 -42602709.52 0.0133 0.0103

Venus -121353-10-03 22:05 J -42602483.73 -42602483.58 -42602483.39 0.0133 0.0081

Venus -121352-05-18 00:29 J -42602257.66 -42602257.48 -42602257.28 0.0133 0.0058

Venus -121352-12-30 03:08 J -42602031.57 -42602031.37 -42602031.17 0.0133 0.0035

Saturn -121351-08-05 05:17 J -42601813.78 -42601813.28 -42601812.76 0.0134 0.0069

Venus -121351-08-13 05:32 J -42601805.47 -42601805.27 -42601805.06 0.0134 0.0012

Venus -121350-03-27 08:10 J -42601579.36 -42601579.16 -42601578.95 0.0134 0.0013

Venus -121350-11-08 10:49 J -42601353.24 -42601353.05 -42601352.84 0.0134 0.0037

Venus -121349-06-21 13:56 J -42601127.10 -42601126.92 -42601126.73 0.0135 0.0060

Venus -121348-02-02 17:03 J -42600900.95 -42600900.79 -42600900.62 0.0135 0.0084

Venus -121348-09-16 20:10 J -42600674.77 -42600674.66 -42600674.52 0.0135 0.0108

Venus -121347-04-30 23:32 J -42600448.54 -42600448.52 -42600448.46 0.0136 0.0133

Moon -121328-07-27 18:29 J -42593420.96 -42593420.73 -42593420.48 0.0148 0.0038

Earth -121328-07-27 20:39 J -42593420.88 -42593420.64 -42593420.38 0.0148 0.0031 *

Earth -121327-08-02 06:15 J -42593050.34 -42593050.24 -42593050.09 0.0148 0.0129

Moon -121327-08-02 09:22 J -42593050.22 -42593050.11 -42593049.99 0.0148 0.0132 *

Mercury -121323-08-08 12:44 J -42591583.05 -42591582.97 -42591582.87 0.0149 0.0129

Mercury -121323-11-04 21:22 J -42591494.74 -42591494.61 -42591494.46 0.0149 0.0098

Mercury -121322-02-01 06:15 J -42591406.41 -42591406.24 -42591406.07 0.0149 0.0066

Mercury -121322-04-30 14:53 J -42591318.06 -42591317.88 -42591317.69 0.0149 0.0035

Mercury -121322-07-27 23:46 J -42591229.70 -42591229.51 -42591229.32 0.0149 0.0004

Mercury -121322-10-24 08:25 J -42591141.33 -42591141.15 -42591140.96 0.0149 0.0029

Mercury -121321-01-20 17:17 J -42591052.95 -42591052.78 -42591052.61 0.0149 0.0061

Mercury -121321-04-18 01:56 J -42590964.56 -42590964.42 -42590964.26 0.0149 0.0093

Mercury -121321-07-15 10:49 J -42590876.14 -42590876.05 -42590875.94 0.0149 0.0125

Mars -121317-05-21 19:27 J -42589469.96 -42589469.69 -42589469.40 0.0148 0.0037

Venus -121314-10-24 18:58 J -42588218.81 -42588218.71 -42588218.59 0.0147 0.0127

Venus -121313-06-07 11:32 J -42587992.19 -42587992.02 -42587991.84 0.0146 0.0093

Venus -121312-01-20 03:51 J -42587765.54 -42587765.34 -42587765.13 0.0146 0.0060

Venus -121312-09-03 20:10 J -42587538.88 -42587538.66 -42587538.43 0.0146 0.0026

Venus -121311-04-18 12:15 J -42587312.22 -42587311.99 -42587311.77 0.0145 0.0007

Venus -121311-12-01 03:51 J -42587085.55 -42587085.34 -42587085.12 0.0145 0.0040

Venus -121310-07-15 19:13 J -42586858.88 -42586858.70 -42586858.49 0.0145 0.0073

Venus -121309-02-27 10:34 J -42586632.20 -42586632.06 -42586631.89 0.0144 0.0104

Venus -121309-10-11 01:27 J -42586405.50 -42586405.44 -42586405.35 0.0144 0.0136

Moon -121288-02-01 10:34 J -42578987.21 -42578987.06 -42578986.89 0.0132 0.0100

Earth -121288-02-01 13:41 J -42578987.07 -42578986.93 -42578986.75 0.0132 0.0101 *

Earth -121287-02-05 14:53 J -42578618.12 -42578617.88 -42578617.63 0.0132 0.0007

Moon -121287-02-05 18:01 J -42578618.00 -42578617.75 -42578617.50 0.0132 0.0004 *

Moon -121286-02-09 11:32 J -42578249.11 -42578249.02 -42578248.90 0.0131 0.0119

Earth -121286-02-09 14:53 J -42578248.99 -42578248.88 -42578248.74 0.0131 0.0113 *

Mercury -121282-09-06 05:46 J -42576579.31 -42576579.26 -42576579.19 0.0131 0.0117

Mercury -121282-12-03 08:53 J -42576491.21 -42576491.13 -42576491.04 0.0131 0.0101

Mercury -121281-02-29 11:46 J -42576403.10 -42576403.01 -42576402.90 0.0131 0.0087

Mercury -121281-05-27 14:53 J -42576314.99 -42576314.88 -42576314.76 0.0131 0.0071

Mercury -121281-08-23 18:01 J -42576226.88 -42576226.75 -42576226.63 0.0130 0.0056

Mercury -121281-11-19 20:53 J -42576138.76 -42576138.63 -42576138.50 0.0130 0.0041

Mercury -121280-02-15 23:46 J -42576050.64 -42576050.51 -42576050.38 0.0130 0.0026

Mercury -121280-05-15 02:39 J -42575962.52 -42575962.39 -42575962.25 0.0130 0.0012

Mercury -121280-08-11 05:46 J -42575874.40 -42575874.26 -42575874.13 0.0130 0.0005

Mercury -121280-11-07 08:39 J -42575786.27 -42575786.14 -42575786.01 0.0130 0.0020

Mercury -121279-02-03 11:32 J -42575698.15 -42575698.02 -42575697.89 0.0130 0.0034

Mercury -121279-05-02 14:25 J -42575610.02 -42575609.90 -42575609.77 0.0130 0.0049

Mercury -121279-07-29 17:17 J -42575521.89 -42575521.78 -42575521.66 0.0130 0.0064

Mercury -121279-10-25 20:10 J -42575433.76 -42575433.66 -42575433.55 0.0130 0.0079

Mercury -121278-01-21 22:49 J -42575345.63 -42575345.55 -42575345.44 0.0130 0.0095

Mercury -121278-04-20 01:56 J -42575257.49 -42575257.42 -42575257.34 0.0130 0.0109

Mercury -121278-07-17 04:49 J -42575169.33 -42575169.30 -42575169.25 0.0131 0.0124

Mars -121275-09-09 03:51 J -42574019.62 -42574019.34 -42574019.05 0.0131 0.0064

Mars -121273-08-11 21:08 J -42573316.67 -42573316.62 -42573316.51 0.0131 0.0128

Venus -121270-10-21 11:32 J -42572151.12 -42572151.02 -42572150.91 0.0132 0.0113

Venus -121269-06-03 13:41 J -42571925.08 -42571924.93 -42571924.77 0.0133 0.0090

Venus -121268-01-15 16:05 J -42571699.01 -42571698.83 -42571698.65 0.0133 0.0067

Venus -121268-08-29 18:15 J -42571472.93 -42571472.74 -42571472.54 0.0133 0.0044

Venus -121267-04-12 20:53 J -42571246.84 -42571246.63 -42571246.43 0.0134 0.0021

Venus -121267-11-24 23:17 J -42571020.74 -42571020.53 -42571020.32 0.0134 0.0004

Venus -121266-07-09 01:56 J -42570794.62 -42570794.42 -42570794.21 0.0134 0.0027

Venus -121265-02-20 05:03 J -42570568.48 -42570568.29 -42570568.09 0.0134 0.0051

Venus -121265-10-03 07:56 J -42570342.33 -42570342.17 -42570341.98 0.0135 0.0075

Venus -121264-05-17 11:03 J -42570116.16 -42570116.04 -42570115.88 0.0135 0.0099

Venus -121264-12-29 14:25 J -42569889.96 -42569889.90 -42569889.80 0.0135 0.0124

Earth -121244-07-28 13:13 J -42562739.21 -42562738.95 -42562738.69 0.0147 0.0017

Moon -121244-07-28 16:34 J -42562739.06 -42562738.81 -42562738.54 0.0147 0.0021 *

Moon -121243-08-02 18:58 J -42562368.76 -42562368.71 -42562368.62 0.0148 0.0142

Earth -121243-08-02 22:34 J -42562368.61 -42562368.56 -42562368.47 0.0148 0.0142

Mercury -121239-06-01 13:27 J -42560969.96 -42560969.94 -42560969.90 0.0149 0.0146

Mercury -121239-08-28 22:05 J -42560881.69 -42560881.58 -42560881.45 0.0149 0.0115

Mercury -121239-11-25 06:44 J -42560793.37 -42560793.22 -42560793.06 0.0149 0.0084

Mercury -121238-02-21 15:22 J -42560705.03 -42560704.86 -42560704.67 0.0149 0.0053

Mercury -121238-05-21 00:15 J -42560616.68 -42560616.49 -42560616.30 0.0149 0.0021

Mercury -121238-08-17 08:53 J -42560528.31 -42560528.13 -42560527.93 0.0149 0.0012

Mercury -121238-11-13 17:46 J -42560439.94 -42560439.76 -42560439.58 0.0149 0.0043

Mercury -121237-02-10 02:25 J -42560351.55 -42560351.40 -42560351.23 0.0149 0.0075

Mercury -121237-05-08 11:17 J -42560263.15 -42560263.03 -42560262.89 0.0149 0.0107

Mercury -121237-08-04 20:10 J -42560174.71 -42560174.66 -42560174.58 0.0149 0.0139

Mars -121234-02-12 18:29 J -42559252.90 -42559252.73 -42559252.54 0.0148 0.0116

Mars -121232-01-15 12:15 J -42558550.12 -42558549.99 -42558549.84 0.0148 0.0128

Venus -121230-06-24 01:41 J -42557660.47 -42557660.43 -42557660.37 0.0147 0.0143

Venus -121229-02-05 18:29 J -42557433.88 -42557433.73 -42557433.58 0.0146 0.0109

Venus -121229-09-19 10:34 J -42557207.24 -42557207.06 -42557206.86 0.0146 0.0075

Venus -121228-05-04 02:39 J -42556980.59 -42556980.39 -42556980.16 0.0146 0.0042

Venus -121228-12-16 18:58 J -42556753.94 -42556753.71 -42556753.48 0.0145 0.0008

Venus -121227-07-31 10:49 J -42556527.27 -42556527.05 -42556526.82 0.0145 0.0026

Venus -121226-03-15 02:25 J -42556300.60 -42556300.40 -42556300.19 0.0145 0.0058

Venus -121226-10-27 17:46 J -42556073.93 -42556073.76 -42556073.58 0.0144 0.0091

Venus -121225-06-10 08:39 J -42555847.24 -42555847.14 -42555847.01 0.0144 0.0123

Earth -121204-02-02 04:49 J -42548305.46 -42548305.30 -42548305.10 0.0132 0.0091

Moon -121204-02-02 09:08 J -42548305.31 -42548305.12 -42548304.93 0.0132 0.0085 *

Moon -121203-02-06 02:53 J -42547936.62 -42547936.38 -42547936.12 0.0132 0.0012

Earth -121203-02-06 06:29 J -42547936.48 -42547936.23 -42547935.98 0.0132 0.0017 *

Earth -121202-02-10 06:01 J -42547567.32 -42547567.25 -42547567.14 0.0131 0.0123

Moon -121202-02-10 09:37 J -42547567.12 -42547567.10 -42547567.04 0.0131 0.0130

Mercury -121198-06-30 10:49 J -42545966.08 -42545966.05 -42545966.01 0.0131 0.0125

Mercury -121198-09-26 13:41 J -42545877.99 -42545877.93 -42545877.85 0.0131 0.0110

Mercury -121198-12-23 16:49 J -42545789.89 -42545789.80 -42545789.70 0.0131 0.0094

Mercury -121197-03-20 19:56 J -42545701.78 -42545701.67 -42545701.56 0.0131 0.0079

Mercury -121197-06-16 22:49 J -42545613.66 -42545613.55 -42545613.43 0.0131 0.0064

Mercury -121197-09-13 01:56 J -42545525.55 -42545525.42 -42545525.30 0.0131 0.0049

Mercury -121197-12-10 04:49 J -42545437.43 -42545437.30 -42545437.17 0.0130 0.0033

Mercury -121196-03-08 07:41 J -42545349.31 -42545349.18 -42545349.04 0.0130 0.0019

Mercury -121196-06-04 10:49 J -42545261.19 -42545261.05 -42545260.92 0.0130 0.0004

Mercury -121196-08-31 13:41 J -42545173.06 -42545172.93 -42545172.80 0.0130 0.0012

Mercury -121196-11-27 16:34 J -42545084.94 -42545084.81 -42545084.68 0.0130 0.0027

Mercury -121195-02-23 19:27 J -42544996.81 -42544996.69 -42544996.56 0.0130 0.0042

Mercury -121195-05-22 22:20 J -42544908.69 -42544908.57 -42544908.45 0.0130 0.0057

Mercury -121195-08-19 01:13 J -42544820.55 -42544820.45 -42544820.33 0.0130 0.0072

Mercury -121195-11-15 04:05 J -42544732.42 -42544732.33 -42544732.22 0.0130 0.0087

Mercury -121194-02-11 06:58 J -42544644.28 -42544644.21 -42544644.12 0.0131 0.0101

Mercury -121194-05-10 10:05 J -42544556.14 -42544556.08 -42544556.02 0.0131 0.0116

Mars -121190-05-05 17:32 J -42543100.09 -42543099.77 -42543099.43 0.0131 0.0010

Venus -121186-06-21 02:25 J -42541592.47 -42541592.40 -42541592.31 0.0132 0.0123

Venus -121185-02-02 04:49 J -42541366.43 -42541366.30 -42541366.16 0.0133 0.0100

Venus -121185-09-15 06:58 J -42541140.38 -42541140.21 -42541140.04 0.0133 0.0077

Venus -121184-04-29 09:08 J -42540914.30 -42540914.12 -42540913.92 0.0133 0.0054

Venus -121184-12-11 11:46 J -42540688.22 -42540688.01 -42540687.81 0.0133 0.0031

Venus -121183-07-25 14:10 J -42540462.11 -42540461.91 -42540461.70 0.0134 0.0008

Venus -121182-03-08 17:03 J -42540236.00 -42540235.79 -42540235.58 0.0134 0.0017

Venus -121182-10-20 19:41 J -42540009.87 -42540009.68 -42540009.47 0.0134 0.0042

Venus -121181-06-02 22:34 J -42539783.73 -42539783.56 -42539783.36 0.0135 0.0066

Venus -121180-01-15 01:56 J -42539557.57 -42539557.42 -42539557.26 0.0135 0.0090

Venus -121180-08-29 05:17 J -42539331.38 -42539331.28 -42539331.16 0.0135 0.0114

Moon -121160-07-29 02:39 J -42532057.65 -42532057.39 -42532057.13 0.0147 0.0001

Earth -121160-07-29 06:29 J -42532057.49 -42532057.23 -42532056.97 0.0147 0.0002 *

Mercury -121155-06-21 23:17 J -42530268.61 -42530268.53 -42530268.43 0.0149 0.0131

Mercury -121155-09-18 07:56 J -42530180.30 -42530180.17 -42530180.02 0.0149 0.0100

Mercury -121155-12-15 16:49 J -42530091.97 -42530091.80 -42530091.63 0.0149 0.0068

Mercury -121154-03-14 01:27 J -42530003.62 -42530003.44 -42530003.25 0.0149 0.0037

Mercury -121154-06-10 10:20 J -42529915.26 -42529915.07 -42529914.88 0.0149 0.0005

Mercury -121154-09-06 18:58 J -42529826.89 -42529826.71 -42529826.52 0.0149 0.0027

Mercury -121154-12-04 03:51 J -42529738.51 -42529738.34 -42529738.16 0.0149 0.0059

Mercury -121153-03-01 12:29 J -42529650.12 -42529649.98 -42529649.82 0.0149 0.0091

Mercury -121153-05-28 21:22 J -42529561.71 -42529561.61 -42529561.49 0.0149 0.0123

Mars -121150-10-09 17:03 J -42528333.07 -42528332.79 -42528332.50 0.0148 0.0021

Venus -121146-10-06 03:08 J -42526875.49 -42526875.37 -42526875.25 0.0147 0.0123
 Venus -121145-05-19 19:13 J -42526648.87 -42526648.70 -42526648.51 0.0146 0.0089
 Venus -121144-01-01 11:32 J -42526422.23 -42526422.02 -42526421.81 0.0146 0.0055
 Venus -121144-08-16 03:51 J -42526195.56 -42526195.34 -42526195.12 0.0146 0.0021
 Venus -121143-03-30 19:41 J -42525968.90 -42525968.68 -42525968.45 0.0145 0.0012
 Venus -121143-11-12 11:17 J -42525742.24 -42525742.03 -42525741.81 0.0145 0.0046
 Venus -121142-06-27 02:39 J -42525515.57 -42525515.39 -42525515.19 0.0144 0.0078
 Venus -121141-02-08 18:01 J -42525288.89 -42525288.75 -42525288.60 0.0144 0.0111
 Venus -121141-09-22 09:08 J -42525062.14 -42525062.12 -42525062.08 0.0144 0.0142
 Moon -121120-02-02 17:46 J -42517623.97 -42517623.76 -42517623.54 0.0132 0.0073
 Earth -121120-02-02 20:53 J -42517623.82 -42517623.63 -42517623.42 0.0132 0.0080 *
 Earth -121119-02-06 21:51 J -42517254.83 -42517254.59 -42517254.34 0.0132 0.0027
 Moon -121119-02-07 00:44 J -42517254.71 -42517254.47 -42517254.22 0.0132 0.0021 *
 Mercury -121114-07-20 18:44 J -42515264.77 -42515264.72 -42515264.66 0.0131 0.0118
 Mercury -121114-10-16 21:37 J -42515176.67 -42515176.60 -42515176.51 0.0130 0.0103
 Mercury -121113-01-13 00:44 J -42515088.56 -42515088.47 -42515088.36 0.0130 0.0087
 Mercury -121113-04-10 03:51 J -42515000.45 -42515000.34 -42515000.23 0.0130 0.0072
 Mercury -121113-07-07 06:44 J -42514912.34 -42514912.22 -42514912.09 0.0130 0.0057
 Mercury -121113-10-03 09:51 J -42514824.22 -42514824.09 -42514823.96 0.0130 0.0042
 Mercury -121113-12-30 12:44 J -42514736.10 -42514735.97 -42514735.84 0.0130 0.0027
 Mercury -121112-03-28 15:37 J -42514647.98 -42514647.85 -42514647.71 0.0130 0.0012
 Mercury -121112-06-24 18:44 J -42514559.86 -42514559.72 -42514559.59 0.0130 0.0004
 Mercury -121112-09-20 21:37 J -42514471.73 -42514471.60 -42514471.47 0.0130 0.0019
 Mercury -121112-12-18 00:29 J -42514383.61 -42514383.48 -42514383.35 0.0130 0.0034
 Mercury -121111-03-16 03:22 J -42514295.48 -42514295.36 -42514295.23 0.0130 0.0049
 Mercury -121111-06-12 06:15 J -42514207.35 -42514207.24 -42514207.12 0.0130 0.0064
 Mercury -121111-09-08 09:08 J -42514119.22 -42514119.12 -42514119.01 0.0130 0.0079
 Mercury -121111-12-05 12:01 J -42514031.08 -42514031.00 -42514030.90 0.0130 0.0093
 Mercury -121110-03-03 15:08 J -42513942.94 -42513942.87 -42513942.80 0.0130 0.0108
 Mercury -121110-05-30 17:46 J -42513854.79 -42513854.76 -42513854.71 0.0130 0.0123

Mars -121107-01-26 12:29 J -42512883.15 -42512882.98 -42512882.79 0.0131 0.0108
 Mars -121106-12-30 05:03 J -42512180.53 -42512180.29 -42512180.02 0.0131 0.0084
 Venus -121102-10-02 18:58 J -42510807.81 -42510807.71 -42510807.58 0.0132 0.0111
 Venus -121101-05-15 21:08 J -42510581.76 -42510581.62 -42510581.45 0.0133 0.0088
 Venus -121101-12-27 23:46 J -42510355.69 -42510355.51 -42510355.33 0.0133 0.0064
 Venus -121100-08-11 01:56 J -42510129.61 -42510129.42 -42510129.21 0.0133 0.0041
 Venus -121099-03-25 04:34 J -42509903.51 -42509903.31 -42509903.10 0.0133 0.0017
 Venus -121099-11-06 07:13 J -42509677.40 -42509677.20 -42509676.99 0.0134 0.0008
 Venus -121098-06-20 10:05 J -42509451.28 -42509451.08 -42509450.88 0.0134 0.0031
 Venus -121097-02-01 12:58 J -42509225.14 -42509224.96 -42509224.76 0.0134 0.0056
 Venus -121097-09-14 16:05 J -42508998.99 -42508998.83 -42508998.66 0.0135 0.0080
 Venus -121096-04-28 19:27 J -42508772.82 -42508772.69 -42508772.56 0.0135 0.0104
 Venus -121096-12-10 22:20 J -42508546.61 -42508546.57 -42508546.49 0.0135 0.0130
 Earth -121076-07-29 19:27 J -42501375.95 -42501375.69 -42501375.43 0.0147 0.0007
 Moon -121076-07-29 22:34 J -42501375.81 -42501375.56 -42501375.31 0.0147 0.0013 *
 Mercury -121071-07-12 07:41 J -42499567.28 -42499567.18 -42499567.06 0.0149 0.0120
 Mercury -121071-10-08 16:20 J -42499478.96 -42499478.82 -42499478.66 0.0149 0.0089
 Mercury -121070-01-05 01:13 J -42499390.62 -42499390.45 -42499390.27 0.0149 0.0057
 Mercury -121070-04-03 09:51 J -42499302.27 -42499302.09 -42499301.90 0.0149 0.0026
 Mercury -121070-06-30 18:44 J -42499213.91 -42499213.72 -42499213.53 0.0149 0.0006
 Mercury -121070-09-27 03:37 J -42499125.54 -42499125.35 -42499125.17 0.0149 0.0038
 Mercury -121070-12-24 12:15 J -42499037.15 -42499036.99 -42499036.82 0.0149 0.0070
 Mercury -121069-03-21 21:08 J -42498948.76 -42498948.62 -42498948.48 0.0149 0.0102
 Mercury -121069-06-18 06:01 J -42498860.33 -42498860.25 -42498860.17 0.0149 0.0134
 Mars -121065-06-04 06:29 J -42497413.47 -42497413.23 -42497412.96 0.0148 0.0070
 Venus -121062-06-05 08:25 J -42496317.20 -42496317.15 -42496317.07 0.0147 0.0140
 Venus -121061-01-18 00:58 J -42496090.60 -42496090.46 -42496090.29 0.0146 0.0106
 Venus -121061-08-31 17:32 J -42495863.96 -42495863.77 -42495863.57 0.0146 0.0071
 Venus -121060-04-15 09:51 J -42495637.31 -42495637.09 -42495636.87 0.0146 0.0037
 Venus -121060-11-28 01:56 J -42495410.65 -42495410.42 -42495410.20 0.0145 0.0004

Venus -121059-07-12 17:32 J -42495183.98 -42495183.77 -42495183.54 0.0145 0.0031
 Venus -121058-02-24 09:22 J -42494957.31 -42494957.11 -42494956.90 0.0145 0.0064
 Venus -121058-10-09 00:44 J -42494730.63 -42494730.47 -42494730.30 0.0144 0.0097
 Venus -121057-05-22 15:37 J -42494503.93 -42494503.85 -42494503.73 0.0144 0.0129
 Earth -121036-02-03 10:34 J -42486942.25 -42486942.06 -42486941.84 0.0132 0.0072
 Moon -121036-02-03 12:44 J -42486942.18 -42486941.97 -42486941.76 0.0132 0.0065 *
 Moon -121035-02-07 10:05 J -42486573.33 -42486573.08 -42486572.83 0.0132 0.0031
 Earth -121035-02-07 11:32 J -42486573.25 -42486573.02 -42486572.77 0.0132 0.0036 *
 Mercury -121030-05-13 23:32 J -42484651.55 -42484651.52 -42484651.49 0.0130 0.0127
 Mercury -121030-08-10 02:25 J -42484563.46 -42484563.40 -42484563.33 0.0130 0.0111
 Mercury -121030-11-06 05:17 J -42484475.36 -42484475.28 -42484475.18 0.0130 0.0097
 Mercury -121029-02-02 08:25 J -42484387.25 -42484387.15 -42484387.04 0.0130 0.0081
 Mercury -121029-04-30 11:32 J -42484299.13 -42484299.02 -42484298.90 0.0130 0.0066
 Mercury -121029-07-27 14:25 J -42484211.02 -42484210.90 -42484210.77 0.0130 0.0051
 Mercury -121029-10-23 17:32 J -42484122.90 -42484122.77 -42484122.64 0.0130 0.0035
 Mercury -121028-01-19 20:25 J -42484034.78 -42484034.65 -42484034.51 0.0130 0.0020
 Mercury -121028-04-17 23:32 J -42483946.66 -42483946.52 -42483946.39 0.0130 0.0007
 Mercury -121028-07-15 02:25 J -42483858.54 -42483858.40 -42483858.27 0.0130 0.0010
 Mercury -121028-10-11 05:17 J -42483770.41 -42483770.28 -42483770.15 0.0130 0.0025
 Mercury -121027-01-07 08:10 J -42483682.29 -42483682.16 -42483682.03 0.0130 0.0040
 Mercury -121027-04-05 11:03 J -42483594.16 -42483594.04 -42483593.92 0.0130 0.0055
 Mercury -121027-07-02 13:56 J -42483506.03 -42483505.92 -42483505.80 0.0130 0.0070
 Mercury -121027-09-28 16:49 J -42483417.89 -42483417.80 -42483417.69 0.0130 0.0084
 Mercury -121027-12-25 19:41 J -42483329.76 -42483329.68 -42483329.59 0.0130 0.0099
 Mercury -121026-03-23 22:49 J -42483241.62 -42483241.55 -42483241.49 0.0130 0.0114
 Mercury -121026-06-20 01:27 J -42483153.45 -42483153.44 -42483153.41 0.0130 0.0129
 Mars -121023-09-21 20:25 J -42481963.96 -42481963.65 -42481963.33 0.0131 0.0036
 Venus -121018-06-02 08:25 J -42480249.22 -42480249.15 -42480249.05 0.0132 0.0121
 Venus -121017-01-14 10:34 J -42480023.18 -42480023.06 -42480022.91 0.0132 0.0099
 Venus -121017-08-27 12:58 J -42479797.13 -42479796.96 -42479796.78 0.0133 0.0075

Venus	-121016-04-10 15:08 J	-42479571.05	-42479570.87	-42479570.67	0.0133	0.0052
Venus	-121016-11-22 17:32 J	-42479344.97	-42479344.77	-42479344.56	0.0133	0.0028
Venus	-121015-07-06 20:25 J	-42479118.86	-42479118.65	-42479118.44	0.0134	0.0005
Venus	-121014-02-17 23:03 J	-42478892.74	-42478892.54	-42478892.33	0.0134	0.0020
Venus	-121014-10-02 01:56 J	-42478666.62	-42478666.42	-42478666.22	0.0134	0.0045
Venus	-121013-05-15 04:34 J	-42478440.48	-42478440.31	-42478440.12	0.0134	0.0069
Venus	-121013-12-27 07:41 J	-42478214.32	-42478214.18	-42478214.02	0.0135	0.0094
Venus	-121012-08-10 11:03 J	-42477988.13	-42477988.04	-42477987.93	0.0135	0.0119

121ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 121st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-120993-07-24 20:39 J	-42471064.68	-42471064.64	-42471064.59	0.0147	0.0144		
Moon	-120992-07-30 02:53 J	-42470694.64	-42470694.38	-42470694.11	0.0147	0.0019		
Earth	-120992-07-30 04:49 J	-42470694.55	-42470694.30	-42470694.04	0.0147	0.0011	*	
Mercury	-120987-05-05 06:29 J	-42468954.26	-42468954.23	-42468954.17	0.0148	0.0144		
Mercury	-120987-08-01 15:08 J	-42468865.98	-42468865.87	-42468865.73	0.0149	0.0113		
Mercury	-120987-10-28 23:46 J	-42468777.65	-42468777.51	-42468777.34	0.0149	0.0082		
Mercury	-120986-01-25 08:39 J	-42468689.31	-42468689.14	-42468688.96	0.0149	0.0050		
Mercury	-120986-04-23 17:17 J	-42468600.96	-42468600.78	-42468600.59	0.0149	0.0019		

Mercury -120986-07-21 02:10 J -42468512.60 -42468512.41 -42468512.22 0.0149 0.0013

Mercury -120986-10-17 10:49 J -42468424.22 -42468424.05 -42468423.86 0.0149 0.0046

Mercury -120985-01-13 19:27 J -42468335.84 -42468335.69 -42468335.51 0.0149 0.0078

Mercury -120985-04-11 04:20 J -42468247.43 -42468247.32 -42468247.18 0.0149 0.0110

Mercury -120985-07-08 13:13 J -42468158.99 -42468158.95 -42468158.88 0.0149 0.0142

Mars -120982-02-25 21:22 J -42467196.83 -42467196.61 -42467196.37 0.0148 0.0090

Venus -120978-09-17 05:03 J -42465532.41 -42465532.29 -42465532.17 0.0147 0.0123

Venus -120977-04-30 21:22 J -42465305.78 -42465305.61 -42465305.42 0.0146 0.0089

Venus -120977-12-13 13:41 J -42465079.13 -42465078.93 -42465078.71 0.0146 0.0054

Venus -120976-07-28 06:15 J -42464852.46 -42464852.24 -42464852.02 0.0146 0.0020

Venus -120975-03-11 22:20 J -42464625.80 -42464625.57 -42464625.34 0.0145 0.0014

Venus -120975-10-24 14:10 J -42464399.12 -42464398.91 -42464398.70 0.0145 0.0048

Venus -120974-06-08 05:32 J -42464172.45 -42464172.27 -42464172.07 0.0145 0.0082

Venus -120973-01-20 20:53 J -42463945.75 -42463945.63 -42463945.48 0.0144 0.0115

Moon -120952-02-04 00:15 J -42456260.71 -42456260.49 -42456260.25 0.0132 0.0061

Earth -120952-02-04 00:15 J -42456260.70 -42456260.49 -42456260.26 0.0132 0.0065 *

Moon -120951-02-08 00:58 J -42455891.68 -42455891.46 -42455891.22 0.0132 0.0043

Earth -120951-02-08 01:13 J -42455891.68 -42455891.45 -42455891.20 0.0132 0.0043 *

Mercury -120946-06-03 07:13 J -42453950.25 -42453950.20 -42453950.15 0.0130 0.0121

Mercury -120946-08-30 10:05 J -42453862.15 -42453862.08 -42453862.00 0.0130 0.0106

Mercury -120946-11-26 12:58 J -42453774.05 -42453773.96 -42453773.85 0.0130 0.0091

Mercury -120945-02-22 16:05 J -42453685.93 -42453685.83 -42453685.72 0.0130 0.0075

Mercury -120945-05-20 18:58 J -42453597.82 -42453597.71 -42453597.58 0.0130 0.0061

Mercury -120945-08-16 22:05 J -42453509.70 -42453509.58 -42453509.45 0.0130 0.0045

Mercury -120945-11-13 01:13 J -42453421.58 -42453421.45 -42453421.32 0.0130 0.0030

Mercury -120944-02-09 04:05 J -42453333.46 -42453333.33 -42453333.20 0.0130 0.0015

Mercury -120944-05-08 06:58 J -42453245.34 -42453245.21 -42453245.07 0.0130 0.0004

Mercury -120944-08-04 10:05 J -42453157.22 -42453157.08 -42453156.95 0.0130 0.0016

Mercury -120944-10-31 12:58 J -42453069.09 -42453068.96 -42453068.83 0.0130 0.0030

Mercury -120943-01-27 15:51 J -42452980.96 -42452980.84 -42452980.71 0.0130 0.0045

Mercury -120943-04-25 18:44 J -42452892.84 -42452892.72 -42452892.60 0.0130 0.0060

Mercury -120943-07-22 21:37 J -42452804.71 -42452804.60 -42452804.49 0.0130 0.0075

Mercury -120943-10-19 00:15 J -42452716.57 -42452716.49 -42452716.38 0.0130 0.0091

Mercury -120942-01-15 03:22 J -42452628.43 -42452628.36 -42452628.28 0.0130 0.0105

Mercury -120942-04-13 06:15 J -42452540.29 -42452540.24 -42452540.18 0.0130 0.0119

Mars -120938-05-18 03:37 J -42451044.66 -42451044.35 -42451044.03 0.0131 0.0035

Venus -120934-01-30 22:20 J -42449690.57 -42449690.57 -42449690.57 0.0132 0.0132

Venus -120934-09-14 00:01 J -42449464.60 -42449464.50 -42449464.37 0.0132 0.0109

Venus -120933-04-27 02:25 J -42449238.56 -42449238.40 -42449238.24 0.0132 0.0086

Venus -120933-12-09 04:20 J -42449012.49 -42449012.32 -42449012.12 0.0133 0.0063

Venus -120932-07-23 06:58 J -42448786.41 -42448786.21 -42448786.01 0.0133 0.0039

Venus -120931-03-06 09:37 J -42448560.31 -42448560.10 -42448559.89 0.0133 0.0015

Venus -120931-10-18 12:01 J -42448334.20 -42448334.00 -42448333.79 0.0134 0.0010

Venus -120930-06-01 14:39 J -42448108.09 -42448107.89 -42448107.68 0.0134 0.0034

Venus -120929-01-13 17:32 J -42447881.95 -42447881.77 -42447881.58 0.0134 0.0058

Venus -120929-08-26 20:39 J -42447655.80 -42447655.64 -42447655.48 0.0134 0.0083

Venus -120928-04-09 23:32 J -42447429.63 -42447429.52 -42447429.39 0.0135 0.0108

Venus -120928-11-22 02:53 J -42447203.41 -42447203.38 -42447203.34 0.0135 0.0132

Earth -120909-07-25 03:37 J -42440383.39 -42440383.35 -42440383.28 0.0147 0.0143

Earth -120908-07-30 11:46 J -42440013.27 -42440013.01 -42440012.75 0.0147 0.0012

Moon -120908-07-30 12:01 J -42440013.24 -42440013.00 -42440012.75 0.0147 0.0019 *

Jupiter -120903-03-01 12:15 J -42438338.35 -42438337.99 -42438337.57 0.0148 0.0100

Mercury -120903-05-25 12:58 J -42438253.01 -42438252.96 -42438252.89 0.0148 0.0140

Mercury -120903-08-21 21:37 J -42438164.72 -42438164.60 -42438164.47 0.0148 0.0109

Mercury -120903-11-18 06:15 J -42438076.39 -42438076.24 -42438076.07 0.0148 0.0078

Mercury -120902-02-14 14:53 J -42437988.05 -42437987.88 -42437987.69 0.0148 0.0046

Mercury -120902-05-13 23:46 J -42437899.70 -42437899.51 -42437899.32 0.0148 0.0015

Mercury -120902-08-10 08:25 J -42437811.34 -42437811.15 -42437810.96 0.0148 0.0017

Mercury -120902-11-06 17:17 J -42437722.96 -42437722.78 -42437722.60 0.0148 0.0049

Mercury -120901-02-03 01:56 J -42437634.57 -42437634.42 -42437634.25 0.0148 0.0081

Mercury -120901-05-01 10:34 J -42437546.17 -42437546.06 -42437545.92 0.0148 0.0113

Mercury -120901-07-28 19:27 J -42437457.72 -42437457.69 -42437457.64 0.0148 0.0145

Mars -120898-10-21 22:34 J -42436277.85 -42436277.56 -42436277.26 0.0148 0.0007

Venus -120894-05-17 05:17 J -42434974.30 -42434974.28 -42434974.22 0.0147 0.0144

Venus -120894-12-29 22:05 J -42434747.72 -42434747.58 -42434747.42 0.0147 0.0109

Venus -120893-08-12 14:39 J -42434521.07 -42434520.89 -42434520.69 0.0146 0.0074

Venus -120892-03-27 06:58 J -42434294.42 -42434294.21 -42434293.98 0.0146 0.0040

Venus -120892-11-08 23:17 J -42434067.75 -42434067.53 -42434067.30 0.0146 0.0006

Venus -120891-06-23 15:22 J -42433841.08 -42433840.86 -42433840.64 0.0145 0.0029

Venus -120890-02-05 07:13 J -42433614.40 -42433614.20 -42433614.00 0.0145 0.0063

Venus -120890-09-19 22:34 J -42433387.72 -42433387.56 -42433387.38 0.0144 0.0097

Venus -120889-05-03 13:56 J -42433161.01 -42433160.92 -42433160.81 0.0144 0.0129

Moon -120868-02-04 09:37 J -42425579.31 -42425579.10 -42425578.88 0.0132 0.0061

Earth -120868-02-04 11:03 J -42425579.25 -42425579.04 -42425578.80 0.0132 0.0060 *

Earth -120867-02-08 12:15 J -42425210.21 -42425209.99 -42425209.75 0.0132 0.0047

Moon -120867-02-08 14:25 J -42425210.14 -42425209.90 -42425209.66 0.0132 0.0051 *

Mercury -120862-06-23 14:25 J -42423248.95 -42423248.90 -42423248.83 0.0131 0.0116

Mercury -120862-09-19 17:32 J -42423160.85 -42423160.77 -42423160.68 0.0131 0.0101

Jupiter -120862-10-25 11:03 J -42423125.48 -42423125.04 -42423124.53 0.0131 0.0047

Mercury -120862-12-16 20:25 J -42423072.74 -42423072.65 -42423072.54 0.0131 0.0086

Mercury -120861-03-13 23:32 J -42422984.63 -42422984.52 -42422984.40 0.0130 0.0070

Mercury -120861-06-10 02:25 J -42422896.51 -42422896.40 -42422896.27 0.0130 0.0056

Mercury -120861-09-06 05:32 J -42422808.40 -42422808.27 -42422808.14 0.0130 0.0040

Mercury -120861-12-03 08:25 J -42422720.28 -42422720.15 -42422720.01 0.0130 0.0026

Mercury -120860-03-01 11:32 J -42422632.15 -42422632.02 -42422631.89 0.0130 0.0010

Mercury -120860-05-28 14:25 J -42422544.03 -42422543.90 -42422543.76 0.0130 0.0006

Mercury -120860-08-24 17:32 J -42422455.91 -42422455.77 -42422455.64 0.0130 0.0021

Mercury -120860-11-20 20:25 J -42422367.78 -42422367.65 -42422367.52 0.0130 0.0035

Mercury -120859-02-16 23:17 J -42422279.65 -42422279.53 -42422279.41 0.0130 0.0050

Mercury -120859-05-16 02:10 J -42422191.52 -42422191.41 -42422191.29 0.0130 0.0065

Mercury -120859-08-12 04:49 J -42422103.39 -42422103.30 -42422103.18 0.0130 0.0081

Mercury -120859-11-08 07:56 J -42422015.26 -42422015.17 -42422015.08 0.0130 0.0095

Mercury -120858-02-04 10:49 J -42421927.12 -42421927.05 -42421926.98 0.0130 0.0110

Mercury -120858-05-03 13:41 J -42421838.96 -42421838.93 -42421838.89 0.0130 0.0124

Mars -120855-02-07 18:01 J -42420827.99 -42420827.75 -42420827.50 0.0131 0.0086

Mars -120853-01-11 09:51 J -42420125.27 -42420125.09 -42420124.89 0.0131 0.0107

Venus -120850-05-14 13:27 J -42418906.01 -42418905.94 -42418905.84 0.0132 0.0121

Venus -120850-12-26 15:37 J -42418679.98 -42418679.85 -42418679.69 0.0132 0.0097

Venus -120849-08-08 18:01 J -42418453.92 -42418453.75 -42418453.57 0.0133 0.0074

Venus -120848-03-22 20:25 J -42418227.84 -42418227.65 -42418227.45 0.0133 0.0050

Venus -120848-11-03 22:49 J -42418001.75 -42418001.55 -42418001.34 0.0133 0.0026

Venus -120847-06-18 01:27 J -42417775.65 -42417775.44 -42417775.23 0.0133 0.0002

Venus -120846-01-30 04:05 J -42417549.53 -42417549.33 -42417549.12 0.0134 0.0023

Venus -120846-09-13 06:58 J -42417323.41 -42417323.21 -42417323.02 0.0134 0.0047

Venus -120845-04-26 09:37 J -42417097.27 -42417097.10 -42417096.92 0.0134 0.0072

Venus -120845-12-08 12:44 J -42416871.11 -42416870.97 -42416870.83 0.0135 0.0097

Venus -120844-07-22 15:37 J -42416644.92 -42416644.85 -42416644.75 0.0135 0.0122

Earth -120825-07-25 13:56 J -42409701.99 -42409701.92 -42409701.83 0.0147 0.0138

Moon -120825-07-25 13:13 J -42409701.97 -42409701.95 -42409701.90 0.0147 0.0145 *

Earth -120824-07-30 21:37 J -42409331.85 -42409331.60 -42409331.34 0.0147 0.0016

Moon -120824-07-30 23:03 J -42409331.80 -42409331.54 -42409331.27 0.0147 0.0020 *

Mercury -120819-06-14 20:25 J -42407551.73 -42407551.65 -42407551.56 0.0148 0.0133

Mercury -120819-09-11 04:49 J -42407463.42 -42407463.30 -42407463.15 0.0148 0.0102

Mercury -120819-12-08 13:41 J -42407375.10 -42407374.93 -42407374.76 0.0148 0.0071

Mercury -120818-03-06 22:20 J -42407286.75 -42407286.57 -42407286.39 0.0148 0.0040

Mercury -120818-06-03 06:58 J -42407198.40 -42407198.21 -42407198.02 0.0148 0.0008

Mercury -120818-08-30 15:37 J -42407110.03 -42407109.85 -42407109.66 0.0148 0.0024

Mercury -120818-11-27 00:15 J -42407021.66 -42407021.49 -42407021.30 0.0148 0.0056

Mercury -120817-02-23 09:08 J -42406933.27 -42406933.12 -42406932.96 0.0148 0.0087

Mercury -120817-05-21 18:01 J -42406844.86 -42406844.75 -42406844.63 0.0148 0.0119

Mars -120813-06-16 06:29 J -42405358.47 -42405358.23 -42405357.98 0.0148 0.0078
 Venus -120810-08-29 01:13 J -42404189.55 -42404189.45 -42404189.34 0.0147 0.0128
 Venus -120809-04-11 17:32 J -42403962.93 -42403962.77 -42403962.58 0.0146 0.0093
 Venus -120809-11-24 10:05 J -42403736.28 -42403736.08 -42403735.87 0.0146 0.0058
 Venus -120808-07-09 02:25 J -42403509.62 -42403509.40 -42403509.17 0.0146 0.0024
 Venus -120807-02-20 18:44 J -42403282.95 -42403282.72 -42403282.49 0.0145 0.0011
 Venus -120807-10-05 10:20 J -42403056.27 -42403056.07 -42403055.84 0.0145 0.0046
 Venus -120806-05-20 02:10 J -42402829.59 -42402829.41 -42402829.22 0.0145 0.0080
 Venus -120805-01-01 17:17 J -42402602.90 -42402602.78 -42402602.62 0.0144 0.0114
 Earth -120784-02-04 22:34 J -42394897.78 -42394897.56 -42394897.32 0.0132 0.0055
 Moon -120784-02-05 01:41 J -42394897.65 -42394897.43 -42394897.20 0.0132 0.0060 *
 Moon -120783-02-08 20:39 J -42394528.84 -42394528.64 -42394528.40 0.0132 0.0059
 Earth -120783-02-09 00:01 J -42394528.72 -42394528.50 -42394528.26 0.0132 0.0052 *
 Mercury -120778-04-16 18:44 J -42392635.74 -42392635.72 -42392635.68 0.0131 0.0127
 Mercury -120778-07-13 21:51 J -42392547.65 -42392547.59 -42392547.51 0.0131 0.0112
 Mercury -120778-10-10 00:58 J -42392459.55 -42392459.46 -42392459.37 0.0131 0.0096
 Mercury -120777-01-06 04:05 J -42392371.44 -42392371.33 -42392371.23 0.0131 0.0081
 Mercury -120777-04-03 06:58 J -42392283.32 -42392283.21 -42392283.09 0.0131 0.0066
 Mercury -120777-06-30 09:51 J -42392195.21 -42392195.09 -42392194.96 0.0131 0.0051
 Mercury -120777-09-26 12:58 J -42392107.09 -42392106.96 -42392106.83 0.0131 0.0035
 Mercury -120777-12-23 16:05 J -42392018.97 -42392018.83 -42392018.70 0.0131 0.0020
 Mercury -120776-03-21 18:58 J -42391930.84 -42391930.71 -42391930.57 0.0131 0.0005
 Mercury -120776-06-17 21:51 J -42391842.72 -42391842.59 -42391842.45 0.0131 0.0011
 Mercury -120776-09-14 00:44 J -42391754.60 -42391754.47 -42391754.33 0.0131 0.0026
 Mercury -120776-12-11 03:37 J -42391666.47 -42391666.35 -42391666.21 0.0131 0.0041
 Mercury -120775-03-09 06:29 J -42391578.34 -42391578.23 -42391578.10 0.0131 0.0056
 Mercury -120775-06-05 09:37 J -42391490.21 -42391490.10 -42391489.99 0.0131 0.0070
 Mercury -120775-09-01 12:29 J -42391402.08 -42391401.98 -42391401.88 0.0131 0.0085
 Mercury -120775-11-28 15:22 J -42391313.94 -42391313.86 -42391313.77 0.0131 0.0100
 Mercury -120774-02-24 18:15 J -42391225.80 -42391225.74 -42391225.67 0.0131 0.0115

Mercury -120774-05-23 20:53 J -42391137.63 -42391137.63 -42391137.60 0.0131 0.0130

Mars -120771-10-04 00:15 J -42389908.81 -42389908.49 -42389908.16 0.0131 0.0016

Venus -120766-01-12 03:37 J -42388347.36 -42388347.35 -42388347.33 0.0132 0.0131

Venus -120766-08-26 05:32 J -42388121.37 -42388121.27 -42388121.14 0.0132 0.0109

Venus -120765-04-08 07:56 J -42387895.32 -42387895.17 -42387895.00 0.0133 0.0085

Venus -120765-11-20 10:20 J -42387669.25 -42387669.07 -42387668.88 0.0133 0.0061

Venus -120764-07-04 12:44 J -42387443.17 -42387442.97 -42387442.77 0.0133 0.0037

Venus -120763-02-15 15:22 J -42387217.07 -42387216.86 -42387216.65 0.0133 0.0012

Venus -120763-09-29 17:46 J -42386990.96 -42386990.76 -42386990.54 0.0134 0.0013

Venus -120762-05-13 20:25 J -42386764.84 -42386764.65 -42386764.44 0.0134 0.0037

Venus -120762-12-25 23:17 J -42386538.71 -42386538.53 -42386538.34 0.0134 0.0062

Venus -120761-08-08 02:10 J -42386312.56 -42386312.41 -42386312.24 0.0135 0.0087

Venus -120760-03-22 05:17 J -42386086.38 -42386086.28 -42386086.15 0.0135 0.0112

Earth -120741-07-26 03:22 J -42379020.46 -42379020.36 -42379020.22 0.0147 0.0128

Moon -120741-07-26 04:34 J -42379020.41 -42379020.31 -42379020.19 0.0147 0.0133 *

Moon -120740-07-31 09:37 J -42378650.34 -42378650.10 -42378649.84 0.0147 0.0029

Earth -120740-07-31 11:32 J -42378650.28 -42378650.02 -42378649.77 0.0147 0.0026 *

Mercury -120735-07-05 04:34 J -42376850.40 -42376850.31 -42376850.19 0.0148 0.0123

Mercury -120735-10-01 13:27 J -42376762.09 -42376761.94 -42376761.80 0.0148 0.0092

Mercury -120735-12-28 21:51 J -42376673.76 -42376673.59 -42376673.41 0.0148 0.0061

Mercury -120734-03-27 06:29 J -42376585.41 -42376585.23 -42376585.04 0.0148 0.0030

Mercury -120734-06-23 15:08 J -42376497.05 -42376496.87 -42376496.67 0.0148 0.0005

Mercury -120734-09-20 00:01 J -42376408.69 -42376408.50 -42376408.32 0.0148 0.0033

Mercury -120734-12-17 08:25 J -42376320.31 -42376320.15 -42376319.97 0.0148 0.0066

Mercury -120733-03-14 17:17 J -42376231.92 -42376231.78 -42376231.63 0.0148 0.0097

Mercury -120733-06-11 02:10 J -42376143.50 -42376143.41 -42376143.31 0.0148 0.0128

Mars -120730-03-09 23:32 J -42375141.76 -42375141.52 -42375141.27 0.0148 0.0080

Venus -120726-04-28 05:17 J -42373631.30 -42373631.28 -42373631.26 0.0147 0.0146

Venus -120726-12-10 21:22 J -42373404.74 -42373404.61 -42373404.45 0.0146 0.0112

Venus -120725-07-24 14:10 J -42373178.09 -42373177.91 -42373177.71 0.0146 0.0076

Venus -120724-03-08 06:44 J -42372951.44 -42372951.22 -42372951.00 0.0146 0.0041
 Venus -120724-10-20 22:49 J -42372724.77 -42372724.55 -42372724.32 0.0145 0.0006
 Venus -120723-06-04 14:39 J -42372498.10 -42372497.89 -42372497.66 0.0145 0.0029
 Venus -120722-01-17 06:29 J -42372271.43 -42372271.23 -42372271.02 0.0145 0.0063
 Venus -120722-08-31 22:20 J -42372044.74 -42372044.57 -42372044.40 0.0144 0.0097
 Venus -120721-04-14 13:27 J -42371818.02 -42371817.94 -42371817.83 0.0144 0.0130
 Moon -120700-02-05 08:53 J -42364216.34 -42364216.13 -42364215.90 0.0132 0.0052
 Earth -120700-02-05 10:05 J -42364216.30 -42364216.08 -42364215.83 0.0132 0.0050 *
 Earth -120699-02-09 11:32 J -42363847.23 -42363847.02 -42363846.78 0.0132 0.0058
 Moon -120699-02-09 12:44 J -42363847.18 -42363846.97 -42363846.73 0.0132 0.0063 *
 Mercury -120694-05-07 02:10 J -42361934.44 -42361934.41 -42361934.35 0.0131 0.0122
 Mercury -120694-08-03 05:17 J -42361846.35 -42361846.28 -42361846.19 0.0131 0.0107
 Mercury -120694-10-30 08:25 J -42361758.24 -42361758.15 -42361758.05 0.0131 0.0091
 Mercury -120693-01-26 11:32 J -42361670.13 -42361670.02 -42361669.91 0.0131 0.0076
 Mercury -120693-04-23 14:25 J -42361582.01 -42361581.90 -42361581.78 0.0131 0.0061
 Mercury -120693-07-20 17:17 J -42361493.90 -42361493.78 -42361493.64 0.0131 0.0046
 Mercury -120693-10-16 20:25 J -42361405.78 -42361405.65 -42361405.52 0.0131 0.0030
 Mercury -120692-01-12 23:32 J -42361317.66 -42361317.52 -42361317.39 0.0131 0.0015
 Mercury -120692-04-11 02:25 J -42361229.53 -42361229.40 -42361229.26 0.0131 0.0001
 Mercury -120692-07-08 05:17 J -42361141.41 -42361141.28 -42361141.14 0.0131 0.0016
 Mercury -120692-10-04 08:10 J -42361053.28 -42361053.16 -42361053.02 0.0131 0.0031
 Mercury -120692-12-31 11:03 J -42360965.16 -42360965.04 -42360964.91 0.0131 0.0046
 Mercury -120691-03-29 13:56 J -42360877.03 -42360876.92 -42360876.79 0.0131 0.0061
 Mercury -120691-06-25 17:03 J -42360788.90 -42360788.79 -42360788.68 0.0131 0.0075
 Mercury -120691-09-21 19:56 J -42360700.76 -42360700.67 -42360700.57 0.0131 0.0090
 Mercury -120691-12-18 22:49 J -42360612.62 -42360612.55 -42360612.47 0.0131 0.0105
 Mercury -120690-03-17 01:41 J -42360524.48 -42360524.43 -42360524.37 0.0131 0.0120
 Mars -120686-05-30 07:41 J -42358989.46 -42358989.18 -42358988.86 0.0131 0.0057
 Venus -120682-04-25 19:13 J -42357562.77 -42357562.70 -42357562.60 0.0132 0.0120
 Venus -120682-12-07 21:37 J -42357336.74 -42357336.60 -42357336.45 0.0132 0.0096

Venus -120681-07-21 00:01 J -42357110.67 -42357110.50 -42357110.32 0.0133 0.0072
 Venus -120680-03-04 02:25 J -42356884.59 -42356884.40 -42356884.20 0.0133 0.0048
 Venus -120680-10-16 05:03 J -42356658.50 -42356658.29 -42356658.09 0.0133 0.0023
 Venus -120679-05-30 07:27 J -42356432.40 -42356432.19 -42356431.98 0.0134 0.0002
 Venus -120678-01-11 10:05 J -42356206.28 -42356206.08 -42356205.87 0.0134 0.0026
 Venus -120678-08-25 12:44 J -42355980.15 -42355979.97 -42355979.77 0.0134 0.0051
 Venus -120677-04-07 15:37 J -42355754.01 -42355753.85 -42355753.67 0.0134 0.0076
 Venus -120677-11-19 18:29 J -42355527.85 -42355527.73 -42355527.58 0.0135 0.0102
 Venus -120676-07-03 22:05 J -42355301.65 -42355301.58 -42355301.51 0.0135 0.0126
 Earth -120657-07-26 18:44 J -42348338.87 -42348338.72 -42348338.56 0.0147 0.0116
 Moon -120657-07-26 20:39 J -42348338.75 -42348338.64 -42348338.48 0.0147 0.0124 *
 Moon -120656-08-01 01:13 J -42347968.70 -42347968.45 -42347968.20 0.0147 0.0044
 Earth -120656-08-01 02:25 J -42347968.64 -42347968.40 -42347968.14 0.0147 0.0038 *
 Mercury -120651-04-28 05:17 J -42346237.33 -42346237.28 -42346237.22 0.0148 0.0140
 Mercury -120651-07-25 13:41 J -42346149.05 -42346148.93 -42346148.80 0.0148 0.0110
 Mercury -120651-10-21 22:05 J -42346060.72 -42346060.58 -42346060.41 0.0148 0.0080
 Mercury -120650-01-18 06:58 J -42345972.39 -42345972.21 -42345972.03 0.0148 0.0048
 Mercury -120650-04-16 15:37 J -42345884.04 -42345883.85 -42345883.66 0.0148 0.0017
 Mercury -120650-07-14 00:15 J -42345795.68 -42345795.49 -42345795.30 0.0148 0.0015
 Mercury -120650-10-10 08:53 J -42345707.31 -42345707.13 -42345706.94 0.0148 0.0046
 Mercury -120649-01-06 17:32 J -42345618.92 -42345618.77 -42345618.60 0.0148 0.0078
 Mercury -120649-04-04 02:10 J -42345530.52 -42345530.41 -42345530.27 0.0148 0.0110
 Mercury -120649-07-01 10:49 J -42345442.09 -42345442.05 -42345441.97 0.0148 0.0142
 Mars -120646-11-03 15:37 J -42344222.13 -42344221.85 -42344221.55 0.0148 0.0012
 Venus -120642-08-10 04:05 J -42342846.42 -42342846.33 -42342846.20 0.0147 0.0128
 Venus -120641-03-23 20:39 J -42342619.80 -42342619.64 -42342619.45 0.0146 0.0093
 Venus -120641-11-05 13:13 J -42342393.16 -42342392.95 -42342392.74 0.0146 0.0057
 Venus -120640-06-20 05:17 J -42342166.50 -42342166.28 -42342166.05 0.0146 0.0022
 Venus -120639-02-01 21:22 J -42341939.83 -42341939.61 -42341939.38 0.0145 0.0013
 Venus -120639-09-16 13:13 J -42341713.16 -42341712.95 -42341712.73 0.0145 0.0048

Venus -120638-05-01 04:34 J -42341486.48 -42341486.31 -42341486.11 0.0145 0.0083
 Venus -120638-12-13 19:56 J -42341259.79 -42341259.67 -42341259.52 0.0144 0.0116
 Moon -120616-02-05 21:22 J -42333534.85 -42333534.61 -42333534.35 0.0132 0.0039
 Earth -120616-02-05 23:03 J -42333534.76 -42333534.54 -42333534.29 0.0132 0.0042 *
 Earth -120615-02-10 00:44 J -42333165.68 -42333165.47 -42333165.25 0.0132 0.0065
 Moon -120615-02-10 02:39 J -42333165.59 -42333165.39 -42333165.17 0.0132 0.0065 *
 Mercury -120610-05-27 10:05 J -42331233.14 -42331233.08 -42331233.02 0.0131 0.0116
 Mercury -120610-08-23 12:58 J -42331145.04 -42331144.96 -42331144.87 0.0131 0.0101
 Mercury -120610-11-19 15:51 J -42331056.93 -42331056.84 -42331056.73 0.0131 0.0086
 Mercury -120609-02-15 18:58 J -42330968.82 -42330968.71 -42330968.59 0.0131 0.0070
 Mercury -120609-05-13 22:05 J -42330880.70 -42330880.58 -42330880.46 0.0131 0.0055
 Mercury -120609-08-10 00:58 J -42330792.58 -42330792.46 -42330792.33 0.0131 0.0040
 Mercury -120609-11-06 04:05 J -42330704.46 -42330704.33 -42330704.20 0.0131 0.0025
 Mercury -120608-02-02 06:58 J -42330616.34 -42330616.21 -42330616.07 0.0131 0.0010
 Mercury -120608-05-01 09:51 J -42330528.22 -42330528.09 -42330527.95 0.0131 0.0007
 Mercury -120608-07-28 12:58 J -42330440.09 -42330439.96 -42330439.83 0.0131 0.0021
 Mercury -120608-10-24 15:51 J -42330351.97 -42330351.84 -42330351.71 0.0131 0.0036
 Mercury -120607-01-20 18:44 J -42330263.84 -42330263.72 -42330263.59 0.0131 0.0051
 Mercury -120607-04-18 21:37 J -42330175.71 -42330175.60 -42330175.48 0.0131 0.0066
 Mercury -120607-07-16 00:29 J -42330087.58 -42330087.48 -42330087.37 0.0131 0.0081
 Mercury -120607-10-12 03:22 J -42329999.44 -42329999.36 -42329999.26 0.0131 0.0096
 Mercury -120606-01-08 06:29 J -42329911.30 -42329911.23 -42329911.16 0.0131 0.0110
 Mercury -120606-04-06 09:08 J -42329823.15 -42329823.12 -42329823.07 0.0131 0.0125
 Mars -120603-02-19 22:20 J -42328772.85 -42328772.57 -42328772.28 0.0131 0.0065
 Mars -120601-01-23 15:37 J -42328069.88 -42328069.85 -42328069.79 0.0131 0.0130
 Venus -120599-12-24 09:08 J -42327004.14 -42327004.12 -42327004.08 0.0132 0.0131
 Venus -120598-08-07 11:03 J -42326778.14 -42326778.04 -42326777.90 0.0132 0.0108
 Venus -120597-03-20 13:41 J -42326552.09 -42326551.93 -42326551.76 0.0133 0.0083
 Venus -120597-11-01 15:51 J -42326326.02 -42326325.84 -42326325.64 0.0133 0.0059
 Venus -120596-06-15 18:29 J -42326099.93 -42326099.73 -42326099.53 0.0133 0.0034

Venus -120595-01-27 20:53 J -42325873.83 -42325873.63 -42325873.41 0.0133 0.0011
 Venus -120595-09-10 23:32 J -42325647.72 -42325647.52 -42325647.31 0.0134 0.0015
 Venus -120594-04-25 02:10 J -42325421.61 -42325421.41 -42325421.21 0.0134 0.0040
 Venus -120594-12-07 04:49 J -42325195.47 -42325195.30 -42325195.11 0.0134 0.0066
 Venus -120593-07-20 07:41 J -42324969.32 -42324969.18 -42324969.01 0.0135 0.0091
 Venus -120592-03-03 11:03 J -42324743.13 -42324743.04 -42324742.92 0.0135 0.0116
 Moon -120573-07-27 05:03 J -42317657.45 -42317657.29 -42317657.11 0.0147 0.0109
 Earth -120573-07-27 08:25 J -42317657.31 -42317657.15 -42317656.95 0.0147 0.0106 *
 Earth -120572-08-01 16:34 J -42317287.05 -42317286.81 -42317286.56 0.0147 0.0048
 Moon -120572-08-01 19:56 J -42317286.90 -42317286.67 -42317286.43 0.0147 0.0056 *
 Mercury -120567-05-18 13:41 J -42315536.01 -42315535.93 -42315535.82 0.0148 0.0129
 Mercury -120567-08-14 22:20 J -42315447.70 -42315447.57 -42315447.42 0.0148 0.0098
 Mercury -120567-11-11 06:58 J -42315359.37 -42315359.21 -42315359.04 0.0148 0.0067
 Mercury -120566-02-07 15:37 J -42315271.03 -42315270.85 -42315270.66 0.0148 0.0036
 Mercury -120566-05-07 00:15 J -42315182.68 -42315182.49 -42315182.30 0.0148 0.0005
 Mercury -120566-08-03 08:53 J -42315094.31 -42315094.13 -42315093.94 0.0148 0.0026
 Mercury -120566-10-30 17:32 J -42315005.94 -42315005.77 -42315005.59 0.0148 0.0058
 Mercury -120565-01-27 02:10 J -42314917.55 -42314917.41 -42314917.25 0.0148 0.0089
 Mercury -120565-04-24 10:49 J -42314829.14 -42314829.05 -42314828.93 0.0148 0.0121
 Mars -120563-07-27 13:27 J -42314004.99 -42314004.94 -42314004.87 0.0148 0.0144
 Mars -120561-06-29 06:01 J -42313302.44 -42313302.25 -42313302.03 0.0148 0.0104
 Venus -120558-04-09 09:51 J -42312288.10 -42312288.09 -42312288.03 0.0147 0.0145
 Venus -120558-11-22 02:25 J -42312061.53 -42312061.40 -42312061.23 0.0146 0.0110
 Venus -120557-07-05 19:13 J -42311834.89 -42311834.70 -42311834.50 0.0146 0.0073
 Venus -120556-02-17 11:32 J -42311608.24 -42311608.02 -42311607.80 0.0146 0.0038
 Venus -120556-10-02 03:37 J -42311381.58 -42311381.35 -42311381.13 0.0145 0.0003
 Venus -120555-05-16 19:27 J -42311154.91 -42311154.69 -42311154.47 0.0145 0.0033
 Venus -120555-12-29 11:03 J -42310928.24 -42310928.04 -42310927.84 0.0145 0.0067
 Venus -120554-08-13 02:25 J -42310701.55 -42310701.40 -42310701.23 0.0144 0.0101
 Venus -120553-03-26 17:32 J -42310474.83 -42310474.77 -42310474.68 0.0144 0.0135

Earth -120532-02-06 10:49 J -42302853.28 -42302853.05 -42302852.80 0.0132 0.0036
 Moon -120532-02-06 14:10 J -42302853.14 -42302852.91 -42302852.66 0.0132 0.0030 *
 Moon -120531-02-10 08:53 J -42302484.35 -42302484.13 -42302483.91 0.0132 0.0065
 Earth -120531-02-10 12:29 J -42302484.19 -42302483.98 -42302483.77 0.0132 0.0071 *
 Mercury -120526-03-20 14:10 J -42300619.94 -42300619.91 -42300619.88 0.0131 0.0127
 Mercury -120526-06-16 17:03 J -42300531.85 -42300531.79 -42300531.71 0.0131 0.0112
 Mercury -120526-09-12 20:10 J -42300443.74 -42300443.66 -42300443.56 0.0131 0.0096
 Mercury -120526-12-09 23:17 J -42300355.63 -42300355.53 -42300355.42 0.0131 0.0081
 Mercury -120525-03-07 02:10 J -42300267.52 -42300267.41 -42300267.29 0.0131 0.0066
 Mercury -120525-06-03 05:17 J -42300179.40 -42300179.28 -42300179.15 0.0131 0.0051
 Mercury -120525-08-30 08:10 J -42300091.28 -42300091.16 -42300091.02 0.0131 0.0036
 Mercury -120525-11-26 11:17 J -42300003.16 -42300003.03 -42300002.90 0.0131 0.0020
 Mercury -120524-02-22 14:10 J -42299915.04 -42299914.91 -42299914.77 0.0131 0.0007
 Mercury -120524-05-21 17:17 J -42299826.92 -42299826.78 -42299826.65 0.0131 0.0010
 Mercury -120524-08-17 20:10 J -42299738.79 -42299738.66 -42299738.53 0.0131 0.0025
 Mercury -120524-11-13 23:03 J -42299650.66 -42299650.54 -42299650.41 0.0131 0.0040
 Mercury -120523-02-10 02:10 J -42299562.54 -42299562.41 -42299562.29 0.0131 0.0055
 Mercury -120523-05-09 05:03 J -42299474.41 -42299474.29 -42299474.18 0.0131 0.0070
 Mercury -120523-08-05 07:41 J -42299386.27 -42299386.18 -42299386.07 0.0131 0.0085
 Mercury -120523-11-01 10:34 J -42299298.14 -42299298.06 -42299297.97 0.0131 0.0100
 Mercury -120522-01-28 13:27 J -42299209.99 -42299209.94 -42299209.87 0.0131 0.0115
 Mercury -120522-04-26 16:34 J -42299121.83 -42299121.81 -42299121.79 0.0131 0.0129
 Mars -120519-10-16 02:25 J -42297853.73 -42297853.40 -42297853.07 0.0131 0.0006
 Venus -120514-04-07 00:01 J -42296219.59 -42296219.50 -42296219.41 0.0132 0.0119
 Venus -120514-11-19 02:10 J -42295993.55 -42295993.41 -42295993.26 0.0133 0.0095
 Venus -120513-07-02 04:20 J -42295767.49 -42295767.32 -42295767.14 0.0133 0.0071
 Venus -120512-02-13 06:58 J -42295541.41 -42295541.21 -42295541.01 0.0133 0.0046
 Venus -120512-09-27 09:22 J -42295315.32 -42295315.11 -42295314.91 0.0133 0.0022
 Venus -120511-05-11 11:46 J -42295089.22 -42295089.01 -42295088.80 0.0134 0.0003
 Venus -120511-12-23 14:10 J -42294863.11 -42294862.91 -42294862.70 0.0134 0.0029

Venus -120510-08-06 17:03 J -42294636.98 -42294636.79 -42294636.60 0.0134 0.0054
 Venus -120509-03-19 20:10 J -42294410.83 -42294410.66 -42294410.49 0.0134 0.0079
 Venus -120509-10-31 22:34 J -42294184.67 -42294184.56 -42294184.41 0.0135 0.0105
 Venus -120508-06-15 01:56 J -42293958.46 -42293958.42 -42293958.35 0.0135 0.0130
 Earth -120489-07-27 18:44 J -42286975.89 -42286975.72 -42286975.51 0.0147 0.0101
 Moon -120489-07-27 20:39 J -42286975.82 -42286975.64 -42286975.42 0.0147 0.0099 *
 Moon -120488-08-02 00:15 J -42286605.71 -42286605.49 -42286605.25 0.0147 0.0057
 Earth -120488-08-02 02:39 J -42286605.62 -42286605.39 -42286605.13 0.0147 0.0054 *
 Mercury -120483-06-07 21:22 J -42284834.71 -42284834.61 -42284834.50 0.0148 0.0122
 Mercury -120483-09-04 06:01 J -42284746.40 -42284746.25 -42284746.10 0.0148 0.0091
 Mercury -120483-12-01 14:25 J -42284658.07 -42284657.90 -42284657.72 0.0148 0.0060
 Mercury -120482-02-27 23:03 J -42284569.72 -42284569.54 -42284569.35 0.0148 0.0029
 Mercury -120482-05-27 07:41 J -42284481.37 -42284481.18 -42284480.99 0.0148 0.0004
 Mercury -120482-08-23 16:20 J -42284393.00 -42284392.82 -42284392.63 0.0148 0.0034
 Mercury -120482-11-20 00:58 J -42284304.62 -42284304.46 -42284304.28 0.0148 0.0065
 Mercury -120481-02-16 09:51 J -42284216.23 -42284216.09 -42284215.95 0.0148 0.0097
 Mercury -120481-05-14 18:29 J -42284127.82 -42284127.73 -42284127.63 0.0148 0.0129
 Mars -120478-03-22 22:20 J -42283085.83 -42283085.57 -42283085.29 0.0148 0.0056
 Venus -120474-07-22 07:13 J -42281503.30 -42281503.20 -42281503.08 0.0147 0.0127
 Venus -120473-03-04 23:32 J -42281276.68 -42281276.52 -42281276.33 0.0146 0.0092
 Venus -120473-10-17 16:05 J -42281050.03 -42281049.83 -42281049.62 0.0146 0.0055
 Venus -120472-06-01 08:10 J -42280823.38 -42280823.16 -42280822.93 0.0146 0.0020
 Venus -120471-01-14 00:15 J -42280596.71 -42280596.49 -42280596.26 0.0145 0.0016
 Venus -120471-08-28 16:05 J -42280370.04 -42280369.83 -42280369.61 0.0145 0.0051
 Venus -120470-04-12 07:27 J -42280143.36 -42280143.19 -42280142.99 0.0145 0.0086
 Venus -120470-11-24 23:03 J -42279916.66 -42279916.54 -42279916.41 0.0144 0.0120
 Moon -120448-02-06 20:25 J -42272171.88 -42272171.65 -42272171.40 0.0132 0.0025
 Earth -120448-02-06 22:49 J -42272171.79 -42272171.55 -42272171.31 0.0132 0.0030 *
 Earth -120447-02-11 00:01 J -42271802.68 -42271802.50 -42271802.28 0.0132 0.0077
 Moon -120447-02-11 02:53 J -42271802.59 -42271802.38 -42271802.16 0.0132 0.0069 *

Mercury -120442-04-09 21:22 J -42269918.65 -42269918.61 -42269918.56 0.0131 0.0123

Mercury -120442-07-07 00:15 J -42269830.56 -42269830.49 -42269830.40 0.0131 0.0108

Mercury -120442-10-03 03:22 J -42269742.45 -42269742.36 -42269742.26 0.0131 0.0092

Mercury -120442-12-30 06:29 J -42269654.34 -42269654.23 -42269654.12 0.0131 0.0077

Mercury -120441-03-27 09:22 J -42269566.22 -42269566.11 -42269565.98 0.0131 0.0062

Mercury -120441-06-23 12:29 J -42269478.10 -42269477.98 -42269477.85 0.0131 0.0047

Mercury -120441-09-19 15:22 J -42269389.98 -42269389.86 -42269389.72 0.0131 0.0032

Mercury -120441-12-16 18:29 J -42269301.86 -42269301.73 -42269301.60 0.0131 0.0016

Mercury -120440-03-14 21:22 J -42269213.74 -42269213.61 -42269213.47 0.0131 0.0003

Mercury -120440-06-11 00:29 J -42269125.62 -42269125.48 -42269125.35 0.0131 0.0014

Mercury -120440-09-07 03:22 J -42269037.49 -42269037.36 -42269037.23 0.0131 0.0029

Mercury -120440-12-04 06:15 J -42268949.36 -42268949.24 -42268949.11 0.0131 0.0044

Mercury -120439-03-02 09:08 J -42268861.24 -42268861.12 -42268861.00 0.0131 0.0059

Mercury -120439-05-29 12:01 J -42268773.10 -42268773.00 -42268772.88 0.0131 0.0074

Mercury -120439-08-25 14:53 J -42268684.97 -42268684.88 -42268684.78 0.0131 0.0089

Mercury -120439-11-21 17:46 J -42268596.83 -42268596.76 -42268596.67 0.0131 0.0103

Mercury -120438-02-17 20:53 J -42268508.69 -42268508.63 -42268508.58 0.0131 0.0118

Mars -120436-07-08 11:32 J -42267637.14 -42267637.02 -42267636.87 0.0131 0.0119

Mars -120434-06-11 04:20 J -42266934.57 -42266934.32 -42266934.04 0.0131 0.0076

Venus -120431-12-05 11:32 J -42265661.03 -42265661.02 -42265660.99 0.0132 0.0131

Venus -120430-07-19 13:41 J -42265435.04 -42265434.93 -42265434.80 0.0132 0.0107

Venus -120429-03-01 15:51 J -42265208.99 -42265208.84 -42265208.66 0.0133 0.0084

Venus -120429-10-13 18:15 J -42264982.92 -42264982.74 -42264982.55 0.0133 0.0059

Venus -120428-05-27 20:39 J -42264756.84 -42264756.64 -42264756.44 0.0133 0.0034

Venus -120427-01-08 23:03 J -42264530.75 -42264530.54 -42264530.33 0.0133 0.0009

Venus -120427-08-23 01:27 J -42264304.64 -42264304.44 -42264304.23 0.0134 0.0016

Venus -120426-04-06 04:05 J -42264078.52 -42264078.33 -42264078.13 0.0134 0.0041

Venus -120426-11-18 06:44 J -42263852.39 -42263852.22 -42263852.03 0.0134 0.0067

Venus -120425-07-01 09:51 J -42263626.24 -42263626.09 -42263625.94 0.0134 0.0092

Venus -120424-02-12 12:29 J -42263400.06 -42263399.98 -42263399.86 0.0135 0.0118

Earth -120405-07-28 01:27 J -42256294.62 -42256294.44 -42256294.25 0.0147 0.0100
 Moon -120405-07-28 02:39 J -42256294.57 -42256294.39 -42256294.19 0.0147 0.0094 *
 Moon -120404-08-02 07:56 J -42255924.41 -42255924.17 -42255923.91 0.0147 0.0050
 Earth -120404-08-02 08:53 J -42255924.36 -42255924.13 -42255923.88 0.0147 0.0054 *
 Mercury -120399-06-28 03:37 J -42254133.46 -42254133.35 -42254133.24 0.0148 0.0119
 Mercury -120399-09-24 11:46 J -42254045.15 -42254045.01 -42254044.85 0.0148 0.0089
 Mercury -120399-12-21 20:25 J -42253956.81 -42253956.65 -42253956.47 0.0148 0.0057
 Mercury -120398-03-20 05:03 J -42253868.47 -42253868.29 -42253868.10 0.0148 0.0026
 Mercury -120398-06-16 13:41 J -42253780.11 -42253779.93 -42253779.74 0.0148 0.0006
 Mercury -120398-09-12 22:20 J -42253691.75 -42253691.57 -42253691.38 0.0148 0.0037
 Mercury -120398-12-10 06:58 J -42253603.37 -42253603.21 -42253603.03 0.0148 0.0068
 Mercury -120397-03-07 15:51 J -42253514.98 -42253514.84 -42253514.70 0.0148 0.0099
 Mercury -120397-06-04 00:15 J -42253426.56 -42253426.49 -42253426.39 0.0148 0.0132
 Mars -120394-11-15 23:17 J -42252166.81 -42252166.53 -42252166.24 0.0148 0.0028
 Venus -120390-11-03 00:29 J -42250718.61 -42250718.48 -42250718.32 0.0146 0.0112
 Venus -120389-06-16 17:03 J -42250491.98 -42250491.79 -42250491.59 0.0146 0.0076
 Venus -120388-01-29 09:08 J -42250265.33 -42250265.12 -42250264.89 0.0146 0.0040
 Venus -120388-09-13 01:27 J -42250038.66 -42250038.44 -42250038.21 0.0146 0.0004
 Venus -120387-04-27 17:17 J -42249812.00 -42249811.78 -42249811.55 0.0145 0.0032
 Venus -120387-12-10 08:53 J -42249585.32 -42249585.13 -42249584.92 0.0145 0.0067
 Venus -120386-07-25 00:29 J -42249358.63 -42249358.48 -42249358.31 0.0145 0.0102
 Venus -120385-03-07 15:51 J -42249131.91 -42249131.84 -42249131.76 0.0144 0.0136
 Moon -120364-02-07 06:44 J -42241490.46 -42241490.22 -42241489.95 0.0132 0.0027
 Earth -120364-02-07 08:10 J -42241490.40 -42241490.16 -42241489.91 0.0132 0.0028 *
 Earth -120363-02-11 09:51 J -42241121.28 -42241121.09 -42241120.88 0.0132 0.0079
 Moon -120363-02-11 10:20 J -42241121.25 -42241121.07 -42241120.86 0.0132 0.0075 *
 Mercury -120358-04-30 04:20 J -42239217.37 -42239217.32 -42239217.27 0.0131 0.0120
 Mercury -120358-07-27 07:13 J -42239129.27 -42239129.20 -42239129.11 0.0131 0.0105
 Mercury -120358-10-23 10:20 J -42239041.16 -42239041.07 -42239040.97 0.0131 0.0089
 Mercury -120357-01-19 13:27 J -42238953.05 -42238952.94 -42238952.83 0.0131 0.0074

Mercury -120357-04-16 16:20 J -42238864.93 -42238864.82 -42238864.69 0.0131 0.0059

Mercury -120357-07-13 19:27 J -42238776.82 -42238776.69 -42238776.56 0.0131 0.0044

Mercury -120357-10-09 22:20 J -42238688.70 -42238688.57 -42238688.43 0.0131 0.0029

Mercury -120356-01-06 01:27 J -42238600.57 -42238600.44 -42238600.31 0.0131 0.0013

Mercury -120356-04-04 04:20 J -42238512.45 -42238512.32 -42238512.18 0.0131 0.0003

Mercury -120356-07-01 07:13 J -42238424.33 -42238424.20 -42238424.06 0.0131 0.0018

Mercury -120356-09-27 10:20 J -42238336.20 -42238336.07 -42238335.94 0.0131 0.0032

Mercury -120356-12-24 13:13 J -42238248.07 -42238247.95 -42238247.82 0.0131 0.0047

Mercury -120355-03-22 16:05 J -42238159.94 -42238159.83 -42238159.71 0.0131 0.0062

Mercury -120355-06-18 18:58 J -42238071.81 -42238071.71 -42238071.60 0.0131 0.0077

Mercury -120355-09-14 21:51 J -42237983.68 -42237983.59 -42237983.49 0.0131 0.0092

Mercury -120355-12-12 00:44 J -42237895.54 -42237895.47 -42237895.39 0.0131 0.0107

Mercury -120354-03-10 03:51 J -42237807.39 -42237807.34 -42237807.29 0.0131 0.0121

Mars -120351-03-03 11:32 J -42236718.31 -42236718.02 -42236717.71 0.0131 0.0050

Venus -120346-03-19 00:58 J -42234876.52 -42234876.46 -42234876.35 0.0132 0.0121

Venus -120346-10-31 03:37 J -42234650.50 -42234650.35 -42234650.21 0.0132 0.0096

Venus -120345-06-13 05:32 J -42234424.44 -42234424.27 -42234424.09 0.0133 0.0072

Venus -120344-01-25 07:56 J -42234198.36 -42234198.17 -42234197.97 0.0133 0.0047

Venus -120344-09-08 10:20 J -42233972.28 -42233972.07 -42233971.86 0.0133 0.0022

Venus -120343-04-22 12:44 J -42233746.18 -42233745.97 -42233745.76 0.0133 0.0003

Venus -120343-12-04 15:08 J -42233520.07 -42233519.87 -42233519.66 0.0134 0.0028

Venus -120342-07-18 17:46 J -42233293.95 -42233293.76 -42233293.56 0.0134 0.0054

Venus -120341-02-29 20:39 J -42233067.80 -42233067.64 -42233067.46 0.0134 0.0079

Venus -120341-10-12 23:46 J -42232841.64 -42232841.51 -42232841.38 0.0134 0.0105

Venus -120340-05-27 02:25 J -42232615.43 -42232615.40 -42232615.33 0.0135 0.0131

Moon -120321-07-28 02:39 J -42225613.58 -42225613.39 -42225613.19 0.0146 0.0095

Earth -120321-07-28 06:01 J -42225613.42 -42225613.25 -42225613.06 0.0146 0.0103 *

Earth -120320-08-02 13:13 J -42225243.18 -42225242.95 -42225242.70 0.0147 0.0051

Moon -120320-08-02 16:49 J -42225243.03 -42225242.80 -42225242.55 0.0147 0.0043 *

Mercury -120315-07-18 08:53 J -42223432.23 -42223432.13 -42223432.01 0.0148 0.0118

Mercury -120315-10-14 17:32 J -42223343.92 -42223343.77 -42223343.62 0.0148 0.0087
 Mercury -120314-01-11 01:56 J -42223255.59 -42223255.42 -42223255.24 0.0148 0.0057
 Mercury -120314-04-09 10:34 J -42223167.24 -42223167.06 -42223166.87 0.0148 0.0026
 Mercury -120314-07-06 19:13 J -42223078.89 -42223078.70 -42223078.51 0.0148 0.0006
 Mercury -120314-10-03 03:51 J -42222990.52 -42222990.34 -42222990.16 0.0148 0.0037
 Mercury -120314-12-30 12:29 J -42222902.14 -42222901.98 -42222901.81 0.0148 0.0068
 Mercury -120313-03-27 20:53 J -42222813.75 -42222813.63 -42222813.47 0.0148 0.0101
 Mercury -120313-06-24 06:01 J -42222725.33 -42222725.25 -42222725.16 0.0148 0.0131
 Mars -120311-08-08 03:51 J -42221950.41 -42221950.34 -42221950.24 0.0148 0.0142
 Mars -120309-07-10 22:20 J -42221247.75 -42221247.57 -42221247.36 0.0148 0.0109
 Venus -120306-07-03 00:15 J -42220160.57 -42220160.49 -42220160.39 0.0147 0.0134
 Venus -120305-02-14 16:49 J -42219933.96 -42219933.80 -42219933.62 0.0146 0.0098
 Venus -120305-09-28 09:08 J -42219707.32 -42219707.12 -42219706.91 0.0146 0.0061
 Venus -120304-05-13 01:13 J -42219480.67 -42219480.45 -42219480.22 0.0146 0.0025
 Venus -120304-12-25 17:17 J -42219254.01 -42219253.78 -42219253.55 0.0145 0.0011
 Venus -120303-08-09 08:53 J -42219027.33 -42219027.13 -42219026.90 0.0145 0.0048
 Venus -120302-03-24 00:44 J -42218800.65 -42218800.47 -42218800.28 0.0145 0.0082
 Venus -120302-11-05 15:51 J -42218573.96 -42218573.84 -42218573.69 0.0144 0.0117
 Moon -120281-02-04 10:49 J -42211178.10 -42211178.05 -42211178.00 0.0133 0.0129
 Earth -120280-02-07 16:49 J -42210809.04 -42210808.80 -42210808.55 0.0132 0.0026
 Moon -120280-02-07 20:25 J -42210808.89 -42210808.65 -42210808.40 0.0132 0.0030 *
 Moon -120279-02-11 15:22 J -42210440.04 -42210439.86 -42210439.65 0.0132 0.0082
 Earth -120279-02-11 18:29 J -42210439.90 -42210439.73 -42210439.51 0.0132 0.0081 *
 Mercury -120274-05-20 11:03 J -42208516.09 -42208516.04 -42208515.97 0.0131 0.0118
 Mercury -120274-08-16 14:10 J -42208427.99 -42208427.91 -42208427.82 0.0131 0.0102
 Mercury -120274-11-12 17:17 J -42208339.88 -42208339.78 -42208339.68 0.0131 0.0087
 Mercury -120273-02-08 20:10 J -42208251.76 -42208251.66 -42208251.54 0.0131 0.0072
 Mercury -120273-05-06 23:17 J -42208163.65 -42208163.53 -42208163.40 0.0131 0.0056
 Mercury -120273-08-03 02:25 J -42208075.53 -42208075.40 -42208075.27 0.0131 0.0041
 Mercury -120273-10-30 05:17 J -42207987.41 -42207987.28 -42207987.14 0.0131 0.0026

Mercury -120272-01-26 08:25 J -42207899.29 -42207899.15 -42207899.02 0.0131 0.0011
 Mercury -120272-04-24 11:17 J -42207811.16 -42207811.03 -42207810.89 0.0131 0.0005
 Mercury -120272-07-21 14:10 J -42207723.04 -42207722.91 -42207722.77 0.0131 0.0020
 Mercury -120272-10-17 17:17 J -42207634.91 -42207634.78 -42207634.65 0.0131 0.0035
 Mercury -120271-01-13 20:10 J -42207546.78 -42207546.66 -42207546.54 0.0131 0.0050
 Mercury -120271-04-11 23:03 J -42207458.65 -42207458.54 -42207458.42 0.0131 0.0065
 Mercury -120271-07-09 01:56 J -42207370.52 -42207370.42 -42207370.31 0.0131 0.0080
 Mercury -120271-10-05 04:49 J -42207282.38 -42207282.30 -42207282.20 0.0131 0.0095
 Mercury -120270-01-01 07:41 J -42207194.24 -42207194.18 -42207194.10 0.0131 0.0110
 Mercury -120270-03-30 10:49 J -42207106.09 -42207106.05 -42207106.01 0.0131 0.0124
 Mars -120267-10-27 12:15 J -42205799.31 -42205798.99 -42205798.65 0.0131 0.0019
 Venus -120262-06-30 15:08 J -42204091.98 -42204091.87 -42204091.75 0.0132 0.0109
 Venus -120261-02-11 17:17 J -42203865.93 -42203865.78 -42203865.61 0.0132 0.0084
 Venus -120261-09-24 19:27 J -42203639.87 -42203639.69 -42203639.49 0.0133 0.0060
 Venus -120260-05-08 21:51 J -42203413.79 -42203413.59 -42203413.38 0.0133 0.0035
 Venus -120260-12-21 00:15 J -42203187.69 -42203187.49 -42203187.28 0.0133 0.0010
 Venus -120259-08-04 02:53 J -42202961.59 -42202961.38 -42202961.17 0.0133 0.0016
 Venus -120258-03-18 05:17 J -42202735.46 -42202735.28 -42202735.07 0.0134 0.0042
 Venus -120258-10-30 08:10 J -42202509.33 -42202509.16 -42202508.97 0.0134 0.0067
 Venus -120257-06-12 11:03 J -42202283.18 -42202283.04 -42202282.88 0.0134 0.0093
 Venus -120256-01-24 13:56 J -42202057.00 -42202056.92 -42202056.80 0.0135 0.0119
 Earth -120237-07-28 14:25 J -42194932.07 -42194931.90 -42194931.70 0.0146 0.0100
 Moon -120237-07-28 16:34 J -42194932.00 -42194931.81 -42194931.60 0.0146 0.0097 *
 Moon -120236-08-02 18:29 J -42194561.96 -42194561.73 -42194561.48 0.0147 0.0046
 Earth -120236-08-02 21:22 J -42194561.84 -42194561.61 -42194561.36 0.0147 0.0053 *
 Mercury -120231-05-11 06:58 J -42192819.24 -42192819.21 -42192819.16 0.0148 0.0144
 Mercury -120231-08-07 15:22 J -42192730.97 -42192730.86 -42192730.73 0.0148 0.0114
 Mercury -120231-11-04 00:01 J -42192642.65 -42192642.50 -42192642.34 0.0148 0.0083
 Mercury -120230-01-31 08:25 J -42192554.32 -42192554.15 -42192553.97 0.0148 0.0053
 Mercury -120230-04-29 17:03 J -42192465.98 -42192465.79 -42192465.60 0.0148 0.0022

Mercury -120230-07-27 01:41 J -42192377.62 -42192377.43 -42192377.24 0.0148 0.0009

Mercury -120230-10-23 10:05 J -42192289.25 -42192289.08 -42192288.89 0.0148 0.0041

Mercury -120229-01-19 18:58 J -42192200.87 -42192200.71 -42192200.54 0.0148 0.0072

Mercury -120229-04-17 03:22 J -42192112.48 -42192112.36 -42192112.21 0.0148 0.0104

Mercury -120229-07-14 12:15 J -42192024.06 -42192023.99 -42192023.91 0.0148 0.0135

Mars -120226-04-03 07:13 J -42191031.45 -42191031.20 -42191030.92 0.0148 0.0057

Venus -120222-10-14 17:32 J -42189375.88 -42189375.77 -42189375.62 0.0146 0.0119

Venus -120221-05-28 09:51 J -42189149.26 -42189149.09 -42189148.89 0.0146 0.0082

Venus -120220-01-10 02:10 J -42188922.62 -42188922.41 -42188922.19 0.0146 0.0046

Venus -120220-08-24 18:29 J -42188695.96 -42188695.73 -42188695.51 0.0146 0.0009

Venus -120219-04-08 10:20 J -42188469.29 -42188469.07 -42188468.85 0.0145 0.0027

Venus -120219-11-21 01:56 J -42188242.62 -42188242.42 -42188242.21 0.0145 0.0062

Venus -120218-07-05 17:03 J -42188015.94 -42188015.79 -42188015.61 0.0145 0.0098

Venus -120217-02-17 08:39 J -42187789.23 -42187789.14 -42187789.05 0.0144 0.0132

Moon -120197-02-05 00:01 J -42180496.57 -42180496.50 -42180496.43 0.0133 0.0127

Moon -120196-02-07 22:20 J -42180127.80 -42180127.57 -42180127.32 0.0132 0.0032

Earth -120196-02-08 00:44 J -42180127.70 -42180127.47 -42180127.21 0.0132 0.0026 *

Earth -120195-02-12 02:39 J -42179758.57 -42179758.39 -42179758.18 0.0132 0.0082

Moon -120195-02-12 04:49 J -42179758.48 -42179758.30 -42179758.10 0.0132 0.0088 *

Mercury -120190-03-13 14:53 J -42177902.88 -42177902.88 -42177902.87 0.0131 0.0131

Mercury -120190-06-09 18:01 J -42177814.81 -42177814.75 -42177814.69 0.0131 0.0115

Mercury -120190-09-05 20:53 J -42177726.71 -42177726.63 -42177726.54 0.0131 0.0100

Mercury -120190-12-03 00:01 J -42177638.60 -42177638.50 -42177638.39 0.0131 0.0085

Mercury -120189-02-29 03:08 J -42177550.48 -42177550.37 -42177550.25 0.0131 0.0069

Mercury -120189-05-27 06:01 J -42177462.37 -42177462.25 -42177462.12 0.0131 0.0054

Mercury -120189-08-23 09:08 J -42177374.25 -42177374.12 -42177373.99 0.0131 0.0039

Mercury -120189-11-19 12:01 J -42177286.13 -42177286.00 -42177285.86 0.0131 0.0024

Mercury -120188-02-15 15:08 J -42177198.00 -42177197.87 -42177197.73 0.0131 0.0008

Mercury -120188-05-14 18:15 J -42177109.88 -42177109.74 -42177109.61 0.0131 0.0008

Mercury -120188-08-10 21:08 J -42177021.75 -42177021.62 -42177021.49 0.0131 0.0022

Mercury -120188-11-07 00:01 J -42176933.63 -42176933.50 -42176933.37 0.0131 0.0037

Mercury -120187-02-03 02:53 J -42176845.50 -42176845.38 -42176845.25 0.0131 0.0053

Mercury -120187-05-02 05:46 J -42176757.37 -42176757.26 -42176757.14 0.0131 0.0068

Mercury -120187-07-29 08:53 J -42176669.23 -42176669.13 -42176669.03 0.0131 0.0082

Mercury -120187-10-25 11:46 J -42176581.09 -42176581.01 -42176580.92 0.0131 0.0097

Mercury -120186-01-21 14:39 J -42176492.95 -42176492.89 -42176492.82 0.0131 0.0112

Mercury -120186-04-19 17:32 J -42176404.79 -42176404.77 -42176404.73 0.0131 0.0127

Mars -120184-07-19 19:13 J -42175582.88 -42175582.70 -42175582.51 0.0131 0.0108

Mars -120182-06-22 12:01 J -42174880.22 -42174880.00 -42174879.74 0.0131 0.0089

Venus -120178-02-28 02:53 J -42173533.45 -42173533.38 -42173533.29 0.0132 0.0122

Venus -120178-10-12 04:49 J -42173307.42 -42173307.30 -42173307.14 0.0132 0.0098

Venus -120177-05-25 07:13 J -42173081.37 -42173081.20 -42173081.02 0.0133 0.0073

Venus -120176-01-06 09:37 J -42172855.29 -42172855.10 -42172854.90 0.0133 0.0048

Venus -120176-08-20 12:01 J -42172629.20 -42172629.00 -42172628.79 0.0133 0.0023

Venus -120175-04-03 14:39 J -42172403.10 -42172402.89 -42172402.68 0.0133 0.0004

Venus -120175-11-15 17:17 J -42172176.98 -42172176.78 -42172176.57 0.0134 0.0029

Venus -120174-06-29 19:56 J -42171950.86 -42171950.67 -42171950.47 0.0134 0.0055

Venus -120173-02-10 23:03 J -42171724.71 -42171724.54 -42171724.37 0.0134 0.0081

Venus -120173-09-24 01:56 J -42171498.54 -42171498.42 -42171498.29 0.0135 0.0107

Venus -120172-05-08 04:49 J -42171272.31 -42171272.30 -42171272.24 0.0135 0.0133

Earth -120153-07-29 01:56 J -42164250.62 -42164250.42 -42164250.23 0.0146 0.0093

Moon -120153-07-29 04:05 J -42164250.51 -42164250.33 -42164250.15 0.0146 0.0099 *

Moon -120152-08-03 07:27 J -42163880.43 -42163880.19 -42163879.94 0.0147 0.0059

Earth -120152-08-03 08:25 J -42163880.38 -42163880.15 -42163879.91 0.0147 0.0059 *

Mercury -120147-05-31 14:39 J -42162117.95 -42162117.89 -42162117.82 0.0148 0.0136

Mercury -120147-08-27 23:03 J -42162029.66 -42162029.54 -42162029.41 0.0148 0.0106

Mercury -120147-11-24 07:27 J -42161941.34 -42161941.19 -42161941.02 0.0148 0.0076

Mercury -120146-02-20 16:05 J -42161853.01 -42161852.83 -42161852.65 0.0148 0.0045

Mercury -120146-05-20 00:44 J -42161764.66 -42161764.47 -42161764.28 0.0148 0.0014

Mercury -120146-08-16 09:22 J -42161676.30 -42161676.11 -42161675.93 0.0148 0.0017

Mercury -120146-11-12 18:01 J -42161587.93 -42161587.75 -42161587.57 0.0148 0.0048

Mercury -120145-02-09 02:25 J -42161499.55 -42161499.40 -42161499.23 0.0148 0.0080

Mercury -120145-05-07 11:03 J -42161411.15 -42161411.04 -42161410.90 0.0148 0.0112

Mercury -120145-08-03 19:41 J -42161322.71 -42161322.68 -42161322.62 0.0148 0.0143

Mars -120142-11-27 15:37 J -42160112.14 -42160111.85 -42160111.57 0.0148 0.0031

Venus -120138-06-13 20:53 J -42158817.69 -42158817.63 -42158817.55 0.0147 0.0138

Venus -120137-01-26 13:13 J -42158591.10 -42158590.95 -42158590.78 0.0146 0.0102

Venus -120137-09-09 05:17 J -42158364.47 -42158364.28 -42158364.06 0.0146 0.0065

Venus -120136-04-23 21:22 J -42158137.82 -42158137.61 -42158137.38 0.0146 0.0029

Venus -120136-12-06 13:27 J -42157911.16 -42157910.94 -42157910.71 0.0145 0.0008

Venus -120135-07-21 05:03 J -42157684.49 -42157684.29 -42157684.06 0.0145 0.0045

Venus -120134-03-04 20:39 J -42157457.82 -42157457.64 -42157457.44 0.0145 0.0080

Venus -120134-10-17 12:01 J -42157231.12 -42157231.00 -42157230.85 0.0144 0.0115

Earth -120113-02-05 07:27 J -42149815.23 -42149815.19 -42149815.13 0.0133 0.0130

Moon -120113-02-05 09:08 J -42149815.14 -42149815.12 -42149815.05 0.0133 0.0131 *

Moon -120112-02-08 09:22 J -42149446.37 -42149446.11 -42149445.86 0.0132 0.0025

Earth -120112-02-08 10:49 J -42149446.30 -42149446.05 -42149445.80 0.0132 0.0021 *

Earth -120111-02-12 12:44 J -42149077.15 -42149076.97 -42149076.77 0.0132 0.0085

Moon -120111-02-12 14:25 J -42149077.07 -42149076.90 -42149076.72 0.0132 0.0091 *

Mercury -120106-04-02 21:51 J -42147201.61 -42147201.59 -42147201.56 0.0131 0.0127

Mercury -120106-06-30 00:58 J -42147113.52 -42147113.46 -42147113.39 0.0131 0.0112

Mercury -120106-09-26 04:05 J -42147025.42 -42147025.33 -42147025.24 0.0131 0.0096

Mercury -120106-12-23 06:58 J -42146937.31 -42146937.21 -42146937.10 0.0131 0.0081

Mercury -120105-03-20 10:05 J -42146849.19 -42146849.08 -42146848.96 0.0131 0.0066

Mercury -120105-06-16 13:13 J -42146761.07 -42146760.95 -42146760.82 0.0131 0.0050

Mercury -120105-09-12 16:20 J -42146672.95 -42146672.82 -42146672.69 0.0131 0.0035

Mercury -120105-12-09 19:13 J -42146584.83 -42146584.70 -42146584.56 0.0131 0.0020

Mercury -120104-03-07 22:20 J -42146496.71 -42146496.57 -42146496.44 0.0131 0.0006

Mercury -120104-06-04 01:13 J -42146408.58 -42146408.45 -42146408.31 0.0131 0.0011

Mercury -120104-08-31 04:05 J -42146320.46 -42146320.33 -42146320.19 0.0131 0.0026

Mercury -120104-11-27 07:13 J -42146232.33 -42146232.20 -42146232.07 0.0131 0.0041
 Mercury -120103-02-23 10:05 J -42146144.20 -42146144.08 -42146143.96 0.0131 0.0056
 Mercury -120103-05-22 12:58 J -42146056.07 -42146055.96 -42146055.84 0.0131 0.0071
 Mercury -120103-08-18 15:51 J -42145967.93 -42145967.84 -42145967.73 0.0131 0.0086
 Mercury -120103-11-14 18:44 J -42145879.79 -42145879.72 -42145879.63 0.0131 0.0101
 Mercury -120102-02-10 21:37 J -42145791.65 -42145791.60 -42145791.53 0.0131 0.0116
 Mercury -120102-05-10 00:44 J -42145703.47 -42145703.47 -42145703.46 0.0131 0.0130
 Mars -120099-03-14 21:08 J -42144663.93 -42144663.62 -42144663.30 0.0131 0.0038
 Venus -120094-06-11 17:17 J -42142748.90 -42142748.78 -42142748.67 0.0132 0.0110
 Venus -120093-01-23 19:13 J -42142522.85 -42142522.70 -42142522.53 0.0133 0.0086
 Venus -120093-09-05 21:51 J -42142296.78 -42142296.59 -42142296.40 0.0133 0.0060
 Venus -120092-04-20 00:01 J -42142070.69 -42142070.50 -42142070.29 0.0133 0.0035
 Venus -120092-12-02 02:39 J -42141844.60 -42141844.39 -42141844.18 0.0133 0.0009
 Venus -120091-07-16 05:17 J -42141618.49 -42141618.28 -42141618.07 0.0134 0.0016
 Venus -120090-02-27 08:10 J -42141392.36 -42141392.16 -42141391.96 0.0134 0.0042
 Venus -120090-10-11 11:03 J -42141166.22 -42141166.04 -42141165.86 0.0134 0.0068
 Venus -120089-05-24 13:56 J -42140940.06 -42140939.92 -42140939.77 0.0134 0.0095
 Venus -120088-01-05 17:03 J -42140713.87 -42140713.79 -42140713.69 0.0135 0.0121
 Moon -120069-07-29 10:05 J -42133569.26 -42133569.08 -42133568.87 0.0146 0.0093
 Earth -120069-07-29 14:10 J -42133569.12 -42133568.91 -42133568.70 0.0146 0.0085 *
 Earth -120068-08-03 20:25 J -42133198.87 -42133198.65 -42133198.41 0.0147 0.0067
 Moon -120068-08-03 23:46 J -42133198.71 -42133198.51 -42133198.27 0.0147 0.0074 *
 Mercury -120063-06-20 23:03 J -42131416.64 -42131416.54 -42131416.45 0.0148 0.0126
 Mercury -120063-09-17 07:13 J -42131328.33 -42131328.20 -42131328.05 0.0148 0.0096
 Mercury -120063-12-14 15:51 J -42131240.01 -42131239.84 -42131239.67 0.0148 0.0065
 Mercury -120062-03-13 00:15 J -42131151.67 -42131151.49 -42131151.30 0.0148 0.0035
 Mercury -120062-06-09 08:53 J -42131063.32 -42131063.13 -42131062.94 0.0148 0.0004
 Mercury -120062-09-05 17:32 J -42130974.95 -42130974.77 -42130974.58 0.0148 0.0027
 Mercury -120062-12-03 01:56 J -42130886.58 -42130886.42 -42130886.23 0.0148 0.0059
 Mercury -120061-02-29 10:49 J -42130798.20 -42130798.05 -42130797.90 0.0148 0.0090

Mercury -120061-05-27 19:27 J -42130709.79 -42130709.69 -42130709.58 0.0148 0.0121

Mars -120059-08-20 10:34 J -42129895.18 -42129895.06 -42129894.90 0.0148 0.0129

Mars -120057-07-23 02:53 J -42129192.52 -42129192.38 -42129192.20 0.0147 0.0123

Venus -120054-09-25 18:01 J -42128032.87 -42128032.75 -42128032.61 0.0146 0.0120

Venus -120053-05-09 09:51 J -42127806.26 -42127806.09 -42127805.89 0.0146 0.0083

Venus -120053-12-22 02:10 J -42127579.62 -42127579.41 -42127579.19 0.0146 0.0046

Venus -120052-08-05 18:15 J -42127352.96 -42127352.74 -42127352.51 0.0146 0.0010

Venus -120051-03-20 10:05 J -42127126.30 -42127126.08 -42127125.86 0.0145 0.0027

Venus -120051-11-02 01:27 J -42126899.63 -42126899.44 -42126899.22 0.0145 0.0063

Venus -120050-06-16 16:49 J -42126672.95 -42126672.80 -42126672.62 0.0145 0.0098

Venus -120049-01-29 07:56 J -42126446.24 -42126446.17 -42126446.07 0.0144 0.0133

Moon -120029-02-05 13:27 J -42119133.94 -42119133.94 -42119133.93 0.0133 0.0133

Earth -120029-02-05 16:49 J -42119133.85 -42119133.80 -42119133.70 0.0133 0.0127

Earth -120028-02-08 20:10 J -42118764.90 -42118764.66 -42118764.40 0.0132 0.0019

Moon -120028-02-08 23:46 J -42118764.76 -42118764.51 -42118764.26 0.0132 0.0015 *

Moon -120027-02-12 18:44 J -42118395.90 -42118395.72 -42118395.53 0.0132 0.0088

Earth -120027-02-12 22:34 J -42118395.75 -42118395.56 -42118395.38 0.0132 0.0089 *

Mercury -120022-04-23 04:49 J -42116500.33 -42116500.30 -42116500.25 0.0131 0.0124

Mercury -120022-07-20 07:41 J -42116412.24 -42116412.18 -42116412.09 0.0131 0.0109

Mercury -120022-10-16 11:03 J -42116324.13 -42116324.04 -42116323.94 0.0131 0.0093

Mercury -120021-01-12 13:56 J -42116236.02 -42116235.92 -42116235.80 0.0131 0.0078

Mercury -120021-04-09 17:03 J -42116147.90 -42116147.79 -42116147.67 0.0131 0.0063

Mercury -120021-07-06 20:10 J -42116059.78 -42116059.66 -42116059.53 0.0131 0.0047

Mercury -120021-10-02 23:17 J -42115971.66 -42115971.53 -42115971.40 0.0131 0.0032

Mercury -120021-12-30 02:10 J -42115883.54 -42115883.41 -42115883.27 0.0131 0.0017

Mercury -120020-03-28 05:17 J -42115795.42 -42115795.28 -42115795.15 0.0131 0.0002

Mercury -120020-06-24 08:10 J -42115707.29 -42115707.16 -42115707.02 0.0131 0.0014

Mercury -120020-09-20 11:17 J -42115619.16 -42115619.03 -42115618.90 0.0131 0.0029

Mercury -120020-12-17 14:10 J -42115531.04 -42115530.91 -42115530.78 0.0131 0.0044

Mercury -120019-03-15 17:03 J -42115442.90 -42115442.79 -42115442.67 0.0131 0.0059

Mercury	-120019-06-11 20:10 J	-42115354.77	-42115354.66	-42115354.55	0.0131	0.0074
Mercury	-120019-09-07 23:03 J	-42115266.64	-42115266.54	-42115266.44	0.0131	0.0089
Mercury	-120019-12-05 01:56 J	-42115178.50	-42115178.42	-42115178.34	0.0131	0.0104
Mercury	-120018-03-03 04:49 J	-42115090.35	-42115090.30	-42115090.24	0.0131	0.0119
Mars	-120015-11-07 20:53 J	-42113744.94	-42113744.63	-42113744.30	0.0131	0.0033
Venus	-120010-02-09 04:34 J	-42112190.37	-42112190.31	-42112190.22	0.0132	0.0123
Venus	-120010-09-23 06:44 J	-42111964.34	-42111964.22	-42111964.06	0.0133	0.0099
Venus	-120009-05-06 09:22 J	-42111738.28	-42111738.11	-42111737.93	0.0133	0.0073
Venus	-120009-12-18 11:32 J	-42111512.20	-42111512.02	-42111511.81	0.0133	0.0048
Venus	-120008-08-01 14:10 J	-42111286.11	-42111285.91	-42111285.70	0.0133	0.0022
Venus	-120007-03-15 17:03 J	-42111060.00	-42111059.79	-42111059.58	0.0133	0.0004
Venus	-120007-10-27 19:41 J	-42110833.88	-42110833.68	-42110833.47	0.0134	0.0030
Venus	-120006-06-10 22:20 J	-42110607.75	-42110607.57	-42110607.37	0.0134	0.0056
Venus	-120005-01-23 01:13 J	-42110381.60	-42110381.45	-42110381.27	0.0134	0.0083
Venus	-120005-09-05 04:20 J	-42110155.43	-42110155.32	-42110155.18	0.0135	0.0109

120TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 120th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-119985-07-30 00:15 J	-42102887.69	-42102887.49	-42102887.26	0.0146	0.0080		

Moon -119985-07-30 01:27 J -42102887.64 -42102887.44 -42102887.21 0.0146 0.0083 *
 Moon -119984-08-04 05:32 J -42102517.47 -42102517.27 -42102517.05 0.0147 0.0079
 Earth -119984-08-04 07:13 J -42102517.42 -42102517.20 -42102516.97 0.0147 0.0072 *
 Mercury -119979-07-11 06:29 J -42100715.33 -42100715.23 -42100715.11 0.0148 0.0118
 Mercury -119979-10-07 14:53 J -42100627.02 -42100626.88 -42100626.72 0.0148 0.0088
 Mercury -119978-01-03 23:32 J -42100538.69 -42100538.52 -42100538.34 0.0148 0.0057
 Mercury -119978-04-02 08:10 J -42100450.34 -42100450.16 -42100449.97 0.0148 0.0026
 Mercury -119978-06-29 16:49 J -42100361.99 -42100361.80 -42100361.61 0.0148 0.0005
 Mercury -119978-09-26 01:13 J -42100273.63 -42100273.45 -42100273.26 0.0148 0.0036
 Mercury -119978-12-23 10:05 J -42100185.25 -42100185.08 -42100184.91 0.0148 0.0067
 Mercury -119977-03-20 18:29 J -42100096.86 -42100096.73 -42100096.58 0.0148 0.0099
 Mercury -119977-06-17 03:08 J -42100008.44 -42100008.37 -42100008.27 0.0148 0.0130
 Mars -119974-04-15 21:08 J -42098975.90 -42098975.62 -42098975.34 0.0148 0.0038
 Venus -119970-05-25 22:34 J -42097474.63 -42097474.56 -42097474.48 0.0147 0.0138
 Venus -119969-01-07 14:25 J -42097248.04 -42097247.90 -42097247.72 0.0146 0.0102
 Venus -119969-08-21 06:58 J -42097021.41 -42097021.21 -42097021.00 0.0146 0.0064
 Venus -119968-04-04 23:03 J -42096794.76 -42096794.54 -42096794.32 0.0146 0.0028
 Venus -119968-11-17 14:53 J -42096568.11 -42096567.88 -42096567.65 0.0145 0.0009
 Venus -119967-07-02 06:15 J -42096341.44 -42096341.24 -42096341.01 0.0145 0.0046
 Venus -119966-02-13 21:51 J -42096114.76 -42096114.59 -42096114.39 0.0145 0.0082
 Venus -119966-09-28 13:13 J -42095888.07 -42095887.95 -42095887.80 0.0144 0.0117
 Earth -119945-02-06 02:53 J -42088452.45 -42088452.38 -42088452.26 0.0133 0.0123
 Moon -119945-02-06 04:20 J -42088452.36 -42088452.32 -42088452.24 0.0133 0.0129 *
 Moon -119944-02-09 05:32 J -42088083.51 -42088083.27 -42088083.02 0.0132 0.0008
 Earth -119944-02-09 06:15 J -42088083.48 -42088083.24 -42088082.98 0.0132 0.0015 *
 Earth -119943-02-13 08:10 J -42087714.33 -42087714.16 -42087713.97 0.0132 0.0092
 Moon -119943-02-13 09:37 J -42087714.29 -42087714.10 -42087713.90 0.0132 0.0086 *
 Mercury -119938-05-13 11:46 J -42085799.05 -42085799.01 -42085798.95 0.0131 0.0121
 Mercury -119938-08-09 14:39 J -42085710.95 -42085710.89 -42085710.80 0.0131 0.0106
 Mercury -119938-11-05 18:01 J -42085622.84 -42085622.75 -42085622.65 0.0131 0.0090

Mercury -119937-02-01 20:53 J -42085534.73 -42085534.63 -42085534.51 0.0131 0.0075

Mercury -119937-04-30 00:15 J -42085446.61 -42085446.49 -42085446.37 0.0131 0.0059

Mercury -119937-07-27 03:08 J -42085358.49 -42085358.37 -42085358.24 0.0131 0.0044

Mercury -119937-10-23 06:15 J -42085270.37 -42085270.24 -42085270.11 0.0131 0.0029

Mercury -119936-01-19 09:08 J -42085182.25 -42085182.12 -42085181.98 0.0131 0.0014

Mercury -119936-04-17 12:15 J -42085094.12 -42085093.99 -42085093.86 0.0131 0.0002

Mercury -119936-07-14 15:08 J -42085006.00 -42085005.87 -42085005.73 0.0131 0.0018

Mercury -119936-10-10 18:15 J -42084917.87 -42084917.74 -42084917.61 0.0131 0.0032

Mercury -119935-01-06 21:08 J -42084829.74 -42084829.62 -42084829.49 0.0131 0.0047

Mercury -119935-04-05 00:01 J -42084741.61 -42084741.50 -42084741.38 0.0131 0.0062

Mercury -119935-07-02 03:08 J -42084653.48 -42084653.37 -42084653.26 0.0131 0.0077

Mercury -119935-09-28 06:01 J -42084565.34 -42084565.25 -42084565.15 0.0131 0.0092

Mercury -119935-12-25 08:53 J -42084477.20 -42084477.13 -42084477.05 0.0131 0.0107

Mercury -119934-03-23 11:46 J -42084389.05 -42084389.01 -42084388.96 0.0131 0.0122

Mars -119932-07-31 03:37 J -42083528.56 -42083528.35 -42083528.12 0.0131 0.0096

Mars -119930-07-03 19:56 J -42082825.84 -42082825.67 -42082825.43 0.0131 0.0103

Venus -119926-05-23 18:01 J -42081405.86 -42081405.75 -42081405.63 0.0132 0.0112

Venus -119925-01-04 20:10 J -42081179.81 -42081179.66 -42081179.49 0.0133 0.0087

Venus -119925-08-17 22:49 J -42080953.74 -42080953.55 -42080953.37 0.0133 0.0061

Venus -119924-04-01 00:58 J -42080727.65 -42080727.46 -42080727.25 0.0133 0.0036

Venus -119924-11-13 03:37 J -42080501.55 -42080501.35 -42080501.13 0.0133 0.0011

Venus -119923-06-27 06:15 J -42080275.44 -42080275.24 -42080275.02 0.0134 0.0017

Venus -119922-02-08 09:08 J -42080049.31 -42080049.12 -42080048.91 0.0134 0.0043

Venus -119922-09-22 12:01 J -42079823.17 -42079823.00 -42079822.81 0.0134 0.0069

Venus -119921-05-05 14:53 J -42079597.02 -42079596.88 -42079596.72 0.0134 0.0096

Venus -119921-12-17 18:01 J -42079370.83 -42079370.75 -42079370.65 0.0135 0.0122

Earth -119901-07-30 07:56 J -42072206.38 -42072206.17 -42072205.95 0.0146 0.0078

Moon -119901-07-30 10:34 J -42072206.26 -42072206.06 -42072205.83 0.0146 0.0073 *

Moon -119900-08-04 11:46 J -42071836.23 -42071836.01 -42071835.78 0.0147 0.0073

Earth -119900-08-04 14:10 J -42071836.12 -42071835.91 -42071835.68 0.0147 0.0074 *

Mercury -119895-05-04 05:03 J -42070102.33 -42070102.29 -42070102.24 0.0148 0.0143

Jupiter -119895-06-10 14:25 J -42070065.36 -42070064.90 -42070064.38 0.0148 0.0057

Mercury -119895-07-31 13:13 J -42070014.06 -42070013.95 -42070013.82 0.0148 0.0113

Mercury -119895-10-27 21:37 J -42069925.74 -42069925.60 -42069925.43 0.0148 0.0083

Mercury -119894-01-24 06:15 J -42069837.41 -42069837.24 -42069837.06 0.0148 0.0052

Mercury -119894-04-22 14:53 J -42069749.06 -42069748.88 -42069748.69 0.0148 0.0021

Mercury -119894-07-19 23:32 J -42069660.71 -42069660.52 -42069660.33 0.0148 0.0010

Mercury -119894-10-16 08:10 J -42069572.34 -42069572.16 -42069571.98 0.0148 0.0041

Mercury -119893-01-12 16:49 J -42069483.96 -42069483.80 -42069483.64 0.0148 0.0072

Mercury -119893-04-10 01:13 J -42069395.57 -42069395.45 -42069395.30 0.0148 0.0104

Mercury -119893-07-07 10:05 J -42069307.15 -42069307.08 -42069307.00 0.0148 0.0135

Mars -119890-12-10 00:44 J -42068056.73 -42068056.47 -42068056.18 0.0148 0.0050

Venus -119886-09-06 17:17 J -42066689.89 -42066689.78 -42066689.64 0.0146 0.0121

Venus -119885-04-20 09:22 J -42066463.28 -42066463.11 -42066462.91 0.0146 0.0085

Venus -119885-12-03 01:41 J -42066236.64 -42066236.43 -42066236.21 0.0146 0.0047

Venus -119884-07-17 18:01 J -42066009.98 -42066009.75 -42066009.53 0.0146 0.0010

Venus -119883-03-01 09:37 J -42065783.31 -42065783.10 -42065782.87 0.0145 0.0028

Venus -119883-10-14 01:13 J -42065556.64 -42065556.45 -42065556.24 0.0145 0.0064

Venus -119882-05-28 16:34 J -42065329.96 -42065329.81 -42065329.63 0.0145 0.0100

Venus -119881-01-10 07:41 J -42065103.23 -42065103.18 -42065103.08 0.0144 0.0136

Earth -119861-02-06 11:32 J -42057771.10 -42057771.02 -42057770.90 0.0133 0.0121

Moon -119861-02-06 14:10 J -42057770.99 -42057770.91 -42057770.79 0.0133 0.0122 *

Moon -119860-02-09 12:15 J -42057402.25 -42057401.99 -42057401.74 0.0132 0.0009

Earth -119860-02-09 15:08 J -42057402.12 -42057401.87 -42057401.62 0.0132 0.0013 *

Earth -119859-02-13 16:34 J -42057032.96 -42057032.81 -42057032.61 0.0132 0.0094

Moon -119859-02-13 19:27 J -42057032.85 -42057032.69 -42057032.49 0.0132 0.0089 *

Mercury -119854-06-02 18:29 J -42055097.78 -42055097.73 -42055097.67 0.0131 0.0119

Mercury -119854-08-29 21:37 J -42055009.67 -42055009.60 -42055009.51 0.0131 0.0103

Mercury -119854-11-26 00:44 J -42054921.57 -42054921.47 -42054921.37 0.0131 0.0088

Jupiter -119853-01-26 14:53 J -42054860.37 -42054859.88 -42054859.38 0.0131 0.0031

Mercury -119853-02-22 03:51 J -42054833.45 -42054833.34 -42054833.23 0.0131 0.0072

Mercury -119853-05-20 06:58 J -42054745.33 -42054745.21 -42054745.09 0.0131 0.0057

Mercury -119853-08-16 09:51 J -42054657.21 -42054657.09 -42054656.96 0.0131 0.0042

Mercury -119853-11-12 12:58 J -42054569.09 -42054568.96 -42054568.83 0.0131 0.0026

Mercury -119852-02-08 16:05 J -42054480.97 -42054480.83 -42054480.70 0.0131 0.0012

Mercury -119852-05-07 18:58 J -42054392.84 -42054392.71 -42054392.57 0.0131 0.0004

Mercury -119852-08-03 21:51 J -42054304.72 -42054304.59 -42054304.45 0.0131 0.0020

Mercury -119852-10-31 00:58 J -42054216.59 -42054216.46 -42054216.33 0.0131 0.0034

Mercury -119851-01-27 03:51 J -42054128.46 -42054128.34 -42054128.21 0.0131 0.0049

Mercury -119851-04-25 06:44 J -42054040.33 -42054040.22 -42054040.10 0.0131 0.0065

Mercury -119851-07-22 09:37 J -42053952.20 -42053952.10 -42053951.99 0.0131 0.0080

Mercury -119851-10-18 12:44 J -42053864.06 -42053863.97 -42053863.88 0.0131 0.0094

Mercury -119850-01-14 15:37 J -42053775.92 -42053775.85 -42053775.77 0.0131 0.0109

Mercury -119850-04-12 18:29 J -42053687.76 -42053687.73 -42053687.68 0.0131 0.0124

Mars -119847-03-25 23:03 J -42052609.86 -42052609.54 -42052609.22 0.0131 0.0028

Venus -119842-01-21 04:20 J -42050847.38 -42050847.32 -42050847.25 0.0132 0.0125

Venus -119842-09-04 06:29 J -42050621.36 -42050621.23 -42050621.09 0.0132 0.0100

Venus -119841-04-17 08:39 J -42050395.30 -42050395.14 -42050394.96 0.0133 0.0075

Venus -119841-11-29 11:03 J -42050169.23 -42050169.04 -42050168.84 0.0133 0.0050

Venus -119840-07-13 13:41 J -42049943.13 -42049942.93 -42049942.72 0.0133 0.0024

Venus -119839-02-24 16:34 J -42049717.02 -42049716.81 -42049716.60 0.0133 0.0004

Venus -119839-10-08 18:58 J -42049490.91 -42049490.71 -42049490.50 0.0134 0.0029

Venus -119838-05-22 21:37 J -42049264.78 -42049264.60 -42049264.40 0.0134 0.0055

Venus -119837-01-04 00:44 J -42049038.64 -42049038.47 -42049038.30 0.0134 0.0081

Venus -119837-08-17 03:22 J -42048812.47 -42048812.36 -42048812.22 0.0134 0.0109

Venus -119836-03-31 06:58 J -42048586.21 -42048586.21 -42048586.21 0.0135 0.0135

Moon -119817-07-30 08:39 J -42041525.34 -42041525.14 -42041524.91 0.0146 0.0074

Earth -119817-07-30 11:17 J -42041525.23 -42041525.03 -42041524.81 0.0146 0.0082 *

Earth -119816-08-04 17:32 J -42041154.98 -42041154.77 -42041154.53 0.0147 0.0070

Moon -119816-08-04 21:08 J -42041154.84 -42041154.62 -42041154.37 0.0147 0.0064 *

Mercury -119811-05-24 10:20 J -42039401.10 -42039401.07 -42039401.01 0.0148 0.0143

Mercury -119811-08-20 18:58 J -42039312.83 -42039312.71 -42039312.59 0.0148 0.0112

Mercury -119811-11-17 03:22 J -42039224.51 -42039224.36 -42039224.20 0.0148 0.0082

Mercury -119810-02-13 12:01 J -42039136.18 -42039136.00 -42039135.83 0.0148 0.0051

Mercury -119810-05-12 20:25 J -42039047.84 -42039047.65 -42039047.46 0.0148 0.0021

Mercury -119810-08-09 05:03 J -42038959.48 -42038959.29 -42038959.10 0.0148 0.0011

Mercury -119810-11-05 13:27 J -42038871.12 -42038870.94 -42038870.75 0.0148 0.0042

Mercury -119809-02-01 22:05 J -42038782.74 -42038782.58 -42038782.41 0.0148 0.0073

Mercury -119809-04-30 06:44 J -42038694.35 -42038694.22 -42038694.08 0.0148 0.0104

Mercury -119809-07-27 15:08 J -42038605.92 -42038605.87 -42038605.78 0.0148 0.0136

Mars -119807-09-01 05:17 J -42037840.42 -42037840.28 -42037840.10 0.0148 0.0122

Mars -119805-08-03 23:17 J -42037137.65 -42037137.53 -42037137.39 0.0148 0.0131

Venus -119802-05-06 16:49 J -42036131.82 -42036131.80 -42036131.74 0.0147 0.0144

Venus -119802-12-19 09:08 J -42035905.26 -42035905.12 -42035904.95 0.0146 0.0107

Venus -119801-08-02 01:41 J -42035678.62 -42035678.43 -42035678.22 0.0146 0.0069

Venus -119800-03-16 17:46 J -42035451.97 -42035451.76 -42035451.53 0.0146 0.0032

Venus -119800-10-29 09:51 J -42035225.31 -42035225.09 -42035224.86 0.0145 0.0006

Venus -119799-06-13 01:27 J -42034998.64 -42034998.44 -42034998.21 0.0145 0.0043

Venus -119798-01-25 17:17 J -42034771.96 -42034771.78 -42034771.58 0.0145 0.0079

Venus -119798-09-09 08:39 J -42034545.26 -42034545.14 -42034544.99 0.0144 0.0116

Moon -119777-02-06 17:17 J -42027089.90 -42027089.78 -42027089.65 0.0133 0.0114

Earth -119777-02-06 19:56 J -42027089.77 -42027089.67 -42027089.55 0.0133 0.0120 *

Earth -119776-02-09 23:03 J -42026720.78 -42026720.54 -42026720.28 0.0132 0.0012

Moon -119776-02-10 02:25 J -42026720.65 -42026720.40 -42026720.14 0.0132 0.0014 *

Moon -119775-02-13 22:20 J -42026351.74 -42026351.57 -42026351.40 0.0132 0.0096

Earth -119775-02-14 01:13 J -42026351.61 -42026351.45 -42026351.27 0.0132 0.0094 *

Mercury -119770-06-23 01:27 J -42024396.50 -42024396.44 -42024396.38 0.0131 0.0116

Mercury -119770-09-19 04:20 J -42024308.39 -42024308.32 -42024308.22 0.0131 0.0101

Mercury -119770-12-16 07:27 J -42024220.28 -42024220.19 -42024220.08 0.0131 0.0086

Mercury -119769-03-13 10:34 J -42024132.17 -42024132.06 -42024131.94 0.0131 0.0070

Mercury -119769-06-09 13:41 J -42024044.05 -42024043.93 -42024043.81 0.0131 0.0055
 Mercury -119769-09-05 16:34 J -42023955.93 -42023955.81 -42023955.67 0.0131 0.0040
 Mercury -119769-12-02 19:41 J -42023867.81 -42023867.68 -42023867.54 0.0131 0.0024
 Mercury -119768-02-28 22:49 J -42023779.69 -42023779.55 -42023779.42 0.0131 0.0009
 Mercury -119768-05-28 01:41 J -42023691.56 -42023691.43 -42023691.29 0.0131 0.0007
 Mercury -119768-08-24 04:49 J -42023603.44 -42023603.30 -42023603.17 0.0131 0.0022
 Mercury -119768-11-20 07:41 J -42023515.31 -42023515.18 -42023515.05 0.0131 0.0037
 Mercury -119767-02-16 10:34 J -42023427.18 -42023427.06 -42023426.93 0.0131 0.0052
 Mercury -119767-05-15 13:27 J -42023339.05 -42023338.94 -42023338.82 0.0131 0.0067
 Mercury -119767-08-11 16:20 J -42023250.91 -42023250.82 -42023250.71 0.0131 0.0082
 Mercury -119767-11-07 19:13 J -42023162.78 -42023162.70 -42023162.60 0.0131 0.0097
 Mercury -119766-02-03 22:20 J -42023074.63 -42023074.57 -42023074.50 0.0131 0.0111
 Mercury -119766-05-03 01:13 J -42022986.47 -42022986.45 -42022986.41 0.0131 0.0126
 Mars -119763-11-18 18:58 J -42021691.01 -42021690.71 -42021690.38 0.0131 0.0040
 Venus -119758-05-04 17:03 J -42020062.89 -42020062.79 -42020062.68 0.0132 0.0114
 Venus -119758-12-16 19:13 J -42019836.85 -42019836.70 -42019836.54 0.0132 0.0089
 Venus -119757-07-29 21:37 J -42019610.78 -42019610.60 -42019610.41 0.0133 0.0064
 Venus -119756-03-13 00:15 J -42019384.69 -42019384.49 -42019384.29 0.0133 0.0038
 Venus -119756-10-25 02:39 J -42019158.59 -42019158.39 -42019158.17 0.0133 0.0012
 Venus -119755-06-08 05:17 J -42018932.49 -42018932.28 -42018932.07 0.0133 0.0015
 Venus -119754-01-20 07:56 J -42018706.36 -42018706.17 -42018705.97 0.0134 0.0041
 Venus -119754-09-03 10:34 J -42018480.23 -42018480.06 -42018479.87 0.0134 0.0068
 Venus -119753-04-16 13:27 J -42018254.08 -42018253.94 -42018253.78 0.0134 0.0095
 Venus -119753-11-28 16:20 J -42018027.89 -42018027.82 -42018027.72 0.0135 0.0121
 Moon -119733-07-30 13:41 J -42010844.14 -42010843.93 -42010843.70 0.0146 0.0083
 Earth -119733-07-30 14:53 J -42010844.07 -42010843.88 -42010843.66 0.0146 0.0085 *
 Earth -119732-08-04 21:08 J -42010473.84 -42010473.62 -42010473.38 0.0147 0.0066
 Moon -119732-08-04 21:08 J -42010473.83 -42010473.62 -42010473.38 0.0147 0.0061 *
 Mercury -119727-06-13 15:37 J -42008699.88 -42008699.85 -42008699.79 0.0148 0.0143
 Mercury -119727-09-10 00:15 J -42008611.61 -42008611.49 -42008611.37 0.0148 0.0112

Mercury -119727-12-07 08:39 J -42008523.29 -42008523.14 -42008522.98 0.0148 0.0082
 Mercury -119726-03-05 17:03 J -42008434.96 -42008434.79 -42008434.61 0.0148 0.0052
 Mercury -119726-06-02 01:41 J -42008346.62 -42008346.43 -42008346.24 0.0148 0.0021
 Mercury -119726-08-29 10:05 J -42008258.26 -42008258.08 -42008257.89 0.0148 0.0011
 Mercury -119726-11-25 18:44 J -42008169.90 -42008169.72 -42008169.54 0.0148 0.0041
 Mercury -119725-02-22 03:08 J -42008081.52 -42008081.37 -42008081.19 0.0148 0.0073
 Mercury -119725-05-20 11:46 J -42007993.13 -42007993.01 -42007992.86 0.0148 0.0104
 Mercury -119725-08-16 20:39 J -42007904.71 -42007904.64 -42007904.56 0.0148 0.0135
 Mars -119722-04-27 02:39 J -42006921.66 -42006921.39 -42006921.10 0.0148 0.0041
 Venus -119718-08-18 08:39 J -42005347.23 -42005347.14 -42005347.03 0.0146 0.0130
 Venus -119717-04-01 00:58 J -42005120.63 -42005120.46 -42005120.28 0.0146 0.0092
 Venus -119717-11-13 17:17 J -42004893.99 -42004893.78 -42004893.57 0.0146 0.0054
 Venus -119716-06-28 09:22 J -42004667.33 -42004667.11 -42004666.89 0.0146 0.0017
 Venus -119715-02-10 01:13 J -42004440.67 -42004440.45 -42004440.22 0.0145 0.0021
 Venus -119715-09-24 16:49 J -42004213.99 -42004213.80 -42004213.58 0.0145 0.0058
 Venus -119714-05-09 08:39 J -42003987.31 -42003987.14 -42003986.97 0.0145 0.0094
 Venus -119714-12-21 23:46 J -42003760.59 -42003760.51 -42003760.40 0.0144 0.0130
 Moon -119693-02-07 00:44 J -41996408.58 -41996408.47 -41996408.32 0.0133 0.0115
 Earth -119693-02-07 01:56 J -41996408.51 -41996408.42 -41996408.31 0.0133 0.0121 *
 Earth -119692-02-10 05:32 J -41996039.52 -41996039.27 -41996039.02 0.0132 0.0013
 Moon -119692-02-10 06:01 J -41996039.49 -41996039.25 -41996039.01 0.0132 0.0019 *
 Moon -119691-02-14 07:27 J -41995670.35 -41995670.19 -41995670.02 0.0132 0.0099
 Earth -119691-02-14 07:41 J -41995670.35 -41995670.18 -41995670.00 0.0132 0.0094 *
 Mercury -119686-04-16 04:49 J -41993783.30 -41993783.30 -41993783.29 0.0131 0.0131
 Mercury -119686-07-13 07:56 J -41993695.23 -41993695.17 -41993695.10 0.0131 0.0115
 Mercury -119686-10-09 10:49 J -41993607.12 -41993607.05 -41993606.95 0.0131 0.0100
 Mercury -119685-01-05 14:10 J -41993519.01 -41993518.91 -41993518.81 0.0131 0.0084
 Mercury -119685-04-02 17:03 J -41993430.90 -41993430.79 -41993430.67 0.0131 0.0069
 Mercury -119685-06-29 20:10 J -41993342.78 -41993342.66 -41993342.53 0.0131 0.0054
 Mercury -119685-09-25 23:17 J -41993254.66 -41993254.53 -41993254.40 0.0131 0.0038

Mercury -119685-12-23 02:25 J -41993166.54 -41993166.40 -41993166.27 0.0131 0.0023

Mercury -119684-03-21 05:17 J -41993078.41 -41993078.28 -41993078.14 0.0131 0.0008

Mercury -119684-06-17 08:25 J -41992990.29 -41992990.15 -41992990.02 0.0131 0.0008

Mercury -119684-09-13 11:17 J -41992902.16 -41992902.03 -41992901.90 0.0131 0.0023

Mercury -119684-12-10 14:10 J -41992814.03 -41992813.91 -41992813.78 0.0131 0.0038

Mercury -119683-03-08 17:17 J -41992725.90 -41992725.78 -41992725.66 0.0131 0.0053

Mercury -119683-06-04 20:10 J -41992637.77 -41992637.66 -41992637.54 0.0131 0.0068

Mercury -119683-08-31 23:03 J -41992549.64 -41992549.54 -41992549.43 0.0131 0.0083

Mercury -119683-11-28 01:56 J -41992461.50 -41992461.42 -41992461.33 0.0131 0.0098

Mercury -119682-02-24 04:49 J -41992373.36 -41992373.30 -41992373.22 0.0131 0.0113

Mercury -119682-05-23 07:56 J -41992285.19 -41992285.17 -41992285.14 0.0131 0.0127

Mars -119680-08-10 22:05 J -41991474.78 -41991474.58 -41991474.32 0.0131 0.0092

Mars -119678-07-14 14:53 J -41990772.04 -41990771.88 -41990771.67 0.0131 0.0109

Venus -119674-01-02 03:22 J -41989504.38 -41989504.36 -41989504.30 0.0132 0.0129

Venus -119674-08-16 05:46 J -41989278.37 -41989278.26 -41989278.11 0.0132 0.0104

Venus -119673-03-29 08:25 J -41989052.31 -41989052.15 -41989051.98 0.0133 0.0078

Venus -119673-11-10 10:49 J -41988826.24 -41988826.05 -41988825.85 0.0133 0.0052

Saturn -119672-04-01 11:46 J -41988684.56 -41988684.01 -41988683.43 0.0133 0.0038

Venus -119672-06-24 13:13 J -41988600.15 -41988599.95 -41988599.74 0.0133 0.0026

Venus -119671-02-05 16:05 J -41988374.04 -41988373.83 -41988373.62 0.0133 0.0003

Venus -119671-09-19 18:29 J -41988147.93 -41988147.73 -41988147.52 0.0134 0.0027

Venus -119670-05-03 21:08 J -41987921.81 -41987921.62 -41987921.42 0.0134 0.0054

Venus -119670-12-15 23:46 J -41987695.66 -41987695.51 -41987695.33 0.0134 0.0081

Venus -119669-07-29 02:53 J -41987469.50 -41987469.38 -41987469.25 0.0134 0.0108

Venus -119668-03-12 06:01 J -41987243.25 -41987243.25 -41987243.23 0.0135 0.0135

Earth -119649-07-30 22:20 J -41980162.78 -41980162.57 -41980162.36 0.0146 0.0083

Moon -119649-07-31 00:29 J -41980162.67 -41980162.48 -41980162.25 0.0146 0.0091 *

Moon -119648-08-05 01:41 J -41979792.64 -41979792.43 -41979792.21 0.0147 0.0074

Earth -119648-08-05 04:20 J -41979792.54 -41979792.32 -41979792.08 0.0147 0.0067 *

Mercury -119643-07-03 22:05 J -41977998.63 -41977998.58 -41977998.51 0.0148 0.0139

Mercury -119643-09-30 06:29 J -41977910.35 -41977910.23 -41977910.10 0.0148 0.0109

Mercury -119643-12-27 14:53 J -41977822.03 -41977821.88 -41977821.72 0.0148 0.0079

Mercury -119642-03-25 23:17 J -41977733.70 -41977733.53 -41977733.35 0.0148 0.0049

Mercury -119642-06-22 07:56 J -41977645.36 -41977645.17 -41977644.98 0.0148 0.0018

Mercury -119642-09-18 16:20 J -41977557.00 -41977556.82 -41977556.63 0.0148 0.0013

Mercury -119642-12-16 00:58 J -41977468.64 -41977468.46 -41977468.28 0.0148 0.0044

Mercury -119641-03-13 09:37 J -41977380.26 -41977380.10 -41977379.94 0.0148 0.0075

Mercury -119641-06-09 17:46 J -41977291.87 -41977291.76 -41977291.61 0.0148 0.0107

Mercury -119641-09-06 02:39 J -41977203.45 -41977203.39 -41977203.31 0.0148 0.0138

Mars -119638-12-21 03:51 J -41976002.61 -41976002.34 -41976002.05 0.0148 0.0044

Venus -119634-11-30 01:41 J -41974562.56 -41974562.43 -41974562.28 0.0146 0.0114

Venus -119633-07-13 18:15 J -41974335.93 -41974335.74 -41974335.55 0.0146 0.0076

Venus -119632-02-25 10:20 J -41974109.28 -41974109.07 -41974108.85 0.0146 0.0039

Venus -119632-10-10 02:25 J -41973882.63 -41973882.40 -41973882.17 0.0145 0.0001

Venus -119631-05-24 18:01 J -41973655.96 -41973655.75 -41973655.52 0.0145 0.0037

Venus -119630-01-06 09:37 J -41973429.28 -41973429.10 -41973428.89 0.0145 0.0074

Venus -119630-08-21 01:13 J -41973202.58 -41973202.45 -41973202.29 0.0144 0.0111

Moon -119609-02-07 07:56 J -41965727.23 -41965727.17 -41965727.07 0.0133 0.0126

Earth -119609-02-07 09:22 J -41965727.21 -41965727.11 -41965727.00 0.0133 0.0120 *

Earth -119608-02-10 12:58 J -41965358.20 -41965357.96 -41965357.70 0.0133 0.0012

Moon -119608-02-10 13:56 J -41965358.16 -41965357.92 -41965357.67 0.0133 0.0006 *

Moon -119607-02-14 13:41 J -41964989.10 -41964988.93 -41964988.72 0.0132 0.0089

Earth -119607-02-14 15:37 J -41964989.02 -41964988.85 -41964988.67 0.0132 0.0095 *

Mercury -119602-05-06 11:46 J -41963082.04 -41963082.01 -41963081.99 0.0131 0.0129

Mercury -119602-08-02 14:39 J -41962993.95 -41962993.89 -41962993.82 0.0131 0.0113

Mercury -119602-10-29 17:32 J -41962905.85 -41962905.77 -41962905.67 0.0131 0.0098

Mercury -119601-01-25 20:53 J -41962817.73 -41962817.63 -41962817.52 0.0131 0.0082

Mercury -119601-04-22 23:46 J -41962729.62 -41962729.51 -41962729.38 0.0131 0.0067

Mercury -119601-07-20 03:08 J -41962641.50 -41962641.37 -41962641.25 0.0131 0.0051

Mercury -119601-10-16 06:01 J -41962553.38 -41962553.25 -41962553.12 0.0131 0.0036

Mercury -119600-01-12 09:08 J -41962465.26 -41962465.12 -41962464.99 0.0131 0.0021
 Mercury -119600-04-10 12:01 J -41962377.13 -41962377.00 -41962376.86 0.0131 0.0006
 Mercury -119600-07-07 15:08 J -41962289.01 -41962288.87 -41962288.74 0.0131 0.0010
 Mercury -119600-10-03 18:01 J -41962200.88 -41962200.75 -41962200.62 0.0131 0.0025
 Mercury -119600-12-30 20:53 J -41962112.75 -41962112.63 -41962112.50 0.0131 0.0040
 Mercury -119599-03-29 00:01 J -41962024.62 -41962024.50 -41962024.38 0.0131 0.0055
 Mercury -119599-06-25 02:53 J -41961936.49 -41961936.38 -41961936.26 0.0131 0.0070
 Mercury -119599-09-21 05:46 J -41961848.35 -41961848.26 -41961848.15 0.0131 0.0085
 Mercury -119599-12-18 08:39 J -41961760.22 -41961760.14 -41961760.05 0.0131 0.0100
 Mercury -119598-03-16 11:32 J -41961672.07 -41961672.02 -41961671.95 0.0131 0.0115
 Mercury -119598-06-12 14:25 J -41961583.90 -41961583.90 -41961583.87 0.0131 0.0130
 Mars -119595-04-05 19:56 J -41960555.99 -41960555.67 -41960555.34 0.0131 0.0023
 Venus -119590-04-15 17:03 J -41958719.87 -41958719.79 -41958719.68 0.0132 0.0117
 Venus -119590-11-27 19:27 J -41958493.83 -41958493.69 -41958493.53 0.0132 0.0092
 Venus -119589-07-10 21:51 J -41958267.76 -41958267.59 -41958267.40 0.0133 0.0066
 Venus -119588-02-22 00:29 J -41958041.68 -41958041.48 -41958041.27 0.0133 0.0040
 Venus -119588-10-06 03:08 J -41957815.58 -41957815.37 -41957815.16 0.0133 0.0013
 Venus -119587-05-20 05:32 J -41957589.47 -41957589.27 -41957589.06 0.0133 0.0014
 Venus -119586-01-01 08:10 J -41957363.35 -41957363.16 -41957362.95 0.0134 0.0041
 Venus -119586-08-15 11:03 J -41957137.22 -41957137.04 -41957136.86 0.0134 0.0067
 Venus -119585-03-28 13:56 J -41956911.06 -41956910.92 -41956910.76 0.0134 0.0094
 Venus -119585-11-09 16:49 J -41956684.87 -41956684.80 -41956684.70 0.0135 0.0122
 Earth -119565-07-31 08:39 J -41949481.34 -41949481.14 -41949480.91 0.0146 0.0078
 Moon -119565-07-31 09:51 J -41949481.31 -41949481.09 -41949480.85 0.0146 0.0071 *
 Moon -119564-08-05 13:13 J -41949111.16 -41949110.95 -41949110.72 0.0146 0.0065
 Earth -119564-08-05 15:08 J -41949111.09 -41949110.87 -41949110.64 0.0146 0.0072 *
 Mercury -119559-07-24 05:32 J -41947297.34 -41947297.27 -41947297.18 0.0148 0.0132
 Mercury -119559-10-20 13:56 J -41947209.05 -41947208.92 -41947208.78 0.0148 0.0102
 Mercury -119558-01-16 22:20 J -41947120.73 -41947120.57 -41947120.40 0.0148 0.0072
 Mercury -119558-04-15 06:44 J -41947032.39 -41947032.22 -41947032.03 0.0148 0.0041

Mercury -119558-07-12 15:22 J -41946944.05 -41946943.86 -41946943.67 0.0148 0.0010

Mercury -119558-10-08 23:46 J -41946855.69 -41946855.51 -41946855.32 0.0148 0.0021

Mercury -119557-01-05 08:25 J -41946767.33 -41946767.15 -41946766.97 0.0148 0.0051

Mercury -119557-04-02 16:49 J -41946678.95 -41946678.80 -41946678.64 0.0148 0.0083

Mercury -119557-06-30 01:13 J -41946590.55 -41946590.45 -41946590.31 0.0148 0.0114

Mercury -119557-09-26 10:05 J -41946502.11 -41946502.08 -41946502.04 0.0148 0.0145

Mars -119555-09-12 18:01 J -41945785.89 -41945785.75 -41945785.56 0.0148 0.0122

Mars -119553-08-15 11:03 J -41945083.15 -41945083.04 -41945082.90 0.0147 0.0133

Venus -119550-07-30 05:03 J -41944004.36 -41944004.29 -41944004.18 0.0146 0.0135

Venus -119549-03-12 21:37 J -41943777.76 -41943777.60 -41943777.43 0.0146 0.0096

Venus -119549-10-25 13:41 J -41943551.13 -41943550.93 -41943550.72 0.0146 0.0058

Venus -119548-06-09 05:32 J -41943324.48 -41943324.27 -41943324.04 0.0146 0.0021

Venus -119547-01-21 21:37 J -41943097.82 -41943097.60 -41943097.38 0.0145 0.0018

Venus -119547-09-05 13:13 J -41942871.15 -41942870.95 -41942870.73 0.0145 0.0055

Venus -119546-04-20 04:49 J -41942644.47 -41942644.30 -41942644.12 0.0145 0.0092

Venus -119546-12-02 19:56 J -41942417.76 -41942417.67 -41942417.55 0.0144 0.0129

Moon -119525-02-07 15:22 J -41935045.98 -41935045.86 -41935045.71 0.0133 0.0112

Earth -119525-02-07 17:46 J -41935045.86 -41935045.76 -41935045.64 0.0133 0.0118 *

Earth -119524-02-10 21:37 J -41934676.85 -41934676.60 -41934676.35 0.0132 0.0010

Moon -119524-02-11 00:01 J -41934676.74 -41934676.50 -41934676.26 0.0132 0.0016 *

Moon -119523-02-14 21:51 J -41934307.73 -41934307.59 -41934307.41 0.0132 0.0103

Earth -119523-02-15 00:15 J -41934307.65 -41934307.49 -41934307.31 0.0132 0.0096 *

Mercury -119518-05-26 18:15 J -41932380.77 -41932380.74 -41932380.70 0.0131 0.0126

Mercury -119518-08-22 21:37 J -41932292.67 -41932292.60 -41932292.53 0.0131 0.0111

Mercury -119518-11-19 00:29 J -41932204.57 -41932204.48 -41932204.38 0.0131 0.0095

Mercury -119517-02-15 03:37 J -41932116.45 -41932116.35 -41932116.24 0.0131 0.0080

Mercury -119517-05-13 06:44 J -41932028.34 -41932028.22 -41932028.10 0.0131 0.0064

Mercury -119517-08-09 09:37 J -41931940.22 -41931940.10 -41931939.97 0.0131 0.0050

Mercury -119517-11-05 12:44 J -41931852.10 -41931851.97 -41931851.83 0.0131 0.0034

Mercury -119516-02-01 15:51 J -41931763.97 -41931763.84 -41931763.71 0.0131 0.0018

Mercury -119516-04-30 18:58 J -41931675.85 -41931675.71 -41931675.58 0.0131 0.0005
 Mercury -119516-07-27 21:51 J -41931587.72 -41931587.59 -41931587.45 0.0131 0.0012
 Mercury -119516-10-24 00:44 J -41931499.60 -41931499.47 -41931499.33 0.0131 0.0028
 Mercury -119515-01-20 03:51 J -41931411.47 -41931411.34 -41931411.21 0.0131 0.0042
 Mercury -119515-04-18 06:44 J -41931323.34 -41931323.22 -41931323.10 0.0131 0.0057
 Mercury -119515-07-15 09:51 J -41931235.20 -41931235.09 -41931234.98 0.0131 0.0072
 Mercury -119515-10-11 12:44 J -41931147.07 -41931146.97 -41931146.87 0.0131 0.0087
 Mercury -119514-01-07 15:37 J -41931058.93 -41931058.85 -41931058.77 0.0131 0.0102
 Mercury -119514-04-05 18:29 J -41930970.78 -41930970.73 -41930970.67 0.0131 0.0117
 Mars -119511-11-29 18:01 J -41929637.04 -41929636.75 -41929636.43 0.0131 0.0048
 Venus -119507-12-14 04:05 J -41928161.34 -41928161.33 -41928161.29 0.0132 0.0131
 Venus -119506-07-28 06:29 J -41927935.34 -41927935.23 -41927935.09 0.0132 0.0106
 Venus -119505-03-10 08:53 J -41927709.28 -41927709.13 -41927708.95 0.0133 0.0080
 Venus -119505-10-22 11:32 J -41927483.21 -41927483.02 -41927482.82 0.0133 0.0053
 Venus -119504-06-05 13:56 J -41927257.12 -41927256.92 -41927256.71 0.0133 0.0027
 Venus -119503-01-17 16:34 J -41927031.02 -41927030.81 -41927030.60 0.0133 0.0003
 Venus -119503-08-31 19:13 J -41926804.90 -41926804.70 -41926804.49 0.0134 0.0027
 Venus -119502-04-14 21:51 J -41926578.77 -41926578.59 -41926578.39 0.0134 0.0054
 Venus -119502-11-27 00:44 J -41926352.63 -41926352.47 -41926352.30 0.0134 0.0081
 Venus -119501-07-10 03:37 J -41926126.46 -41926126.35 -41926126.21 0.0135 0.0109
 Moon -119481-07-31 19:41 J -41918799.88 -41918799.68 -41918799.43 0.0146 0.0078
 Earth -119481-07-31 20:10 J -41918799.87 -41918799.66 -41918799.42 0.0146 0.0071 *
 Moon -119480-08-06 01:27 J -41918429.62 -41918429.44 -41918429.22 0.0147 0.0087
 Earth -119480-08-06 02:25 J -41918429.60 -41918429.40 -41918429.17 0.0147 0.0079 *
 Mercury -119475-08-13 13:27 J -41916596.03 -41916595.94 -41916595.83 0.0148 0.0123
 Mercury -119475-11-09 21:51 J -41916507.73 -41916507.59 -41916507.44 0.0148 0.0093
 Mercury -119474-02-06 06:15 J -41916419.40 -41916419.24 -41916419.07 0.0148 0.0063
 Mercury -119474-05-05 14:39 J -41916331.07 -41916330.89 -41916330.70 0.0148 0.0032
 Mercury -119474-08-01 23:17 J -41916242.72 -41916242.53 -41916242.34 0.0148 0.0002
 Mercury -119474-10-29 07:41 J -41916154.36 -41916154.18 -41916153.99 0.0148 0.0029

Mercury -119473-01-25 16:20 J -41916065.99 -41916065.82 -41916065.65 0.0148 0.0060

Mercury -119473-04-23 00:44 J -41915977.61 -41915977.47 -41915977.32 0.0148 0.0091

Mercury -119473-07-20 09:08 J -41915889.21 -41915889.12 -41915889.00 0.0148 0.0123

Mars -119470-05-09 05:32 J -41914866.55 -41914866.27 -41914865.98 0.0148 0.0030

Venus -119466-11-11 02:10 J -41913219.54 -41913219.41 -41913219.26 0.0146 0.0115

Venus -119465-06-24 18:15 J -41912992.92 -41912992.74 -41912992.54 0.0146 0.0077

Venus -119464-02-06 10:34 J -41912766.28 -41912766.06 -41912765.84 0.0146 0.0039

Venus -119464-09-21 02:25 J -41912539.62 -41912539.40 -41912539.17 0.0145 0.0001

Venus -119463-05-05 18:01 J -41912312.96 -41912312.75 -41912312.53 0.0145 0.0037

Venus -119463-12-18 09:22 J -41912086.29 -41912086.11 -41912085.90 0.0145 0.0075

Venus -119462-08-02 00:44 J -41911859.59 -41911859.47 -41911859.31 0.0144 0.0112

Moon -119441-02-08 00:01 J -41904364.60 -41904364.50 -41904364.37 0.0133 0.0118

Earth -119441-02-08 03:37 J -41904364.47 -41904364.35 -41904364.22 0.0133 0.0114 *

Earth -119440-02-11 07:27 J -41903995.44 -41903995.19 -41903994.94 0.0132 0.0007

Moon -119440-02-11 10:20 J -41903995.32 -41903995.07 -41903994.83 0.0132 0.0002 *

Moon -119439-02-15 06:44 J -41903626.40 -41903626.22 -41903626.04 0.0132 0.0092

Earth -119439-02-15 09:51 J -41903626.24 -41903626.09 -41903625.91 0.0132 0.0100 *

Mercury -119434-06-16 01:13 J -41901679.49 -41901679.45 -41901679.40 0.0131 0.0123

Mercury -119434-09-12 04:34 J -41901591.39 -41901591.31 -41901591.24 0.0131 0.0108

Mercury -119434-12-09 07:27 J -41901503.28 -41901503.19 -41901503.09 0.0131 0.0092

Mercury -119433-03-06 10:34 J -41901415.17 -41901415.06 -41901414.95 0.0131 0.0077

Mercury -119433-06-02 13:41 J -41901327.05 -41901326.93 -41901326.81 0.0131 0.0061

Mercury -119433-08-29 16:34 J -41901238.93 -41901238.81 -41901238.68 0.0131 0.0046

Mercury -119433-11-25 19:41 J -41901150.81 -41901150.68 -41901150.55 0.0131 0.0031

Mercury -119432-02-21 22:49 J -41901062.68 -41901062.55 -41901062.42 0.0131 0.0015

Mercury -119432-05-21 01:41 J -41900974.56 -41900974.43 -41900974.29 0.0131 0.0005

Mercury -119432-08-17 04:49 J -41900886.43 -41900886.30 -41900886.17 0.0131 0.0015

Mercury -119432-11-13 07:41 J -41900798.31 -41900798.18 -41900798.04 0.0131 0.0030

Mercury -119431-02-09 10:49 J -41900710.18 -41900710.05 -41900709.93 0.0131 0.0045

Mercury -119431-05-08 13:41 J -41900622.05 -41900621.93 -41900621.81 0.0131 0.0060

Mercury -119431-08-04 16:34 J -41900533.91 -41900533.81 -41900533.70 0.0131 0.0075

Mercury -119431-10-31 19:41 J -41900445.78 -41900445.68 -41900445.59 0.0131 0.0090

Mercury -119430-01-27 22:34 J -41900357.64 -41900357.56 -41900357.48 0.0131 0.0105

Mercury -119430-04-26 01:27 J -41900269.49 -41900269.44 -41900269.38 0.0131 0.0120

Mars -119428-08-22 00:44 J -41899420.71 -41899420.47 -41899420.20 0.0131 0.0083

Mars -119426-07-25 18:01 J -41898717.87 -41898717.75 -41898717.60 0.0131 0.0119

Venus -119422-03-27 17:46 J -41897376.83 -41897376.76 -41897376.66 0.0132 0.0120

Venus -119422-11-08 19:56 J -41897150.80 -41897150.67 -41897150.50 0.0133 0.0094

Venus -119421-06-21 22:34 J -41896924.73 -41896924.56 -41896924.37 0.0133 0.0067

Venus -119420-02-03 01:13 J -41896698.65 -41896698.45 -41896698.25 0.0133 0.0041

Venus -119420-09-17 03:37 J -41896472.55 -41896472.35 -41896472.14 0.0133 0.0014

Venus -119419-05-01 06:15 J -41896246.45 -41896246.24 -41896246.03 0.0134 0.0013

Venus -119419-12-13 08:53 J -41896020.33 -41896020.13 -41896019.93 0.0134 0.0040

Venus -119418-07-27 11:46 J -41895794.19 -41895794.01 -41895793.83 0.0134 0.0067

Venus -119417-03-09 14:39 J -41895568.03 -41895567.89 -41895567.74 0.0134 0.0095

Venus -119417-10-21 17:46 J -41895341.84 -41895341.76 -41895341.67 0.0135 0.0122

Moon -119397-08-01 04:34 J -41888118.54 -41888118.31 -41888118.06 0.0146 0.0061

Earth -119397-08-01 05:46 J -41888118.47 -41888118.26 -41888118.02 0.0146 0.0067 *

Earth -119396-08-06 12:15 J -41887748.20 -41887747.99 -41887747.78 0.0147 0.0083

Moon -119396-08-06 13:13 J -41887748.16 -41887747.95 -41887747.73 0.0147 0.0076 *

Mercury -119391-06-06 12:29 J -41885982.99 -41885982.98 -41885982.94 0.0148 0.0146

Mercury -119391-09-02 20:53 J -41885894.74 -41885894.63 -41885894.51 0.0148 0.0116

Mercury -119391-11-30 05:17 J -41885806.43 -41885806.28 -41885806.12 0.0148 0.0086

Mercury -119390-02-26 13:27 J -41885718.10 -41885717.94 -41885717.75 0.0148 0.0056

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Mercury -119390-11-18 15:08 J -41885453.05 -41885452.87 -41885452.68 0.0148 0.0037

Mercury -119389-02-14 23:32 J -41885364.68 -41885364.52 -41885364.34 0.0148 0.0068

Mercury -119389-05-13 08:10 J -41885276.29 -41885276.16 -41885276.01 0.0148 0.0099

Mercury -119389-08-09 16:49 J -41885187.88 -41885187.80 -41885187.70 0.0148 0.0130

Mars -119385-01-02 14:10 J -41883947.16 -41883946.91 -41883946.63 0.0148 0.0063
 Venus -119382-07-11 06:44 J -41882661.29 -41882661.22 -41882661.12 0.0146 0.0135
 Venus -119381-02-22 23:03 J -41882434.70 -41882434.54 -41882434.36 0.0146 0.0096
 Venus -119381-10-06 15:08 J -41882208.07 -41882207.87 -41882207.66 0.0146 0.0058
 Venus -119380-05-21 06:58 J -41881981.43 -41881981.21 -41881980.98 0.0146 0.0020
 Venus -119379-01-02 22:49 J -41881754.77 -41881754.55 -41881754.32 0.0145 0.0019
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 Venus -119378-04-01 05:46 J -41881301.42 -41881301.26 -41881301.07 0.0145 0.0095
 Venus -119378-11-13 20:53 J -41881074.71 -41881074.63 -41881074.52 0.0144 0.0131
 Moon -119357-02-08 09:37 J -41873683.25 -41873683.10 -41873682.95 0.0133 0.0107
 Earth -119357-02-08 12:29 J -41873683.09 -41873682.98 -41873682.82 0.0133 0.0112 *
 Earth -119356-02-11 16:34 J -41873314.06 -41873313.81 -41873313.55 0.0132 0.0005
 Moon -119356-02-11 20:25 J -41873313.90 -41873313.65 -41873313.40 0.0132 0.0009 *
 Moon -119355-02-15 15:37 J -41872944.97 -41872944.85 -41872944.69 0.0132 0.0109
 Earth -119355-02-15 19:27 J -41872944.84 -41872944.69 -41872944.53 0.0132 0.0102 *
 Mercury -119350-07-06 07:56 J -41870978.21 -41870978.17 -41870978.11 0.0131 0.0121
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 Mercury -119349-06-22 20:25 J -41870625.77 -41870625.65 -41870625.53 0.0131 0.0059
 Mercury -119349-09-18 23:17 J -41870537.65 -41870537.53 -41870537.40 0.0131 0.0044
 Mercury -119349-12-16 02:25 J -41870449.53 -41870449.40 -41870449.26 0.0131 0.0029
 Mercury -119348-03-14 05:32 J -41870361.41 -41870361.27 -41870361.14 0.0131 0.0013
 Mercury -119348-06-10 08:25 J -41870273.28 -41870273.15 -41870273.01 0.0131 0.0005
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 Mercury -119347-03-01 17:32 J -41870008.90 -41870008.77 -41870008.65 0.0131 0.0047
 Mercury -119347-05-28 20:25 J -41869920.77 -41869920.65 -41869920.53 0.0131 0.0062
 Mercury -119347-08-24 23:32 J -41869832.63 -41869832.52 -41869832.42 0.0131 0.0077
 Mercury -119347-11-21 02:25 J -41869744.49 -41869744.40 -41869744.31 0.0131 0.0092

Mercury -119346-02-17 05:17 J -41869656.35 -41869656.28 -41869656.20 0.0131 0.0107

Mercury -119346-05-16 08:10 J -41869568.20 -41869568.16 -41869568.11 0.0131 0.0122

Mars -119343-04-16 21:37 J -41868501.92 -41868501.60 -41868501.27 0.0131 0.0014

Venus -119338-07-09 06:29 J -41866592.35 -41866592.23 -41866592.11 0.0132 0.0108

Venus -119337-02-20 08:39 J -41866366.30 -41866366.14 -41866365.97 0.0133 0.0082

Venus -119337-10-03 11:03 J -41866140.22 -41866140.04 -41866139.84 0.0133 0.0055

Venus -119336-05-17 13:41 J -41865914.14 -41865913.93 -41865913.73 0.0133 0.0029

Venus -119336-12-29 16:05 J -41865688.04 -41865687.83 -41865687.62 0.0133 0.0002

Venus -119335-08-12 18:44 J -41865461.92 -41865461.72 -41865461.51 0.0134 0.0026

Venus -119334-03-26 21:22 J -41865235.79 -41865235.61 -41865235.41 0.0134 0.0053

Venus -119334-11-08 00:15 J -41865009.65 -41865009.49 -41865009.32 0.0134 0.0080

Venus -119333-06-21 03:08 J -41864783.48 -41864783.37 -41864783.24 0.0134 0.0108

Moon -119313-08-01 09:22 J -41857437.33 -41857437.11 -41857436.87 0.0146 0.0069

Earth -119313-08-01 12:44 J -41857437.20 -41857436.97 -41857436.74 0.0146 0.0066 *

Earth -119312-08-06 18:29 J -41857066.93 -41857066.73 -41857066.51 0.0147 0.0083

Moon -119312-08-06 20:10 J -41857066.84 -41857066.66 -41857066.45 0.0147 0.0091 *

Mercury -119307-06-26 19:13 J -41855281.75 -41855281.70 -41855281.66 0.0148 0.0142

Mercury -119307-09-23 03:08 J -41855193.48 -41855193.37 -41855193.24 0.0148 0.0113

Mercury -119307-12-20 11:46 J -41855105.17 -41855105.01 -41855104.86 0.0148 0.0082

Mercury -119306-03-18 19:56 J -41855016.84 -41855016.67 -41855016.49 0.0148 0.0052

Mercury -119306-06-15 04:34 J -41854928.50 -41854928.31 -41854928.13 0.0148 0.0021

Mercury -119306-09-11 12:58 J -41854840.15 -41854839.96 -41854839.77 0.0148 0.0010

Mercury -119306-12-08 21:37 J -41854751.78 -41854751.60 -41854751.42 0.0148 0.0040

Mercury -119305-03-06 05:46 J -41854663.41 -41854663.26 -41854663.08 0.0148 0.0072

Mercury -119305-06-02 14:25 J -41854575.02 -41854574.90 -41854574.75 0.0148 0.0103

Mercury -119305-08-29 23:03 J -41854486.60 -41854486.54 -41854486.45 0.0148 0.0134

Mars -119303-09-25 00:01 J -41853730.69 -41853730.50 -41853730.29 0.0148 0.0107

Venus -119298-10-23 01:13 J -41851876.57 -41851876.45 -41851876.30 0.0146 0.0117

Venus -119297-06-05 17:32 J -41851649.96 -41851649.77 -41851649.58 0.0146 0.0078

Venus -119296-01-18 09:22 J -41851423.32 -41851423.11 -41851422.88 0.0146 0.0040

Venus -119296-09-02 01:41 J -41851196.66 -41851196.43 -41851196.21 0.0146 0.0002
 Venus -119295-04-16 17:17 J -41850970.00 -41850969.78 -41850969.56 0.0145 0.0037
 Venus -119295-11-29 08:39 J -41850743.32 -41850743.14 -41850742.94 0.0145 0.0075
 Venus -119294-07-13 23:46 J -41850516.63 -41850516.51 -41850516.35 0.0145 0.0113
 Moon -119273-02-08 18:58 J -41843001.84 -41843001.71 -41843001.57 0.0133 0.0110
 Earth -119273-02-08 22:05 J -41843001.70 -41843001.58 -41843001.42 0.0133 0.0109 *
 Earth -119272-02-12 02:25 J -41842632.66 -41842632.40 -41842632.15 0.0132 0.0003
 Moon -119272-02-12 05:32 J -41842632.52 -41842632.27 -41842632.01 0.0132 0.0004 *
 Moon -119271-02-16 01:13 J -41842263.61 -41842263.45 -41842263.28 0.0132 0.0098
 Earth -119271-02-16 04:34 J -41842263.44 -41842263.31 -41842263.14 0.0132 0.0105 *
 Mercury -119266-07-26 14:53 J -41840276.93 -41840276.88 -41840276.82 0.0131 0.0118
 Mercury -119266-10-22 17:46 J -41840188.83 -41840188.76 -41840188.67 0.0131 0.0103
 Mercury -119265-01-18 20:53 J -41840100.72 -41840100.63 -41840100.52 0.0131 0.0088
 Mercury -119265-04-16 00:01 J -41840012.61 -41840012.50 -41840012.38 0.0131 0.0072
 Mercury -119265-07-13 03:08 J -41839924.49 -41839924.37 -41839924.24 0.0131 0.0057
 Mercury -119265-10-09 06:15 J -41839836.37 -41839836.24 -41839836.11 0.0131 0.0041
 Mercury -119264-01-05 09:08 J -41839748.25 -41839748.12 -41839747.98 0.0131 0.0027
 Mercury -119264-04-03 12:15 J -41839660.12 -41839659.99 -41839659.85 0.0131 0.0011
 Mercury -119264-06-30 15:22 J -41839572.00 -41839571.86 -41839571.73 0.0131 0.0005
 Mercury -119264-09-26 18:15 J -41839483.87 -41839483.74 -41839483.60 0.0131 0.0019
 Mercury -119264-12-23 21:08 J -41839395.74 -41839395.62 -41839395.48 0.0131 0.0035
 Mercury -119263-03-22 00:15 J -41839307.61 -41839307.49 -41839307.37 0.0131 0.0049
 Mercury -119263-06-18 03:08 J -41839219.48 -41839219.37 -41839219.25 0.0131 0.0064
 Mercury -119263-09-14 06:01 J -41839131.35 -41839131.25 -41839131.14 0.0131 0.0080
 Mercury -119263-12-11 08:53 J -41839043.21 -41839043.13 -41839043.03 0.0131 0.0095
 Mercury -119262-03-09 12:01 J -41838955.07 -41838955.00 -41838954.92 0.0131 0.0109
 Mercury -119262-06-05 14:53 J -41838866.91 -41838866.88 -41838866.83 0.0131 0.0124
 Mars -119259-12-10 17:17 J -41837583.06 -41837582.78 -41837582.47 0.0131 0.0056
 Venus -119254-03-08 16:34 J -41836033.88 -41836033.81 -41836033.73 0.0132 0.0123
 Venus -119254-10-20 18:29 J -41835807.86 -41835807.73 -41835807.57 0.0132 0.0097

Venus -119253-06-02 21:08 J -41835581.80 -41835581.62 -41835581.45 0.0133 0.0070
 Venus -119252-01-14 23:17 J -41835355.72 -41835355.53 -41835355.32 0.0133 0.0044
 Venus -119252-08-29 01:56 J -41835129.63 -41835129.42 -41835129.21 0.0133 0.0016
 Venus -119251-04-12 04:20 J -41834903.53 -41834903.32 -41834903.11 0.0133 0.0011
 Venus -119251-11-24 06:58 J -41834677.41 -41834677.21 -41834677.01 0.0134 0.0038
 Venus -119250-07-08 09:22 J -41834451.28 -41834451.11 -41834450.91 0.0134 0.0066
 Venus -119249-02-19 12:29 J -41834225.12 -41834224.98 -41834224.82 0.0134 0.0093
 Venus -119249-10-02 15:37 J -41833998.93 -41833998.85 -41833998.75 0.0134 0.0121
 Moon -119229-08-01 12:15 J -41826756.21 -41826755.99 -41826755.76 0.0146 0.0069
 Earth -119229-08-01 15:22 J -41826756.07 -41826755.86 -41826755.62 0.0146 0.0072 *
 Earth -119228-08-06 21:37 J -41826385.82 -41826385.60 -41826385.39 0.0147 0.0078
 Moon -119228-08-07 00:58 J -41826385.68 -41826385.46 -41826385.24 0.0147 0.0072 *
 Mercury -119223-07-17 00:01 J -41824580.53 -41824580.50 -41824580.44 0.0148 0.0143
 Mercury -119223-10-13 08:25 J -41824492.26 -41824492.15 -41824492.02 0.0148 0.0113
 Mercury -119222-01-09 16:34 J -41824403.95 -41824403.81 -41824403.64 0.0148 0.0083
 Mercury -119222-04-08 01:13 J -41824315.62 -41824315.45 -41824315.27 0.0148 0.0052
 Mercury -119222-07-05 09:37 J -41824227.28 -41824227.10 -41824226.91 0.0148 0.0022
 Mercury -119222-10-01 18:15 J -41824138.93 -41824138.74 -41824138.55 0.0148 0.0009
 Mercury -119222-12-29 02:39 J -41824050.57 -41824050.39 -41824050.20 0.0148 0.0040
 Mercury -119221-03-26 11:17 J -41823962.19 -41823962.03 -41823961.86 0.0148 0.0071
 Mercury -119221-06-22 19:56 J -41823873.80 -41823873.67 -41823873.53 0.0148 0.0102
 Mercury -119221-09-19 04:20 J -41823785.39 -41823785.32 -41823785.23 0.0148 0.0134
 Mars -119218-05-20 22:49 J -41822811.83 -41822811.55 -41822811.26 0.0148 0.0024
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 Moon -119189-02-09 03:37 J -41812320.49 -41812320.35 -41812320.21 0.0133 0.0108
 Earth -119189-02-09 06:01 J -41812320.39 -41812320.25 -41812320.10 0.0133 0.0108 *
 Earth -119188-02-12 09:51 J -41811951.34 -41811951.09 -41811950.84 0.0132 0.0001
 Moon -119188-02-12 12:58 J -41811951.22 -41811950.96 -41811950.71 0.0132 0.0005 *
 Moon -119187-02-16 09:51 J -41811582.21 -41811582.09 -41811581.94 0.0132 0.0110
 Earth -119187-02-16 12:15 J -41811582.12 -41811581.99 -41811581.82 0.0132 0.0105 *
 Mercury -119182-08-15 21:22 J -41809575.66 -41809575.61 -41809575.54 0.0131 0.0117
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 Mercury -119179-10-04 12:44 J -41808430.07 -41808429.97 -41808429.86 0.0131 0.0081
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 Mars -119176-09-01 21:37 J -41807366.86 -41807366.60 -41807366.33 0.0131 0.0077
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 Venus -119170-06-20 04:34 J -41805249.41 -41805249.31 -41805249.19 0.0132 0.0111
 Venus -119169-02-01 06:44 J -41805023.36 -41805023.22 -41805023.04 0.0132 0.0086
 Venus -119169-09-14 09:08 J -41804797.30 -41804797.12 -41804796.92 0.0133 0.0059
 Venus -119168-04-28 11:32 J -41804571.21 -41804571.02 -41804570.81 0.0133 0.0032

Venus -119168-12-10 14:10 J -41804345.12 -41804344.91 -41804344.70 0.0133 0.0005
 Venus -119167-07-24 16:49 J -41804119.01 -41804118.80 -41804118.59 0.0133 0.0023
 Venus -119166-03-07 19:27 J -41803892.88 -41803892.69 -41803892.49 0.0134 0.0051
 Venus -119166-10-19 22:20 J -41803666.73 -41803666.57 -41803666.40 0.0134 0.0078
 Venus -119165-06-02 00:58 J -41803440.57 -41803440.46 -41803440.32 0.0134 0.0106
 Venus -119164-01-14 04:05 J -41803214.33 -41803214.33 -41803214.29 0.0134 0.0134
 Moon -119145-08-01 15:37 J -41796075.05 -41796074.85 -41796074.61 0.0146 0.0074
 Earth -119145-08-01 19:27 J -41796074.90 -41796074.69 -41796074.45 0.0146 0.0075 *
 Earth -119144-08-07 00:44 J -41795704.67 -41795704.47 -41795704.23 0.0147 0.0075
 Moon -119144-08-07 04:34 J -41795704.52 -41795704.31 -41795704.09 0.0147 0.0079 *
 Mercury -119139-08-06 05:17 J -41793879.31 -41793879.28 -41793879.22 0.0148 0.0143
 Mercury -119139-11-02 13:41 J -41793791.04 -41793790.93 -41793790.80 0.0148 0.0113
 Mercury -119138-01-29 22:20 J -41793702.73 -41793702.57 -41793702.42 0.0148 0.0082
 Mercury -119138-04-28 06:29 J -41793614.40 -41793614.23 -41793614.05 0.0148 0.0052
 Mercury -119138-07-25 15:08 J -41793526.06 -41793525.87 -41793525.68 0.0148 0.0021
 Mercury -119138-10-21 23:32 J -41793437.70 -41793437.52 -41793437.33 0.0148 0.0010
 Mercury -119137-01-18 08:10 J -41793349.34 -41793349.16 -41793348.98 0.0148 0.0040
 Mercury -119137-04-15 16:34 J -41793260.97 -41793260.81 -41793260.64 0.0148 0.0071
 Mercury -119137-07-13 00:58 J -41793172.58 -41793172.46 -41793172.31 0.0148 0.0103
 Mercury -119137-10-09 09:37 J -41793084.16 -41793084.10 -41793084.01 0.0148 0.0134
 Mars -119133-01-13 20:25 J -41791892.91 -41791892.65 -41791892.38 0.0148 0.0060
 Venus -119130-10-03 16:49 J -41790533.90 -41790533.80 -41790533.68 0.0147 0.0126
 Venus -119129-05-17 08:53 J -41790307.30 -41790307.13 -41790306.94 0.0146 0.0087
 Venus -119129-12-30 00:58 J -41790080.67 -41790080.46 -41790080.24 0.0146 0.0047
 Venus -119128-08-13 17:03 J -41789854.01 -41789853.79 -41789853.56 0.0146 0.0008
 Venus -119127-03-28 08:53 J -41789627.35 -41789627.13 -41789626.91 0.0145 0.0030
 Venus -119127-11-10 00:15 J -41789400.68 -41789400.49 -41789400.28 0.0145 0.0069
 Venus -119126-06-24 15:37 J -41789173.99 -41789173.85 -41789173.69 0.0145 0.0107
 Venus -119125-02-06 06:44 J -41788947.22 -41788947.22 -41788947.19 0.0144 0.0144
 Moon -119105-02-09 10:20 J -41781639.19 -41781639.07 -41781638.91 0.0133 0.0109

Earth -119105-02-09 12:58 J -41781639.09 -41781638.96 -41781638.80 0.0133 0.0108 *
 Earth -119104-02-12 17:03 J -41781270.04 -41781269.79 -41781269.54 0.0133 0.0002
 Moon -119104-02-12 19:13 J -41781269.96 -41781269.70 -41781269.44 0.0133 0.0002 *
 Moon -119103-02-16 17:03 J -41780900.93 -41780900.79 -41780900.61 0.0132 0.0101
 Earth -119103-02-16 19:41 J -41780900.82 -41780900.68 -41780900.52 0.0132 0.0106 *
 Mercury -119098-06-09 00:58 J -41778962.46 -41778962.46 -41778962.45 0.0131 0.0131
 Mercury -119098-09-05 04:05 J -41778874.39 -41778874.33 -41778874.26 0.0131 0.0115
 Mercury -119098-12-02 06:58 J -41778786.28 -41778786.21 -41778786.11 0.0131 0.0100
 Mercury -119097-02-28 10:20 J -41778698.17 -41778698.07 -41778697.97 0.0131 0.0084
 Mercury -119097-05-26 13:13 J -41778610.06 -41778609.95 -41778609.83 0.0131 0.0069
 Mercury -119097-08-22 16:20 J -41778521.94 -41778521.82 -41778521.69 0.0131 0.0054
 Mercury -119097-11-18 19:27 J -41778433.82 -41778433.69 -41778433.56 0.0131 0.0038
 Mercury -119096-02-14 22:34 J -41778345.69 -41778345.56 -41778345.43 0.0131 0.0023
 Mercury -119096-05-14 01:41 J -41778257.57 -41778257.43 -41778257.30 0.0131 0.0008
 Mercury -119096-08-10 04:34 J -41778169.44 -41778169.31 -41778169.17 0.0131 0.0008
 Mercury -119096-11-06 07:41 J -41778081.32 -41778081.18 -41778081.05 0.0131 0.0023
 Mercury -119095-02-02 10:34 J -41777993.19 -41777993.06 -41777992.93 0.0131 0.0038
 Mercury -119095-05-01 13:41 J -41777905.06 -41777904.93 -41777904.81 0.0131 0.0053
 Mercury -119095-07-28 16:34 J -41777816.92 -41777816.81 -41777816.70 0.0131 0.0068
 Mercury -119095-10-24 19:27 J -41777728.79 -41777728.69 -41777728.58 0.0131 0.0083
 Mercury -119094-01-20 22:20 J -41777640.65 -41777640.57 -41777640.48 0.0131 0.0098
 Mercury -119094-04-19 01:13 J -41777552.50 -41777552.45 -41777552.37 0.0131 0.0113
 Mercury -119094-07-16 04:05 J -41777464.34 -41777464.33 -41777464.29 0.0131 0.0128
 Mars -119091-04-27 18:01 J -41776448.07 -41776447.75 -41776447.42 0.0131 0.0008
 Venus -119086-02-17 15:08 J -41774690.91 -41774690.87 -41774690.79 0.0132 0.0127
 Venus -119086-10-01 17:46 J -41774464.90 -41774464.76 -41774464.62 0.0132 0.0100
 Venus -119085-05-14 19:56 J -41774238.84 -41774238.67 -41774238.49 0.0133 0.0073
 Venus -119085-12-26 22:20 J -41774012.76 -41774012.57 -41774012.37 0.0133 0.0046
 Venus -119084-08-10 00:58 J -41773786.67 -41773786.46 -41773786.25 0.0133 0.0019
 Venus -119083-03-24 03:37 J -41773560.56 -41773560.35 -41773560.14 0.0133 0.0009

Venus -119083-11-05 06:01 J -41773334.44 -41773334.25 -41773334.04 0.0133 0.0037
 Venus -119082-06-19 08:53 J -41773108.31 -41773108.13 -41773107.94 0.0134 0.0064
 Venus -119081-01-31 11:46 J -41772882.15 -41772882.01 -41772881.85 0.0134 0.0092
 Venus -119081-09-13 14:53 J -41772655.96 -41772655.88 -41772655.78 0.0134 0.0120
 Moon -119061-08-01 23:46 J -41765393.71 -41765393.51 -41765393.28 0.0146 0.0073
 Earth -119061-08-02 03:22 J -41765393.58 -41765393.36 -41765393.14 0.0146 0.0072 *
 Earth -119060-08-07 08:25 J -41765023.36 -41765023.15 -41765022.92 0.0147 0.0076
 Moon -119060-08-07 12:29 J -41765023.21 -41765022.98 -41765022.76 0.0147 0.0070 *
 Mercury -119055-08-26 11:46 J -41763178.05 -41763178.01 -41763177.93 0.0148 0.0139
 Mercury -119055-11-22 20:10 J -41763089.77 -41763089.66 -41763089.52 0.0148 0.0109
 Mercury -119054-02-19 04:34 J -41763001.46 -41763001.31 -41763001.14 0.0148 0.0079
 Mercury -119054-05-18 13:13 J -41762913.13 -41762912.95 -41762912.77 0.0148 0.0048
 Mercury -119054-08-14 21:37 J -41762824.79 -41762824.60 -41762824.41 0.0148 0.0018
 Mercury -119054-11-11 06:01 J -41762736.43 -41762736.25 -41762736.06 0.0148 0.0014
 Mercury -119053-02-07 14:39 J -41762648.07 -41762647.89 -41762647.71 0.0148 0.0044
 Mercury -119053-05-05 23:03 J -41762559.70 -41762559.54 -41762559.37 0.0148 0.0075
 Mercury -119053-08-02 07:41 J -41762471.31 -41762471.18 -41762471.05 0.0148 0.0106
 Mercury -119053-10-29 16:05 J -41762382.88 -41762382.83 -41762382.75 0.0148 0.0138
 Mars -119051-10-06 04:49 J -41761676.47 -41761676.30 -41761676.09 0.0148 0.0112
 Mars -119049-09-07 23:03 J -41760973.55 -41760973.54 -41760973.49 0.0147 0.0147
 Venus -119045-01-15 10:05 J -41759749.21 -41759749.08 -41759748.91 0.0146 0.0109
 Venus -119045-08-29 02:39 J -41759522.59 -41759522.39 -41759522.19 0.0146 0.0070
 Venus -119044-04-12 18:29 J -41759295.95 -41759295.73 -41759295.50 0.0146 0.0031
 Venus -119044-11-25 10:20 J -41759069.29 -41759069.07 -41759068.84 0.0146 0.0009
 Venus -119043-07-10 02:10 J -41758842.62 -41758842.41 -41758842.20 0.0145 0.0048
 Venus -119042-02-21 17:32 J -41758615.94 -41758615.77 -41758615.58 0.0145 0.0086
 Venus -119042-10-06 09:08 J -41758389.23 -41758389.12 -41758389.00 0.0145 0.0124
 Moon -119021-02-09 19:27 J -41750957.82 -41750957.69 -41750957.53 0.0133 0.0108
 Earth -119021-02-09 20:39 J -41750957.77 -41750957.64 -41750957.47 0.0133 0.0107 *
 Earth -119020-02-13 00:58 J -41750588.71 -41750588.46 -41750588.21 0.0133 0.0002

Moon -119020-02-13 02:53 J -41750588.64 -41750588.38 -41750588.12 0.0133 0.0002 *
 Moon -119019-02-17 01:56 J -41750219.53 -41750219.42 -41750219.27 0.0132 0.0112
 Earth -119019-02-17 03:37 J -41750219.49 -41750219.35 -41750219.20 0.0132 0.0107 *
 Mercury -119014-06-29 07:27 J -41748261.20 -41748261.19 -41748261.16 0.0131 0.0129
 Mercury -119014-09-25 10:49 J -41748173.11 -41748173.05 -41748172.98 0.0131 0.0113
 Mercury -119014-12-22 13:41 J -41748085.01 -41748084.93 -41748084.83 0.0131 0.0098
 Mercury -119013-03-19 17:03 J -41747996.90 -41747996.79 -41747996.68 0.0131 0.0082
 Mercury -119013-06-15 19:56 J -41747908.78 -41747908.67 -41747908.55 0.0131 0.0067
 Mercury -119013-09-11 23:17 J -41747820.66 -41747820.53 -41747820.41 0.0131 0.0051
 Mercury -119013-12-09 02:10 J -41747732.54 -41747732.41 -41747732.28 0.0131 0.0036
 Mercury -119012-03-07 05:17 J -41747644.41 -41747644.28 -41747644.15 0.0131 0.0021
 Mercury -119012-06-03 08:25 J -41747556.29 -41747556.15 -41747556.02 0.0131 0.0006
 Mercury -119012-08-30 11:17 J -41747468.16 -41747468.03 -41747467.89 0.0131 0.0010
 Mercury -119012-11-26 14:25 J -41747380.03 -41747379.90 -41747379.77 0.0131 0.0025
 Mercury -119011-02-22 17:17 J -41747291.91 -41747291.78 -41747291.65 0.0131 0.0040
 Mercury -119011-05-21 20:25 J -41747203.77 -41747203.65 -41747203.53 0.0131 0.0055
 Mercury -119011-08-17 23:17 J -41747115.64 -41747115.53 -41747115.42 0.0131 0.0070
 Mercury -119011-11-14 02:25 J -41747027.50 -41747027.40 -41747027.30 0.0131 0.0085
 Mercury -119010-02-10 05:17 J -41746939.36 -41746939.28 -41746939.20 0.0131 0.0100
 Mercury -119010-05-09 08:10 J -41746851.22 -41746851.16 -41746851.10 0.0131 0.0115
 Mercury -119010-08-05 11:03 J -41746763.05 -41746763.04 -41746763.02 0.0131 0.0130
 Mars -119007-12-21 14:25 J -41745529.18 -41745528.90 -41745528.60 0.0131 0.0063
 Venus -119002-06-01 04:05 J -41743906.42 -41743906.33 -41743906.21 0.0132 0.0115
 Venus -119001-01-13 06:44 J -41743680.37 -41743680.22 -41743680.06 0.0133 0.0088
 Venus -119001-08-26 09:08 J -41743454.30 -41743454.12 -41743453.93 0.0133 0.0061

119TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 119th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Venus	-119000-04-09	11:46 J	-41743228.21	-41743228.01	-41743227.81	0.0133	0.0033	
Venus	-119000-11-21	14:10 J	-41743002.12	-41743001.91	-41743001.70	0.0133	0.0006	
Venus	-118999-07-05	16:49 J	-41742776.00	-41742775.80	-41742775.59	0.0133	0.0022	
Venus	-118998-02-16	19:41 J	-41742549.87	-41742549.68	-41742549.48	0.0134	0.0050	
Venus	-118998-09-30	22:34 J	-41742323.72	-41742323.56	-41742323.38	0.0134	0.0078	
Venus	-118997-05-14	01:27 J	-41742097.55	-41742097.44	-41742097.30	0.0134	0.0106	
Venus	-118997-12-26	04:49 J	-41741871.31	-41741871.30	-41741871.28	0.0135	0.0134	
Moon	-118977-08-02	10:20 J	-41734712.28	-41734712.07	-41734711.84	0.0146	0.0067	
Earth	-118977-08-02	13:41 J	-41734712.14	-41734711.93	-41734711.69	0.0146	0.0067	*
Earth	-118976-08-07	18:58 J	-41734341.92	-41734341.71	-41734341.49	0.0147	0.0081	
Moon	-118976-08-07	22:34 J	-41734341.77	-41734341.56	-41734341.35	0.0147	0.0085	*
Mercury	-118971-09-15	19:56 J	-41732476.75	-41732476.67	-41732476.58	0.0148	0.0130	
Mercury	-118971-12-13	04:20 J	-41732388.46	-41732388.32	-41732388.19	0.0148	0.0100	
Mercury	-118970-03-11	12:29 J	-41732300.14	-41732299.98	-41732299.81	0.0148	0.0070	
Mercury	-118970-06-07	20:53 J	-41732211.81	-41732211.63	-41732211.45	0.0148	0.0040	
Mercury	-118970-09-04	05:17 J	-41732123.46	-41732123.28	-41732123.09	0.0148	0.0010	
Mercury	-118970-12-01	13:41 J	-41732035.11	-41732034.93	-41732034.74	0.0148	0.0022	
Mercury	-118969-02-27	22:05 J	-41731946.74	-41731946.58	-41731946.39	0.0148	0.0053	
Mercury	-118969-05-26	06:44 J	-41731858.37	-41731858.22	-41731858.06	0.0148	0.0084	
Mercury	-118969-08-22	15:08 J	-41731769.97	-41731769.87	-41731769.73	0.0148	0.0115	
Mercury	-118969-11-18	23:46 J	-41731681.52	-41731681.51	-41731681.46	0.0148	0.0146	

Mars -118966-06-01 15:37 J -41730757.14 -41730756.85 -41730756.56 0.0148 0.0019
 Venus -118962-09-14 14:10 J -41729191.00 -41729190.91 -41729190.79 0.0147 0.0130
 Venus -118961-04-28 06:15 J -41728964.40 -41728964.24 -41728964.05 0.0146 0.0090
 Venus -118961-12-10 22:34 J -41728737.77 -41728737.56 -41728737.35 0.0146 0.0050
 Venus -118960-07-25 14:25 J -41728511.12 -41728510.90 -41728510.67 0.0146 0.0011
 Venus -118959-03-09 06:15 J -41728284.46 -41728284.24 -41728284.02 0.0145 0.0028
 Venus -118959-10-21 21:51 J -41728057.79 -41728057.59 -41728057.39 0.0145 0.0067
 Venus -118958-06-05 12:58 J -41727831.10 -41727830.96 -41727830.79 0.0145 0.0106
 Venus -118957-01-18 04:20 J -41727604.33 -41727604.32 -41727604.28 0.0144 0.0144
 Moon -118937-02-10 05:03 J -41720276.43 -41720276.29 -41720276.12 0.0133 0.0103
 Earth -118937-02-10 06:15 J -41720276.38 -41720276.24 -41720276.06 0.0133 0.0103 *
 Earth -118936-02-13 10:34 J -41719907.31 -41719907.06 -41719906.81 0.0133 0.0004
 Moon -118936-02-13 11:17 J -41719907.29 -41719907.03 -41719906.77 0.0133 0.0006 *
 Moon -118935-02-17 12:15 J -41719538.12 -41719537.99 -41719537.83 0.0132 0.0106
 Earth -118935-02-17 12:58 J -41719538.07 -41719537.96 -41719537.80 0.0132 0.0110 *
 Mercury -118930-07-19 14:39 J -41717559.92 -41717559.89 -41717559.85 0.0131 0.0125
 Mercury -118930-10-15 17:32 J -41717471.83 -41717471.77 -41717471.68 0.0131 0.0110
 Mercury -118929-01-11 20:53 J -41717383.72 -41717383.63 -41717383.53 0.0131 0.0094
 Mercury -118929-04-09 00:01 J -41717295.60 -41717295.50 -41717295.39 0.0131 0.0079
 Mercury -118929-07-06 03:08 J -41717207.49 -41717207.37 -41717207.25 0.0131 0.0063
 Mercury -118929-10-02 06:15 J -41717119.37 -41717119.24 -41717119.11 0.0131 0.0048
 Mercury -118929-12-29 09:08 J -41717031.24 -41717031.12 -41717030.98 0.0131 0.0033
 Mercury -118928-03-27 12:15 J -41716943.12 -41716942.99 -41716942.85 0.0131 0.0018
 Jupiter -118928-05-19 01:41 J -41716890.70 -41716890.43 -41716890.07 0.0131 0.0103
 Mercury -118928-06-23 15:22 J -41716854.99 -41716854.86 -41716854.72 0.0131 0.0002
 Mercury -118928-09-19 18:29 J -41716766.87 -41716766.73 -41716766.60 0.0131 0.0014
 Mercury -118928-12-16 21:22 J -41716678.74 -41716678.61 -41716678.48 0.0131 0.0028
 Mercury -118927-03-15 00:15 J -41716590.61 -41716590.49 -41716590.36 0.0131 0.0044
 Mercury -118927-06-11 03:22 J -41716502.48 -41716502.36 -41716502.24 0.0131 0.0059
 Mercury -118927-09-07 06:15 J -41716414.34 -41716414.24 -41716414.12 0.0131 0.0074

Mercury -118927-12-04 09:08 J -41716326.21 -41716326.12 -41716326.01 0.0131 0.0089
 Mercury -118926-03-02 12:01 J -41716238.07 -41716238.00 -41716237.91 0.0131 0.0104
 Mercury -118926-05-29 15:22 J -41716149.92 -41716149.86 -41716149.81 0.0131 0.0118
 Mars -118924-09-13 00:01 J -41715312.78 -41715312.50 -41715312.22 0.0131 0.0069
 Venus -118918-01-29 15:51 J -41713347.88 -41713347.84 -41713347.78 0.0132 0.0128
 Venus -118918-09-12 18:15 J -41713121.86 -41713121.74 -41713121.60 0.0132 0.0102
 Venus -118917-04-25 20:25 J -41712895.81 -41712895.65 -41712895.46 0.0133 0.0075
 Venus -118917-12-07 23:17 J -41712669.73 -41712669.53 -41712669.34 0.0133 0.0047
 Venus -118916-07-22 01:41 J -41712443.63 -41712443.43 -41712443.22 0.0133 0.0020
 Venus -118915-03-05 04:34 J -41712217.52 -41712217.31 -41712217.10 0.0133 0.0008
 Venus -118915-10-17 07:13 J -41711991.40 -41711991.20 -41711990.99 0.0134 0.0036
 Venus -118914-05-31 10:05 J -41711765.26 -41711765.08 -41711764.89 0.0134 0.0064
 Venus -118913-01-12 12:58 J -41711539.10 -41711538.96 -41711538.80 0.0134 0.0093
 Venus -118913-08-25 16:05 J -41711312.91 -41711312.83 -41711312.73 0.0134 0.0121
 Moon -118893-08-02 22:05 J -41704030.80 -41704030.58 -41704030.35 0.0146 0.0062
 Earth -118893-08-03 00:44 J -41704030.70 -41704030.47 -41704030.23 0.0146 0.0061 *
 Earth -118892-08-08 05:32 J -41703660.45 -41703660.27 -41703660.04 0.0147 0.0088
 Moon -118892-08-08 09:37 J -41703660.32 -41703660.10 -41703659.89 0.0147 0.0082 *
 Jupiter -118887-08-26 18:15 J -41701815.84 -41701815.74 -41701815.55 0.0148 0.0142
 Mercury -118887-10-06 03:51 J -41701775.44 -41701775.34 -41701775.23 0.0148 0.0121
 Mercury -118886-01-02 12:15 J -41701687.14 -41701686.99 -41701686.84 0.0148 0.0091
 Mercury -118886-03-31 20:25 J -41701598.81 -41701598.65 -41701598.47 0.0148 0.0061
 Mercury -118886-06-28 04:49 J -41701510.48 -41701510.30 -41701510.11 0.0148 0.0031
 Mercury -118886-09-24 13:27 J -41701422.13 -41701421.94 -41701421.75 0.0148 0.0001
 Mercury -118886-12-21 21:51 J -41701333.77 -41701333.59 -41701333.40 0.0148 0.0031
 Mercury -118885-03-19 06:15 J -41701245.40 -41701245.24 -41701245.06 0.0148 0.0062
 Mercury -118885-06-15 14:53 J -41701157.02 -41701156.88 -41701156.73 0.0148 0.0093
 Mercury -118885-09-11 23:32 J -41701068.62 -41701068.52 -41701068.41 0.0148 0.0124
 Mars -118881-01-26 02:53 J -41699837.63 -41699837.38 -41699837.13 0.0148 0.0075
 Venus -118878-12-27 11:17 J -41698406.16 -41698406.03 -41698405.86 0.0146 0.0110

Venus -118877-08-10 03:51 J -41698179.54 -41698179.34 -41698179.14 0.0146 0.0069
 Venus -118876-03-24 19:41 J -41697952.89 -41697952.68 -41697952.45 0.0146 0.0030
 Venus -118876-11-06 11:32 J -41697726.24 -41697726.02 -41697725.79 0.0146 0.0011
 Venus -118875-06-21 03:08 J -41697499.57 -41697499.37 -41697499.15 0.0145 0.0049
 Venus -118874-02-02 18:44 J -41697272.89 -41697272.72 -41697272.53 0.0145 0.0088
 Venus -118874-09-17 10:05 J -41697046.17 -41697046.08 -41697045.96 0.0145 0.0127
 Earth -118853-02-10 16:20 J -41689594.97 -41689594.82 -41689594.63 0.0133 0.0099
 Moon -118853-02-10 16:34 J -41689594.95 -41689594.81 -41689594.63 0.0133 0.0101 *
 Earth -118852-02-13 20:39 J -41689225.89 -41689225.64 -41689225.39 0.0132 0.0009
 Moon -118852-02-13 20:53 J -41689225.89 -41689225.63 -41689225.36 0.0132 0.0007 *
 Earth -118851-02-17 23:17 J -41688856.64 -41688856.53 -41688856.39 0.0132 0.0114
 Moon -118851-02-17 23:03 J -41688856.63 -41688856.54 -41688856.42 0.0132 0.0118 *
 Mercury -118846-08-08 21:37 J -41686858.64 -41686858.60 -41686858.55 0.0131 0.0122
 Mercury -118846-11-05 00:44 J -41686770.54 -41686770.47 -41686770.39 0.0131 0.0106
 Mercury -118845-02-01 03:51 J -41686682.43 -41686682.34 -41686682.24 0.0131 0.0091
 Jupiter -118845-04-14 21:37 J -41686608.98 -41686608.60 -41686608.22 0.0131 0.0086
 Mercury -118845-04-29 07:13 J -41686594.32 -41686594.20 -41686594.09 0.0131 0.0075
 Mercury -118845-07-26 10:05 J -41686506.20 -41686506.08 -41686505.96 0.0131 0.0060
 Mercury -118845-10-22 13:13 J -41686418.08 -41686417.95 -41686417.82 0.0131 0.0044
 Mercury -118844-01-18 16:20 J -41686329.95 -41686329.82 -41686329.69 0.0131 0.0029
 Mercury -118844-04-16 19:13 J -41686241.83 -41686241.70 -41686241.56 0.0131 0.0015
 Mercury -118844-07-13 22:20 J -41686153.70 -41686153.57 -41686153.43 0.0131 0.0003
 Mercury -118844-10-10 01:27 J -41686065.58 -41686065.44 -41686065.31 0.0131 0.0017
 Mercury -118843-01-06 04:20 J -41685977.45 -41685977.32 -41685977.19 0.0131 0.0032
 Mercury -118843-04-04 07:27 J -41685889.32 -41685889.19 -41685889.07 0.0131 0.0047
 Mercury -118843-07-01 10:20 J -41685801.18 -41685801.07 -41685800.95 0.0131 0.0062
 Mercury -118843-09-27 13:13 J -41685713.05 -41685712.95 -41685712.83 0.0131 0.0077
 Mercury -118843-12-24 16:05 J -41685624.91 -41685624.83 -41685624.72 0.0131 0.0092
 Mercury -118842-03-22 18:58 J -41685536.77 -41685536.71 -41685536.62 0.0131 0.0107
 Mercury -118842-06-18 22:20 J -41685448.62 -41685448.57 -41685448.53 0.0131 0.0121

Mars -118839-05-08 22:20 J -41684393.89 -41684393.57 -41684393.24 0.0131 0.0004
 Venus -118834-05-13 05:03 J -41682563.37 -41682563.29 -41682563.18 0.0132 0.0116
 Venus -118834-12-25 07:41 J -41682337.33 -41682337.18 -41682337.02 0.0132 0.0089
 Venus -118833-08-07 10:05 J -41682111.26 -41682111.08 -41682110.89 0.0133 0.0062
 Venus -118832-03-21 12:44 J -41681885.17 -41681884.97 -41681884.76 0.0133 0.0034
 Venus -118832-11-02 15:22 J -41681659.07 -41681658.86 -41681658.65 0.0133 0.0007
 Venus -118831-06-16 18:01 J -41681432.95 -41681432.75 -41681432.54 0.0133 0.0022
 Venus -118830-01-28 20:53 J -41681206.82 -41681206.63 -41681206.43 0.0134 0.0050
 Venus -118830-09-11 23:46 J -41680980.67 -41680980.51 -41680980.34 0.0134 0.0078
 Venus -118829-04-25 02:25 J -41680754.50 -41680754.40 -41680754.25 0.0134 0.0108
 Moon -118809-08-03 07:41 J -41673349.40 -41673349.18 -41673348.94 0.0146 0.0056
 Earth -118809-08-03 10:05 J -41673349.31 -41673349.08 -41673348.83 0.0146 0.0057 *
 Earth -118808-08-08 15:22 J -41672979.05 -41672978.86 -41672978.65 0.0147 0.0092
 Moon -118808-08-08 18:29 J -41672978.93 -41672978.73 -41672978.53 0.0147 0.0095 *
 Mercury -118803-07-30 03:08 J -41671162.40 -41671162.37 -41671162.32 0.0148 0.0143
 Mercury -118803-10-26 11:32 J -41671074.13 -41671074.02 -41671073.90 0.0148 0.0113
 Mercury -118802-01-22 19:41 J -41670985.82 -41670985.68 -41670985.52 0.0148 0.0083
 Mercury -118802-04-21 04:05 J -41670897.50 -41670897.33 -41670897.15 0.0148 0.0053
 Mercury -118802-07-18 12:44 J -41670809.16 -41670808.97 -41670808.79 0.0148 0.0022
 Mercury -118802-10-14 21:08 J -41670720.81 -41670720.62 -41670720.43 0.0148 0.0008
 Mercury -118801-01-11 05:32 J -41670632.45 -41670632.27 -41670632.08 0.0148 0.0039
 Mercury -118801-04-08 14:10 J -41670544.08 -41670543.91 -41670543.74 0.0148 0.0070
 Mercury -118801-07-05 22:34 J -41670455.69 -41670455.56 -41670455.42 0.0148 0.0102
 Mercury -118801-10-02 07:27 J -41670367.27 -41670367.19 -41670367.11 0.0148 0.0133
 Mars -118799-10-18 18:01 J -41669620.96 -41669620.75 -41669620.50 0.0148 0.0091
 Venus -118794-08-26 16:34 J -41667847.90 -41667847.81 -41667847.69 0.0147 0.0129
 Venus -118793-04-09 08:53 J -41667621.30 -41667621.13 -41667620.95 0.0146 0.0089
 Venus -118793-11-22 00:44 J -41667394.67 -41667394.47 -41667394.25 0.0146 0.0049
 Venus -118792-07-06 17:03 J -41667168.02 -41667167.79 -41667167.57 0.0146 0.0009
 Venus -118791-02-18 08:39 J -41666941.35 -41666941.14 -41666940.91 0.0145 0.0031

Venus -118791-10-03 00:29 J -41666714.68 -41666714.48 -41666714.28 0.0145 0.0070

Venus -118790-05-17 15:51 J -41666487.98 -41666487.84 -41666487.69 0.0145 0.0109

Earth -118769-02-11 03:22 J -41658913.53 -41658913.36 -41658913.17 0.0133 0.0094

Moon -118769-02-11 03:51 J -41658913.50 -41658913.34 -41658913.16 0.0133 0.0093 *

Moon -118768-02-14 06:44 J -41658544.47 -41658544.22 -41658543.95 0.0132 0.0015

Earth -118768-02-14 07:27 J -41658544.44 -41658544.19 -41658543.94 0.0132 0.0013 *

Earth -118767-02-18 10:20 J -41658175.18 -41658175.07 -41658174.96 0.0132 0.0118

Moon -118767-02-18 10:34 J -41658175.15 -41658175.06 -41658174.92 0.0132 0.0115 *

Mercury -118762-08-29 04:49 J -41656157.35 -41656157.30 -41656157.24 0.0131 0.0118

Mercury -118762-11-25 07:41 J -41656069.25 -41656069.18 -41656069.08 0.0131 0.0103

Mercury -118761-02-21 11:03 J -41655981.14 -41655981.04 -41655980.94 0.0131 0.0087

Mercury -118761-05-19 13:56 J -41655893.02 -41655892.92 -41655892.80 0.0131 0.0072

Mercury -118761-08-15 17:03 J -41655804.90 -41655804.79 -41655804.66 0.0131 0.0057

Mercury -118761-11-11 20:25 J -41655716.78 -41655716.65 -41655716.53 0.0131 0.0041

Mercury -118760-02-07 23:17 J -41655628.66 -41655628.53 -41655628.39 0.0131 0.0026

Mercury -118760-05-07 02:25 J -41655540.54 -41655540.40 -41655540.27 0.0131 0.0011

Mercury -118760-08-03 05:17 J -41655452.41 -41655452.28 -41655452.14 0.0131 0.0007

Mercury -118760-10-30 08:25 J -41655364.28 -41655364.15 -41655364.02 0.0131 0.0020

Mercury -118759-01-26 11:32 J -41655276.15 -41655276.02 -41655275.89 0.0131 0.0035

Mercury -118759-04-24 14:25 J -41655188.02 -41655187.90 -41655187.78 0.0131 0.0050

Mercury -118759-07-21 17:17 J -41655099.89 -41655099.78 -41655099.66 0.0131 0.0065

Mercury -118759-10-17 20:25 J -41655011.76 -41655011.65 -41655011.55 0.0131 0.0080

Mercury -118758-01-13 23:17 J -41654923.62 -41654923.53 -41654923.44 0.0131 0.0095

Mercury -118758-04-12 02:10 J -41654835.48 -41654835.41 -41654835.33 0.0131 0.0110

Mercury -118758-07-09 05:17 J -41654747.32 -41654747.28 -41654747.24 0.0131 0.0124

Mars -118756-01-29 07:13 J -41654177.24 -41654177.20 -41654177.10 0.0131 0.0128

Mars -118754-01-01 20:10 J -41653474.91 -41653474.66 -41653474.37 0.0131 0.0075

Venus -118750-01-10 16:05 J -41652004.85 -41652004.83 -41652004.78 0.0132 0.0130

Venus -118750-08-24 18:29 J -41651778.85 -41651778.73 -41651778.59 0.0132 0.0103

Venus -118749-04-06 21:08 J -41651552.79 -41651552.62 -41651552.45 0.0132 0.0076

Venus -118749-11-18 23:17 J -41651326.71 -41651326.53 -41651326.32 0.0133 0.0049
 Venus -118748-07-03 01:56 J -41651100.62 -41651100.42 -41651100.20 0.0133 0.0021
 Venus -118747-02-14 04:49 J -41650874.51 -41650874.30 -41650874.09 0.0133 0.0008
 Venus -118747-09-28 07:27 J -41650648.39 -41650648.19 -41650647.98 0.0133 0.0036
 Venus -118746-05-12 10:05 J -41650422.26 -41650422.08 -41650421.89 0.0134 0.0064
 Venus -118746-12-24 12:58 J -41650196.10 -41650195.96 -41650195.80 0.0134 0.0093
 Venus -118745-08-06 15:37 J -41649969.92 -41649969.85 -41649969.74 0.0134 0.0122
 Moon -118725-08-03 14:53 J -41642668.09 -41642667.88 -41642667.64 0.0146 0.0060
 Earth -118725-08-03 16:20 J -41642668.05 -41642667.82 -41642667.57 0.0146 0.0057 *
 Earth -118724-08-08 21:51 J -41642297.78 -41642297.59 -41642297.38 0.0147 0.0092
 Moon -118724-08-09 00:15 J -41642297.69 -41642297.49 -41642297.27 0.0147 0.0088 *
 Mercury -118719-08-19 09:37 J -41640461.15 -41640461.10 -41640461.03 0.0148 0.0139
 Mercury -118719-11-15 18:01 J -41640372.87 -41640372.75 -41640372.62 0.0148 0.0109
 Mercury -118718-02-12 02:25 J -41640284.56 -41640284.40 -41640284.25 0.0148 0.0079
 Mercury -118718-05-11 10:34 J -41640196.23 -41640196.06 -41640195.88 0.0148 0.0049
 Mercury -118718-08-07 18:58 J -41640107.89 -41640107.71 -41640107.52 0.0148 0.0019
 Mercury -118718-11-04 03:37 J -41640019.54 -41640019.35 -41640019.16 0.0148 0.0012
 Mercury -118717-01-31 12:01 J -41639931.18 -41639931.00 -41639930.82 0.0148 0.0043
 Mercury -118717-04-28 20:25 J -41639842.80 -41639842.65 -41639842.48 0.0148 0.0074
 Mercury -118717-07-26 05:03 J -41639754.42 -41639754.29 -41639754.15 0.0148 0.0105
 Mercury -118717-10-22 13:41 J -41639666.00 -41639665.93 -41639665.85 0.0148 0.0136
 Mars -118714-06-14 00:01 J -41638701.80 -41638701.50 -41638701.21 0.0148 0.0002
 Venus -118710-12-08 11:03 J -41637063.17 -41637063.04 -41637062.88 0.0147 0.0111
 Venus -118709-07-22 03:22 J -41636836.54 -41636836.36 -41636836.15 0.0146 0.0071
 Venus -118708-03-05 19:41 J -41636609.89 -41636609.68 -41636609.45 0.0146 0.0030
 Venus -118708-10-18 11:46 J -41636383.23 -41636383.01 -41636382.78 0.0146 0.0011
 Venus -118707-06-02 03:22 J -41636156.56 -41636156.36 -41636156.14 0.0145 0.0051
 Venus -118706-01-14 18:58 J -41635929.87 -41635929.71 -41635929.52 0.0145 0.0090
 Venus -118706-08-29 10:34 J -41635703.14 -41635703.06 -41635702.94 0.0145 0.0129
 Earth -118685-02-11 13:13 J -41628232.11 -41628231.95 -41628231.74 0.0133 0.0091

Moon -118685-02-11 14:39 J -41628232.05 -41628231.89 -41628231.70 0.0133 0.0093 *
 Moon -118684-02-14 16:05 J -41627863.09 -41627862.83 -41627862.57 0.0132 0.0016
 Earth -118684-02-14 17:32 J -41627863.02 -41627862.77 -41627862.52 0.0132 0.0016 *
 Earth -118683-02-18 19:56 J -41627493.75 -41627493.67 -41627493.55 0.0132 0.0121
 Moon -118683-02-18 20:53 J -41627493.69 -41627493.63 -41627493.54 0.0132 0.0125 *
 Mercury -118678-06-22 08:39 J -41625544.15 -41625544.14 -41625544.13 0.0131 0.0130
 Mercury -118678-09-18 11:46 J -41625456.07 -41625456.01 -41625455.94 0.0131 0.0115
 Mercury -118678-12-15 14:39 J -41625367.96 -41625367.89 -41625367.79 0.0131 0.0100
 Mercury -118677-03-12 18:01 J -41625279.85 -41625279.75 -41625279.65 0.0131 0.0084
 Mercury -118677-06-08 20:53 J -41625191.74 -41625191.63 -41625191.51 0.0131 0.0069
 Mercury -118677-09-05 00:01 J -41625103.62 -41625103.50 -41625103.37 0.0131 0.0054
 Mercury -118677-12-02 03:08 J -41625015.50 -41625015.37 -41625015.24 0.0131 0.0038
 Mercury -118676-02-28 06:15 J -41624927.37 -41624927.24 -41624927.11 0.0131 0.0023
 Mercury -118676-05-27 09:22 J -41624839.25 -41624839.11 -41624838.98 0.0131 0.0008
 Mercury -118676-08-23 12:15 J -41624751.12 -41624750.99 -41624750.85 0.0131 0.0008
 Mercury -118676-11-19 15:22 J -41624663.00 -41624662.86 -41624662.73 0.0131 0.0023
 Mercury -118675-02-15 18:15 J -41624574.87 -41624574.74 -41624574.61 0.0131 0.0038
 Mercury -118675-05-14 21:08 J -41624486.74 -41624486.62 -41624486.49 0.0131 0.0053
 Mercury -118675-08-11 00:15 J -41624398.60 -41624398.49 -41624398.37 0.0131 0.0068
 Mercury -118675-11-07 03:08 J -41624310.47 -41624310.37 -41624310.26 0.0131 0.0082
 Mercury -118674-02-03 06:01 J -41624222.33 -41624222.25 -41624222.15 0.0131 0.0097
 Mercury -118674-05-02 09:08 J -41624134.19 -41624134.12 -41624134.05 0.0131 0.0112
 Mercury -118674-07-29 12:01 J -41624046.03 -41624046.00 -41624045.97 0.0131 0.0127
 Mars -118672-09-24 03:08 J -41623258.65 -41623258.37 -41623258.06 0.0131 0.0058
 Venus -118666-04-24 04:49 J -41621220.38 -41621220.30 -41621220.20 0.0132 0.0118
 Venus -118666-12-06 06:58 J -41620994.34 -41620994.21 -41620994.04 0.0132 0.0091
 Venus -118665-07-19 09:37 J -41620768.28 -41620768.10 -41620767.91 0.0132 0.0064
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 Venus -118664-10-14 14:53 J -41620316.09 -41620315.88 -41620315.67 0.0133 0.0008
 Venus -118663-05-28 17:17 J -41620089.98 -41620089.78 -41620089.57 0.0133 0.0021

Venus -118662-01-09 19:56 J -41619863.86 -41619863.67 -41619863.47 0.0133 0.0049
 Venus -118662-08-23 22:34 J -41619637.72 -41619637.56 -41619637.38 0.0134 0.0078
 Venus -118661-04-06 01:27 J -41619411.55 -41619411.44 -41619411.30 0.0134 0.0106
 Moon -118641-08-03 19:13 J -41611986.91 -41611986.70 -41611986.46 0.0146 0.0058
 Earth -118641-08-03 20:10 J -41611986.89 -41611986.66 -41611986.42 0.0146 0.0060 *
 Earth -118640-08-09 01:27 J -41611616.63 -41611616.44 -41611616.22 0.0147 0.0089
 Moon -118640-08-09 03:08 J -41611616.56 -41611616.37 -41611616.15 0.0147 0.0091 *
 Mercury -118635-09-08 15:22 J -41609759.92 -41609759.86 -41609759.80 0.0148 0.0138
 Mercury -118635-12-05 23:32 J -41609671.64 -41609671.52 -41609671.39 0.0148 0.0109
 Mercury -118634-03-04 07:56 J -41609583.33 -41609583.17 -41609583.01 0.0148 0.0078
 Mercury -118634-05-31 16:05 J -41609495.00 -41609494.83 -41609494.64 0.0148 0.0049
 Mercury -118634-08-28 00:44 J -41609406.66 -41609406.47 -41609406.29 0.0148 0.0017
 Mercury -118634-11-24 09:08 J -41609318.31 -41609318.12 -41609317.93 0.0148 0.0013
 Mercury -118633-02-20 17:32 J -41609229.94 -41609229.77 -41609229.59 0.0148 0.0044
 Mercury -118633-05-19 01:56 J -41609141.57 -41609141.42 -41609141.25 0.0148 0.0076
 Mercury -118633-08-15 10:34 J -41609053.18 -41609053.06 -41609052.92 0.0148 0.0106
 Mercury -118633-11-11 19:13 J -41608964.76 -41608964.70 -41608964.63 0.0148 0.0138
 Mars -118629-02-06 23:32 J -41607782.74 -41607782.52 -41607782.26 0.0148 0.0085
 Venus -118626-08-07 12:01 J -41606505.08 -41606505.00 -41606504.90 0.0147 0.0134
 Venus -118625-03-21 04:20 J -41606278.48 -41606278.32 -41606278.14 0.0146 0.0093
 Venus -118625-11-02 20:39 J -41606051.85 -41606051.64 -41606051.43 0.0146 0.0053
 Venus -118624-06-17 12:44 J -41605825.20 -41605824.97 -41605824.75 0.0146 0.0012
 Venus -118623-01-30 04:34 J -41605598.53 -41605598.31 -41605598.08 0.0146 0.0028
 Venus -118623-09-13 20:25 J -41605371.84 -41605371.65 -41605371.44 0.0145 0.0068
 Venus -118622-04-28 11:46 J -41605145.14 -41605145.01 -41605144.84 0.0145 0.0108
 Earth -118601-02-11 22:34 J -41597550.73 -41597550.56 -41597550.36 0.0133 0.0088
 Moon -118601-02-12 00:29 J -41597550.66 -41597550.48 -41597550.29 0.0133 0.0086 *
 Moon -118600-02-15 01:27 J -41597181.69 -41597181.44 -41597181.18 0.0132 0.0020
 Earth -118600-02-15 02:53 J -41597181.63 -41597181.38 -41597181.13 0.0132 0.0019 *
 Earth -118599-02-19 05:46 J -41596812.34 -41596812.26 -41596812.17 0.0132 0.0123

Moon -118599-02-19 07:41 J -41596812.27 -41596812.18 -41596812.08 0.0132 0.0120 *
 Mercury -118594-07-12 15:37 J -41594842.87 -41594842.85 -41594842.82 0.0131 0.0127
 Mercury -118594-10-08 18:44 J -41594754.78 -41594754.72 -41594754.65 0.0131 0.0112
 Mercury -118593-01-04 21:37 J -41594666.68 -41594666.60 -41594666.49 0.0131 0.0097
 Mercury -118593-04-02 00:58 J -41594578.56 -41594578.46 -41594578.35 0.0131 0.0081
 Mercury -118593-06-29 04:05 J -41594490.45 -41594490.33 -41594490.21 0.0131 0.0065
 Mercury -118593-09-25 07:13 J -41594402.33 -41594402.20 -41594402.08 0.0131 0.0050
 Mercury -118593-12-22 10:20 J -41594314.21 -41594314.07 -41594313.94 0.0131 0.0035
 Mercury -118592-03-20 13:13 J -41594226.08 -41594225.95 -41594225.81 0.0131 0.0020
 Mercury -118592-06-16 16:20 J -41594137.96 -41594137.82 -41594137.69 0.0131 0.0005
 Mercury -118592-09-12 19:13 J -41594049.83 -41594049.70 -41594049.56 0.0131 0.0011
 Mercury -118592-12-09 22:20 J -41593961.70 -41593961.57 -41593961.44 0.0131 0.0026
 Mercury -118591-03-08 01:13 J -41593873.57 -41593873.45 -41593873.32 0.0131 0.0041
 Mercury -118591-06-04 04:05 J -41593785.44 -41593785.33 -41593785.20 0.0131 0.0056
 Mercury -118591-08-31 07:13 J -41593697.31 -41593697.20 -41593697.09 0.0131 0.0071
 Mercury -118591-11-27 10:05 J -41593609.18 -41593609.08 -41593608.97 0.0131 0.0085
 Mercury -118590-02-23 12:58 J -41593521.04 -41593520.96 -41593520.87 0.0131 0.0100
 Mercury -118590-05-22 16:05 J -41593432.89 -41593432.83 -41593432.77 0.0131 0.0115
 Mercury -118590-08-18 18:58 J -41593344.72 -41593344.71 -41593344.69 0.0131 0.0130
 Mars -118587-05-20 02:39 J -41592339.71 -41592339.39 -41592339.06 0.0131 0.0014
 Venus -118582-08-05 18:44 J -41590435.84 -41590435.72 -41590435.59 0.0132 0.0105
 Venus -118581-03-18 21:22 J -41590209.78 -41590209.61 -41590209.44 0.0132 0.0078
 Venus -118581-10-30 23:17 J -41589983.71 -41589983.53 -41589983.32 0.0132 0.0051
 Venus -118580-06-14 01:56 J -41589757.62 -41589757.42 -41589757.21 0.0133 0.0022
 Venus -118579-01-26 04:34 J -41589531.52 -41589531.31 -41589531.10 0.0133 0.0006
 Venus -118579-09-09 07:13 J -41589305.40 -41589305.20 -41589305.00 0.0133 0.0035
 Venus -118578-04-23 09:37 J -41589079.28 -41589079.10 -41589078.91 0.0134 0.0063
 Venus -118578-12-05 12:15 J -41588853.13 -41588852.99 -41588852.83 0.0134 0.0092
 Venus -118577-07-18 15:08 J -41588626.95 -41588626.87 -41588626.77 0.0134 0.0121
 Moon -118557-08-04 01:27 J -41581305.65 -41581305.44 -41581305.21 0.0146 0.0062

Earth -118557-08-04 02:10 J -41581305.64 -41581305.41 -41581305.17 0.0146 0.0060 *
 Earth -118556-08-09 07:27 J -41580935.39 -41580935.19 -41580934.97 0.0147 0.0087
 Moon -118556-08-09 08:39 J -41580935.34 -41580935.14 -41580934.91 0.0147 0.0084 *
 Mercury -118551-09-28 21:22 J -41579058.68 -41579058.61 -41579058.54 0.0148 0.0137
 Mercury -118551-12-26 05:17 J -41578970.40 -41578970.28 -41578970.14 0.0148 0.0107
 Mercury -118550-03-24 13:27 J -41578882.08 -41578881.94 -41578881.77 0.0148 0.0078
 Mercury -118550-06-20 22:05 J -41578793.75 -41578793.58 -41578793.40 0.0148 0.0046
 Mercury -118550-09-17 06:29 J -41578705.41 -41578705.23 -41578705.04 0.0148 0.0016
 Mercury -118550-12-14 14:53 J -41578617.06 -41578616.88 -41578616.69 0.0148 0.0015
 Mercury -118549-03-11 23:17 J -41578528.70 -41578528.53 -41578528.35 0.0148 0.0046
 Mercury -118549-06-08 07:56 J -41578440.33 -41578440.17 -41578440.01 0.0148 0.0077
 Mercury -118549-09-04 16:05 J -41578351.94 -41578351.83 -41578351.68 0.0148 0.0109
 Mercury -118549-12-02 00:44 J -41578263.52 -41578263.47 -41578263.39 0.0148 0.0139
 Mars -118547-10-30 03:51 J -41577566.57 -41577566.34 -41577566.11 0.0148 0.0092
 Venus -118542-11-19 05:17 J -41575720.41 -41575720.28 -41575720.15 0.0147 0.0117
 Venus -118541-07-02 21:22 J -41575493.79 -41575493.61 -41575493.41 0.0146 0.0076
 Venus -118540-02-14 13:41 J -41575267.15 -41575266.93 -41575266.71 0.0146 0.0035
 Venus -118540-09-29 05:46 J -41575040.48 -41575040.26 -41575040.03 0.0146 0.0005
 Venus -118539-05-13 21:36 J -41574813.81 -41574813.60 -41574813.38 0.0145 0.0046
 Venus -118539-12-26 13:27 J -41574587.12 -41574586.94 -41574586.76 0.0145 0.0086
 Venus -118538-08-10 05:03 J -41574360.40 -41574360.29 -41574360.17 0.0145 0.0125
 Earth -118517-02-12 06:58 J -41566869.38 -41566869.21 -41566869.00 0.0133 0.0086
 Moon -118517-02-12 08:39 J -41566869.31 -41566869.14 -41566868.94 0.0133 0.0086 *
 Moon -118516-02-15 09:51 J -41566500.35 -41566500.09 -41566499.83 0.0132 0.0020
 Earth -118516-02-15 11:32 J -41566500.26 -41566500.02 -41566499.76 0.0132 0.0022 *
 Earth -118515-02-19 14:10 J -41566130.96 -41566130.91 -41566130.81 0.0132 0.0126
 Moon -118515-02-19 15:36 J -41566130.86 -41566130.85 -41566130.81 0.0132 0.0131 *
 Mercury -118510-08-01 22:34 J -41564141.60 -41564141.56 -41564141.52 0.0131 0.0124
 Mercury -118510-10-29 01:27 J -41564053.50 -41564053.44 -41564053.36 0.0131 0.0109
 Mercury -118509-01-25 04:34 J -41563965.39 -41563965.31 -41563965.21 0.0131 0.0094

Mercury -118509-04-22 07:56 J -41563877.28 -41563877.17 -41563877.06 0.0131 0.0078

Mercury -118509-07-19 10:48 J -41563789.16 -41563789.05 -41563788.92 0.0131 0.0063

Mercury -118509-10-15 13:56 J -41563701.04 -41563700.92 -41563700.79 0.0131 0.0048

Mercury -118508-01-11 17:03 J -41563612.92 -41563612.79 -41563612.66 0.0131 0.0032

Mercury -118508-04-09 20:10 J -41563524.80 -41563524.66 -41563524.53 0.0131 0.0017

Mercury -118508-07-06 23:03 J -41563436.67 -41563436.54 -41563436.40 0.0131 0.0005

Mercury -118508-10-03 02:10 J -41563348.54 -41563348.41 -41563348.27 0.0131 0.0013

Mercury -118508-12-30 05:03 J -41563260.42 -41563260.29 -41563260.15 0.0131 0.0029

Mercury -118507-03-28 08:10 J -41563172.29 -41563172.16 -41563172.03 0.0131 0.0043

Mercury -118507-06-24 11:03 J -41563084.16 -41563084.04 -41563083.92 0.0131 0.0058

Mercury -118507-09-20 13:56 J -41562996.02 -41562995.92 -41562995.80 0.0131 0.0074

Mercury -118507-12-17 17:03 J -41562907.89 -41562907.79 -41562907.69 0.0131 0.0088

Mercury -118506-03-15 19:56 J -41562819.75 -41562819.67 -41562819.58 0.0131 0.0103

Mercury -118506-06-11 22:48 J -41562731.60 -41562731.55 -41562731.49 0.0131 0.0118

Mars -118504-02-09 12:00 J -41562123.13 -41562123.00 -41562122.85 0.0131 0.0117

Mars -118502-01-13 00:29 J -41561420.72 -41561420.48 -41561420.23 0.0131 0.0086

Venus -118498-04-05 06:15 J -41559877.33 -41559877.24 -41559877.15 0.0132 0.0119

Venus -118498-11-17 08:10 J -41559651.29 -41559651.16 -41559650.99 0.0132 0.0092

Venus -118497-06-30 10:34 J -41559425.23 -41559425.06 -41559424.86 0.0132 0.0065

Venus -118496-02-11 13:12 J -41559199.15 -41559198.95 -41559198.74 0.0133 0.0036

Venus -118496-09-25 15:51 J -41558973.05 -41558972.84 -41558972.63 0.0133 0.0008

Venus -118495-05-09 18:15 J -41558746.95 -41558746.74 -41558746.53 0.0133 0.0020

Venus -118495-12-21 20:39 J -41558520.83 -41558520.64 -41558520.44 0.0133 0.0049

Venus -118494-08-04 23:17 J -41558294.69 -41558294.53 -41558294.35 0.0134 0.0078

Venus -118493-03-18 02:24 J -41558068.52 -41558068.40 -41558068.27 0.0134 0.0106

Moon -118473-08-04 11:46 J -41550624.23 -41550624.01 -41550623.77 0.0146 0.0055

Earth -118473-08-04 12:15 J -41550624.23 -41550623.99 -41550623.75 0.0146 0.0056 *

Earth -118472-08-09 17:17 J -41550253.97 -41550253.78 -41550253.57 0.0147 0.0092

Moon -118472-08-09 18:58 J -41550253.90 -41550253.71 -41550253.51 0.0147 0.0096 *

Mercury -118467-10-19 04:20 J -41548357.40 -41548357.32 -41548357.22 0.0148 0.0130

Mercury -118466-01-15 12:29 J -41548269.10 -41548268.98 -41548268.83 0.0148 0.0101
 Mercury -118466-04-13 20:53 J -41548180.79 -41548180.63 -41548180.46 0.0148 0.0070
 Mercury -118466-07-11 05:17 J -41548092.46 -41548092.28 -41548092.10 0.0148 0.0040
 Mercury -118466-10-07 13:41 J -41548004.11 -41548003.93 -41548003.74 0.0148 0.0009
 Mercury -118465-01-03 22:05 J -41547915.76 -41547915.58 -41547915.39 0.0148 0.0022
 Mercury -118465-04-01 06:29 J -41547827.40 -41547827.23 -41547827.05 0.0148 0.0052
 Mercury -118465-06-28 14:53 J -41547739.02 -41547738.88 -41547738.71 0.0148 0.0084
 Mercury -118465-09-24 23:32 J -41547650.63 -41547650.52 -41547650.39 0.0148 0.0114
 Mercury -118465-12-22 08:10 J -41547562.19 -41547562.16 -41547562.12 0.0148 0.0146
 Mars -118462-06-25 13:12 J -41546647.24 -41546646.95 -41546646.66 0.0148 0.0002
 Venus -118458-07-19 08:24 J -41545162.20 -41545162.15 -41545162.06 0.0147 0.0139
 Venus -118457-03-02 00:44 J -41544935.62 -41544935.47 -41544935.28 0.0147 0.0098
 Venus -118457-10-14 17:03 J -41544708.99 -41544708.79 -41544708.57 0.0146 0.0057
 Venus -118456-05-29 09:22 J -41544482.33 -41544482.11 -41544481.89 0.0146 0.0015
 Venus -118455-01-11 01:12 J -41544255.67 -41544255.45 -41544255.22 0.0146 0.0026
 Venus -118455-08-25 17:03 J -41544028.98 -41544028.79 -41544028.58 0.0145 0.0066
 Venus -118454-04-09 08:39 J -41543802.28 -41543802.14 -41543801.97 0.0145 0.0106
 Earth -118433-02-12 17:46 J -41536187.94 -41536187.76 -41536187.54 0.0133 0.0081
 Moon -118433-02-12 20:10 J -41536187.84 -41536187.66 -41536187.45 0.0133 0.0080 *
 Moon -118432-02-15 20:24 J -41535818.90 -41535818.65 -41535818.39 0.0132 0.0028
 Earth -118432-02-15 22:20 J -41535818.81 -41535818.57 -41535818.32 0.0132 0.0026 *
 Earth -118431-02-20 01:27 J -41535449.47 -41535449.44 -41535449.39 0.0132 0.0130
 Moon -118431-02-20 03:36 J -41535449.40 -41535449.35 -41535449.26 0.0132 0.0127 *
 Mercury -118426-08-22 05:46 J -41533440.31 -41533440.26 -41533440.21 0.0131 0.0120
 Mercury -118426-11-18 08:39 J -41533352.21 -41533352.14 -41533352.05 0.0131 0.0105
 Mercury -118425-02-14 11:46 J -41533264.10 -41533264.01 -41533263.90 0.0131 0.0090
 Mercury -118425-05-12 15:08 J -41533175.98 -41533175.87 -41533175.76 0.0131 0.0074
 Mercury -118425-08-08 18:00 J -41533087.86 -41533087.75 -41533087.62 0.0131 0.0059
 Mercury -118425-11-04 21:08 J -41532999.74 -41532999.62 -41532999.49 0.0131 0.0044
 Mercury -118424-02-01 00:15 J -41532911.62 -41532911.49 -41532911.36 0.0131 0.0028

Mercury -118424-04-30 03:22 J -41532823.50 -41532823.36 -41532823.23 0.0131 0.0013

Mercury -118424-07-27 06:15 J -41532735.37 -41532735.24 -41532735.10 0.0131 0.0005

Mercury -118424-10-23 09:22 J -41532647.24 -41532647.11 -41532646.98 0.0131 0.0017

Mercury -118423-01-19 12:15 J -41532559.11 -41532558.99 -41532558.85 0.0131 0.0033

Mercury -118423-04-17 15:22 J -41532470.98 -41532470.86 -41532470.73 0.0131 0.0047

Mercury -118423-07-14 18:15 J -41532382.85 -41532382.74 -41532382.62 0.0131 0.0062

Mercury -118423-10-10 21:22 J -41532294.72 -41532294.61 -41532294.50 0.0131 0.0077

Mercury -118422-01-07 00:15 J -41532206.58 -41532206.49 -41532206.39 0.0131 0.0092

Mercury -118422-04-05 03:08 J -41532118.44 -41532118.37 -41532118.29 0.0131 0.0107

Mercury -118422-07-02 06:00 J -41532030.29 -41532030.25 -41532030.20 0.0131 0.0122

Mars -118420-10-05 13:56 J -41531204.21 -41531203.92 -41531203.59 0.0131 0.0044

Venus -118414-07-17 20:53 J -41529092.75 -41529092.63 -41529092.50 0.0132 0.0106

Venus -118413-02-28 23:32 J -41528866.69 -41528866.52 -41528866.35 0.0132 0.0078

Venus -118413-10-12 01:41 J -41528640.62 -41528640.43 -41528640.23 0.0133 0.0050

Venus -118412-05-26 04:05 J -41528414.53 -41528414.33 -41528414.12 0.0133 0.0022

Venus -118411-01-07 06:44 J -41528188.43 -41528188.22 -41528188.01 0.0133 0.0007

Venus -118411-08-21 09:22 J -41527962.32 -41527962.11 -41527961.91 0.0133 0.0036

Venus -118410-04-04 11:46 J -41527736.18 -41527736.01 -41527735.81 0.0134 0.0065

Venus -118410-11-16 14:53 J -41527510.03 -41527509.88 -41527509.73 0.0134 0.0093

Venus -118409-06-29 17:17 J -41527283.85 -41527283.78 -41527283.68 0.0134 0.0123

Earth -118389-08-05 01:27 J -41519942.68 -41519942.44 -41519942.20 0.0146 0.0047

Moon -118389-08-05 01:41 J -41519942.66 -41519942.43 -41519942.20 0.0146 0.0048 *

Moon -118388-08-10 06:44 J -41519572.41 -41519572.22 -41519572.01 0.0147 0.0097

Earth -118388-08-10 06:15 J -41519572.40 -41519572.24 -41519572.03 0.0147 0.0101 *

Mercury -118383-11-08 12:29 J -41517656.07 -41517655.98 -41517655.86 0.0148 0.0120

Mercury -118382-02-04 20:53 J -41517567.77 -41517567.63 -41517567.47 0.0148 0.0090

Mercury -118382-05-04 05:17 J -41517479.44 -41517479.28 -41517479.10 0.0148 0.0060

Mercury -118382-07-31 13:41 J -41517391.11 -41517390.93 -41517390.74 0.0148 0.0029

Mercury -118382-10-27 22:05 J -41517302.77 -41517302.58 -41517302.39 0.0148 0.0002

Mercury -118381-01-24 06:29 J -41517214.41 -41517214.23 -41517214.04 0.0148 0.0032

Mercury -118381-04-21 14:53 J -41517126.04 -41517125.88 -41517125.70 0.0148 0.0063

Mercury -118381-07-18 23:32 J -41517037.66 -41517037.52 -41517037.37 0.0148 0.0094

Mercury -118381-10-15 07:41 J -41516949.26 -41516949.18 -41516949.06 0.0148 0.0126

Mars -118377-02-19 02:10 J -41515727.60 -41515727.41 -41515727.17 0.0148 0.0099

Venus -118374-10-31 06:44 J -41514377.35 -41514377.22 -41514377.08 0.0147 0.0117

Venus -118373-06-13 22:48 J -41514150.73 -41514150.55 -41514150.35 0.0146 0.0076

Venus -118372-01-26 15:08 J -41513924.09 -41513923.87 -41513923.65 0.0146 0.0034

Venus -118372-09-10 07:12 J -41513697.43 -41513697.20 -41513696.97 0.0146 0.0007

Venus -118371-04-24 22:48 J -41513470.75 -41513470.55 -41513470.33 0.0146 0.0048

Venus -118371-12-07 14:24 J -41513244.07 -41513243.90 -41513243.71 0.0145 0.0088

Venus -118370-07-22 05:46 J -41513017.35 -41513017.26 -41513017.14 0.0145 0.0128

Earth -118349-02-13 06:00 J -41505506.45 -41505506.25 -41505506.03 0.0133 0.0074

Moon -118349-02-13 08:39 J -41505506.34 -41505506.14 -41505505.93 0.0133 0.0074 *

Moon -118348-02-16 07:41 J -41505137.42 -41505137.18 -41505136.92 0.0132 0.0031

Earth -118348-02-16 10:34 J -41505137.30 -41505137.06 -41505136.81 0.0132 0.0033 *

Mercury -118342-09-11 12:58 J -41502739.02 -41502738.96 -41502738.89 0.0131 0.0116

Mercury -118342-12-08 16:05 J -41502650.91 -41502650.83 -41502650.74 0.0131 0.0100

Mercury -118341-03-05 19:12 J -41502562.80 -41502562.70 -41502562.59 0.0131 0.0085

Mercury -118341-06-01 22:20 J -41502474.68 -41502474.57 -41502474.45 0.0131 0.0069

Mercury -118341-08-29 01:27 J -41502386.56 -41502386.44 -41502386.31 0.0131 0.0054

Mercury -118341-11-25 04:34 J -41502298.44 -41502298.31 -41502298.18 0.0131 0.0039

Mercury -118340-02-21 07:41 J -41502210.32 -41502210.18 -41502210.05 0.0131 0.0023

Mercury -118340-05-20 10:34 J -41502122.19 -41502122.06 -41502121.92 0.0131 0.0009

Mercury -118340-08-16 13:41 J -41502034.07 -41502033.93 -41502033.79 0.0131 0.0007

Mercury -118340-11-12 16:34 J -41501945.94 -41501945.81 -41501945.67 0.0131 0.0023

Mercury -118339-02-08 19:41 J -41501857.81 -41501857.68 -41501857.55 0.0131 0.0037

Mercury -118339-05-07 22:48 J -41501769.68 -41501769.55 -41501769.43 0.0131 0.0052

Mercury -118339-08-04 01:41 J -41501681.54 -41501681.43 -41501681.31 0.0131 0.0067

Mercury -118339-10-31 04:34 J -41501593.41 -41501593.31 -41501593.20 0.0131 0.0082

Mercury -118338-01-27 07:27 J -41501505.27 -41501505.19 -41501505.09 0.0131 0.0097

Mercury -118338-04-25 10:20 J -41501417.13 -41501417.07 -41501416.99 0.0131 0.0112

Mercury -118338-07-22 13:12 J -41501328.97 -41501328.95 -41501328.90 0.0131 0.0127

Mars -118335-05-31 17:46 J -41500285.07 -41500284.76 -41500284.44 0.0131 0.0032

Venus -118330-03-17 09:08 J -41498534.19 -41498534.12 -41498534.01 0.0132 0.0119

Venus -118330-10-29 11:32 J -41498308.16 -41498308.02 -41498307.86 0.0132 0.0091

Venus -118329-06-11 13:41 J -41498082.10 -41498081.93 -41498081.73 0.0133 0.0064

Venus -118328-01-23 16:20 J -41497856.01 -41497855.82 -41497855.61 0.0133 0.0035

Venus -118328-09-06 18:58 J -41497629.92 -41497629.71 -41497629.50 0.0133 0.0006

Venus -118327-04-20 21:22 J -41497403.81 -41497403.61 -41497403.40 0.0133 0.0023

Venus -118327-12-02 23:46 J -41497177.69 -41497177.51 -41497177.30 0.0133 0.0052

Venus -118326-07-17 02:24 J -41496951.55 -41496951.40 -41496951.22 0.0134 0.0081

Venus -118325-02-28 05:32 J -41496725.38 -41496725.27 -41496725.14 0.0134 0.0109

Earth -118305-08-05 14:10 J -41489261.15 -41489260.91 -41489260.66 0.0146 0.0038

Moon -118305-08-05 15:36 J -41489261.08 -41489260.85 -41489260.60 0.0146 0.0036 *

Moon -118304-08-10 19:41 J -41488890.85 -41488890.68 -41488890.51 0.0147 0.0112

Earth -118304-08-10 19:27 J -41488890.85 -41488890.69 -41488890.51 0.0147 0.0109 *

Mercury -118299-09-01 12:58 J -41487043.01 -41487042.96 -41487042.89 0.0148 0.0139

Mercury -118299-11-28 21:22 J -41486954.73 -41486954.61 -41486954.48 0.0148 0.0109

Mercury -118298-02-25 05:46 J -41486866.42 -41486866.26 -41486866.11 0.0148 0.0079

Mercury -118298-05-24 13:56 J -41486778.09 -41486777.92 -41486777.74 0.0148 0.0048

Mercury -118298-08-20 22:20 J -41486689.75 -41486689.57 -41486689.38 0.0148 0.0018

Mercury -118298-11-17 06:44 J -41486601.40 -41486601.22 -41486601.03 0.0148 0.0013

Mercury -118297-02-13 15:08 J -41486513.05 -41486512.87 -41486512.69 0.0148 0.0044

Mercury -118297-05-11 23:46 J -41486424.67 -41486424.51 -41486424.35 0.0148 0.0075

Mercury -118297-08-08 08:10 J -41486336.29 -41486336.16 -41486336.02 0.0148 0.0106

Mercury -118297-11-04 16:34 J -41486247.87 -41486247.81 -41486247.73 0.0148 0.0137

Mars -118295-11-11 22:20 J -41485510.81 -41485510.57 -41485510.29 0.0148 0.0066

Venus -118290-06-30 13:41 J -41483819.00 -41483818.93 -41483818.83 0.0147 0.0135

Venus -118289-02-12 06:00 J -41483592.41 -41483592.25 -41483592.07 0.0147 0.0094

Venus -118289-09-25 22:05 J -41483365.78 -41483365.58 -41483365.36 0.0146 0.0053

Venus -118288-05-10 14:24 J -41483139.13 -41483138.90 -41483138.68 0.0146 0.0011
 Venus -118288-12-23 06:15 J -41482912.46 -41482912.24 -41482912.02 0.0146 0.0031
 Venus -118287-08-06 21:51 J -41482685.77 -41482685.59 -41482685.38 0.0145 0.0072
 Venus -118286-03-21 13:12 J -41482459.07 -41482458.95 -41482458.79 0.0145 0.0112
 Earth -118265-02-13 19:56 J -41474824.88 -41474824.67 -41474824.44 0.0133 0.0066
 Moon -118265-02-13 23:17 J -41474824.74 -41474824.53 -41474824.30 0.0133 0.0064 *
 Moon -118264-02-16 21:22 J -41474455.86 -41474455.61 -41474455.37 0.0132 0.0041
 Earth -118264-02-17 00:15 J -41474455.72 -41474455.49 -41474455.24 0.0132 0.0040 *
 Mercury -118258-07-05 17:17 J -41472125.80 -41472125.78 -41472125.73 0.0131 0.0126
 Mercury -118258-10-01 20:39 J -41472037.71 -41472037.64 -41472037.57 0.0131 0.0110
 Mercury -118258-12-28 23:32 J -41471949.60 -41471949.52 -41471949.42 0.0131 0.0095
 Mercury -118257-03-26 02:53 J -41471861.49 -41471861.38 -41471861.27 0.0131 0.0079
 Mercury -118257-06-22 05:46 J -41471773.37 -41471773.26 -41471773.13 0.0131 0.0064
 Mercury -118257-09-18 08:53 J -41471685.25 -41471685.13 -41471685.00 0.0131 0.0049
 Mercury -118257-12-15 12:00 J -41471597.13 -41471597.00 -41471596.86 0.0131 0.0033
 Mercury -118256-03-13 15:08 J -41471509.00 -41471508.87 -41471508.74 0.0131 0.0018
 Mercury -118256-06-09 18:15 J -41471420.88 -41471420.74 -41471420.61 0.0131 0.0004
 Mercury -118256-09-05 21:08 J -41471332.75 -41471332.62 -41471332.48 0.0131 0.0013
 Mercury -118256-12-03 00:15 J -41471244.62 -41471244.49 -41471244.36 0.0131 0.0027
 Mercury -118255-03-01 03:08 J -41471156.49 -41471156.37 -41471156.24 0.0131 0.0042
 Mercury -118255-05-28 06:00 J -41471068.36 -41471068.25 -41471068.12 0.0131 0.0058
 Mercury -118255-08-24 09:08 J -41470980.23 -41470980.12 -41470980.00 0.0131 0.0072
 Mercury -118255-11-20 12:15 J -41470892.09 -41470891.99 -41470891.89 0.0131 0.0087
 Mercury -118254-02-16 15:08 J -41470803.95 -41470803.87 -41470803.79 0.0131 0.0102
 Mercury -118254-05-15 18:00 J -41470715.80 -41470715.75 -41470715.69 0.0131 0.0117
 Mars -118252-02-21 11:03 J -41470068.25 -41470068.04 -41470067.81 0.0131 0.0096
 Mars -118250-01-24 22:34 J -41469365.71 -41469365.56 -41469365.35 0.0131 0.0109
 Venus -118247-11-14 22:34 J -41467975.56 -41467975.56 -41467975.56 0.0132 0.0132
 Venus -118246-06-29 00:29 J -41467749.60 -41467749.48 -41467749.34 0.0132 0.0104
 Venus -118245-02-10 02:53 J -41467523.54 -41467523.38 -41467523.20 0.0132 0.0076

Venus -118245-09-23 05:17 J -41467297.47 -41467297.28 -41467297.08 0.0133 0.0048
 Venus -118244-05-07 07:41 J -41467071.39 -41467071.18 -41467070.97 0.0133 0.0019
 Venus -118244-12-19 10:05 J -41466845.29 -41466845.08 -41466844.87 0.0133 0.0009
 Venus -118243-08-02 12:29 J -41466619.17 -41466618.98 -41466618.77 0.0133 0.0039
 Venus -118242-03-16 15:08 J -41466393.03 -41466392.87 -41466392.67 0.0134 0.0068
 Venus -118242-10-28 18:15 J -41466166.88 -41466166.74 -41466166.59 0.0134 0.0096
 Venus -118241-06-10 21:08 J -41465940.69 -41465940.62 -41465940.55 0.0134 0.0126
 Earth -118221-08-06 02:24 J -41458579.64 -41458579.40 -41458579.14 0.0146 0.0031
 Moon -118221-08-06 04:34 J -41458579.54 -41458579.31 -41458579.06 0.0146 0.0034 *
 Moon -118220-08-11 05:32 J -41458209.42 -41458209.27 -41458209.10 0.0147 0.0115
 Earth -118220-08-11 07:41 J -41458209.33 -41458209.18 -41458209.02 0.0147 0.0116 *
 Mercury -118215-09-21 21:22 J -41456341.70 -41456341.61 -41456341.52 0.0148 0.0129
 Mercury -118215-12-19 05:17 J -41456253.40 -41456253.28 -41456253.13 0.0148 0.0099
 Mercury -118214-03-17 13:56 J -41456165.08 -41456164.92 -41456164.76 0.0148 0.0069
 Mercury -118214-06-13 22:05 J -41456076.75 -41456076.58 -41456076.39 0.0148 0.0039
 Mercury -118214-09-10 06:44 J -41455988.41 -41455988.22 -41455988.04 0.0148 0.0008
 Mercury -118214-12-07 14:53 J -41455900.06 -41455899.88 -41455899.69 0.0148 0.0024
 Mercury -118213-03-04 23:32 J -41455811.69 -41455811.52 -41455811.34 0.0148 0.0054
 Mercury -118213-06-01 07:41 J -41455723.32 -41455723.18 -41455723.01 0.0148 0.0086
 Mercury -118213-08-28 16:20 J -41455634.92 -41455634.82 -41455634.69 0.0148 0.0116
 Mercury -118213-11-25 00:58 J -41455546.47 -41455546.46 -41455546.43 0.0148 0.0148
 Mars -118210-07-08 14:53 J -41454591.16 -41454590.88 -41454590.59 0.0148 0.0033
 Venus -118206-10-12 12:15 J -41453034.12 -41453033.99 -41453033.83 0.0147 0.0113
 Venus -118205-05-26 04:34 J -41452807.50 -41452807.31 -41452807.11 0.0147 0.0071
 Venus -118204-01-07 20:39 J -41452580.85 -41452580.64 -41452580.41 0.0146 0.0029
 Venus -118204-08-22 12:58 J -41452354.19 -41452353.96 -41452353.74 0.0146 0.0013
 Venus -118203-04-06 04:34 J -41452127.51 -41452127.31 -41452127.09 0.0146 0.0054
 Venus -118203-11-18 20:10 J -41451900.82 -41451900.66 -41451900.48 0.0145 0.0095
 Venus -118202-07-03 11:32 J -41451674.09 -41451674.02 -41451673.92 0.0145 0.0135
 Earth -118181-02-14 09:36 J -41444143.32 -41444143.10 -41444142.86 0.0133 0.0058

Moon -118181-02-14 13:12 J -41444143.17 -41444142.95 -41444142.72 0.0133 0.0061 *
 Moon -118180-02-17 10:20 J -41443774.30 -41443774.07 -41443773.83 0.0132 0.0048
 Earth -118180-02-17 14:10 J -41443774.14 -41443773.91 -41443773.67 0.0132 0.0048 *
 Mercury -118174-07-26 00:58 J -41441424.51 -41441424.46 -41441424.41 0.0131 0.0120
 Mercury -118174-10-22 03:51 J -41441336.41 -41441336.34 -41441336.25 0.0131 0.0105
 Mercury -118173-01-18 06:58 J -41441248.30 -41441248.21 -41441248.10 0.0131 0.0090
 Mercury -118173-04-15 10:20 J -41441160.18 -41441160.07 -41441159.96 0.0131 0.0074
 Mercury -118173-07-12 13:12 J -41441072.06 -41441071.95 -41441071.82 0.0131 0.0059
 Mercury -118173-10-08 16:20 J -41440983.94 -41440983.82 -41440983.69 0.0131 0.0044
 Mercury -118172-01-04 19:27 J -41440895.82 -41440895.69 -41440895.55 0.0131 0.0028
 Mercury -118172-04-02 22:34 J -41440807.70 -41440807.56 -41440807.42 0.0131 0.0013
 Mercury -118172-06-30 01:41 J -41440719.57 -41440719.43 -41440719.30 0.0131 0.0004
 Mercury -118172-09-26 04:34 J -41440631.44 -41440631.31 -41440631.17 0.0131 0.0017
 Mercury -118172-12-23 07:27 J -41440543.31 -41440543.19 -41440543.05 0.0131 0.0033
 Mercury -118171-03-21 10:34 J -41440455.18 -41440455.06 -41440454.93 0.0130 0.0047
 Mercury -118171-06-17 13:27 J -41440367.05 -41440366.94 -41440366.82 0.0130 0.0062
 Mercury -118171-09-13 16:34 J -41440278.92 -41440278.81 -41440278.70 0.0130 0.0077
 Mercury -118171-12-10 19:27 J -41440190.78 -41440190.69 -41440190.59 0.0130 0.0092
 Mercury -118170-03-08 22:20 J -41440102.64 -41440102.57 -41440102.49 0.0130 0.0107
 Mercury -118170-06-05 01:12 J -41440014.48 -41440014.45 -41440014.39 0.0130 0.0122
 Mars -118168-10-17 13:41 J -41439149.24 -41439148.93 -41439148.60 0.0131 0.0021
 Venus -118162-02-26 12:29 J -41437191.06 -41437190.98 -41437190.88 0.0132 0.0118
 Venus -118162-10-10 14:39 J -41436965.03 -41436964.89 -41436964.73 0.0132 0.0090
 Venus -118161-05-23 17:03 J -41436738.97 -41436738.79 -41436738.60 0.0132 0.0062
 Venus -118160-01-04 19:12 J -41436512.89 -41436512.70 -41436512.49 0.0133 0.0034
 Venus -118160-08-18 21:51 J -41436286.80 -41436286.59 -41436286.38 0.0133 0.0005
 Venus -118159-04-02 00:15 J -41436060.69 -41436060.49 -41436060.28 0.0133 0.0024
 Venus -118159-11-14 02:39 J -41435834.57 -41435834.39 -41435834.19 0.0133 0.0054
 Venus -118158-06-28 05:17 J -41435608.43 -41435608.28 -41435608.10 0.0134 0.0083
 Venus -118157-02-09 08:10 J -41435382.26 -41435382.16 -41435382.03 0.0134 0.0112

Earth -118137-08-06 10:05 J -41427898.32 -41427898.08 -41427897.82 0.0146 0.0030
 Moon -118137-08-06 13:41 J -41427898.17 -41427897.93 -41427897.68 0.0146 0.0024 *
 Moon -118136-08-11 12:15 J -41427528.13 -41427527.99 -41427527.82 0.0147 0.0116
 Earth -118136-08-11 15:08 J -41427528.00 -41427527.87 -41427527.70 0.0147 0.0118 *
 Mercury -118131-10-12 04:05 J -41425640.42 -41425640.33 -41425640.22 0.0148 0.0123
 Mercury -118130-01-08 12:29 J -41425552.12 -41425551.98 -41425551.83 0.0148 0.0093
 Mercury -118130-04-06 20:39 J -41425463.80 -41425463.64 -41425463.46 0.0148 0.0063
 Mercury -118130-07-04 05:17 J -41425375.46 -41425375.28 -41425375.10 0.0148 0.0033
 Mercury -118130-09-30 13:41 J -41425287.12 -41425286.93 -41425286.75 0.0148 0.0003
 Mercury -118130-12-27 22:05 J -41425198.76 -41425198.58 -41425198.40 0.0148 0.0029
 Mercury -118129-03-25 06:15 J -41425110.40 -41425110.24 -41425110.05 0.0148 0.0061
 Mercury -118129-06-21 14:53 J -41425022.02 -41425021.88 -41425021.72 0.0148 0.0091
 Mercury -118129-09-17 23:17 J -41424933.62 -41424933.53 -41424933.41 0.0148 0.0123
 Mars -118127-03-30 23:46 J -41424374.60 -41424374.51 -41424374.42 0.0148 0.0141
 Mars -118125-03-02 23:32 J -41423671.65 -41423671.52 -41423671.35 0.0148 0.0127
 Venus -118122-06-11 15:51 J -41422475.91 -41422475.84 -41422475.73 0.0147 0.0134
 Venus -118121-01-24 08:24 J -41422249.31 -41422249.15 -41422248.96 0.0147 0.0092
 Venus -118121-09-07 00:44 J -41422022.67 -41422022.47 -41422022.25 0.0147 0.0050
 Venus -118120-04-21 17:03 J -41421796.01 -41421795.79 -41421795.56 0.0146 0.0008
 Venus -118120-12-04 08:53 J -41421569.34 -41421569.13 -41421568.90 0.0146 0.0034
 Venus -118119-07-19 00:44 J -41421342.65 -41421342.47 -41421342.27 0.0146 0.0076
 Venus -118118-03-02 16:20 J -41421115.94 -41421115.82 -41421115.67 0.0145 0.0117
 Earth -118097-02-14 23:17 J -41413461.75 -41413461.53 -41413461.29 0.0133 0.0051
 Moon -118097-02-15 02:53 J -41413461.61 -41413461.38 -41413461.13 0.0133 0.0047 *
 Moon -118096-02-18 00:15 J -41413092.71 -41413092.49 -41413092.25 0.0132 0.0052
 Earth -118096-02-18 03:36 J -41413092.58 -41413092.35 -41413092.12 0.0132 0.0055 *
 Mercury -118090-05-19 05:17 J -41410811.28 -41410811.28 -41410811.26 0.0131 0.0130
 Mercury -118090-08-15 08:24 J -41410723.21 -41410723.15 -41410723.08 0.0131 0.0115
 Mercury -118090-11-11 11:32 J -41410635.10 -41410635.02 -41410634.93 0.0131 0.0099
 Mercury -118089-02-07 14:39 J -41410546.99 -41410546.89 -41410546.78 0.0131 0.0084

Mercury -118089-05-05 17:46 J -41410458.87 -41410458.76 -41410458.64 0.0131 0.0069

Mercury -118089-08-01 20:53 J -41410370.75 -41410370.63 -41410370.50 0.0131 0.0053

Mercury -118089-10-29 00:00 J -41410282.63 -41410282.50 -41410282.37 0.0131 0.0038

Mercury -118088-01-25 03:08 J -41410194.51 -41410194.37 -41410194.24 0.0130 0.0023

Mercury -118088-04-23 06:00 J -41410106.38 -41410106.25 -41410106.11 0.0130 0.0009

Mercury -118088-07-20 09:08 J -41410018.26 -41410018.12 -41410017.98 0.0130 0.0007

Mercury -118088-10-16 12:15 J -41409930.13 -41409929.99 -41409929.86 0.0130 0.0023

Mercury -118087-01-12 15:08 J -41409842.00 -41409841.87 -41409841.74 0.0130 0.0038

Mercury -118087-04-10 18:00 J -41409753.87 -41409753.75 -41409753.62 0.0130 0.0053

Mercury -118087-07-07 21:08 J -41409665.73 -41409665.62 -41409665.50 0.0130 0.0067

Mercury -118087-10-04 00:00 J -41409577.60 -41409577.50 -41409577.39 0.0130 0.0082

Mercury -118087-12-31 03:08 J -41409489.46 -41409489.37 -41409489.28 0.0130 0.0097

Mercury -118086-03-29 06:00 J -41409401.31 -41409401.25 -41409401.18 0.0130 0.0112

Mercury -118086-06-25 08:53 J -41409313.15 -41409313.13 -41409313.09 0.0130 0.0126

Mars -118083-06-12 17:46 J -41408230.04 -41408229.76 -41408229.44 0.0131 0.0056

Venus -118079-10-27 01:12 J -41406632.45 -41406632.45 -41406632.43 0.0132 0.0131

Venus -118078-06-10 03:08 J -41406406.48 -41406406.37 -41406406.22 0.0132 0.0104

Venus -118077-01-22 05:32 J -41406180.43 -41406180.27 -41406180.09 0.0132 0.0075

Venus -118077-09-04 07:41 J -41405954.36 -41405954.18 -41405953.97 0.0132 0.0048

Venus -118076-04-18 10:20 J -41405728.28 -41405728.07 -41405727.86 0.0133 0.0018

Venus -118076-11-30 12:44 J -41405502.18 -41405501.97 -41405501.76 0.0133 0.0011

Venus -118075-07-14 14:53 J -41405276.07 -41405275.88 -41405275.67 0.0133 0.0040

Venus -118074-02-25 17:32 J -41405049.93 -41405049.77 -41405049.58 0.0133 0.0070

Venus -118074-10-09 20:10 J -41404823.78 -41404823.66 -41404823.50 0.0134 0.0099

Venus -118073-05-22 23:03 J -41404597.58 -41404597.54 -41404597.47 0.0134 0.0128

Earth -118053-08-06 17:32 J -41397217.01 -41397216.77 -41397216.51 0.0146 0.0029

Moon -118053-08-06 21:08 J -41397216.86 -41397216.62 -41397216.37 0.0146 0.0035 *

Moon -118052-08-11 18:44 J -41396846.85 -41396846.72 -41396846.56 0.0147 0.0120

Earth -118052-08-11 22:20 J -41396846.71 -41396846.57 -41396846.40 0.0147 0.0118 *

Mercury -118047-11-01 10:34 J -41394939.15 -41394939.06 -41394938.94 0.0148 0.0120

Mercury -118046-01-28 18:58 J -41394850.85 -41394850.71 -41394850.55 0.0148 0.0089
 Mercury -118046-04-27 03:22 J -41394762.53 -41394762.36 -41394762.19 0.0148 0.0059
 Mercury -118046-07-24 11:46 J -41394674.19 -41394674.01 -41394673.83 0.0148 0.0028
 Mercury -118046-10-20 20:10 J -41394585.84 -41394585.66 -41394585.47 0.0148 0.0003
 Mercury -118045-01-17 04:34 J -41394497.49 -41394497.31 -41394497.12 0.0148 0.0033
 Mercury -118045-04-14 12:58 J -41394409.12 -41394408.96 -41394408.78 0.0148 0.0064
 Mercury -118045-07-11 21:22 J -41394320.74 -41394320.61 -41394320.45 0.0148 0.0096
 Mercury -118045-10-08 06:00 J -41394232.33 -41394232.25 -41394232.14 0.0148 0.0127
 Mars -118043-11-24 05:46 J -41393455.52 -41393455.26 -41393454.97 0.0148 0.0050
 Venus -118038-09-23 10:34 J -41391691.19 -41391691.06 -41391690.91 0.0147 0.0115
 Venus -118037-05-07 02:53 J -41391464.57 -41391464.38 -41391464.18 0.0147 0.0073
 Venus -118037-12-19 19:12 J -41391237.92 -41391237.70 -41391237.48 0.0147 0.0030
 Venus -118036-08-03 11:32 J -41391011.25 -41391011.02 -41391010.80 0.0146 0.0012
 Venus -118035-03-18 03:22 J -41390784.56 -41390784.36 -41390784.14 0.0146 0.0054
 Venus -118035-10-30 18:58 J -41390557.87 -41390557.71 -41390557.53 0.0146 0.0096
 Venus -118034-06-14 10:34 J -41390331.12 -41390331.06 -41390330.97 0.0145 0.0136
 Earth -118013-02-15 11:17 J -41382780.26 -41382780.03 -41382779.79 0.0133 0.0045
 Moon -118013-02-15 13:56 J -41382780.15 -41382779.92 -41382779.67 0.0133 0.0050 *
 Moon -118012-02-18 12:15 J -41382411.20 -41382410.99 -41382410.76 0.0132 0.0063
 Earth -118012-02-18 15:22 J -41382411.07 -41382410.86 -41382410.62 0.0132 0.0061 *
 Mercury -118006-06-08 12:44 J -41380110.00 -41380109.97 -41380109.93 0.0131 0.0125
 Mercury -118006-09-04 15:51 J -41380021.91 -41380021.84 -41380021.76 0.0131 0.0110
 Mercury -118006-12-01 18:58 J -41379933.80 -41379933.71 -41379933.61 0.0131 0.0094
 Mercury -118005-02-27 22:05 J -41379845.68 -41379845.58 -41379845.47 0.0131 0.0079
 Mercury -118005-05-26 01:12 J -41379757.56 -41379757.45 -41379757.33 0.0131 0.0064
 Mercury -118005-08-22 04:20 J -41379669.44 -41379669.32 -41379669.19 0.0131 0.0048
 Mercury -118005-11-18 07:27 J -41379581.32 -41379581.19 -41379581.06 0.0131 0.0033
 Mercury -118004-02-14 10:34 J -41379493.20 -41379493.06 -41379492.93 0.0131 0.0018
 Mercury -118004-05-13 13:27 J -41379405.07 -41379404.94 -41379404.80 0.0130 0.0005
 Mercury -118004-08-09 16:34 J -41379316.94 -41379316.81 -41379316.67 0.0130 0.0013

Mercury -118004-11-05 19:41 J -41379228.82 -41379228.68 -41379228.55 0.0130 0.0028

Mercury -118003-02-01 22:34 J -41379140.69 -41379140.56 -41379140.43 0.0130 0.0043

Mercury -118003-05-01 01:27 J -41379052.55 -41379052.44 -41379052.31 0.0130 0.0058

Mercury -118003-07-28 04:34 J -41378964.42 -41378964.31 -41378964.20 0.0130 0.0072

Mercury -118003-10-24 07:27 J -41378876.28 -41378876.19 -41378876.09 0.0130 0.0087

Mercury -118002-01-20 10:34 J -41378788.14 -41378788.06 -41378787.98 0.0130 0.0102

Mercury -118002-04-18 13:27 J -41378700.00 -41378699.94 -41378699.88 0.0130 0.0117

118TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 118th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-118000-03-05 12:00 J	-41378013.26	-41378013.00	-41378012.72	0.0131	0.0073		
Venus	-117994-02-07 16:05 J	-41375847.91	-41375847.83	-41375847.72	0.0132	0.0117		
Venus	-117994-09-21 18:00 J	-41375621.89	-41375621.75	-41375621.58	0.0132	0.0089		
Venus	-117993-05-04 20:24 J	-41375395.83	-41375395.65	-41375395.45	0.0132	0.0060		
Venus	-117993-12-16 22:48 J	-41375169.75	-41375169.55	-41375169.34	0.0132	0.0031		
Venus	-117992-07-31 01:12 J	-41374943.66	-41374943.45	-41374943.24	0.0133	0.0003		
Venus	-117991-03-14 03:36 J	-41374717.55	-41374717.35	-41374717.14	0.0133	0.0027		
Venus	-117991-10-26 06:00 J	-41374491.43	-41374491.25	-41374491.05	0.0133	0.0056		
Venus	-117990-06-09 08:39 J	-41374265.29	-41374265.14	-41374264.97	0.0133	0.0085		

Venus -117989-01-21 11:17 J -41374039.12 -41374039.03 -41374038.91 0.0134 0.0115
 Earth -117969-08-07 01:56 J -41366535.67 -41366535.42 -41366535.16 0.0146 0.0026
 Moon -117969-08-07 05:46 J -41366535.51 -41366535.26 -41366535.00 0.0146 0.0019 *
 Moon -117968-08-12 02:53 J -41366165.52 -41366165.38 -41366165.21 0.0147 0.0116
 Earth -117968-08-12 06:44 J -41366165.36 -41366165.22 -41366165.06 0.0147 0.0120 *
 Mercury -117963-08-25 09:36 J -41364326.14 -41364326.10 -41364326.06 0.0148 0.0144
 Mercury -117963-11-21 17:32 J -41364237.88 -41364237.77 -41364237.64 0.0148 0.0114
 Mercury -117962-02-18 01:41 J -41364149.57 -41364149.43 -41364149.26 0.0148 0.0085
 Mercury -117962-05-17 10:20 J -41364061.24 -41364061.07 -41364060.90 0.0148 0.0054
 Mercury -117962-08-13 18:44 J -41363972.91 -41363972.72 -41363972.54 0.0148 0.0023
 Mercury -117962-11-10 03:08 J -41363884.56 -41363884.37 -41363884.19 0.0148 0.0008
 Mercury -117961-02-06 11:32 J -41363796.20 -41363796.02 -41363795.84 0.0148 0.0038
 Mercury -117961-05-04 19:56 J -41363707.83 -41363707.67 -41363707.50 0.0148 0.0069
 Mercury -117961-08-01 04:20 J -41363619.45 -41363619.32 -41363619.17 0.0148 0.0101
 Mercury -117961-10-28 12:58 J -41363531.04 -41363530.96 -41363530.87 0.0148 0.0132
 Mars -117958-07-20 14:10 J -41362536.18 -41362535.91 -41362535.63 0.0148 0.0045
 Venus -117954-05-23 13:27 J -41361133.01 -41361132.94 -41361132.86 0.0147 0.0138
 Venus -117953-01-05 05:46 J -41360906.42 -41360906.26 -41360906.08 0.0147 0.0095
 Venus -117953-08-18 22:05 J -41360679.78 -41360679.58 -41360679.36 0.0147 0.0053
 Venus -117952-04-02 14:39 J -41360453.11 -41360452.89 -41360452.66 0.0146 0.0010
 Venus -117952-11-15 06:44 J -41360226.44 -41360226.22 -41360226.00 0.0146 0.0033
 Venus -117951-06-29 22:20 J -41359999.75 -41359999.57 -41359999.36 0.0146 0.0075
 Venus -117950-02-11 14:24 J -41359773.03 -41359772.90 -41359772.76 0.0145 0.0116
 Earth -117929-02-15 23:32 J -41352098.75 -41352098.52 -41352098.27 0.0133 0.0039
 Moon -117929-02-16 02:10 J -41352098.66 -41352098.41 -41352098.15 0.0133 0.0034 *
 Moon -117928-02-19 01:41 J -41351729.64 -41351729.43 -41351729.20 0.0132 0.0063
 Earth -117928-02-19 03:51 J -41351729.55 -41351729.34 -41351729.12 0.0132 0.0067 *
 Mercury -117922-06-28 20:10 J -41349408.70 -41349408.66 -41349408.60 0.0131 0.0120
 Mercury -117922-09-24 23:32 J -41349320.60 -41349320.52 -41349320.44 0.0131 0.0104
 Mercury -117922-12-22 02:39 J -41349232.49 -41349232.39 -41349232.29 0.0131 0.0089

Mercury -117921-03-19 05:32 J -41349144.37 -41349144.27 -41349144.15 0.0131 0.0074

Mercury -117921-06-15 08:53 J -41349056.25 -41349056.13 -41349056.01 0.0131 0.0058

Mercury -117921-09-11 12:00 J -41348968.13 -41348968.00 -41348967.87 0.0131 0.0043

Mercury -117921-12-08 14:53 J -41348880.01 -41348879.88 -41348879.74 0.0131 0.0028

Mercury -117920-03-06 18:00 J -41348791.88 -41348791.75 -41348791.61 0.0131 0.0013

Mercury -117920-06-02 21:08 J -41348703.76 -41348703.62 -41348703.48 0.0131 0.0003

Jupiter -117920-08-26 19:12 J -41348618.97 -41348618.70 -41348618.35 0.0131 0.0104

Mercury -117920-08-30 00:15 J -41348615.63 -41348615.49 -41348615.36 0.0131 0.0018

Mercury -117920-11-26 03:08 J -41348527.50 -41348527.37 -41348527.24 0.0131 0.0033

Mercury -117919-02-22 06:15 J -41348439.37 -41348439.24 -41348439.12 0.0131 0.0048

Mercury -117919-05-21 09:08 J -41348351.23 -41348351.12 -41348351.00 0.0131 0.0063

Mercury -117919-08-17 12:15 J -41348263.10 -41348262.99 -41348262.88 0.0131 0.0078

Mercury -117919-11-13 15:08 J -41348174.96 -41348174.87 -41348174.77 0.0131 0.0093

Mercury -117918-02-09 18:00 J -41348086.82 -41348086.75 -41348086.67 0.0131 0.0108

Mercury -117918-05-08 20:53 J -41347998.66 -41347998.63 -41347998.58 0.0131 0.0122

Mars -117916-10-29 17:03 J -41347094.11 -41347093.79 -41347093.46 0.0131 0.0004

Venus -117911-10-08 05:46 J -41345289.28 -41345289.26 -41345289.21 0.0132 0.0130

Venus -117910-05-22 07:41 J -41345063.29 -41345063.18 -41345063.03 0.0132 0.0102

Venus -117909-01-03 10:05 J -41344837.24 -41344837.08 -41344836.89 0.0132 0.0073

Venus -117909-08-16 12:29 J -41344611.17 -41344610.98 -41344610.77 0.0132 0.0045

Venus -117908-03-30 15:08 J -41344385.08 -41344384.87 -41344384.66 0.0132 0.0015

Venus -117908-11-11 17:32 J -41344158.98 -41344158.77 -41344158.56 0.0133 0.0014

Venus -117907-06-25 20:10 J -41343932.86 -41343932.66 -41343932.47 0.0133 0.0043

Venus -117906-02-06 22:34 J -41343706.73 -41343706.56 -41343706.38 0.0133 0.0073

Venus -117906-09-21 01:12 J -41343480.57 -41343480.45 -41343480.30 0.0133 0.0103

Venus -117905-05-04 04:05 J -41343254.35 -41343254.33 -41343254.29 0.0134 0.0132

Earth -117885-08-07 16:20 J -41335854.07 -41335853.82 -41335853.56 0.0146 0.0016

Moon -117885-08-07 19:27 J -41335853.95 -41335853.69 -41335853.44 0.0146 0.0024 *

Moon -117884-08-12 17:17 J -41335483.87 -41335483.78 -41335483.66 0.0147 0.0133

Earth -117884-08-12 20:39 J -41335483.74 -41335483.64 -41335483.50 0.0147 0.0130 *

Mercury -117879-09-14 18:15 J -41333624.82 -41333624.74 -41333624.66 0.0148 0.0132

Mercury -117879-12-12 02:24 J -41333536.53 -41333536.40 -41333536.27 0.0148 0.0103

Mercury -117878-03-10 10:34 J -41333448.21 -41333448.06 -41333447.89 0.0148 0.0073

Mercury -117878-06-06 18:58 J -41333359.89 -41333359.71 -41333359.53 0.0148 0.0042

Mercury -117878-09-03 03:22 J -41333271.55 -41333271.36 -41333271.17 0.0148 0.0012

Mercury -117878-11-30 11:46 J -41333183.20 -41333183.01 -41333182.82 0.0148 0.0019

Mercury -117877-02-26 20:10 J -41333094.83 -41333094.66 -41333094.48 0.0148 0.0050

Mercury -117877-05-25 04:34 J -41333006.46 -41333006.31 -41333006.15 0.0148 0.0081

Mercury -117877-08-21 13:12 J -41332918.07 -41332917.95 -41332917.83 0.0148 0.0112

Mercury -117877-11-17 21:22 J -41332829.64 -41332829.61 -41332829.54 0.0148 0.0144

Mars -117875-04-12 05:03 J -41332319.42 -41332319.29 -41332319.12 0.0148 0.0127

Mars -117873-03-15 05:03 J -41331616.35 -41331616.29 -41331616.22 0.0148 0.0144

Venus -117870-09-04 11:32 J -41330348.15 -41330348.02 -41330347.87 0.0147 0.0115

Venus -117869-04-18 03:51 J -41330121.53 -41330121.34 -41330121.14 0.0147 0.0073

Venus -117869-11-30 20:10 J -41329894.87 -41329894.66 -41329894.43 0.0147 0.0030

Venus -117868-07-15 12:29 J -41329668.20 -41329667.98 -41329667.75 0.0146 0.0013

Venus -117867-02-27 04:34 J -41329441.52 -41329441.31 -41329441.10 0.0146 0.0055

Venus -117867-10-11 20:10 J -41329214.81 -41329214.66 -41329214.48 0.0146 0.0098

Venus -117866-05-26 12:15 J -41328988.05 -41328987.99 -41328987.92 0.0145 0.0139

Moon -117846-02-12 06:15 J -41321786.27 -41321786.24 -41321786.19 0.0133 0.0131

Earth -117845-02-16 12:58 J -41321417.19 -41321416.96 -41321416.70 0.0133 0.0031

Moon -117845-02-16 14:10 J -41321417.15 -41321416.91 -41321416.65 0.0133 0.0037 *

Moon -117844-02-19 16:05 J -41321048.02 -41321047.83 -41321047.62 0.0133 0.0079

Earth -117844-02-19 17:17 J -41321047.97 -41321047.78 -41321047.56 0.0133 0.0075 *

Mercury -117838-04-22 00:44 J -41318795.48 -41318795.47 -41318795.44 0.0131 0.0129

Mercury -117838-07-19 04:05 J -41318707.39 -41318707.33 -41318707.26 0.0131 0.0113

Mercury -117838-10-15 07:12 J -41318619.29 -41318619.20 -41318619.11 0.0131 0.0098

Mercury -117837-01-11 10:20 J -41318531.17 -41318531.07 -41318530.96 0.0131 0.0082

Mercury -117837-04-08 13:27 J -41318443.05 -41318442.94 -41318442.82 0.0131 0.0067

Mercury -117837-07-05 16:34 J -41318354.93 -41318354.81 -41318354.68 0.0131 0.0052

Jupiter -117837-07-21 12:15 J -41318339.39 -41318338.99 -41318338.54 0.0131 0.0070
 Mercury -117837-10-01 19:41 J -41318266.81 -41318266.68 -41318266.55 0.0131 0.0036
 Mercury -117837-12-28 22:48 J -41318178.68 -41318178.55 -41318178.42 0.0131 0.0021
 Mercury -117836-03-27 01:56 J -41318090.56 -41318090.42 -41318090.29 0.0131 0.0006
 Mercury -117836-06-23 04:48 J -41318002.43 -41318002.30 -41318002.16 0.0131 0.0010
 Mercury -117836-09-19 07:56 J -41317914.30 -41317914.17 -41317914.04 0.0131 0.0024
 Mercury -117836-12-16 10:48 J -41317826.17 -41317826.05 -41317825.91 0.0131 0.0040
 Mercury -117835-03-14 13:56 J -41317738.04 -41317737.92 -41317737.79 0.0131 0.0054
 Mercury -117835-06-10 16:48 J -41317649.91 -41317649.80 -41317649.68 0.0131 0.0070
 Mercury -117835-09-06 19:41 J -41317561.77 -41317561.68 -41317561.57 0.0131 0.0085
 Mercury -117835-12-03 22:48 J -41317473.63 -41317473.55 -41317473.46 0.0131 0.0099
 Mercury -117834-03-02 01:41 J -41317385.48 -41317385.43 -41317385.36 0.0131 0.0114
 Mercury -117834-05-29 04:34 J -41317297.32 -41317297.31 -41317297.28 0.0131 0.0129
 Mars -117833-07-22 15:51 J -41316876.92 -41316876.84 -41316876.70 0.0131 0.0123
 Mars -117831-06-25 00:44 J -41316174.70 -41316174.47 -41316174.20 0.0131 0.0083
 Venus -117826-01-19 21:51 J -41314504.68 -41314504.59 -41314504.47 0.0132 0.0114
 Venus -117826-09-03 00:15 J -41314278.64 -41314278.49 -41314278.32 0.0132 0.0085
 Venus -117825-04-16 02:39 J -41314052.58 -41314052.39 -41314052.20 0.0132 0.0056
 Venus -117825-11-28 05:03 J -41313826.50 -41313826.29 -41313826.08 0.0132 0.0027
 Venus -117824-07-12 07:27 J -41313600.40 -41313600.19 -41313599.98 0.0133 0.0002
 Venus -117823-02-23 10:05 J -41313374.29 -41313374.08 -41313373.88 0.0133 0.0031
 Venus -117823-10-07 12:29 J -41313148.16 -41313147.98 -41313147.79 0.0133 0.0061
 Venus -117822-05-21 15:08 J -41312922.02 -41312921.87 -41312921.71 0.0133 0.0091
 Venus -117821-01-02 17:32 J -41312695.84 -41312695.77 -41312695.66 0.0134 0.0121
 Earth -117801-08-08 06:44 J -41305172.47 -41305172.22 -41305171.96 0.0146 0.0006
 Moon -117801-08-08 09:22 J -41305172.37 -41305172.11 -41305171.85 0.0146 0.0002 *
 Moon -117800-08-13 08:10 J -41304802.23 -41304802.16 -41304802.04 0.0147 0.0135
 Earth -117800-08-13 11:17 J -41304802.09 -41304802.03 -41304801.94 0.0147 0.0140 *
 Mercury -117795-10-05 02:53 J -41302923.47 -41302923.38 -41302923.25 0.0148 0.0121
 Mercury -117794-01-01 11:17 J -41302835.17 -41302835.03 -41302834.87 0.0148 0.0090

Mercury -117794-03-30 19:41 J -41302746.84 -41302746.68 -41302746.51 0.0148 0.0060
 Mercury -117794-06-27 04:05 J -41302658.51 -41302658.33 -41302658.15 0.0148 0.0029
 Mercury -117794-09-23 12:29 J -41302570.17 -41302569.98 -41302569.79 0.0148 0.0001
 Mercury -117794-12-20 20:53 J -41302481.81 -41302481.63 -41302481.45 0.0148 0.0032
 Mercury -117793-03-18 05:17 J -41302393.45 -41302393.28 -41302393.11 0.0148 0.0063
 Mercury -117793-06-14 13:56 J -41302305.07 -41302304.92 -41302304.78 0.0149 0.0094
 Mercury -117793-09-10 22:05 J -41302216.66 -41302216.58 -41302216.47 0.0149 0.0126
 Mars -117791-12-07 00:29 J -41301399.76 -41301399.48 -41301399.19 0.0148 0.0023
 Venus -117786-05-04 18:58 J -41299789.80 -41299789.71 -41299789.62 0.0147 0.0134
 Venus -117786-12-17 11:03 J -41299563.20 -41299563.04 -41299562.85 0.0147 0.0091
 Venus -117785-07-31 03:36 J -41299336.55 -41299336.35 -41299336.13 0.0147 0.0048
 Venus -117784-03-14 20:10 J -41299109.89 -41299109.66 -41299109.44 0.0147 0.0005
 Venus -117784-10-27 12:15 J -41298883.21 -41298882.99 -41298882.77 0.0146 0.0038
 Venus -117783-06-11 03:51 J -41298656.51 -41298656.34 -41298656.14 0.0146 0.0081
 Venus -117782-01-23 19:41 J -41298429.78 -41298429.68 -41298429.54 0.0146 0.0123
 Earth -117762-02-12 23:03 J -41291104.60 -41291104.54 -41291104.45 0.0133 0.0128
 Earth -117761-02-17 04:48 J -41290735.55 -41290735.30 -41290735.05 0.0133 0.0021
 Moon -117761-02-17 05:03 J -41290735.55 -41290735.29 -41290735.02 0.0133 0.0015 *
 Moon -117760-02-20 08:39 J -41290366.32 -41290366.14 -41290365.93 0.0132 0.0080
 Earth -117760-02-20 08:53 J -41290366.31 -41290366.13 -41290365.92 0.0132 0.0085 *
 Mercury -117754-05-12 09:08 J -41288094.17 -41288094.12 -41288094.07 0.0131 0.0121
 Mercury -117754-08-08 12:00 J -41288006.07 -41288006.00 -41288005.91 0.0131 0.0106
 Mercury -117754-11-04 15:08 J -41287917.96 -41287917.87 -41287917.76 0.0131 0.0091
 Mercury -117753-01-31 18:29 J -41287829.84 -41287829.73 -41287829.62 0.0131 0.0075
 Mercury -117753-04-28 21:36 J -41287741.72 -41287741.60 -41287741.48 0.0131 0.0059
 Mercury -117753-07-26 00:29 J -41287653.60 -41287653.48 -41287653.34 0.0131 0.0045
 Mercury -117753-10-22 03:51 J -41287565.48 -41287565.34 -41287565.21 0.0131 0.0029
 Mercury -117752-01-18 06:44 J -41287477.35 -41287477.22 -41287477.08 0.0131 0.0014
 Mercury -117752-04-16 09:51 J -41287389.22 -41287389.09 -41287388.95 0.0131 0.0002
 Mercury -117752-07-13 12:58 J -41287301.10 -41287300.96 -41287300.83 0.0131 0.0017

Mercury -117752-10-09 15:51 J -41287212.97 -41287212.84 -41287212.70 0.0131 0.0032
 Mercury -117751-01-05 18:58 J -41287124.84 -41287124.71 -41287124.58 0.0131 0.0047
 Mercury -117751-04-03 21:51 J -41287036.70 -41287036.59 -41287036.47 0.0131 0.0062
 Mercury -117751-07-01 00:44 J -41286948.57 -41286948.47 -41286948.35 0.0131 0.0077
 Mercury -117751-09-27 03:51 J -41286860.43 -41286860.34 -41286860.24 0.0131 0.0091
 Mercury -117751-12-24 06:58 J -41286772.29 -41286772.21 -41286772.14 0.0131 0.0106
 Mercury -117750-03-22 09:36 J -41286684.14 -41286684.10 -41286684.04 0.0131 0.0121
 Mars -117748-03-18 01:56 J -41285957.72 -41285957.42 -41285957.11 0.0131 0.0043
 Venus -117743-09-19 12:44 J -41283946.01 -41283945.97 -41283945.89 0.0132 0.0126
 Venus -117742-05-03 15:08 J -41283720.00 -41283719.87 -41283719.72 0.0132 0.0097
 Venus -117742-12-15 17:32 J -41283493.95 -41283493.77 -41283493.59 0.0132 0.0068
 Venus -117741-07-28 19:41 J -41283267.87 -41283267.68 -41283267.47 0.0132 0.0040
 Venus -117740-03-11 22:20 J -41283041.78 -41283041.57 -41283041.36 0.0132 0.0010
 Venus -117740-10-24 00:44 J -41282815.67 -41282815.47 -41282815.26 0.0133 0.0020
 Venus -117739-06-07 03:22 J -41282589.56 -41282589.36 -41282589.17 0.0133 0.0049
 Venus -117738-01-19 05:46 J -41282363.42 -41282363.26 -41282363.08 0.0133 0.0079
 Venus -117738-09-02 08:39 J -41282137.26 -41282137.14 -41282137.02 0.0134 0.0109
 Moon -117718-08-04 18:58 J -41274860.80 -41274860.71 -41274860.58 0.0146 0.0130
 Earth -117718-08-04 19:41 J -41274860.75 -41274860.68 -41274860.56 0.0146 0.0136 *
 Earth -117717-08-08 23:32 J -41274490.77 -41274490.52 -41274490.26 0.0146 0.0007
 Moon -117717-08-09 00:58 J -41274490.73 -41274490.46 -41274490.20 0.0146 0.0001 *
 Mercury -117711-07-29 04:48 J -41272310.37 -41272310.30 -41272310.22 0.0148 0.0135
 Mercury -117711-10-25 12:44 J -41272222.08 -41272221.97 -41272221.83 0.0148 0.0105
 Mercury -117710-01-21 21:08 J -41272133.77 -41272133.62 -41272133.45 0.0148 0.0075
 Mercury -117710-04-20 05:32 J -41272045.44 -41272045.27 -41272045.09 0.0148 0.0045
 Mercury -117710-07-17 13:56 J -41271957.11 -41271956.92 -41271956.73 0.0148 0.0014
 Mercury -117710-10-13 22:20 J -41271868.76 -41271868.57 -41271868.39 0.0148 0.0016
 Mercury -117709-01-10 06:29 J -41271780.40 -41271780.23 -41271780.04 0.0149 0.0048
 Mercury -117709-04-07 14:53 J -41271692.02 -41271691.88 -41271691.71 0.0149 0.0079
 Mercury -117709-07-04 23:32 J -41271603.64 -41271603.52 -41271603.38 0.0149 0.0110

Mercury -117709-10-01 08:10 J -41271515.21 -41271515.16 -41271515.10 0.0149 0.0141
 Mars -117706-08-03 01:12 J -41270479.69 -41270479.45 -41270479.20 0.0148 0.0083
 Venus -117702-08-16 20:10 J -41269004.80 -41269004.66 -41269004.50 0.0147 0.0108
 Venus -117701-03-30 12:44 J -41268778.16 -41268777.97 -41268777.76 0.0147 0.0065
 Venus -117701-11-12 05:03 J -41268551.51 -41268551.29 -41268551.06 0.0147 0.0022
 Venus -117700-06-26 21:22 J -41268324.83 -41268324.61 -41268324.39 0.0146 0.0022
 Venus -117699-02-08 13:12 J -41268098.14 -41268097.95 -41268097.74 0.0146 0.0065
 Venus -117699-09-23 05:17 J -41267871.42 -41267871.28 -41267871.12 0.0146 0.0107
 Earth -117678-02-13 14:53 J -41260422.97 -41260422.88 -41260422.73 0.0133 0.0118
 Moon -117678-02-13 15:51 J -41260422.95 -41260422.84 -41260422.68 0.0133 0.0111 *
 Moon -117677-02-17 19:56 J -41260053.92 -41260053.67 -41260053.41 0.0133 0.0017
 Earth -117677-02-17 20:53 J -41260053.88 -41260053.63 -41260053.38 0.0133 0.0010 *
 Earth -117676-02-21 00:44 J -41259684.63 -41259684.47 -41259684.28 0.0132 0.0095
 Moon -117676-02-21 01:56 J -41259684.57 -41259684.42 -41259684.25 0.0132 0.0100 *
 Mercury -117670-03-05 13:56 J -41257480.94 -41257480.92 -41257480.90 0.0131 0.0129
 Mercury -117670-06-01 17:03 J -41257392.85 -41257392.79 -41257392.72 0.0131 0.0114
 Mercury -117670-08-28 19:56 J -41257304.74 -41257304.67 -41257304.57 0.0131 0.0099
 Mercury -117670-11-24 23:17 J -41257216.63 -41257216.53 -41257216.42 0.0131 0.0083
 Mercury -117669-02-21 02:24 J -41257128.51 -41257128.40 -41257128.28 0.0131 0.0068
 Mercury -117669-05-19 05:32 J -41257040.39 -41257040.27 -41257040.14 0.0131 0.0052
 Mercury -117669-08-15 08:39 J -41256952.27 -41256952.14 -41256952.01 0.0131 0.0037
 Mercury -117669-11-11 11:46 J -41256864.14 -41256864.01 -41256863.88 0.0131 0.0022
 Mercury -117668-02-07 14:53 J -41256776.02 -41256775.88 -41256775.75 0.0131 0.0007
 Mercury -117668-05-06 17:46 J -41256687.89 -41256687.76 -41256687.62 0.0131 0.0009
 Mercury -117668-08-02 20:53 J -41256599.76 -41256599.63 -41256599.50 0.0130 0.0024
 Mercury -117668-10-30 00:00 J -41256511.63 -41256511.50 -41256511.37 0.0130 0.0039
 Mercury -117667-01-26 02:53 J -41256423.50 -41256423.38 -41256423.26 0.0130 0.0054
 Mercury -117667-04-24 05:46 J -41256335.37 -41256335.26 -41256335.14 0.0130 0.0069
 Mercury -117667-07-21 08:39 J -41256247.23 -41256247.14 -41256247.03 0.0130 0.0084
 Mercury -117667-10-17 11:32 J -41256159.09 -41256159.02 -41256158.92 0.0130 0.0099

Mercury -117666-01-13 14:39 J -41256070.95 -41256070.89 -41256070.82 0.0130 0.0113

Mercury -117666-04-11 17:32 J -41255982.79 -41255982.77 -41255982.73 0.0130 0.0128

Mars -117664-11-11 10:20 J -41255038.37 -41255038.07 -41255037.75 0.0131 0.0037

Venus -117658-01-01 05:32 J -41253161.38 -41253161.27 -41253161.15 0.0132 0.0109

Venus -117658-08-15 07:56 J -41252935.34 -41252935.17 -41252935.00 0.0132 0.0080

Venus -117657-03-28 10:05 J -41252709.27 -41252709.08 -41252708.88 0.0132 0.0051

Venus -117657-11-09 12:29 J -41252483.18 -41252482.98 -41252482.77 0.0132 0.0022

Venus -117656-06-23 14:53 J -41252257.09 -41252256.88 -41252256.67 0.0133 0.0008

Venus -117655-02-04 17:17 J -41252030.98 -41252030.78 -41252030.57 0.0133 0.0037

Venus -117655-09-18 19:41 J -41251804.85 -41251804.68 -41251804.49 0.0133 0.0067

Venus -117654-05-02 22:05 J -41251578.71 -41251578.58 -41251578.42 0.0133 0.0098

Venus -117654-12-15 00:58 J -41251352.51 -41251352.46 -41251352.39 0.0134 0.0127

Earth -117634-08-05 08:24 J -41244179.25 -41244179.15 -41244179.02 0.0146 0.0128

Moon -117634-08-05 09:08 J -41244179.20 -41244179.12 -41244179.02 0.0146 0.0134 *

Moon -117633-08-09 12:00 J -41243809.26 -41243809.00 -41243808.73 0.0146 0.0022

Earth -117633-08-09 12:00 J -41243809.25 -41243809.00 -41243808.75 0.0146 0.0015 *

Mercury -117627-08-18 12:58 J -41241609.05 -41241608.96 -41241608.85 0.0148 0.0125

Mercury -117627-11-14 21:22 J -41241520.75 -41241520.61 -41241520.47 0.0148 0.0095

Mercury -117626-02-11 05:32 J -41241432.43 -41241432.27 -41241432.10 0.0148 0.0065

Mercury -117626-05-10 13:56 J -41241344.10 -41241343.92 -41241343.74 0.0149 0.0034

Mercury -117626-08-06 22:20 J -41241255.76 -41241255.57 -41241255.39 0.0149 0.0004

Mercury -117626-11-03 06:44 J -41241167.40 -41241167.22 -41241167.04 0.0149 0.0027

Mercury -117625-01-30 15:08 J -41241079.04 -41241078.87 -41241078.70 0.0149 0.0058

Mercury -117625-04-27 23:32 J -41240990.67 -41240990.52 -41240990.37 0.0149 0.0089

Mercury -117625-07-25 08:10 J -41240902.27 -41240902.16 -41240902.05 0.0149 0.0120

Mars -117623-04-25 15:36 J -41240263.08 -41240262.85 -41240262.61 0.0149 0.0088

Venus -117618-04-16 02:39 J -41238446.48 -41238446.39 -41238446.26 0.0147 0.0128

Venus -117618-11-28 19:41 J -41238219.87 -41238219.68 -41238219.50 0.0147 0.0084

Venus -117617-07-12 12:00 J -41237993.21 -41237993.00 -41237992.78 0.0147 0.0040

Venus -117616-02-24 04:34 J -41237766.54 -41237766.31 -41237766.09 0.0147 0.0004

Venus -117616-10-08 20:39 J -41237539.85 -41237539.64 -41237539.42 0.0146 0.0047
 Venus -117615-05-23 12:44 J -41237313.14 -41237312.97 -41237312.79 0.0146 0.0090
 Venus -117614-01-05 04:20 J -41237086.39 -41237086.32 -41237086.21 0.0146 0.0133
 Earth -117594-02-14 07:27 J -41229741.33 -41229741.19 -41229741.03 0.0133 0.0106
 Moon -117594-02-14 09:22 J -41229741.23 -41229741.11 -41229740.97 0.0133 0.0113 *
 Moon -117593-02-18 11:03 J -41229372.30 -41229372.04 -41229371.78 0.0133 0.0007
 Earth -117593-02-18 13:12 J -41229372.21 -41229371.95 -41229371.70 0.0133 0.0002 *
 Earth -117592-02-21 17:03 J -41229002.93 -41229002.79 -41229002.63 0.0132 0.0105
 Moon -117592-02-21 18:15 J -41229002.88 -41229002.74 -41229002.55 0.0132 0.0100 *
 Mercury -117586-03-25 21:51 J -41226779.63 -41226779.59 -41226779.54 0.0131 0.0122
 Mercury -117586-06-22 00:58 J -41226691.53 -41226691.46 -41226691.37 0.0131 0.0106
 Mercury -117586-09-18 04:20 J -41226603.42 -41226603.32 -41226603.22 0.0131 0.0091
 Mercury -117586-12-15 07:12 J -41226515.30 -41226515.20 -41226515.08 0.0131 0.0076
 Mercury -117585-03-12 10:20 J -41226427.18 -41226427.07 -41226426.94 0.0131 0.0061
 Mercury -117585-06-08 13:41 J -41226339.06 -41226338.93 -41226338.81 0.0130 0.0045
 Mercury -117585-09-04 16:34 J -41226250.94 -41226250.81 -41226250.67 0.0130 0.0030
 Mercury -117585-12-01 19:41 J -41226162.81 -41226162.68 -41226162.54 0.0130 0.0015
 Mercury -117584-02-27 22:48 J -41226074.69 -41226074.55 -41226074.41 0.0130 0.0001
 Mercury -117584-05-27 01:41 J -41225986.56 -41225986.43 -41225986.29 0.0130 0.0016
 Mercury -117584-08-23 04:48 J -41225898.43 -41225898.30 -41225898.17 0.0130 0.0031
 Mercury -117584-11-19 07:41 J -41225810.30 -41225810.18 -41225810.05 0.0130 0.0046
 Mercury -117583-02-15 10:48 J -41225722.17 -41225722.05 -41225721.93 0.0130 0.0060
 Mercury -117583-05-14 13:41 J -41225634.03 -41225633.93 -41225633.82 0.0130 0.0075
 Mercury -117583-08-10 16:34 J -41225545.90 -41225545.81 -41225545.71 0.0130 0.0090
 Mercury -117583-11-06 19:41 J -41225457.76 -41225457.68 -41225457.60 0.0130 0.0105
 Mercury -117582-02-02 22:34 J -41225369.61 -41225369.56 -41225369.50 0.0130 0.0119
 Mars -117581-08-04 11:03 J -41224821.25 -41224821.04 -41224820.77 0.0130 0.0090
 Mars -117579-07-07 18:29 J -41224118.86 -41224118.73 -41224118.57 0.0131 0.0116
 Venus -117575-08-31 19:41 J -41222602.75 -41222602.68 -41222602.59 0.0131 0.0122
 Venus -117574-04-14 21:51 J -41222376.73 -41222376.59 -41222376.43 0.0132 0.0093

Venus -117574-11-27 00:00 J -41222150.68 -41222150.50 -41222150.31 0.0132 0.0064
 Venus -117573-07-10 02:24 J -41221924.60 -41221924.40 -41221924.20 0.0132 0.0034
 Venus -117572-02-21 04:48 J -41221698.51 -41221698.30 -41221698.09 0.0132 0.0005
 Venus -117572-10-05 06:58 J -41221472.41 -41221472.21 -41221472.00 0.0133 0.0025
 Venus -117571-05-19 09:08 J -41221246.30 -41221246.12 -41221245.91 0.0133 0.0055
 Venus -117571-12-31 11:46 J -41221020.16 -41221020.01 -41221019.84 0.0133 0.0084
 Venus -117570-08-14 14:10 J -41220794.00 -41220793.91 -41220793.79 0.0133 0.0115
 Earth -117550-08-05 19:12 J -41213497.81 -41213497.70 -41213497.54 0.0146 0.0123
 Moon -117550-08-05 21:22 J -41213497.74 -41213497.61 -41213497.46 0.0146 0.0119 *
 Moon -117549-08-09 22:34 J -41213127.83 -41213127.56 -41213127.30 0.0146 0.0013
 Earth -117549-08-09 23:17 J -41213127.78 -41213127.53 -41213127.28 0.0146 0.0020 *
 Mercury -117543-06-11 12:29 J -41210995.99 -41210995.98 -41210995.93 0.0148 0.0147
 Mercury -117543-09-07 20:53 J -41210907.74 -41210907.63 -41210907.51 0.0148 0.0116
 Mercury -117543-12-05 05:03 J -41210819.43 -41210819.29 -41210819.13 0.0148 0.0087
 Mercury -117542-03-03 13:12 J -41210731.11 -41210730.95 -41210730.77 0.0149 0.0057
 Mercury -117542-05-30 21:36 J -41210642.78 -41210642.60 -41210642.41 0.0149 0.0026
 Mercury -117542-08-27 06:00 J -41210554.43 -41210554.25 -41210554.06 0.0149 0.0006
 Mercury -117542-11-23 14:24 J -41210466.08 -41210465.90 -41210465.71 0.0149 0.0036
 Mercury -117541-02-19 22:48 J -41210377.71 -41210377.55 -41210377.38 0.0149 0.0066
 Mercury -117541-05-18 07:12 J -41210289.33 -41210289.20 -41210289.05 0.0149 0.0098
 Mercury -117541-08-14 15:36 J -41210200.93 -41210200.85 -41210200.74 0.0149 0.0129
 Mars -117539-12-20 05:46 J -41209343.55 -41209343.26 -41209342.96 0.0149 0.0011
 Venus -117534-07-29 00:15 J -41207661.63 -41207661.49 -41207661.32 0.0147 0.0105
 Venus -117533-03-11 17:03 J -41207434.99 -41207434.79 -41207434.58 0.0147 0.0061
 Venus -117533-10-24 09:36 J -41207208.32 -41207208.10 -41207207.88 0.0147 0.0017
 Venus -117532-06-08 01:56 J -41206981.64 -41206981.42 -41206981.20 0.0147 0.0027
 Venus -117531-01-20 18:00 J -41206754.94 -41206754.75 -41206754.54 0.0146 0.0070
 Venus -117531-09-04 10:20 J -41206528.20 -41206528.07 -41206527.92 0.0146 0.0113
 Earth -117510-02-14 22:34 J -41199059.73 -41199059.56 -41199059.39 0.0133 0.0098
 Moon -117510-02-15 00:58 J -41199059.62 -41199059.46 -41199059.26 0.0133 0.0093 *

Moon -117509-02-19 01:41 J -41198690.69 -41198690.43 -41198690.17 0.0133 0.0002
 Earth -117509-02-19 04:05 J -41198690.58 -41198690.33 -41198690.08 0.0133 0.0009 *
 Earth -117508-02-22 07:41 J -41198321.28 -41198321.18 -41198321.02 0.0132 0.0114
 Moon -117508-02-22 10:34 J -41198321.14 -41198321.06 -41198320.93 0.0132 0.0121 *
 Mercury -117502-01-17 02:39 J -41196166.39 -41196166.39 -41196166.38 0.0131 0.0130
 Mercury -117502-04-15 05:46 J -41196078.32 -41196078.26 -41196078.19 0.0131 0.0115
 Mercury -117502-07-12 08:53 J -41195990.21 -41195990.13 -41195990.03 0.0131 0.0100
 Mercury -117502-10-08 12:15 J -41195902.10 -41195901.99 -41195901.89 0.0131 0.0084
 Mercury -117501-01-04 15:08 J -41195813.98 -41195813.87 -41195813.75 0.0131 0.0069
 Mercury -117501-04-01 18:15 J -41195725.86 -41195725.74 -41195725.61 0.0131 0.0054
 Mercury -117501-06-28 21:22 J -41195637.74 -41195637.61 -41195637.47 0.0130 0.0038
 Mercury -117501-09-25 00:29 J -41195549.61 -41195549.48 -41195549.34 0.0130 0.0023
 Mercury -117501-12-22 03:36 J -41195461.49 -41195461.35 -41195461.21 0.0130 0.0008
 Mercury -117500-03-20 06:44 J -41195373.36 -41195373.22 -41195373.09 0.0130 0.0008
 Mercury -117500-06-16 09:36 J -41195285.23 -41195285.10 -41195284.96 0.0130 0.0022
 Mercury -117500-09-12 12:29 J -41195197.10 -41195196.98 -41195196.84 0.0130 0.0038
 Mercury -117500-12-09 15:36 J -41195108.97 -41195108.85 -41195108.72 0.0130 0.0052
 Mercury -117499-03-07 18:29 J -41195020.84 -41195020.73 -41195020.61 0.0130 0.0067
 Mercury -117499-06-03 21:36 J -41194932.70 -41194932.60 -41194932.49 0.0130 0.0082
 Mercury -117499-08-31 00:29 J -41194844.56 -41194844.48 -41194844.39 0.0130 0.0096
 Mercury -117499-11-27 03:22 J -41194756.42 -41194756.36 -41194756.28 0.0130 0.0111
 Mercury -117498-02-23 06:15 J -41194668.26 -41194668.24 -41194668.20 0.0130 0.0126
 Mars -117496-03-30 18:58 J -41193902.03 -41193901.71 -41193901.38 0.0130 0.0011
 Venus -117491-12-13 11:46 J -41191818.12 -41191818.01 -41191817.87 0.0131 0.0106
 Venus -117490-07-27 13:56 J -41191592.08 -41191591.92 -41191591.74 0.0132 0.0077
 Venus -117489-03-09 16:20 J -41191366.01 -41191365.82 -41191365.62 0.0132 0.0047
 Venus -117489-10-21 18:29 J -41191139.93 -41191139.73 -41191139.52 0.0132 0.0018
 Venus -117488-06-04 20:39 J -41190913.84 -41190913.64 -41190913.42 0.0132 0.0012
 Venus -117487-01-16 23:03 J -41190687.74 -41190687.54 -41190687.34 0.0133 0.0042
 Venus -117487-08-31 01:12 J -41190461.62 -41190461.45 -41190461.26 0.0133 0.0072

Venus -117486-04-14 03:36 J -41190235.47 -41190235.35 -41190235.20 0.0133 0.0102
 Venus -117486-11-26 06:15 J -41190009.26 -41190009.24 -41190009.20 0.0133 0.0132
 Earth -117466-08-06 03:36 J -41182816.48 -41182816.35 -41182816.20 0.0146 0.0121
 Moon -117466-08-06 06:15 J -41182816.36 -41182816.24 -41182816.11 0.0146 0.0125 *
 Moon -117465-08-10 04:34 J -41182446.56 -41182446.31 -41182446.05 0.0146 0.0028
 Earth -117465-08-10 06:58 J -41182446.45 -41182446.21 -41182445.95 0.0146 0.0022 *
 Mercury -117459-07-01 18:58 J -41180294.74 -41180294.71 -41180294.65 0.0148 0.0143
 Mercury -117459-09-28 03:22 J -41180206.47 -41180206.36 -41180206.24 0.0148 0.0113
 Mercury -117459-12-25 11:32 J -41180118.17 -41180118.02 -41180117.86 0.0149 0.0083
 Mercury -117458-03-23 19:41 J -41180029.85 -41180029.68 -41180029.50 0.0149 0.0053
 Mercury -117458-06-20 04:05 J -41179941.51 -41179941.33 -41179941.14 0.0149 0.0022
 Mercury -117458-09-16 12:29 J -41179853.17 -41179852.98 -41179852.79 0.0149 0.0008
 Mercury -117458-12-13 20:53 J -41179764.81 -41179764.63 -41179764.45 0.0149 0.0039
 Mercury -117457-03-11 05:17 J -41179676.44 -41179676.28 -41179676.11 0.0149 0.0070
 Mercury -117457-06-07 13:41 J -41179588.06 -41179587.93 -41179587.79 0.0149 0.0101
 Mercury -117457-09-03 22:20 J -41179499.65 -41179499.57 -41179499.49 0.0149 0.0132
 Mars -117454-08-15 12:00 J -41178424.20 -41178424.00 -41178423.78 0.0149 0.0104
 Venus -117450-03-28 02:39 J -41177103.49 -41177103.39 -41177103.28 0.0148 0.0129
 Venus -117450-11-09 19:27 J -41176876.88 -41176876.69 -41176876.51 0.0147 0.0085
 Venus -117449-06-23 11:46 J -41176650.22 -41176650.01 -41176649.79 0.0147 0.0041
 Venus -117448-02-05 04:20 J -41176423.54 -41176423.32 -41176423.09 0.0147 0.0004
 Venus -117448-09-19 20:39 J -41176196.85 -41176196.64 -41176196.42 0.0147 0.0048
 Venus -117447-05-04 12:44 J -41175970.13 -41175969.97 -41175969.78 0.0146 0.0092
 Venus -117447-12-17 04:48 J -41175743.37 -41175743.30 -41175743.20 0.0146 0.0134
 Earth -117426-02-15 11:17 J -41168378.20 -41168378.03 -41168377.83 0.0133 0.0091
 Moon -117426-02-15 14:53 J -41168378.05 -41168377.88 -41168377.71 0.0133 0.0097 *
 Moon -117425-02-19 13:56 J -41168009.17 -41168008.92 -41168008.67 0.0133 0.0023
 Earth -117425-02-19 17:17 J -41168009.02 -41168008.78 -41168008.52 0.0133 0.0016 *
 Earth -117424-02-22 21:22 J -41167639.69 -41167639.61 -41167639.49 0.0132 0.0121
 Moon -117424-02-23 00:15 J -41167639.59 -41167639.49 -41167639.34 0.0132 0.0115 *

Mercury -117418-02-06 10:34 J -41165465.10 -41165465.06 -41165465.02 0.0131 0.0124

Mercury -117418-05-05 13:27 J -41165377.00 -41165376.94 -41165376.86 0.0131 0.0109

Mercury -117418-08-01 16:48 J -41165288.89 -41165288.80 -41165288.70 0.0131 0.0093

Mercury -117418-10-28 19:56 J -41165200.78 -41165200.67 -41165200.56 0.0131 0.0078

Mercury -117417-01-24 23:03 J -41165112.66 -41165112.54 -41165112.42 0.0131 0.0062

Mercury -117417-04-22 01:56 J -41165024.54 -41165024.42 -41165024.28 0.0131 0.0048

Mercury -117417-07-19 05:17 J -41164936.41 -41164936.28 -41164936.15 0.0131 0.0032

Mercury -117417-10-15 08:10 J -41164848.29 -41164848.16 -41164848.02 0.0131 0.0018

Mercury -117416-01-11 11:17 J -41164760.16 -41164760.03 -41164759.89 0.0131 0.0003

Mercury -117416-04-09 14:24 J -41164672.04 -41164671.90 -41164671.77 0.0131 0.0013

Mercury -117416-07-06 17:17 J -41164583.91 -41164583.78 -41164583.64 0.0130 0.0029

Mercury -117416-10-02 20:24 J -41164495.78 -41164495.65 -41164495.52 0.0130 0.0043

Mercury -117416-12-29 23:17 J -41164407.64 -41164407.53 -41164407.40 0.0130 0.0058

Mercury -117415-03-28 02:24 J -41164319.51 -41164319.40 -41164319.29 0.0130 0.0073

Mercury -117415-06-24 05:17 J -41164231.37 -41164231.28 -41164231.18 0.0130 0.0088

Mercury -117415-09-20 08:10 J -41164143.23 -41164143.16 -41164143.07 0.0130 0.0103

Mercury -117415-12-17 11:03 J -41164055.08 -41164055.04 -41164054.97 0.0130 0.0118

Mars -117412-11-24 01:41 J -41162982.68 -41162982.43 -41162982.13 0.0130 0.0069

Venus -117407-08-13 02:39 J -41161259.48 -41161259.39 -41161259.30 0.0131 0.0118

Venus -117406-03-27 04:34 J -41161033.45 -41161033.31 -41161033.15 0.0131 0.0089

Venus -117406-11-08 06:44 J -41160807.40 -41160807.22 -41160807.03 0.0132 0.0060

Venus -117405-06-21 08:53 J -41160581.33 -41160581.13 -41160580.92 0.0132 0.0030

Venus -117404-02-02 11:17 J -41160355.24 -41160355.03 -41160354.82 0.0132 0.0002

Venus -117404-09-16 13:27 J -41160129.15 -41160128.94 -41160128.73 0.0132 0.0029

Venus -117403-04-30 15:36 J -41159903.03 -41159902.85 -41159902.66 0.0133 0.0060

Venus -117403-12-12 17:46 J -41159676.90 -41159676.76 -41159676.59 0.0133 0.0090

Venus -117402-07-26 20:24 J -41159450.73 -41159450.65 -41159450.55 0.0133 0.0120

Earth -117382-08-06 17:17 J -41152134.93 -41152134.78 -41152134.61 0.0146 0.0112

Moon -117382-08-06 20:24 J -41152134.79 -41152134.65 -41152134.47 0.0146 0.0111 *

Moon -117381-08-10 17:46 J -41151765.01 -41151764.76 -41151764.50 0.0146 0.0023

Earth -117381-08-10 20:39 J -41151764.89 -41151764.64 -41151764.39 0.0146 0.0030 *
 Mercury -117375-07-22 03:08 J -41149593.44 -41149593.37 -41149593.28 0.0148 0.0134
 Mercury -117375-10-18 11:17 J -41149505.15 -41149505.03 -41149504.89 0.0148 0.0104
 Mercury -117374-01-14 19:41 J -41149416.84 -41149416.68 -41149416.52 0.0148 0.0074
 Mercury -117374-04-13 03:51 J -41149328.52 -41149328.34 -41149328.16 0.0149 0.0044
 Mercury -117374-07-10 12:00 J -41149240.18 -41149240.00 -41149239.81 0.0149 0.0014
 Mercury -117374-10-06 20:24 J -41149151.83 -41149151.65 -41149151.46 0.0149 0.0017
 Mercury -117373-01-03 04:48 J -41149063.47 -41149063.30 -41149063.12 0.0149 0.0048
 Mercury -117373-03-31 13:12 J -41148975.10 -41148974.95 -41148974.79 0.0149 0.0079
 Mercury -117373-06-27 21:36 J -41148886.72 -41148886.60 -41148886.47 0.0149 0.0110
 Mercury -117373-09-24 06:15 J -41148798.29 -41148798.24 -41148798.18 0.0149 0.0141
 Mars -117371-05-07 23:03 J -41148207.79 -41148207.54 -41148207.28 0.0149 0.0072
 Venus -117366-07-09 23:46 J -41146318.65 -41146318.51 -41146318.35 0.0147 0.0107
 Venus -117365-02-21 16:20 J -41146092.01 -41146091.82 -41146091.60 0.0147 0.0063
 Venus -117365-10-05 09:08 J -41145865.34 -41145865.12 -41145864.90 0.0147 0.0018
 Venus -117364-05-20 01:27 J -41145638.66 -41145638.44 -41145638.22 0.0147 0.0027
 Venus -117363-01-01 17:32 J -41145411.96 -41145411.77 -41145411.56 0.0146 0.0071
 Venus -117363-08-16 09:51 J -41145185.22 -41145185.09 -41145184.94 0.0146 0.0114
 Earth -117342-02-16 00:44 J -41137696.66 -41137696.47 -41137696.26 0.0133 0.0083
 Moon -117342-02-16 04:34 J -41137696.51 -41137696.31 -41137696.10 0.0133 0.0078 *
 Moon -117341-02-20 03:36 J -41137327.61 -41137327.35 -41137327.10 0.0133 0.0017
 Earth -117341-02-20 06:44 J -41137327.46 -41137327.22 -41137326.96 0.0133 0.0024 *
 Earth -117340-02-23 11:32 J -41136958.08 -41136958.02 -41136957.96 0.0133 0.0128
 Mercury -117334-02-26 18:00 J -41134763.80 -41134763.75 -41134763.68 0.0131 0.0118
 Mercury -117334-05-25 21:08 J -41134675.69 -41134675.62 -41134675.52 0.0131 0.0103
 Mercury -117334-08-22 00:29 J -41134587.58 -41134587.48 -41134587.37 0.0131 0.0087
 Mercury -117334-11-18 03:36 J -41134499.46 -41134499.35 -41134499.23 0.0131 0.0072
 Mercury -117333-02-14 06:44 J -41134411.34 -41134411.22 -41134411.09 0.0131 0.0056
 Mercury -117333-05-12 09:51 J -41134323.22 -41134323.09 -41134322.96 0.0131 0.0041
 Mercury -117333-08-08 12:58 J -41134235.09 -41134234.96 -41134234.83 0.0131 0.0026

Mercury -117333-11-04 16:05 J -41134146.97 -41134146.83 -41134146.69 0.0131 0.0011

Mercury -117332-01-31 19:12 J -41134058.84 -41134058.70 -41134058.57 0.0131 0.0006

Mercury -117332-04-29 22:05 J -41133970.71 -41133970.58 -41133970.44 0.0131 0.0020

Mercury -117332-07-27 01:12 J -41133882.58 -41133882.45 -41133882.32 0.0131 0.0035

Mercury -117332-10-23 04:05 J -41133794.45 -41133794.33 -41133794.20 0.0131 0.0050

Mercury -117331-01-19 07:12 J -41133706.32 -41133706.20 -41133706.08 0.0131 0.0064

Mercury -117331-04-17 10:05 J -41133618.18 -41133618.08 -41133617.97 0.0131 0.0079

Mercury -117331-07-14 13:12 J -41133530.04 -41133529.95 -41133529.86 0.0131 0.0094

Mercury -117331-10-10 16:05 J -41133441.90 -41133441.83 -41133441.75 0.0130 0.0109

Mercury -117330-01-06 18:58 J -41133353.74 -41133353.71 -41133353.66 0.0130 0.0123

Mars -117329-08-17 03:22 J -41132765.64 -41132765.36 -41132765.06 0.0130 0.0059

Venus -117323-04-12 16:48 J -41130700.80 -41130700.80 -41130700.75 0.0131 0.0131

Venus -117323-11-24 19:27 J -41130474.82 -41130474.69 -41130474.56 0.0131 0.0101

Venus -117322-07-08 21:22 J -41130248.78 -41130248.61 -41130248.43 0.0132 0.0072

Venus -117321-02-19 23:32 J -41130022.71 -41130022.52 -41130022.31 0.0132 0.0042

Venus -117321-10-03 01:56 J -41129796.63 -41129796.42 -41129796.21 0.0132 0.0013

Venus -117320-05-17 04:05 J -41129570.54 -41129570.33 -41129570.13 0.0132 0.0018

Venus -117320-12-29 06:00 J -41129344.44 -41129344.25 -41129344.04 0.0133 0.0048

Venus -117319-08-12 08:24 J -41129118.31 -41129118.15 -41129117.97 0.0133 0.0078

Venus -117318-03-26 10:48 J -41128892.16 -41128892.05 -41128891.91 0.0133 0.0108

Earth -117298-08-07 07:41 J -41121453.34 -41121453.18 -41121452.98 0.0146 0.0102

Moon -117298-08-07 11:32 J -41121453.19 -41121453.02 -41121452.84 0.0146 0.0104 *

Moon -117297-08-11 07:27 J -41121083.43 -41121083.19 -41121082.94 0.0146 0.0045

Earth -117297-08-11 10:48 J -41121083.28 -41121083.05 -41121082.79 0.0146 0.0040 *

Mercury -117291-08-11 11:46 J -41118892.11 -41118892.01 -41118891.91 0.0148 0.0123

Mercury -117291-11-07 19:41 J -41118803.81 -41118803.68 -41118803.53 0.0148 0.0093

Mercury -117290-02-04 03:51 J -41118715.49 -41118715.34 -41118715.16 0.0148 0.0064

Mercury -117290-05-03 12:15 J -41118627.17 -41118626.99 -41118626.80 0.0148 0.0033

Mercury -117290-07-30 20:39 J -41118538.83 -41118538.64 -41118538.45 0.0149 0.0003

Mercury -117290-10-27 04:48 J -41118450.48 -41118450.30 -41118450.11 0.0149 0.0028

Mercury -117289-01-23 13:12 J -41118362.11 -41118361.95 -41118361.77 0.0149 0.0059

Mercury -117289-04-20 21:36 J -41118273.74 -41118273.60 -41118273.44 0.0149 0.0090

Mercury -117289-07-18 06:00 J -41118185.35 -41118185.25 -41118185.13 0.0149 0.0121

Mars -117286-01-01 15:08 J -41117288.14 -41117287.87 -41117287.57 0.0149 0.0031

Venus -117282-03-09 05:17 J -41115760.37 -41115760.28 -41115760.15 0.0148 0.0128

Venus -117282-10-21 22:05 J -41115533.76 -41115533.58 -41115533.39 0.0147 0.0083

Venus -117281-06-04 14:24 J -41115307.11 -41115306.90 -41115306.67 0.0147 0.0039

Venus -117280-01-17 06:58 J -41115080.43 -41115080.21 -41115079.98 0.0147 0.0007

Venus -117280-08-31 23:32 J -41114853.73 -41114853.52 -41114853.31 0.0147 0.0051

Venus -117279-04-15 15:36 J -41114627.02 -41114626.85 -41114626.68 0.0146 0.0095

Venus -117279-11-28 07:27 J -41114400.25 -41114400.19 -41114400.11 0.0146 0.0138

Earth -117258-02-16 15:22 J -41107015.06 -41107014.86 -41107014.63 0.0133 0.0074

Moon -117258-02-16 18:58 J -41107014.90 -41107014.71 -41107014.49 0.0133 0.0079 *

Moon -117257-02-20 18:00 J -41106645.99 -41106645.75 -41106645.51 0.0133 0.0040

Earth -117257-02-20 21:51 J -41106645.84 -41106645.59 -41106645.35 0.0133 0.0033 *

Moon -117256-02-24 05:46 J -41106276.29 -41106276.26 -41106276.20 0.0133 0.0131

Mercury -117251-12-20 23:03 J -41104150.57 -41104150.54 -41104150.50 0.0131 0.0126

Mercury -117250-03-19 02:10 J -41104062.48 -41104062.41 -41104062.33 0.0131 0.0111

Mercury -117250-06-15 05:17 J -41103974.37 -41103974.28 -41103974.18 0.0131 0.0095

Mercury -117250-09-11 08:24 J -41103886.25 -41103886.15 -41103886.04 0.0131 0.0080

Mercury -117250-12-08 11:32 J -41103798.13 -41103798.02 -41103797.89 0.0131 0.0065

Mercury -117249-03-05 14:53 J -41103710.01 -41103709.88 -41103709.76 0.0131 0.0049

Mercury -117249-06-01 17:46 J -41103621.89 -41103621.76 -41103621.62 0.0131 0.0034

Mercury -117249-08-28 20:53 J -41103533.76 -41103533.63 -41103533.49 0.0131 0.0019

Mercury -117249-11-25 00:00 J -41103445.64 -41103445.50 -41103445.36 0.0131 0.0003

Mercury -117248-02-21 03:08 J -41103357.51 -41103357.37 -41103357.24 0.0131 0.0012

Mercury -117248-05-20 06:00 J -41103269.38 -41103269.25 -41103269.11 0.0131 0.0027

Mercury -117248-08-16 09:08 J -41103181.25 -41103181.12 -41103180.99 0.0131 0.0042

Mercury -117248-11-12 12:00 J -41103093.12 -41103093.00 -41103092.87 0.0131 0.0057

Mercury -117247-02-08 15:08 J -41103004.98 -41103004.87 -41103004.76 0.0131 0.0072

Mercury -117247-05-07 18:00 J -41102916.84 -41102916.75 -41102916.64 0.0131 0.0087

Mercury -117247-08-03 20:53 J -41102828.70 -41102828.63 -41102828.53 0.0131 0.0102

Mercury -117247-10-31 00:00 J -41102740.55 -41102740.50 -41102740.43 0.0131 0.0116

Mercury -117246-01-27 03:08 J -41102652.37 -41102652.37 -41102652.37 0.0131 0.0130

Mars -117244-04-12 14:10 J -41101846.22 -41101845.91 -41101845.58 0.0131 0.0023

Venus -117239-07-25 10:34 J -41099916.16 -41099916.06 -41099915.95 0.0131 0.0113

Venus -117238-03-08 12:29 J -41099690.13 -41099689.98 -41099689.81 0.0132 0.0084

Venus -117238-10-20 14:39 J -41099464.07 -41099463.89 -41099463.69 0.0132 0.0054

Venus -117237-06-02 16:48 J -41099238.00 -41099237.80 -41099237.59 0.0132 0.0024

Venus -117236-01-14 19:12 J -41099011.91 -41099011.70 -41099011.49 0.0132 0.0006

Venus -117236-08-28 21:22 J -41098785.81 -41098785.61 -41098785.41 0.0132 0.0036

Venus -117235-04-11 23:46 J -41098559.69 -41098559.51 -41098559.33 0.0133 0.0066

Venus -117235-11-24 01:41 J -41098333.55 -41098333.43 -41098333.27 0.0133 0.0097

Venus -117234-07-08 04:20 J -41098107.36 -41098107.32 -41098107.24 0.0133 0.0127

Earth -117214-08-08 01:41 J -41090771.62 -41090771.43 -41090771.21 0.0146 0.0087

Moon -117214-08-08 05:32 J -41090771.46 -41090771.27 -41090771.05 0.0146 0.0086 *

Moon -117213-08-12 01:27 J -41090401.67 -41090401.44 -41090401.19 0.0146 0.0049

Earth -117213-08-12 04:48 J -41090401.52 -41090401.30 -41090401.05 0.0146 0.0055 *

Mercury -117207-06-04 13:27 J -41088279.00 -41088278.94 -41088278.86 0.0148 0.0137

Mercury -117207-08-31 21:22 J -41088190.72 -41088190.61 -41088190.47 0.0148 0.0108

Mercury -117207-11-28 05:46 J -41088102.41 -41088102.26 -41088102.10 0.0148 0.0078

Mercury -117206-02-24 13:56 J -41088014.09 -41088013.92 -41088013.74 0.0148 0.0048

Mercury -117206-05-23 22:20 J -41087925.76 -41087925.57 -41087925.39 0.0148 0.0017

Mercury -117206-08-20 06:29 J -41087837.41 -41087837.23 -41087837.04 0.0148 0.0014

Mercury -117206-11-16 14:53 J -41087749.06 -41087748.88 -41087748.70 0.0149 0.0044

Mercury -117205-02-12 23:17 J -41087660.69 -41087660.53 -41087660.37 0.0149 0.0075

Mercury -117205-05-11 07:41 J -41087572.30 -41087572.18 -41087572.04 0.0149 0.0106

Mercury -117205-08-07 16:05 J -41087483.89 -41087483.83 -41087483.75 0.0149 0.0137

Mars -117204-09-24 12:44 J -41087071.08 -41087070.97 -41087070.87 0.0149 0.0138

Mars -117202-08-28 17:03 J -41086367.88 -41086367.79 -41086367.67 0.0148 0.0138

Venus -117199-11-06 14:10 J -41085201.93 -41085201.91 -41085201.86 0.0148 0.0146
 Venus -117198-06-21 06:58 J -41084975.37 -41084975.21 -41084975.05 0.0148 0.0101
 Venus -117197-02-02 23:17 J -41084748.73 -41084748.53 -41084748.31 0.0147 0.0056
 Venus -117197-09-16 15:51 J -41084522.06 -41084521.84 -41084521.61 0.0147 0.0011
 Venus -117196-05-01 08:10 J -41084295.38 -41084295.16 -41084294.94 0.0147 0.0034
 Venus -117196-12-14 00:15 J -41084068.67 -41084068.49 -41084068.29 0.0146 0.0078
 Venus -117195-07-28 16:20 J -41083841.94 -41083841.82 -41083841.69 0.0146 0.0122
 Earth -117174-02-17 07:41 J -41076333.39 -41076333.18 -41076332.94 0.0133 0.0063
 Moon -117174-02-17 11:17 J -41076333.25 -41076333.03 -41076332.78 0.0133 0.0058 *
 Moon -117173-02-21 10:48 J -41075964.28 -41075964.05 -41075963.80 0.0133 0.0038
 Earth -117173-02-21 13:56 J -41075964.15 -41075963.92 -41075963.67 0.0133 0.0044 *
 Mercury -117166-01-10 06:58 J -41073449.26 -41073449.21 -41073449.14 0.0131 0.0119
 Mercury -117166-04-08 10:20 J -41073361.15 -41073361.07 -41073360.99 0.0131 0.0103
 Mercury -117166-07-05 13:27 J -41073273.04 -41073272.94 -41073272.84 0.0131 0.0088
 Mercury -117166-10-01 16:34 J -41073184.92 -41073184.81 -41073184.69 0.0131 0.0072
 Mercury -117166-12-28 19:41 J -41073096.80 -41073096.68 -41073096.55 0.0131 0.0057
 Mercury -117165-03-25 22:48 J -41073008.68 -41073008.55 -41073008.42 0.0131 0.0041
 Mercury -117165-06-22 01:56 J -41072920.55 -41072920.42 -41072920.28 0.0131 0.0026
 Mercury -117165-09-18 05:03 J -41072832.43 -41072832.29 -41072832.15 0.0131 0.0011
 Mercury -117165-12-15 08:10 J -41072744.30 -41072744.16 -41072744.03 0.0131 0.0005
 Mercury -117164-03-13 11:03 J -41072656.17 -41072656.04 -41072655.90 0.0131 0.0020
 Mercury -117164-06-09 14:10 J -41072568.04 -41072567.91 -41072567.78 0.0131 0.0034
 Mercury -117164-09-05 17:03 J -41072479.91 -41072479.79 -41072479.66 0.0131 0.0050
 Mercury -117164-12-02 20:10 J -41072391.77 -41072391.66 -41072391.54 0.0131 0.0064
 Mercury -117163-02-28 23:17 J -41072303.64 -41072303.53 -41072303.42 0.0131 0.0079
 Mercury -117163-05-28 02:10 J -41072215.50 -41072215.41 -41072215.31 0.0131 0.0094
 Mercury -117163-08-24 05:03 J -41072127.35 -41072127.29 -41072127.21 0.0131 0.0109
 Mercury -117163-11-20 07:56 J -41072039.20 -41072039.17 -41072039.12 0.0130 0.0124
 Mars -117161-01-04 18:44 J -41071628.89 -41071628.72 -41071628.49 0.0130 0.0103
 Mars -117160-12-07 00:44 J -41070926.63 -41070926.47 -41070926.24 0.0131 0.0105

Venus -117155-03-25 01:41 J -41069357.48 -41069357.43 -41069357.35 0.0131 0.0125
 Venus -117155-11-06 03:36 J -41069131.48 -41069131.35 -41069131.19 0.0132 0.0096
 Venus -117154-06-20 05:46 J -41068905.43 -41068905.26 -41068905.07 0.0132 0.0066
 Venus -117153-02-01 08:10 J -41068679.36 -41068679.16 -41068678.95 0.0132 0.0036
 Venus -117153-09-14 10:20 J -41068453.28 -41068453.07 -41068452.86 0.0132 0.0006
 Venus -117152-04-28 12:29 J -41068227.18 -41068226.98 -41068226.77 0.0132 0.0025
 Venus -117152-12-10 14:39 J -41068001.07 -41068000.89 -41068000.69 0.0133 0.0055
 Venus -117151-07-24 17:03 J -41067774.94 -41067774.79 -41067774.62 0.0133 0.0085
 Venus -117150-03-07 19:27 J -41067548.78 -41067548.69 -41067548.57 0.0133 0.0116
 Earth -117130-08-08 17:32 J -41060089.98 -41060089.77 -41060089.55 0.0146 0.0076
 Moon -117130-08-08 20:53 J -41060089.84 -41060089.63 -41060089.41 0.0146 0.0078 *
 Moon -117129-08-12 16:34 J -41059720.02 -41059719.81 -41059719.58 0.0146 0.0071
 Earth -117129-08-12 20:24 J -41059719.87 -41059719.65 -41059719.41 0.0146 0.0065 *
 Mercury -117123-06-24 22:20 J -41057577.66 -41057577.57 -41057577.46 0.0148 0.0125
 Mercury -117123-09-21 06:44 J -41057489.36 -41057489.22 -41057489.08 0.0148 0.0095
 Mercury -117123-12-18 14:53 J -41057401.05 -41057400.88 -41057400.72 0.0148 0.0065
 Mercury -117122-03-16 23:03 J -41057312.72 -41057312.54 -41057312.36 0.0148 0.0035
 Mercury -117122-06-13 07:27 J -41057224.38 -41057224.19 -41057224.01 0.0148 0.0005
 Mercury -117122-09-09 15:36 J -41057136.03 -41057135.85 -41057135.66 0.0148 0.0026
 Mercury -117122-12-07 00:00 J -41057047.67 -41057047.50 -41057047.33 0.0148 0.0057
 Mercury -117121-03-04 08:24 J -41056959.30 -41056959.15 -41056959.00 0.0149 0.0088
 Mercury -117121-05-31 16:48 J -41056870.90 -41056870.80 -41056870.68 0.0149 0.0119
 Mars -117119-05-21 10:48 J -41056151.33 -41056151.05 -41056150.75 0.0149 0.0033
 Venus -117114-02-18 14:24 J -41054417.03 -41054416.90 -41054416.77 0.0148 0.0120
 Venus -117114-10-03 06:29 J -41054190.41 -41054190.23 -41054190.02 0.0147 0.0076
 Venus -117113-05-16 23:03 J -41053963.75 -41053963.54 -41053963.31 0.0147 0.0030
 Venus -117113-12-29 15:36 J -41053737.07 -41053736.85 -41053736.63 0.0147 0.0015
 Venus -117112-08-13 07:56 J -41053510.37 -41053510.17 -41053509.96 0.0147 0.0060
 Venus -117111-03-27 23:46 J -41053283.65 -41053283.51 -41053283.34 0.0146 0.0104
 Earth -117090-02-18 00:00 J -41045651.73 -41045651.50 -41045651.26 0.0133 0.0052

Moon -117090-02-18 02:53 J -41045651.60 -41045651.38 -41045651.13 0.0133 0.0056 *
 Moon -117089-02-22 02:24 J -41045282.61 -41045282.40 -41045282.16 0.0133 0.0061
 Earth -117089-02-22 06:00 J -41045282.48 -41045282.25 -41045282.01 0.0133 0.0054 *
 Mercury -117083-11-03 11:46 J -41042836.03 -41042836.01 -41042835.97 0.0131 0.0127
 Mercury -117082-01-30 15:08 J -41042747.94 -41042747.87 -41042747.80 0.0131 0.0111
 Mercury -117082-04-28 18:15 J -41042659.83 -41042659.74 -41042659.64 0.0131 0.0096
 Mercury -117082-07-25 21:36 J -41042571.71 -41042571.60 -41042571.50 0.0131 0.0080
 Mercury -117082-10-22 00:29 J -41042483.59 -41042483.48 -41042483.35 0.0131 0.0065
 Mercury -117081-01-18 03:36 J -41042395.47 -41042395.35 -41042395.22 0.0131 0.0050
 Mercury -117081-04-15 06:44 J -41042307.35 -41042307.22 -41042307.08 0.0131 0.0035
 Mercury -117081-07-12 09:51 J -41042219.22 -41042219.09 -41042218.95 0.0131 0.0019
 Mercury -117081-10-08 12:58 J -41042131.09 -41042130.96 -41042130.82 0.0131 0.0005
 Mercury -117080-01-04 16:05 J -41042042.96 -41042042.83 -41042042.69 0.0131 0.0012
 Mercury -117080-04-02 19:12 J -41041954.84 -41041954.70 -41041954.57 0.0131 0.0027
 Mercury -117080-06-29 22:05 J -41041866.70 -41041866.58 -41041866.45 0.0131 0.0042
 Mercury -117080-09-26 01:12 J -41041778.57 -41041778.45 -41041778.33 0.0130 0.0056
 Mercury -117080-12-23 04:05 J -41041690.44 -41041690.33 -41041690.21 0.0130 0.0072
 Mercury -117079-03-21 06:58 J -41041602.30 -41041602.21 -41041602.10 0.0130 0.0087
 Mercury -117079-06-17 10:20 J -41041514.16 -41041514.07 -41041513.99 0.0130 0.0101
 Mercury -117079-09-13 12:58 J -41041426.01 -41041425.96 -41041425.89 0.0130 0.0116
 Mercury -117079-12-10 16:05 J -41041337.83 -41041337.83 -41041337.82 0.0130 0.0130
 Mars -117077-08-30 04:48 J -41040709.62 -41040709.30 -41040708.98 0.0130 0.0022
 Venus -117071-07-06 18:15 J -41038572.85 -41038572.74 -41038572.61 0.0131 0.0108
 Venus -117070-02-17 20:39 J -41038346.81 -41038346.64 -41038346.47 0.0132 0.0078
 Venus -117070-10-01 22:48 J -41038120.75 -41038120.55 -41038120.35 0.0132 0.0048
 Venus -117069-05-15 00:44 J -41037894.67 -41037894.47 -41037894.26 0.0132 0.0018
 Venus -117069-12-27 02:53 J -41037668.58 -41037668.38 -41037668.16 0.0132 0.0013
 Venus -117068-08-10 05:17 J -41037442.48 -41037442.28 -41037442.08 0.0132 0.0042
 Venus -117067-03-24 07:41 J -41037216.35 -41037216.18 -41037216.00 0.0133 0.0073
 Venus -117067-11-05 09:51 J -41036990.21 -41036990.09 -41036989.95 0.0133 0.0104

Earth -117046-08-09 07:41 J -41029408.40 -41029408.18 -41029407.94 0.0146 0.0067
 Moon -117046-08-09 11:17 J -41029408.25 -41029408.03 -41029407.79 0.0146 0.0065 *
 Moon -117045-08-13 06:58 J -41029038.42 -41029038.21 -41029037.97 0.0146 0.0070
 Earth -117045-08-13 10:34 J -41029038.27 -41029038.06 -41029037.84 0.0146 0.0075 *
 Mercury -117039-04-17 23:03 J -41026964.58 -41026964.54 -41026964.48 0.0148 0.0142
 Mercury -117039-07-15 07:27 J -41026876.31 -41026876.19 -41026876.08 0.0148 0.0113
 Mercury -117039-10-11 15:22 J -41026788.01 -41026787.86 -41026787.70 0.0148 0.0083
 Mercury -117038-01-07 23:32 J -41026699.69 -41026699.52 -41026699.34 0.0148 0.0053
 Mercury -117038-04-06 07:56 J -41026611.35 -41026611.17 -41026610.99 0.0148 0.0023
 Mercury -117038-07-03 16:05 J -41026523.01 -41026522.83 -41026522.64 0.0148 0.0008
 Mercury -117038-09-30 00:29 J -41026434.66 -41026434.48 -41026434.30 0.0148 0.0038
 Mercury -117038-12-27 08:53 J -41026346.29 -41026346.13 -41026345.96 0.0148 0.0069
 Mercury -117037-03-24 17:17 J -41026257.91 -41026257.78 -41026257.64 0.0149 0.0100
 Mercury -117037-06-21 01:41 J -41026169.51 -41026169.43 -41026169.33 0.0149 0.0131
 Mars -117034-01-15 06:44 J -41025231.47 -41025231.22 -41025230.96 0.0149 0.0072
 Venus -117031-10-18 21:08 J -41023858.68 -41023858.62 -41023858.54 0.0148 0.0140
 Venus -117030-06-02 13:41 J -41023632.10 -41023631.93 -41023631.75 0.0148 0.0095
 Venus -117029-01-15 06:15 J -41023405.45 -41023405.24 -41023405.03 0.0147 0.0049
 Venus -117029-08-28 22:48 J -41023178.77 -41023178.55 -41023178.32 0.0147 0.0004
 Venus -117028-04-12 15:08 J -41022952.08 -41022951.87 -41022951.65 0.0147 0.0041
 Venus -117028-11-25 07:12 J -41022725.37 -41022725.20 -41022725.01 0.0147 0.0086
 Venus -117027-07-09 23:03 J -41022498.62 -41022498.54 -41022498.42 0.0146 0.0130
 Earth -117006-02-18 16:05 J -41014970.07 -41014969.83 -41014969.59 0.0133 0.0042
 Moon -117006-02-18 18:58 J -41014969.95 -41014969.71 -41014969.45 0.0133 0.0037 *
 Moon -117005-02-22 19:27 J -41014600.91 -41014600.69 -41014600.46 0.0133 0.0058
 Earth -117005-02-22 21:51 J -41014600.80 -41014600.59 -41014600.36 0.0133 0.0064 *

117TH MILLENNIUM

BCE

This is a list of transits visible from Uranus in the 117th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-116999-11-23 19:41 J	-41012134.72	-41012134.68	-41012134.61	0.0131	0.0120		
Mercury	-116998-02-19 23:03 J	-41012046.62	-41012046.54	-41012046.45	0.0131	0.0104		
Mercury	-116998-05-19 02:10 J	-41011958.50	-41011958.41	-41011958.30	0.0131	0.0089		
Mercury	-116998-08-15 05:32 J	-41011870.39	-41011870.27	-41011870.16	0.0131	0.0073		
Mercury	-116998-11-11 08:24 J	-41011782.26	-41011782.15	-41011782.02	0.0131	0.0058		
Mercury	-116997-02-07 11:32 J	-41011694.14	-41011694.02	-41011693.88	0.0131	0.0043		
Mercury	-116997-05-05 14:39 J	-41011606.02	-41011605.89	-41011605.75	0.0131	0.0028		
Mercury	-116997-08-01 17:46 J	-41011517.89	-41011517.76	-41011517.62	0.0131	0.0013		
Mercury	-116997-10-28 20:53 J	-41011429.76	-41011429.63	-41011429.49	0.0130	0.0005		
Mercury	-116996-01-25 00:00 J	-41011341.63	-41011341.50	-41011341.36	0.0130	0.0018		
Mercury	-116996-04-23 03:08 J	-41011253.50	-41011253.37	-41011253.24	0.0130	0.0033		
Mercury	-116996-07-20 06:00 J	-41011165.37	-41011165.25	-41011165.12	0.0130	0.0049		
Mercury	-116996-10-16 09:08 J	-41011077.24	-41011077.12	-41011077.00	0.0130	0.0063		
Mercury	-116995-01-12 12:00 J	-41010989.10	-41010989.00	-41010988.89	0.0130	0.0078		
Mercury	-116995-04-10 15:08 J	-41010900.96	-41010900.87	-41010900.77	0.0130	0.0093		
Mercury	-116995-07-07 18:00 J	-41010812.82	-41010812.75	-41010812.67	0.0130	0.0108		
Mercury	-116995-10-03 20:53 J	-41010724.66	-41010724.63	-41010724.58	0.0130	0.0122		
Mars	-116992-04-25 12:15 J	-41009790.26	-41009789.99	-41009789.68	0.0130	0.0058		
Venus	-116987-03-06 08:39 J	-41008014.21	-41008014.14	-41008014.05	0.0131	0.0120		

Venus -116987-10-18 10:48 J -41007788.20 -41007788.05 -41007787.90 0.0131 0.0091
 Venus -116986-06-01 12:44 J -41007562.15 -41007561.97 -41007561.78 0.0132 0.0061
 Venus -116985-01-13 14:53 J -41007336.08 -41007335.88 -41007335.67 0.0132 0.0031
 Venus -116985-08-26 17:03 J -41007110.00 -41007109.79 -41007109.58 0.0132 0.0001
 Venus -116984-04-09 19:12 J -41006883.90 -41006883.70 -41006883.49 0.0132 0.0030
 Venus -116984-11-21 21:22 J -41006657.79 -41006657.61 -41006657.42 0.0132 0.0060
 Venus -116983-07-05 23:46 J -41006431.66 -41006431.51 -41006431.35 0.0133 0.0091
 Venus -116982-02-17 01:56 J -41006205.48 -41006205.42 -41006205.32 0.0133 0.0122
 Earth -116962-08-09 17:17 J -40998727.00 -40998726.78 -40998726.55 0.0145 0.0063
 Moon -116962-08-09 19:41 J -40998726.90 -40998726.68 -40998726.43 0.0145 0.0063 *
 Moon -116961-08-13 16:05 J -40998357.02 -40998356.83 -40998356.60 0.0146 0.0083
 Earth -116961-08-13 19:41 J -40998356.89 -40998356.68 -40998356.45 0.0146 0.0078 *
 Mercury -116955-05-08 06:15 J -40996263.31 -40996263.24 -40996263.17 0.0148 0.0136
 Mercury -116955-08-04 14:10 J -40996175.03 -40996174.91 -40996174.78 0.0148 0.0107
 Mercury -116955-10-31 22:20 J -40996086.72 -40996086.57 -40996086.41 0.0148 0.0078
 Mercury -116954-01-28 06:29 J -40995998.40 -40995998.23 -40995998.05 0.0148 0.0048
 Mercury -116954-04-26 14:53 J -40995910.06 -40995909.88 -40995909.70 0.0148 0.0017
 Mercury -116954-07-23 23:17 J -40995821.72 -40995821.53 -40995821.35 0.0148 0.0013
 Mercury -116954-10-20 07:27 J -40995733.36 -40995733.19 -40995733.01 0.0148 0.0044
 Mercury -116953-01-16 15:51 J -40995645.00 -40995644.84 -40995644.68 0.0148 0.0074
 Mercury -116953-04-14 00:15 J -40995556.61 -40995556.49 -40995556.35 0.0148 0.0105
 Mercury -116953-07-11 08:39 J -40995468.20 -40995468.14 -40995468.06 0.0148 0.0137
 Mars -116952-10-07 10:20 J -40995015.25 -40995015.07 -40995014.86 0.0149 0.0110
 Venus -116946-01-30 16:20 J -40993073.95 -40993073.82 -40993073.69 0.0148 0.0119
 Venus -116946-09-14 08:39 J -40992847.32 -40992847.14 -40992846.94 0.0148 0.0074
 Venus -116945-04-28 01:12 J -40992620.66 -40992620.45 -40992620.22 0.0147 0.0028
 Venus -116945-12-10 17:46 J -40992393.98 -40992393.76 -40992393.54 0.0147 0.0017
 Venus -116944-07-25 09:51 J -40992167.28 -40992167.09 -40992166.88 0.0147 0.0063
 Venus -116943-03-09 02:10 J -40991940.55 -40991940.41 -40991940.25 0.0146 0.0107
 Earth -116922-02-19 05:17 J -40984288.52 -40984288.28 -40984288.03 0.0134 0.0035

Moon -116922-02-19 06:58 J -40984288.45 -40984288.21 -40984287.95 0.0134 0.0038 *
 Moon -116921-02-23 08:39 J -40983919.32 -40983919.14 -40983918.92 0.0133 0.0078
 Earth -116921-02-23 11:03 J -40983919.24 -40983919.04 -40983918.81 0.0133 0.0071 *
 Mercury -116915-09-17 00:15 J -40981521.50 -40981521.49 -40981521.46 0.0131 0.0129
 Mercury -116915-12-14 03:22 J -40981433.41 -40981433.36 -40981433.28 0.0131 0.0114
 Mercury -116914-03-12 06:44 J -40981345.30 -40981345.22 -40981345.12 0.0131 0.0098
 Mercury -116914-06-08 09:51 J -40981257.19 -40981257.09 -40981256.97 0.0131 0.0083
 Mercury -116914-09-04 13:12 J -40981169.07 -40981168.95 -40981168.83 0.0131 0.0067
 Mercury -116914-12-01 16:20 J -40981080.95 -40981080.82 -40981080.69 0.0131 0.0051
 Mercury -116913-02-27 19:27 J -40980992.82 -40980992.69 -40980992.56 0.0131 0.0036
 Mercury -116913-05-25 22:34 J -40980904.70 -40980904.56 -40980904.42 0.0131 0.0021
 Mercury -116913-08-22 01:41 J -40980816.57 -40980816.43 -40980816.29 0.0131 0.0006
 Mercury -116913-11-18 04:48 J -40980728.44 -40980728.30 -40980728.17 0.0131 0.0010
 Mercury -116912-02-14 07:41 J -40980640.31 -40980640.18 -40980640.04 0.0131 0.0025
 Mercury -116912-05-13 10:48 J -40980552.18 -40980552.05 -40980551.92 0.0130 0.0040
 Mercury -116912-08-09 13:56 J -40980464.04 -40980463.92 -40980463.80 0.0130 0.0055
 Mercury -116912-11-05 16:48 J -40980375.91 -40980375.80 -40980375.68 0.0130 0.0069
 Mercury -116911-02-01 19:41 J -40980287.77 -40980287.68 -40980287.57 0.0130 0.0085
 Mercury -116911-04-30 22:34 J -40980199.63 -40980199.56 -40980199.46 0.0130 0.0100
 Mercury -116911-07-28 01:56 J -40980111.48 -40980111.42 -40980111.36 0.0130 0.0114
 Mercury -116911-10-24 04:48 J -40980023.32 -40980023.30 -40980023.28 0.0130 0.0128
 Mars -116909-01-17 14:10 J -40979573.17 -40979572.91 -40979572.63 0.0130 0.0070
 Venus -116903-06-18 00:15 J -40977229.60 -40977229.49 -40977229.34 0.0131 0.0105
 Venus -116902-01-30 02:24 J -40977003.56 -40977003.40 -40977003.21 0.0131 0.0075
 Venus -116902-09-13 04:48 J -40976777.50 -40976777.30 -40976777.10 0.0132 0.0044
 Venus -116901-04-26 06:58 J -40976551.42 -40976551.21 -40976551.00 0.0132 0.0014
 Venus -116901-12-08 08:53 J -40976325.33 -40976325.13 -40976324.91 0.0132 0.0017
 Venus -116900-07-22 11:17 J -40976099.23 -40976099.03 -40976098.83 0.0132 0.0047
 Venus -116899-03-05 13:41 J -40975873.10 -40975872.93 -40975872.76 0.0132 0.0078
 Venus -116899-10-17 15:51 J -40975646.95 -40975646.84 -40975646.71 0.0133 0.0109

Earth -116878-08-10 03:08 J -40968045.59 -40968045.37 -40968045.12 0.0145 0.0059
 Moon -116878-08-10 05:32 J -40968045.50 -40968045.27 -40968045.02 0.0145 0.0059 *
 Moon -116877-08-14 02:53 J -40967675.58 -40967675.38 -40967675.16 0.0146 0.0078
 Earth -116877-08-14 05:17 J -40967675.48 -40967675.28 -40967675.06 0.0146 0.0081 *
 Mercury -116871-05-28 13:27 J -40965562.02 -40965561.94 -40965561.86 0.0148 0.0130
 Mercury -116871-08-24 21:22 J -40965473.74 -40965473.61 -40965473.47 0.0148 0.0101
 Mercury -116871-11-21 05:32 J -40965385.43 -40965385.27 -40965385.11 0.0148 0.0072
 Mercury -116870-02-17 13:41 J -40965297.10 -40965296.93 -40965296.75 0.0148 0.0042
 Jupiter -116870-03-28 00:58 J -40965258.85 -40965258.46 -40965257.98 0.0148 0.0086
 Mercury -116870-05-16 22:05 J -40965208.77 -40965208.58 -40965208.40 0.0148 0.0012
 Mercury -116870-08-13 06:15 J -40965120.42 -40965120.24 -40965120.05 0.0148 0.0019
 Mercury -116870-11-09 14:39 J -40965032.06 -40965031.89 -40965031.71 0.0148 0.0050
 Mercury -116869-02-05 22:48 J -40964943.70 -40964943.55 -40964943.38 0.0148 0.0081
 Mercury -116869-05-04 07:12 J -40964855.31 -40964855.20 -40964855.07 0.0148 0.0112
 Mercury -116869-07-31 15:36 J -40964766.88 -40964766.85 -40964766.78 0.0148 0.0143
 Mars -116867-06-02 21:22 J -40964095.90 -40964095.61 -40964095.31 0.0149 0.0013
 Venus -116863-09-29 18:44 J -40962515.75 -40962515.72 -40962515.65 0.0148 0.0144
 Venus -116862-05-14 11:32 J -40962289.18 -40962289.02 -40962288.85 0.0148 0.0098
 Venus -116862-12-27 03:51 J -40962062.54 -40962062.34 -40962062.12 0.0147 0.0052
 Venus -116861-08-09 20:39 J -40961835.86 -40961835.64 -40961835.41 0.0147 0.0006
 Venus -116860-03-24 12:58 J -40961609.17 -40961608.96 -40961608.74 0.0147 0.0040
 Venus -116860-11-06 05:03 J -40961382.46 -40961382.29 -40961382.09 0.0147 0.0085
 Venus -116859-06-20 21:08 J -40961155.71 -40961155.62 -40961155.50 0.0146 0.0130
 Earth -116838-02-19 17:03 J -40953607.03 -40953606.79 -40953606.53 0.0134 0.0029
 Moon -116838-02-19 18:29 J -40953606.98 -40953606.73 -40953606.47 0.0134 0.0025 *
 Moon -116837-02-23 22:05 J -40953237.77 -40953237.58 -40953237.36 0.0133 0.0072
 Earth -116837-02-23 23:03 J -40953237.73 -40953237.54 -40953237.32 0.0133 0.0077 *
 Mercury -116831-10-07 08:10 J -40950820.21 -40950820.16 -40950820.12 0.0131 0.0123
 Mercury -116830-01-03 11:03 J -40950732.11 -40950732.04 -40950731.95 0.0131 0.0108
 Mercury -116830-04-01 14:24 J -40950643.99 -40950643.90 -40950643.80 0.0131 0.0092

Mercury -116830-06-28 17:31 J -40950555.88 -40950555.77 -40950555.65 0.0131 0.0077

Mercury -116830-09-24 20:53 J -40950467.75 -40950467.63 -40950467.51 0.0131 0.0061

Mercury -116830-12-22 00:00 J -40950379.63 -40950379.50 -40950379.37 0.0131 0.0046

Mercury -116829-03-19 03:07 J -40950291.51 -40950291.37 -40950291.24 0.0131 0.0031

Mercury -116829-06-15 06:15 J -40950203.38 -40950203.24 -40950203.11 0.0131 0.0015

Mercury -116829-09-11 09:22 J -40950115.25 -40950115.11 -40950114.98 0.0131 0.0003

Jupiter -116829-11-19 21:22 J -40950046.11 -40950045.61 -40950045.10 0.0131 0.0005

Mercury -116829-12-08 12:15 J -40950027.12 -40950026.99 -40950026.85 0.0131 0.0016

Mercury -116828-03-06 15:22 J -40949938.99 -40949938.86 -40949938.72 0.0131 0.0030

Mercury -116828-06-02 18:29 J -40949850.86 -40949850.73 -40949850.60 0.0131 0.0045

Mercury -116828-08-29 21:22 J -40949762.72 -40949762.61 -40949762.48 0.0131 0.0061

Mercury -116828-11-26 00:29 J -40949674.59 -40949674.48 -40949674.37 0.0131 0.0075

Mercury -116827-02-22 03:36 J -40949586.45 -40949586.35 -40949586.25 0.0131 0.0090

Mercury -116827-05-21 06:29 J -40949498.30 -40949498.23 -40949498.15 0.0131 0.0105

Mercury -116827-08-17 09:22 J -40949410.15 -40949410.11 -40949410.05 0.0130 0.0120

Mars -116825-09-11 18:58 J -40948654.03 -40948653.71 -40948653.38 0.0130 0.0009

Venus -116819-02-15 14:39 J -40946670.97 -40946670.89 -40946670.78 0.0131 0.0117

Venus -116819-09-29 16:34 J -40946444.95 -40946444.81 -40946444.64 0.0131 0.0088

Venus -116818-05-13 18:58 J -40946218.90 -40946218.71 -40946218.52 0.0131 0.0057

Venus -116818-12-25 20:53 J -40945992.83 -40945992.63 -40945992.42 0.0132 0.0027

Venus -116817-08-07 23:17 J -40945766.74 -40945766.53 -40945766.32 0.0132 0.0004

Venus -116816-03-22 01:41 J -40945540.64 -40945540.43 -40945540.23 0.0132 0.0034

Venus -116816-11-03 03:36 J -40945314.52 -40945314.35 -40945314.15 0.0132 0.0066

Venus -116815-06-17 06:15 J -40945088.38 -40945088.24 -40945088.10 0.0132 0.0096

Venus -116814-01-29 08:39 J -40944862.19 -40944862.14 -40944862.08 0.0133 0.0127

Earth -116794-08-10 15:36 J -40937364.08 -40937363.85 -40937363.60 0.0145 0.0051

Moon -116794-08-10 16:19 J -40937364.06 -40937363.82 -40937363.57 0.0145 0.0048 *

Moon -116793-08-14 15:51 J -40936994.02 -40936993.84 -40936993.64 0.0146 0.0091

Earth -116793-08-14 17:17 J -40936993.97 -40936993.78 -40936993.56 0.0146 0.0088 *

Mercury -116787-06-17 20:39 J -40934860.72 -40934860.64 -40934860.52 0.0148 0.0123

Mercury -116787-09-14 05:03 J -40934772.43 -40934772.29 -40934772.14 0.0148 0.0093

Mercury -116787-12-11 12:58 J -40934684.11 -40934683.96 -40934683.78 0.0148 0.0064

Mercury -116786-03-09 21:22 J -40934595.79 -40934595.61 -40934595.43 0.0148 0.0034

Mercury -116786-06-06 05:31 J -40934507.45 -40934507.27 -40934507.08 0.0148 0.0004

Mercury -116786-09-02 13:55 J -40934419.10 -40934418.92 -40934418.74 0.0148 0.0027

Mercury -116786-11-29 22:05 J -40934330.75 -40934330.58 -40934330.40 0.0148 0.0057

Mercury -116785-02-26 06:29 J -40934242.38 -40934242.23 -40934242.08 0.0148 0.0088

Mercury -116785-05-24 14:53 J -40934153.99 -40934153.88 -40934153.76 0.0148 0.0119

Mars -116782-01-27 07:41 J -40933176.42 -40933176.18 -40933175.94 0.0148 0.0086

Venus -116778-01-11 14:24 J -40931731.02 -40931730.90 -40931730.77 0.0148 0.0122

Venus -116778-08-26 06:43 J -40931504.40 -40931504.22 -40931504.01 0.0148 0.0077

Venus -116777-04-08 23:31 J -40931277.74 -40931277.52 -40931277.30 0.0147 0.0030

Venus -116777-11-21 15:51 J -40931051.06 -40931050.84 -40931050.61 0.0147 0.0016

Venus -116776-07-06 07:55 J -40930824.36 -40930824.17 -40930823.95 0.0147 0.0062

Venus -116775-02-18 00:15 J -40930597.63 -40930597.49 -40930597.32 0.0146 0.0107

Earth -116755-02-15 20:39 J -40923294.69 -40923294.64 -40923294.58 0.0134 0.0131

Moon -116755-02-15 20:39 J -40923294.67 -40923294.64 -40923294.59 0.0134 0.0133 *

Moon -116754-02-20 03:51 J -40922925.60 -40922925.34 -40922925.08 0.0134 0.0024

Earth -116754-02-20 04:19 J -40922925.57 -40922925.32 -40922925.07 0.0134 0.0023 *

Earth -116753-02-24 10:34 J -40922556.26 -40922556.06 -40922555.86 0.0133 0.0083

Moon -116753-02-24 10:34 J -40922556.23 -40922556.06 -40922555.86 0.0133 0.0087 *

Mercury -116747-10-27 15:22 J -40920118.91 -40920118.86 -40920118.79 0.0131 0.0118

Mercury -116746-01-23 18:43 J -40920030.80 -40920030.72 -40920030.63 0.0131 0.0102

Mercury -116746-04-21 21:51 J -40919942.68 -40919942.59 -40919942.48 0.0131 0.0087

Mercury -116746-07-19 01:12 J -40919854.56 -40919854.45 -40919854.33 0.0131 0.0071

Mercury -116746-10-15 04:19 J -40919766.44 -40919766.32 -40919766.19 0.0131 0.0056

Mercury -116745-01-11 07:27 J -40919678.32 -40919678.19 -40919678.06 0.0131 0.0040

Mercury -116745-04-08 10:34 J -40919590.19 -40919590.06 -40919589.92 0.0131 0.0025

Mercury -116745-07-05 13:41 J -40919502.06 -40919501.93 -40919501.79 0.0131 0.0010

Mercury -116745-10-01 16:48 J -40919413.93 -40919413.80 -40919413.66 0.0131 0.0006

Mercury -116745-12-28 19:55 J -40919325.80 -40919325.67 -40919325.53 0.0131 0.0021
 Mercury -116744-03-26 23:03 J -40919237.67 -40919237.54 -40919237.41 0.0131 0.0036
 Mercury -116744-06-23 01:55 J -40919149.54 -40919149.42 -40919149.29 0.0131 0.0051
 Mercury -116744-09-19 05:03 J -40919061.40 -40919061.29 -40919061.17 0.0131 0.0066
 Mercury -116744-12-16 07:55 J -40918973.27 -40918973.17 -40918973.06 0.0131 0.0081
 Mercury -116743-03-14 11:03 J -40918885.13 -40918885.04 -40918884.94 0.0131 0.0096
 Mercury -116743-06-10 13:55 J -40918796.98 -40918796.92 -40918796.84 0.0131 0.0111
 Mercury -116743-09-06 17:03 J -40918708.82 -40918708.79 -40918708.75 0.0131 0.0125
 Mars -116742-06-05 19:41 J -40918436.78 -40918436.68 -40918436.53 0.0131 0.0120
 Mars -116740-05-07 23:46 J -40917734.74 -40917734.51 -40917734.26 0.0131 0.0088
 Venus -116736-10-16 04:34 J -40916112.32 -40916112.31 -40916112.27 0.0131 0.0131
 Venus -116735-05-30 06:43 J -40915886.34 -40915886.22 -40915886.07 0.0131 0.0100
 Venus -116734-01-11 09:07 J -40915660.30 -40915660.12 -40915659.94 0.0131 0.0070
 Venus -116734-08-25 11:03 J -40915434.23 -40915434.04 -40915433.83 0.0132 0.0040
 Venus -116733-04-07 13:41 J -40915208.14 -40915207.93 -40915207.72 0.0132 0.0009
 Venus -116733-11-19 15:36 J -40914982.05 -40914981.85 -40914981.63 0.0132 0.0022
 Venus -116732-07-03 17:46 J -40914755.94 -40914755.76 -40914755.55 0.0132 0.0053
 Venus -116731-02-14 20:24 J -40914529.80 -40914529.65 -40914529.48 0.0132 0.0084
 Venus -116731-09-28 22:48 J -40914303.64 -40914303.55 -40914303.44 0.0133 0.0115
 Moon -116710-08-11 06:43 J -40906682.47 -40906682.22 -40906681.96 0.0145 0.0043
 Earth -116710-08-11 06:58 J -40906682.44 -40906682.21 -40906681.95 0.0145 0.0040 *
 Moon -116709-08-15 08:24 J -40906312.32 -40906312.15 -40906311.96 0.0146 0.0098
 Earth -116709-08-15 08:53 J -40906312.31 -40906312.13 -40906311.94 0.0146 0.0099 *
 Mercury -116703-04-10 22:05 J -40904247.64 -40904247.58 -40904247.52 0.0148 0.0139
 Mercury -116703-07-08 06:00 J -40904159.36 -40904159.25 -40904159.12 0.0148 0.0110
 Mercury -116703-10-04 13:55 J -40904071.06 -40904070.92 -40904070.76 0.0148 0.0081
 Mercury -116703-12-31 22:05 J -40903982.74 -40903982.58 -40903982.40 0.0148 0.0051
 Mercury -116702-03-30 06:29 J -40903894.41 -40903894.23 -40903894.05 0.0148 0.0021
 Mercury -116702-06-26 14:39 J -40903806.07 -40903805.89 -40903805.70 0.0148 0.0009
 Mercury -116702-09-22 22:48 J -40903717.72 -40903717.55 -40903717.37 0.0148 0.0039

Mercury -116702-12-20 07:12 J -40903629.36 -40903629.20 -40903629.03 0.0148 0.0070

Mercury -116701-03-17 15:22 J -40903540.98 -40903540.86 -40903540.71 0.0148 0.0101

Mercury -116701-06-13 23:46 J -40903452.58 -40903452.51 -40903452.41 0.0148 0.0132

Mars -116700-10-19 22:05 J -40902959.80 -40902959.58 -40902959.33 0.0148 0.0088

Venus -116695-09-10 20:39 J -40901172.68 -40901172.64 -40901172.57 0.0148 0.0143

Venus -116694-04-25 13:27 J -40900946.11 -40900945.94 -40900945.77 0.0148 0.0097

Venus -116694-12-08 05:46 J -40900719.47 -40900719.26 -40900719.04 0.0147 0.0051

Venus -116693-07-21 22:19 J -40900492.79 -40900492.57 -40900492.34 0.0147 0.0005

Venus -116692-03-05 14:24 J -40900266.10 -40900265.90 -40900265.67 0.0147 0.0042

Venus -116692-10-18 06:58 J -40900039.39 -40900039.21 -40900039.03 0.0147 0.0087

Venus -116691-06-01 22:48 J -40899812.63 -40899812.55 -40899812.44 0.0146 0.0132

Earth -116671-02-16 09:36 J -40892613.18 -40892613.10 -40892612.98 0.0134 0.0123

Moon -116671-02-16 11:46 J -40892613.11 -40892613.01 -40892612.89 0.0134 0.0120 *

Moon -116670-02-20 16:05 J -40892244.09 -40892243.83 -40892243.57 0.0134 0.0016

Earth -116670-02-20 17:46 J -40892244.01 -40892243.76 -40892243.51 0.0134 0.0015 *

Earth -116669-02-24 23:46 J -40891874.68 -40891874.51 -40891874.31 0.0133 0.0091

Moon -116669-02-25 01:12 J -40891874.62 -40891874.45 -40891874.26 0.0133 0.0087 *

Mercury -116663-08-20 20:10 J -40889505.69 -40889505.66 -40889505.63 0.0131 0.0127

Mercury -116663-11-16 23:31 J -40889417.59 -40889417.52 -40889417.45 0.0131 0.0112

Mercury -116662-02-13 02:24 J -40889329.48 -40889329.40 -40889329.30 0.0131 0.0096

Mercury -116662-05-12 05:46 J -40889241.36 -40889241.26 -40889241.15 0.0131 0.0080

Mercury -116662-08-08 08:53 J -40889153.24 -40889153.13 -40889153.01 0.0131 0.0065

Mercury -116662-11-04 12:15 J -40889065.12 -40889064.99 -40889064.87 0.0131 0.0049

Mercury -116661-01-31 15:22 J -40888976.99 -40888976.86 -40888976.73 0.0131 0.0034

Mercury -116661-04-28 18:29 J -40888888.87 -40888888.73 -40888888.60 0.0131 0.0019

Mercury -116661-07-25 21:36 J -40888800.74 -40888800.60 -40888800.46 0.0131 0.0004

Mercury -116661-10-22 00:43 J -40888712.61 -40888712.47 -40888712.34 0.0131 0.0012

Mercury -116660-01-18 03:36 J -40888624.48 -40888624.35 -40888624.21 0.0131 0.0028

Mercury -116660-04-16 06:43 J -40888536.35 -40888536.22 -40888536.09 0.0131 0.0042

Mercury -116660-07-13 09:51 J -40888448.21 -40888448.09 -40888447.97 0.0131 0.0057

Mercury -116660-10-09 12:58 J -40888360.08 -40888359.96 -40888359.85 0.0131 0.0072
 Mercury -116659-01-05 15:51 J -40888271.94 -40888271.84 -40888271.74 0.0131 0.0087
 Mercury -116659-04-03 18:43 J -40888183.79 -40888183.72 -40888183.63 0.0131 0.0102
 Mercury -116659-06-30 21:51 J -40888095.64 -40888095.59 -40888095.53 0.0131 0.0117
 Mars -116657-01-30 01:55 J -40887517.71 -40887517.42 -40887517.10 0.0131 0.0041
 Venus -116651-01-27 21:07 J -40885327.71 -40885327.62 -40885327.50 0.0131 0.0113
 Venus -116651-09-10 23:31 J -40885101.68 -40885101.52 -40885101.35 0.0131 0.0083
 Venus -116650-04-25 01:55 J -40884875.62 -40884875.42 -40884875.23 0.0132 0.0052
 Venus -116650-12-07 03:51 J -40884649.54 -40884649.34 -40884649.12 0.0132 0.0022
 Venus -116649-07-20 06:15 J -40884423.45 -40884423.24 -40884423.02 0.0132 0.0010
 Venus -116648-03-03 08:39 J -40884197.33 -40884197.14 -40884196.93 0.0132 0.0041
 Venus -116648-10-15 11:03 J -40883971.21 -40883971.04 -40883970.86 0.0132 0.0072
 Venus -116647-05-29 13:12 J -40883745.07 -40883744.95 -40883744.81 0.0133 0.0103
 Moon -116626-08-11 21:22 J -40876000.86 -40876000.61 -40876000.35 0.0145 0.0023
 Earth -116626-08-11 22:48 J -40876000.79 -40876000.55 -40876000.29 0.0145 0.0028 *
 Earth -116625-08-16 00:43 J -40875630.62 -40875630.47 -40875630.30 0.0146 0.0111
 Moon -116625-08-16 02:10 J -40875630.57 -40875630.41 -40875630.25 0.0146 0.0110 *
 Mercury -116619-05-01 07:12 J -40873546.29 -40873546.20 -40873546.10 0.0148 0.0126
 Mercury -116619-07-28 15:07 J -40873458.00 -40873457.87 -40873457.73 0.0148 0.0097
 Mercury -116619-10-24 23:03 J -40873369.69 -40873369.54 -40873369.36 0.0148 0.0068
 Mercury -116618-01-21 07:27 J -40873281.37 -40873281.19 -40873281.01 0.0148 0.0038
 Mercury -116618-04-19 15:36 J -40873193.03 -40873192.85 -40873192.67 0.0148 0.0008
 Mercury -116618-07-16 23:46 J -40873104.69 -40873104.51 -40873104.32 0.0148 0.0022
 Mercury -116618-10-13 08:10 J -40873016.34 -40873016.16 -40873015.99 0.0148 0.0053
 Mercury -116617-01-09 16:05 J -40872927.97 -40872927.83 -40872927.66 0.0148 0.0084
 Mercury -116617-04-07 00:43 J -40872839.59 -40872839.47 -40872839.35 0.0148 0.0114
 Mercury -116617-07-04 08:53 J -40872751.16 -40872751.13 -40872751.08 0.0148 0.0145
 Mars -116615-06-15 20:10 J -40872039.95 -40872039.66 -40872039.37 0.0148 0.0019
 Venus -116611-12-23 20:10 J -40870387.79 -40870387.66 -40870387.53 0.0148 0.0117
 Venus -116610-08-07 12:43 J -40870161.17 -40870160.97 -40870160.77 0.0147 0.0071

Venus -116609-03-21 05:03 J -40869934.51 -40869934.29 -40869934.06 0.0147 0.0025
 Venus -116609-11-02 21:22 J -40869707.83 -40869707.61 -40869707.38 0.0147 0.0022
 Venus -116608-06-17 13:27 J -40869481.13 -40869480.94 -40869480.73 0.0147 0.0068
 Venus -116607-01-30 05:31 J -40869254.39 -40869254.27 -40869254.11 0.0146 0.0114
 Earth -116587-02-16 22:34 J -40861931.67 -40861931.56 -40861931.41 0.0134 0.0116
 Moon -116587-02-17 01:41 J -40861931.53 -40861931.43 -40861931.31 0.0134 0.0120 *
 Moon -116586-02-21 04:19 J -40861562.58 -40861562.32 -40861562.06 0.0134 0.0006
 Earth -116586-02-21 06:58 J -40861562.47 -40861562.21 -40861561.96 0.0134 0.0008 *
 Earth -116585-02-25 13:12 J -40861193.12 -40861192.95 -40861192.77 0.0133 0.0098
 Moon -116585-02-25 15:51 J -40861193.00 -40861192.84 -40861192.66 0.0133 0.0099 *
 Mercury -116579-09-10 03:36 J -40858804.39 -40858804.35 -40858804.29 0.0131 0.0122
 Mercury -116579-12-07 06:58 J -40858716.28 -40858716.21 -40858716.12 0.0131 0.0105
 Mercury -116578-03-05 10:05 J -40858628.17 -40858628.08 -40858627.97 0.0131 0.0090
 Mercury -116578-06-01 13:27 J -40858540.05 -40858539.94 -40858539.82 0.0131 0.0074
 Mercury -116578-08-28 16:34 J -40858451.93 -40858451.81 -40858451.68 0.0131 0.0059
 Mercury -116578-11-24 19:55 J -40858363.80 -40858363.67 -40858363.54 0.0131 0.0043
 Mercury -116577-02-20 23:03 J -40858275.68 -40858275.54 -40858275.41 0.0131 0.0028
 Mercury -116577-05-19 02:10 J -40858187.55 -40858187.41 -40858187.27 0.0131 0.0012
 Mercury -116577-08-15 05:17 J -40858099.42 -40858099.28 -40858099.14 0.0131 0.0003
 Mercury -116577-11-11 08:24 J -40858011.29 -40858011.15 -40858011.02 0.0131 0.0018
 Mercury -116576-02-07 11:17 J -40857923.16 -40857923.03 -40857922.89 0.0131 0.0034
 Mercury -116576-05-06 14:24 J -40857835.02 -40857834.90 -40857834.77 0.0131 0.0048
 Mercury -116576-08-02 17:17 J -40857746.89 -40857746.78 -40857746.65 0.0131 0.0064
 Mercury -116576-10-29 20:39 J -40857658.75 -40857658.64 -40857658.54 0.0131 0.0078
 Mercury -116575-01-25 23:31 J -40857570.61 -40857570.52 -40857570.42 0.0131 0.0093
 Mercury -116575-04-24 02:24 J -40857482.47 -40857482.40 -40857482.32 0.0131 0.0108
 Mercury -116575-07-21 05:17 J -40857394.31 -40857394.28 -40857394.22 0.0131 0.0123
 Mars -116573-09-24 06:43 J -40856598.52 -40856598.22 -40856597.90 0.0131 0.0040
 Venus -116568-09-27 11:17 J -40854769.07 -40854769.03 -40854768.96 0.0131 0.0126
 Venus -116567-05-11 13:41 J -40854543.07 -40854542.93 -40854542.78 0.0131 0.0096

Venus -116567-12-23 16:05 J -40854317.02 -40854316.83 -40854316.65 0.0132 0.0065
 Venus -116566-08-06 18:00 J -40854090.94 -40854090.75 -40854090.53 0.0132 0.0035
 Venus -116565-03-19 20:39 J -40853864.85 -40853864.64 -40853864.43 0.0132 0.0003
 Venus -116565-10-31 22:48 J -40853638.75 -40853638.55 -40853638.34 0.0132 0.0028
 Venus -116564-06-15 00:58 J -40853412.64 -40853412.46 -40853412.26 0.0132 0.0059
 Venus -116563-01-27 03:22 J -40853186.50 -40853186.36 -40853186.20 0.0133 0.0090
 Venus -116563-09-10 05:46 J -40852960.33 -40852960.26 -40852960.17 0.0133 0.0122
 Moon -116542-08-12 10:48 J -40845319.30 -40845319.05 -40845318.79 0.0145 0.0024
 Earth -116542-08-12 13:41 J -40845319.18 -40845318.93 -40845318.67 0.0145 0.0018 *
 Earth -116541-08-16 15:36 J -40844948.98 -40844948.85 -40844948.70 0.0146 0.0121
 Moon -116541-08-16 17:17 J -40844948.90 -40844948.78 -40844948.64 0.0146 0.0123 *
 Mercury -116535-02-22 08:10 J -40842933.20 -40842933.16 -40842933.11 0.0148 0.0143
 Mercury -116535-05-21 16:05 J -40842844.94 -40842844.83 -40842844.71 0.0148 0.0114
 Mercury -116535-08-18 00:00 J -40842756.64 -40842756.50 -40842756.34 0.0148 0.0085
 Mercury -116535-11-14 08:10 J -40842668.33 -40842668.16 -40842667.99 0.0148 0.0055
 Mercury -116534-02-10 16:19 J -40842580.00 -40842579.82 -40842579.64 0.0148 0.0026
 Mercury -116534-05-10 00:29 J -40842491.66 -40842491.48 -40842491.29 0.0148 0.0005
 Mercury -116534-08-06 08:53 J -40842403.31 -40842403.13 -40842402.95 0.0148 0.0035
 Mercury -116534-11-02 16:48 J -40842314.96 -40842314.80 -40842314.62 0.0148 0.0065
 Mercury -116533-01-30 01:12 J -40842226.58 -40842226.45 -40842226.30 0.0148 0.0096
 Mercury -116533-04-27 09:22 J -40842138.19 -40842138.11 -40842138.00 0.0148 0.0127
 Mars -116530-02-09 16:19 J -40841119.95 -40841119.82 -40841119.64 0.0148 0.0125
 Venus -116527-08-23 03:36 J -40839829.43 -40839829.35 -40839829.27 0.0148 0.0137
 Venus -116526-04-06 19:55 J -40839602.84 -40839602.67 -40839602.48 0.0147 0.0091
 Venus -116526-11-19 12:29 J -40839376.19 -40839375.98 -40839375.76 0.0147 0.0044
 Venus -116525-07-03 04:48 J -40839149.52 -40839149.30 -40839149.07 0.0147 0.0004
 Venus -116524-02-14 21:07 J -40838922.83 -40838922.62 -40838922.40 0.0147 0.0049
 Venus -116524-09-29 13:27 J -40838696.10 -40838695.94 -40838695.76 0.0146 0.0095
 Venus -116523-05-14 05:17 J -40838469.32 -40838469.28 -40838469.20 0.0146 0.0141
 Earth -116503-02-17 12:43 J -40831250.10 -40831249.97 -40831249.79 0.0134 0.0108

Moon -116503-02-17 16:34 J -40831249.97 -40831249.81 -40831249.64 0.0134 0.0102 *
 Moon -116502-02-21 17:31 J -40830881.03 -40830880.77 -40830880.51 0.0134 0.0004
 Earth -116502-02-21 21:07 J -40830880.88 -40830880.62 -40830880.37 0.0134 0.0001 *
 Earth -116501-02-26 03:22 J -40830511.51 -40830511.36 -40830511.20 0.0133 0.0106
 Moon -116501-02-26 06:15 J -40830511.38 -40830511.24 -40830511.08 0.0133 0.0105 *
 Mercury -116495-07-04 08:24 J -40828191.16 -40828191.15 -40828191.14 0.0131 0.0130
 Mercury -116495-09-30 11:17 J -40828103.08 -40828103.03 -40828102.95 0.0131 0.0116
 Mercury -116495-12-27 14:39 J -40828014.97 -40828014.89 -40828014.79 0.0131 0.0099
 Mercury -116494-03-25 18:00 J -40827926.85 -40827926.75 -40827926.64 0.0131 0.0083
 Mercury -116494-06-21 21:07 J -40827838.73 -40827838.62 -40827838.50 0.0131 0.0068
 Mercury -116494-09-18 00:15 J -40827750.61 -40827750.49 -40827750.36 0.0131 0.0053
 Mercury -116494-12-15 03:36 J -40827662.48 -40827662.35 -40827662.22 0.0131 0.0037
 Mercury -116493-03-12 06:43 J -40827574.36 -40827574.22 -40827574.09 0.0131 0.0022
 Mercury -116493-06-08 09:51 J -40827486.23 -40827486.09 -40827485.95 0.0131 0.0006
 Mercury -116493-09-04 12:58 J -40827398.10 -40827397.96 -40827397.83 0.0131 0.0009
 Mercury -116493-12-01 16:05 J -40827309.97 -40827309.83 -40827309.70 0.0131 0.0024
 Mercury -116492-02-27 18:58 J -40827221.84 -40827221.71 -40827221.58 0.0131 0.0039
 Mercury -116492-05-26 22:05 J -40827133.70 -40827133.58 -40827133.45 0.0131 0.0054
 Mercury -116492-08-23 01:12 J -40827045.57 -40827045.45 -40827045.34 0.0131 0.0069
 Mercury -116492-11-19 04:05 J -40826957.43 -40826957.33 -40826957.22 0.0131 0.0084
 Mercury -116491-02-15 06:58 J -40826869.29 -40826869.21 -40826869.11 0.0131 0.0099
 Mercury -116491-05-14 10:05 J -40826781.14 -40826781.08 -40826781.01 0.0131 0.0113
 Mercury -116491-08-10 13:12 J -40826692.97 -40826692.95 -40826692.93 0.0131 0.0128
 Mars -116490-06-18 08:24 J -40826381.37 -40826381.15 -40826380.90 0.0131 0.0090
 Mars -116488-05-20 11:03 J -40825679.15 -40825679.04 -40825678.88 0.0131 0.0119
 Venus -116483-01-09 03:07 J -40823984.47 -40823984.37 -40823984.24 0.0131 0.0110
 Venus -116483-08-23 05:31 J -40823758.43 -40823758.27 -40823758.10 0.0131 0.0079
 Venus -116482-04-06 07:55 J -40823532.37 -40823532.17 -40823531.97 0.0132 0.0048
 Venus -116482-11-18 10:05 J -40823306.29 -40823306.08 -40823305.87 0.0132 0.0017
 Venus -116481-07-01 12:15 J -40823080.20 -40823079.99 -40823079.78 0.0132 0.0014

Venus -116480-02-12 14:39 J -40822854.09 -40822853.89 -40822853.69 0.0132 0.0046
 Venus -116480-09-26 17:03 J -40822627.96 -40822627.79 -40822627.62 0.0132 0.0077
 Venus -116479-05-10 18:58 J -40822401.82 -40822401.71 -40822401.58 0.0133 0.0109
 Moon -116458-08-12 22:05 J -40814637.83 -40814637.58 -40814637.32 0.0145 0.0005
 Earth -116458-08-13 01:27 J -40814637.69 -40814637.44 -40814637.19 0.0145 0.0011 *
 Earth -116457-08-17 03:22 J -40814267.48 -40814267.36 -40814267.24 0.0146 0.0127
 Moon -116457-08-17 06:15 J -40814267.35 -40814267.24 -40814267.09 0.0146 0.0124 *
 Mercury -116451-03-14 15:51 J -40812231.91 -40812231.84 -40812231.76 0.0148 0.0135
 Mercury -116451-06-10 23:46 J -40812143.63 -40812143.51 -40812143.38 0.0148 0.0106
 Mercury -116451-09-07 07:41 J -40812055.33 -40812055.18 -40812055.02 0.0148 0.0077
 Mercury -116451-12-04 15:51 J -40811967.01 -40811966.84 -40811966.66 0.0148 0.0047
 Mercury -116450-03-03 00:00 J -40811878.68 -40811878.50 -40811878.32 0.0148 0.0018
 Mercury -116450-05-30 08:10 J -40811790.34 -40811790.16 -40811789.97 0.0148 0.0012
 Mercury -116450-08-26 16:19 J -40811701.99 -40811701.82 -40811701.64 0.0148 0.0043
 Mercury -116450-11-23 00:29 J -40811613.63 -40811613.48 -40811613.31 0.0148 0.0073
 Mercury -116449-02-19 08:53 J -40811525.26 -40811525.13 -40811524.99 0.0148 0.0103
 Mercury -116449-05-17 17:03 J -40811436.85 -40811436.79 -40811436.70 0.0148 0.0134
 Mars -116448-11-02 00:00 J -40810903.76 -40810903.50 -40810903.21 0.0148 0.0054
 Venus -116443-12-05 00:00 J -40809044.63 -40809044.50 -40809044.35 0.0148 0.0114
 Venus -116442-07-19 16:34 J -40808818.00 -40808817.81 -40808817.60 0.0147 0.0067
 Venus -116441-03-02 09:07 J -40808591.34 -40808591.12 -40808590.89 0.0147 0.0020
 Venus -116441-10-15 01:27 J -40808364.65 -40808364.44 -40808364.21 0.0147 0.0027
 Venus -116440-05-29 17:46 J -40808137.95 -40808137.76 -40808137.56 0.0147 0.0073
 Venus -116439-01-11 09:51 J -40807911.21 -40807911.09 -40807910.95 0.0146 0.0119
 Earth -116419-02-18 01:12 J -40800568.62 -40800568.45 -40800568.28 0.0134 0.0101
 Moon -116419-02-18 04:34 J -40800568.45 -40800568.31 -40800568.15 0.0134 0.0107 *
 Moon -116418-02-22 05:31 J -40800199.52 -40800199.27 -40800199.01 0.0134 0.0010
 Earth -116418-02-22 09:07 J -40800199.37 -40800199.12 -40800198.87 0.0134 0.0006 *
 Earth -116417-02-26 15:22 J -40799829.99 -40799829.86 -40799829.71 0.0133 0.0112
 Moon -116417-02-26 18:43 J -40799829.83 -40799829.72 -40799829.55 0.0133 0.0111 *

Mercury -116411-07-24 15:36 J -40797489.88 -40797489.85 -40797489.80 0.0131 0.0126

Mercury -116411-10-20 18:43 J -40797401.78 -40797401.72 -40797401.63 0.0131 0.0110

Mercury -116410-01-16 22:05 J -40797313.67 -40797313.58 -40797313.48 0.0131 0.0094

Mercury -116410-04-15 01:27 J -40797225.55 -40797225.44 -40797225.33 0.0131 0.0078

Mercury -116410-07-12 04:34 J -40797137.43 -40797137.31 -40797137.19 0.0131 0.0063

Mercury -116410-10-08 07:41 J -40797049.30 -40797049.18 -40797049.05 0.0131 0.0048

Mercury -116409-01-04 11:03 J -40796961.18 -40796961.04 -40796960.91 0.0131 0.0032

Mercury -116409-04-01 14:10 J -40796873.05 -40796872.91 -40796872.78 0.0131 0.0017

Mercury -116409-06-28 17:17 J -40796784.92 -40796784.78 -40796784.65 0.0131 0.0003

Mercury -116409-09-24 20:10 J -40796696.79 -40796696.66 -40796696.52 0.0131 0.0015

Mercury -116409-12-21 23:17 J -40796608.66 -40796608.53 -40796608.39 0.0131 0.0029

Mercury -116408-03-20 02:24 J -40796520.53 -40796520.40 -40796520.27 0.0131 0.0044

Mercury -116408-06-16 05:31 J -40796432.39 -40796432.27 -40796432.15 0.0131 0.0059

Mercury -116408-09-12 08:24 J -40796344.26 -40796344.15 -40796344.03 0.0131 0.0074

Mercury -116408-12-09 11:31 J -40796256.12 -40796256.02 -40796255.92 0.0131 0.0089

Mercury -116407-03-07 14:24 J -40796167.97 -40796167.90 -40796167.81 0.0131 0.0104

Mercury -116407-06-03 17:31 J -40796079.82 -40796079.77 -40796079.71 0.0131 0.0118

Mars -116405-02-11 08:39 J -40795462.46 -40795462.14 -40795461.82 0.0131 0.0013

Venus -116400-09-08 16:05 J -40793425.89 -40793425.83 -40793425.75 0.0131 0.0124

Venus -116399-04-22 18:00 J -40793199.88 -40793199.75 -40793199.59 0.0131 0.0093

Venus -116399-12-04 20:10 J -40792973.83 -40792973.66 -40792973.46 0.0131 0.0063

Venus -116398-07-18 22:34 J -40792747.76 -40792747.56 -40792747.35 0.0132 0.0031

Venus -116397-03-01 00:58 J -40792521.67 -40792521.46 -40792521.25 0.0132 0.0000

Venus -116397-10-13 03:07 J -40792295.57 -40792295.37 -40792295.17 0.0132 0.0031

Venus -116396-05-27 05:17 J -40792069.46 -40792069.28 -40792069.09 0.0132 0.0063

Venus -116395-01-08 07:12 J -40791843.33 -40791843.20 -40791843.04 0.0132 0.0094

Venus -116395-08-22 09:36 J -40791617.15 -40791617.10 -40791617.02 0.0133 0.0126

Moon -116375-08-08 12:29 J -40784326.04 -40784325.98 -40784325.88 0.0144 0.0138

Moon -116374-08-13 05:46 J -40783956.51 -40783956.26 -40783956.00 0.0145 0.0018

Earth -116374-08-13 09:36 J -40783956.35 -40783956.10 -40783955.85 0.0145 0.0010 *

Earth -116373-08-17 11:17 J -40783586.14 -40783586.03 -40783585.91 0.0146 0.0128
 Moon -116373-08-17 14:24 J -40783585.98 -40783585.90 -40783585.78 0.0146 0.0134 *
 Mercury -116367-04-03 22:19 J -40781530.64 -40781530.57 -40781530.48 0.0148 0.0131
 Mercury -116367-07-01 06:15 J -40781442.36 -40781442.24 -40781442.10 0.0148 0.0102
 Mercury -116367-09-27 14:10 J -40781354.06 -40781353.91 -40781353.74 0.0148 0.0073
 Mercury -116367-12-24 22:19 J -40781265.74 -40781265.57 -40781265.39 0.0148 0.0044
 Mercury -116366-03-23 06:29 J -40781177.41 -40781177.23 -40781177.04 0.0148 0.0014
 Mercury -116366-06-19 14:39 J -40781089.07 -40781088.89 -40781088.70 0.0148 0.0016
 Mercury -116366-09-15 22:48 J -40781000.72 -40781000.55 -40781000.37 0.0148 0.0047
 Mercury -116366-12-13 07:12 J -40780912.36 -40780912.20 -40780912.04 0.0148 0.0077
 Mercury -116365-03-10 15:22 J -40780823.98 -40780823.86 -40780823.73 0.0148 0.0107
 Mercury -116365-06-06 23:31 J -40780735.57 -40780735.52 -40780735.44 0.0148 0.0138
 Mars -116363-06-28 08:24 J -40779984.43 -40779984.15 -40779983.86 0.0148 0.0042
 Venus -116359-08-04 01:55 J -40778486.47 -40778486.42 -40778486.33 0.0148 0.0140
 Venus -116358-03-18 18:43 J -40778259.88 -40778259.72 -40778259.54 0.0147 0.0093
 Venus -116358-10-31 11:17 J -40778033.24 -40778033.03 -40778032.81 0.0147 0.0045
 Venus -116357-06-14 03:36 J -40777806.57 -40777806.35 -40777806.12 0.0147 0.0003
 Venus -116356-01-26 19:55 J -40777579.88 -40777579.67 -40777579.45 0.0147 0.0048
 Venus -116356-09-10 12:15 J -40777353.15 -40777352.99 -40777352.81 0.0147 0.0095
 Venus -116355-04-25 04:19 J -40777126.37 -40777126.32 -40777126.25 0.0146 0.0141
 Earth -116335-02-18 11:46 J -40769887.18 -40769887.01 -40769886.82 0.0134 0.0096
 Moon -116335-02-18 15:22 J -40769887.05 -40769886.86 -40769886.67 0.0134 0.0090 *
 Moon -116334-02-22 16:34 J -40769518.06 -40769517.81 -40769517.55 0.0134 0.0006
 Earth -116334-02-22 20:10 J -40769517.92 -40769517.66 -40769517.41 0.0134 0.0011 *
 Earth -116333-02-27 02:10 J -40769148.51 -40769148.41 -40769148.27 0.0133 0.0116
 Moon -116333-02-27 05:17 J -40769148.37 -40769148.28 -40769148.14 0.0133 0.0120 *
 Mercury -116327-08-13 22:48 J -40766788.59 -40766788.55 -40766788.48 0.0131 0.0122
 Mercury -116327-11-10 02:10 J -40766700.48 -40766700.41 -40766700.32 0.0131 0.0106
 Mercury -116326-02-06 05:31 J -40766612.37 -40766612.27 -40766612.17 0.0131 0.0090
 Mercury -116326-05-05 08:39 J -40766524.25 -40766524.14 -40766524.02 0.0131 0.0074

Mercury -116326-08-01 12:00 J -40766436.12 -40766436.00 -40766435.88 0.0131 0.0058
 Mercury -116326-10-28 15:07 J -40766348.00 -40766347.87 -40766347.74 0.0131 0.0043
 Mercury -116325-01-24 18:15 J -40766259.87 -40766259.74 -40766259.61 0.0131 0.0028
 Mercury -116325-04-21 21:22 J -40766171.75 -40766171.61 -40766171.47 0.0131 0.0012
 Mercury -116325-07-19 00:29 J -40766083.62 -40766083.48 -40766083.34 0.0131 0.0003
 Mercury -116325-10-15 03:36 J -40765995.49 -40765995.35 -40765995.21 0.0131 0.0018
 Mercury -116324-01-11 06:43 J -40765907.35 -40765907.22 -40765907.09 0.0131 0.0033
 Mercury -116324-04-09 09:36 J -40765819.22 -40765819.10 -40765818.97 0.0131 0.0048
 Mercury -116324-07-06 12:43 J -40765731.09 -40765730.97 -40765730.85 0.0131 0.0063
 Mercury -116324-10-02 15:51 J -40765642.95 -40765642.84 -40765642.73 0.0131 0.0078
 Mercury -116324-12-29 18:43 J -40765554.81 -40765554.72 -40765554.62 0.0131 0.0093
 Mercury -116323-03-27 21:51 J -40765466.66 -40765466.59 -40765466.51 0.0131 0.0108
 Mercury -116323-06-24 00:43 J -40765378.51 -40765378.47 -40765378.42 0.0131 0.0122
 Mars -116321-10-06 08:39 J -40764543.40 -40764543.14 -40764542.83 0.0131 0.0065
 Venus -116316-12-21 07:12 J -40762641.32 -40762641.20 -40762641.08 0.0131 0.0108
 Venus -116315-08-04 08:53 J -40762415.28 -40762415.13 -40762414.94 0.0131 0.0077
 Venus -116314-03-18 11:31 J -40762189.22 -40762189.02 -40762188.82 0.0131 0.0046
 Venus -116314-10-30 13:41 J -40761963.14 -40761962.93 -40761962.72 0.0132 0.0015
 Venus -116313-06-12 15:36 J -40761737.05 -40761736.85 -40761736.64 0.0132 0.0017
 Venus -116312-01-24 17:46 J -40761510.95 -40761510.76 -40761510.56 0.0132 0.0048
 Venus -116312-09-07 20:10 J -40761284.83 -40761284.66 -40761284.49 0.0132 0.0080
 Venus -116311-04-21 22:05 J -40761058.67 -40761058.58 -40761058.45 0.0132 0.0112
 Earth -116291-08-08 18:00 J -40753644.77 -40753644.75 -40753644.67 0.0144 0.0142
 Moon -116290-08-13 15:22 J -40753275.11 -40753274.86 -40753274.61 0.0145 0.0002
 Earth -116290-08-13 18:29 J -40753274.99 -40753274.73 -40753274.48 0.0145 0.0007 *
 Earth -116289-08-17 19:27 J -40752904.78 -40752904.69 -40752904.56 0.0145 0.0131
 Moon -116289-08-17 23:31 J -40752904.65 -40752904.52 -40752904.39 0.0145 0.0124 *
 Mercury -116283-04-24 04:34 J -40750829.39 -40750829.31 -40750829.21 0.0148 0.0128
 Mercury -116283-07-21 12:29 J -40750741.10 -40750740.98 -40750740.83 0.0148 0.0099
 Mercury -116283-10-17 20:24 J -40750652.80 -40750652.65 -40750652.47 0.0148 0.0070

Mercury -116282-01-14 04:48 J -40750564.48 -40750564.30 -40750564.12 0.0148 0.0040
 Mercury -116282-04-12 12:43 J -40750476.15 -40750475.97 -40750475.78 0.0148 0.0011
 Mercury -116282-07-09 20:53 J -40750387.81 -40750387.63 -40750387.44 0.0148 0.0020
 Mercury -116282-10-06 05:03 J -40750299.46 -40750299.29 -40750299.11 0.0148 0.0050
 Mercury -116281-01-02 13:12 J -40750211.10 -40750210.95 -40750210.78 0.0148 0.0080
 Mercury -116281-03-30 21:36 J -40750122.72 -40750122.60 -40750122.47 0.0148 0.0110
 Mercury -116281-06-27 05:46 J -40750034.30 -40750034.26 -40750034.19 0.0148 0.0141
 Mars -116280-03-20 05:46 J -40749768.30 -40749768.26 -40749768.17 0.0148 0.0145
 Mars -116278-02-21 11:46 J -40749065.10 -40749065.01 -40749064.87 0.0148 0.0136
 Venus -116275-11-15 19:55 J -40747701.80 -40747701.67 -40747701.54 0.0148 0.0119
 Venus -116274-06-30 12:00 J -40747475.19 -40747475.00 -40747474.80 0.0147 0.0072
 Venus -116273-02-12 04:34 J -40747248.53 -40747248.31 -40747248.09 0.0147 0.0025
 Venus -116273-09-25 20:53 J -40747021.85 -40747021.63 -40747021.40 0.0147 0.0022
 Venus -116272-05-10 13:12 J -40746795.15 -40746794.95 -40746794.75 0.0147 0.0069
 Venus -116272-12-23 05:03 J -40746568.41 -40746568.29 -40746568.14 0.0146 0.0116
 Earth -116251-02-18 19:12 J -40739205.86 -40739205.70 -40739205.50 0.0134 0.0095
 Moon -116251-02-18 21:36 J -40739205.75 -40739205.60 -40739205.41 0.0134 0.0102 *
 Moon -116250-02-23 01:41 J -40738836.67 -40738836.43 -40738836.18 0.0134 0.0020
 Earth -116250-02-23 03:51 J -40738836.59 -40738836.34 -40738836.08 0.0134 0.0013 *
 Earth -116249-02-27 10:34 J -40738467.16 -40738467.06 -40738466.93 0.0133 0.0119
 Moon -116249-02-27 13:12 J -40738467.06 -40738466.95 -40738466.80 0.0133 0.0115 *
 Mercury -116243-09-03 05:46 J -40736087.31 -40736087.26 -40736087.19 0.0131 0.0118
 Mercury -116243-11-30 09:07 J -40735999.20 -40735999.12 -40735999.03 0.0131 0.0102
 Mercury -116242-02-26 12:29 J -40735911.08 -40735910.98 -40735910.88 0.0131 0.0087
 Mercury -116242-05-25 15:36 J -40735822.96 -40735822.85 -40735822.73 0.0131 0.0071
 Mercury -116242-08-21 18:58 J -40735734.84 -40735734.71 -40735734.59 0.0131 0.0055
 Mercury -116242-11-17 22:05 J -40735646.71 -40735646.58 -40735646.45 0.0131 0.0040
 Mercury -116241-02-14 01:12 J -40735558.58 -40735558.45 -40735558.31 0.0131 0.0024
 Mercury -116241-05-12 04:19 J -40735470.46 -40735470.32 -40735470.18 0.0131 0.0009
 Mercury -116241-08-08 07:27 J -40735382.33 -40735382.19 -40735382.05 0.0131 0.0006

Mercury -116241-11-04 10:34 J -40735294.19 -40735294.06 -40735293.93 0.0131 0.0021

Mercury -116240-01-31 13:27 J -40735206.06 -40735205.94 -40735205.80 0.0131 0.0037

Mercury -116240-04-29 16:34 J -40735117.93 -40735117.81 -40735117.68 0.0131 0.0052

Mercury -116240-07-26 19:41 J -40735029.79 -40735029.68 -40735029.56 0.0131 0.0067

Mercury -116240-10-22 22:34 J -40734941.65 -40734941.56 -40734941.44 0.0131 0.0082

Mercury -116239-01-19 01:55 J -40734853.51 -40734853.42 -40734853.33 0.0131 0.0096

Mercury -116239-04-17 04:48 J -40734765.36 -40734765.30 -40734765.23 0.0131 0.0111

Mercury -116239-07-14 07:41 J -40734677.20 -40734677.18 -40734677.14 0.0131 0.0126

Mars -116238-06-30 04:05 J -40734326.61 -40734326.33 -40734326.06 0.0131 0.0069

Venus -116232-08-20 19:27 J -40732082.76 -40732082.69 -40732082.62 0.0131 0.0123

Venus -116231-04-03 21:36 J -40731856.75 -40731856.60 -40731856.45 0.0131 0.0092

Venus -116231-11-15 23:31 J -40731630.70 -40731630.52 -40731630.33 0.0132 0.0061

Venus -116230-06-30 01:41 J -40731404.63 -40731404.43 -40731404.22 0.0132 0.0030

Venus -116229-02-11 04:05 J -40731178.54 -40731178.33 -40731178.12 0.0132 0.0002

Venus -116229-09-24 06:00 J -40730952.44 -40730952.25 -40730952.03 0.0132 0.0034

Venus -116228-05-08 08:10 J -40730726.33 -40730726.16 -40730725.96 0.0132 0.0066

Venus -116228-12-20 10:34 J -40730500.19 -40730500.06 -40730499.91 0.0132 0.0097

Venus -116227-08-03 12:43 J -40730274.00 -40730273.97 -40730273.90 0.0133 0.0129

Earth -116207-08-09 05:17 J -40722963.34 -40722963.28 -40722963.17 0.0144 0.0136

Moon -116207-08-09 06:58 J -40722963.30 -40722963.21 -40722963.08 0.0144 0.0131 *

Moon -116206-08-14 03:07 J -40722593.62 -40722593.37 -40722593.13 0.0145 0.0009

Earth -116206-08-14 05:31 J -40722593.53 -40722593.27 -40722593.02 0.0145 0.0002 *

Earth -116205-08-18 06:15 J -40722223.31 -40722223.24 -40722223.13 0.0145 0.0136

Moon -116205-08-18 08:53 J -40722223.16 -40722223.13 -40722223.07 0.0145 0.0143 *

Mercury -116199-05-14 12:00 J -40720128.10 -40720128.00 -40720127.89 0.0148 0.0121

Mercury -116199-08-10 19:55 J -40720039.81 -40720039.67 -40720039.52 0.0148 0.0092

Mercury -116199-11-07 03:51 J -40719951.50 -40719951.34 -40719951.17 0.0148 0.0063

Mercury -116198-02-03 12:00 J -40719863.18 -40719863.00 -40719862.82 0.0148 0.0034

Mercury -116198-05-02 20:10 J -40719774.85 -40719774.66 -40719774.48 0.0148 0.0005

Mercury -116198-07-30 04:05 J -40719686.51 -40719686.33 -40719686.14 0.0148 0.0026

Mercury -116198-10-26 12:15 J -40719598.16 -40719597.99 -40719597.81 0.0148 0.0056

Mercury -116197-01-22 20:24 J -40719509.79 -40719509.65 -40719509.49 0.0148 0.0086

Mercury -116197-04-20 04:48 J -40719421.41 -40719421.30 -40719421.18 0.0148 0.0116

Mercury -116197-07-17 12:58 J -40719332.97 -40719332.96 -40719332.93 0.0148 0.0147

Mars -116196-11-13 16:48 J -40718849.08 -40718848.80 -40718848.52 0.0148 0.0045

Venus -116191-07-15 22:34 J -40717143.60 -40717143.56 -40717143.51 0.0148 0.0144

Venus -116190-02-27 15:07 J -40716917.04 -40716916.87 -40716916.71 0.0147 0.0097

Venus -116190-10-12 07:12 J -40716690.41 -40716690.20 -40716689.98 0.0147 0.0050

Venus -116189-05-25 23:31 J -40716463.74 -40716463.52 -40716463.29 0.0147 0.0003

Venus -116188-01-07 15:36 J -40716237.06 -40716236.85 -40716236.63 0.0147 0.0045

Venus -116188-08-22 07:55 J -40716010.34 -40716010.17 -40716009.99 0.0147 0.0092

Venus -116187-04-06 00:00 J -40715783.57 -40715783.50 -40715783.42 0.0146 0.0138

Earth -116167-02-19 04:48 J -40708524.48 -40708524.30 -40708524.10 0.0134 0.0091

Moon -116167-02-19 05:17 J -40708524.47 -40708524.28 -40708524.06 0.0134 0.0085 *

Moon -116166-02-23 12:15 J -40708155.23 -40708154.99 -40708154.74 0.0134 0.0010

Earth -116166-02-23 13:27 J -40708155.18 -40708154.94 -40708154.68 0.0134 0.0017 *

Earth -116165-02-27 20:24 J -40707785.74 -40707785.65 -40707785.53 0.0134 0.0122

Moon -116165-02-27 21:07 J -40707785.67 -40707785.62 -40707785.52 0.0134 0.0128 *

Mercury -116159-06-27 09:36 J -40705474.10 -40705474.10 -40705474.07 0.0131 0.0131

Mercury -116159-09-23 12:58 J -40705386.02 -40705385.96 -40705385.89 0.0131 0.0114

Mercury -116159-12-20 16:19 J -40705297.91 -40705297.82 -40705297.73 0.0131 0.0099

Mercury -116158-03-18 19:41 J -40705209.79 -40705209.68 -40705209.58 0.0131 0.0083

Mercury -116158-06-14 22:48 J -40705121.67 -40705121.55 -40705121.43 0.0131 0.0067

Mercury -116158-09-11 01:55 J -40705033.54 -40705033.42 -40705033.29 0.0131 0.0052

Mercury -116158-12-08 05:03 J -40704945.42 -40704945.29 -40704945.15 0.0131 0.0037

Mercury -116157-03-05 08:24 J -40704857.29 -40704857.15 -40704857.02 0.0131 0.0021

Mercury -116157-06-01 11:31 J -40704769.16 -40704769.02 -40704768.88 0.0131 0.0006

Mercury -116157-08-28 14:39 J -40704681.03 -40704680.89 -40704680.76 0.0131 0.0010

Mercury -116157-11-24 17:46 J -40704592.90 -40704592.76 -40704592.63 0.0131 0.0025

Mercury -116156-02-20 20:53 J -40704504.76 -40704504.63 -40704504.50 0.0131 0.0040

Mercury -116156-05-19 23:46 J -40704416.63 -40704416.51 -40704416.38 0.0131 0.0056
 Mercury -116156-08-16 02:53 J -40704328.49 -40704328.38 -40704328.26 0.0131 0.0070
 Mercury -116156-11-12 06:00 J -40704240.35 -40704240.25 -40704240.15 0.0131 0.0085
 Mercury -116155-02-08 08:53 J -40704152.21 -40704152.13 -40704152.04 0.0131 0.0100
 Mercury -116155-05-07 12:00 J -40704064.06 -40704064.00 -40704063.93 0.0131 0.0115
 Mercury -116155-08-03 14:53 J -40703975.88 -40703975.88 -40703975.86 0.0131 0.0130
 Mars -116153-02-23 02:39 J -40703407.71 -40703407.39 -40703407.06 0.0131 0.0007
 Venus -116148-12-02 09:51 J -40701298.21 -40701298.09 -40701297.96 0.0131 0.0107
 Venus -116147-07-16 12:00 J -40701072.17 -40701072.00 -40701071.82 0.0132 0.0076
 Venus -116146-02-27 14:24 J -40700846.10 -40700845.90 -40700845.70 0.0132 0.0044
 Venus -116146-10-11 16:34 J -40700620.02 -40700619.81 -40700619.60 0.0132 0.0013
 Venus -116145-05-24 18:43 J -40700393.93 -40700393.72 -40700393.51 0.0132 0.0019
 Venus -116144-01-05 20:39 J -40700167.82 -40700167.64 -40700167.43 0.0132 0.0052
 Venus -116144-08-19 23:03 J -40699941.69 -40699941.54 -40699941.36 0.0132 0.0083
 Venus -116143-04-03 01:27 J -40699715.53 -40699715.44 -40699715.32 0.0133 0.0115
 Earth -116123-08-09 18:43 J -40692281.82 -40692281.72 -40692281.58 0.0144 0.0127
 Moon -116123-08-09 19:27 J -40692281.79 -40692281.69 -40692281.56 0.0144 0.0130 *
 Moon -116122-08-14 18:00 J -40691911.99 -40691911.75 -40691911.50 0.0145 0.0014
 Earth -116122-08-14 18:43 J -40691911.97 -40691911.72 -40691911.46 0.0145 0.0007 *
 Earth -116121-08-18 19:55 J -40691541.70 -40691541.67 -40691541.64 0.0145 0.0144
 Moon -116121-08-18 21:22 J -40691541.68 -40691541.61 -40691541.51 0.0145 0.0137 *
 Mercury -116115-03-07 12:15 J -40689515.04 -40689514.99 -40689514.93 0.0148 0.0140
 Mercury -116115-06-03 19:55 J -40689426.77 -40689426.67 -40689426.54 0.0148 0.0112
 Mercury -116115-08-31 03:51 J -40689338.48 -40689338.34 -40689338.18 0.0148 0.0083
 Mercury -116115-11-27 12:00 J -40689250.17 -40689250.00 -40689249.82 0.0148 0.0053
 Mercury -116114-02-23 20:10 J -40689161.84 -40689161.66 -40689161.48 0.0148 0.0024
 Mercury -116114-05-23 04:19 J -40689073.51 -40689073.32 -40689073.14 0.0148 0.0006
 Mercury -116114-08-19 12:15 J -40688985.16 -40688984.99 -40688984.80 0.0148 0.0036
 Mercury -116114-11-15 20:24 J -40688896.81 -40688896.65 -40688896.48 0.0148 0.0066
 Mercury -116113-02-12 04:34 J -40688808.44 -40688808.31 -40688808.16 0.0148 0.0096

Mercury -116113-05-10 12:58 J -40688720.05 -40688719.96 -40688719.86 0.0148 0.0126
 Mars -116111-07-10 08:53 J -40687929.39 -40687929.13 -40687928.84 0.0148 0.0058
 Venus -116107-10-27 19:27 J -40686358.81 -40686358.69 -40686358.55 0.0147 0.0120
 Venus -116106-06-11 11:31 J -40686132.20 -40686132.02 -40686131.81 0.0147 0.0073
 Venus -116105-01-24 03:51 J -40685905.56 -40685905.34 -40685905.11 0.0147 0.0025
 Venus -116105-09-06 20:10 J -40685678.88 -40685678.66 -40685678.43 0.0147 0.0022
 Venus -116104-04-21 12:00 J -40685452.18 -40685452.00 -40685451.79 0.0147 0.0070
 Venus -116104-12-04 04:05 J -40685225.46 -40685225.33 -40685225.18 0.0146 0.0116
 Moon -116083-02-19 13:55 J -40677843.09 -40677842.92 -40677842.71 0.0134 0.0093
 Earth -116083-02-19 14:24 J -40677843.08 -40677842.90 -40677842.69 0.0134 0.0087 *
 Earth -116082-02-23 23:03 J -40677473.78 -40677473.54 -40677473.28 0.0134 0.0021
 Moon -116082-02-23 23:46 J -40677473.74 -40677473.51 -40677473.25 0.0134 0.0028 *
 Moon -116081-02-28 06:00 J -40677104.35 -40677104.25 -40677104.11 0.0134 0.0120
 Earth -116081-02-28 06:29 J -40677104.30 -40677104.23 -40677104.14 0.0134 0.0126 *
 Mercury -116075-07-17 16:48 J -40674772.83 -40674772.80 -40674772.76 0.0132 0.0126
 Mercury -116075-10-13 20:10 J -40674684.73 -40674684.66 -40674684.58 0.0131 0.0111
 Mercury -116074-01-09 23:31 J -40674596.62 -40674596.52 -40674596.43 0.0131 0.0095
 Mercury -116074-04-08 02:24 J -40674508.50 -40674508.40 -40674508.28 0.0131 0.0080
 Mercury -116074-07-05 05:46 J -40674420.37 -40674420.26 -40674420.13 0.0131 0.0064
 Mercury -116074-10-01 08:53 J -40674332.25 -40674332.13 -40674331.99 0.0131 0.0049
 Mercury -116074-12-28 12:15 J -40674244.12 -40674243.99 -40674243.86 0.0131 0.0032
 Mercury -116073-03-25 15:22 J -40674155.99 -40674155.86 -40674155.72 0.0131 0.0017
 Mercury -116073-06-21 18:29 J -40674067.86 -40674067.73 -40674067.59 0.0131 0.0004
 Mercury -116073-09-17 21:36 J -40673979.73 -40673979.60 -40673979.46 0.0131 0.0015
 Mercury -116073-12-15 00:43 J -40673891.60 -40673891.47 -40673891.33 0.0131 0.0029
 Mercury -116072-03-13 03:51 J -40673803.47 -40673803.34 -40673803.21 0.0131 0.0044
 Mercury -116072-06-09 06:58 J -40673715.33 -40673715.21 -40673715.09 0.0131 0.0059
 Mercury -116072-09-05 10:05 J -40673627.19 -40673627.08 -40673626.97 0.0131 0.0074
 Mercury -116072-12-02 13:12 J -40673539.05 -40673538.95 -40673538.85 0.0131 0.0089
 Mercury -116071-02-28 16:05 J -40673450.91 -40673450.83 -40673450.74 0.0131 0.0104

Mercury -116071-05-27 18:58 J -40673362.75 -40673362.71 -40673362.65 0.0131 0.0119

Mars -116071-11-15 22:34 J -40673190.62 -40673190.56 -40673190.44 0.0131 0.0126

Mars -116069-10-18 01:12 J -40672488.67 -40672488.45 -40672488.17 0.0131 0.0085

Venus -116064-08-01 22:05 J -40670739.65 -40670739.58 -40670739.49 0.0131 0.0122

Venus -116063-03-16 00:15 J -40670513.63 -40670513.49 -40670513.32 0.0132 0.0091

Venus -116063-10-28 02:39 J -40670287.57 -40670287.39 -40670287.20 0.0132 0.0059

Venus -116062-06-11 04:48 J -40670061.50 -40670061.30 -40670061.09 0.0132 0.0028

Venus -116061-01-23 07:12 J -40669835.41 -40669835.20 -40669834.99 0.0132 0.0004

Venus -116061-09-05 09:22 J -40669609.31 -40669609.11 -40669608.90 0.0132 0.0036

Venus -116060-04-19 11:46 J -40669383.18 -40669383.01 -40669382.82 0.0132 0.0068

Venus -116060-12-01 13:55 J -40669157.04 -40669156.92 -40669156.77 0.0133 0.0101

Venus -116059-07-15 16:19 J -40668930.82 -40668930.82 -40668930.79 0.0133 0.0133

Moon -116039-08-10 06:29 J -40661600.37 -40661600.23 -40661600.07 0.0144 0.0118

Earth -116039-08-10 07:55 J -40661600.30 -40661600.17 -40661600.01 0.0144 0.0118 *

Earth -116038-08-15 07:41 J -40661230.43 -40661230.18 -40661229.93 0.0145 0.0015

Moon -116038-08-15 07:55 J -40661230.41 -40661230.17 -40661229.93 0.0145 0.0010 *

Mercury -116031-03-27 20:39 J -40658813.72 -40658813.64 -40658813.55 0.0148 0.0130

Mercury -116031-06-24 04:19 J -40658725.44 -40658725.32 -40658725.18 0.0148 0.0102

Mercury -116031-09-20 12:15 J -40658637.14 -40658636.99 -40658636.82 0.0148 0.0073

Mercury -116031-12-17 20:24 J -40658548.82 -40658548.65 -40658548.47 0.0148 0.0043

Mercury -116030-03-16 04:34 J -40658460.50 -40658460.31 -40658460.13 0.0148 0.0014

Mercury -116030-06-12 12:29 J -40658372.16 -40658371.98 -40658371.79 0.0148 0.0016

Mercury -116030-09-08 20:39 J -40658283.81 -40658283.64 -40658283.46 0.0148 0.0046

Mercury -116030-12-06 04:48 J -40658195.45 -40658195.30 -40658195.14 0.0148 0.0076

Mercury -116029-03-03 13:12 J -40658107.08 -40658106.95 -40658106.82 0.0148 0.0106

Mercury -116029-05-30 21:07 J -40658018.67 -40658018.62 -40658018.53 0.0148 0.0137

Mars -116028-04-01 19:12 J -40657712.86 -40657712.70 -40657712.51 0.0148 0.0119

Venus -116023-06-27 01:12 J -40655800.50 -40655800.45 -40655800.38 0.0148 0.0142

Venus -116022-02-08 17:17 J -40655573.94 -40655573.78 -40655573.60 0.0147 0.0095

Venus -116022-09-23 09:36 J -40655347.30 -40655347.10 -40655346.88 0.0147 0.0047

Venus	-116021-05-07 01:55 J	-40655120.65	-40655120.42	-40655120.20	0.0147	0.0001
Venus	-116021-12-19 17:46 J	-40654893.97	-40654893.76	-40654893.54	0.0147	0.0048
Venus	-116020-08-03 09:51 J	-40654667.25	-40654667.09	-40654666.91	0.0147	0.0095
Venus	-116019-03-18 01:27 J	-40654440.48	-40654440.44	-40654440.36	0.0146	0.0142

116TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 116th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-115999-02-19 23:17 J	-40647161.72	-40647161.53	-40647161.29	0.0134	0.0078		
Earth	-115999-02-20 01:41 J	-40647161.61	-40647161.43	-40647161.21	0.0134	0.0082	*	
Earth	-115998-02-24 10:48 J	-40646792.30	-40646792.05	-40646791.80	0.0134	0.0026		
Moon	-115998-02-24 12:29 J	-40646792.22	-40646791.98	-40646791.74	0.0134	0.0020	*	
Earth	-115997-02-28 17:46 J	-40646422.80	-40646422.76	-40646422.70	0.0133	0.0131		
Mercury	-115991-08-07 00:15 J	-40644071.54	-40644071.49	-40644071.44	0.0131	0.0122		
Mercury	-115991-11-03 03:22 J	-40643983.44	-40643983.36	-40643983.28	0.0131	0.0106		
Mercury	-115990-01-30 06:29 J	-40643895.32	-40643895.23	-40643895.12	0.0131	0.0091		
Mercury	-115990-04-28 09:51 J	-40643807.20	-40643807.09	-40643806.97	0.0131	0.0075		
Mercury	-115990-07-25 12:58 J	-40643719.08	-40643718.96	-40643718.83	0.0131	0.0059		
Mercury	-115990-10-21 16:19 J	-40643630.95	-40643630.82	-40643630.69	0.0131	0.0044		
Mercury	-115989-01-17 19:27 J	-40643542.82	-40643542.69	-40643542.55	0.0131	0.0028		

Mercury -115989-04-14 22:34 J -40643454.69 -40643454.56 -40643454.42 0.0131 0.0013

Mercury -115989-07-12 01:55 J -40643366.56 -40643366.42 -40643366.29 0.0131 0.0005

Mercury -115989-10-08 05:03 J -40643278.43 -40643278.29 -40643278.16 0.0131 0.0018

Mercury -115988-01-04 08:10 J -40643190.30 -40643190.16 -40643190.03 0.0131 0.0033

Mercury -115988-04-02 11:03 J -40643102.16 -40643102.04 -40643101.91 0.0131 0.0049

Mercury -115988-06-29 14:10 J -40643014.02 -40643013.91 -40643013.79 0.0131 0.0064

Mercury -115988-09-25 17:03 J -40642925.89 -40642925.79 -40642925.67 0.0131 0.0079

Mercury -115988-12-22 20:10 J -40642837.74 -40642837.66 -40642837.56 0.0131 0.0094

Mercury -115987-03-20 23:31 J -40642749.60 -40642749.52 -40642749.45 0.0131 0.0108

Mercury -115987-06-17 02:24 J -40642661.44 -40642661.40 -40642661.35 0.0131 0.0123

Mars -115986-07-11 22:19 J -40642271.86 -40642271.57 -40642271.26 0.0131 0.0049

Venus -115980-11-13 12:43 J -40639955.09 -40639954.97 -40639954.84 0.0131 0.0106

Venus -115979-06-27 14:39 J -40639729.05 -40639728.89 -40639728.70 0.0132 0.0075

Venus -115978-02-08 17:03 J -40639502.98 -40639502.79 -40639502.58 0.0132 0.0043

Venus -115978-09-22 19:27 J -40639276.90 -40639276.69 -40639276.48 0.0132 0.0011

Venus -115977-05-05 21:51 J -40639050.80 -40639050.59 -40639050.38 0.0132 0.0021

Venus -115977-12-18 00:00 J -40638824.69 -40638824.50 -40638824.30 0.0132 0.0053

Venus -115976-08-01 02:10 J -40638598.56 -40638598.41 -40638598.24 0.0132 0.0086

Venus -115975-03-15 04:48 J -40638372.39 -40638372.30 -40638372.20 0.0133 0.0118

Moon -115955-08-10 17:17 J -40630918.92 -40630918.78 -40630918.60 0.0144 0.0112

Earth -115955-08-10 19:27 J -40630918.83 -40630918.69 -40630918.51 0.0144 0.0112 *

Earth -115954-08-15 19:12 J -40630548.95 -40630548.70 -40630548.44 0.0145 0.0021

Moon -115954-08-15 20:53 J -40630548.86 -40630548.63 -40630548.38 0.0145 0.0026 *

Mercury -115947-04-17 04:19 J -40628112.41 -40628112.32 -40628112.21 0.0147 0.0122

Mercury -115947-07-14 12:15 J -40628024.12 -40628023.99 -40628023.84 0.0148 0.0093

Mercury -115947-10-10 20:10 J -40627935.82 -40627935.66 -40627935.49 0.0148 0.0064

Mercury -115946-01-07 04:19 J -40627847.50 -40627847.32 -40627847.14 0.0148 0.0034

Mercury -115946-04-05 12:29 J -40627759.17 -40627758.98 -40627758.80 0.0148 0.0005

Mercury -115946-07-02 20:39 J -40627670.83 -40627670.64 -40627670.46 0.0148 0.0025

Mercury -115946-09-29 04:34 J -40627582.48 -40627582.31 -40627582.13 0.0148 0.0055

Mercury -115946-12-26 12:43 J -40627494.11 -40627493.97 -40627493.81 0.0148 0.0085

Mercury -115945-03-23 21:07 J -40627405.73 -40627405.62 -40627405.50 0.0148 0.0115

Mercury -115945-06-20 05:17 J -40627317.30 -40627317.28 -40627317.24 0.0148 0.0146

Mars -115944-11-26 11:03 J -40626793.33 -40626793.04 -40626792.74 0.0148 0.0016

Venus -115939-10-08 22:05 J -40625015.70 -40625015.58 -40625015.43 0.0147 0.0118

Venus -115938-05-23 14:24 J -40624789.09 -40624788.90 -40624788.70 0.0147 0.0070

Venus -115937-01-05 06:29 J -40624562.44 -40624562.23 -40624562.00 0.0147 0.0022

Venus -115937-08-18 22:48 J -40624335.77 -40624335.55 -40624335.32 0.0147 0.0026

Venus -115936-04-02 14:53 J -40624109.07 -40624108.88 -40624108.68 0.0147 0.0073

Venus -115936-11-15 06:29 J -40623882.34 -40623882.23 -40623882.09 0.0146 0.0120

Moon -115915-02-20 09:22 J -40616480.30 -40616480.11 -40616479.88 0.0134 0.0080

Earth -115915-02-20 12:15 J -40616480.18 -40616479.99 -40616479.76 0.0134 0.0077 *

Earth -115914-02-24 20:53 J -40616110.87 -40616110.63 -40616110.37 0.0134 0.0030

Moon -115914-02-24 23:46 J -40616110.74 -40616110.51 -40616110.26 0.0134 0.0036 *

Moon -115913-02-29 01:12 J -40615741.51 -40615741.45 -40615741.37 0.0133 0.0128

Mercury -115907-08-27 06:58 J -40613370.26 -40613370.21 -40613370.14 0.0131 0.0119

Mercury -115907-11-23 10:19 J -40613282.15 -40613282.07 -40613281.98 0.0131 0.0103

Mercury -115906-02-19 13:27 J -40613194.03 -40613193.94 -40613193.83 0.0131 0.0087

Mercury -115906-05-18 16:48 J -40613105.91 -40613105.80 -40613105.68 0.0131 0.0071

Mercury -115906-08-14 20:10 J -40613017.79 -40613017.66 -40613017.54 0.0131 0.0056

Mercury -115906-11-10 23:17 J -40612929.66 -40612929.53 -40612929.40 0.0131 0.0040

Mercury -115905-02-07 02:24 J -40612841.53 -40612841.40 -40612841.26 0.0131 0.0025

Mercury -115905-05-05 05:46 J -40612753.40 -40612753.26 -40612753.13 0.0131 0.0009

Mercury -115905-08-01 08:53 J -40612665.27 -40612665.13 -40612664.99 0.0131 0.0006

Mercury -115905-10-28 12:00 J -40612577.14 -40612577.00 -40612576.87 0.0131 0.0022

Mercury -115904-01-24 15:07 J -40612489.00 -40612488.87 -40612488.74 0.0131 0.0037

Mercury -115904-04-22 18:15 J -40612400.87 -40612400.74 -40612400.62 0.0131 0.0052

Mercury -115904-07-19 21:07 J -40612312.73 -40612312.62 -40612312.50 0.0131 0.0067

Mercury -115904-10-16 00:15 J -40612224.59 -40612224.49 -40612224.38 0.0131 0.0082

Mercury -115903-01-12 03:22 J -40612136.45 -40612136.36 -40612136.27 0.0131 0.0097

Mercury -115903-04-10 06:15 J -40612048.30 -40612048.24 -40612048.16 0.0131 0.0112

Mercury -115903-07-07 09:22 J -40611960.13 -40611960.11 -40611960.07 0.0131 0.0127

Mars -115901-03-05 18:29 J -40611353.03 -40611352.73 -40611352.40 0.0131 0.0027

Venus -115896-07-13 23:46 J -40609396.58 -40609396.51 -40609396.42 0.0131 0.0122

Venus -115895-02-25 01:55 J -40609170.56 -40609170.42 -40609170.25 0.0131 0.0091

Venus -115895-10-09 04:19 J -40608944.50 -40608944.32 -40608944.12 0.0132 0.0059

Venus -115894-05-23 06:29 J -40608718.43 -40608718.23 -40608718.02 0.0132 0.0027

Venus -115893-01-04 08:53 J -40608492.34 -40608492.13 -40608491.92 0.0132 0.0006

Venus -115893-08-17 11:17 J -40608266.23 -40608266.03 -40608265.83 0.0132 0.0038

Venus -115892-03-31 13:27 J -40608040.11 -40608039.94 -40608039.75 0.0132 0.0070

Venus -115892-11-12 15:51 J -40607813.96 -40607813.84 -40607813.69 0.0132 0.0102

Moon -115871-08-11 00:29 J -40600237.64 -40600237.48 -40600237.32 0.0144 0.0113

Earth -115871-08-11 03:36 J -40600237.50 -40600237.35 -40600237.18 0.0144 0.0111 *

Earth -115870-08-16 02:53 J -40599867.62 -40599867.38 -40599867.12 0.0145 0.0023

Moon -115870-08-16 06:00 J -40599867.50 -40599867.25 -40599867.01 0.0145 0.0021 *

Mercury -115863-02-08 03:07 J -40597499.38 -40597499.37 -40597499.33 0.0147 0.0146

Mercury -115863-05-07 11:17 J -40597411.14 -40597411.03 -40597410.92 0.0147 0.0117

Mercury -115863-08-03 19:12 J -40597322.85 -40597322.70 -40597322.56 0.0148 0.0088

Mercury -115863-10-31 03:07 J -40597234.54 -40597234.37 -40597234.20 0.0148 0.0059

Mercury -115862-01-27 11:03 J -40597146.22 -40597146.04 -40597145.86 0.0148 0.0030

Mercury -115862-04-25 19:12 J -40597057.89 -40597057.70 -40597057.52 0.0148 0.0001

Jupiter -115862-07-08 02:10 J -40596984.81 -40596984.41 -40596983.93 0.0148 0.0082

Mercury -115862-07-23 03:07 J -40596969.54 -40596969.37 -40596969.18 0.0148 0.0030

Mercury -115862-10-19 11:17 J -40596881.19 -40596881.03 -40596880.86 0.0148 0.0060

Mercury -115861-01-15 19:27 J -40596792.83 -40596792.69 -40596792.54 0.0148 0.0090

Mercury -115861-04-13 03:36 J -40596704.44 -40596704.35 -40596704.23 0.0148 0.0120

Mars -115859-07-22 19:55 J -40595873.91 -40595873.67 -40595873.41 0.0148 0.0081

Venus -115855-06-08 00:43 J -40594457.52 -40594457.47 -40594457.41 0.0148 0.0143

Venus -115854-01-20 16:34 J -40594230.96 -40594230.81 -40594230.62 0.0147 0.0096

Venus -115854-09-04 09:07 J -40594004.33 -40594004.12 -40594003.90 0.0147 0.0047

Venus -115853-04-18 01:27 J -40593777.67 -40593777.44 -40593777.22 0.0147 0.0002
 Venus -115853-11-30 17:17 J -40593550.99 -40593550.78 -40593550.56 0.0147 0.0048
 Venus -115852-07-15 09:22 J -40593324.27 -40593324.11 -40593323.94 0.0146 0.0096
 Venus -115851-02-27 01:12 J -40593097.49 -40593097.45 -40593097.39 0.0146 0.0143
 Moon -115831-02-20 18:43 J -40585798.92 -40585798.72 -40585798.49 0.0134 0.0072
 Earth -115831-02-20 22:34 J -40585798.76 -40585798.56 -40585798.34 0.0134 0.0074 *
 Earth -115830-02-25 07:12 J -40585429.44 -40585429.20 -40585428.95 0.0134 0.0033
 Moon -115830-02-25 10:34 J -40585429.30 -40585429.06 -40585428.81 0.0134 0.0029 *
 Mercury -115823-06-20 11:03 J -40582757.05 -40582757.04 -40582757.03 0.0131 0.0131
 Mercury -115823-09-16 13:55 J -40582668.97 -40582668.92 -40582668.84 0.0131 0.0116
 Mercury -115823-12-13 17:17 J -40582580.86 -40582580.78 -40582580.68 0.0131 0.0100
 Mercury -115822-03-11 20:39 J -40582492.74 -40582492.64 -40582492.53 0.0131 0.0083
 Mercury -115822-06-07 23:46 J -40582404.62 -40582404.51 -40582404.38 0.0131 0.0068
 Mercury -115822-09-04 03:07 J -40582316.49 -40582316.37 -40582316.24 0.0131 0.0052
 Mercury -115822-12-01 06:15 J -40582228.37 -40582228.24 -40582228.10 0.0131 0.0037
 Mercury -115821-02-27 09:36 J -40582140.24 -40582140.10 -40582139.97 0.0131 0.0021
 Mercury -115821-05-25 12:43 J -40582052.11 -40582051.97 -40582051.83 0.0131 0.0006
 Mercury -115821-08-21 15:51 J -40581963.97 -40581963.84 -40581963.70 0.0131 0.0010
 Mercury -115821-11-17 18:58 J -40581875.84 -40581875.71 -40581875.57 0.0131 0.0025
 Mercury -115820-02-13 22:05 J -40581787.71 -40581787.58 -40581787.45 0.0131 0.0040
 Jupiter -115820-02-23 05:03 J -40581778.80 -40581778.29 -40581777.79 0.0131 0.0007
 Mercury -115820-05-13 01:12 J -40581699.57 -40581699.45 -40581699.32 0.0131 0.0055
 Mercury -115820-08-09 04:19 J -40581611.43 -40581611.32 -40581611.20 0.0131 0.0070
 Mercury -115820-11-05 07:27 J -40581523.29 -40581523.19 -40581523.09 0.0131 0.0085
 Mercury -115819-02-01 10:19 J -40581435.15 -40581435.07 -40581434.98 0.0131 0.0100
 Mercury -115819-04-30 13:27 J -40581347.00 -40581346.94 -40581346.87 0.0131 0.0115
 Mercury -115819-07-27 16:19 J -40581258.82 -40581258.82 -40581258.79 0.0131 0.0130
 Mars -115819-11-27 12:58 J -40581136.11 -40581135.96 -40581135.75 0.0131 0.0109
 Mars -115817-10-29 13:55 J -40580434.11 -40580433.92 -40580433.71 0.0131 0.0102
 Venus -115812-10-25 13:12 J -40578612.07 -40578611.95 -40578611.82 0.0131 0.0107

Venus -115811-06-08 15:07 J -40578386.03 -40578385.87 -40578385.68 0.0131 0.0076
 Venus -115810-01-20 17:31 J -40578159.96 -40578159.77 -40578159.56 0.0132 0.0044
 Venus -115810-09-03 19:55 J -40577933.88 -40577933.67 -40577933.46 0.0132 0.0011
 Venus -115809-04-16 22:19 J -40577707.78 -40577707.57 -40577707.36 0.0132 0.0021
 Venus -115809-11-29 00:43 J -40577481.67 -40577481.47 -40577481.28 0.0132 0.0053
 Venus -115808-07-13 02:39 J -40577255.53 -40577255.39 -40577255.21 0.0132 0.0086
 Venus -115807-02-24 05:17 J -40577029.36 -40577029.28 -40577029.18 0.0132 0.0118
 Moon -115787-08-11 05:31 J -40569556.42 -40569556.27 -40569556.08 0.0144 0.0107
 Earth -115787-08-11 09:07 J -40569556.26 -40569556.12 -40569555.95 0.0144 0.0112 *
 Earth -115786-08-16 08:24 J -40569186.40 -40569186.15 -40569185.90 0.0145 0.0020
 Moon -115786-08-16 11:46 J -40569186.26 -40569186.01 -40569185.76 0.0145 0.0022 *
 Mercury -115779-02-28 09:07 J -40566798.15 -40566798.12 -40566798.08 0.0147 0.0144
 Mercury -115779-05-27 16:48 J -40566709.90 -40566709.80 -40566709.68 0.0147 0.0116
 Mercury -115779-08-24 00:43 J -40566621.61 -40566621.47 -40566621.31 0.0148 0.0087
 Mercury -115779-11-20 08:53 J -40566533.30 -40566533.13 -40566532.96 0.0148 0.0058
 Mercury -115778-02-16 16:48 J -40566444.98 -40566444.80 -40566444.62 0.0148 0.0028
 Mercury -115778-05-16 00:58 J -40566356.65 -40566356.46 -40566356.28 0.0148 0.0002
 Mercury -115778-08-12 08:53 J -40566268.30 -40566268.13 -40566267.94 0.0148 0.0031
 Mercury -115778-11-08 17:03 J -40566179.95 -40566179.79 -40566179.62 0.0148 0.0061
 Mercury -115777-02-05 01:12 J -40566091.59 -40566091.45 -40566091.30 0.0148 0.0091
 Mercury -115777-05-03 09:22 J -40566003.20 -40566003.11 -40566002.99 0.0148 0.0121
 Mars -115776-04-13 14:10 J -40565658.09 -40565657.91 -40565657.69 0.0148 0.0108
 Venus -115771-09-19 16:48 J -40563672.91 -40563672.80 -40563672.67 0.0147 0.0124
 Venus -115770-05-04 09:07 J -40563446.31 -40563446.12 -40563445.92 0.0147 0.0075
 Venus -115770-12-17 01:27 J -40563219.66 -40563219.44 -40563219.22 0.0147 0.0027
 Venus -115769-07-30 17:31 J -40562992.99 -40562992.77 -40562992.55 0.0147 0.0021
 Venus -115768-03-14 09:22 J -40562766.30 -40562766.11 -40562765.90 0.0147 0.0069
 Venus -115768-10-27 01:12 J -40562539.57 -40562539.45 -40562539.30 0.0146 0.0117
 Moon -115747-02-21 01:41 J -40555117.62 -40555117.43 -40555117.20 0.0135 0.0073
 Earth -115747-02-21 05:03 J -40555117.48 -40555117.29 -40555117.06 0.0135 0.0074 *

Earth -115746-02-25 13:55 J -40554748.17 -40554747.92 -40554747.67 0.0134 0.0033
 Moon -115746-02-25 17:17 J -40554748.01 -40554747.78 -40554747.52 0.0134 0.0038 *
 Moon -115745-02-29 17:17 J -40554378.79 -40554378.78 -40554378.73 0.0134 0.0133
 Mercury -115739-07-10 17:31 J -40552055.79 -40552055.77 -40552055.74 0.0131 0.0129
 Mercury -115739-10-06 20:39 J -40551967.70 -40551967.64 -40551967.56 0.0131 0.0113
 Mercury -115738-01-03 00:00 J -40551879.58 -40551879.50 -40551879.40 0.0131 0.0097
 Mercury -115738-04-01 03:22 J -40551791.46 -40551791.36 -40551791.25 0.0131 0.0081
 Mercury -115738-06-28 06:43 J -40551703.34 -40551703.22 -40551703.10 0.0131 0.0066
 Mercury -115738-09-24 09:51 J -40551615.21 -40551615.09 -40551614.96 0.0131 0.0050
 Mercury -115738-12-21 13:12 J -40551527.09 -40551526.95 -40551526.82 0.0131 0.0035
 Mercury -115737-03-18 16:19 J -40551438.96 -40551438.82 -40551438.68 0.0131 0.0019
 Mercury -115737-06-14 19:27 J -40551350.83 -40551350.69 -40551350.55 0.0131 0.0004
 Mercury -115737-09-10 22:34 J -40551262.69 -40551262.56 -40551262.42 0.0131 0.0012
 Mercury -115737-12-08 01:41 J -40551174.56 -40551174.43 -40551174.29 0.0131 0.0027
 Mercury -115736-03-06 04:48 J -40551086.43 -40551086.30 -40551086.17 0.0131 0.0042
 Mercury -115736-06-02 07:55 J -40550998.29 -40550998.17 -40550998.05 0.0131 0.0057
 Mercury -115736-08-29 11:03 J -40550910.15 -40550910.04 -40550909.93 0.0131 0.0072
 Mercury -115736-11-25 14:10 J -40550822.01 -40550821.91 -40550821.81 0.0131 0.0087
 Mercury -115735-02-21 17:17 J -40550733.87 -40550733.78 -40550733.70 0.0131 0.0102
 Mercury -115735-05-20 20:10 J -40550645.71 -40550645.66 -40550645.60 0.0131 0.0117
 Mars -115734-07-23 06:00 J -40550217.56 -40550217.25 -40550216.94 0.0131 0.0035
 Venus -115728-06-24 23:46 J -40548053.57 -40548053.51 -40548053.43 0.0131 0.0124
 Venus -115727-02-06 02:10 J -40547827.56 -40547827.41 -40547827.26 0.0131 0.0092
 Venus -115727-09-20 04:34 J -40547601.50 -40547601.31 -40547601.12 0.0131 0.0060
 Venus -115726-05-04 06:43 J -40547375.43 -40547375.22 -40547375.01 0.0132 0.0028
 Venus -115726-12-16 08:53 J -40547149.34 -40547149.13 -40547148.91 0.0132 0.0006
 Venus -115725-07-29 11:17 J -40546923.23 -40546923.03 -40546922.82 0.0132 0.0037
 Venus -115724-03-12 13:41 J -40546697.10 -40546696.93 -40546696.74 0.0132 0.0070
 Venus -115724-10-24 15:51 J -40546470.95 -40546470.84 -40546470.69 0.0132 0.0103
 Moon -115703-08-11 12:00 J -40538875.13 -40538875.00 -40538874.85 0.0144 0.0117

Earth -115703-08-11 15:22 J -40538875.00 -40538874.86 -40538874.69 0.0144 0.0112 *
 Earth -115702-08-16 13:55 J -40538505.16 -40538504.92 -40538504.66 0.0145 0.0020
 Moon -115702-08-16 17:46 J -40538505.01 -40538504.76 -40538504.51 0.0145 0.0022 *
 Mercury -115695-03-20 14:53 J -40536096.91 -40536096.88 -40536096.83 0.0147 0.0142
 Mercury -115695-06-16 22:34 J -40536008.66 -40536008.56 -40536008.43 0.0147 0.0114
 Mercury -115695-09-13 06:29 J -40535920.37 -40535920.23 -40535920.07 0.0147 0.0086
 Mercury -115695-12-10 14:24 J -40535832.06 -40535831.90 -40535831.72 0.0148 0.0057
 Mercury -115694-03-08 22:34 J -40535743.74 -40535743.56 -40535743.38 0.0148 0.0027
 Mercury -115694-06-05 06:29 J -40535655.41 -40535655.23 -40535655.04 0.0148 0.0004
 Mercury -115694-09-01 14:39 J -40535567.07 -40535566.89 -40535566.71 0.0148 0.0032
 Mercury -115694-11-28 22:34 J -40535478.72 -40535478.56 -40535478.38 0.0148 0.0062
 Mercury -115693-02-25 06:43 J -40535390.35 -40535390.22 -40535390.06 0.0148 0.0092
 Mercury -115693-05-23 14:53 J -40535301.97 -40535301.88 -40535301.76 0.0148 0.0122
 Mars -115692-12-07 15:51 J -40534739.13 -40534738.84 -40534738.54 0.0148 0.0015
 Venus -115686-01-01 08:39 J -40532888.29 -40532888.14 -40532887.97 0.0147 0.0104
 Venus -115686-08-16 00:58 J -40532661.66 -40532661.46 -40532661.24 0.0147 0.0056
 Venus -115685-03-29 17:17 J -40532435.00 -40532434.78 -40532434.55 0.0147 0.0008
 Venus -115685-11-11 09:22 J -40532208.32 -40532208.11 -40532207.89 0.0147 0.0041
 Venus -115684-06-26 01:12 J -40531981.62 -40531981.45 -40531981.26 0.0146 0.0089
 Venus -115683-02-07 17:03 J -40531754.85 -40531754.79 -40531754.69 0.0146 0.0136
 Moon -115663-02-21 07:55 J -40524436.36 -40524436.17 -40524435.94 0.0135 0.0075
 Earth -115663-02-21 11:03 J -40524436.24 -40524436.04 -40524435.81 0.0135 0.0074 *
 Earth -115662-02-25 20:10 J -40524066.90 -40524066.66 -40524066.41 0.0134 0.0033
 Moon -115662-02-25 23:03 J -40524066.78 -40524066.54 -40524066.28 0.0134 0.0032 *
 Mercury -115655-07-31 00:15 J -40521354.52 -40521354.49 -40521354.46 0.0132 0.0127
 Mercury -115655-10-27 03:22 J -40521266.42 -40521266.36 -40521266.28 0.0131 0.0111
 Mercury -115654-01-23 06:43 J -40521178.31 -40521178.22 -40521178.12 0.0131 0.0095
 Mercury -115654-04-21 10:05 J -40521090.19 -40521090.08 -40521089.97 0.0131 0.0079
 Mercury -115654-07-18 13:27 J -40521002.06 -40521001.94 -40521001.82 0.0131 0.0064
 Mercury -115654-10-14 16:34 J -40520913.94 -40520913.81 -40520913.68 0.0131 0.0048

Mercury -115653-01-10 19:41 J -40520825.81 -40520825.68 -40520825.54 0.0131 0.0033

Mercury -115653-04-07 23:03 J -40520737.68 -40520737.54 -40520737.41 0.0131 0.0017

Mercury -115653-07-05 02:10 J -40520649.55 -40520649.41 -40520649.27 0.0131 0.0002

Mercury -115653-10-01 05:17 J -40520561.42 -40520561.28 -40520561.14 0.0131 0.0014

Mercury -115653-12-28 08:24 J -40520473.28 -40520473.15 -40520473.01 0.0131 0.0029

Mercury -115652-03-26 11:31 J -40520385.15 -40520385.02 -40520384.89 0.0131 0.0044

Mercury -115652-06-22 14:39 J -40520297.01 -40520296.89 -40520296.77 0.0131 0.0059

Mercury -115652-09-18 17:46 J -40520208.87 -40520208.76 -40520208.65 0.0131 0.0074

Mercury -115652-12-15 20:53 J -40520120.73 -40520120.63 -40520120.53 0.0131 0.0089

Mercury -115651-03-13 23:46 J -40520032.58 -40520032.51 -40520032.42 0.0131 0.0104

Mercury -115651-06-10 02:53 J -40519944.43 -40519944.38 -40519944.32 0.0131 0.0119

Mars -115649-03-16 22:19 J -40519298.87 -40519298.57 -40519298.26 0.0131 0.0038

Venus -115644-10-06 12:58 J -40517269.07 -40517268.96 -40517268.84 0.0131 0.0109

Venus -115643-05-20 15:07 J -40517043.03 -40517042.87 -40517042.69 0.0131 0.0077

Venus -115642-01-01 17:31 J -40516816.97 -40516816.77 -40516816.57 0.0132 0.0044

Venus -115642-08-15 19:55 J -40516590.88 -40516590.67 -40516590.46 0.0132 0.0012

Venus -115641-03-28 22:19 J -40516364.77 -40516364.57 -40516364.36 0.0132 0.0021

Venus -115641-11-10 00:43 J -40516138.66 -40516138.47 -40516138.27 0.0132 0.0053

Venus -115640-06-24 03:07 J -40515912.52 -40515912.37 -40515912.21 0.0132 0.0086

Venus -115639-02-05 05:31 J -40515686.35 -40515686.27 -40515686.17 0.0132 0.0119

Moon -115619-08-11 21:51 J -40508193.74 -40508193.59 -40508193.40 0.0144 0.0102

Earth -115619-08-12 00:43 J -40508193.63 -40508193.47 -40508193.30 0.0144 0.0108 *

Earth -115618-08-16 23:17 J -40507823.78 -40507823.53 -40507823.28 0.0145 0.0023

Moon -115618-08-17 02:10 J -40507823.66 -40507823.41 -40507823.15 0.0145 0.0021 *

Mercury -115611-04-09 21:36 J -40505395.65 -40505395.60 -40505395.52 0.0147 0.0138

Mercury -115611-07-07 05:46 J -40505307.38 -40505307.26 -40505307.14 0.0147 0.0109

Mercury -115611-10-03 13:27 J -40505219.09 -40505218.94 -40505218.78 0.0147 0.0080

Mercury -115611-12-30 21:22 J -40505130.78 -40505130.61 -40505130.43 0.0147 0.0051

Mercury -115610-03-29 05:17 J -40505042.46 -40505042.28 -40505042.09 0.0148 0.0023

Mercury -115610-06-25 13:27 J -40504954.12 -40504953.94 -40504953.76 0.0148 0.0007

Mercury -115610-09-21 21:22 J -40504865.78 -40504865.61 -40504865.43 0.0148 0.0037

Mercury -115610-12-19 05:31 J -40504777.43 -40504777.27 -40504777.10 0.0148 0.0067

Mercury -115609-03-16 13:27 J -40504689.07 -40504688.94 -40504688.79 0.0148 0.0097

Mercury -115609-06-12 21:36 J -40504600.68 -40504600.60 -40504600.49 0.0148 0.0127

Mars -115607-08-03 00:00 J -40503819.73 -40503819.50 -40503819.24 0.0148 0.0083

Venus -115603-08-31 10:48 J -40502330.15 -40502330.05 -40502329.94 0.0147 0.0131

Venus -115602-04-15 02:53 J -40502103.56 -40502103.38 -40502103.19 0.0147 0.0082

Venus -115602-11-27 18:58 J -40501876.92 -40501876.71 -40501876.49 0.0147 0.0034

Venus -115601-07-11 11:03 J -40501650.26 -40501650.04 -40501649.81 0.0147 0.0015

Venus -115600-02-23 03:07 J -40501423.57 -40501423.37 -40501423.16 0.0147 0.0063

Venus -115600-10-07 19:12 J -40501196.84 -40501196.70 -40501196.55 0.0146 0.0111

Moon -115579-02-21 15:36 J -40493755.04 -40493754.85 -40493754.62 0.0135 0.0070

Earth -115579-02-21 17:46 J -40493754.97 -40493754.76 -40493754.55 0.0135 0.0073 *

Earth -115578-02-26 02:39 J -40493385.64 -40493385.39 -40493385.14 0.0134 0.0034

Moon -115578-02-26 04:34 J -40493385.56 -40493385.31 -40493385.05 0.0134 0.0034 *

Mercury -115571-08-20 06:58 J -40490653.25 -40490653.21 -40490653.17 0.0132 0.0125

Mercury -115571-11-16 09:51 J -40490565.15 -40490565.09 -40490565.00 0.0132 0.0110

Mercury -115570-02-12 13:12 J -40490477.03 -40490476.95 -40490476.84 0.0131 0.0094

Mercury -115570-05-11 16:34 J -40490388.91 -40490388.81 -40490388.69 0.0131 0.0078

Mercury -115570-08-07 19:55 J -40490300.79 -40490300.67 -40490300.54 0.0131 0.0062

Mercury -115570-11-03 23:03 J -40490212.66 -40490212.54 -40490212.40 0.0131 0.0047

Mercury -115569-01-31 02:24 J -40490124.53 -40490124.40 -40490124.26 0.0131 0.0031

Mercury -115569-04-28 05:31 J -40490036.40 -40490036.27 -40490036.13 0.0131 0.0016

Mercury -115569-07-25 08:53 J -40489948.27 -40489948.13 -40489947.99 0.0131 0.0002

Mercury -115569-10-21 12:00 J -40489860.14 -40489860.00 -40489859.86 0.0131 0.0016

Mercury -115568-01-17 15:07 J -40489772.00 -40489771.87 -40489771.74 0.0131 0.0031

Mercury -115568-04-15 18:15 J -40489683.87 -40489683.74 -40489683.61 0.0131 0.0046

Mercury -115568-07-12 21:22 J -40489595.73 -40489595.61 -40489595.49 0.0131 0.0061

Mercury -115568-10-09 00:29 J -40489507.59 -40489507.48 -40489507.37 0.0131 0.0076

Mercury -115567-01-05 03:22 J -40489419.45 -40489419.36 -40489419.26 0.0131 0.0092

Mercury -115567-04-03 06:29 J -40489331.30 -40489331.23 -40489331.15 0.0131 0.0106

Mercury -115567-06-30 09:36 J -40489243.15 -40489243.10 -40489243.05 0.0131 0.0121

Mars -115567-12-08 14:10 J -40489082.10 -40489081.91 -40489081.69 0.0131 0.0099

Mars -115565-11-09 14:24 J -40488380.05 -40488379.90 -40488379.72 0.0131 0.0112

Venus -115560-06-05 23:31 J -40486710.57 -40486710.52 -40486710.45 0.0131 0.0126

Venus -115559-01-18 01:55 J -40486484.56 -40486484.42 -40486484.26 0.0131 0.0094

Venus -115559-09-01 04:19 J -40486258.50 -40486258.32 -40486258.12 0.0132 0.0061

Venus -115558-04-15 06:58 J -40486032.42 -40486032.21 -40486032.00 0.0132 0.0029

Venus -115558-11-27 09:22 J -40485806.32 -40485806.11 -40485805.90 0.0132 0.0004

Venus -115557-07-10 11:31 J -40485580.21 -40485580.02 -40485579.81 0.0132 0.0037

Venus -115556-02-21 14:24 J -40485354.08 -40485353.90 -40485353.72 0.0132 0.0070

Venus -115556-10-05 16:34 J -40485127.93 -40485127.81 -40485127.67 0.0132 0.0103

Moon -115535-08-12 09:36 J -40477512.24 -40477512.10 -40477511.93 0.0144 0.0110

Earth -115535-08-12 11:03 J -40477512.20 -40477512.04 -40477511.85 0.0144 0.0103 *

Earth -115534-08-17 09:51 J -40477142.34 -40477142.09 -40477141.84 0.0145 0.0028

Moon -115534-08-17 12:00 J -40477142.25 -40477142.00 -40477141.74 0.0145 0.0032 *

Mercury -115527-04-30 05:31 J -40474694.35 -40474694.27 -40474694.19 0.0147 0.0130

Mercury -115527-07-27 13:12 J -40474606.08 -40474605.95 -40474605.81 0.0147 0.0101

Mercury -115527-10-23 21:07 J -40474517.78 -40474517.62 -40474517.46 0.0147 0.0073

Mercury -115526-01-20 05:03 J -40474429.47 -40474429.29 -40474429.12 0.0147 0.0044

Mercury -115526-04-18 12:58 J -40474341.14 -40474340.96 -40474340.78 0.0148 0.0015

Mercury -115526-07-15 20:53 J -40474252.81 -40474252.63 -40474252.44 0.0148 0.0015

Mercury -115526-10-12 04:48 J -40474164.47 -40474164.30 -40474164.12 0.0148 0.0045

Mercury -115525-01-08 12:58 J -40474076.11 -40474075.96 -40474075.80 0.0148 0.0074

Mercury -115525-04-05 21:07 J -40473987.75 -40473987.62 -40473987.48 0.0148 0.0104

Mercury -115525-07-03 05:17 J -40473899.35 -40473899.28 -40473899.20 0.0148 0.0134

Mars -115524-04-25 04:19 J -40473603.52 -40473603.32 -40473603.08 0.0148 0.0099

Venus -115519-12-13 06:15 J -40471545.37 -40471545.24 -40471545.07 0.0147 0.0108

Venus -115518-07-27 22:48 J -40471318.75 -40471318.55 -40471318.34 0.0147 0.0058

Venus -115517-03-10 14:53 J -40471092.10 -40471091.88 -40471091.65 0.0147 0.0010

Venus -115517-10-23 06:58 J -40470865.43 -40470865.21 -40470864.99 0.0147 0.0039
 Venus -115516-06-06 22:34 J -40470638.73 -40470638.56 -40470638.37 0.0146 0.0087
 Venus -115515-01-19 14:53 J -40470411.97 -40470411.88 -40470411.80 0.0146 0.0135
 Moon -115495-02-22 01:12 J -40463073.64 -40463073.45 -40463073.23 0.0135 0.0075
 Earth -115495-02-22 01:41 J -40463073.63 -40463073.43 -40463073.20 0.0135 0.0071 *
 Earth -115494-02-26 11:03 J -40462704.28 -40462704.04 -40462703.79 0.0134 0.0036
 Moon -115494-02-26 12:00 J -40462704.25 -40462704.00 -40462703.74 0.0134 0.0037 *
 Mercury -115487-09-09 13:55 J -40459951.97 -40459951.92 -40459951.88 0.0132 0.0122
 Mercury -115487-12-06 16:48 J -40459863.87 -40459863.80 -40459863.71 0.0132 0.0107
 Mercury -115486-03-04 20:10 J -40459775.75 -40459775.66 -40459775.55 0.0132 0.0091
 Mercury -115486-05-31 23:31 J -40459687.63 -40459687.52 -40459687.40 0.0131 0.0075
 Mercury -115486-08-28 02:53 J -40459599.50 -40459599.38 -40459599.25 0.0131 0.0059
 Mercury -115486-11-24 06:00 J -40459511.37 -40459511.25 -40459511.11 0.0131 0.0044
 Mercury -115485-02-20 09:22 J -40459423.25 -40459423.11 -40459422.98 0.0131 0.0028
 Mercury -115485-05-18 12:29 J -40459335.12 -40459334.98 -40459334.84 0.0131 0.0012
 Mercury -115485-08-14 15:36 J -40459246.98 -40459246.85 -40459246.71 0.0131 0.0005
 Mercury -115485-11-10 18:43 J -40459158.85 -40459158.72 -40459158.58 0.0131 0.0020
 Mercury -115484-02-06 21:51 J -40459070.71 -40459070.59 -40459070.45 0.0131 0.0035
 Mercury -115484-05-06 00:58 J -40458982.58 -40458982.46 -40458982.33 0.0131 0.0050
 Mercury -115484-08-02 04:05 J -40458894.44 -40458894.33 -40458894.20 0.0131 0.0065
 Mercury -115484-10-29 07:12 J -40458806.30 -40458806.20 -40458806.09 0.0131 0.0079
 Mercury -115483-01-25 10:19 J -40458718.16 -40458718.07 -40458717.97 0.0131 0.0094
 Mercury -115483-04-23 13:27 J -40458630.01 -40458629.94 -40458629.86 0.0131 0.0109
 Mercury -115483-07-20 16:19 J -40458541.85 -40458541.82 -40458541.77 0.0131 0.0124
 Mars -115482-08-03 08:39 J -40458163.46 -40458163.14 -40458162.82 0.0131 0.0024
 Venus -115476-09-17 12:58 J -40455926.05 -40455925.96 -40455925.82 0.0131 0.0111
 Venus -115475-05-01 15:36 J -40455700.01 -40455699.85 -40455699.67 0.0132 0.0078
 Venus -115475-12-13 18:15 J -40455473.94 -40455473.74 -40455473.54 0.0132 0.0045
 Venus -115474-07-27 20:39 J -40455247.85 -40455247.64 -40455247.43 0.0132 0.0012
 Venus -115473-03-09 23:03 J -40455021.74 -40455021.54 -40455021.33 0.0132 0.0021

Venus -115473-10-22 01:41 J -40454795.63 -40454795.43 -40454795.24 0.0132 0.0054
 Venus -115472-06-05 03:51 J -40454569.49 -40454569.34 -40454569.17 0.0132 0.0087
 Venus -115471-01-17 06:15 J -40454343.32 -40454343.24 -40454343.14 0.0133 0.0120
 Moon -115451-08-12 21:07 J -40446830.79 -40446830.62 -40446830.41 0.0144 0.0091
 Earth -115451-08-12 21:36 J -40446830.76 -40446830.60 -40446830.40 0.0144 0.0098 *
 Earth -115450-08-17 20:39 J -40446460.88 -40446460.64 -40446460.39 0.0145 0.0033
 Moon -115450-08-17 21:22 J -40446460.86 -40446460.61 -40446460.35 0.0145 0.0028 *
 Mercury -115443-05-20 13:12 J -40443993.05 -40443992.95 -40443992.85 0.0147 0.0122
 Mercury -115443-08-16 20:53 J -40443904.76 -40443904.63 -40443904.48 0.0147 0.0093
 Mercury -115443-11-13 04:48 J -40443816.46 -40443816.30 -40443816.13 0.0147 0.0065
 Mercury -115442-02-09 12:43 J -40443728.15 -40443727.97 -40443727.79 0.0148 0.0036
 Mercury -115442-05-08 20:39 J -40443639.82 -40443639.64 -40443639.45 0.0148 0.0007
 Mercury -115442-08-05 04:34 J -40443551.49 -40443551.31 -40443551.12 0.0148 0.0023
 Mercury -115442-11-01 12:29 J -40443463.14 -40443462.98 -40443462.80 0.0148 0.0053
 Mercury -115441-01-28 20:39 J -40443374.78 -40443374.64 -40443374.48 0.0148 0.0082
 Mercury -115441-04-26 05:03 J -40443286.41 -40443286.29 -40443286.17 0.0148 0.0112
 Mercury -115441-07-23 13:12 J -40443198.00 -40443197.95 -40443197.90 0.0148 0.0142
 Mars -115440-12-19 20:24 J -40442683.95 -40442683.65 -40442683.35 0.0148 0.0004
 Venus -115435-08-12 11:31 J -40440987.11 -40440987.02 -40440986.90 0.0147 0.0130
 Venus -115434-03-27 03:51 J -40440760.52 -40440760.34 -40440760.15 0.0147 0.0082
 Venus -115434-11-08 19:41 J -40440533.89 -40440533.68 -40440533.45 0.0147 0.0033
 Venus -115433-06-22 11:46 J -40440307.23 -40440307.01 -40440306.78 0.0147 0.0016
 Venus -115432-02-04 03:36 J -40440080.54 -40440080.35 -40440080.14 0.0147 0.0065
 Venus -115432-09-18 19:41 J -40439853.81 -40439853.68 -40439853.53 0.0146 0.0113
 Earth -115411-02-22 10:48 J -40432392.26 -40432392.05 -40432391.82 0.0135 0.0068
 Moon -115411-02-22 11:17 J -40432392.24 -40432392.03 -40432391.80 0.0135 0.0063 *
 Moon -115410-02-26 18:58 J -40432022.95 -40432022.71 -40432022.44 0.0134 0.0035
 Earth -115410-02-26 20:10 J -40432022.90 -40432022.66 -40432022.42 0.0134 0.0039 *
 Mercury -115403-09-29 20:24 J -40429250.70 -40429250.65 -40429250.58 0.0132 0.0120
 Mercury -115403-12-26 23:46 J -40429162.59 -40429162.51 -40429162.42 0.0131 0.0104

Mercury -115402-03-25 03:07 J -40429074.47 -40429074.37 -40429074.26 0.0131 0.0088
 Mercury -115402-06-21 06:29 J -40428986.35 -40428986.23 -40428986.12 0.0131 0.0072
 Mercury -115402-09-17 09:36 J -40428898.22 -40428898.10 -40428897.97 0.0131 0.0056
 Mercury -115402-12-14 12:58 J -40428810.09 -40428809.96 -40428809.83 0.0131 0.0041
 Mercury -115401-03-11 16:05 J -40428721.96 -40428721.83 -40428721.69 0.0131 0.0025
 Mercury -115401-06-07 19:12 J -40428633.83 -40428633.70 -40428633.56 0.0131 0.0011
 Mercury -115401-09-03 22:34 J -40428545.70 -40428545.56 -40428545.43 0.0131 0.0006
 Mercury -115401-12-01 01:41 J -40428457.57 -40428457.43 -40428457.30 0.0131 0.0021
 Mercury -115400-02-27 04:48 J -40428369.43 -40428369.30 -40428369.17 0.0131 0.0036
 Mercury -115400-05-26 07:55 J -40428281.30 -40428281.17 -40428281.04 0.0131 0.0052
 Mercury -115400-08-22 11:03 J -40428193.16 -40428193.04 -40428192.92 0.0131 0.0067
 Mercury -115400-11-18 13:55 J -40428105.02 -40428104.92 -40428104.81 0.0131 0.0082
 Mercury -115399-02-14 17:03 J -40428016.87 -40428016.79 -40428016.69 0.0131 0.0097
 Mercury -115399-05-13 20:10 J -40427928.72 -40427928.66 -40427928.59 0.0131 0.0112
 Mercury -115399-08-09 23:17 J -40427840.56 -40427840.53 -40427840.49 0.0131 0.0126
 Mars -115397-03-28 01:27 J -40427244.72 -40427244.44 -40427244.13 0.0131 0.0050
 Venus -115392-05-17 23:46 J -40425367.54 -40425367.51 -40425367.44 0.0131 0.0127
 Venus -115392-12-30 02:24 J -40425141.54 -40425141.40 -40425141.24 0.0132 0.0095
 Venus -115391-08-13 05:03 J -40424915.48 -40424915.29 -40424915.10 0.0132 0.0062
 Venus -115390-03-27 07:27 J -40424689.39 -40424689.19 -40424688.98 0.0132 0.0029
 Venus -115390-11-08 09:51 J -40424463.30 -40424463.09 -40424462.87 0.0132 0.0005
 Venus -115389-06-21 12:15 J -40424237.19 -40424236.99 -40424236.78 0.0132 0.0037
 Venus -115388-02-02 14:24 J -40424011.06 -40424010.90 -40424010.71 0.0132 0.0071
 Venus -115388-09-16 16:48 J -40423784.91 -40423784.80 -40423784.65 0.0133 0.0104
 Earth -115367-08-13 07:27 J -40416149.38 -40416149.19 -40416149.00 0.0144 0.0095
 Moon -115367-08-13 08:24 J -40416149.31 -40416149.15 -40416148.97 0.0144 0.0102 *
 Moon -115366-08-18 05:46 J -40415779.50 -40415779.26 -40415779.00 0.0145 0.0043
 Earth -115366-08-18 06:00 J -40415779.49 -40415779.25 -40415779.00 0.0145 0.0036 *
 Mercury -115359-03-13 12:43 J -40413380.01 -40413379.97 -40413379.93 0.0147 0.0144
 Mercury -115359-06-09 20:24 J -40413291.76 -40413291.65 -40413291.54 0.0147 0.0116

Mercury -115359-09-06 04:05 J -40413203.47 -40413203.33 -40413203.18 0.0147 0.0087
 Mercury -115359-12-03 12:00 J -40413115.17 -40413115.00 -40413114.83 0.0147 0.0059
 Mercury -115358-03-01 19:55 J -40413026.85 -40413026.67 -40413026.49 0.0148 0.0030
 Mercury -115358-05-29 03:51 J -40412938.52 -40412938.34 -40412938.16 0.0148 0.0001
 Mercury -115358-08-25 11:46 J -40412850.19 -40412850.01 -40412849.83 0.0148 0.0029
 Mercury -115358-11-21 19:41 J -40412761.84 -40412761.68 -40412761.50 0.0148 0.0059
 Mercury -115357-02-18 03:36 J -40412673.48 -40412673.35 -40412673.19 0.0148 0.0089
 Mercury -115357-05-16 12:00 J -40412585.10 -40412585.00 -40412584.89 0.0148 0.0118
 Mars -115355-08-15 08:24 J -40411764.36 -40411764.15 -40411763.94 0.0148 0.0104
 Venus -115351-11-24 07:27 J -40410202.33 -40410202.19 -40410202.02 0.0147 0.0107
 Venus -115350-07-08 23:46 J -40409975.71 -40409975.51 -40409975.30 0.0147 0.0057
 Venus -115349-02-20 15:51 J -40409749.06 -40409748.84 -40409748.62 0.0147 0.0008
 Venus -115349-10-04 07:41 J -40409522.39 -40409522.18 -40409521.95 0.0147 0.0041
 Venus -115348-05-18 23:31 J -40409295.68 -40409295.52 -40409295.33 0.0146 0.0090
 Venus -115348-12-31 15:22 J -40409068.92 -40409068.86 -40409068.77 0.0146 0.0138
 Earth -115327-02-22 20:24 J -40401710.86 -40401710.65 -40401710.42 0.0135 0.0065
 Moon -115327-02-22 22:34 J -40401710.76 -40401710.56 -40401710.34 0.0135 0.0071 *
 Moon -115326-02-27 04:19 J -40401341.57 -40401341.32 -40401341.08 0.0134 0.0046
 Earth -115326-02-27 05:31 J -40401341.50 -40401341.27 -40401341.01 0.0134 0.0042 *
 Mercury -115319-10-20 03:22 J -40398549.42 -40398549.36 -40398549.29 0.0131 0.0116
 Mercury -115318-01-16 06:43 J -40398461.30 -40398461.22 -40398461.13 0.0131 0.0100
 Mercury -115318-04-14 10:05 J -40398373.18 -40398373.08 -40398372.97 0.0131 0.0085
 Mercury -115318-07-11 13:12 J -40398285.06 -40398284.95 -40398284.83 0.0131 0.0069
 Mercury -115318-10-07 16:34 J -40398196.94 -40398196.81 -40398196.68 0.0131 0.0053
 Mercury -115317-01-03 19:41 J -40398108.81 -40398108.68 -40398108.54 0.0131 0.0038
 Mercury -115317-03-31 23:03 J -40398020.68 -40398020.54 -40398020.41 0.0131 0.0022
 Mercury -115317-06-28 02:10 J -40397932.55 -40397932.41 -40397932.27 0.0131 0.0007
 Mercury -115317-09-24 05:17 J -40397844.41 -40397844.28 -40397844.14 0.0131 0.0009
 Mercury -115317-12-21 08:24 J -40397756.28 -40397756.15 -40397756.01 0.0131 0.0024
 Mercury -115316-03-19 11:31 J -40397668.15 -40397668.02 -40397667.88 0.0131 0.0039

Mercury -115316-06-15 14:39 J -40397580.01 -40397579.89 -40397579.76 0.0131 0.0054

Mercury -115316-09-11 17:46 J -40397491.87 -40397491.76 -40397491.64 0.0131 0.0069

Mercury -115316-12-08 20:53 J -40397403.73 -40397403.63 -40397403.52 0.0131 0.0084

Mercury -115315-03-07 00:00 J -40397315.59 -40397315.50 -40397315.41 0.0131 0.0099

Mercury -115315-06-03 02:53 J -40397227.44 -40397227.38 -40397227.31 0.0131 0.0114

Mercury -115315-08-30 06:00 J -40397139.26 -40397139.25 -40397139.22 0.0131 0.0129

Mars -115315-12-19 20:10 J -40397027.89 -40397027.66 -40397027.41 0.0131 0.0087

Mars -115313-11-20 18:43 J -40396325.79 -40396325.72 -40396325.60 0.0131 0.0125

Venus -115308-08-29 13:12 J -40394583.06 -40394582.95 -40394582.84 0.0131 0.0112

Venus -115307-04-12 15:22 J -40394357.01 -40394356.86 -40394356.68 0.0131 0.0080

Venus -115307-11-24 17:46 J -40394130.95 -40394130.76 -40394130.55 0.0132 0.0047

Venus -115306-07-08 20:10 J -40393904.86 -40393904.66 -40393904.44 0.0132 0.0014

Venus -115305-02-19 22:48 J -40393678.76 -40393678.55 -40393678.34 0.0132 0.0020

Venus -115305-10-03 00:58 J -40393452.64 -40393452.46 -40393452.26 0.0132 0.0053

Venus -115304-05-17 03:07 J -40393226.51 -40393226.37 -40393226.19 0.0132 0.0087

Venus -115304-12-29 05:31 J -40393000.34 -40393000.27 -40393000.16 0.0133 0.0120

Earth -115283-08-13 13:41 J -40385468.12 -40385467.93 -40385467.74 0.0144 0.0095

Moon -115283-08-13 15:36 J -40385468.04 -40385467.85 -40385467.65 0.0144 0.0088 *

Moon -115282-08-18 10:19 J -40385098.32 -40385098.07 -40385097.81 0.0145 0.0028

Earth -115282-08-18 12:15 J -40385098.23 -40385097.99 -40385097.74 0.0145 0.0036 *

Mercury -115275-04-02 18:43 J -40382678.76 -40382678.72 -40382678.67 0.0147 0.0141

Mercury -115275-06-30 02:24 J -40382590.51 -40382590.40 -40382590.28 0.0147 0.0113

Mercury -115275-09-26 10:19 J -40382502.22 -40382502.07 -40382501.92 0.0147 0.0085

Mercury -115275-12-23 18:00 J -40382413.91 -40382413.75 -40382413.58 0.0148 0.0056

Mercury -115274-03-22 01:55 J -40382325.60 -40382325.42 -40382325.24 0.0148 0.0027

Mercury -115274-06-18 09:51 J -40382237.27 -40382237.09 -40382236.90 0.0148 0.0004

Mercury -115274-09-14 17:46 J -40382148.93 -40382148.76 -40382148.57 0.0148 0.0032

Mercury -115274-12-12 01:55 J -40382060.58 -40382060.42 -40382060.25 0.0148 0.0061

Mercury -115273-03-09 09:51 J -40381972.22 -40381972.09 -40381971.93 0.0148 0.0091

Mercury -115273-06-05 18:00 J -40381883.84 -40381883.75 -40381883.63 0.0148 0.0121

Mars -115272-05-07 05:03 J -40381548.52 -40381548.29 -40381548.04 0.0148 0.0084
 Venus -115267-07-24 09:22 J -40379644.19 -40379644.11 -40379644.01 0.0147 0.0134
 Venus -115266-03-08 01:27 J -40379417.62 -40379417.44 -40379417.25 0.0147 0.0085
 Venus -115266-10-20 17:31 J -40379190.98 -40379190.77 -40379190.55 0.0147 0.0035
 Venus -115265-06-03 09:36 J -40378964.32 -40378964.10 -40378963.88 0.0147 0.0014
 Venus -115264-01-16 01:27 J -40378737.64 -40378737.44 -40378737.23 0.0147 0.0063
 Venus -115264-08-30 17:31 J -40378510.91 -40378510.77 -40378510.62 0.0146 0.0112
 Earth -115243-02-23 04:48 J -40371029.53 -40371029.30 -40371029.08 0.0135 0.0063
 Moon -115243-02-23 07:12 J -40371029.42 -40371029.20 -40371028.96 0.0135 0.0057 *
 Moon -115242-02-27 10:48 J -40370660.29 -40370660.05 -40370659.79 0.0134 0.0037
 Earth -115242-02-27 13:55 J -40370660.15 -40370659.92 -40370659.67 0.0134 0.0043 *
 Mercury -115235-08-13 06:43 J -40367936.23 -40367936.22 -40367936.20 0.0132 0.0130
 Mercury -115235-11-09 10:05 J -40367848.14 -40367848.08 -40367848.01 0.0131 0.0114
 Mercury -115234-02-05 13:27 J -40367760.03 -40367759.94 -40367759.85 0.0131 0.0098
 Mercury -115234-05-04 16:48 J -40367671.91 -40367671.80 -40367671.69 0.0131 0.0083
 Mercury -115234-07-31 19:55 J -40367583.78 -40367583.67 -40367583.55 0.0131 0.0067
 Mercury -115234-10-27 23:17 J -40367495.66 -40367495.53 -40367495.40 0.0131 0.0051
 Mercury -115233-01-24 02:24 J -40367407.53 -40367407.40 -40367407.26 0.0131 0.0036
 Mercury -115233-04-21 05:46 J -40367319.40 -40367319.26 -40367319.13 0.0131 0.0021
 Mercury -115233-07-18 08:53 J -40367231.27 -40367231.13 -40367230.99 0.0131 0.0005
 Mercury -115233-10-14 12:00 J -40367143.14 -40367143.00 -40367142.86 0.0131 0.0010
 Mercury -115232-01-10 15:07 J -40367055.00 -40367054.87 -40367054.73 0.0131 0.0026
 Mercury -115232-04-08 18:15 J -40366966.87 -40366966.74 -40366966.61 0.0131 0.0041
 Mercury -115232-07-05 21:22 J -40366878.73 -40366878.61 -40366878.48 0.0131 0.0056
 Mercury -115232-10-02 00:29 J -40366790.59 -40366790.48 -40366790.36 0.0131 0.0071
 Mercury -115232-12-29 03:36 J -40366702.45 -40366702.35 -40366702.25 0.0131 0.0086
 Mercury -115231-03-27 06:29 J -40366614.31 -40366614.23 -40366614.14 0.0131 0.0101
 Mercury -115231-06-23 09:36 J -40366526.15 -40366526.10 -40366526.03 0.0131 0.0116
 Mercury -115231-09-19 12:43 J -40366437.97 -40366437.97 -40366437.96 0.0131 0.0130
 Mars -115230-08-14 11:03 J -40366109.36 -40366109.04 -40366108.72 0.0131 0.0014

Venus -115224-04-28 23:17 J -40364024.56 -40364024.53 -40364024.50 0.0131 0.0130
 Venus -115224-12-11 01:12 J -40363798.57 -40363798.45 -40363798.29 0.0131 0.0098
 Venus -115223-07-25 03:36 J -40363572.52 -40363572.35 -40363572.15 0.0131 0.0065
 Venus -115222-03-08 06:15 J -40363346.44 -40363346.24 -40363346.03 0.0132 0.0032
 Venus -115222-10-20 08:39 J -40363120.35 -40363120.14 -40363119.93 0.0132 0.0002
 Venus -115221-06-02 10:48 J -40362894.25 -40362894.05 -40362893.84 0.0132 0.0035
 Venus -115220-01-14 13:12 J -40362668.13 -40362667.95 -40362667.77 0.0132 0.0068
 Venus -115220-08-28 15:36 J -40362441.98 -40362441.85 -40362441.71 0.0132 0.0102
 Earth -115199-08-13 18:00 J -40354786.91 -40354786.75 -40354786.54 0.0144 0.0098
 Moon -115199-08-13 21:36 J -40354786.76 -40354786.60 -40354786.42 0.0144 0.0104 *
 Moon -115198-08-18 13:55 J -40354417.16 -40354416.92 -40354416.66 0.0145 0.0040
 Earth -115198-08-18 16:48 J -40354417.04 -40354416.80 -40354416.55 0.0145 0.0033 *
 Mercury -115191-04-23 00:00 J -40351977.54 -40351977.50 -40351977.44 0.0147 0.0142
 Mercury -115191-07-20 07:41 J -40351889.28 -40351889.18 -40351889.06 0.0147 0.0114
 Mercury -115191-10-16 15:36 J -40351800.99 -40351800.85 -40351800.70 0.0147 0.0085
 Mercury -115190-01-12 23:17 J -40351712.69 -40351712.53 -40351712.35 0.0148 0.0057
 Mercury -115190-04-11 07:12 J -40351624.37 -40351624.20 -40351624.01 0.0148 0.0028
 Mercury -115190-07-08 15:22 J -40351536.05 -40351535.86 -40351535.68 0.0148 0.0004
 Mercury -115190-10-04 23:03 J -40351447.71 -40351447.54 -40351447.35 0.0148 0.0032
 Mercury -115189-01-01 07:12 J -40351359.36 -40351359.20 -40351359.03 0.0148 0.0061
 Mercury -115189-03-29 15:07 J -40351271.00 -40351270.87 -40351270.71 0.0148 0.0091
 Mercury -115189-06-25 23:17 J -40351182.62 -40351182.53 -40351182.41 0.0148 0.0121
 Mars -115188-12-31 06:00 J -40350629.54 -40350629.25 -40350628.95 0.0148 0.0009
 Venus -115183-11-05 00:58 J -40348859.58 -40348859.46 -40348859.30 0.0147 0.0114
 Venus -115182-06-19 17:17 J -40348632.98 -40348632.78 -40348632.58 0.0147 0.0065
 Venus -115181-02-01 09:22 J -40348406.33 -40348406.11 -40348405.89 0.0147 0.0015
 Venus -115181-09-15 01:27 J -40348179.66 -40348179.44 -40348179.22 0.0147 0.0034
 Venus -115180-04-29 17:03 J -40347952.96 -40347952.79 -40347952.59 0.0147 0.0084
 Venus -115180-12-12 09:07 J -40347726.21 -40347726.12 -40347726.02 0.0146 0.0132
 Earth -115159-02-23 11:03 J -40340348.25 -40340348.04 -40340347.80 0.0135 0.0063

Moon -115159-02-23 15:07 J -40340348.09 -40340347.87 -40340347.66 0.0135 0.0070 *
 Moon -115158-02-27 17:03 J -40339979.01 -40339978.79 -40339978.54 0.0134 0.0051
 Earth -115158-02-27 20:39 J -40339978.87 -40339978.64 -40339978.39 0.0134 0.0044 *
 Mercury -115151-09-02 13:12 J -40337234.96 -40337234.95 -40337234.91 0.0132 0.0129
 Mercury -115151-11-29 16:34 J -40337146.87 -40337146.81 -40337146.73 0.0132 0.0113
 Mercury -115150-02-25 19:55 J -40337058.76 -40337058.67 -40337058.57 0.0131 0.0097
 Mercury -115150-05-24 23:17 J -40336970.63 -40336970.53 -40336970.42 0.0131 0.0081
 Mercury -115150-08-21 02:24 J -40336882.51 -40336882.40 -40336882.27 0.0131 0.0066
 Mercury -115150-11-17 05:46 J -40336794.38 -40336794.26 -40336794.13 0.0131 0.0050
 Mercury -115149-02-13 09:07 J -40336706.25 -40336706.12 -40336705.99 0.0131 0.0034
 Mercury -115149-05-11 12:15 J -40336618.12 -40336617.99 -40336617.85 0.0131 0.0019
 Mercury -115149-08-07 15:22 J -40336529.99 -40336529.86 -40336529.72 0.0131 0.0006
 Mercury -115149-11-03 18:43 J -40336441.86 -40336441.72 -40336441.59 0.0131 0.0012
 Mercury -115148-01-30 21:51 J -40336353.73 -40336353.59 -40336353.46 0.0131 0.0027
 Mercury -115148-04-29 00:58 J -40336265.59 -40336265.46 -40336265.33 0.0131 0.0043
 Mercury -115148-07-26 03:51 J -40336177.45 -40336177.34 -40336177.21 0.0131 0.0058
 Mercury -115148-10-22 06:58 J -40336089.31 -40336089.21 -40336089.09 0.0131 0.0073
 Mercury -115147-01-18 10:05 J -40336001.17 -40336001.08 -40336000.97 0.0131 0.0088
 Mercury -115147-04-16 13:12 J -40335913.03 -40335912.95 -40335912.86 0.0131 0.0103
 Mercury -115147-07-13 16:05 J -40335824.87 -40335824.83 -40335824.76 0.0131 0.0118
 Mars -115145-04-08 03:07 J -40335190.64 -40335190.37 -40335190.07 0.0131 0.0060
 Venus -115140-08-10 11:31 J -40333240.10 -40333240.02 -40333239.90 0.0131 0.0115
 Venus -115139-03-24 13:55 J -40333014.07 -40333013.92 -40333013.74 0.0131 0.0083
 Venus -115139-11-05 16:19 J -40332788.00 -40332787.82 -40332787.61 0.0132 0.0050
 Venus -115138-06-19 18:58 J -40332561.92 -40332561.71 -40332561.50 0.0132 0.0016
 Venus -115137-01-31 21:07 J -40332335.82 -40332335.62 -40332335.40 0.0132 0.0018
 Venus -115137-09-13 23:31 J -40332109.71 -40332109.52 -40332109.32 0.0132 0.0051
 Venus -115136-04-28 01:55 J -40331883.57 -40331883.42 -40331883.25 0.0132 0.0084
 Venus -115136-12-10 04:19 J -40331657.41 -40331657.32 -40331657.22 0.0132 0.0118
 Earth -115115-08-14 00:14 J -40324105.65 -40324105.49 -40324105.29 0.0144 0.0098

Moon -115115-08-14 03:50 J -40324105.52 -40324105.34 -40324105.13 0.0144 0.0093 *
 Moon -115114-08-18 19:26 J -40323735.94 -40323735.69 -40323735.44 0.0144 0.0024
 Earth -115114-08-18 23:02 J -40323735.79 -40323735.54 -40323735.30 0.0144 0.0032 *
 Mercury -115107-05-13 05:46 J -40321276.30 -40321276.26 -40321276.20 0.0147 0.0140
 Mercury -115107-08-09 13:26 J -40321188.05 -40321187.94 -40321187.82 0.0147 0.0112
 Mercury -115107-11-05 21:22 J -40321099.76 -40321099.61 -40321099.46 0.0147 0.0084
 Mercury -115106-02-02 05:02 J -40321011.45 -40321011.29 -40321011.12 0.0147 0.0055
 Mercury -115106-05-01 12:58 J -40320923.14 -40320922.96 -40320922.78 0.0147 0.0026
 Mercury -115106-07-28 20:53 J -40320834.81 -40320834.63 -40320834.44 0.0148 0.0004
 Mercury -115106-10-25 04:48 J -40320746.47 -40320746.30 -40320746.12 0.0148 0.0033
 Mercury -115105-01-21 12:58 J -40320658.13 -40320657.96 -40320657.79 0.0148 0.0062
 Mercury -115105-04-18 20:53 J -40320569.77 -40320569.63 -40320569.48 0.0148 0.0092
 Mercury -115105-07-16 05:02 J -40320481.39 -40320481.29 -40320481.18 0.0148 0.0122
 Mars -115103-08-26 09:07 J -40319710.31 -40319710.12 -40319709.89 0.0148 0.0103
 Venus -115099-07-05 01:12 J -40318301.49 -40318301.45 -40318301.39 0.0147 0.0143
 Venus -115098-02-16 17:31 J -40318074.94 -40318074.77 -40318074.60 0.0147 0.0094
 Venus -115098-10-01 09:22 J -40317848.32 -40317848.11 -40317847.89 0.0147 0.0044
 Venus -115097-05-15 01:26 J -40317621.66 -40317621.44 -40317621.21 0.0147 0.0005
 Venus -115097-12-27 17:17 J -40317394.98 -40317394.78 -40317394.57 0.0147 0.0055
 Venus -115096-08-11 09:22 J -40317168.27 -40317168.11 -40317167.95 0.0146 0.0104
 Earth -115075-02-23 16:48 J -40309667.02 -40309666.80 -40309666.57 0.0135 0.0063
 Moon -115075-02-23 20:24 J -40309666.89 -40309666.65 -40309666.42 0.0135 0.0056 *
 Moon -115074-02-27 22:48 J -40309297.78 -40309297.55 -40309297.29 0.0134 0.0036
 Earth -115074-02-28 02:38 J -40309297.63 -40309297.39 -40309297.14 0.0134 0.0043 *
 Mercury -115067-09-22 19:41 J -40306533.70 -40306533.68 -40306533.64 0.0132 0.0128
 Mercury -115067-12-19 23:02 J -40306445.60 -40306445.54 -40306445.46 0.0132 0.0112
 Mercury -115066-03-18 02:24 J -40306357.49 -40306357.40 -40306357.30 0.0132 0.0096
 Mercury -115066-06-14 05:46 J -40306269.37 -40306269.26 -40306269.15 0.0132 0.0080
 Mercury -115066-09-10 08:53 J -40306181.24 -40306181.13 -40306181.00 0.0131 0.0065
 Mercury -115066-12-07 12:14 J -40306093.12 -40306092.99 -40306092.86 0.0131 0.0049

Mercury -115065-03-04 15:22 J -40306004.99 -40306004.86 -40306004.72 0.0131 0.0034

Mercury -115065-05-31 18:43 J -40305916.85 -40305916.72 -40305916.58 0.0131 0.0017

Mercury -115065-08-27 21:50 J -40305828.72 -40305828.59 -40305828.45 0.0131 0.0005

Mercury -115065-11-24 01:12 J -40305740.59 -40305740.45 -40305740.32 0.0131 0.0014

Mercury -115064-02-20 04:19 J -40305652.46 -40305652.32 -40305652.19 0.0131 0.0029

Mercury -115064-05-19 07:26 J -40305564.32 -40305564.19 -40305564.06 0.0131 0.0044

Mercury -115064-08-15 10:34 J -40305476.18 -40305476.06 -40305475.94 0.0131 0.0059

Mercury -115064-11-11 13:41 J -40305388.04 -40305387.93 -40305387.82 0.0131 0.0074

Mercury -115063-02-07 16:48 J -40305299.90 -40305299.80 -40305299.70 0.0131 0.0089

Mercury -115063-05-06 19:41 J -40305211.75 -40305211.68 -40305211.59 0.0131 0.0104

Mercury -115063-08-02 22:48 J -40305123.60 -40305123.55 -40305123.49 0.0131 0.0119

Mars -115063-12-30 18:29 J -40304973.96 -40304973.73 -40304973.46 0.0131 0.0080

Venus -115056-11-22 00:00 J -40302455.62 -40302455.50 -40302455.35 0.0131 0.0100

Venus -115055-07-06 02:38 J -40302229.57 -40302229.39 -40302229.21 0.0132 0.0067

Venus -115054-02-17 05:02 J -40302003.49 -40302003.29 -40302003.08 0.0132 0.0034

Venus -115054-10-01 07:26 J -40301777.40 -40301777.19 -40301776.98 0.0132 0.0000

Venus -115053-05-14 09:36 J -40301551.30 -40301551.10 -40301550.89 0.0132 0.0033

Venus -115053-12-26 12:14 J -40301325.18 -40301324.99 -40301324.81 0.0132 0.0067

Venus -115052-08-09 14:10 J -40301099.03 -40301098.91 -40301098.75 0.0132 0.0101

Earth -115031-08-14 09:36 J -40293424.28 -40293424.10 -40293423.90 0.0144 0.0094

Moon -115031-08-14 13:12 J -40293424.13 -40293423.95 -40293423.76 0.0144 0.0099 *

Moon -115030-08-19 04:05 J -40293054.56 -40293054.33 -40293054.08 0.0144 0.0042

Earth -115030-08-19 07:55 J -40293054.42 -40293054.17 -40293053.93 0.0144 0.0035 *

Mercury -115023-06-02 12:29 J -40290575.03 -40290574.98 -40290574.90 0.0147 0.0135

Mercury -115023-08-29 20:10 J -40290486.77 -40290486.66 -40290486.52 0.0147 0.0108

Mercury -115023-11-26 04:05 J -40290398.48 -40290398.33 -40290398.17 0.0147 0.0079

Mercury -115022-02-22 11:46 J -40290310.17 -40290310.01 -40290309.83 0.0147 0.0051

Mercury -115022-05-21 19:55 J -40290221.85 -40290221.67 -40290221.49 0.0147 0.0021

Mercury -115022-08-18 03:50 J -40290133.52 -40290133.34 -40290133.16 0.0147 0.0008

Mercury -115022-11-14 11:46 J -40290045.19 -40290045.01 -40290044.83 0.0148 0.0037

Mercury -115021-02-10 19:41 J -40289956.84 -40289956.68 -40289956.51 0.0148 0.0067

Mercury -115021-05-09 03:36 J -40289868.48 -40289868.35 -40289868.20 0.0148 0.0097

Mercury -115021-08-05 11:46 J -40289780.09 -40289780.01 -40289779.90 0.0148 0.0127

Mars -115020-05-18 08:24 J -40289494.39 -40289494.15 -40289493.90 0.0148 0.0083

Venus -115015-10-16 19:26 J -40287516.81 -40287516.69 -40287516.55 0.0147 0.0121

Venus -115014-05-31 11:17 J -40287290.22 -40287290.03 -40287289.82 0.0147 0.0071

Venus -115013-01-13 03:22 J -40287063.58 -40287063.36 -40287063.14 0.0147 0.0021

Venus -115013-08-26 19:12 J -40286836.91 -40286836.70 -40286836.47 0.0147 0.0029

Venus -115012-04-10 11:02 J -40286610.22 -40286610.04 -40286609.84 0.0147 0.0078

Venus -115012-11-23 02:53 J -40286383.48 -40286383.38 -40286383.26 0.0146 0.0127

115TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 115th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-114991-02-24 00:00 J	-40278985.71	-40278985.50	-40278985.26	0.0135	0.0062		
Moon	-114991-02-24 03:36 J	-40278985.57	-40278985.35	-40278985.12	0.0135	0.0068	*	
Moon	-114990-02-28 07:26 J	-40278616.42	-40278616.19	-40278615.96	0.0134	0.0052		
Earth	-114990-02-28 10:05 J	-40278616.32	-40278616.08	-40278615.83	0.0134	0.0045	*	
Mercury	-114983-10-13 02:24 J	-40275832.43	-40275832.40	-40275832.35	0.0132	0.0125		
Mercury	-114982-01-09 05:46 J	-40275744.33	-40275744.26	-40275744.18	0.0132	0.0109		

Mercury -114982-04-07 09:07 J -40275656.21 -40275656.12 -40275656.02 0.0132 0.0093
 Mercury -114982-07-04 12:29 J -40275568.09 -40275567.98 -40275567.87 0.0132 0.0078
 Mercury -114982-09-30 15:50 J -40275479.96 -40275479.84 -40275479.72 0.0131 0.0062
 Mercury -114982-12-27 18:58 J -40275391.84 -40275391.71 -40275391.58 0.0131 0.0046
 Mercury -114981-03-24 22:19 J -40275303.71 -40275303.57 -40275303.44 0.0131 0.0031
 Mercury -114981-06-21 01:26 J -40275215.57 -40275215.44 -40275215.30 0.0131 0.0015
 Mercury -114981-09-17 04:48 J -40275127.44 -40275127.30 -40275127.17 0.0131 0.0003
 Mercury -114981-12-14 07:55 J -40275039.31 -40275039.17 -40275039.03 0.0131 0.0016
 Mercury -114980-03-12 11:02 J -40274951.17 -40274951.04 -40274950.91 0.0131 0.0031
 Mercury -114980-06-08 14:10 J -40274863.04 -40274862.91 -40274862.78 0.0131 0.0046
 Mercury -114980-09-04 17:17 J -40274774.90 -40274774.78 -40274774.66 0.0131 0.0062
 Mercury -114980-12-01 20:24 J -40274686.76 -40274686.65 -40274686.54 0.0131 0.0077
 Mercury -114979-02-27 23:17 J -40274598.61 -40274598.53 -40274598.42 0.0131 0.0092
 Mercury -114979-05-27 02:38 J -40274510.47 -40274510.39 -40274510.31 0.0131 0.0107
 Mercury -114979-08-23 05:46 J -40274422.31 -40274422.26 -40274422.21 0.0131 0.0121
 Mars -114978-08-25 12:00 J -40274055.32 -40274055.00 -40274054.68 0.0131 0.0005
 Venus -114972-07-22 10:48 J -40271897.13 -40271897.05 -40271896.95 0.0131 0.0118
 Venus -114971-03-05 13:12 J -40271671.10 -40271670.95 -40271670.78 0.0132 0.0085
 Venus -114971-10-17 15:50 J -40271445.03 -40271444.84 -40271444.64 0.0132 0.0051
 Venus -114970-05-31 18:00 J -40271218.95 -40271218.75 -40271218.53 0.0132 0.0018
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 Venus -114968-04-09 01:26 J -40270540.60 -40270540.44 -40270540.27 0.0132 0.0084
 Venus -114968-11-21 03:36 J -40270314.43 -40270314.35 -40270314.23 0.0133 0.0118
 Earth -114947-08-14 19:41 J -40262742.86 -40262742.68 -40262742.47 0.0144 0.0090
 Moon -114947-08-14 22:19 J -40262742.76 -40262742.57 -40262742.35 0.0144 0.0088 *
 Moon -114946-08-19 14:38 J -40262373.12 -40262372.89 -40262372.64 0.0144 0.0034
 Earth -114946-08-19 18:00 J -40262372.99 -40262372.75 -40262372.50 0.0144 0.0040 *
 Mercury -114939-06-22 20:24 J -40259873.74 -40259873.65 -40259873.57 0.0147 0.0128
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Mercury -114939-12-16 11:31 J -40259697.17 -40259697.02 -40259696.85 0.0147 0.0072
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 Jupiter -114937-11-21 13:12 J -40258991.40 -40258990.95 -40258990.44 0.0148 0.0063
 Mars -114935-01-11 23:02 J -40258574.84 -40258574.54 -40258574.25 0.0148 0.0020
 Venus -114931-06-15 23:31 J -40256958.54 -40256958.52 -40256958.47 0.0147 0.0146
 Venus -114930-01-28 15:22 J -40256732.01 -40256731.86 -40256731.68 0.0147 0.0096
 Venus -114930-09-12 07:26 J -40256505.39 -40256505.19 -40256504.97 0.0147 0.0047
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 Venus -114929-12-08 15:07 J -40256052.07 -40256051.87 -40256051.65 0.0147 0.0054
 Venus -114928-07-23 06:58 J -40255825.36 -40255825.21 -40255825.05 0.0146 0.0103
 Earth -114907-02-24 08:53 J -40248304.35 -40248304.13 -40248303.89 0.0135 0.0059
 Moon -114907-02-24 10:34 J -40248304.29 -40248304.06 -40248303.80 0.0135 0.0054 *
 Moon -114906-02-28 16:34 J -40247935.03 -40247934.81 -40247934.56 0.0134 0.0042
 Earth -114906-02-28 18:58 J -40247934.94 -40247934.71 -40247934.47 0.0134 0.0047 *
 Mercury -114899-11-02 09:07 J -40245131.16 -40245131.12 -40245131.06 0.0132 0.0123
 Mercury -114898-01-29 12:29 J -40245043.05 -40245042.98 -40245042.89 0.0132 0.0107
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 Mercury -114898-10-20 22:34 J -40244778.68 -40244778.56 -40244778.43 0.0131 0.0059
 Mercury -114897-01-17 01:55 J -40244690.55 -40244690.42 -40244690.29 0.0131 0.0043
 Mercury -114897-04-14 05:02 J -40244602.42 -40244602.29 -40244602.15 0.0131 0.0028
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 Mercury -114897-10-07 11:31 J -40244426.16 -40244426.02 -40244425.88 0.0131 0.0003
 Mercury -114896-01-03 14:38 J -40244338.02 -40244337.89 -40244337.75 0.0131 0.0019

Mercury -114896-04-01 17:46 J -40244249.89 -40244249.76 -40244249.62 0.0131 0.0034

Mercury -114896-06-28 20:53 J -40244161.75 -40244161.63 -40244161.50 0.0131 0.0050

Mercury -114896-09-25 00:14 J -40244073.61 -40244073.49 -40244073.37 0.0131 0.0064

Mercury -114896-12-22 03:22 J -40243985.47 -40243985.36 -40243985.25 0.0131 0.0079

Mercury -114895-03-20 06:29 J -40243897.32 -40243897.23 -40243897.14 0.0131 0.0094

Mercury -114895-06-16 09:22 J -40243809.17 -40243809.11 -40243809.03 0.0131 0.0109

Jupiter -114895-06-20 01:26 J -40243805.88 -40243805.44 -40243804.96 0.0131 0.0053

Mercury -114895-09-12 12:29 J -40243721.01 -40243720.98 -40243720.93 0.0131 0.0124

Mars -114893-04-19 05:17 J -40243136.54 -40243136.28 -40243136.00 0.0131 0.0070

Venus -114888-11-03 00:00 J -40241112.63 -40241112.50 -40241112.36 0.0132 0.0102

Venus -114887-06-17 02:10 J -40240886.58 -40240886.41 -40240886.21 0.0132 0.0069

Venus -114886-01-29 04:48 J -40240660.50 -40240660.30 -40240660.09 0.0132 0.0035

Venus -114886-09-12 07:26 J -40240434.40 -40240434.19 -40240433.98 0.0132 0.0001

Venus -114885-04-25 09:36 J -40240208.29 -40240208.10 -40240207.88 0.0132 0.0033

Venus -114885-12-07 12:14 J -40239982.17 -40239981.99 -40239981.80 0.0132 0.0067

Venus -114884-07-21 14:38 J -40239756.02 -40239755.89 -40239755.75 0.0132 0.0101

Earth -114863-08-15 06:14 J -40232061.43 -40232061.24 -40232061.02 0.0144 0.0085

Moon -114863-08-15 08:24 J -40232061.35 -40232061.15 -40232060.94 0.0144 0.0086 *

Moon -114862-08-20 02:24 J -40231691.63 -40231691.40 -40231691.17 0.0145 0.0049

Earth -114862-08-20 04:34 J -40231691.55 -40231691.31 -40231691.07 0.0145 0.0044 *

Mercury -114855-07-13 04:05 J -40229172.43 -40229172.33 -40229172.23 0.0147 0.0120

Mercury -114855-10-09 11:46 J -40229084.15 -40229084.01 -40229083.87 0.0147 0.0091

Mercury -114854-01-05 19:26 J -40228995.85 -40228995.69 -40228995.52 0.0147 0.0063

Mercury -114854-04-04 03:22 J -40228907.54 -40228907.36 -40228907.18 0.0147 0.0034

Mercury -114854-07-01 11:17 J -40228819.21 -40228819.03 -40228818.85 0.0147 0.0005

Mercury -114854-09-27 19:12 J -40228730.88 -40228730.70 -40228730.52 0.0148 0.0024

Mercury -114854-12-25 03:07 J -40228642.54 -40228642.37 -40228642.20 0.0148 0.0054

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Mercury -114853-06-18 19:12 J -40228465.81 -40228465.70 -40228465.58 0.0148 0.0113

Mercury -114853-09-15 03:22 J -40228377.40 -40228377.36 -40228377.31 0.0148 0.0143

Mars -114851-09-07 15:36 J -40227655.00 -40227654.85 -40227654.68 0.0148 0.0124
 Venus -114847-09-27 20:53 J -40226173.75 -40226173.63 -40226173.50 0.0147 0.0120
 Venus -114846-05-12 12:29 J -40225947.16 -40225946.98 -40225946.77 0.0147 0.0070
 Venus -114846-12-25 04:34 J -40225720.53 -40225720.31 -40225720.09 0.0147 0.0020
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 Venus -114844-03-22 12:14 J -40225267.17 -40225266.99 -40225266.80 0.0147 0.0080
 Venus -114844-11-04 03:50 J -40225040.43 -40225040.34 -40225040.23 0.0146 0.0129
 Earth -114823-02-24 19:12 J -40217622.92 -40217622.70 -40217622.45 0.0135 0.0055
 Moon -114823-02-24 20:10 J -40217622.89 -40217622.66 -40217622.41 0.0135 0.0059 *
 Moon -114822-03-01 04:05 J -40217253.55 -40217253.33 -40217253.10 0.0134 0.0058
 Earth -114822-03-01 04:48 J -40217253.52 -40217253.30 -40217253.05 0.0134 0.0052 *
 Mercury -114815-11-22 16:19 J -40214429.87 -40214429.82 -40214429.76 0.0132 0.0119
 Mercury -114814-02-18 19:26 J -40214341.76 -40214341.69 -40214341.59 0.0131 0.0104
 Mercury -114814-05-17 22:48 J -40214253.64 -40214253.55 -40214253.44 0.0131 0.0088
 Mercury -114814-08-14 02:10 J -40214165.52 -40214165.41 -40214165.29 0.0131 0.0072
 Mercury -114814-11-10 05:31 J -40214077.39 -40214077.27 -40214077.14 0.0131 0.0056
 Mercury -114813-02-06 08:53 J -40213989.26 -40213989.13 -40213989.00 0.0131 0.0040
 Mercury -114813-05-04 12:00 J -40213901.13 -40213901.00 -40213900.86 0.0131 0.0025
 Mercury -114813-07-31 15:22 J -40213813.00 -40213812.86 -40213812.72 0.0131 0.0009
 Mercury -114813-10-27 18:29 J -40213724.87 -40213724.73 -40213724.59 0.0131 0.0007
 Mercury -114812-01-23 21:36 J -40213636.73 -40213636.60 -40213636.46 0.0131 0.0022
 Mercury -114812-04-22 00:58 J -40213548.59 -40213548.46 -40213548.33 0.0131 0.0037
 Jupiter -114812-05-11 14:24 J -40213529.11 -40213528.90 -40213528.61 0.0131 0.0113
 Mercury -114812-07-19 04:05 J -40213460.46 -40213460.33 -40213460.20 0.0131 0.0052
 Mercury -114812-10-15 07:12 J -40213372.32 -40213372.20 -40213372.08 0.0131 0.0067
 Mercury -114811-01-11 10:19 J -40213284.17 -40213284.07 -40213283.96 0.0131 0.0082
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 Mercury -114811-10-02 19:26 J -40213019.71 -40213019.69 -40213019.65 0.0131 0.0127
 Mars -114810-01-11 03:07 J -40212919.64 -40212919.37 -40212919.09 0.0131 0.0066

Venus -114804-07-03 10:34 J -40210554.12 -40210554.06 -40210553.95 0.0131 0.0120
 Venus -114803-02-14 13:26 J -40210328.09 -40210327.94 -40210327.77 0.0132 0.0086
 Venus -114803-09-28 16:05 J -40210102.03 -40210101.83 -40210101.64 0.0132 0.0052
 Venus -114802-05-12 18:14 J -40209875.94 -40209875.74 -40209875.52 0.0132 0.0019
 Venus -114802-12-24 20:38 J -40209649.84 -40209649.64 -40209649.42 0.0132 0.0016
 Venus -114801-08-06 23:02 J -40209423.73 -40209423.54 -40209423.33 0.0132 0.0050
 Venus -114800-03-21 01:55 J -40209197.58 -40209197.42 -40209197.26 0.0132 0.0084
 Venus -114800-11-02 04:19 J -40208971.41 -40208971.32 -40208971.22 0.0133 0.0118
 Earth -114779-08-15 14:53 J -40201380.07 -40201379.88 -40201379.66 0.0144 0.0083
 Moon -114779-08-15 15:36 J -40201380.06 -40201379.85 -40201379.63 0.0144 0.0083 *
 Moon -114778-08-20 12:00 J -40201010.22 -40201010.00 -40201009.76 0.0145 0.0044
 Earth -114778-08-20 12:58 J -40201010.19 -40201009.96 -40201009.71 0.0145 0.0046 *
 Mercury -114771-05-06 03:36 J -40198559.39 -40198559.35 -40198559.30 0.0147 0.0142
 Mercury -114771-08-02 11:17 J -40198471.14 -40198471.03 -40198470.92 0.0147 0.0114
 Mercury -114771-10-29 18:58 J -40198382.86 -40198382.71 -40198382.56 0.0147 0.0086
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 Mercury -114770-07-21 18:29 J -40198117.91 -40198117.73 -40198117.55 0.0148 0.0001
 Mercury -114770-10-18 02:10 J -40198029.58 -40198029.41 -40198029.22 0.0148 0.0031
 Mercury -114769-01-14 10:19 J -40197941.23 -40197941.07 -40197940.90 0.0148 0.0060
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 Mars -114768-05-30 16:05 J -40197439.09 -40197438.83 -40197438.55 0.0148 0.0061
 Venus -114763-05-28 00:29 J -40195615.50 -40195615.48 -40195615.43 0.0147 0.0145
 Venus -114762-01-09 16:19 J -40195388.98 -40195388.82 -40195388.64 0.0147 0.0096
 Venus -114762-08-24 08:24 J -40195162.35 -40195162.15 -40195161.93 0.0147 0.0046
 Venus -114761-04-07 00:29 J -40194935.70 -40194935.48 -40194935.25 0.0147 0.0006
 Venus -114761-11-19 16:19 J -40194709.02 -40194708.82 -40194708.61 0.0147 0.0056
 Venus -114760-07-04 07:55 J -40194482.31 -40194482.17 -40194482.00 0.0146 0.0106
 Moon -114739-02-25 04:48 J -40186941.54 -40186941.30 -40186941.04 0.0135 0.0048

Earth -114739-02-25 05:31 J -40186941.50 -40186941.27 -40186941.03 0.0135 0.0051 *
 Earth -114738-03-01 14:53 J -40186572.10 -40186571.88 -40186571.63 0.0134 0.0055
 Moon -114738-03-01 15:36 J -40186572.07 -40186571.85 -40186571.61 0.0134 0.0050 *
 Mercury -114731-12-12 23:17 J -40183728.59 -40183728.53 -40183728.46 0.0131 0.0116
 Mercury -114730-03-11 02:38 J -40183640.48 -40183640.39 -40183640.30 0.0131 0.0100
 Mercury -114730-06-07 05:46 J -40183552.36 -40183552.26 -40183552.14 0.0131 0.0084
 Mercury -114730-09-03 09:07 J -40183464.23 -40183464.12 -40183464.00 0.0131 0.0068
 Mercury -114730-11-30 12:29 J -40183376.10 -40183375.98 -40183375.85 0.0131 0.0053
 Mercury -114729-02-26 15:36 J -40183287.98 -40183287.85 -40183287.71 0.0131 0.0038
 Mercury -114729-05-24 18:58 J -40183199.84 -40183199.71 -40183199.57 0.0131 0.0022
 Mercury -114729-08-20 22:19 J -40183111.71 -40183111.57 -40183111.43 0.0131 0.0007
 Mercury -114729-11-17 01:26 J -40183023.58 -40183023.44 -40183023.30 0.0131 0.0009
 Mercury -114728-02-13 04:34 J -40182935.44 -40182935.31 -40182935.17 0.0131 0.0025
 Mercury -114728-05-12 07:41 J -40182847.31 -40182847.18 -40182847.04 0.0131 0.0040
 Mercury -114728-08-08 10:48 J -40182759.17 -40182759.05 -40182758.92 0.0131 0.0055
 Mercury -114728-11-04 14:10 J -40182671.03 -40182670.91 -40182670.80 0.0131 0.0070
 Mercury -114727-01-31 17:17 J -40182582.89 -40182582.78 -40182582.68 0.0131 0.0085
 Mercury -114727-04-29 20:10 J -40182494.74 -40182494.66 -40182494.57 0.0131 0.0100
 Mercury -114727-07-26 23:17 J -40182406.59 -40182406.53 -40182406.46 0.0131 0.0115
 Mercury -114727-10-23 02:10 J -40182318.41 -40182318.41 -40182318.38 0.0131 0.0130
 Mars -114726-09-05 19:12 J -40182001.02 -40182000.70 -40182000.38 0.0131 0.0009
 Venus -114720-10-14 23:31 J -40179769.64 -40179769.52 -40179769.38 0.0131 0.0104
 Venus -114719-05-29 01:41 J -40179543.59 -40179543.43 -40179543.23 0.0131 0.0071
 Venus -114718-01-10 04:19 J -40179317.52 -40179317.32 -40179317.11 0.0132 0.0037
 Venus -114718-08-24 06:58 J -40179091.42 -40179091.21 -40179091.00 0.0132 0.0002
 Venus -114717-04-06 09:22 J -40178865.31 -40178865.11 -40178864.90 0.0132 0.0032
 Venus -114717-11-18 11:46 J -40178639.18 -40178639.01 -40178638.82 0.0132 0.0066
 Venus -114716-07-02 14:10 J -40178413.03 -40178412.91 -40178412.76 0.0132 0.0100
 Moon -114695-08-15 19:55 J -40170698.88 -40170698.67 -40170698.45 0.0144 0.0080
 Earth -114695-08-15 20:53 J -40170698.82 -40170698.63 -40170698.41 0.0144 0.0084 *

Earth -114694-08-20 18:58 J -40170328.95 -40170328.71 -40170328.47 0.0145 0.0045
 Moon -114694-08-20 19:12 J -40170328.93 -40170328.70 -40170328.47 0.0145 0.0047 *
 Mercury -114687-05-26 09:36 J -40167858.14 -40167858.10 -40167858.03 0.0147 0.0139
 Mercury -114687-08-22 17:31 J -40167769.89 -40167769.77 -40167769.65 0.0147 0.0111
 Mercury -114687-11-19 01:12 J -40167681.60 -40167681.45 -40167681.30 0.0147 0.0083
 Mercury -114686-02-15 08:53 J -40167593.29 -40167593.13 -40167592.96 0.0147 0.0054
 Mercury -114686-05-14 16:48 J -40167504.98 -40167504.80 -40167504.62 0.0148 0.0025
 Mercury -114686-08-11 00:43 J -40167416.65 -40167416.47 -40167416.29 0.0148 0.0004
 Mercury -114686-11-07 08:38 J -40167328.32 -40167328.14 -40167327.96 0.0148 0.0033
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 Mercury -114685-05-02 00:29 J -40167151.61 -40167151.48 -40167151.33 0.0148 0.0093
 Mercury -114685-07-29 08:38 J -40167063.23 -40167063.14 -40167063.03 0.0148 0.0122
 Mars -114683-01-23 23:02 J -40166519.82 -40166519.54 -40166519.24 0.0148 0.0037
 Venus -114679-09-08 18:14 J -40164830.85 -40164830.74 -40164830.60 0.0147 0.0123
 Venus -114678-04-23 10:34 J -40164604.26 -40164604.06 -40164603.87 0.0147 0.0073
 Venus -114678-12-06 02:24 J -40164377.62 -40164377.40 -40164377.18 0.0147 0.0022
 Venus -114677-07-19 18:14 J -40164150.95 -40164150.74 -40164150.51 0.0147 0.0029
 Venus -114676-03-03 10:05 J -40163924.26 -40163924.08 -40163923.88 0.0147 0.0079
 Venus -114676-10-16 02:10 J -40163697.51 -40163697.41 -40163697.30 0.0146 0.0129
 Moon -114655-02-25 12:43 J -40156260.21 -40156259.97 -40156259.72 0.0135 0.0048
 Earth -114655-02-25 14:38 J -40156260.12 -40156259.89 -40156259.64 0.0135 0.0048 *
 Earth -114654-03-02 00:14 J -40155890.71 -40155890.49 -40155890.25 0.0134 0.0057
 Moon -114654-03-02 01:26 J -40155890.64 -40155890.44 -40155890.21 0.0134 0.0063 *
 Mercury -114647-10-06 02:53 J -40153115.40 -40153115.38 -40153115.35 0.0131 0.0129
 Mercury -114646-01-02 06:14 J -40153027.31 -40153027.24 -40153027.17 0.0131 0.0113
 Mercury -114646-03-31 09:36 J -40152939.19 -40152939.10 -40152939.01 0.0131 0.0097
 Mercury -114646-06-27 12:43 J -40152851.07 -40152850.97 -40152850.85 0.0131 0.0081
 Mercury -114646-09-23 16:05 J -40152762.94 -40152762.83 -40152762.70 0.0131 0.0065
 Mercury -114646-12-20 19:26 J -40152674.82 -40152674.69 -40152674.56 0.0131 0.0050
 Mercury -114645-03-17 22:48 J -40152586.69 -40152586.55 -40152586.42 0.0131 0.0034

Mercury -114645-06-14 01:55 J -40152498.55 -40152498.42 -40152498.28 0.0131 0.0019
 Mercury -114645-09-10 05:17 J -40152410.42 -40152410.28 -40152410.14 0.0131 0.0004
 Mercury -114645-12-07 08:24 J -40152322.29 -40152322.15 -40152322.01 0.0131 0.0012
 Mercury -114644-03-05 11:31 J -40152234.15 -40152234.02 -40152233.88 0.0131 0.0028
 Mercury -114644-06-01 14:38 J -40152146.01 -40152145.89 -40152145.76 0.0131 0.0043
 Mercury -114644-08-28 17:46 J -40152057.88 -40152057.76 -40152057.63 0.0131 0.0058
 Mercury -114644-11-24 20:53 J -40151969.74 -40151969.63 -40151969.51 0.0131 0.0073
 Mercury -114643-02-21 00:00 J -40151881.59 -40151881.50 -40151881.39 0.0131 0.0088
 Mercury -114643-05-20 03:07 J -40151793.45 -40151793.37 -40151793.28 0.0131 0.0103
 Mars -114643-05-29 18:29 J -40151783.77 -40151783.73 -40151783.64 0.0131 0.0128
 Mercury -114643-08-16 06:14 J -40151705.29 -40151705.24 -40151705.18 0.0131 0.0118
 Mars -114641-04-30 12:43 J -40151082.20 -40151081.97 -40151081.71 0.0131 0.0084
 Venus -114636-06-14 10:05 J -40149211.14 -40149211.08 -40149210.99 0.0131 0.0122
 Venus -114635-01-26 12:58 J -40148985.12 -40148984.96 -40148984.81 0.0131 0.0088
 Venus -114635-09-09 15:07 J -40148759.05 -40148758.87 -40148758.67 0.0131 0.0054
 Venus -114634-04-23 17:46 J -40148532.97 -40148532.76 -40148532.55 0.0132 0.0020
 Venus -114634-12-05 20:10 J -40148306.87 -40148306.66 -40148306.45 0.0132 0.0014
 Venus -114633-07-18 22:34 J -40148080.75 -40148080.56 -40148080.36 0.0132 0.0048
 Venus -114632-03-02 01:12 J -40147854.61 -40147854.45 -40147854.29 0.0132 0.0082
 Venus -114632-10-14 03:36 J -40147628.44 -40147628.35 -40147628.25 0.0132 0.0117
 Moon -114611-08-15 23:46 J -40140017.70 -40140017.51 -40140017.30 0.0144 0.0090
 Earth -114611-08-16 01:41 J -40140017.61 -40140017.43 -40140017.21 0.0144 0.0086 *
 Earth -114610-08-20 23:17 J -40139647.76 -40139647.53 -40139647.28 0.0145 0.0042
 Moon -114610-08-21 01:26 J -40139647.67 -40139647.44 -40139647.20 0.0145 0.0044 *
 Mercury -114603-06-15 15:07 J -40137156.91 -40137156.87 -40137156.80 0.0147 0.0139
 Mercury -114603-09-11 22:48 J -40137068.66 -40137068.55 -40137068.42 0.0147 0.0111
 Mercury -114603-12-09 06:29 J -40136980.37 -40136980.23 -40136980.07 0.0147 0.0083
 Mercury -114602-03-07 14:24 J -40136892.06 -40136891.90 -40136891.73 0.0148 0.0054
 Mercury -114602-06-03 22:19 J -40136803.75 -40136803.57 -40136803.39 0.0148 0.0025
 Mercury -114602-08-31 06:14 J -40136715.42 -40136715.24 -40136715.06 0.0148 0.0004

Mercury -114602-11-27 14:10 J -40136627.09 -40136626.91 -40136626.73 0.0148 0.0033

Mercury -114601-02-23 22:05 J -40136538.74 -40136538.58 -40136538.41 0.0148 0.0063

Mercury -114601-05-22 06:00 J -40136450.38 -40136450.25 -40136450.10 0.0148 0.0093

Mercury -114601-08-18 13:55 J -40136362.01 -40136361.92 -40136361.80 0.0148 0.0123

Mars -114599-09-19 01:12 J -40135600.57 -40135600.45 -40135600.30 0.0148 0.0131

Venus -114595-12-21 10:34 J -40134046.21 -40134046.06 -40134045.90 0.0147 0.0103

Venus -114594-08-05 02:24 J -40133819.59 -40133819.40 -40133819.18 0.0147 0.0053

Venus -114593-03-18 18:43 J -40133592.94 -40133592.72 -40133592.49 0.0147 0.0001

Venus -114593-10-31 10:34 J -40133366.26 -40133366.06 -40133365.84 0.0147 0.0050

Venus -114592-06-15 02:10 J -40133139.55 -40133139.41 -40133139.23 0.0147 0.0101

Moon -114571-02-25 19:12 J -40125578.95 -40125578.70 -40125578.46 0.0135 0.0046

Earth -114571-02-25 21:36 J -40125578.83 -40125578.60 -40125578.35 0.0135 0.0047 *

Earth -114570-03-02 07:26 J -40125209.42 -40125209.19 -40125208.96 0.0134 0.0058

Moon -114570-03-02 10:19 J -40125209.29 -40125209.07 -40125208.83 0.0134 0.0056 *

Mercury -114563-10-26 09:22 J -40122414.13 -40122414.11 -40122414.06 0.0131 0.0127

Mercury -114562-01-22 12:43 J -40122326.03 -40122325.97 -40122325.88 0.0131 0.0111

Mercury -114562-04-20 16:19 J -40122237.91 -40122237.82 -40122237.72 0.0131 0.0094

Mercury -114562-07-17 19:41 J -40122149.79 -40122149.68 -40122149.57 0.0131 0.0079

Mercury -114562-10-13 22:48 J -40122061.67 -40122061.55 -40122061.42 0.0131 0.0063

Mercury -114561-01-10 02:10 J -40121973.54 -40121973.41 -40121973.28 0.0131 0.0047

Mercury -114561-04-07 05:31 J -40121885.41 -40121885.27 -40121885.14 0.0131 0.0032

Mercury -114561-07-04 08:38 J -40121797.27 -40121797.14 -40121797.00 0.0131 0.0016

Mercury -114561-09-30 12:00 J -40121709.14 -40121709.00 -40121708.86 0.0131 0.0002

Mercury -114561-12-27 15:07 J -40121621.01 -40121620.87 -40121620.73 0.0131 0.0015

Mercury -114560-03-25 18:14 J -40121532.87 -40121532.74 -40121532.60 0.0131 0.0030

Mercury -114560-06-21 21:22 J -40121444.73 -40121444.61 -40121444.48 0.0131 0.0045

Mercury -114560-09-18 00:29 J -40121356.60 -40121356.48 -40121356.35 0.0131 0.0060

Mercury -114560-12-15 03:36 J -40121268.46 -40121268.35 -40121268.23 0.0131 0.0075

Mercury -114559-03-13 06:43 J -40121180.31 -40121180.22 -40121180.12 0.0131 0.0090

Mercury -114559-06-09 09:50 J -40121092.16 -40121092.09 -40121092.00 0.0131 0.0105

Mercury -114559-09-05 12:58 J -40121004.01 -40121003.96 -40121003.90 0.0131 0.0120
 Mars -114558-01-22 09:07 J -40120865.40 -40120865.12 -40120864.82 0.0131 0.0054
 Venus -114552-09-25 23:17 J -40118426.65 -40118426.53 -40118426.40 0.0131 0.0106
 Venus -114551-05-10 01:41 J -40118200.61 -40118200.43 -40118200.25 0.0131 0.0072
 Venus -114551-12-22 04:05 J -40117974.53 -40117974.33 -40117974.13 0.0131 0.0038
 Venus -114550-08-05 06:29 J -40117748.44 -40117748.23 -40117748.02 0.0132 0.0004
 Venus -114549-03-18 08:53 J -40117522.33 -40117522.13 -40117521.91 0.0132 0.0031
 Venus -114549-10-30 11:17 J -40117296.20 -40117296.03 -40117295.83 0.0132 0.0065
 Venus -114548-06-13 13:41 J -40117070.05 -40117069.93 -40117069.78 0.0132 0.0099
 Moon -114527-08-16 05:31 J -40109336.48 -40109336.27 -40109336.05 0.0144 0.0078
 Earth -114527-08-16 08:38 J -40109336.33 -40109336.14 -40109335.92 0.0144 0.0085 *
 Earth -114526-08-21 06:14 J -40108966.47 -40108966.24 -40108965.99 0.0144 0.0043
 Moon -114526-08-21 08:53 J -40108966.36 -40108966.13 -40108965.89 0.0144 0.0042 *
 Mercury -114519-07-05 21:22 J -40106455.66 -40106455.61 -40106455.53 0.0147 0.0136
 Mercury -114519-10-02 05:02 J -40106367.40 -40106367.29 -40106367.16 0.0147 0.0108
 Mercury -114519-12-29 12:43 J -40106279.11 -40106278.97 -40106278.81 0.0147 0.0080
 Mercury -114518-03-27 20:38 J -40106190.81 -40106190.64 -40106190.47 0.0148 0.0051
 Mercury -114518-06-24 04:34 J -40106102.49 -40106102.31 -40106102.13 0.0148 0.0022
 Mercury -114518-09-20 12:29 J -40106014.17 -40106013.98 -40106013.80 0.0148 0.0008
 Mercury -114518-12-17 20:10 J -40105925.83 -40105925.66 -40105925.48 0.0148 0.0036
 Mercury -114517-03-15 04:05 J -40105837.49 -40105837.33 -40105837.16 0.0148 0.0066
 Mercury -114517-06-11 12:14 J -40105749.13 -40105748.99 -40105748.85 0.0148 0.0095
 Mercury -114517-09-07 20:10 J -40105660.75 -40105660.66 -40105660.55 0.0148 0.0125
 Mars -114516-06-10 18:29 J -40105384.99 -40105384.73 -40105384.44 0.0148 0.0060
 Venus -114511-08-20 11:31 J -40103488.10 -40103488.02 -40103487.90 0.0147 0.0132
 Venus -114510-04-04 03:50 J -40103261.52 -40103261.34 -40103261.15 0.0147 0.0080
 Venus -114510-11-16 19:55 J -40103034.89 -40103034.67 -40103034.45 0.0147 0.0029
 Venus -114509-06-30 11:46 J -40102808.22 -40102808.01 -40102807.78 0.0147 0.0022
 Venus -114508-02-12 03:36 J -40102581.53 -40102581.35 -40102581.14 0.0147 0.0073
 Venus -114508-09-26 19:55 J -40102354.79 -40102354.67 -40102354.55 0.0147 0.0123

Moon -114487-02-26 01:12 J -40094897.69 -40094897.45 -40094897.20 0.0135 0.0042
 Earth -114487-02-26 05:02 J -40094897.53 -40094897.29 -40094897.04 0.0135 0.0045 *
 Earth -114486-03-02 14:53 J -40094528.10 -40094527.88 -40094527.65 0.0134 0.0060
 Moon -114486-03-02 18:00 J -40094527.96 -40094527.75 -40094527.51 0.0134 0.0062 *
 Mercury -114479-11-15 16:19 J -40091712.86 -40091712.82 -40091712.77 0.0132 0.0124
 Mercury -114478-02-11 19:41 J -40091624.75 -40091624.68 -40091624.60 0.0132 0.0108
 Mercury -114478-05-10 23:02 J -40091536.63 -40091536.54 -40091536.44 0.0131 0.0092
 Mercury -114478-08-07 02:24 J -40091448.51 -40091448.40 -40091448.28 0.0131 0.0076
 Mercury -114478-11-03 05:46 J -40091360.38 -40091360.26 -40091360.14 0.0131 0.0060
 Mercury -114477-01-30 09:07 J -40091272.25 -40091272.12 -40091271.99 0.0131 0.0045
 Mercury -114477-04-27 12:14 J -40091184.12 -40091183.99 -40091183.85 0.0131 0.0029
 Mercury -114477-07-24 15:36 J -40091095.99 -40091095.85 -40091095.71 0.0131 0.0014
 Mercury -114477-10-20 18:43 J -40091007.86 -40091007.72 -40091007.58 0.0131 0.0002
 Mercury -114476-01-16 21:50 J -40090919.72 -40090919.59 -40090919.45 0.0131 0.0018
 Mercury -114476-04-15 00:58 J -40090831.59 -40090831.46 -40090831.32 0.0131 0.0033
 Mercury -114476-07-12 04:05 J -40090743.45 -40090743.33 -40090743.19 0.0131 0.0048
 Mercury -114476-10-08 07:12 J -40090655.31 -40090655.20 -40090655.07 0.0131 0.0064
 Mercury -114475-01-04 10:19 J -40090567.17 -40090567.07 -40090566.95 0.0131 0.0078
 Mercury -114475-04-02 13:26 J -40090479.03 -40090478.94 -40090478.83 0.0131 0.0093
 Mercury -114475-06-29 16:34 J -40090390.88 -40090390.81 -40090390.72 0.0131 0.0108
 Mercury -114475-09-25 19:55 J -40090302.72 -40090302.67 -40090302.63 0.0131 0.0122
 Mars -114474-09-17 00:43 J -40089946.78 -40089946.47 -40089946.14 0.0131 0.0021
 Venus -114468-05-26 09:50 J -40087868.14 -40087868.09 -40087868.00 0.0131 0.0124
 Venus -114467-01-07 12:29 J -40087642.12 -40087641.98 -40087641.81 0.0131 0.0089
 Venus -114467-08-21 14:53 J -40087416.06 -40087415.88 -40087415.67 0.0131 0.0056
 Venus -114466-04-04 17:46 J -40087189.97 -40087189.76 -40087189.55 0.0132 0.0021
 Venus -114466-11-16 20:10 J -40086963.87 -40086963.66 -40086963.45 0.0132 0.0014
 Venus -114465-06-29 22:34 J -40086737.75 -40086737.56 -40086737.36 0.0132 0.0048
 Venus -114464-02-11 00:58 J -40086511.61 -40086511.46 -40086511.28 0.0132 0.0083
 Venus -114464-09-25 03:22 J -40086285.44 -40086285.36 -40086285.25 0.0132 0.0117

Moon -114443-08-16 15:22 J -40078655.05 -40078654.86 -40078654.65 0.0144 0.0087
 Earth -114443-08-16 18:43 J -40078654.92 -40078654.72 -40078654.50 0.0144 0.0080 *
 Earth -114442-08-21 16:05 J -40078285.06 -40078284.83 -40078284.58 0.0144 0.0047
 Moon -114442-08-21 19:55 J -40078284.90 -40078284.67 -40078284.43 0.0144 0.0052 *
 Mercury -114435-07-26 04:34 J -40075754.38 -40075754.31 -40075754.21 0.0147 0.0130
 Mercury -114435-10-22 12:14 J -40075666.11 -40075665.99 -40075665.85 0.0147 0.0102
 Mercury -114434-01-18 19:55 J -40075577.82 -40075577.67 -40075577.50 0.0147 0.0074
 Mercury -114434-04-17 03:50 J -40075489.51 -40075489.34 -40075489.17 0.0148 0.0045
 Mercury -114434-07-14 11:46 J -40075401.19 -40075401.01 -40075400.83 0.0148 0.0016
 Mercury -114434-10-10 19:26 J -40075312.87 -40075312.69 -40075312.50 0.0148 0.0013
 Mercury -114433-01-07 03:22 J -40075224.53 -40075224.36 -40075224.18 0.0148 0.0042
 Mercury -114433-04-04 11:17 J -40075136.18 -40075136.03 -40075135.87 0.0148 0.0072
 Mercury -114433-07-01 19:26 J -40075047.82 -40075047.69 -40075047.56 0.0148 0.0101
 Mercury -114433-09-28 03:22 J -40074959.44 -40074959.36 -40074959.27 0.0148 0.0131
 Mars -114431-02-04 07:41 J -40074465.47 -40074465.18 -40074464.90 0.0148 0.0042
 Venus -114427-12-02 07:12 J -40072703.35 -40072703.20 -40072703.04 0.0147 0.0107
 Venus -114426-07-16 23:17 J -40072476.74 -40072476.53 -40072476.33 0.0147 0.0056
 Venus -114425-02-28 15:07 J -40072250.09 -40072249.87 -40072249.64 0.0147 0.0005
 Venus -114425-10-12 06:58 J -40072023.41 -40072023.21 -40072022.99 0.0147 0.0047
 Venus -114424-05-26 22:48 J -40071796.70 -40071796.55 -40071796.37 0.0147 0.0098
 Moon -114403-02-26 10:19 J -40064216.30 -40064216.07 -40064215.83 0.0135 0.0046
 Earth -114403-02-26 13:41 J -40064216.17 -40064215.93 -40064215.68 0.0135 0.0042 *
 Earth -114402-03-02 23:46 J -40063846.74 -40063846.51 -40063846.28 0.0134 0.0063
 Moon -114402-03-03 03:22 J -40063846.58 -40063846.36 -40063846.13 0.0134 0.0064 *
 Mercury -114395-12-05 23:17 J -40061011.58 -40061011.53 -40061011.47 0.0132 0.0120
 Mercury -114394-03-04 02:38 J -40060923.47 -40060923.39 -40060923.30 0.0132 0.0105
 Mercury -114394-05-31 06:00 J -40060835.35 -40060835.25 -40060835.14 0.0131 0.0089
 Mercury -114394-08-27 09:22 J -40060747.22 -40060747.11 -40060746.99 0.0131 0.0073
 Mercury -114394-11-23 12:29 J -40060659.10 -40060658.98 -40060658.85 0.0131 0.0058
 Mercury -114393-02-19 15:50 J -40060570.97 -40060570.84 -40060570.70 0.0131 0.0042

Mercury -114393-05-17 19:12 J -40060482.84 -40060482.70 -40060482.56 0.0131 0.0026

Mercury -114393-08-13 22:19 J -40060394.70 -40060394.57 -40060394.43 0.0131 0.0011

Mercury -114393-11-10 01:41 J -40060306.57 -40060306.43 -40060306.29 0.0131 0.0005

Mercury -114392-02-06 04:48 J -40060218.43 -40060218.30 -40060218.16 0.0131 0.0020

Mercury -114392-05-05 07:55 J -40060130.30 -40060130.17 -40060130.03 0.0131 0.0036

Mercury -114392-08-01 11:02 J -40060042.16 -40060042.04 -40060041.91 0.0131 0.0051

Mercury -114392-10-28 14:10 J -40059954.02 -40059953.91 -40059953.78 0.0131 0.0066

Mercury -114391-01-24 17:17 J -40059865.88 -40059865.78 -40059865.66 0.0131 0.0081

Mercury -114391-04-22 20:24 J -40059777.73 -40059777.65 -40059777.55 0.0131 0.0096

Mars -114391-06-10 01:26 J -40059729.57 -40059729.44 -40059729.26 0.0131 0.0115

Mercury -114391-07-19 23:31 J -40059689.58 -40059689.52 -40059689.44 0.0131 0.0111

Mercury -114391-10-16 02:38 J -40059601.42 -40059601.39 -40059601.35 0.0131 0.0125

Mars -114389-05-11 18:14 J -40059027.94 -40059027.74 -40059027.51 0.0131 0.0097

Venus -114384-09-06 23:46 J -40057083.62 -40057083.51 -40057083.38 0.0131 0.0106

Venus -114383-04-21 02:10 J -40056857.57 -40056857.41 -40056857.22 0.0131 0.0073

Venus -114383-12-03 04:48 J -40056631.50 -40056631.30 -40056631.09 0.0132 0.0038

Venus -114382-07-17 07:26 J -40056405.40 -40056405.19 -40056404.98 0.0132 0.0004

Venus -114381-02-28 09:50 J -40056179.29 -40056179.09 -40056178.88 0.0132 0.0031

Venus -114381-10-11 12:00 J -40055953.17 -40055953.00 -40055952.80 0.0132 0.0066

Venus -114380-05-25 14:38 J -40055727.02 -40055726.89 -40055726.75 0.0132 0.0100

Moon -114359-08-17 02:10 J -40047973.61 -40047973.41 -40047973.18 0.0144 0.0067

Earth -114359-08-17 05:31 J -40047973.47 -40047973.27 -40047973.04 0.0144 0.0075 *

Earth -114358-08-22 03:07 J -40047603.59 -40047603.37 -40047603.12 0.0144 0.0053

Moon -114358-08-22 06:43 J -40047603.46 -40047603.22 -40047602.98 0.0144 0.0047 *

Mercury -114351-08-15 12:43 J -40045053.07 -40045052.97 -40045052.87 0.0147 0.0121

Mercury -114351-11-11 20:24 J -40044964.79 -40044964.65 -40044964.51 0.0148 0.0093

Mercury -114350-02-08 03:50 J -40044876.49 -40044876.34 -40044876.17 0.0148 0.0065

Mercury -114350-05-07 11:46 J -40044788.19 -40044788.01 -40044787.83 0.0148 0.0036

Mercury -114350-08-03 19:26 J -40044699.87 -40044699.69 -40044699.50 0.0148 0.0008

Mercury -114350-10-31 03:22 J -40044611.54 -40044611.36 -40044611.18 0.0148 0.0022

Mercury -114349-01-27 11:17 J -40044523.20 -40044523.03 -40044522.86 0.0148 0.0051

Mercury -114349-04-24 19:12 J -40044434.85 -40044434.70 -40044434.54 0.0148 0.0081

Mercury -114349-07-22 03:07 J -40044346.48 -40044346.37 -40044346.24 0.0148 0.0110

Mercury -114349-10-18 11:17 J -40044258.08 -40044258.03 -40044257.97 0.0148 0.0140

Mars -114349-10-27 08:53 J -40044249.20 -40044249.13 -40044249.03 0.0148 0.0141

Venus -114343-08-01 12:43 J -40042145.06 -40042144.97 -40042144.86 0.0147 0.0131

Venus -114342-03-16 04:34 J -40041918.48 -40041918.31 -40041918.11 0.0147 0.0080

Venus -114342-10-28 20:38 J -40041691.85 -40041691.64 -40041691.41 0.0147 0.0028

Venus -114341-06-11 12:29 J -40041465.19 -40041464.98 -40041464.75 0.0147 0.0024

Venus -114340-01-24 04:19 J -40041238.50 -40041238.32 -40041238.11 0.0147 0.0075

Venus -114340-09-07 20:24 J -40041011.75 -40041011.65 -40041011.52 0.0147 0.0126

Moon -114319-02-26 22:05 J -40033534.83 -40033534.58 -40033534.34 0.0135 0.0031

Earth -114319-02-27 00:43 J -40033534.72 -40033534.47 -40033534.22 0.0135 0.0037 *

Earth -114318-03-03 10:34 J -40033165.27 -40033165.06 -40033164.83 0.0134 0.0068

Moon -114318-03-03 13:12 J -40033165.18 -40033164.95 -40033164.72 0.0134 0.0064 *

Mercury -114311-12-26 06:14 J -40030310.29 -40030310.24 -40030310.16 0.0132 0.0117

Mercury -114310-03-24 09:50 J -40030222.17 -40030222.09 -40030222.00 0.0131 0.0100

Mercury -114310-06-20 13:12 J -40030134.05 -40030133.95 -40030133.84 0.0131 0.0084

Mercury -114310-09-16 16:34 J -40030045.93 -40030045.81 -40030045.69 0.0131 0.0069

Mercury -114310-12-13 19:41 J -40029957.80 -40029957.68 -40029957.54 0.0131 0.0053

Mercury -114309-03-10 23:02 J -40029869.67 -40029869.54 -40029869.40 0.0131 0.0038

Mercury -114309-06-07 02:24 J -40029781.54 -40029781.40 -40029781.26 0.0131 0.0022

Mercury -114309-09-03 05:31 J -40029693.40 -40029693.27 -40029693.13 0.0131 0.0007

Mercury -114309-11-30 08:53 J -40029605.27 -40029605.13 -40029604.99 0.0131 0.0009

Mercury -114308-02-26 12:00 J -40029517.13 -40029517.00 -40029516.86 0.0131 0.0024

Mercury -114308-05-25 15:07 J -40029429.00 -40029428.87 -40029428.73 0.0131 0.0040

Mercury -114308-08-21 18:14 J -40029340.86 -40029340.74 -40029340.61 0.0131 0.0055

Mercury -114308-11-17 21:22 J -40029252.72 -40029252.61 -40029252.49 0.0131 0.0070

Mercury -114307-02-14 00:29 J -40029164.58 -40029164.48 -40029164.37 0.0131 0.0085

Mercury -114307-05-13 03:36 J -40029076.43 -40029076.35 -40029076.26 0.0131 0.0100

Mercury -114307-08-09 06:58 J -40028988.28 -40028988.21 -40028988.15 0.0131 0.0115

Mercury -114307-11-05 09:50 J -40028900.10 -40028900.09 -40028900.07 0.0131 0.0129

Mars -114306-02-02 20:38 J -40028810.93 -40028810.64 -40028810.32 0.0131 0.0038

Venus -114300-05-07 12:00 J -40026525.07 -40026525.00 -40026524.92 0.0131 0.0123

Venus -114300-12-19 14:24 J -40026299.05 -40026298.90 -40026298.74 0.0131 0.0089

Venus -114299-08-02 16:48 J -40026072.99 -40026072.80 -40026072.60 0.0132 0.0054

Venus -114298-03-16 19:26 J -40025846.90 -40025846.69 -40025846.48 0.0132 0.0020

Venus -114298-10-28 21:50 J -40025620.80 -40025620.59 -40025620.38 0.0132 0.0015

Venus -114297-06-11 00:14 J -40025394.68 -40025394.49 -40025394.29 0.0132 0.0050

Venus -114296-01-23 02:38 J -40025168.55 -40025168.39 -40025168.22 0.0132 0.0084

Venus -114296-09-06 05:17 J -40024942.37 -40024942.28 -40024942.19 0.0132 0.0119

Moon -114275-08-17 15:36 J -40017292.04 -40017291.85 -40017291.63 0.0144 0.0076

Earth -114275-08-17 17:17 J -40017291.99 -40017291.78 -40017291.55 0.0144 0.0069 *

Earth -114274-08-22 15:07 J -40016922.09 -40016921.87 -40016921.63 0.0144 0.0059

Moon -114274-08-22 17:46 J -40016921.98 -40016921.76 -40016921.52 0.0144 0.0066 *

Mercury -114267-06-08 12:43 J -40014440.01 -40014439.97 -40014439.90 0.0147 0.0141

Mercury -114267-09-04 20:24 J -40014351.76 -40014351.65 -40014351.53 0.0148 0.0113

Mercury -114267-12-02 04:05 J -40014263.47 -40014263.33 -40014263.18 0.0148 0.0084

Mercury -114266-02-28 12:00 J -40014175.17 -40014175.00 -40014174.84 0.0148 0.0056

Mercury -114266-05-27 19:41 J -40014086.86 -40014086.68 -40014086.50 0.0148 0.0027

Mercury -114266-08-24 03:36 J -40013998.54 -40013998.35 -40013998.17 0.0148 0.0004

Mercury -114266-11-20 11:17 J -40013910.21 -40013910.03 -40013909.85 0.0148 0.0031

Mercury -114265-02-16 19:12 J -40013821.86 -40013821.70 -40013821.53 0.0148 0.0060

Mercury -114265-05-15 03:07 J -40013733.51 -40013733.37 -40013733.22 0.0148 0.0090

Mercury -114265-08-11 11:17 J -40013645.13 -40013645.03 -40013644.92 0.0148 0.0119

Mars -114264-06-23 05:17 J -40013329.56 -40013329.28 -40013328.98 0.0148 0.0034

Venus -114259-11-13 10:19 J -40011360.21 -40011360.07 -40011359.89 0.0147 0.0104

Venus -114258-06-28 02:38 J -40011133.60 -40011133.39 -40011133.18 0.0147 0.0052

Venus -114257-02-09 18:29 J -40010906.95 -40010906.73 -40010906.50 0.0147 0.0003

Venus -114257-09-23 10:34 J -40010680.26 -40010680.06 -40010679.84 0.0147 0.0052

Venus -114256-05-08 02:24 J -40010453.55 -40010453.40 -40010453.23 0.0147 0.0103
 Moon -114236-02-23 01:41 J -40003222.47 -40003222.43 -40003222.33 0.0135 0.0130
 Moon -114235-02-27 11:46 J -40002853.24 -40002853.01 -40002852.76 0.0135 0.0038
 Earth -114235-02-27 12:29 J -40002853.22 -40002852.98 -40002852.72 0.0135 0.0031 *
 Earth -114234-03-03 22:34 J -40002483.77 -40002483.56 -40002483.34 0.0134 0.0073
 Moon -114234-03-04 00:14 J -40002483.70 -40002483.49 -40002483.27 0.0134 0.0078 *
 Mercury -114227-10-19 10:19 J -39999697.09 -39999697.07 -39999697.03 0.0131 0.0128
 Mercury -114226-01-15 13:41 J -39999609.00 -39999608.93 -39999608.85 0.0131 0.0112
 Mercury -114226-04-13 17:02 J -39999520.88 -39999520.79 -39999520.69 0.0131 0.0096
 Mercury -114226-07-10 20:24 J -39999432.76 -39999432.65 -39999432.54 0.0131 0.0080
 Mercury -114226-10-06 23:46 J -39999344.63 -39999344.51 -39999344.39 0.0131 0.0064
 Mercury -114225-01-03 03:07 J -39999256.50 -39999256.37 -39999256.24 0.0131 0.0049
 Mercury -114225-03-31 06:14 J -39999168.37 -39999168.24 -39999168.10 0.0131 0.0033
 Mercury -114225-06-27 09:36 J -39999080.24 -39999080.10 -39999079.96 0.0131 0.0018
 Mercury -114225-09-23 12:43 J -39998992.11 -39998991.97 -39998991.83 0.0131 0.0004
 Mercury -114225-12-20 16:05 J -39998903.97 -39998903.83 -39998903.70 0.0131 0.0013
 Mercury -114224-03-18 19:12 J -39998815.84 -39998815.70 -39998815.57 0.0131 0.0028
 Mercury -114224-06-14 22:19 J -39998727.70 -39998727.57 -39998727.44 0.0131 0.0044
 Mercury -114224-09-11 01:26 J -39998639.56 -39998639.44 -39998639.31 0.0131 0.0059
 Mercury -114224-12-08 04:34 J -39998551.42 -39998551.31 -39998551.19 0.0131 0.0074
 Mercury -114223-03-06 07:41 J -39998463.27 -39998463.18 -39998463.08 0.0131 0.0089
 Mercury -114223-06-02 10:34 J -39998375.13 -39998375.06 -39998374.96 0.0131 0.0104
 Mercury -114223-08-29 13:55 J -39998286.97 -39998286.92 -39998286.86 0.0131 0.0118
 Mars -114222-09-28 15:50 J -39997892.14 -39997891.84 -39997891.53 0.0131 0.0040
 Venus -114216-08-19 01:55 J -39995740.54 -39995740.42 -39995740.29 0.0131 0.0105
 Venus -114215-04-02 04:19 J -39995514.49 -39995514.32 -39995514.13 0.0131 0.0071
 Venus -114215-11-14 06:43 J -39995288.42 -39995288.22 -39995288.01 0.0132 0.0037
 Venus -114214-06-28 09:07 J -39995062.33 -39995062.12 -39995061.90 0.0132 0.0003
 Venus -114213-02-09 11:31 J -39994836.22 -39994836.02 -39994835.81 0.0132 0.0033
 Venus -114213-09-22 14:10 J -39994610.09 -39994609.91 -39994609.73 0.0132 0.0067

Venus -114212-05-06 16:19 J -39994383.94 -39994383.82 -39994383.68 0.0132 0.0102
 Moon -114191-08-18 01:41 J -39986610.64 -39986610.43 -39986610.20 0.0144 0.0059
 Earth -114191-08-18 02:38 J -39986610.60 -39986610.39 -39986610.15 0.0144 0.0066 *
 Earth -114190-08-23 00:43 J -39986240.69 -39986240.47 -39986240.24 0.0145 0.0062
 Moon -114190-08-23 02:10 J -39986240.65 -39986240.41 -39986240.17 0.0145 0.0054 *
 Mercury -114183-06-28 20:10 J -39983738.72 -39983738.66 -39983738.58 0.0148 0.0134
 Mercury -114183-09-25 03:50 J -39983650.46 -39983650.34 -39983650.21 0.0148 0.0106
 Mercury -114183-12-22 11:31 J -39983562.17 -39983562.02 -39983561.87 0.0148 0.0078
 Mercury -114182-03-20 19:12 J -39983473.87 -39983473.70 -39983473.53 0.0148 0.0049
 Mercury -114182-06-17 02:53 J -39983385.55 -39983385.38 -39983385.19 0.0148 0.0021
 Mercury -114182-09-13 10:48 J -39983297.23 -39983297.05 -39983296.87 0.0148 0.0009
 Mercury -114182-12-10 18:43 J -39983208.90 -39983208.72 -39983208.54 0.0148 0.0038
 Mercury -114181-03-08 02:38 J -39983120.55 -39983120.39 -39983120.23 0.0148 0.0067
 Mercury -114181-06-04 10:19 J -39983032.19 -39983032.07 -39983031.92 0.0148 0.0097
 Mercury -114181-08-31 18:43 J -39982943.81 -39982943.72 -39982943.62 0.0148 0.0126
 Mars -114179-02-16 19:55 J -39982409.92 -39982409.67 -39982409.40 0.0148 0.0071
 Venus -114175-07-13 15:36 J -39980801.96 -39980801.85 -39980801.74 0.0148 0.0128
 Venus -114174-02-25 07:26 J -39980575.37 -39980575.19 -39980574.99 0.0147 0.0077
 Venus -114174-10-09 23:31 J -39980348.73 -39980348.52 -39980348.29 0.0147 0.0025
 Venus -114173-05-23 15:36 J -39980122.07 -39980121.85 -39980121.63 0.0147 0.0028
 Venus -114172-01-05 07:26 J -39979895.37 -39979895.19 -39979894.99 0.0147 0.0079
 Venus -114172-08-19 23:17 J -39979668.61 -39979668.53 -39979668.41 0.0147 0.0131
 Earth -114152-02-23 13:41 J -39972540.99 -39972540.93 -39972540.86 0.0135 0.0131
 Moon -114151-02-27 23:17 J -39972171.77 -39972171.53 -39972171.28 0.0135 0.0019
 Earth -114151-02-28 01:12 J -39972171.70 -39972171.45 -39972171.20 0.0135 0.0025 *
 Earth -114150-03-04 11:02 J -39971802.24 -39971802.04 -39971801.83 0.0134 0.0079
 Moon -114150-03-04 12:29 J -39971802.18 -39971801.98 -39971801.75 0.0134 0.0076 *
 Mercury -114143-11-08 17:46 J -39968995.80 -39968995.76 -39968995.71 0.0131 0.0123
 Mercury -114142-02-04 21:07 J -39968907.70 -39968907.62 -39968907.54 0.0131 0.0107
 Mercury -114142-05-04 00:14 J -39968819.58 -39968819.49 -39968819.38 0.0131 0.0092

Mercury -114142-07-31 03:50 J -39968731.45 -39968731.34 -39968731.23 0.0131 0.0075
 Mercury -114142-10-27 07:12 J -39968643.33 -39968643.20 -39968643.08 0.0131 0.0060
 Mercury -114141-01-23 10:19 J -39968555.20 -39968555.07 -39968554.93 0.0131 0.0044
 Mercury -114141-04-20 13:41 J -39968467.07 -39968466.93 -39968466.79 0.0131 0.0028
 Mercury -114141-07-17 16:48 J -39968378.93 -39968378.80 -39968378.66 0.0131 0.0014
 Mercury -114141-10-13 20:10 J -39968290.80 -39968290.66 -39968290.52 0.0131 0.0003
 Mercury -114140-01-09 23:17 J -39968202.67 -39968202.53 -39968202.39 0.0131 0.0018
 Mercury -114140-04-08 02:24 J -39968114.53 -39968114.40 -39968114.26 0.0131 0.0033
 Mercury -114140-07-05 05:31 J -39968026.39 -39968026.27 -39968026.14 0.0131 0.0048
 Mercury -114140-10-01 08:53 J -39967938.25 -39967938.13 -39967938.01 0.0131 0.0063
 Mercury -114140-12-28 12:00 J -39967850.11 -39967850.00 -39967849.89 0.0131 0.0078
 Mercury -114139-03-26 14:53 J -39967761.97 -39967761.88 -39967761.78 0.0131 0.0093
 Mars -114139-06-21 21:22 J -39967674.81 -39967674.61 -39967674.37 0.0131 0.0094
 Mercury -114139-06-22 18:00 J -39967673.82 -39967673.75 -39967673.67 0.0131 0.0108
 Mercury -114139-09-18 21:07 J -39967585.66 -39967585.62 -39967585.57 0.0131 0.0123
 Mars -114137-05-23 12:43 J -39966973.08 -39966972.97 -39966972.81 0.0131 0.0119
 Venus -114132-04-18 13:41 J -39965181.99 -39965181.93 -39965181.84 0.0131 0.0122
 Venus -114132-11-30 15:50 J -39964955.98 -39964955.84 -39964955.66 0.0131 0.0089
 Venus -114131-07-14 18:29 J -39964729.92 -39964729.73 -39964729.53 0.0131 0.0054
 Venus -114130-02-25 21:07 J -39964503.83 -39964503.62 -39964503.41 0.0131 0.0019
 Venus -114130-10-09 23:17 J -39964277.74 -39964277.53 -39964277.32 0.0132 0.0016
 Venus -114129-05-23 01:26 J -39964051.63 -39964051.44 -39964051.23 0.0132 0.0051
 Venus -114128-01-04 03:50 J -39963825.49 -39963825.34 -39963825.17 0.0132 0.0085
 Venus -114128-08-18 06:14 J -39963599.32 -39963599.24 -39963599.15 0.0132 0.0120
 Moon -114107-08-18 08:53 J -39955929.34 -39955929.13 -39955928.92 0.0144 0.0072
 Earth -114107-08-18 10:34 J -39955929.27 -39955929.06 -39955928.83 0.0144 0.0065 *
 Earth -114106-08-23 07:55 J -39955559.38 -39955559.17 -39955558.93 0.0145 0.0063
 Moon -114106-08-23 11:02 J -39955559.26 -39955559.04 -39955558.80 0.0145 0.0067 *
 Mercury -114099-07-19 02:24 J -39953037.46 -39953037.40 -39953037.30 0.0148 0.0131
 Mercury -114099-10-15 10:05 J -39952949.19 -39952949.08 -39952948.94 0.0148 0.0103

Mercury -114098-01-11 18:00 J -39952860.90 -39952860.75 -39952860.59 0.0148 0.0074
 Mercury -114098-04-10 01:41 J -39952772.60 -39952772.43 -39952772.25 0.0148 0.0046
 Mercury -114098-07-07 09:36 J -39952684.28 -39952684.10 -39952683.92 0.0148 0.0017
 Mercury -114098-10-03 17:17 J -39952595.96 -39952595.78 -39952595.59 0.0148 0.0013
 Mercury -114098-12-31 01:12 J -39952507.62 -39952507.45 -39952507.27 0.0148 0.0042
 Mercury -114097-03-28 09:07 J -39952419.27 -39952419.12 -39952418.95 0.0148 0.0071
 Mercury -114097-06-24 17:02 J -39952330.91 -39952330.79 -39952330.65 0.0148 0.0101
 Mercury -114097-09-21 01:12 J -39952242.53 -39952242.45 -39952242.36 0.0148 0.0130
 Mars -114097-11-08 11:46 J -39952194.16 -39952194.01 -39952193.82 0.0148 0.0121
 Venus -114091-10-25 09:50 J -39950017.23 -39950017.09 -39950016.92 0.0148 0.0105
 Venus -114090-06-09 01:55 J -39949790.62 -39949790.42 -39949790.20 0.0147 0.0053
 Venus -114089-01-21 18:14 J -39949563.97 -39949563.74 -39949563.52 0.0147 0.0001
 Venus -114089-09-04 10:19 J -39949337.28 -39949337.07 -39949336.86 0.0147 0.0052
 Venus -114088-04-19 02:10 J -39949110.56 -39949110.41 -39949110.25 0.0147 0.0104
 Earth -114068-02-24 00:29 J -39941859.56 -39941859.48 -39941859.37 0.0135 0.0126
 Moon -114068-02-24 03:07 J -39941859.46 -39941859.37 -39941859.23 0.0135 0.0121 *
 Moon -114067-02-28 09:50 J -39941490.33 -39941490.09 -39941489.84 0.0135 0.0023
 Earth -114067-02-28 12:14 J -39941490.24 -39941489.99 -39941489.73 0.0135 0.0020 *
 Earth -114066-03-04 22:19 J -39941120.76 -39941120.57 -39941120.37 0.0134 0.0084
 Moon -114066-03-05 01:26 J -39941120.63 -39941120.44 -39941120.22 0.0134 0.0083 *
 Mercury -114059-11-29 00:58 J -39938294.51 -39938294.46 -39938294.40 0.0131 0.0118
 Mercury -114058-02-25 04:19 J -39938206.40 -39938206.32 -39938206.23 0.0131 0.0103
 Mercury -114058-05-24 07:41 J -39938118.28 -39938118.18 -39938118.07 0.0131 0.0087
 Mercury -114058-08-20 10:48 J -39938030.16 -39938030.05 -39938029.92 0.0131 0.0072
 Mercury -114058-11-16 14:24 J -39937942.03 -39937941.90 -39937941.78 0.0131 0.0055
 Mercury -114057-02-12 17:31 J -39937853.90 -39937853.77 -39937853.63 0.0131 0.0040
 Mercury -114057-05-10 20:53 J -39937765.77 -39937765.63 -39937765.49 0.0131 0.0024
 Mercury -114057-08-07 00:00 J -39937677.63 -39937677.50 -39937677.36 0.0131 0.0010
 Mercury -114057-11-03 03:22 J -39937589.50 -39937589.36 -39937589.22 0.0131 0.0007
 Mercury -114056-01-30 06:29 J -39937501.36 -39937501.23 -39937501.09 0.0131 0.0022

Mercury -114056-04-28 09:36 J -39937413.23 -39937413.10 -39937412.96 0.0131 0.0037

Mercury -114056-07-25 12:58 J -39937325.09 -39937324.96 -39937324.84 0.0131 0.0052

Mercury -114056-10-21 16:05 J -39937236.95 -39937236.83 -39937236.71 0.0131 0.0067

Mercury -114055-01-17 19:12 J -39937148.81 -39937148.70 -39937148.59 0.0131 0.0082

Mercury -114055-04-15 22:19 J -39937060.66 -39937060.57 -39937060.48 0.0131 0.0097

Mercury -114055-07-13 01:12 J -39936972.51 -39936972.45 -39936972.37 0.0131 0.0112

Mercury -114055-10-09 04:19 J -39936884.34 -39936884.32 -39936884.28 0.0131 0.0127

Mars -114054-02-14 17:02 J -39936756.11 -39936755.79 -39936755.48 0.0131 0.0016

Venus -114048-07-31 03:22 J -39934397.47 -39934397.36 -39934397.22 0.0131 0.0105

Venus -114047-03-14 06:00 J -39934171.42 -39934171.25 -39934171.06 0.0131 0.0071

Venus -114047-10-26 08:10 J -39933945.35 -39933945.16 -39933944.94 0.0131 0.0037

Venus -114046-06-09 10:34 J -39933719.27 -39933719.06 -39933718.84 0.0131 0.0003

Venus -114045-01-21 12:58 J -39933493.16 -39933492.96 -39933492.75 0.0132 0.0034

Venus -114045-09-03 14:53 J -39933267.04 -39933266.88 -39933266.68 0.0132 0.0069

Venus -114044-04-17 17:31 J -39933040.89 -39933040.77 -39933040.63 0.0132 0.0103

Moon -114023-08-18 13:41 J -39925248.14 -39925247.93 -39925247.69 0.0144 0.0060

Earth -114023-08-18 17:02 J -39925248.00 -39925247.79 -39925247.55 0.0144 0.0065 *

Earth -114022-08-23 14:38 J -39924878.11 -39924877.89 -39924877.66 0.0145 0.0062

Moon -114022-08-23 18:00 J -39924877.97 -39924877.75 -39924877.51 0.0145 0.0060 *

Mercury -114015-08-08 08:53 J -39922336.22 -39922336.13 -39922336.04 0.0148 0.0128

Mercury -114015-11-04 16:19 J -39922247.94 -39922247.82 -39922247.68 0.0148 0.0100

Mercury -114014-02-01 00:00 J -39922159.65 -39922159.50 -39922159.34 0.0148 0.0072

Mercury -114014-04-30 07:55 J -39922071.34 -39922071.17 -39922071.00 0.0148 0.0043

Mercury -114014-07-27 15:36 J -39921983.03 -39921982.85 -39921982.67 0.0148 0.0014

Mercury -114014-10-23 23:31 J -39921894.70 -39921894.52 -39921894.34 0.0148 0.0015

Mercury -114013-01-20 07:26 J -39921806.37 -39921806.19 -39921806.02 0.0148 0.0044

Mercury -114013-04-17 15:22 J -39921718.02 -39921717.86 -39921717.70 0.0148 0.0073

Mercury -114013-07-14 23:17 J -39921629.66 -39921629.53 -39921629.40 0.0148 0.0103

Mercury -114013-10-11 07:12 J -39921541.27 -39921541.20 -39921541.11 0.0148 0.0133

Mars -114012-07-04 20:53 J -39921274.93 -39921274.63 -39921274.33 0.0148 0.0021

Venus	-114007-06-24 11:46 J	-39919459.10	-39919459.01	-39919458.91	0.0148	0.0133
Venus	-114006-02-06 03:36 J	-39919232.53	-39919232.35	-39919232.15	0.0148	0.0081
Venus	-114006-09-20 19:55 J	-39919005.89	-39919005.67	-39919005.45	0.0148	0.0028
Venus	-114005-05-04 12:00 J	-39918779.22	-39918779.00	-39918778.78	0.0147	0.0024
Venus	-114005-12-17 03:50 J	-39918552.53	-39918552.34	-39918552.14	0.0147	0.0076
Venus	-114004-07-31 19:41 J	-39918325.78	-39918325.68	-39918325.56	0.0147	0.0128

114TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 114th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-113984-02-24 10:05 J	-39911178.17	-39911178.08	-39911177.94	0.0135	0.0122		
Moon	-113984-02-24 13:26 J	-39911178.02	-39911177.94	-39911177.81	0.0135	0.0124	*	
Moon	-113983-02-28 18:43 J	-39910808.97	-39910808.72	-39910808.46	0.0135	0.0018		
Earth	-113983-02-28 22:34 J	-39910808.82	-39910808.56	-39910808.31	0.0135	0.0015	*	
Earth	-113982-03-05 08:38 J	-39910439.32	-39910439.14	-39910438.94	0.0134	0.0088		
Moon	-113982-03-05 12:14 J	-39910439.17	-39910438.99	-39910438.80	0.0134	0.0093	*	
Mercury	-113975-09-22 04:34 J	-39907681.31	-39907681.31	-39907681.28	0.0131	0.0131		
Mercury	-113975-12-19 08:10 J	-39907593.22	-39907593.16	-39907593.09	0.0131	0.0114		
Mercury	-113974-03-17 11:31 J	-39907505.11	-39907505.02	-39907504.92	0.0131	0.0098		
Mercury	-113974-06-13 14:53 J	-39907416.98	-39907416.88	-39907416.77	0.0131	0.0083		

Mercury -113974-09-09 18:00 J -39907328.86 -39907328.75 -39907328.62 0.0131 0.0068

Mercury -113974-12-06 21:36 J -39907240.73 -39907240.60 -39907240.47 0.0131 0.0051

Mercury -113973-03-04 00:43 J -39907152.60 -39907152.47 -39907152.33 0.0131 0.0036

Mercury -113973-05-31 04:05 J -39907064.47 -39907064.33 -39907064.19 0.0131 0.0020

Mercury -113973-08-27 07:26 J -39906976.33 -39906976.19 -39906976.05 0.0131 0.0006

Mercury -113973-11-23 10:34 J -39906888.20 -39906888.06 -39906887.92 0.0131 0.0011

Mercury -113972-02-19 13:41 J -39906800.06 -39906799.93 -39906799.79 0.0131 0.0026

Mercury -113972-05-18 17:02 J -39906711.92 -39906711.79 -39906711.66 0.0131 0.0041

Mercury -113972-08-14 20:10 J -39906623.78 -39906623.66 -39906623.54 0.0131 0.0056

Mercury -113972-11-10 23:17 J -39906535.64 -39906535.53 -39906535.41 0.0131 0.0071

Mercury -113971-02-07 02:24 J -39906447.50 -39906447.40 -39906447.30 0.0131 0.0086

Mercury -113971-05-06 05:31 J -39906359.35 -39906359.27 -39906359.18 0.0131 0.0101

Mercury -113971-08-02 08:38 J -39906271.20 -39906271.14 -39906271.08 0.0131 0.0116

Mercury -113971-10-29 11:46 J -39906183.01 -39906183.01 -39906183.01 0.0131 0.0131

Mars -113970-10-10 13:12 J -39905837.23 -39905836.95 -39905836.67 0.0131 0.0062

Venus -113964-03-30 15:50 J -39903838.91 -39903838.84 -39903838.75 0.0131 0.0121

Venus -113964-11-11 18:00 J -39903612.89 -39903612.75 -39903612.58 0.0131 0.0087

Venus -113963-06-25 20:24 J -39903386.84 -39903386.65 -39903386.45 0.0131 0.0053

Venus -113962-02-06 23:02 J -39903160.75 -39903160.54 -39903160.33 0.0131 0.0018

Venus -113962-09-21 01:12 J -39902934.66 -39902934.45 -39902934.24 0.0132 0.0017

Venus -113961-05-04 03:22 J -39902708.54 -39902708.36 -39902708.15 0.0132 0.0053

Venus -113961-12-16 05:46 J -39902482.41 -39902482.26 -39902482.09 0.0132 0.0087

Venus -113960-07-30 08:10 J -39902256.23 -39902256.16 -39902256.08 0.0132 0.0122

Moon -113939-08-19 00:00 J -39894566.71 -39894566.50 -39894566.26 0.0144 0.0063

Earth -113939-08-19 03:36 J -39894566.57 -39894566.35 -39894566.11 0.0144 0.0060 *

Earth -113938-08-24 00:29 J -39894196.69 -39894196.48 -39894196.24 0.0144 0.0067

Moon -113938-08-24 04:05 J -39894196.55 -39894196.33 -39894196.10 0.0144 0.0063 *

Mercury -113931-08-28 16:05 J -39891634.93 -39891634.83 -39891634.73 0.0148 0.0122

Mercury -113931-11-24 23:31 J -39891546.65 -39891546.52 -39891546.38 0.0148 0.0094

Mercury -113930-02-21 07:12 J -39891458.36 -39891458.20 -39891458.04 0.0148 0.0066

Mercury -113930-05-20 14:53 J -39891370.05 -39891369.88 -39891369.70 0.0148 0.0037

Mercury -113930-08-16 22:48 J -39891281.73 -39891281.55 -39891281.37 0.0148 0.0009

Mercury -113930-11-13 06:29 J -39891193.41 -39891193.23 -39891193.05 0.0148 0.0021

Mercury -113929-02-09 14:24 J -39891105.07 -39891104.90 -39891104.73 0.0148 0.0050

Mercury -113929-05-07 22:19 J -39891016.72 -39891016.57 -39891016.41 0.0148 0.0079

Mercury -113929-08-04 06:14 J -39890928.35 -39890928.24 -39890928.11 0.0148 0.0109

Mercury -113929-10-31 14:10 J -39890839.96 -39890839.91 -39890839.83 0.0148 0.0139

Jupiter -113928-02-12 08:24 J -39890736.62 -39890736.15 -39890735.67 0.0148 0.0066

Mars -113927-02-28 09:50 J -39890355.32 -39890355.09 -39890354.82 0.0148 0.0082

Venus -113923-10-06 06:29 J -39888674.37 -39888674.23 -39888674.07 0.0148 0.0109

Venus -113922-05-20 22:48 J -39888447.76 -39888447.55 -39888447.35 0.0148 0.0056

Venus -113921-01-02 14:38 J -39888221.11 -39888220.89 -39888220.66 0.0147 0.0004

Venus -113921-08-16 06:29 J -39887994.43 -39887994.23 -39887994.01 0.0147 0.0050

Venus -113920-03-30 22:34 J -39887767.71 -39887767.56 -39887767.39 0.0147 0.0101

Earth -113900-02-24 20:10 J -39880496.77 -39880496.66 -39880496.51 0.0135 0.0117

Moon -113900-02-24 23:46 J -39880496.61 -39880496.51 -39880496.37 0.0135 0.0120 *

Moon -113899-03-01 05:02 J -39880127.55 -39880127.29 -39880127.03 0.0135 0.0007

Earth -113899-03-01 08:38 J -39880127.40 -39880127.14 -39880126.88 0.0135 0.0011 *

Earth -113898-03-05 18:29 J -39879757.89 -39879757.73 -39879757.53 0.0134 0.0094

Moon -113898-03-05 21:50 J -39879757.76 -39879757.59 -39879757.38 0.0134 0.0087 *

Mercury -113891-10-12 12:00 J -39876980.03 -39876980.00 -39876979.96 0.0132 0.0126

Mercury -113890-01-08 15:07 J -39876891.93 -39876891.87 -39876891.78 0.0131 0.0111

Mercury -113890-04-06 18:43 J -39876803.81 -39876803.72 -39876803.62 0.0131 0.0094

Mercury -113890-07-03 22:05 J -39876715.69 -39876715.58 -39876715.46 0.0131 0.0078

Mercury -113890-09-30 01:26 J -39876627.56 -39876627.44 -39876627.31 0.0131 0.0062

Mercury -113890-12-27 04:34 J -39876539.43 -39876539.31 -39876539.17 0.0131 0.0048

Mercury -113889-03-24 07:55 J -39876451.30 -39876451.17 -39876451.03 0.0131 0.0032

Mercury -113889-06-20 11:17 J -39876363.17 -39876363.03 -39876362.89 0.0131 0.0016

Mercury -113889-09-16 14:38 J -39876275.03 -39876274.89 -39876274.75 0.0131 0.0002

Mercury -113889-12-13 17:46 J -39876186.90 -39876186.76 -39876186.62 0.0131 0.0015

Mercury -113888-03-11 20:53 J -39876098.76 -39876098.63 -39876098.49 0.0131 0.0031

Mercury -113888-06-08 00:00 J -39876010.62 -39876010.50 -39876010.36 0.0131 0.0046

Mercury -113888-09-04 03:22 J -39875922.48 -39875922.36 -39875922.24 0.0131 0.0061

Mercury -113888-12-01 06:29 J -39875834.34 -39875834.23 -39875834.12 0.0131 0.0076

Mercury -113887-02-27 09:36 J -39875746.19 -39875746.10 -39875746.00 0.0131 0.0091

Mercury -113887-05-26 12:29 J -39875658.04 -39875657.98 -39875657.89 0.0131 0.0106

Mars -113887-07-03 19:26 J -39875619.95 -39875619.69 -39875619.42 0.0131 0.0071

Mercury -113887-08-22 15:50 J -39875569.89 -39875569.84 -39875569.78 0.0131 0.0120

Jupiter -113887-09-16 06:43 J -39875545.71 -39875545.22 -39875544.73 0.0131 0.0027

Venus -113880-07-12 06:14 J -39873054.36 -39873054.24 -39873054.10 0.0131 0.0103

Venus -113879-02-23 08:53 J -39872828.31 -39872828.13 -39872827.95 0.0131 0.0068

Venus -113879-10-07 11:17 J -39872602.24 -39872602.03 -39872601.83 0.0131 0.0034

Venus -113878-05-21 13:26 J -39872376.15 -39872375.94 -39872375.73 0.0131 0.0001

Venus -113877-01-02 15:36 J -39872150.05 -39872149.85 -39872149.64 0.0132 0.0037

Venus -113877-08-15 17:46 J -39871923.92 -39871923.76 -39871923.57 0.0132 0.0072

Venus -113876-03-29 20:10 J -39871697.76 -39871697.66 -39871697.52 0.0132 0.0107

Moon -113855-08-19 12:00 J -39863885.22 -39863885.00 -39863884.76 0.0144 0.0057

Earth -113855-08-19 15:07 J -39863885.09 -39863884.87 -39863884.63 0.0144 0.0054 *

Earth -113854-08-24 12:14 J -39863515.21 -39863514.99 -39863514.77 0.0145 0.0072

Moon -113854-08-24 15:22 J -39863515.07 -39863514.86 -39863514.65 0.0145 0.0078 *

Mercury -113847-06-21 16:19 J -39861021.86 -39861021.82 -39861021.77 0.0148 0.0141

Mercury -113847-09-17 23:46 J -39860933.61 -39860933.51 -39860933.39 0.0148 0.0113

Mercury -113847-12-15 07:12 J -39860845.33 -39860845.20 -39860845.04 0.0148 0.0086

Mercury -113846-03-13 15:07 J -39860757.03 -39860756.87 -39860756.70 0.0148 0.0057

Mercury -113846-06-09 22:48 J -39860668.72 -39860668.55 -39860668.37 0.0148 0.0029

Mercury -113846-09-06 06:43 J -39860580.40 -39860580.22 -39860580.04 0.0148 0.0001

Mercury -113846-12-03 14:24 J -39860492.07 -39860491.90 -39860491.72 0.0148 0.0030

Mercury -113845-02-29 22:19 J -39860403.73 -39860403.57 -39860403.40 0.0148 0.0059

Mercury -113845-05-28 06:29 J -39860315.38 -39860315.23 -39860315.09 0.0148 0.0088

Mercury -113845-08-24 14:10 J -39860227.01 -39860226.91 -39860226.79 0.0148 0.0118

Mars -113845-11-20 08:24 J -39860139.34 -39860139.15 -39860138.92 0.0148 0.0104
 Mercury -113845-11-20 22:19 J -39860138.57 -39860138.57 -39860138.56 0.0148 0.0148
 Venus -113839-06-05 11:46 J -39858116.10 -39858116.01 -39858115.91 0.0148 0.0133
 Venus -113838-01-18 03:36 J -39857889.53 -39857889.35 -39857889.16 0.0148 0.0081
 Venus -113838-09-01 19:55 J -39857662.89 -39857662.67 -39857662.45 0.0148 0.0028
 Venus -113837-04-15 12:00 J -39857436.22 -39857436.00 -39857435.78 0.0147 0.0025
 Venus -113837-11-28 03:36 J -39857209.53 -39857209.35 -39857209.15 0.0147 0.0078
 Venus -113836-07-12 19:12 J -39856982.78 -39856982.70 -39856982.57 0.0147 0.0130
 Earth -113816-02-25 09:07 J -39849815.27 -39849815.12 -39849814.97 0.0135 0.0110
 Moon -113816-02-25 12:00 J -39849815.15 -39849815.00 -39849814.83 0.0135 0.0105 *
 Moon -113815-03-01 18:29 J -39849445.99 -39849445.73 -39849445.47 0.0135 0.0011
 Earth -113815-03-01 21:07 J -39849445.87 -39849445.62 -39849445.36 0.0135 0.0004 *
 Earth -113814-03-06 07:12 J -39849076.35 -39849076.20 -39849076.01 0.0134 0.0100
 Moon -113814-03-06 10:05 J -39849076.22 -39849076.08 -39849075.91 0.0134 0.0107 *
 Mercury -113807-11-01 19:26 J -39846278.73 -39846278.69 -39846278.63 0.0131 0.0120
 Mercury -113806-01-28 22:48 J -39846190.62 -39846190.55 -39846190.45 0.0131 0.0105
 Mercury -113806-04-27 02:10 J -39846102.50 -39846102.41 -39846102.30 0.0131 0.0089
 Mercury -113806-07-24 05:46 J -39846014.38 -39846014.26 -39846014.14 0.0131 0.0072
 Mercury -113806-10-20 09:07 J -39845926.25 -39845926.12 -39845926.00 0.0131 0.0057
 Mercury -113805-01-16 12:14 J -39845838.12 -39845837.99 -39845837.85 0.0131 0.0041
 Mercury -113805-04-13 15:36 J -39845749.98 -39845749.85 -39845749.71 0.0131 0.0026
 Mercury -113805-07-10 18:58 J -39845661.85 -39845661.71 -39845661.57 0.0131 0.0010
 Mercury -113805-10-06 22:05 J -39845573.72 -39845573.58 -39845573.44 0.0131 0.0006
 Mercury -113804-01-03 01:26 J -39845485.58 -39845485.44 -39845485.30 0.0131 0.0021
 Mercury -113804-04-01 04:34 J -39845397.44 -39845397.31 -39845397.17 0.0131 0.0036
 Mercury -113804-06-28 07:41 J -39845309.30 -39845309.18 -39845309.05 0.0131 0.0051
 Mercury -113804-09-24 11:02 J -39845221.16 -39845221.04 -39845220.92 0.0131 0.0066
 Mercury -113804-12-21 14:10 J -39845133.02 -39845132.91 -39845132.80 0.0131 0.0081
 Mercury -113803-03-19 17:17 J -39845044.87 -39845044.78 -39845044.69 0.0131 0.0096
 Mercury -113803-06-15 20:24 J -39844956.72 -39844956.65 -39844956.58 0.0131 0.0111

Mercury -113803-09-11 23:17 J -39844868.55 -39844868.53 -39844868.48 0.0131 0.0126

Mars -113802-02-26 19:12 J -39844701.01 -39844700.70 -39844700.38 0.0131 0.0009

Venus -113796-03-11 19:55 J -39842495.76 -39842495.67 -39842495.59 0.0131 0.0119

Venus -113796-10-23 21:50 J -39842269.74 -39842269.59 -39842269.41 0.0131 0.0084

Venus -113795-06-07 00:14 J -39842043.68 -39842043.49 -39842043.28 0.0131 0.0049

Venus -113794-01-19 02:38 J -39841817.59 -39841817.39 -39841817.17 0.0131 0.0014

Venus -113794-09-02 05:02 J -39841591.49 -39841591.29 -39841591.08 0.0132 0.0022

Venus -113793-04-15 07:26 J -39841365.37 -39841365.19 -39841364.99 0.0132 0.0057

Venus -113793-11-27 09:36 J -39841139.23 -39841139.10 -39841138.93 0.0132 0.0092

Venus -113792-07-11 12:00 J -39840913.04 -39840913.00 -39840912.93 0.0132 0.0128

Moon -113771-08-20 03:22 J -39833203.60 -39833203.36 -39833203.10 0.0144 0.0039

Earth -113771-08-20 05:46 J -39833203.49 -39833203.26 -39833203.01 0.0144 0.0045 *

Earth -113770-08-25 02:53 J -39832833.59 -39832833.38 -39832833.17 0.0145 0.0081

Moon -113770-08-25 04:05 J -39832833.54 -39832833.33 -39832833.12 0.0145 0.0074 *

Mercury -113763-07-12 00:58 J -39830320.53 -39830320.46 -39830320.36 0.0148 0.0130

Mercury -113763-10-08 08:38 J -39830232.26 -39830232.14 -39830232.00 0.0148 0.0102

Mercury -113762-01-04 16:19 J -39830143.97 -39830143.82 -39830143.66 0.0148 0.0073

Mercury -113762-04-03 00:00 J -39830055.67 -39830055.50 -39830055.32 0.0148 0.0045

Mercury -113762-06-30 07:55 J -39829967.35 -39829967.17 -39829966.99 0.0148 0.0016

Mercury -113762-09-26 15:36 J -39829879.03 -39829878.85 -39829878.67 0.0148 0.0013

Mercury -113762-12-23 23:31 J -39829790.69 -39829790.52 -39829790.35 0.0148 0.0042

Mercury -113761-03-21 07:26 J -39829702.35 -39829702.19 -39829702.03 0.0148 0.0071

Mercury -113761-06-17 15:07 J -39829613.99 -39829613.87 -39829613.72 0.0148 0.0101

Mercury -113761-09-13 23:31 J -39829525.61 -39829525.52 -39829525.44 0.0148 0.0130

Mars -113760-07-17 11:31 J -39829219.31 -39829219.02 -39829218.71 0.0148 0.0009

Venus -113755-09-17 10:48 J -39827331.19 -39827331.05 -39827330.87 0.0148 0.0104

Venus -113754-05-02 02:53 J -39827104.58 -39827104.38 -39827104.16 0.0148 0.0051

Venus -113754-12-14 19:12 J -39826877.93 -39826877.70 -39826877.48 0.0148 0.0003

Venus -113753-07-28 11:02 J -39826651.24 -39826651.04 -39826650.83 0.0147 0.0055

Venus -113752-03-12 02:38 J -39826424.52 -39826424.39 -39826424.22 0.0147 0.0109

Earth -113732-02-25 23:02 J -39819133.69 -39819133.54 -39819133.35 0.0135 0.0101
 Moon -113732-02-26 00:43 J -39819133.60 -39819133.47 -39819133.31 0.0135 0.0109 *
 Moon -113731-03-02 09:36 J -39818764.36 -39818764.10 -39818763.83 0.0135 0.0011
 Earth -113731-03-02 11:17 J -39818764.28 -39818764.03 -39818763.77 0.0135 0.0005 *
 Earth -113730-03-06 21:07 J -39818394.75 -39818394.62 -39818394.45 0.0134 0.0108
 Moon -113730-03-06 22:05 J -39818394.72 -39818394.58 -39818394.41 0.0134 0.0105 *
 Mercury -113723-08-26 00:00 J -39815665.52 -39815665.50 -39815665.48 0.0131 0.0130
 Mercury -113723-11-22 03:22 J -39815577.43 -39815577.36 -39815577.29 0.0131 0.0114
 Mercury -113722-02-18 06:43 J -39815489.31 -39815489.22 -39815489.12 0.0131 0.0098
 Mercury -113722-05-17 09:50 J -39815401.19 -39815401.09 -39815400.97 0.0131 0.0083
 Mercury -113722-08-13 13:26 J -39815313.06 -39815312.94 -39815312.82 0.0131 0.0066
 Mercury -113722-11-09 16:48 J -39815224.93 -39815224.80 -39815224.67 0.0131 0.0050
 Mercury -113721-02-05 19:55 J -39815136.80 -39815136.67 -39815136.53 0.0131 0.0036
 Mercury -113721-05-03 23:17 J -39815048.66 -39815048.53 -39815048.39 0.0131 0.0020
 Mercury -113721-07-31 02:38 J -39814960.53 -39814960.39 -39814960.25 0.0131 0.0004
 Mercury -113721-10-27 06:00 J -39814872.39 -39814872.25 -39814872.12 0.0131 0.0012
 Mercury -113720-01-23 09:07 J -39814784.26 -39814784.12 -39814783.98 0.0131 0.0027
 Mercury -113720-04-21 12:14 J -39814696.12 -39814695.99 -39814695.86 0.0131 0.0042
 Mercury -113720-07-18 15:36 J -39814607.98 -39814607.85 -39814607.73 0.0131 0.0057
 Mercury -113720-10-14 18:43 J -39814519.83 -39814519.72 -39814519.61 0.0131 0.0072
 Mars -113720-11-20 06:58 J -39814483.30 -39814483.21 -39814483.06 0.0131 0.0121
 Mercury -113719-01-10 21:50 J -39814431.69 -39814431.59 -39814431.49 0.0131 0.0087
 Mercury -113719-04-09 00:58 J -39814343.54 -39814343.46 -39814343.37 0.0131 0.0102
 Mercury -113719-07-06 04:05 J -39814255.39 -39814255.33 -39814255.27 0.0131 0.0117
 Mars -113718-10-22 18:43 J -39813781.93 -39813781.72 -39813781.48 0.0131 0.0091
 Venus -113712-06-23 11:02 J -39811711.16 -39811711.04 -39811710.88 0.0131 0.0100
 Venus -113711-02-04 13:41 J -39811485.11 -39811484.93 -39811484.74 0.0131 0.0064
 Venus -113711-09-18 16:05 J -39811259.03 -39811258.83 -39811258.62 0.0131 0.0029
 Venus -113710-05-02 18:29 J -39811032.94 -39811032.73 -39811032.51 0.0131 0.0007
 Venus -113710-12-14 20:53 J -39810806.83 -39810806.63 -39810806.43 0.0132 0.0042

Venus -113709-07-27 23:17 J -39810580.70 -39810580.53 -39810580.36 0.0132 0.0077
 Venus -113708-03-11 01:26 J -39810354.53 -39810354.44 -39810354.31 0.0132 0.0113
 Moon -113687-08-20 18:29 J -39802521.98 -39802521.73 -39802521.49 0.0144 0.0045
 Earth -113687-08-20 18:29 J -39802521.96 -39802521.73 -39802521.48 0.0144 0.0038 *
 Earth -113686-08-25 15:22 J -39802152.05 -39802151.86 -39802151.65 0.0145 0.0088
 Moon -113686-08-25 15:22 J -39802152.03 -39802151.86 -39802151.66 0.0145 0.0094 *
 Mercury -113679-05-05 01:55 J -39799707.42 -39799707.42 -39799707.39 0.0148 0.0147
 Mercury -113679-08-01 09:36 J -39799619.20 -39799619.10 -39799618.99 0.0148 0.0119
 Mercury -113679-10-28 17:17 J -39799530.92 -39799530.78 -39799530.64 0.0148 0.0091
 Mercury -113678-01-25 00:43 J -39799442.62 -39799442.47 -39799442.30 0.0148 0.0063
 Mercury -113678-04-23 08:38 J -39799354.32 -39799354.14 -39799353.96 0.0148 0.0034
 Mercury -113678-07-20 16:19 J -39799266.00 -39799265.82 -39799265.64 0.0148 0.0006
 Mercury -113678-10-17 00:14 J -39799177.67 -39799177.49 -39799177.31 0.0148 0.0024
 Mercury -113677-01-13 07:55 J -39799089.33 -39799089.17 -39799088.99 0.0148 0.0053
 Mercury -113677-04-10 15:50 J -39799000.98 -39799000.84 -39799000.68 0.0148 0.0083
 Mercury -113677-07-07 23:46 J -39798912.62 -39798912.51 -39798912.38 0.0148 0.0112
 Mercury -113677-10-04 07:41 J -39798824.21 -39798824.18 -39798824.11 0.0148 0.0142
 Mars -113675-03-13 10:05 J -39798299.23 -39798299.08 -39798298.89 0.0148 0.0121
 Venus -113671-05-17 18:14 J -39796772.85 -39796772.74 -39796772.62 0.0148 0.0126
 Venus -113671-12-30 10:19 J -39796546.26 -39796546.07 -39796545.88 0.0148 0.0073
 Venus -113670-08-14 02:24 J -39796319.62 -39796319.40 -39796319.17 0.0148 0.0020
 Venus -113669-03-27 18:29 J -39796092.94 -39796092.73 -39796092.51 0.0147 0.0034
 Venus -113669-11-09 10:34 J -39795866.24 -39795866.06 -39795865.88 0.0147 0.0087
 Venus -113668-06-24 02:24 J -39795639.46 -39795639.40 -39795639.32 0.0147 0.0139
 Moon -113648-02-26 14:24 J -39788452.07 -39788451.90 -39788451.69 0.0135 0.0088
 Earth -113648-02-26 14:53 J -39788452.06 -39788451.88 -39788451.68 0.0135 0.0092 *
 Earth -113647-03-03 02:38 J -39788082.65 -39788082.39 -39788082.13 0.0135 0.0014
 Moon -113647-03-03 03:07 J -39788082.63 -39788082.37 -39788082.10 0.0135 0.0012 *
 Moon -113646-03-07 12:00 J -39787713.10 -39787713.00 -39787712.86 0.0134 0.0116
 Earth -113646-03-07 12:14 J -39787713.09 -39787712.99 -39787712.84 0.0134 0.0117 *

Mercury -113639-09-15 07:55 J -39784964.22 -39784964.17 -39784964.12 0.0131 0.0122

Mercury -113639-12-12 11:17 J -39784876.11 -39784876.03 -39784875.95 0.0131 0.0107

Mercury -113638-03-10 14:38 J -39784787.99 -39784787.89 -39784787.79 0.0131 0.0091

Mercury -113638-06-06 18:00 J -39784699.86 -39784699.75 -39784699.63 0.0131 0.0075

Mercury -113638-09-02 21:22 J -39784611.73 -39784611.61 -39784611.48 0.0131 0.0059

Mercury -113638-11-30 00:43 J -39784523.60 -39784523.47 -39784523.34 0.0131 0.0043

Mercury -113637-02-26 04:05 J -39784435.47 -39784435.33 -39784435.20 0.0131 0.0028

Mercury -113637-05-24 07:12 J -39784347.33 -39784347.20 -39784347.06 0.0131 0.0013

Mercury -113637-08-20 10:34 J -39784259.20 -39784259.06 -39784258.92 0.0131 0.0003

Mercury -113637-11-16 13:41 J -39784171.06 -39784170.93 -39784170.79 0.0131 0.0019

Mercury -113636-02-12 17:02 J -39784082.93 -39784082.79 -39784082.66 0.0131 0.0034

Mercury -113636-05-11 20:10 J -39783994.79 -39783994.66 -39783994.53 0.0131 0.0049

Mercury -113636-08-07 23:17 J -39783906.65 -39783906.53 -39783906.41 0.0131 0.0064

Mercury -113636-11-04 02:24 J -39783818.50 -39783818.40 -39783818.28 0.0131 0.0079

Mercury -113635-01-31 05:31 J -39783730.36 -39783730.27 -39783730.17 0.0131 0.0094

Mercury -113635-04-29 08:38 J -39783642.21 -39783642.14 -39783642.06 0.0131 0.0109

Mars -113635-07-16 08:38 J -39783564.43 -39783564.14 -39783563.82 0.0131 0.0040

Mercury -113635-07-26 12:00 J -39783554.05 -39783554.00 -39783553.96 0.0131 0.0123

Venus -113628-02-21 00:58 J -39781152.55 -39781152.46 -39781152.34 0.0131 0.0114

Venus -113628-10-05 03:22 J -39780926.52 -39780926.36 -39780926.18 0.0131 0.0079

Venus -113627-05-19 05:46 J -39780700.45 -39780700.26 -39780700.05 0.0131 0.0044

Venus -113627-12-31 08:10 J -39780474.37 -39780474.16 -39780473.94 0.0131 0.0009

Venus -113626-08-14 10:34 J -39780248.26 -39780248.06 -39780247.85 0.0131 0.0027

Venus -113625-03-27 12:58 J -39780022.14 -39780021.96 -39780021.76 0.0132 0.0062

Venus -113625-11-08 15:22 J -39779795.99 -39779795.86 -39779795.71 0.0132 0.0098

Earth -113603-08-21 06:58 J -39771840.45 -39771840.21 -39771839.96 0.0144 0.0032

Moon -113603-08-21 08:24 J -39771840.41 -39771840.15 -39771839.90 0.0144 0.0026 *

Moon -113602-08-26 01:55 J -39771470.59 -39771470.42 -39771470.22 0.0145 0.0094

Earth -113602-08-26 04:05 J -39771470.51 -39771470.33 -39771470.13 0.0145 0.0094 *

Mercury -113595-05-25 10:05 J -39769006.12 -39769006.08 -39769006.00 0.0148 0.0138

Mercury -113595-08-21 17:46 J -39768917.87 -39768917.76 -39768917.63 0.0148 0.0110

Mercury -113595-11-18 01:26 J -39768829.58 -39768829.44 -39768829.28 0.0148 0.0082

Mercury -113594-02-14 09:07 J -39768741.28 -39768741.12 -39768740.95 0.0148 0.0053

Mercury -113594-05-13 16:48 J -39768652.97 -39768652.80 -39768652.62 0.0148 0.0025

Mercury -113594-08-10 00:43 J -39768564.65 -39768564.47 -39768564.29 0.0148 0.0004

Mercury -113594-11-06 08:24 J -39768476.32 -39768476.15 -39768475.97 0.0148 0.0034

Mercury -113593-02-02 16:19 J -39768387.98 -39768387.82 -39768387.65 0.0148 0.0063

Mercury -113593-05-01 00:14 J -39768299.63 -39768299.49 -39768299.34 0.0148 0.0092

Mercury -113593-07-28 08:10 J -39768211.25 -39768211.16 -39768211.05 0.0148 0.0122

Mars -113593-12-03 10:05 J -39768083.33 -39768083.08 -39768082.80 0.0148 0.0067

Venus -113587-08-29 16:19 J -39765987.97 -39765987.82 -39765987.64 0.0148 0.0098

Venus -113586-04-13 08:53 J -39765761.34 -39765761.13 -39765760.92 0.0148 0.0044

Venus -113586-11-26 00:58 J -39765534.68 -39765534.46 -39765534.24 0.0148 0.0010

Venus -113585-07-09 16:48 J -39765307.99 -39765307.80 -39765307.59 0.0147 0.0063

Venus -113584-02-21 08:53 J -39765081.25 -39765081.13 -39765080.98 0.0147 0.0117

Moon -113564-02-27 05:17 J -39757770.48 -39757770.28 -39757770.09 0.0135 0.0086

Earth -113564-02-27 06:00 J -39757770.44 -39757770.25 -39757770.04 0.0135 0.0082 *

Earth -113563-03-03 17:46 J -39757401.01 -39757400.76 -39757400.50 0.0135 0.0022

Moon -113563-03-03 18:58 J -39757400.97 -39757400.71 -39757400.45 0.0135 0.0022 *

Moon -113562-03-08 01:55 J -39757031.47 -39757031.42 -39757031.34 0.0134 0.0129

Earth -113562-03-08 03:36 J -39757031.43 -39757031.35 -39757031.24 0.0134 0.0125 *

Mercury -113555-10-05 15:50 J -39754262.90 -39754262.84 -39754262.77 0.0131 0.0115

Mercury -113554-01-01 19:12 J -39754174.79 -39754174.70 -39754174.60 0.0131 0.0100

Mercury -113554-03-30 22:34 J -39754086.66 -39754086.56 -39754086.45 0.0131 0.0084

Mercury -113554-06-27 01:55 J -39753998.54 -39753998.42 -39753998.30 0.0131 0.0068

Mercury -113554-09-23 05:17 J -39753910.41 -39753910.28 -39753910.15 0.0131 0.0052

Mercury -113554-12-20 08:38 J -39753822.27 -39753822.14 -39753822.00 0.0131 0.0037

Mercury -113553-03-17 12:00 J -39753734.14 -39753734.00 -39753733.86 0.0131 0.0021

Mercury -113553-06-13 15:07 J -39753646.01 -39753645.87 -39753645.73 0.0131 0.0006

Mercury -113553-09-09 18:29 J -39753557.87 -39753557.73 -39753557.59 0.0131 0.0010

Mercury -113553-12-06 21:36 J -39753469.73 -39753469.60 -39753469.46 0.0131 0.0025
 Mercury -113552-03-05 00:58 J -39753381.60 -39753381.46 -39753381.33 0.0131 0.0040
 Mercury -113552-06-01 04:05 J -39753293.46 -39753293.33 -39753293.21 0.0131 0.0055
 Mercury -113552-08-28 07:12 J -39753205.32 -39753205.20 -39753205.08 0.0131 0.0070
 Mercury -113552-11-24 10:19 J -39753117.17 -39753117.07 -39753116.96 0.0131 0.0085
 Mercury -113551-02-20 13:26 J -39753029.02 -39753028.94 -39753028.85 0.0131 0.0100
 Mercury -113551-05-19 16:19 J -39752940.87 -39752940.82 -39752940.74 0.0131 0.0115
 Mercury -113551-08-15 19:26 J -39752852.69 -39752852.69 -39752852.66 0.0131 0.0130
 Mars -113550-03-11 10:05 J -39752645.37 -39752645.08 -39752644.77 0.0131 0.0043
 Venus -113545-10-21 14:38 J -39750593.92 -39750593.89 -39750593.86 0.0131 0.0129
 Venus -113544-06-04 17:02 J -39750367.94 -39750367.79 -39750367.65 0.0131 0.0094
 Venus -113543-01-16 19:12 J -39750141.88 -39750141.70 -39750141.51 0.0131 0.0059
 Venus -113543-08-30 21:36 J -39749915.81 -39749915.60 -39749915.39 0.0131 0.0024
 Venus -113542-04-14 00:00 J -39749689.71 -39749689.50 -39749689.29 0.0131 0.0012
 Venus -113542-11-26 02:10 J -39749463.60 -39749463.41 -39749463.20 0.0131 0.0047
 Venus -113541-07-09 04:19 J -39749237.47 -39749237.32 -39749237.14 0.0132 0.0083
 Venus -113540-02-20 06:58 J -39749011.29 -39749011.21 -39749011.11 0.0132 0.0118
 Earth -113519-08-21 15:50 J -39741159.08 -39741158.84 -39741158.59 0.0144 0.0030
 Moon -113519-08-21 15:50 J -39741159.08 -39741158.84 -39741158.57 0.0144 0.0036 *
 Earth -113518-08-26 12:29 J -39740789.15 -39740788.98 -39740788.78 0.0145 0.0096
 Moon -113518-08-26 12:29 J -39740789.14 -39740788.98 -39740788.79 0.0145 0.0100 *
 Mercury -113511-06-14 17:02 J -39738304.85 -39738304.79 -39738304.70 0.0148 0.0133
 Mercury -113511-09-11 00:43 J -39738216.59 -39738216.47 -39738216.34 0.0148 0.0105
 Mercury -113511-12-08 08:10 J -39738128.30 -39738128.16 -39738127.99 0.0148 0.0077
 Mercury -113510-03-06 16:05 J -39738040.00 -39738039.83 -39738039.66 0.0148 0.0048
 Mercury -113510-06-02 23:46 J -39737951.68 -39737951.51 -39737951.33 0.0148 0.0020
 Mercury -113510-08-30 07:41 J -39737863.36 -39737863.18 -39737863.00 0.0148 0.0010
 Mercury -113510-11-26 15:22 J -39737775.03 -39737774.86 -39737774.68 0.0148 0.0039
 Mercury -113509-02-22 23:17 J -39737686.69 -39737686.53 -39737686.37 0.0148 0.0068
 Mercury -113509-05-21 07:12 J -39737598.33 -39737598.20 -39737598.06 0.0148 0.0098

Mercury -113509-08-17 15:07 J -39737509.95 -39737509.87 -39737509.77 0.0148 0.0127

Mars -113508-07-30 00:58 J -39737163.74 -39737163.46 -39737163.16 0.0148 0.0038

Venus -113503-04-28 19:55 J -39735429.78 -39735429.67 -39735429.54 0.0148 0.0125

Venus -113503-12-11 12:14 J -39735203.18 -39735202.99 -39735202.79 0.0148 0.0071

Venus -113502-07-26 04:19 J -39734976.53 -39734976.32 -39734976.09 0.0148 0.0018

Venus -113501-03-08 20:38 J -39734749.85 -39734749.64 -39734749.42 0.0148 0.0037

Venus -113501-10-21 12:43 J -39734523.13 -39734522.97 -39734522.78 0.0147 0.0090

Venus -113500-06-05 05:02 J -39734296.33 -39734296.29 -39734296.24 0.0147 0.0143

Earth -113480-02-27 19:55 J -39727088.88 -39727088.67 -39727088.45 0.0135 0.0075

Moon -113480-02-27 21:07 J -39727088.83 -39727088.62 -39727088.40 0.0135 0.0069 *

Moon -113479-03-04 06:58 J -39726719.46 -39726719.21 -39726718.94 0.0135 0.0028

Earth -113479-03-04 07:26 J -39726719.43 -39726719.19 -39726718.93 0.0135 0.0030 *

Earth -113478-03-08 18:00 J -39726349.80 -39726349.75 -39726349.71 0.0134 0.0132

Moon -113478-03-08 18:14 J -39726349.76 -39726349.74 -39726349.68 0.0134 0.0133 *

Mercury -113471-07-29 20:24 J -39723649.69 -39723649.65 -39723649.61 0.0131 0.0125

Mercury -113471-10-25 23:46 J -39723561.59 -39723561.51 -39723561.43 0.0131 0.0109

Mercury -113470-01-22 02:53 J -39723473.47 -39723473.38 -39723473.27 0.0131 0.0094

Mercury -113470-04-20 06:29 J -39723385.34 -39723385.23 -39723385.11 0.0131 0.0077

Mercury -113470-07-17 09:50 J -39723297.21 -39723297.09 -39723296.96 0.0131 0.0061

Mercury -113470-10-13 12:58 J -39723209.08 -39723208.96 -39723208.82 0.0131 0.0047

Mercury -113469-01-09 16:34 J -39723120.95 -39723120.81 -39723120.68 0.0131 0.0030

Mercury -113469-04-06 19:41 J -39723032.81 -39723032.68 -39723032.54 0.0131 0.0015

Mercury -113469-07-03 23:02 J -39722944.68 -39722944.54 -39722944.40 0.0131 0.0001

Mercury -113469-09-30 02:10 J -39722856.54 -39722856.41 -39722856.27 0.0131 0.0017

Mercury -113469-12-27 05:31 J -39722768.41 -39722768.27 -39722768.14 0.0131 0.0031

Mercury -113468-03-25 08:38 J -39722680.27 -39722680.14 -39722680.01 0.0131 0.0046

Mercury -113468-06-21 11:46 J -39722592.13 -39722592.01 -39722591.88 0.0131 0.0062

Mercury -113468-09-17 14:53 J -39722503.99 -39722503.88 -39722503.76 0.0131 0.0077

Mars -113468-12-03 01:55 J -39722427.65 -39722427.42 -39722427.19 0.0131 0.0087

Mercury -113468-12-14 18:00 J -39722415.84 -39722415.75 -39722415.65 0.0131 0.0091

Mercury -113467-03-12 21:07 J -39722327.69 -39722327.62 -39722327.53 0.0131 0.0106

Mercury -113467-06-09 00:14 J -39722239.53 -39722239.49 -39722239.43 0.0131 0.0121

Mars -113466-11-04 11:31 J -39721726.11 -39721726.02 -39721725.91 0.0131 0.0124

Venus -113460-02-02 06:29 J -39719809.32 -39719809.23 -39719809.09 0.0131 0.0110

Venus -113460-09-16 09:22 J -39719583.28 -39719583.11 -39719582.93 0.0131 0.0074

Venus -113459-04-30 11:31 J -39719357.21 -39719357.02 -39719356.81 0.0131 0.0039

Venus -113459-12-12 13:55 J -39719131.13 -39719130.92 -39719130.70 0.0131 0.0004

Venus -113458-07-26 16:05 J -39718905.03 -39718904.83 -39718904.62 0.0131 0.0032

Venus -113457-03-08 18:29 J -39718678.90 -39718678.73 -39718678.54 0.0131 0.0068

Venus -113457-10-20 20:38 J -39718452.75 -39718452.64 -39718452.49 0.0132 0.0104

Moon -113435-08-22 00:29 J -39710477.73 -39710477.48 -39710477.21 0.0144 0.0017

Earth -113435-08-22 03:07 J -39710477.61 -39710477.37 -39710477.12 0.0144 0.0024 *

Earth -113434-08-26 23:46 J -39710107.68 -39710107.51 -39710107.32 0.0144 0.0101

Moon -113434-08-27 01:12 J -39710107.62 -39710107.45 -39710107.25 0.0144 0.0096 *

Mercury -113427-07-05 00:29 J -39707603.56 -39707603.48 -39707603.38 0.0148 0.0126

Mercury -113427-10-01 08:10 J -39707515.29 -39707515.16 -39707515.02 0.0148 0.0098

Mercury -113427-12-28 15:50 J -39707427.00 -39707426.84 -39707426.68 0.0148 0.0070

Mercury -113426-03-26 23:17 J -39707338.69 -39707338.53 -39707338.35 0.0148 0.0042

Mercury -113426-06-23 07:12 J -39707250.38 -39707250.20 -39707250.02 0.0148 0.0013

Mercury -113426-09-19 14:53 J -39707162.06 -39707161.88 -39707161.70 0.0148 0.0016

Mercury -113426-12-16 22:34 J -39707073.72 -39707073.56 -39707073.38 0.0148 0.0045

Mercury -113425-03-14 06:29 J -39706985.38 -39706985.23 -39706985.07 0.0148 0.0075

Mercury -113425-06-10 14:24 J -39706897.02 -39706896.90 -39706896.76 0.0148 0.0104

Mercury -113425-09-06 22:34 J -39706808.64 -39706808.56 -39706808.48 0.0148 0.0134

Mars -113423-03-25 16:19 J -39706243.87 -39706243.82 -39706243.72 0.0148 0.0144

Venus -113419-08-10 15:50 J -39704644.99 -39704644.84 -39704644.66 0.0148 0.0099

Venus -113418-03-25 08:10 J -39704418.36 -39704418.16 -39704417.94 0.0148 0.0045

Venus -113418-11-07 00:29 J -39704191.70 -39704191.48 -39704191.25 0.0148 0.0010

Venus -113417-06-20 16:34 J -39703965.00 -39703964.81 -39703964.60 0.0148 0.0064

Venus -113416-02-02 08:38 J -39703738.26 -39703738.14 -39703737.99 0.0147 0.0118

Earth -113396-02-28 07:12 J -39696407.40 -39696407.20 -39696406.96 0.0135 0.0069
 Moon -113396-02-28 09:50 J -39696407.28 -39696407.09 -39696406.86 0.0135 0.0076 *
 Moon -113395-03-04 16:34 J -39696038.06 -39696037.81 -39696037.56 0.0135 0.0042
 Earth -113395-03-04 19:41 J -39696037.93 -39696037.68 -39696037.43 0.0135 0.0036 *
 Mercury -113387-08-19 04:05 J -39692948.39 -39692948.33 -39692948.27 0.0131 0.0119
 Mercury -113387-11-15 07:26 J -39692860.27 -39692860.19 -39692860.10 0.0131 0.0103
 Mercury -113386-02-11 10:48 J -39692772.15 -39692772.05 -39692771.94 0.0131 0.0087
 Mercury -113386-05-10 14:10 J -39692684.02 -39692683.91 -39692683.79 0.0131 0.0071
 Mercury -113386-08-06 17:31 J -39692595.89 -39692595.77 -39692595.64 0.0131 0.0055
 Mercury -113386-11-02 20:53 J -39692507.76 -39692507.63 -39692507.50 0.0131 0.0040
 Mercury -113385-01-30 00:14 J -39692419.63 -39692419.49 -39692419.36 0.0131 0.0024
 Mercury -113385-04-27 03:22 J -39692331.50 -39692331.36 -39692331.22 0.0131 0.0009
 Mercury -113385-07-24 06:43 J -39692243.36 -39692243.22 -39692243.08 0.0131 0.0007
 Mercury -113385-10-20 09:50 J -39692155.22 -39692155.09 -39692154.95 0.0131 0.0022
 Mercury -113384-01-16 13:12 J -39692067.09 -39692066.95 -39692066.82 0.0131 0.0037
 Mercury -113384-04-14 16:19 J -39691978.95 -39691978.82 -39691978.69 0.0131 0.0052
 Mercury -113384-07-11 19:26 J -39691890.81 -39691890.69 -39691890.57 0.0131 0.0067
 Mercury -113384-10-07 22:19 J -39691802.66 -39691802.57 -39691802.45 0.0131 0.0083
 Mercury -113383-01-04 01:41 J -39691714.52 -39691714.43 -39691714.33 0.0131 0.0097
 Mercury -113383-04-02 04:48 J -39691626.36 -39691626.30 -39691626.23 0.0131 0.0112
 Mercury -113383-06-29 07:41 J -39691538.20 -39691538.18 -39691538.13 0.0131 0.0127
 Mars -113383-07-29 00:58 J -39691508.77 -39691508.46 -39691508.14 0.0131 0.0007
 Venus -113377-10-02 20:53 J -39689250.69 -39689250.63 -39689250.57 0.0131 0.0124
 Venus -113376-05-16 23:02 J -39689024.69 -39689024.54 -39689024.38 0.0131 0.0089
 Venus -113376-12-29 01:12 J -39688798.63 -39688798.45 -39688798.24 0.0131 0.0054
 Venus -113375-08-12 03:50 J -39688572.55 -39688572.34 -39688572.13 0.0131 0.0018
 Venus -113374-03-26 06:14 J -39688346.45 -39688346.24 -39688346.03 0.0131 0.0017
 Venus -113374-11-07 08:10 J -39688120.34 -39688120.16 -39688119.95 0.0131 0.0053
 Venus -113373-06-20 10:34 J -39687894.21 -39687894.06 -39687893.90 0.0131 0.0089
 Venus -113372-02-01 12:29 J -39687668.02 -39687667.98 -39687667.89 0.0132 0.0125

Earth -113352-08-17 19:41 J -39680165.72 -39680165.68 -39680165.60 0.0143 0.0139
 Moon -113352-08-17 23:31 J -39680165.59 -39680165.52 -39680165.42 0.0143 0.0134
 Moon -113351-08-22 11:46 J -39679796.25 -39679796.01 -39679795.76 0.0144 0.0025
 Earth -113351-08-22 15:07 J -39679796.11 -39679795.87 -39679795.62 0.0144 0.0018 *
 Earth -113350-08-27 11:31 J -39679426.17 -39679426.02 -39679425.84 0.0144 0.0107
 Moon -113350-08-27 14:53 J -39679426.02 -39679425.88 -39679425.72 0.0144 0.0115 *
 Mercury -113343-04-28 00:43 J -39676990.49 -39676990.47 -39676990.44 0.0148 0.0146
 Mercury -113343-07-25 07:55 J -39676902.26 -39676902.17 -39676902.05 0.0148 0.0119
 Mercury -113343-10-21 15:36 J -39676813.98 -39676813.85 -39676813.70 0.0148 0.0091
 Mercury -113342-01-17 23:17 J -39676725.69 -39676725.53 -39676725.36 0.0148 0.0063
 Mercury -113342-04-16 06:58 J -39676637.38 -39676637.21 -39676637.03 0.0148 0.0034
 Mercury -113342-07-13 14:38 J -39676549.07 -39676548.89 -39676548.71 0.0148 0.0006
 Mercury -113342-10-09 22:34 J -39676460.74 -39676460.56 -39676460.39 0.0148 0.0024
 Mercury -113341-01-06 06:14 J -39676372.41 -39676372.24 -39676372.07 0.0148 0.0052
 Mercury -113341-04-03 13:55 J -39676284.06 -39676283.92 -39676283.76 0.0148 0.0082
 Mercury -113341-06-30 21:50 J -39676195.70 -39676195.59 -39676195.46 0.0148 0.0111
 Mercury -113341-09-27 05:46 J -39676107.30 -39676107.26 -39676107.19 0.0148 0.0141
 Mars -113341-12-15 10:48 J -39676028.32 -39676028.05 -39676027.75 0.0148 0.0048
 Venus -113335-04-09 20:10 J -39674086.77 -39674086.66 -39674086.53 0.0148 0.0126
 Venus -113335-11-22 12:29 J -39673860.17 -39673859.98 -39673859.78 0.0148 0.0071
 Venus -113334-07-07 04:34 J -39673633.53 -39673633.31 -39673633.08 0.0148 0.0017
 Venus -113333-02-18 20:53 J -39673406.84 -39673406.63 -39673406.41 0.0148 0.0037
 Venus -113333-10-02 12:58 J -39673180.12 -39673179.96 -39673179.77 0.0148 0.0092
 Venus -113332-05-17 05:17 J -39672953.30 -39672953.28 -39672953.23 0.0147 0.0145
 Earth -113312-02-28 20:10 J -39665725.87 -39665725.66 -39665725.41 0.0136 0.0062
 Moon -113312-03-01 00:14 J -39665725.72 -39665725.49 -39665725.25 0.0136 0.0054 *
 Moon -113311-03-05 05:02 J -39665356.53 -39665356.29 -39665356.03 0.0135 0.0037
 Earth -113311-03-05 08:24 J -39665356.38 -39665356.15 -39665355.89 0.0135 0.0044 *
 Mercury -113303-06-12 08:10 J -39662335.17 -39662335.16 -39662335.12 0.0132 0.0129
 Mercury -113303-09-08 11:46 J -39662247.08 -39662247.01 -39662246.93 0.0132 0.0112

Mercury -113303-12-05 15:07 J -39662158.96 -39662158.87 -39662158.77 0.0131 0.0096
 Mercury -113302-03-03 18:29 J -39662070.83 -39662070.73 -39662070.61 0.0131 0.0081
 Mercury -113302-05-30 22:05 J -39661982.70 -39661982.58 -39661982.46 0.0131 0.0065
 Mercury -113302-08-27 01:12 J -39661894.57 -39661894.45 -39661894.31 0.0131 0.0049
 Mercury -113302-11-23 04:34 J -39661806.44 -39661806.31 -39661806.17 0.0131 0.0033
 Mercury -113301-02-19 07:55 J -39661718.31 -39661718.17 -39661718.03 0.0131 0.0018
 Mercury -113301-05-17 11:17 J -39661630.17 -39661630.03 -39661629.89 0.0131 0.0003
 Mercury -113301-08-13 14:24 J -39661542.04 -39661541.90 -39661541.76 0.0131 0.0013
 Mercury -113301-11-09 17:46 J -39661453.90 -39661453.76 -39661453.63 0.0131 0.0029
 Mercury -113300-02-05 20:53 J -39661365.76 -39661365.63 -39661365.50 0.0131 0.0044
 Mercury -113300-05-05 00:00 J -39661277.62 -39661277.50 -39661277.37 0.0131 0.0059
 Mercury -113300-08-01 03:07 J -39661189.48 -39661189.37 -39661189.25 0.0131 0.0074
 Mercury -113300-10-28 06:14 J -39661101.33 -39661101.24 -39661101.13 0.0131 0.0089
 Mercury -113299-01-24 09:22 J -39661013.18 -39661013.11 -39661013.02 0.0131 0.0104
 Mercury -113299-04-22 12:43 J -39660925.03 -39660924.97 -39660924.91 0.0131 0.0118
 Mars -113298-03-24 01:55 J -39660589.66 -39660589.42 -39660589.14 0.0131 0.0076
 Venus -113292-01-14 13:12 J -39658466.06 -39658465.95 -39658465.81 0.0131 0.0104
 Venus -113292-08-28 15:50 J -39658240.02 -39658239.84 -39658239.66 0.0131 0.0068
 Venus -113291-04-11 18:00 J -39658013.94 -39658013.75 -39658013.53 0.0131 0.0033
 Venus -113291-11-23 20:38 J -39657787.85 -39657787.64 -39657787.43 0.0131 0.0003
 Venus -113290-07-07 22:34 J -39657561.75 -39657561.56 -39657561.35 0.0131 0.0039
 Venus -113289-02-19 00:58 J -39657335.62 -39657335.46 -39657335.28 0.0131 0.0075
 Venus -113289-10-02 03:07 J -39657109.47 -39657109.37 -39657109.24 0.0132 0.0111
 Earth -113268-08-18 12:14 J -39649484.09 -39649483.99 -39649483.87 0.0143 0.0128
 Moon -113268-08-18 15:07 J -39649483.95 -39649483.87 -39649483.74 0.0143 0.0130 *
 Moon -113267-08-23 03:50 J -39649114.59 -39649114.34 -39649114.09 0.0144 0.0001
 Earth -113267-08-23 07:26 J -39649114.44 -39649114.19 -39649113.94 0.0144 0.0007 *
 Earth -113266-08-28 04:05 J -39648744.46 -39648744.33 -39648744.17 0.0144 0.0118
 Moon -113266-08-28 07:26 J -39648744.33 -39648744.19 -39648744.01 0.0144 0.0111 *
 Mercury -113259-05-18 09:36 J -39646289.16 -39646289.10 -39646289.01 0.0148 0.0134

Mercury -113259-08-14 17:17 J -39646200.90 -39646200.78 -39646200.65 0.0148 0.0106

Mercury -113259-11-11 00:43 J -39646112.61 -39646112.47 -39646112.31 0.0148 0.0078

Mercury -113258-02-07 08:24 J -39646024.31 -39646024.15 -39646023.98 0.0148 0.0050

Mercury -113258-05-06 16:05 J -39645936.00 -39645935.83 -39645935.65 0.0148 0.0021

Mercury -113258-08-02 23:46 J -39645847.69 -39645847.51 -39645847.33 0.0148 0.0008

Mercury -113258-10-30 07:41 J -39645759.36 -39645759.18 -39645759.01 0.0148 0.0036

Mercury -113257-01-26 15:22 J -39645671.02 -39645670.86 -39645670.69 0.0148 0.0065

Mercury -113257-04-23 23:02 J -39645582.67 -39645582.54 -39645582.39 0.0148 0.0095

Mercury -113257-07-21 06:58 J -39645494.29 -39645494.21 -39645494.10 0.0148 0.0125

Mars -113256-08-11 16:05 J -39645108.08 -39645107.83 -39645107.55 0.0148 0.0068

Venus -113251-07-22 19:55 J -39643301.83 -39643301.67 -39643301.49 0.0148 0.0094

Venus -113250-03-06 12:14 J -39643075.20 -39643074.99 -39643074.77 0.0148 0.0040

Venus -113250-10-19 04:34 J -39642848.53 -39642848.31 -39642848.09 0.0148 0.0015

Venus -113249-06-01 20:24 J -39642621.83 -39642621.65 -39642621.44 0.0148 0.0070

Venus -113248-01-14 12:29 J -39642395.08 -39642394.98 -39642394.84 0.0147 0.0124

Earth -113228-03-01 11:02 J -39635044.27 -39635044.04 -39635043.80 0.0136 0.0052

Moon -113228-03-01 14:10 J -39635044.13 -39635043.91 -39635043.66 0.0136 0.0059 *

Moon -113227-03-05 19:26 J -39634674.90 -39634674.69 -39634674.45 0.0135 0.0060

Earth -113227-03-05 23:31 J -39634674.76 -39634674.52 -39634674.28 0.0135 0.0052 *

Mercury -113219-07-02 16:19 J -39631633.87 -39631633.82 -39631633.76 0.0132 0.0121

Mercury -113219-09-28 19:55 J -39631545.75 -39631545.67 -39631545.59 0.0132 0.0105

Mercury -113219-12-25 23:17 J -39631457.63 -39631457.53 -39631457.43 0.0131 0.0089

Mercury -113218-03-24 02:24 J -39631369.51 -39631369.40 -39631369.27 0.0131 0.0074

Mercury -113218-06-20 06:00 J -39631281.38 -39631281.25 -39631281.12 0.0131 0.0057

Mercury -113218-09-16 09:22 J -39631193.24 -39631193.11 -39631192.98 0.0131 0.0042

Mercury -113218-12-13 12:29 J -39631105.11 -39631104.98 -39631104.84 0.0131 0.0027

Mercury -113217-03-10 15:50 J -39631016.98 -39631016.84 -39631016.70 0.0131 0.0011

Mercury -113217-06-06 19:12 J -39630928.84 -39630928.70 -39630928.56 0.0131 0.0005

Mercury -113217-09-02 22:19 J -39630840.70 -39630840.57 -39630840.43 0.0131 0.0021

Mercury -113217-11-30 01:41 J -39630752.57 -39630752.43 -39630752.30 0.0131 0.0035

Mercury -113216-02-26 04:48 J -39630664.43 -39630664.30 -39630664.17 0.0131 0.0051
 Mercury -113216-05-25 07:55 J -39630576.28 -39630576.17 -39630576.05 0.0131 0.0066
 Mercury -113216-08-21 11:02 J -39630488.14 -39630488.04 -39630487.92 0.0131 0.0081
 Mercury -113216-11-17 14:10 J -39630399.99 -39630399.91 -39630399.81 0.0131 0.0096
 Mars -113216-12-15 19:55 J -39630371.94 -39630371.67 -39630371.37 0.0131 0.0053
 Mercury -113215-02-13 17:31 J -39630311.84 -39630311.77 -39630311.70 0.0131 0.0110
 Mercury -113215-05-12 20:38 J -39630223.68 -39630223.64 -39630223.60 0.0131 0.0125
 Venus -113209-09-14 04:05 J -39627907.41 -39627907.33 -39627907.23 0.0131 0.0118
 Venus -113208-04-28 06:43 J -39627681.38 -39627681.22 -39627681.05 0.0131 0.0082
 Venus -113208-12-10 09:07 J -39627455.32 -39627455.12 -39627454.92 0.0131 0.0046
 Venus -113207-07-24 11:17 J -39627229.24 -39627229.03 -39627228.81 0.0131 0.0011
 Venus -113206-03-07 13:41 J -39627003.14 -39627002.93 -39627002.72 0.0131 0.0025
 Venus -113206-10-19 15:36 J -39626777.02 -39626776.85 -39626776.65 0.0131 0.0062
 Venus -113205-06-01 18:14 J -39626550.88 -39626550.74 -39626550.60 0.0132 0.0097
 Earth -113184-08-19 03:07 J -39618802.49 -39618802.37 -39618802.21 0.0143 0.0118
 Moon -113184-08-19 06:43 J -39618802.37 -39618802.22 -39618802.07 0.0143 0.0115 *
 Moon -113183-08-23 19:55 J -39618432.91 -39618432.67 -39618432.42 0.0144 0.0003
 Earth -113183-08-23 22:48 J -39618432.80 -39618432.55 -39618432.30 0.0144 0.0003 *
 Earth -113182-08-28 19:12 J -39618062.80 -39618062.70 -39618062.56 0.0144 0.0127
 Moon -113182-08-28 22:48 J -39618062.63 -39618062.55 -39618062.45 0.0144 0.0135 *
 Mercury -113175-06-07 18:43 J -39615587.82 -39615587.72 -39615587.62 0.0148 0.0122
 Mercury -113175-09-04 02:10 J -39615499.54 -39615499.41 -39615499.27 0.0148 0.0094
 Mercury -113175-12-01 09:50 J -39615411.25 -39615411.09 -39615410.93 0.0148 0.0066
 Mercury -113174-02-27 17:17 J -39615322.95 -39615322.78 -39615322.60 0.0148 0.0038
 Mercury -113174-05-27 00:58 J -39615234.64 -39615234.46 -39615234.28 0.0148 0.0010
 Mercury -113174-08-23 08:38 J -39615146.31 -39615146.14 -39615145.96 0.0148 0.0020
 Mercury -113174-11-19 16:34 J -39615057.98 -39615057.81 -39615057.64 0.0148 0.0048
 Mercury -113173-02-16 00:00 J -39614969.64 -39614969.50 -39614969.33 0.0148 0.0078
 Mars -113173-05-03 17:02 J -39614891.95 -39614891.79 -39614891.58 0.0148 0.0118
 Mercury -113173-05-14 08:10 J -39614881.28 -39614881.16 -39614881.03 0.0148 0.0107

Mercury -113173-08-10 16:19 J -39614792.89 -39614792.82 -39614792.75 0.0148 0.0137
 Venus -113167-03-22 03:36 J -39612743.47 -39612743.35 -39612743.20 0.0148 0.0118
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 Venus -113166-06-18 12:14 J -39612290.21 -39612289.99 -39612289.77 0.0148 0.0008
 Venus -113165-01-31 04:19 J -39612063.53 -39612063.32 -39612063.10 0.0148 0.0047
 Venus -113165-09-13 20:24 J -39611836.79 -39611836.65 -39611836.47 0.0148 0.0102
 Earth -113144-03-02 03:07 J -39604362.61 -39604362.37 -39604362.12 0.0136 0.0042
 Moon -113144-03-02 06:14 J -39604362.49 -39604362.24 -39604361.98 0.0136 0.0035 *
 Moon -113143-03-06 12:29 J -39603993.20 -39603992.98 -39603992.74 0.0135 0.0056
 Earth -113143-03-06 15:36 J -39603993.08 -39603992.85 -39603992.62 0.0135 0.0062 *
 Mercury -113135-04-25 21:07 J -39601020.64 -39601020.62 -39601020.59 0.0132 0.0129
 Mercury -113135-07-23 00:29 J -39600932.54 -39600932.48 -39600932.40 0.0132 0.0113
 Mercury -113135-10-19 04:05 J -39600844.43 -39600844.33 -39600844.24 0.0131 0.0097
 Mercury -113134-01-15 07:12 J -39600756.30 -39600756.20 -39600756.08 0.0131 0.0081
 Mercury -113134-04-13 10:34 J -39600668.17 -39600668.06 -39600667.93 0.0131 0.0066
 Mercury -113134-07-10 14:10 J -39600580.04 -39600579.91 -39600579.78 0.0131 0.0050
 Mercury -113134-10-06 17:17 J -39600491.91 -39600491.78 -39600491.64 0.0131 0.0034
 Mercury -113133-01-02 20:38 J -39600403.77 -39600403.64 -39600403.50 0.0131 0.0019
 Mercury -113133-03-31 00:00 J -39600315.64 -39600315.50 -39600315.36 0.0131 0.0003
 Mercury -113133-06-27 03:22 J -39600227.50 -39600227.36 -39600227.22 0.0131 0.0013
 Mercury -113133-09-23 06:29 J -39600139.36 -39600139.23 -39600139.09 0.0131 0.0028
 Mercury -113133-12-20 09:36 J -39600051.22 -39600051.10 -39600050.96 0.0131 0.0043
 Mercury -113132-03-18 12:58 J -39599963.08 -39599962.96 -39599962.84 0.0131 0.0058
 Mercury -113132-06-14 16:05 J -39599874.94 -39599874.83 -39599874.71 0.0131 0.0073
 Mercury -113132-09-10 19:12 J -39599786.80 -39599786.70 -39599786.59 0.0131 0.0088
 Mercury -113132-12-07 22:19 J -39599698.65 -39599698.57 -39599698.48 0.0131 0.0103
 Mercury -113131-03-06 01:26 J -39599610.49 -39599610.44 -39599610.38 0.0131 0.0118
 Mars -113131-08-10 23:17 J -39599452.83 -39599452.53 -39599452.22 0.0131 0.0031
 Venus -113125-12-26 21:36 J -39597122.74 -39597122.60 -39597122.45 0.0131 0.0096
 Venus -113124-08-10 00:00 J -39596896.68 -39596896.50 -39596896.31 0.0131 0.0060

Venus -113123-03-24 02:24 J -39596670.61 -39596670.40 -39596670.19 0.0131 0.0025
 Venus -113123-11-05 04:34 J -39596444.52 -39596444.31 -39596444.09 0.0131 0.0012
 Venus -113122-06-19 06:43 J -39596218.41 -39596218.22 -39596218.02 0.0131 0.0048
 Venus -113121-01-31 08:53 J -39595992.28 -39595992.13 -39595991.96 0.0131 0.0084
 Venus -113121-09-13 11:02 J -39595766.11 -39595766.04 -39595765.94 0.0132 0.0120
 Earth -113100-08-19 19:55 J -39588120.82 -39588120.67 -39588120.49 0.0143 0.0107
 Moon -113100-08-19 21:50 J -39588120.75 -39588120.59 -39588120.41 0.0143 0.0107 *
 Moon -113099-08-24 12:43 J -39587751.20 -39587750.97 -39587750.72 0.0144 0.0019
 Earth -113099-08-24 15:36 J -39587751.10 -39587750.85 -39587750.60 0.0144 0.0014 *
 Earth -113098-08-29 12:14 J -39587381.06 -39587380.99 -39587380.91 0.0144 0.0138
 Moon -113098-08-29 14:53 J -39587380.97 -39587380.88 -39587380.76 0.0144 0.0131 *
 Mercury -113091-03-31 20:24 J -39584974.71 -39584974.65 -39584974.58 0.0148 0.0136
 Mercury -113091-06-28 03:50 J -39584886.45 -39584886.34 -39584886.21 0.0148 0.0109
 Mercury -113091-09-24 11:31 J -39584798.17 -39584798.02 -39584797.87 0.0148 0.0081
 Mercury -113091-12-21 18:58 J -39584709.87 -39584709.71 -39584709.54 0.0148 0.0053
 Mercury -113090-03-20 02:38 J -39584621.56 -39584621.39 -39584621.21 0.0148 0.0025
 Mercury -113090-06-16 10:19 J -39584533.25 -39584533.07 -39584532.89 0.0148 0.0005
 Mercury -113090-09-12 18:00 J -39584444.92 -39584444.75 -39584444.57 0.0148 0.0033
 Mercury -113090-12-10 01:55 J -39584356.58 -39584356.42 -39584356.25 0.0148 0.0062
 Mercury -113089-03-07 09:50 J -39584268.23 -39584268.09 -39584267.95 0.0148 0.0091
 Mercury -113089-06-03 17:31 J -39584179.86 -39584179.77 -39584179.66 0.0148 0.0121
 Mars -113089-12-29 00:00 J -39583971.80 -39583971.50 -39583971.20 0.0148 0.0001
 Venus -113084-11-19 12:14 J -39582185.04 -39582184.99 -39582184.90 0.0148 0.0140
 Venus -113083-07-04 04:34 J -39581958.48 -39581958.31 -39581958.12 0.0148 0.0085
 Venus -113082-02-15 20:53 J -39581731.85 -39581731.63 -39581731.41 0.0148 0.0029
 Venus -113082-09-30 13:12 J -39581505.17 -39581504.95 -39581504.73 0.0148 0.0026
 Venus -113081-05-14 05:17 J -39581278.46 -39581278.28 -39581278.08 0.0148 0.0081
 Venus -113081-12-26 21:22 J -39581051.69 -39581051.61 -39581051.51 0.0148 0.0135
 Moon -113061-02-27 04:19 J -39574050.35 -39574050.32 -39574050.27 0.0136 0.0134
 Earth -113060-03-02 20:10 J -39573680.91 -39573680.66 -39573680.40 0.0135 0.0031

Moon -113060-03-02 21:50 J -39573680.83 -39573680.59 -39573680.32 0.0135 0.0037 *
 Moon -113059-03-07 05:31 J -39573311.45 -39573311.27 -39573311.05 0.0135 0.0080
 Earth -113059-03-07 08:10 J -39573311.36 -39573311.16 -39573310.93 0.0135 0.0073 *
 Mercury -113051-05-16 05:17 J -39570319.33 -39570319.28 -39570319.22 0.0132 0.0121
 Mercury -113051-08-12 08:38 J -39570231.22 -39570231.14 -39570231.05 0.0131 0.0105
 Mercury -113051-11-08 12:00 J -39570143.09 -39570143.00 -39570142.89 0.0131 0.0089
 Mercury -113050-02-04 15:22 J -39570054.97 -39570054.86 -39570054.74 0.0131 0.0074
 Mercury -113050-05-03 18:58 J -39569966.84 -39569966.71 -39569966.59 0.0131 0.0058
 Mercury -113050-07-30 22:05 J -39569878.71 -39569878.58 -39569878.44 0.0131 0.0042
 Mercury -113050-10-27 01:41 J -39569790.57 -39569790.43 -39569790.30 0.0131 0.0027
 Mercury -113049-01-23 04:48 J -39569702.44 -39569702.30 -39569702.16 0.0131 0.0011
 Mercury -113049-04-20 08:10 J -39569614.30 -39569614.16 -39569614.02 0.0131 0.0005
 Mercury -113049-07-17 11:17 J -39569526.16 -39569526.03 -39569525.89 0.0131 0.0020
 Mercury -113049-10-13 14:38 J -39569438.02 -39569437.89 -39569437.76 0.0131 0.0035
 Mercury -113048-01-09 17:46 J -39569349.88 -39569349.76 -39569349.63 0.0131 0.0050
 Mercury -113048-04-07 20:53 J -39569261.74 -39569261.63 -39569261.50 0.0131 0.0066
 Mars -113048-05-04 20:24 J -39569234.84 -39569234.65 -39569234.42 0.0131 0.0097
 Mercury -113048-07-05 00:00 J -39569173.60 -39569173.50 -39569173.38 0.0131 0.0081
 Mercury -113048-10-01 03:22 J -39569085.45 -39569085.36 -39569085.27 0.0131 0.0095
 Mercury -113048-12-28 06:29 J -39568997.30 -39568997.23 -39568997.16 0.0131 0.0110
 Mercury -113047-03-26 09:36 J -39568909.13 -39568909.10 -39568909.06 0.0131 0.0125
 Mars -113046-04-06 03:50 J -39568533.47 -39568533.34 -39568533.18 0.0131 0.0115
 Venus -113041-08-26 12:00 J -39566564.09 -39566564.00 -39566563.87 0.0131 0.0111
 Venus -113040-04-09 14:38 J -39566338.06 -39566337.89 -39566337.71 0.0131 0.0075
 Venus -113040-11-21 16:48 J -39566111.99 -39566111.80 -39566111.59 0.0131 0.0039
 Venus -113039-07-05 19:12 J -39565885.91 -39565885.70 -39565885.49 0.0131 0.0003
 Venus -113038-02-16 21:22 J -39565659.81 -39565659.61 -39565659.40 0.0131 0.0033
 Venus -113038-09-30 23:31 J -39565433.69 -39565433.52 -39565433.33 0.0131 0.0069
 Venus -113037-05-14 01:26 J -39565207.54 -39565207.44 -39565207.29 0.0131 0.0106
 Earth -113016-08-20 08:53 J -39557439.30 -39557439.13 -39557438.95 0.0143 0.0101

Moon	-113016-08-20 10:05 J	-39557439.25	-39557439.08	-39557438.89	0.0143	0.0100	*
Moon	-113015-08-25 02:38 J	-39557069.63	-39557069.39	-39557069.15	0.0144	0.0017	
Earth	-113015-08-25 04:05 J	-39557069.58	-39557069.33	-39557069.08	0.0144	0.0020	*
Earth	-113014-08-30 00:14 J	-39556699.50	-39556699.49	-39556699.45	0.0144	0.0144	
Mercury	-113007-04-21 04:05 J	-39554273.40	-39554273.33	-39554273.23	0.0148	0.0129	
Mercury	-113007-07-18 11:46 J	-39554185.13	-39554185.01	-39554184.88	0.0148	0.0101	
Mercury	-113007-10-14 19:12 J	-39554096.85	-39554096.70	-39554096.54	0.0148	0.0073	
Mercury	-113006-01-11 02:53 J	-39554008.55	-39554008.38	-39554008.21	0.0148	0.0045	
Mercury	-113006-04-09 10:34 J	-39553920.24	-39553920.06	-39553919.88	0.0148	0.0016	
Mercury	-113006-07-06 18:14 J	-39553831.92	-39553831.74	-39553831.56	0.0148	0.0013	
Mercury	-113006-10-03 01:55 J	-39553743.59	-39553743.42	-39553743.24	0.0148	0.0042	
Mercury	-113006-12-30 09:36 J	-39553655.25	-39553655.10	-39553654.93	0.0148	0.0071	
Mercury	-113005-03-27 17:31 J	-39553566.89	-39553566.77	-39553566.63	0.0148	0.0100	
Mercury	-113005-06-24 01:41 J	-39553478.51	-39553478.43	-39553478.34	0.0148	0.0130	
Mars	-113004-08-24 21:07 J	-39553051.81	-39553051.62	-39553051.41	0.0148	0.0110	

113TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 113th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-112999-03-03 10:05 J	-39551400.22	-39551400.08	-39551399.93	0.0148	0.0111		

Venus -112999-10-16 02:10 J -39551173.61 -39551173.41 -39551173.20 0.0148 0.0056

Venus -112998-05-30 18:29 J -39550946.95 -39550946.73 -39550946.51 0.0148 0.0001

Venus -112997-01-12 10:34 J -39550720.26 -39550720.06 -39550719.85 0.0148 0.0055

Venus -112997-08-26 02:53 J -39550493.52 -39550493.38 -39550493.23 0.0148 0.0110

Moon -112977-02-27 21:07 J -39543368.68 -39543368.62 -39543368.52 0.0136 0.0129

Earth -112977-02-27 21:50 J -39543368.66 -39543368.59 -39543368.49 0.0136 0.0127 *

Earth -112976-03-03 11:46 J -39542999.25 -39542999.01 -39542998.75 0.0136 0.0022

Moon -112976-03-03 13:26 J -39542999.20 -39542998.94 -39542998.67 0.0136 0.0016 *

Moon -112975-03-07 22:34 J -39542629.75 -39542629.56 -39542629.34 0.0135 0.0076

Earth -112975-03-08 00:14 J -39542629.69 -39542629.49 -39542629.28 0.0135 0.0082 *

Mercury -112967-03-09 09:50 J -39539706.10 -39539706.09 -39539706.06 0.0132 0.0130

Mercury -112967-06-05 13:12 J -39539618.01 -39539617.95 -39539617.87 0.0132 0.0114

Mercury -112967-09-01 16:48 J -39539529.89 -39539529.80 -39539529.70 0.0131 0.0097

Mercury -112967-11-28 20:10 J -39539441.76 -39539441.66 -39539441.55 0.0131 0.0082

Mercury -112966-02-24 23:31 J -39539353.64 -39539353.52 -39539353.39 0.0131 0.0066

Mercury -112966-05-24 02:53 J -39539265.50 -39539265.38 -39539265.25 0.0131 0.0050

Mercury -112966-08-20 06:14 J -39539177.37 -39539177.24 -39539177.10 0.0131 0.0034

Mercury -112966-11-16 09:36 J -39539089.24 -39539089.10 -39539088.96 0.0131 0.0019

Mercury -112965-02-12 12:58 J -39539001.10 -39539000.96 -39539000.82 0.0131 0.0004

Mercury -112965-05-10 16:05 J -39538912.96 -39538912.83 -39538912.69 0.0131 0.0013

Mercury -112965-08-06 19:26 J -39538824.83 -39538824.69 -39538824.55 0.0131 0.0027

Mercury -112965-11-02 22:34 J -39538736.69 -39538736.56 -39538736.42 0.0131 0.0043

Mercury -112964-01-30 01:41 J -39538648.55 -39538648.43 -39538648.30 0.0131 0.0058

Mercury -112964-04-28 05:02 J -39538560.40 -39538560.29 -39538560.17 0.0131 0.0073

Mercury -112964-07-25 08:10 J -39538472.26 -39538472.16 -39538472.05 0.0131 0.0088

Mercury -112964-10-21 11:17 J -39538384.11 -39538384.03 -39538383.94 0.0131 0.0103

Mars -112964-12-28 22:48 J -39538315.86 -39538315.55 -39538315.23 0.0131 0.0014

Mercury -112963-01-17 14:38 J -39538295.95 -39538295.89 -39538295.83 0.0131 0.0117

Jupiter -112961-02-16 03:36 J -39537536.49 -39537536.35 -39537536.09 0.0130 0.0120

Venus -112957-04-26 02:53 J -39536005.43 -39536005.38 -39536005.31 0.0131 0.0125

Venus -112957-12-08 04:48 J -39535779.44 -39535779.30 -39535779.13 0.0131 0.0090
 Venus -112956-07-22 07:12 J -39535553.38 -39535553.20 -39535553.00 0.0131 0.0054
 Venus -112955-03-05 09:36 J -39535327.30 -39535327.10 -39535326.88 0.0131 0.0018
 Venus -112955-10-17 11:46 J -39535101.21 -39535101.01 -39535100.79 0.0131 0.0019
 Venus -112954-05-31 13:55 J -39534875.11 -39534874.92 -39534874.72 0.0131 0.0055
 Venus -112953-01-12 16:05 J -39534648.98 -39534648.83 -39534648.67 0.0131 0.0090
 Venus -112953-08-25 18:00 J -39534422.79 -39534422.75 -39534422.68 0.0131 0.0127
 Moon -112932-08-20 20:38 J -39526757.83 -39526757.64 -39526757.43 0.0143 0.0092
 Earth -112932-08-20 20:38 J -39526757.81 -39526757.64 -39526757.44 0.0143 0.0095 *
 Moon -112931-08-25 15:22 J -39526388.09 -39526387.86 -39526387.62 0.0144 0.0027
 Earth -112931-08-25 15:36 J -39526388.09 -39526387.85 -39526387.59 0.0144 0.0026 *
 Moon -112930-08-30 12:43 J -39526017.99 -39526017.97 -39526017.90 0.0144 0.0143
 Mercury -112923-05-11 12:00 J -39523572.10 -39523572.00 -39523571.90 0.0148 0.0121
 Mercury -112923-08-07 19:12 J -39523483.82 -39523483.70 -39523483.55 0.0148 0.0094
 Mercury -112923-11-04 02:53 J -39523395.53 -39523395.38 -39523395.21 0.0148 0.0065
 Mercury -112922-01-31 10:34 J -39523307.23 -39523307.06 -39523306.89 0.0148 0.0037
 Mercury -112922-04-29 18:14 J -39523218.92 -39523218.74 -39523218.56 0.0148 0.0009
 Mercury -112922-07-27 01:55 J -39523130.60 -39523130.42 -39523130.24 0.0148 0.0020
 Mercury -112922-10-23 09:36 J -39523042.26 -39523042.10 -39523041.92 0.0148 0.0049
 Mercury -112921-01-19 17:31 J -39522953.92 -39522953.77 -39522953.61 0.0148 0.0078
 Mercury -112921-04-17 01:12 J -39522865.56 -39522865.45 -39522865.32 0.0148 0.0108
 Mars -112921-05-16 13:12 J -39522836.19 -39522835.95 -39522835.68 0.0148 0.0083
 Mercury -112921-07-14 09:07 J -39522777.17 -39522777.12 -39522777.04 0.0148 0.0138
 Jupiter -112920-06-05 13:12 J -39522451.35 -39522450.95 -39522450.50 0.0148 0.0091
 Venus -112916-10-31 14:38 J -39520841.96 -39520841.89 -39520841.81 0.0148 0.0138
 Venus -112915-06-15 06:43 J -39520615.40 -39520615.22 -39520615.03 0.0148 0.0083
 Venus -112914-01-27 22:48 J -39520388.76 -39520388.55 -39520388.32 0.0148 0.0028
 Venus -112914-09-11 15:22 J -39520162.08 -39520161.86 -39520161.64 0.0148 0.0028
 Venus -112913-04-25 07:12 J -39519935.37 -39519935.20 -39519935.00 0.0148 0.0084
 Venus -112913-12-07 23:17 J -39519708.59 -39519708.53 -39519708.44 0.0148 0.0139

Moon -112893-02-28 11:31 J -39512687.13 -39512687.02 -39512686.89 0.0136 0.0119
 Earth -112893-02-28 11:31 J -39512687.13 -39512687.02 -39512686.89 0.0136 0.0119 *
 Moon -112892-03-04 01:41 J -39512317.69 -39512317.43 -39512317.16 0.0136 0.0017
 Earth -112892-03-04 01:41 J -39512317.68 -39512317.43 -39512317.17 0.0136 0.0014 *
 Earth -112891-03-08 13:55 J -39511948.10 -39511947.92 -39511947.72 0.0135 0.0090
 Moon -112891-03-08 13:41 J -39511948.09 -39511947.93 -39511947.75 0.0135 0.0096 *
 Mercury -112883-03-29 17:46 J -39509004.80 -39509004.76 -39509004.70 0.0132 0.0123
 Mercury -112883-06-25 21:07 J -39508916.69 -39508916.62 -39508916.53 0.0132 0.0107
 Mercury -112883-09-22 00:43 J -39508828.57 -39508828.47 -39508828.37 0.0131 0.0091
 Mercury -112883-12-19 04:05 J -39508740.44 -39508740.33 -39508740.21 0.0131 0.0075
 Mercury -112882-03-17 07:26 J -39508652.31 -39508652.19 -39508652.06 0.0131 0.0059
 Mercury -112882-06-13 10:48 J -39508564.18 -39508564.05 -39508563.91 0.0131 0.0043
 Mercury -112882-09-09 14:10 J -39508476.04 -39508475.91 -39508475.77 0.0131 0.0028
 Mercury -112882-12-06 17:31 J -39508387.91 -39508387.77 -39508387.63 0.0131 0.0012
 Mercury -112881-03-03 20:53 J -39508299.77 -39508299.63 -39508299.49 0.0131 0.0004
 Mercury -112881-05-31 00:00 J -39508211.63 -39508211.50 -39508211.36 0.0131 0.0019
 Mercury -112881-08-27 03:22 J -39508123.50 -39508123.36 -39508123.23 0.0131 0.0034
 Mercury -112881-11-23 06:29 J -39508035.35 -39508035.23 -39508035.10 0.0131 0.0049
 Mercury -112880-02-19 09:50 J -39507947.21 -39507947.09 -39507946.97 0.0131 0.0064
 Mercury -112880-05-18 12:58 J -39507859.07 -39507858.96 -39507858.85 0.0131 0.0079
 Mercury -112880-08-14 16:05 J -39507770.92 -39507770.83 -39507770.73 0.0131 0.0094
 Mercury -112880-11-10 19:12 J -39507682.77 -39507682.70 -39507682.62 0.0131 0.0109
 Mercury -112879-02-06 22:19 J -39507594.60 -39507594.57 -39507594.52 0.0131 0.0124
 Mars -112879-08-24 00:14 J -39507396.74 -39507396.49 -39507396.20 0.0131 0.0069
 Jupiter -112878-01-11 15:22 J -39507256.34 -39507255.86 -39507255.36 0.0131 0.0031
 Venus -112873-08-07 19:12 J -39505220.81 -39505220.70 -39505220.56 0.0131 0.0104
 Venus -112872-03-21 21:36 J -39504994.77 -39504994.60 -39504994.41 0.0131 0.0069
 Venus -112872-11-02 23:46 J -39504768.70 -39504768.51 -39504768.29 0.0131 0.0033
 Venus -112871-06-17 02:10 J -39504542.62 -39504542.41 -39504542.20 0.0131 0.0004
 Venus -112870-01-29 04:05 J -39504316.52 -39504316.33 -39504316.12 0.0131 0.0040

Venus -112870-09-12 06:14 J -39504090.40 -39504090.24 -39504090.05 0.0131 0.0076
 Venus -112869-04-25 08:24 J -39503864.24 -39503864.15 -39503864.03 0.0131 0.0113
 Moon -112848-08-21 06:58 J -39496076.39 -39496076.21 -39496076.00 0.0143 0.0092
 Earth -112848-08-21 08:10 J -39496076.33 -39496076.16 -39496075.94 0.0143 0.0089 *
 Earth -112847-08-26 03:07 J -39495706.62 -39495706.37 -39495706.13 0.0144 0.0031
 Moon -112847-08-26 03:36 J -39495706.58 -39495706.35 -39495706.11 0.0144 0.0030 *
 Mercury -112839-03-04 11:31 J -39492959.05 -39492959.02 -39492958.97 0.0147 0.0143
 Mercury -112839-05-31 18:58 J -39492870.81 -39492870.71 -39492870.59 0.0147 0.0115
 Mercury -112839-08-28 02:24 J -39492782.53 -39492782.40 -39492782.25 0.0148 0.0088
 Mercury -112839-11-24 10:05 J -39492694.24 -39492694.08 -39492693.92 0.0148 0.0060
 Mercury -112838-02-20 17:31 J -39492605.94 -39492605.77 -39492605.59 0.0148 0.0032
 Mercury -112838-05-20 01:12 J -39492517.63 -39492517.45 -39492517.27 0.0148 0.0004
 Mercury -112838-08-16 08:53 J -39492429.30 -39492429.13 -39492428.95 0.0148 0.0026
 Mercury -112838-11-12 16:34 J -39492340.97 -39492340.81 -39492340.63 0.0148 0.0055
 Mercury -112837-02-09 00:14 J -39492252.62 -39492252.49 -39492252.33 0.0148 0.0084
 Mercury -112837-05-07 08:10 J -39492164.26 -39492164.16 -39492164.03 0.0148 0.0113
 Mercury -112837-08-03 16:05 J -39492075.86 -39492075.83 -39492075.77 0.0148 0.0143
 Mars -112836-01-10 05:02 J -39491916.59 -39491916.29 -39491915.99 0.0148 0.0023
 Venus -112831-02-12 08:53 J -39490057.26 -39490057.13 -39490056.97 0.0148 0.0113
 Venus -112831-09-27 01:26 J -39489830.64 -39489830.44 -39489830.23 0.0148 0.0057
 Venus -112830-05-11 17:31 J -39489603.99 -39489603.77 -39489603.54 0.0148 0.0002
 Venus -112830-12-24 09:50 J -39489377.30 -39489377.09 -39489376.89 0.0148 0.0054
 Venus -112829-08-07 01:41 J -39489150.57 -39489150.43 -39489150.27 0.0148 0.0110
 Earth -112809-02-28 22:19 J -39482005.69 -39482005.57 -39482005.41 0.0136 0.0114
 Moon -112809-02-29 00:14 J -39482005.62 -39482005.49 -39482005.34 0.0136 0.0113 *
 Moon -112808-03-04 11:46 J -39481636.27 -39481636.01 -39481635.74 0.0136 0.0006
 Earth -112808-03-04 13:12 J -39481636.21 -39481635.95 -39481635.69 0.0136 0.0007 *
 Earth -112807-03-09 01:41 J -39481266.60 -39481266.43 -39481266.24 0.0135 0.0097
 Moon -112807-03-09 02:10 J -39481266.57 -39481266.41 -39481266.20 0.0135 0.0091 *
 Mercury -112799-04-19 01:26 J -39478303.50 -39478303.44 -39478303.37 0.0132 0.0117

Mercury -112799-07-16 04:48 J -39478215.38 -39478215.30 -39478215.20 0.0132 0.0101
 Mercury -112799-10-12 08:24 J -39478127.26 -39478127.15 -39478127.04 0.0132 0.0085
 Mercury -112798-01-08 11:46 J -39478039.13 -39478039.01 -39478038.89 0.0131 0.0069
 Mercury -112798-04-06 15:07 J -39477951.00 -39477950.87 -39477950.74 0.0131 0.0053
 Mercury -112798-07-03 18:29 J -39477862.86 -39477862.73 -39477862.59 0.0131 0.0037
 Mercury -112798-09-29 21:50 J -39477774.73 -39477774.59 -39477774.45 0.0131 0.0022
 Mercury -112798-12-27 01:12 J -39477686.59 -39477686.45 -39477686.31 0.0131 0.0006
 Mercury -112797-03-24 04:34 J -39477598.45 -39477598.31 -39477598.17 0.0131 0.0010
 Mercury -112797-06-20 07:41 J -39477510.31 -39477510.18 -39477510.04 0.0131 0.0025
 Mercury -112797-09-16 11:02 J -39477422.17 -39477422.04 -39477421.91 0.0131 0.0040
 Mercury -112797-12-13 14:10 J -39477334.03 -39477333.91 -39477333.78 0.0131 0.0055
 Mercury -112796-03-11 17:31 J -39477245.89 -39477245.77 -39477245.66 0.0131 0.0070
 Mars -112796-05-17 17:31 J -39477179.04 -39477178.77 -39477178.49 0.0131 0.0061
 Mercury -112796-06-07 20:38 J -39477157.74 -39477157.64 -39477157.53 0.0131 0.0085
 Mercury -112796-09-03 23:46 J -39477069.59 -39477069.51 -39477069.42 0.0131 0.0100
 Mercury -112796-12-01 02:53 J -39476981.44 -39476981.38 -39476981.31 0.0131 0.0115
 Mercury -112795-02-27 06:00 J -39476893.25 -39476893.25 -39476893.23 0.0131 0.0130
 Venus -112789-04-07 09:07 J -39474662.19 -39474662.12 -39474662.02 0.0131 0.0120
 Venus -112789-11-19 11:31 J -39474436.17 -39474436.02 -39474435.84 0.0131 0.0084
 Venus -112788-07-03 13:55 J -39474210.11 -39474209.92 -39474209.72 0.0131 0.0047
 Venus -112787-02-14 16:19 J -39473984.03 -39473983.82 -39473983.61 0.0131 0.0011
 Venus -112787-09-28 18:29 J -39473757.94 -39473757.73 -39473757.52 0.0131 0.0025
 Venus -112786-05-12 20:38 J -39473531.82 -39473531.64 -39473531.45 0.0131 0.0062
 Venus -112786-12-24 22:34 J -39473305.69 -39473305.56 -39473305.41 0.0131 0.0098
 Moon -112764-08-21 21:07 J -39465394.83 -39465394.62 -39465394.40 0.0143 0.0074
 Earth -112764-08-21 23:17 J -39465394.73 -39465394.53 -39465394.32 0.0143 0.0079 *
 Earth -112763-08-26 17:46 J -39465025.00 -39465024.76 -39465024.52 0.0143 0.0040
 Moon -112763-08-26 19:41 J -39465024.90 -39465024.68 -39465024.43 0.0143 0.0039 *
 Mercury -112755-03-24 20:10 J -39462257.73 -39462257.66 -39462257.58 0.0147 0.0132
 Mercury -112755-06-21 03:36 J -39462169.47 -39462169.35 -39462169.22 0.0147 0.0105

Mercury -112755-09-17 11:02 J -39462081.19 -39462081.04 -39462080.89 0.0148 0.0077

Mercury -112755-12-14 18:29 J -39461992.89 -39461992.73 -39461992.56 0.0148 0.0049

Mercury -112754-03-13 02:10 J -39461904.59 -39461904.41 -39461904.23 0.0148 0.0021

Mercury -112754-06-09 09:50 J -39461816.27 -39461816.09 -39461815.91 0.0148 0.0008

Mercury -112754-09-05 17:31 J -39461727.95 -39461727.77 -39461727.60 0.0148 0.0036

Mercury -112754-12-03 01:12 J -39461639.61 -39461639.45 -39461639.28 0.0148 0.0065

Mercury -112753-02-29 09:07 J -39461551.26 -39461551.12 -39461550.98 0.0148 0.0094

Mercury -112753-05-27 16:34 J -39461462.89 -39461462.81 -39461462.69 0.0148 0.0124

Mars -112752-09-06 06:00 J -39460996.36 -39460996.25 -39460996.12 0.0148 0.0136

Venus -112748-10-12 15:07 J -39459498.95 -39459498.87 -39459498.79 0.0148 0.0138

Venus -112747-05-27 06:58 J -39459272.39 -39459272.21 -39459272.02 0.0148 0.0083

Venus -112746-01-08 23:02 J -39459045.76 -39459045.54 -39459045.32 0.0148 0.0027

Venus -112746-08-23 15:07 J -39458819.08 -39458818.87 -39458818.64 0.0148 0.0029

Venus -112745-04-06 07:12 J -39458592.37 -39458592.20 -39458592.01 0.0148 0.0085

Venus -112745-11-18 23:17 J -39458365.59 -39458365.53 -39458365.45 0.0148 0.0140

Earth -112725-02-29 11:02 J -39451324.18 -39451324.04 -39451323.85 0.0136 0.0107

Moon -112725-02-29 14:10 J -39451324.05 -39451323.91 -39451323.75 0.0136 0.0109 *

Moon -112724-03-04 23:46 J -39450954.77 -39450954.51 -39450954.24 0.0136 0.0002

Earth -112724-03-05 02:10 J -39450954.67 -39450954.41 -39450954.15 0.0136 0.0000 *

Earth -112723-03-09 14:24 J -39450585.05 -39450584.90 -39450584.72 0.0135 0.0103

Moon -112723-03-09 16:48 J -39450584.94 -39450584.80 -39450584.63 0.0135 0.0107 *

Mercury -112715-02-10 05:31 J -39447690.29 -39447690.27 -39447690.22 0.0132 0.0127

Mercury -112715-05-09 09:07 J -39447602.19 -39447602.12 -39447602.04 0.0132 0.0111

Mercury -112715-08-05 12:29 J -39447514.07 -39447513.98 -39447513.87 0.0132 0.0095

Mercury -112715-11-01 16:05 J -39447425.94 -39447425.83 -39447425.71 0.0132 0.0078

Mercury -112714-01-28 19:26 J -39447337.81 -39447337.69 -39447337.56 0.0132 0.0063

Mercury -112714-04-26 23:02 J -39447249.67 -39447249.54 -39447249.41 0.0131 0.0047

Mercury -112714-07-24 02:24 J -39447161.54 -39447161.40 -39447161.27 0.0131 0.0031

Mercury -112714-10-20 05:46 J -39447073.40 -39447073.26 -39447073.12 0.0131 0.0015

Mercury -112713-01-16 08:53 J -39446985.27 -39446985.13 -39446984.99 0.0131 0.0004

Mercury -112713-04-13 12:14 J -39446897.13 -39446896.99 -39446896.85 0.0131 0.0016

Mercury -112713-07-10 15:36 J -39446808.99 -39446808.85 -39446808.72 0.0131 0.0031

Mercury -112713-10-06 18:43 J -39446720.85 -39446720.72 -39446720.59 0.0131 0.0047

Mercury -112712-01-02 21:50 J -39446632.70 -39446632.59 -39446632.46 0.0131 0.0062

Mercury -112712-04-01 01:12 J -39446544.56 -39446544.45 -39446544.33 0.0131 0.0077

Mercury -112712-06-28 04:19 J -39446456.41 -39446456.32 -39446456.21 0.0131 0.0092

Mercury -112712-09-24 07:26 J -39446368.26 -39446368.19 -39446368.10 0.0131 0.0107

Mercury -112712-12-21 10:34 J -39446280.10 -39446280.06 -39446280.00 0.0131 0.0122

Mars -112711-01-10 17:17 J -39446260.08 -39446259.78 -39446259.46 0.0131 0.0021

Venus -112705-07-20 02:10 J -39443877.55 -39443877.41 -39443877.27 0.0131 0.0098

Venus -112704-03-03 04:19 J -39443651.50 -39443651.32 -39443651.13 0.0131 0.0062

Venus -112704-10-15 06:43 J -39443425.43 -39443425.22 -39443425.01 0.0131 0.0026

Venus -112703-05-29 08:53 J -39443199.34 -39443199.13 -39443198.91 0.0131 0.0011

Venus -112702-01-10 11:02 J -39442973.23 -39442973.04 -39442972.84 0.0131 0.0047

Venus -112702-08-24 13:26 J -39442747.10 -39442746.94 -39442746.78 0.0131 0.0084

Venus -112701-04-06 15:22 J -39442520.92 -39442520.86 -39442520.76 0.0131 0.0121

Moon -112680-08-22 11:02 J -39434713.24 -39434713.04 -39434712.81 0.0143 0.0076

Earth -112680-08-22 14:24 J -39434713.10 -39434712.90 -39434712.67 0.0143 0.0069 *

Earth -112679-08-27 08:53 J -39434343.37 -39434343.13 -39434342.90 0.0143 0.0050

Moon -112679-08-27 11:31 J -39434343.25 -39434343.02 -39434342.79 0.0143 0.0052 *

Mercury -112671-04-14 04:48 J -39431556.39 -39431556.30 -39431556.19 0.0147 0.0121

Mercury -112671-07-11 12:14 J -39431468.12 -39431467.99 -39431467.85 0.0147 0.0093

Mercury -112671-10-07 19:41 J -39431379.83 -39431379.68 -39431379.52 0.0147 0.0066

Mercury -112670-01-04 03:22 J -39431291.53 -39431291.36 -39431291.19 0.0148 0.0038

Mercury -112670-04-02 10:48 J -39431203.22 -39431203.05 -39431202.87 0.0148 0.0010

Mercury -112670-06-29 18:29 J -39431114.91 -39431114.73 -39431114.55 0.0148 0.0019

Mercury -112670-09-26 02:10 J -39431026.58 -39431026.41 -39431026.24 0.0148 0.0048

Mercury -112670-12-23 09:50 J -39430938.24 -39430938.09 -39430937.93 0.0148 0.0077

Mercury -112669-03-20 17:31 J -39430849.88 -39430849.77 -39430849.63 0.0148 0.0106

Mars -112669-05-29 03:50 J -39430780.61 -39430780.34 -39430780.04 0.0148 0.0051

Mercury -112669-06-17 01:41 J -39430761.50 -39430761.43 -39430761.36 0.0148 0.0135

Venus -112663-01-24 12:58 J -39428714.10 -39428713.96 -39428713.80 0.0148 0.0108

Venus -112663-09-08 05:02 J -39428487.49 -39428487.29 -39428487.07 0.0148 0.0052

Venus -112662-04-22 21:22 J -39428260.83 -39428260.61 -39428260.39 0.0148 0.0004

Venus -112662-12-05 13:12 J -39428034.14 -39428033.95 -39428033.74 0.0148 0.0060

Venus -112661-07-19 05:02 J -39427807.41 -39427807.29 -39427807.13 0.0148 0.0116

Earth -112641-03-01 00:29 J -39420642.64 -39420642.48 -39420642.29 0.0136 0.0099

Moon -112641-03-01 03:50 J -39420642.51 -39420642.34 -39420642.14 0.0136 0.0095 *

Moon -112640-03-05 11:46 J -39420273.27 -39420273.01 -39420272.75 0.0136 0.0006

Earth -112640-03-05 15:22 J -39420273.12 -39420272.86 -39420272.61 0.0136 0.0008 *

Earth -112639-03-10 04:05 J -39419903.48 -39419903.33 -39419903.19 0.0135 0.0111

Moon -112639-03-10 06:29 J -39419903.37 -39419903.23 -39419903.06 0.0135 0.0107 *

Mercury -112631-03-02 13:26 J -39416988.99 -39416988.94 -39416988.87 0.0132 0.0120

Mercury -112631-05-29 17:02 J -39416900.87 -39416900.79 -39416900.70 0.0132 0.0104

Mercury -112631-08-25 20:24 J -39416812.75 -39416812.65 -39416812.54 0.0132 0.0088

Mercury -112631-11-22 00:00 J -39416724.62 -39416724.50 -39416724.38 0.0132 0.0071

Mercury -112630-02-18 03:22 J -39416636.48 -39416636.36 -39416636.23 0.0132 0.0056

Mercury -112630-05-17 06:43 J -39416548.35 -39416548.22 -39416548.08 0.0131 0.0040

Mercury -112630-08-13 10:05 J -39416460.21 -39416460.08 -39416459.94 0.0131 0.0024

Mercury -112630-11-09 13:26 J -39416372.08 -39416371.94 -39416371.80 0.0131 0.0009

Mercury -112629-02-05 16:48 J -39416283.94 -39416283.80 -39416283.66 0.0131 0.0008

Mercury -112629-05-03 20:10 J -39416195.80 -39416195.66 -39416195.52 0.0131 0.0023

Mercury -112629-07-30 23:17 J -39416107.66 -39416107.53 -39416107.39 0.0131 0.0039

Mars -112629-10-04 12:00 J -39416042.17 -39416042.00 -39416041.82 0.0131 0.0109

Mercury -112629-10-27 02:38 J -39416019.51 -39416019.39 -39416019.26 0.0131 0.0053

Mercury -112628-01-23 06:00 J -39415931.37 -39415931.25 -39415931.13 0.0131 0.0068

Mercury -112628-04-21 09:07 J -39415843.22 -39415843.12 -39415843.01 0.0131 0.0084

Mercury -112628-07-18 12:29 J -39415755.07 -39415754.98 -39415754.89 0.0131 0.0099

Mercury -112628-10-14 15:36 J -39415666.92 -39415666.85 -39415666.78 0.0131 0.0113

Mercury -112627-01-10 18:29 J -39415578.74 -39415578.73 -39415578.70 0.0131 0.0128

Mars -112627-09-05 17:17 J -39415340.96 -39415340.78 -39415340.58 0.0131 0.0104
 Venus -112621-03-19 16:19 J -39413318.92 -39413318.82 -39413318.71 0.0131 0.0113
 Venus -112621-10-31 18:29 J -39413092.89 -39413092.73 -39413092.54 0.0131 0.0077
 Venus -112620-06-14 21:07 J -39412866.82 -39412866.62 -39412866.42 0.0131 0.0040
 Venus -112619-01-26 23:31 J -39412640.74 -39412640.52 -39412640.31 0.0131 0.0004
 Venus -112619-09-10 01:41 J -39412414.63 -39412414.43 -39412414.22 0.0131 0.0033
 Venus -112618-04-24 04:05 J -39412188.51 -39412188.33 -39412188.15 0.0131 0.0070
 Venus -112618-12-06 06:00 J -39411962.36 -39411962.25 -39411962.11 0.0131 0.0107
 Moon -112596-08-23 03:36 J -39404031.58 -39404031.35 -39404031.11 0.0143 0.0052
 Earth -112596-08-23 06:43 J -39404031.43 -39404031.22 -39404030.98 0.0143 0.0059 *
 Earth -112595-08-28 00:43 J -39403661.68 -39403661.47 -39403661.23 0.0143 0.0061
 Moon -112595-08-28 04:34 J -39403661.53 -39403661.31 -39403661.08 0.0143 0.0056 *
 Mercury -112587-02-05 06:58 J -39400943.28 -39400943.21 -39400943.14 0.0147 0.0135
 Mercury -112587-05-04 14:10 J -39400855.03 -39400854.91 -39400854.79 0.0147 0.0107
 Mercury -112587-07-31 21:22 J -39400766.75 -39400766.61 -39400766.45 0.0147 0.0081
 Mercury -112587-10-28 05:02 J -39400678.45 -39400678.29 -39400678.12 0.0147 0.0052
 Mercury -112586-01-24 12:29 J -39400590.15 -39400589.98 -39400589.80 0.0148 0.0025
 Mercury -112586-04-22 20:10 J -39400501.84 -39400501.66 -39400501.48 0.0148 0.0005
 Mercury -112586-07-20 03:50 J -39400413.51 -39400413.34 -39400413.16 0.0148 0.0033
 Mercury -112586-10-16 11:31 J -39400325.18 -39400325.02 -39400324.85 0.0148 0.0061
 Mercury -112585-01-12 19:12 J -39400236.83 -39400236.70 -39400236.55 0.0148 0.0091
 Mercury -112585-04-10 02:53 J -39400148.47 -39400148.38 -39400148.26 0.0148 0.0120
 Mars -112584-01-23 10:19 J -39399860.33 -39399860.07 -39399859.79 0.0148 0.0067
 Venus -112580-09-23 21:22 J -39398155.70 -39398155.61 -39398155.49 0.0148 0.0131
 Venus -112579-05-08 13:41 J -39397929.12 -39397928.93 -39397928.74 0.0148 0.0075
 Venus -112579-12-21 05:31 J -39397702.49 -39397702.27 -39397702.04 0.0148 0.0019
 Venus -112578-08-04 21:36 J -39397475.81 -39397475.60 -39397475.38 0.0148 0.0038
 Venus -112577-03-18 13:26 J -39397249.09 -39397248.94 -39397248.75 0.0148 0.0094
 Earth -112557-03-01 16:05 J -39389961.02 -39389960.83 -39389960.63 0.0136 0.0089
 Moon -112557-03-01 19:55 J -39389960.85 -39389960.67 -39389960.48 0.0136 0.0094 *

Moon -112556-03-06 03:07 J -39389591.63 -39389591.37 -39389591.11 0.0136 0.0018
 Earth -112556-03-06 06:29 J -39389591.48 -39389591.23 -39389590.97 0.0136 0.0017 *
 Earth -112555-03-10 18:43 J -39389221.82 -39389221.72 -39389221.59 0.0135 0.0120
 Moon -112555-03-10 22:34 J -39389221.66 -39389221.56 -39389221.44 0.0135 0.0122 *
 Mercury -112548-12-24 18:00 J -39386375.77 -39386375.75 -39386375.71 0.0132 0.0129
 Mercury -112547-03-22 21:22 J -39386287.67 -39386287.61 -39386287.52 0.0132 0.0113
 Mercury -112547-06-19 01:12 J -39386199.55 -39386199.45 -39386199.36 0.0132 0.0096
 Mercury -112547-09-15 04:19 J -39386111.42 -39386111.32 -39386111.20 0.0132 0.0081
 Mercury -112547-12-12 07:55 J -39386023.29 -39386023.17 -39386023.04 0.0132 0.0064
 Mercury -112546-03-10 11:17 J -39385935.15 -39385935.03 -39385934.89 0.0131 0.0049
 Mercury -112546-06-06 14:53 J -39385847.02 -39385846.88 -39385846.75 0.0131 0.0033
 Mercury -112546-09-02 18:14 J -39385758.88 -39385758.74 -39385758.60 0.0131 0.0017
 Mercury -112546-11-29 21:36 J -39385670.74 -39385670.60 -39385670.46 0.0131 0.0003
 Mercury -112545-02-26 00:43 J -39385582.60 -39385582.47 -39385582.33 0.0131 0.0015
 Mercury -112545-05-24 04:05 J -39385494.46 -39385494.33 -39385494.19 0.0131 0.0030
 Mercury -112545-08-20 07:12 J -39385406.32 -39385406.20 -39385406.06 0.0131 0.0046
 Mercury -112545-11-16 10:34 J -39385318.18 -39385318.06 -39385317.93 0.0131 0.0060
 Mercury -112544-02-12 13:55 J -39385230.03 -39385229.92 -39385229.81 0.0131 0.0075
 Mercury -112544-05-11 17:02 J -39385141.89 -39385141.79 -39385141.69 0.0131 0.0090
 Mars -112544-05-30 12:43 J -39385123.26 -39385122.97 -39385122.65 0.0131 0.0026
 Mercury -112544-08-07 20:10 J -39385053.73 -39385053.66 -39385053.57 0.0131 0.0105
 Mercury -112544-11-03 23:17 J -39384965.57 -39384965.53 -39384965.47 0.0131 0.0120
 Venus -112538-11-18 06:43 J -39382760.26 -39382760.22 -39382760.18 0.0131 0.0128
 Venus -112537-07-01 08:53 J -39382534.27 -39382534.13 -39382533.97 0.0131 0.0092
 Venus -112536-02-12 11:31 J -39382308.21 -39382308.02 -39382307.82 0.0131 0.0055
 Venus -112536-09-26 13:55 J -39382082.13 -39382081.92 -39382081.71 0.0131 0.0018
 Venus -112535-05-10 16:19 J -39381856.03 -39381855.82 -39381855.61 0.0131 0.0018
 Venus -112535-12-22 18:29 J -39381629.92 -39381629.73 -39381629.53 0.0131 0.0055
 Venus -112534-08-05 20:38 J -39381403.78 -39381403.64 -39381403.48 0.0131 0.0092
 Venus -112533-03-18 23:02 J -39381177.57 -39381177.54 -39381177.49 0.0131 0.0129

Moon -112512-08-23 17:46 J -39373349.98 -39373349.76 -39373349.52 0.0143 0.0058
 Earth -112512-08-23 21:22 J -39373349.83 -39373349.61 -39373349.37 0.0143 0.0050 *
 Earth -112511-08-28 15:22 J -39372980.07 -39372979.86 -39372979.63 0.0143 0.0069
 Moon -112511-08-28 18:43 J -39372979.92 -39372979.72 -39372979.49 0.0143 0.0073 *
 Mercury -112503-02-25 15:07 J -39370241.95 -39370241.87 -39370241.76 0.0147 0.0125
 Mercury -112503-05-24 22:34 J -39370153.68 -39370153.56 -39370153.42 0.0147 0.0097
 Mercury -112503-08-21 06:00 J -39370065.40 -39370065.25 -39370065.09 0.0147 0.0070
 Mercury -112503-11-17 13:41 J -39369977.10 -39369976.93 -39369976.76 0.0147 0.0042
 Mercury -112502-02-13 21:07 J -39369888.80 -39369888.62 -39369888.44 0.0148 0.0014
 Mercury -112502-05-13 04:48 J -39369800.48 -39369800.30 -39369800.12 0.0148 0.0015
 Mercury -112502-08-09 12:14 J -39369712.15 -39369711.99 -39369711.81 0.0148 0.0044
 Mars -112502-10-16 05:17 J -39369644.43 -39369644.28 -39369644.08 0.0148 0.0122
 Mercury -112502-11-05 20:10 J -39369623.82 -39369623.66 -39369623.50 0.0148 0.0072
 Mercury -112501-02-02 03:50 J -39369535.47 -39369535.34 -39369535.21 0.0148 0.0101
 Mercury -112501-04-30 11:46 J -39369447.09 -39369447.01 -39369446.93 0.0148 0.0130
 Venus -112495-01-05 19:26 J -39367370.83 -39367370.69 -39367370.51 0.0148 0.0100
 Venus -112495-08-20 12:00 J -39367144.21 -39367144.00 -39367143.79 0.0148 0.0044
 Venus -112494-04-04 04:05 J -39366917.55 -39366917.33 -39366917.11 0.0148 0.0013
 Venus -112494-11-16 20:10 J -39366690.85 -39366690.66 -39366690.46 0.0148 0.0069
 Venus -112493-06-30 12:00 J -39366464.10 -39366464.00 -39366463.87 0.0148 0.0125
 Earth -112473-03-02 06:00 J -39359279.45 -39359279.25 -39359279.03 0.0136 0.0081
 Moon -112473-03-02 09:36 J -39359279.31 -39359279.10 -39359278.87 0.0136 0.0076 *
 Moon -112472-03-06 16:34 J -39358910.06 -39358909.81 -39358909.55 0.0136 0.0022
 Earth -112472-03-06 20:10 J -39358909.90 -39358909.66 -39358909.39 0.0136 0.0025 *
 Earth -112471-03-11 08:24 J -39358540.21 -39358540.15 -39358540.04 0.0135 0.0128
 Moon -112471-03-11 12:00 J -39358540.07 -39358540.00 -39358539.89 0.0135 0.0126 *
 Mercury -112463-01-14 01:55 J -39355674.47 -39355674.42 -39355674.36 0.0132 0.0122
 Mercury -112463-04-12 05:17 J -39355586.35 -39355586.28 -39355586.19 0.0132 0.0106
 Mercury -112463-07-09 08:53 J -39355498.23 -39355498.13 -39355498.02 0.0132 0.0090
 Mercury -112463-10-05 12:14 J -39355410.10 -39355409.99 -39355409.86 0.0132 0.0074

Mercury -112462-01-01 15:50 J -39355321.96 -39355321.84 -39355321.71 0.0132 0.0057

Mercury -112462-03-30 19:12 J -39355233.83 -39355233.70 -39355233.56 0.0131 0.0042

Mercury -112462-06-26 22:34 J -39355145.69 -39355145.56 -39355145.42 0.0131 0.0026

Mercury -112462-09-23 01:55 J -39355057.56 -39355057.42 -39355057.28 0.0131 0.0011

Mercury -112462-12-20 05:17 J -39354969.42 -39354969.28 -39354969.14 0.0131 0.0006

Mercury -112461-03-17 08:38 J -39354881.28 -39354881.14 -39354881.00 0.0131 0.0021

Mercury -112461-06-13 12:00 J -39354793.14 -39354793.00 -39354792.87 0.0131 0.0036

Mercury -112461-09-09 15:07 J -39354704.99 -39354704.87 -39354704.74 0.0131 0.0051

Mercury -112461-12-06 18:29 J -39354616.85 -39354616.73 -39354616.61 0.0131 0.0067

Mercury -112460-03-04 21:22 J -39354528.70 -39354528.61 -39354528.49 0.0131 0.0082

Mercury -112460-06-01 00:43 J -39354440.56 -39354440.47 -39354440.37 0.0131 0.0097

Mercury -112460-08-28 04:05 J -39354352.40 -39354352.33 -39354352.26 0.0131 0.0111

Mercury -112460-11-24 07:12 J -39354264.23 -39354264.20 -39354264.16 0.0131 0.0126

Mars -112459-01-23 12:00 J -39354204.27 -39354204.00 -39354203.70 0.0131 0.0057

Venus -112453-02-29 23:02 J -39351975.66 -39351975.54 -39351975.42 0.0131 0.0107

Venus -112453-10-13 01:12 J -39351749.62 -39351749.45 -39351749.26 0.0131 0.0071

Venus -112452-05-27 03:36 J -39351523.55 -39351523.35 -39351523.14 0.0131 0.0034

Venus -112451-01-08 06:00 J -39351297.46 -39351297.25 -39351297.03 0.0131 0.0004

Venus -112451-08-22 08:24 J -39351071.35 -39351071.15 -39351070.94 0.0131 0.0040

Venus -112450-04-05 10:34 J -39350845.22 -39350845.06 -39350844.87 0.0131 0.0077

Venus -112450-11-17 12:58 J -39350619.05 -39350618.96 -39350618.85 0.0131 0.0114

Moon -112428-08-24 06:43 J -39342668.45 -39342668.22 -39342667.98 0.0143 0.0037

Earth -112428-08-24 09:36 J -39342668.34 -39342668.10 -39342667.86 0.0143 0.0044 *

Earth -112427-08-29 03:22 J -39342298.56 -39342298.36 -39342298.13 0.0143 0.0074

Moon -112427-08-29 06:43 J -39342298.42 -39342298.22 -39342297.98 0.0143 0.0070 *

Mercury -112420-12-19 15:50 J -39339628.87 -39339628.84 -39339628.79 0.0147 0.0143

Mercury -112419-03-17 23:02 J -39339540.63 -39339540.54 -39339540.42 0.0147 0.0116

Mercury -112419-06-14 06:43 J -39339452.36 -39339452.22 -39339452.08 0.0147 0.0089

Mercury -112419-09-10 13:55 J -39339364.07 -39339363.92 -39339363.75 0.0147 0.0061

Mercury -112419-12-07 21:22 J -39339275.78 -39339275.61 -39339275.43 0.0148 0.0034

Mercury -112418-03-06 05:02 J -39339187.47 -39339187.29 -39339187.11 0.0148 0.0005

Mercury -112418-06-02 12:43 J -39339099.15 -39339098.97 -39339098.79 0.0148 0.0023

Mercury -112418-08-29 20:10 J -39339010.82 -39339010.66 -39339010.48 0.0148 0.0052

Mercury -112418-11-26 03:50 J -39338922.48 -39338922.34 -39338922.18 0.0148 0.0081

Mercury -112417-02-22 11:31 J -39338834.13 -39338834.02 -39338833.89 0.0148 0.0110

Mercury -112417-05-20 19:26 J -39338745.74 -39338745.69 -39338745.62 0.0148 0.0139

Mars -112417-06-11 04:19 J -39338724.62 -39338724.32 -39338724.01 0.0148 0.0012

Venus -112412-09-05 01:12 J -39336812.56 -39336812.45 -39336812.33 0.0148 0.0127

Venus -112411-04-19 17:17 J -39336585.97 -39336585.78 -39336585.58 0.0148 0.0070

Venus -112411-12-02 09:22 J -39336359.33 -39336359.11 -39336358.89 0.0148 0.0014

Venus -112410-07-17 01:12 J -39336132.65 -39336132.45 -39336132.22 0.0148 0.0043

Venus -112409-02-28 17:31 J -39335905.93 -39335905.77 -39335905.60 0.0148 0.0099

Earth -112389-03-02 19:41 J -39328597.89 -39328597.68 -39328597.45 0.0136 0.0073

Moon -112389-03-02 22:34 J -39328597.75 -39328597.56 -39328597.32 0.0136 0.0080 *

Moon -112388-03-07 06:58 J -39328228.44 -39328228.21 -39328227.95 0.0136 0.0036

Earth -112388-03-07 10:05 J -39328228.32 -39328228.08 -39328227.82 0.0136 0.0032 *

Earth -112387-03-11 22:19 J -39327858.58 -39327858.57 -39327858.52 0.0135 0.0135

Moon -112387-03-12 02:10 J -39327858.42 -39327858.41 -39327858.38 0.0135 0.0135

Mercury -112380-11-07 06:14 J -39325061.24 -39325061.24 -39325061.22 0.0132 0.0132

Mercury -112379-02-03 09:50 J -39324973.15 -39324973.09 -39324973.02 0.0132 0.0115

Mercury -112379-05-02 13:26 J -39324885.03 -39324884.94 -39324884.85 0.0132 0.0099

Mercury -112379-07-29 16:48 J -39324796.91 -39324796.80 -39324796.69 0.0132 0.0083

Mercury -112379-10-25 20:10 J -39324708.78 -39324708.66 -39324708.53 0.0132 0.0067

Mercury -112378-01-21 23:31 J -39324620.64 -39324620.52 -39324620.38 0.0132 0.0051

Mercury -112378-04-20 03:07 J -39324532.51 -39324532.37 -39324532.24 0.0131 0.0035

Mercury -112378-07-17 06:29 J -39324444.37 -39324444.23 -39324444.09 0.0131 0.0020

Mercury -112378-10-13 09:50 J -39324356.23 -39324356.09 -39324355.95 0.0131 0.0004

Mercury -112377-01-09 12:58 J -39324268.09 -39324267.96 -39324267.81 0.0131 0.0013

Mercury -112377-04-06 16:19 J -39324179.95 -39324179.82 -39324179.68 0.0131 0.0027

Mercury -112377-07-03 19:41 J -39324091.81 -39324091.68 -39324091.55 0.0131 0.0042

Mercury -112377-09-29 23:02 J -39324003.67 -39324003.54 -39324003.42 0.0131 0.0058

Mars -112377-10-17 06:14 J -39323986.48 -39323986.24 -39323985.97 0.0131 0.0074

Mercury -112377-12-27 02:10 J -39323915.52 -39323915.41 -39323915.29 0.0131 0.0073

Mercury -112376-03-25 05:17 J -39323827.38 -39323827.28 -39323827.17 0.0131 0.0088

Mercury -112376-06-21 08:38 J -39323739.23 -39323739.14 -39323739.06 0.0131 0.0102

Mercury -112376-09-17 11:46 J -39323651.07 -39323651.01 -39323650.95 0.0131 0.0117

Venus -112370-10-30 12:29 J -39321417.04 -39321416.98 -39321416.90 0.0131 0.0123

Venus -112369-06-12 14:38 J -39321191.03 -39321190.89 -39321190.72 0.0131 0.0087

Venus -112368-01-24 17:17 J -39320964.97 -39320964.78 -39320964.58 0.0131 0.0050

Venus -112368-09-07 19:55 J -39320738.89 -39320738.67 -39320738.46 0.0131 0.0013

Venus -112367-04-21 22:19 J -39320512.78 -39320512.57 -39320512.36 0.0131 0.0024

Venus -112367-12-04 00:14 J -39320286.67 -39320286.49 -39320286.29 0.0131 0.0061

Venus -112366-07-18 02:24 J -39320060.52 -39320060.40 -39320060.24 0.0131 0.0098

Moon -112344-08-24 18:00 J -39311986.98 -39311986.75 -39311986.52 0.0143 0.0047

Earth -112344-08-24 20:10 J -39311986.89 -39311986.66 -39311986.41 0.0143 0.0040 *

Earth -112343-08-29 13:41 J -39311617.12 -39311616.93 -39311616.70 0.0143 0.0079

Moon -112343-08-29 16:05 J -39311617.02 -39311616.83 -39311616.61 0.0143 0.0085 *

Mercury -112335-01-08 22:34 J -39308927.60 -39308927.56 -39308927.48 0.0147 0.0138

Mercury -112335-04-07 06:00 J -39308839.35 -39308839.25 -39308839.13 0.0147 0.0111

Mercury -112335-07-04 13:26 J -39308751.08 -39308750.94 -39308750.79 0.0147 0.0084

Mercury -112335-09-30 20:53 J -39308662.79 -39308662.63 -39308662.46 0.0147 0.0056

Mercury -112335-12-28 04:19 J -39308574.49 -39308574.32 -39308574.14 0.0147 0.0029

Mercury -112334-03-26 12:00 J -39308486.18 -39308486.00 -39308485.83 0.0148 0.0004

Mercury -112334-06-22 19:26 J -39308397.86 -39308397.69 -39308397.51 0.0148 0.0028

Mercury -112334-09-19 02:53 J -39308309.54 -39308309.38 -39308309.20 0.0148 0.0057

Mercury -112334-12-16 10:48 J -39308221.20 -39308221.05 -39308220.90 0.0148 0.0085

Mercury -112333-03-13 18:29 J -39308132.84 -39308132.73 -39308132.61 0.0148 0.0114

Mercury -112333-06-10 02:24 J -39308044.44 -39308044.40 -39308044.36 0.0148 0.0143

Mars -112332-02-04 18:00 J -39307804.96 -39307804.75 -39307804.49 0.0148 0.0094

Venus -112328-12-17 19:41 J -39306027.84 -39306027.68 -39306027.52 0.0148 0.0100

Venus -112327-08-01 11:31 J -39305801.22 -39305801.02 -39305800.80 0.0148 0.0044
 Venus -112326-03-16 03:50 J -39305574.56 -39305574.34 -39305574.12 0.0148 0.0012
 Venus -112326-10-28 19:55 J -39305347.86 -39305347.67 -39305347.47 0.0148 0.0069
 Venus -112325-06-11 11:46 J -39305121.11 -39305121.01 -39305120.88 0.0148 0.0126
 Earth -112305-03-03 05:02 J -39297916.50 -39297916.29 -39297916.06 0.0137 0.0069
 Moon -112305-03-03 06:43 J -39297916.44 -39297916.22 -39297915.97 0.0137 0.0063 *
 Moon -112304-03-07 17:02 J -39297547.03 -39297546.79 -39297546.54 0.0136 0.0032
 Earth -112304-03-07 19:41 J -39297546.93 -39297546.68 -39297546.43 0.0136 0.0036 *
 Mercury -112296-11-27 13:26 J -39294359.96 -39294359.94 -39294359.89 0.0132 0.0127
 Mercury -112295-02-23 17:17 J -39294271.86 -39294271.78 -39294271.70 0.0132 0.0110
 Mercury -112295-05-22 20:38 J -39294183.73 -39294183.64 -39294183.54 0.0132 0.0094
 Mercury -112295-08-19 00:14 J -39294095.60 -39294095.49 -39294095.38 0.0132 0.0078
 Mercury -112295-11-15 03:36 J -39294007.47 -39294007.35 -39294007.22 0.0132 0.0062
 Mercury -112294-02-11 06:58 J -39293919.34 -39293919.21 -39293919.07 0.0132 0.0046
 Mercury -112294-05-10 10:19 J -39293831.20 -39293831.07 -39293830.93 0.0132 0.0031
 Mercury -112294-08-06 13:41 J -39293743.06 -39293742.93 -39293742.78 0.0132 0.0015
 Mercury -112294-11-02 17:02 J -39293654.93 -39293654.79 -39293654.64 0.0131 0.0004
 Mercury -112293-01-29 20:24 J -39293566.79 -39293566.65 -39293566.51 0.0131 0.0017
 Mercury -112293-04-26 23:46 J -39293478.65 -39293478.51 -39293478.37 0.0131 0.0032
 Mercury -112293-07-24 02:53 J -39293390.50 -39293390.38 -39293390.24 0.0131 0.0048
 Mercury -112293-10-20 06:14 J -39293302.36 -39293302.24 -39293302.12 0.0131 0.0062
 Mercury -112292-01-16 09:36 J -39293214.21 -39293214.10 -39293213.99 0.0131 0.0077
 Mercury -112292-04-14 12:43 J -39293126.07 -39293125.97 -39293125.87 0.0131 0.0092
 Mars -112292-06-12 01:41 J -39293067.74 -39293067.43 -39293067.11 0.0131 0.0006
 Mercury -112292-07-11 15:50 J -39293037.91 -39293037.84 -39293037.76 0.0131 0.0107
 Mercury -112292-10-07 18:58 J -39292949.75 -39292949.71 -39292949.65 0.0131 0.0122
 Venus -112285-02-11 03:50 J -39290632.46 -39290632.34 -39290632.20 0.0131 0.0103
 Venus -112285-09-24 06:29 J -39290406.41 -39290406.23 -39290406.04 0.0131 0.0066
 Venus -112284-05-08 08:53 J -39290180.33 -39290180.13 -39290179.92 0.0131 0.0029
 Venus -112284-12-20 11:17 J -39289954.24 -39289954.03 -39289953.82 0.0131 0.0008

Venus -112283-08-03 13:41 J -39289728.13 -39289727.93 -39289727.73 0.0131 0.0045

Venus -112282-03-17 15:50 J -39289501.99 -39289501.84 -39289501.67 0.0131 0.0082

Venus -112282-10-29 18:00 J -39289275.82 -39289275.75 -39289275.65 0.0131 0.0119

Moon -112260-08-25 06:43 J -39281305.45 -39281305.22 -39281304.98 0.0142 0.0027

Earth -112260-08-25 07:41 J -39281305.43 -39281305.18 -39281304.94 0.0142 0.0034 *

Earth -112259-08-30 01:12 J -39280935.64 -39280935.45 -39280935.24 0.0143 0.0083

Moon -112259-08-30 02:53 J -39280935.58 -39280935.38 -39280935.15 0.0143 0.0077 *

Mercury -112251-01-29 05:46 J -39278226.32 -39278226.26 -39278226.17 0.0147 0.0133

Mercury -112251-04-27 13:12 J -39278138.06 -39278137.95 -39278137.82 0.0147 0.0105

Mercury -112251-07-24 20:24 J -39278049.79 -39278049.65 -39278049.49 0.0147 0.0079

Mercury -112251-10-21 04:05 J -39277961.50 -39277961.33 -39277961.16 0.0147 0.0050

Mercury -112250-01-17 11:31 J -39277873.20 -39277873.02 -39277872.84 0.0147 0.0023

Mercury -112250-04-15 18:58 J -39277784.89 -39277784.71 -39277784.53 0.0147 0.0006

Mercury -112250-07-13 02:38 J -39277696.57 -39277696.39 -39277696.22 0.0148 0.0034

Mercury -112250-10-09 10:05 J -39277608.24 -39277608.08 -39277607.91 0.0148 0.0062

Mars -112250-10-28 04:34 J -39277589.53 -39277589.31 -39277589.09 0.0148 0.0101

Mercury -112249-01-05 17:46 J -39277519.90 -39277519.76 -39277519.61 0.0148 0.0091

Mercury -112249-04-03 01:26 J -39277431.54 -39277431.44 -39277431.33 0.0148 0.0120

Venus -112244-08-16 22:34 J -39275469.65 -39275469.56 -39275469.44 0.0148 0.0130

Venus -112243-03-31 14:53 J -39275243.07 -39275242.88 -39275242.68 0.0148 0.0073

Venus -112243-11-13 06:58 J -39275016.43 -39275016.21 -39275015.99 0.0148 0.0017

Venus -112242-06-27 22:48 J -39274789.76 -39274789.55 -39274789.33 0.0148 0.0040

Venus -112241-02-09 14:53 J -39274563.04 -39274562.88 -39274562.70 0.0148 0.0097

Earth -112221-03-03 14:10 J -39267235.12 -39267234.91 -39267234.67 0.0137 0.0065

Moon -112221-03-03 15:22 J -39267235.08 -39267234.86 -39267234.62 0.0137 0.0072 *

Moon -112220-03-08 04:19 J -39266865.55 -39266865.32 -39266865.08 0.0136 0.0047

Earth -112220-03-08 05:17 J -39266865.52 -39266865.28 -39266865.03 0.0136 0.0040 *

Mercury -112212-12-17 20:53 J -39263658.67 -39263658.63 -39263658.57 0.0132 0.0122

Mercury -112211-03-16 00:14 J -39263570.56 -39263570.49 -39263570.39 0.0132 0.0106

Mercury -112211-06-12 03:50 J -39263482.43 -39263482.34 -39263482.23 0.0132 0.0090

Mercury -112211-09-08 07:12 J -39263394.30 -39263394.20 -39263394.07 0.0132 0.0074

Mercury -112211-12-05 10:48 J -39263306.17 -39263306.05 -39263305.92 0.0132 0.0058

Mercury -112210-03-03 14:24 J -39263218.04 -39263217.90 -39263217.77 0.0132 0.0042

Mercury -112210-05-30 17:46 J -39263129.90 -39263129.76 -39263129.62 0.0132 0.0026

Mercury -112210-08-26 21:07 J -39263041.76 -39263041.62 -39263041.48 0.0132 0.0010

Mercury -112210-11-23 00:29 J -39262953.62 -39262953.48 -39262953.34 0.0132 0.0006

Mercury -112209-02-19 03:50 J -39262865.48 -39262865.34 -39262865.20 0.0132 0.0021

Mars -112209-03-05 16:19 J -39262849.88 -39262849.82 -39262849.73 0.0132 0.0128

Mercury -112209-05-17 06:58 J -39262777.34 -39262777.21 -39262777.07 0.0131 0.0037

Mercury -112209-08-13 10:19 J -39262689.20 -39262689.07 -39262688.94 0.0131 0.0052

Mercury -112209-11-09 13:26 J -39262601.05 -39262600.94 -39262600.81 0.0131 0.0067

Mercury -112208-02-05 16:48 J -39262512.90 -39262512.80 -39262512.69 0.0131 0.0082

Mercury -112208-05-04 19:55 J -39262424.75 -39262424.67 -39262424.57 0.0131 0.0097

Mercury -112208-07-31 23:02 J -39262336.60 -39262336.54 -39262336.46 0.0131 0.0112

Mercury -112208-10-28 02:10 J -39262248.43 -39262248.41 -39262248.36 0.0131 0.0127

Mars -112207-02-04 18:58 J -39262148.92 -39262148.71 -39262148.45 0.0131 0.0085

Venus -112202-10-11 16:34 J -39260073.87 -39260073.81 -39260073.71 0.0131 0.0120

Venus -112201-05-24 19:12 J -39259847.85 -39259847.70 -39259847.52 0.0131 0.0083

Venus -112200-01-05 22:05 J -39259621.78 -39259621.58 -39259621.38 0.0131 0.0045

Venus -112200-08-20 00:29 J -39259395.70 -39259395.48 -39259395.27 0.0131 0.0008

Venus -112199-04-03 02:53 J -39259169.59 -39259169.38 -39259169.17 0.0131 0.0029

Venus -112199-11-15 05:02 J -39258943.47 -39258943.29 -39258943.10 0.0131 0.0066

Venus -112198-06-29 07:12 J -39258717.32 -39258717.20 -39258717.06 0.0131 0.0103

Moon -112177-08-21 04:05 J -39250993.39 -39250993.33 -39250993.23 0.0142 0.0135

Earth -112177-08-21 05:02 J -39250993.33 -39250993.29 -39250993.24 0.0142 0.0139 *

Moon -112176-08-25 20:53 J -39250623.86 -39250623.63 -39250623.39 0.0142 0.0032

Earth -112176-08-25 21:07 J -39250623.86 -39250623.62 -39250623.37 0.0142 0.0025 *

Earth -112175-08-30 14:53 J -39250254.07 -39250253.88 -39250253.69 0.0143 0.0091

Moon -112175-08-30 14:53 J -39250254.04 -39250253.88 -39250253.67 0.0143 0.0099 *

Mercury -112167-02-18 13:55 J -39247525.01 -39247524.92 -39247524.82 0.0147 0.0123

Mercury -112167-05-17 21:07 J -39247436.75 -39247436.62 -39247436.48 0.0147 0.0096

Mercury -112167-08-14 04:34 J -39247348.47 -39247348.31 -39247348.15 0.0147 0.0069

Mercury -112167-11-10 11:46 J -39247260.17 -39247260.01 -39247259.83 0.0147 0.0042

Mercury -112166-02-06 19:26 J -39247171.87 -39247171.69 -39247171.52 0.0147 0.0014

Mercury -112166-05-06 02:53 J -39247083.56 -39247083.38 -39247083.20 0.0147 0.0014

Mercury -112166-08-02 10:19 J -39246995.24 -39246995.07 -39246994.90 0.0147 0.0042

Mercury -112166-10-29 17:46 J -39246906.91 -39246906.76 -39246906.59 0.0147 0.0071

Mercury -112165-01-26 01:26 J -39246818.56 -39246818.44 -39246818.30 0.0148 0.0099

Mercury -112165-04-23 09:22 J -39246730.19 -39246730.11 -39246730.02 0.0148 0.0128

Mars -112165-06-23 03:36 J -39246669.66 -39246669.35 -39246669.05 0.0148 0.0010

Venus -112160-11-28 18:58 J -39244684.86 -39244684.71 -39244684.54 0.0148 0.0101

Venus -112159-07-13 10:48 J -39244458.25 -39244458.05 -39244457.83 0.0148 0.0045

Venus -112158-02-25 02:53 J -39244231.60 -39244231.38 -39244231.16 0.0148 0.0012

Venus -112158-10-09 18:58 J -39244004.90 -39244004.71 -39244004.51 0.0148 0.0069

Venus -112157-05-23 10:48 J -39243778.15 -39243778.05 -39243777.92 0.0148 0.0126

Moon -112137-03-03 22:34 J -39236553.80 -39236553.56 -39236553.31 0.0137 0.0054

Earth -112137-03-03 23:02 J -39236553.75 -39236553.54 -39236553.29 0.0137 0.0062 *

Moon -112136-03-08 14:10 J -39236184.14 -39236183.91 -39236183.66 0.0136 0.0038

Earth -112136-03-08 14:10 J -39236184.14 -39236183.91 -39236183.65 0.0136 0.0044 *

Mercury -112127-01-07 03:50 J -39232957.39 -39232957.34 -39232957.26 0.0132 0.0119

Mercury -112127-04-05 07:41 J -39232869.27 -39232869.18 -39232869.09 0.0132 0.0101

Mercury -112127-07-02 11:02 J -39232781.14 -39232781.04 -39232780.92 0.0132 0.0086

Mercury -112127-09-28 14:38 J -39232693.01 -39232692.89 -39232692.77 0.0132 0.0069

Mercury -112127-12-25 18:00 J -39232604.87 -39232604.75 -39232604.62 0.0132 0.0053

Mercury -112126-03-23 21:36 J -39232516.74 -39232516.60 -39232516.47 0.0132 0.0037

Mercury -112126-06-20 00:58 J -39232428.60 -39232428.46 -39232428.32 0.0132 0.0021

Mercury -112126-09-16 04:19 J -39232340.46 -39232340.32 -39232340.18 0.0132 0.0006

Mercury -112126-12-13 07:41 J -39232252.32 -39232252.18 -39232252.04 0.0132 0.0010

Mercury -112125-03-10 11:02 J -39232164.18 -39232164.04 -39232163.91 0.0132 0.0025

Mercury -112125-06-06 14:24 J -39232076.04 -39232075.90 -39232075.77 0.0132 0.0041

Mercury -112125-09-02 17:31 J -39231987.89 -39231987.77 -39231987.64 0.0131 0.0056

Mars -112125-10-29 08:53 J -39231931.42 -39231931.13 -39231930.84 0.0131 0.0049

Mercury -112125-11-29 20:38 J -39231899.75 -39231899.64 -39231899.52 0.0131 0.0072

Mercury -112124-02-26 00:00 J -39231811.60 -39231811.50 -39231811.39 0.0131 0.0086

Mercury -112124-05-25 03:07 J -39231723.45 -39231723.37 -39231723.28 0.0131 0.0102

Mercury -112124-08-21 06:29 J -39231635.29 -39231635.23 -39231635.17 0.0131 0.0116

Mercury -112124-11-17 09:36 J -39231547.10 -39231547.10 -39231547.09 0.0131 0.0131

Venus -112117-01-23 07:55 J -39229289.30 -39229289.17 -39229289.02 0.0131 0.0099

Venus -112117-09-05 10:34 J -39229063.24 -39229063.06 -39229062.87 0.0131 0.0062

Venus -112116-04-19 13:12 J -39228837.16 -39228836.95 -39228836.74 0.0131 0.0024

Venus -112116-12-01 15:36 J -39228611.06 -39228610.85 -39228610.64 0.0131 0.0013

Venus -112115-07-15 17:46 J -39228384.95 -39228384.76 -39228384.56 0.0131 0.0051

Venus -112114-02-26 20:24 J -39228158.81 -39228158.65 -39228158.49 0.0131 0.0088

Venus -112114-10-10 22:34 J -39227932.62 -39227932.56 -39227932.49 0.0131 0.0125

Moon -112093-08-21 17:31 J -39220311.83 -39220311.77 -39220311.67 0.0142 0.0134

Earth -112093-08-21 18:58 J -39220311.78 -39220311.71 -39220311.60 0.0142 0.0131 *

Earth -112092-08-26 11:17 J -39219942.27 -39219942.03 -39219941.78 0.0142 0.0018

Moon -112092-08-26 12:29 J -39219942.22 -39219941.98 -39219941.74 0.0142 0.0011 *

Moon -112091-08-31 04:05 J -39219572.52 -39219572.33 -39219572.12 0.0143 0.0092

Earth -112091-08-31 05:02 J -39219572.46 -39219572.29 -39219572.11 0.0143 0.0099 *

Mercury -112084-12-12 14:53 J -39216911.92 -39216911.88 -39216911.82 0.0147 0.0140

Mercury -112083-03-10 22:19 J -39216823.68 -39216823.57 -39216823.46 0.0147 0.0113

Mercury -112083-06-07 05:31 J -39216735.41 -39216735.27 -39216735.12 0.0147 0.0086

Mercury -112083-09-03 12:43 J -39216647.12 -39216646.97 -39216646.80 0.0147 0.0060

Mercury -112083-11-30 20:10 J -39216558.83 -39216558.66 -39216558.48 0.0147 0.0032

Mercury -112082-02-27 03:50 J -39216470.52 -39216470.34 -39216470.17 0.0147 0.0005

Mercury -112082-05-26 11:17 J -39216382.21 -39216382.03 -39216381.85 0.0147 0.0024

Mercury -112082-08-22 18:43 J -39216293.88 -39216293.72 -39216293.55 0.0147 0.0053

Mercury -112082-11-19 02:24 J -39216205.55 -39216205.40 -39216205.25 0.0147 0.0081

Mercury -112081-02-15 10:05 J -39216117.20 -39216117.08 -39216116.96 0.0148 0.0110

Mercury -112081-05-13 17:46 J -39216028.81 -39216028.76 -39216028.69 0.0148 0.0139
 Mars -112080-02-17 03:22 J -39215749.50 -39215749.36 -39215749.17 0.0148 0.0124
 Venus -112076-07-29 01:41 J -39214126.54 -39214126.43 -39214126.32 0.0148 0.0126
 Venus -112075-03-12 17:17 J -39213899.97 -39213899.78 -39213899.58 0.0148 0.0070
 Venus -112075-10-25 09:07 J -39213673.34 -39213673.12 -39213672.89 0.0148 0.0014
 Venus -112074-06-09 00:58 J -39213446.67 -39213446.46 -39213446.24 0.0148 0.0044
 Venus -112073-01-21 16:48 J -39213219.95 -39213219.80 -39213219.63 0.0148 0.0101
 Moon -112053-03-04 09:07 J -39205872.35 -39205872.12 -39205871.87 0.0137 0.0062
 Earth -112053-03-04 11:02 J -39205872.27 -39205872.04 -39205871.80 0.0137 0.0055 *
 Earth -112052-03-09 02:10 J -39205502.65 -39205502.41 -39205502.17 0.0136 0.0050
 Moon -112052-03-09 03:36 J -39205502.57 -39205502.35 -39205502.12 0.0136 0.0057 *
 Mercury -112044-10-31 07:55 J -39202344.19 -39202344.17 -39202344.13 0.0132 0.0129
 Mercury -112043-01-27 11:31 J -39202256.09 -39202256.02 -39202255.94 0.0132 0.0113
 Mercury -112043-04-25 15:07 J -39202167.96 -39202167.87 -39202167.77 0.0132 0.0096
 Mercury -112043-07-22 18:29 J -39202079.83 -39202079.73 -39202079.61 0.0132 0.0080
 Mercury -112043-10-18 22:05 J -39201991.70 -39201991.58 -39201991.45 0.0132 0.0064
 Mercury -112042-01-15 01:26 J -39201903.57 -39201903.44 -39201903.30 0.0132 0.0048
 Mercury -112042-04-13 05:02 J -39201815.43 -39201815.29 -39201815.16 0.0132 0.0032
 Mercury -112042-07-10 08:24 J -39201727.29 -39201727.15 -39201727.01 0.0132 0.0016
 Mercury -112042-10-06 11:46 J -39201639.15 -39201639.01 -39201638.87 0.0132 0.0001
 Mercury -112041-01-02 15:07 J -39201551.01 -39201550.87 -39201550.73 0.0132 0.0015
 Mercury -112041-03-30 18:29 J -39201462.87 -39201462.73 -39201462.60 0.0132 0.0030
 Mercury -112041-06-26 21:50 J -39201374.73 -39201374.59 -39201374.46 0.0132 0.0046
 Mercury -112041-09-23 00:58 J -39201286.58 -39201286.46 -39201286.33 0.0131 0.0061
 Mercury -112041-12-20 04:05 J -39201198.43 -39201198.33 -39201198.21 0.0131 0.0077
 Mercury -112040-03-18 07:26 J -39201110.28 -39201110.19 -39201110.09 0.0131 0.0091
 Mercury -112040-06-14 10:34 J -39201022.13 -39201022.06 -39201021.97 0.0131 0.0107
 Mars -112040-06-24 03:50 J -39201012.64 -39201012.34 -39201012.03 0.0131 0.0031
 Mercury -112040-09-10 13:55 J -39200933.97 -39200933.92 -39200933.87 0.0131 0.0121
 Venus -112034-09-22 20:53 J -39198730.71 -39198730.63 -39198730.52 0.0131 0.0116

Venus	-112033-05-05 23:46 J	-39198504.68	-39198504.51	-39198504.34	0.0131	0.0078
Venus	-112033-12-18 02:10 J	-39198278.61	-39198278.41	-39198278.20	0.0131	0.0041
Venus	-112032-08-01 04:48 J	-39198052.52	-39198052.30	-39198052.09	0.0131	0.0004
Venus	-112031-03-15 06:58 J	-39197826.41	-39197826.21	-39197825.99	0.0131	0.0035
Venus	-112031-10-27 09:22 J	-39197600.28	-39197600.11	-39197599.93	0.0131	0.0072
Venus	-112030-06-10 11:17 J	-39197374.12	-39197374.03	-39197373.89	0.0131	0.0110
Moon	-112009-08-22 06:58 J	-39189630.34	-39189630.21	-39189630.08	0.0142	0.0120
Earth	-112009-08-22 09:07 J	-39189630.22	-39189630.12	-39189629.97	0.0142	0.0123 *
Earth	-112008-08-27 01:41 J	-39189260.68	-39189260.43	-39189260.18	0.0142	0.0009
Moon	-112008-08-27 04:05 J	-39189260.57	-39189260.33	-39189260.09	0.0142	0.0013 *
Moon	-112007-08-31 17:17 J	-39188890.91	-39188890.78	-39188890.61	0.0143	0.0115
Earth	-112007-08-31 19:26 J	-39188890.85	-39188890.69	-39188890.52	0.0143	0.0107 *

112TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 112th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-111999-01-01 23:17 J	-39186210.60	-39186210.53	-39186210.44	0.0147	0.0130		
Mercury	-111999-03-31 06:43 J	-39186122.34	-39186122.22	-39186122.09	0.0147	0.0103		
Mercury	-111999-06-27 13:55 J	-39186034.06	-39186033.92	-39186033.76	0.0147	0.0076		
Mercury	-111999-09-23 21:07 J	-39185945.78	-39185945.62	-39185945.44	0.0147	0.0049		

Mercury -111999-12-21 04:48 J -39185857.48 -39185857.30 -39185857.12 0.0147 0.0021

Mercury -111998-03-19 12:14 J -39185769.17 -39185768.99 -39185768.81 0.0147 0.0007

Mercury -111998-06-15 19:41 J -39185680.85 -39185680.68 -39185680.50 0.0147 0.0035

Mercury -111998-09-12 03:07 J -39185592.52 -39185592.37 -39185592.20 0.0147 0.0064

Mars -111998-11-09 23:02 J -39185533.80 -39185533.54 -39185533.25 0.0147 0.0064

Mercury -111998-12-09 11:02 J -39185504.18 -39185504.04 -39185503.90 0.0147 0.0092

Mercury -111997-03-06 18:29 J -39185415.82 -39185415.73 -39185415.62 0.0147 0.0121

Jupiter -111995-11-24 20:38 J -39184422.83 -39184422.64 -39184422.44 0.0148 0.0137

Venus -111992-11-09 23:46 J -39183341.67 -39183341.51 -39183341.33 0.0148 0.0095

Venus -111991-06-24 15:36 J -39183115.06 -39183114.85 -39183114.63 0.0148 0.0038

Venus -111990-02-06 07:26 J -39182888.41 -39182888.19 -39182887.97 0.0148 0.0019

Venus -111990-09-20 23:17 J -39182661.71 -39182661.53 -39182661.33 0.0148 0.0076

Venus -111989-05-04 14:53 J -39182434.95 -39182434.88 -39182434.76 0.0148 0.0133

Moon -111969-03-04 18:58 J -39175190.95 -39175190.71 -39175190.44 0.0137 0.0044

Earth -111969-03-04 22:19 J -39175190.80 -39175190.57 -39175190.32 0.0137 0.0050 *

Earth -111968-03-09 13:12 J -39174821.17 -39174820.95 -39174820.70 0.0136 0.0055

Moon -111968-03-09 16:05 J -39174821.06 -39174820.83 -39174820.59 0.0136 0.0048 *

Mercury -111960-11-20 15:07 J -39171642.90 -39171642.87 -39171642.81 0.0132 0.0125

Mercury -111959-02-16 18:43 J -39171554.79 -39171554.72 -39171554.63 0.0132 0.0108

Mercury -111959-05-15 22:19 J -39171466.67 -39171466.57 -39171466.46 0.0132 0.0092

Mercury -111959-08-12 01:55 J -39171378.53 -39171378.42 -39171378.30 0.0132 0.0075

Mercury -111959-11-08 05:17 J -39171290.40 -39171290.28 -39171290.15 0.0132 0.0060

Mercury -111958-02-04 08:38 J -39171202.26 -39171202.14 -39171202.00 0.0132 0.0044

Mercury -111958-05-03 12:14 J -39171114.13 -39171113.99 -39171113.85 0.0132 0.0028

Mercury -111958-07-30 15:36 J -39171025.99 -39171025.85 -39171025.71 0.0132 0.0012

Mercury -111958-10-26 18:58 J -39170937.85 -39170937.71 -39170937.57 0.0132 0.0005

Mercury -111957-01-22 22:19 J -39170849.71 -39170849.57 -39170849.43 0.0132 0.0020

Mars -111957-03-17 18:43 J -39170794.89 -39170794.72 -39170794.50 0.0132 0.0103

Mercury -111957-04-20 01:41 J -39170761.56 -39170761.43 -39170761.29 0.0132 0.0035

Mercury -111957-07-17 05:02 J -39170673.42 -39170673.29 -39170673.16 0.0131 0.0050

Mercury -111957-10-13 08:10 J -39170585.27 -39170585.16 -39170585.03 0.0131 0.0066

Mercury -111956-01-09 11:17 J -39170497.12 -39170497.03 -39170496.91 0.0131 0.0082

Mercury -111956-04-07 14:38 J -39170408.97 -39170408.89 -39170408.79 0.0131 0.0096

Mercury -111956-07-04 17:46 J -39170320.82 -39170320.76 -39170320.67 0.0131 0.0112

Mercury -111956-09-30 21:07 J -39170232.65 -39170232.62 -39170232.58 0.0131 0.0126

Mars -111955-02-16 21:36 J -39170093.75 -39170093.60 -39170093.42 0.0131 0.0112

Jupiter -111953-06-06 08:10 J -39169253.48 -39169253.16 -39169252.77 0.0131 0.0092

Venus -111949-01-04 11:46 J -39167946.14 -39167946.01 -39167945.85 0.0131 0.0096

Venus -111949-08-17 14:38 J -39167720.08 -39167719.89 -39167719.70 0.0131 0.0058

Venus -111948-03-31 17:17 J -39167493.99 -39167493.78 -39167493.57 0.0131 0.0020

Venus -111948-11-12 19:41 J -39167267.89 -39167267.68 -39167267.47 0.0131 0.0017

Venus -111947-06-26 21:36 J -39167041.78 -39167041.60 -39167041.39 0.0131 0.0056

Venus -111946-02-08 00:14 J -39166815.63 -39166815.49 -39166815.33 0.0131 0.0092

Venus -111946-09-22 02:38 J -39166589.41 -39166589.39 -39166589.36 0.0131 0.0130

Moon -111925-08-22 18:29 J -39158948.86 -39158948.73 -39158948.58 0.0142 0.0116

Earth -111925-08-22 21:36 J -39158948.72 -39158948.60 -39158948.44 0.0142 0.0117 *

Earth -111924-08-27 13:55 J -39158579.16 -39158578.92 -39158578.66 0.0142 0.0005

Moon -111924-08-27 17:02 J -39158579.03 -39158578.79 -39158578.54 0.0142 0.0002 *

Moon -111923-09-01 04:34 J -39158209.48 -39158209.31 -39158209.14 0.0143 0.0106

Earth -111923-09-01 07:26 J -39158209.33 -39158209.19 -39158209.02 0.0143 0.0113 *

Mercury -111915-01-22 07:12 J -39155509.28 -39155509.20 -39155509.09 0.0147 0.0122

Mercury -111915-04-20 14:24 J -39155421.02 -39155420.90 -39155420.75 0.0147 0.0095

Mercury -111915-07-17 21:50 J -39155332.74 -39155332.59 -39155332.43 0.0147 0.0068

Mercury -111915-10-14 05:17 J -39155244.45 -39155244.28 -39155244.11 0.0147 0.0040

Mercury -111914-01-10 12:43 J -39155156.15 -39155155.97 -39155155.79 0.0147 0.0013

Mercury -111914-04-08 20:10 J -39155067.84 -39155067.66 -39155067.48 0.0147 0.0015

Mercury -111914-07-06 03:36 J -39154979.52 -39154979.35 -39154979.17 0.0147 0.0043

Mercury -111914-10-02 11:17 J -39154891.19 -39154891.03 -39154890.87 0.0147 0.0072

Mercury -111914-12-29 18:43 J -39154802.84 -39154802.72 -39154802.58 0.0147 0.0101

Mercury -111913-03-27 02:24 J -39154714.47 -39154714.40 -39154714.30 0.0147 0.0129

Mars -111913-07-05 22:19 J -39154613.86 -39154613.57 -39154613.28 0.0147 0.0047
 Jupiter -111912-09-20 18:43 J -39154171.90 -39154171.72 -39154171.46 0.0148 0.0135
 Venus -111908-07-10 05:17 J -39152783.39 -39152783.28 -39152783.15 0.0148 0.0122
 Venus -111907-02-21 21:07 J -39152556.82 -39152556.62 -39152556.42 0.0148 0.0065
 Venus -111907-10-06 12:58 J -39152330.18 -39152329.96 -39152329.73 0.0148 0.0008
 Venus -111906-05-21 04:48 J -39152103.51 -39152103.30 -39152103.09 0.0148 0.0049
 Venus -111905-01-02 20:38 J -39151876.79 -39151876.64 -39151876.48 0.0148 0.0106
 Moon -111885-03-05 07:26 J -39144509.43 -39144509.19 -39144508.94 0.0137 0.0048
 Earth -111885-03-05 10:48 J -39144509.28 -39144509.05 -39144508.79 0.0137 0.0044 *
 Earth -111884-03-10 01:55 J -39144139.64 -39144139.42 -39144139.18 0.0136 0.0061
 Moon -111884-03-10 05:31 J -39144139.49 -39144139.27 -39144139.05 0.0136 0.0068 *
 Mercury -111876-12-10 22:34 J -39140941.61 -39140941.56 -39140941.49 0.0132 0.0120
 Mercury -111875-03-09 02:10 J -39140853.49 -39140853.41 -39140853.31 0.0132 0.0103
 Mercury -111875-06-05 05:46 J -39140765.36 -39140765.26 -39140765.15 0.0132 0.0087
 Mercury -111875-09-01 09:22 J -39140677.23 -39140677.11 -39140676.99 0.0132 0.0070
 Mercury -111875-11-28 12:43 J -39140589.09 -39140588.97 -39140588.84 0.0132 0.0055
 Mercury -111874-02-24 16:05 J -39140500.96 -39140500.83 -39140500.69 0.0132 0.0039
 Mercury -111874-05-23 19:41 J -39140412.82 -39140412.68 -39140412.54 0.0132 0.0023
 Mercury -111874-08-19 23:02 J -39140324.68 -39140324.54 -39140324.40 0.0132 0.0007
 Mercury -111874-11-16 02:24 J -39140236.54 -39140236.40 -39140236.26 0.0132 0.0009
 Mercury -111873-02-12 05:46 J -39140148.40 -39140148.26 -39140148.12 0.0132 0.0024
 Mercury -111873-05-10 09:07 J -39140060.25 -39140060.12 -39140059.99 0.0131 0.0040
 Mercury -111873-08-06 12:14 J -39139972.11 -39139971.99 -39139971.86 0.0131 0.0056
 Mercury -111873-11-02 15:36 J -39139883.96 -39139883.85 -39139883.73 0.0131 0.0071
 Mars -111873-11-10 12:58 J -39139876.26 -39139875.96 -39139875.65 0.0131 0.0023
 Mercury -111872-01-29 18:58 J -39139795.81 -39139795.71 -39139795.60 0.0131 0.0086
 Mercury -111872-04-27 22:19 J -39139707.66 -39139707.57 -39139707.48 0.0131 0.0101
 Mercury -111872-07-25 01:26 J -39139619.50 -39139619.44 -39139619.37 0.0131 0.0116
 Mercury -111872-10-21 04:34 J -39139531.31 -39139531.31 -39139531.29 0.0131 0.0131
 Jupiter -111870-04-29 22:19 J -39138975.99 -39138975.57 -39138975.14 0.0131 0.0070

Venus -111866-09-03 23:46 J -39137387.59 -39137387.51 -39137387.38 0.0131 0.0114
 Venus -111865-04-17 02:38 J -39137161.55 -39137161.39 -39137161.20 0.0131 0.0076
 Venus -111865-11-29 05:17 J -39136935.48 -39136935.28 -39136935.07 0.0131 0.0038
 Venus -111864-07-13 07:41 J -39136709.39 -39136709.18 -39136708.96 0.0131 0.0002
 Venus -111863-02-24 10:05 J -39136483.28 -39136483.08 -39136482.87 0.0131 0.0037
 Venus -111863-10-08 12:14 J -39136257.15 -39136256.99 -39136256.80 0.0131 0.0075
 Venus -111862-05-22 14:38 J -39136030.98 -39136030.89 -39136030.77 0.0131 0.0113
 Moon -111841-08-23 04:19 J -39128267.45 -39128267.32 -39128267.16 0.0142 0.0114
 Earth -111841-08-23 08:10 J -39128267.30 -39128267.16 -39128267.01 0.0142 0.0113 *
 Earth -111840-08-28 00:00 J -39127897.75 -39127897.50 -39127897.25 0.0142 0.0002
 Moon -111840-08-28 03:50 J -39127897.59 -39127897.34 -39127897.10 0.0142 0.0003 *
 Moon -111839-09-01 14:10 J -39127528.04 -39127527.91 -39127527.78 0.0143 0.0121
 Earth -111839-09-01 17:02 J -39127527.91 -39127527.79 -39127527.62 0.0143 0.0116 *
 Mercury -111832-11-15 07:12 J -39124896.23 -39124896.20 -39124896.15 0.0147 0.0143
 Mercury -111831-02-11 14:24 J -39124808.00 -39124807.90 -39124807.79 0.0147 0.0116
 Mercury -111831-05-10 21:50 J -39124719.73 -39124719.59 -39124719.45 0.0147 0.0089
 Mercury -111831-08-07 05:02 J -39124631.45 -39124631.29 -39124631.13 0.0147 0.0062
 Mercury -111831-11-03 12:14 J -39124543.16 -39124542.99 -39124542.81 0.0147 0.0035
 Mercury -111830-01-30 19:41 J -39124454.85 -39124454.68 -39124454.50 0.0147 0.0008
 Mercury -111830-04-29 03:07 J -39124366.54 -39124366.37 -39124366.19 0.0147 0.0021
 Mercury -111830-07-26 10:34 J -39124278.22 -39124278.06 -39124277.88 0.0147 0.0050
 Mercury -111830-10-22 18:14 J -39124189.89 -39124189.74 -39124189.58 0.0147 0.0077
 Mercury -111829-01-19 01:41 J -39124101.54 -39124101.43 -39124101.29 0.0147 0.0107
 Mercury -111829-04-16 09:36 J -39124013.16 -39124013.10 -39124013.02 0.0147 0.0135
 Venus -111824-10-22 00:00 J -39121998.65 -39121998.50 -39121998.31 0.0148 0.0095
 Venus -111823-06-05 15:50 J -39121772.05 -39121771.84 -39121771.62 0.0148 0.0038
 Venus -111822-01-18 07:41 J -39121545.40 -39121545.18 -39121544.96 0.0148 0.0020
 Venus -111822-09-01 23:31 J -39121318.70 -39121318.52 -39121318.32 0.0148 0.0077
 Venus -111821-04-15 15:22 J -39121091.94 -39121091.86 -39121091.76 0.0148 0.0134
 Moon -111801-03-05 16:34 J -39113828.05 -39113827.81 -39113827.55 0.0137 0.0036

Earth -111801-03-05 20:24 J -39113827.89 -39113827.65 -39113827.40 0.0137 0.0040 *
 Earth -111800-03-10 11:46 J -39113458.24 -39113458.01 -39113457.78 0.0136 0.0064
 Moon -111800-03-10 15:22 J -39113458.09 -39113457.86 -39113457.62 0.0136 0.0058 *
 Mercury -111792-10-04 02:24 J -39110328.41 -39110328.40 -39110328.39 0.0132 0.0132
 Mercury -111792-12-31 05:46 J -39110240.32 -39110240.26 -39110240.18 0.0132 0.0115
 Mercury -111791-03-29 09:22 J -39110152.20 -39110152.11 -39110152.01 0.0132 0.0099
 Mercury -111791-06-25 12:43 J -39110064.07 -39110063.97 -39110063.85 0.0132 0.0083
 Mercury -111791-09-21 16:19 J -39109975.94 -39109975.82 -39109975.69 0.0132 0.0067
 Mercury -111791-12-18 19:55 J -39109887.80 -39109887.67 -39109887.54 0.0132 0.0051
 Mercury -111790-03-16 23:17 J -39109799.66 -39109799.53 -39109799.39 0.0132 0.0035
 Mercury -111790-06-13 02:53 J -39109711.52 -39109711.38 -39109711.24 0.0132 0.0019
 Mercury -111790-09-09 06:14 J -39109623.38 -39109623.24 -39109623.10 0.0132 0.0004
 Mercury -111790-12-06 09:36 J -39109535.24 -39109535.10 -39109534.96 0.0132 0.0013
 Mercury -111789-03-03 12:43 J -39109447.10 -39109446.97 -39109446.83 0.0132 0.0029
 Mercury -111789-05-30 16:19 J -39109358.96 -39109358.82 -39109358.69 0.0131 0.0044
 Mercury -111789-08-26 19:26 J -39109270.81 -39109270.69 -39109270.56 0.0131 0.0059
 Mercury -111789-11-22 22:48 J -39109182.66 -39109182.55 -39109182.43 0.0131 0.0074
 Mercury -111788-02-19 01:55 J -39109094.51 -39109094.42 -39109094.31 0.0131 0.0090
 Mercury -111788-05-18 05:17 J -39109006.36 -39109006.28 -39109006.19 0.0131 0.0104
 Mars -111788-07-06 04:34 J -39108957.58 -39108957.31 -39108957.02 0.0131 0.0055
 Mercury -111788-08-14 08:24 J -39108918.20 -39108918.15 -39108918.09 0.0131 0.0120
 Venus -111782-12-16 14:10 J -39106603.05 -39106602.91 -39106602.75 0.0131 0.0094
 Venus -111781-07-29 16:34 J -39106376.99 -39106376.81 -39106376.60 0.0131 0.0057
 Venus -111780-03-12 19:26 J -39106150.90 -39106150.69 -39106150.48 0.0131 0.0019
 Venus -111780-10-24 21:50 J -39105924.80 -39105924.59 -39105924.38 0.0131 0.0019
 Venus -111779-06-08 00:00 J -39105698.68 -39105698.50 -39105698.30 0.0131 0.0057
 Venus -111778-01-20 02:24 J -39105472.54 -39105472.40 -39105472.25 0.0131 0.0095
 Moon -111757-08-23 12:58 J -39097586.09 -39097585.96 -39097585.78 0.0142 0.0108
 Earth -111757-08-23 16:34 J -39097585.95 -39097585.81 -39097585.65 0.0142 0.0111 *
 Earth -111756-08-28 08:10 J -39097216.41 -39097216.16 -39097215.91 0.0142 0.0003

Moon -111756-08-28 11:31 J -39097216.27 -39097216.02 -39097215.76 0.0142 0.0004 *
 Moon -111755-09-01 21:22 J -39096846.75 -39096846.61 -39096846.44 0.0143 0.0112
 Earth -111755-09-02 00:58 J -39096846.58 -39096846.46 -39096846.30 0.0143 0.0117 *
 Mercury -111748-12-05 13:26 J -39094194.98 -39094194.94 -39094194.87 0.0147 0.0140
 Mercury -111747-03-03 20:53 J -39094106.74 -39094106.63 -39094106.52 0.0147 0.0113
 Mercury -111747-05-31 04:05 J -39094018.47 -39094018.33 -39094018.19 0.0147 0.0086
 Mercury -111747-08-27 11:17 J -39093930.19 -39093930.03 -39093929.86 0.0147 0.0059
 Mercury -111747-11-23 18:43 J -39093841.89 -39093841.72 -39093841.55 0.0147 0.0032
 Mercury -111746-02-20 02:10 J -39093753.59 -39093753.41 -39093753.24 0.0147 0.0005
 Mercury -111746-05-19 09:36 J -39093665.28 -39093665.10 -39093664.93 0.0147 0.0024
 Mercury -111746-08-15 17:02 J -39093576.96 -39093576.79 -39093576.62 0.0147 0.0052
 Mercury -111746-11-12 00:29 J -39093488.62 -39093488.48 -39093488.32 0.0147 0.0080
 Mars -111746-11-21 18:14 J -39093479.03 -39093478.74 -39093478.44 0.0147 0.0046
 Mercury -111745-02-08 08:10 J -39093400.27 -39093400.16 -39093400.03 0.0147 0.0109
 Mercury -111745-05-06 15:50 J -39093311.90 -39093311.84 -39093311.77 0.0147 0.0137
 Venus -111740-06-21 01:26 J -39091440.53 -39091440.44 -39091440.31 0.0148 0.0127
 Venus -111739-02-02 17:17 J -39091213.97 -39091213.78 -39091213.58 0.0148 0.0070
 Venus -111739-09-17 09:22 J -39090987.33 -39090987.11 -39090986.89 0.0148 0.0013
 Venus -111738-05-02 00:58 J -39090760.67 -39090760.46 -39090760.24 0.0148 0.0045
 Venus -111738-12-14 16:48 J -39090533.96 -39090533.80 -39090533.64 0.0148 0.0102
 Moon -111717-03-06 01:12 J -39083146.69 -39083146.45 -39083146.20 0.0137 0.0039
 Earth -111717-03-06 04:19 J -39083146.57 -39083146.32 -39083146.07 0.0137 0.0037 *
 Earth -111716-03-10 19:26 J -39082776.90 -39082776.69 -39082776.45 0.0136 0.0067
 Moon -111716-03-10 23:02 J -39082776.76 -39082776.54 -39082776.32 0.0136 0.0073 *
 Mercury -111708-10-24 09:07 J -39079627.14 -39079627.12 -39079627.08 0.0132 0.0129
 Mercury -111707-01-20 12:43 J -39079539.04 -39079538.97 -39079538.89 0.0132 0.0112
 Mercury -111707-04-18 16:05 J -39079450.91 -39079450.83 -39079450.72 0.0132 0.0096
 Mercury -111707-07-15 19:55 J -39079362.78 -39079362.67 -39079362.56 0.0132 0.0079
 Mercury -111707-10-11 23:31 J -39079274.65 -39079274.52 -39079274.40 0.0132 0.0063
 Mercury -111706-01-08 02:53 J -39079186.51 -39079186.38 -39079186.25 0.0132 0.0047

Mercury -111706-04-06 06:14 J -39079098.37 -39079098.24 -39079098.10 0.0132 0.0031

Mercury -111706-07-03 09:50 J -39079010.23 -39079010.09 -39079009.95 0.0132 0.0016

Mercury -111706-09-29 13:12 J -39078922.09 -39078921.95 -39078921.81 0.0132 0.0001

Mercury -111706-12-26 16:33 J -39078833.95 -39078833.81 -39078833.67 0.0132 0.0016

Mercury -111705-03-23 19:55 J -39078745.81 -39078745.67 -39078745.53 0.0132 0.0032

Mars -111705-03-29 17:45 J -39078740.00 -39078739.76 -39078739.51 0.0132 0.0081

Mercury -111705-06-19 23:02 J -39078657.66 -39078657.54 -39078657.40 0.0132 0.0048

Mercury -111705-09-16 02:24 J -39078569.52 -39078569.40 -39078569.27 0.0131 0.0063

Mercury -111705-12-13 05:45 J -39078481.37 -39078481.26 -39078481.14 0.0131 0.0078

Mercury -111704-03-11 09:07 J -39078393.22 -39078393.12 -39078393.02 0.0131 0.0093

Mercury -111704-06-07 12:14 J -39078305.06 -39078304.99 -39078304.91 0.0131 0.0108

Mercury -111704-09-03 15:36 J -39078216.89 -39078216.85 -39078216.80 0.0131 0.0123

Venus -111698-08-16 01:26 J -39076044.53 -39076044.44 -39076044.32 0.0131 0.0113

Venus -111697-03-29 04:05 J -39075818.49 -39075818.33 -39075818.14 0.0131 0.0075

Venus -111697-11-10 06:43 J -39075592.42 -39075592.22 -39075592.01 0.0131 0.0037

Venus -111696-06-24 09:07 J -39075366.33 -39075366.12 -39075365.90 0.0131 0.0003

Venus -111695-02-05 11:31 J -39075140.22 -39075140.02 -39075139.81 0.0131 0.0039

Venus -111695-09-19 14:09 J -39074914.08 -39074913.91 -39074913.74 0.0131 0.0077

Venus -111694-05-03 16:19 J -39074687.91 -39074687.82 -39074687.71 0.0131 0.0115

Moon -111673-08-23 23:45 J -39066904.64 -39066904.51 -39066904.34 0.0142 0.0111

Earth -111673-08-24 02:24 J -39066904.55 -39066904.40 -39066904.23 0.0142 0.0107 *

Earth -111672-08-28 18:00 J -39066535.00 -39066534.75 -39066534.50 0.0142 0.0005

Moon -111672-08-28 20:53 J -39066534.88 -39066534.63 -39066534.37 0.0142 0.0006 *

Moon -111671-09-02 07:41 J -39066165.28 -39066165.18 -39066165.04 0.0143 0.0123

Earth -111671-09-02 10:33 J -39066165.18 -39066165.06 -39066164.91 0.0143 0.0120 *

Mercury -111664-12-25 20:24 J -39063493.71 -39063493.65 -39063493.58 0.0147 0.0135

Mercury -111663-03-24 03:21 J -39063405.46 -39063405.36 -39063405.23 0.0147 0.0109

Mercury -111663-06-20 10:48 J -39063317.19 -39063317.05 -39063316.90 0.0147 0.0082

Mercury -111663-09-16 18:00 J -39063228.91 -39063228.75 -39063228.58 0.0147 0.0055

Mercury -111663-12-14 01:26 J -39063140.61 -39063140.44 -39063140.27 0.0147 0.0027

Mercury -111662-03-12 08:53 J -39063052.31 -39063052.13 -39063051.95 0.0147 0.0002
 Mercury -111662-06-08 16:19 J -39062964.00 -39062963.82 -39062963.65 0.0147 0.0028
 Mercury -111662-09-04 23:45 J -39062875.67 -39062875.51 -39062875.34 0.0147 0.0056
 Mercury -111662-12-02 07:12 J -39062787.34 -39062787.20 -39062787.05 0.0147 0.0084
 Mercury -111661-02-28 14:38 J -39062698.99 -39062698.89 -39062698.76 0.0147 0.0113
 Mercury -111661-05-26 22:33 J -39062610.60 -39062610.56 -39062610.51 0.0147 0.0142
 Mars -111661-07-17 09:50 J -39062559.36 -39062559.09 -39062558.80 0.0147 0.0060
 Venus -111656-10-02 19:12 J -39060655.86 -39060655.70 -39060655.53 0.0148 0.0101
 Venus -111655-05-17 10:48 J -39060429.26 -39060429.05 -39060428.84 0.0148 0.0044
 Venus -111655-12-30 02:24 J -39060202.62 -39060202.40 -39060202.18 0.0148 0.0014
 Venus -111654-08-13 18:14 J -39059975.93 -39059975.74 -39059975.54 0.0148 0.0071
 Venus -111653-03-27 09:36 J -39059749.19 -39059749.10 -39059748.97 0.0147 0.0129
 Moon -111633-03-06 08:09 J -39052465.40 -39052465.16 -39052464.91 0.0137 0.0036
 Earth -111633-03-06 10:05 J -39052465.32 -39052465.08 -39052464.82 0.0137 0.0037 *
 Earth -111632-03-11 01:41 J -39052095.64 -39052095.43 -39052095.19 0.0136 0.0068
 Moon -111632-03-11 04:48 J -39052095.54 -39052095.30 -39052095.07 0.0136 0.0063 *
 Mercury -111624-11-13 15:36 J -39048925.88 -39048925.85 -39048925.80 0.0132 0.0127
 Mercury -111623-02-09 19:26 J -39048837.76 -39048837.69 -39048837.61 0.0132 0.0110
 Mercury -111623-05-08 23:02 J -39048749.64 -39048749.54 -39048749.44 0.0132 0.0093
 Mercury -111623-08-05 02:24 J -39048661.51 -39048661.40 -39048661.28 0.0132 0.0077
 Mercury -111623-11-01 06:00 J -39048573.37 -39048573.25 -39048573.12 0.0132 0.0061
 Mercury -111622-01-28 09:36 J -39048485.23 -39048485.10 -39048484.97 0.0132 0.0045
 Mercury -111622-04-26 12:57 J -39048397.09 -39048396.96 -39048396.82 0.0132 0.0029
 Mercury -111622-07-23 16:19 J -39048308.95 -39048308.82 -39048308.67 0.0132 0.0014
 Mercury -111622-10-19 19:55 J -39048220.81 -39048220.67 -39048220.53 0.0132 0.0003
 Mercury -111621-01-15 23:17 J -39048132.67 -39048132.53 -39048132.39 0.0132 0.0018
 Mercury -111621-04-13 02:38 J -39048044.53 -39048044.39 -39048044.25 0.0132 0.0034
 Mercury -111621-07-10 06:00 J -39047956.38 -39047956.25 -39047956.12 0.0132 0.0050
 Mercury -111621-10-06 09:21 J -39047868.23 -39047868.11 -39047867.99 0.0132 0.0065
 Mars -111621-11-22 04:33 J -39047821.62 -39047821.31 -39047821.00 0.0132 0.0005

Mercury -111620-01-02 12:29 J -39047780.08 -39047779.98 -39047779.86 0.0132 0.0080

Mercury -111620-03-31 15:50 J -39047691.93 -39047691.84 -39047691.74 0.0131 0.0095

Mercury -111620-06-27 18:57 J -39047603.77 -39047603.71 -39047603.63 0.0131 0.0111

Mercury -111620-09-23 22:19 J -39047515.60 -39047515.57 -39047515.53 0.0131 0.0125

Venus -111614-11-27 14:53 J -39045260.03 -39045259.88 -39045259.73 0.0131 0.0094

Venus -111613-07-10 17:17 J -39045033.96 -39045033.78 -39045033.58 0.0131 0.0056

Venus -111612-02-21 20:09 J -39044807.87 -39044807.66 -39044807.45 0.0131 0.0018

Venus -111612-10-05 22:33 J -39044581.77 -39044581.56 -39044581.35 0.0131 0.0020

Venus -111611-05-20 00:57 J -39044355.64 -39044355.46 -39044355.26 0.0131 0.0058

Venus -111610-01-01 03:21 J -39044129.50 -39044129.36 -39044129.21 0.0131 0.0096

Moon -111589-08-24 11:45 J -39036223.18 -39036223.01 -39036222.83 0.0142 0.0097

Earth -111589-08-24 13:26 J -39036223.11 -39036222.94 -39036222.77 0.0142 0.0102 *

Earth -111588-08-29 04:33 J -39035853.56 -39035853.31 -39035853.06 0.0142 0.0010

Moon -111588-08-29 06:14 J -39035853.50 -39035853.24 -39035852.98 0.0142 0.0007 *

Moon -111587-09-02 18:29 J -39035483.83 -39035483.73 -39035483.58 0.0143 0.0122

Earth -111587-09-02 20:53 J -39035483.73 -39035483.63 -39035483.49 0.0143 0.0124 *

Mercury -111579-01-15 03:36 J -39032792.42 -39032792.35 -39032792.26 0.0147 0.0129

Mercury -111579-04-13 10:48 J -39032704.17 -39032704.05 -39032703.92 0.0147 0.0102

Mercury -111579-07-10 18:14 J -39032615.89 -39032615.74 -39032615.59 0.0147 0.0075

Mercury -111579-10-07 01:26 J -39032527.61 -39032527.44 -39032527.27 0.0147 0.0048

Mercury -111578-01-03 08:38 J -39032439.31 -39032439.14 -39032438.96 0.0147 0.0021

Mercury -111578-04-01 16:05 J -39032351.01 -39032350.83 -39032350.65 0.0147 0.0007

Mars -111578-04-08 18:00 J -39032343.85 -39032343.75 -39032343.60 0.0147 0.0134

Mercury -111578-06-28 23:31 J -39032262.69 -39032262.52 -39032262.35 0.0147 0.0034

Mercury -111578-09-25 06:57 J -39032174.37 -39032174.21 -39032174.04 0.0147 0.0062

Mercury -111578-12-22 14:38 J -39032086.03 -39032085.89 -39032085.75 0.0147 0.0091

Mercury -111577-03-19 22:05 J -39031997.68 -39031997.58 -39031997.47 0.0147 0.0119

Venus -111572-06-01 22:19 J -39030097.66 -39030097.57 -39030097.45 0.0148 0.0131

Venus -111571-01-14 13:55 J -39029871.10 -39029870.92 -39029870.72 0.0148 0.0074

Venus -111571-08-29 05:45 J -39029644.48 -39029644.26 -39029644.04 0.0148 0.0016

Venus -111570-04-12 21:21 J -39029417.82 -39029417.61 -39029417.39 0.0148 0.0042

Venus -111570-11-25 12:43 J -39029191.12 -39029190.97 -39029190.79 0.0147 0.0100

Moon -111549-03-06 17:02 J -39021784.03 -39021783.79 -39021783.54 0.0137 0.0034

Earth -111549-03-06 18:00 J -39021783.99 -39021783.75 -39021783.49 0.0137 0.0035 *

Earth -111548-03-11 09:21 J -39021414.32 -39021414.11 -39021413.88 0.0136 0.0069

Moon -111548-03-11 10:19 J -39021414.29 -39021414.07 -39021413.83 0.0136 0.0071 *

Mercury -111540-12-03 22:33 J -39018224.60 -39018224.56 -39018224.50 0.0132 0.0123

Mercury -111539-03-02 02:24 J -39018136.48 -39018136.40 -39018136.32 0.0132 0.0107

Mercury -111539-05-29 05:45 J -39018048.35 -39018048.26 -39018048.15 0.0132 0.0091

Mercury -111539-08-25 09:21 J -39017960.22 -39017960.11 -39017959.99 0.0132 0.0074

Mercury -111539-11-21 12:57 J -39017872.09 -39017871.96 -39017871.83 0.0132 0.0058

Mercury -111538-02-17 16:19 J -39017783.95 -39017783.82 -39017783.68 0.0132 0.0042

Mercury -111538-05-16 19:55 J -39017695.81 -39017695.67 -39017695.53 0.0132 0.0026

Mercury -111538-08-12 23:17 J -39017607.67 -39017607.53 -39017607.38 0.0132 0.0011

Mercury -111538-11-09 02:53 J -39017519.52 -39017519.38 -39017519.24 0.0132 0.0006

Mercury -111537-02-05 06:14 J -39017431.38 -39017431.24 -39017431.10 0.0132 0.0022

Mercury -111537-05-03 09:36 J -39017343.24 -39017343.10 -39017342.97 0.0132 0.0037

Mercury -111537-07-30 12:57 J -39017255.09 -39017254.96 -39017254.83 0.0132 0.0053

Mercury -111537-10-26 16:19 J -39017166.94 -39017166.82 -39017166.70 0.0132 0.0068

Mercury -111536-01-22 19:26 J -39017078.79 -39017078.69 -39017078.58 0.0132 0.0083

Mercury -111536-04-20 22:48 J -39016990.64 -39016990.55 -39016990.46 0.0132 0.0099

Mars -111536-07-17 17:17 J -39016903.02 -39016902.78 -39016902.50 0.0131 0.0072

Mercury -111536-07-18 01:55 J -39016902.48 -39016902.42 -39016902.34 0.0131 0.0114

Mercury -111536-10-14 05:17 J -39016814.30 -39016814.28 -39016814.25 0.0131 0.0129

Venus -111530-07-28 01:55 J -39014701.52 -39014701.42 -39014701.31 0.0131 0.0113

Venus -111529-03-10 04:33 J -39014475.47 -39014475.31 -39014475.13 0.0131 0.0075

Venus -111529-10-22 07:12 J -39014249.40 -39014249.20 -39014248.99 0.0131 0.0037

Venus -111528-06-05 09:50 J -39014023.30 -39014023.09 -39014022.87 0.0131 0.0003

Venus -111527-01-17 12:14 J -39013797.18 -39013796.99 -39013796.78 0.0131 0.0040

Venus -111527-08-31 14:38 J -39013571.04 -39013570.89 -39013570.70 0.0131 0.0079

Venus -111526-04-14 17:17 J -39013344.86 -39013344.78 -39013344.67 0.0131 0.0117

Earth -111505-08-25 00:29 J -39005541.65 -39005541.48 -39005541.29 0.0142 0.0097

Moon -111505-08-25 00:29 J -39005541.63 -39005541.48 -39005541.30 0.0142 0.0103 *

Earth -111504-08-29 15:50 J -39005172.08 -39005171.84 -39005171.59 0.0142 0.0015

Moon -111504-08-29 16:48 J -39005172.05 -39005171.80 -39005171.54 0.0142 0.0017 *

Moon -111503-09-03 07:41 J -39004802.27 -39004802.18 -39004802.06 0.0143 0.0129

Earth -111503-09-03 08:24 J -39004802.24 -39004802.15 -39004802.03 0.0143 0.0129 *

Mercury -111496-11-08 04:33 J -39002179.31 -39002179.31 -39002179.30 0.0146 0.0146

Mercury -111495-02-04 11:31 J -39002091.11 -39002091.02 -39002090.92 0.0147 0.0120

Mercury -111495-05-03 18:43 J -39002002.85 -39002002.72 -39002002.58 0.0147 0.0094

Mercury -111495-07-31 01:55 J -39001914.57 -39001914.42 -39001914.26 0.0147 0.0067

Mercury -111495-10-27 09:07 J -39001826.28 -39001826.12 -39001825.95 0.0147 0.0040

Mercury -111494-01-23 16:33 J -39001737.99 -39001737.81 -39001737.63 0.0147 0.0013

Mercury -111494-04-22 00:00 J -39001649.68 -39001649.50 -39001649.33 0.0147 0.0015

Mercury -111494-07-19 07:12 J -39001561.36 -39001561.20 -39001561.02 0.0147 0.0043

Mercury -111494-10-15 14:38 J -39001473.04 -39001472.89 -39001472.72 0.0147 0.0071

Mars -111494-12-03 16:33 J -39001424.10 -39001423.81 -39001423.49 0.0147 0.0024

Mercury -111493-01-11 22:05 J -39001384.70 -39001384.58 -39001384.43 0.0147 0.0099

Mercury -111493-04-09 05:45 J -39001296.34 -39001296.26 -39001296.16 0.0147 0.0128

Venus -111488-09-13 19:12 J -38999312.85 -38999312.70 -38999312.53 0.0148 0.0101

Venus -111487-04-28 10:33 J -38999086.26 -38999086.06 -38999085.84 0.0148 0.0044

Venus -111487-12-11 02:09 J -38998859.62 -38998859.41 -38998859.18 0.0148 0.0015

Venus -111486-07-25 17:45 J -38998632.95 -38998632.76 -38998632.56 0.0147 0.0072

Venus -111485-03-08 09:21 J -38998406.20 -38998406.11 -38998405.99 0.0147 0.0129

Moon -111466-03-03 08:09 J -38991472.22 -38991472.16 -38991472.08 0.0137 0.0132

Earth -111465-03-07 02:09 J -38991102.65 -38991102.41 -38991102.15 0.0137 0.0032

Moon -111465-03-07 02:53 J -38991102.61 -38991102.38 -38991102.13 0.0137 0.0036 *

Moon -111464-03-11 18:00 J -38990732.98 -38990732.75 -38990732.52 0.0136 0.0070

Earth -111464-03-11 17:45 J -38990732.97 -38990732.76 -38990732.53 0.0136 0.0071 *

Mercury -111456-12-24 05:31 J -38987523.32 -38987523.27 -38987523.21 0.0132 0.0120

Mercury -111455-03-22 09:07 J -38987435.20 -38987435.12 -38987435.03 0.0132 0.0104
 Mercury -111455-06-18 12:43 J -38987347.07 -38987346.97 -38987346.86 0.0132 0.0087
 Mercury -111455-09-14 16:19 J -38987258.94 -38987258.82 -38987258.70 0.0132 0.0071
 Mercury -111455-12-11 19:41 J -38987170.80 -38987170.68 -38987170.54 0.0132 0.0055
 Mercury -111454-03-09 23:17 J -38987082.66 -38987082.53 -38987082.39 0.0132 0.0039
 Mercury -111454-06-06 02:53 J -38986994.52 -38986994.38 -38986994.24 0.0132 0.0023
 Mercury -111454-09-02 06:14 J -38986906.38 -38986906.24 -38986906.10 0.0132 0.0007
 Mercury -111454-11-29 09:36 J -38986818.24 -38986818.10 -38986817.96 0.0132 0.0010
 Mercury -111453-02-25 12:57 J -38986730.09 -38986729.96 -38986729.82 0.0132 0.0025
 Mars -111453-04-10 05:02 J -38986685.54 -38986685.29 -38986685.00 0.0132 0.0066
 Mercury -111453-05-23 16:19 J -38986641.95 -38986641.82 -38986641.68 0.0132 0.0040
 Mercury -111453-08-19 19:41 J -38986553.80 -38986553.68 -38986553.55 0.0132 0.0056
 Mercury -111453-11-15 23:02 J -38986465.65 -38986465.54 -38986465.42 0.0132 0.0071
 Mercury -111452-02-12 02:09 J -38986377.50 -38986377.41 -38986377.29 0.0132 0.0087
 Mercury -111452-05-11 05:31 J -38986289.35 -38986289.27 -38986289.17 0.0132 0.0102
 Mercury -111452-08-07 08:53 J -38986201.19 -38986201.13 -38986201.06 0.0132 0.0116
 Mercury -111452-11-03 12:14 J -38986112.99 -38986112.99 -38986112.99 0.0131 0.0131
 Venus -111446-11-08 15:36 J -38983917.00 -38983916.85 -38983916.70 0.0131 0.0094
 Venus -111445-06-21 18:00 J -38983690.93 -38983690.75 -38983690.55 0.0131 0.0056
 Venus -111444-02-02 20:53 J -38983464.84 -38983464.63 -38983464.41 0.0131 0.0018
 Venus -111444-09-16 23:31 J -38983238.73 -38983238.52 -38983238.31 0.0131 0.0021
 Venus -111443-05-01 02:09 J -38983012.59 -38983012.41 -38983012.22 0.0131 0.0060
 Venus -111443-12-13 04:19 J -38982786.44 -38982786.32 -38982786.16 0.0131 0.0099
 Earth -111421-08-25 11:31 J -38974860.20 -38974860.02 -38974859.82 0.0142 0.0093
 Moon -111421-08-25 12:14 J -38974860.17 -38974859.99 -38974859.79 0.0142 0.0087 *
 Moon -111420-08-30 01:55 J -38974490.67 -38974490.42 -38974490.16 0.0142 0.0014
 Earth -111420-08-30 02:53 J -38974490.62 -38974490.38 -38974490.13 0.0142 0.0019 *
 Earth -111419-09-03 19:12 J -38974120.77 -38974120.70 -38974120.59 0.0143 0.0133
 Moon -111419-09-03 19:41 J -38974120.75 -38974120.68 -38974120.59 0.0143 0.0134 *
 Mercury -111412-11-28 12:00 J -38971478.04 -38971478.00 -38971477.94 0.0146 0.0139

Mercury -111411-02-24 18:57 J -38971389.80 -38971389.71 -38971389.59 0.0147 0.0114
 Mercury -111411-05-24 02:09 J -38971301.54 -38971301.41 -38971301.26 0.0147 0.0087
 Mercury -111411-08-20 09:36 J -38971213.26 -38971213.10 -38971212.94 0.0147 0.0060
 Mercury -111411-11-16 16:48 J -38971124.97 -38971124.80 -38971124.63 0.0147 0.0033
 Mercury -111410-02-13 00:14 J -38971036.67 -38971036.49 -38971036.32 0.0147 0.0006
 Mercury -111410-05-12 07:26 J -38970948.36 -38970948.19 -38970948.01 0.0147 0.0022
 Mercury -111410-08-08 14:53 J -38970860.04 -38970859.88 -38970859.71 0.0147 0.0050
 Mercury -111410-11-04 22:19 J -38970771.72 -38970771.57 -38970771.41 0.0147 0.0078
 Mercury -111409-02-01 05:45 J -38970683.37 -38970683.26 -38970683.13 0.0147 0.0107
 Mercury -111409-04-29 13:41 J -38970595.00 -38970594.93 -38970594.86 0.0147 0.0135
 Mars -111409-07-29 14:24 J -38970504.14 -38970503.90 -38970503.65 0.0147 0.0087
 Venus -111404-05-14 00:00 J -38968754.59 -38968754.50 -38968754.38 0.0148 0.0129
 Venus -111404-12-26 15:21 J -38968528.04 -38968527.86 -38968527.65 0.0148 0.0072
 Venus -111403-08-10 07:12 J -38968301.42 -38968301.20 -38968300.98 0.0148 0.0014
 Venus -111402-03-24 22:48 J -38968074.76 -38968074.55 -38968074.33 0.0147 0.0044
 Venus -111402-11-06 14:09 J -38967848.05 -38967847.91 -38967847.73 0.0147 0.0103
 Earth -111382-03-03 19:12 J -38960790.75 -38960790.70 -38960790.64 0.0137 0.0134
 Earth -111381-03-07 12:14 J -38960421.24 -38960420.99 -38960420.73 0.0137 0.0029
 Moon -111381-03-07 13:55 J -38960421.17 -38960420.92 -38960420.68 0.0137 0.0025 *
 Moon -111380-03-12 01:41 J -38960051.64 -38960051.43 -38960051.19 0.0136 0.0073
 Earth -111380-03-12 03:36 J -38960051.56 -38960051.35 -38960051.13 0.0136 0.0075 *
 Mercury -111371-01-13 12:29 J -38956822.03 -38956821.98 -38956821.90 0.0132 0.0117
 Mercury -111371-04-11 16:05 J -38956733.91 -38956733.83 -38956733.73 0.0132 0.0100
 Mercury -111371-07-08 19:55 J -38956645.78 -38956645.67 -38956645.56 0.0132 0.0084
 Mercury -111371-10-04 23:17 J -38956557.65 -38956557.53 -38956557.40 0.0132 0.0068
 Mercury -111370-01-01 02:53 J -38956469.51 -38956469.38 -38956469.25 0.0132 0.0051
 Mercury -111370-03-30 06:29 J -38956381.37 -38956381.23 -38956381.10 0.0132 0.0035
 Mercury -111370-06-26 09:50 J -38956293.23 -38956293.09 -38956292.95 0.0132 0.0019
 Mercury -111370-09-22 13:12 J -38956205.09 -38956204.95 -38956204.80 0.0132 0.0005
 Mercury -111370-12-19 16:48 J -38956116.94 -38956116.80 -38956116.66 0.0132 0.0013

Mercury -111369-03-16 20:09 J -38956028.80 -38956028.66 -38956028.53 0.0132 0.0028

Mercury -111369-06-12 23:17 J -38955940.65 -38955940.53 -38955940.39 0.0132 0.0044

Mercury -111369-09-09 02:53 J -38955852.51 -38955852.38 -38955852.26 0.0132 0.0059

Mars -111369-12-03 18:57 J -38955767.01 -38955766.71 -38955766.39 0.0132 0.0012

Mercury -111369-12-06 06:00 J -38955764.36 -38955764.25 -38955764.13 0.0132 0.0074

Mercury -111368-03-04 09:21 J -38955676.21 -38955676.11 -38955676.01 0.0132 0.0089

Mercury -111368-05-31 12:29 J -38955588.05 -38955587.98 -38955587.89 0.0132 0.0105

Mercury -111368-08-27 15:50 J -38955499.89 -38955499.84 -38955499.78 0.0131 0.0120

Venus -111362-07-09 02:09 J -38953358.50 -38953358.41 -38953358.29 0.0131 0.0114

Venus -111361-02-20 05:17 J -38953132.45 -38953132.28 -38953132.10 0.0131 0.0075

Venus -111361-10-03 07:55 J -38952906.37 -38952906.17 -38952905.96 0.0131 0.0037

Venus -111360-05-17 10:48 J -38952680.27 -38952680.05 -38952679.84 0.0131 0.0002

Venus -111360-12-29 13:26 J -38952454.15 -38952453.94 -38952453.74 0.0131 0.0041

Venus -111359-08-12 15:36 J -38952228.00 -38952227.85 -38952227.67 0.0131 0.0080

Venus -111358-03-26 18:29 J -38952001.82 -38952001.73 -38952001.63 0.0131 0.0118

Earth -111337-08-25 21:07 J -38944178.81 -38944178.62 -38944178.43 0.0142 0.0090

Moon -111337-08-25 23:17 J -38944178.69 -38944178.53 -38944178.35 0.0142 0.0098 *

Moon -111336-08-30 10:19 J -38943809.32 -38943809.07 -38943808.81 0.0142 0.0027

Earth -111336-08-30 12:14 J -38943809.24 -38943808.99 -38943808.74 0.0142 0.0021 *

Earth -111335-09-04 04:48 J -38943439.37 -38943439.30 -38943439.21 0.0143 0.0135

Moon -111335-09-04 06:00 J -38943439.31 -38943439.25 -38943439.14 0.0143 0.0133 *

Mercury -111328-12-18 19:12 J -38940776.76 -38940776.70 -38940776.62 0.0146 0.0134

Mercury -111327-03-17 02:09 J -38940688.51 -38940688.41 -38940688.28 0.0147 0.0108

Mercury -111327-06-13 09:36 J -38940600.25 -38940600.10 -38940599.96 0.0147 0.0081

Mercury -111327-09-09 16:33 J -38940511.97 -38940511.81 -38940511.64 0.0147 0.0055

Mercury -111327-12-07 00:00 J -38940423.67 -38940423.50 -38940423.33 0.0147 0.0027

Mercury -111326-03-05 07:12 J -38940335.37 -38940335.20 -38940335.02 0.0147 0.0003

Mars -111326-04-20 21:21 J -38940288.81 -38940288.61 -38940288.40 0.0147 0.0108

Mercury -111326-06-01 14:38 J -38940247.06 -38940246.89 -38940246.71 0.0147 0.0028

Mercury -111326-08-28 21:50 J -38940158.74 -38940158.59 -38940158.41 0.0147 0.0056

Mercury -111326-11-25 05:17 J -38940070.41 -38940070.28 -38940070.12 0.0147 0.0084

Mercury -111325-02-21 12:57 J -38939982.07 -38939981.96 -38939981.84 0.0147 0.0112

Mercury -111325-05-19 20:38 J -38939893.69 -38939893.64 -38939893.58 0.0147 0.0140

Venus -111320-08-25 19:26 J -38937969.84 -38937969.69 -38937969.51 0.0148 0.0101

Venus -111319-04-09 11:17 J -38937743.24 -38937743.03 -38937742.82 0.0148 0.0043

Venus -111319-11-22 02:53 J -38937516.60 -38937516.38 -38937516.16 0.0148 0.0015

Venus -111318-07-06 18:14 J -38937289.92 -38937289.74 -38937289.54 0.0147 0.0073

Venus -111317-02-18 09:50 J -38937063.17 -38937063.09 -38937062.97 0.0147 0.0131

Moon -111298-03-04 01:12 J -38930109.55 -38930109.45 -38930109.33 0.0137 0.0124

Earth -111298-03-04 03:50 J -38930109.39 -38930109.34 -38930109.24 0.0137 0.0131 *

Earth -111297-03-07 20:53 J -38929739.87 -38929739.63 -38929739.36 0.0137 0.0026

Moon -111297-03-08 00:00 J -38929739.74 -38929739.50 -38929739.25 0.0137 0.0032 *

Moon -111296-03-12 09:50 J -38929370.29 -38929370.09 -38929369.86 0.0136 0.0079

Earth -111296-03-12 12:14 J -38929370.19 -38929369.99 -38929369.76 0.0136 0.0077 *

Mercury -111288-11-06 16:05 J -38926208.86 -38926208.83 -38926208.81 0.0132 0.0130

Mercury -111287-02-02 19:26 J -38926120.75 -38926120.69 -38926120.61 0.0132 0.0114

Mercury -111287-05-01 23:02 J -38926032.63 -38926032.54 -38926032.44 0.0132 0.0097

Mercury -111287-07-29 02:38 J -38925944.50 -38925944.39 -38925944.27 0.0132 0.0081

Mercury -111287-10-25 06:14 J -38925856.36 -38925856.24 -38925856.11 0.0132 0.0064

Mercury -111286-01-21 09:50 J -38925768.22 -38925768.09 -38925767.96 0.0132 0.0048

Mercury -111286-04-19 13:12 J -38925680.08 -38925679.95 -38925679.81 0.0132 0.0032

Mercury -111286-07-16 16:48 J -38925591.94 -38925591.80 -38925591.66 0.0132 0.0017

Mars -111286-08-28 07:26 J -38925549.26 -38925549.19 -38925549.08 0.0132 0.0126

Mercury -111286-10-12 20:09 J -38925503.80 -38925503.66 -38925503.52 0.0132 0.0001

Mercury -111285-01-08 23:31 J -38925415.66 -38925415.52 -38925415.38 0.0132 0.0015

Mercury -111285-04-06 02:53 J -38925327.52 -38925327.38 -38925327.24 0.0132 0.0031

Mercury -111285-07-03 06:14 J -38925239.37 -38925239.24 -38925239.11 0.0132 0.0046

Mercury -111285-09-29 09:36 J -38925151.22 -38925151.10 -38925150.98 0.0132 0.0061

Mercury -111285-12-26 12:57 J -38925063.07 -38925062.96 -38925062.85 0.0132 0.0077

Mercury -111284-03-24 16:19 J -38924974.92 -38924974.82 -38924974.73 0.0132 0.0092

Mercury -111284-06-20 19:12 J -38924886.77 -38924886.70 -38924886.61 0.0131 0.0108

Mars -111284-07-29 06:43 J -38924848.43 -38924848.22 -38924847.97 0.0131 0.0088

Mercury -111284-09-16 22:48 J -38924798.60 -38924798.55 -38924798.50 0.0131 0.0122

Venus -111278-10-20 15:50 J -38922573.99 -38922573.84 -38922573.70 0.0131 0.0095

Venus -111277-06-02 18:14 J -38922347.92 -38922347.74 -38922347.54 0.0131 0.0057

Venus -111276-01-14 21:07 J -38922121.83 -38922121.62 -38922121.41 0.0131 0.0018

Venus -111276-08-28 23:45 J -38921895.72 -38921895.51 -38921895.30 0.0131 0.0021

Venus -111275-04-12 02:24 J -38921669.58 -38921669.40 -38921669.21 0.0131 0.0059

Venus -111275-11-24 04:33 J -38921443.43 -38921443.31 -38921443.15 0.0131 0.0099

Earth -111253-08-26 03:50 J -38913497.52 -38913497.34 -38913497.14 0.0142 0.0090

Moon -111253-08-26 06:43 J -38913497.41 -38913497.22 -38913497.01 0.0142 0.0083 *

Moon -111252-08-30 16:19 J -38913128.07 -38913127.82 -38913127.57 0.0142 0.0014

Earth -111252-08-30 19:12 J -38913127.94 -38913127.70 -38913127.45 0.0142 0.0021 *

Earth -111251-09-04 11:31 J -38912758.08 -38912758.02 -38912757.92 0.0143 0.0135

Moon -111251-09-04 14:24 J -38912757.93 -38912757.90 -38912757.84 0.0143 0.0140 *

Mercury -111243-01-08 01:26 J -38910075.51 -38910075.44 -38910075.36 0.0147 0.0132

Mercury -111243-04-06 08:24 J -38909987.26 -38909987.15 -38909987.02 0.0147 0.0106

Mercury -111243-07-03 15:36 J -38909898.99 -38909898.85 -38909898.70 0.0147 0.0079

Mercury -111243-09-29 22:48 J -38909810.71 -38909810.55 -38909810.38 0.0147 0.0052

Mercury -111243-12-27 06:00 J -38909722.42 -38909722.25 -38909722.07 0.0147 0.0025

Mercury -111242-03-25 13:26 J -38909634.12 -38909633.94 -38909633.76 0.0147 0.0003

Mercury -111242-06-21 20:38 J -38909545.81 -38909545.64 -38909545.46 0.0147 0.0030

Mercury -111242-09-18 04:05 J -38909457.49 -38909457.33 -38909457.16 0.0147 0.0058

Mars -111242-12-15 09:36 J -38909369.40 -38909369.10 -38909368.79 0.0147 0.0006

Mercury -111242-12-15 11:31 J -38909369.16 -38909369.02 -38909368.87 0.0147 0.0086 *

Mercury -111241-03-12 18:57 J -38909280.81 -38909280.71 -38909280.59 0.0147 0.0114

Mercury -111241-06-09 02:38 J -38909192.42 -38909192.39 -38909192.34 0.0147 0.0143

Venus -111236-04-24 21:36 J -38907411.69 -38907411.60 -38907411.50 0.0148 0.0133

Venus -111236-12-07 12:43 J -38907185.15 -38907184.97 -38907184.77 0.0148 0.0076

Venus -111235-07-22 04:33 J -38906958.53 -38906958.31 -38906958.09 0.0148 0.0017

Venus -111234-03-05 19:55 J -38906731.87 -38906731.67 -38906731.45 0.0147 0.0042
 Venus -111234-10-18 11:45 J -38906505.16 -38906505.01 -38906504.84 0.0147 0.0099
 Moon -111214-03-04 07:26 J -38899428.20 -38899428.19 -38899428.15 0.0137 0.0137
 Earth -111214-03-04 11:31 J -38899428.10 -38899428.02 -38899427.92 0.0137 0.0129
 Earth -111213-03-08 04:48 J -38899058.56 -38899058.30 -38899058.04 0.0137 0.0024
 Moon -111213-03-08 08:09 J -38899058.41 -38899058.16 -38899057.90 0.0137 0.0018 *
 Moon -111212-03-12 16:33 J -38898689.01 -38898688.81 -38898688.57 0.0136 0.0076
 Earth -111212-03-12 20:09 J -38898688.85 -38898688.66 -38898688.43 0.0136 0.0079 *
 Mercury -111204-11-26 22:33 J -38895507.58 -38895507.56 -38895507.51 0.0132 0.0128
 Mercury -111203-02-23 02:24 J -38895419.47 -38895419.40 -38895419.32 0.0132 0.0111
 Mercury -111203-05-22 06:00 J -38895331.35 -38895331.25 -38895331.15 0.0132 0.0094
 Mercury -111203-08-18 09:21 J -38895243.21 -38895243.11 -38895242.99 0.0132 0.0078
 Mercury -111203-11-14 12:57 J -38895155.08 -38895154.96 -38895154.83 0.0132 0.0062
 Mercury -111202-02-10 16:33 J -38895066.94 -38895066.81 -38895066.67 0.0132 0.0046
 Mercury -111202-05-09 19:55 J -38894978.80 -38894978.67 -38894978.53 0.0132 0.0030
 Mercury -111202-08-05 23:31 J -38894890.66 -38894890.52 -38894890.38 0.0132 0.0014
 Mercury -111202-11-02 02:53 J -38894802.52 -38894802.38 -38894802.24 0.0132 0.0004
 Mercury -111201-01-29 06:14 J -38894714.37 -38894714.24 -38894714.10 0.0132 0.0018
 Mars -111201-04-21 20:09 J -38894630.93 -38894630.66 -38894630.36 0.0132 0.0051
 Mercury -111201-04-26 09:36 J -38894626.23 -38894626.10 -38894625.96 0.0132 0.0034
 Mercury -111201-07-23 12:57 J -38894538.08 -38894537.96 -38894537.82 0.0132 0.0049
 Mercury -111201-10-19 16:19 J -38894449.94 -38894449.82 -38894449.69 0.0132 0.0064
 Mercury -111200-01-15 19:41 J -38894361.79 -38894361.68 -38894361.57 0.0132 0.0079
 Mercury -111200-04-13 22:48 J -38894273.64 -38894273.55 -38894273.44 0.0132 0.0095
 Mercury -111200-07-11 02:09 J -38894185.48 -38894185.41 -38894185.33 0.0131 0.0110
 Mercury -111200-10-07 05:31 J -38894097.31 -38894097.27 -38894097.23 0.0131 0.0124
 Venus -111194-06-20 01:41 J -38892015.51 -38892015.43 -38892015.31 0.0131 0.0116
 Venus -111193-02-01 04:48 J -38891789.46 -38891789.30 -38891789.12 0.0131 0.0077
 Venus -111193-09-14 07:41 J -38891563.38 -38891563.18 -38891562.97 0.0131 0.0038
 Venus -111192-04-28 10:33 J -38891337.28 -38891337.06 -38891336.85 0.0131 0.0002

Venus -111192-12-10 12:43 J -38891111.16 -38891110.97 -38891110.75 0.0131 0.0041
 Venus -111191-07-24 15:21 J -38890885.02 -38890884.86 -38890884.68 0.0131 0.0079
 Venus -111190-03-07 17:45 J -38890658.84 -38890658.76 -38890658.65 0.0131 0.0118
 Earth -111169-08-26 10:33 J -38882816.24 -38882816.06 -38882815.86 0.0141 0.0090
 Moon -111169-08-26 13:55 J -38882816.07 -38882815.92 -38882815.72 0.0141 0.0098 *
 Moon -111168-08-30 22:19 J -38882446.81 -38882446.57 -38882446.32 0.0142 0.0028
 Earth -111168-08-31 01:41 J -38882446.67 -38882446.43 -38882446.17 0.0142 0.0021 *
 Earth -111167-09-04 18:14 J -38882076.81 -38882076.74 -38882076.64 0.0143 0.0134
 Moon -111167-09-04 21:21 J -38882076.70 -38882076.61 -38882076.49 0.0143 0.0129 *
 Mercury -111159-01-28 07:12 J -38879374.27 -38879374.20 -38879374.12 0.0147 0.0130
 Mercury -111159-04-26 14:09 J -38879286.02 -38879285.91 -38879285.78 0.0147 0.0105
 Mercury -111159-07-23 21:21 J -38879197.75 -38879197.61 -38879197.46 0.0147 0.0078
 Mercury -111159-10-20 04:33 J -38879109.47 -38879109.31 -38879109.14 0.0147 0.0051
 Mercury -111158-01-16 11:45 J -38879021.18 -38879021.01 -38879020.83 0.0147 0.0024
 Mercury -111158-04-14 19:12 J -38878932.88 -38878932.70 -38878932.53 0.0147 0.0004
 Mercury -111158-07-12 02:24 J -38878844.57 -38878844.40 -38878844.22 0.0147 0.0031
 Mercury -111158-10-08 09:50 J -38878756.25 -38878756.09 -38878755.92 0.0147 0.0059
 Mercury -111157-01-04 17:17 J -38878667.92 -38878667.78 -38878667.63 0.0147 0.0087
 Mercury -111157-04-02 00:29 J -38878579.57 -38878579.48 -38878579.35 0.0147 0.0116
 Mercury -111157-06-29 08:09 J -38878491.18 -38878491.16 -38878491.11 0.0147 0.0144
 Mars -111157-08-09 19:41 J -38878449.90 -38878449.68 -38878449.43 0.0147 0.0095
 Venus -111152-08-06 13:26 J -38876627.08 -38876626.94 -38876626.78 0.0148 0.0109
 Venus -111151-03-21 05:02 J -38876400.49 -38876400.29 -38876400.08 0.0148 0.0051
 Venus -111151-11-02 20:38 J -38876173.86 -38876173.64 -38876173.41 0.0148 0.0008
 Venus -111150-06-17 12:00 J -38875947.18 -38875947.00 -38875946.79 0.0147 0.0067
 Venus -111149-01-30 03:36 J -38875720.45 -38875720.35 -38875720.21 0.0147 0.0125
 Moon -111130-03-04 12:57 J -38868747.06 -38868746.96 -38868746.84 0.0138 0.0123
 Earth -111130-03-04 16:05 J -38868746.90 -38868746.83 -38868746.72 0.0138 0.0130 *
 Earth -111129-03-08 09:36 J -38868377.35 -38868377.10 -38868376.84 0.0137 0.0024
 Moon -111129-03-08 13:12 J -38868377.19 -38868376.95 -38868376.68 0.0137 0.0032 *

Moon -111128-03-12 21:50 J -38868007.78 -38868007.59 -38868007.37 0.0136 0.0085
 Earth -111128-03-13 01:26 J -38868007.64 -38868007.44 -38868007.21 0.0136 0.0079 *
 Mercury -111120-12-17 05:17 J -38864806.32 -38864806.28 -38864806.24 0.0132 0.0126
 Mercury -111119-03-15 08:38 J -38864718.21 -38864718.14 -38864718.05 0.0132 0.0110
 Mercury -111119-06-11 12:14 J -38864630.08 -38864629.99 -38864629.88 0.0132 0.0093
 Mercury -111119-09-07 16:05 J -38864541.95 -38864541.83 -38864541.72 0.0132 0.0077
 Mercury -111119-12-04 19:26 J -38864453.81 -38864453.69 -38864453.56 0.0132 0.0061
 Mercury -111118-03-02 23:02 J -38864365.67 -38864365.54 -38864365.41 0.0132 0.0044
 Mercury -111118-05-30 02:24 J -38864277.53 -38864277.40 -38864277.26 0.0132 0.0029
 Mercury -111118-08-26 06:00 J -38864189.39 -38864189.25 -38864189.11 0.0132 0.0012
 Mercury -111118-11-22 09:21 J -38864101.25 -38864101.11 -38864100.97 0.0132 0.0004
 Mercury -111117-02-18 12:43 J -38864013.11 -38864012.97 -38864012.83 0.0132 0.0019
 Mercury -111117-05-16 16:05 J -38863924.96 -38863924.83 -38863924.69 0.0132 0.0035
 Mercury -111117-08-12 19:26 J -38863836.81 -38863836.69 -38863836.56 0.0132 0.0050
 Mercury -111117-11-08 22:48 J -38863748.67 -38863748.55 -38863748.42 0.0132 0.0066
 Mars -111117-12-15 03:50 J -38863712.64 -38863712.34 -38863712.03 0.0132 0.0024
 Mercury -111116-02-05 02:09 J -38863660.52 -38863660.41 -38863660.30 0.0132 0.0081
 Mercury -111116-05-04 05:31 J -38863572.36 -38863572.27 -38863572.17 0.0132 0.0096
 Mercury -111116-07-31 08:53 J -38863484.20 -38863484.13 -38863484.06 0.0132 0.0111
 Mercury -111116-10-27 12:00 J -38863396.03 -38863396.00 -38863395.96 0.0131 0.0126
 Venus -111110-10-01 14:24 J -38861231.02 -38861230.90 -38861230.74 0.0131 0.0098
 Venus -111109-05-14 17:17 J -38861004.96 -38861004.78 -38861004.58 0.0131 0.0059
 Venus -111109-12-26 20:09 J -38860778.87 -38860778.66 -38860778.44 0.0131 0.0020
 Venus -111108-08-09 22:48 J -38860552.76 -38860552.55 -38860552.33 0.0131 0.0020
 Venus -111107-03-24 01:26 J -38860326.62 -38860326.44 -38860326.24 0.0131 0.0058
 Venus -111107-11-05 03:50 J -38860100.47 -38860100.34 -38860100.19 0.0131 0.0097
 Earth -111085-08-26 18:29 J -38852134.91 -38852134.73 -38852134.52 0.0141 0.0088
 Moon -111085-08-26 21:50 J -38852134.78 -38852134.59 -38852134.37 0.0141 0.0082 *
 Moon -111084-08-31 06:29 J -38851765.48 -38851765.23 -38851764.99 0.0142 0.0015
 Earth -111084-08-31 09:50 J -38851765.33 -38851765.09 -38851764.84 0.0142 0.0023 *

Earth -111083-09-05 02:09 J -38851395.48 -38851395.41 -38851395.32 0.0143 0.0135
 Moon -111083-09-05 05:45 J -38851395.26 -38851395.26 -38851395.23 0.0143 0.0142
 Mercury -111075-02-17 13:26 J -38848673.02 -38848672.94 -38848672.85 0.0146 0.0128
 Mercury -111075-05-16 20:24 J -38848584.77 -38848584.65 -38848584.52 0.0147 0.0102
 Mercury -111075-08-13 03:21 J -38848496.50 -38848496.36 -38848496.20 0.0147 0.0076
 Mercury -111075-11-09 10:48 J -38848408.21 -38848408.05 -38848407.88 0.0147 0.0048
 Mercury -111074-02-05 18:00 J -38848319.92 -38848319.75 -38848319.57 0.0147 0.0022
 Mars -111074-05-01 19:12 J -38848234.90 -38848234.70 -38848234.47 0.0147 0.0105
 Mercury -111074-05-05 01:12 J -38848231.62 -38848231.45 -38848231.27 0.0147 0.0007
 Mercury -111074-08-01 08:38 J -38848143.31 -38848143.14 -38848142.97 0.0147 0.0033
 Mercury -111074-10-28 15:50 J -38848054.99 -38848054.84 -38848054.67 0.0147 0.0061
 Mercury -111073-01-24 23:17 J -38847966.66 -38847966.53 -38847966.38 0.0147 0.0089
 Mercury -111073-04-22 06:43 J -38847878.31 -38847878.22 -38847878.10 0.0147 0.0117
 Mercury -111073-07-19 14:24 J -38847789.91 -38847789.90 -38847789.87 0.0147 0.0146
 Venus -111068-04-05 14:53 J -38846068.93 -38846068.88 -38846068.81 0.0148 0.0142
 Venus -111068-11-18 06:14 J -38845842.41 -38845842.24 -38845842.05 0.0148 0.0084
 Venus -111067-07-02 21:36 J -38845615.81 -38845615.60 -38845615.37 0.0148 0.0026
 Venus -111066-02-14 13:12 J -38845389.16 -38845388.95 -38845388.73 0.0147 0.0033
 Venus -111066-09-29 04:48 J -38845162.46 -38845162.30 -38845162.11 0.0147 0.0092
 Moon -111046-03-04 17:31 J -38838065.77 -38838065.77 -38838065.72 0.0138 0.0137
 Earth -111046-03-04 20:38 J -38838065.70 -38838065.64 -38838065.53 0.0138 0.0130
 Earth -111045-03-08 14:38 J -38837696.14 -38837695.89 -38837695.63 0.0137 0.0025
 Moon -111045-03-08 17:45 J -38837696.03 -38837695.76 -38837695.50 0.0137 0.0017 *
 Moon -111044-03-13 03:21 J -38837326.56 -38837326.36 -38837326.13 0.0136 0.0073
 Earth -111044-03-13 06:43 J -38837326.42 -38837326.22 -38837326.00 0.0136 0.0079 *
 Mercury -111035-01-06 11:31 J -38834105.06 -38834105.02 -38834104.96 0.0133 0.0124
 Mercury -111035-04-04 15:21 J -38834016.94 -38834016.86 -38834016.78 0.0132 0.0108
 Mercury -111035-07-01 18:43 J -38833928.81 -38833928.72 -38833928.61 0.0132 0.0092
 Mercury -111035-09-27 22:19 J -38833840.68 -38833840.57 -38833840.45 0.0132 0.0075
 Mercury -111035-12-25 01:55 J -38833752.54 -38833752.42 -38833752.29 0.0132 0.0059

Mercury -111034-03-23 05:31 J -38833664.40 -38833664.27 -38833664.13 0.0132 0.0043

Mercury -111034-06-19 08:53 J -38833576.26 -38833576.13 -38833575.98 0.0132 0.0027

Mars -111034-09-08 14:09 J -38833495.03 -38833494.91 -38833494.74 0.0132 0.0116

Mercury -111034-09-15 12:29 J -38833488.12 -38833487.98 -38833487.84 0.0132 0.0011

Mercury -111034-12-12 15:50 J -38833399.98 -38833399.84 -38833399.70 0.0132 0.0006

Mercury -111033-03-09 19:12 J -38833311.83 -38833311.70 -38833311.55 0.0132 0.0021

Mercury -111033-06-05 22:33 J -38833223.69 -38833223.56 -38833223.42 0.0132 0.0037

Mercury -111033-09-02 02:09 J -38833135.54 -38833135.41 -38833135.28 0.0132 0.0052

Mercury -111033-11-29 05:31 J -38833047.39 -38833047.27 -38833047.15 0.0132 0.0067

Mercury -111032-02-25 08:38 J -38832959.24 -38832959.14 -38832959.03 0.0132 0.0083

Mercury -111032-05-24 12:00 J -38832871.09 -38832871.00 -38832870.90 0.0132 0.0098

Mars -111032-08-09 11:31 J -38832794.20 -38832794.02 -38832793.79 0.0132 0.0099

Mercury -111032-08-20 15:21 J -38832782.93 -38832782.86 -38832782.79 0.0132 0.0113

Mercury -111032-11-16 18:29 J -38832694.75 -38832694.73 -38832694.69 0.0132 0.0128

Jupiter -111028-10-08 13:26 J -38831273.12 -38831272.94 -38831272.75 0.0131 0.0122

Venus -111026-06-01 00:29 J -38830672.56 -38830672.48 -38830672.38 0.0131 0.0118

Venus -111025-01-13 03:21 J -38830446.52 -38830446.36 -38830446.18 0.0131 0.0079

Venus -111025-08-26 06:14 J -38830220.44 -38830220.24 -38830220.03 0.0131 0.0040

Venus -111024-04-09 09:07 J -38829994.33 -38829994.12 -38829993.90 0.0131 0.0002

Venus -111024-11-21 11:45 J -38829768.21 -38829768.01 -38829767.81 0.0131 0.0038

Venus -111023-07-05 14:09 J -38829542.08 -38829541.91 -38829541.73 0.0131 0.0077

Venus -111022-02-16 16:33 J -38829315.89 -38829315.81 -38829315.70 0.0131 0.0117

Earth -111001-08-27 03:50 J -38821453.52 -38821453.34 -38821453.12 0.0141 0.0085

Moon -111001-08-27 07:12 J -38821453.39 -38821453.20 -38821453.00 0.0141 0.0090 *

111TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 111th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Moon	-111000-08-31 16:05 J	-38821084.06	-38821083.83	-38821083.58	0.0142	0.0033		
Earth	-111000-08-31 19:12 J	-38821083.94	-38821083.70	-38821083.45	0.0142	0.0025	*	
Earth	-110999-09-05 11:17 J	-38820714.08	-38820714.03	-38820713.95	0.0143	0.0138		
Moon	-110999-09-05 14:24 J	-38820713.98	-38820713.90	-38820713.79	0.0143	0.0131	*	
Mercury	-110991-03-09 20:24 J	-38817971.74	-38817971.65	-38817971.55	0.0146	0.0123		
Mercury	-110991-06-06 03:21 J	-38817883.48	-38817883.36	-38817883.22	0.0146	0.0097		
Mercury	-110991-09-02 10:19 J	-38817795.21	-38817795.07	-38817794.91	0.0147	0.0071		
Mercury	-110991-11-29 17:31 J	-38817706.93	-38817706.77	-38817706.59	0.0147	0.0044		
Mercury	-110990-02-26 00:57 J	-38817618.64	-38817618.46	-38817618.29	0.0147	0.0016		
Mercury	-110990-05-25 08:09 J	-38817530.33	-38817530.16	-38817529.98	0.0147	0.0011		
Mercury	-110990-08-21 15:21 J	-38817442.02	-38817441.86	-38817441.68	0.0147	0.0039		
Mercury	-110990-11-17 22:48 J	-38817353.70	-38817353.55	-38817353.38	0.0147	0.0066		
Mars	-110990-12-26 12:57 J	-38817315.27	-38817314.96	-38817314.66	0.0147	0.0003		
Mercury	-110989-02-14 06:14 J	-38817265.37	-38817265.24	-38817265.10	0.0147	0.0094		
Mercury	-110989-05-12 13:41 J	-38817177.02	-38817176.93	-38817176.82	0.0147	0.0123		
Jupiter	-110986-02-09 18:14 J	-38816174.24	-38816173.74	-38816173.21	0.0148	0.0039		
Venus	-110984-07-18 09:36 J	-38815284.24	-38815284.10	-38815283.96	0.0148	0.0114		
Venus	-110983-03-02 00:57 J	-38815057.66	-38815057.46	-38815057.25	0.0148	0.0056		
Venus	-110983-10-14 16:19 J	-38814831.04	-38814830.82	-38814830.59	0.0148	0.0004		
Venus	-110982-05-29 07:41 J	-38814604.37	-38814604.18	-38814603.97	0.0147	0.0062		
Venus	-110981-01-10 23:17 J	-38814377.65	-38814377.53	-38814377.40	0.0147	0.0120		

Moon -110962-03-05 01:55 J -38807384.51 -38807384.42 -38807384.31 0.0138 0.0125
 Earth -110962-03-05 03:07 J -38807384.45 -38807384.37 -38807384.27 0.0138 0.0129 *
 Earth -110961-03-08 20:53 J -38807014.88 -38807014.63 -38807014.37 0.0137 0.0024
 Moon -110961-03-08 23:02 J -38807014.79 -38807014.54 -38807014.27 0.0137 0.0031 *
 Moon -110960-03-13 10:48 J -38806645.23 -38806645.05 -38806644.84 0.0136 0.0087
 Earth -110960-03-13 13:26 J -38806645.15 -38806644.94 -38806644.73 0.0136 0.0079 *
 Mercury -110951-01-26 18:00 J -38803403.79 -38803403.75 -38803403.69 0.0133 0.0123
 Mercury -110951-04-24 21:36 J -38803315.67 -38803315.60 -38803315.51 0.0132 0.0106
 Mercury -110951-07-22 01:26 J -38803227.54 -38803227.44 -38803227.34 0.0132 0.0090
 Mercury -110951-10-18 04:48 J -38803139.41 -38803139.30 -38803139.17 0.0132 0.0074
 Mercury -110950-01-14 08:24 J -38803051.27 -38803051.15 -38803051.02 0.0132 0.0057
 Mercury -110950-04-12 12:00 J -38802963.13 -38802963.00 -38802962.86 0.0132 0.0041
 Mercury -110950-07-09 15:36 J -38802874.99 -38802874.85 -38802874.71 0.0132 0.0025
 Mercury -110950-10-05 18:57 J -38802786.85 -38802786.71 -38802786.57 0.0132 0.0009
 Mercury -110949-01-01 22:33 J -38802698.71 -38802698.56 -38802698.42 0.0132 0.0008
 Mercury -110949-03-30 01:55 J -38802610.56 -38802610.42 -38802610.28 0.0132 0.0022
 Mars -110949-05-02 23:17 J -38802576.82 -38802576.53 -38802576.23 0.0132 0.0041
 Mercury -110949-06-26 05:17 J -38802522.41 -38802522.28 -38802522.14 0.0132 0.0038
 Mercury -110949-09-22 08:38 J -38802434.27 -38802434.14 -38802434.01 0.0132 0.0054
 Mercury -110949-12-19 12:00 J -38802346.12 -38802346.00 -38802345.88 0.0132 0.0069
 Mercury -110948-03-17 15:07 J -38802257.97 -38802257.87 -38802257.75 0.0132 0.0085
 Mercury -110948-06-13 18:29 J -38802169.81 -38802169.73 -38802169.63 0.0132 0.0100
 Mercury -110948-09-09 21:50 J -38802081.65 -38802081.59 -38802081.52 0.0132 0.0115
 Mercury -110948-12-07 01:12 J -38801993.47 -38801993.45 -38801993.43 0.0132 0.0130
 Jupiter -110945-08-28 07:41 J -38800998.63 -38800998.18 -38800997.68 0.0131 0.0039
 Venus -110942-09-12 13:12 J -38799888.07 -38799887.95 -38799887.80 0.0131 0.0100
 Venus -110941-04-25 16:19 J -38799662.01 -38799661.82 -38799661.63 0.0131 0.0061
 Venus -110941-12-07 18:57 J -38799435.92 -38799435.71 -38799435.49 0.0131 0.0022
 Venus -110940-07-21 21:36 J -38799209.81 -38799209.60 -38799209.38 0.0131 0.0018
 Venus -110939-03-05 00:14 J -38798983.67 -38798983.49 -38798983.29 0.0131 0.0057

Venus -110939-10-17 02:38 J -38798757.52 -38798757.39 -38798757.23 0.0131 0.0097
 Earth -110917-08-27 14:24 J -38790772.10 -38790771.90 -38790771.69 0.0141 0.0081
 Moon -110917-08-27 16:05 J -38790772.04 -38790771.83 -38790771.61 0.0141 0.0077 *
 Moon -110916-09-01 03:36 J -38790402.59 -38790402.35 -38790402.11 0.0142 0.0023
 Earth -110916-09-01 05:17 J -38790402.51 -38790402.28 -38790402.03 0.0142 0.0029 *
 Earth -110915-09-05 21:36 J -38790032.62 -38790032.60 -38790032.55 0.0143 0.0141
 Mercury -110908-12-31 20:38 J -38787358.67 -38787358.64 -38787358.59 0.0146 0.0142
 Mercury -110907-03-30 03:36 J -38787270.44 -38787270.35 -38787270.24 0.0146 0.0117
 Mercury -110907-06-26 10:33 J -38787182.18 -38787182.06 -38787181.91 0.0146 0.0091
 Mercury -110907-09-22 17:45 J -38787093.91 -38787093.76 -38787093.59 0.0147 0.0064
 Mercury -110907-12-20 01:12 J -38787005.62 -38787005.45 -38787005.28 0.0147 0.0037
 Mercury -110906-03-18 08:24 J -38786917.33 -38786917.15 -38786916.98 0.0147 0.0010
 Mercury -110906-06-14 15:36 J -38786829.03 -38786828.85 -38786828.67 0.0147 0.0018
 Mercury -110906-09-10 22:48 J -38786740.71 -38786740.55 -38786740.37 0.0147 0.0045
 Mercury -110906-12-08 06:14 J -38786652.39 -38786652.24 -38786652.08 0.0147 0.0073
 Mercury -110905-03-05 13:41 J -38786564.05 -38786563.93 -38786563.79 0.0147 0.0101
 Mercury -110905-06-01 21:07 J -38786475.69 -38786475.62 -38786475.53 0.0147 0.0129
 Mars -110905-08-21 09:07 J -38786395.30 -38786395.12 -38786394.90 0.0147 0.0112
 Venus -110900-03-17 14:09 J -38784725.96 -38784725.91 -38784725.85 0.0148 0.0143
 Venus -110900-10-30 05:17 J -38784499.45 -38784499.28 -38784499.09 0.0148 0.0085
 Venus -110899-06-13 20:38 J -38784272.85 -38784272.64 -38784272.42 0.0148 0.0026
 Venus -110898-01-26 12:00 J -38784046.21 -38784046.00 -38784045.78 0.0147 0.0033
 Venus -110898-09-10 03:21 J -38783819.52 -38783819.36 -38783819.17 0.0147 0.0092
 Earth -110878-03-05 11:45 J -38776703.12 -38776703.01 -38776702.91 0.0138 0.0126
 Moon -110878-03-05 11:02 J -38776703.11 -38776703.04 -38776702.95 0.0138 0.0130 *
 Earth -110877-03-09 05:17 J -38776333.53 -38776333.28 -38776333.01 0.0137 0.0022
 Moon -110877-03-09 06:14 J -38776333.51 -38776333.24 -38776332.98 0.0137 0.0015 *
 Moon -110876-03-13 20:53 J -38775963.83 -38775963.63 -38775963.41 0.0136 0.0075
 Earth -110876-03-13 21:36 J -38775963.79 -38775963.60 -38775963.38 0.0136 0.0081 *
 Mercury -110867-02-16 00:57 J -38772702.52 -38772702.46 -38772702.40 0.0132 0.0120

Mercury -110867-05-15 04:33 J -38772614.40 -38772614.31 -38772614.22 0.0132 0.0103
 Mercury -110867-08-11 07:55 J -38772526.27 -38772526.17 -38772526.05 0.0132 0.0088
 Mercury -110867-11-07 11:45 J -38772438.13 -38772438.01 -38772437.89 0.0132 0.0071
 Mercury -110866-02-03 15:21 J -38772349.99 -38772349.86 -38772349.73 0.0132 0.0055
 Mercury -110866-05-02 18:43 J -38772261.85 -38772261.72 -38772261.58 0.0132 0.0039
 Mercury -110866-07-29 22:19 J -38772173.71 -38772173.57 -38772173.43 0.0132 0.0022
 Mercury -110866-10-26 01:41 J -38772085.57 -38772085.43 -38772085.28 0.0132 0.0008
 Mercury -110865-01-22 05:17 J -38771997.42 -38771997.28 -38771997.14 0.0132 0.0009
 Mercury -110865-04-19 08:38 J -38771909.28 -38771909.14 -38771909.00 0.0132 0.0025
 Mercury -110865-07-16 12:00 J -38771821.13 -38771821.00 -38771820.86 0.0132 0.0041
 Mercury -110865-10-12 15:21 J -38771732.98 -38771732.86 -38771732.73 0.0132 0.0056
 Mars -110865-12-26 09:21 J -38771658.40 -38771658.11 -38771657.80 0.0132 0.0035
 Mercury -110864-01-08 18:43 J -38771644.83 -38771644.72 -38771644.60 0.0132 0.0072
 Mercury -110864-04-06 22:05 J -38771556.68 -38771556.58 -38771556.47 0.0132 0.0087
 Mercury -110864-07-04 01:26 J -38771468.52 -38771468.44 -38771468.35 0.0132 0.0102
 Mercury -110864-09-30 04:33 J -38771380.36 -38771380.31 -38771380.24 0.0132 0.0118
 Venus -110858-05-12 23:45 J -38769329.58 -38769329.51 -38769329.42 0.0131 0.0120
 Venus -110858-12-25 02:24 J -38769103.55 -38769103.40 -38769103.22 0.0131 0.0081
 Venus -110857-08-07 05:31 J -38768877.47 -38768877.27 -38768877.06 0.0131 0.0041
 Venus -110856-03-21 08:24 J -38768651.36 -38768651.15 -38768650.94 0.0131 0.0002
 Venus -110856-11-02 10:48 J -38768425.25 -38768425.05 -38768424.84 0.0131 0.0038
 Venus -110855-06-16 13:26 J -38768199.11 -38768198.94 -38768198.76 0.0131 0.0077
 Venus -110854-01-28 16:05 J -38767972.93 -38767972.83 -38767972.73 0.0132 0.0116
 Earth -110833-08-28 00:00 J -38760090.69 -38760090.50 -38760090.28 0.0141 0.0078
 Moon -110833-08-28 00:14 J -38760090.69 -38760090.49 -38760090.26 0.0141 0.0080 *
 Moon -110832-09-01 13:55 J -38759721.14 -38759720.92 -38759720.67 0.0142 0.0039
 Earth -110832-09-01 15:07 J -38759721.11 -38759720.87 -38759720.62 0.0142 0.0032 *
 Moon -110831-09-06 07:55 J -38759351.22 -38759351.17 -38759351.08 0.0143 0.0137
 Mercury -110823-01-21 03:50 J -38756657.39 -38756657.34 -38756657.27 0.0146 0.0137
 Mercury -110823-04-19 10:48 J -38756569.15 -38756569.05 -38756568.92 0.0146 0.0111

Mercury -110823-07-16 18:14 J -38756480.89 -38756480.74 -38756480.60 0.0147 0.0084

Mercury -110823-10-13 01:12 J -38756392.61 -38756392.45 -38756392.29 0.0147 0.0057

Mercury -110822-01-09 08:24 J -38756304.32 -38756304.15 -38756303.98 0.0147 0.0031

Mercury -110822-04-07 15:36 J -38756216.02 -38756215.85 -38756215.67 0.0147 0.0004

Mars -110822-05-13 15:21 J -38756180.10 -38756179.86 -38756179.59 0.0147 0.0083

Mercury -110822-07-04 23:02 J -38756127.72 -38756127.54 -38756127.37 0.0147 0.0024

Mercury -110822-10-01 06:14 J -38756039.40 -38756039.24 -38756039.07 0.0147 0.0051

Mercury -110822-12-28 13:41 J -38755951.08 -38755950.93 -38755950.78 0.0147 0.0079

Mercury -110821-03-25 21:07 J -38755862.74 -38755862.62 -38755862.49 0.0147 0.0107

Mercury -110821-06-22 04:48 J -38755774.37 -38755774.30 -38755774.23 0.0147 0.0135

Venus -110816-06-29 09:50 J -38753941.22 -38753941.09 -38753940.94 0.0148 0.0114

Venus -110815-02-11 00:57 J -38753714.65 -38753714.46 -38753714.24 0.0148 0.0056

Venus -110815-09-25 16:48 J -38753488.02 -38753487.80 -38753487.58 0.0148 0.0004

Venus -110814-05-10 07:55 J -38753261.36 -38753261.17 -38753260.96 0.0147 0.0063

Venus -110814-12-22 23:17 J -38753034.64 -38753034.53 -38753034.39 0.0147 0.0121

Earth -110794-03-05 20:38 J -38746021.74 -38746021.64 -38746021.51 0.0137 0.0123

Moon -110794-03-05 21:36 J -38746021.69 -38746021.60 -38746021.45 0.0137 0.0122 *

Moon -110793-03-09 13:41 J -38745652.19 -38745651.93 -38745651.66 0.0137 0.0023

Earth -110793-03-09 14:53 J -38745652.14 -38745651.88 -38745651.62 0.0137 0.0018 *

Earth -110792-03-14 07:12 J -38745282.41 -38745282.20 -38745282.00 0.0136 0.0084

Moon -110792-03-14 06:43 J -38745282.38 -38745282.22 -38745282.01 0.0136 0.0092 *

Mercury -110783-03-08 07:26 J -38742001.24 -38742001.19 -38742001.11 0.0132 0.0118

Mercury -110783-06-04 11:17 J -38741913.12 -38741913.03 -38741912.93 0.0132 0.0101

Mercury -110783-08-31 14:53 J -38741824.98 -38741824.88 -38741824.77 0.0132 0.0084

Mercury -110783-11-27 18:29 J -38741736.85 -38741736.73 -38741736.60 0.0132 0.0068

Mercury -110782-02-23 22:05 J -38741648.71 -38741648.58 -38741648.45 0.0132 0.0052

Mercury -110782-05-23 01:26 J -38741560.57 -38741560.44 -38741560.29 0.0132 0.0036

Mercury -110782-08-19 05:02 J -38741472.43 -38741472.29 -38741472.15 0.0132 0.0020

Mars -110782-09-19 23:45 J -38741440.69 -38741440.51 -38741440.31 0.0132 0.0103

Mercury -110782-11-15 08:38 J -38741384.28 -38741384.14 -38741384.00 0.0132 0.0004

Mercury -110781-02-11 12:00 J -38741296.14 -38741296.00 -38741295.86 0.0132 0.0012

Mercury -110781-05-09 15:21 J -38741207.99 -38741207.86 -38741207.72 0.0132 0.0028

Mercury -110781-08-05 18:43 J -38741119.85 -38741119.72 -38741119.58 0.0132 0.0044

Mercury -110781-11-01 22:05 J -38741031.70 -38741031.58 -38741031.45 0.0132 0.0059

Mercury -110780-01-29 01:41 J -38740943.55 -38740943.43 -38740943.32 0.0132 0.0074

Mercury -110780-04-27 04:48 J -38740855.39 -38740855.30 -38740855.19 0.0132 0.0090

Mercury -110780-07-24 08:09 J -38740767.24 -38740767.16 -38740767.07 0.0132 0.0105

Mars -110780-08-20 20:24 J -38740739.80 -38740739.65 -38740739.47 0.0131 0.0111

Mercury -110780-10-20 11:31 J -38740679.07 -38740679.02 -38740678.96 0.0131 0.0120

Venus -110774-08-24 12:29 J -38738545.10 -38738544.98 -38738544.83 0.0131 0.0102

Venus -110773-04-06 15:36 J -38738319.03 -38738318.85 -38738318.66 0.0131 0.0062

Venus -110773-11-18 18:14 J -38738092.94 -38738092.74 -38738092.52 0.0131 0.0023

Venus -110772-07-02 20:53 J -38737866.84 -38737866.63 -38737866.41 0.0131 0.0017

Venus -110771-02-13 23:31 J -38737640.70 -38737640.52 -38737640.32 0.0131 0.0056

Venus -110771-09-28 02:09 J -38737414.55 -38737414.41 -38737414.26 0.0131 0.0095

Moon -110749-08-28 07:26 J -38729409.39 -38729409.19 -38729408.96 0.0142 0.0076

Earth -110749-08-28 08:09 J -38729409.35 -38729409.16 -38729408.94 0.0142 0.0077 *

Earth -110748-09-01 23:02 J -38729039.77 -38729039.54 -38729039.29 0.0142 0.0034

Moon -110748-09-02 00:14 J -38729039.72 -38729039.49 -38729039.25 0.0142 0.0030 *

Mercury -110739-02-10 11:02 J -38725956.11 -38725956.04 -38725955.97 0.0146 0.0132

Mercury -110739-05-09 18:00 J -38725867.87 -38725867.75 -38725867.63 0.0146 0.0106

Mercury -110739-08-06 00:57 J -38725779.60 -38725779.46 -38725779.31 0.0147 0.0079

Mercury -110739-11-02 08:09 J -38725691.32 -38725691.16 -38725691.00 0.0147 0.0053

Mercury -110738-01-29 15:21 J -38725603.04 -38725602.86 -38725602.69 0.0147 0.0026

Mercury -110738-04-27 22:33 J -38725514.74 -38725514.56 -38725514.38 0.0147 0.0001

Mercury -110738-07-25 05:45 J -38725426.43 -38725426.26 -38725426.08 0.0147 0.0029

Mercury -110738-10-21 13:12 J -38725338.11 -38725337.95 -38725337.79 0.0147 0.0056

Mars -110737-01-07 09:07 J -38725260.42 -38725260.12 -38725259.81 0.0147 0.0024

Mercury -110737-01-17 20:24 J -38725249.79 -38725249.65 -38725249.50 0.0147 0.0084

Mercury -110737-04-15 03:50 J -38725161.44 -38725161.34 -38725161.21 0.0147 0.0112

Mercury -110737-07-12 11:31 J -38725073.06 -38725073.02 -38725072.96 0.0147 0.0140

Venus -110732-02-26 13:12 J -38723382.98 -38723382.95 -38723382.89 0.0148 0.0145

Venus -110732-10-11 04:48 J -38723156.48 -38723156.30 -38723156.12 0.0148 0.0086

Venus -110731-05-25 19:55 J -38722929.88 -38722929.67 -38722929.45 0.0148 0.0027

Venus -110730-01-07 11:17 J -38722703.24 -38722703.03 -38722702.81 0.0148 0.0032

Venus -110730-08-22 02:53 J -38722476.55 -38722476.38 -38722476.21 0.0147 0.0091

Earth -110710-03-06 06:14 J -38715340.36 -38715340.24 -38715340.10 0.0137 0.0119

Moon -110710-03-06 08:38 J -38715340.25 -38715340.14 -38715340.00 0.0137 0.0119 *

Moon -110709-03-09 22:33 J -38714970.83 -38714970.56 -38714970.29 0.0137 0.0011

Earth -110709-03-10 00:29 J -38714970.74 -38714970.48 -38714970.22 0.0137 0.0015 *

Earth -110708-03-14 16:19 J -38714601.00 -38714600.82 -38714600.60 0.0136 0.0088

Moon -110708-03-14 18:29 J -38714600.92 -38714600.73 -38714600.51 0.0136 0.0081 *

Mercury -110700-12-30 10:48 J -38711388.06 -38711388.05 -38711388.02 0.0132 0.0131

Mercury -110699-03-28 14:24 J -38711299.96 -38711299.90 -38711299.82 0.0132 0.0114

Mercury -110699-06-24 18:14 J -38711211.83 -38711211.74 -38711211.64 0.0132 0.0097

Mercury -110699-09-20 21:50 J -38711123.70 -38711123.59 -38711123.47 0.0132 0.0081

Mercury -110699-12-18 01:26 J -38711035.56 -38711035.44 -38711035.31 0.0132 0.0065

Mercury -110698-03-16 04:48 J -38710947.42 -38710947.30 -38710947.16 0.0132 0.0049

Mercury -110698-06-12 08:24 J -38710859.28 -38710859.15 -38710859.00 0.0132 0.0033

Mercury -110698-09-08 12:00 J -38710771.14 -38710771.00 -38710770.86 0.0132 0.0017

Mercury -110698-12-05 15:36 J -38710682.99 -38710682.85 -38710682.71 0.0132 0.0002

Mercury -110697-03-02 18:57 J -38710594.85 -38710594.71 -38710594.57 0.0132 0.0015

Mars -110697-05-14 12:00 J -38710522.29 -38710522.00 -38710521.69 0.0132 0.0027

Mercury -110697-05-29 22:19 J -38710506.70 -38710506.57 -38710506.43 0.0132 0.0031

Mercury -110697-08-26 01:41 J -38710418.56 -38710418.43 -38710418.29 0.0132 0.0047

Mercury -110697-11-22 05:02 J -38710330.41 -38710330.29 -38710330.16 0.0132 0.0062

Mercury -110696-02-18 08:24 J -38710242.26 -38710242.15 -38710242.03 0.0132 0.0077

Mercury -110696-05-17 11:45 J -38710154.10 -38710154.01 -38710153.91 0.0131 0.0092

Mercury -110696-08-13 15:07 J -38710065.94 -38710065.87 -38710065.79 0.0131 0.0107

Mercury -110696-11-09 18:29 J -38709977.77 -38709977.73 -38709977.68 0.0131 0.0122

Venus -110690-04-23 23:02 J -38707986.61 -38707986.54 -38707986.46 0.0131 0.0122
 Venus -110690-12-06 01:41 J -38707760.59 -38707760.43 -38707760.26 0.0131 0.0083
 Venus -110689-07-19 04:33 J -38707534.51 -38707534.31 -38707534.11 0.0131 0.0043
 Venus -110688-03-02 07:26 J -38707308.41 -38707308.19 -38707307.98 0.0131 0.0004
 Venus -110688-10-14 10:05 J -38707082.29 -38707082.08 -38707081.88 0.0131 0.0036
 Venus -110687-05-28 12:29 J -38706856.15 -38706855.98 -38706855.80 0.0131 0.0075
 Venus -110686-01-09 14:53 J -38706629.97 -38706629.88 -38706629.76 0.0131 0.0115
 Moon -110665-08-28 12:29 J -38698728.19 -38698727.98 -38698727.76 0.0141 0.0074
 Earth -110665-08-28 15:07 J -38698728.07 -38698727.87 -38698727.66 0.0141 0.0077 *
 Earth -110664-09-02 05:31 J -38698358.50 -38698358.27 -38698358.02 0.0142 0.0032
 Moon -110664-09-02 07:26 J -38698358.42 -38698358.19 -38698357.95 0.0142 0.0035 *
 Moon -110663-09-06 19:41 J -38697988.74 -38697988.68 -38697988.60 0.0143 0.0137
 Mercury -110655-03-02 17:02 J -38695254.86 -38695254.79 -38695254.71 0.0146 0.0130
 Mercury -110655-05-30 00:00 J -38695166.62 -38695166.50 -38695166.38 0.0147 0.0104
 Mercury -110655-08-26 06:57 J -38695078.35 -38695078.21 -38695078.06 0.0147 0.0078
 Mercury -110655-11-22 14:09 J -38694990.07 -38694989.91 -38694989.74 0.0147 0.0051
 Mercury -110654-02-18 21:21 J -38694901.78 -38694901.61 -38694901.44 0.0147 0.0024
 Mercury -110654-05-18 04:33 J -38694813.48 -38694813.31 -38694813.13 0.0147 0.0003
 Mercury -110654-08-14 11:45 J -38694725.18 -38694725.01 -38694724.83 0.0147 0.0031
 Mercury -110654-11-10 19:12 J -38694636.86 -38694636.70 -38694636.53 0.0147 0.0058
 Mercury -110653-02-07 02:24 J -38694548.53 -38694548.40 -38694548.24 0.0147 0.0086
 Mercury -110653-05-05 09:50 J -38694460.19 -38694460.09 -38694459.97 0.0147 0.0114
 Mercury -110653-08-01 17:31 J -38694371.80 -38694371.77 -38694371.72 0.0147 0.0142
 Mars -110653-09-01 21:36 J -38694340.73 -38694340.60 -38694340.42 0.0147 0.0127
 Venus -110648-06-10 05:45 J -38692598.37 -38692598.26 -38692598.11 0.0148 0.0120
 Venus -110647-01-22 21:21 J -38692371.81 -38692371.61 -38692371.40 0.0148 0.0061
 Venus -110647-09-06 12:57 J -38692145.18 -38692144.96 -38692144.74 0.0148 0.0001
 Venus -110646-04-21 04:19 J -38691918.52 -38691918.32 -38691918.11 0.0148 0.0058
 Venus -110646-12-03 19:26 J -38691691.81 -38691691.69 -38691691.54 0.0147 0.0117
 Earth -110626-03-06 13:41 J -38684659.05 -38684658.93 -38684658.78 0.0137 0.0117

Moon -110626-03-06 16:48 J -38684658.91 -38684658.80 -38684658.65 0.0137 0.0118 *
 Moon -110625-03-10 04:48 J -38684289.56 -38684289.30 -38684289.04 0.0137 0.0014
 Earth -110625-03-10 08:09 J -38684289.42 -38684289.16 -38684288.90 0.0137 0.0013 *
 Earth -110624-03-15 00:14 J -38683919.68 -38683919.49 -38683919.29 0.0136 0.0089
 Moon -110624-03-15 02:38 J -38683919.56 -38683919.39 -38683919.19 0.0136 0.0095 *
 Mercury -110615-01-19 17:45 J -38680686.79 -38680686.76 -38680686.72 0.0132 0.0128
 Mercury -110615-04-17 21:21 J -38680598.68 -38680598.61 -38680598.53 0.0132 0.0111
 Mercury -110615-07-15 00:57 J -38680510.55 -38680510.46 -38680510.36 0.0132 0.0095
 Mercury -110615-10-11 04:33 J -38680422.42 -38680422.31 -38680422.19 0.0132 0.0079
 Mercury -110614-01-07 08:09 J -38680334.28 -38680334.16 -38680334.03 0.0132 0.0062
 Mercury -110614-04-05 11:45 J -38680246.14 -38680246.01 -38680245.87 0.0132 0.0046
 Mercury -110614-07-02 15:21 J -38680158.00 -38680157.86 -38680157.72 0.0132 0.0030
 Mercury -110614-09-28 18:43 J -38680069.86 -38680069.72 -38680069.57 0.0132 0.0015
 Mercury -110614-12-25 22:19 J -38679981.71 -38679981.57 -38679981.43 0.0132 0.0002
 Mercury -110613-03-23 01:41 J -38679893.57 -38679893.43 -38679893.29 0.0132 0.0018
 Mercury -110613-06-19 05:02 J -38679805.42 -38679805.29 -38679805.15 0.0132 0.0033
 Mercury -110613-09-15 08:24 J -38679717.27 -38679717.15 -38679717.01 0.0132 0.0049
 Mercury -110613-12-12 12:00 J -38679629.12 -38679629.00 -38679628.88 0.0132 0.0064
 Mars -110612-01-06 22:05 J -38679603.86 -38679603.58 -38679603.29 0.0132 0.0049
 Mercury -110612-03-10 15:07 J -38679540.97 -38679540.87 -38679540.75 0.0132 0.0080
 Mercury -110612-06-06 18:29 J -38679452.82 -38679452.73 -38679452.63 0.0132 0.0095
 Mercury -110612-09-02 21:50 J -38679364.66 -38679364.59 -38679364.51 0.0131 0.0110
 Mercury -110612-11-30 01:12 J -38679276.49 -38679276.45 -38679276.41 0.0131 0.0125
 Venus -110606-08-05 11:31 J -38677202.14 -38677202.02 -38677201.88 0.0131 0.0104
 Venus -110605-03-18 14:38 J -38676976.08 -38676975.89 -38676975.70 0.0131 0.0064
 Venus -110605-10-30 17:17 J -38676749.99 -38676749.78 -38676749.57 0.0131 0.0025
 Venus -110604-06-13 19:55 J -38676523.88 -38676523.67 -38676523.45 0.0131 0.0015
 Venus -110603-01-25 22:33 J -38676297.75 -38676297.56 -38676297.36 0.0131 0.0054
 Venus -110603-09-09 00:57 J -38676071.60 -38676071.46 -38676071.30 0.0131 0.0094
 Moon -110581-08-28 18:29 J -38668046.92 -38668046.73 -38668046.51 0.0141 0.0079

Earth -110581-08-28 21:21 J -38668046.80 -38668046.61 -38668046.38 0.0141 0.0077 *
 Earth -110580-09-02 12:00 J -38667677.24 -38667677.00 -38667676.75 0.0142 0.0032
 Moon -110580-09-02 14:53 J -38667677.10 -38667676.88 -38667676.63 0.0142 0.0033 *
 Earth -110579-09-07 04:05 J -38667307.35 -38667307.33 -38667307.31 0.0143 0.0142
 Mercury -110571-03-22 22:48 J -38664553.62 -38664553.55 -38664553.45 0.0146 0.0129
 Mercury -110571-06-19 05:45 J -38664465.37 -38664465.26 -38664465.12 0.0147 0.0103
 Mercury -110571-09-15 12:57 J -38664377.10 -38664376.96 -38664376.81 0.0147 0.0076
 Mercury -110571-12-12 19:55 J -38664288.82 -38664288.67 -38664288.49 0.0147 0.0050
 Mercury -110570-03-11 03:21 J -38664200.53 -38664200.36 -38664200.19 0.0147 0.0022
 Mars -110570-05-24 16:19 J -38664126.07 -38664125.82 -38664125.54 0.0147 0.0076
 Mercury -110570-06-07 10:33 J -38664112.24 -38664112.06 -38664111.88 0.0147 0.0005
 Mercury -110570-09-03 17:45 J -38664023.93 -38664023.76 -38664023.58 0.0147 0.0032
 Mercury -110570-12-01 00:57 J -38663935.61 -38663935.46 -38663935.29 0.0147 0.0060
 Mercury -110569-02-27 08:38 J -38663847.28 -38663847.14 -38663847.00 0.0147 0.0087
 Mercury -110569-05-25 16:05 J -38663758.94 -38663758.83 -38663758.72 0.0147 0.0115
 Mercury -110569-08-21 23:31 J -38663670.55 -38663670.52 -38663670.48 0.0147 0.0144
 Venus -110564-09-21 22:19 J -38661813.73 -38661813.57 -38661813.39 0.0148 0.0095
 Venus -110563-05-06 13:41 J -38661587.14 -38661586.93 -38661586.71 0.0148 0.0036
 Venus -110563-12-19 05:02 J -38661360.50 -38661360.29 -38661360.07 0.0148 0.0024
 Venus -110562-08-02 20:24 J -38661133.82 -38661133.65 -38661133.46 0.0147 0.0084
 Venus -110561-03-16 12:00 J -38660907.04 -38660907.00 -38660906.94 0.0147 0.0143
 Earth -110542-03-06 19:41 J -38653977.81 -38653977.68 -38653977.53 0.0138 0.0116
 Moon -110542-03-06 23:31 J -38653977.66 -38653977.52 -38653977.36 0.0138 0.0112 *
 Moon -110541-03-10 10:33 J -38653608.32 -38653608.06 -38653607.80 0.0137 0.0011
 Earth -110541-03-10 13:55 J -38653608.17 -38653607.92 -38653607.65 0.0137 0.0012 *
 Earth -110540-03-15 06:14 J -38653238.42 -38653238.24 -38653238.03 0.0136 0.0090
 Moon -110540-03-15 09:50 J -38653238.27 -38653238.09 -38653237.87 0.0136 0.0085 *
 Mercury -110531-02-09 00:14 J -38649985.52 -38649985.49 -38649985.44 0.0132 0.0126
 Mercury -110531-05-08 03:50 J -38649897.41 -38649897.34 -38649897.25 0.0132 0.0109
 Mercury -110531-08-04 07:41 J -38649809.28 -38649809.18 -38649809.08 0.0132 0.0093

Mercury -110531-10-31 11:17 J -38649721.14 -38649721.03 -38649720.91 0.0132 0.0076
 Mercury -110530-01-27 14:53 J -38649633.01 -38649632.88 -38649632.75 0.0132 0.0060
 Mercury -110530-04-25 18:29 J -38649544.87 -38649544.73 -38649544.60 0.0132 0.0044
 Mercury -110530-07-22 21:50 J -38649456.72 -38649456.59 -38649456.44 0.0132 0.0028
 Mars -110530-10-01 12:00 J -38649386.21 -38649386.00 -38649385.76 0.0132 0.0089
 Mercury -110530-10-19 01:26 J -38649368.58 -38649368.44 -38649368.30 0.0132 0.0012
 Mercury -110529-01-15 05:02 J -38649280.43 -38649280.29 -38649280.15 0.0132 0.0005
 Mercury -110529-04-12 08:24 J -38649192.29 -38649192.15 -38649192.01 0.0132 0.0020
 Mercury -110529-07-09 11:45 J -38649104.14 -38649104.01 -38649103.87 0.0132 0.0036
 Mercury -110529-10-05 15:21 J -38649015.99 -38649015.86 -38649015.73 0.0132 0.0051
 Mercury -110528-01-01 18:29 J -38648927.84 -38648927.73 -38648927.60 0.0132 0.0067
 Mercury -110528-03-30 21:50 J -38648839.69 -38648839.59 -38648839.47 0.0132 0.0082
 Mercury -110528-06-27 01:26 J -38648751.53 -38648751.44 -38648751.35 0.0132 0.0097
 Mars -110528-09-01 06:14 J -38648685.31 -38648685.24 -38648685.11 0.0132 0.0125
 Mercury -110528-09-23 04:19 J -38648663.37 -38648663.32 -38648663.23 0.0132 0.0113
 Mercury -110528-12-20 07:41 J -38648575.20 -38648575.18 -38648575.13 0.0131 0.0128
 Venus -110522-04-04 21:36 J -38646643.65 -38646643.60 -38646643.53 0.0131 0.0125
 Venus -110522-11-17 00:29 J -38646417.63 -38646417.48 -38646417.31 0.0131 0.0085
 Venus -110521-06-30 03:21 J -38646191.56 -38646191.36 -38646191.16 0.0131 0.0046
 Venus -110520-02-11 06:14 J -38645965.45 -38645965.24 -38645965.03 0.0131 0.0006
 Venus -110520-09-25 08:53 J -38645739.33 -38645739.13 -38645738.92 0.0131 0.0034
 Venus -110519-05-09 11:17 J -38645513.19 -38645513.03 -38645512.84 0.0131 0.0075
 Venus -110519-12-21 14:09 J -38645287.01 -38645286.91 -38645286.80 0.0131 0.0114
 Moon -110497-08-29 01:55 J -38637365.62 -38637365.42 -38637365.19 0.0141 0.0069
 Earth -110497-08-29 05:45 J -38637365.46 -38637365.26 -38637365.04 0.0141 0.0074 *
 Earth -110496-09-02 20:09 J -38636995.90 -38636995.66 -38636995.42 0.0142 0.0033
 Moon -110496-09-02 23:17 J -38636995.76 -38636995.53 -38636995.28 0.0142 0.0032 *
 Moon -110495-09-07 08:09 J -38636626.19 -38636626.16 -38636626.10 0.0143 0.0140
 Mercury -110487-04-12 05:31 J -38633852.35 -38633852.27 -38633852.18 0.0146 0.0125
 Mercury -110487-07-09 12:29 J -38633764.10 -38633763.98 -38633763.85 0.0146 0.0099

Mercury -110487-10-05 19:26 J -38633675.84 -38633675.69 -38633675.53 0.0147 0.0072
 Mercury -110486-01-02 02:38 J -38633587.56 -38633587.39 -38633587.22 0.0147 0.0046
 Mercury -110486-03-31 09:50 J -38633499.27 -38633499.09 -38633498.92 0.0147 0.0019
 Mercury -110486-06-27 17:02 J -38633410.97 -38633410.79 -38633410.62 0.0147 0.0008
 Mercury -110486-09-24 00:14 J -38633322.66 -38633322.49 -38633322.32 0.0147 0.0035
 Mercury -110486-12-21 07:26 J -38633234.34 -38633234.19 -38633234.03 0.0147 0.0063
 Mars -110485-01-18 07:26 J -38633206.49 -38633206.19 -38633205.88 0.0147 0.0030
 Mercury -110485-03-18 14:38 J -38633146.02 -38633145.89 -38633145.74 0.0147 0.0091
 Mercury -110485-06-14 22:05 J -38633057.67 -38633057.58 -38633057.46 0.0147 0.0119
 Mercury -110485-09-11 05:45 J -38632969.26 -38632969.26 -38632969.24 0.0147 0.0147
 Venus -110480-05-22 00:29 J -38631255.59 -38631255.48 -38631255.37 0.0148 0.0127
 Venus -110479-01-03 15:36 J -38631029.05 -38631028.85 -38631028.65 0.0148 0.0068
 Venus -110479-08-18 06:57 J -38630802.43 -38630802.21 -38630801.99 0.0148 0.0009
 Venus -110478-04-01 22:05 J -38630575.78 -38630575.58 -38630575.36 0.0148 0.0052
 Venus -110478-11-14 13:41 J -38630349.07 -38630348.93 -38630348.78 0.0147 0.0111
 Earth -110458-03-07 01:41 J -38623296.56 -38623296.43 -38623296.27 0.0138 0.0115
 Moon -110458-03-07 05:02 J -38623296.40 -38623296.29 -38623296.14 0.0138 0.0119 *
 Moon -110457-03-10 16:33 J -38622927.07 -38622926.81 -38622926.55 0.0137 0.0010
 Earth -110457-03-10 20:24 J -38622926.91 -38622926.65 -38622926.39 0.0137 0.0011 *
 Earth -110456-03-15 12:14 J -38622557.16 -38622556.99 -38622556.78 0.0136 0.0091
 Moon -110456-03-15 15:50 J -38622557.01 -38622556.84 -38622556.63 0.0136 0.0093 *
 Mercury -110447-03-01 06:57 J -38619284.26 -38619284.21 -38619284.16 0.0132 0.0124
 Mercury -110447-05-28 10:19 J -38619196.14 -38619196.07 -38619195.97 0.0132 0.0108
 Mercury -110447-08-24 14:09 J -38619108.01 -38619107.91 -38619107.80 0.0132 0.0091
 Mercury -110447-11-20 17:45 J -38619019.87 -38619019.76 -38619019.63 0.0132 0.0074
 Mercury -110446-02-16 21:21 J -38618931.73 -38618931.61 -38618931.47 0.0132 0.0058
 Mercury -110446-05-16 00:57 J -38618843.59 -38618843.46 -38618843.32 0.0132 0.0042
 Mercury -110446-08-12 04:33 J -38618755.45 -38618755.31 -38618755.17 0.0132 0.0026
 Mercury -110446-11-08 08:09 J -38618667.30 -38618667.16 -38618667.02 0.0132 0.0010
 Mercury -110445-02-04 11:31 J -38618579.16 -38618579.02 -38618578.87 0.0132 0.0007

Mercury -110445-05-02 15:07 J -38618491.01 -38618490.87 -38618490.73 0.0132 0.0022

Mars -110445-05-25 20:24 J -38618467.95 -38618467.65 -38618467.34 0.0132 0.0014

Mercury -110445-07-29 18:29 J -38618402.86 -38618402.73 -38618402.59 0.0132 0.0038

Mercury -110445-10-25 21:50 J -38618314.72 -38618314.59 -38618314.46 0.0132 0.0053

Mercury -110444-01-22 01:12 J -38618226.57 -38618226.45 -38618226.33 0.0132 0.0069

Mercury -110444-04-20 04:33 J -38618138.41 -38618138.31 -38618138.20 0.0132 0.0084

Mercury -110444-07-17 07:55 J -38618050.26 -38618050.17 -38618050.08 0.0132 0.0099

Mercury -110444-10-13 11:02 J -38617962.09 -38617962.04 -38617961.96 0.0132 0.0115

Mercury -110443-01-09 14:24 J -38617873.91 -38617873.90 -38617873.87 0.0132 0.0129

Venus -110438-07-17 10:05 J -38615859.19 -38615859.08 -38615858.94 0.0131 0.0107

Venus -110437-02-28 13:12 J -38615633.12 -38615632.95 -38615632.76 0.0131 0.0066

Venus -110437-10-11 16:05 J -38615407.03 -38615406.83 -38615406.61 0.0131 0.0027

Venus -110436-05-25 18:57 J -38615180.92 -38615180.71 -38615180.50 0.0131 0.0014

Venus -110435-01-06 21:36 J -38614954.79 -38614954.60 -38614954.40 0.0131 0.0054

Venus -110435-08-21 00:14 J -38614728.63 -38614728.49 -38614728.34 0.0131 0.0094

Moon -110413-08-29 11:45 J -38606684.20 -38606684.01 -38606683.79 0.0141 0.0078

Earth -110413-08-29 14:53 J -38606684.07 -38606683.88 -38606683.65 0.0141 0.0072 *

Earth -110412-09-03 05:17 J -38606314.52 -38606314.28 -38606314.04 0.0142 0.0036

Moon -110412-09-03 08:53 J -38606314.36 -38606314.13 -38606313.88 0.0142 0.0038 *

Mercury -110403-02-03 05:45 J -38603239.28 -38603239.26 -38603239.23 0.0146 0.0144

Mercury -110403-05-02 12:43 J -38603151.07 -38603150.97 -38603150.87 0.0146 0.0119

Mercury -110403-07-29 19:41 J -38603062.81 -38603062.68 -38603062.54 0.0147 0.0093

Mercury -110403-10-26 02:38 J -38602974.54 -38602974.39 -38602974.23 0.0147 0.0067

Mercury -110402-01-22 09:50 J -38602886.26 -38602886.09 -38602885.92 0.0147 0.0040

Mercury -110402-04-20 16:48 J -38602797.97 -38602797.80 -38602797.62 0.0147 0.0014

Mercury -110402-07-18 00:00 J -38602709.67 -38602709.50 -38602709.32 0.0147 0.0015

Mercury -110402-10-14 07:26 J -38602621.36 -38602621.19 -38602621.02 0.0147 0.0041

Mercury -110401-01-10 14:38 J -38602533.04 -38602532.89 -38602532.73 0.0147 0.0069

Mercury -110401-04-07 21:50 J -38602444.71 -38602444.59 -38602444.45 0.0147 0.0097

Mercury -110401-07-05 05:17 J -38602356.36 -38602356.28 -38602356.18 0.0147 0.0125

Mars -110401-09-13 02:24 J -38602286.47 -38602286.40 -38602286.27 0.0147 0.0139
 Venus -110396-09-02 19:26 J -38600470.84 -38600470.69 -38600470.51 0.0148 0.0098
 Venus -110395-04-17 10:48 J -38600244.26 -38600244.05 -38600243.83 0.0148 0.0038
 Venus -110395-11-30 02:09 J -38600017.63 -38600017.41 -38600017.19 0.0148 0.0021
 Venus -110394-07-14 17:17 J -38599790.95 -38599790.78 -38599790.58 0.0147 0.0081
 Venus -110393-02-26 08:53 J -38599564.18 -38599564.13 -38599564.06 0.0147 0.0141
 Earth -110374-03-07 10:05 J -38592615.23 -38592615.08 -38592614.93 0.0138 0.0112
 Moon -110374-03-07 12:57 J -38592615.12 -38592614.96 -38592614.78 0.0138 0.0106 *
 Moon -110373-03-11 01:26 J -38592245.69 -38592245.44 -38592245.18 0.0137 0.0012
 Earth -110373-03-11 04:19 J -38592245.58 -38592245.32 -38592245.06 0.0137 0.0009 *
 Earth -110372-03-15 20:24 J -38591875.83 -38591875.65 -38591875.44 0.0136 0.0092
 Moon -110372-03-16 00:00 J -38591875.69 -38591875.50 -38591875.29 0.0136 0.0090 *
 Mercury -110363-03-21 13:41 J -38588582.98 -38588582.93 -38588582.86 0.0132 0.0121
 Mercury -110363-06-17 17:17 J -38588494.86 -38588494.78 -38588494.68 0.0132 0.0104
 Mercury -110363-09-13 21:07 J -38588406.72 -38588406.62 -38588406.51 0.0132 0.0087
 Mercury -110363-12-11 00:43 J -38588318.59 -38588318.47 -38588318.34 0.0132 0.0071
 Mercury -110362-03-09 04:19 J -38588230.45 -38588230.32 -38588230.19 0.0132 0.0055
 Mercury -110362-06-05 07:55 J -38588142.31 -38588142.17 -38588142.03 0.0132 0.0039
 Mercury -110362-09-01 11:31 J -38588054.16 -38588054.02 -38588053.88 0.0132 0.0023
 Mercury -110362-11-28 14:53 J -38587966.02 -38587965.88 -38587965.73 0.0132 0.0008
 Mercury -110361-02-24 18:29 J -38587877.87 -38587877.73 -38587877.59 0.0132 0.0009
 Mercury -110361-05-22 21:50 J -38587789.73 -38587789.59 -38587789.45 0.0132 0.0025
 Mercury -110361-08-19 01:12 J -38587701.58 -38587701.45 -38587701.31 0.0132 0.0041
 Mercury -110361-11-15 04:48 J -38587613.43 -38587613.30 -38587613.17 0.0132 0.0056
 Mars -110360-01-18 06:43 J -38587549.48 -38587549.22 -38587548.94 0.0132 0.0063
 Mercury -110360-02-11 07:55 J -38587525.28 -38587525.17 -38587525.04 0.0132 0.0072
 Mercury -110360-05-10 11:31 J -38587437.12 -38587437.02 -38587436.91 0.0132 0.0087
 Mercury -110360-08-06 14:53 J -38587348.97 -38587348.88 -38587348.79 0.0132 0.0102
 Mercury -110360-11-02 18:14 J -38587260.80 -38587260.74 -38587260.68 0.0132 0.0117
 Venus -110354-03-16 21:07 J -38585300.67 -38585300.62 -38585300.56 0.0131 0.0126

Venus -110354-10-29 00:00 J -38585074.65 -38585074.50 -38585074.33 0.0131 0.0086
 Venus -110353-06-11 02:53 J -38584848.57 -38584848.38 -38584848.17 0.0131 0.0046
 Venus -110352-01-23 05:45 J -38584622.47 -38584622.26 -38584622.04 0.0131 0.0007
 Venus -110352-09-06 08:24 J -38584396.34 -38584396.15 -38584395.93 0.0131 0.0035
 Venus -110351-04-20 11:17 J -38584170.20 -38584170.03 -38584169.84 0.0131 0.0074
 Venus -110351-12-02 13:41 J -38583944.01 -38583943.93 -38583943.80 0.0131 0.0115
 Moon -110329-08-29 22:19 J -38576002.77 -38576002.57 -38576002.34 0.0141 0.0062
 Earth -110329-08-30 01:26 J -38576002.65 -38576002.44 -38576002.21 0.0141 0.0068 *
 Earth -110328-09-03 15:36 J -38575633.08 -38575632.85 -38575632.60 0.0142 0.0040
 Moon -110328-09-03 18:43 J -38575632.97 -38575632.72 -38575632.48 0.0142 0.0035 *
 Mercury -110319-02-23 13:12 J -38572538.00 -38572537.95 -38572537.89 0.0146 0.0138
 Mercury -110319-05-22 20:24 J -38572449.76 -38572449.65 -38572449.54 0.0146 0.0112
 Mercury -110319-08-19 03:07 J -38572361.51 -38572361.37 -38572361.23 0.0147 0.0086
 Mercury -110319-11-15 10:05 J -38572273.23 -38572273.08 -38572272.91 0.0147 0.0060
 Mercury -110318-02-11 17:17 J -38572184.95 -38572184.78 -38572184.61 0.0147 0.0033
 Mercury -110318-05-11 00:29 J -38572096.66 -38572096.48 -38572096.31 0.0147 0.0006
 Mars -110318-06-05 07:55 J -38572071.45 -38572071.17 -38572070.87 0.0147 0.0056
 Mercury -110318-08-07 07:41 J -38572008.36 -38572008.18 -38572008.01 0.0147 0.0021
 Mercury -110318-11-03 14:53 J -38571920.05 -38571919.88 -38571919.71 0.0147 0.0048
 Mercury -110317-01-30 22:05 J -38571831.72 -38571831.58 -38571831.42 0.0147 0.0076
 Mercury -110317-04-28 05:17 J -38571743.39 -38571743.28 -38571743.14 0.0147 0.0104
 Mercury -110317-07-25 12:57 J -38571655.03 -38571654.96 -38571654.88 0.0147 0.0132
 Venus -110312-05-03 00:43 J -38569912.57 -38569912.47 -38569912.35 0.0148 0.0127
 Venus -110312-12-15 15:50 J -38569686.03 -38569685.84 -38569685.63 0.0148 0.0067
 Venus -110311-07-30 07:26 J -38569459.42 -38569459.19 -38569458.97 0.0148 0.0008
 Venus -110310-03-13 22:33 J -38569232.76 -38569232.56 -38569232.34 0.0147 0.0053
 Venus -110310-10-26 13:55 J -38569006.05 -38569005.92 -38569005.76 0.0147 0.0113
 Earth -110290-03-07 19:41 J -38561933.84 -38561933.68 -38561933.52 0.0138 0.0108
 Moon -110290-03-07 21:07 J -38561933.77 -38561933.62 -38561933.47 0.0138 0.0114 *
 Moon -110289-03-11 11:31 J -38561564.27 -38561564.02 -38561563.76 0.0137 0.0003

Earth -110289-03-11 13:55 J -38561564.18 -38561563.92 -38561563.66 0.0137 0.0005 *
 Earth -110288-03-16 06:00 J -38561194.42 -38561194.25 -38561194.05 0.0136 0.0096
 Moon -110288-03-16 08:09 J -38561194.34 -38561194.16 -38561193.96 0.0136 0.0095 *
 Mercury -110279-04-10 20:53 J -38557881.69 -38557881.63 -38557881.56 0.0132 0.0117
 Mercury -110279-07-08 00:29 J -38557793.57 -38557793.48 -38557793.38 0.0132 0.0100
 Mercury -110279-10-04 04:05 J -38557705.44 -38557705.33 -38557705.22 0.0132 0.0084
 Mercury -110279-12-31 07:41 J -38557617.30 -38557617.18 -38557617.05 0.0132 0.0068
 Mercury -110278-03-29 11:17 J -38557529.16 -38557529.03 -38557528.89 0.0132 0.0052
 Mercury -110278-06-25 14:53 J -38557441.02 -38557440.88 -38557440.74 0.0132 0.0035
 Mercury -110278-09-21 18:29 J -38557352.87 -38557352.73 -38557352.59 0.0132 0.0019
 Mars -110278-10-13 00:29 J -38557331.73 -38557331.48 -38557331.22 0.0132 0.0073
 Mercury -110278-12-18 21:50 J -38557264.73 -38557264.59 -38557264.44 0.0132 0.0005
 Mercury -110277-03-16 01:26 J -38557176.58 -38557176.44 -38557176.30 0.0132 0.0012
 Mercury -110277-06-12 04:48 J -38557088.44 -38557088.30 -38557088.16 0.0132 0.0028
 Mercury -110277-09-08 08:09 J -38557000.29 -38557000.16 -38557000.02 0.0132 0.0044
 Mercury -110277-12-05 11:45 J -38556912.14 -38556912.01 -38556911.89 0.0132 0.0059
 Mercury -110276-03-03 14:53 J -38556823.99 -38556823.88 -38556823.76 0.0132 0.0075
 Mercury -110276-05-30 18:14 J -38556735.83 -38556735.74 -38556735.63 0.0132 0.0090
 Mercury -110276-08-26 21:36 J -38556647.68 -38556647.60 -38556647.51 0.0132 0.0105
 Mercury -110276-11-23 00:57 J -38556559.51 -38556559.46 -38556559.40 0.0132 0.0120
 Venus -110270-06-28 10:19 J -38554516.17 -38554516.07 -38554515.93 0.0131 0.0107
 Venus -110269-02-09 13:41 J -38554290.11 -38554289.93 -38554289.74 0.0131 0.0066
 Venus -110269-09-22 16:33 J -38554064.01 -38554063.81 -38554063.59 0.0131 0.0026
 Venus -110268-05-06 19:26 J -38553837.90 -38553837.69 -38553837.47 0.0131 0.0014
 Venus -110268-12-18 22:05 J -38553611.77 -38553611.58 -38553611.38 0.0131 0.0055
 Venus -110267-08-02 00:43 J -38553385.60 -38553385.47 -38553385.31 0.0131 0.0095
 Moon -110245-08-30 09:50 J -38545321.29 -38545321.09 -38545320.88 0.0141 0.0072
 Earth -110245-08-30 11:17 J -38545321.24 -38545321.03 -38545320.80 0.0141 0.0064 *
 Earth -110244-09-04 01:26 J -38544951.67 -38544951.44 -38544951.19 0.0142 0.0043
 Moon -110244-09-04 03:50 J -38544951.58 -38544951.34 -38544951.10 0.0142 0.0047 *

Mercury -110235-03-15 20:38 J -38541836.71 -38541836.64 -38541836.56 0.0146 0.0131

Mercury -110235-06-12 03:36 J -38541748.46 -38541748.35 -38541748.23 0.0147 0.0105

Mercury -110235-09-08 10:33 J -38541660.20 -38541660.06 -38541659.91 0.0147 0.0079

Mercury -110235-12-05 17:31 J -38541571.93 -38541571.77 -38541571.60 0.0147 0.0053

Mercury -110234-03-04 00:43 J -38541483.64 -38541483.47 -38541483.30 0.0147 0.0026

Mercury -110234-05-31 07:55 J -38541395.35 -38541395.17 -38541394.99 0.0147 0.0001

Mercury -110234-08-27 15:07 J -38541307.04 -38541306.87 -38541306.70 0.0147 0.0028

Mercury -110234-11-23 22:19 J -38541218.73 -38541218.57 -38541218.40 0.0147 0.0055

Mars -110233-01-30 06:29 J -38541151.51 -38541151.23 -38541150.93 0.0147 0.0055

Mercury -110233-02-20 05:31 J -38541130.41 -38541130.27 -38541130.12 0.0147 0.0083

Mercury -110233-05-18 12:43 J -38541042.07 -38541041.97 -38541041.84 0.0147 0.0111

Mercury -110233-08-14 20:38 J -38540953.70 -38540953.64 -38540953.59 0.0147 0.0139

Venus -110228-08-14 21:07 J -38539127.77 -38539127.62 -38539127.44 0.0148 0.0096

Venus -110227-03-29 12:43 J -38538901.18 -38538900.97 -38538900.76 0.0148 0.0036

Venus -110227-11-11 04:05 J -38538674.55 -38538674.33 -38538674.11 0.0148 0.0024

Venus -110226-06-25 19:26 J -38538447.87 -38538447.69 -38538447.50 0.0147 0.0085

Venus -110225-02-07 10:48 J -38538221.08 -38538221.05 -38538221.00 0.0147 0.0145

Earth -110206-03-08 06:29 J -38531252.38 -38531252.23 -38531252.04 0.0138 0.0104

Moon -110206-03-08 06:57 J -38531252.38 -38531252.21 -38531251.99 0.0138 0.0097 *

Moon -110205-03-12 00:29 J -38530882.73 -38530882.48 -38530882.23 0.0137 0.0006

Earth -110205-03-12 00:43 J -38530882.73 -38530882.47 -38530882.20 0.0137 0.0003 *

Earth -110204-03-16 17:17 J -38530512.95 -38530512.78 -38530512.60 0.0136 0.0100

Moon -110204-03-16 18:29 J -38530512.90 -38530512.73 -38530512.54 0.0136 0.0101 *

Mercury -110195-02-02 00:14 J -38527268.51 -38527268.49 -38527268.45 0.0132 0.0129

Mercury -110195-05-01 04:05 J -38527180.40 -38527180.33 -38527180.25 0.0132 0.0113

Mercury -110195-07-28 07:41 J -38527092.27 -38527092.18 -38527092.08 0.0132 0.0096

Mercury -110195-10-24 11:17 J -38527004.14 -38527004.03 -38527003.91 0.0132 0.0080

Mercury -110194-01-20 14:53 J -38526916.00 -38526915.88 -38526915.75 0.0132 0.0064

Mercury -110194-04-18 18:29 J -38526827.86 -38526827.73 -38526827.59 0.0132 0.0047

Mercury -110194-07-15 22:05 J -38526739.72 -38526739.58 -38526739.44 0.0132 0.0031

Mercury -110194-10-12 01:26 J -38526651.58 -38526651.44 -38526651.29 0.0132 0.0016

Mercury -110193-01-08 05:02 J -38526563.43 -38526563.29 -38526563.15 0.0132 0.0001

Mercury -110193-04-05 08:24 J -38526475.29 -38526475.15 -38526475.00 0.0132 0.0017

Mars -110193-06-06 14:38 J -38526413.19 -38526412.89 -38526412.58 0.0132 0.0004

Mercury -110193-07-02 12:00 J -38526387.14 -38526387.00 -38526386.86 0.0132 0.0032

Mercury -110193-09-28 15:21 J -38526298.99 -38526298.86 -38526298.73 0.0132 0.0047

Mercury -110193-12-25 18:43 J -38526210.84 -38526210.72 -38526210.59 0.0132 0.0063

Mercury -110192-03-23 22:05 J -38526122.69 -38526122.58 -38526122.46 0.0132 0.0078

Mercury -110192-06-20 01:26 J -38526034.53 -38526034.44 -38526034.34 0.0132 0.0093

Mercury -110192-09-16 04:48 J -38525946.37 -38525946.30 -38525946.22 0.0131 0.0108

Mercury -110192-12-13 07:55 J -38525858.20 -38525858.17 -38525858.11 0.0131 0.0124

Venus -110186-02-25 21:21 J -38523957.64 -38523957.61 -38523957.53 0.0131 0.0127

Venus -110186-10-10 00:43 J -38523731.62 -38523731.47 -38523731.30 0.0131 0.0086

Venus -110185-05-23 03:36 J -38523505.54 -38523505.35 -38523505.14 0.0131 0.0046

Venus -110184-01-04 06:43 J -38523279.44 -38523279.22 -38523279.01 0.0131 0.0006

Venus -110184-08-18 09:07 J -38523053.31 -38523053.12 -38523052.90 0.0131 0.0036

Venus -110183-04-01 12:00 J -38522827.16 -38522827.00 -38522826.81 0.0131 0.0075

Venus -110183-11-13 14:24 J -38522600.98 -38522600.90 -38522600.78 0.0131 0.0116

Moon -110161-08-30 19:41 J -38514639.90 -38514639.68 -38514639.46 0.0141 0.0056

Earth -110161-08-30 19:55 J -38514639.88 -38514639.67 -38514639.43 0.0141 0.0063 *

Earth -110160-09-04 10:19 J -38514270.29 -38514270.07 -38514269.82 0.0142 0.0045

Moon -110160-09-04 11:17 J -38514270.27 -38514270.03 -38514269.77 0.0142 0.0039 *

Mercury -110151-04-05 03:36 J -38511135.43 -38511135.35 -38511135.26 0.0147 0.0127

Mercury -110151-07-02 10:33 J -38511047.18 -38511047.06 -38511046.93 0.0147 0.0101

Mercury -110151-09-28 17:31 J -38510958.92 -38510958.77 -38510958.62 0.0147 0.0075

Mars -110151-10-21 04:05 J -38510936.37 -38510936.33 -38510936.26 0.0147 0.0144

Mercury -110151-12-26 00:29 J -38510870.64 -38510870.48 -38510870.31 0.0147 0.0048

Mercury -110150-03-24 07:41 J -38510782.35 -38510782.18 -38510782.01 0.0147 0.0022

Mercury -110150-06-20 14:53 J -38510694.06 -38510693.88 -38510693.71 0.0147 0.0006

Mercury -110150-09-16 21:50 J -38510605.75 -38510605.59 -38510605.41 0.0147 0.0033

Mercury -110150-12-14 05:02 J -38510517.44 -38510517.29 -38510517.12 0.0147 0.0061

Mercury -110149-03-11 12:14 J -38510429.12 -38510428.99 -38510428.83 0.0147 0.0089

Mercury -110149-06-07 19:55 J -38510340.77 -38510340.67 -38510340.56 0.0147 0.0116

Mercury -110149-09-04 03:21 J -38510252.39 -38510252.36 -38510252.32 0.0147 0.0144

Venus -110144-04-14 01:12 J -38508569.55 -38508569.45 -38508569.33 0.0148 0.0127

Venus -110144-11-26 16:19 J -38508343.00 -38508342.82 -38508342.61 0.0148 0.0067

Venus -110143-07-11 07:55 J -38508116.39 -38508116.17 -38508115.95 0.0148 0.0006

Venus -110142-02-22 23:17 J -38507889.73 -38507889.53 -38507889.32 0.0148 0.0054

Venus -110142-10-07 14:38 J -38507663.01 -38507662.89 -38507662.73 0.0147 0.0115

Moon -110122-03-08 16:05 J -38500571.00 -38500570.83 -38500570.66 0.0138 0.0105

Earth -110122-03-08 17:31 J -38500570.95 -38500570.77 -38500570.59 0.0138 0.0098 *

Earth -110121-03-12 11:31 J -38500201.28 -38500201.02 -38500200.76 0.0137 0.0005

Moon -110121-03-12 12:14 J -38500201.24 -38500200.99 -38500200.74 0.0137 0.0010 *

Moon -110120-03-17 03:50 J -38499831.51 -38499831.34 -38499831.15 0.0136 0.0101

Earth -110120-03-17 03:50 J -38499831.49 -38499831.34 -38499831.16 0.0136 0.0105 *

Mercury -110111-02-22 07:12 J -38496567.23 -38496567.20 -38496567.14 0.0132 0.0126

Mercury -110111-05-21 11:02 J -38496479.11 -38496479.04 -38496478.95 0.0132 0.0109

Mercury -110111-08-17 14:38 J -38496390.98 -38496390.89 -38496390.78 0.0132 0.0093

Mercury -110111-11-13 18:14 J -38496302.85 -38496302.74 -38496302.61 0.0132 0.0076

Mercury -110110-02-09 22:05 J -38496214.71 -38496214.58 -38496214.45 0.0132 0.0060

Mars -110110-03-01 11:45 J -38496195.04 -38496195.01 -38496194.94 0.0132 0.0130

Mercury -110110-05-09 01:41 J -38496126.57 -38496126.43 -38496126.30 0.0132 0.0043

Mercury -110110-08-05 05:02 J -38496038.42 -38496038.29 -38496038.14 0.0132 0.0028

Mercury -110110-11-01 08:38 J -38495950.28 -38495950.14 -38495950.00 0.0132 0.0012

Mercury -110109-01-28 12:14 J -38495862.13 -38495861.99 -38495861.85 0.0132 0.0005

Mercury -110109-04-25 15:36 J -38495773.99 -38495773.85 -38495773.71 0.0132 0.0020

Mercury -110109-07-22 18:57 J -38495685.84 -38495685.71 -38495685.57 0.0132 0.0036

Mercury -110109-10-18 22:33 J -38495597.69 -38495597.56 -38495597.43 0.0132 0.0051

Mercury -110108-01-15 01:41 J -38495509.54 -38495509.43 -38495509.30 0.0132 0.0067

Mars -110108-01-30 02:38 J -38495494.62 -38495494.39 -38495494.14 0.0132 0.0082

Mercury -110108-04-13 05:17 J -38495421.39 -38495421.28 -38495421.17 0.0132 0.0082

Mercury -110108-07-10 08:38 J -38495333.23 -38495333.14 -38495333.05 0.0131 0.0097

Mercury -110108-10-06 12:00 J -38495245.07 -38495245.00 -38495244.93 0.0131 0.0112

Mercury -110107-01-02 15:21 J -38495156.90 -38495156.86 -38495156.83 0.0131 0.0127

Venus -110102-06-09 11:45 J -38493173.13 -38493173.01 -38493172.88 0.0131 0.0106

Venus -110101-01-21 14:38 J -38492947.07 -38492946.89 -38492946.70 0.0131 0.0066

Venus -110101-09-03 17:31 J -38492720.98 -38492720.77 -38492720.56 0.0131 0.0026

Venus -110100-04-17 20:24 J -38492494.86 -38492494.65 -38492494.44 0.0131 0.0015

Venus -110100-11-29 22:48 J -38492268.73 -38492268.55 -38492268.34 0.0131 0.0055

Venus -110099-07-14 01:26 J -38492042.58 -38492042.44 -38492042.28 0.0131 0.0095

Earth -110077-08-31 03:21 J -38483958.58 -38483958.36 -38483958.13 0.0141 0.0062

Moon -110077-08-31 04:05 J -38483958.53 -38483958.33 -38483958.11 0.0141 0.0070 *

Moon -110076-09-04 16:33 J -38483589.04 -38483588.81 -38483588.56 0.0142 0.0052

Earth -110076-09-04 17:31 J -38483588.99 -38483588.77 -38483588.52 0.0142 0.0045 *

Mercury -110067-04-25 09:36 J -38480434.17 -38480434.10 -38480434.00 0.0147 0.0125

Mercury -110067-07-22 16:33 J -38480345.93 -38480345.81 -38480345.67 0.0147 0.0099

Mercury -110067-10-18 23:45 J -38480257.66 -38480257.51 -38480257.36 0.0147 0.0072

Mercury -110066-01-15 06:43 J -38480169.38 -38480169.22 -38480169.05 0.0147 0.0046

Mercury -110066-04-13 13:55 J -38480081.09 -38480080.92 -38480080.75 0.0147 0.0019

Mars -110066-06-16 21:07 J -38480016.91 -38480016.62 -38480016.31 0.0147 0.0039

Mercury -110066-07-10 21:07 J -38479992.80 -38479992.62 -38479992.45 0.0147 0.0008

Mercury -110066-10-07 04:19 J -38479904.49 -38479904.32 -38479904.15 0.0147 0.0035

Mercury -110065-01-03 11:17 J -38479816.18 -38479816.03 -38479815.86 0.0147 0.0063

Mercury -110065-03-31 18:43 J -38479727.85 -38479727.72 -38479727.57 0.0147 0.0091

Mercury -110065-06-28 02:09 J -38479639.51 -38479639.41 -38479639.30 0.0147 0.0118

Mercury -110065-09-24 09:36 J -38479551.11 -38479551.10 -38479551.08 0.0147 0.0147

Jupiter -110061-07-05 03:21 J -38478171.84 -38478171.36 -38478170.84 0.0148 0.0056

Venus -110060-07-26 19:12 J -38477784.86 -38477784.70 -38477784.54 0.0148 0.0099

Venus -110059-03-10 10:33 J -38477558.27 -38477558.06 -38477557.85 0.0148 0.0039

Venus -110059-10-23 01:55 J -38477331.63 -38477331.42 -38477331.20 0.0148 0.0022

Venus -110058-06-06 17:17 J -38477104.95 -38477104.78 -38477104.59 0.0148 0.0083
 Venus -110057-01-19 08:53 J -38476878.17 -38476878.13 -38476878.07 0.0148 0.0143
 Moon -110038-03-09 00:00 J -38469889.70 -38469889.50 -38469889.29 0.0138 0.0088
 Earth -110038-03-09 02:09 J -38469889.58 -38469889.41 -38469889.20 0.0138 0.0095 *
 Earth -110037-03-12 20:53 J -38469519.89 -38469519.63 -38469519.37 0.0137 0.0008
 Moon -110037-03-12 22:48 J -38469519.80 -38469519.55 -38469519.30 0.0137 0.0001 *
 Moon -110036-03-17 11:02 J -38469150.16 -38469150.04 -38469149.86 0.0136 0.0114
 Earth -110036-03-17 13:41 J -38469150.09 -38469149.93 -38469149.77 0.0136 0.0108 *
 Mercury -110027-03-14 14:24 J -38465865.94 -38465865.90 -38465865.83 0.0132 0.0121
 Mercury -110027-06-10 18:14 J -38465777.82 -38465777.74 -38465777.65 0.0132 0.0105
 Mercury -110027-09-06 21:50 J -38465689.69 -38465689.59 -38465689.48 0.0132 0.0088
 Mercury -110027-12-04 01:26 J -38465601.55 -38465601.44 -38465601.31 0.0132 0.0072
 Mercury -110026-03-02 05:02 J -38465513.41 -38465513.29 -38465513.15 0.0132 0.0056
 Mercury -110026-05-29 08:38 J -38465425.27 -38465425.14 -38465425.00 0.0132 0.0040
 Mercury -110026-08-25 12:14 J -38465337.13 -38465336.99 -38465336.85 0.0132 0.0024
 Mars -110026-10-25 00:14 J -38465276.76 -38465276.49 -38465276.20 0.0132 0.0053
 Mercury -110026-11-21 15:50 J -38465248.99 -38465248.84 -38465248.70 0.0132 0.0008
 Mercury -110025-02-17 19:12 J -38465160.84 -38465160.70 -38465160.55 0.0132 0.0009
 Mercury -110025-05-15 22:48 J -38465072.69 -38465072.55 -38465072.41 0.0132 0.0024
 Mercury -110025-08-12 02:09 J -38464984.54 -38464984.41 -38464984.27 0.0132 0.0039
 Mercury -110025-11-08 05:31 J -38464896.40 -38464896.27 -38464896.14 0.0132 0.0055
 Mercury -110024-02-04 08:53 J -38464808.24 -38464808.13 -38464808.01 0.0132 0.0070
 Mercury -110024-05-03 12:14 J -38464720.09 -38464719.99 -38464719.88 0.0132 0.0085
 Mercury -110024-07-30 15:36 J -38464631.93 -38464631.85 -38464631.76 0.0131 0.0101
 Mercury -110024-10-26 18:57 J -38464543.77 -38464543.71 -38464543.64 0.0131 0.0116
 Mercury -110023-01-22 22:05 J -38464455.58 -38464455.58 -38464455.56 0.0131 0.0131
 Jupiter -110020-12-30 02:24 J -38463018.89 -38463018.40 -38463017.89 0.0131 0.0014
 Venus -110018-02-06 23:02 J -38462614.59 -38462614.54 -38462614.48 0.0131 0.0126
 Venus -110018-09-21 01:55 J -38462388.57 -38462388.42 -38462388.25 0.0131 0.0086
 Venus -110017-05-04 05:02 J -38462162.49 -38462162.29 -38462162.09 0.0131 0.0045

Venus -110017-12-16 07:41 J -38461936.39 -38461936.18 -38461935.96 0.0131 0.0005

Venus -110016-07-30 10:19 J -38461710.27 -38461710.07 -38461709.86 0.0131 0.0036

Venus -110015-03-13 12:43 J -38461484.12 -38461483.97 -38461483.78 0.0131 0.0077

Venus -110015-10-25 15:21 J -38461257.94 -38461257.86 -38461257.75 0.0131 0.0116

110TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 110th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-109993-08-31 11:45 J		-38453277.22	-38453277.01	-38453276.77	0.0141	0.0060	
Moon	-109993-08-31 14:24 J		-38453277.12	-38453276.90	-38453276.68	0.0141	0.0054	*
Moon	-109992-09-05 00:28 J		-38452907.72	-38452907.48	-38452907.23	0.0142	0.0039	
Earth	-109992-09-05 02:09 J		-38452907.64	-38452907.41	-38452907.17	0.0142	0.0047	*
Mercury	-109983-05-15 16:04 J		-38449732.92	-38449732.83	-38449732.73	0.0147	0.0122	
Mercury	-109983-08-11 23:02 J		-38449644.67	-38449644.54	-38449644.41	0.0147	0.0096	
Mercury	-109983-11-08 06:00 J		-38449556.40	-38449556.25	-38449556.09	0.0147	0.0069	
Mercury	-109982-02-04 12:57 J		-38449468.12	-38449467.96	-38449467.79	0.0147	0.0043	
Mercury	-109982-05-03 20:09 J		-38449379.83	-38449379.66	-38449379.48	0.0147	0.0016	
Mercury	-109982-07-31 03:21 J		-38449291.54	-38449291.36	-38449291.19	0.0147	0.0011	
Mercury	-109982-10-27 10:33 J		-38449203.23	-38449203.06	-38449202.89	0.0147	0.0038	
Mercury	-109981-01-23 17:45 J		-38449114.91	-38449114.76	-38449114.60	0.0147	0.0066	

Mars -109981-02-10 12:00 J -38449097.26 -38449097.00 -38449096.70 0.0147 0.0068
 Mercury -109981-04-21 00:57 J -38449026.59 -38449026.46 -38449026.31 0.0147 0.0093
 Mercury -109981-07-18 08:24 J -38448938.24 -38448938.15 -38448938.04 0.0147 0.0121
 Venus -109976-03-25 20:52 J -38447226.71 -38447226.63 -38447226.52 0.0148 0.0133
 Venus -109976-11-07 12:28 J -38447000.17 -38446999.98 -38446999.79 0.0148 0.0072
 Venus -109975-06-22 03:36 J -38446773.57 -38446773.35 -38446773.12 0.0148 0.0012
 Venus -109974-02-03 19:12 J -38446546.91 -38446546.70 -38446546.49 0.0148 0.0049
 Venus -109974-09-18 10:33 J -38446320.19 -38446320.06 -38446319.90 0.0148 0.0110
 Moon -109954-03-09 06:00 J -38439208.41 -38439208.25 -38439208.04 0.0138 0.0099
 Earth -109954-03-09 09:36 J -38439208.27 -38439208.10 -38439207.88 0.0138 0.0092 *
 Earth -109953-03-13 04:33 J -38438838.57 -38438838.31 -38438838.05 0.0137 0.0011
 Moon -109953-03-13 07:40 J -38438838.43 -38438838.18 -38438837.92 0.0137 0.0018 *
 Moon -109952-03-17 18:43 J -38438468.88 -38438468.72 -38438468.54 0.0136 0.0105
 Earth -109952-03-17 21:21 J -38438468.74 -38438468.61 -38438468.44 0.0136 0.0111 *
 Mercury -109943-04-03 21:36 J -38435164.67 -38435164.60 -38435164.54 0.0132 0.0118
 Mercury -109943-07-01 00:57 J -38435076.54 -38435076.46 -38435076.36 0.0132 0.0102
 Mercury -109943-09-27 04:33 J -38434988.41 -38434988.31 -38434988.19 0.0132 0.0086
 Mercury -109943-12-24 08:09 J -38434900.27 -38434900.16 -38434900.02 0.0132 0.0070
 Mercury -109942-03-22 12:00 J -38434812.13 -38434812.00 -38434811.87 0.0132 0.0052
 Mercury -109942-06-18 15:36 J -38434723.99 -38434723.85 -38434723.71 0.0132 0.0036
 Mercury -109942-09-14 19:12 J -38434635.84 -38434635.70 -38434635.56 0.0132 0.0020
 Mercury -109942-12-11 22:33 J -38434547.70 -38434547.56 -38434547.41 0.0132 0.0006
 Mercury -109941-03-09 02:09 J -38434459.55 -38434459.41 -38434459.27 0.0132 0.0011
 Mercury -109941-06-05 05:31 J -38434371.40 -38434371.27 -38434371.13 0.0132 0.0027
 Mars -109941-06-18 10:33 J -38434358.36 -38434358.06 -38434357.76 0.0132 0.0024
 Mercury -109941-09-01 09:07 J -38434283.26 -38434283.12 -38434282.99 0.0132 0.0043
 Mercury -109941-11-28 12:28 J -38434195.11 -38434194.98 -38434194.85 0.0132 0.0058
 Mercury -109940-02-24 15:50 J -38434106.95 -38434106.84 -38434106.72 0.0132 0.0073
 Mercury -109940-05-23 19:12 J -38434018.80 -38434018.70 -38434018.59 0.0132 0.0089
 Mercury -109940-08-19 22:33 J -38433930.64 -38433930.56 -38433930.47 0.0131 0.0104

Mercury -109940-11-16 01:55 J -38433842.47 -38433842.42 -38433842.36 0.0131 0.0119

Venus -109934-05-21 12:28 J -38431830.09 -38431829.98 -38431829.84 0.0131 0.0106

Venus -109933-01-02 15:36 J -38431604.03 -38431603.85 -38431603.66 0.0131 0.0065

Venus -109933-08-15 18:28 J -38431377.94 -38431377.73 -38431377.52 0.0131 0.0025

Venus -109932-03-29 21:21 J -38431151.82 -38431151.61 -38431151.40 0.0131 0.0016

Venus -109932-11-10 23:45 J -38430925.69 -38430925.51 -38430925.31 0.0131 0.0056

Venus -109931-06-25 02:24 J -38430699.54 -38430699.40 -38430699.25 0.0131 0.0096

Earth -109909-08-31 21:07 J -38422595.83 -38422595.62 -38422595.38 0.0141 0.0056

Moon -109909-09-01 00:00 J -38422595.70 -38422595.50 -38422595.27 0.0141 0.0063 *

Moon -109908-09-05 08:09 J -38422226.38 -38422226.16 -38422225.92 0.0142 0.0057

Earth -109908-09-05 11:16 J -38422226.25 -38422226.03 -38422225.78 0.0142 0.0050 *

Mercury -109899-03-08 16:19 J -38419119.86 -38419119.82 -38419119.78 0.0147 0.0142

Mercury -109899-06-04 22:48 J -38419031.64 -38419031.55 -38419031.43 0.0147 0.0117

Mercury -109899-09-01 05:45 J -38418943.38 -38418943.26 -38418943.11 0.0147 0.0091

Mars -109899-11-01 08:09 J -38418882.27 -38418882.16 -38418881.99 0.0147 0.0132

Mercury -109899-11-28 12:57 J -38418855.11 -38418854.96 -38418854.80 0.0147 0.0064

Mercury -109898-02-24 19:55 J -38418766.83 -38418766.67 -38418766.50 0.0147 0.0038

Mercury -109898-05-24 03:07 J -38418678.54 -38418678.37 -38418678.20 0.0147 0.0011

Mercury -109898-08-20 10:19 J -38418590.25 -38418590.07 -38418589.90 0.0147 0.0016

Mercury -109898-11-16 17:31 J -38418501.94 -38418501.77 -38418501.60 0.0147 0.0043

Mercury -109897-02-13 00:28 J -38418413.62 -38418413.48 -38418413.31 0.0147 0.0072

Mercury -109897-05-11 08:09 J -38418325.29 -38418325.16 -38418325.03 0.0147 0.0099

Mercury -109897-08-07 15:21 J -38418236.94 -38418236.86 -38418236.76 0.0147 0.0127

Venus -109892-07-07 15:50 J -38416442.00 -38416441.84 -38416441.68 0.0148 0.0103

Venus -109891-02-19 06:57 J -38416215.42 -38416215.21 -38416214.99 0.0148 0.0043

Venus -109891-10-03 22:33 J -38415988.78 -38415988.56 -38415988.34 0.0148 0.0018

Venus -109890-05-18 13:55 J -38415762.10 -38415761.92 -38415761.73 0.0148 0.0079

Venus -109890-12-31 05:16 J -38415535.34 -38415535.28 -38415535.20 0.0148 0.0140

Moon -109870-03-09 14:52 J -38408527.07 -38408526.88 -38408526.66 0.0138 0.0084

Earth -109870-03-09 18:57 J -38408526.91 -38408526.71 -38408526.51 0.0138 0.0088 *

Earth -109869-03-13 13:40 J -38408157.19 -38408156.93 -38408156.67 0.0137 0.0014
 Moon -109869-03-13 17:02 J -38408157.05 -38408156.79 -38408156.53 0.0137 0.0007 *
 Moon -109868-03-18 02:24 J -38407787.49 -38407787.40 -38407787.25 0.0136 0.0122
 Earth -109868-03-18 06:43 J -38407787.36 -38407787.22 -38407787.07 0.0136 0.0114 *
 Mercury -109859-01-26 00:43 J -38404551.48 -38404551.47 -38404551.44 0.0132 0.0131
 Mercury -109859-04-24 04:19 J -38404463.38 -38404463.32 -38404463.24 0.0132 0.0114
 Mercury -109859-07-21 08:09 J -38404375.25 -38404375.16 -38404375.06 0.0132 0.0098
 Mercury -109859-10-17 11:45 J -38404287.12 -38404287.01 -38404286.89 0.0132 0.0081
 Mercury -109858-01-13 15:21 J -38404198.98 -38404198.86 -38404198.73 0.0132 0.0065
 Mars -109858-03-13 08:52 J -38404140.27 -38404140.13 -38404139.94 0.0132 0.0111
 Mercury -109858-04-11 18:57 J -38404110.84 -38404110.71 -38404110.57 0.0132 0.0049
 Mercury -109858-07-08 22:33 J -38404022.69 -38404022.56 -38404022.41 0.0132 0.0033
 Mercury -109858-10-05 02:09 J -38403934.55 -38403934.41 -38403934.26 0.0132 0.0017
 Mercury -109857-01-01 05:45 J -38403846.40 -38403846.26 -38403846.12 0.0132 0.0001
 Mercury -109857-03-29 09:07 J -38403758.26 -38403758.12 -38403757.97 0.0132 0.0016
 Mercury -109857-06-25 12:43 J -38403670.11 -38403669.97 -38403669.83 0.0132 0.0031
 Mercury -109857-09-21 16:04 J -38403581.96 -38403581.83 -38403581.69 0.0132 0.0047
 Mercury -109857-12-18 19:40 J -38403493.81 -38403493.68 -38403493.56 0.0132 0.0062
 Mars -109856-02-10 22:48 J -38403439.74 -38403439.55 -38403439.36 0.0132 0.0102
 Mercury -109856-03-16 22:48 J -38403405.65 -38403405.55 -38403405.43 0.0132 0.0078
 Mercury -109856-06-13 02:09 J -38403317.50 -38403317.41 -38403317.30 0.0132 0.0093
 Mercury -109856-09-09 05:45 J -38403229.34 -38403229.26 -38403229.18 0.0131 0.0108
 Mercury -109856-12-06 09:07 J -38403141.17 -38403141.12 -38403141.07 0.0131 0.0123
 Venus -109850-01-19 00:14 J -38401271.54 -38401271.49 -38401271.42 0.0131 0.0125
 Venus -109850-09-02 02:52 J -38401045.52 -38401045.38 -38401045.20 0.0131 0.0085
 Venus -109849-04-15 06:00 J -38400819.44 -38400819.25 -38400819.04 0.0131 0.0044
 Venus -109849-11-27 08:52 J -38400593.34 -38400593.13 -38400592.91 0.0131 0.0004
 Venus -109848-07-11 11:31 J -38400367.22 -38400367.02 -38400366.81 0.0131 0.0037
 Venus -109847-02-22 13:55 J -38400141.07 -38400140.92 -38400140.73 0.0131 0.0078
 Venus -109847-10-06 16:33 J -38399914.88 -38399914.81 -38399914.70 0.0131 0.0118

Earth -109825-09-01 08:52 J -38391914.35 -38391914.13 -38391913.89 0.0141 0.0051
 Moon -109825-09-01 12:43 J -38391914.20 -38391913.97 -38391913.73 0.0141 0.0047 *
 Moon -109824-09-05 19:55 J -38391544.90 -38391544.67 -38391544.43 0.0142 0.0048
 Earth -109824-09-05 23:02 J -38391544.76 -38391544.54 -38391544.30 0.0142 0.0055 *
 Mercury -109815-03-28 23:45 J -38388418.56 -38388418.51 -38388418.43 0.0147 0.0135
 Mercury -109815-06-25 06:43 J -38388330.33 -38388330.22 -38388330.10 0.0147 0.0109
 Mercury -109815-09-21 13:40 J -38388242.07 -38388241.93 -38388241.78 0.0147 0.0083
 Mercury -109815-12-18 20:38 J -38388153.79 -38388153.64 -38388153.47 0.0147 0.0057
 Mercury -109814-03-17 03:50 J -38388065.51 -38388065.34 -38388065.17 0.0147 0.0030
 Mercury -109814-06-13 10:48 J -38387977.22 -38387977.05 -38387976.87 0.0147 0.0004
 Mars -109814-06-28 11:31 J -38387962.33 -38387962.02 -38387961.71 0.0147 0.0018
 Mercury -109814-09-09 18:00 J -38387888.92 -38387888.75 -38387888.58 0.0147 0.0024
 Mercury -109814-12-07 01:12 J -38387800.61 -38387800.45 -38387800.28 0.0147 0.0051
 Mercury -109813-03-04 08:24 J -38387712.29 -38387712.15 -38387711.99 0.0147 0.0079
 Mercury -109813-05-31 15:50 J -38387623.96 -38387623.84 -38387623.72 0.0147 0.0107
 Mercury -109813-08-27 23:16 J -38387535.60 -38387535.53 -38387535.46 0.0147 0.0134
 Venus -109808-03-06 21:21 J -38385883.71 -38385883.61 -38385883.52 0.0148 0.0132
 Venus -109808-10-19 12:14 J -38385657.17 -38385656.99 -38385656.79 0.0148 0.0072
 Venus -109807-06-03 03:36 J -38385430.57 -38385430.35 -38385430.13 0.0148 0.0011
 Venus -109806-01-15 18:57 J -38385203.92 -38385203.71 -38385203.50 0.0148 0.0050
 Venus -109806-08-30 10:33 J -38384977.21 -38384977.06 -38384976.92 0.0148 0.0111
 Moon -109786-03-10 01:40 J -38377845.61 -38377845.43 -38377845.22 0.0138 0.0088
 Earth -109786-03-10 05:16 J -38377845.48 -38377845.28 -38377845.06 0.0138 0.0083 *
 Earth -109785-03-14 00:14 J -38377475.75 -38377475.49 -38377475.23 0.0137 0.0019
 Moon -109785-03-14 03:50 J -38377475.59 -38377475.34 -38377475.07 0.0137 0.0026 *
 Moon -109784-03-18 13:40 J -38377106.06 -38377105.93 -38377105.76 0.0136 0.0112
 Earth -109784-03-18 17:16 J -38377105.89 -38377105.78 -38377105.64 0.0136 0.0119 *
 Mercury -109775-02-15 07:55 J -38373850.20 -38373850.17 -38373850.12 0.0132 0.0126
 Mercury -109775-05-14 11:45 J -38373762.09 -38373762.01 -38373761.93 0.0132 0.0109
 Mercury -109775-08-10 15:21 J -38373673.96 -38373673.86 -38373673.75 0.0132 0.0093

Mercury -109775-11-06 19:12 J -38373585.82 -38373585.70 -38373585.58 0.0132 0.0077

Mercury -109774-02-02 22:48 J -38373497.68 -38373497.55 -38373497.42 0.0132 0.0060

Mercury -109774-05-02 02:24 J -38373409.54 -38373409.40 -38373409.27 0.0132 0.0044

Mercury -109774-07-29 06:00 J -38373321.39 -38373321.25 -38373321.11 0.0132 0.0028

Mercury -109774-10-25 09:21 J -38373233.25 -38373233.11 -38373232.96 0.0132 0.0013

Mars -109774-11-05 21:50 J -38373221.88 -38373221.59 -38373221.29 0.0132 0.0031

Mercury -109773-01-21 12:57 J -38373145.10 -38373144.96 -38373144.81 0.0132 0.0004

Mercury -109773-04-18 16:33 J -38373056.95 -38373056.81 -38373056.67 0.0132 0.0020

Mercury -109773-07-15 19:55 J -38372968.80 -38372968.67 -38372968.53 0.0132 0.0035

Mercury -109773-10-11 23:16 J -38372880.65 -38372880.53 -38372880.39 0.0132 0.0051

Mercury -109772-01-08 02:38 J -38372792.50 -38372792.39 -38372792.26 0.0132 0.0067

Mercury -109772-04-06 06:14 J -38372704.35 -38372704.24 -38372704.13 0.0132 0.0082

Mercury -109772-07-03 09:36 J -38372616.19 -38372616.10 -38372616.00 0.0131 0.0097

Mercury -109772-09-29 12:57 J -38372528.03 -38372527.96 -38372527.89 0.0131 0.0112

Mercury -109772-12-26 16:19 J -38372439.85 -38372439.82 -38372439.79 0.0131 0.0127

Venus -109766-05-02 14:38 J -38370487.00 -38370486.89 -38370486.74 0.0131 0.0104

Venus -109766-12-14 17:31 J -38370260.94 -38370260.77 -38370260.57 0.0131 0.0063

Venus -109765-07-27 20:38 J -38370034.85 -38370034.64 -38370034.43 0.0131 0.0022

Venus -109764-03-10 23:16 J -38369808.74 -38369808.53 -38369808.31 0.0131 0.0019

Venus -109764-10-23 01:55 J -38369582.60 -38369582.42 -38369582.22 0.0131 0.0059

Venus -109763-06-06 04:19 J -38369356.44 -38369356.32 -38369356.17 0.0131 0.0100

Earth -109741-09-01 20:24 J -38361232.88 -38361232.65 -38361232.41 0.0141 0.0047

Moon -109741-09-01 23:45 J -38361232.74 -38361232.51 -38361232.27 0.0141 0.0050 *

Moon -109740-09-06 06:43 J -38360863.43 -38360863.22 -38360862.99 0.0142 0.0066

Earth -109740-09-06 10:33 J -38360863.28 -38360863.06 -38360862.83 0.0142 0.0059 *

Mercury -109731-04-18 07:40 J -38357717.25 -38357717.18 -38357717.08 0.0147 0.0127

Mercury -109731-07-15 14:38 J -38357629.01 -38357628.89 -38357628.76 0.0147 0.0101

Mercury -109731-10-11 21:36 J -38357540.74 -38357540.60 -38357540.45 0.0147 0.0075

Mercury -109730-01-08 04:48 J -38357452.47 -38357452.30 -38357452.14 0.0147 0.0048

Mercury -109730-04-06 11:45 J -38357364.18 -38357364.01 -38357363.84 0.0147 0.0022

Mercury -109730-07-03 18:43 J -38357275.89 -38357275.72 -38357275.54 0.0147 0.0007

Mercury -109730-09-30 01:55 J -38357187.59 -38357187.42 -38357187.24 0.0147 0.0033

Mercury -109730-12-27 09:07 J -38357099.27 -38357099.12 -38357098.95 0.0147 0.0060

Mars -109729-02-22 15:21 J -38357042.09 -38357041.86 -38357041.62 0.0147 0.0097

Mercury -109729-03-24 16:33 J -38357010.95 -38357010.81 -38357010.67 0.0147 0.0088

Mercury -109729-06-20 23:45 J -38356922.61 -38356922.51 -38356922.39 0.0147 0.0116

Mercury -109729-09-17 07:12 J -38356834.23 -38356834.20 -38356834.16 0.0147 0.0144

Venus -109724-06-18 18:43 J -38355098.89 -38355098.72 -38355098.56 0.0148 0.0099

Venus -109723-01-31 09:50 J -38354872.30 -38354872.09 -38354871.88 0.0148 0.0038

Venus -109723-09-15 01:12 J -38354645.66 -38354645.45 -38354645.23 0.0148 0.0023

Venus -109722-04-29 16:33 J -38354418.98 -38354418.81 -38354418.62 0.0148 0.0084

Venus -109722-12-12 07:55 J -38354192.20 -38354192.17 -38354192.12 0.0148 0.0145

Moon -109702-03-10 15:36 J -38347164.06 -38347163.85 -38347163.63 0.0138 0.0074

Earth -109702-03-10 18:14 J -38347163.94 -38347163.74 -38347163.51 0.0138 0.0077 *

Earth -109701-03-14 13:12 J -38346794.20 -38346793.95 -38346793.69 0.0137 0.0025

Moon -109701-03-14 16:19 J -38346794.08 -38346793.82 -38346793.55 0.0137 0.0019 *

Moon -109700-03-19 02:24 J -38346424.44 -38346424.40 -38346424.31 0.0136 0.0133

Earth -109700-03-19 06:00 J -38346424.33 -38346424.25 -38346424.12 0.0136 0.0125 *

Mercury -109691-03-07 15:36 J -38343148.90 -38343148.85 -38343148.79 0.0132 0.0120

Mercury -109691-06-03 19:12 J -38343060.78 -38343060.70 -38343060.60 0.0132 0.0104

Mercury -109691-08-30 23:02 J -38342972.65 -38342972.54 -38342972.43 0.0132 0.0087

Mercury -109691-11-27 02:38 J -38342884.51 -38342884.39 -38342884.27 0.0132 0.0071

Mercury -109690-02-23 06:14 J -38342796.37 -38342796.24 -38342796.11 0.0132 0.0055

Mercury -109690-05-22 09:50 J -38342708.22 -38342708.09 -38342707.95 0.0132 0.0039

Mercury -109690-08-18 13:26 J -38342620.08 -38342619.94 -38342619.80 0.0132 0.0023

Mercury -109690-11-14 17:02 J -38342531.93 -38342531.79 -38342531.65 0.0132 0.0007

Mercury -109689-02-10 20:38 J -38342443.79 -38342443.64 -38342443.50 0.0132 0.0010

Mercury -109689-05-09 00:00 J -38342355.64 -38342355.50 -38342355.36 0.0132 0.0025

Mars -109689-06-30 14:09 J -38342303.19 -38342302.91 -38342302.62 0.0132 0.0049

Mercury -109689-08-05 03:21 J -38342267.49 -38342267.36 -38342267.22 0.0132 0.0041

Mercury -109689-11-01 06:57 J -38342179.34 -38342179.21 -38342179.08 0.0132 0.0056

Mercury -109688-01-28 10:19 J -38342091.19 -38342091.07 -38342090.95 0.0132 0.0071

Mercury -109688-04-26 13:40 J -38342003.03 -38342002.93 -38342002.82 0.0131 0.0087

Mercury -109688-07-23 16:48 J -38341914.87 -38341914.80 -38341914.70 0.0131 0.0103

Mercury -109688-10-19 20:09 J -38341826.71 -38341826.66 -38341826.58 0.0131 0.0118

Venus -109683-12-31 03:07 J -38339928.44 -38339928.37 -38339928.29 0.0131 0.0122

Venus -109682-08-14 05:45 J -38339702.41 -38339702.26 -38339702.07 0.0131 0.0082

Venus -109681-03-27 08:52 J -38339476.32 -38339476.13 -38339475.92 0.0131 0.0041

Venus -109681-11-08 11:45 J -38339250.22 -38339250.01 -38339249.79 0.0131 0.0002

Venus -109680-06-22 14:24 J -38339024.10 -38339023.90 -38339023.69 0.0131 0.0041

Venus -109679-02-03 17:02 J -38338797.95 -38338797.79 -38338797.62 0.0131 0.0082

Venus -109679-09-17 19:26 J -38338571.75 -38338571.69 -38338571.60 0.0131 0.0122

Earth -109657-09-02 08:38 J -38330551.37 -38330551.14 -38330550.89 0.0141 0.0041

Moon -109657-09-02 12:00 J -38330551.24 -38330551.00 -38330550.76 0.0141 0.0039 *

Moon -109656-09-06 19:55 J -38330181.88 -38330181.67 -38330181.44 0.0142 0.0060

Earth -109656-09-06 22:48 J -38330181.77 -38330181.55 -38330181.33 0.0142 0.0064 *

Mercury -109647-02-09 08:52 J -38327104.15 -38327104.13 -38327104.09 0.0147 0.0144

Mercury -109647-05-08 15:50 J -38327015.93 -38327015.84 -38327015.73 0.0147 0.0118

Mercury -109647-08-04 22:48 J -38326927.68 -38326927.55 -38326927.42 0.0147 0.0092

Mercury -109647-11-01 05:45 J -38326839.41 -38326839.26 -38326839.11 0.0147 0.0066

Mars -109647-11-13 17:02 J -38326827.00 -38326826.79 -38326826.53 0.0147 0.0099

Mercury -109646-01-28 12:43 J -38326751.14 -38326750.97 -38326750.80 0.0147 0.0040

Mercury -109646-04-26 19:55 J -38326662.85 -38326662.67 -38326662.50 0.0147 0.0013

Mercury -109646-07-24 02:52 J -38326574.55 -38326574.38 -38326574.20 0.0147 0.0014

Mercury -109646-10-20 10:04 J -38326486.25 -38326486.08 -38326485.91 0.0147 0.0041

Mercury -109645-01-16 17:16 J -38326397.93 -38326397.78 -38326397.62 0.0147 0.0069

Mercury -109645-04-14 00:28 J -38326309.60 -38326309.48 -38326309.34 0.0147 0.0097

Mercury -109645-07-11 07:55 J -38326221.26 -38326221.17 -38326221.07 0.0147 0.0124

Venus -109640-02-16 00:28 J -38324540.57 -38324540.48 -38324540.35 0.0148 0.0128

Venus -109640-09-30 16:04 J -38324314.02 -38324313.83 -38324313.63 0.0148 0.0067

Venus -109639-05-15 07:26 J -38324087.41 -38324087.19 -38324086.97 0.0148 0.0006
 Venus -109639-12-27 22:48 J -38323860.75 -38323860.55 -38323860.34 0.0148 0.0056
 Venus -109638-08-11 13:55 J -38323634.04 -38323633.92 -38323633.77 0.0148 0.0118
 Moon -109618-03-11 06:28 J -38316482.44 -38316482.23 -38316482.00 0.0138 0.0071
 Earth -109618-03-11 08:09 J -38316482.38 -38316482.16 -38316481.92 0.0138 0.0069 *
 Earth -109617-03-15 03:07 J -38316112.63 -38316112.37 -38316112.12 0.0137 0.0032
 Moon -109617-03-15 05:31 J -38316112.52 -38316112.27 -38316112.01 0.0137 0.0038 *
 Moon -109616-03-19 17:45 J -38315742.85 -38315742.76 -38315742.65 0.0136 0.0125
 Earth -109616-03-19 19:40 J -38315742.72 -38315742.68 -38315742.59 0.0136 0.0132 *
 Mercury -109608-12-29 19:12 J -38312535.70 -38312535.70 -38312535.67 0.0132 0.0132
 Mercury -109607-03-27 23:16 J -38312447.60 -38312447.53 -38312447.46 0.0132 0.0114
 Mercury -109607-06-24 02:52 J -38312359.47 -38312359.38 -38312359.28 0.0132 0.0098
 Mercury -109607-09-20 06:43 J -38312271.33 -38312271.22 -38312271.11 0.0132 0.0081
 Mercury -109607-12-17 10:19 J -38312183.19 -38312183.07 -38312182.94 0.0132 0.0065
 Mercury -109606-03-15 13:55 J -38312095.05 -38312094.92 -38312094.79 0.0132 0.0049
 Mars -109606-03-25 18:57 J -38312084.93 -38312084.71 -38312084.46 0.0132 0.0082
 Mercury -109606-06-11 17:31 J -38312006.91 -38312006.77 -38312006.63 0.0132 0.0033
 Mercury -109606-09-07 21:07 J -38311918.76 -38311918.62 -38311918.48 0.0132 0.0017
 Mercury -109606-12-05 00:43 J -38311830.62 -38311830.47 -38311830.33 0.0132 0.0003
 Mercury -109605-03-02 04:04 J -38311742.47 -38311742.33 -38311742.18 0.0132 0.0015
 Mercury -109605-05-29 07:40 J -38311654.32 -38311654.18 -38311654.04 0.0132 0.0031
 Mercury -109605-08-25 11:02 J -38311566.17 -38311566.04 -38311565.90 0.0132 0.0046
 Mercury -109605-11-21 14:24 J -38311478.02 -38311477.90 -38311477.77 0.0131 0.0062
 Mercury -109604-02-17 18:00 J -38311389.86 -38311389.75 -38311389.64 0.0131 0.0077
 Mars -109604-02-23 07:26 J -38311384.21 -38311384.19 -38311384.11 0.0131 0.0130
 Mercury -109604-05-16 21:07 J -38311301.71 -38311301.62 -38311301.51 0.0131 0.0093
 Mercury -109604-08-13 00:28 J -38311213.55 -38311213.48 -38311213.39 0.0131 0.0108
 Mercury -109604-11-09 03:50 J -38311125.38 -38311125.34 -38311125.28 0.0131 0.0123
 Venus -109598-04-13 18:28 J -38309143.86 -38309143.73 -38309143.59 0.0131 0.0100
 Venus -109598-11-25 21:21 J -38308917.80 -38308917.61 -38308917.42 0.0131 0.0059

Venus -109597-07-09 00:00 J -38308691.71 -38308691.50 -38308691.29 0.0131 0.0019
 Venus -109596-02-20 02:38 J -38308465.59 -38308465.39 -38308465.17 0.0131 0.0023
 Venus -109596-10-04 05:16 J -38308239.46 -38308239.28 -38308239.09 0.0131 0.0063
 Venus -109595-05-18 07:40 J -38308013.29 -38308013.18 -38308013.03 0.0131 0.0104
 Earth -109573-09-02 18:14 J -38299869.97 -38299869.74 -38299869.49 0.0141 0.0039
 Moon -109573-09-02 19:55 J -38299869.91 -38299869.67 -38299869.42 0.0141 0.0038 *
 Moon -109572-09-07 06:00 J -38299500.46 -38299500.25 -38299500.04 0.0142 0.0070
 Earth -109572-09-07 08:09 J -38299500.37 -38299500.16 -38299499.93 0.0142 0.0066 *
 Mercury -109563-03-01 16:19 J -38296402.87 -38296402.82 -38296402.76 0.0147 0.0138
 Mercury -109563-05-28 22:48 J -38296314.64 -38296314.55 -38296314.43 0.0147 0.0113
 Mercury -109563-08-25 05:45 J -38296226.39 -38296226.26 -38296226.11 0.0147 0.0087
 Mercury -109563-11-21 12:57 J -38296138.12 -38296137.96 -38296137.80 0.0147 0.0060
 Mercury -109562-02-17 19:55 J -38296049.84 -38296049.67 -38296049.50 0.0147 0.0034
 Mercury -109562-05-17 03:07 J -38295961.55 -38295961.37 -38295961.20 0.0147 0.0007
 Mars -109562-07-10 18:28 J -38295907.04 -38295906.73 -38295906.41 0.0147 0.0013
 Mercury -109562-08-13 10:04 J -38295873.25 -38295873.08 -38295872.90 0.0147 0.0021
 Mercury -109562-11-09 17:16 J -38295784.94 -38295784.78 -38295784.61 0.0147 0.0048
 Mercury -109561-02-06 00:28 J -38295696.62 -38295696.48 -38295696.32 0.0147 0.0075
 Mercury -109561-05-04 07:55 J -38295608.29 -38295608.17 -38295608.04 0.0147 0.0103
 Mercury -109561-07-31 15:21 J -38295519.94 -38295519.86 -38295519.78 0.0147 0.0131
 Venus -109556-05-30 20:38 J -38293755.80 -38293755.64 -38293755.47 0.0148 0.0097
 Venus -109555-01-12 12:00 J -38293529.21 -38293529.00 -38293528.78 0.0148 0.0036
 Venus -109555-08-27 03:36 J -38293302.57 -38293302.35 -38293302.13 0.0148 0.0026
 Venus -109554-04-10 18:57 J -38293075.88 -38293075.71 -38293075.53 0.0148 0.0088
 Moon -109534-03-11 21:07 J -38285800.83 -38285800.62 -38285800.38 0.0138 0.0061
 Earth -109534-03-11 21:50 J -38285800.81 -38285800.59 -38285800.34 0.0138 0.0062 *
 Earth -109533-03-15 16:48 J -38285431.04 -38285430.80 -38285430.54 0.0137 0.0040
 Moon -109533-03-15 17:45 J -38285431.02 -38285430.76 -38285430.50 0.0137 0.0036 *
 Mercury -109523-01-19 03:21 J -38281834.40 -38281834.36 -38281834.31 0.0132 0.0125
 Mercury -109523-04-17 06:57 J -38281746.29 -38281746.21 -38281746.12 0.0132 0.0108

Mercury -109523-07-14 10:48 J -38281658.15 -38281658.05 -38281657.95 0.0132 0.0091
 Mercury -109523-10-10 14:24 J -38281570.02 -38281569.90 -38281569.78 0.0132 0.0075
 Mercury -109522-01-06 18:00 J -38281481.87 -38281481.75 -38281481.62 0.0132 0.0059
 Mercury -109522-04-04 21:36 J -38281393.73 -38281393.60 -38281393.46 0.0132 0.0043
 Mercury -109522-07-02 01:12 J -38281305.59 -38281305.45 -38281305.31 0.0132 0.0027
 Mercury -109522-09-28 04:48 J -38281217.44 -38281217.30 -38281217.15 0.0132 0.0011
 Mars -109522-11-18 12:57 J -38281166.27 -38281165.96 -38281165.66 0.0132 0.0001
 Mercury -109522-12-25 08:24 J -38281129.29 -38281129.15 -38281129.01 0.0132 0.0005
 Mercury -109521-03-22 11:45 J -38281041.14 -38281041.01 -38281040.86 0.0132 0.0022
 Mercury -109521-06-18 15:21 J -38280953.00 -38280952.86 -38280952.72 0.0132 0.0037
 Mercury -109521-09-14 18:43 J -38280864.85 -38280864.72 -38280864.58 0.0131 0.0052
 Mercury -109521-12-11 22:04 J -38280776.69 -38280776.58 -38280776.45 0.0131 0.0068
 Mercury -109520-03-10 01:40 J -38280688.54 -38280688.43 -38280688.32 0.0131 0.0083
 Mercury -109520-06-06 04:48 J -38280600.38 -38280600.30 -38280600.20 0.0131 0.0098
 Mercury -109520-09-02 08:09 J -38280512.22 -38280512.16 -38280512.08 0.0131 0.0113
 Mercury -109520-11-29 11:31 J -38280424.04 -38280424.02 -38280423.98 0.0131 0.0128
 Venus -109515-12-12 06:43 J -38278585.29 -38278585.22 -38278585.11 0.0131 0.0119
 Venus -109514-07-26 09:50 J -38278359.25 -38278359.09 -38278358.91 0.0131 0.0078
 Venus -109513-03-08 12:43 J -38278133.17 -38278132.97 -38278132.75 0.0131 0.0037
 Venus -109513-10-20 15:36 J -38277907.06 -38277906.85 -38277906.63 0.0131 0.0005
 Venus -109512-06-03 18:14 J -38277680.94 -38277680.74 -38277680.54 0.0131 0.0045
 Venus -109511-01-15 20:38 J -38277454.79 -38277454.64 -38277454.47 0.0131 0.0086
 Venus -109511-08-29 23:02 J -38277228.57 -38277228.54 -38277228.47 0.0131 0.0127
 Moon -109490-08-30 16:19 J -38269557.89 -38269557.82 -38269557.73 0.0141 0.0132
 Earth -109490-08-30 16:19 J -38269557.86 -38269557.82 -38269557.75 0.0141 0.0137 *
 Earth -109489-09-03 04:33 J -38269188.54 -38269188.31 -38269188.06 0.0141 0.0036
 Moon -109489-09-03 05:45 J -38269188.50 -38269188.26 -38269188.01 0.0141 0.0036 *
 Moon -109488-09-07 17:31 J -38268818.97 -38268818.77 -38268818.55 0.0142 0.0068
 Earth -109488-09-07 18:28 J -38268818.95 -38268818.73 -38268818.51 0.0142 0.0069 *
 Mercury -109479-03-21 23:16 J -38265701.59 -38265701.53 -38265701.45 0.0147 0.0133

Mercury -109479-06-18 06:14 J -38265613.35 -38265613.24 -38265613.12 0.0147 0.0107
 Mercury -109479-09-14 12:57 J -38265525.10 -38265524.96 -38265524.81 0.0147 0.0081
 Mercury -109479-12-11 19:55 J -38265436.82 -38265436.67 -38265436.50 0.0147 0.0055
 Mercury -109478-03-10 03:07 J -38265348.54 -38265348.37 -38265348.20 0.0147 0.0028
 Mercury -109478-06-06 10:04 J -38265260.25 -38265260.08 -38265259.90 0.0147 0.0003
 Mercury -109478-09-02 17:16 J -38265171.95 -38265171.78 -38265171.61 0.0147 0.0025
 Mercury -109478-11-30 00:28 J -38265083.64 -38265083.48 -38265083.32 0.0147 0.0053
 Mercury -109477-02-26 07:40 J -38264995.33 -38264995.18 -38264995.03 0.0147 0.0080
 Mars -109477-03-05 16:19 J -38264986.97 -38264986.82 -38264986.63 0.0147 0.0123
 Mercury -109477-05-24 14:52 J -38264906.99 -38264906.88 -38264906.75 0.0147 0.0108
 Mercury -109477-08-20 22:04 J -38264818.63 -38264818.58 -38264818.50 0.0148 0.0137
 Venus -109472-01-28 00:00 J -38263197.59 -38263197.50 -38263197.37 0.0148 0.0130
 Venus -109472-09-11 15:50 J -38262971.03 -38262970.84 -38262970.64 0.0148 0.0067
 Venus -109471-04-26 07:12 J -38262744.42 -38262744.20 -38262743.98 0.0148 0.0006
 Venus -109471-12-08 22:19 J -38262517.76 -38262517.57 -38262517.35 0.0148 0.0057
 Venus -109470-07-23 13:40 J -38262291.04 -38262290.93 -38262290.78 0.0148 0.0119
 Earth -109450-03-12 09:36 J -38255119.34 -38255119.10 -38255118.86 0.0138 0.0055
 Moon -109450-03-12 10:19 J -38255119.29 -38255119.07 -38255118.83 0.0138 0.0054 *
 Moon -109449-03-16 04:04 J -38254749.57 -38254749.33 -38254749.07 0.0137 0.0049
 Earth -109449-03-16 04:19 J -38254749.57 -38254749.32 -38254749.08 0.0137 0.0046 *
 Mercury -109439-02-08 11:02 J -38251133.10 -38251133.04 -38251132.98 0.0132 0.0119
 Mercury -109439-05-07 14:38 J -38251044.98 -38251044.89 -38251044.80 0.0132 0.0102
 Mercury -109439-08-03 18:14 J -38250956.84 -38250956.74 -38250956.62 0.0132 0.0086
 Mars -109439-08-12 18:14 J -38250947.75 -38250947.74 -38250947.70 0.0132 0.0132
 Mercury -109439-10-30 22:04 J -38250868.70 -38250868.58 -38250868.46 0.0132 0.0069
 Mercury -109438-01-27 01:40 J -38250780.56 -38250780.43 -38250780.30 0.0132 0.0053
 Mercury -109438-04-25 05:16 J -38250692.42 -38250692.28 -38250692.14 0.0132 0.0037
 Mercury -109438-07-22 08:52 J -38250604.27 -38250604.13 -38250603.99 0.0132 0.0021
 Mercury -109438-10-18 12:28 J -38250516.13 -38250515.98 -38250515.84 0.0132 0.0005
 Mercury -109437-01-14 15:50 J -38250427.98 -38250427.84 -38250427.69 0.0132 0.0012

Mercury -109437-04-11 19:26 J -38250339.83 -38250339.69 -38250339.55 0.0132 0.0027
 Mercury -109437-07-08 22:48 J -38250251.68 -38250251.55 -38250251.41 0.0132 0.0043
 Mars -109437-07-13 04:33 J -38250247.54 -38250247.31 -38250247.05 0.0132 0.0080
 Mercury -109437-10-05 02:24 J -38250163.53 -38250163.40 -38250163.27 0.0132 0.0058
 Mercury -109436-01-01 05:31 J -38250075.37 -38250075.27 -38250075.14 0.0131 0.0074
 Mercury -109436-03-30 09:07 J -38249987.22 -38249987.12 -38249987.01 0.0131 0.0088
 Mercury -109436-06-26 12:28 J -38249899.06 -38249898.98 -38249898.89 0.0131 0.0103
 Mercury -109436-09-22 15:50 J -38249810.89 -38249810.84 -38249810.78 0.0131 0.0118
 Venus -109430-03-25 22:19 J -38247800.70 -38247800.57 -38247800.41 0.0131 0.0096
 Venus -109430-11-07 01:12 J -38247574.63 -38247574.45 -38247574.24 0.0131 0.0055
 Venus -109429-06-20 04:04 J -38247348.54 -38247348.33 -38247348.11 0.0131 0.0014
 Venus -109428-02-01 06:43 J -38247122.42 -38247122.22 -38247122.00 0.0131 0.0028
 Venus -109428-09-15 09:21 J -38246896.28 -38246896.11 -38246895.92 0.0131 0.0068
 Venus -109427-04-29 12:00 J -38246670.11 -38246670.00 -38246669.87 0.0131 0.0109
 Earth -109406-08-31 02:24 J -38238876.47 -38238876.40 -38238876.31 0.0141 0.0133
 Moon -109406-08-31 02:52 J -38238876.40 -38238876.38 -38238876.33 0.0141 0.0139 *
 Moon -109405-09-03 13:40 J -38238507.18 -38238506.93 -38238506.68 0.0141 0.0028
 Earth -109405-09-03 14:38 J -38238507.13 -38238506.89 -38238506.65 0.0141 0.0032 *
 Earth -109404-09-08 04:04 J -38238137.54 -38238137.33 -38238137.12 0.0142 0.0072
 Moon -109404-09-08 04:04 J -38238137.52 -38238137.33 -38238137.11 0.0142 0.0073 *
 Mercury -109395-04-11 06:14 J -38235000.32 -38235000.24 -38235000.15 0.0147 0.0128
 Mercury -109395-07-08 13:12 J -38234912.07 -38234911.95 -38234911.83 0.0147 0.0102
 Mercury -109395-10-04 19:55 J -38234823.81 -38234823.67 -38234823.52 0.0147 0.0076
 Mars -109395-11-25 08:52 J -38234772.39 -38234772.13 -38234771.86 0.0147 0.0078
 Mercury -109394-01-01 02:52 J -38234735.54 -38234735.38 -38234735.21 0.0147 0.0050
 Mercury -109394-03-30 09:50 J -38234647.26 -38234647.09 -38234646.91 0.0147 0.0024
 Mercury -109394-06-26 17:02 J -38234558.97 -38234558.79 -38234558.62 0.0147 0.0003
 Mercury -109394-09-23 00:00 J -38234470.67 -38234470.50 -38234470.32 0.0147 0.0031
 Mercury -109394-12-20 07:12 J -38234382.36 -38234382.20 -38234382.03 0.0147 0.0058
 Mercury -109393-03-17 14:24 J -38234294.04 -38234293.90 -38234293.75 0.0147 0.0085

Mercury -109393-06-13 21:50 J -38234205.70 -38234205.59 -38234205.48 0.0147 0.0113
 Mercury -109393-09-10 05:02 J -38234117.33 -38234117.29 -38234117.23 0.0148 0.0141
 Venus -109388-05-11 18:57 J -38232412.86 -38232412.71 -38232412.54 0.0148 0.0100
 Venus -109388-12-24 10:19 J -38232186.28 -38232186.07 -38232185.85 0.0148 0.0038
 Venus -109387-08-08 01:40 J -38231959.64 -38231959.43 -38231959.20 0.0148 0.0025
 Venus -109386-03-22 17:16 J -38231732.95 -38231732.78 -38231732.59 0.0148 0.0087
 Earth -109366-03-12 20:09 J -38224437.90 -38224437.66 -38224437.41 0.0138 0.0050
 Moon -109366-03-12 22:04 J -38224437.82 -38224437.58 -38224437.35 0.0138 0.0052 *
 Moon -109365-03-16 13:12 J -38224068.19 -38224067.95 -38224067.69 0.0137 0.0050
 Earth -109365-03-16 14:52 J -38224068.11 -38224067.88 -38224067.62 0.0137 0.0051 *
 Mercury -109356-12-02 14:38 J -38220519.91 -38220519.89 -38220519.86 0.0132 0.0130
 Mercury -109355-02-28 18:14 J -38220431.80 -38220431.74 -38220431.65 0.0132 0.0114
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 Mercury -109355-11-20 05:31 J -38220167.39 -38220167.27 -38220167.14 0.0132 0.0064
 Mercury -109354-02-16 09:21 J -38220079.25 -38220079.11 -38220078.98 0.0132 0.0047
 Mars -109354-04-07 10:19 J -38220029.34 -38220029.07 -38220028.79 0.0132 0.0051
 Mercury -109354-05-15 12:57 J -38219991.10 -38219990.96 -38219990.82 0.0132 0.0031
 Mercury -109354-08-11 16:19 J -38219902.96 -38219902.82 -38219902.67 0.0132 0.0016
 Mercury -109354-11-07 19:55 J -38219814.81 -38219814.67 -38219814.52 0.0132 0.0003
 Mercury -109353-02-03 23:31 J -38219726.66 -38219726.52 -38219726.38 0.0132 0.0016
 Mercury -109353-05-02 02:52 J -38219638.51 -38219638.38 -38219638.24 0.0132 0.0033
 Mercury -109353-07-29 06:28 J -38219550.36 -38219550.23 -38219550.10 0.0132 0.0048
 Mercury -109353-10-25 09:50 J -38219462.21 -38219462.09 -38219461.96 0.0132 0.0063
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 Mercury -109352-04-19 16:48 J -38219285.90 -38219285.80 -38219285.70 0.0131 0.0094
 Mercury -109352-07-16 20:09 J -38219197.74 -38219197.66 -38219197.58 0.0131 0.0109
 Mercury -109352-10-12 23:31 J -38219109.56 -38219109.52 -38219109.48 0.0131 0.0124
 Venus -109347-11-23 11:16 J -38217242.12 -38217242.03 -38217241.91 0.0131 0.0114
 Venus -109346-07-07 14:09 J -38217016.08 -38217015.91 -38217015.72 0.0131 0.0073

Venus -109345-02-18 17:02 J -38216789.99 -38216789.79 -38216789.57 0.0131 0.0032
 Venus -109345-10-01 20:09 J -38216563.88 -38216563.66 -38216563.45 0.0131 0.0010
 Venus -109344-05-15 22:48 J -38216337.75 -38216337.55 -38216337.35 0.0131 0.0051
 Venus -109344-12-28 01:12 J -38216111.59 -38216111.45 -38216111.29 0.0131 0.0092
 Earth -109322-08-31 15:50 J -38208194.94 -38208194.84 -38208194.73 0.0141 0.0126
 Moon -109322-08-31 17:31 J -38208194.87 -38208194.77 -38208194.62 0.0141 0.0120 *
 Moon -109321-09-04 01:55 J -38207825.66 -38207825.42 -38207825.17 0.0141 0.0029
 Earth -109321-09-04 03:50 J -38207825.58 -38207825.34 -38207825.09 0.0141 0.0025 *
 Earth -109320-09-08 17:02 J -38207455.99 -38207455.79 -38207455.58 0.0142 0.0079
 Moon -109320-09-08 18:14 J -38207455.92 -38207455.74 -38207455.53 0.0142 0.0080 *
 Mercury -109311-02-02 07:26 J -38204387.20 -38204387.19 -38204387.16 0.0147 0.0145
 Mercury -109311-05-01 14:24 J -38204299.00 -38204298.90 -38204298.80 0.0147 0.0119
 Mercury -109311-07-28 20:52 J -38204210.75 -38204210.63 -38204210.49 0.0147 0.0094
 Mercury -109311-10-25 03:50 J -38204122.48 -38204122.34 -38204122.18 0.0147 0.0068
 Mercury -109310-01-21 11:02 J -38204034.21 -38204034.04 -38204033.88 0.0147 0.0041
 Mercury -109310-04-19 18:00 J -38203945.92 -38203945.75 -38203945.58 0.0147 0.0015
 Mercury -109310-07-17 00:57 J -38203857.63 -38203857.46 -38203857.28 0.0147 0.0012
 Mars -109310-07-22 15:36 J -38203852.15 -38203851.85 -38203851.55 0.0147 0.0038
 Mercury -109310-10-13 07:55 J -38203769.33 -38203769.17 -38203768.99 0.0147 0.0040
 Mercury -109309-01-09 15:07 J -38203681.02 -38203680.87 -38203680.71 0.0147 0.0067
 Mercury -109309-04-06 22:33 J -38203592.69 -38203592.56 -38203592.43 0.0147 0.0094
 Mercury -109309-07-04 05:45 J -38203504.35 -38203504.26 -38203504.16 0.0147 0.0122
 Venus -109304-01-09 00:43 J -38201854.57 -38201854.47 -38201854.36 0.0148 0.0128
 Venus -109304-08-23 16:04 J -38201628.02 -38201627.83 -38201627.63 0.0148 0.0066
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 Venus -109303-11-19 22:48 J -38201174.75 -38201174.55 -38201174.34 0.0148 0.0058
 Venus -109302-07-04 14:38 J -38200948.02 -38200947.89 -38200947.77 0.0148 0.0120
 Earth -109282-03-13 07:55 J -38193756.41 -38193756.17 -38193755.91 0.0138 0.0044
 Moon -109282-03-13 11:02 J -38193756.28 -38193756.04 -38193755.79 0.0138 0.0040 *
 Moon -109281-03-16 23:45 J -38193386.74 -38193386.51 -38193386.25 0.0137 0.0056

Earth -109281-03-17 02:38 J -38193386.62 -38193386.39 -38193386.14 0.0137 0.0057 *
 Mercury -109272-12-22 22:19 J -38189818.61 -38189818.57 -38189818.51 0.0132 0.0124
 Mercury -109271-03-21 01:55 J -38189730.49 -38189730.42 -38189730.32 0.0132 0.0108
 Mercury -109271-06-17 05:45 J -38189642.36 -38189642.26 -38189642.15 0.0132 0.0091
 Mercury -109271-09-13 09:21 J -38189554.22 -38189554.11 -38189553.98 0.0132 0.0075
 Mercury -109271-12-10 13:12 J -38189466.08 -38189465.95 -38189465.82 0.0132 0.0058
 Mercury -109270-03-08 16:48 J -38189377.93 -38189377.80 -38189377.66 0.0132 0.0042
 Mercury -109270-06-04 20:24 J -38189289.79 -38189289.65 -38189289.50 0.0132 0.0026
 Mercury -109270-09-01 00:00 J -38189201.64 -38189201.50 -38189201.35 0.0132 0.0010
 Mercury -109270-11-28 03:36 J -38189113.49 -38189113.35 -38189113.21 0.0132 0.0007
 Mars -109270-12-01 01:55 J -38189110.71 -38189110.42 -38189110.12 0.0132 0.0030
 Mercury -109269-02-24 07:12 J -38189025.34 -38189025.20 -38189025.06 0.0132 0.0022
 Mercury -109269-05-22 10:33 J -38188937.19 -38188937.06 -38188936.92 0.0132 0.0038
 Mercury -109269-08-18 13:55 J -38188849.04 -38188848.92 -38188848.78 0.0132 0.0054
 Mercury -109269-11-14 17:31 J -38188760.89 -38188760.77 -38188760.65 0.0132 0.0069
 Mercury -109268-02-10 20:52 J -38188672.73 -38188672.63 -38188672.52 0.0132 0.0084
 Mercury -109268-05-10 00:14 J -38188584.57 -38188584.49 -38188584.39 0.0132 0.0099
 Mercury -109268-08-06 03:36 J -38188496.41 -38188496.35 -38188496.28 0.0131 0.0115
 Mercury -109268-11-02 06:57 J -38188408.22 -38188408.21 -38188408.18 0.0131 0.0129
 Venus -109262-03-07 03:21 J -38186457.50 -38186457.36 -38186457.19 0.0131 0.0090
 Venus -109262-10-19 06:14 J -38186231.43 -38186231.24 -38186231.03 0.0131 0.0049
 Venus -109261-06-01 09:21 J -38186005.33 -38186005.11 -38186004.90 0.0131 0.0007
 Venus -109260-01-13 12:00 J -38185779.21 -38185779.00 -38185778.79 0.0131 0.0034
 Venus -109260-08-27 14:38 J -38185553.06 -38185552.89 -38185552.71 0.0131 0.0075
 Venus -109259-04-10 17:16 J -38185326.87 -38185326.78 -38185326.68 0.0131 0.0116
 Earth -109238-09-01 04:33 J -38177513.42 -38177513.31 -38177513.17 0.0141 0.0120
 Moon -109238-09-01 07:26 J -38177513.28 -38177513.19 -38177513.08 0.0141 0.0127 *
 Moon -109237-09-04 13:55 J -38177144.17 -38177143.92 -38177143.66 0.0141 0.0013
 Earth -109237-09-04 16:33 J -38177144.05 -38177143.81 -38177143.56 0.0141 0.0019 *
 Earth -109236-09-09 06:00 J -38176774.44 -38176774.25 -38176774.04 0.0142 0.0085

Moon -109236-09-09 08:38 J -38176774.32 -38176774.14 -38176773.93 0.0142 0.0082 *
 Mercury -109227-02-22 15:36 J -38173685.90 -38173685.85 -38173685.78 0.0147 0.0136
 Mercury -109227-05-21 22:19 J -38173597.67 -38173597.57 -38173597.45 0.0147 0.0111
 Mercury -109227-08-18 05:02 J -38173509.42 -38173509.29 -38173509.14 0.0147 0.0085
 Mercury -109227-11-14 12:00 J -38173421.15 -38173421.00 -38173420.84 0.0147 0.0059
 Mercury -109226-02-10 18:57 J -38173332.87 -38173332.71 -38173332.54 0.0147 0.0033
 Mercury -109226-05-10 02:09 J -38173244.59 -38173244.41 -38173244.24 0.0147 0.0007
 Mercury -109226-08-06 09:07 J -38173156.29 -38173156.12 -38173155.95 0.0147 0.0021
 Mercury -109226-11-02 16:04 J -38173067.99 -38173067.83 -38173067.66 0.0147 0.0048
 Mercury -109225-01-29 23:16 J -38172979.67 -38172979.53 -38172979.37 0.0147 0.0076
 Mercury -109225-04-27 06:28 J -38172891.35 -38172891.23 -38172891.10 0.0147 0.0103
 Mercury -109225-07-24 13:55 J -38172802.99 -38172802.92 -38172802.84 0.0148 0.0131
 Venus -109220-04-22 22:33 J -38171069.72 -38171069.56 -38171069.38 0.0148 0.0094
 Venus -109220-12-05 13:55 J -38170843.13 -38170842.92 -38170842.70 0.0148 0.0032
 Venus -109219-07-20 05:16 J -38170616.49 -38170616.28 -38170616.06 0.0148 0.0031
 Venus -109218-03-03 20:52 J -38170389.80 -38170389.63 -38170389.45 0.0148 0.0093
 Moon -109199-03-08 21:07 J -38163444.68 -38163444.62 -38163444.52 0.0139 0.0132
 Earth -109198-03-13 21:36 J -38163074.85 -38163074.60 -38163074.34 0.0138 0.0037
 Moon -109198-03-14 00:57 J -38163074.69 -38163074.46 -38163074.20 0.0138 0.0042 *
 Moon -109197-03-17 12:57 J -38162705.18 -38162704.96 -38162704.71 0.0137 0.0065
 Earth -109197-03-17 16:33 J -38162705.03 -38162704.81 -38162704.57 0.0137 0.0064 *
 Mercury -109187-01-12 06:14 J -38159117.30 -38159117.24 -38159117.16 0.0132 0.0117
 Mercury -109187-04-10 09:50 J -38159029.17 -38159029.09 -38159028.98 0.0132 0.0101
 Mercury -109187-07-07 13:40 J -38158941.03 -38158940.93 -38158940.81 0.0132 0.0084
 Mars -109187-08-25 10:19 J -38158892.24 -38158892.07 -38158891.85 0.0132 0.0099
 Mercury -109187-10-03 17:31 J -38158852.89 -38158852.77 -38158852.64 0.0132 0.0067
 Mercury -109187-12-30 21:07 J -38158764.75 -38158764.62 -38158764.48 0.0132 0.0051
 Mercury -109186-03-29 00:43 J -38158676.61 -38158676.47 -38158676.33 0.0132 0.0035
 Mercury -109186-06-25 04:19 J -38158588.46 -38158588.32 -38158588.17 0.0132 0.0019
 Mercury -109186-09-21 07:55 J -38158500.31 -38158500.17 -38158500.02 0.0132 0.0003

Mercury -109186-12-18 11:31 J -38158412.16 -38158412.02 -38158411.88 0.0132 0.0013

Mercury -109185-03-15 15:07 J -38158324.01 -38158323.87 -38158323.73 0.0132 0.0029

Mercury -109185-06-11 18:28 J -38158235.86 -38158235.73 -38158235.59 0.0132 0.0045

Mars -109185-07-25 20:52 J -38158191.78 -38158191.63 -38158191.46 0.0132 0.0112

Mercury -109185-09-07 21:50 J -38158147.71 -38158147.59 -38158147.46 0.0132 0.0060

Mercury -109185-12-05 01:12 J -38158059.56 -38158059.45 -38158059.33 0.0132 0.0076

Mercury -109184-03-03 04:48 J -38157971.40 -38157971.30 -38157971.20 0.0132 0.0091

Mercury -109184-05-30 08:09 J -38157883.24 -38157883.16 -38157883.08 0.0131 0.0106

Mercury -109184-08-26 11:31 J -38157795.07 -38157795.02 -38157794.96 0.0131 0.0121

Venus -109179-11-04 17:16 J -38155898.89 -38155898.78 -38155898.65 0.0131 0.0107

Venus -109178-06-18 20:09 J -38155672.83 -38155672.66 -38155672.46 0.0131 0.0066

Venus -109177-01-30 23:16 J -38155446.74 -38155446.53 -38155446.32 0.0131 0.0024

Venus -109177-09-13 01:55 J -38155220.62 -38155220.42 -38155220.20 0.0131 0.0018

Venus -109176-04-27 04:33 J -38154994.49 -38154994.31 -38154994.10 0.0131 0.0059

Venus -109176-12-09 07:12 J -38154768.32 -38154768.20 -38154768.05 0.0131 0.0100

Earth -109154-09-01 19:40 J -38146831.81 -38146831.68 -38146831.51 0.0141 0.0112

Moon -109154-09-01 23:16 J -38146831.68 -38146831.53 -38146831.35 0.0141 0.0104 *

Moon -109153-09-05 04:48 J -38146462.55 -38146462.30 -38146462.05 0.0141 0.0017

Earth -109153-09-05 08:09 J -38146462.40 -38146462.16 -38146461.91 0.0141 0.0011 *

Earth -109152-09-09 21:50 J -38146092.78 -38146092.59 -38146092.41 0.0142 0.0093

Moon -109152-09-10 00:28 J -38146092.64 -38146092.48 -38146092.29 0.0142 0.0097 *

Mercury -109143-03-15 00:28 J -38142984.56 -38142984.48 -38142984.39 0.0147 0.0125

Mercury -109143-06-11 07:12 J -38142896.32 -38142896.20 -38142896.07 0.0147 0.0099

Mercury -109143-09-07 14:09 J -38142808.06 -38142807.91 -38142807.76 0.0147 0.0073

Mercury -109143-12-04 21:07 J -38142719.79 -38142719.62 -38142719.46 0.0147 0.0047

Mars -109143-12-08 03:50 J -38142716.64 -38142716.34 -38142716.03 0.0147 0.0037

Mercury -109142-03-03 03:50 J -38142631.51 -38142631.34 -38142631.16 0.0147 0.0021

Mercury -109142-05-30 11:02 J -38142543.22 -38142543.04 -38142542.87 0.0147 0.0006

Mercury -109142-08-26 18:00 J -38142454.92 -38142454.75 -38142454.58 0.0147 0.0033

Mercury -109142-11-23 00:57 J -38142366.61 -38142366.46 -38142366.29 0.0147 0.0061

Mercury -109141-02-19 08:09 J -38142278.29 -38142278.16 -38142278.01 0.0147 0.0088

Mercury -109141-05-17 15:21 J -38142189.95 -38142189.86 -38142189.74 0.0147 0.0116

Mercury -109141-08-13 23:02 J -38142101.58 -38142101.54 -38142101.50 0.0148 0.0143

Venus -109137-12-21 06:57 J -38140511.32 -38140511.21 -38140511.07 0.0148 0.0120

Venus -109136-08-04 22:19 J -38140284.76 -38140284.57 -38140284.36 0.0148 0.0058

Venus -109135-03-19 13:55 J -38140058.14 -38140057.92 -38140057.70 0.0148 0.0005

Venus -109135-11-01 05:16 J -38139831.46 -38139831.28 -38139831.07 0.0148 0.0068

Venus -109134-06-15 20:38 J -38139604.72 -38139604.64 -38139604.51 0.0148 0.0131

Moon -109115-03-09 12:43 J -38132762.98 -38132762.97 -38132762.91 0.0139 0.0138

Earth -109115-03-09 16:33 J -38132762.89 -38132762.81 -38132762.71 0.0139 0.0130

Earth -109114-03-14 12:57 J -38132393.21 -38132392.96 -38132392.69 0.0138 0.0028

Moon -109114-03-14 17:02 J -38132393.05 -38132392.79 -38132392.53 0.0138 0.0022 *

Moon -109113-03-18 04:04 J -38132023.54 -38132023.33 -38132023.09 0.0137 0.0068

Earth -109113-03-18 07:40 J -38132023.38 -38132023.18 -38132022.94 0.0137 0.0073 *

Mercury -109104-11-05 10:33 J -38128504.10 -38128504.06 -38128504.01 0.0132 0.0126

Mercury -109103-02-01 14:09 J -38128415.98 -38128415.91 -38128415.82 0.0132 0.0110

Mercury -109103-04-30 18:14 J -38128327.84 -38128327.74 -38128327.64 0.0132 0.0092

Mercury -109103-07-27 21:50 J -38128239.71 -38128239.59 -38128239.47 0.0132 0.0076

Mercury -109103-10-24 01:26 J -38128151.56 -38128151.44 -38128151.31 0.0132 0.0060

Mercury -109102-01-20 05:02 J -38128063.42 -38128063.29 -38128063.15 0.0132 0.0044

Mercury -109102-04-18 08:38 J -38127975.27 -38127975.14 -38127974.99 0.0132 0.0028

Mars -109102-04-20 07:40 J -38127973.48 -38127973.18 -38127972.88 0.0132 0.0016

Mercury -109102-07-15 12:28 J -38127887.13 -38127886.98 -38127886.84 0.0132 0.0012

Mercury -109102-10-11 15:50 J -38127798.98 -38127798.84 -38127798.69 0.0132 0.0006

Mercury -109101-01-07 19:26 J -38127710.83 -38127710.69 -38127710.55 0.0132 0.0020

Mercury -109101-04-04 23:02 J -38127622.68 -38127622.54 -38127622.40 0.0132 0.0036

Mercury -109101-07-02 02:24 J -38127534.53 -38127534.40 -38127534.27 0.0132 0.0051

Mercury -109101-09-28 06:00 J -38127446.37 -38127446.25 -38127446.13 0.0132 0.0067

Mercury -109101-12-25 09:07 J -38127358.22 -38127358.12 -38127358.00 0.0132 0.0083

Mercury -109100-03-23 12:28 J -38127270.06 -38127269.98 -38127269.87 0.0131 0.0098

Mercury -109100-06-19 16:04 J -38127181.90 -38127181.83 -38127181.76 0.0131 0.0112
 Mercury -109100-09-15 19:26 J -38127093.72 -38127093.69 -38127093.66 0.0131 0.0127
 Venus -109095-07-05 07:12 J -38125340.25 -38125340.20 -38125340.12 0.0131 0.0124
 Venus -109094-02-16 10:04 J -38125114.23 -38125114.08 -38125113.89 0.0131 0.0083
 Jupiter -109094-05-22 00:28 J -38125019.82 -38125019.48 -38125019.07 0.0131 0.0087
 Venus -109094-09-30 13:26 J -38124888.14 -38124887.94 -38124887.73 0.0131 0.0041
 Venus -109093-05-13 16:19 J -38124662.03 -38124661.82 -38124661.60 0.0131 0.0001
 Venus -109093-12-25 18:43 J -38124435.91 -38124435.72 -38124435.50 0.0131 0.0043
 Venus -109092-08-08 21:21 J -38124209.76 -38124209.61 -38124209.43 0.0131 0.0084
 Venus -109091-03-23 00:00 J -38123983.54 -38123983.50 -38123983.42 0.0131 0.0125
 Earth -109070-09-02 09:21 J -38116150.27 -38116150.11 -38116149.94 0.0141 0.0105
 Moon -109070-09-02 12:28 J -38116150.11 -38116149.98 -38116149.81 0.0141 0.0113 *
 Moon -109069-09-05 18:00 J -38115780.99 -38115780.75 -38115780.50 0.0141 0.0003
 Earth -109069-09-05 21:36 J -38115780.85 -38115780.60 -38115780.36 0.0141 0.0004 *
 Earth -109068-09-10 11:02 J -38115411.21 -38115411.04 -38115410.86 0.0142 0.0099
 Moon -109068-09-10 14:24 J -38115411.07 -38115410.90 -38115410.70 0.0142 0.0094 *
 Mercury -109059-01-06 01:40 J -38112371.46 -38112371.43 -38112371.38 0.0147 0.0142
 Mercury -109059-04-04 08:38 J -38112283.24 -38112283.14 -38112283.04 0.0147 0.0116
 Mercury -109059-07-01 15:07 J -38112194.99 -38112194.87 -38112194.72 0.0147 0.0091
 Mercury -109059-09-27 22:04 J -38112106.73 -38112106.58 -38112106.42 0.0147 0.0065
 Mercury -109059-12-25 05:02 J -38112018.45 -38112018.29 -38112018.12 0.0147 0.0039
 Mercury -109058-03-23 12:00 J -38111930.17 -38111930.00 -38111929.82 0.0147 0.0012
 Mercury -109058-06-19 19:12 J -38111841.88 -38111841.70 -38111841.53 0.0147 0.0015
 Mars -109058-08-04 12:14 J -38111796.25 -38111795.99 -38111795.73 0.0147 0.0079
 Mercury -109058-09-16 02:09 J -38111753.57 -38111753.41 -38111753.24 0.0147 0.0042
 Mercury -109058-12-13 09:07 J -38111665.26 -38111665.12 -38111664.95 0.0147 0.0070
 Mercury -109057-03-10 16:33 J -38111576.94 -38111576.81 -38111576.68 0.0147 0.0097
 Mercury -109057-06-06 23:45 J -38111488.60 -38111488.51 -38111488.41 0.0147 0.0125
 Venus -109053-08-20 13:55 J -38109952.92 -38109952.92 -38109952.90 0.0148 0.0148
 Jupiter -109053-10-13 03:36 J -38109899.86 -38109899.35 -38109898.80 0.0148 0.0024

Venus -109052-04-04 05:02 J -38109726.45 -38109726.29 -38109726.10 0.0148 0.0086
 Venus -109052-11-16 20:38 J -38109499.85 -38109499.64 -38109499.42 0.0148 0.0023
 Venus -109051-07-01 12:14 J -38109273.20 -38109272.99 -38109272.78 0.0148 0.0040
 Venus -109050-02-13 03:36 J -38109046.49 -38109046.35 -38109046.18 0.0148 0.0103
 Moon -109031-03-10 05:45 J -38102081.40 -38102081.26 -38102081.11 0.0139 0.0113
 Earth -109031-03-10 08:38 J -38102081.24 -38102081.14 -38102080.99 0.0139 0.0121 *
 Earth -109030-03-15 05:31 J -38101711.53 -38101711.27 -38101711.01 0.0138 0.0018
 Moon -109030-03-15 08:38 J -38101711.40 -38101711.14 -38101710.87 0.0138 0.0025 *
 Moon -109029-03-18 20:52 J -38101341.83 -38101341.63 -38101341.42 0.0137 0.0085
 Earth -109029-03-19 00:14 J -38101341.69 -38101341.49 -38101341.27 0.0137 0.0081 *
 Mercury -109020-11-25 18:57 J -38097802.77 -38097802.71 -38097802.65 0.0132 0.0118
 Mercury -109019-02-21 22:33 J -38097714.65 -38097714.56 -38097714.46 0.0132 0.0101
 Mercury -109019-05-21 02:24 J -38097626.51 -38097626.40 -38097626.29 0.0132 0.0085
 Mercury -109019-08-17 06:00 J -38097538.37 -38097538.25 -38097538.12 0.0132 0.0068
 Mercury -109019-11-13 09:36 J -38097450.23 -38097450.10 -38097449.96 0.0132 0.0052
 Mercury -109018-02-09 13:12 J -38097362.08 -38097361.95 -38097361.80 0.0132 0.0036
 Mercury -109018-05-08 17:02 J -38097273.94 -38097273.79 -38097273.65 0.0132 0.0020
 Mercury -109018-08-04 20:38 J -38097185.79 -38097185.64 -38097185.50 0.0132 0.0005
 Mercury -109018-11-01 00:00 J -38097097.64 -38097097.50 -38097097.35 0.0132 0.0013
 Mars -109018-12-14 04:19 J -38097054.57 -38097054.32 -38097054.05 0.0132 0.0067
 Mercury -109017-01-28 03:36 J -38097009.49 -38097009.35 -38097009.21 0.0132 0.0028
 Mercury -109017-04-25 06:57 J -38096921.34 -38096921.21 -38096921.07 0.0132 0.0044
 Mercury -109017-07-22 10:33 J -38096833.19 -38096833.06 -38096832.93 0.0132 0.0059
 Mercury -109017-10-18 13:55 J -38096745.03 -38096744.92 -38096744.80 0.0132 0.0074
 Mercury -109016-01-14 17:16 J -38096656.87 -38096656.78 -38096656.67 0.0131 0.0090
 Mercury -109016-04-12 20:38 J -38096568.71 -38096568.64 -38096568.55 0.0131 0.0105
 Mercury -109016-07-10 00:14 J -38096480.55 -38096480.49 -38096480.43 0.0131 0.0120
 Jupiter -109011-04-17 20:09 J -38094738.07 -38094737.66 -38094737.19 0.0131 0.0064
 Venus -109011-10-17 00:43 J -38094555.60 -38094555.47 -38094555.32 0.0131 0.0099
 Venus -109010-05-31 03:36 J -38094329.53 -38094329.35 -38094329.15 0.0131 0.0058

Venus	-109009-01-12 06:28 J	-38094103.44	-38094103.23	-38094103.01	0.0131	0.0016
Venus	-109009-08-25 09:07 J	-38093877.32	-38093877.12	-38093876.90	0.0131	0.0026
Venus	-109008-04-08 12:00 J	-38093651.18	-38093651.00	-38093650.81	0.0131	0.0067
Venus	-109008-11-20 14:09 J	-38093425.01	-38093424.91	-38093424.77	0.0131	0.0109

109TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 109th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-108986-09-02 22:48 J	-38085468.71	-38085468.55	-38085468.36	0.0141	0.0099		
Moon	-108986-09-03 02:24 J	-38085468.59	-38085468.40	-38085468.21	0.0141	0.0091	*	
Moon	-108985-09-06 08:09 J	-38085099.40	-38085099.16	-38085098.92	0.0141	0.0005		
Earth	-108985-09-06 11:31 J	-38085099.27	-38085099.02	-38085098.78	0.0141	0.0003	*	
Earth	-108984-09-11 00:28 J	-38084729.62	-38084729.48	-38084729.30	0.0142	0.0106		
Moon	-108984-09-11 04:04 J	-38084729.48	-38084729.33	-38084729.17	0.0142	0.0111	*	
Mercury	-108975-01-26 09:50 J	-38081670.15	-38081670.09	-38081670.01	0.0147	0.0133		
Mercury	-108975-04-24 16:33 J	-38081581.92	-38081581.81	-38081581.69	0.0147	0.0108		
Mars	-108975-04-25 11:02 J	-38081581.22	-38081581.04	-38081580.84	0.0147	0.0117		
Mercury	-108975-07-21 23:16 J	-38081493.66	-38081493.53	-38081493.38	0.0147	0.0082		
Mercury	-108975-10-18 06:14 J	-38081405.39	-38081405.24	-38081405.08	0.0147	0.0056		
Mercury	-108974-01-14 13:12 J	-38081317.12	-38081316.95	-38081316.78	0.0147	0.0030		

Mercury -108974-04-12 20:09 J -38081228.83 -38081228.66 -38081228.48 0.0147 0.0005

Mercury -108974-07-10 03:21 J -38081140.53 -38081140.36 -38081140.19 0.0147 0.0024

Mercury -108974-10-06 10:19 J -38081052.23 -38081052.07 -38081051.90 0.0147 0.0051

Mercury -108973-01-02 17:31 J -38080963.91 -38080963.77 -38080963.62 0.0147 0.0078

Mercury -108973-03-31 00:28 J -38080875.58 -38080875.48 -38080875.34 0.0147 0.0107

Mercury -108973-06-27 08:09 J -38080787.23 -38080787.16 -38080787.09 0.0148 0.0134

Venus -108969-12-02 11:45 J -38079168.14 -38079168.01 -38079167.86 0.0148 0.0115

Venus -108968-07-17 03:21 J -38078941.57 -38078941.36 -38078941.15 0.0148 0.0051

Venus -108967-02-28 18:43 J -38078714.94 -38078714.72 -38078714.50 0.0148 0.0012

Venus -108967-10-13 10:19 J -38078488.25 -38078488.07 -38078487.87 0.0148 0.0075

Venus -108966-05-28 01:55 J -38078261.49 -38078261.42 -38078261.33 0.0148 0.0138

Moon -108947-03-10 21:50 J -38071399.71 -38071399.59 -38071399.45 0.0139 0.0118

Earth -108947-03-10 23:45 J -38071399.65 -38071399.51 -38071399.34 0.0139 0.0111 *

Earth -108946-03-15 20:38 J -38071029.90 -38071029.64 -38071029.38 0.0138 0.0009

Moon -108946-03-15 23:31 J -38071029.79 -38071029.52 -38071029.25 0.0138 0.0003 *

Moon -108945-03-19 12:43 J -38070660.17 -38070659.97 -38070659.77 0.0137 0.0085

Earth -108945-03-19 15:21 J -38070660.04 -38070659.86 -38070659.65 0.0137 0.0091 *

Mercury -108936-09-18 23:16 J -38067189.57 -38067189.53 -38067189.49 0.0132 0.0127

Mercury -108936-12-16 02:52 J -38067101.45 -38067101.38 -38067101.29 0.0132 0.0110

Mercury -108935-03-14 06:43 J -38067013.32 -38067013.22 -38067013.11 0.0132 0.0094

Mercury -108935-06-10 10:19 J -38066925.18 -38066925.07 -38066924.94 0.0132 0.0077

Mercury -108935-09-06 13:55 J -38066837.04 -38066836.92 -38066836.78 0.0132 0.0061

Mars -108935-09-07 16:19 J -38066836.09 -38066835.82 -38066835.55 0.0132 0.0060

Mercury -108935-12-03 17:45 J -38066748.89 -38066748.76 -38066748.62 0.0132 0.0045

Mercury -108934-03-01 21:21 J -38066660.75 -38066660.61 -38066660.46 0.0132 0.0029

Mercury -108934-05-29 00:57 J -38066572.60 -38066572.46 -38066572.31 0.0132 0.0013

Mercury -108934-08-25 04:33 J -38066484.45 -38066484.31 -38066484.16 0.0132 0.0004

Mercury -108934-11-21 08:09 J -38066396.30 -38066396.16 -38066396.02 0.0132 0.0019

Mercury -108933-02-17 11:45 J -38066308.15 -38066308.01 -38066307.88 0.0132 0.0035

Mercury -108933-05-15 15:07 J -38066220.00 -38066219.87 -38066219.74 0.0132 0.0051

Mercury -108933-08-11 18:28 J -38066131.85 -38066131.73 -38066131.60 0.0132 0.0066

Mercury -108933-11-07 21:50 J -38066043.69 -38066043.59 -38066043.47 0.0131 0.0082

Mercury -108932-02-04 01:26 J -38065955.53 -38065955.44 -38065955.34 0.0131 0.0097

Mercury -108932-05-03 04:48 J -38065867.37 -38065867.30 -38065867.22 0.0131 0.0112

Mercury -108932-07-30 08:09 J -38065779.19 -38065779.16 -38065779.12 0.0131 0.0127

Venus -108927-06-16 14:52 J -38063996.97 -38063996.88 -38063996.77 0.0131 0.0116

Venus -108926-01-28 18:00 J -38063770.92 -38063770.75 -38063770.57 0.0131 0.0074

Venus -108926-09-11 20:52 J -38063544.84 -38063544.63 -38063544.42 0.0131 0.0032

Venus -108925-04-24 23:45 J -38063318.72 -38063318.51 -38063318.30 0.0131 0.0009

Venus -108925-12-07 02:09 J -38063092.60 -38063092.41 -38063092.21 0.0131 0.0051

Venus -108924-07-21 04:48 J -38062866.45 -38062866.30 -38062866.15 0.0131 0.0092

Earth -108902-09-03 11:02 J -38054787.21 -38054787.04 -38054786.85 0.0140 0.0092

Moon -108902-09-03 13:40 J -38054787.11 -38054786.93 -38054786.75 0.0140 0.0099 *

Moon -108901-09-06 20:52 J -38054417.87 -38054417.63 -38054417.39 0.0141 0.0014

Earth -108901-09-06 23:02 J -38054417.78 -38054417.54 -38054417.29 0.0141 0.0008 *

Earth -108900-09-11 12:14 J -38054048.13 -38054047.99 -38054047.83 0.0142 0.0110

Moon -108900-09-11 15:36 J -38054048.03 -38054047.85 -38054047.68 0.0142 0.0103 *

Mercury -108891-02-15 16:48 J -38050968.87 -38050968.80 -38050968.70 0.0147 0.0128

Mercury -108891-05-14 23:45 J -38050880.63 -38050880.51 -38050880.38 0.0147 0.0102

Mercury -108891-08-11 06:43 J -38050792.37 -38050792.22 -38050792.08 0.0147 0.0076

Mercury -108891-11-07 13:26 J -38050704.10 -38050703.94 -38050703.78 0.0147 0.0050

Mars -108891-12-20 11:31 J -38050661.33 -38050661.02 -38050660.70 0.0147 0.0006

Mercury -108890-02-03 20:24 J -38050615.82 -38050615.65 -38050615.48 0.0147 0.0024

Mercury -108890-05-03 03:21 J -38050527.53 -38050527.36 -38050527.18 0.0147 0.0003

Mercury -108890-07-30 10:19 J -38050439.23 -38050439.07 -38050438.89 0.0147 0.0030

Mercury -108890-10-26 17:31 J -38050350.93 -38050350.77 -38050350.61 0.0147 0.0057

Mercury -108889-01-23 00:28 J -38050262.61 -38050262.48 -38050262.33 0.0147 0.0085

Mercury -108889-04-20 07:55 J -38050174.28 -38050174.17 -38050174.05 0.0147 0.0112

Mercury -108889-07-17 15:07 J -38050085.92 -38050085.87 -38050085.81 0.0148 0.0140

Venus -108885-08-01 15:50 J -38048609.86 -38048609.84 -38048609.80 0.0148 0.0146

Venus -108884-03-16 07:12 J -38048383.38 -38048383.20 -38048383.01 0.0148 0.0084
 Venus -108884-10-28 22:48 J -38048156.77 -38048156.55 -38048156.33 0.0148 0.0020
 Venus -108883-06-12 14:09 J -38047930.12 -38047929.91 -38047929.70 0.0148 0.0043
 Venus -108882-01-25 05:45 J -38047703.41 -38047703.26 -38047703.10 0.0148 0.0106
 Moon -108863-03-11 11:02 J -38040718.21 -38040718.04 -38040717.86 0.0139 0.0098
 Earth -108863-03-11 12:00 J -38040718.16 -38040718.00 -38040717.82 0.0139 0.0104 *
 Earth -108862-03-16 09:07 J -38040348.38 -38040348.12 -38040347.86 0.0138 0.0002
 Moon -108862-03-16 10:48 J -38040348.32 -38040348.05 -38040347.78 0.0138 0.0009 *
 Moon -108861-03-20 02:24 J -38039978.55 -38039978.40 -38039978.22 0.0137 0.0103
 Earth -108861-03-20 04:04 J -38039978.49 -38039978.33 -38039978.12 0.0137 0.0098 *
 Mercury -108852-10-09 07:12 J -38036488.26 -38036488.20 -38036488.14 0.0133 0.0120
 Mercury -108851-01-05 10:48 J -38036400.13 -38036400.05 -38036399.95 0.0132 0.0103
 Mercury -108851-04-03 14:38 J -38036312.00 -38036311.89 -38036311.78 0.0132 0.0087
 Mercury -108851-06-30 18:14 J -38036223.85 -38036223.74 -38036223.61 0.0132 0.0070
 Mercury -108851-09-26 22:04 J -38036135.71 -38036135.58 -38036135.45 0.0132 0.0054
 Mercury -108851-12-24 01:40 J -38036047.57 -38036047.43 -38036047.29 0.0132 0.0038
 Mercury -108850-03-22 05:16 J -38035959.42 -38035959.28 -38035959.13 0.0132 0.0022
 Mars -108850-05-03 11:02 J -38035917.33 -38035917.04 -38035916.74 0.0132 0.0022
 Mercury -108850-06-18 08:52 J -38035871.27 -38035871.13 -38035870.98 0.0132 0.0006
 Mercury -108850-09-14 12:28 J -38035783.12 -38035782.98 -38035782.83 0.0132 0.0011
 Mercury -108850-12-11 16:04 J -38035694.97 -38035694.83 -38035694.69 0.0132 0.0026
 Mercury -108849-03-08 19:40 J -38035606.82 -38035606.68 -38035606.55 0.0132 0.0042
 Mercury -108849-06-04 23:02 J -38035518.67 -38035518.54 -38035518.41 0.0132 0.0058
 Mercury -108849-09-01 02:38 J -38035430.51 -38035430.39 -38035430.27 0.0132 0.0073
 Mercury -108849-11-28 05:45 J -38035342.35 -38035342.26 -38035342.15 0.0132 0.0089
 Mercury -108848-02-24 09:21 J -38035254.19 -38035254.11 -38035254.02 0.0131 0.0103
 Mercury -108848-05-23 12:43 J -38035166.02 -38035165.97 -38035165.91 0.0131 0.0118
 Venus -108843-09-28 07:55 J -38033212.31 -38033212.17 -38033212.00 0.0131 0.0091
 Venus -108842-05-12 11:02 J -38032986.23 -38032986.04 -38032985.84 0.0131 0.0049
 Venus -108842-12-24 13:55 J -38032760.14 -38032759.92 -38032759.71 0.0131 0.0007

Venus -108841-08-06 16:19 J -38032534.02 -38032533.82 -38032533.60 0.0131 0.0035
 Venus -108840-03-20 18:57 J -38032307.87 -38032307.71 -38032307.53 0.0131 0.0076
 Venus -108840-11-01 21:36 J -38032081.69 -38032081.60 -38032081.50 0.0131 0.0117
 Earth -108818-09-04 01:26 J -38024105.63 -38024105.44 -38024105.23 0.0140 0.0084
 Moon -108818-09-04 02:24 J -38024105.59 -38024105.40 -38024105.17 0.0140 0.0080 *
 Moon -108817-09-07 11:45 J -38023736.25 -38023736.01 -38023735.77 0.0141 0.0008
 Earth -108817-09-07 13:26 J -38023736.18 -38023735.94 -38023735.69 0.0141 0.0015 *
 Earth -108816-09-12 02:38 J -38023366.53 -38023366.39 -38023366.25 0.0142 0.0117
 Moon -108816-09-12 04:04 J -38023366.45 -38023366.33 -38023366.20 0.0142 0.0124 *
 Mercury -108808-12-09 18:28 J -38020355.75 -38020355.73 -38020355.70 0.0146 0.0144
 Mercury -108807-03-08 00:57 J -38020267.55 -38020267.46 -38020267.35 0.0147 0.0119
 Mercury -108807-06-04 07:55 J -38020179.30 -38020179.17 -38020179.04 0.0147 0.0093
 Mercury -108807-08-31 14:38 J -38020091.04 -38020090.89 -38020090.73 0.0147 0.0068
 Mercury -108807-11-27 21:36 J -38020002.76 -38020002.60 -38020002.43 0.0147 0.0041
 Mercury -108806-02-24 04:33 J -38019914.48 -38019914.31 -38019914.14 0.0147 0.0015
 Mercury -108806-05-23 11:31 J -38019826.19 -38019826.02 -38019825.85 0.0147 0.0012
 Mars -108806-08-16 18:14 J -38019740.92 -38019740.74 -38019740.51 0.0147 0.0112
 Mercury -108806-08-19 18:28 J -38019737.89 -38019737.73 -38019737.56 0.0147 0.0039
 Mercury -108806-11-16 01:40 J -38019649.59 -38019649.43 -38019649.27 0.0147 0.0066
 Mercury -108805-02-12 08:38 J -38019561.27 -38019561.14 -38019561.00 0.0147 0.0093
 Mercury -108805-05-10 16:04 J -38019472.93 -38019472.83 -38019472.73 0.0147 0.0121
 Venus -108801-11-13 12:43 J -38017825.10 -38017824.97 -38017824.81 0.0148 0.0113
 Venus -108800-06-28 04:04 J -38017598.53 -38017598.33 -38017598.11 0.0148 0.0050
 Venus -108799-02-09 19:40 J -38017371.90 -38017371.68 -38017371.46 0.0148 0.0013
 Venus -108799-09-24 11:02 J -38017145.22 -38017145.04 -38017144.84 0.0148 0.0077
 Venus -108798-05-09 02:38 J -38016918.45 -38016918.39 -38016918.31 0.0148 0.0141
 Earth -108779-03-12 00:14 J -38010036.66 -38010036.49 -38010036.29 0.0139 0.0097
 Moon -108779-03-12 00:28 J -38010036.63 -38010036.48 -38010036.30 0.0139 0.0103 *
 Moon -108778-03-16 21:50 J -38009666.86 -38009666.59 -38009666.32 0.0138 0.0011
 Earth -108778-03-16 21:36 J -38009666.86 -38009666.60 -38009666.33 0.0138 0.0005 *

Moon -108777-03-20 16:04 J -38009297.00 -38009296.83 -38009296.65 0.0137 0.0098
 Earth -108777-03-20 17:16 J -38009296.95 -38009296.78 -38009296.61 0.0137 0.0104 *
 Mercury -108768-08-02 11:02 J -38005875.06 -38005875.04 -38005875.00 0.0133 0.0130
 Mercury -108768-10-29 15:07 J -38005786.95 -38005786.87 -38005786.80 0.0133 0.0113
 Mars -108767-01-25 20:24 J -38005698.82 -38005698.65 -38005698.47 0.0132 0.0107
 Mercury -108767-01-25 18:43 J -38005698.81 -38005698.72 -38005698.62 0.0132 0.0096 *
 Mercury -108767-04-23 22:33 J -38005610.68 -38005610.56 -38005610.44 0.0132 0.0080
 Mercury -108767-07-21 02:09 J -38005522.53 -38005522.41 -38005522.28 0.0132 0.0063
 Mercury -108767-10-17 05:45 J -38005434.39 -38005434.26 -38005434.12 0.0132 0.0048
 Mercury -108766-01-13 09:36 J -38005346.24 -38005346.10 -38005345.96 0.0132 0.0031
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 Mercury -108766-07-08 16:48 J -38005169.94 -38005169.80 -38005169.66 0.0132 0.0001
 Mercury -108766-10-04 20:24 J -38005081.79 -38005081.65 -38005081.51 0.0132 0.0017
 Mars -108766-12-27 03:21 J -38004998.54 -38004998.36 -38004998.17 0.0132 0.0104
 Mercury -108765-01-01 00:00 J -38004993.64 -38004993.50 -38004993.36 0.0132 0.0033
 Mercury -108765-03-29 03:21 J -38004905.49 -38004905.36 -38004905.22 0.0132 0.0049
 Mercury -108765-06-25 06:57 J -38004817.34 -38004817.21 -38004817.09 0.0132 0.0064
 Mercury -108765-09-21 10:19 J -38004729.18 -38004729.07 -38004728.95 0.0132 0.0080
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 Mercury -108764-06-12 20:38 J -38004464.68 -38004464.64 -38004464.60 0.0131 0.0125
 Venus -108759-05-28 21:50 J -38002653.70 -38002653.59 -38002653.46 0.0131 0.0108
 Venus -108758-01-10 00:43 J -38002427.64 -38002427.47 -38002427.27 0.0131 0.0066
 Venus -108758-08-24 03:36 J -38002201.55 -38002201.35 -38002201.13 0.0131 0.0024
 Venus -108757-04-06 06:28 J -38001975.44 -38001975.23 -38001975.01 0.0131 0.0018
 Venus -108757-11-18 08:52 J -38001749.31 -38001749.13 -38001748.93 0.0131 0.0060
 Venus -108756-07-02 11:31 J -38001523.15 -38001523.02 -38001522.88 0.0131 0.0101
 Earth -108734-09-04 15:50 J -37993424.03 -37993423.84 -37993423.62 0.0140 0.0077
 Moon -108734-09-04 16:04 J -37993424.02 -37993423.83 -37993423.60 0.0140 0.0081 *
 Earth -108733-09-08 03:36 J -37993054.59 -37993054.35 -37993054.10 0.0141 0.0023

Moon -108733-09-08 03:36 J -37993054.58 -37993054.35 -37993054.11 0.0141 0.0029 *
 Earth -108732-09-12 16:19 J -37992684.92 -37992684.82 -37992684.69 0.0142 0.0125
 Moon -108732-09-12 17:16 J -37992684.91 -37992684.78 -37992684.62 0.0142 0.0118 *
 Mercury -108724-12-30 02:38 J -37989654.45 -37989654.39 -37989654.32 0.0146 0.0135
 Mercury -108723-03-28 09:07 J -37989566.22 -37989566.12 -37989566.00 0.0147 0.0110
 Mars -108723-05-07 16:04 J -37989526.07 -37989525.83 -37989525.55 0.0147 0.0084
 Mercury -108723-06-24 15:50 J -37989477.97 -37989477.84 -37989477.69 0.0147 0.0084
 Mercury -108723-09-20 22:48 J -37989389.70 -37989389.55 -37989389.39 0.0147 0.0058
 Mercury -108723-12-18 05:31 J -37989301.43 -37989301.27 -37989301.09 0.0147 0.0033
 Mercury -108722-03-16 12:43 J -37989213.15 -37989212.97 -37989212.80 0.0147 0.0007
 Mercury -108722-06-12 19:40 J -37989124.85 -37989124.68 -37989124.51 0.0147 0.0021
 Mercury -108722-09-09 02:38 J -37989036.55 -37989036.39 -37989036.22 0.0147 0.0048
 Mercury -108722-12-06 09:36 J -37988948.24 -37988948.10 -37988947.94 0.0147 0.0075
 Mercury -108721-03-03 16:48 J -37988859.92 -37988859.80 -37988859.67 0.0147 0.0102
 Mercury -108721-05-31 00:14 J -37988771.57 -37988771.49 -37988771.41 0.0147 0.0130
 Venus -108717-07-13 18:28 J -37987266.77 -37987266.73 -37987266.66 0.0148 0.0143
 Venus -108716-02-25 09:50 J -37987040.27 -37987040.09 -37987039.90 0.0148 0.0080
 Venus -108716-10-10 01:12 J -37986813.67 -37986813.45 -37986813.23 0.0148 0.0016
 Venus -108715-05-24 16:33 J -37986587.02 -37986586.81 -37986586.60 0.0148 0.0047
 Venus -108714-01-06 07:40 J -37986360.31 -37986360.18 -37986360.02 0.0148 0.0111
 Earth -108695-03-12 12:57 J -37979355.15 -37979354.96 -37979354.76 0.0139 0.0090
 Moon -108695-03-12 14:38 J -37979355.08 -37979354.89 -37979354.68 0.0139 0.0087 *
 Moon -108694-03-17 09:36 J -37978985.37 -37978985.10 -37978984.83 0.0138 0.0005
 Earth -108694-03-17 10:19 J -37978985.32 -37978985.07 -37978984.80 0.0138 0.0012 *
 Earth -108693-03-21 05:45 J -37978615.39 -37978615.26 -37978615.09 0.0137 0.0111
 Moon -108693-03-21 06:43 J -37978615.33 -37978615.22 -37978615.08 0.0137 0.0118 *
 Mercury -108684-08-22 18:57 J -37975173.76 -37975173.71 -37975173.65 0.0133 0.0123
 Mercury -108684-11-18 22:33 J -37975085.63 -37975085.56 -37975085.46 0.0133 0.0107
 Mercury -108683-02-15 02:38 J -37974997.49 -37974997.39 -37974997.28 0.0133 0.0090
 Mercury -108683-05-14 06:14 J -37974909.35 -37974909.24 -37974909.11 0.0132 0.0073

Mercury -108683-08-10 10:04 J -37974821.21 -37974821.08 -37974820.95 0.0132 0.0057

Mars -108683-09-20 13:26 J -37974780.23 -37974779.94 -37974779.64 0.0132 0.0024

Mercury -108683-11-06 13:40 J -37974733.06 -37974732.93 -37974732.79 0.0132 0.0041

Mercury -108682-02-02 17:31 J -37974644.91 -37974644.77 -37974644.63 0.0132 0.0024

Mercury -108682-05-01 21:07 J -37974556.76 -37974556.62 -37974556.48 0.0132 0.0008

Mercury -108682-07-29 00:43 J -37974468.61 -37974468.47 -37974468.33 0.0132 0.0008

Mercury -108682-10-25 04:19 J -37974380.46 -37974380.32 -37974380.18 0.0132 0.0024

Mercury -108681-01-21 07:40 J -37974292.31 -37974292.18 -37974292.04 0.0132 0.0040

Mercury -108681-04-18 11:16 J -37974204.16 -37974204.03 -37974203.90 0.0132 0.0055

Mercury -108681-07-15 14:52 J -37974116.00 -37974115.88 -37974115.76 0.0132 0.0071

Mercury -108681-10-11 18:00 J -37974027.84 -37974027.75 -37974027.63 0.0132 0.0087

Mercury -108680-01-07 21:36 J -37973939.68 -37973939.60 -37973939.50 0.0132 0.0102

Mercury -108680-04-06 01:12 J -37973851.51 -37973851.45 -37973851.39 0.0132 0.0117

Venus -108675-01-26 11:45 J -37972095.06 -37972095.01 -37972094.93 0.0131 0.0125

Venus -108675-09-09 14:52 J -37971869.04 -37971868.88 -37971868.70 0.0131 0.0083

Venus -108674-04-23 17:45 J -37971642.95 -37971642.76 -37971642.54 0.0131 0.0041

Venus -108674-12-05 20:52 J -37971416.85 -37971416.63 -37971416.42 0.0131 0.0003

Venus -108673-07-18 23:02 J -37971190.73 -37971190.54 -37971190.32 0.0131 0.0044

Venus -108672-03-02 01:55 J -37970964.57 -37970964.42 -37970964.25 0.0131 0.0085

Venus -108672-10-14 04:19 J -37970738.36 -37970738.32 -37970738.25 0.0131 0.0127

Moon -108650-09-05 06:57 J -37962742.44 -37962742.21 -37962741.99 0.0140 0.0065

Earth -108650-09-05 08:09 J -37962742.37 -37962742.16 -37962741.94 0.0140 0.0067 *

Earth -108649-09-08 19:55 J -37962372.91 -37962372.67 -37962372.43 0.0141 0.0032

Moon -108649-09-08 20:38 J -37962372.88 -37962372.64 -37962372.41 0.0141 0.0026 *

Earth -108648-09-13 08:24 J -37962003.21 -37962003.15 -37962003.05 0.0142 0.0134

Moon -108648-09-13 07:40 J -37962003.19 -37962003.18 -37962003.13 0.0142 0.0141 *

Mercury -108639-01-19 11:45 J -37958953.10 -37958953.01 -37958952.92 0.0146 0.0123

Mercury -108639-04-17 18:14 J -37958864.86 -37958864.74 -37958864.61 0.0147 0.0098

Mercury -108639-07-15 01:12 J -37958776.60 -37958776.45 -37958776.30 0.0147 0.0072

Mercury -108639-10-11 07:55 J -37958688.33 -37958688.17 -37958688.01 0.0147 0.0046

Mars -108638-01-02 06:57 J -37958605.51 -37958605.21 -37958604.90 0.0147 0.0038
 Mercury -108638-01-07 14:52 J -37958600.05 -37958599.88 -37958599.71 0.0147 0.0020
 Mercury -108638-04-05 21:50 J -37958511.77 -37958511.59 -37958511.42 0.0147 0.0007
 Mercury -108638-07-03 04:48 J -37958423.47 -37958423.30 -37958423.13 0.0147 0.0033
 Mercury -108638-09-29 11:45 J -37958335.17 -37958335.01 -37958334.85 0.0147 0.0060
 Mercury -108638-12-26 18:57 J -37958246.85 -37958246.71 -37958246.57 0.0147 0.0087
 Mercury -108637-03-24 01:55 J -37958158.52 -37958158.42 -37958158.30 0.0147 0.0115
 Mercury -108637-06-20 09:21 J -37958070.15 -37958070.11 -37958070.06 0.0147 0.0142
 Venus -108633-10-25 18:28 J -37956481.88 -37956481.73 -37956481.57 0.0148 0.0105
 Venus -108632-06-09 09:36 J -37956255.31 -37956255.10 -37956254.88 0.0148 0.0042
 Venus -108631-01-22 00:57 J -37956028.68 -37956028.46 -37956028.24 0.0148 0.0021
 Venus -108631-09-05 16:04 J -37955801.99 -37955801.83 -37955801.63 0.0148 0.0086
 Earth -108611-03-13 04:04 J -37948673.54 -37948673.33 -37948673.12 0.0139 0.0081
 Moon -108611-03-13 06:14 J -37948673.43 -37948673.24 -37948673.03 0.0139 0.0085 *
 Moon -108610-03-17 23:02 J -37948303.81 -37948303.54 -37948303.28 0.0138 0.0025
 Earth -108610-03-18 01:26 J -37948303.69 -37948303.44 -37948303.17 0.0138 0.0020 *
 Earth -108609-03-21 21:07 J -37947933.74 -37947933.62 -37947933.48 0.0137 0.0119
 Moon -108609-03-21 22:19 J -37947933.69 -37947933.57 -37947933.40 0.0137 0.0113 *
 Mercury -108600-06-15 23:16 J -37944560.53 -37944560.53 -37944560.52 0.0133 0.0132
 Mercury -108600-09-12 02:52 J -37944472.44 -37944472.38 -37944472.30 0.0133 0.0116
 Mercury -108600-12-09 06:57 J -37944384.31 -37944384.21 -37944384.11 0.0133 0.0099
 Mercury -108599-03-07 10:33 J -37944296.17 -37944296.06 -37944295.94 0.0132 0.0082
 Mercury -108599-06-03 14:24 J -37944208.02 -37944207.90 -37944207.77 0.0132 0.0066
 Mercury -108599-08-30 18:00 J -37944119.88 -37944119.75 -37944119.61 0.0132 0.0050
 Mercury -108599-11-26 21:50 J -37944031.73 -37944031.59 -37944031.45 0.0132 0.0033
 Mercury -108598-02-23 01:26 J -37943943.58 -37943943.44 -37943943.29 0.0132 0.0017
 Mars -108598-05-16 08:52 J -37943861.38 -37943861.13 -37943860.84 0.0132 0.0059
 Mercury -108598-05-22 05:16 J -37943855.43 -37943855.28 -37943855.14 0.0132 0.0004
 Mercury -108598-08-18 08:38 J -37943767.28 -37943767.14 -37943766.99 0.0132 0.0016
 Mercury -108598-11-14 12:14 J -37943679.13 -37943678.99 -37943678.85 0.0132 0.0031

Mercury -108597-02-10 15:50 J -37943590.97 -37943590.84 -37943590.70 0.0132 0.0047
 Mercury -108597-05-08 19:12 J -37943502.82 -37943502.70 -37943502.57 0.0132 0.0063
 Mercury -108597-08-04 22:48 J -37943414.66 -37943414.55 -37943414.43 0.0132 0.0078
 Mercury -108597-11-01 02:09 J -37943326.50 -37943326.41 -37943326.30 0.0132 0.0094
 Mercury -108596-01-28 05:45 J -37943238.34 -37943238.26 -37943238.18 0.0132 0.0109
 Mercury -108596-04-26 09:07 J -37943150.16 -37943150.12 -37943150.07 0.0131 0.0124
 Venus -108591-05-10 05:31 J -37941310.41 -37941310.27 -37941310.13 0.0131 0.0099
 Venus -108591-12-22 08:09 J -37941084.35 -37941084.16 -37941083.96 0.0131 0.0057
 Venus -108590-08-05 11:02 J -37940858.25 -37940858.04 -37940857.82 0.0131 0.0015
 Venus -108589-03-18 13:55 J -37940632.13 -37940631.92 -37940631.71 0.0131 0.0027
 Venus -108589-10-30 16:33 J -37940405.99 -37940405.81 -37940405.62 0.0131 0.0069
 Venus -108588-06-13 18:57 J -37940179.81 -37940179.71 -37940179.59 0.0131 0.0111
 Moon -108566-09-05 21:36 J -37932060.82 -37932060.60 -37932060.36 0.0140 0.0061
 Earth -108566-09-05 23:45 J -37932060.73 -37932060.51 -37932060.28 0.0140 0.0059 *
 Earth -108565-09-09 11:16 J -37931691.26 -37931691.03 -37931690.79 0.0141 0.0040
 Moon -108565-09-09 13:12 J -37931691.17 -37931690.95 -37931690.71 0.0141 0.0046 *
 Moon -108564-09-13 22:04 J -37931321.64 -37931321.58 -37931321.49 0.0142 0.0135
 Earth -108564-09-14 00:00 J -37931321.50 -37931321.50 -37931321.48 0.0142 0.0141 *
 Mercury -108556-11-12 13:26 J -37928339.98 -37928339.94 -37928339.87 0.0146 0.0138
 Mercury -108555-02-08 20:09 J -37928251.76 -37928251.66 -37928251.55 0.0146 0.0112
 Mercury -108555-05-08 02:38 J -37928163.51 -37928163.39 -37928163.24 0.0146 0.0088
 Mercury -108555-08-04 09:36 J -37928075.25 -37928075.10 -37928074.94 0.0147 0.0062
 Mercury -108555-10-31 16:33 J -37927986.98 -37927986.81 -37927986.64 0.0147 0.0035
 Mercury -108554-01-27 23:31 J -37927898.69 -37927898.52 -37927898.35 0.0147 0.0009
 Mercury -108554-04-26 06:14 J -37927810.40 -37927810.24 -37927810.06 0.0147 0.0018
 Mercury -108554-07-23 13:26 J -37927722.11 -37927721.94 -37927721.77 0.0147 0.0044
 Mercury -108554-10-19 20:24 J -37927633.80 -37927633.65 -37927633.49 0.0147 0.0071
 Mercury -108553-01-16 03:36 J -37927545.48 -37927545.35 -37927545.22 0.0147 0.0098
 Mercury -108553-04-13 10:33 J -37927457.14 -37927457.06 -37927456.96 0.0147 0.0126
 Venus -108549-06-25 01:26 J -37925923.52 -37925923.44 -37925923.33 0.0148 0.0134

Venus -108548-02-06 16:33 J -37925696.99 -37925696.81 -37925696.60 0.0148 0.0071
 Venus -108548-09-21 08:09 J -37925470.38 -37925470.16 -37925469.94 0.0148 0.0007
 Venus -108547-05-05 23:31 J -37925243.72 -37925243.52 -37925243.31 0.0148 0.0057
 Venus -108547-12-18 14:38 J -37925017.00 -37925016.89 -37925016.75 0.0148 0.0122
 Earth -108527-03-13 18:57 J -37917991.92 -37917991.71 -37917991.47 0.0139 0.0073
 Moon -108527-03-13 22:33 J -37917991.76 -37917991.56 -37917991.32 0.0139 0.0072 *
 Moon -108526-03-18 13:55 J -37917622.18 -37917621.92 -37917621.65 0.0138 0.0023
 Earth -108526-03-18 16:48 J -37917622.05 -37917621.80 -37917621.54 0.0138 0.0029 *
 Earth -108525-03-22 12:14 J -37917252.08 -37917251.99 -37917251.88 0.0138 0.0127
 Moon -108525-03-22 14:52 J -37917251.91 -37917251.88 -37917251.81 0.0138 0.0135 *
 Mercury -108516-07-06 07:12 J -37913859.24 -37913859.20 -37913859.14 0.0133 0.0125
 Mercury -108516-10-02 11:16 J -37913771.11 -37913771.03 -37913770.94 0.0133 0.0108
 Mercury -108516-12-29 15:07 J -37913682.98 -37913682.87 -37913682.77 0.0133 0.0091
 Mars -108515-02-07 21:36 J -37913642.85 -37913642.60 -37913642.34 0.0132 0.0069
 Mercury -108515-03-27 18:43 J -37913594.83 -37913594.72 -37913594.59 0.0132 0.0074
 Mercury -108515-06-23 22:33 J -37913506.69 -37913506.56 -37913506.43 0.0132 0.0058
 Mercury -108515-09-20 02:24 J -37913418.54 -37913418.40 -37913418.27 0.0132 0.0041
 Mercury -108515-12-17 06:00 J -37913330.39 -37913330.25 -37913330.11 0.0132 0.0025
 Mercury -108514-03-15 09:36 J -37913242.24 -37913242.10 -37913241.95 0.0132 0.0009
 Mercury -108514-06-11 13:12 J -37913154.09 -37913153.95 -37913153.80 0.0132 0.0007
 Mercury -108514-09-07 16:48 J -37913065.94 -37913065.80 -37913065.66 0.0132 0.0023
 Mercury -108514-12-04 20:24 J -37912977.79 -37912977.65 -37912977.51 0.0132 0.0039
 Mercury -108513-03-01 23:45 J -37912889.63 -37912889.51 -37912889.37 0.0132 0.0055
 Mercury -108513-05-29 03:21 J -37912801.48 -37912801.36 -37912801.23 0.0132 0.0070
 Mercury -108513-08-25 06:43 J -37912713.32 -37912713.22 -37912713.10 0.0132 0.0086
 Mercury -108513-11-21 10:19 J -37912625.15 -37912625.07 -37912624.97 0.0132 0.0101
 Mercury -108512-02-17 13:55 J -37912536.99 -37912536.92 -37912536.86 0.0132 0.0116
 Mercury -108512-05-16 17:16 J -37912448.79 -37912448.78 -37912448.77 0.0131 0.0131
 Venus -108507-01-07 19:26 J -37910751.78 -37910751.69 -37910751.59 0.0131 0.0116
 Venus -108507-08-21 22:19 J -37910525.74 -37910525.57 -37910525.39 0.0131 0.0074

Venus -108506-04-05 01:26 J -37910299.65 -37910299.44 -37910299.23 0.0131 0.0032
 Venus -108506-11-17 04:04 J -37910073.54 -37910073.33 -37910073.11 0.0131 0.0011
 Venus -108505-06-30 06:43 J -37909847.41 -37909847.22 -37909847.02 0.0131 0.0053
 Venus -108504-02-11 09:07 J -37909621.25 -37909621.12 -37909620.95 0.0131 0.0095
 Moon -108482-09-06 11:45 J -37901379.24 -37901379.01 -37901378.77 0.0140 0.0050
 Earth -108482-09-06 14:38 J -37901379.10 -37901378.89 -37901378.65 0.0140 0.0052 *
 Earth -108481-09-10 02:09 J -37901009.63 -37901009.41 -37901009.17 0.0141 0.0048
 Moon -108481-09-10 04:48 J -37901009.52 -37901009.30 -37901009.06 0.0141 0.0044 *
 Mercury -108472-12-02 22:04 J -37897638.65 -37897638.58 -37897638.48 0.0146 0.0127
 Mercury -108471-03-01 05:02 J -37897550.41 -37897550.29 -37897550.17 0.0146 0.0102
 Mars -108471-05-20 20:38 J -37897469.93 -37897469.64 -37897469.32 0.0147 0.0036
 Mercury -108471-05-28 11:31 J -37897462.16 -37897462.02 -37897461.87 0.0147 0.0077
 Mercury -108471-08-24 18:28 J -37897373.89 -37897373.73 -37897373.57 0.0147 0.0051
 Mercury -108471-11-21 01:12 J -37897285.61 -37897285.45 -37897285.27 0.0147 0.0025
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 Mercury -108470-08-12 22:04 J -37897020.74 -37897020.58 -37897020.41 0.0147 0.0055
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 Mercury -108469-02-05 12:28 J -37896844.10 -37896843.98 -37896843.86 0.0147 0.0110
 Mercury -108469-05-03 19:26 J -37896755.74 -37896755.69 -37896755.62 0.0147 0.0137
 Venus -108465-10-07 00:43 J -37895138.63 -37895138.47 -37895138.30 0.0148 0.0097
 Venus -108464-05-21 15:50 J -37894912.05 -37894911.84 -37894911.62 0.0148 0.0034
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 Venus -108463-08-17 22:19 J -37894458.73 -37894458.57 -37894458.39 0.0148 0.0095
 Earth -108443-03-14 11:31 J -37887310.24 -37887310.02 -37887309.78 0.0139 0.0063
 Moon -108443-03-14 14:52 J -37887310.10 -37887309.88 -37887309.64 0.0139 0.0065 *
 Moon -108442-03-19 05:02 J -37886940.53 -37886940.29 -37886940.02 0.0138 0.0044
 Earth -108442-03-19 08:52 J -37886940.37 -37886940.13 -37886939.87 0.0138 0.0038 *
 Earth -108441-03-23 04:19 J -37886570.34 -37886570.32 -37886570.27 0.0138 0.0136
 Moon -108441-03-23 07:26 J -37886570.26 -37886570.19 -37886570.09 0.0138 0.0130

Mercury -108432-07-26 15:36 J -37883157.91 -37883157.85 -37883157.78 0.0133 0.0117
 Mercury -108432-10-22 19:26 J -37883069.78 -37883069.69 -37883069.59 0.0133 0.0100
 Mercury -108431-01-18 23:16 J -37882981.64 -37882981.53 -37882981.41 0.0132 0.0083
 Mercury -108431-04-17 02:52 J -37882893.50 -37882893.38 -37882893.25 0.0132 0.0067
 Mercury -108431-07-14 06:43 J -37882805.35 -37882805.22 -37882805.08 0.0132 0.0050
 Mars -108431-10-03 18:00 J -37882724.05 -37882723.75 -37882723.45 0.0132 0.0015
 Mercury -108431-10-10 10:33 J -37882717.20 -37882717.06 -37882716.92 0.0132 0.0034
 Mercury -108430-01-06 14:09 J -37882629.05 -37882628.91 -37882628.77 0.0132 0.0017
 Mercury -108430-04-04 17:45 J -37882540.90 -37882540.76 -37882540.61 0.0132 0.0002
 Mercury -108430-07-01 21:21 J -37882452.75 -37882452.61 -37882452.46 0.0132 0.0015
 Mercury -108430-09-28 00:57 J -37882364.60 -37882364.46 -37882364.32 0.0132 0.0031
 Mercury -108430-12-25 04:33 J -37882276.44 -37882276.31 -37882276.17 0.0132 0.0046
 Mercury -108429-03-22 08:09 J -37882188.29 -37882188.16 -37882188.04 0.0132 0.0062
 Mercury -108429-06-18 11:31 J -37882100.13 -37882100.02 -37882099.90 0.0132 0.0077
 Mercury -108429-09-14 14:52 J -37882011.97 -37882011.88 -37882011.77 0.0132 0.0093
 Mercury -108429-12-11 18:28 J -37881923.81 -37881923.73 -37881923.65 0.0132 0.0108
 Mercury -108428-03-09 22:04 J -37881835.63 -37881835.58 -37881835.54 0.0132 0.0123
 Venus -108423-04-21 12:43 J -37879967.12 -37879966.97 -37879966.82 0.0131 0.0091
 Venus -108423-12-03 15:21 J -37879741.05 -37879740.86 -37879740.65 0.0131 0.0049
 Venus -108422-07-17 18:28 J -37879514.95 -37879514.73 -37879514.52 0.0131 0.0007
 Venus -108421-02-28 21:07 J -37879288.82 -37879288.62 -37879288.41 0.0131 0.0036
 Venus -108421-10-11 23:45 J -37879062.67 -37879062.51 -37879062.33 0.0131 0.0078
 Venus -108420-05-26 02:09 J -37878836.47 -37878836.41 -37878836.31 0.0131 0.0120
 Moon -108398-09-07 00:43 J -37870697.70 -37870697.47 -37870697.23 0.0140 0.0044
 Earth -108398-09-07 04:04 J -37870697.56 -37870697.33 -37870697.10 0.0140 0.0045 *
 Earth -108397-09-10 15:07 J -37870328.09 -37870327.87 -37870327.64 0.0141 0.0053
 Moon -108397-09-10 18:14 J -37870327.96 -37870327.74 -37870327.52 0.0141 0.0058 *
 Mercury -108388-09-25 23:16 J -37867025.54 -37867025.53 -37867025.50 0.0146 0.0145
 Mercury -108388-12-23 06:00 J -37866937.34 -37866937.25 -37866937.15 0.0146 0.0120
 Mercury -108387-03-21 12:28 J -37866849.10 -37866848.98 -37866848.84 0.0146 0.0095

Mercury -108387-06-17 19:12 J -37866760.84 -37866760.70 -37866760.54 0.0147 0.0069
 Mercury -108387-09-14 01:55 J -37866672.58 -37866672.42 -37866672.25 0.0147 0.0044
 Mercury -108387-12-11 08:52 J -37866584.30 -37866584.13 -37866583.96 0.0147 0.0018
 Mars -108386-01-15 00:57 J -37866549.70 -37866549.46 -37866549.17 0.0147 0.0079
 Mercury -108386-03-09 15:50 J -37866496.01 -37866495.84 -37866495.67 0.0147 0.0009
 Mercury -108386-06-05 22:33 J -37866407.72 -37866407.56 -37866407.38 0.0147 0.0036
 Mercury -108386-09-02 05:45 J -37866319.41 -37866319.26 -37866319.10 0.0147 0.0062
 Mercury -108386-11-29 12:43 J -37866231.10 -37866230.97 -37866230.82 0.0147 0.0090
 Mercury -108385-02-25 20:09 J -37866142.77 -37866142.66 -37866142.56 0.0147 0.0117
 Mercury -108385-05-24 03:07 J -37866054.40 -37866054.37 -37866054.33 0.0147 0.0144
 Venus -108381-06-06 05:31 J -37864580.37 -37864580.27 -37864580.15 0.0148 0.0129
 Venus -108380-01-18 20:24 J -37864353.83 -37864353.65 -37864353.44 0.0148 0.0066
 Venus -108380-09-02 12:00 J -37864127.22 -37864127.00 -37864126.78 0.0148 0.0001
 Venus -108379-04-17 03:07 J -37863900.56 -37863900.37 -37863900.16 0.0148 0.0063
 Venus -108379-11-29 18:43 J -37863673.82 -37863673.72 -37863673.60 0.0148 0.0127
 Earth -108359-03-15 00:14 J -37856628.73 -37856628.49 -37856628.25 0.0139 0.0055
 Moon -108359-03-15 03:50 J -37856628.57 -37856628.34 -37856628.09 0.0139 0.0055 *
 Moon -108358-03-19 18:00 J -37856258.99 -37856258.75 -37856258.49 0.0138 0.0041
 Earth -108358-03-19 21:36 J -37856258.84 -37856258.60 -37856258.34 0.0138 0.0045 *
 Mercury -108348-05-19 19:26 J -37852544.72 -37852544.69 -37852544.63 0.0133 0.0127
 Mars -108348-06-28 05:02 J -37852505.43 -37852505.29 -37852505.13 0.0133 0.0114
 Mercury -108348-08-15 23:16 J -37852456.60 -37852456.53 -37852456.43 0.0133 0.0110
 Mercury -108348-11-12 03:21 J -37852368.46 -37852368.36 -37852368.25 0.0133 0.0093
 Mercury -108347-02-08 07:12 J -37852280.32 -37852280.20 -37852280.08 0.0133 0.0076
 Mercury -108347-05-07 10:48 J -37852192.17 -37852192.05 -37852191.91 0.0132 0.0060
 Mercury -108347-08-03 14:38 J -37852104.02 -37852103.89 -37852103.75 0.0132 0.0043
 Mercury -108347-10-30 18:14 J -37852015.88 -37852015.74 -37852015.59 0.0132 0.0027
 Mercury -108346-01-26 22:04 J -37851927.72 -37851927.58 -37851927.44 0.0132 0.0010
 Mercury -108346-04-25 01:40 J -37851839.57 -37851839.43 -37851839.28 0.0132 0.0006
 Mars -108346-05-29 11:45 J -37851805.20 -37851805.01 -37851804.79 0.0132 0.0097

Mercury -108346-07-22 05:16 J -37851751.42 -37851751.28 -37851751.14 0.0132 0.0022

Mercury -108346-10-18 08:52 J -37851663.27 -37851663.13 -37851662.99 0.0132 0.0037

Mercury -108345-01-14 12:28 J -37851575.11 -37851574.98 -37851574.85 0.0132 0.0053

Mercury -108345-04-11 15:50 J -37851486.95 -37851486.84 -37851486.71 0.0132 0.0069

Mercury -108345-07-08 19:26 J -37851398.80 -37851398.69 -37851398.58 0.0132 0.0084

Mercury -108345-10-04 22:48 J -37851310.63 -37851310.55 -37851310.45 0.0132 0.0100

Mercury -108344-01-01 02:09 J -37851222.47 -37851222.41 -37851222.33 0.0132 0.0115

Mercury -108344-03-30 05:45 J -37851134.28 -37851134.26 -37851134.24 0.0132 0.0130

Venus -108340-12-20 01:55 J -37849408.52 -37849408.42 -37849408.28 0.0131 0.0109

Venus -108339-08-03 05:16 J -37849182.46 -37849182.28 -37849182.09 0.0131 0.0066

Venus -108338-03-17 08:09 J -37848956.36 -37848956.16 -37848955.94 0.0131 0.0024

Venus -108338-10-29 11:02 J -37848730.25 -37848730.04 -37848729.82 0.0131 0.0019

Venus -108337-06-11 13:55 J -37848504.11 -37848503.92 -37848503.73 0.0131 0.0061

Venus -108336-01-23 16:19 J -37848277.94 -37848277.82 -37848277.68 0.0131 0.0103

Earth -108315-09-03 06:43 J -37840385.27 -37840385.22 -37840385.13 0.0139 0.0134

Moon -108315-09-03 10:19 J -37840385.15 -37840385.07 -37840384.97 0.0139 0.0130 *

Moon -108314-09-07 13:12 J -37840016.18 -37840015.95 -37840015.71 0.0140 0.0038

Earth -108314-09-07 16:48 J -37840016.03 -37840015.80 -37840015.56 0.0140 0.0038 *

Earth -108313-09-11 03:50 J -37839646.56 -37839646.34 -37839646.12 0.0141 0.0059

Moon -108313-09-11 07:12 J -37839646.42 -37839646.20 -37839645.97 0.0141 0.0057 *

Mars -108304-10-05 16:33 J -37836334.97 -37836334.81 -37836334.60 0.0146 0.0119

Mercury -108304-10-16 06:57 J -37836324.26 -37836324.21 -37836324.15 0.0146 0.0138

Mercury -108303-01-12 13:40 J -37836236.04 -37836235.93 -37836235.83 0.0146 0.0113

Mercury -108303-04-10 20:09 J -37836147.79 -37836147.66 -37836147.52 0.0146 0.0088

Mercury -108303-07-08 02:52 J -37836059.53 -37836059.38 -37836059.22 0.0147 0.0062

Mercury -108303-10-04 09:35 J -37835971.26 -37835971.10 -37835970.93 0.0147 0.0037

Mercury -108303-12-31 16:33 J -37835882.98 -37835882.81 -37835882.64 0.0147 0.0011

Mercury -108302-03-29 23:16 J -37835794.70 -37835794.53 -37835794.35 0.0147 0.0016

Mercury -108302-06-26 06:14 J -37835706.40 -37835706.24 -37835706.07 0.0147 0.0043

Mercury -108302-09-22 13:11 J -37835618.10 -37835617.95 -37835617.79 0.0147 0.0069

Mercury -108302-12-19 20:24 J -37835529.78 -37835529.65 -37835529.52 0.0147 0.0096

Mercury -108301-03-17 03:35 J -37835441.44 -37835441.35 -37835441.26 0.0147 0.0124

Venus -108297-09-18 01:26 J -37833795.60 -37833795.44 -37833795.27 0.0148 0.0097

Venus -108296-05-02 16:33 J -37833569.02 -37833568.81 -37833568.59 0.0148 0.0033

Venus -108296-12-15 07:55 J -37833342.39 -37833342.17 -37833341.95 0.0148 0.0032

Venus -108295-07-29 23:02 J -37833115.70 -37833115.54 -37833115.36 0.0148 0.0096

Earth -108275-03-15 11:31 J -37825947.26 -37825947.02 -37825946.77 0.0139 0.0049

Moon -108275-03-15 14:52 J -37825947.12 -37825946.88 -37825946.62 0.0139 0.0049 *

Moon -108274-03-20 05:02 J -37825577.51 -37825577.29 -37825577.04 0.0138 0.0056

Earth -108274-03-20 08:52 J -37825577.36 -37825577.13 -37825576.87 0.0138 0.0051 *

Mercury -108264-06-09 03:21 J -37821843.41 -37821843.36 -37821843.29 0.0133 0.0120

Mercury -108264-09-05 07:26 J -37821755.28 -37821755.19 -37821755.10 0.0133 0.0103

Mercury -108264-12-02 11:02 J -37821667.14 -37821667.04 -37821666.92 0.0133 0.0087

Mars -108263-02-20 21:21 J -37821586.89 -37821586.61 -37821586.31 0.0133 0.0033

Mercury -108263-02-28 14:52 J -37821579.00 -37821578.88 -37821578.75 0.0133 0.0070

Mercury -108263-05-27 18:28 J -37821490.85 -37821490.73 -37821490.59 0.0132 0.0054

Mercury -108263-08-23 22:33 J -37821402.70 -37821402.56 -37821402.42 0.0132 0.0037

Mercury -108263-11-20 02:09 J -37821314.55 -37821314.41 -37821314.27 0.0132 0.0020

Mercury -108262-02-16 05:45 J -37821226.40 -37821226.26 -37821226.11 0.0132 0.0005

Mercury -108262-05-15 09:21 J -37821138.25 -37821138.11 -37821137.96 0.0132 0.0012

Mercury -108262-08-11 12:57 J -37821050.10 -37821049.96 -37821049.82 0.0132 0.0028

Mercury -108262-11-07 16:33 J -37820961.94 -37820961.81 -37820961.67 0.0132 0.0044

Mercury -108261-02-03 20:09 J -37820873.79 -37820873.66 -37820873.53 0.0132 0.0059

Mercury -108261-05-01 23:31 J -37820785.63 -37820785.52 -37820785.40 0.0132 0.0075

Mercury -108261-07-29 03:07 J -37820697.47 -37820697.37 -37820697.26 0.0132 0.0090

Mercury -108261-10-25 06:28 J -37820609.31 -37820609.23 -37820609.14 0.0132 0.0106

Mercury -108260-01-21 09:50 J -37820521.13 -37820521.09 -37820521.02 0.0132 0.0121

Venus -108256-08-19 15:07 J -37818849.90 -37818849.87 -37818849.80 0.0131 0.0127

Venus -108255-04-02 18:28 J -37818623.88 -37818623.73 -37818623.56 0.0131 0.0084

Venus -108255-11-14 21:21 J -37818397.80 -37818397.61 -37818397.39 0.0131 0.0042

Venus -108254-06-29 00:28 J -37818171.69 -37818171.48 -37818171.26 0.0131 0.0002
 Venus -108253-02-10 03:07 J -37817945.56 -37817945.37 -37817945.16 0.0131 0.0044
 Venus -108253-09-23 06:00 J -37817719.40 -37817719.25 -37817719.08 0.0131 0.0086
 Venus -108252-05-07 08:38 J -37817493.17 -37817493.14 -37817493.09 0.0131 0.0128
 Earth -108231-09-03 20:38 J -37809703.74 -37809703.64 -37809703.53 0.0139 0.0126
 Moon -108231-09-04 00:00 J -37809703.57 -37809703.50 -37809703.39 0.0139 0.0130 *
 Moon -108230-09-08 02:52 J -37809334.61 -37809334.38 -37809334.13 0.0140 0.0029
 Earth -108230-09-08 06:14 J -37809334.47 -37809334.24 -37809333.99 0.0140 0.0031 *
 Earth -108229-09-11 17:16 J -37808965.00 -37808964.78 -37808964.56 0.0141 0.0066
 Moon -108229-09-11 20:24 J -37808964.85 -37808964.65 -37808964.42 0.0141 0.0070 *
 Mercury -108220-11-05 14:24 J -37805622.96 -37805622.90 -37805622.81 0.0146 0.0131
 Mercury -108219-02-01 21:07 J -37805534.73 -37805534.62 -37805534.50 0.0146 0.0105
 Mercury -108219-05-01 03:35 J -37805446.48 -37805446.35 -37805446.20 0.0146 0.0081
 Mars -108219-06-01 22:19 J -37805414.89 -37805414.57 -37805414.25 0.0146 0.0004
 Mercury -108219-07-28 10:33 J -37805358.22 -37805358.06 -37805357.90 0.0146 0.0055
 Mercury -108219-10-24 17:16 J -37805269.95 -37805269.78 -37805269.61 0.0147 0.0029
 Mercury -108218-01-21 00:00 J -37805181.67 -37805181.50 -37805181.33 0.0147 0.0004
 Mercury -108218-04-19 06:57 J -37805093.38 -37805093.21 -37805093.04 0.0147 0.0023
 Mercury -108218-07-16 13:40 J -37805005.09 -37805004.93 -37805004.76 0.0147 0.0050
 Mercury -108218-10-12 20:52 J -37804916.78 -37804916.63 -37804916.48 0.0147 0.0076
 Mercury -108217-01-09 03:50 J -37804828.46 -37804828.34 -37804828.21 0.0147 0.0103
 Mercury -108217-04-06 11:02 J -37804740.12 -37804740.04 -37804739.96 0.0147 0.0130
 Venus -108213-05-18 05:31 J -37803237.36 -37803237.27 -37803237.14 0.0148 0.0128
 Venus -108213-12-30 20:52 J -37803010.83 -37803010.63 -37803010.43 0.0148 0.0064
 Venus -108212-08-14 12:00 J -37802784.22 -37802784.00 -37802783.78 0.0148 0.0000
 Venus -108211-03-29 03:07 J -37802557.56 -37802557.37 -37802557.16 0.0148 0.0064
 Venus -108211-11-10 18:43 J -37802330.82 -37802330.72 -37802330.61 0.0148 0.0128
 Earth -108191-03-15 20:24 J -37795265.89 -37795265.65 -37795265.40 0.0139 0.0045
 Moon -108191-03-15 23:45 J -37795265.76 -37795265.51 -37795265.26 0.0139 0.0046 *
 Moon -108190-03-20 15:07 J -37794896.11 -37794895.87 -37794895.63 0.0138 0.0053

Earth -108190-03-20 18:00 J -37794895.98 -37794895.75 -37794895.50 0.0138 0.0055 *
 Mercury -108180-04-02 06:43 J -37791230.22 -37791230.22 -37791230.19 0.0133 0.0132
 Mercury -108180-06-29 10:48 J -37791142.12 -37791142.05 -37791141.97 0.0133 0.0115
 Mercury -108180-09-25 14:38 J -37791053.98 -37791053.89 -37791053.79 0.0133 0.0098
 Mercury -108180-12-22 18:28 J -37790965.84 -37790965.73 -37790965.61 0.0133 0.0081
 Mercury -108179-03-20 22:19 J -37790877.69 -37790877.57 -37790877.44 0.0133 0.0064
 Mercury -108179-06-17 02:09 J -37790789.55 -37790789.41 -37790789.27 0.0133 0.0048
 Mercury -108179-09-13 05:45 J -37790701.40 -37790701.26 -37790701.11 0.0133 0.0032
 Mars -108179-10-16 09:21 J -37790668.39 -37790668.11 -37790667.83 0.0132 0.0048
 Mercury -108179-12-10 09:35 J -37790613.25 -37790613.10 -37790612.96 0.0132 0.0015
 Mercury -108178-03-08 13:11 J -37790525.09 -37790524.95 -37790524.80 0.0132 0.0001
 Mercury -108178-06-04 16:48 J -37790436.94 -37790436.80 -37790436.65 0.0132 0.0017
 Mercury -108178-08-31 20:24 J -37790348.79 -37790348.65 -37790348.51 0.0132 0.0033
 Mercury -108178-11-28 00:00 J -37790260.63 -37790260.50 -37790260.37 0.0132 0.0049
 Mercury -108177-02-24 03:35 J -37790172.47 -37790172.35 -37790172.23 0.0132 0.0064
 Mercury -108177-05-22 06:57 J -37790084.32 -37790084.21 -37790084.09 0.0132 0.0080
 Mercury -108177-08-18 10:33 J -37789996.16 -37789996.06 -37789995.96 0.0132 0.0095
 Mercury -108177-11-14 13:55 J -37789907.99 -37789907.92 -37789907.84 0.0132 0.0111
 Mercury -108176-02-10 17:16 J -37789819.81 -37789819.78 -37789819.73 0.0132 0.0126
 Venus -108172-12-01 06:57 J -37788065.32 -37788065.21 -37788065.06 0.0131 0.0103
 Venus -108171-07-15 10:19 J -37787839.25 -37787839.07 -37787838.87 0.0131 0.0060
 Venus -108170-02-26 13:26 J -37787613.15 -37787612.94 -37787612.72 0.0131 0.0017
 Venus -108170-10-10 16:33 J -37787387.02 -37787386.81 -37787386.60 0.0131 0.0026
 Venus -108169-05-23 19:11 J -37787160.87 -37787160.70 -37787160.51 0.0131 0.0069
 Venus -108168-01-04 21:50 J -37786934.69 -37786934.59 -37786934.46 0.0131 0.0111
 Earth -108147-09-04 10:33 J -37779022.17 -37779022.06 -37779021.92 0.0139 0.0119
 Moon -108147-09-04 13:26 J -37779022.06 -37779021.94 -37779021.78 0.0139 0.0114 *
 Moon -108146-09-08 17:02 J -37778653.02 -37778652.79 -37778652.54 0.0140 0.0025
 Earth -108146-09-08 20:24 J -37778652.89 -37778652.65 -37778652.40 0.0140 0.0024 *
 Earth -108145-09-12 06:43 J -37778283.41 -37778283.22 -37778282.99 0.0141 0.0074

Moon -108145-09-12 10:19 J -37778283.27 -37778283.07 -37778282.84 0.0141 0.0072 *
 Mercury -108136-08-29 16:33 J -37775009.82 -37775009.81 -37775009.80 0.0146 0.0145
 Mercury -108136-11-25 22:48 J -37774921.64 -37774921.55 -37774921.45 0.0146 0.0121
 Mercury -108135-02-22 05:16 J -37774833.40 -37774833.28 -37774833.14 0.0146 0.0096
 Mercury -108135-05-21 12:00 J -37774745.14 -37774745.00 -37774744.85 0.0146 0.0071
 Mercury -108135-08-17 18:43 J -37774656.88 -37774656.72 -37774656.56 0.0146 0.0046
 Mercury -108135-11-14 01:26 J -37774568.61 -37774568.44 -37774568.27 0.0147 0.0020
 Mars -108134-01-27 06:28 J -37774494.41 -37774494.23 -37774494.01 0.0147 0.0113
 Mercury -108134-02-10 08:24 J -37774480.33 -37774480.15 -37774479.98 0.0147 0.0007
 Mercury -108134-05-09 15:07 J -37774392.04 -37774391.87 -37774391.70 0.0147 0.0032
 Mercury -108134-08-05 22:04 J -37774303.74 -37774303.58 -37774303.42 0.0147 0.0059
 Mercury -108134-11-02 04:48 J -37774215.43 -37774215.30 -37774215.15 0.0147 0.0086
 Mercury -108133-01-29 12:00 J -37774127.10 -37774127.00 -37774126.88 0.0147 0.0113
 Mercury -108133-04-26 18:57 J -37774038.75 -37774038.71 -37774038.64 0.0147 0.0140
 Venus -108129-08-30 03:21 J -37772452.52 -37772452.36 -37772452.18 0.0148 0.0093
 Venus -108128-04-13 18:28 J -37772225.94 -37772225.73 -37772225.51 0.0148 0.0029
 Venus -108128-11-26 09:35 J -37771999.31 -37771999.10 -37771998.88 0.0148 0.0035
 Venus -108127-07-11 00:43 J -37771772.62 -37771772.47 -37771772.29 0.0148 0.0100
 Earth -108107-03-16 07:55 J -37764584.42 -37764584.17 -37764583.91 0.0139 0.0040
 Moon -108107-03-16 09:50 J -37764584.34 -37764584.09 -37764583.82 0.0139 0.0037 *
 Moon -108106-03-21 02:38 J -37764214.61 -37764214.39 -37764214.16 0.0138 0.0063
 Earth -108106-03-21 05:31 J -37764214.50 -37764214.27 -37764214.03 0.0138 0.0060 *
 Mercury -108096-04-22 14:24 J -37760528.93 -37760528.90 -37760528.84 0.0133 0.0126
 Mars -108096-07-10 17:45 J -37760449.97 -37760449.76 -37760449.51 0.0133 0.0084
 Mercury -108096-07-19 18:28 J -37760440.81 -37760440.73 -37760440.65 0.0133 0.0109
 Mercury -108096-10-15 22:19 J -37760352.67 -37760352.57 -37760352.46 0.0133 0.0092
 Mercury -108095-01-12 01:55 J -37760264.53 -37760264.42 -37760264.29 0.0133 0.0076
 Mercury -108095-04-10 06:00 J -37760176.38 -37760176.25 -37760176.12 0.0133 0.0059
 Mercury -108095-07-07 09:35 J -37760088.23 -37760088.10 -37760087.96 0.0133 0.0042
 Mercury -108095-10-03 13:26 J -37760000.08 -37759999.94 -37759999.80 0.0133 0.0026

Mercury -108095-12-30 17:02 J -37759911.93 -37759911.79 -37759911.64 0.0132 0.0010

Mercury -108094-03-28 20:52 J -37759823.78 -37759823.63 -37759823.49 0.0132 0.0007

Mars -108094-06-11 00:28 J -37759749.52 -37759749.48 -37759749.38 0.0132 0.0129

Mercury -108094-06-25 00:28 J -37759735.62 -37759735.48 -37759735.34 0.0132 0.0023

Mercury -108094-09-21 04:04 J -37759647.47 -37759647.33 -37759647.19 0.0132 0.0039

Mercury -108094-12-18 07:26 J -37759559.31 -37759559.19 -37759559.05 0.0132 0.0055

Mercury -108093-03-15 11:02 J -37759471.16 -37759471.04 -37759470.91 0.0132 0.0070

Mercury -108093-06-11 14:38 J -37759383.00 -37759382.89 -37759382.78 0.0132 0.0085

Mercury -108093-09-07 18:00 J -37759294.83 -37759294.75 -37759294.65 0.0132 0.0101

Mercury -108093-12-04 21:35 J -37759206.66 -37759206.60 -37759206.53 0.0132 0.0116

Mercury -108092-03-03 00:57 J -37759118.47 -37759118.46 -37759118.44 0.0132 0.0131

Venus -108088-07-31 19:55 J -37757506.73 -37757506.67 -37757506.57 0.0131 0.0121

Venus -108087-03-14 23:31 J -37757280.69 -37757280.52 -37757280.34 0.0131 0.0078

Venus -108087-10-27 02:38 J -37757054.59 -37757054.39 -37757054.18 0.0131 0.0035

Venus -108086-06-10 05:45 J -37756828.47 -37756828.26 -37756828.04 0.0131 0.0008

Jupiter -108086-09-18 20:09 J -37756728.02 -37756727.66 -37756727.22 0.0131 0.0079

Venus -108085-01-22 08:38 J -37756602.33 -37756602.14 -37756601.94 0.0131 0.0051

Venus -108085-09-04 11:16 J -37756376.17 -37756376.03 -37756375.87 0.0131 0.0094

Earth -108063-09-05 01:26 J -37748340.57 -37748340.44 -37748340.28 0.0139 0.0111

Moon -108063-09-05 04:19 J -37748340.45 -37748340.32 -37748340.16 0.0139 0.0115 *

Moon -108062-09-09 08:38 J -37747971.38 -37747971.14 -37747970.90 0.0140 0.0013

Earth -108062-09-09 11:16 J -37747971.27 -37747971.03 -37747970.79 0.0140 0.0016 *

Earth -108061-09-12 22:04 J -37747601.78 -37747601.58 -37747601.37 0.0141 0.0081

Moon -108061-09-13 00:43 J -37747601.66 -37747601.47 -37747601.25 0.0141 0.0083 *

Mercury -108052-09-19 00:28 J -37744308.53 -37744308.48 -37744308.41 0.0146 0.0136

Mars -108052-10-18 04:48 J -37744279.55 -37744279.30 -37744279.02 0.0146 0.0079

Mercury -108052-12-16 07:11 J -37744220.31 -37744220.20 -37744220.09 0.0146 0.0111

Mercury -108051-03-14 13:40 J -37744132.06 -37744131.93 -37744131.79 0.0146 0.0086

Mercury -108051-06-10 20:24 J -37744043.80 -37744043.65 -37744043.49 0.0146 0.0061

Mercury -108051-09-07 03:07 J -37743955.54 -37743955.37 -37743955.21 0.0146 0.0036

Mercury -108051-12-04 09:50 J -37743867.26 -37743867.09 -37743866.92 0.0146 0.0010

Mercury -108050-03-02 16:33 J -37743778.98 -37743778.81 -37743778.64 0.0147 0.0016

Mercury -108050-05-29 23:31 J -37743690.69 -37743690.52 -37743690.35 0.0147 0.0042

Mercury -108050-08-26 06:28 J -37743602.38 -37743602.23 -37743602.08 0.0147 0.0069

Mercury -108050-11-22 13:11 J -37743514.07 -37743513.95 -37743513.81 0.0147 0.0096

Mercury -108049-02-18 20:24 J -37743425.74 -37743425.65 -37743425.55 0.0147 0.0123

Venus -108045-04-29 10:33 J -37741894.18 -37741894.06 -37741893.94 0.0148 0.0121

Venus -108045-12-12 01:11 J -37741667.65 -37741667.45 -37741667.24 0.0148 0.0058

Jupiter -108044-01-31 02:09 J -37741617.87 -37741617.41 -37741616.91 0.0148 0.0068

Venus -108044-07-26 16:19 J -37741441.04 -37741440.82 -37741440.60 0.0148 0.0007

Venus -108043-03-10 07:26 J -37741214.38 -37741214.19 -37741213.99 0.0148 0.0071

Venus -108043-10-22 22:33 J -37740987.63 -37740987.56 -37740987.46 0.0148 0.0136

Moon -108024-03-11 18:57 J -37734272.78 -37734272.71 -37734272.60 0.0140 0.0131

Earth -108024-03-11 19:11 J -37734272.73 -37734272.70 -37734272.62 0.0140 0.0137 *

Earth -108023-03-16 18:43 J -37733902.97 -37733902.72 -37733902.46 0.0139 0.0035

Moon -108023-03-16 20:09 J -37733902.91 -37733902.66 -37733902.39 0.0139 0.0038 *

Moon -108022-03-21 14:52 J -37733533.10 -37733532.88 -37733532.65 0.0138 0.0064

Earth -108022-03-21 16:33 J -37733533.04 -37733532.81 -37733532.57 0.0138 0.0065 *

Mercury -108012-05-12 22:04 J -37729827.64 -37729827.58 -37729827.52 0.0133 0.0121

Mercury -108012-08-09 01:40 J -37729739.51 -37729739.43 -37729739.33 0.0133 0.0104

Mercury -108012-11-05 05:45 J -37729651.37 -37729651.26 -37729651.15 0.0133 0.0087

Mercury -108011-02-01 09:35 J -37729563.22 -37729563.10 -37729562.97 0.0133 0.0070

Mars -108011-03-05 08:24 J -37729531.45 -37729531.15 -37729530.85 0.0133 0.0004

Mercury -108011-04-30 13:11 J -37729475.07 -37729474.95 -37729474.81 0.0133 0.0054

Mercury -108011-07-27 17:16 J -37729386.92 -37729386.78 -37729386.64 0.0133 0.0037

Mercury -108011-10-23 20:52 J -37729298.77 -37729298.63 -37729298.49 0.0133 0.0021

Mercury -108010-01-20 00:28 J -37729210.62 -37729210.48 -37729210.33 0.0132 0.0005

Mercury -108010-04-18 04:19 J -37729122.47 -37729122.32 -37729122.18 0.0132 0.0012

Mercury -108010-07-15 07:40 J -37729034.31 -37729034.18 -37729034.03 0.0132 0.0029

Mercury -108010-10-11 11:31 J -37728946.16 -37728946.02 -37728945.89 0.0132 0.0044

Mercury	-108009-01-07 15:07 J	-37728858.00	-37728857.87	-37728857.74	0.0132	0.0059
Mercury	-108009-04-04 18:28 J	-37728769.84	-37728769.73	-37728769.61	0.0132	0.0075
Mercury	-108009-07-01 22:04 J	-37728681.68	-37728681.58	-37728681.47	0.0132	0.0091
Mercury	-108009-09-28 01:26 J	-37728593.51	-37728593.44	-37728593.35	0.0132	0.0106
Mercury	-108009-12-25 05:02 J	-37728505.34	-37728505.29	-37728505.23	0.0132	0.0121
Venus	-108004-11-12 12:00 J	-37726722.13	-37726722.00	-37726721.84	0.0131	0.0097
Venus	-108003-06-26 15:07 J	-37726496.05	-37726495.87	-37726495.66	0.0131	0.0054
Jupiter	-108003-08-16 03:35 J	-37726445.77	-37726445.35	-37726444.93	0.0131	0.0070
Venus	-108002-02-07 18:28 J	-37726269.94	-37726269.73	-37726269.51	0.0131	0.0011
Venus	-108002-09-21 21:35 J	-37726043.80	-37726043.60	-37726043.39	0.0131	0.0033
Venus	-108001-05-05 00:14 J	-37725817.65	-37725817.49	-37725817.30	0.0131	0.0076
Venus	-108001-12-17 03:21 J	-37725591.44	-37725591.36	-37725591.27	0.0131	0.0118

108TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 108th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-107979-09-05 15:35 J	-37717659.00	-37717658.85	-37717658.68	0.0139	0.0104		
Moon	-107979-09-05 17:31 J	-37717658.94	-37717658.77	-37717658.58	0.0139	0.0097	*	
Moon	-107978-09-09 23:31 J	-37717289.76	-37717289.52	-37717289.28	0.0140	0.0012		
Earth	-107978-09-10 01:26 J	-37717289.68	-37717289.44	-37717289.19	0.0140	0.0009	*	

Earth -107977-09-13 12:14 J -37716920.17 -37716919.99 -37716919.79 0.0141 0.0088
 Moon -107977-09-13 14:38 J -37716920.07 -37716919.89 -37716919.67 0.0141 0.0087 *
 Mercury -107968-10-09 08:52 J -37713607.20 -37713607.13 -37713607.04 0.0146 0.0127
 Mercury -107967-01-05 15:21 J -37713518.97 -37713518.86 -37713518.73 0.0146 0.0102
 Mercury -107967-04-03 22:04 J -37713430.72 -37713430.58 -37713430.43 0.0146 0.0077
 Mars -107967-06-14 16:33 J -37713359.10 -37713358.81 -37713358.49 0.0146 0.0039
 Mercury -107967-07-01 04:33 J -37713342.46 -37713342.31 -37713342.14 0.0146 0.0052
 Mercury -107967-09-27 11:31 J -37713254.19 -37713254.02 -37713253.85 0.0146 0.0026
 Mercury -107967-12-24 18:14 J -37713165.91 -37713165.74 -37713165.57 0.0146 0.0001
 Mercury -107966-03-23 00:57 J -37713077.63 -37713077.46 -37713077.29 0.0147 0.0026
 Mercury -107966-06-19 07:55 J -37712989.33 -37712989.17 -37712989.01 0.0147 0.0052
 Mercury -107966-09-15 14:38 J -37712901.03 -37712900.89 -37712900.73 0.0147 0.0079
 Mercury -107966-12-12 21:35 J -37712812.71 -37712812.60 -37712812.47 0.0147 0.0106
 Mercury -107965-03-10 04:48 J -37712724.36 -37712724.30 -37712724.22 0.0147 0.0133
 Venus -107961-08-11 08:38 J -37711109.31 -37711109.14 -37711108.96 0.0148 0.0086
 Venus -107960-03-25 23:31 J -37710882.73 -37710882.52 -37710882.29 0.0148 0.0022
 Venus -107960-11-07 14:38 J -37710656.09 -37710655.89 -37710655.67 0.0148 0.0043
 Venus -107959-06-22 05:45 J -37710429.40 -37710429.26 -37710429.10 0.0148 0.0108
 Earth -107940-03-12 09:07 J -37703591.21 -37703591.12 -37703591.01 0.0140 0.0129
 Moon -107940-03-12 09:07 J -37703591.15 -37703591.12 -37703591.04 0.0140 0.0136 *
 Moon -107939-03-17 08:38 J -37703221.41 -37703221.14 -37703220.87 0.0139 0.0024
 Earth -107939-03-17 08:24 J -37703221.40 -37703221.15 -37703220.89 0.0139 0.0028 *
 Moon -107938-03-22 05:16 J -37702851.48 -37702851.28 -37702851.05 0.0138 0.0072
 Earth -107938-03-22 05:45 J -37702851.47 -37702851.26 -37702851.02 0.0138 0.0072 *
 Mercury -107928-03-06 01:55 J -37699214.44 -37699214.42 -37699214.40 0.0133 0.0131
 Mercury -107928-06-02 05:45 J -37699126.33 -37699126.26 -37699126.18 0.0133 0.0114
 Mercury -107928-08-29 09:21 J -37699038.19 -37699038.11 -37699038.00 0.0133 0.0098
 Mercury -107928-11-25 13:26 J -37698950.05 -37698949.94 -37698949.82 0.0133 0.0081
 Mercury -107927-02-21 17:16 J -37698861.91 -37698861.78 -37698861.65 0.0133 0.0064
 Mercury -107927-05-20 20:52 J -37698773.76 -37698773.63 -37698773.48 0.0133 0.0048

Mercury -107927-08-17 00:43 J -37698685.61 -37698685.47 -37698685.32 0.0133 0.0031

Mars -107927-10-29 00:00 J -37698612.72 -37698612.50 -37698612.23 0.0133 0.0078

Mercury -107927-11-13 04:33 J -37698597.45 -37698597.31 -37698597.16 0.0133 0.0015

Mercury -107926-02-09 08:09 J -37698509.30 -37698509.16 -37698509.01 0.0132 0.0004

Mercury -107926-05-08 11:45 J -37698421.15 -37698421.01 -37698420.86 0.0132 0.0018

Mercury -107926-08-04 15:35 J -37698332.99 -37698332.85 -37698332.71 0.0132 0.0034

Mercury -107926-10-31 19:11 J -37698244.84 -37698244.70 -37698244.57 0.0132 0.0049

Mercury -107925-01-27 22:33 J -37698156.68 -37698156.56 -37698156.43 0.0132 0.0065

Mercury -107925-04-25 02:09 J -37698068.52 -37698068.41 -37698068.29 0.0132 0.0081

Mercury -107925-07-22 05:45 J -37697980.36 -37697980.26 -37697980.16 0.0132 0.0096

Mercury -107925-10-18 09:07 J -37697892.19 -37697892.12 -37697892.04 0.0132 0.0112

Mercury -107924-01-14 12:28 J -37697804.00 -37697803.98 -37697803.93 0.0132 0.0127

Venus -107920-07-13 00:43 J -37696163.55 -37696163.47 -37696163.35 0.0131 0.0116

Venus -107919-02-24 04:33 J -37695937.49 -37695937.31 -37695937.13 0.0131 0.0072

Venus -107919-10-08 07:40 J -37695711.39 -37695711.18 -37695710.97 0.0131 0.0029

Venus -107918-05-22 10:48 J -37695485.26 -37695485.05 -37695484.83 0.0131 0.0014

Venus -107917-01-03 13:40 J -37695259.12 -37695258.93 -37695258.73 0.0131 0.0057

Venus -107917-08-16 16:19 J -37695032.95 -37695032.82 -37695032.67 0.0131 0.0100

Earth -107895-09-06 04:48 J -37686977.46 -37686977.30 -37686977.11 0.0139 0.0097

Moon -107895-09-06 06:00 J -37686977.42 -37686977.25 -37686977.08 0.0139 0.0103 *

Moon -107894-09-10 13:40 J -37686608.17 -37686607.93 -37686607.69 0.0140 0.0002

Earth -107894-09-10 14:38 J -37686608.13 -37686607.89 -37686607.64 0.0140 0.0004 *

Earth -107893-09-14 01:26 J -37686238.61 -37686238.44 -37686238.24 0.0141 0.0094

Moon -107893-09-14 02:24 J -37686238.58 -37686238.40 -37686238.20 0.0141 0.0092 *

Mercury -107884-08-02 10:19 J -37682994.09 -37682994.07 -37682994.03 0.0146 0.0143

Mercury -107884-10-29 16:48 J -37682905.89 -37682905.80 -37682905.70 0.0146 0.0119

Mercury -107883-01-25 23:16 J -37682817.65 -37682817.53 -37682817.40 0.0146 0.0094

Mercury -107883-04-24 05:45 J -37682729.40 -37682729.26 -37682729.10 0.0146 0.0070

Mercury -107883-07-21 12:28 J -37682641.14 -37682640.98 -37682640.81 0.0146 0.0044

Mercury -107883-10-17 19:11 J -37682552.86 -37682552.70 -37682552.53 0.0146 0.0019

Mercury -107882-01-14 02:09 J -37682464.58 -37682464.41 -37682464.24 0.0146 0.0008
 Mercury -107882-04-12 08:52 J -37682376.30 -37682376.13 -37682375.96 0.0146 0.0034
 Mercury -107882-07-09 15:35 J -37682288.00 -37682287.85 -37682287.68 0.0147 0.0061
 Mercury -107882-10-05 22:48 J -37682199.69 -37682199.55 -37682199.41 0.0147 0.0087
 Mercury -107881-01-02 05:45 J -37682111.36 -37682111.26 -37682111.15 0.0147 0.0114
 Mercury -107881-03-30 12:43 J -37682023.01 -37682022.97 -37682022.91 0.0147 0.0141
 Venus -107877-04-10 14:24 J -37680551.02 -37680550.90 -37680550.75 0.0148 0.0116
 Venus -107877-11-23 05:16 J -37680324.48 -37680324.28 -37680324.06 0.0148 0.0052
 Venus -107876-07-07 20:24 J -37680097.87 -37680097.65 -37680097.43 0.0148 0.0013
 Venus -107875-02-19 11:31 J -37679871.21 -37679871.02 -37679870.83 0.0148 0.0077
 Venus -107875-10-04 02:38 J -37679644.43 -37679644.39 -37679644.31 0.0148 0.0142
 Earth -107856-03-12 19:55 J -37672909.77 -37672909.67 -37672909.53 0.0140 0.0124
 Moon -107856-03-12 22:19 J -37672909.70 -37672909.57 -37672909.42 0.0140 0.0116 *
 Moon -107855-03-17 18:00 J -37672540.01 -37672539.75 -37672539.48 0.0139 0.0028
 Earth -107855-03-17 19:40 J -37672539.94 -37672539.68 -37672539.42 0.0139 0.0022 *
 Earth -107854-03-22 17:16 J -37672169.99 -37672169.78 -37672169.55 0.0138 0.0077
 Moon -107854-03-22 17:45 J -37672169.96 -37672169.76 -37672169.54 0.0138 0.0078 *
 Mercury -107844-03-26 09:07 J -37668513.15 -37668513.12 -37668513.06 0.0133 0.0127
 Mercury -107844-06-22 13:11 J -37668425.03 -37668424.95 -37668424.86 0.0133 0.0109
 Mars -107844-07-23 08:09 J -37668394.42 -37668394.16 -37668393.87 0.0133 0.0055
 Mercury -107844-09-18 17:02 J -37668336.89 -37668336.79 -37668336.68 0.0133 0.0092
 Mercury -107844-12-15 20:52 J -37668248.75 -37668248.63 -37668248.50 0.0133 0.0075
 Mercury -107843-03-14 00:43 J -37668160.60 -37668160.47 -37668160.34 0.0133 0.0059
 Mercury -107843-06-10 04:33 J -37668072.45 -37668072.31 -37668072.17 0.0133 0.0042
 Mercury -107843-09-06 08:24 J -37667984.30 -37667984.15 -37667984.01 0.0133 0.0026
 Mercury -107843-12-03 12:00 J -37667896.14 -37667896.00 -37667895.85 0.0133 0.0009
 Mercury -107842-03-01 15:35 J -37667807.99 -37667807.85 -37667807.70 0.0132 0.0008
 Mercury -107842-05-28 19:11 J -37667719.84 -37667719.70 -37667719.55 0.0132 0.0023
 Mercury -107842-08-24 22:48 J -37667631.68 -37667631.55 -37667631.41 0.0132 0.0039
 Mercury -107842-11-21 02:38 J -37667543.52 -37667543.39 -37667543.26 0.0132 0.0055

Mercury -107841-02-17 06:00 J -37667455.36 -37667455.25 -37667455.12 0.0132 0.0070

Mercury -107841-05-15 09:35 J -37667367.20 -37667367.10 -37667366.99 0.0132 0.0086

Mercury -107841-08-11 13:11 J -37667279.04 -37667278.95 -37667278.86 0.0132 0.0101

Mercury -107841-11-07 16:33 J -37667190.87 -37667190.81 -37667190.74 0.0132 0.0117

Mercury -107840-02-03 20:09 J -37667102.66 -37667102.66 -37667102.65 0.0132 0.0132

Venus -107836-10-24 16:33 J -37665378.95 -37665378.81 -37665378.64 0.0131 0.0092

Venus -107835-06-07 20:09 J -37665152.86 -37665152.66 -37665152.46 0.0131 0.0048

Venus -107834-01-19 23:02 J -37664926.75 -37664926.54 -37664926.32 0.0131 0.0005

Venus -107834-09-03 02:09 J -37664700.62 -37664700.41 -37664700.21 0.0131 0.0038

Venus -107833-04-16 05:02 J -37664474.46 -37664474.29 -37664474.12 0.0131 0.0081

Venus -107833-11-28 07:26 J -37664248.24 -37664248.19 -37664248.11 0.0131 0.0124

Moon -107811-09-06 15:50 J -37656296.02 -37656295.84 -37656295.62 0.0139 0.0085

Earth -107811-09-06 16:33 J -37656295.99 -37656295.81 -37656295.62 0.0139 0.0092 *

Earth -107810-09-11 02:09 J -37655926.65 -37655926.41 -37655926.16 0.0140 0.0002

Moon -107810-09-11 02:52 J -37655926.62 -37655926.38 -37655926.14 0.0140 0.0005 *

Moon -107809-09-14 12:43 J -37655557.13 -37655556.97 -37655556.77 0.0141 0.0100

Earth -107809-09-14 12:43 J -37655557.13 -37655556.97 -37655556.78 0.0141 0.0098 *

Mercury -107800-08-22 17:31 J -37652292.81 -37652292.77 -37652292.71 0.0146 0.0138

Mars -107800-10-30 12:14 J -37652224.28 -37652223.99 -37652223.67 0.0146 0.0046

Mercury -107800-11-19 00:00 J -37652204.60 -37652204.50 -37652204.39 0.0146 0.0113

Mercury -107799-02-15 06:28 J -37652116.36 -37652116.23 -37652116.09 0.0146 0.0089

Mercury -107799-05-14 13:11 J -37652028.10 -37652027.95 -37652027.80 0.0146 0.0063

Mercury -107799-08-10 19:40 J -37651939.84 -37651939.68 -37651939.51 0.0146 0.0039

Mercury -107799-11-07 02:24 J -37651851.56 -37651851.40 -37651851.22 0.0146 0.0014

Mercury -107798-02-03 09:21 J -37651763.28 -37651763.11 -37651762.94 0.0146 0.0013

Mercury -107798-05-02 16:04 J -37651674.99 -37651674.83 -37651674.66 0.0146 0.0040

Mercury -107798-07-29 23:02 J -37651586.69 -37651586.54 -37651586.38 0.0147 0.0066

Mercury -107798-10-26 06:00 J -37651498.38 -37651498.25 -37651498.11 0.0147 0.0093

Mercury -107797-01-22 12:43 J -37651410.05 -37651409.97 -37651409.86 0.0147 0.0120

Mercury -107797-04-19 20:09 J -37651321.66 -37651321.66 -37651321.65 0.0147 0.0147

Venus -107793-07-23 09:35 J -37649766.27 -37649766.10 -37649765.91 0.0148 0.0085
 Venus -107792-03-07 00:43 J -37649539.69 -37649539.47 -37649539.25 0.0148 0.0020
 Venus -107792-10-19 15:35 J -37649313.05 -37649312.85 -37649312.63 0.0148 0.0045
 Venus -107791-06-03 06:57 J -37649086.36 -37649086.21 -37649086.06 0.0148 0.0109
 Earth -107772-03-13 06:28 J -37642228.36 -37642228.23 -37642228.08 0.0140 0.0118
 Moon -107772-03-13 09:35 J -37642228.21 -37642228.10 -37642227.98 0.0140 0.0125 *
 Moon -107771-03-18 03:50 J -37641858.61 -37641858.34 -37641858.07 0.0139 0.0011
 Earth -107771-03-18 06:14 J -37641858.50 -37641858.24 -37641857.98 0.0139 0.0017 *
 Earth -107770-03-23 04:04 J -37641488.53 -37641488.33 -37641488.11 0.0138 0.0082
 Moon -107770-03-23 06:14 J -37641488.43 -37641488.24 -37641488.02 0.0138 0.0078 *
 Mercury -107760-04-15 16:33 J -37637811.86 -37637811.81 -37637811.74 0.0133 0.0121
 Mercury -107760-07-12 20:38 J -37637723.73 -37637723.64 -37637723.55 0.0133 0.0104
 Mercury -107760-10-09 00:28 J -37637635.59 -37637635.48 -37637635.37 0.0133 0.0087
 Mercury -107759-01-05 04:19 J -37637547.44 -37637547.32 -37637547.19 0.0133 0.0070
 Mars -107759-03-17 22:19 J -37637475.86 -37637475.57 -37637475.28 0.0133 0.0025
 Mercury -107759-04-03 08:09 J -37637459.29 -37637459.16 -37637459.02 0.0133 0.0054
 Mercury -107759-06-30 12:00 J -37637371.14 -37637371.00 -37637370.86 0.0133 0.0037
 Mercury -107759-09-26 15:50 J -37637282.99 -37637282.84 -37637282.70 0.0133 0.0021
 Mercury -107759-12-23 19:26 J -37637194.84 -37637194.69 -37637194.54 0.0133 0.0004
 Mercury -107758-03-21 23:02 J -37637106.68 -37637106.54 -37637106.39 0.0132 0.0012
 Mercury -107758-06-18 02:38 J -37637018.53 -37637018.39 -37637018.24 0.0132 0.0028
 Mercury -107758-09-14 06:14 J -37636930.37 -37636930.24 -37636930.10 0.0132 0.0044
 Mercury -107758-12-11 10:04 J -37636842.21 -37636842.08 -37636841.95 0.0132 0.0060
 Mercury -107757-03-08 13:26 J -37636754.05 -37636753.94 -37636753.82 0.0132 0.0075
 Mercury -107757-06-04 17:02 J -37636665.89 -37636665.79 -37636665.68 0.0132 0.0091
 Mercury -107757-08-31 20:38 J -37636577.72 -37636577.64 -37636577.56 0.0132 0.0106
 Mercury -107757-11-27 23:45 J -37636489.55 -37636489.51 -37636489.44 0.0132 0.0122
 Venus -107752-06-24 05:02 J -37634820.40 -37634820.29 -37634820.18 0.0131 0.0111
 Venus -107751-02-05 08:09 J -37634594.34 -37634594.16 -37634593.97 0.0131 0.0068
 Venus -107751-09-19 11:16 J -37634368.23 -37634368.03 -37634367.81 0.0131 0.0025

Venus -107750-05-03 14:24 J -37634142.11 -37634141.90 -37634141.68 0.0131 0.0019
 Venus -107750-12-15 17:16 J -37633915.96 -37633915.78 -37633915.59 0.0131 0.0062
 Venus -107749-07-28 19:55 J -37633689.79 -37633689.67 -37633689.53 0.0131 0.0105
 Moon -107727-09-07 01:55 J -37625614.59 -37625614.42 -37625614.22 0.0139 0.0094
 Earth -107727-09-07 04:04 J -37625614.51 -37625614.33 -37625614.13 0.0139 0.0087 *
 Earth -107726-09-11 13:40 J -37625245.18 -37625244.93 -37625244.68 0.0140 0.0006
 Moon -107726-09-11 14:52 J -37625245.11 -37625244.88 -37625244.64 0.0140 0.0012 *
 Moon -107725-09-14 22:33 J -37624875.73 -37624875.56 -37624875.37 0.0140 0.0097
 Earth -107725-09-15 00:14 J -37624875.65 -37624875.49 -37624875.31 0.0140 0.0102 *
 Mercury -107716-09-12 00:28 J -37621591.53 -37621591.48 -37621591.40 0.0146 0.0133
 Mercury -107716-12-09 06:57 J -37621503.31 -37621503.21 -37621503.09 0.0146 0.0108
 Mercury -107715-03-07 13:40 J -37621415.07 -37621414.93 -37621414.79 0.0146 0.0083
 Mercury -107715-06-03 20:09 J -37621326.81 -37621326.66 -37621326.50 0.0146 0.0058
 Mars -107715-06-26 13:11 J -37621304.22 -37621303.95 -37621303.65 0.0146 0.0066
 Mercury -107715-08-31 02:52 J -37621238.54 -37621238.38 -37621238.21 0.0146 0.0033
 Mercury -107715-11-27 09:35 J -37621150.27 -37621150.10 -37621149.93 0.0146 0.0007
 Mercury -107714-02-23 16:19 J -37621061.99 -37621061.82 -37621061.65 0.0146 0.0019
 Mercury -107714-05-22 23:02 J -37620973.70 -37620973.54 -37620973.37 0.0146 0.0045
 Mercury -107714-08-19 06:00 J -37620885.40 -37620885.25 -37620885.09 0.0146 0.0071
 Mercury -107714-11-15 12:57 J -37620797.08 -37620796.96 -37620796.83 0.0147 0.0098
 Mercury -107713-02-11 19:55 J -37620708.75 -37620708.67 -37620708.57 0.0147 0.0125
 Venus -107709-03-22 13:11 J -37619208.07 -37619207.95 -37619207.81 0.0148 0.0118
 Venus -107709-11-04 03:50 J -37618981.54 -37618981.34 -37618981.13 0.0148 0.0054
 Venus -107708-06-18 18:43 J -37618754.94 -37618754.72 -37618754.50 0.0148 0.0011
 Venus -107707-01-31 09:35 J -37618528.28 -37618528.10 -37618527.90 0.0148 0.0076
 Venus -107707-09-15 00:57 J -37618301.52 -37618301.46 -37618301.39 0.0148 0.0140
 Earth -107688-03-13 12:57 J -37611547.09 -37611546.96 -37611546.80 0.0140 0.0116
 Moon -107688-03-13 16:19 J -37611546.96 -37611546.82 -37611546.64 0.0140 0.0109 *
 Moon -107687-03-18 09:21 J -37611177.37 -37611177.11 -37611176.85 0.0139 0.0023
 Earth -107687-03-18 12:57 J -37611177.22 -37611176.96 -37611176.70 0.0139 0.0015 *

Earth -107686-03-23 11:02 J -37610807.24 -37610807.04 -37610806.82 0.0139 0.0084
 Moon -107686-03-23 13:40 J -37610807.11 -37610806.93 -37610806.71 0.0139 0.0089 *
 Mars -107677-12-10 01:55 J -37607257.58 -37607257.42 -37607257.25 0.0133 0.0110
 Mercury -107676-05-05 23:45 J -37607110.58 -37607110.51 -37607110.44 0.0133 0.0118
 Mercury -107676-08-02 03:35 J -37607022.44 -37607022.35 -37607022.25 0.0133 0.0101
 Mercury -107676-10-29 07:11 J -37606934.30 -37606934.20 -37606934.07 0.0133 0.0084
 Mercury -107675-01-25 11:16 J -37606846.15 -37606846.03 -37606845.90 0.0133 0.0067
 Mercury -107675-04-23 15:07 J -37606758.00 -37606757.87 -37606757.73 0.0133 0.0050
 Mercury -107675-07-20 18:57 J -37606669.85 -37606669.71 -37606669.57 0.0133 0.0034
 Mercury -107675-10-16 22:33 J -37606581.70 -37606581.56 -37606581.41 0.0133 0.0018
 Mars -107675-11-10 05:31 J -37606557.43 -37606557.27 -37606557.06 0.0133 0.0103
 Mercury -107674-01-13 02:24 J -37606493.55 -37606493.40 -37606493.25 0.0133 0.0001
 Mercury -107674-04-11 06:00 J -37606405.39 -37606405.25 -37606405.10 0.0133 0.0016
 Mercury -107674-07-08 09:50 J -37606317.23 -37606317.09 -37606316.95 0.0132 0.0032
 Mercury -107674-10-04 13:26 J -37606229.08 -37606228.94 -37606228.81 0.0132 0.0047
 Mercury -107674-12-31 16:48 J -37606140.92 -37606140.80 -37606140.67 0.0132 0.0064
 Mercury -107673-03-28 20:24 J -37606052.76 -37606052.65 -37606052.53 0.0132 0.0079
 Mercury -107673-06-25 00:14 J -37605964.59 -37605964.49 -37605964.40 0.0132 0.0095
 Mercury -107673-09-21 03:35 J -37605876.42 -37605876.35 -37605876.27 0.0132 0.0110
 Mercury -107673-12-18 07:11 J -37605788.24 -37605788.20 -37605788.16 0.0132 0.0125
 Venus -107668-10-05 19:26 J -37604035.85 -37604035.69 -37604035.53 0.0131 0.0089
 Venus -107667-05-19 22:33 J -37603809.76 -37603809.56 -37603809.35 0.0131 0.0045
 Venus -107666-01-01 01:40 J -37603583.64 -37603583.43 -37603583.21 0.0131 0.0003
 Venus -107666-08-15 04:33 J -37603357.50 -37603357.31 -37603357.10 0.0131 0.0042
 Venus -107665-03-28 07:40 J -37603131.34 -37603131.18 -37603131.01 0.0131 0.0085
 Venus -107665-11-09 10:19 J -37602905.10 -37602905.07 -37602905.02 0.0131 0.0128
 Moon -107643-09-07 13:11 J -37594933.15 -37594932.95 -37594932.73 0.0139 0.0075
 Earth -107643-09-07 15:35 J -37594933.03 -37594932.85 -37594932.64 0.0139 0.0083 *
 Earth -107642-09-12 01:11 J -37594563.70 -37594563.45 -37594563.20 0.0140 0.0011
 Moon -107642-09-12 03:50 J -37594563.58 -37594563.34 -37594563.10 0.0140 0.0004 *

Moon -107641-09-15 08:52 J -37594194.26 -37594194.13 -37594193.96 0.0140 0.0112
 Earth -107641-09-15 11:16 J -37594194.17 -37594194.03 -37594193.85 0.0140 0.0107 *
 Mars -107632-03-17 01:55 J -37591089.55 -37591089.42 -37591089.28 0.0145 0.0131
 Mercury -107632-10-02 07:40 J -37590890.24 -37590890.18 -37590890.08 0.0146 0.0127
 Mercury -107632-12-29 14:24 J -37590802.01 -37590801.90 -37590801.78 0.0146 0.0102
 Mercury -107631-03-27 20:52 J -37590713.77 -37590713.63 -37590713.48 0.0146 0.0077
 Mercury -107631-06-24 03:35 J -37590625.51 -37590625.35 -37590625.19 0.0146 0.0052
 Mercury -107631-09-20 10:04 J -37590537.24 -37590537.08 -37590536.91 0.0146 0.0027
 Mercury -107631-12-17 16:48 J -37590448.97 -37590448.80 -37590448.62 0.0146 0.0004
 Mercury -107630-03-15 23:31 J -37590360.68 -37590360.52 -37590360.34 0.0146 0.0025
 Mercury -107630-06-12 06:14 J -37590272.39 -37590272.24 -37590272.07 0.0146 0.0052
 Mercury -107630-09-08 13:11 J -37590184.09 -37590183.95 -37590183.80 0.0146 0.0078
 Mercury -107630-12-05 20:24 J -37590095.77 -37590095.65 -37590095.53 0.0147 0.0104
 Mercury -107629-03-03 03:07 J -37590007.44 -37590007.37 -37590007.28 0.0147 0.0131
 Venus -107625-07-04 07:40 J -37588423.34 -37588423.18 -37588422.99 0.0148 0.0087
 Venus -107624-02-15 22:33 J -37588196.77 -37588196.56 -37588196.34 0.0148 0.0022
 Venus -107624-09-30 13:26 J -37587970.14 -37587969.94 -37587969.72 0.0148 0.0043
 Venus -107623-05-15 04:33 J -37587743.46 -37587743.31 -37587743.16 0.0148 0.0107
 Earth -107604-03-13 20:52 J -37580865.78 -37580865.63 -37580865.47 0.0140 0.0113
 Moon -107604-03-14 00:14 J -37580865.60 -37580865.49 -37580865.33 0.0140 0.0120 *
 Moon -107603-03-18 17:31 J -37580496.03 -37580495.77 -37580495.51 0.0139 0.0005
 Earth -107603-03-18 21:07 J -37580495.88 -37580495.62 -37580495.36 0.0139 0.0012 *
 Earth -107602-03-23 19:11 J -37580125.89 -37580125.70 -37580125.48 0.0139 0.0086
 Moon -107602-03-23 23:16 J -37580125.74 -37580125.53 -37580125.32 0.0139 0.0080 *
 Mercury -107592-02-27 02:24 J -37576497.41 -37576497.40 -37576497.36 0.0133 0.0132
 Mercury -107592-05-26 06:28 J -37576409.29 -37576409.23 -37576409.15 0.0133 0.0114
 Mars -107592-08-04 10:19 J -37576339.34 -37576339.07 -37576338.77 0.0133 0.0033
 Mercury -107592-08-22 10:19 J -37576321.16 -37576321.07 -37576320.96 0.0133 0.0097
 Mercury -107592-11-18 14:24 J -37576233.01 -37576232.90 -37576232.78 0.0133 0.0080
 Mercury -107591-02-14 18:14 J -37576144.86 -37576144.74 -37576144.61 0.0133 0.0063

Mercury -107591-05-13 22:04 J -37576056.71 -37576056.58 -37576056.44 0.0133 0.0046

Mercury -107591-08-10 01:55 J -37575968.56 -37575968.42 -37575968.28 0.0133 0.0030

Mercury -107591-11-06 05:45 J -37575880.41 -37575880.26 -37575880.12 0.0133 0.0013

Mercury -107590-02-02 09:21 J -37575792.25 -37575792.11 -37575791.96 0.0133 0.0005

Mercury -107590-05-01 13:11 J -37575704.09 -37575703.95 -37575703.81 0.0133 0.0019

Mercury -107590-07-28 16:48 J -37575615.94 -37575615.80 -37575615.66 0.0132 0.0035

Mercury -107590-10-24 20:24 J -37575527.78 -37575527.65 -37575527.51 0.0132 0.0051

Mercury -107589-01-21 00:00 J -37575439.62 -37575439.50 -37575439.37 0.0132 0.0067

Mercury -107589-04-18 03:35 J -37575351.46 -37575351.35 -37575351.23 0.0132 0.0083

Mercury -107589-07-15 07:11 J -37575263.29 -37575263.20 -37575263.10 0.0132 0.0098

Mercury -107589-10-11 10:33 J -37575175.12 -37575175.06 -37575174.98 0.0132 0.0114

Mercury -107588-01-07 14:09 J -37575086.93 -37575086.91 -37575086.88 0.0132 0.0129

Venus -107584-06-05 06:28 J -37573477.34 -37573477.23 -37573477.11 0.0131 0.0110

Venus -107583-01-17 09:35 J -37573251.27 -37573251.10 -37573250.90 0.0131 0.0066

Venus -107583-08-31 12:57 J -37573025.17 -37573024.96 -37573024.74 0.0131 0.0022

Venus -107582-04-14 16:04 J -37572799.04 -37572798.83 -37572798.61 0.0131 0.0022

Venus -107582-11-26 18:57 J -37572572.89 -37572572.71 -37572572.51 0.0131 0.0065

Venus -107581-07-09 21:50 J -37572346.70 -37572346.59 -37572346.46 0.0131 0.0108

Moon -107559-09-08 00:57 J -37564251.66 -37564251.46 -37564251.26 0.0139 0.0083

Earth -107559-09-08 04:19 J -37564251.52 -37564251.32 -37564251.11 0.0139 0.0076 *

Earth -107558-09-12 13:26 J -37563882.18 -37563881.94 -37563881.69 0.0140 0.0017

Moon -107558-09-12 16:33 J -37563882.04 -37563881.81 -37563881.57 0.0140 0.0024 *

Moon -107557-09-15 20:52 J -37563512.79 -37563512.63 -37563512.46 0.0140 0.0105

Earth -107557-09-15 23:45 J -37563512.64 -37563512.51 -37563512.34 0.0140 0.0112 *

Mercury -107548-07-26 09:21 J -37560277.13 -37560277.11 -37560277.08 0.0145 0.0143

Mercury -107548-10-22 15:35 J -37560188.93 -37560188.85 -37560188.74 0.0146 0.0119

Mars -107548-11-11 08:09 J -37560169.48 -37560169.16 -37560168.84 0.0146 0.0017

Mercury -107547-01-18 22:19 J -37560100.70 -37560100.57 -37560100.44 0.0146 0.0094

Mercury -107547-04-17 04:33 J -37560012.45 -37560012.31 -37560012.15 0.0146 0.0070

Mercury -107547-07-14 11:16 J -37559924.19 -37559924.03 -37559923.86 0.0146 0.0044

Mercury -107547-10-10 18:00 J -37559835.92 -37559835.75 -37559835.58 0.0146 0.0019

Mercury -107546-01-07 00:43 J -37559747.64 -37559747.47 -37559747.30 0.0146 0.0007

Mercury -107546-04-05 07:26 J -37559659.36 -37559659.19 -37559659.02 0.0146 0.0033

Mercury -107546-07-02 14:09 J -37559571.06 -37559570.91 -37559570.75 0.0146 0.0059

Mercury -107546-09-28 20:52 J -37559482.76 -37559482.63 -37559482.48 0.0146 0.0086

Mercury -107546-12-26 04:04 J -37559394.44 -37559394.33 -37559394.22 0.0146 0.0112

Mercury -107545-03-23 10:48 J -37559306.09 -37559306.05 -37559305.98 0.0147 0.0139

Venus -107541-03-03 13:26 J -37557865.07 -37557864.94 -37557864.81 0.0148 0.0117

Venus -107541-10-16 03:50 J -37557638.54 -37557638.34 -37557638.13 0.0148 0.0053

Venus -107540-05-30 18:28 J -37557411.95 -37557411.73 -37557411.51 0.0148 0.0012

Venus -107539-01-12 09:21 J -37557185.30 -37557185.11 -37557184.92 0.0148 0.0076

Venus -107539-08-27 00:00 J -37556958.55 -37556958.50 -37556958.42 0.0148 0.0141

Earth -107520-03-14 04:33 J -37550184.46 -37550184.31 -37550184.14 0.0140 0.0111

Moon -107520-03-14 07:55 J -37550184.34 -37550184.17 -37550183.99 0.0140 0.0105 *

Moon -107519-03-19 01:11 J -37549814.70 -37549814.45 -37549814.19 0.0139 0.0018

Earth -107519-03-19 05:02 J -37549814.55 -37549814.29 -37549814.03 0.0139 0.0010 *

Earth -107518-03-24 03:21 J -37549444.56 -37549444.36 -37549444.15 0.0139 0.0088

Moon -107518-03-24 06:43 J -37549444.40 -37549444.22 -37549444.02 0.0139 0.0095 *

Mercury -107508-03-19 09:35 J -37545796.14 -37545796.10 -37545796.06 0.0133 0.0128

Mercury -107508-06-15 13:26 J -37545708.01 -37545707.94 -37545707.85 0.0133 0.0111

Mercury -107508-09-11 17:31 J -37545619.88 -37545619.77 -37545619.67 0.0133 0.0094

Mercury -107508-12-08 21:07 J -37545531.73 -37545531.62 -37545531.49 0.0133 0.0077

Mercury -107507-03-07 01:11 J -37545443.58 -37545443.45 -37545443.32 0.0133 0.0060

Mars -107507-03-29 19:11 J -37545420.97 -37545420.70 -37545420.41 0.0133 0.0045

Mercury -107507-06-03 05:02 J -37545355.43 -37545355.29 -37545355.15 0.0133 0.0043

Mercury -107507-08-30 08:52 J -37545267.27 -37545267.13 -37545266.99 0.0133 0.0026

Mercury -107507-11-26 12:43 J -37545179.12 -37545178.97 -37545178.83 0.0133 0.0011

Mercury -107506-02-22 16:19 J -37545090.96 -37545090.82 -37545090.67 0.0133 0.0007

Mercury -107506-05-21 20:09 J -37545002.81 -37545002.66 -37545002.52 0.0133 0.0023

Mercury -107506-08-17 23:45 J -37544914.65 -37544914.51 -37544914.37 0.0132 0.0039

Mercury -107506-11-14 03:21 J -37544826.49 -37544826.36 -37544826.23 0.0132 0.0055

Mercury -107505-02-10 06:57 J -37544738.33 -37544738.21 -37544738.09 0.0132 0.0070

Mercury -107505-05-08 10:33 J -37544650.16 -37544650.06 -37544649.95 0.0132 0.0086

Mercury -107505-08-04 14:09 J -37544562.00 -37544561.91 -37544561.82 0.0132 0.0102

Mercury -107505-10-31 17:31 J -37544473.82 -37544473.77 -37544473.70 0.0132 0.0117

Venus -107500-02-02 17:16 J -37542918.78 -37542918.78 -37542918.78 0.0131 0.0131

Venus -107500-09-16 20:24 J -37542692.80 -37542692.65 -37542692.48 0.0131 0.0087

Venus -107499-04-30 23:45 J -37542466.70 -37542466.51 -37542466.30 0.0131 0.0044

Venus -107499-12-13 03:07 J -37542240.58 -37542240.37 -37542240.15 0.0131 0.0001

Venus -107498-07-27 06:14 J -37542014.44 -37542014.24 -37542014.04 0.0131 0.0044

Venus -107497-03-09 09:07 J -37541788.27 -37541788.12 -37541787.95 0.0131 0.0088

Moon -107475-09-08 12:57 J -37533570.16 -37533569.96 -37533569.73 0.0139 0.0066

Earth -107475-09-08 16:19 J -37533570.02 -37533569.82 -37533569.60 0.0139 0.0072 *

Earth -107474-09-13 01:40 J -37533200.67 -37533200.43 -37533200.18 0.0140 0.0021

Moon -107474-09-13 05:16 J -37533200.52 -37533200.28 -37533200.03 0.0140 0.0013 *

Moon -107473-09-16 08:38 J -37532831.25 -37532831.14 -37532831.01 0.0140 0.0123

Earth -107473-09-16 12:00 J -37532831.12 -37532831.00 -37532830.85 0.0140 0.0116 *

Mercury -107464-08-15 17:02 J -37529575.84 -37529575.79 -37529575.72 0.0145 0.0135

Mercury -107464-11-11 23:45 J -37529487.62 -37529487.51 -37529487.41 0.0146 0.0111

Mercury -107463-02-08 06:00 J -37529399.38 -37529399.25 -37529399.11 0.0146 0.0087

Mercury -107463-05-07 12:28 J -37529311.13 -37529310.98 -37529310.82 0.0146 0.0062

Mars -107463-07-08 15:35 J -37529249.07 -37529248.85 -37529248.60 0.0146 0.0097

Mercury -107463-08-03 19:11 J -37529222.86 -37529222.70 -37529222.54 0.0146 0.0037

Mercury -107463-10-31 01:40 J -37529134.59 -37529134.43 -37529134.25 0.0146 0.0012

Mercury -107462-01-27 08:24 J -37529046.32 -37529046.15 -37529045.97 0.0146 0.0015

Mercury -107462-04-25 15:21 J -37528958.03 -37528957.86 -37528957.70 0.0146 0.0040

Mercury -107462-07-22 22:04 J -37528869.73 -37528869.58 -37528869.43 0.0146 0.0066

Mercury -107462-10-19 04:48 J -37528781.42 -37528781.30 -37528781.16 0.0146 0.0093

Mercury -107461-01-15 11:45 J -37528693.10 -37528693.01 -37528692.90 0.0146 0.0120

Mercury -107461-04-12 18:57 J -37528604.71 -37528604.71 -37528604.70 0.0147 0.0146

Venus -107458-11-01 19:26 J -37527306.69 -37527306.69 -37527306.68 0.0148 0.0147
 Venus -107457-06-15 09:35 J -37527080.27 -37527080.10 -37527079.91 0.0148 0.0084
 Venus -107456-01-28 00:14 J -37526853.71 -37526853.49 -37526853.27 0.0148 0.0019
 Venus -107456-09-11 14:52 J -37526627.08 -37526626.88 -37526626.66 0.0148 0.0046
 Venus -107455-04-26 05:45 J -37526400.39 -37526400.26 -37526400.10 0.0148 0.0111
 Earth -107436-03-14 14:38 J -37519503.04 -37519502.89 -37519502.70 0.0140 0.0107
 Moon -107436-03-14 17:16 J -37519502.93 -37519502.78 -37519502.60 0.0140 0.0111 *
 Moon -107435-03-19 12:43 J -37519133.23 -37519132.97 -37519132.72 0.0139 0.0001
 Earth -107435-03-19 15:07 J -37519133.13 -37519132.87 -37519132.60 0.0139 0.0007 *
 Earth -107434-03-24 13:26 J -37518763.12 -37518762.94 -37518762.73 0.0139 0.0092
 Moon -107434-03-24 17:02 J -37518762.99 -37518762.79 -37518762.57 0.0139 0.0085 *
 Mars -107425-12-22 01:26 J -37515202.66 -37515202.44 -37515202.22 0.0133 0.0090
 Mercury -107424-04-08 16:48 J -37515094.85 -37515094.80 -37515094.75 0.0133 0.0124
 Mercury -107424-07-05 20:38 J -37515006.72 -37515006.64 -37515006.55 0.0133 0.0106
 Mercury -107424-10-02 00:28 J -37514918.58 -37514918.48 -37514918.36 0.0133 0.0090
 Mercury -107424-12-29 04:33 J -37514830.43 -37514830.31 -37514830.19 0.0133 0.0072
 Mercury -107423-03-27 08:09 J -37514742.28 -37514742.16 -37514742.02 0.0133 0.0056
 Mercury -107423-06-23 12:14 J -37514654.13 -37514653.99 -37514653.85 0.0133 0.0039
 Mercury -107423-09-19 16:04 J -37514565.98 -37514565.83 -37514565.69 0.0133 0.0022
 Mars -107423-11-22 05:31 J -37514502.36 -37514502.27 -37514502.13 0.0133 0.0123
 Mercury -107423-12-16 19:55 J -37514477.82 -37514477.67 -37514477.53 0.0133 0.0007
 Mercury -107422-03-14 23:31 J -37514389.66 -37514389.52 -37514389.37 0.0133 0.0011
 Mercury -107422-06-11 03:21 J -37514301.51 -37514301.36 -37514301.22 0.0133 0.0027
 Mercury -107422-09-07 06:57 J -37514213.35 -37514213.21 -37514213.07 0.0132 0.0043
 Mercury -107422-12-04 10:33 J -37514125.19 -37514125.06 -37514124.93 0.0132 0.0059
 Mercury -107421-03-01 14:09 J -37514037.02 -37514036.91 -37514036.79 0.0132 0.0074
 Mercury -107421-05-28 17:45 J -37513948.86 -37513948.76 -37513948.65 0.0132 0.0090
 Mercury -107421-08-24 21:21 J -37513860.69 -37513860.61 -37513860.52 0.0132 0.0106
 Mercury -107421-11-21 00:43 J -37513772.51 -37513772.47 -37513772.41 0.0132 0.0121
 Venus -107416-05-17 07:40 J -37512134.29 -37512134.18 -37512134.06 0.0131 0.0109

Venus -107416-12-29 11:02 J -37511908.22 -37511908.04 -37511907.85 0.0131 0.0065
 Venus -107415-08-12 14:24 J -37511682.11 -37511681.90 -37511681.69 0.0131 0.0020
 Venus -107414-03-26 17:45 J -37511455.97 -37511455.76 -37511455.55 0.0131 0.0024
 Venus -107414-11-07 20:38 J -37511229.82 -37511229.64 -37511229.45 0.0131 0.0068
 Venus -107413-06-20 23:31 J -37511003.62 -37511003.52 -37511003.40 0.0131 0.0111
 Moon -107391-09-09 00:57 J -37502888.66 -37502888.46 -37502888.25 0.0139 0.0073
 Earth -107391-09-09 04:19 J -37502888.53 -37502888.32 -37502888.10 0.0139 0.0067 *
 Earth -107390-09-13 13:26 J -37502519.18 -37502518.94 -37502518.69 0.0140 0.0025
 Moon -107390-09-13 16:48 J -37502519.04 -37502518.80 -37502518.56 0.0140 0.0032 *
 Moon -107389-09-16 20:09 J -37502149.79 -37502149.66 -37502149.50 0.0140 0.0113
 Earth -107389-09-16 23:45 J -37502149.63 -37502149.51 -37502149.37 0.0140 0.0120 *
 Mars -107380-03-29 06:43 J -37499034.44 -37499034.22 -37499033.97 0.0145 0.0098
 Mercury -107380-09-05 00:57 J -37498874.53 -37498874.46 -37498874.38 0.0145 0.0128
 Mercury -107380-12-02 07:11 J -37498786.31 -37498786.20 -37498786.07 0.0146 0.0104
 Mercury -107379-02-28 13:55 J -37498698.06 -37498697.92 -37498697.78 0.0146 0.0079
 Mercury -107379-05-27 20:24 J -37498609.81 -37498609.65 -37498609.49 0.0146 0.0054
 Mercury -107379-08-24 02:52 J -37498521.54 -37498521.38 -37498521.21 0.0146 0.0029
 Mercury -107379-11-20 09:35 J -37498433.27 -37498433.10 -37498432.93 0.0146 0.0004
 Mercury -107378-02-16 16:19 J -37498344.99 -37498344.82 -37498344.65 0.0146 0.0022
 Mercury -107378-05-15 23:02 J -37498256.70 -37498256.54 -37498256.38 0.0146 0.0048
 Mercury -107378-08-12 05:45 J -37498168.40 -37498168.26 -37498168.11 0.0146 0.0074
 Mercury -107378-11-08 12:43 J -37498080.09 -37498079.97 -37498079.84 0.0146 0.0101
 Mercury -107377-02-04 19:26 J -37497991.76 -37497991.69 -37497991.59 0.0146 0.0128
 Venus -107373-02-13 15:07 J -37496521.99 -37496521.87 -37496521.71 0.0148 0.0115
 Venus -107373-09-27 06:14 J -37496295.45 -37496295.24 -37496295.04 0.0148 0.0050
 Venus -107372-05-11 20:38 J -37496068.85 -37496068.64 -37496068.42 0.0148 0.0015
 Venus -107372-12-24 11:16 J -37495842.21 -37495842.03 -37495841.84 0.0148 0.0080
 Venus -107371-08-08 02:09 J -37495615.44 -37495615.41 -37495615.36 0.0148 0.0145
 Earth -107352-03-15 00:43 J -37488821.62 -37488821.47 -37488821.27 0.0140 0.0103
 Moon -107352-03-15 01:55 J -37488821.59 -37488821.42 -37488821.21 0.0140 0.0100 *

Moon -107351-03-19 23:16 J -37488451.78 -37488451.53 -37488451.27 0.0139 0.0009
 Earth -107351-03-20 01:26 J -37488451.71 -37488451.44 -37488451.18 0.0139 0.0003 *
 Earth -107350-03-24 23:31 J -37488081.71 -37488081.52 -37488081.33 0.0139 0.0095
 Moon -107350-03-25 01:11 J -37488081.61 -37488081.45 -37488081.24 0.0139 0.0103 *
 Mercury -107340-04-28 23:45 J -37484393.57 -37484393.51 -37484393.44 0.0133 0.0120
 Mercury -107340-07-26 03:50 J -37484305.43 -37484305.34 -37484305.25 0.0133 0.0103
 Mars -107340-08-16 11:16 J -37484284.32 -37484284.03 -37484283.73 0.0133 0.0013
 Mercury -107340-10-22 07:40 J -37484217.29 -37484217.18 -37484217.06 0.0133 0.0086
 Mercury -107339-01-18 11:31 J -37484129.14 -37484129.02 -37484128.89 0.0133 0.0069
 Mercury -107339-04-16 15:21 J -37484040.99 -37484040.86 -37484040.72 0.0133 0.0052
 Mercury -107339-07-13 19:11 J -37483952.84 -37483952.70 -37483952.55 0.0133 0.0035
 Mercury -107339-10-09 23:02 J -37483864.68 -37483864.54 -37483864.39 0.0133 0.0019
 Mercury -107338-01-06 02:52 J -37483776.53 -37483776.38 -37483776.23 0.0133 0.0002
 Mercury -107338-04-04 06:43 J -37483688.37 -37483688.22 -37483688.08 0.0133 0.0015
 Mercury -107338-07-01 10:19 J -37483600.21 -37483600.07 -37483599.93 0.0133 0.0030
 Mercury -107338-09-27 13:55 J -37483512.05 -37483511.92 -37483511.78 0.0132 0.0046
 Mercury -107338-12-24 17:31 J -37483423.89 -37483423.77 -37483423.64 0.0132 0.0062
 Mercury -107337-03-21 21:07 J -37483335.73 -37483335.62 -37483335.50 0.0132 0.0078
 Mercury -107337-06-18 00:57 J -37483247.56 -37483247.46 -37483247.36 0.0132 0.0094
 Mercury -107337-09-14 04:19 J -37483159.39 -37483159.32 -37483159.24 0.0132 0.0109
 Mercury -107337-12-11 07:55 J -37483071.21 -37483071.17 -37483071.12 0.0132 0.0124
 Venus -107332-01-14 18:00 J -37481575.76 -37481575.75 -37481575.73 0.0131 0.0131
 Venus -107332-08-28 21:35 J -37481349.76 -37481349.60 -37481349.44 0.0131 0.0086
 Venus -107331-04-12 00:57 J -37481123.66 -37481123.46 -37481123.25 0.0131 0.0042
 Venus -107331-11-24 04:19 J -37480897.53 -37480897.32 -37480897.10 0.0131 0.0002
 Venus -107330-07-08 07:11 J -37480671.39 -37480671.20 -37480670.99 0.0131 0.0046
 Venus -107329-02-19 10:19 J -37480445.21 -37480445.07 -37480444.90 0.0131 0.0090
 Moon -107307-09-09 12:14 J -37472207.20 -37472206.99 -37472206.77 0.0139 0.0061
 Earth -107307-09-09 14:24 J -37472207.10 -37472206.90 -37472206.67 0.0139 0.0065 *
 Earth -107306-09-13 23:45 J -37471837.75 -37471837.51 -37471837.27 0.0140 0.0028

Moon -107306-09-14 02:38 J -37471837.63 -37471837.39 -37471837.14 0.0140 0.0021 *
 Moon -107305-09-17 06:57 J -37471468.29 -37471468.21 -37471468.10 0.0140 0.0130
 Earth -107305-09-17 09:50 J -37471468.20 -37471468.09 -37471467.95 0.0140 0.0122 *
 Mercury -107296-09-25 08:09 J -37468173.24 -37468173.16 -37468173.07 0.0146 0.0123
 Mars -107296-11-23 08:52 J -37468114.45 -37468114.13 -37468113.81 0.0146 0.0012
 Mercury -107296-12-22 14:24 J -37468085.01 -37468084.90 -37468084.77 0.0146 0.0099
 Mercury -107295-03-20 20:52 J -37467996.77 -37467996.63 -37467996.48 0.0146 0.0074
 Mercury -107295-06-17 03:35 J -37467908.51 -37467908.35 -37467908.19 0.0146 0.0049
 Mercury -107295-09-13 10:04 J -37467820.25 -37467820.08 -37467819.91 0.0146 0.0024
 Mercury -107295-12-10 16:48 J -37467731.97 -37467731.80 -37467731.63 0.0146 0.0002
 Mercury -107294-03-08 23:31 J -37467643.69 -37467643.52 -37467643.35 0.0146 0.0027
 Mercury -107294-06-05 06:14 J -37467555.40 -37467555.24 -37467555.08 0.0146 0.0053
 Mercury -107294-09-01 12:57 J -37467467.10 -37467466.96 -37467466.81 0.0146 0.0080
 Mercury -107294-11-28 19:55 J -37467378.79 -37467378.67 -37467378.55 0.0146 0.0106
 Mercury -107293-02-25 02:38 J -37467290.45 -37467290.39 -37467290.31 0.0147 0.0133
 Venus -107290-10-13 19:55 J -37465963.67 -37465963.67 -37465963.65 0.0147 0.0147
 Venus -107289-05-27 10:33 J -37465737.24 -37465737.06 -37465736.88 0.0148 0.0083
 Venus -107288-01-09 00:57 J -37465510.68 -37465510.46 -37465510.24 0.0148 0.0018
 Venus -107288-08-23 15:35 J -37465284.05 -37465283.85 -37465283.64 0.0148 0.0047
 Venus -107287-04-07 06:28 J -37465057.37 -37465057.23 -37465057.08 0.0148 0.0112
 Moon -107268-03-15 11:31 J -37458140.21 -37458140.02 -37458139.83 0.0140 0.0099
 Earth -107268-03-15 11:02 J -37458140.21 -37458140.04 -37458139.84 0.0140 0.0098 *
 Moon -107267-03-20 11:02 J -37457770.29 -37457770.04 -37457769.78 0.0139 0.0007
 Earth -107267-03-20 11:16 J -37457770.29 -37457770.03 -37457769.76 0.0139 0.0004 *
 Earth -107266-03-25 09:35 J -37457400.28 -37457400.10 -37457399.91 0.0139 0.0099
 Moon -107266-03-25 11:02 J -37457400.24 -37457400.04 -37457399.83 0.0139 0.0092 *
 Mercury -107256-02-20 03:07 J -37453780.38 -37453780.37 -37453780.36 0.0133 0.0133
 Mercury -107256-05-19 06:57 J -37453692.28 -37453692.21 -37453692.13 0.0133 0.0115
 Mercury -107256-08-15 10:48 J -37453604.14 -37453604.05 -37453603.94 0.0133 0.0099
 Mercury -107256-11-11 14:52 J -37453515.99 -37453515.88 -37453515.76 0.0133 0.0081

Mercury -107255-02-07 18:43 J -37453427.84 -37453427.72 -37453427.59 0.0133 0.0064

Mars -107255-04-10 22:33 J -37453365.81 -37453365.56 -37453365.29 0.0133 0.0065

Mercury -107255-05-06 22:33 J -37453339.69 -37453339.56 -37453339.42 0.0133 0.0048

Mercury -107255-08-03 02:24 J -37453251.54 -37453251.40 -37453251.25 0.0133 0.0031

Mercury -107255-10-30 06:14 J -37453163.38 -37453163.24 -37453163.09 0.0133 0.0015

Mercury -107254-01-26 10:04 J -37453075.23 -37453075.08 -37453074.93 0.0133 0.0002

Mercury -107254-04-24 13:40 J -37452987.07 -37452986.93 -37452986.78 0.0133 0.0019

Mercury -107254-07-21 17:31 J -37452898.91 -37452898.77 -37452898.63 0.0133 0.0034

Mercury -107254-10-17 21:07 J -37452810.75 -37452810.62 -37452810.48 0.0132 0.0050

Mercury -107253-01-14 00:43 J -37452722.59 -37452722.47 -37452722.34 0.0132 0.0066

Mercury -107253-04-11 04:19 J -37452634.43 -37452634.32 -37452634.20 0.0132 0.0082

Mercury -107253-07-08 07:55 J -37452546.26 -37452546.17 -37452546.07 0.0132 0.0098

Mercury -107253-10-04 11:16 J -37452458.09 -37452458.03 -37452457.95 0.0132 0.0113

Mercury -107253-12-31 14:52 J -37452369.90 -37452369.88 -37452369.84 0.0132 0.0128

Venus -107248-04-28 08:24 J -37450791.26 -37450791.15 -37450791.02 0.0131 0.0108

Venus -107248-12-10 11:45 J -37450565.19 -37450565.01 -37450564.81 0.0131 0.0064

Venus -107247-07-24 15:21 J -37450339.07 -37450338.86 -37450338.65 0.0131 0.0020

Venus -107246-03-07 18:28 J -37450112.93 -37450112.73 -37450112.51 0.0131 0.0025

Venus -107246-10-19 21:35 J -37449886.77 -37449886.60 -37449886.41 0.0131 0.0069

Venus -107245-06-02 00:28 J -37449660.57 -37449660.48 -37449660.36 0.0131 0.0113

Moon -107223-09-09 21:35 J -37441525.79 -37441525.60 -37441525.37 0.0139 0.0066

Earth -107223-09-09 23:31 J -37441525.73 -37441525.52 -37441525.29 0.0139 0.0062 *

Earth -107222-09-14 08:38 J -37441156.37 -37441156.14 -37441155.89 0.0140 0.0030

Moon -107222-09-14 10:19 J -37441156.30 -37441156.07 -37441155.81 0.0140 0.0036 *

Moon -107221-09-17 17:02 J -37440786.92 -37440786.79 -37440786.66 0.0140 0.0117

Earth -107221-09-17 18:28 J -37440786.83 -37440786.73 -37440786.59 0.0140 0.0124 *

Mercury -107212-07-19 08:09 J -37437560.17 -37437560.16 -37437560.12 0.0145 0.0144

Mercury -107212-10-15 14:52 J -37437471.97 -37437471.88 -37437471.78 0.0146 0.0119

Mercury -107211-01-11 21:07 J -37437383.74 -37437383.62 -37437383.49 0.0146 0.0095

Mercury -107211-04-10 03:21 J -37437295.49 -37437295.36 -37437295.20 0.0146 0.0071

Mercury -107211-07-07 10:04 J -37437207.24 -37437207.08 -37437206.91 0.0146 0.0046

Mars -107211-07-20 07:11 J -37437194.36 -37437194.20 -37437194.00 0.0146 0.0120

Mercury -107211-10-03 16:48 J -37437118.97 -37437118.80 -37437118.63 0.0146 0.0020

Mercury -107211-12-30 23:16 J -37437030.70 -37437030.53 -37437030.36 0.0146 0.0006

Mercury -107210-03-29 06:00 J -37436942.41 -37436942.25 -37436942.08 0.0146 0.0031

Mercury -107210-06-25 12:43 J -37436854.12 -37436853.97 -37436853.81 0.0146 0.0057

Mercury -107210-09-21 19:26 J -37436765.82 -37436765.69 -37436765.54 0.0146 0.0083

Mercury -107210-12-19 02:09 J -37436677.51 -37436677.41 -37436677.28 0.0146 0.0110

Mercury -107209-03-16 09:21 J -37436589.17 -37436589.11 -37436589.04 0.0147 0.0136

Venus -107205-01-25 13:26 J -37435179.06 -37435178.94 -37435178.80 0.0147 0.0118

Venus -107205-09-08 04:04 J -37434952.53 -37434952.33 -37434952.12 0.0148 0.0053

Venus -107204-04-22 18:43 J -37434725.94 -37434725.72 -37434725.50 0.0148 0.0012

Venus -107204-12-05 09:21 J -37434499.29 -37434499.11 -37434498.91 0.0148 0.0078

Venus -107203-07-20 00:14 J -37434272.53 -37434272.49 -37434272.43 0.0148 0.0143

Moon -107184-03-15 15:50 J -37427459.02 -37427458.84 -37427458.63 0.0140 0.0097

Earth -107184-03-15 17:45 J -37427458.93 -37427458.76 -37427458.55 0.0140 0.0096 *

Earth -107183-03-20 18:14 J -37427089.00 -37427088.74 -37427088.48 0.0139 0.0004

Moon -107183-03-20 18:57 J -37427088.96 -37427088.71 -37427088.46 0.0139 0.0001 *

Moon -107182-03-25 15:50 J -37426719.00 -37426718.84 -37426718.65 0.0139 0.0107

Earth -107182-03-25 16:04 J -37426718.99 -37426718.83 -37426718.63 0.0139 0.0101 *

Mars -107172-01-03 02:24 J -37423147.65 -37423147.40 -37423147.15 0.0133 0.0071

Mercury -107172-03-12 09:50 J -37423079.12 -37423079.09 -37423079.06 0.0133 0.0130

Mercury -107172-06-08 13:40 J -37422991.00 -37422990.93 -37422990.84 0.0133 0.0113

Mercury -107172-09-04 17:45 J -37422902.86 -37422902.76 -37422902.65 0.0133 0.0095

Mercury -107172-12-01 21:35 J -37422814.71 -37422814.60 -37422814.47 0.0133 0.0079

Mercury -107171-02-28 01:40 J -37422726.56 -37422726.43 -37422726.30 0.0133 0.0061

Mercury -107171-05-27 05:16 J -37422638.41 -37422638.28 -37422638.13 0.0133 0.0045

Mercury -107171-08-23 09:21 J -37422550.25 -37422550.11 -37422549.97 0.0133 0.0028

Mercury -107171-11-19 13:11 J -37422462.10 -37422461.95 -37422461.81 0.0133 0.0012

Mercury -107170-02-15 16:48 J -37422373.94 -37422373.80 -37422373.65 0.0133 0.0005

Mercury -107170-05-14 20:38 J -37422285.79 -37422285.64 -37422285.50 0.0133 0.0021

Mercury -107170-08-11 00:14 J -37422197.63 -37422197.49 -37422197.35 0.0133 0.0037

Mercury -107170-11-07 03:50 J -37422109.47 -37422109.34 -37422109.20 0.0132 0.0053

Mercury -107169-02-03 07:26 J -37422021.31 -37422021.19 -37422021.06 0.0132 0.0069

Mercury -107169-05-01 11:02 J -37421933.14 -37421933.04 -37421932.92 0.0132 0.0085

Mercury -107169-07-28 14:38 J -37421844.98 -37421844.89 -37421844.79 0.0132 0.0100

Mercury -107169-10-24 18:14 J -37421756.80 -37421756.74 -37421756.67 0.0132 0.0116

Mercury -107168-01-20 21:35 J -37421668.60 -37421668.60 -37421668.57 0.0132 0.0131

Venus -107165-12-26 18:14 J -37420232.74 -37420232.74 -37420232.71 0.0131 0.0131

Venus -107164-08-09 21:50 J -37420006.74 -37420006.59 -37420006.42 0.0131 0.0087

Venus -107163-03-24 01:26 J -37419780.64 -37419780.44 -37419780.23 0.0131 0.0042

Venus -107163-11-05 05:02 J -37419554.51 -37419554.29 -37419554.08 0.0131 0.0003

Venus -107162-06-19 07:55 J -37419328.36 -37419328.17 -37419327.96 0.0131 0.0047

Venus -107161-01-31 11:02 J -37419102.18 -37419102.04 -37419101.88 0.0131 0.0091

Moon -107139-09-10 08:09 J -37410844.37 -37410844.16 -37410843.93 0.0139 0.0058

Earth -107139-09-10 08:38 J -37410844.36 -37410844.14 -37410843.91 0.0139 0.0059 *

Earth -107138-09-14 17:31 J -37410475.01 -37410474.77 -37410474.53 0.0140 0.0032

Moon -107138-09-14 18:00 J -37410475.00 -37410474.75 -37410474.50 0.0140 0.0028 *

Moon -107137-09-18 02:09 J -37410105.47 -37410105.41 -37410105.31 0.0140 0.0133

Earth -107137-09-18 03:07 J -37410105.46 -37410105.37 -37410105.24 0.0140 0.0125 *

Mars -107128-04-09 10:48 J -37406980.30 -37406980.05 -37406979.76 0.0145 0.0081

Mercury -107128-08-08 14:38 J -37406858.91 -37406858.89 -37406858.83 0.0145 0.0141

Mercury -107128-11-04 21:21 J -37406770.71 -37406770.61 -37406770.51 0.0146 0.0116

Mercury -107127-02-01 03:35 J -37406682.47 -37406682.35 -37406682.22 0.0146 0.0092

Mercury -107127-04-30 09:50 J -37406594.23 -37406594.09 -37406593.93 0.0146 0.0068

Mercury -107127-07-27 16:33 J -37406505.97 -37406505.81 -37406505.65 0.0146 0.0043

Mercury -107127-10-23 23:02 J -37406417.70 -37406417.54 -37406417.37 0.0146 0.0018

Mercury -107126-01-20 05:45 J -37406329.43 -37406329.26 -37406329.09 0.0146 0.0008

Mercury -107126-04-18 12:14 J -37406241.15 -37406240.99 -37406240.82 0.0146 0.0034

Mercury -107126-07-15 19:11 J -37406152.86 -37406152.70 -37406152.55 0.0146 0.0059

Mercury -107126-10-12 01:55 J -37406064.56 -37406064.42 -37406064.28 0.0146 0.0086

Mercury -107125-01-08 08:52 J -37405976.24 -37405976.13 -37405976.02 0.0146 0.0112

Mercury -107125-04-05 15:35 J -37405887.90 -37405887.85 -37405887.79 0.0146 0.0139

Venus -107121-05-08 06:28 J -37404394.40 -37404394.23 -37404394.05 0.0147 0.0089

Venus -107121-12-20 20:52 J -37404167.85 -37404167.63 -37404167.41 0.0147 0.0024

Venus -107120-08-04 11:16 J -37403941.23 -37403941.03 -37403940.81 0.0148 0.0042

Venus -107119-03-19 02:09 J -37403714.55 -37403714.41 -37403714.25 0.0148 0.0107

Jupiter -107119-07-07 11:16 J -37403604.35 -37403604.03 -37403603.62 0.0148 0.0109

Moon -107100-03-15 20:52 J -37396777.83 -37396777.63 -37396777.42 0.0140 0.0092

Earth -107100-03-15 23:16 J -37396777.70 -37396777.53 -37396777.32 0.0140 0.0095 *

Earth -107099-03-20 23:45 J -37396407.78 -37396407.51 -37396407.25 0.0139 0.0005

Moon -107099-03-21 01:55 J -37396407.68 -37396407.42 -37396407.17 0.0139 0.0007 *

Moon -107098-03-25 20:09 J -37396037.85 -37396037.66 -37396037.46 0.0139 0.0096

Earth -107098-03-25 21:50 J -37396037.75 -37396037.59 -37396037.40 0.0139 0.0101 *

Mercury -107088-04-01 16:19 J -37392377.85 -37392377.82 -37392377.77 0.0133 0.0128

Mercury -107088-06-28 20:24 J -37392289.73 -37392289.65 -37392289.56 0.0133 0.0110

Mars -107088-08-28 07:11 J -37392229.50 -37392229.20 -37392228.91 0.0133 0.0005

Mercury -107088-09-25 00:14 J -37392201.58 -37392201.49 -37392201.37 0.0133 0.0093

Mercury -107088-12-22 04:19 J -37392113.44 -37392113.32 -37392113.19 0.0133 0.0076

Mercury -107087-03-20 08:09 J -37392025.28 -37392025.16 -37392025.02 0.0133 0.0059

Mercury -107087-06-16 12:14 J -37391937.13 -37391936.99 -37391936.85 0.0133 0.0042

Mercury -107087-09-12 15:50 J -37391848.98 -37391848.84 -37391848.69 0.0133 0.0026

Mercury -107087-12-09 19:40 J -37391760.82 -37391760.68 -37391760.53 0.0133 0.0010

Mercury -107086-03-07 23:31 J -37391672.66 -37391672.52 -37391672.37 0.0133 0.0007

Mercury -107086-06-04 03:21 J -37391584.51 -37391584.36 -37391584.22 0.0133 0.0024

Mercury -107086-08-31 06:57 J -37391496.35 -37391496.21 -37391496.07 0.0133 0.0040

Mercury -107086-11-27 10:33 J -37391408.19 -37391408.06 -37391407.92 0.0133 0.0056

Mercury -107085-02-23 14:09 J -37391320.02 -37391319.91 -37391319.78 0.0132 0.0072

Mercury -107085-05-21 17:45 J -37391231.86 -37391231.76 -37391231.65 0.0132 0.0087

Mercury -107085-08-17 21:21 J -37391143.69 -37391143.61 -37391143.51 0.0132 0.0103

Mercury -107085-11-14 00:43 J -37391055.52 -37391055.47 -37391055.39 0.0132 0.0119
 Venus -107080-04-09 07:40 J -37389448.28 -37389448.18 -37389448.05 0.0131 0.0110
 Venus -107080-11-21 11:16 J -37389222.21 -37389222.03 -37389221.83 0.0131 0.0065
 Venus -107079-07-05 14:52 J -37388996.09 -37388995.88 -37388995.66 0.0131 0.0020
 Venus -107078-02-16 18:14 J -37388769.95 -37388769.74 -37388769.53 0.0131 0.0025
 Venus -107078-09-30 21:21 J -37388543.78 -37388543.61 -37388543.42 0.0131 0.0069
 Jupiter -107078-12-29 07:55 J -37388454.66 -37388454.17 -37388453.67 0.0131 0.0013
 Venus -107077-05-14 00:28 J -37388317.57 -37388317.48 -37388317.36 0.0131 0.0113
 Earth -107055-09-10 18:14 J -37380162.96 -37380162.74 -37380162.51 0.0139 0.0056
 Moon -107055-09-10 18:43 J -37380162.92 -37380162.72 -37380162.49 0.0139 0.0057 *
 Moon -107054-09-15 02:24 J -37379793.63 -37379793.40 -37379793.15 0.0140 0.0038
 Earth -107054-09-15 02:52 J -37379793.61 -37379793.38 -37379793.13 0.0140 0.0035 *
 Earth -107053-09-18 12:43 J -37379424.05 -37379423.97 -37379423.85 0.0140 0.0128
 Moon -107053-09-18 13:40 J -37379424.04 -37379423.93 -37379423.81 0.0140 0.0122 *
 Mercury -107044-08-28 21:50 J -37376157.64 -37376157.59 -37376157.53 0.0145 0.0136
 Mercury -107044-11-25 04:04 J -37376069.43 -37376069.33 -37376069.22 0.0145 0.0112
 Mars -107044-12-04 10:19 J -37376060.38 -37376060.07 -37376059.75 0.0145 0.0028
 Mercury -107043-02-21 10:19 J -37375981.19 -37375981.07 -37375980.93 0.0146 0.0088
 Mercury -107043-05-20 16:48 J -37375892.95 -37375892.80 -37375892.64 0.0146 0.0063
 Mercury -107043-08-16 23:16 J -37375804.69 -37375804.53 -37375804.36 0.0146 0.0038
 Mercury -107043-11-13 05:45 J -37375716.42 -37375716.26 -37375716.08 0.0146 0.0014
 Mercury -107042-02-09 12:28 J -37375628.15 -37375627.98 -37375627.81 0.0146 0.0012
 Mercury -107042-05-08 18:57 J -37375539.87 -37375539.71 -37375539.54 0.0146 0.0038
 Mercury -107042-08-05 01:55 J -37375451.58 -37375451.42 -37375451.27 0.0146 0.0064
 Mercury -107042-11-01 08:38 J -37375363.27 -37375363.14 -37375363.00 0.0146 0.0090
 Mercury -107041-01-28 15:21 J -37375274.96 -37375274.86 -37375274.75 0.0146 0.0116
 Mercury -107041-04-25 22:19 J -37375186.60 -37375186.57 -37375186.53 0.0146 0.0143
 Venus -107037-01-06 09:50 J -37373836.20 -37373836.09 -37373835.96 0.0147 0.0123
 Venus -107037-08-20 00:14 J -37373609.69 -37373609.49 -37373609.28 0.0147 0.0058
 Venus -107036-04-03 14:52 J -37373383.10 -37373382.88 -37373382.66 0.0147 0.0007

Venus -107036-11-16 05:16 J -37373156.46 -37373156.28 -37373156.08 0.0147 0.0073

Venus -107035-06-30 19:55 J -37372929.73 -37372929.67 -37372929.58 0.0148 0.0139

Moon -107016-03-16 00:43 J -37366096.64 -37366096.47 -37366096.26 0.0140 0.0099

Earth -107016-03-16 04:19 J -37366096.49 -37366096.32 -37366096.10 0.0140 0.0095 *

Earth -107015-03-21 04:48 J -37365726.56 -37365726.30 -37365726.03 0.0139 0.0005

Moon -107015-03-21 08:09 J -37365726.42 -37365726.16 -37365725.90 0.0139 0.0005 *

Moon -107014-03-26 00:43 J -37365356.64 -37365356.47 -37365356.30 0.0139 0.0105

Earth -107014-03-26 03:07 J -37365356.54 -37365356.37 -37365356.18 0.0139 0.0101 *

Mars -107005-05-22 08:52 J -37362011.13 -37362011.13 -37362011.09 0.0134 0.0134

Mercury -107004-04-21 22:48 J -37361676.59 -37361676.55 -37361676.49 0.0133 0.0126

Mercury -107004-07-19 02:52 J -37361588.46 -37361588.38 -37361588.29 0.0133 0.0108

Mercury -107004-10-15 06:43 J -37361500.32 -37361500.22 -37361500.10 0.0133 0.0092

Mercury -107003-01-11 10:48 J -37361412.17 -37361412.05 -37361411.92 0.0133 0.0074

Mercury -107003-04-09 14:38 J -37361324.02 -37361323.89 -37361323.75 0.0133 0.0058

Mars -107003-04-22 11:16 J -37361311.24 -37361311.03 -37361310.77 0.0133 0.0080

Mercury -107003-07-06 18:28 J -37361235.86 -37361235.73 -37361235.58 0.0133 0.0041

Mercury -107003-10-02 22:19 J -37361147.71 -37361147.57 -37361147.42 0.0133 0.0024

Mercury -107003-12-30 02:09 J -37361059.55 -37361059.41 -37361059.26 0.0133 0.0008

Mercury -107002-03-28 06:00 J -37360971.40 -37360971.25 -37360971.10 0.0133 0.0009

Mercury -107002-06-24 09:35 J -37360883.24 -37360883.10 -37360882.95 0.0133 0.0026

Mercury -107002-09-20 13:26 J -37360795.08 -37360794.94 -37360794.80 0.0133 0.0041

Mercury -107002-12-17 17:02 J -37360706.92 -37360706.79 -37360706.66 0.0133 0.0057

Mercury -107001-03-14 20:38 J -37360618.75 -37360618.64 -37360618.51 0.0133 0.0073

Mercury -107001-06-11 00:28 J -37360530.59 -37360530.48 -37360530.38 0.0132 0.0089

Mercury -107001-09-07 03:50 J -37360442.42 -37360442.34 -37360442.25 0.0132 0.0105

Mercury -107001-12-04 07:40 J -37360354.24 -37360354.18 -37360354.13 0.0132 0.0120

107TH MILLENNIUM

BCE

This is a list of transits visible from Uranus in the 107th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-106996-07-21 20:38 J		-37358663.79	-37358663.64	-37358663.47	0.0131	0.0088	
Venus	-106995-03-05 00:28 J		-37358437.68	-37358437.48	-37358437.27	0.0131	0.0043	
Venus	-106995-10-17 04:04 J		-37358211.54	-37358211.33	-37358211.11	0.0131	0.0002	
Venus	-106994-05-31 07:26 J		-37357985.39	-37357985.19	-37357984.99	0.0131	0.0046	
Venus	-106993-01-12 10:19 J		-37357759.21	-37357759.07	-37357758.90	0.0131	0.0091	
Moon	-106972-09-06 18:00 J		-37349850.76	-37349850.75	-37349850.70	0.0138	0.0138	
Earth	-106971-09-11 03:50 J		-37349481.56	-37349481.34	-37349481.10	0.0139	0.0054	
Moon	-106971-09-11 05:31 J		-37349481.48	-37349481.27	-37349481.04	0.0139	0.0055	*
Moon	-106970-09-15 10:33 J		-37349112.30	-37349112.06	-37349111.81	0.0140	0.0036	
Earth	-106970-09-15 12:43 J		-37349112.20	-37349111.97	-37349111.73	0.0140	0.0037	*
Earth	-106969-09-18 22:33 J		-37348742.63	-37348742.56	-37348742.45	0.0140	0.0130	
Moon	-106969-09-19 00:00 J		-37348742.54	-37348742.50	-37348742.42	0.0140	0.0136	*
Mercury	-106960-09-18 04:48 J		-37345456.36	-37345456.30	-37345456.22	0.0145	0.0131	
Mercury	-106960-12-15 11:02 J		-37345368.14	-37345368.04	-37345367.92	0.0145	0.0107	
Mercury	-106959-03-13 17:31 J		-37345279.91	-37345279.77	-37345279.63	0.0146	0.0082	
Mercury	-106959-06-10 00:00 J		-37345191.66	-37345191.50	-37345191.35	0.0146	0.0058	
Mars	-106959-07-31 11:31 J		-37345140.09	-37345140.02	-37345139.88	0.0146	0.0138	
Mercury	-106959-09-06 06:28 J		-37345103.40	-37345103.23	-37345103.07	0.0146	0.0033	
Mercury	-106959-12-03 12:57 J		-37345015.13	-37345014.96	-37345014.79	0.0146	0.0008	

Mercury -106958-03-01 19:26 J -37344926.85 -37344926.69 -37344926.52 0.0146 0.0018
 Mercury -106958-05-29 02:09 J -37344838.57 -37344838.41 -37344838.24 0.0146 0.0043
 Mercury -106958-08-25 08:52 J -37344750.28 -37344750.13 -37344749.98 0.0146 0.0069
 Mercury -106958-11-21 15:35 J -37344661.97 -37344661.85 -37344661.71 0.0146 0.0095
 Mercury -106957-02-17 22:19 J -37344573.65 -37344573.57 -37344573.46 0.0146 0.0122
 Venus -106953-04-19 04:48 J -37343051.47 -37343051.30 -37343051.13 0.0147 0.0091
 Venus -106953-12-01 18:57 J -37342824.92 -37342824.71 -37342824.49 0.0147 0.0026
 Venus -106952-07-16 09:35 J -37342598.31 -37342598.10 -37342597.89 0.0147 0.0039
 Venus -106951-02-28 00:00 J -37342371.64 -37342371.50 -37342371.33 0.0147 0.0105
 Moon -106932-03-16 07:26 J -37335415.37 -37335415.19 -37335414.96 0.0140 0.0088
 Earth -106932-03-16 11:02 J -37335415.21 -37335415.04 -37335414.82 0.0140 0.0094 *
 Earth -106931-03-21 11:31 J -37335045.28 -37335045.02 -37335044.76 0.0139 0.0005
 Moon -106931-03-21 15:07 J -37335045.13 -37335044.87 -37335044.61 0.0139 0.0005 *
 Moon -106930-03-26 06:28 J -37334675.41 -37334675.23 -37334675.04 0.0139 0.0099
 Earth -106930-03-26 09:50 J -37334675.25 -37334675.09 -37334674.89 0.0139 0.0102 *
 Mars -106920-01-14 14:52 J -37331093.15 -37331092.88 -37331092.61 0.0134 0.0058
 Mercury -106920-05-12 05:16 J -37330975.32 -37330975.28 -37330975.21 0.0133 0.0124
 Mercury -106920-08-08 09:21 J -37330887.19 -37330887.11 -37330887.01 0.0133 0.0107
 Mercury -106920-11-04 13:26 J -37330799.04 -37330798.94 -37330798.82 0.0133 0.0089
 Mercury -106919-01-31 17:16 J -37330710.89 -37330710.78 -37330710.65 0.0133 0.0072
 Mercury -106919-04-29 21:21 J -37330622.74 -37330622.61 -37330622.47 0.0133 0.0055
 Mercury -106919-07-27 01:11 J -37330534.59 -37330534.45 -37330534.31 0.0133 0.0038
 Mercury -106919-10-23 05:02 J -37330446.43 -37330446.29 -37330446.14 0.0133 0.0022
 Mercury -106918-01-19 08:52 J -37330358.28 -37330358.13 -37330357.98 0.0133 0.0005
 Mercury -106918-04-17 12:43 J -37330270.12 -37330269.97 -37330269.83 0.0133 0.0011
 Mercury -106918-07-14 16:19 J -37330181.96 -37330181.82 -37330181.67 0.0133 0.0028
 Mercury -106918-10-10 20:09 J -37330093.80 -37330093.66 -37330093.52 0.0133 0.0044
 Mercury -106917-01-06 23:45 J -37330005.64 -37330005.51 -37330005.38 0.0133 0.0060
 Mercury -106917-04-04 03:21 J -37329917.47 -37329917.36 -37329917.24 0.0133 0.0075
 Mercury -106917-07-01 06:57 J -37329829.31 -37329829.21 -37329829.10 0.0132 0.0091

Mercury -106917-09-27 10:33 J -37329741.14 -37329741.06 -37329740.97 0.0132 0.0107

Mercury -106917-12-24 14:09 J -37329652.96 -37329652.91 -37329652.85 0.0132 0.0122

Venus -106912-03-21 06:28 J -37328105.32 -37328105.23 -37328105.10 0.0131 0.0112

Venus -106912-11-02 10:19 J -37327879.24 -37327879.07 -37327878.87 0.0131 0.0067

Venus -106911-06-16 14:09 J -37327653.12 -37327652.91 -37327652.70 0.0131 0.0021

Venus -106910-01-28 17:31 J -37327426.98 -37327426.77 -37327426.56 0.0131 0.0024

Venus -106910-09-11 20:38 J -37327200.81 -37327200.64 -37327200.45 0.0131 0.0069

Venus -106909-04-24 23:45 J -37326974.60 -37326974.51 -37326974.39 0.0131 0.0113

Earth -106887-09-11 13:55 J -37318800.14 -37318799.92 -37318799.68 0.0139 0.0051

Moon -106887-09-11 17:02 J -37318800.01 -37318799.79 -37318799.56 0.0139 0.0047 *

Moon -106886-09-15 20:38 J -37318430.88 -37318430.64 -37318430.40 0.0140 0.0041

Earth -106886-09-15 23:16 J -37318430.77 -37318430.53 -37318430.30 0.0140 0.0040 *

Earth -106885-09-19 09:07 J -37318061.18 -37318061.12 -37318061.03 0.0140 0.0133

Moon -106885-09-19 12:14 J -37318061.09 -37318060.99 -37318060.90 0.0140 0.0129 *

Mars -106876-04-20 21:21 J -37314925.89 -37314925.61 -37314925.30 0.0145 0.0060

Mercury -106876-10-08 12:00 J -37314755.07 -37314755.00 -37314754.91 0.0145 0.0125

Mercury -106875-01-04 18:14 J -37314666.85 -37314666.74 -37314666.61 0.0145 0.0101

Mercury -106875-04-03 00:43 J -37314578.61 -37314578.47 -37314578.33 0.0146 0.0077

Mercury -106875-06-30 06:57 J -37314490.36 -37314490.21 -37314490.04 0.0146 0.0053

Mercury -106875-09-26 13:40 J -37314402.10 -37314401.93 -37314401.76 0.0146 0.0028

Mercury -106875-12-23 20:09 J -37314313.83 -37314313.66 -37314313.49 0.0146 0.0003

Mercury -106874-03-22 02:52 J -37314225.55 -37314225.38 -37314225.21 0.0146 0.0023

Mercury -106874-06-18 09:21 J -37314137.27 -37314137.11 -37314136.94 0.0146 0.0049

Mercury -106874-09-14 16:04 J -37314048.97 -37314048.83 -37314048.68 0.0146 0.0075

Mercury -106874-12-11 22:48 J -37313960.66 -37313960.55 -37313960.42 0.0146 0.0101

Mercury -106873-03-09 05:45 J -37313872.34 -37313872.26 -37313872.17 0.0146 0.0127

Venus -106870-12-18 09:35 J -37312493.20 -37312493.10 -37312492.97 0.0147 0.0123

Venus -106869-08-01 00:00 J -37312266.70 -37312266.50 -37312266.29 0.0147 0.0058

Venus -106868-03-15 14:38 J -37312040.11 -37312039.89 -37312039.67 0.0147 0.0008

Venus -106868-10-28 05:16 J -37311813.47 -37311813.28 -37311813.09 0.0147 0.0073

Venus -106867-06-11 19:40 J -37311586.74 -37311586.68 -37311586.59 0.0147 0.0139
 Moon -106848-03-16 15:35 J -37304734.02 -37304733.85 -37304733.65 0.0140 0.0097
 Earth -106848-03-16 19:26 J -37304733.88 -37304733.69 -37304733.49 0.0140 0.0091 *
 Earth -106847-03-21 19:26 J -37304363.95 -37304363.69 -37304363.42 0.0139 0.0007
 Moon -106847-03-21 23:16 J -37304363.79 -37304363.53 -37304363.26 0.0139 0.0010 *
 Moon -106846-03-26 14:24 J -37303994.06 -37303993.90 -37303993.72 0.0139 0.0105
 Earth -106846-03-26 18:14 J -37303993.91 -37303993.74 -37303993.56 0.0139 0.0103 *
 Mercury -106836-06-01 12:14 J -37300274.05 -37300273.99 -37300273.93 0.0133 0.0121
 Mercury -106836-08-28 16:19 J -37300185.91 -37300185.82 -37300185.73 0.0133 0.0104
 Mars -106836-09-08 20:38 J -37300174.93 -37300174.64 -37300174.35 0.0133 0.0016
 Mercury -106836-11-24 20:09 J -37300097.77 -37300097.66 -37300097.54 0.0133 0.0087
 Mercury -106835-02-21 00:14 J -37300009.62 -37300009.49 -37300009.37 0.0133 0.0070
 Mercury -106835-05-20 03:50 J -37299921.47 -37299921.34 -37299921.20 0.0133 0.0053
 Mercury -106835-08-16 07:55 J -37299833.31 -37299833.17 -37299833.03 0.0133 0.0036
 Mercury -106835-11-12 11:45 J -37299745.16 -37299745.01 -37299744.86 0.0133 0.0019
 Mercury -106834-02-08 15:35 J -37299657.00 -37299656.85 -37299656.70 0.0133 0.0003
 Mercury -106834-05-07 19:11 J -37299568.84 -37299568.70 -37299568.55 0.0133 0.0014
 Mercury -106834-08-03 23:02 J -37299480.68 -37299480.54 -37299480.40 0.0133 0.0030
 Mercury -106834-10-31 02:38 J -37299392.52 -37299392.39 -37299392.25 0.0133 0.0046
 Mercury -106833-01-27 06:28 J -37299304.36 -37299304.23 -37299304.10 0.0133 0.0062
 Mercury -106833-04-24 10:04 J -37299216.19 -37299216.08 -37299215.96 0.0132 0.0078
 Mercury -106833-07-21 13:40 J -37299128.03 -37299127.93 -37299127.83 0.0132 0.0093
 Mercury -106833-10-17 17:16 J -37299039.86 -37299039.78 -37299039.70 0.0132 0.0109
 Mercury -106832-01-13 20:52 J -37298951.67 -37298951.63 -37298951.58 0.0132 0.0124
 Venus -106828-07-02 19:55 J -37297320.82 -37297320.67 -37297320.51 0.0131 0.0090
 Venus -106827-02-13 23:45 J -37297094.71 -37297094.51 -37297094.31 0.0131 0.0045
 Venus -106827-09-28 03:21 J -37296868.58 -37296868.36 -37296868.15 0.0131 0.0002
 Venus -106826-05-12 06:28 J -37296642.42 -37296642.23 -37296642.02 0.0131 0.0046
 Venus -106826-12-24 09:35 J -37296416.24 -37296416.10 -37296415.93 0.0131 0.0090
 Moon -106804-09-07 12:28 J -37288488.05 -37288487.98 -37288487.89 0.0138 0.0130

Earth -106804-09-07 15:50 J -37288487.86 -37288487.84 -37288487.79 0.0138 0.0137
 Earth -106803-09-11 23:45 J -37288118.73 -37288118.51 -37288118.27 0.0139 0.0048
 Moon -106803-09-12 02:38 J -37288118.60 -37288118.39 -37288118.15 0.0139 0.0052 *
 Moon -106802-09-16 05:31 J -37287749.51 -37287749.27 -37287749.04 0.0140 0.0043
 Earth -106802-09-16 08:52 J -37287749.36 -37287749.13 -37287748.89 0.0140 0.0042 *
 Earth -106801-09-19 18:43 J -37287379.77 -37287379.72 -37287379.63 0.0140 0.0135
 Moon -106801-09-19 22:19 J -37287379.62 -37287379.57 -37287379.52 0.0140 0.0137
 Mercury -106792-08-01 12:43 J -37284141.97 -37284141.97 -37284141.94 0.0145 0.0144
 Mercury -106792-10-28 18:57 J -37284053.79 -37284053.71 -37284053.61 0.0145 0.0121
 Mars -106792-12-15 23:31 J -37284005.81 -37284005.52 -37284005.21 0.0145 0.0050
 Mercury -106791-01-25 01:26 J -37283965.56 -37283965.44 -37283965.31 0.0145 0.0096
 Mercury -106791-04-23 07:55 J -37283877.32 -37283877.17 -37283877.03 0.0146 0.0072
 Mercury -106791-07-20 14:09 J -37283789.06 -37283788.91 -37283788.74 0.0146 0.0048
 Mercury -106791-10-16 20:38 J -37283700.80 -37283700.64 -37283700.47 0.0146 0.0023
 Mercury -106790-01-13 03:21 J -37283612.53 -37283612.36 -37283612.19 0.0146 0.0003
 Mercury -106790-04-11 09:50 J -37283524.25 -37283524.09 -37283523.92 0.0146 0.0029
 Mercury -106790-07-08 16:33 J -37283435.96 -37283435.81 -37283435.65 0.0146 0.0054
 Mercury -106790-10-04 23:16 J -37283347.67 -37283347.53 -37283347.38 0.0146 0.0080
 Mercury -106789-01-01 06:00 J -37283259.36 -37283259.25 -37283259.12 0.0146 0.0106
 Mercury -106789-03-29 12:57 J -37283171.02 -37283170.96 -37283170.88 0.0146 0.0133
 Venus -106785-03-31 04:33 J -37281708.47 -37281708.31 -37281708.13 0.0147 0.0091
 Venus -106785-11-12 18:57 J -37281481.92 -37281481.71 -37281481.49 0.0147 0.0026
 Venus -106784-06-27 09:21 J -37281255.31 -37281255.11 -37281254.89 0.0147 0.0040
 Venus -106783-02-08 23:45 J -37281028.64 -37281028.51 -37281028.34 0.0147 0.0106
 Moon -106764-03-17 01:40 J -37274052.63 -37274052.43 -37274052.21 0.0140 0.0081
 Earth -106764-03-17 04:19 J -37274052.51 -37274052.32 -37274052.11 0.0140 0.0088 *
 Earth -106763-03-22 04:33 J -37273682.57 -37273682.31 -37273682.05 0.0139 0.0010
 Moon -106763-03-22 07:40 J -37273682.45 -37273682.18 -37273681.91 0.0139 0.0007 *
 Moon -106762-03-26 23:16 J -37273312.67 -37273312.53 -37273312.34 0.0139 0.0106
 Earth -106762-03-27 03:07 J -37273312.52 -37273312.37 -37273312.19 0.0139 0.0106 *

Mars -106753-06-03 03:21 J -37269956.49 -37269956.36 -37269956.23 0.0134 0.0119
 Mercury -106752-06-21 19:11 J -37269572.77 -37269572.70 -37269572.63 0.0133 0.0118
 Mercury -106752-09-17 23:02 J -37269484.63 -37269484.54 -37269484.44 0.0133 0.0101
 Mercury -106752-12-15 03:07 J -37269396.48 -37269396.37 -37269396.25 0.0133 0.0084
 Mercury -106751-03-13 06:57 J -37269308.33 -37269308.21 -37269308.08 0.0133 0.0067
 Mars -106751-05-04 04:04 J -37269256.52 -37269256.33 -37269256.09 0.0133 0.0092
 Mercury -106751-06-09 10:48 J -37269220.18 -37269220.05 -37269219.91 0.0133 0.0050
 Mercury -106751-09-05 14:52 J -37269132.03 -37269131.88 -37269131.74 0.0133 0.0033
 Mercury -106751-12-02 18:43 J -37269043.87 -37269043.72 -37269043.58 0.0133 0.0017
 Mercury -106750-02-28 22:33 J -37268955.71 -37268955.56 -37268955.42 0.0133 0.0004
 Mercury -106750-05-28 02:09 J -37268867.55 -37268867.41 -37268867.26 0.0133 0.0017
 Mercury -106750-08-24 06:00 J -37268779.39 -37268779.25 -37268779.11 0.0133 0.0033
 Mercury -106750-11-20 09:35 J -37268691.23 -37268691.10 -37268690.96 0.0133 0.0049
 Mercury -106749-02-16 13:11 J -37268603.07 -37268602.95 -37268602.82 0.0132 0.0065
 Mercury -106749-05-14 16:48 J -37268514.90 -37268514.80 -37268514.68 0.0132 0.0081
 Mercury -106749-08-10 20:24 J -37268426.74 -37268426.65 -37268426.54 0.0132 0.0097
 Mercury -106749-11-07 00:14 J -37268338.56 -37268338.49 -37268338.41 0.0132 0.0112
 Mercury -106748-02-03 03:35 J -37268250.38 -37268250.35 -37268250.30 0.0132 0.0127
 Venus -106744-03-02 06:14 J -37266762.35 -37266762.24 -37266762.13 0.0131 0.0113
 Venus -106744-10-14 09:50 J -37266536.27 -37266536.09 -37266535.90 0.0131 0.0068
 Venus -106743-05-28 13:26 J -37266310.15 -37266309.94 -37266309.73 0.0131 0.0022
 Venus -106742-01-09 16:48 J -37266084.01 -37266083.80 -37266083.59 0.0131 0.0023
 Venus -106742-08-23 19:55 J -37265857.85 -37265857.67 -37265857.48 0.0131 0.0067
 Venus -106741-04-05 23:02 J -37265631.64 -37265631.54 -37265631.42 0.0131 0.0112
 Earth -106720-09-08 00:28 J -37257806.52 -37257806.48 -37257806.42 0.0138 0.0135
 Earth -106719-09-12 08:09 J -37257437.38 -37257437.16 -37257436.92 0.0139 0.0047
 Moon -106719-09-12 11:45 J -37257437.24 -37257437.01 -37257436.77 0.0139 0.0042 *
 Moon -106718-09-16 13:55 J -37257068.15 -37257067.92 -37257067.68 0.0140 0.0041
 Earth -106718-09-16 17:16 J -37257068.01 -37257067.78 -37257067.54 0.0140 0.0043 *
 Earth -106717-09-20 02:52 J -37256698.42 -37256698.38 -37256698.29 0.0140 0.0136

Moon -106717-09-20 06:57 J -37256698.28 -37256698.21 -37256698.13 0.0140 0.0133
 Mercury -106708-08-21 19:40 J -37253440.72 -37253440.68 -37253440.64 0.0145 0.0141
 Mercury -106708-11-18 01:40 J -37253352.52 -37253352.43 -37253352.32 0.0145 0.0117
 Mercury -106707-02-14 08:09 J -37253264.29 -37253264.16 -37253264.03 0.0146 0.0093
 Mercury -106707-05-13 14:24 J -37253176.04 -37253175.90 -37253175.75 0.0146 0.0069
 Mercury -106707-08-09 20:52 J -37253087.79 -37253087.63 -37253087.47 0.0146 0.0044
 Mercury -106707-11-06 03:21 J -37252999.52 -37252999.36 -37252999.19 0.0146 0.0019
 Mercury -106706-02-02 10:04 J -37252911.25 -37252911.08 -37252910.91 0.0146 0.0007
 Mercury -106706-05-01 16:33 J -37252822.97 -37252822.81 -37252822.64 0.0146 0.0032
 Mercury -106706-07-28 23:02 J -37252734.68 -37252734.54 -37252734.37 0.0146 0.0058
 Mercury -106706-10-25 06:00 J -37252646.39 -37252646.25 -37252646.11 0.0146 0.0084
 Mercury -106705-01-21 12:28 J -37252558.08 -37252557.98 -37252557.85 0.0146 0.0111
 Mercury -106705-04-18 19:26 J -37252469.74 -37252469.69 -37252469.62 0.0146 0.0137
 Venus -106702-11-29 08:24 J -37251150.26 -37251150.15 -37251150.03 0.0147 0.0126
 Venus -106701-07-12 22:33 J -37250923.76 -37250923.56 -37250923.36 0.0147 0.0061
 Venus -106700-02-24 12:57 J -37250697.18 -37250696.96 -37250696.74 0.0147 0.0005
 Venus -106700-10-09 03:35 J -37250470.54 -37250470.35 -37250470.15 0.0147 0.0071
 Venus -106699-05-23 18:00 J -37250243.82 -37250243.75 -37250243.65 0.0148 0.0137
 Moon -106680-03-17 10:19 J -37243371.24 -37243371.07 -37243370.86 0.0140 0.0092
 Earth -106680-03-17 12:00 J -37243371.19 -37243371.00 -37243370.77 0.0140 0.0085 *
 Earth -106679-03-22 12:43 J -37243001.23 -37243000.97 -37243000.71 0.0139 0.0013
 Moon -106679-03-22 15:07 J -37243001.13 -37243000.87 -37243000.60 0.0139 0.0018 *
 Moon -106678-03-27 08:52 J -37242631.28 -37242631.13 -37242630.96 0.0139 0.0107
 Earth -106678-03-27 11:02 J -37242631.18 -37242631.04 -37242630.85 0.0139 0.0109 *
 Mars -106668-01-26 09:07 J -37239038.38 -37239038.12 -37239037.83 0.0134 0.0045
 Mercury -106668-04-14 21:35 J -37238959.60 -37238959.60 -37238959.57 0.0133 0.0133
 Mercury -106668-07-12 01:40 J -37238871.49 -37238871.43 -37238871.35 0.0133 0.0115
 Mercury -106668-10-08 05:45 J -37238783.35 -37238783.26 -37238783.15 0.0133 0.0098
 Mercury -106667-01-04 09:35 J -37238695.21 -37238695.10 -37238694.97 0.0133 0.0081
 Mercury -106667-04-02 13:40 J -37238607.05 -37238606.93 -37238606.80 0.0133 0.0064

Mercury -106667-06-29 17:45 J -37238518.90 -37238518.76 -37238518.62 0.0133 0.0047

Mercury -106667-09-25 21:35 J -37238430.74 -37238430.60 -37238430.46 0.0133 0.0030

Mercury -106667-12-23 01:26 J -37238342.59 -37238342.44 -37238342.30 0.0133 0.0014

Mercury -106666-03-21 05:16 J -37238254.43 -37238254.28 -37238254.14 0.0133 0.0004

Mercury -106666-06-17 08:52 J -37238166.27 -37238166.13 -37238165.98 0.0133 0.0019

Mercury -106666-09-13 12:43 J -37238078.11 -37238077.97 -37238077.83 0.0133 0.0035

Mercury -106666-12-10 16:19 J -37237989.95 -37237989.82 -37237989.68 0.0133 0.0051

Mercury -106665-03-07 19:55 J -37237901.79 -37237901.67 -37237901.54 0.0132 0.0068

Mercury -106665-06-03 23:31 J -37237813.62 -37237813.52 -37237813.40 0.0132 0.0083

Mercury -106665-08-31 03:21 J -37237725.45 -37237725.36 -37237725.26 0.0132 0.0099

Mercury -106665-11-27 06:43 J -37237637.28 -37237637.22 -37237637.14 0.0132 0.0115

Mercury -106664-02-23 10:33 J -37237549.08 -37237549.06 -37237549.03 0.0132 0.0129

Venus -106660-06-13 19:11 J -37235977.84 -37235977.70 -37235977.53 0.0131 0.0092

Venus -106659-01-25 22:48 J -37235751.74 -37235751.55 -37235751.34 0.0131 0.0046

Venus -106659-09-09 02:24 J -37235525.61 -37235525.40 -37235525.18 0.0131 0.0002

Venus -106658-04-23 05:45 J -37235299.46 -37235299.26 -37235299.05 0.0131 0.0044

Venus -106658-12-05 08:38 J -37235073.28 -37235073.14 -37235072.97 0.0131 0.0089

Moon -106636-09-08 05:02 J -37227125.37 -37227125.29 -37227125.18 0.0138 0.0126

Earth -106636-09-08 08:09 J -37227125.20 -37227125.16 -37227125.08 0.0138 0.0133 *

Earth -106635-09-12 15:50 J -37226756.06 -37226755.84 -37226755.59 0.0139 0.0046

Moon -106635-09-12 19:11 J -37226755.93 -37226755.70 -37226755.46 0.0139 0.0051 *

Moon -106634-09-16 21:21 J -37226386.83 -37226386.61 -37226386.37 0.0140 0.0047

Earth -106634-09-17 00:57 J -37226386.69 -37226386.46 -37226386.22 0.0140 0.0044 *

Earth -106633-09-20 10:33 J -37226017.10 -37226017.06 -37226016.98 0.0140 0.0136

Moon -106633-09-20 14:09 J -37226016.97 -37226016.91 -37226016.84 0.0140 0.0135

Mars -106624-05-01 21:35 J -37222871.89 -37222871.60 -37222871.28 0.0145 0.0045

Mercury -106624-09-11 01:40 J -37222739.47 -37222739.43 -37222739.37 0.0145 0.0139

Mercury -106624-12-08 08:09 J -37222651.26 -37222651.16 -37222651.06 0.0145 0.0115

Mercury -106623-03-06 14:24 J -37222563.03 -37222562.90 -37222562.77 0.0146 0.0091

Mercury -106623-06-02 20:38 J -37222474.78 -37222474.64 -37222474.48 0.0146 0.0067

Mercury -106623-08-30 03:07 J -37222386.53 -37222386.37 -37222386.20 0.0146 0.0042

Mercury -106623-11-26 09:35 J -37222298.26 -37222298.10 -37222297.93 0.0146 0.0017

Mercury -106622-02-22 16:19 J -37222209.99 -37222209.82 -37222209.65 0.0146 0.0009

Mercury -106622-05-21 22:48 J -37222121.71 -37222121.55 -37222121.38 0.0146 0.0034

Mercury -106622-08-18 05:16 J -37222033.42 -37222033.28 -37222033.11 0.0146 0.0060

Mercury -106622-11-14 12:00 J -37221945.13 -37221945.00 -37221944.85 0.0146 0.0086

Mercury -106621-02-10 18:43 J -37221856.81 -37221856.72 -37221856.59 0.0146 0.0113

Mercury -106621-05-09 01:40 J -37221768.47 -37221768.43 -37221768.36 0.0146 0.0139

Venus -106617-03-12 00:28 J -37220365.63 -37220365.48 -37220365.30 0.0147 0.0098

Venus -106617-10-24 15:07 J -37220139.08 -37220138.87 -37220138.65 0.0147 0.0032

Venus -106616-06-08 05:31 J -37219912.48 -37219912.27 -37219912.06 0.0147 0.0034

Venus -106615-01-20 19:55 J -37219685.83 -37219685.67 -37219685.50 0.0148 0.0100

Moon -106596-03-17 17:45 J -37212689.97 -37212689.76 -37212689.54 0.0140 0.0076

Earth -106596-03-17 18:28 J -37212689.94 -37212689.73 -37212689.52 0.0140 0.0083 *

Earth -106595-03-22 18:57 J -37212319.97 -37212319.71 -37212319.45 0.0139 0.0014

Moon -106595-03-22 19:40 J -37212319.95 -37212319.68 -37212319.40 0.0139 0.0009 *

Moon -106594-03-27 15:50 J -37211949.98 -37211949.84 -37211949.68 0.0139 0.0112

Earth -106594-03-27 17:45 J -37211949.90 -37211949.76 -37211949.59 0.0139 0.0110 *

Mercury -106584-05-05 04:33 J -37208258.34 -37208258.31 -37208258.28 0.0133 0.0130

Mercury -106584-08-01 08:23 J -37208170.22 -37208170.15 -37208170.06 0.0133 0.0113

Mars -106584-09-20 13:55 J -37208120.20 -37208119.92 -37208119.62 0.0133 0.0031

Mercury -106584-10-28 12:28 J -37208082.08 -37208081.98 -37208081.87 0.0133 0.0095

Mercury -106583-01-24 16:33 J -37207993.93 -37207993.81 -37207993.69 0.0133 0.0078

Mercury -106583-04-22 20:23 J -37207905.78 -37207905.65 -37207905.52 0.0133 0.0061

Mercury -106583-07-20 00:14 J -37207817.62 -37207817.49 -37207817.35 0.0133 0.0045

Mercury -106583-10-16 04:19 J -37207729.47 -37207729.32 -37207729.18 0.0133 0.0028

Mercury -106582-01-12 08:09 J -37207641.31 -37207641.16 -37207641.02 0.0133 0.0011

Mercury -106582-04-10 11:59 J -37207553.15 -37207553.00 -37207552.86 0.0133 0.0006

Mercury -106582-07-07 15:35 J -37207464.99 -37207464.85 -37207464.70 0.0133 0.0022

Mercury -106582-10-03 19:26 J -37207376.83 -37207376.69 -37207376.55 0.0133 0.0038

Mercury -106582-12-30 23:02 J -37207288.67 -37207288.54 -37207288.40 0.0133 0.0054

Mercury -106581-03-28 02:52 J -37207200.50 -37207200.38 -37207200.26 0.0132 0.0070

Mercury -106581-06-24 06:28 J -37207112.34 -37207112.23 -37207112.12 0.0132 0.0085

Mercury -106581-09-20 10:04 J -37207024.17 -37207024.08 -37207023.98 0.0132 0.0101

Mercury -106581-12-17 13:40 J -37206935.99 -37206935.93 -37206935.86 0.0132 0.0117

Mercury -106580-03-15 17:16 J -37206847.78 -37206847.78 -37206847.77 0.0132 0.0132

Venus -106576-02-11 05:02 J -37205419.39 -37205419.29 -37205419.19 0.0131 0.0115

Venus -106576-09-25 08:23 J -37205193.32 -37205193.15 -37205192.95 0.0131 0.0070

Venus -106575-05-09 11:59 J -37204967.20 -37204967.00 -37204966.78 0.0131 0.0025

Venus -106575-12-21 15:21 J -37204741.06 -37204740.86 -37204740.64 0.0131 0.0022

Venus -106574-08-04 18:28 J -37204514.90 -37204514.73 -37204514.53 0.0131 0.0066

Venus -106573-03-17 22:04 J -37204288.69 -37204288.58 -37204288.47 0.0131 0.0111

Moon -106552-09-08 14:23 J -37196443.90 -37196443.90 -37196443.88 0.0138 0.0138

Earth -106552-09-08 16:19 J -37196443.87 -37196443.82 -37196443.72 0.0138 0.0131

Earth -106551-09-12 23:59 J -37196074.72 -37196074.50 -37196074.26 0.0139 0.0044

Moon -106551-09-13 02:52 J -37196074.61 -37196074.38 -37196074.13 0.0139 0.0038 *

Moon -106550-09-17 06:14 J -37195705.46 -37195705.24 -37195705.00 0.0140 0.0040

Earth -106550-09-17 08:38 J -37195705.36 -37195705.14 -37195704.90 0.0140 0.0045 *

Earth -106549-09-20 18:14 J -37195335.78 -37195335.74 -37195335.67 0.0140 0.0136

Moon -106549-09-20 21:07 J -37195335.65 -37195335.62 -37195335.54 0.0140 0.0136

Mercury -106540-10-01 07:55 J -37192038.21 -37192038.17 -37192038.10 0.0145 0.0136

Mars -106540-12-26 17:16 J -37191952.07 -37191951.78 -37191951.49 0.0145 0.0061

Mercury -106540-12-28 14:09 J -37191950.00 -37191949.91 -37191949.79 0.0145 0.0113

Mercury -106539-03-26 20:38 J -37191861.77 -37191861.64 -37191861.50 0.0145 0.0088

Mercury -106539-06-23 03:07 J -37191773.52 -37191773.37 -37191773.22 0.0146 0.0064

Mercury -106539-09-19 09:21 J -37191685.27 -37191685.11 -37191684.94 0.0146 0.0040

Mercury -106539-12-16 15:50 J -37191597.00 -37191596.84 -37191596.67 0.0146 0.0015

Mercury -106538-03-14 22:33 J -37191508.73 -37191508.56 -37191508.39 0.0146 0.0011

Mercury -106538-06-11 05:02 J -37191420.45 -37191420.29 -37191420.12 0.0146 0.0036

Mercury -106538-09-07 11:45 J -37191332.16 -37191332.01 -37191331.85 0.0146 0.0062

Mercury -106538-12-04 18:14 J -37191243.86 -37191243.74 -37191243.59 0.0146 0.0088
 Mercury -106537-03-02 00:57 J -37191155.55 -37191155.46 -37191155.34 0.0146 0.0115
 Mercury -106537-05-29 07:55 J -37191067.20 -37191067.17 -37191067.11 0.0146 0.0141
 Venus -106534-11-10 02:52 J -37189807.46 -37189807.38 -37189807.28 0.0147 0.0134
 Venus -106533-06-23 17:02 J -37189580.98 -37189580.79 -37189580.59 0.0147 0.0069
 Venus -106532-02-05 07:11 J -37189354.41 -37189354.20 -37189353.97 0.0147 0.0005
 Venus -106532-09-19 21:50 J -37189127.79 -37189127.59 -37189127.39 0.0148 0.0063
 Venus -106531-05-04 12:28 J -37188901.09 -37188900.98 -37188900.88 0.0148 0.0129
 Earth -106512-03-17 22:47 J -37182008.74 -37182008.55 -37182008.32 0.0140 0.0083
 Moon -106512-03-17 23:59 J -37182008.68 -37182008.50 -37182008.29 0.0140 0.0090 *
 Earth -106511-03-22 23:59 J -37181638.76 -37181638.50 -37181638.24 0.0139 0.0015
 Moon -106511-03-23 00:14 J -37181638.76 -37181638.49 -37181638.22 0.0139 0.0021 *
 Moon -106510-03-27 22:33 J -37181268.70 -37181268.56 -37181268.38 0.0139 0.0106
 Earth -106510-03-27 23:02 J -37181268.69 -37181268.54 -37181268.37 0.0139 0.0110 *
 Mars -106501-06-14 16:47 J -37177901.97 -37177901.80 -37177901.61 0.0134 0.0106
 Mercury -106500-05-25 10:47 J -37177557.08 -37177557.05 -37177557.01 0.0133 0.0128
 Mercury -106500-08-21 14:38 J -37177468.96 -37177468.89 -37177468.79 0.0133 0.0112
 Mercury -106500-11-17 18:57 J -37177380.81 -37177380.71 -37177380.60 0.0133 0.0094
 Mercury -106499-02-13 23:02 J -37177292.66 -37177292.54 -37177292.42 0.0133 0.0077
 Mercury -106499-05-13 02:38 J -37177204.51 -37177204.39 -37177204.25 0.0133 0.0060
 Mars -106499-05-15 16:47 J -37177201.96 -37177201.80 -37177201.60 0.0133 0.0105
 Mercury -106499-08-09 06:43 J -37177116.36 -37177116.22 -37177116.08 0.0133 0.0043
 Mercury -106499-11-05 10:47 J -37177028.20 -37177028.05 -37177027.91 0.0133 0.0026
 Mercury -106498-02-01 14:38 J -37176940.04 -37176939.89 -37176939.75 0.0133 0.0010
 Mercury -106498-04-30 18:28 J -37176851.88 -37176851.73 -37176851.59 0.0133 0.0008
 Mercury -106498-07-27 22:04 J -37176763.72 -37176763.58 -37176763.43 0.0133 0.0024
 Mercury -106498-10-24 01:55 J -37176675.56 -37176675.42 -37176675.28 0.0133 0.0039
 Mercury -106497-01-20 05:31 J -37176587.40 -37176587.27 -37176587.13 0.0133 0.0056
 Mercury -106497-04-17 09:21 J -37176499.23 -37176499.11 -37176498.99 0.0132 0.0071
 Mercury -106497-07-14 12:57 J -37176411.06 -37176410.96 -37176410.85 0.0132 0.0087

Mercury -106497-10-10 16:33 J -37176322.89 -37176322.81 -37176322.72 0.0132 0.0103

Mercury -106496-01-06 20:09 J -37176234.71 -37176234.66 -37176234.59 0.0132 0.0119

Venus -106492-05-25 17:31 J -37174634.91 -37174634.77 -37174634.61 0.0131 0.0094

Venus -106491-01-06 21:07 J -37174408.81 -37174408.62 -37174408.41 0.0131 0.0048

Venus -106491-08-21 00:43 J -37174182.69 -37174182.47 -37174182.25 0.0131 0.0003

Venus -106490-04-04 04:04 J -37173956.53 -37173956.33 -37173956.12 0.0131 0.0042

Venus -106490-11-16 07:11 J -37173730.35 -37173730.20 -37173730.03 0.0131 0.0087

Moon -106468-09-08 23:16 J -37165762.64 -37165762.53 -37165762.42 0.0138 0.0122

Earth -106468-09-09 00:43 J -37165762.53 -37165762.47 -37165762.36 0.0138 0.0130 *

Earth -106467-09-13 08:38 J -37165393.37 -37165393.14 -37165392.91 0.0139 0.0042

Moon -106467-09-13 10:04 J -37165393.30 -37165393.08 -37165392.83 0.0139 0.0049 *

Moon -106466-09-17 14:52 J -37165024.10 -37165023.88 -37165023.65 0.0140 0.0051

Earth -106466-09-17 17:02 J -37165024.01 -37165023.79 -37165023.55 0.0140 0.0047 *

Earth -106465-09-21 02:38 J -37164654.42 -37164654.39 -37164654.33 0.0140 0.0137

Moon -106465-09-21 04:47 J -37164654.35 -37164654.30 -37164654.22 0.0140 0.0135 *

Mars -106457-09-15 18:43 J -37161737.79 -37161737.72 -37161737.59 0.0145 0.0138

Mercury -106456-10-21 14:38 J -37161336.94 -37161336.89 -37161336.81 0.0145 0.0133

Mercury -106455-01-17 21:07 J -37161248.73 -37161248.62 -37161248.51 0.0145 0.0108

Mercury -106455-04-16 03:21 J -37161160.49 -37161160.36 -37161160.22 0.0145 0.0084

Mercury -106455-07-13 09:50 J -37161072.24 -37161072.09 -37161071.94 0.0146 0.0060

Mercury -106455-10-09 16:04 J -37160983.99 -37160983.83 -37160983.66 0.0146 0.0036

Mercury -106454-01-05 22:33 J -37160895.72 -37160895.56 -37160895.39 0.0146 0.0011

Mercury -106454-04-04 05:16 J -37160807.45 -37160807.28 -37160807.12 0.0146 0.0015

Mercury -106454-07-01 11:45 J -37160719.17 -37160719.01 -37160718.85 0.0146 0.0040

Mercury -106454-09-27 18:14 J -37160630.88 -37160630.74 -37160630.58 0.0146 0.0066

Mercury -106454-12-25 00:57 J -37160542.58 -37160542.46 -37160542.32 0.0146 0.0092

Mercury -106453-03-22 07:40 J -37160454.27 -37160454.18 -37160454.07 0.0146 0.0118

Mercury -106453-06-18 14:38 J -37160365.91 -37160365.89 -37160365.86 0.0146 0.0144

Venus -106449-02-21 20:09 J -37159022.81 -37159022.66 -37159022.50 0.0147 0.0104

Venus -106449-10-05 10:19 J -37158796.27 -37158796.07 -37158795.85 0.0147 0.0039

Venus -106448-05-20 00:43 J -37158569.68 -37158569.47 -37158569.25 0.0147 0.0028
 Venus -106447-01-01 15:07 J -37158343.04 -37158342.87 -37158342.70 0.0147 0.0094
 Earth -106428-03-18 04:47 J -37151327.50 -37151327.30 -37151327.07 0.0140 0.0082
 Moon -106428-03-18 06:14 J -37151327.44 -37151327.24 -37151327.02 0.0140 0.0075 *
 Moon -106427-03-23 04:33 J -37150957.58 -37150957.31 -37150957.03 0.0139 0.0008
 Earth -106427-03-23 05:59 J -37150957.51 -37150957.25 -37150956.99 0.0139 0.0015 *
 Earth -106426-03-28 05:02 J -37150587.44 -37150587.29 -37150587.12 0.0139 0.0110
 Moon -106426-03-28 05:16 J -37150587.41 -37150587.28 -37150587.13 0.0139 0.0114 *
 Mars -106416-02-06 21:07 J -37146983.90 -37146983.62 -37146983.33 0.0134 0.0032
 Mercury -106416-06-14 17:16 J -37146855.82 -37146855.78 -37146855.73 0.0133 0.0126
 Mercury -106416-09-10 21:07 J -37146767.69 -37146767.62 -37146767.52 0.0133 0.0110
 Mercury -106416-12-08 01:26 J -37146679.54 -37146679.44 -37146679.33 0.0133 0.0092
 Mercury -106415-03-06 05:31 J -37146591.39 -37146591.27 -37146591.15 0.0133 0.0075
 Mercury -106415-06-02 09:21 J -37146503.24 -37146503.11 -37146502.97 0.0133 0.0058
 Mercury -106415-08-29 13:11 J -37146415.08 -37146414.95 -37146414.80 0.0133 0.0041
 Mercury -106415-11-25 17:16 J -37146326.92 -37146326.78 -37146326.63 0.0133 0.0024
 Mercury -106414-02-21 21:07 J -37146238.77 -37146238.62 -37146238.47 0.0133 0.0007
 Mercury -106414-05-21 00:57 J -37146150.61 -37146150.46 -37146150.31 0.0133 0.0009
 Mercury -106414-08-17 04:47 J -37146062.44 -37146062.30 -37146062.16 0.0133 0.0025
 Mercury -106414-11-13 08:23 J -37145974.28 -37145974.15 -37145974.01 0.0133 0.0042
 Mercury -106413-02-09 12:14 J -37145886.12 -37145885.99 -37145885.86 0.0133 0.0058
 Mercury -106413-05-07 15:50 J -37145797.95 -37145797.84 -37145797.71 0.0132 0.0074
 Mercury -106413-08-03 19:26 J -37145709.78 -37145709.69 -37145709.57 0.0132 0.0090
 Mercury -106413-10-30 23:02 J -37145621.61 -37145621.54 -37145621.44 0.0132 0.0106
 Mercury -106412-01-27 02:52 J -37145533.43 -37145533.38 -37145533.32 0.0132 0.0121
 Venus -106408-01-23 02:52 J -37144076.47 -37144076.38 -37144076.28 0.0132 0.0118
 Venus -106408-09-06 06:14 J -37143850.40 -37143850.24 -37143850.04 0.0131 0.0073
 Venus -106407-04-20 10:19 J -37143624.28 -37143624.07 -37143623.86 0.0131 0.0026
 Venus -106407-12-02 13:40 J -37143398.14 -37143397.93 -37143397.72 0.0131 0.0019
 Venus -106406-07-16 16:47 J -37143171.98 -37143171.80 -37143171.60 0.0131 0.0064

Venus -106405-02-27 19:55 J -37142945.77 -37142945.67 -37142945.54 0.0131 0.0109
 Moon -106384-09-09 09:35 J -37135081.15 -37135081.10 -37135081.03 0.0138 0.0133
 Earth -106384-09-09 10:19 J -37135081.15 -37135081.07 -37135080.96 0.0138 0.0127 *
 Earth -106383-09-13 17:45 J -37134711.99 -37134711.76 -37134711.52 0.0139 0.0040
 Moon -106383-09-13 19:26 J -37134711.93 -37134711.69 -37134711.44 0.0139 0.0034 *
 Moon -106382-09-18 00:57 J -37134342.68 -37134342.46 -37134342.22 0.0140 0.0044
 Earth -106382-09-18 02:23 J -37134342.62 -37134342.40 -37134342.16 0.0140 0.0049 *
 Earth -106381-09-21 12:14 J -37133973.02 -37133972.99 -37133972.96 0.0140 0.0139
 Moon -106381-09-21 13:55 J -37133972.92 -37133972.92 -37133972.92 0.0140 0.0140
 Mars -106372-05-12 21:35 J -37130817.91 -37130817.60 -37130817.28 0.0145 0.0029
 Mercury -106372-11-10 21:50 J -37130635.66 -37130635.59 -37130635.51 0.0145 0.0128
 Mercury -106371-02-07 04:04 J -37130547.44 -37130547.33 -37130547.21 0.0145 0.0104
 Mercury -106371-05-06 10:19 J -37130459.20 -37130459.07 -37130458.93 0.0145 0.0080
 Mercury -106371-08-02 16:33 J -37130370.95 -37130370.81 -37130370.65 0.0146 0.0056
 Mercury -106371-10-29 23:02 J -37130282.70 -37130282.54 -37130282.37 0.0146 0.0031
 Mercury -106370-01-26 05:45 J -37130194.43 -37130194.26 -37130194.10 0.0146 0.0007
 Mercury -106370-04-24 12:14 J -37130106.16 -37130105.99 -37130105.82 0.0146 0.0020
 Mercury -106370-07-21 18:43 J -37130017.88 -37130017.72 -37130017.56 0.0146 0.0045
 Mercury -106370-10-18 01:11 J -37129929.59 -37129929.45 -37129929.29 0.0146 0.0071
 Mercury -106369-01-14 08:09 J -37129841.29 -37129841.16 -37129841.03 0.0146 0.0097
 Mercury -106369-04-11 14:52 J -37129752.97 -37129752.88 -37129752.79 0.0146 0.0123
 Venus -106366-10-22 00:14 J -37128464.55 -37128464.49 -37128464.39 0.0147 0.0138
 Venus -106365-06-04 14:23 J -37128238.08 -37128237.90 -37128237.70 0.0147 0.0072
 Venus -106364-01-17 04:47 J -37128011.52 -37128011.30 -37128011.08 0.0147 0.0006
 Venus -106364-08-31 18:57 J -37127784.90 -37127784.71 -37127784.50 0.0147 0.0060
 Venus -106363-04-15 09:21 J -37127558.21 -37127558.11 -37127557.98 0.0147 0.0127
 Earth -106344-03-18 12:14 J -37120646.20 -37120645.99 -37120645.76 0.0140 0.0080
 Moon -106344-03-18 14:52 J -37120646.07 -37120645.88 -37120645.67 0.0140 0.0087 *
 Moon -106343-03-23 11:31 J -37120276.29 -37120276.02 -37120275.75 0.0139 0.0023
 Earth -106343-03-23 13:26 J -37120276.20 -37120275.94 -37120275.68 0.0139 0.0017 *

Earth -106342-03-28 11:59 J -37119906.13 -37119906.00 -37119905.82 0.0139 0.0112
 Moon -106342-03-28 13:26 J -37119906.09 -37119905.94 -37119905.76 0.0139 0.0107 *
 Mercury -106332-07-04 23:59 J -37116154.55 -37116154.50 -37116154.44 0.0133 0.0124
 Mercury -106332-10-01 04:04 J -37116066.41 -37116066.33 -37116066.24 0.0133 0.0107
 Mars -106332-10-02 01:55 J -37116065.69 -37116065.42 -37116065.14 0.0133 0.0043
 Mercury -106332-12-28 08:09 J -37115978.27 -37115978.16 -37115978.05 0.0133 0.0089
 Mercury -106331-03-26 11:59 J -37115890.12 -37115890.00 -37115889.87 0.0133 0.0072
 Mercury -106331-06-22 16:04 J -37115801.96 -37115801.83 -37115801.69 0.0133 0.0055
 Mercury -106331-09-18 19:55 J -37115713.81 -37115713.67 -37115713.52 0.0133 0.0039
 Mercury -106331-12-15 23:59 J -37115625.65 -37115625.50 -37115625.36 0.0133 0.0022
 Mercury -106330-03-14 03:50 J -37115537.49 -37115537.34 -37115537.19 0.0133 0.0005
 Mercury -106330-06-10 07:40 J -37115449.33 -37115449.18 -37115449.04 0.0133 0.0012
 Mercury -106330-09-06 11:16 J -37115361.17 -37115361.03 -37115360.88 0.0133 0.0028
 Mercury -106330-12-03 15:07 J -37115273.00 -37115272.87 -37115272.73 0.0133 0.0044
 Mercury -106329-02-29 18:57 J -37115184.84 -37115184.71 -37115184.58 0.0133 0.0060
 Mercury -106329-05-27 22:33 J -37115096.67 -37115096.56 -37115096.44 0.0132 0.0076
 Mercury -106329-08-24 02:09 J -37115008.51 -37115008.41 -37115008.30 0.0132 0.0092
 Mercury -106329-11-20 05:45 J -37114920.33 -37114920.26 -37114920.17 0.0132 0.0107
 Mercury -106328-02-16 09:35 J -37114832.15 -37114832.10 -37114832.05 0.0132 0.0123
 Venus -106324-05-06 15:35 J -37113291.98 -37113291.85 -37113291.69 0.0131 0.0097
 Venus -106324-12-18 19:26 J -37113065.89 -37113065.69 -37113065.49 0.0131 0.0051
 Venus -106323-08-01 23:02 J -37112839.76 -37112839.54 -37112839.32 0.0131 0.0005
 Venus -106322-03-16 02:38 J -37112613.60 -37112613.39 -37112613.19 0.0131 0.0041
 Venus -106322-10-28 05:31 J -37112387.41 -37112387.27 -37112387.09 0.0131 0.0086
 Venus -106321-06-10 08:52 J -37112161.13 -37112161.13 -37112161.11 0.0131 0.0131
 Moon -106300-09-09 19:11 J -37104399.82 -37104399.70 -37104399.57 0.0138 0.0118
 Earth -106300-09-09 19:26 J -37104399.77 -37104399.69 -37104399.56 0.0138 0.0125 *
 Earth -106299-09-14 03:07 J -37104030.60 -37104030.37 -37104030.13 0.0139 0.0038
 Moon -106299-09-14 03:35 J -37104030.58 -37104030.35 -37104030.11 0.0139 0.0045 *
 Moon -106298-09-18 11:02 J -37103661.25 -37103661.04 -37103660.82 0.0140 0.0056

Earth -106298-09-18 11:31 J -37103661.23 -37103661.02 -37103660.78 0.0140 0.0051 *
 Moon -106297-09-21 22:19 J -37103291.61 -37103291.57 -37103291.51 0.0140 0.0138
 Mercury -106288-12-01 05:02 J -37099934.37 -37099934.29 -37099934.20 0.0145 0.0122
 Mars -106287-01-07 01:26 J -37099897.69 -37099897.44 -37099897.16 0.0145 0.0082
 Mercury -106287-02-27 11:16 J -37099846.15 -37099846.03 -37099845.90 0.0145 0.0098
 Mercury -106287-05-26 17:31 J -37099757.91 -37099757.77 -37099757.62 0.0146 0.0074
 Mercury -106287-08-22 23:59 J -37099669.66 -37099669.50 -37099669.34 0.0146 0.0050
 Mercury -106287-11-19 06:28 J -37099581.40 -37099581.23 -37099581.07 0.0146 0.0025
 Mercury -106286-02-15 12:57 J -37099493.13 -37099492.96 -37099492.79 0.0146 0.0003
 Mercury -106286-05-14 19:26 J -37099404.86 -37099404.69 -37099404.52 0.0146 0.0025
 Mercury -106286-08-11 01:55 J -37099316.58 -37099316.42 -37099316.26 0.0146 0.0051
 Mercury -106286-11-07 08:38 J -37099228.28 -37099228.14 -37099227.99 0.0146 0.0076
 Mercury -106285-02-03 15:07 J -37099139.98 -37099139.87 -37099139.74 0.0146 0.0103
 Mercury -106285-05-01 21:50 J -37099051.66 -37099051.59 -37099051.50 0.0146 0.0129
 Venus -106281-02-02 19:40 J -37097679.83 -37097679.68 -37097679.53 0.0147 0.0105
 Venus -106281-09-16 09:35 J -37097453.30 -37097453.10 -37097452.88 0.0147 0.0040
 Venus -106280-04-30 23:59 J -37097226.71 -37097226.50 -37097226.28 0.0147 0.0027
 Venus -106280-12-13 14:23 J -37097000.06 -37096999.90 -37096999.72 0.0147 0.0094
 Earth -106260-03-18 21:21 J -37089964.82 -37089964.61 -37089964.38 0.0140 0.0077
 Moon -106260-03-18 23:59 J -37089964.70 -37089964.50 -37089964.26 0.0140 0.0071 *
 Moon -106259-03-23 19:40 J -37089594.95 -37089594.68 -37089594.41 0.0139 0.0012
 Earth -106259-03-23 22:19 J -37089594.83 -37089594.57 -37089594.31 0.0139 0.0020 *
 Earth -106258-03-28 20:38 J -37089224.76 -37089224.64 -37089224.46 0.0139 0.0114
 Moon -106258-03-28 23:16 J -37089224.65 -37089224.53 -37089224.39 0.0139 0.0119 *
 Mars -106249-06-26 09:07 J -37085847.30 -37085847.12 -37085846.88 0.0134 0.0093
 Mercury -106248-07-25 06:57 J -37085453.27 -37085453.21 -37085453.15 0.0133 0.0121
 Mercury -106248-10-21 10:47 J -37085365.13 -37085365.05 -37085364.95 0.0133 0.0104
 Mercury -106247-01-17 14:52 J -37085276.98 -37085276.88 -37085276.76 0.0133 0.0086
 Mercury -106247-04-15 18:57 J -37085188.83 -37085188.71 -37085188.58 0.0133 0.0069
 Mars -106247-05-27 09:21 J -37085147.22 -37085147.11 -37085146.95 0.0133 0.0118

Mercury -106247-07-12 23:02 J -37085100.68 -37085100.54 -37085100.40 0.0133 0.0052

Mercury -106247-10-09 02:52 J -37085012.52 -37085012.38 -37085012.23 0.0133 0.0035

Mercury -106246-01-05 06:43 J -37084924.36 -37084924.22 -37084924.07 0.0133 0.0019

Mercury -106246-04-03 10:47 J -37084836.20 -37084836.05 -37084835.91 0.0133 0.0003

Mercury -106246-06-30 14:38 J -37084748.04 -37084747.89 -37084747.75 0.0133 0.0015

Mercury -106246-09-26 18:14 J -37084659.88 -37084659.74 -37084659.59 0.0133 0.0031

Mercury -106246-12-23 22:04 J -37084571.72 -37084571.58 -37084571.44 0.0133 0.0047

Mercury -106245-03-21 01:40 J -37084483.55 -37084483.43 -37084483.30 0.0133 0.0063

Mercury -106245-06-17 05:31 J -37084395.39 -37084395.27 -37084395.15 0.0132 0.0079

Mercury -106245-09-13 09:07 J -37084307.22 -37084307.12 -37084307.02 0.0132 0.0094

Mercury -106245-12-10 12:28 J -37084219.04 -37084218.98 -37084218.89 0.0132 0.0111

Mercury -106244-03-08 16:19 J -37084130.86 -37084130.82 -37084130.77 0.0132 0.0125

Venus -106240-01-04 01:40 J -37082733.51 -37082733.43 -37082733.34 0.0131 0.0120

Venus -106240-08-18 05:16 J -37082507.45 -37082507.28 -37082507.09 0.0131 0.0074

Venus -106239-04-01 09:07 J -37082281.32 -37082281.12 -37082280.90 0.0131 0.0028

Venus -106239-11-13 12:43 J -37082055.18 -37082054.97 -37082054.75 0.0131 0.0018

Venus -106238-06-27 15:50 J -37081829.02 -37081828.84 -37081828.64 0.0131 0.0063

Venus -106237-02-08 19:11 J -37081602.81 -37081602.70 -37081602.57 0.0131 0.0108

Earth -106216-09-10 04:33 J -37073718.40 -37073718.31 -37073718.17 0.0138 0.0123

Moon -106216-09-10 05:16 J -37073718.34 -37073718.28 -37073718.18 0.0138 0.0130 *

Moon -106215-09-14 11:59 J -37073349.24 -37073349.00 -37073348.75 0.0139 0.0030

Earth -106215-09-14 12:14 J -37073349.22 -37073348.99 -37073348.75 0.0139 0.0036 *

Earth -106214-09-18 20:52 J -37072979.86 -37072979.63 -37072979.40 0.0140 0.0052

Moon -106214-09-18 20:52 J -37072979.85 -37072979.63 -37072979.41 0.0140 0.0046 *

Mars -106205-09-27 04:04 J -37069683.50 -37069683.33 -37069683.12 0.0145 0.0117

Mercury -106204-09-24 05:45 J -37069321.28 -37069321.26 -37069321.21 0.0145 0.0142

Mercury -106204-12-21 11:59 J -37069233.09 -37069233.00 -37069232.90 0.0145 0.0118

Mercury -106203-03-19 18:14 J -37069144.86 -37069144.74 -37069144.61 0.0146 0.0094

Mercury -106203-06-16 00:28 J -37069056.62 -37069056.48 -37069056.33 0.0146 0.0070

Mercury -106203-09-12 06:57 J -37068968.37 -37068968.21 -37068968.05 0.0146 0.0045

Mercury -106203-12-09 13:26 J -37068880.11 -37068879.94 -37068879.77 0.0146 0.0021

Mercury -106202-03-07 19:55 J -37068791.84 -37068791.67 -37068791.50 0.0146 0.0005

Mercury -106202-06-04 02:23 J -37068703.56 -37068703.40 -37068703.23 0.0146 0.0030

Mercury -106202-08-31 08:52 J -37068615.28 -37068615.13 -37068614.97 0.0146 0.0055

Mercury -106202-11-27 15:21 J -37068526.99 -37068526.86 -37068526.71 0.0146 0.0082

Mercury -106201-02-23 22:04 J -37068438.68 -37068438.58 -37068438.45 0.0146 0.0107

Mercury -106201-05-22 04:47 J -37068350.35 -37068350.30 -37068350.22 0.0146 0.0134

Venus -106198-10-03 00:14 J -37067121.55 -37067121.49 -37067121.41 0.0147 0.0138

Venus -106197-05-16 14:23 J -37066895.09 -37066894.90 -37066894.71 0.0147 0.0073

Venus -106197-12-29 04:33 J -37066668.53 -37066668.31 -37066668.09 0.0147 0.0007

Venus -106196-08-12 18:57 J -37066441.91 -37066441.71 -37066441.51 0.0147 0.0060

Venus -106195-03-27 09:21 J -37066215.21 -37066215.11 -37066214.99 0.0147 0.0127

Earth -106176-03-19 07:11 J -37059283.41 -37059283.20 -37059282.96 0.0140 0.0073

Moon -106176-03-19 10:47 J -37059283.25 -37059283.05 -37059282.82 0.0140 0.0080 *

Moon -106175-03-24 04:47 J -37058913.56 -37058913.30 -37058913.03 0.0139 0.0030

Earth -106175-03-24 07:55 J -37058913.42 -37058913.17 -37058912.90 0.0139 0.0024 *

Earth -106174-03-29 06:43 J -37058543.34 -37058543.22 -37058543.07 0.0139 0.0117

Moon -106174-03-29 09:07 J -37058543.25 -37058543.12 -37058542.95 0.0139 0.0112 *

Mars -106164-02-18 18:43 J -37054929.01 -37054928.72 -37054928.43 0.0134 0.0016

Mercury -106164-08-14 13:40 J -37054751.99 -37054751.93 -37054751.85 0.0133 0.0118

Mercury -106164-11-10 17:59 J -37054663.85 -37054663.75 -37054663.65 0.0133 0.0100

Mercury -106163-02-06 22:04 J -37054575.70 -37054575.58 -37054575.46 0.0133 0.0083

Mercury -106163-05-06 02:09 J -37054487.54 -37054487.41 -37054487.28 0.0133 0.0066

Mercury -106163-08-02 05:59 J -37054399.39 -37054399.25 -37054399.11 0.0133 0.0049

Mercury -106163-10-29 09:50 J -37054311.23 -37054311.09 -37054310.94 0.0133 0.0032

Mercury -106162-01-25 13:40 J -37054223.07 -37054222.93 -37054222.78 0.0133 0.0016

Mercury -106162-04-23 17:45 J -37054134.91 -37054134.76 -37054134.62 0.0133 0.0004

Mercury -106162-07-20 21:21 J -37054046.75 -37054046.61 -37054046.46 0.0133 0.0018

Mercury -106162-10-17 01:11 J -37053958.59 -37053958.45 -37053958.31 0.0133 0.0034

Mercury -106161-01-13 05:02 J -37053870.43 -37053870.29 -37053870.16 0.0133 0.0050

Mercury -106161-04-10 08:38 J -37053782.26 -37053782.14 -37053782.01 0.0132 0.0066

Mercury -106161-07-07 12:28 J -37053694.10 -37053693.98 -37053693.87 0.0132 0.0082

Mercury -106161-10-03 15:50 J -37053605.93 -37053605.84 -37053605.73 0.0132 0.0098

Mercury -106161-12-30 19:26 J -37053517.75 -37053517.69 -37053517.61 0.0132 0.0113

Mercury -106160-03-28 23:02 J -37053429.56 -37053429.54 -37053429.50 0.0132 0.0129

Venus -106156-04-17 15:07 J -37051949.00 -37051948.87 -37051948.71 0.0131 0.0098

Venus -106156-11-29 18:57 J -37051722.90 -37051722.71 -37051722.51 0.0131 0.0052

Venus -106155-07-13 22:33 J -37051496.78 -37051496.56 -37051496.34 0.0131 0.0006

Venus -106154-02-25 01:55 J -37051270.62 -37051270.42 -37051270.21 0.0131 0.0040

Venus -106154-10-09 05:16 J -37051044.43 -37051044.28 -37051044.11 0.0131 0.0085

Venus -106153-05-22 08:38 J -37050818.15 -37050818.14 -37050818.12 0.0131 0.0130

Jupiter -106152-04-26 19:11 J -37050479.11 -37050478.70 -37050478.23 0.0131 0.0061

Earth -106132-09-10 12:57 J -37043037.07 -37043036.96 -37043036.83 0.0138 0.0121

Moon -106132-09-10 14:23 J -37043037.03 -37043036.90 -37043036.77 0.0138 0.0115 *

Moon -106131-09-14 19:26 J -37042667.93 -37042667.69 -37042667.45 0.0139 0.0042

Earth -106131-09-14 20:23 J -37042667.88 -37042667.65 -37042667.41 0.0139 0.0035 *

Earth -106130-09-19 04:47 J -37042298.52 -37042298.30 -37042298.07 0.0140 0.0053

Moon -106130-09-19 06:14 J -37042298.46 -37042298.24 -37042298.03 0.0140 0.0059 *

Moon -106129-09-22 13:40 J -37041928.96 -37041928.93 -37041928.88 0.0140 0.0138

Mars -106120-05-24 04:47 J -37038763.62 -37038763.30 -37038762.97 0.0145 0.0010

Mercury -106120-10-14 12:14 J -37038620.02 -37038619.99 -37038619.92 0.0145 0.0139

Mercury -106119-01-10 18:28 J -37038531.82 -37038531.73 -37038531.62 0.0146 0.0115

Mercury -106119-04-09 00:43 J -37038443.59 -37038443.47 -37038443.33 0.0146 0.0091

Mercury -106119-07-06 07:11 J -37038355.34 -37038355.20 -37038355.05 0.0146 0.0066

Mercury -106119-10-02 13:40 J -37038267.09 -37038266.93 -37038266.77 0.0146 0.0042

Mercury -106119-12-29 19:55 J -37038178.83 -37038178.67 -37038178.50 0.0146 0.0018

Mercury -106118-03-28 02:23 J -37038090.56 -37038090.40 -37038090.23 0.0146 0.0009

Mercury -106118-06-24 08:52 J -37038002.29 -37038002.13 -37038001.96 0.0146 0.0034

Mercury -106118-09-20 15:21 J -37037914.00 -37037913.86 -37037913.69 0.0146 0.0059

Mercury -106118-12-17 22:04 J -37037825.71 -37037825.58 -37037825.43 0.0146 0.0085

Mercury -106117-03-15 04:47 J -37037737.40 -37037737.30 -37037737.18 0.0146 0.0111
 Mercury -106117-06-11 11:31 J -37037649.07 -37037649.02 -37037648.95 0.0146 0.0137
 Venus -106113-01-14 17:59 J -37036336.89 -37036336.75 -37036336.60 0.0147 0.0107
 Venus -106113-08-28 08:09 J -37036110.36 -37036110.16 -37036109.94 0.0147 0.0042
 Venus -106112-04-11 22:33 J -37035883.77 -37035883.56 -37035883.34 0.0147 0.0025
 Venus -106112-11-24 12:57 J -37035657.12 -37035656.96 -37035656.78 0.0147 0.0092
 Jupiter -106111-09-21 21:50 J -37035356.09 -37035355.59 -37035355.04 0.0147 0.0039
 Earth -106092-03-19 16:04 J -37028602.04 -37028601.83 -37028601.58 0.0140 0.0069
 Moon -106092-03-19 19:55 J -37028601.89 -37028601.67 -37028601.43 0.0140 0.0063 *
 Moon -106091-03-24 13:26 J -37028232.19 -37028231.94 -37028231.67 0.0139 0.0020
 Earth -106091-03-24 17:16 J -37028232.04 -37028231.78 -37028231.53 0.0139 0.0027 *
 Earth -106090-03-29 15:35 J -37027861.96 -37027861.85 -37027861.70 0.0139 0.0120
 Moon -106090-03-29 18:57 J -37027861.79 -37027861.71 -37027861.59 0.0139 0.0127 *
 Mercury -106080-06-07 16:47 J -37024138.82 -37024138.80 -37024138.76 0.0133 0.0131
 Mercury -106080-09-03 20:52 J -37024050.70 -37024050.63 -37024050.54 0.0133 0.0113
 Mars -106080-10-14 01:40 J -37024010.68 -37024010.43 -37024010.16 0.0133 0.0061
 Mercury -106080-12-01 00:57 J -37023962.56 -37023962.46 -37023962.35 0.0133 0.0096
 Mercury -106079-02-27 04:47 J -37023874.41 -37023874.30 -37023874.17 0.0133 0.0080
 Mercury -106079-05-26 08:52 J -37023786.25 -37023786.13 -37023785.99 0.0133 0.0062
 Mercury -106079-08-22 12:57 J -37023698.10 -37023697.96 -37023697.82 0.0133 0.0045
 Mercury -106079-11-18 17:02 J -37023609.94 -37023609.79 -37023609.65 0.0133 0.0028
 Mercury -106078-02-14 20:52 J -37023521.78 -37023521.63 -37023521.49 0.0133 0.0012
 Mercury -106078-05-14 00:43 J -37023433.62 -37023433.47 -37023433.33 0.0133 0.0005
 Mercury -106078-08-10 04:19 J -37023345.46 -37023345.32 -37023345.17 0.0133 0.0022
 Mercury -106078-11-06 08:09 J -37023257.30 -37023257.16 -37023257.02 0.0133 0.0037
 Mercury -106077-02-02 11:59 J -37023169.13 -37023169.00 -37023168.87 0.0133 0.0053
 Mercury -106077-04-30 15:35 J -37023080.97 -37023080.85 -37023080.72 0.0132 0.0069
 Mercury -106077-07-27 19:11 J -37022992.80 -37022992.70 -37022992.58 0.0132 0.0085
 Mercury -106077-10-23 23:02 J -37022904.63 -37022904.54 -37022904.45 0.0132 0.0101
 Mercury -106076-01-20 02:23 J -37022816.45 -37022816.40 -37022816.32 0.0132 0.0117

Mercury -106076-04-18 06:14 J -37022728.25 -37022728.24 -37022728.23 0.0132 0.0132

Venus -106073-12-16 01:26 J -37021390.51 -37021390.44 -37021390.35 0.0131 0.0121

Venus -106072-07-30 05:16 J -37021164.45 -37021164.28 -37021164.10 0.0131 0.0074

Venus -106071-03-13 09:07 J -37020938.33 -37020938.12 -37020937.91 0.0131 0.0028

Venus -106071-10-25 12:43 J -37020712.18 -37020711.97 -37020711.76 0.0131 0.0017

Venus -106070-06-08 15:50 J -37020486.02 -37020485.84 -37020485.64 0.0131 0.0063

Venus -106069-01-20 19:11 J -37020259.81 -37020259.70 -37020259.57 0.0131 0.0109

Jupiter -106069-03-21 04:04 J -37020199.59 -37020199.33 -37020198.98 0.0131 0.0105

Earth -106048-09-10 21:21 J -37012355.73 -37012355.61 -37012355.48 0.0138 0.0119

Moon -106048-09-10 23:16 J -37012355.62 -37012355.53 -37012355.43 0.0138 0.0126 *

Moon -106047-09-15 02:23 J -37011986.64 -37011986.40 -37011986.15 0.0139 0.0027

Earth -106047-09-15 04:33 J -37011986.54 -37011986.31 -37011986.07 0.0139 0.0034 *

Earth -106046-09-19 12:28 J -37011617.19 -37011616.98 -37011616.74 0.0140 0.0055

Moon -106046-09-19 14:09 J -37011617.13 -37011616.91 -37011616.68 0.0140 0.0048 *

Mercury -106036-11-03 18:57 J -37007918.76 -37007918.71 -37007918.65 0.0145 0.0136

Mars -106035-01-18 01:55 J -37007843.66 -37007843.42 -37007843.18 0.0146 0.0096

Mercury -106035-01-31 01:11 J -37007830.56 -37007830.45 -37007830.35 0.0146 0.0112

Mercury -106035-04-29 07:11 J -37007742.32 -37007742.20 -37007742.06 0.0146 0.0088

Mercury -106035-07-26 13:26 J -37007654.08 -37007653.94 -37007653.78 0.0146 0.0064

Mercury -106035-10-22 19:55 J -37007565.83 -37007565.67 -37007565.51 0.0146 0.0040

Mercury -106034-01-19 02:23 J -37007477.57 -37007477.40 -37007477.24 0.0146 0.0015

Mercury -106034-04-17 08:38 J -37007389.30 -37007389.14 -37007388.97 0.0146 0.0011

Mercury -106034-07-14 15:21 J -37007301.03 -37007300.86 -37007300.70 0.0146 0.0036

Mercury -106034-10-10 21:50 J -37007212.74 -37007212.59 -37007212.43 0.0146 0.0061

Mercury -106033-01-07 04:33 J -37007124.45 -37007124.31 -37007124.17 0.0146 0.0087

Mercury -106033-04-04 11:16 J -37007036.14 -37007036.03 -37007035.92 0.0146 0.0113

Mercury -106033-07-01 17:59 J -37006947.80 -37006947.75 -37006947.70 0.0146 0.0139

Venus -106030-09-13 20:52 J -37005778.67 -37005778.63 -37005778.57 0.0147 0.0144

Venus -106029-04-27 11:02 J -37005552.22 -37005552.04 -37005551.85 0.0147 0.0078

Venus -106029-12-10 01:11 J -37005325.66 -37005325.45 -37005325.23 0.0147 0.0012

Venus -106028-07-24 15:35 J -37005099.05 -37005098.85 -37005098.64 0.0147 0.0056

Venus -106027-03-08 05:59 J -37004872.36 -37004872.25 -37004872.11 0.0148 0.0123

Earth -106008-03-19 23:16 J -36997920.75 -36997920.53 -36997920.29 0.0140 0.0066

Moon -106008-03-20 02:52 J -36997920.59 -36997920.38 -36997920.14 0.0140 0.0073 *

Moon -106007-03-24 19:55 J -36997550.91 -36997550.67 -36997550.40 0.0139 0.0037

Earth -106007-03-24 23:59 J -36997550.76 -36997550.50 -36997550.24 0.0139 0.0029 *

Earth -106006-03-29 22:47 J -36997180.66 -36997180.55 -36997180.41 0.0139 0.0122

Moon -106006-03-30 02:23 J -36997180.53 -36997180.40 -36997180.25 0.0139 0.0116 *

106TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 106th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mars -105997-07-08 10:33 J -36993792.30 -36993792.06 -36993791.81 0.0134 0.0073

Mercury -105996-06-27 23:31 J -36993437.55 -36993437.52 -36993437.47 0.0133 0.0128

Mercury -105996-09-24 03:35 J -36993349.42 -36993349.35 -36993349.25 0.0133 0.0110

Mercury -105996-12-21 07:55 J -36993261.28 -36993261.17 -36993261.06 0.0133 0.0093

Mercury -105995-03-19 11:59 J -36993173.12 -36993173.00 -36993172.88 0.0133 0.0076

Mercury -105995-06-15 15:50 J -36993084.97 -36993084.84 -36993084.70 0.0133 0.0059

Mercury -105995-09-11 19:40 J -36992996.81 -36992996.68 -36992996.53 0.0133 0.0042

Mercury -105995-12-08 23:45 J -36992908.66 -36992908.51 -36992908.36 0.0133 0.0025

Mercury -105994-03-07 03:35 J -36992820.50 -36992820.35 -36992820.20 0.0133 0.0009

Mercury -105994-06-03 07:26 J -36992732.34 -36992732.19 -36992732.04 0.0133 0.0008

Mercury -105994-08-30 11:16 J -36992644.18 -36992644.03 -36992643.89 0.0133 0.0024

Mercury -105994-11-26 14:52 J -36992556.01 -36992555.88 -36992555.73 0.0133 0.0041

Mercury -105993-02-22 18:43 J -36992467.85 -36992467.72 -36992467.58 0.0133 0.0056

Mercury -105993-05-20 22:19 J -36992379.68 -36992379.57 -36992379.44 0.0132 0.0073

Mercury -105993-08-17 01:55 J -36992291.52 -36992291.42 -36992291.30 0.0132 0.0089

Mercury -105993-11-13 05:45 J -36992203.34 -36992203.26 -36992203.17 0.0132 0.0104

Mercury -105992-02-09 09:21 J -36992115.16 -36992115.11 -36992115.04 0.0132 0.0119

Venus -105988-03-29 15:21 J -36990606.00 -36990605.86 -36990605.71 0.0131 0.0098

Venus -105988-11-10 19:11 J -36990379.90 -36990379.70 -36990379.50 0.0131 0.0051

Venus -105987-06-24 22:47 J -36990153.77 -36990153.55 -36990153.33 0.0131 0.0005

Venus -105986-02-06 02:09 J -36989927.61 -36989927.41 -36989927.20 0.0131 0.0040

Venus -105986-09-20 05:16 J -36989701.43 -36989701.28 -36989701.10 0.0131 0.0086

Earth -105964-09-11 05:31 J -36981674.39 -36981674.27 -36981674.13 0.0138 0.0116

Moon -105964-09-11 07:55 J -36981674.29 -36981674.17 -36981674.01 0.0138 0.0112 *

Moon -105963-09-15 10:19 J -36981305.30 -36981305.07 -36981304.82 0.0139 0.0039

Earth -105963-09-15 12:43 J -36981305.20 -36981304.97 -36981304.73 0.0139 0.0031 *

Earth -105962-09-19 20:52 J -36980935.85 -36980935.63 -36980935.40 0.0139 0.0056

Moon -105962-09-19 23:16 J -36980935.73 -36980935.53 -36980935.30 0.0139 0.0064 *

Moon -105961-09-23 04:19 J -36980566.33 -36980566.32 -36980566.29 0.0140 0.0139

Mars -105953-10-07 23:45 J -36977629.72 -36977629.51 -36977629.27 0.0145 0.0103

Mercury -105952-11-24 01:11 J -36977217.50 -36977217.45 -36977217.37 0.0145 0.0133

Mercury -105951-02-20 07:40 J -36977129.29 -36977129.18 -36977129.07 0.0146 0.0109

Mercury -105951-05-19 13:40 J -36977041.06 -36977040.93 -36977040.79 0.0146 0.0085

Mercury -105951-08-15 19:55 J -36976952.81 -36976952.67 -36976952.51 0.0146 0.0061

Mercury -105951-11-12 02:23 J -36976864.56 -36976864.40 -36976864.24 0.0146 0.0036

Mercury -105950-02-08 08:52 J -36976776.30 -36976776.13 -36976775.97 0.0146 0.0012

Mercury -105950-05-07 15:21 J -36976688.03 -36976687.86 -36976687.70 0.0146 0.0014

Mercury -105950-08-03 21:35 J -36976599.75 -36976599.60 -36976599.43 0.0146 0.0039

Mercury -105950-10-31 04:19 J -36976511.47 -36976511.32 -36976511.17 0.0146 0.0064

Mercury -105949-01-27 10:47 J -36976423.17 -36976423.05 -36976422.91 0.0146 0.0090

Mercury -105949-04-24 17:31 J -36976334.86 -36976334.77 -36976334.66 0.0146 0.0116

Mercury -105949-07-22 00:14 J -36976246.51 -36976246.49 -36976246.44 0.0146 0.0143

Venus -105946-12-26 13:55 J -36974994.04 -36974993.92 -36974993.76 0.0147 0.0114

Venus -105945-08-09 04:19 J -36974767.52 -36974767.32 -36974767.11 0.0147 0.0047

Venus -105944-03-23 18:43 J -36974540.94 -36974540.72 -36974540.50 0.0147 0.0020

Venus -105944-11-05 09:07 J -36974314.29 -36974314.12 -36974313.93 0.0148 0.0087

Earth -105924-03-20 05:45 J -36967239.48 -36967239.26 -36967239.01 0.0140 0.0065

Moon -105924-03-20 09:35 J -36967239.34 -36967239.10 -36967238.85 0.0140 0.0059 *

Moon -105923-03-25 03:07 J -36966869.62 -36966869.37 -36966869.10 0.0139 0.0024

Earth -105923-03-25 06:57 J -36966869.46 -36966869.21 -36966868.95 0.0139 0.0031 *

Earth -105922-03-30 06:14 J -36966499.36 -36966499.24 -36966499.12 0.0139 0.0123

Moon -105922-03-30 09:35 J -36966499.16 -36966499.10 -36966498.99 0.0139 0.0131 *

Mars -105912-03-02 16:47 J -36962874.09 -36962873.80 -36962873.50 0.0134 0.0003

Mercury -105912-07-18 06:28 J -36962736.28 -36962736.23 -36962736.17 0.0133 0.0124

Mercury -105912-10-14 10:19 J -36962648.14 -36962648.07 -36962647.97 0.0133 0.0108

Mercury -105911-01-10 14:23 J -36962560.00 -36962559.90 -36962559.78 0.0133 0.0091

Mercury -105911-04-08 18:43 J -36962471.84 -36962471.72 -36962471.59 0.0133 0.0073

Mercury -105911-07-05 22:33 J -36962383.69 -36962383.56 -36962383.42 0.0133 0.0056

Mercury -105911-10-02 02:38 J -36962295.53 -36962295.39 -36962295.25 0.0133 0.0039

Mercury -105911-12-29 06:28 J -36962207.37 -36962207.23 -36962207.08 0.0133 0.0022

Mercury -105910-03-27 10:19 J -36962119.21 -36962119.07 -36962118.92 0.0133 0.0007

Mercury -105910-06-23 14:09 J -36962031.05 -36962030.91 -36962030.76 0.0133 0.0012

Mercury -105910-09-19 17:59 J -36961942.89 -36961942.75 -36961942.60 0.0133 0.0027

Mercury -105910-12-16 21:50 J -36961854.73 -36961854.59 -36961854.45 0.0133 0.0043

Mercury -105909-03-14 01:26 J -36961766.56 -36961766.44 -36961766.30 0.0133 0.0060

Mercury -105909-06-10 05:16 J -36961678.40 -36961678.28 -36961678.16 0.0132 0.0075

Mercury -105909-09-06 09:07 J -36961590.23 -36961590.12 -36961590.02 0.0132 0.0091

Mercury -105909-12-03 12:43 J -36961502.05 -36961501.97 -36961501.89 0.0132 0.0106

Mercury -105908-03-01 16:04 J -36961413.87 -36961413.83 -36961413.77 0.0132 0.0122
 Venus -105905-11-27 01:26 J -36960047.52 -36960047.44 -36960047.35 0.0131 0.0121
 Venus -105904-07-11 05:02 J -36959821.46 -36959821.29 -36959821.10 0.0131 0.0075
 Venus -105903-02-22 08:52 J -36959595.33 -36959595.13 -36959594.91 0.0131 0.0029
 Venus -105903-10-06 12:28 J -36959369.19 -36959368.98 -36959368.76 0.0131 0.0019
 Venus -105902-05-20 15:50 J -36959143.01 -36959142.84 -36959142.64 0.0131 0.0064
 Venus -105901-01-01 19:11 J -36958916.81 -36958916.70 -36958916.57 0.0131 0.0110
 Earth -105880-09-11 15:07 J -36950992.99 -36950992.87 -36950992.71 0.0138 0.0114
 Moon -105880-09-11 17:45 J -36950992.85 -36950992.76 -36950992.62 0.0138 0.0121 *
 Moon -105879-09-15 19:11 J -36950623.93 -36950623.70 -36950623.44 0.0139 0.0022
 Earth -105879-09-15 22:33 J -36950623.79 -36950623.56 -36950623.31 0.0139 0.0029 *
 Earth -105878-09-20 06:43 J -36950254.43 -36950254.22 -36950253.99 0.0139 0.0059
 Moon -105878-09-20 09:35 J -36950254.32 -36950254.10 -36950253.88 0.0139 0.0052 *
 Mars -105868-06-04 03:21 J -36946709.68 -36946709.36 -36946709.03 0.0145 0.0007
 Mercury -105868-12-14 08:23 J -36946516.22 -36946516.15 -36946516.07 0.0145 0.0128
 Mercury -105867-03-12 14:23 J -36946428.01 -36946427.90 -36946427.78 0.0146 0.0104
 Mercury -105867-06-08 20:38 J -36946339.77 -36946339.64 -36946339.50 0.0146 0.0080
 Mercury -105867-09-05 03:07 J -36946251.53 -36946251.37 -36946251.22 0.0146 0.0056
 Mercury -105867-12-02 09:21 J -36946163.27 -36946163.11 -36946162.95 0.0146 0.0032
 Mercury -105866-02-28 15:50 J -36946075.01 -36946074.84 -36946074.68 0.0146 0.0007
 Mercury -105866-05-27 22:04 J -36945986.74 -36945986.58 -36945986.41 0.0146 0.0019
 Mercury -105866-08-24 04:47 J -36945898.46 -36945898.30 -36945898.14 0.0146 0.0044
 Mercury -105866-11-20 11:16 J -36945810.18 -36945810.03 -36945809.88 0.0146 0.0069
 Mercury -105865-02-16 17:45 J -36945721.88 -36945721.76 -36945721.62 0.0146 0.0095
 Mercury -105865-05-15 00:43 J -36945633.57 -36945633.47 -36945633.38 0.0146 0.0121
 Venus -105862-08-25 18:43 J -36944435.73 -36944435.72 -36944435.70 0.0147 0.0147
 Venus -105861-04-08 08:38 J -36944209.32 -36944209.14 -36944208.96 0.0147 0.0081
 Venus -105861-11-20 22:47 J -36943982.77 -36943982.55 -36943982.33 0.0147 0.0014
 Venus -105860-07-05 13:11 J -36943756.16 -36943755.95 -36943755.75 0.0148 0.0053
 Venus -105859-02-17 03:21 J -36943529.47 -36943529.36 -36943529.22 0.0148 0.0121

Earth -105840-03-20 13:40 J -36936558.16 -36936557.93 -36936557.68 0.0140 0.0062
 Moon -105840-03-20 16:47 J -36936558.02 -36936557.80 -36936557.55 0.0140 0.0068 *
 Moon -105839-03-25 10:47 J -36936188.28 -36936188.05 -36936187.79 0.0139 0.0041
 Earth -105839-03-25 14:38 J -36936188.14 -36936187.89 -36936187.63 0.0139 0.0033 *
 Earth -105838-03-30 13:40 J -36935818.02 -36935817.93 -36935817.80 0.0139 0.0126
 Moon -105838-03-30 17:16 J -36935817.90 -36935817.78 -36935817.63 0.0139 0.0119 *
 Mars -105830-11-26 01:40 J -36932655.47 -36932655.43 -36932655.36 0.0134 0.0131
 Mercury -105828-08-07 13:11 J -36932035.00 -36932034.95 -36932034.88 0.0133 0.0121
 Mars -105828-10-25 23:31 J -36931955.76 -36931955.52 -36931955.28 0.0133 0.0078
 Mercury -105828-11-03 17:31 J -36931946.86 -36931946.77 -36931946.68 0.0133 0.0104
 Mercury -105827-01-30 21:35 J -36931858.72 -36931858.60 -36931858.49 0.0133 0.0087
 Mercury -105827-04-29 01:26 J -36931770.56 -36931770.44 -36931770.31 0.0133 0.0070
 Mercury -105827-07-26 05:16 J -36931682.41 -36931682.28 -36931682.13 0.0133 0.0053
 Mercury -105827-10-22 09:21 J -36931594.25 -36931594.11 -36931593.96 0.0133 0.0036
 Mercury -105826-01-18 13:26 J -36931506.09 -36931505.94 -36931505.80 0.0133 0.0019
 Mercury -105826-04-16 17:16 J -36931417.93 -36931417.78 -36931417.63 0.0133 0.0003
 Mercury -105826-07-13 21:07 J -36931329.77 -36931329.62 -36931329.47 0.0133 0.0014
 Mercury -105826-10-10 00:57 J -36931241.60 -36931241.46 -36931241.32 0.0133 0.0030
 Mercury -105825-01-06 04:33 J -36931153.44 -36931153.31 -36931153.17 0.0133 0.0047
 Mercury -105825-04-03 08:23 J -36931065.28 -36931065.15 -36931065.02 0.0133 0.0062
 Mercury -105825-06-30 11:59 J -36930977.11 -36930977.00 -36930976.88 0.0132 0.0078
 Mercury -105825-09-26 15:35 J -36930888.94 -36930888.85 -36930888.74 0.0132 0.0095
 Mercury -105825-12-23 19:26 J -36930800.76 -36930800.69 -36930800.60 0.0132 0.0110
 Mercury -105824-03-21 23:02 J -36930712.58 -36930712.54 -36930712.49 0.0132 0.0125
 Venus -105820-03-10 15:21 J -36929262.99 -36929262.86 -36929262.71 0.0131 0.0097
 Venus -105820-10-22 19:11 J -36929036.89 -36929036.70 -36929036.49 0.0131 0.0051
 Venus -105819-06-05 23:02 J -36928810.76 -36928810.54 -36928810.32 0.0131 0.0005
 Venus -105818-01-18 02:23 J -36928584.60 -36928584.40 -36928584.19 0.0131 0.0042
 Venus -105818-09-01 05:31 J -36928358.41 -36928358.27 -36928358.09 0.0131 0.0088
 Earth -105796-09-12 00:57 J -36920311.59 -36920311.46 -36920311.30 0.0138 0.0111

Moon -105796-09-12 04:19 J -36920311.46 -36920311.32 -36920311.15 0.0138 0.0105 *
 Moon -105795-09-16 05:16 J -36919942.52 -36919942.28 -36919942.04 0.0139 0.0033
 Earth -105795-09-16 08:23 J -36919942.39 -36919942.15 -36919941.91 0.0139 0.0026 *
 Earth -105794-09-20 16:47 J -36919573.02 -36919572.80 -36919572.58 0.0139 0.0061
 Moon -105794-09-20 19:55 J -36919572.87 -36919572.67 -36919572.45 0.0139 0.0069 *
 Mercury -105783-01-03 15:21 J -36915814.93 -36915814.86 -36915814.76 0.0145 0.0123
 Mars -105783-01-29 08:23 J -36915789.31 -36915789.15 -36915788.93 0.0145 0.0118
 Mercury -105783-04-01 21:35 J -36915726.71 -36915726.60 -36915726.47 0.0146 0.0099
 Mercury -105783-06-29 03:50 J -36915638.47 -36915638.34 -36915638.19 0.0146 0.0075
 Mercury -105783-09-25 10:04 J -36915550.23 -36915550.08 -36915549.91 0.0146 0.0051
 Mercury -105783-12-22 16:33 J -36915461.97 -36915461.81 -36915461.64 0.0146 0.0026
 Mercury -105782-03-20 23:02 J -36915373.71 -36915373.54 -36915373.37 0.0146 0.0002
 Mercury -105782-06-17 05:31 J -36915285.44 -36915285.27 -36915285.10 0.0146 0.0024
 Mercury -105782-09-13 11:59 J -36915197.16 -36915197.00 -36915196.84 0.0146 0.0050
 Mercury -105782-12-10 18:28 J -36915108.87 -36915108.73 -36915108.58 0.0146 0.0076
 Mercury -105781-03-08 01:11 J -36915020.57 -36915020.45 -36915020.32 0.0146 0.0101
 Mercury -105781-06-04 07:40 J -36914932.25 -36914932.18 -36914932.08 0.0146 0.0128
 Venus -105778-12-07 13:55 J -36913651.05 -36913650.92 -36913650.77 0.0147 0.0113
 Venus -105777-07-21 04:04 J -36913424.53 -36913424.33 -36913424.11 0.0147 0.0047
 Venus -105776-03-04 18:28 J -36913197.95 -36913197.73 -36913197.51 0.0148 0.0021
 Venus -105776-10-17 09:07 J -36912971.30 -36912971.12 -36912970.94 0.0148 0.0088
 Earth -105756-03-20 23:02 J -36905876.77 -36905876.54 -36905876.29 0.0140 0.0059
 Moon -105756-03-21 01:40 J -36905876.66 -36905876.43 -36905876.16 0.0140 0.0055 *
 Moon -105755-03-25 21:21 J -36905506.86 -36905506.61 -36905506.36 0.0139 0.0029
 Earth -105755-03-25 23:59 J -36905506.74 -36905506.50 -36905506.23 0.0139 0.0037 *
 Earth -105754-03-30 23:16 J -36905136.60 -36905136.53 -36905136.41 0.0139 0.0129
 Moon -105754-03-31 02:52 J -36905136.40 -36905136.38 -36905136.29 0.0139 0.0136
 Mars -105745-07-20 10:33 J -36901737.32 -36901737.06 -36901736.78 0.0134 0.0055
 Mercury -105744-08-27 20:09 J -36901333.71 -36901333.66 -36901333.58 0.0133 0.0118
 Mercury -105744-11-24 00:14 J -36901245.57 -36901245.49 -36901245.38 0.0133 0.0101

Mercury -105743-02-20 04:19 J -36901157.42 -36901157.32 -36901157.19 0.0133 0.0084

Mercury -105743-05-19 08:23 J -36901069.27 -36901069.15 -36901069.01 0.0133 0.0066

Mercury -105743-08-15 12:28 J -36900981.11 -36900980.98 -36900980.84 0.0133 0.0049

Mercury -105743-11-11 16:33 J -36900892.95 -36900892.81 -36900892.67 0.0133 0.0032

Mercury -105742-02-07 20:23 J -36900804.79 -36900804.65 -36900804.50 0.0133 0.0016

Mercury -105742-05-07 00:14 J -36900716.63 -36900716.49 -36900716.34 0.0133 0.0004

Mercury -105742-08-03 04:04 J -36900628.47 -36900628.33 -36900628.18 0.0133 0.0018

Mercury -105742-10-30 07:55 J -36900540.31 -36900540.17 -36900540.02 0.0133 0.0034

Mercury -105741-01-26 11:45 J -36900452.14 -36900452.01 -36900451.87 0.0133 0.0050

Mercury -105741-04-23 15:21 J -36900363.98 -36900363.86 -36900363.72 0.0132 0.0066

Mercury -105741-07-20 18:57 J -36900275.81 -36900275.71 -36900275.58 0.0132 0.0083

Mercury -105741-10-16 23:02 J -36900187.64 -36900187.54 -36900187.45 0.0132 0.0098

Mercury -105740-01-13 02:23 J -36900099.46 -36900099.40 -36900099.32 0.0132 0.0114

Mercury -105740-04-11 06:14 J -36900011.27 -36900011.24 -36900011.21 0.0132 0.0129

Venus -105737-11-08 02:23 J -36898704.48 -36898704.40 -36898704.31 0.0131 0.0120

Venus -105736-06-22 05:59 J -36898478.42 -36898478.25 -36898478.06 0.0131 0.0074

Venus -105735-02-03 09:50 J -36898252.30 -36898252.09 -36898251.87 0.0131 0.0027

Venus -105735-09-17 13:26 J -36898026.15 -36898025.94 -36898025.72 0.0131 0.0020

Venus -105734-05-01 16:47 J -36897799.97 -36897799.80 -36897799.60 0.0131 0.0066

Venus -105734-12-13 19:55 J -36897573.76 -36897573.67 -36897573.54 0.0131 0.0112

Earth -105712-09-12 12:14 J -36889630.14 -36889629.99 -36889629.83 0.0138 0.0107

Moon -105712-09-12 15:35 J -36889629.99 -36889629.85 -36889629.71 0.0138 0.0113 *

Moon -105711-09-16 16:04 J -36889261.07 -36889260.83 -36889260.58 0.0139 0.0015

Earth -105711-09-16 19:40 J -36889260.92 -36889260.68 -36889260.43 0.0139 0.0022 *

Earth -105710-09-21 03:50 J -36888891.54 -36888891.34 -36888891.11 0.0140 0.0065

Moon -105710-09-21 07:11 J -36888891.41 -36888891.20 -36888890.97 0.0140 0.0058 *

Mars -105701-10-19 13:55 J -36885575.20 -36885574.92 -36885574.65 0.0145 0.0078

Mercury -105700-10-27 17:02 J -36885201.83 -36885201.79 -36885201.74 0.0145 0.0139

Mercury -105699-01-23 22:47 J -36885113.63 -36885113.55 -36885113.43 0.0145 0.0117

Mercury -105699-04-22 05:02 J -36885025.40 -36885025.29 -36885025.15 0.0146 0.0093

Mercury -105699-07-19 11:16 J -36884937.16 -36884937.03 -36884936.87 0.0146 0.0069

Mercury -105699-10-15 17:45 J -36884848.91 -36884848.76 -36884848.60 0.0146 0.0044

Mercury -105698-01-12 00:14 J -36884760.66 -36884760.49 -36884760.32 0.0146 0.0019

Mercury -105698-04-10 06:43 J -36884672.39 -36884672.22 -36884672.05 0.0146 0.0006

Mercury -105698-07-07 12:57 J -36884584.12 -36884583.96 -36884583.79 0.0146 0.0032

Mercury -105698-10-03 19:40 J -36884495.84 -36884495.68 -36884495.52 0.0146 0.0056

Mercury -105698-12-31 02:09 J -36884407.54 -36884407.41 -36884407.26 0.0146 0.0082

Mercury -105697-03-28 08:38 J -36884319.24 -36884319.14 -36884319.01 0.0146 0.0108

Mercury -105697-06-24 15:21 J -36884230.91 -36884230.86 -36884230.78 0.0146 0.0135

Venus -105694-08-06 19:40 J -36883092.69 -36883092.68 -36883092.63 0.0147 0.0146

Venus -105693-03-20 10:04 J -36882866.26 -36882866.08 -36882865.89 0.0147 0.0079

Venus -105693-11-02 00:14 J -36882639.71 -36882639.49 -36882639.27 0.0148 0.0012

Venus -105692-06-16 14:23 J -36882413.09 -36882412.90 -36882412.69 0.0148 0.0056

Venus -105691-01-29 05:02 J -36882186.41 -36882186.29 -36882186.17 0.0148 0.0123

Earth -105672-03-21 10:19 J -36875195.30 -36875195.07 -36875194.81 0.0140 0.0054

Moon -105672-03-21 12:28 J -36875195.21 -36875194.98 -36875194.72 0.0140 0.0058 *

Moon -105671-03-26 08:38 J -36874825.37 -36874825.14 -36874824.89 0.0139 0.0048

Earth -105671-03-26 11:45 J -36874825.26 -36874825.01 -36874824.76 0.0139 0.0041 *

Earth -105670-03-31 11:02 J -36874455.10 -36874455.04 -36874454.96 0.0139 0.0133

Moon -105670-03-31 13:40 J -36874455.02 -36874454.93 -36874454.79 0.0139 0.0126 *

Mars -105660-03-14 21:21 J -36870818.89 -36870818.61 -36870818.32 0.0134 0.0023

Mercury -105660-06-20 23:16 J -36870720.54 -36870720.53 -36870720.48 0.0133 0.0131

Mercury -105660-09-17 03:35 J -36870632.42 -36870632.35 -36870632.26 0.0133 0.0113

Mercury -105660-12-14 07:40 J -36870544.28 -36870544.18 -36870544.07 0.0133 0.0095

Mercury -105659-03-12 11:45 J -36870456.12 -36870456.01 -36870455.88 0.0133 0.0078

Mercury -105659-06-08 15:50 J -36870367.97 -36870367.84 -36870367.70 0.0133 0.0061

Mercury -105659-09-04 19:55 J -36870279.81 -36870279.67 -36870279.53 0.0133 0.0044

Mercury -105659-12-01 23:45 J -36870191.65 -36870191.51 -36870191.36 0.0133 0.0028

Mercury -105658-02-28 03:35 J -36870103.49 -36870103.35 -36870103.20 0.0133 0.0012

Mercury -105658-05-27 07:40 J -36870015.33 -36870015.18 -36870015.04 0.0133 0.0006

Mercury -105658-08-23 11:16 J -36869927.17 -36869927.03 -36869926.88 0.0133 0.0023

Mercury -105658-11-19 15:07 J -36869839.00 -36869838.87 -36869838.72 0.0133 0.0039

Mercury -105657-02-15 18:57 J -36869750.84 -36869750.71 -36869750.57 0.0132 0.0054

Mercury -105657-05-13 22:47 J -36869662.67 -36869662.55 -36869662.43 0.0132 0.0070

Mercury -105657-08-10 02:23 J -36869574.50 -36869574.40 -36869574.28 0.0132 0.0086

Mercury -105657-11-06 05:59 J -36869486.33 -36869486.25 -36869486.15 0.0132 0.0102

Mercury -105656-02-02 09:50 J -36869398.15 -36869398.09 -36869398.02 0.0132 0.0117

Venus -105652-02-19 17:02 J -36867919.93 -36867919.79 -36867919.64 0.0131 0.0096

Venus -105652-10-03 20:38 J -36867693.83 -36867693.64 -36867693.43 0.0131 0.0050

Venus -105651-05-18 00:28 J -36867467.69 -36867467.48 -36867467.26 0.0131 0.0003

Venus -105651-12-30 03:50 J -36867241.54 -36867241.34 -36867241.13 0.0131 0.0044

Venus -105650-08-13 06:57 J -36867015.35 -36867015.21 -36867015.04 0.0131 0.0090

Earth -105628-09-12 22:04 J -36858948.72 -36858948.58 -36858948.40 0.0138 0.0104

Moon -105628-09-13 01:55 J -36858948.58 -36858948.42 -36858948.24 0.0138 0.0098 *

Moon -105627-09-17 02:09 J -36858579.64 -36858579.41 -36858579.16 0.0139 0.0027

Earth -105627-09-17 05:45 J -36858579.50 -36858579.26 -36858579.02 0.0139 0.0020 *

Earth -105626-09-21 13:55 J -36858210.13 -36858209.92 -36858209.70 0.0140 0.0066

Moon -105626-09-21 17:31 J -36858209.97 -36858209.77 -36858209.55 0.0140 0.0074 *

Mars -105616-06-15 19:55 J -36854654.98 -36854654.67 -36854654.35 0.0145 0.0033

Mercury -105616-11-16 23:59 J -36854500.54 -36854500.50 -36854500.42 0.0145 0.0135

Mercury -105615-02-13 06:14 J -36854412.33 -36854412.24 -36854412.12 0.0146 0.0111

Mercury -105615-05-12 12:28 J -36854324.10 -36854323.98 -36854323.84 0.0146 0.0087

Mercury -105615-08-08 18:43 J -36854235.86 -36854235.72 -36854235.56 0.0146 0.0063

Mercury -105615-11-05 01:11 J -36854147.61 -36854147.45 -36854147.29 0.0146 0.0038

Mercury -105614-02-01 07:26 J -36854059.35 -36854059.19 -36854059.02 0.0146 0.0014

Mercury -105614-04-30 13:55 J -36853971.08 -36853970.92 -36853970.75 0.0146 0.0012

Mercury -105614-07-27 20:23 J -36853882.81 -36853882.65 -36853882.48 0.0146 0.0037

Mercury -105614-10-24 03:07 J -36853794.52 -36853794.37 -36853794.22 0.0146 0.0062

Mercury -105613-01-20 09:35 J -36853706.23 -36853706.10 -36853705.96 0.0146 0.0088

Mercury -105613-04-17 16:04 J -36853617.92 -36853617.83 -36853617.71 0.0146 0.0115

Mercury -105613-07-14 22:47 J -36853529.58 -36853529.55 -36853529.49 0.0147 0.0141

Venus -105610-11-18 15:21 J -36852307.99 -36852307.86 -36852307.71 0.0147 0.0111

Venus -105609-07-02 05:31 J -36852081.47 -36852081.27 -36852081.06 0.0148 0.0045

Venus -105608-02-13 19:55 J -36851854.89 -36851854.67 -36851854.45 0.0148 0.0023

Venus -105608-09-28 10:19 J -36851628.24 -36851628.07 -36851627.89 0.0148 0.0091

Earth -105588-03-21 23:16 J -36844513.78 -36844513.53 -36844513.29 0.0140 0.0048

Moon -105588-03-22 00:43 J -36844513.72 -36844513.47 -36844513.20 0.0140 0.0043 *

Moon -105587-03-26 22:19 J -36844143.81 -36844143.57 -36844143.32 0.0139 0.0040

Earth -105587-03-27 00:14 J -36844143.74 -36844143.49 -36844143.24 0.0139 0.0047 *

Earth -105586-03-31 23:45 J -36843773.53 -36843773.51 -36843773.48 0.0139 0.0138

Mars -105578-12-08 12:14 J -36840600.14 -36840599.99 -36840599.79 0.0134 0.0108

Mercury -105576-07-11 06:57 J -36840019.25 -36840019.21 -36840019.15 0.0133 0.0125

Mercury -105576-10-07 11:02 J -36839931.12 -36839931.04 -36839930.94 0.0133 0.0107

Mars -105576-11-07 07:40 J -36839900.36 -36839900.18 -36839899.98 0.0133 0.0101

Mercury -105575-01-03 15:07 J -36839842.97 -36839842.87 -36839842.75 0.0133 0.0090

Mercury -105575-04-01 19:11 J -36839754.82 -36839754.70 -36839754.57 0.0133 0.0073

Mercury -105575-06-28 23:16 J -36839666.66 -36839666.53 -36839666.39 0.0133 0.0056

Mercury -105575-09-25 03:21 J -36839578.50 -36839578.36 -36839578.22 0.0133 0.0039

Mercury -105575-12-22 07:11 J -36839490.34 -36839490.20 -36839490.05 0.0133 0.0022

Mercury -105574-03-20 11:16 J -36839402.18 -36839402.03 -36839401.89 0.0133 0.0006

Mercury -105574-06-16 15:07 J -36839314.02 -36839313.87 -36839313.72 0.0133 0.0011

Mercury -105574-09-12 18:57 J -36839225.86 -36839225.71 -36839225.57 0.0133 0.0027

Mercury -105574-12-09 22:33 J -36839137.69 -36839137.56 -36839137.41 0.0132 0.0044

Mercury -105573-03-07 02:23 J -36839049.53 -36839049.40 -36839049.26 0.0132 0.0060

Mercury -105573-06-03 06:14 J -36838961.36 -36838961.24 -36838961.12 0.0132 0.0075

Mercury -105573-08-30 09:50 J -36838873.19 -36838873.09 -36838872.98 0.0132 0.0091

Mercury -105573-11-26 13:26 J -36838785.01 -36838784.94 -36838784.84 0.0132 0.0107

Mercury -105572-02-22 17:16 J -36838696.83 -36838696.78 -36838696.72 0.0132 0.0122

Venus -105569-10-20 04:19 J -36837361.39 -36837361.32 -36837361.20 0.0131 0.0118

Venus -105568-06-03 08:23 J -36837135.32 -36837135.15 -36837134.96 0.0131 0.0071

Venus -105567-01-15 11:59 J -36836909.21 -36836909.00 -36836908.78 0.0131 0.0024
 Venus -105567-08-29 15:35 J -36836683.06 -36836682.85 -36836682.64 0.0131 0.0022
 Venus -105566-04-12 18:57 J -36836456.89 -36836456.71 -36836456.52 0.0131 0.0068
 Venus -105566-11-24 21:50 J -36836230.67 -36836230.59 -36836230.46 0.0131 0.0114
 Earth -105544-09-13 08:38 J -36828267.29 -36828267.14 -36828266.96 0.0138 0.0100
 Moon -105544-09-13 11:45 J -36828267.15 -36828267.01 -36828266.83 0.0138 0.0106 *
 Moon -105543-09-17 12:28 J -36827898.22 -36827897.98 -36827897.73 0.0139 0.0010
 Earth -105543-09-17 16:04 J -36827898.07 -36827897.83 -36827897.58 0.0139 0.0017 *
 Earth -105542-09-21 23:59 J -36827528.70 -36827528.50 -36827528.28 0.0140 0.0070
 Moon -105542-09-22 03:35 J -36827528.57 -36827528.35 -36827528.13 0.0140 0.0062 *
 Mercury -105532-12-07 07:11 J -36823799.26 -36823799.20 -36823799.11 0.0145 0.0130
 Mars -105531-02-10 00:14 J -36823734.53 -36823734.49 -36823734.40 0.0146 0.0143
 Mercury -105531-03-05 13:26 J -36823711.04 -36823710.94 -36823710.82 0.0146 0.0106
 Mercury -105531-06-01 19:40 J -36823622.81 -36823622.68 -36823622.54 0.0146 0.0082
 Mercury -105531-08-29 01:55 J -36823534.57 -36823534.42 -36823534.26 0.0146 0.0058
 Mercury -105531-11-25 08:23 J -36823446.32 -36823446.15 -36823445.99 0.0146 0.0033
 Mercury -105530-02-21 14:38 J -36823358.05 -36823357.89 -36823357.72 0.0146 0.0008
 Mercury -105530-05-20 21:07 J -36823269.79 -36823269.62 -36823269.45 0.0146 0.0017
 Mercury -105530-08-17 03:35 J -36823181.51 -36823181.35 -36823181.19 0.0146 0.0042
 Mercury -105530-11-13 10:04 J -36823093.23 -36823093.08 -36823092.93 0.0146 0.0068
 Mercury -105529-02-09 16:33 J -36823004.93 -36823004.81 -36823004.67 0.0146 0.0094
 Mercury -105529-05-07 23:16 J -36822916.62 -36822916.53 -36822916.42 0.0147 0.0120
 Mercury -105529-08-04 05:59 J -36822828.26 -36822828.25 -36822828.22 0.0147 0.0146
 Venus -105526-07-18 19:55 J -36821749.68 -36821749.67 -36821749.62 0.0147 0.0146
 Venus -105525-03-01 10:04 J -36821523.25 -36821523.08 -36821522.88 0.0148 0.0079
 Venus -105525-10-14 00:43 J -36821296.69 -36821296.47 -36821296.26 0.0148 0.0012
 Venus -105524-05-28 14:38 J -36821070.08 -36821069.89 -36821069.67 0.0148 0.0057
 Venus -105523-01-10 05:16 J -36820843.39 -36820843.28 -36820843.16 0.0148 0.0124
 Moon -105505-03-17 06:57 J -36814202.25 -36814202.21 -36814202.15 0.0141 0.0138
 Earth -105505-03-17 06:57 J -36814202.24 -36814202.21 -36814202.14 0.0141 0.0138 *

Earth -105504-03-22 09:50 J -36813832.33 -36813832.09 -36813831.83 0.0140 0.0042
 Moon -105504-03-22 10:19 J -36813832.32 -36813832.07 -36813831.80 0.0140 0.0045 *
 Moon -105503-03-27 09:35 J -36813462.33 -36813462.10 -36813461.87 0.0139 0.0059
 Earth -105503-03-27 11:16 J -36813462.27 -36813462.03 -36813461.78 0.0139 0.0052 *
 Moon -105502-04-01 12:28 J -36813092.01 -36813091.98 -36813091.90 0.0139 0.0136
 Mars -105493-08-01 23:02 J -36809681.82 -36809681.54 -36809681.25 0.0134 0.0029
 Mercury -105492-07-31 14:23 J -36809317.96 -36809317.90 -36809317.82 0.0133 0.0119
 Mercury -105492-10-27 18:43 J -36809229.82 -36809229.72 -36809229.62 0.0133 0.0102
 Mercury -105491-01-23 22:47 J -36809141.66 -36809141.55 -36809141.43 0.0133 0.0084
 Mercury -105491-04-22 02:52 J -36809053.51 -36809053.38 -36809053.25 0.0133 0.0067
 Mercury -105491-07-19 06:43 J -36808965.35 -36808965.22 -36808965.08 0.0133 0.0051
 Mercury -105491-10-15 10:47 J -36808877.19 -36808877.05 -36808876.91 0.0133 0.0034
 Mercury -105490-01-11 14:38 J -36808789.03 -36808788.89 -36808788.74 0.0133 0.0017
 Mercury -105490-04-09 18:43 J -36808700.87 -36808700.72 -36808700.57 0.0133 0.0003
 Mercury -105490-07-06 22:33 J -36808612.71 -36808612.56 -36808612.42 0.0133 0.0016
 Mercury -105490-10-03 02:23 J -36808524.54 -36808524.40 -36808524.26 0.0133 0.0032
 Mercury -105490-12-30 06:14 J -36808436.38 -36808436.24 -36808436.11 0.0132 0.0049
 Mercury -105489-03-27 09:50 J -36808348.21 -36808348.09 -36808347.96 0.0132 0.0065
 Mercury -105489-06-23 13:40 J -36808260.04 -36808259.93 -36808259.81 0.0132 0.0080
 Mercury -105489-09-19 17:16 J -36808171.87 -36808171.78 -36808171.68 0.0132 0.0096
 Mercury -105489-12-16 20:52 J -36808083.69 -36808083.63 -36808083.54 0.0132 0.0112
 Mercury -105488-03-15 00:43 J -36807995.50 -36807995.47 -36807995.43 0.0132 0.0127
 Venus -105484-01-31 19:40 J -36806576.82 -36806576.68 -36806576.51 0.0131 0.0092
 Venus -105484-09-14 23:31 J -36806350.72 -36806350.52 -36806350.31 0.0131 0.0046
 Venus -105483-04-29 03:07 J -36806124.58 -36806124.37 -36806124.15 0.0131 0.0002
 Venus -105483-12-11 06:28 J -36805898.43 -36805898.23 -36805898.03 0.0131 0.0047
 Venus -105482-07-25 09:21 J -36805672.24 -36805672.11 -36805671.94 0.0131 0.0093
 Earth -105460-09-13 18:14 J -36797585.91 -36797585.74 -36797585.56 0.0138 0.0097
 Moon -105460-09-13 21:35 J -36797585.78 -36797585.60 -36797585.41 0.0138 0.0092 *
 Moon -105459-09-17 22:19 J -36797216.80 -36797216.57 -36797216.33 0.0139 0.0021

Earth -105459-09-18 01:26 J -36797216.69 -36797216.44 -36797216.20 0.0139 0.0014 *
 Earth -105458-09-22 09:07 J -36796847.32 -36796847.12 -36796846.90 0.0139 0.0071
 Moon -105458-09-22 12:28 J -36796847.17 -36796846.98 -36796846.77 0.0139 0.0079 *
 Mars -105449-10-30 20:38 J -36793520.93 -36793520.64 -36793520.33 0.0145 0.0057
 Mercury -105448-12-27 13:55 J -36793097.99 -36793097.92 -36793097.82 0.0146 0.0126
 Mercury -105447-03-25 20:09 J -36793009.77 -36793009.66 -36793009.53 0.0146 0.0102
 Mercury -105447-06-22 02:23 J -36792921.53 -36792921.40 -36792921.25 0.0146 0.0078
 Mercury -105447-09-18 08:38 J -36792833.29 -36792833.14 -36792832.98 0.0146 0.0054
 Mercury -105447-12-15 15:07 J -36792745.04 -36792744.87 -36792744.71 0.0146 0.0029
 Mercury -105446-03-13 21:21 J -36792656.77 -36792656.61 -36792656.44 0.0146 0.0005
 Mercury -105446-06-10 03:50 J -36792568.50 -36792568.34 -36792568.17 0.0146 0.0021
 Mercury -105446-09-06 10:19 J -36792480.23 -36792480.07 -36792479.91 0.0146 0.0046
 Mercury -105446-12-03 16:47 J -36792391.94 -36792391.80 -36792391.65 0.0146 0.0072
 Mercury -105445-02-29 23:16 J -36792303.65 -36792303.53 -36792303.39 0.0146 0.0098
 Mercury -105445-05-28 05:59 J -36792215.33 -36792215.25 -36792215.15 0.0147 0.0124
 Venus -105442-10-30 13:55 J -36790965.05 -36790964.92 -36790964.78 0.0148 0.0114
 Venus -105441-06-13 03:50 J -36790738.54 -36790738.34 -36790738.12 0.0148 0.0047
 Venus -105440-01-25 18:14 J -36790511.95 -36790511.74 -36790511.52 0.0148 0.0021
 Venus -105440-09-09 08:38 J -36790285.31 -36790285.14 -36790284.96 0.0148 0.0089
 Earth -105421-03-17 17:02 J -36783520.86 -36783520.79 -36783520.69 0.0141 0.0133
 Moon -105421-03-17 17:45 J -36783520.82 -36783520.76 -36783520.65 0.0141 0.0132 *
 Earth -105420-03-22 20:09 J -36783150.91 -36783150.66 -36783150.40 0.0140 0.0037
 Moon -105420-03-22 20:23 J -36783150.91 -36783150.65 -36783150.37 0.0140 0.0033 *
 Moon -105419-03-27 20:52 J -36782780.86 -36782780.63 -36782780.38 0.0139 0.0050
 Earth -105419-03-27 21:21 J -36782780.84 -36782780.61 -36782780.36 0.0139 0.0057 *
 Mars -105408-03-27 09:50 J -36778763.36 -36778763.09 -36778762.82 0.0133 0.0050
 Mercury -105408-05-24 17:45 J -36778704.78 -36778704.76 -36778704.73 0.0133 0.0131
 Mercury -105408-08-20 22:04 J -36778616.66 -36778616.58 -36778616.50 0.0133 0.0114
 Mercury -105408-11-17 02:09 J -36778528.51 -36778528.41 -36778528.31 0.0133 0.0096
 Mercury -105407-02-13 05:59 J -36778440.36 -36778440.25 -36778440.12 0.0133 0.0080

Mercury -105407-05-12 10:04 J -36778352.20 -36778352.08 -36778351.94 0.0133 0.0062

Mercury -105407-08-08 14:09 J -36778264.05 -36778263.91 -36778263.77 0.0133 0.0045

Mercury -105407-11-04 18:14 J -36778175.89 -36778175.74 -36778175.59 0.0133 0.0028

Mercury -105406-01-31 22:04 J -36778087.72 -36778087.58 -36778087.43 0.0133 0.0012

Mercury -105406-04-30 02:09 J -36777999.56 -36777999.41 -36777999.27 0.0133 0.0006

Mercury -105406-07-27 05:59 J -36777911.40 -36777911.25 -36777911.11 0.0133 0.0021

Mercury -105406-10-23 09:50 J -36777823.23 -36777823.09 -36777822.95 0.0133 0.0038

Mercury -105405-01-19 13:26 J -36777735.07 -36777734.94 -36777734.80 0.0132 0.0054

Mercury -105405-04-16 17:16 J -36777646.90 -36777646.78 -36777646.65 0.0132 0.0070

Mercury -105405-07-13 21:07 J -36777558.73 -36777558.62 -36777558.51 0.0132 0.0085

Mercury -105405-10-10 00:43 J -36777470.56 -36777470.47 -36777470.37 0.0132 0.0101

Mercury -105404-01-06 04:33 J -36777382.38 -36777382.31 -36777382.24 0.0132 0.0117

Mercury -105404-04-04 08:09 J -36777294.16 -36777294.16 -36777294.16 0.0132 0.0132

Venus -105401-10-01 07:11 J -36776018.29 -36776018.20 -36776018.08 0.0131 0.0114

Venus -105400-05-15 11:16 J -36775792.22 -36775792.03 -36775791.84 0.0131 0.0067

Venus -105400-12-27 14:38 J -36775566.10 -36775565.89 -36775565.67 0.0131 0.0020

Venus -105399-08-10 18:14 J -36775339.95 -36775339.74 -36775339.53 0.0131 0.0026

Venus -105398-03-24 21:35 J -36775113.78 -36775113.60 -36775113.42 0.0131 0.0072

Venus -105398-11-06 00:43 J -36774887.55 -36774887.47 -36774887.37 0.0131 0.0118

Earth -105376-09-14 05:16 J -36766904.44 -36766904.28 -36766904.08 0.0138 0.0093

Moon -105376-09-14 07:55 J -36766904.33 -36766904.17 -36766903.98 0.0138 0.0097 *

Moon -105375-09-18 09:35 J -36766535.34 -36766535.10 -36766534.86 0.0139 0.0004

Earth -105375-09-18 12:43 J -36766535.22 -36766534.97 -36766534.73 0.0139 0.0010 *

Earth -105374-09-22 20:09 J -36766165.85 -36766165.66 -36766165.44 0.0139 0.0076

Moon -105374-09-22 23:16 J -36766165.74 -36766165.53 -36766165.30 0.0139 0.0067 *

Mars -105364-06-27 04:04 J -36762600.62 -36762600.33 -36762600.01 0.0145 0.0055

Mercury -105364-10-20 15:35 J -36762484.88 -36762484.85 -36762484.83 0.0145 0.0143

Mercury -105363-01-16 21:21 J -36762396.69 -36762396.61 -36762396.51 0.0146 0.0120

Mercury -105363-04-15 03:35 J -36762308.47 -36762308.35 -36762308.22 0.0146 0.0096

Mercury -105363-07-12 09:50 J -36762220.23 -36762220.09 -36762219.95 0.0146 0.0072

Mercury -105363-10-08 16:04 J -36762131.99 -36762131.83 -36762131.67 0.0146 0.0048

Mercury -105362-01-04 22:19 J -36762043.73 -36762043.57 -36762043.40 0.0146 0.0023

Mercury -105362-04-03 04:47 J -36761955.47 -36761955.30 -36761955.14 0.0146 0.0004

Mercury -105362-06-30 11:02 J -36761867.20 -36761867.04 -36761866.87 0.0146 0.0027

Mercury -105362-09-26 17:31 J -36761778.92 -36761778.77 -36761778.61 0.0146 0.0052

Mercury -105362-12-23 23:59 J -36761690.64 -36761690.50 -36761690.35 0.0146 0.0077

Mercury -105361-03-21 06:28 J -36761602.34 -36761602.23 -36761602.10 0.0146 0.0104

Mercury -105361-06-17 13:26 J -36761514.02 -36761513.94 -36761513.86 0.0147 0.0129

Venus -105357-02-11 08:23 J -36760180.32 -36760180.15 -36760179.96 0.0148 0.0081

Venus -105357-09-24 22:47 J -36759953.77 -36759953.55 -36759953.33 0.0148 0.0013

Venus -105356-05-09 12:57 J -36759727.16 -36759726.96 -36759726.75 0.0148 0.0055

Venus -105356-12-22 03:21 J -36759500.47 -36759500.36 -36759500.23 0.0148 0.0123

Earth -105337-03-18 02:09 J -36752839.49 -36752839.41 -36752839.28 0.0141 0.0129

Moon -105337-03-18 03:21 J -36752839.44 -36752839.36 -36752839.24 0.0141 0.0130 *

Moon -105336-03-23 04:33 J -36752469.56 -36752469.31 -36752469.03 0.0140 0.0036

Earth -105336-03-23 05:45 J -36752469.51 -36752469.26 -36752469.00 0.0140 0.0033 *

Moon -105335-03-28 06:43 J -36752099.43 -36752099.22 -36752098.98 0.0140 0.0067

Earth -105335-03-28 07:11 J -36752099.43 -36752099.20 -36752098.96 0.0140 0.0060 *

Mars -105326-12-20 23:02 J -36748544.76 -36748544.54 -36748544.29 0.0134 0.0081

Mercury -105324-06-14 00:57 J -36748003.49 -36748003.46 -36748003.40 0.0133 0.0127

Mercury -105324-09-10 05:16 J -36747915.36 -36747915.28 -36747915.19 0.0133 0.0109

Mars -105324-11-19 18:28 J -36747844.80 -36747844.73 -36747844.63 0.0133 0.0127

Mercury -105324-12-07 09:21 J -36747827.21 -36747827.11 -36747827.00 0.0133 0.0092

Mercury -105323-03-05 13:26 J -36747739.06 -36747738.94 -36747738.81 0.0133 0.0074

Mercury -105323-06-01 17:31 J -36747650.90 -36747650.77 -36747650.63 0.0133 0.0057

Mercury -105323-08-28 21:35 J -36747562.74 -36747562.60 -36747562.46 0.0133 0.0040

Mercury -105323-11-25 01:26 J -36747474.58 -36747474.44 -36747474.29 0.0133 0.0024

Mercury -105322-02-21 05:31 J -36747386.42 -36747386.27 -36747386.12 0.0133 0.0007

Mercury -105322-05-20 09:21 J -36747298.26 -36747298.11 -36747297.96 0.0133 0.0010

Mercury -105322-08-16 13:11 J -36747210.09 -36747209.95 -36747209.80 0.0133 0.0026

Mercury -105322-11-12 17:02 J -36747121.93 -36747121.79 -36747121.65 0.0133 0.0042

Mercury -105321-02-08 20:52 J -36747033.76 -36747033.63 -36747033.50 0.0132 0.0058

Mercury -105321-05-07 00:43 J -36746945.59 -36746945.47 -36746945.35 0.0132 0.0074

Mercury -105321-08-03 04:19 J -36746857.42 -36746857.32 -36746857.21 0.0132 0.0090

Mercury -105321-10-30 07:55 J -36746769.24 -36746769.17 -36746769.07 0.0132 0.0106

Mercury -105320-01-26 11:45 J -36746681.06 -36746681.01 -36746680.95 0.0132 0.0121

Venus -105316-01-12 22:19 J -36745233.71 -36745233.57 -36745233.39 0.0131 0.0088

Venus -105316-08-27 02:09 J -36745007.61 -36745007.41 -36745007.20 0.0131 0.0042

Venus -105315-04-10 05:59 J -36744781.47 -36744781.25 -36744781.03 0.0131 0.0005

Venus -105315-11-22 09:07 J -36744555.31 -36744555.12 -36744554.91 0.0131 0.0052

Venus -105314-07-06 12:14 J -36744329.11 -36744328.99 -36744328.83 0.0131 0.0098

Earth -105292-09-14 16:19 J -36736223.00 -36736222.82 -36736222.62 0.0138 0.0089

Moon -105292-09-14 18:43 J -36736222.90 -36736222.72 -36736222.50 0.0138 0.0084 *

Moon -105291-09-18 21:07 J -36735853.86 -36735853.62 -36735853.38 0.0139 0.0013

Earth -105291-09-18 23:16 J -36735853.77 -36735853.53 -36735853.28 0.0139 0.0006 *

Earth -105290-09-23 06:43 J -36735484.41 -36735484.22 -36735484.00 0.0139 0.0078

Moon -105290-09-23 09:35 J -36735484.30 -36735484.10 -36735483.90 0.0139 0.0085 *

Mars -105281-03-17 04:47 J -36732386.36 -36732386.30 -36732386.20 0.0145 0.0140

Mercury -105280-11-09 22:47 J -36731783.60 -36731783.55 -36731783.49 0.0145 0.0137

Mercury -105279-02-06 04:47 J -36731695.40 -36731695.30 -36731695.19 0.0146 0.0114

Mercury -105279-05-05 11:02 J -36731607.17 -36731607.04 -36731606.91 0.0146 0.0090

Mercury -105279-08-01 17:02 J -36731518.93 -36731518.79 -36731518.64 0.0146 0.0066

Mercury -105279-10-28 23:16 J -36731430.68 -36731430.53 -36731430.36 0.0146 0.0042

Mercury -105278-01-25 05:45 J -36731342.43 -36731342.26 -36731342.10 0.0146 0.0017

Mercury -105278-04-23 11:59 J -36731254.16 -36731254.00 -36731253.83 0.0146 0.0008

Mercury -105278-07-20 18:28 J -36731165.89 -36731165.73 -36731165.57 0.0146 0.0033

Mercury -105278-10-17 00:43 J -36731077.61 -36731077.47 -36731077.30 0.0146 0.0059

Mercury -105277-01-13 07:26 J -36730989.32 -36730989.19 -36730989.05 0.0146 0.0084

Mercury -105277-04-10 13:55 J -36730901.02 -36730900.92 -36730900.80 0.0147 0.0110

Mercury -105277-07-07 20:38 J -36730812.70 -36730812.64 -36730812.57 0.0147 0.0136

Venus -105274-10-11 13:55 J -36729622.05 -36729621.92 -36729621.77 0.0148 0.0114
 Venus -105273-05-25 04:04 J -36729395.54 -36729395.33 -36729395.12 0.0148 0.0046
 Venus -105272-01-06 18:14 J -36729168.95 -36729168.74 -36729168.52 0.0148 0.0022
 Venus -105272-08-21 08:38 J -36728942.31 -36728942.14 -36728941.96 0.0148 0.0090
 Earth -105253-03-18 13:26 J -36722158.04 -36722157.94 -36722157.80 0.0141 0.0124
 Moon -105253-03-18 15:50 J -36722157.95 -36722157.84 -36722157.70 0.0141 0.0122 *
 Moon -105252-03-23 15:50 J -36721788.11 -36721787.84 -36721787.57 0.0140 0.0026
 Earth -105252-03-23 17:02 J -36721788.05 -36721787.79 -36721787.53 0.0140 0.0029 *
 Earth -105251-03-28 18:14 J -36721417.96 -36721417.74 -36721417.50 0.0140 0.0065
 Moon -105251-03-28 18:43 J -36721417.93 -36721417.72 -36721417.47 0.0140 0.0059 *
 Mars -105241-08-14 10:47 J -36717626.34 -36717626.05 -36717625.76 0.0134 0.0002
 Mercury -105240-07-04 08:38 J -36717302.20 -36717302.14 -36717302.07 0.0133 0.0121
 Mercury -105240-09-30 12:43 J -36717214.05 -36717213.97 -36717213.87 0.0133 0.0103
 Mercury -105240-12-27 16:47 J -36717125.90 -36717125.80 -36717125.68 0.0133 0.0086
 Mercury -105239-03-25 20:52 J -36717037.75 -36717037.63 -36717037.49 0.0133 0.0069
 Mercury -105239-06-22 00:57 J -36716949.59 -36716949.46 -36716949.31 0.0133 0.0052
 Mercury -105239-09-18 05:02 J -36716861.43 -36716861.29 -36716861.14 0.0133 0.0035
 Mercury -105239-12-15 09:07 J -36716773.27 -36716773.12 -36716772.97 0.0133 0.0018
 Mercury -105238-03-13 12:57 J -36716685.10 -36716684.96 -36716684.81 0.0133 0.0004
 Mercury -105238-06-09 16:47 J -36716596.94 -36716596.80 -36716596.65 0.0133 0.0016
 Mercury -105238-09-05 20:52 J -36716508.78 -36716508.63 -36716508.49 0.0133 0.0032
 Mercury -105238-12-03 00:43 J -36716420.61 -36716420.47 -36716420.34 0.0133 0.0048
 Mercury -105237-02-29 04:19 J -36716332.44 -36716332.32 -36716332.19 0.0132 0.0064
 Mercury -105237-05-27 08:09 J -36716244.27 -36716244.16 -36716244.04 0.0132 0.0080
 Mercury -105237-08-23 11:45 J -36716156.10 -36716156.01 -36716155.90 0.0132 0.0096
 Mercury -105237-11-19 15:21 J -36716067.92 -36716067.86 -36716067.77 0.0132 0.0112
 Mercury -105236-02-15 19:11 J -36715979.73 -36715979.70 -36715979.65 0.0132 0.0127
 Venus -105233-09-12 10:19 J -36714675.18 -36714675.07 -36714674.94 0.0131 0.0110
 Venus -105232-04-26 14:09 J -36714449.09 -36714448.91 -36714448.71 0.0131 0.0063
 Venus -105232-12-08 17:59 J -36714222.96 -36714222.75 -36714222.53 0.0131 0.0016

Venus -105231-07-22 21:21 J -36713996.81 -36713996.61 -36713996.39 0.0131 0.0031
 Venus -105230-03-06 00:43 J -36713770.63 -36713770.47 -36713770.28 0.0131 0.0078
 Venus -105230-10-18 03:50 J -36713544.39 -36713544.34 -36713544.25 0.0131 0.0124
 Earth -105208-09-15 05:16 J -36705541.46 -36705541.28 -36705541.07 0.0138 0.0084
 Moon -105208-09-15 06:57 J -36705541.39 -36705541.21 -36705541.00 0.0138 0.0088 *
 Moon -105207-09-19 10:33 J -36705172.30 -36705172.06 -36705171.82 0.0139 0.0005
 Earth -105207-09-19 12:28 J -36705172.22 -36705171.98 -36705171.73 0.0139 0.0002 *
 Earth -105206-09-23 20:23 J -36704802.85 -36704802.65 -36704802.46 0.0139 0.0083
 Moon -105206-09-23 22:04 J -36704802.77 -36704802.58 -36704802.35 0.0139 0.0076 *
 Mars -105197-11-11 18:14 J -36701466.06 -36701465.74 -36701465.42 0.0145 0.0025
 Mercury -105196-11-30 06:57 J -36701082.29 -36701082.21 -36701082.14 0.0145 0.0129
 Mercury -105195-02-26 12:43 J -36700994.07 -36700993.97 -36700993.85 0.0146 0.0106
 Mercury -105195-05-25 18:57 J -36700905.84 -36700905.71 -36700905.57 0.0146 0.0082
 Mercury -105195-08-22 01:11 J -36700817.60 -36700817.45 -36700817.30 0.0146 0.0058
 Mercury -105195-11-18 07:26 J -36700729.35 -36700729.19 -36700729.03 0.0146 0.0033
 Mercury -105194-02-14 13:40 J -36700641.09 -36700640.93 -36700640.76 0.0146 0.0010
 Mercury -105194-05-13 20:09 J -36700552.83 -36700552.66 -36700552.49 0.0146 0.0016
 Mercury -105194-08-10 02:23 J -36700464.55 -36700464.40 -36700464.23 0.0146 0.0041
 Mercury -105194-11-06 08:52 J -36700376.27 -36700376.13 -36700375.97 0.0146 0.0067
 Mercury -105193-02-02 15:21 J -36700287.98 -36700287.86 -36700287.72 0.0146 0.0092
 Mercury -105193-04-30 22:04 J -36700199.67 -36700199.58 -36700199.47 0.0147 0.0118
 Mercury -105193-07-28 04:47 J -36700111.32 -36700111.30 -36700111.27 0.0147 0.0144
 Venus -105190-06-10 20:38 J -36699063.66 -36699063.64 -36699063.57 0.0147 0.0145
 Venus -105189-01-23 11:02 J -36698837.23 -36698837.04 -36698836.85 0.0148 0.0077
 Venus -105189-09-06 01:11 J -36698610.67 -36698610.45 -36698610.23 0.0148 0.0009
 Venus -105188-04-20 15:21 J -36698384.05 -36698383.86 -36698383.65 0.0148 0.0060
 Venus -105188-12-03 05:59 J -36698157.35 -36698157.25 -36698157.14 0.0148 0.0128
 Earth -105169-03-19 02:38 J -36691476.53 -36691476.39 -36691476.24 0.0141 0.0117
 Moon -105169-03-19 04:47 J -36691476.42 -36691476.30 -36691476.15 0.0141 0.0119 *
 Moon -105168-03-24 03:35 J -36691106.62 -36691106.35 -36691106.08 0.0140 0.0025

Earth -105168-03-24 05:45 J -36691106.52 -36691106.26 -36691106.00 0.0140 0.0023 *
 Earth -105167-03-29 06:57 J -36690736.43 -36690736.21 -36690735.97 0.0140 0.0070
 Moon -105167-03-29 08:09 J -36690736.36 -36690736.16 -36690735.93 0.0140 0.0076 *
 Mars -105158-05-10 03:50 J -36687407.37 -36687407.34 -36687407.26 0.0134 0.0132
 Mars -105156-04-08 23:45 J -36686707.73 -36686707.51 -36686707.25 0.0133 0.0078
 Mercury -105156-04-27 11:59 J -36686689.01 -36686689.00 -36686688.97 0.0133 0.0132
 Mercury -105156-07-24 16:19 J -36686600.89 -36686600.82 -36686600.74 0.0133 0.0115
 Mercury -105156-10-20 20:23 J -36686512.74 -36686512.65 -36686512.54 0.0133 0.0097
 Mercury -105155-01-17 00:28 J -36686424.59 -36686424.48 -36686424.35 0.0133 0.0080
 Mercury -105155-04-15 04:33 J -36686336.43 -36686336.31 -36686336.17 0.0133 0.0063
 Mercury -105155-07-12 08:38 J -36686248.27 -36686248.14 -36686247.99 0.0133 0.0046
 Mercury -105155-10-08 12:43 J -36686160.11 -36686159.97 -36686159.82 0.0133 0.0029
 Mercury -105154-01-04 16:47 J -36686071.95 -36686071.80 -36686071.65 0.0133 0.0012
 Mercury -105154-04-02 20:38 J -36685983.79 -36685983.64 -36685983.49 0.0133 0.0005
 Mercury -105154-06-30 00:28 J -36685895.62 -36685895.48 -36685895.33 0.0133 0.0021
 Mercury -105154-09-26 04:19 J -36685807.46 -36685807.32 -36685807.17 0.0133 0.0037
 Mercury -105154-12-23 08:09 J -36685719.29 -36685719.16 -36685719.02 0.0132 0.0053
 Mercury -105153-03-20 11:59 J -36685631.12 -36685631.00 -36685630.87 0.0132 0.0069
 Mercury -105153-06-16 15:35 J -36685542.95 -36685542.85 -36685542.73 0.0132 0.0086
 Mercury -105153-09-12 19:11 J -36685454.78 -36685454.70 -36685454.59 0.0132 0.0102
 Mercury -105153-12-09 23:02 J -36685366.60 -36685366.54 -36685366.46 0.0132 0.0117
 Mercury -105152-03-08 02:52 J -36685278.38 -36685278.38 -36685278.37 0.0132 0.0132
 Venus -105149-05-12 22:19 J -36684116.58 -36684116.57 -36684116.52 0.0131 0.0130
 Venus -105149-12-25 02:09 J -36683890.56 -36683890.41 -36683890.23 0.0131 0.0084
 Venus -105148-08-08 05:59 J -36683664.45 -36683664.25 -36683664.03 0.0131 0.0037
 Venus -105147-03-22 10:04 J -36683438.30 -36683438.08 -36683437.87 0.0131 0.0011
 Venus -105147-11-03 13:11 J -36683212.13 -36683211.95 -36683211.74 0.0131 0.0058
 Venus -105146-06-17 16:33 J -36682985.93 -36682985.81 -36682985.67 0.0131 0.0104
 Jupiter -105144-08-03 00:43 J -36682208.95 -36682208.47 -36682207.97 0.0131 0.0020
 Earth -105124-09-15 17:31 J -36674859.96 -36674859.77 -36674859.56 0.0138 0.0080

Moon -105124-09-15 18:57 J -36674859.91 -36674859.71 -36674859.49 0.0138 0.0075 *
 Moon -105123-09-19 23:02 J -36674490.77 -36674490.54 -36674490.30 0.0139 0.0005
 Earth -105123-09-20 00:28 J -36674490.72 -36674490.48 -36674490.23 0.0139 0.0002 *
 Earth -105122-09-24 07:55 J -36674121.35 -36674121.17 -36674120.97 0.0139 0.0087
 Moon -105122-09-24 09:07 J -36674121.29 -36674121.12 -36674120.92 0.0139 0.0093 *
 Mars -105112-07-09 05:31 J -36670545.51 -36670545.27 -36670544.99 0.0145 0.0089
 Mercury -105112-09-23 08:23 J -36670469.15 -36670469.15 -36670469.13 0.0145 0.0145
 Mercury -105112-12-20 14:38 J -36670380.98 -36670380.89 -36670380.80 0.0146 0.0122
 Mercury -105111-03-18 20:23 J -36670292.76 -36670292.65 -36670292.52 0.0146 0.0099
 Mercury -105111-06-15 02:38 J -36670204.52 -36670204.39 -36670204.24 0.0146 0.0075
 Mercury -105111-09-11 08:52 J -36670116.28 -36670116.13 -36670115.97 0.0146 0.0051
 Mercury -105111-12-08 15:07 J -36670028.03 -36670027.87 -36670027.70 0.0146 0.0027
 Mercury -105110-03-06 21:35 J -36669939.77 -36669939.60 -36669939.44 0.0146 0.0003
 Mercury -105110-06-03 03:50 J -36669851.50 -36669851.34 -36669851.17 0.0146 0.0023
 Mercury -105110-08-30 10:19 J -36669763.23 -36669763.07 -36669762.91 0.0146 0.0049
 Mercury -105110-11-26 16:33 J -36669674.94 -36669674.81 -36669674.65 0.0146 0.0075
 Mercury -105109-02-22 23:16 J -36669586.65 -36669586.53 -36669586.40 0.0147 0.0100
 Mercury -105109-05-21 05:45 J -36669498.33 -36669498.26 -36669498.16 0.0147 0.0126
 Venus -105106-09-22 17:31 J -36668278.90 -36668278.77 -36668278.61 0.0148 0.0108
 Venus -105105-05-06 07:40 J -36668052.38 -36668052.18 -36668051.96 0.0148 0.0041
 Venus -105105-12-18 22:04 J -36667825.79 -36667825.58 -36667825.36 0.0148 0.0028
 Venus -105104-08-02 12:28 J -36667599.14 -36667598.98 -36667598.81 0.0148 0.0097
 Jupiter -105103-12-22 20:23 J -36667092.01 -36667091.65 -36667091.24 0.0148 0.0104
 Earth -105085-03-19 17:02 J -36660794.94 -36660794.79 -36660794.61 0.0141 0.0110
 Moon -105085-03-19 20:23 J -36660794.81 -36660794.65 -36660794.48 0.0141 0.0108 *
 Moon -105084-03-24 17:45 J -36660425.03 -36660424.76 -36660424.49 0.0140 0.0014
 Earth -105084-03-24 20:23 J -36660424.91 -36660424.65 -36660424.39 0.0140 0.0016 *
 Earth -105083-03-29 21:21 J -36660054.82 -36660054.61 -36660054.38 0.0140 0.0077
 Moon -105083-03-29 22:47 J -36660054.76 -36660054.55 -36660054.32 0.0140 0.0071 *
 Mars -105073-01-02 19:55 J -36656488.93 -36656488.67 -36656488.39 0.0134 0.0050

Mercury -105072-05-17 20:23 J -36655987.70 -36655987.65 -36655987.60 0.0133 0.0125

Mercury -105072-08-14 00:14 J -36655899.57 -36655899.49 -36655899.39 0.0133 0.0108

Mercury -105072-11-10 04:19 J -36655811.42 -36655811.32 -36655811.20 0.0133 0.0091

Mercury -105071-02-06 08:23 J -36655723.26 -36655723.15 -36655723.01 0.0133 0.0074

Mercury -105071-05-05 12:43 J -36655635.10 -36655634.97 -36655634.83 0.0133 0.0056

Mercury -105071-08-01 16:47 J -36655546.94 -36655546.80 -36655546.66 0.0133 0.0039

Mercury -105071-10-28 20:38 J -36655458.78 -36655458.64 -36655458.49 0.0133 0.0022

Mercury -105070-01-25 00:43 J -36655370.62 -36655370.47 -36655370.32 0.0133 0.0006

Mercury -105070-04-23 04:33 J -36655282.46 -36655282.31 -36655282.16 0.0133 0.0011

Mercury -105070-07-20 08:23 J -36655194.29 -36655194.15 -36655194.00 0.0133 0.0028

Mercury -105070-10-16 12:14 J -36655106.13 -36655105.99 -36655105.85 0.0133 0.0044

Mercury -105069-01-12 16:04 J -36655017.96 -36655017.83 -36655017.70 0.0132 0.0060

Mercury -105069-04-09 19:55 J -36654929.79 -36654929.67 -36654929.55 0.0132 0.0076

Mercury -105069-07-06 23:31 J -36654841.62 -36654841.52 -36654841.41 0.0132 0.0092

Mercury -105069-10-03 03:07 J -36654753.44 -36654753.37 -36654753.27 0.0132 0.0108

Mercury -105069-12-30 06:57 J -36654665.26 -36654665.21 -36654665.15 0.0132 0.0123

Venus -105065-08-24 15:07 J -36653331.99 -36653331.87 -36653331.72 0.0131 0.0103

Venus -105064-04-07 19:11 J -36653105.89 -36653105.70 -36653105.49 0.0131 0.0056

Venus -105064-11-19 23:02 J -36652879.75 -36652879.54 -36652879.32 0.0131 0.0009

Venus -105063-07-04 02:23 J -36652653.60 -36652653.40 -36652653.18 0.0131 0.0038

Venus -105062-02-15 05:59 J -36652427.41 -36652427.25 -36652427.08 0.0131 0.0084

Venus -105062-09-29 09:07 J -36652201.12 -36652201.12 -36652201.10 0.0131 0.0131

Earth -105040-09-16 06:43 J -36644178.41 -36644178.22 -36644178.00 0.0138 0.0075

Moon -105040-09-16 07:26 J -36644178.39 -36644178.19 -36644177.97 0.0138 0.0078 *

Moon -105039-09-20 12:57 J -36643809.19 -36643808.96 -36643808.72 0.0139 0.0013

Earth -105039-09-20 13:40 J -36643809.18 -36643808.93 -36643808.69 0.0139 0.0008 *

Earth -105038-09-24 21:07 J -36643439.79 -36643439.62 -36643439.42 0.0139 0.0092

Moon -105038-09-24 22:19 J -36643439.76 -36643439.57 -36643439.36 0.0139 0.0084 *

Mars -105029-03-29 10:47 J -36640331.26 -36640331.05 -36640330.81 0.0145 0.0104

Mercury -105028-10-13 16:19 J -36639767.86 -36639767.82 -36639767.76 0.0146 0.0138

Mercury	-105027-01-09 22:19 J	-36639679.66	-36639679.57	-36639679.46	0.0146	0.0115
Mercury	-105027-04-08 04:33 J	-36639591.43	-36639591.31	-36639591.18	0.0146	0.0091
Mercury	-105027-07-05 10:33 J	-36639503.20	-36639503.06	-36639502.90	0.0146	0.0067
Mercury	-105027-10-01 16:47 J	-36639414.95	-36639414.80	-36639414.63	0.0146	0.0043
Mercury	-105027-12-28 23:16 J	-36639326.70	-36639326.53	-36639326.37	0.0146	0.0018
Mercury	-105026-03-27 05:31 J	-36639238.43	-36639238.27	-36639238.10	0.0146	0.0007
Mercury	-105026-06-23 11:59 J	-36639150.17	-36639150.00	-36639149.84	0.0146	0.0032
Mercury	-105026-09-19 18:14 J	-36639061.89	-36639061.74	-36639061.58	0.0146	0.0057
Mercury	-105026-12-17 00:43 J	-36638973.60	-36638973.47	-36638973.32	0.0146	0.0083
Mercury	-105025-03-14 07:26 J	-36638885.30	-36638885.19	-36638885.08	0.0147	0.0108
Mercury	-105025-06-10 14:09 J	-36638796.98	-36638796.91	-36638796.84	0.0147	0.0134
Venus	-105022-05-23 00:57 J	-36637720.52	-36637720.46	-36637720.38	0.0148	0.0139
Venus	-105021-01-04 14:52 J	-36637494.06	-36637493.88	-36637493.68	0.0148	0.0071
Venus	-105021-08-18 05:16 J	-36637267.50	-36637267.28	-36637267.06	0.0148	0.0003
Venus	-105020-04-01 19:40 J	-36637040.87	-36637040.68	-36637040.48	0.0148	0.0066
Venus	-105020-11-14 10:04 J	-36636814.15	-36636814.08	-36636813.98	0.0148	0.0135
Earth	-105001-03-20 07:26 J	-36630113.35	-36630113.19	-36630112.99	0.0141	0.0102
Moon	-105001-03-20 10:47 J	-36630113.21	-36630113.05	-36630112.86	0.0141	0.0104 *

105TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 105th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Moon -105000-03-25 07:40 J -36629743.44 -36629743.18 -36629742.91 0.0140 0.0011
 Earth -105000-03-25 10:33 J -36629743.32 -36629743.06 -36629742.79 0.0140 0.0008 *
 Earth -104999-03-30 11:45 J -36629373.22 -36629373.01 -36629372.80 0.0140 0.0084
 Moon -104999-03-30 14:09 J -36629373.10 -36629372.91 -36629372.70 0.0140 0.0090 *
 Mars -104989-08-27 10:33 J -36625570.35 -36625570.06 -36625569.78 0.0134 0.0031
 Mercury -104988-06-07 04:04 J -36625286.39 -36625286.33 -36625286.25 0.0133 0.0118
 Mercury -104988-09-03 08:23 J -36625198.24 -36625198.15 -36625198.05 0.0133 0.0100
 Mercury -104988-11-30 12:28 J -36625110.09 -36625109.98 -36625109.86 0.0133 0.0083
 Mercury -104987-02-26 16:33 J -36625021.93 -36625021.81 -36625021.67 0.0133 0.0066
 Mercury -104987-05-25 20:38 J -36624933.78 -36624933.64 -36624933.50 0.0133 0.0049
 Mercury -104987-08-22 00:43 J -36624845.61 -36624845.47 -36624845.32 0.0133 0.0032
 Mercury -104987-11-18 04:33 J -36624757.45 -36624757.31 -36624757.16 0.0133 0.0016
 Mercury -104986-02-14 08:38 J -36624669.29 -36624669.14 -36624668.99 0.0133 0.0002
 Mercury -104986-05-13 12:28 J -36624581.12 -36624580.98 -36624580.83 0.0133 0.0018
 Mercury -104986-08-09 16:19 J -36624492.96 -36624492.82 -36624492.67 0.0133 0.0034
 Mercury -104986-11-05 20:09 J -36624404.79 -36624404.66 -36624404.52 0.0133 0.0051
 Mercury -104985-02-01 23:59 J -36624316.62 -36624316.50 -36624316.37 0.0132 0.0066
 Mercury -104985-04-30 03:35 J -36624228.45 -36624228.35 -36624228.23 0.0132 0.0083
 Mercury -104985-07-27 07:26 J -36624140.28 -36624140.19 -36624140.09 0.0132 0.0098
 Mercury -104985-10-23 11:16 J -36624052.10 -36624052.03 -36624051.96 0.0132 0.0114
 Mercury -104984-01-19 14:38 J -36623963.90 -36623963.89 -36623963.85 0.0132 0.0130
 Venus -104981-04-24 04:33 J -36622773.38 -36622773.31 -36622773.23 0.0131 0.0123
 Venus -104981-12-06 08:23 J -36622547.32 -36622547.15 -36622546.97 0.0131 0.0075
 Venus -104980-07-20 11:59 J -36622321.21 -36622321.00 -36622320.78 0.0131 0.0029
 Venus -104979-03-03 15:35 J -36622095.06 -36622094.85 -36622094.63 0.0131 0.0019
 Venus -104979-10-15 18:57 J -36621868.88 -36621868.71 -36621868.51 0.0131 0.0066
 Venus -104978-05-29 22:19 J -36621642.66 -36621642.57 -36621642.44 0.0131 0.0112
 Moon -104956-09-16 17:59 J -36613496.95 -36613496.75 -36613496.51 0.0138 0.0068

Earth -104956-09-16 18:28 J -36613496.93 -36613496.73 -36613496.51 0.0138 0.0070 *
 Moon -104955-09-21 00:43 J -36613127.70 -36613127.47 -36613127.23 0.0139 0.0006
 Earth -104955-09-21 01:11 J -36613127.70 -36613127.45 -36613127.21 0.0139 0.0012 *
 Moon -104954-09-25 08:23 J -36612758.31 -36612758.15 -36612757.97 0.0139 0.0102
 Earth -104954-09-25 08:23 J -36612758.31 -36612758.15 -36612757.96 0.0139 0.0095 *
 Mars -104945-11-23 17:16 J -36609411.10 -36609410.78 -36609410.45 0.0145 0.0006
 Mercury -104944-11-02 23:31 J -36609066.57 -36609066.52 -36609066.44 0.0146 0.0133
 Mercury -104943-01-30 05:45 J -36608978.36 -36608978.26 -36608978.15 0.0146 0.0109
 Mercury -104943-04-28 11:31 J -36608890.14 -36608890.02 -36608889.87 0.0146 0.0086
 Mercury -104943-07-25 17:59 J -36608801.90 -36608801.75 -36608801.60 0.0146 0.0061
 Mercury -104943-10-22 00:14 J -36608713.65 -36608713.49 -36608713.33 0.0146 0.0037
 Mercury -104942-01-18 06:28 J -36608625.40 -36608625.23 -36608625.07 0.0146 0.0013
 Mercury -104942-04-16 12:43 J -36608537.13 -36608536.97 -36608536.80 0.0146 0.0012
 Mercury -104942-07-13 18:57 J -36608448.86 -36608448.71 -36608448.54 0.0146 0.0038
 Mercury -104942-10-10 01:26 J -36608360.58 -36608360.44 -36608360.28 0.0146 0.0063
 Mercury -104941-01-06 08:09 J -36608272.30 -36608272.16 -36608272.03 0.0147 0.0088
 Mercury -104941-04-03 14:38 J -36608183.99 -36608183.89 -36608183.78 0.0147 0.0114
 Mercury -104941-06-30 21:07 J -36608095.66 -36608095.62 -36608095.56 0.0147 0.0140
 Venus -104938-09-03 20:09 J -36606935.81 -36606935.66 -36606935.50 0.0148 0.0105
 Venus -104937-04-17 10:19 J -36606709.28 -36606709.07 -36606708.85 0.0148 0.0037
 Venus -104937-11-30 00:43 J -36606482.68 -36606482.47 -36606482.25 0.0148 0.0032
 Venus -104936-07-14 15:21 J -36606256.02 -36606255.86 -36606255.70 0.0148 0.0101
 Earth -104917-03-20 20:23 J -36599431.83 -36599431.65 -36599431.44 0.0141 0.0095
 Moon -104917-03-21 00:14 J -36599431.68 -36599431.49 -36599431.29 0.0141 0.0094 *
 Moon -104916-03-25 20:23 J -36599061.92 -36599061.65 -36599061.38 0.0140 0.0000
 Earth -104916-03-25 23:59 J -36599061.77 -36599061.50 -36599061.24 0.0140 0.0002 *
 Earth -104915-03-31 00:43 J -36598691.65 -36598691.47 -36598691.25 0.0140 0.0091
 Moon -104915-03-31 03:35 J -36598691.55 -36598691.35 -36598691.14 0.0140 0.0084 *
 Mars -104906-05-23 07:40 J -36595351.37 -36595351.18 -36595350.96 0.0134 0.0096
 Mercury -104904-03-31 08:09 J -36594673.20 -36594673.16 -36594673.12 0.0134 0.0128

Mars -104904-04-22 01:11 J -36594651.58 -36594651.45 -36594651.27 0.0134 0.0113
 Mercury -104904-06-27 12:14 J -36594585.07 -36594584.99 -36594584.90 0.0133 0.0110
 Mercury -104904-09-23 16:33 J -36594496.92 -36594496.81 -36594496.70 0.0133 0.0093
 Mercury -104904-12-20 20:38 J -36594408.76 -36594408.64 -36594408.52 0.0133 0.0075
 Mercury -104903-03-19 00:43 J -36594320.61 -36594320.47 -36594320.34 0.0133 0.0058
 Mercury -104903-06-15 04:47 J -36594232.45 -36594232.30 -36594232.16 0.0133 0.0042
 Mercury -104903-09-11 08:38 J -36594144.28 -36594144.14 -36594143.99 0.0133 0.0025
 Mercury -104903-12-08 12:43 J -36594056.12 -36594055.97 -36594055.82 0.0133 0.0008
 Mercury -104902-03-06 16:33 J -36593967.96 -36593967.81 -36593967.66 0.0133 0.0009
 Mercury -104902-06-02 20:23 J -36593879.79 -36593879.65 -36593879.50 0.0133 0.0025
 Mercury -104902-08-30 00:14 J -36593791.63 -36593791.49 -36593791.34 0.0133 0.0041
 Mercury -104902-11-26 04:04 J -36593703.46 -36593703.33 -36593703.19 0.0133 0.0057
 Mercury -104901-02-22 07:55 J -36593615.29 -36593615.17 -36593615.04 0.0132 0.0073
 Mercury -104901-05-20 11:31 J -36593527.12 -36593527.02 -36593526.90 0.0132 0.0090
 Mercury -104901-08-16 15:35 J -36593438.94 -36593438.85 -36593438.77 0.0132 0.0105
 Mercury -104901-11-12 18:57 J -36593350.76 -36593350.71 -36593350.64 0.0132 0.0121
 Venus -104897-08-05 21:35 J -36591988.74 -36591988.60 -36591988.44 0.0131 0.0095
 Venus -104896-03-20 01:40 J -36591762.63 -36591762.43 -36591762.23 0.0131 0.0047
 Venus -104896-11-01 05:16 J -36591536.49 -36591536.28 -36591536.06 0.0131 0.0003
 Venus -104895-06-15 08:38 J -36591310.33 -36591310.14 -36591309.93 0.0131 0.0047
 Venus -104894-01-27 12:14 J -36591084.14 -36591083.99 -36591083.84 0.0131 0.0093
 Moon -104872-09-17 07:11 J -36582815.41 -36582815.20 -36582814.97 0.0138 0.0068
 Earth -104872-09-17 07:40 J -36582815.39 -36582815.18 -36582814.95 0.0138 0.0064 *
 Earth -104871-09-21 14:09 J -36582446.15 -36582445.91 -36582445.66 0.0139 0.0018
 Moon -104871-09-21 15:06 J -36582446.10 -36582445.87 -36582445.64 0.0139 0.0023 *
 Moon -104870-09-25 21:50 J -36582076.77 -36582076.59 -36582076.40 0.0139 0.0094
 Earth -104870-09-25 22:04 J -36582076.75 -36582076.58 -36582076.41 0.0139 0.0101 *
 Mars -104860-07-21 04:18 J -36578490.50 -36578490.32 -36578490.13 0.0145 0.0120
 Mercury -104860-11-23 07:11 J -36578365.27 -36578365.20 -36578365.11 0.0146 0.0126
 Mercury -104859-02-19 13:26 J -36578277.05 -36578276.94 -36578276.82 0.0146 0.0102

Mercury -104859-05-18 19:26 J -36578188.82 -36578188.69 -36578188.55 0.0146 0.0078

Mercury -104859-08-15 01:40 J -36578100.58 -36578100.43 -36578100.28 0.0146 0.0054

Mercury -104859-11-11 07:54 J -36578012.33 -36578012.17 -36578012.01 0.0146 0.0030

Mercury -104858-02-07 14:09 J -36577924.08 -36577923.91 -36577923.74 0.0146 0.0006

Mercury -104858-05-06 20:23 J -36577835.81 -36577835.65 -36577835.48 0.0146 0.0020

Mercury -104858-08-03 02:52 J -36577747.54 -36577747.38 -36577747.22 0.0146 0.0044

Mercury -104858-10-30 09:21 J -36577659.26 -36577659.11 -36577658.96 0.0146 0.0070

Mercury -104857-01-26 15:35 J -36577570.97 -36577570.85 -36577570.71 0.0147 0.0096

Mercury -104857-04-23 22:04 J -36577482.66 -36577482.58 -36577482.47 0.0147 0.0122

Venus -104854-05-04 02:23 J -36576377.47 -36576377.40 -36576377.32 0.0148 0.0137

Venus -104854-12-16 16:18 J -36576151.01 -36576150.82 -36576150.62 0.0148 0.0069

Venus -104853-07-30 06:42 J -36575924.44 -36575924.22 -36575924.01 0.0148 0.0003

Venus -104852-03-13 20:52 J -36575697.82 -36575697.63 -36575697.43 0.0148 0.0069

Venus -104852-10-26 11:30 J -36575471.08 -36575471.02 -36575470.93 0.0148 0.0138

Earth -104833-03-21 08:09 J -36568750.35 -36568750.16 -36568749.94 0.0141 0.0089

Moon -104833-03-21 12:14 J -36568750.19 -36568749.99 -36568749.79 0.0141 0.0092 *

Moon -104832-03-26 07:54 J -36568380.43 -36568380.17 -36568379.90 0.0140 0.0003

Earth -104832-03-26 11:30 J -36568380.28 -36568380.02 -36568379.76 0.0140 0.0005 *

Earth -104831-03-31 12:42 J -36568010.15 -36568009.97 -36568009.77 0.0140 0.0096

Moon -104831-03-31 16:18 J -36568009.99 -36568009.82 -36568009.64 0.0140 0.0102 *

Mars -104821-01-15 20:23 J -36564432.93 -36564432.65 -36564432.35 0.0134 0.0015

Mercury -104820-04-20 16:04 J -36563971.89 -36563971.83 -36563971.77 0.0134 0.0121

Mercury -104820-07-17 20:09 J -36563883.75 -36563883.66 -36563883.56 0.0133 0.0103

Mercury -104820-10-14 00:14 J -36563795.60 -36563795.49 -36563795.37 0.0133 0.0086

Mercury -104819-01-10 04:18 J -36563707.44 -36563707.32 -36563707.19 0.0133 0.0069

Mercury -104819-04-08 08:23 J -36563619.28 -36563619.15 -36563619.01 0.0133 0.0052

Mercury -104819-07-05 12:28 J -36563531.12 -36563530.98 -36563530.83 0.0133 0.0035

Mercury -104819-10-01 16:33 J -36563442.96 -36563442.81 -36563442.66 0.0133 0.0018

Mercury -104819-12-28 20:23 J -36563354.80 -36563354.65 -36563354.50 0.0133 0.0003

Mercury -104818-03-27 00:14 J -36563266.63 -36563266.49 -36563266.34 0.0133 0.0016

Mercury -104818-06-23 04:18 J -36563178.46 -36563178.32 -36563178.18 0.0133 0.0031

Mercury -104818-09-19 08:09 J -36563090.30 -36563090.16 -36563090.02 0.0133 0.0048

Mercury -104818-12-16 11:59 J -36563002.13 -36563002.00 -36563001.87 0.0133 0.0064

Mercury -104817-03-13 15:35 J -36562913.96 -36562913.85 -36562913.73 0.0132 0.0080

Mercury -104817-06-09 19:26 J -36562825.78 -36562825.69 -36562825.58 0.0132 0.0096

Mercury -104817-09-05 23:02 J -36562737.61 -36562737.54 -36562737.45 0.0132 0.0111

Mercury -104817-12-03 02:52 J -36562649.41 -36562649.38 -36562649.34 0.0132 0.0127

Venus -104813-04-05 10:33 J -36561430.15 -36561430.06 -36561429.94 0.0131 0.0115

Venus -104813-11-17 14:52 J -36561204.07 -36561203.88 -36561203.69 0.0131 0.0067

Venus -104812-07-01 18:42 J -36560977.94 -36560977.72 -36560977.51 0.0131 0.0020

Venus -104811-02-12 22:04 J -36560751.79 -36560751.58 -36560751.36 0.0131 0.0028

Venus -104811-09-27 01:26 J -36560525.61 -36560525.44 -36560525.25 0.0131 0.0075

Venus -104810-05-11 04:47 J -36560299.37 -36560299.30 -36560299.21 0.0131 0.0121

Earth -104789-09-13 15:06 J -36552502.87 -36552502.87 -36552502.86 0.0137 0.0137

Moon -104788-09-17 18:42 J -36552133.94 -36552133.72 -36552133.48 0.0138 0.0056

Earth -104788-09-17 20:38 J -36552133.86 -36552133.64 -36552133.42 0.0138 0.0058 *

Earth -104787-09-22 03:06 J -36551764.62 -36551764.37 -36551764.13 0.0138 0.0023

Moon -104787-09-22 03:50 J -36551764.57 -36551764.34 -36551764.10 0.0138 0.0017 *

Moon -104786-09-26 09:06 J -36551395.25 -36551395.12 -36551394.96 0.0139 0.0112

Earth -104786-09-26 10:33 J -36551395.21 -36551395.06 -36551394.89 0.0139 0.0105 *

Mars -104777-04-10 05:02 J -36548276.55 -36548276.29 -36548275.99 0.0145 0.0074

Mercury -104776-09-16 09:06 J -36547752.16 -36547752.12 -36547752.09 0.0145 0.0142

Mercury -104776-12-13 14:52 J -36547663.97 -36547663.88 -36547663.78 0.0146 0.0119

Mercury -104775-03-11 20:52 J -36547575.75 -36547575.63 -36547575.50 0.0146 0.0095

Mercury -104775-06-08 02:52 J -36547487.52 -36547487.38 -36547487.23 0.0146 0.0072

Mercury -104775-09-04 09:06 J -36547399.27 -36547399.12 -36547398.96 0.0146 0.0048

Mercury -104775-12-01 15:21 J -36547311.02 -36547310.86 -36547310.70 0.0146 0.0024

Mercury -104774-02-27 21:35 J -36547222.76 -36547222.60 -36547222.43 0.0146 0.0002

Mercury -104774-05-27 03:50 J -36547134.50 -36547134.34 -36547134.17 0.0146 0.0026

Mercury -104774-08-23 10:18 J -36547046.22 -36547046.07 -36547045.91 0.0146 0.0051

Mercury -104774-11-19 16:47 J -36546957.94 -36546957.80 -36546957.65 0.0146 0.0076

Mercury -104773-02-15 23:02 J -36546869.65 -36546869.54 -36546869.41 0.0146 0.0103

Mercury -104773-05-14 05:45 J -36546781.33 -36546781.26 -36546781.17 0.0147 0.0128

Venus -104770-08-15 21:35 J -36545592.74 -36545592.60 -36545592.43 0.0148 0.0103

Venus -104769-03-29 11:59 J -36545366.21 -36545366.00 -36545365.78 0.0148 0.0034

Venus -104769-11-11 02:23 J -36545139.61 -36545139.40 -36545139.19 0.0148 0.0035

Venus -104768-06-25 16:33 J -36544912.95 -36544912.81 -36544912.64 0.0148 0.0105

Earth -104749-03-21 19:40 J -36538068.88 -36538068.68 -36538068.45 0.0141 0.0084

Moon -104749-03-21 23:16 J -36538068.72 -36538068.53 -36538068.30 0.0141 0.0083 *

Moon -104748-03-26 19:26 J -36537698.96 -36537698.69 -36537698.43 0.0141 0.0012

Earth -104748-03-26 23:16 J -36537698.79 -36537698.53 -36537698.27 0.0141 0.0010 *

Earth -104747-04-01 00:28 J -36537328.64 -36537328.48 -36537328.28 0.0140 0.0102

Moon -104747-04-01 03:50 J -36537328.51 -36537328.34 -36537328.13 0.0140 0.0096 *

Mars -104737-09-09 09:50 J -36533514.34 -36533514.09 -36533513.83 0.0134 0.0065

Mercury -104736-02-11 19:26 J -36533358.70 -36533358.69 -36533358.66 0.0134 0.0132

Mercury -104736-05-10 23:30 J -36533270.58 -36533270.52 -36533270.43 0.0134 0.0115

Mercury -104736-08-07 04:04 J -36533182.43 -36533182.33 -36533182.23 0.0133 0.0097

Mercury -104736-11-03 08:09 J -36533094.28 -36533094.16 -36533094.04 0.0133 0.0079

Mercury -104735-01-30 12:14 J -36533006.12 -36533005.99 -36533005.86 0.0133 0.0062

Mercury -104735-04-28 16:18 J -36532917.96 -36532917.82 -36532917.68 0.0133 0.0045

Mercury -104735-07-25 20:23 J -36532829.80 -36532829.65 -36532829.51 0.0133 0.0028

Mercury -104735-10-22 00:14 J -36532741.63 -36532741.49 -36532741.34 0.0133 0.0012

Mercury -104734-01-18 04:18 J -36532653.47 -36532653.32 -36532653.17 0.0133 0.0005

Mercury -104734-04-16 08:09 J -36532565.30 -36532565.16 -36532565.01 0.0133 0.0022

Mercury -104734-07-13 12:14 J -36532477.14 -36532476.99 -36532476.85 0.0133 0.0038

Mercury -104734-10-09 15:50 J -36532388.97 -36532388.84 -36532388.70 0.0133 0.0054

Mercury -104733-01-05 19:40 J -36532300.80 -36532300.68 -36532300.55 0.0133 0.0070

Mercury -104733-04-02 23:30 J -36532212.63 -36532212.52 -36532212.40 0.0132 0.0086

Mercury -104733-06-30 03:06 J -36532124.45 -36532124.37 -36532124.27 0.0132 0.0102

Mercury -104733-09-26 06:57 J -36532036.27 -36532036.21 -36532036.14 0.0132 0.0118

Venus -104729-07-18 03:35 J -36530645.50 -36530645.35 -36530645.17 0.0131 0.0087
 Venus -104728-03-01 07:54 J -36530419.38 -36530419.17 -36530418.96 0.0131 0.0039
 Venus -104728-10-13 11:45 J -36530193.23 -36530193.01 -36530192.80 0.0131 0.0009
 Venus -104727-05-27 15:06 J -36529967.06 -36529966.87 -36529966.67 0.0131 0.0056
 Venus -104726-01-08 18:14 J -36529740.86 -36529740.74 -36529740.59 0.0131 0.0103
 Earth -104705-09-14 05:45 J -36521821.31 -36521821.26 -36521821.16 0.0137 0.0130
 Moon -104705-09-14 07:54 J -36521821.23 -36521821.17 -36521821.09 0.0137 0.0131 *
 Moon -104704-09-18 10:04 J -36521452.31 -36521452.08 -36521451.84 0.0138 0.0055
 Earth -104704-09-18 11:45 J -36521452.24 -36521452.01 -36521451.79 0.0138 0.0051 *
 Earth -104703-09-22 17:59 J -36521082.98 -36521082.75 -36521082.51 0.0138 0.0029
 Moon -104703-09-22 19:40 J -36521082.90 -36521082.68 -36521082.44 0.0138 0.0036 *
 Moon -104702-09-26 23:59 J -36520713.65 -36520713.50 -36520713.32 0.0139 0.0105
 Earth -104702-09-27 01:26 J -36520713.56 -36520713.44 -36520713.28 0.0139 0.0112 *
 Mars -104693-12-05 22:18 J -36517355.88 -36517355.57 -36517355.26 0.0145 0.0043
 Mercury -104692-10-06 17:16 J -36517050.84 -36517050.78 -36517050.71 0.0145 0.0133
 Mercury -104691-01-02 23:16 J -36516962.63 -36516962.53 -36516962.42 0.0145 0.0109
 Mercury -104691-04-01 05:16 J -36516874.41 -36516874.28 -36516874.14 0.0146 0.0086
 Mercury -104691-06-28 11:30 J -36516786.17 -36516786.02 -36516785.87 0.0146 0.0062
 Mercury -104691-09-24 17:30 J -36516697.92 -36516697.77 -36516697.61 0.0146 0.0038
 Mercury -104691-12-21 23:45 J -36516609.67 -36516609.51 -36516609.34 0.0146 0.0014
 Mercury -104690-03-20 06:14 J -36516521.41 -36516521.24 -36516521.08 0.0146 0.0011
 Mercury -104690-06-16 12:28 J -36516433.14 -36516432.98 -36516432.82 0.0146 0.0036
 Mercury -104690-09-12 18:42 J -36516344.86 -36516344.72 -36516344.56 0.0146 0.0061
 Mercury -104690-12-10 01:11 J -36516256.58 -36516256.45 -36516256.31 0.0146 0.0087
 Mercury -104689-03-07 07:40 J -36516168.28 -36516168.18 -36516168.06 0.0146 0.0112
 Mercury -104689-06-03 14:23 J -36516079.95 -36516079.90 -36516079.84 0.0147 0.0138
 Venus -104686-04-15 05:45 J -36515034.34 -36515034.26 -36515034.15 0.0148 0.0132
 Venus -104686-11-27 19:40 J -36514807.87 -36514807.68 -36514807.47 0.0148 0.0064
 Venus -104685-07-11 10:04 J -36514581.30 -36514581.08 -36514580.86 0.0148 0.0006
 Venus -104684-02-22 23:59 J -36514354.67 -36514354.50 -36514354.30 0.0148 0.0075

Venus -104684-10-07 14:52 J -36514127.92 -36514127.88 -36514127.83 0.0148 0.0144
 Earth -104665-03-22 09:21 J -36507387.33 -36507387.11 -36507386.89 0.0141 0.0077
 Moon -104665-03-22 12:57 J -36507387.18 -36507386.96 -36507386.74 0.0141 0.0080 *
 Moon -104664-03-27 08:52 J -36507017.39 -36507017.13 -36507016.86 0.0141 0.0014
 Earth -104664-03-27 12:28 J -36507017.24 -36507016.98 -36507016.71 0.0141 0.0017 *
 Earth -104663-04-01 13:54 J -36506647.06 -36506646.92 -36506646.73 0.0140 0.0108
 Moon -104663-04-01 17:59 J -36506646.89 -36506646.75 -36506646.59 0.0140 0.0114 *
 Mars -104654-06-05 05:59 J -36503295.49 -36503295.25 -36503294.98 0.0134 0.0062
 Mercury -104652-03-04 03:21 J -36502657.40 -36502657.36 -36502657.30 0.0134 0.0125
 Mercury -104652-05-31 07:26 J -36502569.26 -36502569.19 -36502569.09 0.0134 0.0108
 Mercury -104652-08-27 11:59 J -36502481.11 -36502481.00 -36502480.89 0.0133 0.0090
 Mercury -104652-11-23 16:04 J -36502392.96 -36502392.83 -36502392.70 0.0133 0.0073
 Mercury -104651-02-19 20:09 J -36502304.80 -36502304.66 -36502304.52 0.0133 0.0055
 Mercury -104651-05-19 00:14 J -36502216.63 -36502216.49 -36502216.35 0.0133 0.0038
 Mercury -104651-08-15 04:04 J -36502128.47 -36502128.33 -36502128.17 0.0133 0.0022
 Mercury -104651-11-11 08:09 J -36502040.31 -36502040.16 -36502040.01 0.0133 0.0006
 Mercury -104650-02-07 12:14 J -36501952.14 -36501951.99 -36501951.84 0.0133 0.0012
 Mercury -104650-05-06 16:04 J -36501863.97 -36501863.83 -36501863.68 0.0133 0.0028
 Mercury -104650-08-02 19:54 J -36501775.80 -36501775.67 -36501775.53 0.0133 0.0045
 Mercury -104650-10-29 23:45 J -36501687.63 -36501687.51 -36501687.37 0.0133 0.0061
 Mercury -104649-01-26 03:50 J -36501599.46 -36501599.34 -36501599.22 0.0133 0.0077
 Mercury -104649-04-23 07:26 J -36501511.29 -36501511.19 -36501511.08 0.0132 0.0093
 Mercury -104649-07-20 11:16 J -36501423.11 -36501423.03 -36501422.95 0.0132 0.0108
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 Venus -104645-03-17 17:16 J -36500086.90 -36500086.78 -36500086.65 0.0131 0.0106
 Venus -104645-10-29 21:06 J -36499860.80 -36499860.62 -36499860.41 0.0131 0.0058
 Venus -104644-06-13 01:11 J -36499634.67 -36499634.45 -36499634.23 0.0131 0.0010
 Venus -104643-01-25 04:33 J -36499408.51 -36499408.31 -36499408.09 0.0131 0.0037
 Venus -104643-09-08 07:54 J -36499182.32 -36499182.17 -36499181.99 0.0131 0.0084
 Venus -104642-04-22 11:30 J -36498956.02 -36498956.02 -36498956.00 0.0131 0.0131

Earth -104621-09-14 20:38 J -36491139.74 -36491139.64 -36491139.53 0.0137 0.0123
 Moon -104621-09-14 22:18 J -36491139.65 -36491139.57 -36491139.46 0.0137 0.0125 *
 Moon -104620-09-18 23:30 J -36490770.75 -36490770.52 -36490770.27 0.0138 0.0042
 Earth -104620-09-19 02:09 J -36490770.64 -36490770.41 -36490770.18 0.0138 0.0045 *
 Earth -104619-09-23 08:38 J -36490401.37 -36490401.14 -36490400.90 0.0138 0.0036
 Moon -104619-09-23 10:33 J -36490401.29 -36490401.06 -36490400.82 0.0138 0.0030 *
 Moon -104618-09-27 13:40 J -36490032.01 -36490031.93 -36490031.80 0.0139 0.0125
 Earth -104618-09-27 16:18 J -36490031.95 -36490031.82 -36490031.69 0.0139 0.0118 *
 Mercury -104608-10-27 01:11 J -36486349.52 -36486349.45 -36486349.35 0.0145 0.0125
 Mercury -104607-01-23 07:26 J -36486261.30 -36486261.19 -36486261.07 0.0145 0.0101
 Mercury -104607-04-21 13:26 J -36486173.07 -36486172.94 -36486172.80 0.0146 0.0077
 Mercury -104607-07-18 19:26 J -36486084.83 -36486084.69 -36486084.53 0.0146 0.0054
 Mercury -104607-10-15 01:40 J -36485996.59 -36485996.43 -36485996.26 0.0146 0.0030
 Mercury -104606-01-11 08:09 J -36485908.33 -36485908.16 -36485908.00 0.0146 0.0006
 Mercury -104606-04-09 14:23 J -36485820.07 -36485819.90 -36485819.74 0.0146 0.0020
 Mercury -104606-07-06 20:38 J -36485731.80 -36485731.64 -36485731.48 0.0146 0.0045
 Mercury -104606-10-03 02:52 J -36485643.52 -36485643.38 -36485643.22 0.0146 0.0071
 Mercury -104606-12-30 09:35 J -36485555.23 -36485555.10 -36485554.97 0.0146 0.0095
 Mercury -104605-03-27 15:50 J -36485466.92 -36485466.84 -36485466.73 0.0146 0.0122
 Venus -104602-07-28 02:52 J -36484249.53 -36484249.38 -36484249.19 0.0148 0.0095
 Venus -104601-03-10 17:16 J -36484022.99 -36484022.78 -36484022.56 0.0148 0.0026
 Venus -104601-10-23 07:26 J -36483796.39 -36483796.19 -36483795.97 0.0148 0.0044
 Venus -104600-06-06 21:50 J -36483569.72 -36483569.59 -36483569.44 0.0148 0.0113
 Earth -104581-03-22 23:16 J -36476705.76 -36476705.53 -36476705.30 0.0141 0.0070
 Moon -104581-03-23 02:23 J -36476705.62 -36476705.40 -36476705.15 0.0141 0.0068 *
 Moon -104580-03-27 22:47 J -36476335.80 -36476335.55 -36476335.28 0.0141 0.0026
 Earth -104580-03-28 02:38 J -36476335.64 -36476335.39 -36476335.12 0.0141 0.0024 *
 Earth -104579-04-02 04:47 J -36475965.45 -36475965.30 -36475965.15 0.0140 0.0114
 Moon -104579-04-02 07:54 J -36475965.31 -36475965.17 -36475964.98 0.0140 0.0109 *
 Mars -104569-01-28 22:04 J -36472376.86 -36472376.58 -36472376.29 0.0134 0.0019

Mercury -104568-03-24 11:30 J -36471956.08 -36471956.02 -36471955.94 0.0134 0.0117

Mercury -104568-06-20 15:50 J -36471867.94 -36471867.84 -36471867.74 0.0134 0.0100

Mercury -104568-09-16 19:54 J -36471779.78 -36471779.67 -36471779.55 0.0133 0.0082

Mercury -104568-12-13 23:59 J -36471691.62 -36471691.50 -36471691.36 0.0133 0.0065

Mercury -104567-03-12 04:04 J -36471603.46 -36471603.33 -36471603.18 0.0133 0.0048

Mercury -104567-06-08 08:09 J -36471515.30 -36471515.16 -36471515.01 0.0133 0.0032

Mercury -104567-09-04 12:14 J -36471427.13 -36471426.99 -36471426.84 0.0133 0.0015

Mercury -104567-12-01 16:18 J -36471338.97 -36471338.82 -36471338.67 0.0133 0.0003

Mercury -104566-02-27 20:09 J -36471250.80 -36471250.66 -36471250.51 0.0133 0.0020

Mercury -104566-05-27 00:14 J -36471162.63 -36471162.49 -36471162.35 0.0133 0.0036

Mercury -104566-08-23 04:04 J -36471074.46 -36471074.33 -36471074.19 0.0133 0.0052

Mercury -104566-11-19 07:40 J -36470986.29 -36470986.18 -36470986.04 0.0133 0.0069

Mercury -104565-02-15 11:30 J -36470898.12 -36470898.02 -36470897.89 0.0132 0.0085

Mercury -104565-05-13 15:21 J -36470809.94 -36470809.86 -36470809.75 0.0132 0.0100

Mercury -104565-08-09 19:26 J -36470721.76 -36470721.69 -36470721.62 0.0132 0.0116

Mercury -104565-11-05 22:47 J -36470633.55 -36470633.55 -36470633.52 0.0132 0.0132

Venus -104562-11-16 07:11 J -36469528.27 -36469528.20 -36469528.14 0.0131 0.0125

Venus -104561-06-29 10:47 J -36469302.21 -36469302.05 -36469301.86 0.0131 0.0077

Venus -104560-02-10 14:52 J -36469076.09 -36469075.88 -36469075.66 0.0131 0.0029

Venus -104560-09-24 18:42 J -36468849.94 -36468849.72 -36468849.51 0.0131 0.0018

Venus -104559-05-08 22:18 J -36468623.76 -36468623.57 -36468623.39 0.0131 0.0066

Venus -104559-12-21 01:26 J -36468397.54 -36468397.44 -36468397.33 0.0131 0.0112

Earth -104537-09-15 11:59 J -36460458.11 -36460458.00 -36460457.85 0.0137 0.0116

Moon -104537-09-15 14:52 J -36460457.99 -36460457.88 -36460457.74 0.0137 0.0117 *

Moon -104536-09-19 15:21 J -36460089.09 -36460088.86 -36460088.61 0.0138 0.0041

Earth -104536-09-19 17:45 J -36460088.98 -36460088.76 -36460088.51 0.0138 0.0038 *

Earth -104535-09-24 00:14 J -36459719.72 -36459719.49 -36459719.25 0.0138 0.0043

Moon -104535-09-24 02:38 J -36459719.60 -36459719.39 -36459719.15 0.0138 0.0050 *

Moon -104534-09-28 05:16 J -36459350.40 -36459350.28 -36459350.14 0.0139 0.0118

Earth -104534-09-28 07:54 J -36459350.27 -36459350.17 -36459350.06 0.0139 0.0124 *

Mars -104525-04-23 00:14 J -36456220.80 -36456220.49 -36456220.16 0.0145 0.0028
 Mercury -104524-08-20 04:18 J -36455736.37 -36455736.32 -36455736.27 0.0145 0.0137
 Mercury -104524-11-16 10:18 J -36455648.17 -36455648.07 -36455647.97 0.0145 0.0114
 Mercury -104523-02-12 16:04 J -36455559.95 -36455559.83 -36455559.70 0.0145 0.0091
 Mercury -104523-05-11 22:18 J -36455471.72 -36455471.57 -36455471.42 0.0146 0.0067
 Mercury -104523-08-08 04:18 J -36455383.47 -36455383.32 -36455383.16 0.0146 0.0043
 Mercury -104523-11-04 10:33 J -36455295.22 -36455295.06 -36455294.89 0.0146 0.0019
 Mercury -104522-01-31 16:47 J -36455206.96 -36455206.80 -36455206.63 0.0146 0.0006
 Mercury -104522-04-29 23:02 J -36455118.70 -36455118.54 -36455118.37 0.0146 0.0031
 Mercury -104522-07-27 05:30 J -36455030.42 -36455030.27 -36455030.11 0.0146 0.0056
 Mercury -104522-10-23 11:45 J -36454942.14 -36454942.01 -36454941.86 0.0146 0.0082
 Saturn -104521-01-11 08:38 J -36454862.74 -36454862.14 -36454861.51 0.0146 0.0014
 Mercury -104521-01-19 18:28 J -36454853.84 -36454853.73 -36454853.61 0.0146 0.0107
 Mercury -104521-04-17 00:57 J -36454765.52 -36454765.46 -36454765.38 0.0146 0.0132
 Venus -104518-03-27 11:59 J -36453691.11 -36453691.00 -36453690.87 0.0148 0.0123
 Venus -104518-11-09 01:54 J -36453464.61 -36453464.42 -36453464.21 0.0148 0.0055
 Venus -104517-06-22 16:18 J -36453238.04 -36453237.82 -36453237.61 0.0148 0.0015
 Venus -104516-02-04 06:28 J -36453011.41 -36453011.23 -36453011.05 0.0148 0.0084
 Earth -104497-03-23 15:35 J -36446024.08 -36446023.85 -36446023.60 0.0141 0.0060
 Moon -104497-03-23 18:57 J -36446023.94 -36446023.71 -36446023.46 0.0141 0.0063 *
 Moon -104496-03-28 15:50 J -36445654.09 -36445653.84 -36445653.58 0.0141 0.0030
 Earth -104496-03-28 18:57 J -36445653.96 -36445653.71 -36445653.44 0.0141 0.0033 *
 Earth -104495-04-02 20:38 J -36445283.74 -36445283.64 -36445283.49 0.0140 0.0123
 Moon -104495-04-03 00:57 J -36445283.55 -36445283.46 -36445283.36 0.0140 0.0129 *
 Mars -104487-10-23 21:06 J -36442157.79 -36442157.62 -36442157.44 0.0135 0.0107
 Mars -104485-09-22 14:09 J -36441458.08 -36441457.91 -36441457.70 0.0134 0.0101
 Mercury -104484-01-15 15:35 J -36441342.89 -36441342.85 -36441342.80 0.0134 0.0127
 Mercury -104484-04-13 19:40 J -36441254.75 -36441254.68 -36441254.58 0.0134 0.0110
 Mercury -104484-07-10 23:59 J -36441166.60 -36441166.50 -36441166.38 0.0133 0.0092
 Mercury -104484-10-07 04:04 J -36441078.44 -36441078.33 -36441078.19 0.0133 0.0075

Mercury -104483-01-03 08:23 J -36440990.28 -36440990.15 -36440990.01 0.0133 0.0057

Mercury -104483-04-01 12:28 J -36440902.12 -36440901.98 -36440901.83 0.0133 0.0040

Mercury -104483-06-28 16:33 J -36440813.96 -36440813.81 -36440813.66 0.0133 0.0023

Mercury -104483-09-24 20:38 J -36440725.79 -36440725.64 -36440725.49 0.0133 0.0006

Mercury -104483-12-22 00:28 J -36440637.62 -36440637.48 -36440637.33 0.0133 0.0011

Mercury -104482-03-20 04:33 J -36440549.46 -36440549.31 -36440549.17 0.0133 0.0027

Mercury -104482-06-16 08:23 J -36440461.29 -36440461.15 -36440461.01 0.0133 0.0043

Mercury -104482-09-12 12:14 J -36440373.12 -36440372.99 -36440372.85 0.0133 0.0060

Mercury -104482-12-09 16:04 J -36440284.94 -36440284.83 -36440284.70 0.0133 0.0076

Mercury -104481-03-06 19:54 J -36440196.77 -36440196.67 -36440196.56 0.0132 0.0092

Mercury -104481-06-02 23:45 J -36440108.59 -36440108.51 -36440108.42 0.0132 0.0107

Mercury -104481-08-30 03:21 J -36440020.40 -36440020.36 -36440020.30 0.0132 0.0123

Venus -104477-02-28 00:28 J -36438743.61 -36438743.48 -36438743.31 0.0131 0.0097

Venus -104477-10-11 04:33 J -36438517.50 -36438517.31 -36438517.10 0.0131 0.0049

Venus -104476-05-25 08:38 J -36438291.36 -36438291.14 -36438290.92 0.0131 0.0001

Venus -104475-01-06 11:59 J -36438065.20 -36438065.00 -36438064.79 0.0131 0.0047

Venus -104475-08-20 15:21 J -36437839.00 -36437838.86 -36437838.70 0.0131 0.0094

Earth -104453-09-16 02:52 J -36429776.51 -36429776.38 -36429776.22 0.0137 0.0109

Moon -104453-09-16 05:30 J -36429776.39 -36429776.27 -36429776.11 0.0137 0.0111 *

Moon -104452-09-20 05:16 J -36429407.52 -36429407.28 -36429407.03 0.0138 0.0028

Earth -104452-09-20 08:23 J -36429407.38 -36429407.15 -36429406.91 0.0138 0.0031 *

Earth -104451-09-24 14:38 J -36429038.12 -36429037.89 -36429037.66 0.0138 0.0049

Moon -104451-09-24 17:30 J -36429037.99 -36429037.77 -36429037.54 0.0138 0.0043 *

Moon -104450-09-28 18:57 J -36428668.73 -36428668.71 -36428668.65 0.0139 0.0138

Earth -104450-09-28 21:35 J -36428668.66 -36428668.60 -36428668.49 0.0139 0.0131 *

Mars -104441-12-18 13:26 J -36425300.19 -36425299.94 -36425299.67 0.0145 0.0086

Mercury -104440-09-09 11:59 J -36425035.06 -36425035.00 -36425034.91 0.0145 0.0129

Mercury -104440-12-06 18:14 J -36424946.85 -36424946.74 -36424946.63 0.0145 0.0106

Mercury -104439-03-04 23:59 J -36424858.62 -36424858.50 -36424858.36 0.0145 0.0083

Mercury -104439-06-01 06:14 J -36424770.39 -36424770.24 -36424770.09 0.0146 0.0059

Mercury -104439-08-28 12:28 J -36424682.14 -36424681.98 -36424681.82 0.0146 0.0035

Mercury -104439-11-24 18:42 J -36424593.89 -36424593.72 -36424593.56 0.0146 0.0011

Mercury -104438-02-21 00:57 J -36424505.63 -36424505.46 -36424505.30 0.0146 0.0014

Mercury -104438-05-20 07:11 J -36424417.36 -36424417.20 -36424417.04 0.0146 0.0039

Mercury -104438-08-16 13:26 J -36424329.08 -36424328.94 -36424328.78 0.0146 0.0064

Mercury -104438-11-12 19:54 J -36424240.80 -36424240.67 -36424240.53 0.0146 0.0089

Mercury -104437-02-09 02:09 J -36424152.50 -36424152.41 -36424152.29 0.0146 0.0116

Mercury -104437-05-07 08:52 J -36424064.16 -36424064.13 -36424064.08 0.0147 0.0141

Venus -104434-07-09 08:23 J -36422906.31 -36422906.15 -36422905.96 0.0148 0.0087

Venus -104433-02-20 22:33 J -36422679.77 -36422679.56 -36422679.33 0.0148 0.0018

Venus -104433-10-04 12:57 J -36422453.16 -36422452.96 -36422452.75 0.0148 0.0052

Venus -104432-05-19 03:06 J -36422226.48 -36422226.37 -36422226.23 0.0148 0.0122

Earth -104413-03-24 05:59 J -36415342.49 -36415342.25 -36415342.00 0.0141 0.0052

Moon -104413-03-24 08:52 J -36415342.38 -36415342.13 -36415341.88 0.0141 0.0050 *

Moon -104412-03-29 06:28 J -36414972.48 -36414972.23 -36414971.98 0.0141 0.0043

Earth -104412-03-29 09:35 J -36414972.34 -36414972.10 -36414971.83 0.0141 0.0041 *

Earth -104411-04-03 11:59 J -36414602.09 -36414602.00 -36414601.90 0.0140 0.0130

Moon -104411-04-03 15:35 J -36414601.97 -36414601.85 -36414601.73 0.0140 0.0124 *

Mars -104402-06-18 13:40 J -36411239.21 -36411238.93 -36411238.64 0.0135 0.0024

Mercury -104400-02-04 23:45 J -36410641.57 -36410641.51 -36410641.43 0.0134 0.0119

Mercury -104400-05-04 04:04 J -36410553.42 -36410553.33 -36410553.22 0.0134 0.0101

Mercury -104400-07-31 08:09 J -36410465.27 -36410465.16 -36410465.03 0.0133 0.0084

Mercury -104400-10-27 12:28 J -36410377.11 -36410376.98 -36410376.84 0.0133 0.0066

Mercury -104399-01-23 16:33 J -36410288.94 -36410288.81 -36410288.66 0.0133 0.0049

Mercury -104399-04-21 20:38 J -36410200.78 -36410200.64 -36410200.49 0.0133 0.0032

Mercury -104399-07-19 00:42 J -36410112.61 -36410112.47 -36410112.32 0.0133 0.0015

Mercury -104399-10-15 04:47 J -36410024.45 -36410024.30 -36410024.15 0.0133 0.0003

Mercury -104398-01-11 08:52 J -36409936.28 -36409936.13 -36409935.98 0.0133 0.0019

Mercury -104398-04-09 12:42 J -36409848.11 -36409847.97 -36409847.82 0.0133 0.0035

Mercury -104398-07-06 16:33 J -36409759.94 -36409759.81 -36409759.67 0.0133 0.0052

Mercury -104398-10-02 20:23 J -36409671.77 -36409671.65 -36409671.52 0.0133 0.0068
 Mercury -104398-12-30 00:14 J -36409583.60 -36409583.49 -36409583.37 0.0133 0.0084
 Mercury -104397-03-27 04:04 J -36409495.42 -36409495.33 -36409495.23 0.0132 0.0100
 Mercury -104397-06-23 07:54 J -36409407.23 -36409407.17 -36409407.09 0.0132 0.0115
 Mercury -104397-09-19 11:45 J -36409319.03 -36409319.01 -36409318.99 0.0132 0.0131
 Venus -104394-10-28 14:38 J -36408184.98 -36408184.89 -36408184.77 0.0131 0.0115
 Venus -104393-06-10 18:42 J -36407958.90 -36407958.72 -36407958.53 0.0131 0.0067
 Venus -104392-01-22 22:33 J -36407732.77 -36407732.56 -36407732.35 0.0131 0.0019
 Venus -104392-09-06 01:54 J -36407506.62 -36407506.42 -36407506.20 0.0131 0.0029
 Venus -104391-04-20 05:30 J -36407280.43 -36407280.27 -36407280.08 0.0131 0.0076
 Venus -104391-12-02 08:38 J -36407054.19 -36407054.14 -36407054.05 0.0131 0.0123
 Earth -104369-09-16 17:16 J -36399094.92 -36399094.78 -36399094.60 0.0137 0.0102
 Moon -104369-09-16 20:52 J -36399094.78 -36399094.63 -36399094.46 0.0137 0.0102 *
 Moon -104368-09-20 19:40 J -36398725.92 -36398725.68 -36398725.43 0.0138 0.0027
 Earth -104368-09-20 22:47 J -36398725.78 -36398725.55 -36398725.30 0.0138 0.0024 *
 Earth -104367-09-25 04:33 J -36398356.52 -36398356.31 -36398356.07 0.0138 0.0056
 Moon -104367-09-25 07:54 J -36398356.38 -36398356.17 -36398355.95 0.0138 0.0062 *
 Moon -104366-09-29 08:23 J -36397987.22 -36397987.15 -36397987.03 0.0139 0.0129
 Earth -104366-09-29 11:59 J -36397987.03 -36397987.00 -36397986.94 0.0139 0.0136 *
 Mars -104358-09-08 19:11 J -36395085.93 -36395085.70 -36395085.47 0.0144 0.0103
 Mercury -104356-07-03 14:23 J -36394421.91 -36394421.90 -36394421.87 0.0145 0.0144
 Mercury -104356-09-29 20:23 J -36394333.74 -36394333.65 -36394333.56 0.0145 0.0121
 Mercury -104356-12-27 02:09 J -36394245.52 -36394245.41 -36394245.28 0.0145 0.0098
 Mercury -104355-03-25 08:23 J -36394157.29 -36394157.15 -36394157.01 0.0146 0.0074
 Mercury -104355-06-21 14:23 J -36394069.05 -36394068.90 -36394068.74 0.0146 0.0050
 Mercury -104355-09-17 20:23 J -36393980.81 -36393980.65 -36393980.48 0.0146 0.0027
 Mercury -104355-12-15 02:38 J -36393892.55 -36393892.39 -36393892.22 0.0146 0.0004
 Mercury -104354-03-13 08:52 J -36393804.29 -36393804.13 -36393803.96 0.0146 0.0023
 Mercury -104354-06-09 15:21 J -36393716.02 -36393715.86 -36393715.70 0.0146 0.0048
 Mercury -104354-09-05 21:21 J -36393627.74 -36393627.61 -36393627.45 0.0146 0.0074

Mercury -104354-12-03 03:50 J -36393539.45 -36393539.34 -36393539.20 0.0146 0.0099

Mercury -104353-02-29 10:33 J -36393451.14 -36393451.06 -36393450.97 0.0146 0.0124

Venus -104350-03-08 15:35 J -36392347.96 -36392347.85 -36392347.70 0.0148 0.0118

Venus -104350-10-21 05:45 J -36392121.46 -36392121.26 -36392121.05 0.0148 0.0049

Venus -104349-06-03 19:54 J -36391894.89 -36391894.67 -36391894.45 0.0148 0.0020

Venus -104348-01-16 09:50 J -36391668.25 -36391668.09 -36391667.91 0.0148 0.0090

Moon -104330-03-20 13:26 J -36385031.02 -36385030.94 -36385030.84 0.0142 0.0132

Earth -104330-03-20 14:38 J -36385030.94 -36385030.89 -36385030.82 0.0142 0.0138 *

Earth -104329-03-24 19:54 J -36384660.91 -36384660.67 -36384660.41 0.0141 0.0044

Moon -104329-03-24 22:33 J -36384660.81 -36384660.56 -36384660.29 0.0141 0.0046 *

Moon -104328-03-29 21:06 J -36384290.85 -36384290.62 -36384290.37 0.0141 0.0047

Earth -104328-03-29 23:59 J -36384290.75 -36384290.50 -36384290.25 0.0141 0.0048 *

Earth -104327-04-04 02:09 J -36383920.45 -36383920.41 -36383920.36 0.0140 0.0137

Mars -104317-02-11 05:16 J -36380320.53 -36380320.28 -36380320.00 0.0134 0.0058

Mercury -104317-11-29 03:35 J -36380028.38 -36380028.35 -36380028.30 0.0134 0.0129

Mercury -104316-02-25 07:54 J -36379940.24 -36379940.17 -36379940.07 0.0134 0.0111

Mercury -104316-05-24 12:28 J -36379852.09 -36379851.98 -36379851.87 0.0134 0.0093

Mercury -104316-08-20 16:33 J -36379763.93 -36379763.81 -36379763.68 0.0133 0.0076

Mercury -104316-11-16 20:38 J -36379675.77 -36379675.64 -36379675.50 0.0133 0.0058

Mercury -104315-02-13 00:42 J -36379587.61 -36379587.47 -36379587.32 0.0133 0.0041

Mercury -104315-05-12 05:02 J -36379499.44 -36379499.29 -36379499.15 0.0133 0.0024

Mercury -104315-08-08 08:52 J -36379411.27 -36379411.13 -36379410.97 0.0133 0.0008

Mercury -104315-11-04 12:57 J -36379323.11 -36379322.96 -36379322.81 0.0133 0.0010

Mercury -104314-01-31 17:02 J -36379234.94 -36379234.79 -36379234.65 0.0133 0.0026

Mercury -104314-04-29 20:52 J -36379146.77 -36379146.63 -36379146.49 0.0133 0.0043

Mercury -104314-07-27 00:42 J -36379058.60 -36379058.47 -36379058.33 0.0133 0.0059

Mercury -104314-10-23 04:47 J -36378970.42 -36378970.30 -36378970.18 0.0133 0.0075

Mercury -104313-01-19 08:38 J -36378882.25 -36378882.14 -36378882.04 0.0133 0.0091

Mercury -104313-04-16 12:14 J -36378794.07 -36378793.99 -36378793.90 0.0132 0.0107

Mercury -104313-07-13 16:04 J -36378705.88 -36378705.83 -36378705.77 0.0132 0.0122

Venus -104309-02-09 08:23 J -36377400.31 -36377400.15 -36377399.98 0.0131 0.0086
 Venus -104309-09-22 12:14 J -36377174.20 -36377173.99 -36377173.78 0.0131 0.0038
 Venus -104308-05-06 16:04 J -36376948.05 -36376947.83 -36376947.61 0.0131 0.0010
 Venus -104308-12-18 19:40 J -36376721.88 -36376721.68 -36376721.49 0.0131 0.0058
 Venus -104307-08-01 22:33 J -36376495.67 -36376495.56 -36376495.41 0.0131 0.0105
 Earth -104285-09-17 07:26 J -36368413.34 -36368413.19 -36368412.99 0.0137 0.0096
 Moon -104285-09-17 11:02 J -36368413.20 -36368413.04 -36368412.86 0.0137 0.0095 *
 Moon -104284-09-21 09:21 J -36368044.35 -36368044.11 -36368043.86 0.0138 0.0014
 Earth -104284-09-21 12:57 J -36368044.20 -36368043.96 -36368043.72 0.0138 0.0017 *
 Earth -104283-09-25 18:42 J -36367674.93 -36367674.72 -36367674.49 0.0138 0.0062
 Moon -104283-09-25 22:04 J -36367674.79 -36367674.58 -36367674.35 0.0138 0.0056 *
 Mars -104273-05-05 06:57 J -36364165.54 -36364165.21 -36364164.88 0.0144 0.0011
 Mercury -104272-07-23 22:04 J -36363720.63 -36363720.58 -36363720.52 0.0145 0.0136
 Mercury -104272-10-20 04:04 J -36363632.43 -36363632.33 -36363632.23 0.0145 0.0113
 Mercury -104271-01-16 09:50 J -36363544.21 -36363544.09 -36363543.96 0.0145 0.0091
 Mercury -104271-04-14 16:04 J -36363455.98 -36363455.83 -36363455.69 0.0145 0.0067
 Mercury -104271-07-11 21:50 J -36363367.74 -36363367.59 -36363367.42 0.0146 0.0044
 Mercury -104271-10-08 04:04 J -36363279.49 -36363279.33 -36363279.16 0.0146 0.0020
 Mercury -104270-01-04 10:18 J -36363191.23 -36363191.07 -36363190.90 0.0146 0.0006
 Mercury -104270-04-02 16:33 J -36363102.97 -36363102.81 -36363102.64 0.0146 0.0030
 Mercury -104270-06-29 22:47 J -36363014.70 -36363014.55 -36363014.39 0.0146 0.0055
 Mercury -104270-09-26 05:16 J -36362926.42 -36362926.28 -36362926.14 0.0146 0.0080
 Mercury -104270-12-23 11:30 J -36362838.13 -36362838.02 -36362837.89 0.0146 0.0105
 Mercury -104269-03-20 17:59 J -36362749.81 -36362749.75 -36362749.67 0.0146 0.0131
 Venus -104266-06-20 11:02 J -36361563.21 -36361563.04 -36361562.85 0.0148 0.0082
 Venus -104265-02-02 00:57 J -36361336.67 -36361336.46 -36361336.24 0.0148 0.0014
 Venus -104265-09-15 15:06 J -36361110.07 -36361109.87 -36361109.66 0.0148 0.0056
 Venus -104264-04-30 05:16 J -36360883.38 -36360883.28 -36360883.16 0.0148 0.0126
 Moon -104246-03-21 00:14 J -36354349.52 -36354349.49 -36354349.43 0.0142 0.0139
 Earth -104246-03-21 01:26 J -36354349.52 -36354349.44 -36354349.34 0.0142 0.0132 *

Earth -104245-03-25 06:57 J -36353979.46 -36353979.21 -36353978.95 0.0141 0.0039
 Moon -104245-03-25 08:23 J -36353979.41 -36353979.15 -36353978.88 0.0141 0.0036 *
 Moon -104244-03-30 08:09 J -36353609.38 -36353609.16 -36353608.91 0.0141 0.0056
 Earth -104244-03-30 11:02 J -36353609.28 -36353609.04 -36353608.79 0.0141 0.0053 *
 Moon -104243-04-04 16:18 J -36353238.87 -36353238.82 -36353238.76 0.0140 0.0137
 Mars -104235-11-05 23:45 J -36350101.74 -36350101.51 -36350101.25 0.0135 0.0070
 Mercury -104233-12-19 11:30 J -36349327.07 -36349327.02 -36349326.95 0.0134 0.0122
 Mercury -104232-03-17 15:50 J -36349238.93 -36349238.84 -36349238.74 0.0134 0.0104
 Mercury -104232-06-13 19:54 J -36349150.77 -36349150.67 -36349150.54 0.0134 0.0087
 Mercury -104232-09-10 00:28 J -36349062.61 -36349062.48 -36349062.35 0.0134 0.0069
 Mercury -104232-12-07 04:33 J -36348974.45 -36348974.31 -36348974.17 0.0133 0.0051
 Mercury -104231-03-05 08:38 J -36348886.28 -36348886.14 -36348885.99 0.0133 0.0034
 Mercury -104231-06-01 12:42 J -36348798.11 -36348797.97 -36348797.82 0.0133 0.0018
 Mercury -104231-08-28 16:47 J -36348709.95 -36348709.80 -36348709.65 0.0133 0.0003
 Mercury -104231-11-24 20:52 J -36348621.78 -36348621.63 -36348621.48 0.0133 0.0016
 Mercury -104230-02-21 00:42 J -36348533.61 -36348533.47 -36348533.32 0.0133 0.0033
 Mercury -104230-05-20 04:33 J -36348445.44 -36348445.31 -36348445.16 0.0133 0.0050
 Mercury -104230-08-16 08:38 J -36348357.27 -36348357.14 -36348357.01 0.0133 0.0066
 Mercury -104230-11-12 12:28 J -36348269.09 -36348268.98 -36348268.86 0.0133 0.0082
 Mercury -104229-02-08 16:18 J -36348180.91 -36348180.82 -36348180.72 0.0133 0.0098
 Mercury -104229-05-06 19:54 J -36348092.73 -36348092.67 -36348092.58 0.0133 0.0114
 Mercury -104229-08-02 23:45 J -36348004.53 -36348004.51 -36348004.47 0.0132 0.0129
 Venus -104226-10-09 21:06 J -36346841.74 -36346841.62 -36346841.48 0.0132 0.0106
 Venus -104225-05-23 01:11 J -36346615.64 -36346615.45 -36346615.25 0.0131 0.0057
 Venus -104224-01-04 05:02 J -36346389.50 -36346389.29 -36346389.07 0.0131 0.0010
 Venus -104224-08-18 08:52 J -36346163.34 -36346163.13 -36346162.93 0.0131 0.0039
 Venus -104223-04-01 12:14 J -36345937.14 -36345936.99 -36345936.82 0.0131 0.0086
 Earth -104201-09-17 22:18 J -36337731.74 -36337731.57 -36337731.36 0.0137 0.0088
 Moon -104201-09-18 02:23 J -36337731.59 -36337731.40 -36337731.21 0.0137 0.0086 *
 Moon -104200-09-22 00:14 J -36337362.73 -36337362.49 -36337362.25 0.0138 0.0013

Earth -104200-09-22 03:35 J -36337362.59 -36337362.35 -36337362.10 0.0138 0.0011 *
 Earth -104199-09-26 09:21 J -36336993.31 -36336993.11 -36336992.89 0.0138 0.0068
 Moon -104199-09-26 12:42 J -36336993.17 -36336992.97 -36336992.76 0.0138 0.0074 *
 Mars -104189-12-30 23:02 J -36333244.67 -36333244.54 -36333244.35 0.0145 0.0127
 Mercury -104188-08-13 06:28 J -36333019.31 -36333019.23 -36333019.16 0.0145 0.0127
 Mercury -104188-11-09 12:14 J -36332931.10 -36332930.99 -36332930.87 0.0145 0.0105
 Mercury -104187-02-05 18:14 J -36332842.87 -36332842.74 -36332842.60 0.0145 0.0081
 Mercury -104187-05-05 00:14 J -36332754.64 -36332754.49 -36332754.34 0.0145 0.0058
 Mercury -104187-08-01 06:14 J -36332666.40 -36332666.24 -36332666.08 0.0146 0.0034
 Mercury -104187-10-28 12:28 J -36332578.15 -36332577.98 -36332577.82 0.0146 0.0010
 Mercury -104186-01-24 18:28 J -36332489.89 -36332489.73 -36332489.56 0.0146 0.0015
 Mercury -104186-04-23 00:42 J -36332401.62 -36332401.47 -36332401.30 0.0146 0.0039
 Mercury -104186-07-20 06:57 J -36332313.35 -36332313.21 -36332313.05 0.0146 0.0064
 Mercury -104186-10-16 13:11 J -36332225.07 -36332224.95 -36332224.80 0.0146 0.0090
 Mercury -104185-01-12 19:40 J -36332136.77 -36332136.68 -36332136.56 0.0146 0.0115
 Mercury -104185-04-10 02:23 J -36332048.44 -36332048.40 -36332048.35 0.0146 0.0140
 Venus -104182-02-17 18:14 J -36331004.86 -36331004.74 -36331004.59 0.0147 0.0113
 Venus -104182-10-02 08:09 J -36330778.36 -36330778.16 -36330777.94 0.0148 0.0045
 Venus -104181-05-15 22:18 J -36330551.79 -36330551.57 -36330551.35 0.0148 0.0025
 Venus -104181-12-28 12:14 J -36330325.15 -36330324.99 -36330324.81 0.0148 0.0095
 Moon -104162-03-21 13:40 J -36323668.04 -36323667.93 -36323667.77 0.0142 0.0120
 Earth -104162-03-21 13:40 J -36323668.03 -36323667.93 -36323667.79 0.0142 0.0126 *
 Earth -104161-03-25 19:26 J -36323297.94 -36323297.69 -36323297.43 0.0141 0.0033
 Moon -104161-03-25 20:52 J -36323297.89 -36323297.63 -36323297.36 0.0141 0.0035 *
 Moon -104160-03-30 21:50 J -36322927.81 -36322927.59 -36322927.35 0.0141 0.0058
 Earth -104160-03-30 23:16 J -36322927.75 -36322927.53 -36322927.28 0.0141 0.0059 *
 Mars -104150-07-01 13:54 J -36319183.21 -36319182.92 -36319182.63 0.0135 0.0011
 Mercury -104149-10-12 15:06 J -36318713.88 -36318713.87 -36318713.84 0.0134 0.0133
 Mercury -104148-01-08 19:26 J -36318625.76 -36318625.69 -36318625.60 0.0134 0.0115
 Mercury -104148-04-06 23:45 J -36318537.61 -36318537.51 -36318537.40 0.0134 0.0097

Mercury -104148-07-04 03:50 J -36318449.45 -36318449.34 -36318449.21 0.0134 0.0080
 Mercury -104148-09-30 08:23 J -36318361.29 -36318361.15 -36318361.02 0.0134 0.0062
 Mercury -104148-12-27 12:28 J -36318273.12 -36318272.98 -36318272.84 0.0133 0.0045
 Mercury -104147-03-25 16:33 J -36318184.96 -36318184.81 -36318184.66 0.0133 0.0028
 Mercury -104147-06-21 20:38 J -36318096.79 -36318096.64 -36318096.49 0.0133 0.0011
 Mercury -104147-09-18 00:42 J -36318008.62 -36318008.47 -36318008.32 0.0133 0.0006
 Mercury -104147-12-15 04:47 J -36317920.45 -36317920.30 -36317920.15 0.0133 0.0023
 Mercury -104146-03-13 08:38 J -36317832.28 -36317832.14 -36317831.99 0.0133 0.0040
 Mercury -104146-06-09 12:28 J -36317744.11 -36317743.98 -36317743.84 0.0133 0.0056
 Mercury -104146-09-05 16:33 J -36317655.93 -36317655.81 -36317655.69 0.0133 0.0072
 Mercury -104146-12-02 20:23 J -36317567.76 -36317567.65 -36317567.54 0.0133 0.0088
 Mercury -104145-02-29 00:14 J -36317479.58 -36317479.49 -36317479.40 0.0133 0.0104
 Mercury -104145-05-27 03:50 J -36317391.39 -36317391.34 -36317391.27 0.0133 0.0120
 Venus -104142-06-09 10:04 J -36316283.13 -36316283.08 -36316283.01 0.0132 0.0126
 Venus -104141-01-21 14:09 J -36316057.08 -36316056.91 -36316056.73 0.0132 0.0077
 Venus -104141-09-03 18:14 J -36315830.95 -36315830.74 -36315830.53 0.0131 0.0029
 Venus -104140-04-17 22:04 J -36315604.79 -36315604.58 -36315604.36 0.0131 0.0019
 Venus -104140-11-30 01:40 J -36315378.61 -36315378.43 -36315378.24 0.0131 0.0067
 Venus -104139-07-14 05:16 J -36315152.38 -36315152.28 -36315152.17 0.0131 0.0114
 Jupiter -104136-12-06 07:54 J -36313911.54 -36313911.17 -36313910.72 0.0131 0.0072
 Earth -104117-09-18 13:11 J -36307050.13 -36307049.95 -36307049.73 0.0137 0.0081
 Moon -104117-09-18 16:33 J -36307049.99 -36307049.81 -36307049.59 0.0137 0.0081 *
 Moon -104116-09-22 15:06 J -36306681.12 -36306680.87 -36306680.63 0.0138 0.0002
 Earth -104116-09-22 18:28 J -36306680.97 -36306680.73 -36306680.48 0.0138 0.0004 *
 Earth -104115-09-26 23:59 J -36306311.69 -36306311.50 -36306311.28 0.0138 0.0075
 Moon -104115-09-27 03:35 J -36306311.55 -36306311.35 -36306311.12 0.0138 0.0069 *
 Mars -104106-09-21 05:30 J -36303030.56 -36303030.27 -36303029.96 0.0144 0.0060
 Mercury -104104-06-06 08:23 J -36302406.16 -36302406.15 -36302406.10 0.0145 0.0142
 Mercury -104104-09-02 14:23 J -36302317.98 -36302317.90 -36302317.80 0.0145 0.0119
 Mercury -104104-11-29 20:09 J -36302229.77 -36302229.66 -36302229.53 0.0145 0.0097

Mercury -104103-02-26 02:23 J -36302141.54 -36302141.40 -36302141.26 0.0145 0.0073

Mercury -104103-05-25 08:23 J -36302053.30 -36302053.15 -36302053.00 0.0145 0.0049

Mercury -104103-08-21 14:23 J -36301965.06 -36301964.90 -36301964.74 0.0146 0.0026

Mercury -104103-11-17 20:38 J -36301876.81 -36301876.64 -36301876.48 0.0146 0.0003

Mercury -104102-02-14 02:38 J -36301788.55 -36301788.39 -36301788.22 0.0146 0.0023

Mercury -104102-05-13 08:52 J -36301700.28 -36301700.13 -36301699.97 0.0146 0.0048

Mercury -104102-08-09 15:21 J -36301612.01 -36301611.86 -36301611.72 0.0146 0.0072

Mercury -104102-11-05 21:35 J -36301523.72 -36301523.60 -36301523.47 0.0146 0.0097

Mercury -104101-02-02 03:50 J -36301435.42 -36301435.34 -36301435.24 0.0146 0.0123

Venus -104099-10-18 01:54 J -36300446.46 -36300446.42 -36300446.37 0.0147 0.0144

Venus -104098-06-01 15:21 J -36300220.04 -36300219.86 -36300219.67 0.0147 0.0075

Venus -104097-01-14 05:16 J -36299993.50 -36299993.28 -36299993.07 0.0148 0.0007

Venus -104097-08-27 18:57 J -36299766.90 -36299766.71 -36299766.50 0.0148 0.0064

Venus -104096-04-11 09:21 J -36299540.20 -36299540.11 -36299540.01 0.0148 0.0133

Jupiter -104094-04-14 21:21 J -36298807.07 -36298806.61 -36298806.13 0.0148 0.0075

Earth -104078-03-22 00:42 J -36292986.58 -36292986.47 -36292986.30 0.0142 0.0122

Moon -104078-03-22 01:11 J -36292986.54 -36292986.45 -36292986.32 0.0142 0.0128 *

Moon -104077-03-26 06:57 J -36292616.48 -36292616.21 -36292615.94 0.0142 0.0024

Earth -104077-03-26 06:42 J -36292616.47 -36292616.22 -36292615.95 0.0142 0.0028 *

Moon -104076-03-31 09:06 J -36292246.32 -36292246.12 -36292245.87 0.0141 0.0066

Earth -104076-03-31 10:33 J -36292246.28 -36292246.06 -36292245.81 0.0141 0.0064 *

Mars -104067-03-26 07:54 J -36288964.29 -36288964.17 -36288964.02 0.0135 0.0119

Mars -104065-02-24 03:35 J -36288264.55 -36288264.35 -36288264.13 0.0134 0.0091

Mercury -104065-11-01 22:47 J -36288012.59 -36288012.55 -36288012.49 0.0134 0.0127

Mercury -104064-01-29 03:21 J -36287924.45 -36287924.36 -36287924.27 0.0134 0.0108

Mercury -104064-04-27 07:26 J -36287836.29 -36287836.19 -36287836.07 0.0134 0.0091

Mercury -104064-07-24 11:45 J -36287748.13 -36287748.01 -36287747.88 0.0134 0.0073

Mercury -104064-10-20 16:04 J -36287659.97 -36287659.83 -36287659.69 0.0134 0.0056

Mercury -104063-01-16 20:09 J -36287571.80 -36287571.66 -36287571.51 0.0134 0.0038

Mercury -104063-04-15 00:14 J -36287483.63 -36287483.49 -36287483.34 0.0133 0.0022

Mercury -104063-07-12 04:18 J -36287395.47 -36287395.32 -36287395.17 0.0133 0.0006
 Mercury -104063-10-08 08:23 J -36287307.30 -36287307.15 -36287307.00 0.0133 0.0013
 Mercury -104062-01-04 12:28 J -36287219.13 -36287218.98 -36287218.84 0.0133 0.0029
 Mercury -104062-04-02 16:18 J -36287130.95 -36287130.82 -36287130.68 0.0133 0.0046
 Mercury -104062-06-29 20:23 J -36287042.78 -36287042.65 -36287042.52 0.0133 0.0062
 Mercury -104062-09-26 00:14 J -36286954.61 -36286954.49 -36286954.37 0.0133 0.0078
 Mercury -104062-12-23 04:04 J -36286866.43 -36286866.33 -36286866.23 0.0133 0.0094
 Mercury -104061-03-20 07:54 J -36286778.25 -36286778.17 -36286778.09 0.0133 0.0110
 Mercury -104061-06-16 11:30 J -36286690.05 -36286690.02 -36286689.97 0.0133 0.0126
 Venus -104058-09-21 02:52 J -36285498.52 -36285498.38 -36285498.23 0.0132 0.0098
 Venus -104057-05-04 06:57 J -36285272.40 -36285272.21 -36285272.00 0.0132 0.0049
 Venus -104057-12-16 11:02 J -36285046.26 -36285046.04 -36285045.82 0.0131 0.0001
 Venus -104056-07-30 14:38 J -36284820.08 -36284819.89 -36284819.68 0.0131 0.0047
 Venus -104055-03-13 18:14 J -36284593.87 -36284593.74 -36284593.58 0.0131 0.0095
 Jupiter -104053-11-05 11:16 J -36283626.37 -36283626.03 -36283625.65 0.0131 0.0090
 Earth -104033-09-19 04:33 J -36276368.51 -36276368.31 -36276368.10 0.0137 0.0074
 Moon -104033-09-19 08:09 J -36276368.37 -36276368.16 -36276367.95 0.0137 0.0072 *
 Moon -104032-09-23 06:14 J -36275999.48 -36275999.24 -36275999.00 0.0138 0.0001
 Earth -104032-09-23 09:35 J -36275999.34 -36275999.10 -36275998.85 0.0138 0.0002 *
 Earth -104031-09-27 15:06 J -36275630.05 -36275629.87 -36275629.66 0.0138 0.0081
 Moon -104031-09-27 18:28 J -36275629.91 -36275629.73 -36275629.53 0.0138 0.0087 *
 Mars -104021-05-18 00:28 J -36272109.77 -36272109.48 -36272109.17 0.0144 0.0056
 Mercury -104020-06-26 17:02 J -36271704.84 -36271704.79 -36271704.72 0.0145 0.0132
 Mercury -104020-09-22 23:02 J -36271616.64 -36271616.54 -36271616.43 0.0145 0.0109
 Mercury -104020-12-20 04:47 J -36271528.42 -36271528.30 -36271528.16 0.0145 0.0087
 Mercury -104019-03-18 10:47 J -36271440.19 -36271440.05 -36271439.90 0.0145 0.0063
 Mercury -104019-06-14 16:47 J -36271351.95 -36271351.80 -36271351.64 0.0145 0.0040
 Mercury -104019-09-10 22:47 J -36271263.71 -36271263.55 -36271263.38 0.0146 0.0017
 Mercury -104019-12-08 05:02 J -36271175.45 -36271175.29 -36271175.12 0.0146 0.0008
 Mercury -104018-03-06 11:16 J -36271087.19 -36271087.03 -36271086.87 0.0146 0.0033

Mercury -104018-06-02 17:30 J -36270998.92 -36270998.77 -36270998.62 0.0146 0.0057

Mercury -104018-08-29 23:45 J -36270910.64 -36270910.51 -36270910.37 0.0146 0.0082

Mercury -104018-11-26 06:14 J -36270822.35 -36270822.24 -36270822.13 0.0146 0.0107

Mercury -104017-02-22 12:14 J -36270734.04 -36270733.99 -36270733.90 0.0146 0.0134

Venus -104014-01-29 23:30 J -36269661.66 -36269661.52 -36269661.35 0.0147 0.0105

Venus -104014-09-13 13:40 J -36269435.14 -36269434.93 -36269434.72 0.0147 0.0036

Venus -104013-04-27 03:35 J -36269208.56 -36269208.35 -36269208.14 0.0148 0.0034

Venus -104013-12-09 17:30 J -36268981.92 -36268981.77 -36268981.61 0.0148 0.0104

104TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 104th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-103994-03-22 15:35 J	-36262304.99	-36262304.85	-36262304.67	0.0142	0.0114		
Moon	-103994-03-22 17:16 J	-36262304.94	-36262304.78	-36262304.61	0.0142	0.0106	*	
Moon	-103993-03-26 21:06 J	-36261934.89	-36261934.62	-36261934.34	0.0142	0.0024		
Earth	-103993-03-26 21:21 J	-36261934.87	-36261934.61	-36261934.35	0.0142	0.0021	*	
Moon	-103992-04-01 00:28 J	-36261564.69	-36261564.48	-36261564.25	0.0141	0.0069		
Earth	-103992-04-01 01:11 J	-36261564.68	-36261564.45	-36261564.22	0.0141	0.0070	*	
Mars	-103983-11-18 23:45 J	-36258045.78	-36258045.51	-36258045.22	0.0135	0.0037		
Mercury	-103981-11-22 06:57 J	-36257311.27	-36257311.21	-36257311.14	0.0134	0.0119		

Mercury -103980-02-18 11:16 J -36257223.12 -36257223.03 -36257222.93 0.0134 0.0101

Mercury -103980-05-17 15:21 J -36257134.97 -36257134.86 -36257134.73 0.0134 0.0084

Mercury -103980-08-13 19:54 J -36257046.80 -36257046.67 -36257046.54 0.0134 0.0066

Mercury -103980-11-09 23:59 J -36256958.64 -36256958.50 -36256958.36 0.0134 0.0049

Mercury -103979-02-06 04:04 J -36256870.47 -36256870.33 -36256870.18 0.0134 0.0032

Mercury -103979-05-05 08:09 J -36256782.30 -36256782.16 -36256782.00 0.0133 0.0015

Mercury -103979-08-01 12:14 J -36256694.14 -36256693.99 -36256693.83 0.0133 0.0005

Mercury -103979-10-28 16:18 J -36256605.97 -36256605.82 -36256605.67 0.0133 0.0019

Mercury -103978-01-24 20:09 J -36256517.80 -36256517.66 -36256517.51 0.0133 0.0037

Mercury -103978-04-23 00:14 J -36256429.62 -36256429.49 -36256429.35 0.0133 0.0052

Mercury -103978-07-20 04:04 J -36256341.45 -36256341.33 -36256341.20 0.0133 0.0069

Mercury -103978-10-16 07:54 J -36256253.27 -36256253.17 -36256253.05 0.0133 0.0085

Mercury -103977-01-12 11:45 J -36256165.09 -36256165.01 -36256164.91 0.0133 0.0101

Mercury -103977-04-09 15:35 J -36256076.91 -36256076.85 -36256076.77 0.0133 0.0117

Mercury -103977-07-06 19:40 J -36255988.69 -36255988.68 -36255988.67 0.0133 0.0132

Venus -103974-05-21 15:21 J -36254939.93 -36254939.86 -36254939.75 0.0132 0.0119

Venus -103973-01-02 19:54 J -36254713.85 -36254713.67 -36254713.48 0.0132 0.0070

Venus -103973-08-15 23:59 J -36254487.71 -36254487.50 -36254487.28 0.0131 0.0021

Venus -103972-03-30 04:04 J -36254261.54 -36254261.33 -36254261.12 0.0131 0.0028

Venus -103972-11-11 07:54 J -36254035.35 -36254035.17 -36254034.99 0.0131 0.0076

Venus -103971-06-25 11:16 J -36253809.09 -36253809.03 -36253808.95 0.0131 0.0123

Earth -103949-09-19 19:11 J -36245686.90 -36245686.70 -36245686.47 0.0137 0.0068

Moon -103949-09-19 22:33 J -36245686.77 -36245686.56 -36245686.34 0.0137 0.0067 *

Moon -103948-09-23 21:06 J -36245317.85 -36245317.62 -36245317.37 0.0138 0.0013

Earth -103948-09-24 00:28 J -36245317.73 -36245317.48 -36245317.24 0.0138 0.0009 *

Earth -103947-09-28 05:59 J -36244948.43 -36244948.25 -36244948.05 0.0138 0.0087

Moon -103947-09-28 09:21 J -36244948.30 -36244948.11 -36244947.90 0.0138 0.0080 *

Mars -103938-02-06 07:54 J -36241895.31 -36241895.17 -36241895.02 0.0143 0.0129

Mercury -103936-07-17 01:11 J -36241003.52 -36241003.45 -36241003.36 0.0145 0.0124

Mercury -103936-10-13 06:57 J -36240915.31 -36240915.21 -36240915.08 0.0145 0.0101

Mercury -103935-01-09 12:57 J -36240827.09 -36240826.96 -36240826.82 0.0145 0.0078

Mercury -103935-04-07 18:57 J -36240738.86 -36240738.71 -36240738.56 0.0145 0.0055

Mercury -103935-07-05 00:57 J -36240650.62 -36240650.46 -36240650.30 0.0145 0.0031

Mercury -103935-10-01 07:11 J -36240562.37 -36240562.20 -36240562.04 0.0146 0.0007

Mercury -103935-12-28 13:11 J -36240474.11 -36240473.95 -36240473.78 0.0146 0.0017

Mercury -103934-03-26 19:26 J -36240385.85 -36240385.69 -36240385.53 0.0146 0.0042

Mercury -103934-06-23 01:40 J -36240297.58 -36240297.43 -36240297.28 0.0146 0.0066

Mercury -103934-09-19 07:54 J -36240209.29 -36240209.17 -36240209.04 0.0146 0.0091

Mercury -103934-12-16 14:23 J -36240121.00 -36240120.90 -36240120.80 0.0146 0.0116

Mercury -103933-03-13 20:38 J -36240032.67 -36240032.64 -36240032.59 0.0146 0.0142

Venus -103931-09-29 07:11 J -36239103.27 -36239103.20 -36239103.10 0.0147 0.0136

Venus -103930-05-13 21:06 J -36238876.82 -36238876.62 -36238876.43 0.0147 0.0067

Venus -103930-12-26 10:47 J -36238650.27 -36238650.05 -36238649.83 0.0147 0.0002

Venus -103929-08-09 00:28 J -36238423.66 -36238423.48 -36238423.28 0.0148 0.0073

Venus -103928-03-23 14:38 J -36238196.93 -36238196.89 -36238196.82 0.0148 0.0143

Earth -103910-03-23 04:18 J -36231623.48 -36231623.32 -36231623.13 0.0142 0.0107

Moon -103910-03-23 05:45 J -36231623.39 -36231623.26 -36231623.08 0.0142 0.0114 *

Moon -103909-03-27 08:52 J -36231253.40 -36231253.13 -36231252.86 0.0142 0.0010

Earth -103909-03-27 09:50 J -36231253.35 -36231253.09 -36231252.82 0.0142 0.0015 *

Earth -103908-04-01 13:26 J -36230883.15 -36230882.94 -36230882.71 0.0141 0.0076

Moon -103908-04-01 13:40 J -36230883.13 -36230882.93 -36230882.71 0.0141 0.0077 *

Mars -103898-07-14 13:26 J -36227127.20 -36227126.94 -36227126.65 0.0135 0.0044

Mercury -103897-09-15 10:18 J -36226698.09 -36226698.07 -36226698.02 0.0134 0.0131

Mercury -103897-12-12 14:52 J -36226609.96 -36226609.88 -36226609.80 0.0134 0.0112

Mercury -103896-03-10 18:57 J -36226521.81 -36226521.71 -36226521.59 0.0134 0.0095

Mercury -103896-06-06 23:16 J -36226433.65 -36226433.53 -36226433.40 0.0134 0.0077

Mercury -103896-09-03 03:35 J -36226345.48 -36226345.35 -36226345.21 0.0134 0.0059

Mercury -103896-11-30 07:40 J -36226257.32 -36226257.18 -36226257.03 0.0134 0.0043

Mercury -103895-02-26 11:59 J -36226169.15 -36226169.00 -36226168.85 0.0134 0.0025

Mercury -103895-05-25 16:04 J -36226080.98 -36226080.83 -36226080.68 0.0133 0.0008

Mercury -103895-08-21 20:09 J -36225992.81 -36225992.66 -36225992.51 0.0133 0.0009

Mercury -103895-11-17 23:59 J -36225904.64 -36225904.50 -36225904.35 0.0133 0.0026

Mercury -103894-02-14 04:04 J -36225816.47 -36225816.33 -36225816.19 0.0133 0.0042

Mercury -103894-05-13 07:54 J -36225728.30 -36225728.17 -36225728.03 0.0133 0.0059

Mercury -103894-08-09 11:45 J -36225640.12 -36225640.01 -36225639.88 0.0133 0.0075

Mercury -103894-11-05 15:50 J -36225551.94 -36225551.84 -36225551.73 0.0133 0.0091

Mercury -103893-02-01 19:40 J -36225463.76 -36225463.68 -36225463.59 0.0133 0.0107

Mercury -103893-04-29 23:16 J -36225375.57 -36225375.53 -36225375.46 0.0133 0.0123

Venus -103890-09-02 08:38 J -36224155.30 -36224155.14 -36224154.98 0.0132 0.0090

Venus -103889-04-15 12:42 J -36223929.17 -36223928.97 -36223928.75 0.0132 0.0042

Venus -103889-11-27 17:02 J -36223703.01 -36223702.79 -36223702.58 0.0131 0.0008

Venus -103888-07-11 20:23 J -36223476.83 -36223476.65 -36223476.44 0.0131 0.0057

Venus -103887-02-22 23:59 J -36223250.61 -36223250.50 -36223250.35 0.0131 0.0105

Moon -103866-09-17 02:38 J -36215374.43 -36215374.39 -36215374.33 0.0136 0.0133

Earth -103866-09-17 05:16 J -36215374.29 -36215374.28 -36215374.25 0.0136 0.0136

Earth -103865-09-20 08:52 J -36215005.34 -36215005.13 -36215004.90 0.0137 0.0062

Moon -103865-09-20 11:59 J -36215005.22 -36215005.00 -36215004.77 0.0137 0.0060 *

Moon -103864-09-24 11:02 J -36214636.28 -36214636.04 -36214635.80 0.0138 0.0011

Earth -103864-09-24 13:54 J -36214636.16 -36214635.92 -36214635.67 0.0138 0.0014 *

Earth -103863-09-28 19:11 J -36214266.86 -36214266.70 -36214266.50 0.0138 0.0093

Moon -103863-09-28 22:18 J -36214266.74 -36214266.57 -36214266.38 0.0138 0.0097 *

Mars -103854-10-03 20:23 J -36210974.97 -36210974.65 -36210974.32 0.0144 0.0018

Mercury -103852-05-10 03:21 J -36210390.40 -36210390.36 -36210390.31 0.0145 0.0139

Mercury -103852-08-06 09:06 J -36210302.21 -36210302.12 -36210302.02 0.0145 0.0116

Mercury -103852-11-02 15:06 J -36210213.99 -36210213.87 -36210213.75 0.0145 0.0093

Mercury -103851-01-29 20:52 J -36210125.77 -36210125.63 -36210125.48 0.0145 0.0070

Mercury -103851-04-28 02:52 J -36210037.53 -36210037.38 -36210037.22 0.0145 0.0047

Mercury -103851-07-25 08:52 J -36209949.29 -36209949.13 -36209948.96 0.0145 0.0023

Mercury -103851-10-21 15:06 J -36209861.04 -36209860.87 -36209860.71 0.0146 0.0003

Mercury -103850-01-17 21:06 J -36209772.78 -36209772.62 -36209772.45 0.0146 0.0025

Mercury -103850-04-16 03:21 J -36209684.51 -36209684.36 -36209684.20 0.0146 0.0050
 Mercury -103850-07-13 09:35 J -36209596.24 -36209596.10 -36209595.95 0.0146 0.0074
 Mercury -103850-10-09 15:50 J -36209507.95 -36209507.84 -36209507.71 0.0146 0.0099
 Mercury -103849-01-05 22:18 J -36209419.65 -36209419.57 -36209419.48 0.0146 0.0125
 Venus -103846-01-11 04:04 J -36208318.48 -36208318.33 -36208318.16 0.0147 0.0099
 Venus -103846-08-25 17:59 J -36208091.96 -36208091.75 -36208091.54 0.0147 0.0029
 Venus -103845-04-08 07:40 J -36207865.38 -36207865.18 -36207864.96 0.0147 0.0041
 Venus -103845-11-20 21:50 J -36207638.73 -36207638.59 -36207638.44 0.0148 0.0111
 Earth -103826-03-23 17:30 J -36200941.94 -36200941.77 -36200941.57 0.0142 0.0099
 Moon -103826-03-23 19:54 J -36200941.85 -36200941.67 -36200941.46 0.0142 0.0092 *
 Moon -103825-03-27 21:21 J -36200571.89 -36200571.61 -36200571.34 0.0142 0.0012
 Earth -103825-03-27 23:02 J -36200571.80 -36200571.54 -36200571.27 0.0142 0.0008 *
 Earth -103824-04-02 02:23 J -36200201.59 -36200201.40 -36200201.16 0.0141 0.0083
 Moon -103824-04-02 03:06 J -36200201.56 -36200201.37 -36200201.15 0.0141 0.0082 *
 Mars -103815-04-08 10:18 J -36196908.29 -36196908.07 -36196907.84 0.0135 0.0085
 Mars -103813-03-08 03:35 J -36196208.45 -36196208.35 -36196208.23 0.0134 0.0124
 Mercury -103813-10-05 18:14 J -36195996.79 -36195996.74 -36195996.67 0.0134 0.0124
 Mercury -103812-01-01 22:47 J -36195908.64 -36195908.55 -36195908.45 0.0134 0.0105
 Mercury -103812-03-31 02:52 J -36195820.48 -36195820.38 -36195820.25 0.0134 0.0088
 Mercury -103812-06-27 07:11 J -36195732.32 -36195732.20 -36195732.06 0.0134 0.0070
 Mercury -103812-09-23 11:30 J -36195644.16 -36195644.02 -36195643.88 0.0134 0.0053
 Mercury -103812-12-20 15:35 J -36195555.99 -36195555.85 -36195555.70 0.0134 0.0036
 Mercury -103811-03-18 19:54 J -36195467.82 -36195467.67 -36195467.52 0.0134 0.0018
 Mercury -103811-06-14 23:59 J -36195379.65 -36195379.50 -36195379.35 0.0133 0.0003
 Mercury -103811-09-11 03:50 J -36195291.48 -36195291.34 -36195291.19 0.0133 0.0016
 Mercury -103811-12-08 07:54 J -36195203.31 -36195203.17 -36195203.02 0.0133 0.0032
 Mercury -103810-03-06 11:45 J -36195115.14 -36195115.01 -36195114.86 0.0133 0.0049
 Mercury -103810-06-02 15:50 J -36195026.97 -36195026.84 -36195026.71 0.0133 0.0065
 Mercury -103810-08-29 19:40 J -36194938.79 -36194938.68 -36194938.56 0.0133 0.0081
 Mercury -103810-11-25 23:45 J -36194850.61 -36194850.51 -36194850.41 0.0133 0.0097

Mercury -103809-02-22 03:35 J -36194762.43 -36194762.35 -36194762.28 0.0133 0.0113
 Mercury -103809-05-20 07:11 J -36194674.22 -36194674.20 -36194674.16 0.0133 0.0129
 Venus -103806-05-02 21:06 J -36193596.72 -36193596.62 -36193596.49 0.0132 0.0111
 Venus -103806-12-15 01:40 J -36193370.62 -36193370.43 -36193370.24 0.0132 0.0062
 Venus -103805-07-28 05:45 J -36193144.47 -36193144.26 -36193144.04 0.0131 0.0013
 Venus -103804-03-11 09:35 J -36192918.30 -36192918.10 -36192917.88 0.0131 0.0037
 Venus -103804-10-23 13:26 J -36192692.09 -36192691.94 -36192691.76 0.0131 0.0084
 Moon -103782-09-17 16:04 J -36184692.88 -36184692.83 -36184692.76 0.0136 0.0132
 Earth -103782-09-17 18:28 J -36184692.79 -36184692.73 -36184692.64 0.0136 0.0130 *
 Earth -103781-09-20 22:18 J -36184323.78 -36184323.57 -36184323.34 0.0137 0.0056
 Moon -103781-09-21 01:11 J -36184323.68 -36184323.45 -36184323.22 0.0137 0.0055 *
 Moon -103780-09-25 00:57 J -36183954.69 -36183954.46 -36183954.22 0.0137 0.0023
 Earth -103780-09-25 03:21 J -36183954.60 -36183954.36 -36183954.12 0.0137 0.0020 *
 Earth -103779-09-29 08:52 J -36183585.30 -36183585.13 -36183584.95 0.0138 0.0098
 Moon -103779-09-29 11:30 J -36183585.19 -36183585.02 -36183584.82 0.0138 0.0091 *
 Mars -103769-05-30 06:28 J -36180054.46 -36180054.23 -36180053.96 0.0144 0.0094
 Mercury -103768-05-30 11:02 J -36179689.10 -36179689.04 -36179688.98 0.0145 0.0132
 Mercury -103768-08-26 16:33 J -36179600.90 -36179600.81 -36179600.70 0.0145 0.0110
 Mercury -103768-11-22 22:33 J -36179512.69 -36179512.56 -36179512.43 0.0145 0.0087
 Mercury -103767-02-19 04:18 J -36179424.46 -36179424.32 -36179424.17 0.0145 0.0064
 Mercury -103767-05-18 10:18 J -36179336.22 -36179336.07 -36179335.91 0.0145 0.0041
 Mercury -103767-08-14 16:33 J -36179247.98 -36179247.81 -36179247.65 0.0145 0.0017
 Mercury -103767-11-10 22:33 J -36179159.72 -36179159.56 -36179159.40 0.0145 0.0007
 Mercury -103766-02-07 04:33 J -36179071.47 -36179071.31 -36179071.14 0.0146 0.0032
 Mercury -103766-05-06 10:47 J -36178983.20 -36178983.05 -36178982.89 0.0146 0.0056
 Mercury -103766-08-02 17:02 J -36178894.92 -36178894.79 -36178894.65 0.0146 0.0081
 Mercury -103766-10-29 23:16 J -36178806.63 -36178806.53 -36178806.41 0.0146 0.0106
 Mercury -103765-01-26 05:45 J -36178718.32 -36178718.26 -36178718.18 0.0146 0.0131
 Venus -103763-09-10 09:50 J -36177760.18 -36177760.09 -36177759.98 0.0147 0.0131
 Venus -103762-04-24 23:16 J -36177533.72 -36177533.53 -36177533.32 0.0147 0.0063

Venus -103762-12-07 13:11 J -36177307.17 -36177306.95 -36177306.73 0.0147 0.0007
 Venus -103761-07-21 02:52 J -36177080.56 -36177080.38 -36177080.19 0.0147 0.0077
 Venus -103760-03-04 16:47 J -36176853.80 -36176853.80 -36176853.76 0.0148 0.0147
 Earth -103742-03-24 02:23 J -36170260.58 -36170260.40 -36170260.19 0.0142 0.0095
 Moon -103742-03-24 05:16 J -36170260.44 -36170260.28 -36170260.08 0.0142 0.0103 *
 Moon -103741-03-28 05:59 J -36169890.52 -36169890.25 -36169889.98 0.0142 0.0001
 Earth -103741-03-28 08:09 J -36169890.42 -36169890.16 -36169889.89 0.0142 0.0004 *
 Earth -103740-04-02 11:45 J -36169520.21 -36169520.01 -36169519.79 0.0141 0.0086
 Moon -103740-04-02 13:26 J -36169520.13 -36169519.94 -36169519.72 0.0141 0.0086 *
 Mars -103731-12-01 19:54 J -36165989.96 -36165989.67 -36165989.38 0.0135 0.0005
 Mercury -103729-10-26 01:40 J -36165295.49 -36165295.43 -36165295.35 0.0134 0.0118
 Mercury -103728-01-22 05:59 J -36165207.34 -36165207.25 -36165207.14 0.0134 0.0100
 Mercury -103728-04-20 10:33 J -36165119.18 -36165119.06 -36165118.94 0.0134 0.0082
 Mercury -103728-07-17 14:38 J -36165031.02 -36165030.89 -36165030.75 0.0134 0.0065
 Mercury -103728-10-13 18:42 J -36164942.85 -36164942.72 -36164942.57 0.0134 0.0048
 Mercury -103727-01-09 23:02 J -36164854.68 -36164854.54 -36164854.39 0.0134 0.0030
 Mercury -103727-04-08 03:06 J -36164766.52 -36164766.37 -36164766.21 0.0134 0.0014
 Mercury -103727-07-05 07:26 J -36164678.34 -36164678.19 -36164678.04 0.0133 0.0005
 Mercury -103727-10-01 11:16 J -36164590.17 -36164590.03 -36164589.88 0.0133 0.0021
 Mercury -103727-12-28 15:21 J -36164502.00 -36164501.86 -36164501.71 0.0133 0.0037
 Mercury -103726-03-26 19:11 J -36164413.83 -36164413.70 -36164413.56 0.0133 0.0054
 Mercury -103726-06-22 23:16 J -36164325.65 -36164325.53 -36164325.40 0.0133 0.0070
 Mercury -103726-09-19 03:06 J -36164237.48 -36164237.37 -36164237.25 0.0133 0.0087
 Mercury -103726-12-16 06:57 J -36164149.29 -36164149.21 -36164149.11 0.0133 0.0103
 Mercury -103725-03-13 10:47 J -36164061.11 -36164061.05 -36164060.98 0.0133 0.0119
 Venus -103722-08-14 13:11 J -36162812.11 -36162811.95 -36162811.77 0.0132 0.0083
 Venus -103721-03-27 17:45 J -36162585.97 -36162585.76 -36162585.55 0.0132 0.0034
 Venus -103721-11-08 21:50 J -36162359.80 -36162359.59 -36162359.37 0.0131 0.0015
 Venus -103720-06-23 01:40 J -36162133.61 -36162133.43 -36162133.23 0.0131 0.0064
 Venus -103719-02-04 05:30 J -36161907.38 -36161907.27 -36161907.16 0.0131 0.0112

Moon -103698-09-18 05:45 J -36154011.36 -36154011.26 -36154011.14 0.0136 0.0121
 Earth -103698-09-18 07:40 J -36154011.27 -36154011.18 -36154011.07 0.0136 0.0124 *
 Earth -103697-09-21 11:16 J -36153642.25 -36153642.03 -36153641.80 0.0137 0.0050
 Moon -103697-09-21 13:11 J -36153642.17 -36153641.95 -36153641.71 0.0137 0.0050 *
 Moon -103696-09-25 13:54 J -36153273.15 -36153272.92 -36153272.68 0.0137 0.0022
 Earth -103696-09-25 16:04 J -36153273.07 -36153272.83 -36153272.59 0.0137 0.0026 *
 Earth -103695-09-29 21:50 J -36152903.75 -36152903.59 -36152903.42 0.0138 0.0102
 Moon -103695-09-29 23:30 J -36152903.67 -36152903.52 -36152903.35 0.0138 0.0107 *
 Mars -103686-02-18 07:40 J -36149840.40 -36149840.18 -36149839.90 0.0143 0.0095
 Mercury -103684-06-19 18:28 J -36148987.80 -36148987.73 -36148987.65 0.0145 0.0126
 Mercury -103684-09-16 00:14 J -36148899.60 -36148899.49 -36148899.37 0.0145 0.0103
 Mercury -103684-12-13 06:14 J -36148811.38 -36148811.24 -36148811.11 0.0145 0.0080
 Mercury -103683-03-11 11:59 J -36148723.15 -36148723.00 -36148722.85 0.0145 0.0057
 Mercury -103683-06-07 17:59 J -36148634.91 -36148634.75 -36148634.59 0.0145 0.0034
 Mercury -103683-09-03 23:59 J -36148546.66 -36148546.50 -36148546.33 0.0145 0.0010
 Mercury -103683-12-01 05:59 J -36148458.41 -36148458.25 -36148458.08 0.0145 0.0015
 Mercury -103682-02-27 12:14 J -36148370.15 -36148369.99 -36148369.83 0.0146 0.0038
 Mercury -103682-05-26 18:28 J -36148281.88 -36148281.73 -36148281.58 0.0146 0.0063
 Mercury -103682-08-23 00:28 J -36148193.60 -36148193.48 -36148193.34 0.0146 0.0088
 Mercury -103682-11-19 06:42 J -36148105.31 -36148105.22 -36148105.10 0.0146 0.0113
 Mercury -103681-02-15 13:11 J -36148016.99 -36148016.95 -36148016.88 0.0146 0.0138
 Venus -103679-12-23 05:02 J -36146975.44 -36146975.29 -36146975.11 0.0147 0.0096
 Venus -103678-08-06 18:42 J -36146748.93 -36146748.72 -36146748.50 0.0147 0.0027
 Venus -103677-03-20 08:23 J -36146522.35 -36146522.15 -36146521.94 0.0147 0.0043
 Venus -103677-11-01 22:18 J -36146295.70 -36146295.57 -36146295.42 0.0148 0.0113
 Earth -103658-03-24 11:45 J -36139579.20 -36139579.01 -36139578.79 0.0142 0.0092
 Moon -103658-03-24 14:52 J -36139579.07 -36139578.88 -36139578.65 0.0142 0.0085 *
 Moon -103657-03-28 14:09 J -36139209.18 -36139208.91 -36139208.64 0.0142 0.0006
 Earth -103657-03-28 17:30 J -36139209.04 -36139208.77 -36139208.51 0.0142 0.0001 *
 Earth -103656-04-02 21:06 J -36138838.81 -36138838.62 -36138838.40 0.0141 0.0090

Moon -103656-04-02 23:02 J -36138838.72 -36138838.54 -36138838.32 0.0141 0.0090 *
 Mars -103646-07-27 05:30 J -36135071.50 -36135071.27 -36135071.01 0.0135 0.0073
 Mercury -103645-08-19 04:33 J -36134682.33 -36134682.31 -36134682.26 0.0134 0.0131
 Mercury -103645-11-15 08:52 J -36134594.19 -36134594.13 -36134594.03 0.0134 0.0114
 Mercury -103644-02-11 13:26 J -36134506.04 -36134505.94 -36134505.83 0.0134 0.0095
 Mercury -103644-05-10 17:45 J -36134417.88 -36134417.76 -36134417.63 0.0134 0.0077
 Mercury -103644-08-06 22:04 J -36134329.71 -36134329.58 -36134329.44 0.0134 0.0060
 Mercury -103644-11-03 02:09 J -36134241.55 -36134241.41 -36134241.26 0.0134 0.0043
 Mercury -103643-01-30 06:28 J -36134153.38 -36134153.23 -36134153.08 0.0134 0.0025
 Mercury -103643-04-28 10:33 J -36134065.21 -36134065.06 -36134064.91 0.0134 0.0008
 Mercury -103643-07-25 14:38 J -36133977.04 -36133976.89 -36133976.74 0.0134 0.0010
 Mercury -103643-10-21 18:42 J -36133888.86 -36133888.72 -36133888.57 0.0133 0.0026
 Mercury -103642-01-17 22:47 J -36133800.69 -36133800.55 -36133800.41 0.0133 0.0042
 Mercury -103642-04-16 02:38 J -36133712.52 -36133712.39 -36133712.25 0.0133 0.0059
 Mercury -103642-07-13 06:42 J -36133624.34 -36133624.22 -36133624.10 0.0133 0.0075
 Mercury -103642-10-09 10:18 J -36133536.16 -36133536.07 -36133535.95 0.0133 0.0092
 Mercury -103641-01-05 14:23 J -36133447.98 -36133447.90 -36133447.81 0.0133 0.0108
 Mercury -103641-04-02 18:14 J -36133359.78 -36133359.74 -36133359.68 0.0133 0.0124
 Venus -103638-04-14 01:11 J -36132253.58 -36132253.45 -36132253.32 0.0132 0.0105
 Venus -103638-11-26 05:30 J -36132027.46 -36132027.27 -36132027.07 0.0132 0.0056
 Venus -103637-07-09 09:50 J -36131801.31 -36131801.09 -36131800.87 0.0132 0.0007
 Venus -103636-02-20 13:40 J -36131575.13 -36131574.93 -36131574.72 0.0131 0.0043
 Venus -103636-10-04 17:45 J -36131348.92 -36131348.76 -36131348.61 0.0131 0.0091
 Moon -103614-09-18 19:11 J -36123329.79 -36123329.70 -36123329.58 0.0136 0.0121
 Earth -103614-09-18 20:52 J -36123329.75 -36123329.63 -36123329.51 0.0136 0.0118 *
 Earth -103613-09-22 00:42 J -36122960.70 -36122960.47 -36122960.24 0.0137 0.0044
 Moon -103613-09-22 02:09 J -36122960.64 -36122960.41 -36122960.16 0.0137 0.0045 *
 Moon -103612-09-26 04:04 J -36122591.55 -36122591.33 -36122591.09 0.0137 0.0034
 Earth -103612-09-26 05:16 J -36122591.51 -36122591.28 -36122591.03 0.0137 0.0031 *
 Earth -103611-09-30 11:16 J -36122222.18 -36122222.03 -36122221.88 0.0138 0.0107

Moon -103611-09-30 12:57 J -36122222.12 -36122221.96 -36122221.78 0.0138 0.0101 *
 Mars -103602-10-15 19:11 J -36118920.02 -36118919.70 -36118919.36 0.0144 0.0018
 Mercury -103600-04-12 20:23 J -36118374.67 -36118374.65 -36118374.61 0.0144 0.0141
 Mercury -103600-07-10 02:09 J -36118286.49 -36118286.41 -36118286.31 0.0145 0.0119
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 Mercury -103599-09-24 07:40 J -36117845.34 -36117845.18 -36117845.01 0.0145 0.0004
 Mercury -103599-12-21 13:54 J -36117757.09 -36117756.92 -36117756.76 0.0145 0.0021
 Mercury -103598-03-19 19:54 J -36117668.82 -36117668.67 -36117668.51 0.0145 0.0046
 Mercury -103598-06-16 01:54 J -36117580.55 -36117580.42 -36117580.26 0.0146 0.0071
 Mercury -103598-09-12 08:23 J -36117492.27 -36117492.15 -36117492.02 0.0146 0.0095
 Mercury -103598-12-09 14:38 J -36117403.97 -36117403.89 -36117403.79 0.0146 0.0120
 Mercury -103597-03-06 21:06 J -36117315.63 -36117315.62 -36117315.60 0.0146 0.0145
 Venus -103595-08-22 11:16 J -36116417.12 -36116417.03 -36116416.91 0.0147 0.0129
 Venus -103594-04-06 00:42 J -36116190.66 -36116190.47 -36116190.26 0.0147 0.0060
 Venus -103594-11-18 14:23 J -36115964.12 -36115963.90 -36115963.68 0.0147 0.0010
 Venus -103593-07-02 03:50 J -36115737.51 -36115737.34 -36115737.14 0.0147 0.0080
 Earth -103574-03-24 19:26 J -36108897.89 -36108897.69 -36108897.47 0.0142 0.0089
 Moon -103574-03-24 23:02 J -36108897.72 -36108897.54 -36108897.33 0.0142 0.0097 *
 Moon -103573-03-28 22:04 J -36108527.85 -36108527.58 -36108527.31 0.0142 0.0007
 Earth -103573-03-29 01:11 J -36108527.71 -36108527.45 -36108527.18 0.0142 0.0003 *
 Earth -103572-04-03 05:02 J -36108157.47 -36108157.29 -36108157.07 0.0141 0.0092
 Moon -103572-04-03 08:09 J -36108157.34 -36108157.16 -36108156.95 0.0141 0.0091 *
 Mars -103563-04-20 18:57 J -36104852.96 -36104852.71 -36104852.44 0.0136 0.0060
 Mercury -103561-09-08 11:30 J -36103981.05 -36103981.02 -36103980.96 0.0134 0.0128
 Mercury -103561-12-05 16:04 J -36103892.91 -36103892.83 -36103892.73 0.0134 0.0109
 Mercury -103560-03-03 20:23 J -36103804.75 -36103804.65 -36103804.53 0.0134 0.0091
 Mercury -103560-05-31 00:57 J -36103716.59 -36103716.46 -36103716.34 0.0134 0.0073

Mercury -103560-08-27 05:02 J -36103628.42 -36103628.29 -36103628.15 0.0134 0.0056
 Mercury -103560-11-23 09:06 J -36103540.26 -36103540.12 -36103539.96 0.0134 0.0039
 Mercury -103559-02-19 13:26 J -36103452.09 -36103451.94 -36103451.79 0.0134 0.0021
 Mercury -103559-05-18 17:45 J -36103363.91 -36103363.76 -36103363.61 0.0134 0.0005
 Mercury -103559-08-14 21:50 J -36103275.74 -36103275.59 -36103275.44 0.0134 0.0013
 Mercury -103559-11-11 01:40 J -36103187.57 -36103187.43 -36103187.28 0.0133 0.0030
 Mercury -103558-02-07 05:45 J -36103099.39 -36103099.26 -36103099.11 0.0133 0.0047
 Mercury -103558-05-06 09:50 J -36103011.22 -36103011.09 -36103010.96 0.0133 0.0063
 Mercury -103558-08-02 13:40 J -36102923.04 -36102922.93 -36102922.80 0.0133 0.0080
 Mercury -103558-10-29 17:45 J -36102834.86 -36102834.76 -36102834.66 0.0133 0.0096
 Mercury -103557-01-25 21:21 J -36102746.67 -36102746.61 -36102746.52 0.0133 0.0112
 Mercury -103557-04-23 01:11 J -36102658.47 -36102658.45 -36102658.40 0.0133 0.0128
 Venus -103555-12-12 11:16 J -36101695.05 -36101695.03 -36101694.96 0.0132 0.0129
 Venus -103554-07-26 16:04 J -36101468.99 -36101468.83 -36101468.64 0.0132 0.0079
 Venus -103553-03-08 20:38 J -36101242.84 -36101242.64 -36101242.42 0.0132 0.0030
 Venus -103553-10-21 00:57 J -36101016.67 -36101016.46 -36101016.24 0.0132 0.0020
 Venus -103552-06-04 04:47 J -36100790.48 -36100790.30 -36100790.11 0.0132 0.0069
 Venus -103551-01-16 08:23 J -36100564.23 -36100564.15 -36100564.04 0.0131 0.0118
 Moon -103530-09-19 08:38 J -36092648.26 -36092648.14 -36092647.99 0.0136 0.0110
 Earth -103530-09-19 10:04 J -36092648.22 -36092648.08 -36092647.95 0.0136 0.0113 *
 Earth -103529-09-22 13:40 J -36092279.16 -36092278.93 -36092278.69 0.0137 0.0040
 Moon -103529-09-22 14:23 J -36092279.13 -36092278.90 -36092278.65 0.0137 0.0040 *
 Moon -103528-09-26 17:16 J -36091910.00 -36091909.78 -36091909.54 0.0137 0.0032
 Earth -103528-09-26 18:28 J -36091909.96 -36091909.73 -36091909.49 0.0137 0.0036 *
 Earth -103527-09-30 23:59 J -36091540.62 -36091540.50 -36091540.34 0.0138 0.0112
 Moon -103527-10-01 01:11 J -36091540.58 -36091540.45 -36091540.31 0.0138 0.0116 *
 Mars -103517-06-11 07:11 J -36087999.33 -36087999.20 -36087999.03 0.0144 0.0128
 Mercury -103516-05-03 04:18 J -36087673.37 -36087673.32 -36087673.26 0.0144 0.0134
 Mercury -103516-07-30 09:50 J -36087585.18 -36087585.09 -36087584.98 0.0145 0.0112
 Mercury -103516-10-26 15:50 J -36087496.96 -36087496.84 -36087496.71 0.0145 0.0089

Mercury -103515-01-22 21:35 J -36087408.74 -36087408.60 -36087408.45 0.0145 0.0066

Mercury -103515-04-21 03:35 J -36087320.50 -36087320.35 -36087320.19 0.0145 0.0042

Mercury -103515-07-18 09:35 J -36087232.26 -36087232.10 -36087231.94 0.0145 0.0019

Mercury -103515-10-14 15:35 J -36087144.01 -36087143.85 -36087143.68 0.0145 0.0005

Mercury -103514-01-10 21:35 J -36087055.76 -36087055.60 -36087055.43 0.0145 0.0029

Mercury -103514-04-09 03:50 J -36086967.49 -36086967.34 -36086967.18 0.0145 0.0053

Mercury -103514-07-06 10:04 J -36086879.22 -36086879.08 -36086878.94 0.0145 0.0078

Mercury -103514-10-02 16:04 J -36086790.93 -36086790.83 -36086790.70 0.0146 0.0103

Mercury -103514-12-29 22:33 J -36086702.63 -36086702.56 -36086702.47 0.0146 0.0128

Venus -103511-12-04 07:26 J -36085632.35 -36085632.19 -36085632.01 0.0147 0.0092

Venus -103510-07-18 20:52 J -36085405.84 -36085405.63 -36085405.41 0.0147 0.0023

Venus -103509-03-01 10:33 J -36085179.27 -36085179.06 -36085178.85 0.0147 0.0046

Venus -103509-10-14 00:14 J -36084952.61 -36084952.49 -36084952.35 0.0147 0.0117

Earth -103490-03-25 05:59 J -36078216.46 -36078216.25 -36078216.04 0.0142 0.0085

Moon -103490-03-25 09:35 J -36078216.32 -36078216.10 -36078215.88 0.0142 0.0078 *

Moon -103489-03-29 07:40 J -36077846.45 -36077846.18 -36077845.91 0.0142 0.0001

Earth -103489-03-29 11:30 J -36077846.28 -36077846.02 -36077845.75 0.0142 0.0006 *

Earth -103488-04-03 15:35 J -36077476.03 -36077475.85 -36077475.65 0.0141 0.0095

Moon -103488-04-03 18:28 J -36077475.90 -36077475.73 -36077475.52 0.0141 0.0096 *

Mars -103479-12-14 04:47 J -36073934.58 -36073934.30 -36073934.01 0.0135 0.0018

Mercury -103477-09-28 18:57 J -36073279.76 -36073279.71 -36073279.64 0.0134 0.0123

Mercury -103477-12-25 23:30 J -36073191.61 -36073191.52 -36073191.42 0.0134 0.0104

Mercury -103476-03-24 03:50 J -36073103.45 -36073103.34 -36073103.22 0.0134 0.0086

Mercury -103476-06-20 07:54 J -36073015.29 -36073015.17 -36073015.03 0.0134 0.0069

Mercury -103476-09-16 12:28 J -36072927.12 -36072926.98 -36072926.84 0.0134 0.0051

Mercury -103476-12-13 16:33 J -36072838.95 -36072838.81 -36072838.66 0.0134 0.0034

Mercury -103475-03-11 20:52 J -36072750.78 -36072750.63 -36072750.48 0.0134 0.0016

Mercury -103475-06-08 00:57 J -36072662.61 -36072662.46 -36072662.31 0.0134 0.0001

Mercury -103475-09-04 05:02 J -36072574.44 -36072574.29 -36072574.14 0.0134 0.0018

Mercury -103475-12-01 09:06 J -36072486.26 -36072486.12 -36072485.97 0.0133 0.0035

Mercury -103474-02-27 13:11 J -36072398.09 -36072397.95 -36072397.81 0.0133 0.0051
 Mercury -103474-05-26 17:16 J -36072309.91 -36072309.78 -36072309.65 0.0133 0.0068
 Mercury -103474-08-22 21:06 J -36072221.73 -36072221.62 -36072221.50 0.0133 0.0084
 Mercury -103474-11-19 00:57 J -36072133.55 -36072133.46 -36072133.36 0.0133 0.0100
 Mercury -103473-02-15 04:47 J -36072045.36 -36072045.30 -36072045.22 0.0133 0.0116
 Mercury -103473-05-13 08:38 J -36071957.14 -36071957.14 -36071957.12 0.0133 0.0132
 Venus -103470-03-26 03:21 J -36070910.49 -36070910.36 -36070910.21 0.0132 0.0102
 Venus -103470-11-07 07:54 J -36070684.36 -36070684.17 -36070683.96 0.0132 0.0052
 Venus -103469-06-20 12:14 J -36070458.20 -36070457.99 -36070457.77 0.0132 0.0003
 Venus -103468-02-01 16:04 J -36070232.02 -36070231.83 -36070231.62 0.0132 0.0047
 Venus -103468-09-15 19:40 J -36070005.81 -36070005.68 -36070005.51 0.0132 0.0096
 Earth -103446-09-19 23:02 J -36061966.68 -36061966.54 -36061966.38 0.0136 0.0108
 Moon -103446-09-19 22:33 J -36061966.67 -36061966.56 -36061966.40 0.0136 0.0112 *
 Earth -103445-09-23 03:06 J -36061597.61 -36061597.37 -36061597.13 0.0137 0.0034
 Moon -103445-09-23 03:50 J -36061597.58 -36061597.34 -36061597.09 0.0137 0.0035 *
 Moon -103444-09-27 07:40 J -36061228.40 -36061228.18 -36061227.95 0.0137 0.0043
 Earth -103444-09-27 07:54 J -36061228.40 -36061228.17 -36061227.93 0.0137 0.0040 *
 Earth -103443-10-01 13:40 J -36060859.06 -36060858.93 -36060858.80 0.0138 0.0116
 Moon -103443-10-01 13:54 J -36060859.05 -36060858.92 -36060858.75 0.0138 0.0111 *
 Mars -103434-03-02 12:14 J -36057785.29 -36057784.99 -36057784.68 0.0143 0.0057
 Mercury -103432-05-23 11:59 J -36056972.06 -36056972.00 -36056971.91 0.0144 0.0126
 Mercury -103432-08-19 17:59 J -36056883.86 -36056883.75 -36056883.64 0.0145 0.0104
 Mercury -103432-11-15 23:45 J -36056795.64 -36056795.51 -36056795.37 0.0145 0.0081
 Mercury -103431-02-12 05:30 J -36056707.41 -36056707.27 -36056707.11 0.0145 0.0058
 Mercury -103431-05-11 11:30 J -36056619.17 -36056619.02 -36056618.86 0.0145 0.0035
 Mercury -103431-08-07 17:30 J -36056530.93 -36056530.77 -36056530.60 0.0145 0.0011
 Mercury -103431-11-03 23:30 J -36056442.68 -36056442.52 -36056442.35 0.0145 0.0013
 Mercury -103430-01-31 05:30 J -36056354.42 -36056354.27 -36056354.10 0.0145 0.0037
 Mercury -103430-04-29 11:45 J -36056266.16 -36056266.01 -36056265.86 0.0145 0.0061
 Mercury -103430-07-26 17:59 J -36056177.88 -36056177.75 -36056177.61 0.0145 0.0086

Mercury -103430-10-23 00:14 J -36056089.59 -36056089.49 -36056089.38 0.0146 0.0111

Mercury -103429-01-19 06:28 J -36056001.28 -36056001.23 -36056001.16 0.0146 0.0136

Venus -103427-08-03 14:23 J -36055074.00 -36055073.90 -36055073.77 0.0147 0.0124

Venus -103426-03-18 03:50 J -36054847.54 -36054847.34 -36054847.14 0.0147 0.0055

Venus -103426-10-30 17:30 J -36054620.99 -36054620.77 -36054620.56 0.0147 0.0014

Venus -103425-06-13 06:42 J -36054394.39 -36054394.22 -36054394.03 0.0147 0.0084

Earth -103406-03-25 15:35 J -36047535.06 -36047534.85 -36047534.63 0.0142 0.0081

Moon -103406-03-25 19:26 J -36047534.89 -36047534.69 -36047534.47 0.0142 0.0089 *

Moon -103405-03-29 17:45 J -36047165.02 -36047164.76 -36047164.49 0.0142 0.0015

Earth -103405-03-29 21:21 J -36047164.87 -36047164.61 -36047164.34 0.0142 0.0010 *

Earth -103404-04-04 01:11 J -36046794.62 -36046794.45 -36046794.24 0.0141 0.0099

Moon -103404-04-04 05:02 J -36046794.46 -36046794.29 -36046794.09 0.0141 0.0098 *

Mars -103396-09-07 17:30 J -36043715.90 -36043715.77 -36043715.61 0.0136 0.0116

Mars -103394-08-08 12:14 J -36043016.19 -36043015.99 -36043015.77 0.0135 0.0093

Mercury -103393-10-19 02:09 J -36042578.47 -36042578.41 -36042578.33 0.0134 0.0118

Mercury -103392-01-15 06:28 J -36042490.32 -36042490.23 -36042490.12 0.0134 0.0100

Mercury -103392-04-13 10:47 J -36042402.16 -36042402.05 -36042401.92 0.0134 0.0083

Mercury -103392-07-10 15:21 J -36042313.99 -36042313.86 -36042313.73 0.0134 0.0064

Mercury -103392-10-06 19:26 J -36042225.83 -36042225.69 -36042225.54 0.0134 0.0047

Mercury -103391-01-02 23:45 J -36042137.66 -36042137.51 -36042137.36 0.0134 0.0030

Mercury -103391-04-01 04:04 J -36042049.48 -36042049.33 -36042049.18 0.0134 0.0013

Mercury -103391-06-28 08:09 J -36041961.31 -36041961.16 -36041961.01 0.0134 0.0005

Mercury -103391-09-24 12:14 J -36041873.14 -36041872.99 -36041872.84 0.0134 0.0022

Mercury -103391-12-21 16:18 J -36041784.96 -36041784.82 -36041784.68 0.0133 0.0039

Mercury -103390-03-19 20:09 J -36041696.79 -36041696.66 -36041696.52 0.0133 0.0056

Mercury -103390-06-16 00:14 J -36041608.61 -36041608.49 -36041608.36 0.0133 0.0072

Mercury -103390-09-12 04:18 J -36041520.43 -36041520.32 -36041520.21 0.0133 0.0088

Mercury -103390-12-09 08:09 J -36041432.24 -36041432.16 -36041432.06 0.0133 0.0104

Mercury -103389-03-06 12:14 J -36041344.05 -36041343.99 -36041343.93 0.0133 0.0120

Venus -103387-11-23 13:40 J -36040351.97 -36040351.93 -36040351.85 0.0132 0.0126

Venus -103386-07-07 18:28 J -36040125.90 -36040125.73 -36040125.55 0.0132 0.0076
 Venus -103385-02-18 23:02 J -36039899.76 -36039899.54 -36039899.33 0.0132 0.0026
 Venus -103385-10-02 02:52 J -36039673.58 -36039673.38 -36039673.15 0.0132 0.0024
 Venus -103384-05-16 06:57 J -36039447.38 -36039447.21 -36039447.02 0.0132 0.0073
 Venus -103384-12-28 10:47 J -36039221.12 -36039221.05 -36039220.96 0.0131 0.0121
 Moon -103362-09-20 11:16 J -36031285.18 -36031285.03 -36031284.86 0.0136 0.0101
 Earth -103362-09-20 11:16 J -36031285.17 -36031285.03 -36031284.86 0.0136 0.0103 *
 Moon -103361-09-23 14:52 J -36030916.12 -36030915.88 -36030915.62 0.0137 0.0031
 Earth -103361-09-23 15:21 J -36030916.09 -36030915.86 -36030915.62 0.0137 0.0030 *
 Moon -103360-09-27 19:54 J -36030546.89 -36030546.67 -36030546.44 0.0137 0.0042
 Earth -103360-09-27 19:54 J -36030546.89 -36030546.67 -36030546.43 0.0137 0.0045 *
 Earth -103359-10-02 01:26 J -36030177.54 -36030177.44 -36030177.30 0.0138 0.0120
 Moon -103359-10-02 01:11 J -36030177.53 -36030177.45 -36030177.32 0.0138 0.0125 *
 Mars -103350-10-27 21:06 J -36026864.91 -36026864.62 -36026864.29 0.0144 0.0053
 Mercury -103348-03-16 14:09 J -36026358.93 -36026358.91 -36026358.87 0.0144 0.0142
 Mercury -103348-06-12 19:54 J -36026270.75 -36026270.67 -36026270.58 0.0144 0.0119
 Mercury -103348-09-09 01:40 J -36026182.55 -36026182.43 -36026182.31 0.0145 0.0097
 Mercury -103348-12-06 07:26 J -36026094.32 -36026094.19 -36026094.05 0.0145 0.0074
 Mercury -103347-03-04 13:26 J -36026006.09 -36026005.94 -36026005.79 0.0145 0.0051
 Mercury -103347-05-31 19:11 J -36025917.86 -36025917.70 -36025917.54 0.0145 0.0028
 Mercury -103347-08-28 01:11 J -36025829.61 -36025829.45 -36025829.28 0.0145 0.0005
 Mercury -103347-11-24 07:11 J -36025741.36 -36025741.20 -36025741.03 0.0145 0.0020
 Mercury -103346-02-20 13:26 J -36025653.10 -36025652.94 -36025652.78 0.0145 0.0044
 Mercury -103346-05-19 19:26 J -36025564.83 -36025564.69 -36025564.54 0.0145 0.0068
 Mercury -103346-08-16 01:40 J -36025476.55 -36025476.43 -36025476.30 0.0146 0.0093
 Mercury -103346-11-12 07:54 J -36025388.26 -36025388.17 -36025388.07 0.0146 0.0117
 Mercury -103345-02-08 14:09 J -36025299.93 -36025299.91 -36025299.87 0.0146 0.0143
 Venus -103343-11-15 10:18 J -36024289.24 -36024289.07 -36024288.89 0.0147 0.0088
 Venus -103342-06-29 23:30 J -36024062.73 -36024062.52 -36024062.30 0.0147 0.0019
 Venus -103341-02-11 12:57 J -36023836.16 -36023835.96 -36023835.75 0.0147 0.0050

Venus -103341-09-25 02:38 J -36023609.51 -36023609.39 -36023609.26 0.0147 0.0121
 Earth -103322-03-26 02:52 J -36016853.59 -36016853.38 -36016853.14 0.0142 0.0076
 Moon -103322-03-26 06:28 J -36016853.45 -36016853.23 -36016852.98 0.0142 0.0068 *
 Moon -103321-03-30 05:02 J -36016483.55 -36016483.29 -36016483.03 0.0142 0.0009
 Earth -103321-03-30 08:52 J -36016483.39 -36016483.13 -36016482.86 0.0142 0.0015 *
 Earth -103320-04-04 13:11 J -36016113.12 -36016112.95 -36016112.77 0.0141 0.0103
 Moon -103320-04-04 16:33 J -36016112.97 -36016112.81 -36016112.62 0.0141 0.0105 *
 Mars -103311-05-03 05:16 J -36012797.55 -36012797.28 -36012796.99 0.0136 0.0038
 Mercury -103309-08-12 05:02 J -36011965.31 -36011965.29 -36011965.24 0.0134 0.0131
 Mercury -103309-11-08 09:50 J -36011877.17 -36011877.09 -36011877.01 0.0134 0.0113
 Mercury -103308-02-04 13:54 J -36011789.02 -36011788.92 -36011788.80 0.0134 0.0095
 Mercury -103308-05-03 18:14 J -36011700.85 -36011700.74 -36011700.60 0.0134 0.0077
 Mercury -103308-07-30 22:47 J -36011612.69 -36011612.55 -36011612.41 0.0134 0.0059
 Mercury -103308-10-27 02:52 J -36011524.52 -36011524.38 -36011524.23 0.0134 0.0042
 Mercury -103307-01-23 07:11 J -36011436.35 -36011436.20 -36011436.05 0.0134 0.0024
 Mercury -103307-04-21 11:30 J -36011348.17 -36011348.02 -36011347.87 0.0134 0.0008
 Mercury -103307-07-18 15:35 J -36011260.00 -36011259.85 -36011259.70 0.0134 0.0010
 Mercury -103307-10-14 19:40 J -36011171.83 -36011171.68 -36011171.53 0.0133 0.0027
 Mercury -103306-01-10 23:45 J -36011083.65 -36011083.51 -36011083.37 0.0133 0.0044
 Mercury -103306-04-09 03:35 J -36010995.47 -36010995.35 -36010995.21 0.0133 0.0061
 Mercury -103306-07-06 07:40 J -36010907.30 -36010907.18 -36010907.05 0.0133 0.0077
 Mercury -103306-10-02 11:30 J -36010819.11 -36010819.02 -36010818.90 0.0133 0.0093
 Mercury -103306-12-29 15:35 J -36010730.93 -36010730.85 -36010730.76 0.0133 0.0109
 Mercury -103305-03-26 19:26 J -36010642.73 -36010642.69 -36010642.64 0.0133 0.0125
 Venus -103302-03-07 05:30 J -36009567.41 -36009567.27 -36009567.12 0.0132 0.0099
 Venus -103302-10-19 10:04 J -36009341.28 -36009341.08 -36009340.88 0.0132 0.0049
 Venus -103301-06-01 14:23 J -36009115.12 -36009114.90 -36009114.68 0.0132 0.0001
 Venus -103300-01-13 18:14 J -36008888.93 -36008888.74 -36008888.53 0.0132 0.0050
 Venus -103300-08-27 22:04 J -36008662.71 -36008662.58 -36008662.43 0.0132 0.0099
 Earth -103278-09-20 23:16 J -36000603.69 -36000603.53 -36000603.35 0.0136 0.0098

Moon -103278-09-21 00:14 J -36000603.63 -36000603.49 -36000603.32 0.0136 0.0102 *
 Moon -103277-09-24 02:38 J -36000234.64 -36000234.39 -36000234.14 0.0137 0.0026
 Earth -103277-09-24 03:06 J -36000234.61 -36000234.37 -36000234.13 0.0137 0.0026 *
 Earth -103276-09-28 07:26 J -35999865.40 -35999865.19 -35999864.95 0.0137 0.0049
 Moon -103276-09-28 08:23 J -35999865.36 -35999865.15 -35999864.92 0.0137 0.0051 *
 Moon -103275-10-02 11:59 J -35999496.10 -35999496.00 -35999495.85 0.0138 0.0119
 Earth -103275-10-02 13:11 J -35999496.05 -35999495.95 -35999495.83 0.0138 0.0123 *
 Mars -103267-07-17 21:06 J -35996650.71 -35996650.62 -35996650.48 0.0143 0.0134
 Mercury -103264-04-05 21:50 J -35995657.65 -35995657.59 -35995657.54 0.0144 0.0136
 Mercury -103264-07-03 03:21 J -35995569.46 -35995569.36 -35995569.26 0.0144 0.0114
 Mercury -103264-09-29 08:52 J -35995481.24 -35995481.13 -35995481.00 0.0145 0.0092
 Mercury -103264-12-26 14:38 J -35995393.02 -35995392.89 -35995392.74 0.0145 0.0069
 Mercury -103263-03-24 20:38 J -35995304.79 -35995304.64 -35995304.48 0.0145 0.0046
 Mercury -103263-06-21 02:38 J -35995216.55 -35995216.39 -35995216.23 0.0145 0.0022
 Mercury -103263-09-17 08:38 J -35995128.30 -35995128.14 -35995127.98 0.0145 0.0002
 Mercury -103263-12-14 14:38 J -35995040.05 -35995039.89 -35995039.73 0.0145 0.0025
 Mercury -103262-03-12 20:38 J -35994951.79 -35994951.64 -35994951.48 0.0145 0.0050
 Mercury -103262-06-09 02:52 J -35994863.52 -35994863.38 -35994863.24 0.0145 0.0074
 Mercury -103262-09-05 08:52 J -35994775.24 -35994775.13 -35994775.00 0.0146 0.0099
 Mercury -103262-12-02 15:06 J -35994686.94 -35994686.87 -35994686.77 0.0146 0.0124
 Venus -103259-07-15 15:50 J -35993730.95 -35993730.84 -35993730.72 0.0147 0.0122
 Venus -103258-02-27 04:47 J -35993504.49 -35993504.30 -35993504.09 0.0147 0.0054
 Venus -103258-10-11 18:28 J -35993277.95 -35993277.73 -35993277.51 0.0147 0.0016
 Venus -103257-05-25 07:40 J -35993051.34 -35993051.18 -35993050.99 0.0147 0.0086
 Earth -103238-03-26 11:45 J -35986172.23 -35986172.01 -35986171.77 0.0142 0.0071
 Moon -103238-03-26 15:06 J -35986172.07 -35986171.87 -35986171.63 0.0142 0.0080 *
 Moon -103237-03-30 14:09 J -35985802.16 -35985801.91 -35985801.64 0.0142 0.0025
 Earth -103237-03-30 17:45 J -35985802.02 -35985801.76 -35985801.49 0.0142 0.0019 *
 Earth -103236-04-04 22:04 J -35985431.74 -35985431.58 -35985431.40 0.0141 0.0106
 Moon -103236-04-05 01:54 J -35985431.58 -35985431.42 -35985431.24 0.0141 0.0106 *

Mars -103227-12-26 11:59 J -35981879.26 -35981879.00 -35981878.71 0.0135 0.0040
 Mercury -103225-09-01 12:14 J -35981264.03 -35981263.99 -35981263.93 0.0134 0.0127
 Mercury -103225-11-28 16:47 J -35981175.89 -35981175.80 -35981175.71 0.0134 0.0109
 Mercury -103224-02-24 21:21 J -35981087.73 -35981087.61 -35981087.50 0.0134 0.0091
 Mercury -103224-05-24 01:26 J -35980999.56 -35980999.44 -35980999.31 0.0134 0.0073
 Mercury -103224-08-20 05:45 J -35980911.39 -35980911.26 -35980911.12 0.0134 0.0055
 Mercury -103224-11-16 10:04 J -35980823.22 -35980823.08 -35980822.93 0.0134 0.0038
 Mercury -103223-02-12 14:23 J -35980735.05 -35980734.90 -35980734.75 0.0134 0.0020
 Mercury -103223-05-11 18:28 J -35980646.88 -35980646.73 -35980646.58 0.0134 0.0004
 Mercury -103223-08-07 22:33 J -35980558.70 -35980558.56 -35980558.40 0.0134 0.0015
 Mercury -103223-11-04 02:38 J -35980470.53 -35980470.39 -35980470.24 0.0134 0.0031
 Mercury -103222-01-31 06:57 J -35980382.35 -35980382.21 -35980382.07 0.0133 0.0048
 Mercury -103222-04-29 10:47 J -35980294.18 -35980294.05 -35980293.91 0.0133 0.0064
 Mercury -103222-07-26 14:52 J -35980206.00 -35980205.88 -35980205.76 0.0133 0.0081
 Mercury -103222-10-22 18:42 J -35980117.81 -35980117.72 -35980117.61 0.0133 0.0097
 Mercury -103221-01-18 22:33 J -35980029.63 -35980029.56 -35980029.47 0.0133 0.0113
 Mercury -103221-04-16 02:23 J -35979941.42 -35979941.40 -35979941.35 0.0133 0.0129
 Venus -103219-11-04 15:35 J -35979008.91 -35979008.85 -35979008.76 0.0132 0.0124
 Venus -103218-06-18 20:09 J -35978782.83 -35978782.66 -35978782.47 0.0132 0.0073
 Venus -103217-01-31 00:28 J -35978556.69 -35978556.48 -35978556.26 0.0132 0.0024
 Venus -103217-09-13 04:47 J -35978330.51 -35978330.30 -35978330.09 0.0132 0.0026
 Venus -103216-04-27 08:38 J -35978104.30 -35978104.14 -35978103.95 0.0132 0.0076
 Venus -103216-12-09 12:14 J -35977878.03 -35977877.99 -35977877.90 0.0132 0.0125
 Earth -103194-09-21 10:04 J -35969922.25 -35969922.08 -35969921.90 0.0136 0.0095
 Moon -103194-09-21 10:47 J -35969922.20 -35969922.05 -35969921.86 0.0136 0.0092 *
 Moon -103193-09-24 12:28 J -35969553.23 -35969552.98 -35969552.73 0.0137 0.0023
 Earth -103193-09-24 13:54 J -35969553.16 -35969552.92 -35969552.68 0.0137 0.0022 *
 Earth -103192-09-28 18:14 J -35969183.96 -35969183.74 -35969183.51 0.0137 0.0051
 Moon -103192-09-28 19:40 J -35969183.90 -35969183.68 -35969183.46 0.0137 0.0050 *
 Moon -103191-10-02 22:18 J -35968814.63 -35968814.57 -35968814.47 0.0138 0.0131

Earth -103191-10-02 23:30 J -35968814.60 -35968814.52 -35968814.41 0.0138 0.0126 *
 Mars -103182-03-14 01:54 J -35965730.73 -35965730.42 -35965730.08 0.0143 0.0029
 Mercury -103180-04-26 04:33 J -35964956.37 -35964956.31 -35964956.24 0.0144 0.0131
 Mercury -103180-07-23 10:04 J -35964868.17 -35964868.08 -35964867.96 0.0144 0.0110
 Mercury -103180-10-19 16:04 J -35964779.96 -35964779.83 -35964779.70 0.0145 0.0087
 Mercury -103179-01-15 21:50 J -35964691.73 -35964691.59 -35964691.44 0.0145 0.0064
 Mercury -103179-04-14 03:35 J -35964603.50 -35964603.35 -35964603.19 0.0145 0.0041
 Mercury -103179-07-11 09:35 J -35964515.26 -35964515.10 -35964514.94 0.0145 0.0018
 Mercury -103179-10-07 15:35 J -35964427.01 -35964426.85 -35964426.69 0.0145 0.0006
 Mercury -103178-01-03 21:35 J -35964338.76 -35964338.60 -35964338.44 0.0145 0.0030
 Mercury -103178-04-02 03:35 J -35964250.50 -35964250.35 -35964250.19 0.0145 0.0054
 Mercury -103178-06-29 09:35 J -35964162.23 -35964162.10 -35964161.95 0.0145 0.0079
 Mercury -103178-09-25 16:04 J -35964073.95 -35964073.83 -35964073.71 0.0146 0.0103
 Mercury -103178-12-22 22:04 J -35963985.65 -35963985.58 -35963985.49 0.0146 0.0128
 Venus -103175-10-27 09:21 J -35962946.27 -35962946.11 -35962945.92 0.0147 0.0090
 Venus -103174-06-10 22:47 J -35962719.77 -35962719.55 -35962719.34 0.0147 0.0020
 Venus -103173-01-23 11:59 J -35962493.20 -35962493.00 -35962492.79 0.0147 0.0050
 Venus -103173-09-06 01:40 J -35962266.55 -35962266.43 -35962266.30 0.0147 0.0120
 Earth -103154-03-26 19:40 J -35955490.90 -35955490.68 -35955490.44 0.0142 0.0068
 Moon -103154-03-26 22:18 J -35955490.81 -35955490.57 -35955490.32 0.0142 0.0061 *
 Moon -103153-03-30 22:04 J -35955120.83 -35955120.58 -35955120.32 0.0142 0.0016
 Earth -103153-03-31 01:40 J -35955120.69 -35955120.43 -35955120.16 0.0142 0.0021 *
 Earth -103152-04-05 05:45 J -35954750.41 -35954750.26 -35954750.07 0.0141 0.0109
 Moon -103152-04-05 09:35 J -35954750.25 -35954750.10 -35954749.93 0.0141 0.0111 *
 Mars -103144-09-20 00:28 J -35951660.68 -35951660.48 -35951660.27 0.0136 0.0093
 Mars -103142-08-20 18:57 J -35950960.84 -35950960.71 -35950960.55 0.0135 0.0115
 Mercury -103141-09-21 19:25 J -35950562.75 -35950562.69 -35950562.63 0.0134 0.0123
 Mercury -103141-12-18 23:45 J -35950474.60 -35950474.51 -35950474.41 0.0134 0.0105
 Mercury -103140-03-17 04:18 J -35950386.44 -35950386.32 -35950386.20 0.0134 0.0087
 Mercury -103140-06-13 08:23 J -35950298.27 -35950298.15 -35950298.01 0.0134 0.0069

Mercury -103140-09-09 12:57 J -35950210.10 -35950209.96 -35950209.82 0.0134 0.0051

Mercury -103140-12-06 17:01 J -35950121.93 -35950121.79 -35950121.63 0.0134 0.0034

Mercury -103139-03-04 21:21 J -35950033.76 -35950033.61 -35950033.45 0.0134 0.0017

Mercury -103139-06-01 01:40 J -35949945.58 -35949945.43 -35949945.28 0.0134 0.0002

Mercury -103139-08-28 05:45 J -35949857.41 -35949857.26 -35949857.11 0.0134 0.0018

Mercury -103139-11-24 09:49 J -35949769.23 -35949769.09 -35949768.94 0.0134 0.0035

Mercury -103138-02-20 13:54 J -35949681.06 -35949680.92 -35949680.78 0.0133 0.0052

Mercury -103138-05-19 17:45 J -35949592.88 -35949592.76 -35949592.62 0.0133 0.0069

Mercury -103138-08-15 22:04 J -35949504.70 -35949504.58 -35949504.47 0.0133 0.0085

Mercury -103138-11-12 01:40 J -35949416.51 -35949416.43 -35949416.32 0.0133 0.0101

Mercury -103137-02-08 05:45 J -35949328.32 -35949328.26 -35949328.18 0.0133 0.0117

Mercury -103137-05-06 09:35 J -35949240.10 -35949240.10 -35949240.09 0.0133 0.0133

Venus -103134-02-16 06:28 J -35948224.37 -35948224.23 -35948224.08 0.0132 0.0098

Venus -103134-09-30 11:01 J -35947998.24 -35947998.04 -35947997.84 0.0132 0.0047

Venus -103133-05-13 15:21 J -35947772.08 -35947771.86 -35947771.64 0.0132 0.0002

Venus -103133-12-25 19:25 J -35947545.89 -35947545.69 -35947545.49 0.0132 0.0052

Venus -103132-08-08 23:30 J -35947319.66 -35947319.52 -35947319.39 0.0132 0.0101

Jupiter -103127-03-30 03:21 J -35945625.65 -35945625.36 -35945624.99 0.0131 0.0098

Earth -103110-09-21 20:52 J -35939240.80 -35939240.63 -35939240.44 0.0136 0.0091

Moon -103110-09-21 22:33 J -35939240.71 -35939240.56 -35939240.37 0.0136 0.0096 *

Moon -103109-09-24 22:33 J -35938871.80 -35938871.56 -35938871.31 0.0137 0.0018

Earth -103109-09-25 00:28 J -35938871.72 -35938871.48 -35938871.23 0.0137 0.0019 *

Earth -103108-09-29 04:47 J -35938502.51 -35938502.30 -35938502.06 0.0137 0.0055

Moon -103108-09-29 06:28 J -35938502.43 -35938502.23 -35938502.00 0.0137 0.0057 *

Moon -103107-10-03 07:54 J -35938133.25 -35938133.17 -35938133.04 0.0138 0.0125

Earth -103107-10-03 10:04 J -35938133.14 -35938133.08 -35938132.97 0.0138 0.0129 *

Mars -103098-11-08 07:11 J -35934810.47 -35934810.20 -35934809.91 0.0143 0.0078

Mercury -103096-05-16 11:45 J -35934255.08 -35934255.01 -35934254.93 0.0144 0.0126

Mercury -103096-08-12 17:16 J -35934166.88 -35934166.78 -35934166.66 0.0144 0.0105

Mercury -103096-11-08 23:16 J -35934078.66 -35934078.53 -35934078.40 0.0145 0.0082

Mercury -103095-02-05 05:01 J -35933990.44 -35933990.29 -35933990.14 0.0145 0.0059

Mercury -103095-05-04 10:47 J -35933902.20 -35933902.05 -35933901.89 0.0145 0.0036

Mercury -103095-07-31 16:47 J -35933813.96 -35933813.80 -35933813.64 0.0145 0.0013

Mercury -103095-10-27 22:47 J -35933725.72 -35933725.55 -35933725.39 0.0145 0.0011

Mercury -103094-01-24 04:33 J -35933637.46 -35933637.31 -35933637.14 0.0145 0.0035

Mercury -103094-04-22 10:47 J -35933549.20 -35933549.05 -35933548.90 0.0145 0.0059

Mercury -103094-07-19 16:47 J -35933460.93 -35933460.80 -35933460.66 0.0145 0.0083

Mercury -103094-10-15 23:01 J -35933372.65 -35933372.54 -35933372.43 0.0145 0.0108

Mercury -103093-01-12 05:01 J -35933284.34 -35933284.29 -35933284.21 0.0146 0.0133

Venus -103091-06-26 14:09 J -35932388.01 -35932387.91 -35932387.78 0.0147 0.0124

Venus -103090-02-08 03:06 J -35932161.56 -35932161.37 -35932161.16 0.0147 0.0056

Venus -103090-09-22 16:47 J -35931935.02 -35931934.80 -35931934.59 0.0147 0.0014

Venus -103089-05-06 05:59 J -35931708.42 -35931708.25 -35931708.06 0.0147 0.0084

Jupiter -103086-07-27 09:21 J -35930531.56 -35930531.11 -35930530.61 0.0147 0.0072

Earth -103070-03-27 01:40 J -35924809.64 -35924809.43 -35924809.18 0.0142 0.0068

Moon -103070-03-27 04:33 J -35924809.53 -35924809.31 -35924809.07 0.0142 0.0074 *

Moon -103069-03-31 05:30 J -35924439.52 -35924439.27 -35924439.02 0.0142 0.0029

Earth -103069-03-31 07:54 J -35924439.42 -35924439.17 -35924438.90 0.0142 0.0023 *

Earth -103068-04-05 12:28 J -35924069.14 -35924068.98 -35924068.81 0.0141 0.0109

Moon -103068-04-05 15:49 J -35924069.00 -35924068.84 -35924068.66 0.0141 0.0108 *

Mars -103059-05-15 05:01 J -35920742.57 -35920742.29 -35920742.00 0.0136 0.0019

Mercury -103057-10-12 01:54 J -35919861.48 -35919861.42 -35919861.34 0.0134 0.0120

Mercury -103056-01-08 06:13 J -35919773.32 -35919773.24 -35919773.13 0.0134 0.0103

Mercury -103056-04-06 10:47 J -35919685.16 -35919685.05 -35919684.92 0.0134 0.0084

Mercury -103056-07-03 15:06 J -35919596.99 -35919596.87 -35919596.73 0.0134 0.0067

Mercury -103056-09-29 19:40 J -35919508.82 -35919508.68 -35919508.54 0.0134 0.0049

Mercury -103056-12-26 23:45 J -35919420.65 -35919420.51 -35919420.36 0.0134 0.0031

Mercury -103055-03-25 04:04 J -35919332.48 -35919332.33 -35919332.18 0.0134 0.0014

Mercury -103055-06-21 08:23 J -35919244.30 -35919244.15 -35919244.00 0.0134 0.0005

Mercury -103055-09-17 12:28 J -35919156.13 -35919155.98 -35919155.83 0.0134 0.0021

Mercury -103055-12-14 16:33 J -35919067.95 -35919067.81 -35919067.66 0.0134 0.0038

Mercury -103054-03-12 20:37 J -35918979.78 -35918979.64 -35918979.50 0.0134 0.0054

Mercury -103054-06-09 00:42 J -35918891.60 -35918891.47 -35918891.34 0.0133 0.0071

Mercury -103054-09-05 04:33 J -35918803.42 -35918803.31 -35918803.19 0.0133 0.0087

Mercury -103054-12-02 08:37 J -35918715.23 -35918715.14 -35918715.05 0.0133 0.0103

Mercury -103053-02-28 12:28 J -35918627.04 -35918626.98 -35918626.91 0.0133 0.0120

Venus -103051-10-16 15:21 J -35917665.92 -35917665.86 -35917665.77 0.0132 0.0124

Venus -103050-05-30 19:54 J -35917439.84 -35917439.67 -35917439.47 0.0132 0.0074

Venus -103049-01-12 00:28 J -35917213.69 -35917213.48 -35917213.26 0.0132 0.0023

Venus -103049-08-25 04:47 J -35916987.51 -35916987.30 -35916987.08 0.0132 0.0027

Venus -103048-04-08 08:52 J -35916761.29 -35916761.13 -35916760.94 0.0132 0.0077

Venus -103048-11-20 12:57 J -35916535.01 -35916534.96 -35916534.89 0.0132 0.0126

Jupiter -103044-02-24 15:06 J -35915343.25 -35915342.87 -35915342.48 0.0131 0.0082

Earth -103026-09-22 07:25 J -35908559.37 -35908559.19 -35908559.00 0.0136 0.0088

Moon -103026-09-22 09:21 J -35908559.28 -35908559.11 -35908558.90 0.0136 0.0085 *

Moon -103025-09-25 08:37 J -35908190.38 -35908190.14 -35908189.89 0.0137 0.0017

Earth -103025-09-25 11:01 J -35908190.28 -35908190.04 -35908189.79 0.0137 0.0016 *

Earth -103024-09-29 15:35 J -35907821.07 -35907820.85 -35907820.63 0.0137 0.0057

Moon -103024-09-29 17:45 J -35907820.96 -35907820.76 -35907820.53 0.0137 0.0057 *

Moon -103023-10-03 18:42 J -35907451.76 -35907451.72 -35907451.67 0.0138 0.0135

Earth -103023-10-03 20:37 J -35907451.70 -35907451.64 -35907451.55 0.0138 0.0131 *

Mars -103015-07-29 04:47 J -35904596.49 -35904596.30 -35904596.06 0.0143 0.0109

Mercury -103012-03-09 13:25 J -35903641.95 -35903641.94 -35903641.93 0.0144 0.0143

Mercury -103012-06-05 18:57 J -35903553.79 -35903553.71 -35903553.62 0.0144 0.0122

Mercury -103012-09-02 00:28 J -35903465.59 -35903465.48 -35903465.36 0.0144 0.0100

Mercury -103012-11-29 06:13 J -35903377.37 -35903377.24 -35903377.10 0.0145 0.0077

Mercury -103011-02-25 11:59 J -35903289.14 -35903289.00 -35903288.84 0.0145 0.0054

Mercury -103011-05-24 17:59 J -35903200.91 -35903200.75 -35903200.59 0.0145 0.0031

Mercury -103011-08-20 23:45 J -35903112.67 -35903112.51 -35903112.34 0.0145 0.0008

Mercury -103011-11-17 05:45 J -35903024.42 -35903024.26 -35903024.10 0.0145 0.0016

Mercury	-103010-02-13 11:45 J	-35902936.17	-35902936.01	-35902935.85	0.0145	0.0039
Mercury	-103010-05-12 17:45 J	-35902847.90	-35902847.76	-35902847.61	0.0145	0.0064
Mercury	-103010-08-08 23:59 J	-35902759.63	-35902759.50	-35902759.37	0.0145	0.0088
Mercury	-103010-11-05 05:59 J	-35902671.35	-35902671.25	-35902671.14	0.0145	0.0112
Mercury	-103009-02-01 12:28 J	-35902583.03	-35902582.98	-35902582.93	0.0146	0.0137
Venus	-103007-10-08 08:23 J	-35901603.31	-35901603.15	-35901602.97	0.0147	0.0091
Venus	-103006-05-22 21:35 J	-35901376.81	-35901376.60	-35901376.38	0.0147	0.0021
Venus	-103005-01-04 10:33 J	-35901150.25	-35901150.06	-35901149.84	0.0147	0.0049
Venus	-103005-08-17 23:59 J	-35900923.61	-35900923.50	-35900923.36	0.0147	0.0119

103RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 103rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-102986-03-27 09:06 J	-35894128.35	-35894128.12	-35894127.88	0.0142	0.0065		
Moon	-102986-03-27 10:18 J	-35894128.31	-35894128.07	-35894127.81	0.0142	0.0058	*	
Moon	-102985-03-31 12:42 J	-35893758.22	-35893757.97	-35893757.71	0.0142	0.0018		
Earth	-102985-03-31 15:06 J	-35893758.13	-35893757.87	-35893757.60	0.0142	0.0024	*	
Earth	-102984-04-05 19:11 J	-35893387.85	-35893387.70	-35893387.53	0.0141	0.0111		
Moon	-102984-04-05 22:04 J	-35893387.72	-35893387.58	-35893387.40	0.0141	0.0114	*	
Mars	-102974-01-07 11:16 J	-35889824.29	-35889824.03	-35889823.76	0.0135	0.0056		

Mercury -102973-11-01 08:37 J -35889160.20 -35889160.14 -35889160.05 0.0134 0.0118

Mercury -102972-01-28 13:11 J -35889072.04 -35889071.95 -35889071.84 0.0134 0.0099

Mercury -102972-04-26 17:30 J -35888983.88 -35888983.77 -35888983.64 0.0134 0.0082

Mercury -102972-07-23 22:04 J -35888895.71 -35888895.58 -35888895.44 0.0134 0.0063

Mercury -102972-10-20 02:09 J -35888807.54 -35888807.41 -35888807.26 0.0134 0.0047

Mercury -102971-01-16 06:42 J -35888719.37 -35888719.22 -35888719.07 0.0134 0.0028

Mercury -102971-04-14 10:47 J -35888631.20 -35888631.05 -35888630.89 0.0134 0.0012

Mercury -102971-07-11 15:06 J -35888543.02 -35888542.87 -35888542.72 0.0134 0.0006

Mercury -102971-10-07 19:11 J -35888454.85 -35888454.70 -35888454.55 0.0134 0.0024

Mercury -102970-01-03 23:16 J -35888366.67 -35888366.53 -35888366.38 0.0134 0.0040

Mercury -102970-04-02 03:21 J -35888278.49 -35888278.36 -35888278.22 0.0134 0.0057

Mercury -102970-06-29 07:25 J -35888190.31 -35888190.19 -35888190.06 0.0133 0.0074

Mercury -102970-09-25 11:16 J -35888102.13 -35888102.03 -35888101.91 0.0133 0.0090

Mercury -102970-12-22 15:21 J -35888013.94 -35888013.86 -35888013.77 0.0133 0.0106

Mercury -102969-03-19 19:11 J -35887925.75 -35887925.70 -35887925.64 0.0133 0.0122

Venus -102966-01-28 05:30 J -35886881.40 -35886881.27 -35886881.12 0.0132 0.0099

Venus -102966-09-11 10:04 J -35886655.27 -35886655.08 -35886654.87 0.0132 0.0048

Venus -102965-04-24 14:52 J -35886429.10 -35886428.88 -35886428.66 0.0132 0.0002

Venus -102965-12-06 18:57 J -35886202.90 -35886202.71 -35886202.50 0.0132 0.0052

Venus -102964-07-20 22:47 J -35885976.67 -35885976.55 -35885976.40 0.0132 0.0102

Earth -102942-09-22 17:59 J -35877877.93 -35877877.75 -35877877.55 0.0136 0.0085

Moon -102942-09-22 21:06 J -35877877.80 -35877877.62 -35877877.44 0.0136 0.0089 *

Moon -102941-09-25 18:42 J -35877508.96 -35877508.72 -35877508.47 0.0137 0.0011

Earth -102941-09-25 21:35 J -35877508.83 -35877508.60 -35877508.35 0.0137 0.0014 *

Earth -102940-09-30 01:54 J -35877139.63 -35877139.42 -35877139.19 0.0137 0.0060

Moon -102940-09-30 04:47 J -35877139.51 -35877139.30 -35877139.09 0.0137 0.0062 *

Moon -102939-10-04 04:33 J -35876770.39 -35876770.31 -35876770.22 0.0138 0.0129

Earth -102939-10-04 07:40 J -35876770.24 -35876770.18 -35876770.12 0.0138 0.0133 *

Mars -102930-03-25 11:45 J -35873676.34 -35873676.01 -35873675.68 0.0143 0.0003

Mercury -102928-03-29 20:37 J -35872940.68 -35872940.64 -35872940.59 0.0144 0.0138

Mercury -102928-06-26 02:09 J -35872852.50 -35872852.41 -35872852.31 0.0144 0.0116

Mercury -102928-09-22 07:40 J -35872764.29 -35872764.18 -35872764.05 0.0144 0.0095

Mercury -102928-12-19 13:40 J -35872676.07 -35872675.93 -35872675.79 0.0145 0.0072

Mercury -102927-03-17 19:25 J -35872587.84 -35872587.69 -35872587.54 0.0145 0.0049

Mercury -102927-06-14 01:11 J -35872499.61 -35872499.45 -35872499.29 0.0145 0.0026

Mercury -102927-09-10 07:11 J -35872411.37 -35872411.20 -35872411.04 0.0145 0.0004

Mercury -102927-12-07 12:57 J -35872323.12 -35872322.96 -35872322.79 0.0145 0.0021

Mercury -102926-03-05 18:57 J -35872234.86 -35872234.71 -35872234.55 0.0145 0.0045

Mercury -102926-06-02 00:57 J -35872146.60 -35872146.46 -35872146.31 0.0145 0.0069

Mercury -102926-08-29 07:11 J -35872058.32 -35872058.20 -35872058.07 0.0145 0.0093

Mercury -102926-11-25 13:25 J -35871970.03 -35871969.94 -35871969.84 0.0145 0.0118

Mercury -102925-02-21 19:25 J -35871881.71 -35871881.69 -35871881.65 0.0146 0.0143

Venus -102923-06-07 14:09 J -35871045.01 -35871044.91 -35871044.78 0.0146 0.0125

Venus -102922-01-20 03:06 J -35870818.56 -35870818.37 -35870818.16 0.0147 0.0056

Venus -102922-09-03 16:33 J -35870592.03 -35870591.81 -35870591.59 0.0147 0.0014

Venus -102921-04-17 05:45 J -35870365.43 -35870365.26 -35870365.07 0.0147 0.0084

Earth -102902-03-27 16:33 J -35863447.04 -35863446.81 -35863446.56 0.0142 0.0064

Moon -102902-03-27 17:30 J -35863446.99 -35863446.77 -35863446.52 0.0142 0.0071 *

Moon -102901-03-31 20:52 J -35863076.88 -35863076.63 -35863076.38 0.0142 0.0032

Earth -102901-03-31 22:18 J -35863076.83 -35863076.57 -35863076.30 0.0142 0.0025 *

Earth -102900-04-06 02:23 J -35862706.55 -35862706.40 -35862706.23 0.0141 0.0111

Moon -102900-04-06 04:33 J -35862706.46 -35862706.31 -35862706.12 0.0141 0.0109 *

Mars -102892-10-01 19:54 J -35859605.88 -35859605.67 -35859605.41 0.0136 0.0080

Mars -102890-09-01 15:21 J -35858905.94 -35858905.86 -35858905.77 0.0135 0.0128

Mercury -102889-08-25 11:01 J -35858547.06 -35858547.04 -35858547.01 0.0135 0.0133

Mercury -102889-11-21 15:35 J -35858458.93 -35858458.85 -35858458.77 0.0134 0.0115

Mercury -102888-02-17 19:54 J -35858370.77 -35858370.67 -35858370.56 0.0134 0.0097

Mercury -102888-05-17 00:28 J -35858282.61 -35858282.48 -35858282.36 0.0134 0.0079

Mercury -102888-08-13 04:33 J -35858194.44 -35858194.31 -35858194.16 0.0134 0.0061

Mercury -102888-11-09 09:06 J -35858106.27 -35858106.12 -35858105.98 0.0134 0.0043

Mercury -102887-02-05 13:11 J -35858018.09 -35858017.95 -35858017.79 0.0134 0.0026

Mercury -102887-05-04 17:30 J -35857929.92 -35857929.77 -35857929.62 0.0134 0.0008

Mercury -102887-07-31 21:35 J -35857841.75 -35857841.60 -35857841.44 0.0134 0.0010

Mercury -102887-10-28 01:54 J -35857753.57 -35857753.42 -35857753.27 0.0134 0.0026

Mercury -102886-01-24 05:59 J -35857665.39 -35857665.25 -35857665.11 0.0134 0.0043

Mercury -102886-04-22 09:49 J -35857577.21 -35857577.09 -35857576.95 0.0134 0.0060

Mercury -102886-07-19 14:09 J -35857489.03 -35857488.91 -35857488.79 0.0133 0.0076

Mercury -102886-10-15 17:59 J -35857400.85 -35857400.75 -35857400.64 0.0133 0.0092

Mercury -102885-01-11 21:49 J -35857312.66 -35857312.59 -35857312.49 0.0133 0.0109

Mercury -102885-04-09 01:54 J -35857224.47 -35857224.42 -35857224.37 0.0133 0.0124

Venus -102883-09-27 14:09 J -35856322.96 -35856322.91 -35856322.82 0.0132 0.0126

Venus -102882-05-11 19:11 J -35856096.87 -35856096.70 -35856096.51 0.0132 0.0075

Venus -102882-12-23 23:45 J -35855870.72 -35855870.51 -35855870.29 0.0132 0.0024

Venus -102881-08-06 04:04 J -35855644.53 -35855644.33 -35855644.11 0.0132 0.0027

Venus -102880-03-20 08:23 J -35855418.31 -35855418.15 -35855417.96 0.0132 0.0077

Venus -102880-11-01 12:42 J -35855192.02 -35855191.97 -35855191.90 0.0132 0.0126

Earth -102858-09-23 04:04 J -35847196.51 -35847196.33 -35847196.12 0.0136 0.0083

Moon -102858-09-23 07:25 J -35847196.38 -35847196.19 -35847195.98 0.0136 0.0078 *

Moon -102857-09-26 05:01 J -35846827.53 -35846827.29 -35846827.04 0.0137 0.0012

Earth -102857-09-26 08:09 J -35846827.40 -35846827.16 -35846826.91 0.0137 0.0011 *

Earth -102856-09-30 12:28 J -35846458.19 -35846457.98 -35846457.75 0.0137 0.0062

Moon -102856-09-30 15:35 J -35846458.05 -35846457.85 -35846457.62 0.0137 0.0062 *

Earth -102855-10-04 17:59 J -35846088.79 -35846088.75 -35846088.70 0.0138 0.0135

Mars -102846-11-19 17:30 J -35842755.98 -35842755.77 -35842755.51 0.0143 0.0103

Mercury -102844-04-19 03:49 J -35842239.39 -35842239.34 -35842239.28 0.0144 0.0133

Mercury -102844-07-16 09:21 J -35842151.20 -35842151.11 -35842151.00 0.0144 0.0112

Mercury -102844-10-12 14:52 J -35842062.99 -35842062.88 -35842062.74 0.0144 0.0090

Mercury -102843-01-08 20:52 J -35841974.77 -35841974.63 -35841974.49 0.0145 0.0067

Mercury -102843-04-07 02:37 J -35841886.54 -35841886.39 -35841886.24 0.0145 0.0044

Mercury -102843-07-04 08:23 J -35841798.31 -35841798.15 -35841797.99 0.0145 0.0021

Mercury -102843-09-30 14:23 J -35841710.06 -35841709.90 -35841709.74 0.0145 0.0003

Mercury -102843-12-27 20:23 J -35841621.81 -35841621.65 -35841621.49 0.0145 0.0026

Mercury -102842-03-26 02:09 J -35841533.56 -35841533.41 -35841533.25 0.0145 0.0050

Mercury -102842-06-22 08:09 J -35841445.29 -35841445.16 -35841445.01 0.0145 0.0075

Mercury -102842-09-18 14:23 J -35841357.02 -35841356.90 -35841356.77 0.0145 0.0099

Mercury -102842-12-15 20:23 J -35841268.72 -35841268.65 -35841268.55 0.0145 0.0124

Venus -102839-09-19 09:06 J -35840260.29 -35840260.12 -35840259.95 0.0146 0.0090

Venus -102838-05-03 22:04 J -35840033.79 -35840033.58 -35840033.36 0.0147 0.0021

Venus -102838-12-16 11:16 J -35839807.23 -35839807.03 -35839806.82 0.0147 0.0049

Venus -102837-07-30 00:28 J -35839580.59 -35839580.48 -35839580.34 0.0147 0.0120

Moon -102818-03-28 01:25 J -35832765.68 -35832765.44 -35832765.18 0.0142 0.0053

Earth -102818-03-28 01:40 J -35832765.66 -35832765.43 -35832765.18 0.0142 0.0060 *

Moon -102817-04-01 06:28 J -35832395.48 -35832395.23 -35832394.98 0.0142 0.0021

Earth -102817-04-01 07:11 J -35832395.45 -35832395.20 -35832394.93 0.0142 0.0028 *

Earth -102816-04-06 11:01 J -35832025.18 -35832025.04 -35832024.87 0.0141 0.0114

Moon -102816-04-06 12:57 J -35832025.10 -35832024.96 -35832024.79 0.0141 0.0117 *

Mars -102807-05-27 04:47 J -35828687.59 -35828687.30 -35828687.01 0.0136 0.0004

Mercury -102805-09-14 17:45 J -35827845.79 -35827845.76 -35827845.71 0.0135 0.0130

Mercury -102805-12-11 22:18 J -35827757.65 -35827757.57 -35827757.48 0.0134 0.0112

Mercury -102804-03-10 02:52 J -35827669.49 -35827669.38 -35827669.27 0.0134 0.0093

Mercury -102804-06-06 07:11 J -35827581.32 -35827581.20 -35827581.07 0.0134 0.0076

Mercury -102804-09-02 11:30 J -35827493.15 -35827493.02 -35827492.88 0.0134 0.0058

Mercury -102804-11-29 15:49 J -35827404.98 -35827404.84 -35827404.69 0.0134 0.0040

Mercury -102803-02-25 20:09 J -35827316.81 -35827316.66 -35827316.51 0.0134 0.0023

Mercury -102803-05-25 00:28 J -35827228.63 -35827228.48 -35827228.33 0.0134 0.0005

Mercury -102803-08-21 04:33 J -35827140.46 -35827140.31 -35827140.16 0.0134 0.0012

Mercury -102803-11-17 08:52 J -35827052.28 -35827052.13 -35827051.99 0.0134 0.0029

Mercury -102802-02-13 12:57 J -35826964.10 -35826963.96 -35826963.82 0.0134 0.0046

Mercury -102802-05-12 16:47 J -35826875.93 -35826875.80 -35826875.66 0.0133 0.0063

Mercury -102802-08-08 20:37 J -35826787.74 -35826787.64 -35826787.51 0.0133 0.0080

Mercury -102802-11-05 00:42 J -35826699.56 -35826699.47 -35826699.35 0.0133 0.0096

Mercury -102801-02-01 04:47 J -35826611.37 -35826611.30 -35826611.21 0.0133 0.0112

Mercury -102801-04-29 08:52 J -35826523.17 -35826523.13 -35826523.09 0.0133 0.0127

Venus -102798-01-09 04:33 J -35825538.44 -35825538.31 -35825538.15 0.0132 0.0100

Venus -102798-08-23 09:21 J -35825312.30 -35825312.11 -35825311.90 0.0132 0.0050

Venus -102797-04-05 14:23 J -35825086.12 -35825085.90 -35825085.69 0.0132 0.0003

Venus -102797-11-17 18:28 J -35824859.92 -35824859.73 -35824859.52 0.0132 0.0052

Venus -102796-07-01 22:33 J -35824633.68 -35824633.56 -35824633.41 0.0132 0.0102

Earth -102774-09-23 14:23 J -35816515.09 -35816514.90 -35816514.70 0.0136 0.0079

Moon -102774-09-23 17:30 J -35816514.95 -35816514.77 -35816514.57 0.0136 0.0084 *

Moon -102773-09-26 14:37 J -35816146.13 -35816145.89 -35816145.64 0.0137 0.0005

Earth -102773-09-26 18:13 J -35816145.99 -35816145.74 -35816145.50 0.0137 0.0009 *

Earth -102772-09-30 22:33 J -35815776.78 -35815776.56 -35815776.34 0.0137 0.0064

Moon -102772-10-01 01:40 J -35815776.64 -35815776.43 -35815776.21 0.0137 0.0066 *

Moon -102771-10-05 00:28 J -35815407.53 -35815407.48 -35815407.41 0.0138 0.0133

Earth -102771-10-05 04:04 J -35815407.34 -35815407.33 -35815407.30 0.0138 0.0137

Mars -102763-08-09 13:54 J -35812542.17 -35812541.92 -35812541.63 0.0143 0.0085

Mercury -102760-05-09 10:47 J -35811538.11 -35811538.05 -35811537.97 0.0144 0.0129

Mercury -102760-08-05 16:18 J -35811449.91 -35811449.82 -35811449.70 0.0144 0.0107

Mercury -102760-11-01 22:04 J -35811361.70 -35811361.58 -35811361.44 0.0144 0.0085

Mercury -102759-01-29 03:49 J -35811273.48 -35811273.34 -35811273.19 0.0145 0.0062

Mercury -102759-04-27 09:35 J -35811185.25 -35811185.10 -35811184.94 0.0145 0.0039

Mercury -102759-07-24 15:35 J -35811097.01 -35811096.85 -35811096.69 0.0145 0.0016

Mercury -102759-10-20 21:21 J -35811008.77 -35811008.61 -35811008.44 0.0145 0.0008

Mercury -102758-01-17 03:21 J -35810920.52 -35810920.36 -35810920.20 0.0145 0.0031

Mercury -102758-04-15 09:21 J -35810832.26 -35810832.11 -35810831.95 0.0145 0.0055

Mercury -102758-07-12 15:21 J -35810743.99 -35810743.86 -35810743.72 0.0145 0.0079

Mercury -102758-10-08 21:35 J -35810655.71 -35810655.60 -35810655.48 0.0145 0.0104

Mercury -102757-01-05 03:35 J -35810567.41 -35810567.35 -35810567.26 0.0145 0.0128

Venus -102755-05-19 14:37 J -35809702.00 -35809701.89 -35809701.77 0.0146 0.0124

Venus -102754-01-01 03:21 J -35809475.55 -35809475.36 -35809475.15 0.0146 0.0056

Venus -102754-08-15 16:33 J -35809249.02 -35809248.81 -35809248.59 0.0147 0.0015

Venus -102753-03-29 05:59 J -35809022.42 -35809022.25 -35809022.07 0.0147 0.0084

Moon -102735-03-23 05:16 J -35802454.29 -35802454.28 -35802454.24 0.0143 0.0142

Moon -102734-03-28 09:21 J -35802084.34 -35802084.11 -35802083.85 0.0142 0.0064

Earth -102734-03-28 10:04 J -35802084.31 -35802084.08 -35802083.82 0.0142 0.0058 *

Moon -102733-04-01 15:21 J -35801714.10 -35801713.86 -35801713.61 0.0142 0.0038

Earth -102733-04-01 15:35 J -35801714.10 -35801713.85 -35801713.58 0.0142 0.0030 *

Earth -102732-04-06 19:25 J -35801343.82 -35801343.69 -35801343.52 0.0141 0.0116

Moon -102732-04-06 20:37 J -35801343.81 -35801343.64 -35801343.47 0.0141 0.0111 *

Mars -102722-01-19 10:04 J -35797769.32 -35797769.08 -35797768.83 0.0135 0.0071

Mercury -102721-10-05 00:42 J -35797144.51 -35797144.47 -35797144.41 0.0135 0.0127

Mercury -102720-01-01 05:01 J -35797056.37 -35797056.29 -35797056.19 0.0134 0.0109

Mercury -102720-03-30 09:35 J -35796968.21 -35796968.10 -35796967.98 0.0134 0.0090

Mercury -102720-06-26 13:54 J -35796880.04 -35796879.92 -35796879.78 0.0134 0.0073

Mercury -102720-09-22 18:13 J -35796791.87 -35796791.74 -35796791.59 0.0134 0.0055

Mercury -102720-12-19 22:47 J -35796703.70 -35796703.55 -35796703.41 0.0134 0.0037

Mercury -102719-03-18 02:52 J -35796615.53 -35796615.38 -35796615.22 0.0134 0.0020

Mercury -102719-06-14 07:11 J -35796527.35 -35796527.20 -35796527.05 0.0134 0.0003

Mercury -102719-09-10 11:30 J -35796439.18 -35796439.02 -35796438.87 0.0134 0.0015

Mercury -102719-12-07 15:35 J -35796351.00 -35796350.85 -35796350.71 0.0134 0.0032

Mercury -102718-03-05 19:40 J -35796262.82 -35796262.68 -35796262.54 0.0134 0.0048

Mercury -102718-06-01 23:30 J -35796174.64 -35796174.52 -35796174.38 0.0133 0.0066

Mercury -102718-08-29 03:35 J -35796086.46 -35796086.35 -35796086.22 0.0133 0.0082

Mercury -102718-11-25 07:25 J -35795998.28 -35795998.19 -35795998.08 0.0133 0.0099

Mercury -102717-02-21 11:30 J -35795910.08 -35795910.02 -35795909.93 0.0133 0.0114

Mercury -102717-05-19 15:35 J -35795821.87 -35795821.85 -35795821.82 0.0133 0.0130

Venus -102715-09-08 13:40 J -35794979.97 -35794979.93 -35794979.85 0.0132 0.0127

Venus -102714-04-22 18:42 J -35794753.89 -35794753.72 -35794753.53 0.0132 0.0075

Venus -102714-12-04 23:45 J -35794527.73 -35794527.51 -35794527.30 0.0132 0.0024

Venus -102713-07-18 04:04 J -35794301.54 -35794301.33 -35794301.11 0.0132 0.0026
 Venus -102712-03-01 08:09 J -35794075.32 -35794075.16 -35794074.97 0.0132 0.0077
 Venus -102712-10-13 12:28 J -35793849.03 -35793848.98 -35793848.91 0.0132 0.0126
 Earth -102690-09-23 23:16 J -35785833.72 -35785833.53 -35785833.32 0.0136 0.0077
 Moon -102690-09-24 02:52 J -35785833.58 -35785833.38 -35785833.16 0.0136 0.0072 *
 Moon -102689-09-26 23:45 J -35785464.75 -35785464.51 -35785464.26 0.0137 0.0009
 Earth -102689-09-27 03:06 J -35785464.61 -35785464.37 -35785464.12 0.0137 0.0007 *
 Earth -102688-10-01 07:40 J -35785095.39 -35785095.18 -35785094.96 0.0137 0.0066
 Moon -102688-10-01 11:01 J -35785095.24 -35785095.04 -35785094.81 0.0137 0.0066 *
 Mars -102678-04-05 15:49 J -35781622.17 -35781621.84 -35781621.51 0.0143 0.0017
 Mercury -102676-05-29 17:45 J -35780836.84 -35780836.76 -35780836.68 0.0144 0.0126
 Mercury -102676-08-25 23:16 J -35780748.64 -35780748.53 -35780748.42 0.0144 0.0104
 Mercury -102676-11-22 04:47 J -35780660.42 -35780660.30 -35780660.16 0.0144 0.0081
 Mercury -102675-02-18 10:33 J -35780572.20 -35780572.06 -35780571.91 0.0145 0.0059
 Mercury -102675-05-17 16:18 J -35780483.97 -35780483.82 -35780483.66 0.0145 0.0036
 Mercury -102675-08-13 22:18 J -35780395.73 -35780395.57 -35780395.41 0.0145 0.0013
 Mercury -102675-11-10 04:04 J -35780307.49 -35780307.33 -35780307.16 0.0145 0.0012
 Mercury -102674-02-06 10:04 J -35780219.24 -35780219.08 -35780218.92 0.0145 0.0035
 Mercury -102674-05-05 16:04 J -35780130.98 -35780130.83 -35780130.68 0.0145 0.0059
 Mercury -102674-08-01 22:18 J -35780042.71 -35780042.57 -35780042.44 0.0145 0.0083
 Mercury -102674-10-29 04:04 J -35779954.43 -35779954.33 -35779954.20 0.0145 0.0108
 Mercury -102673-01-25 10:33 J -35779866.12 -35779866.06 -35779865.99 0.0145 0.0132
 Venus -102671-08-31 07:40 J -35778917.33 -35778917.18 -35778916.99 0.0146 0.0093
 Venus -102670-04-14 21:06 J -35778690.84 -35778690.62 -35778690.41 0.0147 0.0023
 Venus -102670-11-27 10:04 J -35778464.28 -35778464.08 -35778463.86 0.0147 0.0048
 Venus -102669-07-10 23:30 J -35778237.64 -35778237.52 -35778237.38 0.0147 0.0118
 Earth -102651-03-23 10:33 J -35771773.06 -35771773.06 -35771773.04 0.0143 0.0143
 Moon -102650-03-28 15:49 J -35771403.09 -35771402.84 -35771402.57 0.0142 0.0047
 Earth -102650-03-28 17:30 J -35771403.01 -35771402.77 -35771402.52 0.0142 0.0055 *
 Earth -102649-04-01 22:47 J -35771032.80 -35771032.55 -35771032.28 0.0142 0.0033

Moon -102649-04-01 23:59 J -35771032.75 -35771032.50 -35771032.25 0.0142 0.0026 *
 Earth -102648-04-07 02:52 J -35770662.50 -35770662.38 -35770662.22 0.0141 0.0118
 Moon -102648-04-07 03:35 J -35770662.48 -35770662.35 -35770662.20 0.0141 0.0121 *
 Mars -102640-10-13 21:49 J -35767550.83 -35767550.59 -35767550.32 0.0136 0.0062
 Mercury -102637-10-25 07:25 J -35766443.24 -35766443.19 -35766443.12 0.0135 0.0124
 Mercury -102636-01-21 11:59 J -35766355.09 -35766355.00 -35766354.90 0.0134 0.0105
 Mercury -102636-04-19 16:18 J -35766266.93 -35766266.82 -35766266.69 0.0134 0.0088
 Mercury -102636-07-16 20:52 J -35766178.76 -35766178.63 -35766178.50 0.0134 0.0069
 Mercury -102636-10-13 01:11 J -35766090.59 -35766090.45 -35766090.30 0.0134 0.0052
 Mercury -102635-01-09 05:30 J -35766002.42 -35766002.27 -35766002.12 0.0134 0.0034
 Mercury -102635-04-07 09:49 J -35765914.24 -35765914.09 -35765913.94 0.0134 0.0017
 Mercury -102635-07-04 14:09 J -35765826.07 -35765825.91 -35765825.76 0.0134 0.0003
 Mercury -102635-09-30 18:13 J -35765737.89 -35765737.74 -35765737.59 0.0134 0.0018
 Mercury -102635-12-27 22:18 J -35765649.71 -35765649.57 -35765649.42 0.0134 0.0035
 Mercury -102634-03-26 02:23 J -35765561.53 -35765561.40 -35765561.26 0.0134 0.0052
 Mercury -102634-06-22 06:28 J -35765473.35 -35765473.23 -35765473.10 0.0133 0.0068
 Mercury -102634-09-18 10:33 J -35765385.17 -35765385.06 -35765384.94 0.0133 0.0085
 Mercury -102634-12-15 14:23 J -35765296.98 -35765296.90 -35765296.79 0.0133 0.0102
 Mercury -102633-03-12 18:28 J -35765208.79 -35765208.73 -35765208.65 0.0133 0.0117
 Venus -102631-12-21 04:18 J -35764195.45 -35764195.32 -35764195.17 0.0132 0.0101
 Venus -102630-08-04 09:21 J -35763969.31 -35763969.11 -35763968.91 0.0132 0.0050
 Venus -102629-03-17 13:54 J -35763743.14 -35763742.92 -35763742.70 0.0132 0.0002
 Venus -102629-10-29 18:13 J -35763516.93 -35763516.74 -35763516.53 0.0132 0.0052
 Venus -102628-06-12 22:18 J -35763290.69 -35763290.57 -35763290.42 0.0132 0.0102
 Earth -102606-09-24 08:23 J -35755152.35 -35755152.15 -35755151.94 0.0136 0.0074
 Moon -102606-09-24 11:59 J -35755152.20 -35755152.00 -35755151.80 0.0136 0.0079 *
 Moon -102605-09-27 08:52 J -35754783.38 -35754783.13 -35754782.89 0.0137 0.0002
 Earth -102605-09-27 12:13 J -35754783.23 -35754782.99 -35754782.74 0.0137 0.0004 *
 Earth -102604-10-01 16:47 J -35754414.01 -35754413.80 -35754413.59 0.0137 0.0068
 Moon -102604-10-01 19:40 J -35754413.88 -35754413.68 -35754413.45 0.0137 0.0069 *

Moon -102603-10-05 18:57 J -35754044.74 -35754044.71 -35754044.68 0.0138 0.0136
 Mars -102594-11-30 15:49 J -35750702.00 -35750701.84 -35750701.64 0.0143 0.0120
 Mercury -102592-06-19 00:13 J -35750135.57 -35750135.49 -35750135.40 0.0144 0.0123
 Mercury -102592-09-15 05:45 J -35750047.37 -35750047.26 -35750047.14 0.0144 0.0101
 Mercury -102592-12-12 11:30 J -35749959.15 -35749959.02 -35749958.88 0.0144 0.0078
 Mercury -102591-03-10 17:16 J -35749870.93 -35749870.78 -35749870.63 0.0145 0.0055
 Mercury -102591-06-06 23:01 J -35749782.70 -35749782.54 -35749782.38 0.0145 0.0033
 Mercury -102591-09-03 05:01 J -35749694.46 -35749694.29 -35749694.13 0.0145 0.0010
 Mercury -102591-11-30 10:47 J -35749606.21 -35749606.05 -35749605.89 0.0145 0.0014
 Mercury -102590-02-26 16:47 J -35749517.96 -35749517.80 -35749517.64 0.0145 0.0038
 Mercury -102590-05-25 22:33 J -35749429.70 -35749429.56 -35749429.40 0.0145 0.0062
 Mercury -102590-08-22 04:33 J -35749341.43 -35749341.31 -35749341.16 0.0145 0.0087
 Mercury -102590-11-18 10:47 J -35749253.15 -35749253.05 -35749252.93 0.0145 0.0111
 Mercury -102589-02-14 17:16 J -35749164.84 -35749164.78 -35749164.72 0.0145 0.0135
 Venus -102587-04-30 11:59 J -35748359.10 -35748359.00 -35748358.89 0.0146 0.0129
 Venus -102587-12-13 00:42 J -35748132.66 -35748132.47 -35748132.27 0.0146 0.0060
 Venus -102586-07-27 13:54 J -35747906.14 -35747905.92 -35747905.71 0.0147 0.0010
 Venus -102585-03-10 03:06 J -35747679.55 -35747679.37 -35747679.19 0.0147 0.0080
 Earth -102567-03-23 16:33 J -35741091.85 -35741091.81 -35741091.78 0.0143 0.0141
 Moon -102567-03-23 18:57 J -35741091.75 -35741091.71 -35741091.62 0.0143 0.0138
 Moon -102566-03-28 20:23 J -35740721.89 -35740721.65 -35740721.39 0.0142 0.0059
 Earth -102566-03-28 23:01 J -35740721.77 -35740721.54 -35740721.28 0.0142 0.0054 *
 Earth -102565-04-02 04:33 J -35740351.56 -35740351.31 -35740351.04 0.0142 0.0034
 Moon -102565-04-02 05:59 J -35740351.49 -35740351.25 -35740351.00 0.0142 0.0041 *
 Moon -102564-04-07 07:40 J -35739981.32 -35739981.18 -35739981.00 0.0141 0.0113
 Earth -102564-04-07 08:37 J -35739981.25 -35739981.14 -35739980.97 0.0141 0.0119 *
 Mars -102555-06-08 02:23 J -35736632.68 -35736632.40 -35736632.11 0.0136 0.0012
 Mercury -102553-11-14 13:54 J -35735741.97 -35735741.92 -35735741.84 0.0135 0.0122
 Mercury -102552-02-10 18:28 J -35735653.82 -35735653.73 -35735653.62 0.0134 0.0103
 Mercury -102552-05-09 22:47 J -35735565.66 -35735565.55 -35735565.42 0.0134 0.0086

Mercury -102552-08-06 03:21 J -35735477.49 -35735477.36 -35735477.22 0.0134 0.0067
 Mercury -102552-11-02 07:40 J -35735389.32 -35735389.18 -35735389.03 0.0134 0.0050
 Mercury -102551-01-29 11:59 J -35735301.14 -35735301.00 -35735300.85 0.0134 0.0032
 Mercury -102551-04-27 16:18 J -35735212.97 -35735212.82 -35735212.67 0.0134 0.0015
 Mercury -102551-07-24 20:37 J -35735124.79 -35735124.64 -35735124.49 0.0134 0.0003
 Mercury -102551-10-21 00:42 J -35735036.62 -35735036.47 -35735036.32 0.0134 0.0020
 Mercury -102550-01-17 05:01 J -35734948.44 -35734948.29 -35734948.15 0.0134 0.0037
 Mercury -102550-04-15 09:06 J -35734860.26 -35734860.12 -35734859.98 0.0134 0.0054
 Mercury -102550-07-12 12:57 J -35734772.08 -35734771.96 -35734771.82 0.0133 0.0071
 Mercury -102550-10-08 17:01 J -35734683.89 -35734683.79 -35734683.67 0.0133 0.0087
 Mercury -102549-01-04 21:06 J -35734595.71 -35734595.62 -35734595.52 0.0133 0.0103
 Mercury -102549-04-02 01:11 J -35734507.51 -35734507.45 -35734507.38 0.0133 0.0119
 Venus -102547-08-20 12:42 J -35733637.01 -35733636.97 -35733636.90 0.0132 0.0128
 Venus -102546-04-03 17:45 J -35733410.92 -35733410.76 -35733410.56 0.0132 0.0077
 Venus -102546-11-15 22:47 J -35733184.76 -35733184.55 -35733184.33 0.0132 0.0025
 Venus -102545-06-29 03:06 J -35732958.57 -35732958.37 -35732958.15 0.0132 0.0026
 Venus -102544-02-10 07:25 J -35732732.36 -35732732.19 -35732732.01 0.0132 0.0076
 Venus -102544-09-24 11:16 J -35732506.07 -35732506.03 -35732505.95 0.0132 0.0126
 Earth -102522-09-24 17:01 J -35724470.98 -35724470.79 -35724470.57 0.0136 0.0073
 Moon -102522-09-24 20:23 J -35724470.85 -35724470.65 -35724470.42 0.0136 0.0067 *
 Moon -102521-09-27 17:59 J -35724101.99 -35724101.75 -35724101.50 0.0137 0.0006
 Earth -102521-09-27 21:06 J -35724101.86 -35724101.62 -35724101.37 0.0137 0.0002 *
 Earth -102520-10-02 01:25 J -35723732.64 -35723732.44 -35723732.22 0.0137 0.0070
 Moon -102520-10-02 05:01 J -35723732.50 -35723732.29 -35723732.07 0.0137 0.0069 *
 Mars -102511-08-20 08:23 J -35720488.42 -35720488.15 -35720487.84 0.0143 0.0069
 Mercury -102508-04-12 01:11 J -35719522.47 -35719522.45 -35719522.41 0.0144 0.0141
 Mercury -102508-07-09 06:57 J -35719434.29 -35719434.21 -35719434.12 0.0144 0.0119
 Mercury -102508-10-05 12:28 J -35719346.09 -35719345.98 -35719345.86 0.0144 0.0097
 Mercury -102507-01-01 18:13 J -35719257.87 -35719257.74 -35719257.60 0.0144 0.0075
 Mercury -102507-03-30 23:45 J -35719169.65 -35719169.51 -35719169.35 0.0145 0.0053

Mercury -102507-06-27 05:45 J -35719081.42 -35719081.26 -35719081.10 0.0145 0.0029

Mercury -102507-09-23 11:30 J -35718993.18 -35718993.02 -35718992.85 0.0145 0.0007

Mercury -102507-12-20 17:30 J -35718904.93 -35718904.77 -35718904.61 0.0145 0.0017

Mercury -102506-03-18 23:30 J -35718816.68 -35718816.52 -35718816.37 0.0145 0.0041

Mercury -102506-06-15 05:16 J -35718728.42 -35718728.28 -35718728.13 0.0145 0.0065

Mercury -102506-09-11 11:16 J -35718640.15 -35718640.03 -35718639.89 0.0145 0.0090

Mercury -102506-12-08 17:30 J -35718551.86 -35718551.77 -35718551.66 0.0145 0.0114

Mercury -102505-03-05 23:30 J -35718463.55 -35718463.52 -35718463.46 0.0145 0.0139

Venus -102503-08-12 04:47 J -35717574.46 -35717574.30 -35717574.14 0.0146 0.0097

Venus -102502-03-26 17:30 J -35717347.98 -35717347.77 -35717347.55 0.0147 0.0028

Venus -102502-11-08 06:42 J -35717121.42 -35717121.22 -35717121.01 0.0147 0.0043

Venus -102501-06-21 19:54 J -35716894.80 -35716894.67 -35716894.52 0.0147 0.0113

Earth -102483-03-23 21:06 J -35710410.64 -35710410.62 -35710410.55 0.0143 0.0141

Moon -102483-03-24 00:57 J -35710410.47 -35710410.46 -35710410.42 0.0143 0.0142

Moon -102482-03-29 01:25 J -35710040.69 -35710040.44 -35710040.17 0.0142 0.0046

Earth -102482-03-29 04:33 J -35710040.56 -35710040.31 -35710040.06 0.0142 0.0053 *

Earth -102481-04-02 10:04 J -35709670.33 -35709670.08 -35709669.82 0.0142 0.0034

Moon -102481-04-02 12:42 J -35709670.22 -35709669.97 -35709669.71 0.0142 0.0027 *

Moon -102480-04-07 12:57 J -35709300.07 -35709299.96 -35709299.81 0.0141 0.0124

Earth -102480-04-07 14:23 J -35709300.02 -35709299.90 -35709299.74 0.0141 0.0119 *

Mars -102472-03-02 10:18 J -35706414.16 -35706414.07 -35706413.92 0.0136 0.0125

Mars -102470-01-31 06:13 J -35705714.46 -35705714.24 -35705714.01 0.0135 0.0084

Mercury -102469-12-04 20:23 J -35705040.71 -35705040.65 -35705040.57 0.0135 0.0120

Mercury -102468-03-03 00:57 J -35704952.55 -35704952.46 -35704952.35 0.0134 0.0101

Mercury -102468-05-30 05:16 J -35704864.39 -35704864.28 -35704864.15 0.0134 0.0084

Mercury -102468-08-26 09:49 J -35704776.22 -35704776.09 -35704775.95 0.0134 0.0065

Mercury -102468-11-22 14:23 J -35704688.05 -35704687.90 -35704687.76 0.0134 0.0047

Mercury -102467-02-18 18:28 J -35704599.87 -35704599.73 -35704599.57 0.0134 0.0030

Mercury -102467-05-17 22:47 J -35704511.70 -35704511.55 -35704511.39 0.0134 0.0013

Mercury -102467-08-14 03:06 J -35704423.52 -35704423.37 -35704423.22 0.0134 0.0006

Mercury -102467-11-10 07:11 J -35704335.34 -35704335.20 -35704335.04 0.0134 0.0023

Mercury -102466-02-06 11:30 J -35704247.16 -35704247.02 -35704246.87 0.0134 0.0039

Mercury -102466-05-05 15:35 J -35704158.98 -35704158.85 -35704158.71 0.0134 0.0056

Mercury -102466-08-01 19:40 J -35704070.80 -35704070.68 -35704070.55 0.0133 0.0073

Mercury -102466-10-28 23:45 J -35703982.62 -35703982.51 -35703982.40 0.0133 0.0089

Mercury -102465-01-25 03:49 J -35703894.43 -35703894.34 -35703894.25 0.0133 0.0105

Mercury -102465-04-22 07:54 J -35703806.23 -35703806.17 -35703806.11 0.0133 0.0122

Venus -102463-12-02 02:52 J -35702852.51 -35702852.38 -35702852.24 0.0132 0.0103

Venus -102462-07-16 07:40 J -35702626.38 -35702626.18 -35702625.97 0.0132 0.0052

Venus -102461-02-27 12:28 J -35702400.20 -35702399.98 -35702399.76 0.0132 0.0002

Venus -102461-10-10 16:47 J -35702174.00 -35702173.80 -35702173.60 0.0132 0.0050

Venus -102460-05-24 21:06 J -35701947.76 -35701947.62 -35701947.48 0.0132 0.0100

Moon -102439-09-20 20:23 J -35694158.69 -35694158.65 -35694158.57 0.0136 0.0132

Earth -102438-09-25 02:09 J -35693789.60 -35693789.41 -35693789.18 0.0136 0.0071

Moon -102438-09-25 05:01 J -35693789.48 -35693789.29 -35693789.07 0.0136 0.0075 *

Moon -102437-09-28 03:21 J -35693420.60 -35693420.36 -35693420.12 0.0137 0.0003

Earth -102437-09-28 06:28 J -35693420.48 -35693420.23 -35693419.99 0.0137 0.0001 *

Earth -102436-10-02 10:33 J -35693051.26 -35693051.06 -35693050.84 0.0137 0.0071

Moon -102436-10-02 13:40 J -35693051.15 -35693050.93 -35693050.72 0.0137 0.0070 *

Mars -102426-04-16 11:16 J -35689568.35 -35689568.03 -35689567.71 0.0143 0.0034

Mercury -102424-05-02 08:09 J -35688821.20 -35688821.16 -35688821.11 0.0144 0.0137

Mercury -102424-07-29 13:54 J -35688733.01 -35688732.92 -35688732.83 0.0144 0.0115

Mercury -102424-10-25 19:25 J -35688644.81 -35688644.69 -35688644.57 0.0144 0.0093

Mercury -102423-01-22 00:57 J -35688556.59 -35688556.46 -35688556.31 0.0144 0.0071

Mercury -102423-04-20 06:42 J -35688468.37 -35688468.22 -35688468.06 0.0144 0.0049

Mercury -102423-07-17 12:28 J -35688380.13 -35688379.98 -35688379.81 0.0145 0.0026

Mercury -102423-10-13 18:28 J -35688291.89 -35688291.73 -35688291.57 0.0145 0.0002

Mercury -102422-01-10 00:13 J -35688203.65 -35688203.49 -35688203.32 0.0145 0.0021

Mercury -102422-04-08 06:13 J -35688115.39 -35688115.24 -35688115.08 0.0145 0.0045

Mercury -102422-07-05 12:13 J -35688027.13 -35688026.99 -35688026.84 0.0145 0.0069

Mercury -102422-10-01 18:13 J -35687938.86 -35687938.74 -35687938.61 0.0145 0.0093

Mercury -102422-12-29 00:13 J -35687850.57 -35687850.49 -35687850.38 0.0145 0.0118

Mercury -102421-03-26 06:42 J -35687762.25 -35687762.22 -35687762.19 0.0145 0.0142

Venus -102419-04-11 09:06 J -35687016.19 -35687016.12 -35687016.01 0.0146 0.0133

Venus -102419-11-23 22:04 J -35686789.77 -35686789.58 -35686789.38 0.0146 0.0064

Venus -102418-07-08 11:01 J -35686563.26 -35686563.04 -35686562.82 0.0147 0.0006

Venus -102417-02-20 00:13 J -35686336.68 -35686336.49 -35686336.31 0.0147 0.0076

Venus -102417-10-03 13:25 J -35686109.94 -35686109.94 -35686109.92 0.0147 0.0147

Earth -102399-03-24 03:21 J -35679729.41 -35679729.36 -35679729.30 0.0143 0.0139

Moon -102399-03-24 06:42 J -35679729.27 -35679729.22 -35679729.12 0.0143 0.0137

Moon -102398-03-29 06:28 J -35679359.46 -35679359.23 -35679358.97 0.0142 0.0057

Earth -102398-03-29 10:18 J -35679359.31 -35679359.07 -35679358.81 0.0142 0.0052 *

Earth -102397-04-02 16:04 J -35678989.08 -35678988.83 -35678988.57 0.0142 0.0035

Moon -102397-04-02 18:57 J -35678988.96 -35678988.71 -35678988.46 0.0142 0.0042 *

Moon -102396-04-07 18:13 J -35678618.90 -35678618.74 -35678618.57 0.0141 0.0113

Earth -102396-04-07 20:37 J -35678618.76 -35678618.64 -35678618.49 0.0141 0.0119 *

Mars -102388-10-25 15:06 J -35675496.13 -35675495.87 -35675495.59 0.0136 0.0051

Mercury -102385-12-25 02:52 J -35674339.45 -35674339.38 -35674339.30 0.0135 0.0118

Mercury -102384-03-23 07:25 J -35674251.29 -35674251.19 -35674251.08 0.0134 0.0099

Mercury -102384-06-19 11:45 J -35674163.12 -35674163.01 -35674162.88 0.0134 0.0082

Mercury -102384-09-15 16:18 J -35674074.95 -35674074.82 -35674074.68 0.0134 0.0063

Mercury -102384-12-12 20:37 J -35673986.78 -35673986.64 -35673986.49 0.0134 0.0046

Mercury -102383-03-11 00:57 J -35673898.60 -35673898.46 -35673898.30 0.0134 0.0028

Mercury -102383-06-07 05:16 J -35673810.43 -35673810.28 -35673810.12 0.0134 0.0011

Mercury -102383-09-03 09:35 J -35673722.25 -35673722.10 -35673721.95 0.0134 0.0007

Mercury -102383-11-30 13:54 J -35673634.07 -35673633.92 -35673633.77 0.0134 0.0024

Mercury -102382-02-26 17:59 J -35673545.89 -35673545.75 -35673545.60 0.0134 0.0041

Mercury -102382-05-25 22:04 J -35673457.71 -35673457.58 -35673457.44 0.0134 0.0058

Mercury -102382-08-22 02:09 J -35673369.53 -35673369.41 -35673369.28 0.0133 0.0075

Mercury -102382-11-18 05:59 J -35673281.34 -35673281.25 -35673281.13 0.0133 0.0092

Mercury -102381-02-14 10:18 J -35673193.15 -35673193.07 -35673192.98 0.0133 0.0107

Mercury -102381-05-12 14:09 J -35673104.95 -35673104.91 -35673104.85 0.0133 0.0124

Venus -102379-08-01 10:47 J -35672294.07 -35672294.05 -35672294.00 0.0132 0.0131

Venus -102378-03-15 15:49 J -35672068.00 -35672067.84 -35672067.65 0.0132 0.0079

Venus -102378-10-27 20:52 J -35671841.84 -35671841.63 -35671841.41 0.0132 0.0028

Venus -102377-06-10 01:25 J -35671615.65 -35671615.44 -35671615.23 0.0132 0.0023

Venus -102376-01-22 05:30 J -35671389.44 -35671389.27 -35671389.08 0.0132 0.0074

Venus -102376-09-05 09:35 J -35671163.16 -35671163.10 -35671163.02 0.0132 0.0124

Earth -102354-09-25 11:30 J -35663108.22 -35663108.02 -35663107.79 0.0136 0.0069

Moon -102354-09-25 14:23 J -35663108.12 -35663107.90 -35663107.67 0.0136 0.0062 *

Moon -102353-09-28 13:25 J -35662739.18 -35662738.94 -35662738.70 0.0137 0.0003

Earth -102353-09-28 15:35 J -35662739.09 -35662738.85 -35662738.61 0.0137 0.0002 *

Earth -102352-10-02 19:54 J -35662369.87 -35662369.67 -35662369.45 0.0137 0.0072

Moon -102352-10-02 22:18 J -35662369.76 -35662369.57 -35662369.34 0.0137 0.0073 *

Mars -102342-12-11 14:37 J -35658647.96 -35658647.89 -35658647.78 0.0143 0.0138

Mercury -102340-05-22 15:06 J -35658119.92 -35658119.87 -35658119.80 0.0144 0.0133

Mercury -102340-08-18 20:52 J -35658031.73 -35658031.63 -35658031.53 0.0144 0.0111

Mercury -102340-11-15 02:23 J -35657943.52 -35657943.40 -35657943.27 0.0144 0.0089

Mercury -102339-02-11 08:09 J -35657855.30 -35657855.16 -35657855.02 0.0144 0.0067

Mercury -102339-05-10 13:40 J -35657767.08 -35657766.93 -35657766.77 0.0144 0.0045

Mercury -102339-08-06 19:40 J -35657678.84 -35657678.68 -35657678.52 0.0145 0.0021

Mercury -102339-11-03 01:25 J -35657590.60 -35657590.44 -35657590.28 0.0145 0.0002

Mercury -102338-01-30 07:11 J -35657502.36 -35657502.20 -35657502.03 0.0145 0.0026

Mercury -102338-04-28 13:11 J -35657414.10 -35657413.95 -35657413.79 0.0145 0.0049

Mercury -102338-07-25 19:11 J -35657325.84 -35657325.70 -35657325.56 0.0145 0.0073

Mercury -102338-10-22 01:11 J -35657237.56 -35657237.45 -35657237.32 0.0145 0.0097

Mercury -102337-01-18 07:25 J -35657149.28 -35657149.19 -35657149.10 0.0145 0.0122

Venus -102335-07-24 03:06 J -35656231.53 -35656231.37 -35656231.21 0.0146 0.0100

Venus -102334-03-07 15:49 J -35656005.05 -35656004.84 -35656004.62 0.0147 0.0030

Venus -102334-10-20 05:01 J -35655778.50 -35655778.29 -35655778.08 0.0147 0.0040

Venus -102333-06-02 18:13 J -35655551.88 -35655551.74 -35655551.60 0.0147 0.0110
 Earth -102315-03-24 10:33 J -35649048.12 -35649048.06 -35649047.97 0.0143 0.0137
 Moon -102315-03-24 14:09 J -35649047.95 -35649047.91 -35649047.82 0.0143 0.0138
 Moon -102314-03-29 13:54 J -35648678.16 -35648677.92 -35648677.66 0.0142 0.0045
 Earth -102314-03-29 17:16 J -35648678.01 -35648677.78 -35648677.51 0.0142 0.0051 *
 Earth -102313-04-02 23:16 J -35648307.78 -35648307.53 -35648307.26 0.0142 0.0037
 Moon -102313-04-03 02:52 J -35648307.63 -35648307.38 -35648307.11 0.0142 0.0029 *
 Moon -102312-04-08 00:57 J -35647937.56 -35647937.46 -35647937.33 0.0141 0.0127
 Earth -102312-04-08 04:04 J -35647937.45 -35647937.33 -35647937.18 0.0141 0.0120 *
 Mars -102303-06-19 20:09 J -35644577.95 -35644577.66 -35644577.38 0.0136 0.0022
 Mercury -102301-10-18 04:47 J -35643726.30 -35643726.30 -35643726.27 0.0135 0.0134
 Mercury -102300-01-14 09:49 J -35643638.17 -35643638.09 -35643638.02 0.0134 0.0115
 Mercury -102300-04-12 14:09 J -35643550.01 -35643549.91 -35643549.80 0.0134 0.0097
 Mercury -102300-07-09 18:42 J -35643461.85 -35643461.72 -35643461.60 0.0134 0.0079
 Mercury -102300-10-05 22:47 J -35643373.67 -35643373.55 -35643373.40 0.0134 0.0062
 Mercury -102299-01-02 03:21 J -35643285.50 -35643285.36 -35643285.21 0.0134 0.0043
 Mercury -102299-03-31 07:40 J -35643197.33 -35643197.18 -35643197.02 0.0134 0.0026
 Mercury -102299-06-27 11:59 J -35643109.15 -35643109.00 -35643108.84 0.0134 0.0008
 Mercury -102299-09-23 16:18 J -35643020.97 -35643020.82 -35643020.67 0.0134 0.0009
 Mercury -102299-12-20 20:23 J -35642932.79 -35642932.65 -35642932.49 0.0134 0.0027
 Mercury -102298-03-19 00:42 J -35642844.61 -35642844.47 -35642844.33 0.0134 0.0043
 Mercury -102298-06-15 04:47 J -35642756.43 -35642756.30 -35642756.16 0.0133 0.0060
 Mercury -102298-09-11 08:37 J -35642668.25 -35642668.14 -35642668.00 0.0133 0.0078
 Mercury -102298-12-08 12:57 J -35642580.06 -35642579.96 -35642579.85 0.0133 0.0093
 Mercury -102297-03-05 17:01 J -35642491.87 -35642491.79 -35642491.70 0.0133 0.0110
 Mercury -102297-06-01 20:52 J -35642403.67 -35642403.63 -35642403.57 0.0133 0.0126
 Venus -102295-11-13 00:57 J -35641509.59 -35641509.46 -35641509.33 0.0132 0.0106
 Venus -102294-06-27 05:30 J -35641283.46 -35641283.27 -35641283.06 0.0132 0.0055
 Venus -102293-02-08 10:18 J -35641057.29 -35641057.07 -35641056.85 0.0132 0.0003
 Venus -102293-09-21 14:23 J -35640831.09 -35640830.90 -35640830.68 0.0132 0.0048

Venus -102292-05-05 18:57 J -35640604.85 -35640604.71 -35640604.56 0.0132 0.0098
 Moon -102271-09-21 16:18 J -35632795.90 -35632795.82 -35632795.73 0.0136 0.0127
 Earth -102271-09-21 17:59 J -35632795.77 -35632795.75 -35632795.70 0.0136 0.0134 *
 Earth -102270-09-25 20:52 J -35632426.83 -35632426.63 -35632426.40 0.0136 0.0066
 Moon -102270-09-25 22:47 J -35632426.76 -35632426.55 -35632426.33 0.0136 0.0072 *
 Moon -102269-09-28 22:47 J -35632057.78 -35632057.55 -35632057.31 0.0137 0.0007
 Earth -102269-09-29 00:57 J -35632057.71 -35632057.46 -35632057.22 0.0137 0.0003 *
 Earth -102268-10-03 05:16 J -35631688.48 -35631688.28 -35631688.07 0.0137 0.0074
 Moon -102268-10-03 06:57 J -35631688.42 -35631688.21 -35631687.99 0.0137 0.0072 *
 Mars -102259-08-31 09:06 J -35628434.42 -35628434.12 -35628433.79 0.0143 0.0049
 Mercury -102256-06-11 22:04 J -35627418.64 -35627418.58 -35627418.50 0.0144 0.0129
 Mercury -102256-09-08 03:49 J -35627330.44 -35627330.34 -35627330.23 0.0144 0.0107
 Mercury -102256-12-05 09:21 J -35627242.23 -35627242.11 -35627241.98 0.0144 0.0085
 Mercury -102255-03-03 15:06 J -35627154.01 -35627153.87 -35627153.73 0.0144 0.0063
 Mercury -102255-05-30 20:52 J -35627065.79 -35627065.63 -35627065.48 0.0145 0.0040
 Mercury -102255-08-27 02:37 J -35626977.55 -35626977.39 -35626977.23 0.0145 0.0017
 Mercury -102255-11-23 08:23 J -35626889.31 -35626889.15 -35626888.99 0.0145 0.0006
 Mercury -102254-02-19 14:09 J -35626801.06 -35626800.91 -35626800.74 0.0145 0.0030
 Mercury -102254-05-18 20:09 J -35626712.81 -35626712.66 -35626712.50 0.0145 0.0053
 Mercury -102254-08-15 02:09 J -35626624.54 -35626624.41 -35626624.27 0.0145 0.0077
 Mercury -102254-11-11 08:09 J -35626536.27 -35626536.16 -35626536.04 0.0145 0.0102
 Mercury -102253-02-07 14:23 J -35626447.98 -35626447.90 -35626447.82 0.0145 0.0126
 Venus -102251-03-23 08:09 J -35625673.23 -35625673.16 -35625673.07 0.0146 0.0135
 Venus -102251-11-04 20:52 J -35625446.82 -35625446.63 -35625446.43 0.0146 0.0066
 Venus -102250-06-19 09:49 J -35625220.31 -35625220.09 -35625219.87 0.0147 0.0004
 Venus -102249-01-31 22:33 J -35624993.74 -35624993.56 -35624993.36 0.0147 0.0074
 Venus -102249-09-14 11:45 J -35624767.03 -35624767.01 -35624766.96 0.0147 0.0145
 Earth -102231-03-24 18:42 J -35618366.78 -35618366.72 -35618366.60 0.0143 0.0134
 Moon -102231-03-24 22:33 J -35618366.64 -35618366.56 -35618366.44 0.0143 0.0132 *
 Moon -102230-03-29 22:04 J -35617996.81 -35617996.58 -35617996.32 0.0142 0.0053

Earth -102230-03-30 02:23 J -35617996.65 -35617996.40 -35617996.15 0.0142 0.0047 *
 Earth -102229-04-03 07:54 J -35617626.41 -35617626.17 -35617625.91 0.0142 0.0039
 Moon -102229-04-03 11:45 J -35617626.26 -35617626.01 -35617625.76 0.0142 0.0046 *
 Moon -102228-04-08 09:21 J -35617256.26 -35617256.11 -35617255.96 0.0141 0.0116
 Earth -102228-04-08 12:42 J -35617256.09 -35617255.97 -35617255.83 0.0141 0.0122 *
 Mars -102220-03-14 07:54 J -35614359.32 -35614359.17 -35614359.00 0.0136 0.0112
 Mars -102218-02-12 01:25 J -35613659.63 -35613659.44 -35613659.23 0.0135 0.0096
 Mercury -102217-11-07 11:45 J -35613025.04 -35613025.01 -35613024.97 0.0135 0.0131
 Mercury -102216-02-03 16:04 J -35612936.90 -35612936.83 -35612936.73 0.0134 0.0113
 Mercury -102216-05-02 20:37 J -35612848.74 -35612848.64 -35612848.52 0.0134 0.0095
 Mercury -102216-07-30 01:11 J -35612760.57 -35612760.45 -35612760.31 0.0134 0.0076
 Mercury -102216-10-26 05:45 J -35612672.40 -35612672.26 -35612672.12 0.0134 0.0058
 Mercury -102215-01-22 10:04 J -35612584.22 -35612584.08 -35612583.93 0.0134 0.0041
 Mercury -102215-04-20 14:23 J -35612496.05 -35612495.90 -35612495.74 0.0134 0.0023
 Mercury -102215-07-17 18:42 J -35612407.87 -35612407.72 -35612407.56 0.0134 0.0006
 Mercury -102215-10-13 23:01 J -35612319.69 -35612319.54 -35612319.39 0.0134 0.0012
 Mercury -102214-01-10 03:06 J -35612231.51 -35612231.37 -35612231.21 0.0134 0.0030
 Mercury -102214-04-08 07:25 J -35612143.33 -35612143.19 -35612143.05 0.0134 0.0046
 Mercury -102214-07-05 11:30 J -35612055.15 -35612055.02 -35612054.88 0.0133 0.0063
 Mercury -102214-10-01 15:35 J -35611966.97 -35611966.85 -35611966.72 0.0133 0.0079
 Mercury -102214-12-28 19:25 J -35611878.78 -35611878.69 -35611878.57 0.0133 0.0097
 Mercury -102213-03-25 23:30 J -35611790.59 -35611790.52 -35611790.43 0.0133 0.0113
 Mercury -102213-06-22 03:35 J -35611702.38 -35611702.35 -35611702.30 0.0133 0.0128
 Venus -102210-02-24 14:23 J -35610725.07 -35610724.90 -35610724.72 0.0132 0.0081
 Venus -102210-10-08 19:11 J -35610498.91 -35610498.70 -35610498.49 0.0132 0.0030
 Venus -102209-05-21 23:45 J -35610272.72 -35610272.51 -35610272.29 0.0132 0.0021
 Venus -102208-01-03 03:49 J -35610046.51 -35610046.34 -35610046.15 0.0132 0.0072
 Venus -102208-08-17 07:54 J -35609820.24 -35609820.17 -35609820.08 0.0132 0.0122
 Earth -102187-09-22 02:23 J -35602114.43 -35602114.40 -35602114.32 0.0136 0.0132
 Earth -102186-09-26 05:30 J -35601745.47 -35601745.27 -35601745.04 0.0136 0.0065

Moon -102186-09-26 07:11 J -35601745.42 -35601745.20 -35601744.96 0.0136 0.0058 *
 Moon -102185-09-29 08:23 J -35601376.38 -35601376.15 -35601375.91 0.0137 0.0003
 Earth -102185-09-29 09:21 J -35601376.35 -35601376.11 -35601375.86 0.0137 0.0005 *
 Earth -102184-10-03 13:54 J -35601007.13 -35601006.92 -35601006.72 0.0137 0.0075
 Moon -102184-10-03 15:06 J -35601007.08 -35601006.87 -35601006.66 0.0137 0.0076 *
 Mars -102174-04-27 11:30 J -35597514.31 -35597514.02 -35597513.69 0.0143 0.0053
 Mercury -102172-07-02 05:01 J -35596717.36 -35596717.29 -35596717.21 0.0144 0.0126
 Mercury -102172-09-28 10:33 J -35596629.16 -35596629.06 -35596628.94 0.0144 0.0104
 Mercury -102172-12-25 16:04 J -35596540.95 -35596540.83 -35596540.69 0.0144 0.0082
 Mercury -102171-03-23 21:49 J -35596452.73 -35596452.59 -35596452.44 0.0145 0.0059
 Mercury -102171-06-20 03:35 J -35596364.50 -35596364.35 -35596364.19 0.0145 0.0036
 Mercury -102171-09-16 09:21 J -35596276.27 -35596276.11 -35596275.95 0.0145 0.0014
 Mercury -102171-12-13 15:06 J -35596188.03 -35596187.87 -35596187.70 0.0145 0.0011
 Mercury -102170-03-11 21:06 J -35596099.78 -35596099.62 -35596099.46 0.0145 0.0033
 Mercury -102170-06-08 02:52 J -35596011.52 -35596011.38 -35596011.22 0.0145 0.0058
 Mercury -102170-09-04 08:52 J -35595923.26 -35595923.13 -35595922.99 0.0145 0.0081
 Mercury -102170-12-01 14:52 J -35595834.98 -35595834.88 -35595834.76 0.0145 0.0106
 Mercury -102169-02-27 21:06 J -35595746.69 -35595746.62 -35595746.54 0.0145 0.0130
 Venus -102167-07-05 01:25 J -35594888.58 -35594888.44 -35594888.27 0.0146 0.0103
 Venus -102166-02-16 14:23 J -35594662.11 -35594661.90 -35594661.69 0.0147 0.0033
 Venus -102166-10-01 03:21 J -35594435.57 -35594435.36 -35594435.15 0.0147 0.0037
 Venus -102165-05-14 16:18 J -35594208.95 -35594208.82 -35594208.66 0.0147 0.0108
 Earth -102147-03-25 03:21 J -35587685.45 -35587685.36 -35587685.23 0.0143 0.0130
 Moon -102147-03-25 06:57 J -35587685.30 -35587685.21 -35587685.09 0.0143 0.0130 *
 Moon -102146-03-30 07:11 J -35587315.45 -35587315.20 -35587314.94 0.0142 0.0039
 Earth -102146-03-30 10:33 J -35587315.30 -35587315.06 -35587314.80 0.0142 0.0044 *
 Earth -102145-04-03 16:33 J -35586945.06 -35586944.81 -35586944.55 0.0142 0.0042
 Moon -102145-04-03 20:23 J -35586944.90 -35586944.65 -35586944.39 0.0142 0.0034 *
 Moon -102144-04-08 17:16 J -35586574.85 -35586574.78 -35586574.67 0.0141 0.0132
 Earth -102144-04-08 20:52 J -35586574.73 -35586574.63 -35586574.49 0.0141 0.0125 *

Mars -102136-11-06 14:23 J -35583441.17 -35583440.90 -35583440.61 0.0136 0.0036
 Mercury -102133-11-27 18:42 J -35582323.76 -35582323.72 -35582323.67 0.0135 0.0127
 Mercury -102132-02-23 23:16 J -35582235.62 -35582235.53 -35582235.44 0.0134 0.0109
 Mercury -102132-05-23 03:49 J -35582147.45 -35582147.34 -35582147.22 0.0134 0.0090
 Mercury -102132-08-19 08:09 J -35582059.28 -35582059.16 -35582059.02 0.0134 0.0073
 Mercury -102132-11-15 12:28 J -35581971.11 -35581970.98 -35581970.83 0.0134 0.0055
 Mercury -102131-02-11 17:01 J -35581882.94 -35581882.79 -35581882.64 0.0134 0.0037
 Mercury -102131-05-10 21:21 J -35581794.76 -35581794.61 -35581794.45 0.0134 0.0020
 Mercury -102131-08-07 01:40 J -35581706.58 -35581706.43 -35581706.27 0.0134 0.0003
 Mercury -102131-11-03 05:59 J -35581618.40 -35581618.25 -35581618.10 0.0134 0.0015
 Mercury -102130-01-30 10:04 J -35581530.22 -35581530.08 -35581529.93 0.0134 0.0033
 Mercury -102130-04-28 14:09 J -35581442.04 -35581441.91 -35581441.76 0.0134 0.0050
 Mercury -102130-07-25 18:28 J -35581353.86 -35581353.73 -35581353.60 0.0133 0.0066
 Mercury -102130-10-21 22:33 J -35581265.67 -35581265.56 -35581265.44 0.0133 0.0082
 Mercury -102129-01-18 02:23 J -35581177.49 -35581177.40 -35581177.29 0.0133 0.0099
 Mercury -102129-04-15 06:28 J -35581089.29 -35581089.23 -35581089.15 0.0133 0.0115
 Mercury -102129-07-12 10:33 J -35581001.08 -35581001.06 -35581001.03 0.0133 0.0131
 Venus -102127-10-24 23:30 J -35580166.63 -35580166.52 -35580166.38 0.0132 0.0108
 Venus -102126-06-08 04:18 J -35579940.51 -35579940.32 -35579940.11 0.0132 0.0056
 Venus -102125-01-20 09:06 J -35579714.34 -35579714.12 -35579713.90 0.0132 0.0005
 Venus -102125-09-02 13:25 J -35579488.14 -35579487.94 -35579487.73 0.0132 0.0046
 Venus -102124-04-16 17:30 J -35579261.90 -35579261.77 -35579261.60 0.0132 0.0097
 Jupiter -102119-06-26 04:18 J -35577365.77 -35577365.32 -35577364.83 0.0131 0.0039
 Moon -102103-09-22 10:33 J -35571433.14 -35571433.06 -35571432.94 0.0136 0.0123
 Earth -102103-09-22 11:45 J -35571433.08 -35571433.01 -35571432.94 0.0136 0.0129 *
 Earth -102102-09-26 14:09 J -35571064.12 -35571063.91 -35571063.68 0.0136 0.0062
 Moon -102102-09-26 14:23 J -35571064.11 -35571063.90 -35571063.67 0.0136 0.0069 *
 Moon -102101-09-29 17:16 J -35570695.01 -35570694.78 -35570694.54 0.0137 0.0011
 Earth -102101-09-29 17:59 J -35570695.00 -35570694.75 -35570694.51 0.0137 0.0006 *
 Earth -102100-10-03 21:49 J -35570325.77 -35570325.59 -35570325.37 0.0137 0.0077

Moon -102100-10-03 22:47 J -35570325.76 -35570325.55 -35570325.34 0.0137 0.0074 *
 Mars -102091-01-15 03:21 J -35567300.45 -35567300.36 -35567300.22 0.0142 0.0134
 Mercury -102088-07-22 11:30 J -35566016.09 -35566016.02 -35566015.93 0.0144 0.0123
 Mercury -102088-10-18 17:01 J -35565927.89 -35565927.79 -35565927.67 0.0144 0.0101
 Mercury -102087-01-14 22:47 J -35565839.68 -35565839.55 -35565839.41 0.0144 0.0079
 Mercury -102087-04-13 04:18 J -35565751.46 -35565751.32 -35565751.17 0.0145 0.0057
 Mercury -102087-07-10 10:04 J -35565663.23 -35565663.08 -35565662.92 0.0145 0.0034
 Mercury -102087-10-06 15:49 J -35565575.00 -35565574.84 -35565574.67 0.0145 0.0012
 Mercury -102086-01-02 21:49 J -35565486.75 -35565486.59 -35565486.43 0.0145 0.0013
 Mercury -102086-04-01 03:35 J -35565398.51 -35565398.35 -35565398.19 0.0145 0.0036
 Mercury -102086-06-28 09:21 J -35565310.25 -35565310.11 -35565309.95 0.0145 0.0060
 Mercury -102086-09-24 15:35 J -35565221.98 -35565221.85 -35565221.72 0.0145 0.0084
 Mercury -102086-12-21 21:35 J -35565133.71 -35565133.60 -35565133.49 0.0145 0.0108
 Mercury -102085-03-19 03:35 J -35565045.41 -35565045.35 -35565045.28 0.0145 0.0132
 Venus -102083-03-04 05:16 J -35564330.32 -35564330.28 -35564330.20 0.0146 0.0140
 Venus -102083-10-16 18:13 J -35564103.93 -35564103.74 -35564103.55 0.0146 0.0071
 Venus -102082-05-31 07:11 J -35563877.42 -35563877.20 -35563876.99 0.0147 0.0002
 Venus -102081-01-12 19:54 J -35563650.85 -35563650.67 -35563650.47 0.0147 0.0070
 Venus -102081-08-26 09:06 J -35563424.16 -35563424.12 -35563424.05 0.0147 0.0141
 Earth -102063-03-25 10:18 J -35557004.16 -35557004.07 -35557003.92 0.0143 0.0127
 Moon -102063-03-25 12:57 J -35557004.05 -35557003.96 -35557003.81 0.0143 0.0127 *
 Moon -102062-03-30 14:09 J -35556634.14 -35556633.91 -35556633.65 0.0142 0.0047
 Earth -102062-03-30 17:59 J -35556634.00 -35556633.75 -35556633.49 0.0142 0.0041 *
 Earth -102061-04-03 23:59 J -35556263.75 -35556263.50 -35556263.25 0.0142 0.0044
 Moon -102061-04-04 03:21 J -35556263.60 -35556263.36 -35556263.10 0.0142 0.0052 *
 Moon -102060-04-09 00:42 J -35555893.60 -35555893.47 -35555893.32 0.0141 0.0120
 Earth -102060-04-09 04:18 J -35555893.41 -35555893.32 -35555893.19 0.0141 0.0127 *
 Mars -102051-07-01 20:09 J -35552522.92 -35552522.66 -35552522.37 0.0136 0.0039
 Mercury -102049-12-18 01:25 J -35551622.49 -35551622.44 -35551622.37 0.0135 0.0124
 Mercury -102048-03-16 05:59 J -35551534.34 -35551534.25 -35551534.15 0.0134 0.0106

Mercury -102048-06-12 10:33 J -35551446.17 -35551446.06 -35551445.94 0.0134 0.0087
 Mercury -102048-09-08 15:06 J -35551358.00 -35551357.87 -35551357.74 0.0134 0.0069
 Mercury -102048-12-05 19:25 J -35551269.83 -35551269.69 -35551269.54 0.0134 0.0052
 Mercury -102047-03-03 23:45 J -35551181.65 -35551181.51 -35551181.36 0.0134 0.0034
 Mercury -102047-05-31 04:04 J -35551093.48 -35551093.33 -35551093.17 0.0134 0.0017
 Mercury -102047-08-27 08:23 J -35551005.30 -35551005.15 -35551004.99 0.0134 0.0004
 Mercury -102047-11-23 12:42 J -35550917.12 -35550916.97 -35550916.82 0.0134 0.0018
 Mercury -102046-02-19 16:47 J -35550828.94 -35550828.80 -35550828.65 0.0134 0.0036
 Mercury -102046-05-18 21:06 J -35550740.76 -35550740.62 -35550740.48 0.0134 0.0052
 Mercury -102046-08-15 01:11 J -35550652.58 -35550652.45 -35550652.32 0.0133 0.0069
 Mercury -102046-11-11 05:16 J -35550564.39 -35550564.28 -35550564.16 0.0133 0.0085
 Mercury -102045-02-07 09:21 J -35550476.20 -35550476.11 -35550476.01 0.0133 0.0102
 Mercury -102045-05-05 13:11 J -35550388.01 -35550387.95 -35550387.87 0.0133 0.0118
 Venus -102042-02-05 13:11 J -35549382.11 -35549381.95 -35549381.77 0.0132 0.0083
 Venus -102042-09-19 17:59 J -35549155.96 -35549155.75 -35549155.53 0.0132 0.0031
 Venus -102041-05-02 22:47 J -35548929.77 -35548929.55 -35548929.34 0.0132 0.0020
 Venus -102041-12-15 02:52 J -35548703.55 -35548703.38 -35548703.19 0.0132 0.0071
 Venus -102040-07-29 07:11 J -35548477.28 -35548477.20 -35548477.11 0.0132 0.0121
 Earth -102019-09-22 19:25 J -35540751.76 -35540751.69 -35540751.59 0.0136 0.0127
 Moon -102019-09-22 20:09 J -35540751.69 -35540751.66 -35540751.62 0.0136 0.0134 *
 Moon -102018-09-26 22:18 J -35540382.80 -35540382.57 -35540382.33 0.0136 0.0054
 Earth -102018-09-26 22:18 J -35540382.78 -35540382.57 -35540382.34 0.0136 0.0060 *
 Earth -102017-09-30 01:54 J -35540013.66 -35540013.42 -35540013.18 0.0137 0.0008
 Moon -102017-09-30 02:09 J -35540013.64 -35540013.41 -35540013.17 0.0137 0.0003 *
 Moon -102016-10-04 05:45 J -35539644.46 -35539644.26 -35539644.05 0.0137 0.0080
 Earth -102016-10-04 05:59 J -35539644.44 -35539644.25 -35539644.04 0.0137 0.0077 *
 Mars -102007-09-11 02:37 J -35536380.70 -35536380.39 -35536380.05 0.0143 0.0034
 Mercury -102004-05-15 12:28 J -35535402.99 -35535402.98 -35535402.94 0.0144 0.0142
 Mercury -102004-08-11 17:59 J -35535314.82 -35535314.75 -35535314.65 0.0144 0.0121
 Mercury -102004-11-07 23:30 J -35535226.62 -35535226.52 -35535226.39 0.0144 0.0099

Mercury -102003-02-04 05:16 J -35535138.41 -35535138.28 -35535138.14 0.0144 0.0076

Mercury -102003-05-03 11:01 J -35535050.19 -35535050.04 -35535049.89 0.0145 0.0054

Mercury -102003-07-30 16:47 J -35534961.96 -35534961.80 -35534961.65 0.0145 0.0031

Mercury -102003-10-26 22:18 J -35534873.73 -35534873.57 -35534873.40 0.0145 0.0009

Mercury -102002-01-23 04:18 J -35534785.48 -35534785.32 -35534785.16 0.0145 0.0015

Mercury -102002-04-21 10:04 J -35534697.23 -35534697.08 -35534696.92 0.0145 0.0039

Mercury -102002-07-18 16:04 J -35534608.98 -35534608.83 -35534608.68 0.0145 0.0062

Mercury -102002-10-14 21:49 J -35534520.71 -35534520.59 -35534520.45 0.0145 0.0087

Mercury -102001-01-11 03:49 J -35534432.43 -35534432.34 -35534432.22 0.0145 0.0111

Mercury -102001-04-08 10:04 J -35534344.13 -35534344.08 -35534344.02 0.0146 0.0135

102ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 102nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-101999-06-15 21:49 J	-35533545.72	-35533545.59	-35533545.43	0.0146	0.0108		
Venus	-101998-01-28 10:33 J	-35533319.26	-35533319.06	-35533318.84	0.0147	0.0039		
Venus	-101998-09-11 23:45 J	-35533092.72	-35533092.51	-35533092.30	0.0147	0.0032		
Venus	-101997-04-25 12:42 J	-35532866.11	-35532865.97	-35532865.81	0.0147	0.0103		
Earth	-101979-03-25 16:47 J	-35526322.90	-35526322.80	-35526322.65	0.0143	0.0125		
Moon	-101979-03-25 19:25 J	-35526322.80	-35526322.69	-35526322.54	0.0143	0.0125	*	

Moon -101978-03-30 21:49 J -35525952.83 -35525952.59 -35525952.33 0.0142 0.0036
 Earth -101978-03-31 00:13 J -35525952.73 -35525952.49 -35525952.22 0.0142 0.0039 *
 Earth -101977-04-04 06:13 J -35525582.48 -35525582.24 -35525581.98 0.0142 0.0046
 Moon -101977-04-04 10:04 J -35525582.34 -35525582.08 -35525581.82 0.0142 0.0038 *
 Moon -101976-04-09 07:25 J -35525212.26 -35525212.19 -35525212.12 0.0141 0.0136
 Earth -101976-04-09 10:33 J -35525212.14 -35525212.06 -35525211.92 0.0141 0.0128 *
 Mars -101968-03-26 07:25 J -35522304.38 -35522304.19 -35522303.97 0.0136 0.0095
 Mars -101966-02-24 01:54 J -35521604.56 -35521604.42 -35521604.24 0.0135 0.0112
 Mercury -101964-01-07 08:23 J -35520921.22 -35520921.15 -35520921.09 0.0135 0.0121
 Mercury -101964-04-05 12:42 J -35520833.06 -35520832.97 -35520832.86 0.0134 0.0103
 Mercury -101964-07-02 17:16 J -35520744.90 -35520744.78 -35520744.66 0.0134 0.0085
 Mercury -101964-09-28 21:49 J -35520656.72 -35520656.59 -35520656.46 0.0134 0.0067
 Mercury -101964-12-26 02:09 J -35520568.55 -35520568.41 -35520568.26 0.0134 0.0049
 Mercury -101963-03-24 06:28 J -35520480.37 -35520480.23 -35520480.07 0.0134 0.0031
 Mercury -101963-06-20 10:47 J -35520392.20 -35520392.05 -35520391.89 0.0134 0.0014
 Mercury -101963-09-16 15:06 J -35520304.02 -35520303.87 -35520303.71 0.0134 0.0005
 Mercury -101963-12-13 19:25 J -35520215.84 -35520215.69 -35520215.54 0.0134 0.0021
 Mercury -101962-03-11 23:45 J -35520127.66 -35520127.51 -35520127.37 0.0134 0.0038
 Mercury -101962-06-08 03:49 J -35520039.48 -35520039.34 -35520039.20 0.0134 0.0055
 Mercury -101962-09-04 07:54 J -35519951.29 -35519951.17 -35519951.04 0.0133 0.0071
 Mercury -101962-12-01 11:59 J -35519863.11 -35519863.00 -35519862.88 0.0133 0.0088
 Mercury -101961-02-27 15:49 J -35519774.92 -35519774.84 -35519774.74 0.0133 0.0105
 Mercury -101961-05-25 19:54 J -35519686.72 -35519686.67 -35519686.60 0.0133 0.0121
 Venus -101959-10-05 22:04 J -35518823.69 -35518823.58 -35518823.44 0.0132 0.0110
 Venus -101958-05-20 03:06 J -35518597.56 -35518597.37 -35518597.17 0.0132 0.0058
 Venus -101957-01-01 07:54 J -35518371.39 -35518371.17 -35518370.95 0.0132 0.0006
 Venus -101957-08-14 12:28 J -35518145.19 -35518144.98 -35518144.78 0.0132 0.0045
 Venus -101956-03-28 16:47 J -35517918.94 -35517918.80 -35517918.65 0.0132 0.0096
 Earth -101935-09-23 04:18 J -35510070.40 -35510070.32 -35510070.22 0.0136 0.0125
 Moon -101935-09-23 04:47 J -35510070.39 -35510070.30 -35510070.17 0.0136 0.0119 *

Moon -101934-09-27 05:45 J -35509701.47 -35509701.26 -35509701.03 0.0136 0.0066
 Earth -101934-09-27 06:57 J -35509701.42 -35509701.21 -35509700.98 0.0136 0.0058 *
 Earth -101933-09-30 10:33 J -35509332.30 -35509332.06 -35509331.81 0.0137 0.0009
 Moon -101933-09-30 11:30 J -35509332.25 -35509332.02 -35509331.78 0.0137 0.0015 *
 Moon -101932-10-04 13:54 J -35508963.12 -35508962.92 -35508962.70 0.0137 0.0076
 Earth -101932-10-04 14:37 J -35508963.08 -35508962.89 -35508962.68 0.0137 0.0079 *
 Mars -101922-05-08 04:18 J -35505460.60 -35505460.32 -35505460.01 0.0143 0.0068
 Mercury -101920-06-04 19:11 J -35504701.73 -35504701.70 -35504701.65 0.0144 0.0139
 Mercury -101920-09-01 00:42 J -35504613.55 -35504613.47 -35504613.37 0.0144 0.0117
 Mercury -101920-11-28 06:13 J -35504525.35 -35504525.24 -35504525.11 0.0144 0.0096
 Mercury -101919-02-24 11:45 J -35504437.14 -35504437.01 -35504436.86 0.0144 0.0074
 Mercury -101919-05-23 17:30 J -35504348.92 -35504348.77 -35504348.62 0.0145 0.0051
 Mercury -101919-08-19 23:16 J -35504260.69 -35504260.53 -35504260.37 0.0145 0.0028
 Mercury -101919-11-16 05:01 J -35504172.45 -35504172.29 -35504172.13 0.0145 0.0005
 Mercury -101918-02-12 10:47 J -35504084.21 -35504084.05 -35504083.89 0.0145 0.0018
 Mercury -101918-05-11 16:33 J -35503995.96 -35503995.81 -35503995.65 0.0145 0.0042
 Mercury -101918-08-07 22:33 J -35503907.70 -35503907.56 -35503907.41 0.0145 0.0065
 Mercury -101918-11-04 04:33 J -35503819.44 -35503819.31 -35503819.18 0.0145 0.0089
 Mercury -101917-01-31 10:33 J -35503731.16 -35503731.06 -35503730.96 0.0145 0.0113
 Mercury -101917-04-28 16:33 J -35503642.85 -35503642.81 -35503642.75 0.0145 0.0138
 Venus -101915-02-13 01:54 J -35502987.43 -35502987.42 -35502987.38 0.0146 0.0145
 Venus -101915-09-27 14:52 J -35502761.06 -35502760.88 -35502760.69 0.0146 0.0076
 Venus -101914-05-12 03:49 J -35502534.56 -35502534.34 -35502534.13 0.0147 0.0006
 Venus -101914-12-24 16:33 J -35502308.00 -35502307.81 -35502307.61 0.0147 0.0066
 Venus -101913-08-07 05:30 J -35502081.33 -35502081.27 -35502081.17 0.0147 0.0137
 Earth -101895-03-25 23:16 J -35495641.64 -35495641.53 -35495641.38 0.0143 0.0123
 Moon -101895-03-26 00:42 J -35495641.59 -35495641.47 -35495641.33 0.0143 0.0124 *
 Moon -101894-03-31 04:18 J -35495271.56 -35495271.32 -35495271.07 0.0142 0.0042
 Earth -101894-03-31 06:42 J -35495271.47 -35495271.22 -35495270.95 0.0142 0.0038 *
 Earth -101893-04-04 12:28 J -35494901.22 -35494900.98 -35494900.72 0.0142 0.0047

Moon -101893-04-04 15:21 J -35494901.10 -35494900.86 -35494900.59 0.0142 0.0054 *
 Moon -101892-04-09 13:25 J -35494531.04 -35494530.94 -35494530.79 0.0141 0.0122
 Earth -101892-04-09 17:16 J -35494530.88 -35494530.78 -35494530.67 0.0141 0.0129 *
 Mars -101884-11-18 12:57 J -35491386.25 -35491385.96 -35491385.68 0.0136 0.0021
 Mercury -101880-01-27 14:37 J -35490219.95 -35490219.89 -35490219.81 0.0135 0.0119
 Mercury -101880-04-25 19:11 J -35490131.79 -35490131.70 -35490131.59 0.0134 0.0101
 Mercury -101880-07-22 23:45 J -35490043.62 -35490043.51 -35490043.38 0.0134 0.0083
 Mercury -101880-10-19 04:18 J -35489955.45 -35489955.32 -35489955.18 0.0134 0.0064
 Mercury -101879-01-15 08:52 J -35489867.28 -35489867.13 -35489866.99 0.0134 0.0046
 Mercury -101879-04-13 13:11 J -35489779.10 -35489778.95 -35489778.80 0.0134 0.0029
 Mercury -101879-07-10 17:30 J -35489690.92 -35489690.77 -35489690.62 0.0134 0.0011
 Mercury -101879-10-06 21:49 J -35489602.74 -35489602.59 -35489602.44 0.0134 0.0006
 Mercury -101878-01-03 01:54 J -35489514.57 -35489514.42 -35489514.26 0.0134 0.0023
 Mercury -101878-04-01 06:13 J -35489426.38 -35489426.24 -35489426.09 0.0134 0.0040
 Mercury -101878-06-28 10:18 J -35489338.20 -35489338.07 -35489337.93 0.0134 0.0057
 Mercury -101878-09-24 14:23 J -35489250.02 -35489249.90 -35489249.77 0.0133 0.0074
 Mercury -101878-12-21 18:28 J -35489161.83 -35489161.73 -35489161.61 0.0133 0.0090
 Mercury -101877-03-18 22:33 J -35489073.64 -35489073.56 -35489073.46 0.0133 0.0107
 Mercury -101877-06-15 02:37 J -35488985.44 -35488985.39 -35488985.33 0.0133 0.0123
 Venus -101874-01-17 11:45 J -35488039.17 -35488039.01 -35488038.83 0.0132 0.0084
 Venus -101874-08-31 16:47 J -35487813.01 -35487812.80 -35487812.59 0.0132 0.0032
 Venus -101873-04-13 21:35 J -35487586.82 -35487586.60 -35487586.39 0.0132 0.0019
 Venus -101873-11-26 01:54 J -35487360.60 -35487360.42 -35487360.23 0.0132 0.0070
 Venus -101872-07-10 05:59 J -35487134.32 -35487134.25 -35487134.15 0.0132 0.0121
 Earth -101851-09-23 12:57 J -35479389.05 -35479388.96 -35479388.85 0.0136 0.0123
 Moon -101851-09-23 14:23 J -35479388.94 -35479388.90 -35479388.82 0.0136 0.0131 *
 Moon -101850-09-27 13:54 J -35479020.15 -35479019.92 -35479019.68 0.0136 0.0050
 Earth -101850-09-27 15:35 J -35479020.06 -35479019.85 -35479019.62 0.0136 0.0057 *
 Earth -101849-09-30 19:11 J -35478650.94 -35478650.70 -35478650.46 0.0137 0.0011
 Moon -101849-09-30 20:37 J -35478650.88 -35478650.64 -35478650.40 0.0137 0.0005 *

Moon -101848-10-04 21:21 J -35478281.80 -35478281.61 -35478281.40 0.0137 0.0084
 Earth -101848-10-04 23:16 J -35478281.72 -35478281.53 -35478281.32 0.0137 0.0080 *
 Mars -101839-01-25 22:04 J -35475246.77 -35475246.58 -35475246.39 0.0142 0.0116
 Mercury -101836-06-25 02:09 J -35474000.46 -35474000.41 -35474000.35 0.0144 0.0135
 Mercury -101836-09-21 07:40 J -35473912.27 -35473912.18 -35473912.08 0.0144 0.0114
 Mercury -101836-12-18 13:11 J -35473824.07 -35473823.95 -35473823.83 0.0144 0.0092
 Mercury -101835-03-16 18:42 J -35473735.86 -35473735.72 -35473735.58 0.0145 0.0070
 Mercury -101835-06-13 00:28 J -35473647.63 -35473647.48 -35473647.33 0.0145 0.0047
 Mercury -101835-09-09 05:59 J -35473559.40 -35473559.25 -35473559.09 0.0145 0.0025
 Mercury -101835-12-06 11:45 J -35473471.17 -35473471.01 -35473470.84 0.0145 0.0004
 Mercury -101834-03-04 17:30 J -35473382.92 -35473382.77 -35473382.60 0.0145 0.0022
 Mercury -101834-05-31 23:30 J -35473294.67 -35473294.52 -35473294.37 0.0145 0.0045
 Mercury -101834-08-28 05:16 J -35473206.42 -35473206.28 -35473206.13 0.0145 0.0069
 Mercury -101834-11-24 11:16 J -35473118.15 -35473118.03 -35473117.90 0.0145 0.0093
 Mercury -101833-02-20 17:16 J -35473029.87 -35473029.78 -35473029.68 0.0145 0.0118
 Mercury -101833-05-18 23:30 J -35472941.55 -35472941.52 -35472941.48 0.0145 0.0142
 Venus -101831-05-27 19:40 J -35472202.81 -35472202.68 -35472202.53 0.0146 0.0112
 Venus -101830-01-09 08:23 J -35471976.35 -35471976.15 -35471975.94 0.0146 0.0042
 Venus -101830-08-23 21:21 J -35471749.82 -35471749.61 -35471749.39 0.0147 0.0029
 Venus -101829-04-06 10:33 J -35471523.21 -35471523.06 -35471522.90 0.0147 0.0100
 Earth -101811-03-26 06:42 J -35464960.35 -35464960.22 -35464960.07 0.0143 0.0121
 Moon -101811-03-26 07:25 J -35464960.31 -35464960.19 -35464960.02 0.0143 0.0120 *
 Moon -101810-03-31 12:42 J -35464590.22 -35464589.97 -35464589.72 0.0142 0.0033
 Earth -101810-03-31 13:54 J -35464590.17 -35464589.92 -35464589.65 0.0142 0.0036 *
 Earth -101809-04-04 19:40 J -35464219.92 -35464219.68 -35464219.42 0.0142 0.0048
 Moon -101809-04-04 22:18 J -35464219.83 -35464219.57 -35464219.31 0.0142 0.0041 *
 Moon -101808-04-09 21:06 J -35463849.66 -35463849.62 -35463849.55 0.0141 0.0137
 Earth -101808-04-10 00:13 J -35463849.58 -35463849.49 -35463849.38 0.0141 0.0129 *
 Mars -101799-07-13 18:42 J -35460467.97 -35460467.72 -35460467.44 0.0136 0.0053
 Mercury -101797-11-20 16:47 J -35459606.80 -35459606.80 -35459606.78 0.0135 0.0135

Mercury -101796-02-16 21:35 J -35459518.67 -35459518.60 -35459518.52 0.0135 0.0116

Mercury -101796-05-16 02:09 J -35459430.51 -35459430.41 -35459430.30 0.0134 0.0098

Mercury -101796-08-12 06:42 J -35459342.35 -35459342.22 -35459342.10 0.0134 0.0079

Mercury -101796-11-08 11:01 J -35459254.17 -35459254.04 -35459253.90 0.0134 0.0062

Mercury -101795-02-04 15:21 J -35459166.00 -35459165.86 -35459165.71 0.0134 0.0044

Mercury -101795-05-03 19:54 J -35459077.82 -35459077.67 -35459077.52 0.0134 0.0026

Mercury -101795-07-31 00:13 J -35458989.64 -35458989.49 -35458989.34 0.0134 0.0009

Mercury -101795-10-27 04:33 J -35458901.46 -35458901.31 -35458901.16 0.0134 0.0009

Mercury -101794-01-23 08:37 J -35458813.29 -35458813.14 -35458812.99 0.0134 0.0026

Mercury -101794-04-21 12:57 J -35458725.10 -35458724.96 -35458724.82 0.0134 0.0043

Mercury -101794-07-18 17:01 J -35458636.92 -35458636.79 -35458636.65 0.0134 0.0060

Mercury -101794-10-14 21:06 J -35458548.74 -35458548.62 -35458548.49 0.0133 0.0076

Mercury -101793-01-11 01:11 J -35458460.55 -35458460.45 -35458460.34 0.0133 0.0093

Mercury -101793-04-08 05:16 J -35458372.36 -35458372.28 -35458372.19 0.0133 0.0109

Mercury -101793-07-05 09:21 J -35458284.15 -35458284.11 -35458284.06 0.0133 0.0125

Venus -101791-09-16 20:52 J -35457480.74 -35457480.63 -35457480.51 0.0132 0.0111

Venus -101790-05-01 01:40 J -35457254.61 -35457254.43 -35457254.22 0.0132 0.0060

Venus -101790-12-13 06:42 J -35457028.43 -35457028.22 -35457028.00 0.0132 0.0008

Venus -101789-07-26 11:30 J -35456802.23 -35456802.02 -35456801.82 0.0132 0.0044

Venus -101788-03-09 15:21 J -35456575.99 -35456575.86 -35456575.69 0.0132 0.0096

Earth -101767-09-23 22:18 J -35448707.66 -35448707.57 -35448707.44 0.0136 0.0121

Moon -101767-09-24 00:28 J -35448707.59 -35448707.48 -35448707.34 0.0136 0.0115 *

Moon -101766-09-27 22:47 J -35448338.75 -35448338.55 -35448338.31 0.0136 0.0063

Earth -101766-09-28 01:25 J -35448338.67 -35448338.44 -35448338.22 0.0136 0.0055 *

Earth -101765-10-01 04:47 J -35447969.54 -35447969.30 -35447969.06 0.0137 0.0012

Moon -101765-10-01 07:11 J -35447969.44 -35447969.20 -35447968.96 0.0137 0.0019 *

Moon -101764-10-05 06:57 J -35447600.41 -35447600.21 -35447600.00 0.0137 0.0078

Earth -101764-10-05 08:52 J -35447600.31 -35447600.13 -35447599.92 0.0137 0.0081 *

Mars -101755-09-22 01:11 J -35444326.78 -35444326.45 -35444326.12 0.0143 0.0015

Mercury -101752-07-15 09:06 J -35443299.18 -35443299.12 -35443299.05 0.0144 0.0131

Mercury -101752-10-11 14:37 J -35443210.99 -35443210.89 -35443210.79 0.0144 0.0110

Mercury -101751-01-07 20:09 J -35443122.78 -35443122.66 -35443122.53 0.0144 0.0088

Mercury -101751-04-06 01:40 J -35443034.57 -35443034.43 -35443034.28 0.0145 0.0065

Mercury -101751-07-03 07:25 J -35442946.34 -35442946.19 -35442946.04 0.0145 0.0043

Mercury -101751-09-29 12:57 J -35442858.11 -35442857.96 -35442857.79 0.0145 0.0021

Mercury -101751-12-26 18:57 J -35442769.88 -35442769.71 -35442769.55 0.0145 0.0005

Mercury -101750-03-25 00:42 J -35442681.63 -35442681.47 -35442681.31 0.0145 0.0026

Mercury -101750-06-21 06:28 J -35442593.38 -35442593.23 -35442593.08 0.0145 0.0050

Mercury -101750-09-17 12:28 J -35442505.12 -35442504.98 -35442504.84 0.0145 0.0074

Mercury -101750-12-14 18:28 J -35442416.85 -35442416.73 -35442416.61 0.0145 0.0098

Mercury -101749-03-12 00:28 J -35442328.57 -35442328.48 -35442328.39 0.0145 0.0122

Venus -101747-09-08 13:40 J -35441418.10 -35441417.93 -35441417.73 0.0146 0.0078

Venus -101746-04-23 02:52 J -35441191.60 -35441191.38 -35441191.17 0.0146 0.0007

Venus -101746-12-05 15:49 J -35440965.04 -35440964.84 -35440964.65 0.0147 0.0064

Venus -101745-07-19 04:33 J -35440738.37 -35440738.31 -35440738.21 0.0147 0.0136

Moon -101727-03-26 15:06 J -35434279.00 -35434278.87 -35434278.71 0.0143 0.0120

Earth -101727-03-26 15:21 J -35434278.99 -35434278.86 -35434278.69 0.0143 0.0118 *

Moon -101726-03-31 21:35 J -35433908.83 -35433908.60 -35433908.34 0.0142 0.0037

Earth -101726-03-31 22:33 J -35433908.81 -35433908.56 -35433908.29 0.0142 0.0033 *

Earth -101725-04-05 04:18 J -35433538.56 -35433538.32 -35433538.07 0.0142 0.0050

Moon -101725-04-05 05:59 J -35433538.49 -35433538.25 -35433537.99 0.0142 0.0057 *

Moon -101724-04-10 06:42 J -35433168.33 -35433168.22 -35433168.10 0.0141 0.0125

Earth -101724-04-10 08:37 J -35433168.22 -35433168.14 -35433168.03 0.0141 0.0132 *

Mars -101716-04-07 07:54 J -35430249.40 -35430249.17 -35430248.93 0.0136 0.0079

Mars -101714-03-08 00:57 J -35429549.56 -35429549.46 -35429549.36 0.0135 0.0126

Mercury -101713-12-10 23:45 J -35428905.54 -35428905.51 -35428905.47 0.0135 0.0131

Mercury -101712-03-09 04:18 J -35428817.40 -35428817.32 -35428817.23 0.0134 0.0113

Mercury -101712-06-05 08:52 J -35428729.23 -35428729.13 -35428729.01 0.0134 0.0094

Mercury -101712-09-01 13:25 J -35428641.06 -35428640.94 -35428640.81 0.0134 0.0076

Mercury -101712-11-28 17:59 J -35428552.89 -35428552.75 -35428552.61 0.0134 0.0058

Mercury -101711-02-24 22:18 J -35428464.72 -35428464.57 -35428464.42 0.0134 0.0041

Mercury -101711-05-24 02:37 J -35428376.54 -35428376.39 -35428376.23 0.0134 0.0023

Mercury -101711-08-20 06:57 J -35428288.36 -35428288.21 -35428288.05 0.0134 0.0006

Mercury -101711-11-16 11:16 J -35428200.18 -35428200.03 -35428199.88 0.0134 0.0012

Mercury -101710-02-12 15:35 J -35428112.00 -35428111.85 -35428111.70 0.0134 0.0029

Mercury -101710-05-11 19:40 J -35428023.82 -35428023.68 -35428023.53 0.0134 0.0046

Mercury -101710-08-07 23:45 J -35427935.64 -35427935.51 -35427935.37 0.0133 0.0063

Mercury -101710-11-04 03:49 J -35427847.45 -35427847.34 -35427847.21 0.0133 0.0080

Mercury -101709-01-31 08:09 J -35427759.26 -35427759.16 -35427759.05 0.0133 0.0095

Mercury -101709-04-28 11:59 J -35427671.07 -35427671.00 -35427670.91 0.0133 0.0112

Mercury -101709-07-25 16:04 J -35427582.86 -35427582.83 -35427582.78 0.0133 0.0128

Venus -101707-12-29 11:01 J -35426696.20 -35426696.04 -35426695.86 0.0132 0.0085

Venus -101706-08-12 16:04 J -35426470.04 -35426469.83 -35426469.62 0.0132 0.0033

Venus -101705-03-25 20:52 J -35426243.84 -35426243.63 -35426243.41 0.0132 0.0019

Venus -101705-11-07 01:25 J -35426017.62 -35426017.44 -35426017.25 0.0132 0.0070

Venus -101704-06-21 05:30 J -35425791.34 -35425791.27 -35425791.17 0.0132 0.0121

Earth -101683-09-24 07:25 J -35418026.29 -35418026.19 -35418026.06 0.0136 0.0119

Moon -101683-09-24 10:18 J -35418026.15 -35418026.07 -35418025.98 0.0136 0.0126 *

Moon -101682-09-28 07:25 J -35417657.42 -35417657.19 -35417656.95 0.0136 0.0046

Earth -101682-09-28 10:18 J -35417657.28 -35417657.07 -35417656.84 0.0136 0.0053 *

Earth -101681-10-01 13:54 J -35417288.16 -35417287.92 -35417287.67 0.0137 0.0014

Moon -101681-10-01 16:18 J -35417288.05 -35417287.82 -35417287.58 0.0137 0.0009 *

Moon -101680-10-05 15:06 J -35416919.05 -35416918.87 -35416918.67 0.0137 0.0088

Earth -101680-10-05 18:13 J -35416918.93 -35416918.74 -35416918.54 0.0137 0.0083 *

Mars -101670-05-19 05:01 J -35413406.54 -35413406.29 -35413406.01 0.0143 0.0087

Mercury -101668-08-04 16:04 J -35412597.89 -35412597.83 -35412597.75 0.0144 0.0127

Mercury -101668-10-31 21:35 J -35412509.70 -35412509.60 -35412509.49 0.0144 0.0105

Mercury -101667-01-28 03:06 J -35412421.49 -35412421.37 -35412421.23 0.0144 0.0083

Mercury -101667-04-26 08:52 J -35412333.28 -35412333.13 -35412332.99 0.0145 0.0061

Mercury -101667-07-23 14:23 J -35412245.05 -35412244.90 -35412244.74 0.0145 0.0038

Mercury -101667-10-19 20:09 J -35412156.82 -35412156.66 -35412156.50 0.0145 0.0016

Mercury -101666-01-16 01:54 J -35412068.58 -35412068.42 -35412068.26 0.0145 0.0008

Mercury -101666-04-14 07:40 J -35411980.33 -35411980.18 -35411980.02 0.0145 0.0031

Mercury -101666-07-11 13:40 J -35411892.08 -35411891.93 -35411891.78 0.0145 0.0055

Mercury -101666-10-07 19:25 J -35411803.82 -35411803.69 -35411803.55 0.0145 0.0079

Mercury -101665-01-04 01:25 J -35411715.55 -35411715.44 -35411715.32 0.0145 0.0103

Mercury -101665-04-01 07:40 J -35411627.26 -35411627.18 -35411627.10 0.0145 0.0127

Venus -101663-05-08 19:25 J -35410859.81 -35410859.69 -35410859.54 0.0146 0.0112

Venus -101663-12-21 08:09 J -35410633.36 -35410633.16 -35410632.94 0.0146 0.0043

Venus -101662-08-04 21:06 J -35410406.83 -35410406.62 -35410406.40 0.0147 0.0029

Venus -101661-03-18 10:18 J -35410180.22 -35410180.07 -35410179.91 0.0147 0.0100

Moon -101643-03-27 00:42 J -35403597.62 -35403597.47 -35403597.28 0.0143 0.0111

Earth -101643-03-27 01:54 J -35403597.57 -35403597.42 -35403597.26 0.0143 0.0113 *

Moon -101642-04-01 08:37 J -35403227.39 -35403227.14 -35403226.88 0.0142 0.0027

Earth -101642-04-01 08:37 J -35403227.39 -35403227.14 -35403226.87 0.0142 0.0030 *

Earth -101641-04-05 14:09 J -35402857.14 -35402856.91 -35402856.65 0.0142 0.0054

Moon -101641-04-05 14:52 J -35402857.12 -35402856.88 -35402856.61 0.0142 0.0048 *

Earth -101640-04-10 18:42 J -35402486.78 -35402486.72 -35402486.63 0.0141 0.0134

Mars -101632-11-30 16:33 J -35399331.10 -35399330.81 -35399330.52 0.0136 0.0003

Mercury -101629-12-31 06:57 J -35398204.26 -35398204.21 -35398204.16 0.0135 0.0127

Mercury -101628-03-29 11:30 J -35398116.11 -35398116.02 -35398115.93 0.0134 0.0109

Mercury -101628-06-25 15:49 J -35398027.94 -35398027.84 -35398027.71 0.0134 0.0091

Mercury -101628-09-21 20:23 J -35397939.77 -35397939.65 -35397939.51 0.0134 0.0073

Mercury -101628-12-19 00:57 J -35397851.60 -35397851.46 -35397851.32 0.0134 0.0055

Mercury -101627-03-17 05:16 J -35397763.42 -35397763.28 -35397763.12 0.0134 0.0037

Mercury -101627-06-13 09:49 J -35397675.24 -35397675.09 -35397674.94 0.0134 0.0019

Mercury -101627-09-09 14:09 J -35397587.07 -35397586.91 -35397586.76 0.0134 0.0002

Mercury -101627-12-06 18:28 J -35397498.89 -35397498.73 -35397498.58 0.0134 0.0016

Mercury -101626-03-04 22:33 J -35397410.70 -35397410.56 -35397410.41 0.0134 0.0033

Mercury -101626-06-01 02:52 J -35397322.52 -35397322.38 -35397322.24 0.0134 0.0049

Mercury -101626-08-28 06:57 J -35397234.34 -35397234.21 -35397234.07 0.0133 0.0066

Mercury -101626-11-24 11:16 J -35397146.15 -35397146.03 -35397145.92 0.0133 0.0083

Mercury -101625-02-20 15:06 J -35397057.96 -35397057.87 -35397057.76 0.0133 0.0099

Mercury -101625-05-18 19:11 J -35396969.77 -35396969.70 -35396969.62 0.0133 0.0116

Mercury -101625-08-14 23:01 J -35396881.54 -35396881.54 -35396881.51 0.0133 0.0132

Venus -101623-08-28 20:52 J -35396137.73 -35396137.63 -35396137.50 0.0132 0.0111

Venus -101622-04-12 02:09 J -35395911.60 -35395911.41 -35395911.21 0.0132 0.0059

Venus -101622-11-24 07:11 J -35395685.42 -35395685.20 -35395684.98 0.0132 0.0006

Venus -101621-07-07 11:45 J -35395459.21 -35395459.01 -35395458.80 0.0132 0.0045

Venus -101620-02-18 16:04 J -35395232.97 -35395232.83 -35395232.68 0.0132 0.0096

Earth -101599-09-24 17:16 J -35387344.89 -35387344.78 -35387344.64 0.0136 0.0116

Moon -101599-09-24 20:23 J -35387344.77 -35387344.65 -35387344.49 0.0136 0.0110 *

Moon -101598-09-28 17:16 J -35386976.00 -35386975.78 -35386975.55 0.0136 0.0057

Earth -101598-09-28 20:09 J -35386975.88 -35386975.66 -35386975.42 0.0136 0.0050 *

Earth -101597-10-01 23:45 J -35386606.75 -35386606.51 -35386606.27 0.0137 0.0017

Moon -101597-10-02 02:52 J -35386606.61 -35386606.38 -35386606.14 0.0137 0.0024 *

Moon -101596-10-06 00:57 J -35386237.65 -35386237.46 -35386237.24 0.0137 0.0081

Earth -101596-10-06 03:49 J -35386237.51 -35386237.34 -35386237.13 0.0137 0.0086 *

Mars -101587-02-05 23:01 J -35383192.76 -35383192.54 -35383192.27 0.0142 0.0096

Mercury -101584-08-24 23:01 J -35381896.61 -35381896.54 -35381896.45 0.0144 0.0123

Mercury -101584-11-21 04:33 J -35381808.41 -35381808.31 -35381808.19 0.0144 0.0101

Mercury -101583-02-17 10:04 J -35381720.20 -35381720.08 -35381719.94 0.0145 0.0079

Mercury -101583-05-16 15:49 J -35381631.99 -35381631.84 -35381631.69 0.0145 0.0057

Mercury -101583-08-12 21:35 J -35381543.76 -35381543.60 -35381543.45 0.0145 0.0034

Mercury -101583-11-09 03:06 J -35381455.53 -35381455.37 -35381455.21 0.0145 0.0012

Mercury -101582-02-05 08:52 J -35381367.29 -35381367.13 -35381366.97 0.0145 0.0012

Mercury -101582-05-04 14:52 J -35381279.04 -35381278.88 -35381278.73 0.0145 0.0035

Mercury -101582-07-31 20:37 J -35381190.79 -35381190.64 -35381190.49 0.0145 0.0059

Mercury -101582-10-28 02:23 J -35381102.52 -35381102.40 -35381102.26 0.0145 0.0083

Mercury -101581-01-24 08:23 J -35381014.25 -35381014.15 -35381014.03 0.0145 0.0107

Mercury -101581-04-21 14:23 J -35380925.95 -35380925.90 -35380925.82 0.0145 0.0132

Venus -101579-08-20 13:25 J -35380075.11 -35380074.94 -35380074.75 0.0146 0.0078

Venus -101578-04-04 02:23 J -35379848.61 -35379848.40 -35379848.18 0.0147 0.0008

Venus -101578-11-16 15:21 J -35379622.05 -35379621.86 -35379621.66 0.0147 0.0064

Venus -101577-06-30 04:47 J -35379395.38 -35379395.30 -35379395.22 0.0147 0.0135

Moon -101559-03-27 09:35 J -35372916.25 -35372916.10 -35372915.92 0.0143 0.0112

Earth -101559-03-27 11:16 J -35372916.19 -35372916.03 -35372915.85 0.0143 0.0109 *

Earth -101558-04-01 18:13 J -35372546.00 -35372545.74 -35372545.47 0.0142 0.0025

Moon -101558-04-01 19:11 J -35372545.95 -35372545.70 -35372545.45 0.0142 0.0026 *

Earth -101557-04-06 00:13 J -35372175.73 -35372175.49 -35372175.25 0.0142 0.0057

Moon -101557-04-06 00:13 J -35372175.71 -35372175.49 -35372175.22 0.0142 0.0064 *

Moon -101556-04-11 04:04 J -35371805.41 -35371805.33 -35371805.23 0.0141 0.0131

Earth -101556-04-11 04:33 J -35371805.34 -35371805.31 -35371805.24 0.0141 0.0138 *

Mars -101549-08-25 05:59 J -35369112.29 -35369112.25 -35369112.16 0.0137 0.0133

Mars -101547-07-26 00:42 J -35368412.70 -35368412.47 -35368412.22 0.0136 0.0073

Mercury -101544-01-20 13:54 J -35367502.97 -35367502.92 -35367502.85 0.0135 0.0123

Mercury -101544-04-18 18:28 J -35367414.82 -35367414.73 -35367414.62 0.0134 0.0104

Mercury -101544-07-15 23:01 J -35367326.65 -35367326.54 -35367326.41 0.0134 0.0086

Mercury -101544-10-12 03:35 J -35367238.48 -35367238.35 -35367238.21 0.0134 0.0068

Mercury -101543-01-08 08:09 J -35367150.30 -35367150.16 -35367150.02 0.0134 0.0050

Mercury -101543-04-06 12:28 J -35367062.13 -35367061.98 -35367061.83 0.0134 0.0033

Mercury -101543-07-03 17:01 J -35366973.95 -35366973.79 -35366973.64 0.0134 0.0015

Mercury -101543-09-29 21:21 J -35366885.77 -35366885.61 -35366885.46 0.0134 0.0004

Mercury -101543-12-27 01:40 J -35366797.59 -35366797.43 -35366797.28 0.0134 0.0020

Mercury -101542-03-25 05:45 J -35366709.40 -35366709.26 -35366709.11 0.0134 0.0037

Mercury -101542-06-21 10:04 J -35366621.22 -35366621.08 -35366620.94 0.0133 0.0054

Mercury -101542-09-17 14:09 J -35366533.04 -35366532.91 -35366532.78 0.0133 0.0070

Mercury -101542-12-14 17:59 J -35366444.85 -35366444.75 -35366444.62 0.0133 0.0088

Mercury -101541-03-11 22:18 J -35366356.66 -35366356.57 -35366356.47 0.0133 0.0103

Mercury -101541-06-08 02:23 J -35366268.46 -35366268.40 -35366268.33 0.0133 0.0120

Venus -101539-12-10 12:13 J -35365353.15 -35365352.99 -35365352.81 0.0132 0.0083
 Venus -101538-07-24 17:16 J -35365126.99 -35365126.78 -35365126.57 0.0132 0.0031
 Venus -101537-03-06 21:49 J -35364900.80 -35364900.59 -35364900.37 0.0132 0.0021
 Venus -101537-10-19 02:23 J -35364674.58 -35364674.40 -35364674.21 0.0132 0.0072
 Venus -101536-06-02 06:28 J -35364448.29 -35364448.23 -35364448.14 0.0132 0.0123
 Earth -101515-09-25 02:23 J -35356663.52 -35356663.40 -35356663.26 0.0136 0.0113
 Moon -101515-09-25 05:45 J -35356663.37 -35356663.26 -35356663.15 0.0136 0.0120 *
 Moon -101514-09-29 01:40 J -35356294.66 -35356294.43 -35356294.19 0.0136 0.0040
 Earth -101514-09-29 05:01 J -35356294.50 -35356294.29 -35356294.05 0.0136 0.0048 *
 Earth -101513-10-02 08:52 J -35355925.37 -35355925.13 -35355924.89 0.0137 0.0019
 Moon -101513-10-02 11:59 J -35355925.24 -35355925.00 -35355924.76 0.0137 0.0013 *
 Moon -101512-10-06 09:35 J -35355556.27 -35355556.10 -35355555.91 0.0137 0.0092
 Earth -101512-10-06 13:11 J -35355556.13 -35355555.95 -35355555.75 0.0137 0.0087 *
 Mars -101503-10-03 00:13 J -35352272.82 -35352272.49 -35352272.15 0.0143 0.0005
 Mercury -101500-06-18 00:13 J -35351283.50 -35351283.49 -35351283.44 0.0144 0.0142
 Mercury -101500-09-14 05:59 J -35351195.33 -35351195.25 -35351195.16 0.0144 0.0119
 Mercury -101500-12-11 11:30 J -35351107.13 -35351107.02 -35351106.90 0.0144 0.0097
 Mercury -101499-03-09 16:47 J -35351018.92 -35351018.80 -35351018.65 0.0145 0.0076
 Mercury -101499-06-05 22:33 J -35350930.70 -35350930.56 -35350930.41 0.0145 0.0053
 Mercury -101499-09-02 04:18 J -35350842.48 -35350842.32 -35350842.16 0.0145 0.0030
 Mercury -101499-11-29 10:04 J -35350754.24 -35350754.08 -35350753.92 0.0145 0.0007
 Mercury -101498-02-25 15:49 J -35350666.00 -35350665.84 -35350665.68 0.0145 0.0016
 Mercury -101498-05-24 21:35 J -35350577.75 -35350577.60 -35350577.44 0.0145 0.0039
 Mercury -101498-08-21 03:21 J -35350489.50 -35350489.36 -35350489.21 0.0145 0.0063
 Mercury -101498-11-17 09:06 J -35350401.23 -35350401.12 -35350400.97 0.0145 0.0088
 Mercury -101497-02-13 15:06 J -35350312.96 -35350312.87 -35350312.75 0.0145 0.0112
 Mercury -101497-05-11 21:21 J -35350224.66 -35350224.61 -35350224.54 0.0146 0.0136
 Venus -101495-04-19 18:13 J -35349516.86 -35349516.74 -35349516.59 0.0146 0.0115
 Venus -101495-12-02 07:11 J -35349290.41 -35349290.20 -35349289.99 0.0147 0.0044
 Venus -101494-07-16 19:54 J -35349063.88 -35349063.67 -35349063.45 0.0147 0.0027

Venus -101493-02-28 08:52 J -35348837.28 -35348837.13 -35348836.96 0.0147 0.0099
 Moon -101475-03-27 17:30 J -35342234.94 -35342234.77 -35342234.55 0.0143 0.0101
 Earth -101475-03-27 20:23 J -35342234.82 -35342234.65 -35342234.46 0.0143 0.0105 *
 Earth -101474-04-02 03:35 J -35341864.61 -35341864.35 -35341864.09 0.0142 0.0022
 Moon -101474-04-02 04:47 J -35341864.55 -35341864.30 -35341864.05 0.0142 0.0020 *
 Moon -101473-04-06 08:23 J -35341494.39 -35341494.15 -35341493.89 0.0142 0.0056
 Earth -101473-04-06 09:21 J -35341494.34 -35341494.11 -35341493.86 0.0142 0.0061 *
 Earth -101472-04-11 14:23 J -35341123.90 -35341123.90 -35341123.89 0.0141 0.0141
 Mars -101464-04-19 17:01 J -35338194.05 -35338193.79 -35338193.53 0.0136 0.0056
 Mercury -101460-02-09 21:21 J -35336801.68 -35336801.61 -35336801.53 0.0134 0.0118
 Mercury -101460-05-09 01:54 J -35336713.52 -35336713.42 -35336713.31 0.0134 0.0099
 Mercury -101460-08-05 06:28 J -35336625.35 -35336625.23 -35336625.11 0.0134 0.0081
 Mercury -101460-11-01 10:47 J -35336537.18 -35336537.05 -35336536.91 0.0134 0.0064
 Mercury -101459-01-28 15:21 J -35336449.00 -35336448.86 -35336448.71 0.0134 0.0046
 Mercury -101459-04-26 19:40 J -35336360.83 -35336360.68 -35336360.52 0.0134 0.0028
 Mercury -101459-07-24 00:13 J -35336272.65 -35336272.49 -35336272.34 0.0134 0.0011
 Mercury -101459-10-20 04:33 J -35336184.47 -35336184.31 -35336184.16 0.0134 0.0007
 Mercury -101458-01-16 08:37 J -35336096.28 -35336096.14 -35336095.98 0.0134 0.0025
 Mercury -101458-04-14 12:57 J -35336008.10 -35336007.96 -35336007.81 0.0134 0.0041
 Mercury -101458-07-11 17:01 J -35335919.92 -35335919.79 -35335919.64 0.0133 0.0059
 Mercury -101458-10-07 21:21 J -35335831.73 -35335831.61 -35335831.48 0.0133 0.0075
 Mercury -101457-01-04 01:25 J -35335743.54 -35335743.44 -35335743.33 0.0133 0.0091
 Mercury -101457-04-01 05:16 J -35335655.35 -35335655.28 -35335655.18 0.0133 0.0109
 Mercury -101457-06-28 09:35 J -35335567.15 -35335567.10 -35335567.04 0.0133 0.0124
 Venus -101455-08-09 22:18 J -35334794.68 -35334794.57 -35334794.43 0.0132 0.0109
 Venus -101454-03-24 03:49 J -35334568.54 -35334568.34 -35334568.14 0.0132 0.0056
 Venus -101454-11-05 08:37 J -35334342.36 -35334342.14 -35334341.92 0.0132 0.0004
 Venus -101453-06-18 13:11 J -35334116.15 -35334115.95 -35334115.75 0.0132 0.0048
 Venus -101452-01-30 17:30 J -35333889.91 -35333889.77 -35333889.63 0.0132 0.0099
 Earth -101431-09-25 12:28 J -35325982.11 -35325981.98 -35325981.82 0.0135 0.0110

Moon -101431-09-25 16:04 J -35325981.97 -35325981.83 -35325981.66 0.0135 0.0103 *
 Moon -101430-09-29 12:13 J -35325613.21 -35325612.99 -35325612.76 0.0136 0.0051
 Earth -101430-09-29 15:35 J -35325613.08 -35325612.85 -35325612.61 0.0136 0.0044 *
 Earth -101429-10-02 19:11 J -35325243.94 -35325243.70 -35325243.46 0.0137 0.0022
 Moon -101429-10-02 22:47 J -35325243.79 -35325243.55 -35325243.31 0.0137 0.0029 *
 Moon -101428-10-06 20:09 J -35324874.85 -35324874.66 -35324874.46 0.0137 0.0084
 Earth -101428-10-06 23:16 J -35324874.70 -35324874.53 -35324874.33 0.0137 0.0090 *
 Mars -101418-05-30 04:33 J -35321352.53 -35321352.31 -35321352.09 0.0143 0.0107
 Mercury -101416-07-08 07:40 J -35320582.23 -35320582.18 -35320582.13 0.0144 0.0137
 Mercury -101416-10-04 12:42 J -35320494.05 -35320493.97 -35320493.86 0.0144 0.0116
 Mercury -101416-12-31 18:13 J -35320405.85 -35320405.74 -35320405.61 0.0144 0.0094
 Mercury -101415-03-29 23:59 J -35320317.63 -35320317.50 -35320317.36 0.0145 0.0071
 Mercury -101415-06-26 05:30 J -35320229.41 -35320229.27 -35320229.11 0.0145 0.0049
 Mercury -101415-09-22 11:16 J -35320141.19 -35320141.03 -35320140.87 0.0145 0.0026
 Mercury -101415-12-19 17:01 J -35320052.95 -35320052.79 -35320052.63 0.0145 0.0003
 Mercury -101414-03-17 22:47 J -35319964.71 -35319964.55 -35319964.39 0.0145 0.0020
 Mercury -101414-06-14 04:33 J -35319876.46 -35319876.31 -35319876.15 0.0145 0.0044
 Mercury -101414-09-10 10:18 J -35319788.21 -35319788.07 -35319787.92 0.0145 0.0067
 Mercury -101414-12-07 16:18 J -35319699.94 -35319699.82 -35319699.69 0.0145 0.0091
 Mercury -101413-03-04 22:04 J -35319611.66 -35319611.58 -35319611.47 0.0145 0.0116
 Mercury -101413-06-01 04:18 J -35319523.35 -35319523.32 -35319523.27 0.0146 0.0140
 Venus -101411-08-01 11:45 J -35318732.18 -35318732.01 -35318731.82 0.0146 0.0081
 Venus -101410-03-16 00:42 J -35318505.69 -35318505.47 -35318505.25 0.0147 0.0010
 Venus -101410-10-28 13:25 J -35318279.12 -35318278.94 -35318278.73 0.0147 0.0062
 Venus -101409-06-11 02:52 J -35318052.47 -35318052.38 -35318052.29 0.0147 0.0133
 Moon -101391-03-28 02:09 J -35311553.59 -35311553.41 -35311553.22 0.0143 0.0105
 Earth -101391-03-28 04:33 J -35311553.48 -35311553.31 -35311553.11 0.0143 0.0102 *
 Earth -101390-04-02 11:59 J -35311183.26 -35311183.00 -35311182.74 0.0142 0.0019
 Moon -101390-04-02 14:23 J -35311183.16 -35311182.90 -35311182.65 0.0142 0.0019 *
 Moon -101389-04-06 16:47 J -35310813.03 -35310812.80 -35310812.55 0.0142 0.0069

Earth -101389-04-06 17:45 J -35310812.98 -35310812.76 -35310812.51 0.0142 0.0064 *
 Moon -101388-04-11 23:59 J -35310442.56 -35310442.50 -35310442.44 0.0141 0.0137
 Mars -101380-12-13 01:25 J -35307275.72 -35307275.44 -35307275.16 0.0136 0.0019
 Mercury -101377-12-03 23:45 J -35306188.53 -35306188.51 -35306188.48 0.0135 0.0132
 Mercury -101376-03-02 04:18 J -35306100.39 -35306100.32 -35306100.23 0.0134 0.0114
 Mercury -101376-05-29 08:52 J -35306012.23 -35306012.13 -35306012.01 0.0134 0.0095
 Mercury -101376-08-25 13:25 J -35305924.06 -35305923.94 -35305923.81 0.0134 0.0077
 Mercury -101376-11-21 17:59 J -35305835.89 -35305835.75 -35305835.61 0.0134 0.0059
 Mercury -101375-02-17 22:33 J -35305747.71 -35305747.56 -35305747.41 0.0134 0.0041
 Mercury -101375-05-17 02:52 J -35305659.53 -35305659.38 -35305659.22 0.0134 0.0024
 Mercury -101375-08-13 07:11 J -35305571.35 -35305571.20 -35305571.04 0.0134 0.0007
 Mercury -101375-11-09 11:30 J -35305483.17 -35305483.02 -35305482.86 0.0134 0.0012
 Mercury -101374-02-05 15:49 J -35305394.99 -35305394.84 -35305394.69 0.0134 0.0029
 Mercury -101374-05-04 20:09 J -35305306.80 -35305306.66 -35305306.52 0.0133 0.0045
 Mercury -101374-08-01 00:13 J -35305218.62 -35305218.49 -35305218.35 0.0133 0.0063
 Mercury -101374-10-28 04:18 J -35305130.43 -35305130.32 -35305130.19 0.0133 0.0079
 Mercury -101373-01-24 08:37 J -35305042.24 -35305042.14 -35305042.03 0.0133 0.0095
 Mercury -101373-04-21 12:28 J -35304954.05 -35304953.98 -35304953.89 0.0133 0.0112
 Mercury -101373-07-18 16:33 J -35304865.83 -35304865.81 -35304865.76 0.0133 0.0129
 Venus -101371-11-21 13:54 J -35304010.09 -35304009.92 -35304009.74 0.0132 0.0080
 Venus -101370-07-05 18:42 J -35303783.93 -35303783.72 -35303783.50 0.0132 0.0028
 Venus -101369-02-16 23:16 J -35303557.74 -35303557.53 -35303557.31 0.0132 0.0024
 Venus -101369-09-30 03:49 J -35303331.52 -35303331.34 -35303331.16 0.0132 0.0075
 Venus -101368-05-14 07:54 J -35303105.22 -35303105.17 -35303105.09 0.0132 0.0126
 Earth -101347-09-25 22:18 J -35295300.71 -35295300.57 -35295300.41 0.0135 0.0107
 Moon -101347-09-26 01:25 J -35295300.55 -35295300.44 -35295300.28 0.0135 0.0114 *
 Moon -101346-09-29 21:49 J -35294931.82 -35294931.59 -35294931.35 0.0136 0.0034
 Earth -101346-09-30 01:11 J -35294931.67 -35294931.45 -35294931.21 0.0136 0.0042 *
 Earth -101345-10-03 04:47 J -35294562.54 -35294562.30 -35294562.05 0.0137 0.0024
 Moon -101345-10-03 08:09 J -35294562.40 -35294562.16 -35294561.91 0.0137 0.0017 *

Moon -101344-10-07 05:16 J -35294193.44 -35294193.28 -35294193.09 0.0137 0.0096
 Earth -101344-10-07 08:52 J -35294193.30 -35294193.13 -35294192.93 0.0137 0.0091 *
 Mars -101335-02-16 21:49 J -35291138.85 -35291138.59 -35291138.28 0.0142 0.0076
 Mercury -101332-07-28 14:37 J -35289880.95 -35289880.89 -35289880.83 0.0144 0.0132
 Mercury -101332-10-24 20:09 J -35289792.76 -35289792.66 -35289792.56 0.0144 0.0111
 Mercury -101331-01-21 01:11 J -35289704.56 -35289704.45 -35289704.31 0.0144 0.0090
 Mercury -101331-04-19 06:57 J -35289616.34 -35289616.21 -35289616.06 0.0145 0.0067
 Mercury -101331-07-16 12:28 J -35289528.12 -35289527.98 -35289527.82 0.0145 0.0045
 Mercury -101331-10-12 18:13 J -35289439.89 -35289439.74 -35289439.58 0.0145 0.0022
 Mercury -101330-01-08 23:59 J -35289351.66 -35289351.50 -35289351.34 0.0145 0.0002
 Mercury -101330-04-07 05:45 J -35289263.42 -35289263.26 -35289263.10 0.0145 0.0025
 Mercury -101330-07-04 11:30 J -35289175.17 -35289175.02 -35289174.86 0.0145 0.0048
 Mercury -101330-09-30 17:30 J -35289086.91 -35289086.77 -35289086.63 0.0145 0.0072
 Mercury -101330-12-27 23:16 J -35288998.64 -35288998.53 -35288998.40 0.0145 0.0096
 Mercury -101329-03-25 05:16 J -35288910.36 -35288910.28 -35288910.18 0.0146 0.0120
 Mercury -101329-06-21 11:16 J -35288822.04 -35288822.03 -35288822.00 0.0146 0.0144
 Venus -101327-03-31 16:47 J -35288173.91 -35288173.80 -35288173.65 0.0146 0.0117
 Venus -101327-11-13 05:45 J -35287947.46 -35287947.26 -35287947.05 0.0147 0.0046
 Venus -101326-06-27 18:28 J -35287720.94 -35287720.73 -35287720.51 0.0147 0.0026
 Venus -101325-02-09 07:25 J -35287494.34 -35287494.19 -35287494.02 0.0147 0.0097
 Moon -101307-03-28 10:04 J -35280872.27 -35280872.08 -35280871.86 0.0143 0.0093
 Earth -101307-03-28 13:25 J -35280872.11 -35280871.94 -35280871.73 0.0143 0.0099 *
 Earth -101306-04-02 21:06 J -35280501.88 -35280501.62 -35280501.35 0.0142 0.0016
 Moon -101306-04-02 23:30 J -35280501.77 -35280501.52 -35280501.26 0.0142 0.0015 *
 Moon -101305-04-07 00:57 J -35280131.69 -35280131.46 -35280131.20 0.0142 0.0062
 Earth -101305-04-07 03:21 J -35280131.58 -35280131.36 -35280131.12 0.0142 0.0067 *
 Mars -101297-09-06 14:23 J -35277057.05 -35277056.90 -35277056.71 0.0137 0.0111
 Mars -101295-08-07 09:06 J -35276357.31 -35276357.12 -35276356.90 0.0136 0.0094
 Mercury -101293-12-24 06:42 J -35275487.25 -35275487.22 -35275487.16 0.0135 0.0128
 Mercury -101292-03-22 11:45 J -35275399.10 -35275399.01 -35275398.92 0.0134 0.0109

Mercury -101292-06-18 16:18 J -35275310.94 -35275310.82 -35275310.71 0.0134 0.0091

Mercury -101292-09-14 20:52 J -35275222.76 -35275222.63 -35275222.50 0.0134 0.0073

Mercury -101292-12-12 01:11 J -35275134.59 -35275134.45 -35275134.30 0.0134 0.0055

Mercury -101291-03-10 05:45 J -35275046.41 -35275046.26 -35275046.11 0.0134 0.0037

Mercury -101291-06-06 10:04 J -35274958.23 -35274958.08 -35274957.92 0.0134 0.0019

Mercury -101291-09-02 14:37 J -35274870.05 -35274869.89 -35274869.74 0.0134 0.0004

Mercury -101291-11-29 18:57 J -35274781.87 -35274781.71 -35274781.56 0.0134 0.0016

Mercury -101290-02-25 23:01 J -35274693.68 -35274693.54 -35274693.39 0.0134 0.0033

Mercury -101290-05-25 03:21 J -35274605.50 -35274605.36 -35274605.22 0.0133 0.0050

Mercury -101290-08-21 07:40 J -35274517.31 -35274517.18 -35274517.05 0.0133 0.0067

Mercury -101290-11-17 11:45 J -35274429.13 -35274429.01 -35274428.89 0.0133 0.0083

Mercury -101289-02-13 15:35 J -35274340.93 -35274340.85 -35274340.74 0.0133 0.0101

Mercury -101289-05-11 19:54 J -35274252.74 -35274252.67 -35274252.59 0.0133 0.0116

Mercury -101289-08-07 23:59 J -35274164.51 -35274164.50 -35274164.48 0.0133 0.0132

Venus -101287-07-21 23:59 J -35273451.61 -35273451.50 -35273451.35 0.0132 0.0106

Venus -101286-03-05 05:01 J -35273225.48 -35273225.29 -35273225.08 0.0132 0.0053

Venus -101286-10-17 10:04 J -35272999.30 -35272999.08 -35272998.86 0.0132 0.0001

Venus -101285-05-30 14:23 J -35272773.09 -35272772.90 -35272772.69 0.0132 0.0051

Venus -101284-01-11 18:57 J -35272546.84 -35272546.71 -35272546.57 0.0132 0.0102

Earth -101263-09-26 10:04 J -35264619.24 -35264619.08 -35264618.92 0.0135 0.0103

Moon -101263-09-26 12:57 J -35264619.11 -35264618.96 -35264618.76 0.0135 0.0097 *

Moon -101262-09-30 09:35 J -35264250.32 -35264250.10 -35264249.86 0.0136 0.0046

Earth -101262-09-30 12:42 J -35264250.20 -35264249.97 -35264249.73 0.0136 0.0039 *

Earth -101261-10-03 16:04 J -35263881.06 -35263880.83 -35263880.59 0.0137 0.0027

Moon -101261-10-03 19:40 J -35263880.92 -35263880.68 -35263880.44 0.0137 0.0034 *

Moon -101260-10-07 17:16 J -35263511.96 -35263511.78 -35263511.59 0.0137 0.0087

Earth -101260-10-07 20:23 J -35263511.82 -35263511.65 -35263511.47 0.0137 0.0094 *

Mars -101251-10-14 04:33 J -35260218.63 -35260218.31 -35260217.97 0.0143 0.0028

Mercury -101248-08-17 21:49 J -35259179.65 -35259179.59 -35259179.51 0.0144 0.0127

Mercury -101248-11-14 03:21 J -35259091.46 -35259091.36 -35259091.25 0.0144 0.0105

Mercury -101247-02-10 08:52 J -35259003.26 -35259003.13 -35259003.00 0.0144 0.0083

Mercury -101247-05-09 14:23 J -35258915.04 -35258914.90 -35258914.75 0.0145 0.0061

Mercury -101247-08-05 19:54 J -35258826.82 -35258826.67 -35258826.51 0.0145 0.0039

Mercury -101247-11-02 01:40 J -35258738.59 -35258738.43 -35258738.27 0.0145 0.0016

Mercury -101246-01-29 07:25 J -35258650.35 -35258650.19 -35258650.03 0.0145 0.0007

Mercury -101246-04-27 13:11 J -35258562.11 -35258561.95 -35258561.79 0.0145 0.0030

Mercury -101246-07-24 18:57 J -35258473.86 -35258473.71 -35258473.56 0.0145 0.0054

Mercury -101246-10-21 00:42 J -35258385.60 -35258385.47 -35258385.33 0.0145 0.0078

Mercury -101245-01-17 06:42 J -35258297.33 -35258297.22 -35258297.10 0.0145 0.0101

Mercury -101245-04-14 12:42 J -35258209.05 -35258208.97 -35258208.88 0.0146 0.0126

Venus -101243-07-13 11:45 J -35257389.18 -35257389.01 -35257388.82 0.0146 0.0080

Venus -101242-02-25 00:28 J -35257162.69 -35257162.48 -35257162.26 0.0147 0.0010

Venus -101242-10-09 13:25 J -35256936.13 -35256935.94 -35256935.74 0.0147 0.0062

Venus -101241-05-23 02:23 J -35256709.48 -35256709.40 -35256709.30 0.0147 0.0134

Moon -101223-03-28 20:09 J -35250190.84 -35250190.66 -35250190.45 0.0143 0.0099

Earth -101223-03-28 23:30 J -35250190.70 -35250190.52 -35250190.30 0.0143 0.0095 *

Earth -101222-04-03 07:11 J -35249820.46 -35249820.20 -35249819.94 0.0143 0.0012

Moon -101222-04-03 10:33 J -35249820.32 -35249820.06 -35249819.80 0.0143 0.0012 *

Moon -101221-04-07 10:47 J -35249450.27 -35249450.05 -35249449.80 0.0142 0.0074

Earth -101221-04-07 13:25 J -35249450.16 -35249449.94 -35249449.70 0.0142 0.0070 *

Mars -101212-05-02 01:40 J -35246138.70 -35246138.43 -35246138.15 0.0136 0.0034

Mercury -101208-01-13 14:09 J -35244785.96 -35244785.91 -35244785.84 0.0134 0.0123

Mercury -101208-04-11 18:42 J -35244697.81 -35244697.72 -35244697.61 0.0134 0.0105

Mercury -101208-07-08 23:16 J -35244609.64 -35244609.53 -35244609.40 0.0134 0.0086

Mercury -101208-10-05 03:49 J -35244521.46 -35244521.34 -35244521.19 0.0134 0.0068

Mercury -101207-01-01 08:23 J -35244433.29 -35244433.15 -35244433.00 0.0134 0.0050

Mercury -101207-03-30 12:57 J -35244345.11 -35244344.96 -35244344.80 0.0134 0.0032

Mercury -101207-06-26 17:30 J -35244256.93 -35244256.77 -35244256.62 0.0134 0.0014

Mercury -101207-09-22 21:49 J -35244168.74 -35244168.59 -35244168.44 0.0134 0.0003

Mercury -101207-12-20 02:09 J -35244080.56 -35244080.41 -35244080.26 0.0134 0.0020

Mercury -101206-03-18 06:28 J -35243992.38 -35243992.23 -35243992.08 0.0134 0.0037

Mercury -101206-06-14 10:33 J -35243904.19 -35243904.06 -35243903.91 0.0133 0.0055

Mercury -101206-09-10 14:52 J -35243816.01 -35243815.88 -35243815.75 0.0133 0.0071

Mercury -101206-12-07 18:57 J -35243727.82 -35243727.71 -35243727.59 0.0133 0.0088

Mercury -101205-03-04 23:01 J -35243639.62 -35243639.54 -35243639.44 0.0133 0.0104

Mercury -101205-06-01 03:21 J -35243551.42 -35243551.36 -35243551.30 0.0133 0.0120

Venus -101203-03-21 10:18 J -35242893.09 -35242893.07 -35242893.01 0.0133 0.0131

Venus -101203-11-02 15:49 J -35242667.02 -35242666.84 -35242666.66 0.0132 0.0078

Venus -101202-06-16 20:37 J -35242440.85 -35242440.64 -35242440.42 0.0132 0.0025

Venus -101201-01-29 01:11 J -35242214.66 -35242214.45 -35242214.23 0.0132 0.0027

Venus -101201-09-11 05:45 J -35241988.44 -35241988.26 -35241988.09 0.0132 0.0078

Venus -101200-04-25 09:35 J -35241762.11 -35241762.10 -35241762.04 0.0132 0.0130

Earth -101179-09-26 20:52 J -35233937.79 -35233937.63 -35233937.46 0.0135 0.0100

Moon -101179-09-26 23:45 J -35233937.66 -35233937.51 -35233937.35 0.0135 0.0106 *

Moon -101178-09-30 20:09 J -35233568.89 -35233568.66 -35233568.42 0.0136 0.0029

Earth -101178-09-30 23:30 J -35233568.75 -35233568.52 -35233568.28 0.0136 0.0036 *

Earth -101177-10-04 02:37 J -35233199.62 -35233199.39 -35233199.14 0.0137 0.0030

Moon -101177-10-04 05:30 J -35233199.51 -35233199.27 -35233199.02 0.0137 0.0023 *

Moon -101176-10-08 03:49 J -35232830.50 -35232830.34 -35232830.17 0.0137 0.0101

Earth -101176-10-08 06:57 J -35232830.38 -35232830.21 -35232830.03 0.0137 0.0095 *

Mars -101166-06-10 11:59 J -35229298.10 -35229298.00 -35229297.84 0.0143 0.0131

Mercury -101164-06-10 23:45 J -35228566.51 -35228566.51 -35228566.49 0.0144 0.0143

Mercury -101164-09-07 05:01 J -35228478.36 -35228478.29 -35228478.19 0.0144 0.0122

Mercury -101164-12-04 10:33 J -35228390.16 -35228390.06 -35228389.94 0.0144 0.0100

Mercury -101163-03-02 16:04 J -35228301.95 -35228301.83 -35228301.69 0.0145 0.0078

Mercury -101163-05-29 21:49 J -35228213.74 -35228213.59 -35228213.45 0.0145 0.0056

Mercury -101163-08-26 03:21 J -35228125.51 -35228125.36 -35228125.20 0.0145 0.0033

Mercury -101163-11-22 09:06 J -35228037.28 -35228037.12 -35228036.96 0.0145 0.0011

Mercury -101162-02-18 14:37 J -35227949.04 -35227948.89 -35227948.72 0.0145 0.0013

Mercury -101162-05-17 20:23 J -35227860.80 -35227860.65 -35227860.49 0.0145 0.0036

Mercury -101162-08-14 02:09 J -35227772.55 -35227772.41 -35227772.25 0.0145 0.0060

Mercury -101162-11-10 07:54 J -35227684.29 -35227684.17 -35227684.02 0.0145 0.0084

Mercury -101161-02-06 14:09 J -35227596.02 -35227595.91 -35227595.80 0.0146 0.0107

Mercury -101161-05-04 19:54 J -35227507.73 -35227507.67 -35227507.59 0.0146 0.0132

Venus -101159-03-12 18:13 J -35226830.87 -35226830.74 -35226830.61 0.0146 0.0115

Venus -101159-10-25 06:42 J -35226604.42 -35226604.22 -35226604.01 0.0147 0.0044

Venus -101158-06-08 19:40 J -35226377.90 -35226377.68 -35226377.47 0.0147 0.0027

Venus -101157-01-21 08:23 J -35226151.30 -35226151.15 -35226150.98 0.0147 0.0099

Moon -101139-03-29 07:54 J -35219509.37 -35219509.17 -35219508.95 0.0143 0.0084

Earth -101139-03-29 11:45 J -35219509.20 -35219509.01 -35219508.79 0.0143 0.0090 *

Earth -101138-04-03 19:25 J -35219138.95 -35219138.69 -35219138.42 0.0143 0.0007

Moon -101138-04-03 22:47 J -35219138.81 -35219138.55 -35219138.29 0.0143 0.0007 *

Moon -101137-04-07 22:33 J -35218768.79 -35218768.56 -35218768.32 0.0142 0.0069

Earth -101137-04-08 01:40 J -35218768.64 -35218768.43 -35218768.19 0.0142 0.0074 *

Mars -101128-12-25 12:42 J -35215220.24 -35215219.97 -35215219.70 0.0136 0.0042

Mercury -101124-02-02 21:49 J -35214084.66 -35214084.59 -35214084.51 0.0134 0.0117

Mercury -101124-05-02 02:23 J -35213996.50 -35213996.40 -35213996.29 0.0134 0.0099

Mercury -101124-07-29 06:57 J -35213908.33 -35213908.21 -35213908.08 0.0134 0.0080

Mercury -101124-10-25 11:30 J -35213820.15 -35213820.02 -35213819.87 0.0134 0.0062

Mercury -101123-01-21 16:04 J -35213731.97 -35213731.83 -35213731.68 0.0134 0.0044

Mercury -101123-04-19 20:37 J -35213643.79 -35213643.64 -35213643.49 0.0134 0.0026

Mercury -101123-07-17 00:57 J -35213555.61 -35213555.46 -35213555.30 0.0134 0.0009

Mercury -101123-10-13 05:16 J -35213467.43 -35213467.28 -35213467.12 0.0134 0.0010

Mercury -101122-01-09 09:49 J -35213379.25 -35213379.09 -35213378.94 0.0134 0.0026

Mercury -101122-04-07 13:54 J -35213291.06 -35213290.92 -35213290.77 0.0134 0.0043

Mercury -101122-07-04 18:13 J -35213202.87 -35213202.74 -35213202.60 0.0133 0.0060

Mercury -101122-09-30 22:18 J -35213114.69 -35213114.57 -35213114.44 0.0133 0.0077

Mercury -101122-12-28 02:23 J -35213026.50 -35213026.40 -35213026.28 0.0133 0.0093

Mercury -101121-03-25 06:42 J -35212938.30 -35212938.22 -35212938.13 0.0133 0.0109

Mercury -101121-06-21 10:33 J -35212850.09 -35212850.06 -35212850.00 0.0133 0.0126

Venus -101119-07-03 02:37 J -35212108.52 -35212108.39 -35212108.24 0.0132 0.0102
 Venus -101118-02-14 07:40 J -35211882.38 -35211882.18 -35211881.97 0.0132 0.0049
 Venus -101118-09-28 12:28 J -35211656.20 -35211655.98 -35211655.76 0.0132 0.0003
 Venus -101117-05-11 17:01 J -35211429.98 -35211429.79 -35211429.59 0.0132 0.0055
 Venus -101117-12-23 21:21 J -35211203.73 -35211203.61 -35211203.48 0.0132 0.0106
 Jupiter -101111-10-02 07:54 J -35209095.63 -35209095.17 -35209094.66 0.0131 0.0030
 Earth -101095-09-27 08:52 J -35203256.29 -35203256.13 -35203255.95 0.0135 0.0096
 Moon -101095-09-27 11:59 J -35203256.18 -35203256.00 -35203255.81 0.0135 0.0089 *
 Moon -101094-10-01 09:06 J -35202887.34 -35202887.12 -35202886.88 0.0136 0.0039
 Earth -101094-10-01 11:30 J -35202887.25 -35202887.02 -35202886.77 0.0136 0.0032 *
 Earth -101093-10-04 14:52 J -35202518.12 -35202517.88 -35202517.64 0.0137 0.0033
 Moon -101093-10-04 17:30 J -35202518.00 -35202517.77 -35202517.52 0.0137 0.0040 *
 Moon -101092-10-08 16:04 J -35202148.99 -35202148.83 -35202148.64 0.0137 0.0093
 Earth -101092-10-08 18:42 J -35202148.87 -35202148.72 -35202148.54 0.0137 0.0099 *
 Mars -101083-02-28 11:59 J -35199084.30 -35199084.00 -35199083.68 0.0142 0.0047
 Mercury -101080-07-01 07:25 J -35197865.23 -35197865.19 -35197865.14 0.0144 0.0137
 Mercury -101080-09-27 12:57 J -35197777.05 -35197776.96 -35197776.87 0.0144 0.0116
 Mercury -101080-12-24 18:28 J -35197688.85 -35197688.73 -35197688.61 0.0144 0.0094
 Mercury -101079-03-22 23:45 J -35197600.64 -35197600.51 -35197600.37 0.0145 0.0072
 Mercury -101079-06-19 05:16 J -35197512.42 -35197512.28 -35197512.12 0.0145 0.0050
 Mercury -101079-09-15 11:01 J -35197424.20 -35197424.04 -35197423.88 0.0145 0.0027
 Mercury -101079-12-12 16:47 J -35197335.96 -35197335.80 -35197335.64 0.0145 0.0005
 Mercury -101078-03-10 22:18 J -35197247.73 -35197247.57 -35197247.41 0.0145 0.0019
 Mercury -101078-06-07 04:04 J -35197159.48 -35197159.33 -35197159.17 0.0145 0.0042
 Mercury -101078-09-03 09:49 J -35197071.23 -35197071.09 -35197070.94 0.0145 0.0066
 Mercury -101078-11-30 15:49 J -35196982.96 -35196982.84 -35196982.71 0.0145 0.0090
 Mercury -101077-02-26 21:49 J -35196894.69 -35196894.59 -35196894.49 0.0146 0.0114
 Mercury -101077-05-25 03:49 J -35196806.39 -35196806.34 -35196806.29 0.0146 0.0138
 Venus -101075-06-24 13:40 J -35196046.11 -35196045.93 -35196045.75 0.0147 0.0078
 Venus -101074-02-06 02:09 J -35195819.62 -35195819.41 -35195819.19 0.0147 0.0007

Venus -101074-09-20 15:06 J -35195593.06 -35195592.87 -35195592.67 0.0147 0.0065
 Venus -101073-05-04 04:18 J -35195366.39 -35195366.32 -35195366.24 0.0147 0.0137
 Moon -101055-03-29 20:52 J -35188827.82 -35188827.63 -35188827.41 0.0143 0.0089
 Earth -101055-03-30 00:28 J -35188827.68 -35188827.48 -35188827.25 0.0143 0.0084 *
 Earth -101054-04-04 08:09 J -35188457.42 -35188457.16 -35188456.89 0.0143 0.0002
 Moon -101054-04-04 11:59 J -35188457.26 -35188457.00 -35188456.73 0.0143 0.0002 *
 Moon -101053-04-08 10:47 J -35188087.25 -35188087.05 -35188086.82 0.0142 0.0083
 Earth -101053-04-08 14:37 J -35188087.11 -35188086.89 -35188086.67 0.0142 0.0079 *
 Mars -101045-09-19 06:57 J -35185001.44 -35185001.21 -35185000.99 0.0137 0.0084
 Mars -101043-08-20 00:42 J -35184301.60 -35184301.47 -35184301.33 0.0136 0.0119
 Mercury -101041-11-27 00:57 J -35183471.50 -35183471.46 -35183471.41 0.0135 0.0129
 Mercury -101040-02-23 05:30 J -35183383.35 -35183383.27 -35183383.17 0.0134 0.0111
 Mercury -101040-05-22 10:04 J -35183295.18 -35183295.08 -35183294.96 0.0134 0.0093
 Mercury -101040-08-18 14:37 J -35183207.01 -35183206.89 -35183206.75 0.0134 0.0074
 Mercury -101040-11-14 19:11 J -35183118.83 -35183118.70 -35183118.55 0.0134 0.0056
 Mercury -101039-02-10 23:45 J -35183030.65 -35183030.51 -35183030.35 0.0134 0.0038
 Mercury -101039-05-10 04:18 J -35182942.47 -35182942.32 -35182942.17 0.0134 0.0020
 Mercury -101039-08-06 08:37 J -35182854.29 -35182854.14 -35182853.98 0.0134 0.0005
 Mercury -101039-11-02 13:11 J -35182766.11 -35182765.95 -35182765.80 0.0134 0.0015
 Mercury -101038-01-29 17:16 J -35182677.92 -35182677.78 -35182677.63 0.0134 0.0032
 Mercury -101038-04-27 21:35 J -35182589.74 -35182589.60 -35182589.45 0.0133 0.0049
 Mercury -101038-07-25 01:54 J -35182501.55 -35182501.42 -35182501.29 0.0133 0.0065
 Mercury -101038-10-21 05:59 J -35182413.36 -35182413.25 -35182413.13 0.0133 0.0082
 Mercury -101037-01-17 10:18 J -35182325.17 -35182325.07 -35182324.97 0.0133 0.0099
 Mercury -101037-04-14 14:09 J -35182236.98 -35182236.91 -35182236.83 0.0133 0.0115
 Mercury -101037-07-11 18:13 J -35182148.75 -35182148.74 -35182148.71 0.0133 0.0131
 Venus -101035-03-02 13:40 J -35181549.98 -35181549.93 -35181549.84 0.0132 0.0126
 Venus -101035-10-14 19:11 J -35181323.88 -35181323.70 -35181323.52 0.0132 0.0073
 Venus -101034-05-28 23:59 J -35181097.71 -35181097.50 -35181097.28 0.0132 0.0020
 Venus -101033-01-10 04:33 J -35180871.52 -35180871.31 -35180871.10 0.0132 0.0032

Venus -101033-08-23 08:37 J -35180645.29 -35180645.14 -35180644.95 0.0132 0.0084

Earth -101011-09-27 20:09 J -35172574.84 -35172574.66 -35172574.48 0.0135 0.0092

Moon -101011-09-27 21:49 J -35172574.75 -35172574.59 -35172574.40 0.0135 0.0098 *

Moon -101010-10-01 20:09 J -35172205.89 -35172205.66 -35172205.42 0.0136 0.0022

Earth -101010-10-01 22:33 J -35172205.80 -35172205.56 -35172205.32 0.0136 0.0029 *

Earth -101009-10-05 01:40 J -35171836.66 -35171836.43 -35171836.19 0.0137 0.0036

Moon -101009-10-05 03:35 J -35171836.59 -35171836.35 -35171836.10 0.0137 0.0029 *

Moon -101008-10-09 03:35 J -35171467.49 -35171467.35 -35171467.20 0.0137 0.0106

Earth -101008-10-09 05:16 J -35171467.42 -35171467.28 -35171467.09 0.0137 0.0102 *

101ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 101st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mars -100999-10-25 17:16 J -35168164.07 -35168163.78 -35168163.46 0.0143 0.0055

Mercury -100996-07-21 14:37 J -35167163.94 -35167163.89 -35167163.82 0.0144 0.0132

Mercury -100996-10-17 20:09 J -35167075.76 -35167075.66 -35167075.56 0.0144 0.0111

Mercury -100995-01-14 01:40 J -35166987.56 -35166987.43 -35166987.31 0.0145 0.0089

Mercury -100995-04-12 06:57 J -35166899.34 -35166899.21 -35166899.06 0.0145 0.0067

Mercury -100995-07-09 12:28 J -35166811.12 -35166810.98 -35166810.82 0.0145 0.0045

Mercury -100995-10-05 18:13 J -35166722.90 -35166722.74 -35166722.58 0.0145 0.0022

Mercury -100994-01-01 23:59 J -35166634.66 -35166634.50 -35166634.34 0.0145 0.0003

Mercury -100994-03-31 05:30 J -35166546.42 -35166546.27 -35166546.11 0.0145 0.0024

Mercury -100994-06-27 11:16 J -35166458.18 -35166458.03 -35166457.87 0.0145 0.0048

Mercury -100994-09-23 17:01 J -35166369.92 -35166369.79 -35166369.64 0.0145 0.0071

Mercury -100994-12-20 23:01 J -35166281.66 -35166281.54 -35166281.41 0.0146 0.0095

Mercury -100993-03-18 05:01 J -35166193.38 -35166193.29 -35166193.20 0.0146 0.0119

Mercury -100993-06-14 11:01 J -35166105.06 -35166105.04 -35166105.01 0.0146 0.0143

Venus -100991-02-21 19:25 J -35165487.82 -35165487.69 -35165487.55 0.0146 0.0113

Venus -100991-10-06 08:09 J -35165261.36 -35165261.16 -35165260.95 0.0147 0.0042

Venus -100990-05-20 21:06 J -35165034.83 -35165034.62 -35165034.41 0.0147 0.0030

Venus -100989-01-02 10:04 J -35164808.23 -35164808.08 -35164807.92 0.0147 0.0102

Moon -100971-03-30 09:21 J -35158146.32 -35158146.11 -35158145.87 0.0143 0.0072

Earth -100971-03-30 13:11 J -35158146.16 -35158145.95 -35158145.72 0.0143 0.0078 *

Earth -100970-04-04 21:06 J -35157775.89 -35157775.62 -35157775.36 0.0143 0.0005

Moon -100970-04-05 00:42 J -35157775.74 -35157775.47 -35157775.21 0.0143 0.0004 *

Moon -100969-04-08 23:30 J -35157405.72 -35157405.52 -35157405.28 0.0142 0.0080

Earth -100969-04-09 03:06 J -35157405.56 -35157405.37 -35157405.14 0.0142 0.0085 *

Mars -100960-05-14 21:35 J -35154082.88 -35154082.60 -35154082.31 0.0136 0.0005

Mercury -100957-12-17 08:52 J -35152770.19 -35152770.13 -35152770.06 0.0135 0.0122

Mercury -100956-03-15 13:25 J -35152682.03 -35152681.94 -35152681.83 0.0134 0.0104

Mercury -100956-06-11 17:59 J -35152593.86 -35152593.75 -35152593.62 0.0134 0.0086

Mercury -100956-09-07 22:33 J -35152505.68 -35152505.56 -35152505.41 0.0134 0.0068

Mercury -100956-12-05 03:21 J -35152417.51 -35152417.36 -35152417.22 0.0134 0.0049

Mercury -100955-03-03 07:40 J -35152329.33 -35152329.18 -35152329.02 0.0134 0.0032

Mercury -100955-05-30 12:13 J -35152241.15 -35152240.99 -35152240.84 0.0134 0.0014

Mercury -100955-08-26 16:33 J -35152152.96 -35152152.81 -35152152.65 0.0134 0.0004

Mercury -100955-11-22 20:52 J -35152064.78 -35152064.63 -35152064.48 0.0134 0.0021

Mercury -100954-02-19 01:11 J -35151976.60 -35151976.45 -35151976.30 0.0134 0.0038

Mercury -100954-05-18 05:16 J -35151888.41 -35151888.28 -35151888.13 0.0133 0.0055

Mercury -100954-08-14 09:35 J -35151800.22 -35151800.10 -35151799.97 0.0133 0.0072

Mercury -100954-11-10 13:40 J -35151712.03 -35151711.93 -35151711.81 0.0133 0.0089
 Mercury -100953-02-06 17:45 J -35151623.84 -35151623.76 -35151623.66 0.0133 0.0105
 Mercury -100953-05-04 21:49 J -35151535.64 -35151535.59 -35151535.52 0.0133 0.0121
 Venus -100951-06-14 06:42 J -35150765.35 -35150765.22 -35150765.05 0.0132 0.0096
 Venus -100950-01-26 11:59 J -35150539.21 -35150539.00 -35150538.79 0.0132 0.0043
 Venus -100950-09-09 16:33 J -35150313.02 -35150312.81 -35150312.59 0.0132 0.0010
 Venus -100949-04-22 21:06 J -35150086.80 -35150086.62 -35150086.42 0.0132 0.0062
 Venus -100949-12-05 01:40 J -35149860.53 -35149860.43 -35149860.31 0.0132 0.0113
 Earth -100927-09-28 08:09 J -35141893.33 -35141893.16 -35141892.96 0.0135 0.0088
 Moon -100927-09-28 10:33 J -35141893.26 -35141893.06 -35141892.86 0.0135 0.0081 *
 Moon -100926-10-02 09:21 J -35141524.33 -35141524.11 -35141523.87 0.0136 0.0031
 Earth -100926-10-02 10:47 J -35141524.29 -35141524.05 -35141523.80 0.0136 0.0024 *
 Earth -100925-10-05 13:54 J -35141155.15 -35141154.92 -35141154.68 0.0137 0.0040
 Moon -100925-10-05 15:21 J -35141155.08 -35141154.86 -35141154.61 0.0137 0.0047 *
 Moon -100924-10-09 15:49 J -35140785.99 -35140785.84 -35140785.66 0.0137 0.0099
 Earth -100924-10-09 17:30 J -35140785.91 -35140785.77 -35140785.60 0.0137 0.0105 *
 Mars -100916-07-15 18:42 J -35137949.89 -35137949.72 -35137949.54 0.0142 0.0120
 Mercury -100912-08-10 22:04 J -35136462.64 -35136462.58 -35136462.50 0.0144 0.0127
 Mercury -100912-11-07 03:21 J -35136374.45 -35136374.36 -35136374.24 0.0144 0.0106
 Mercury -100911-02-03 08:52 J -35136286.25 -35136286.13 -35136285.99 0.0145 0.0084
 Mercury -100911-05-02 14:37 J -35136198.04 -35136197.89 -35136197.75 0.0145 0.0061
 Mercury -100911-07-29 19:54 J -35136109.81 -35136109.67 -35136109.51 0.0145 0.0039
 Mercury -100911-10-26 01:40 J -35136021.59 -35136021.43 -35136021.27 0.0145 0.0016
 Mercury -100910-01-22 07:25 J -35135933.35 -35135933.19 -35135933.03 0.0145 0.0007
 Mercury -100910-04-20 12:57 J -35135845.11 -35135844.96 -35135844.80 0.0145 0.0030
 Mercury -100910-07-17 18:42 J -35135756.86 -35135756.72 -35135756.56 0.0145 0.0054
 Mercury -100910-10-14 00:28 J -35135668.61 -35135668.48 -35135668.33 0.0145 0.0077
 Mercury -100909-01-10 06:28 J -35135580.34 -35135580.23 -35135580.11 0.0146 0.0101
 Mercury -100909-04-07 12:28 J -35135492.06 -35135491.98 -35135491.89 0.0146 0.0125
 Venus -100907-06-05 14:23 J -35134703.07 -35134702.90 -35134702.70 0.0147 0.0077

Venus -100906-01-18 03:21 J -35134476.58 -35134476.36 -35134476.14 0.0147 0.0005

Venus -100906-09-01 16:18 J -35134250.01 -35134249.82 -35134249.63 0.0147 0.0067

Venus -100905-04-15 05:16 J -35134023.33 -35134023.28 -35134023.20 0.0147 0.0140

Moon -100887-03-30 21:49 J -35127464.81 -35127464.59 -35127464.37 0.0143 0.0078

Earth -100887-03-31 00:42 J -35127464.69 -35127464.47 -35127464.23 0.0143 0.0072 *

Earth -100886-04-05 08:37 J -35127094.41 -35127094.14 -35127093.88 0.0143 0.0010

Moon -100886-04-05 12:28 J -35127094.24 -35127093.98 -35127093.71 0.0143 0.0009 *

Moon -100885-04-09 11:16 J -35126724.23 -35126724.03 -35126723.83 0.0142 0.0092

Earth -100885-04-09 14:52 J -35126724.08 -35126723.88 -35126723.67 0.0142 0.0089 *

Mars -100877-02-07 14:09 J -35123863.96 -35123863.91 -35123863.81 0.0137 0.0132

Mars -100875-01-07 10:47 J -35123164.28 -35123164.05 -35123163.79 0.0136 0.0073

Mercury -100873-10-10 11:59 J -35122157.01 -35122157.00 -35122156.98 0.0135 0.0134

Mercury -100872-01-06 16:33 J -35122068.88 -35122068.81 -35122068.72 0.0135 0.0116

Mercury -100872-04-04 21:06 J -35121980.71 -35121980.62 -35121980.50 0.0134 0.0098

Mercury -100872-07-02 01:40 J -35121892.54 -35121892.43 -35121892.29 0.0134 0.0080

Mercury -100872-09-28 06:28 J -35121804.37 -35121804.23 -35121804.09 0.0134 0.0061

Mercury -100872-12-25 11:01 J -35121716.19 -35121716.04 -35121715.89 0.0134 0.0043

Mercury -100871-03-23 15:35 J -35121628.01 -35121627.85 -35121627.70 0.0134 0.0025

Mercury -100871-06-19 19:54 J -35121539.82 -35121539.67 -35121539.51 0.0134 0.0008

Mercury -100871-09-16 00:13 J -35121451.64 -35121451.49 -35121451.33 0.0134 0.0010

Mercury -100871-12-13 04:33 J -35121363.46 -35121363.31 -35121363.16 0.0134 0.0027

Mercury -100870-03-11 08:52 J -35121275.27 -35121275.13 -35121274.98 0.0134 0.0044

Mercury -100870-06-07 12:57 J -35121187.09 -35121186.96 -35121186.82 0.0133 0.0062

Mercury -100870-09-03 17:16 J -35121098.90 -35121098.78 -35121098.65 0.0133 0.0078

Mercury -100870-11-30 21:21 J -35121010.71 -35121010.61 -35121010.50 0.0133 0.0095

Mercury -100869-02-27 01:40 J -35120922.51 -35120922.43 -35120922.35 0.0133 0.0111

Mercury -100869-05-25 05:30 J -35120834.30 -35120834.27 -35120834.22 0.0133 0.0127

Venus -100867-02-11 18:13 J -35120206.81 -35120206.74 -35120206.62 0.0133 0.0119

Venus -100867-09-25 23:30 J -35119980.70 -35119980.52 -35119980.32 0.0132 0.0066

Venus -100866-05-10 04:33 J -35119754.52 -35119754.31 -35119754.09 0.0132 0.0013

Venus -100866-12-22 09:06 J -35119528.32 -35119528.12 -35119527.90 0.0132 0.0040
 Venus -100865-08-04 13:25 J -35119302.08 -35119301.94 -35119301.77 0.0132 0.0092
 Earth -100843-09-28 19:40 J -35111211.86 -35111211.68 -35111211.47 0.0135 0.0084
 Moon -100843-09-28 20:23 J -35111211.82 -35111211.65 -35111211.44 0.0135 0.0089 *
 Moon -100842-10-02 21:06 J -35110842.85 -35110842.62 -35110842.38 0.0136 0.0015
 Earth -100842-10-02 22:04 J -35110842.81 -35110842.58 -35110842.33 0.0136 0.0021 *
 Earth -100841-10-06 00:57 J -35110473.68 -35110473.46 -35110473.21 0.0136 0.0044
 Moon -100841-10-06 02:09 J -35110473.65 -35110473.41 -35110473.16 0.0136 0.0036 *
 Moon -100840-10-10 04:04 J -35110104.44 -35110104.33 -35110104.18 0.0137 0.0114
 Earth -100840-10-10 05:01 J -35110104.43 -35110104.29 -35110104.13 0.0137 0.0107 *
 Mars -100831-03-11 23:45 J -35107029.83 -35107029.51 -35107029.17 0.0142 0.0020
 Mercury -100828-06-03 23:59 J -35105849.51 -35105849.50 -35105849.48 0.0144 0.0143
 Mercury -100828-08-31 05:30 J -35105761.35 -35105761.27 -35105761.19 0.0144 0.0122
 Mercury -100828-11-27 10:33 J -35105673.16 -35105673.06 -35105672.94 0.0145 0.0101
 Mercury -100827-02-23 16:04 J -35105584.95 -35105584.83 -35105584.69 0.0145 0.0079
 Mercury -100827-05-22 21:49 J -35105496.74 -35105496.59 -35105496.45 0.0145 0.0056
 Mercury -100827-08-19 03:06 J -35105408.52 -35105408.37 -35105408.21 0.0145 0.0034
 Mercury -100827-11-15 08:52 J -35105320.29 -35105320.13 -35105319.97 0.0145 0.0011
 Mercury -100826-02-11 14:37 J -35105232.05 -35105231.89 -35105231.73 0.0145 0.0012
 Mercury -100826-05-10 20:09 J -35105143.81 -35105143.66 -35105143.50 0.0145 0.0035
 Mercury -100826-08-07 01:54 J -35105055.56 -35105055.42 -35105055.27 0.0145 0.0059
 Mercury -100826-11-03 07:40 J -35104967.30 -35104967.18 -35104967.04 0.0145 0.0082
 Mercury -100825-01-30 13:40 J -35104879.04 -35104878.93 -35104878.82 0.0146 0.0106
 Mercury -100825-04-27 19:40 J -35104790.75 -35104790.68 -35104790.61 0.0146 0.0130
 Venus -100823-02-02 20:09 J -35104144.79 -35104144.66 -35104144.51 0.0146 0.0111
 Venus -100823-09-17 09:06 J -35103918.33 -35103918.12 -35103917.91 0.0147 0.0040
 Venus -100822-05-01 21:49 J -35103691.80 -35103691.59 -35103691.38 0.0147 0.0032
 Venus -100822-12-14 11:01 J -35103465.19 -35103465.04 -35103464.89 0.0147 0.0104
 Moon -100803-03-31 08:52 J -35096783.35 -35096783.13 -35096782.89 0.0143 0.0062
 Earth -100803-03-31 11:59 J -35096783.22 -35096783.00 -35096782.75 0.0143 0.0068 *

Earth -100802-04-05 19:54 J -35096412.93 -35096412.67 -35096412.41 0.0143 0.0014
 Moon -100802-04-05 23:16 J -35096412.80 -35096412.53 -35096412.26 0.0143 0.0012 *
 Moon -100801-04-09 22:18 J -35096042.76 -35096042.57 -35096042.35 0.0142 0.0089
 Earth -100801-04-10 02:23 J -35096042.60 -35096042.40 -35096042.20 0.0142 0.0093 *
 Mars -100793-10-02 04:33 J -35092945.57 -35092945.31 -35092945.04 0.0137 0.0053
 Mercury -100789-10-30 19:40 J -35091455.72 -35091455.68 -35091455.62 0.0135 0.0128
 Mercury -100788-01-27 00:28 J -35091367.57 -35091367.48 -35091367.38 0.0135 0.0109
 Mercury -100788-04-25 05:01 J -35091279.40 -35091279.29 -35091279.17 0.0134 0.0091
 Mercury -100788-07-22 09:35 J -35091191.22 -35091191.10 -35091190.96 0.0134 0.0073
 Mercury -100788-10-18 14:09 J -35091103.05 -35091102.91 -35091102.76 0.0134 0.0055
 Mercury -100787-01-14 18:42 J -35091014.87 -35091014.72 -35091014.57 0.0134 0.0037
 Mercury -100787-04-12 23:16 J -35090926.68 -35090926.53 -35090926.38 0.0134 0.0019
 Mercury -100787-07-10 03:35 J -35090838.50 -35090838.35 -35090838.19 0.0134 0.0003
 Mercury -100787-10-06 07:54 J -35090750.32 -35090750.17 -35090750.01 0.0134 0.0017
 Mercury -100786-01-02 12:13 J -35090662.13 -35090661.99 -35090661.84 0.0134 0.0034
 Mercury -100786-03-31 16:33 J -35090573.95 -35090573.81 -35090573.66 0.0134 0.0050
 Mercury -100786-06-27 20:37 J -35090485.76 -35090485.64 -35090485.50 0.0133 0.0068
 Mercury -100786-09-24 01:11 J -35090397.57 -35090397.45 -35090397.34 0.0133 0.0084
 Mercury -100786-12-21 05:01 J -35090309.38 -35090309.29 -35090309.18 0.0133 0.0101
 Mercury -100785-03-18 09:21 J -35090221.18 -35090221.11 -35090221.04 0.0133 0.0117
 Mercury -100785-06-14 13:25 J -35090132.94 -35090132.94 -35090132.93 0.0133 0.0133
 Venus -100783-05-26 11:45 J -35089422.17 -35089422.01 -35089421.85 0.0132 0.0088
 Venus -100782-01-07 16:33 J -35089196.01 -35089195.81 -35089195.59 0.0132 0.0035
 Venus -100782-08-21 21:21 J -35088969.82 -35088969.61 -35088969.39 0.0132 0.0018
 Venus -100781-04-04 01:54 J -35088743.59 -35088743.42 -35088743.22 0.0132 0.0070
 Venus -100781-11-16 06:13 J -35088517.30 -35088517.24 -35088517.14 0.0132 0.0122
 Earth -100759-09-29 09:06 J -35080530.32 -35080530.12 -35080529.92 0.0135 0.0079
 Moon -100759-09-29 09:21 J -35080530.30 -35080530.11 -35080529.88 0.0135 0.0074 *
 Moon -100758-10-03 11:01 J -35080161.27 -35080161.04 -35080160.80 0.0136 0.0023
 Earth -100758-10-03 11:16 J -35080161.27 -35080161.03 -35080160.78 0.0136 0.0017 *

Earth -100757-10-06 14:09 J -35079792.13 -35079791.91 -35079791.67 0.0136 0.0048
 Moon -100757-10-06 14:23 J -35079792.12 -35079791.90 -35079791.66 0.0136 0.0054 *
 Moon -100756-10-10 17:16 J -35079422.91 -35079422.78 -35079422.62 0.0137 0.0106
 Earth -100756-10-10 17:45 J -35079422.88 -35079422.76 -35079422.60 0.0137 0.0112 *
 Mars -100747-11-06 11:01 J -35076109.29 -35076109.04 -35076108.75 0.0143 0.0086
 Mercury -100744-06-24 07:40 J -35075148.22 -35075148.18 -35075148.12 0.0144 0.0136
 Mercury -100744-09-20 12:57 J -35075060.04 -35075059.96 -35075059.86 0.0144 0.0115
 Mercury -100744-12-17 18:28 J -35074971.84 -35074971.73 -35074971.61 0.0144 0.0093
 Mercury -100743-03-15 23:45 J -35074883.63 -35074883.51 -35074883.36 0.0145 0.0072
 Mercury -100743-06-12 05:30 J -35074795.42 -35074795.27 -35074795.12 0.0145 0.0049
 Mercury -100743-09-08 11:01 J -35074707.19 -35074707.04 -35074706.88 0.0145 0.0027
 Mercury -100743-12-05 16:33 J -35074618.96 -35074618.81 -35074618.65 0.0145 0.0006
 Mercury -100742-03-03 22:18 J -35074530.73 -35074530.57 -35074530.41 0.0145 0.0019
 Mercury -100742-05-31 04:04 J -35074442.48 -35074442.33 -35074442.18 0.0145 0.0042
 Mercury -100742-08-27 09:49 J -35074354.23 -35074354.09 -35074353.95 0.0145 0.0066
 Mercury -100742-11-23 15:35 J -35074265.97 -35074265.85 -35074265.72 0.0145 0.0090
 Mercury -100741-02-19 21:21 J -35074177.70 -35074177.61 -35074177.50 0.0146 0.0114
 Mercury -100741-05-18 03:21 J -35074089.40 -35074089.36 -35074089.30 0.0146 0.0138
 Venus -100740-10-03 03:49 J -35073586.37 -35073586.34 -35073586.29 0.0146 0.0144
 Venus -100739-05-17 16:33 J -35073360.00 -35073359.81 -35073359.62 0.0146 0.0073
 Venus -100739-12-30 05:01 J -35073133.50 -35073133.29 -35073133.07 0.0147 0.0003
 Venus -100738-08-13 17:59 J -35072906.94 -35072906.75 -35072906.56 0.0147 0.0071
 Venus -100737-03-27 06:57 J -35072680.24 -35072680.21 -35072680.15 0.0147 0.0144
 Moon -100720-03-26 17:01 J -35066471.87 -35066471.79 -35066471.71 0.0144 0.0136
 Moon -100719-03-31 21:35 J -35066101.82 -35066101.60 -35066101.37 0.0143 0.0069
 Earth -100719-03-31 23:30 J -35066101.74 -35066101.52 -35066101.27 0.0143 0.0063 *
 Earth -100718-04-06 07:25 J -35065731.45 -35065731.19 -35065730.93 0.0143 0.0018
 Moon -100718-04-06 10:47 J -35065731.32 -35065731.05 -35065730.78 0.0143 0.0018 *
 Moon -100717-04-10 10:04 J -35065361.25 -35065361.08 -35065360.89 0.0142 0.0100
 Earth -100717-04-10 13:25 J -35065361.11 -35065360.94 -35065360.73 0.0142 0.0098 *

Mars -100708-05-27 19:11 J -35062026.97 -35062026.70 -35062026.41 0.0136 0.0025
 Mercury -100705-11-20 03:21 J -35060754.41 -35060754.36 -35060754.28 0.0135 0.0122
 Mercury -100704-02-16 08:09 J -35060666.25 -35060666.16 -35060666.05 0.0135 0.0103
 Mercury -100704-05-15 12:42 J -35060578.08 -35060577.97 -35060577.84 0.0134 0.0085
 Mercury -100704-08-11 17:16 J -35060489.91 -35060489.78 -35060489.63 0.0134 0.0067
 Mercury -100704-11-07 21:49 J -35060401.73 -35060401.59 -35060401.44 0.0134 0.0049
 Mercury -100703-02-04 02:23 J -35060313.55 -35060313.40 -35060313.24 0.0134 0.0031
 Mercury -100703-05-03 06:57 J -35060225.37 -35060225.21 -35060225.06 0.0134 0.0013
 Mercury -100703-07-30 11:16 J -35060137.18 -35060137.03 -35060136.87 0.0134 0.0005
 Mercury -100703-10-26 15:35 J -35060049.00 -35060048.85 -35060048.69 0.0134 0.0022
 Mercury -100702-01-22 19:54 J -35059960.81 -35059960.67 -35059960.52 0.0134 0.0039
 Mercury -100702-04-21 00:13 J -35059872.63 -35059872.49 -35059872.35 0.0134 0.0056
 Mercury -100702-07-18 04:18 J -35059784.44 -35059784.32 -35059784.18 0.0133 0.0074
 Mercury -100702-10-14 08:37 J -35059696.25 -35059696.14 -35059696.02 0.0133 0.0090
 Mercury -100701-01-10 12:42 J -35059608.05 -35059607.97 -35059607.87 0.0133 0.0106
 Mercury -100701-04-07 17:01 J -35059519.84 -35059519.79 -35059519.73 0.0133 0.0122
 Venus -100699-01-23 23:30 J -35058863.64 -35058863.52 -35058863.40 0.0133 0.0111
 Venus -100699-09-07 04:33 J -35058637.50 -35058637.31 -35058637.11 0.0132 0.0058
 Venus -100698-04-21 09:49 J -35058411.31 -35058411.09 -35058410.88 0.0132 0.0006
 Venus -100698-12-03 14:09 J -35058185.10 -35058184.91 -35058184.69 0.0132 0.0048
 Venus -100697-07-16 18:42 J -35057958.85 -35057958.72 -35057958.57 0.0132 0.0100
 Moon -100676-09-25 19:40 J -35050217.70 -35050217.68 -35050217.62 0.0135 0.0133
 Moon -100675-09-29 21:06 J -35049848.81 -35049848.62 -35049848.40 0.0135 0.0080
 Earth -100675-09-29 21:35 J -35049848.79 -35049848.60 -35049848.39 0.0135 0.0075 *
 Earth -100674-10-03 23:59 J -35049479.74 -35049479.50 -35049479.26 0.0136 0.0012
 Moon -100674-10-04 00:13 J -35049479.72 -35049479.49 -35049479.25 0.0136 0.0007 *
 Moon -100673-10-07 02:52 J -35049110.62 -35049110.38 -35049110.14 0.0136 0.0044
 Earth -100673-10-07 02:37 J -35049110.61 -35049110.39 -35049110.15 0.0136 0.0051 *
 Earth -100672-10-11 06:28 J -35048741.35 -35048741.23 -35048741.09 0.0137 0.0115
 Moon -100672-10-11 06:57 J -35048741.30 -35048741.21 -35048741.09 0.0137 0.0122 *

Mars -100664-07-27 12:42 J -35045895.22 -35045894.97 -35045894.70 0.0142 0.0089
 Mercury -100660-07-14 15:21 J -35044446.92 -35044446.86 -35044446.79 0.0144 0.0130
 Mercury -100660-10-10 20:23 J -35044358.74 -35044358.65 -35044358.53 0.0144 0.0110
 Mercury -100659-01-07 01:54 J -35044270.53 -35044270.42 -35044270.29 0.0144 0.0088
 Mercury -100659-04-05 07:25 J -35044182.32 -35044182.19 -35044182.04 0.0145 0.0065
 Mercury -100659-07-02 12:57 J -35044094.11 -35044093.96 -35044093.80 0.0145 0.0043
 Mercury -100659-09-28 18:42 J -35044005.88 -35044005.72 -35044005.57 0.0145 0.0021
 Mercury -100659-12-26 00:13 J -35043917.65 -35043917.49 -35043917.33 0.0145 0.0002
 Mercury -100658-03-24 05:59 J -35043829.41 -35043829.25 -35043829.09 0.0145 0.0025
 Mercury -100658-06-20 11:45 J -35043741.16 -35043741.01 -35043740.86 0.0145 0.0049
 Mercury -100658-09-16 17:16 J -35043652.91 -35043652.78 -35043652.63 0.0145 0.0073
 Mercury -100658-12-13 23:01 J -35043564.65 -35043564.54 -35043564.41 0.0145 0.0097
 Mercury -100657-03-11 05:16 J -35043476.37 -35043476.28 -35043476.19 0.0146 0.0120
 Mercury -100657-06-07 11:16 J -35043388.05 -35043388.03 -35043388.01 0.0146 0.0144
 Venus -100655-01-14 23:16 J -35042801.67 -35042801.53 -35042801.38 0.0146 0.0107
 Venus -100655-08-29 11:45 J -35042575.21 -35042575.01 -35042574.79 0.0147 0.0036
 Venus -100654-04-13 00:42 J -35042348.68 -35042348.47 -35042348.26 0.0147 0.0037
 Venus -100654-11-25 13:54 J -35042122.06 -35042121.92 -35042121.78 0.0147 0.0109
 Earth -100636-03-27 03:06 J -35035790.42 -35035790.37 -35035790.28 0.0144 0.0139
 Moon -100635-04-01 10:04 J -35035420.31 -35035420.08 -35035419.83 0.0144 0.0053
 Earth -100635-04-01 12:13 J -35035420.23 -35035419.99 -35035419.74 0.0144 0.0058 *
 Earth -100634-04-06 19:40 J -35035049.93 -35035049.68 -35035049.41 0.0143 0.0023
 Moon -100634-04-06 22:33 J -35035049.83 -35035049.56 -35035049.29 0.0143 0.0021 *
 Moon -100633-04-10 23:01 J -35034679.71 -35034679.54 -35034679.34 0.0142 0.0098
 Earth -100633-04-11 02:23 J -35034679.58 -35034679.40 -35034679.21 0.0142 0.0102 *
 Mars -100625-02-20 13:25 J -35031808.12 -35031807.94 -35031807.74 0.0137 0.0102
 Mars -100623-01-20 09:21 J -35031108.29 -35031108.11 -35031107.92 0.0136 0.0102
 Mercury -100621-09-13 06:42 J -35030141.24 -35030141.22 -35030141.19 0.0135 0.0133
 Mercury -100621-12-10 11:16 J -35030053.10 -35030053.03 -35030052.94 0.0135 0.0115
 Mercury -100620-03-08 16:04 J -35029964.93 -35029964.83 -35029964.72 0.0135 0.0096

Mercury -100620-06-04 20:37 J -35029876.76 -35029876.64 -35029876.51 0.0134 0.0078
 Mercury -100620-09-01 01:25 J -35029788.58 -35029788.44 -35029788.30 0.0134 0.0060
 Mercury -100620-11-28 05:59 J -35029700.40 -35029700.25 -35029700.10 0.0134 0.0042
 Mercury -100619-02-24 10:18 J -35029612.22 -35029612.07 -35029611.91 0.0134 0.0024
 Mercury -100619-05-23 14:52 J -35029524.04 -35029523.88 -35029523.73 0.0134 0.0006
 Mercury -100619-08-19 19:11 J -35029435.85 -35029435.70 -35029435.54 0.0134 0.0011
 Mercury -100619-11-15 23:30 J -35029347.67 -35029347.52 -35029347.37 0.0134 0.0029
 Mercury -100618-02-12 03:49 J -35029259.48 -35029259.34 -35029259.19 0.0134 0.0046
 Mercury -100618-05-11 08:09 J -35029171.29 -35029171.16 -35029171.02 0.0134 0.0063
 Mercury -100618-08-07 12:13 J -35029083.10 -35029082.99 -35029082.86 0.0133 0.0080
 Mercury -100618-11-03 16:18 J -35028994.91 -35028994.82 -35028994.70 0.0133 0.0097
 Mercury -100617-01-30 20:37 J -35028906.71 -35028906.64 -35028906.55 0.0133 0.0113
 Mercury -100617-04-28 00:42 J -35028818.49 -35028818.47 -35028818.42 0.0133 0.0129
 Venus -100615-05-07 16:47 J -35028078.96 -35028078.80 -35028078.62 0.0132 0.0080
 Venus -100615-12-19 21:49 J -35027852.79 -35027852.59 -35027852.36 0.0132 0.0028
 Venus -100614-08-03 02:52 J -35027626.59 -35027626.38 -35027626.16 0.0132 0.0026
 Venus -100613-03-16 07:25 J -35027400.35 -35027400.19 -35027400.00 0.0132 0.0078
 Venus -100613-10-28 11:59 J -35027174.02 -35027174.00 -35027173.96 0.0132 0.0130
 Earth -100592-09-26 10:04 J -35019536.12 -35019536.08 -35019535.99 0.0135 0.0130
 Moon -100592-09-26 11:30 J -35019536.06 -35019536.02 -35019535.98 0.0135 0.0132 *
 Moon -100591-09-30 11:01 J -35019167.25 -35019167.04 -35019166.81 0.0135 0.0065
 Earth -100591-09-30 11:45 J -35019167.21 -35019167.01 -35019166.79 0.0135 0.0069 *
 Earth -100590-10-04 14:09 J -35018798.15 -35018797.91 -35018797.66 0.0136 0.0008
 Moon -100590-10-04 14:52 J -35018798.11 -35018797.88 -35018797.64 0.0136 0.0014 *
 Moon -100589-10-07 15:49 J -35018429.05 -35018428.84 -35018428.60 0.0136 0.0063
 Earth -100589-10-07 17:16 J -35018429.00 -35018428.78 -35018428.55 0.0136 0.0056 *
 Earth -100588-10-11 20:37 J -35018059.73 -35018059.64 -35018059.50 0.0137 0.0120
 Moon -100588-10-11 21:35 J -35018059.72 -35018059.60 -35018059.46 0.0137 0.0114 *
 Mars -100579-03-24 03:21 J -35014974.69 -35014974.36 -35014974.03 0.0142 0.0015
 Mercury -100576-05-07 18:13 J -35013833.75 -35013833.74 -35013833.72 0.0144 0.0143

Mercury -100576-08-03 23:30 J -35013745.60 -35013745.52 -35013745.44 0.0144 0.0122

Mercury -100576-10-31 04:47 J -35013657.41 -35013657.30 -35013657.18 0.0144 0.0101

Mercury -100575-01-27 10:18 J -35013569.20 -35013569.07 -35013568.94 0.0144 0.0079

Mercury -100575-04-25 15:49 J -35013480.99 -35013480.84 -35013480.70 0.0145 0.0057

Mercury -100575-07-22 21:21 J -35013392.77 -35013392.61 -35013392.46 0.0145 0.0035

Mercury -100575-10-19 02:52 J -35013304.54 -35013304.38 -35013304.22 0.0145 0.0012

Mercury -100574-01-15 08:23 J -35013216.30 -35013216.15 -35013215.99 0.0145 0.0012

Mercury -100574-04-13 14:09 J -35013128.06 -35013127.91 -35013127.75 0.0145 0.0034

Mercury -100574-07-10 19:54 J -35013039.81 -35013039.67 -35013039.52 0.0145 0.0057

Mercury -100574-10-07 01:40 J -35012951.56 -35012951.43 -35012951.29 0.0145 0.0081

Mercury -100573-01-03 07:40 J -35012863.29 -35012863.18 -35012863.07 0.0145 0.0105

Mercury -100573-03-31 13:25 J -35012775.01 -35012774.94 -35012774.86 0.0146 0.0129

Venus -100572-09-14 08:09 J -35012243.23 -35012243.16 -35012243.09 0.0146 0.0138

Venus -100571-04-28 20:23 J -35012016.83 -35012016.65 -35012016.45 0.0146 0.0067

Venus -100571-12-11 09:06 J -35011790.33 -35011790.12 -35011789.90 0.0147 0.0006

Venus -100570-07-25 21:49 J -35011563.76 -35011563.59 -35011563.39 0.0147 0.0078

Earth -100552-03-27 17:30 J -35005108.86 -35005108.77 -35005108.65 0.0144 0.0132

Moon -100552-03-27 18:28 J -35005108.86 -35005108.73 -35005108.59 0.0144 0.0125 *

Moon -100551-04-02 01:11 J -35004738.68 -35004738.45 -35004738.21 0.0144 0.0058

Earth -100551-04-02 02:37 J -35004738.64 -35004738.39 -35004738.15 0.0144 0.0051 *

Earth -100550-04-07 10:04 J -35004368.34 -35004368.08 -35004367.82 0.0143 0.0029

Moon -100550-04-07 12:13 J -35004368.25 -35004367.99 -35004367.71 0.0143 0.0030 *

Moon -100549-04-11 12:57 J -35003998.09 -35003997.96 -35003997.77 0.0142 0.0112

Earth -100549-04-11 16:18 J -35003997.98 -35003997.82 -35003997.64 0.0142 0.0107 *

Mars -100541-10-15 05:59 J -35000889.53 -35000889.25 -35000888.96 0.0137 0.0022

Mercury -100537-10-03 14:37 J -34999439.93 -34999439.89 -34999439.83 0.0135 0.0126

Mercury -100537-12-30 19:11 J -34999351.78 -34999351.70 -34999351.59 0.0135 0.0108

Mercury -100536-03-29 00:13 J -34999263.61 -34999263.49 -34999263.37 0.0135 0.0089

Mercury -100536-06-25 04:47 J -34999175.43 -34999175.30 -34999175.17 0.0134 0.0070

Mercury -100536-09-21 09:21 J -34999087.25 -34999087.11 -34999086.96 0.0134 0.0052

Mercury -100536-12-18 13:54 J -34998999.07 -34998998.92 -34998998.77 0.0134 0.0034

Mercury -100535-03-16 18:28 J -34998910.89 -34998910.73 -34998910.58 0.0134 0.0017

Mercury -100535-06-12 22:47 J -34998822.70 -34998822.55 -34998822.39 0.0134 0.0002

Mercury -100535-09-09 03:06 J -34998734.52 -34998734.37 -34998734.21 0.0134 0.0019

Mercury -100535-12-06 07:25 J -34998646.33 -34998646.19 -34998646.03 0.0134 0.0036

Mercury -100534-03-04 11:45 J -34998558.14 -34998558.01 -34998557.86 0.0134 0.0053

Mercury -100534-05-31 16:04 J -34998469.95 -34998469.83 -34998469.69 0.0134 0.0070

Mercury -100534-08-27 20:09 J -34998381.76 -34998381.66 -34998381.53 0.0133 0.0087

Mercury -100534-11-24 00:28 J -34998293.57 -34998293.48 -34998293.38 0.0133 0.0103

Mercury -100533-02-20 04:33 J -34998205.36 -34998205.31 -34998205.23 0.0133 0.0120

Venus -100531-01-05 05:01 J -34997520.41 -34997520.29 -34997520.13 0.0132 0.0103

Venus -100531-08-19 10:18 J -34997294.26 -34997294.07 -34997293.85 0.0132 0.0050

Venus -100530-04-02 15:49 J -34997068.06 -34997067.84 -34997067.62 0.0132 0.0004

Venus -100530-11-14 20:23 J -34996841.84 -34996841.65 -34996841.44 0.0132 0.0057

Venus -100529-06-28 00:57 J -34996615.57 -34996615.46 -34996615.33 0.0132 0.0109

Earth -100508-09-26 23:59 J -34988854.58 -34988854.50 -34988854.40 0.0135 0.0124

Moon -100508-09-27 01:25 J -34988854.54 -34988854.44 -34988854.34 0.0135 0.0122 *

Moon -100507-09-30 23:59 J -34988485.70 -34988485.50 -34988485.27 0.0135 0.0069

Earth -100507-10-01 01:11 J -34988485.65 -34988485.45 -34988485.22 0.0135 0.0065 *

Earth -100506-10-05 03:49 J -34988116.58 -34988116.34 -34988116.10 0.0136 0.0002

Moon -100506-10-05 05:30 J -34988116.51 -34988116.27 -34988116.04 0.0136 0.0004 *

Moon -100505-10-08 05:30 J -34987747.50 -34987747.27 -34987747.03 0.0136 0.0053

Earth -100505-10-08 06:42 J -34987747.43 -34987747.22 -34987747.00 0.0136 0.0060 *

Earth -100504-10-12 10:18 J -34987378.15 -34987378.07 -34987377.95 0.0137 0.0124

Moon -100504-10-12 11:59 J -34987378.05 -34987378.00 -34987377.92 0.0137 0.0131 *

Mars -100495-11-18 13:11 J -34984054.11 -34984053.95 -34984053.74 0.0143 0.0119

Mercury -100492-05-28 01:40 J -34983132.46 -34983132.43 -34983132.37 0.0144 0.0137

Mercury -100492-08-24 07:11 J -34983044.29 -34983044.20 -34983044.10 0.0144 0.0116

Mercury -100492-11-20 12:28 J -34982956.09 -34982955.98 -34982955.85 0.0144 0.0094

Mercury -100491-02-16 17:59 J -34982867.88 -34982867.75 -34982867.61 0.0144 0.0072

Mercury -100491-05-15 23:30 J -34982779.67 -34982779.52 -34982779.37 0.0145 0.0050

Mercury -100491-08-12 05:01 J -34982691.44 -34982691.29 -34982691.13 0.0145 0.0028

Mercury -100491-11-08 10:47 J -34982603.21 -34982603.05 -34982602.90 0.0145 0.0006

Mercury -100490-02-04 16:18 J -34982514.98 -34982514.82 -34982514.66 0.0145 0.0018

Mercury -100490-05-03 22:04 J -34982426.74 -34982426.58 -34982426.43 0.0145 0.0041

Mercury -100490-07-31 03:49 J -34982338.49 -34982338.34 -34982338.20 0.0145 0.0065

Mercury -100490-10-27 09:21 J -34982250.23 -34982250.11 -34982249.97 0.0145 0.0089

Mercury -100489-01-23 15:21 J -34982161.95 -34982161.86 -34982161.75 0.0145 0.0112

Mercury -100489-04-20 21:06 J -34982073.66 -34982073.62 -34982073.55 0.0146 0.0137

Venus -100488-12-27 03:49 J -34981458.49 -34981458.34 -34981458.18 0.0146 0.0100

Venus -100487-08-10 16:18 J -34981232.03 -34981231.82 -34981231.60 0.0147 0.0028

Venus -100486-03-25 05:01 J -34981005.49 -34981005.29 -34981005.08 0.0147 0.0044

Venus -100486-11-06 17:59 J -34980778.86 -34980778.75 -34980778.60 0.0147 0.0117

Moon -100468-03-28 06:57 J -34974427.31 -34974427.21 -34974427.09 0.0144 0.0132

Earth -100468-03-28 07:11 J -34974427.31 -34974427.20 -34974427.05 0.0144 0.0125 *

Moon -100467-04-02 15:35 J -34974057.09 -34974056.85 -34974056.60 0.0144 0.0039

Earth -100467-04-02 16:18 J -34974057.06 -34974056.82 -34974056.56 0.0144 0.0045 *

Earth -100466-04-07 23:45 J -34973686.75 -34973686.51 -34973686.24 0.0143 0.0036

Moon -100466-04-08 01:40 J -34973686.68 -34973686.43 -34973686.15 0.0143 0.0034 *

Moon -100465-04-12 04:18 J -34973316.46 -34973316.32 -34973316.14 0.0142 0.0112

Earth -100465-04-12 06:42 J -34973316.37 -34973316.22 -34973316.05 0.0142 0.0114 *

Mars -100456-06-09 23:16 J -34969970.77 -34969970.53 -34969970.26 0.0137 0.0059

Mercury -100453-10-23 22:47 J -34968738.61 -34968738.55 -34968738.46 0.0135 0.0118

Mercury -100452-01-20 03:49 J -34968650.45 -34968650.34 -34968650.23 0.0135 0.0099

Mercury -100452-04-18 08:23 J -34968562.27 -34968562.15 -34968562.02 0.0135 0.0081

Mercury -100452-07-15 12:57 J -34968474.09 -34968473.96 -34968473.82 0.0134 0.0063

Mercury -100452-10-11 17:30 J -34968385.91 -34968385.77 -34968385.62 0.0134 0.0045

Mercury -100451-01-07 22:04 J -34968297.73 -34968297.58 -34968297.42 0.0134 0.0027

Mercury -100451-04-06 02:37 J -34968209.55 -34968209.39 -34968209.24 0.0134 0.0009

Mercury -100451-07-03 06:57 J -34968121.36 -34968121.21 -34968121.05 0.0134 0.0009

Mercury -100451-09-29 11:30 J -34968033.17 -34968033.02 -34968032.87 0.0134 0.0026

Mercury -100451-12-26 15:35 J -34967944.99 -34967944.85 -34967944.70 0.0134 0.0044

Mercury -100450-03-24 19:54 J -34967856.80 -34967856.67 -34967856.53 0.0134 0.0061

Mercury -100450-06-21 00:13 J -34967768.61 -34967768.49 -34967768.36 0.0133 0.0077

Mercury -100450-09-17 04:33 J -34967680.41 -34967680.31 -34967680.20 0.0133 0.0094

Mercury -100450-12-14 08:37 J -34967592.21 -34967592.14 -34967592.05 0.0133 0.0111

Mercury -100449-03-11 12:57 J -34967504.00 -34967503.96 -34967503.91 0.0133 0.0127

Venus -100448-09-04 18:13 J -34966961.81 -34966961.74 -34966961.65 0.0133 0.0124

Venus -100447-04-18 23:30 J -34966735.69 -34966735.52 -34966735.32 0.0132 0.0071

Venus -100447-12-01 05:01 J -34966509.51 -34966509.29 -34966509.07 0.0132 0.0017

Venus -100446-07-15 09:49 J -34966283.30 -34966283.09 -34966282.88 0.0132 0.0036

Venus -100445-02-26 14:09 J -34966057.05 -34966056.91 -34966056.73 0.0132 0.0089

Earth -100424-09-27 14:23 J -34958173.00 -34958172.90 -34958172.77 0.0135 0.0118

Moon -100424-09-27 16:04 J -34958172.91 -34958172.83 -34958172.71 0.0135 0.0121 *

Moon -100423-10-01 13:40 J -34957804.14 -34957803.93 -34957803.68 0.0135 0.0054

Earth -100423-10-01 15:49 J -34957804.04 -34957803.84 -34957803.60 0.0135 0.0058 *

Earth -100422-10-05 18:28 J -34957434.98 -34957434.73 -34957434.49 0.0136 0.0004

Moon -100422-10-05 19:54 J -34957434.90 -34957434.67 -34957434.43 0.0136 0.0004 *

Moon -100421-10-08 18:57 J -34957065.91 -34957065.71 -34957065.48 0.0136 0.0073

Earth -100421-10-08 21:35 J -34957065.81 -34957065.60 -34957065.39 0.0136 0.0066 *

Earth -100420-10-13 00:57 J -34956696.52 -34956696.46 -34956696.36 0.0137 0.0129

Moon -100420-10-13 02:52 J -34956696.47 -34956696.38 -34956696.27 0.0137 0.0123 *

Mars -100412-08-08 20:23 J -34953839.94 -34953839.65 -34953839.32 0.0142 0.0052

Mercury -100408-06-17 09:49 J -34952431.14 -34952431.09 -34952431.01 0.0144 0.0129

Mercury -100408-09-13 15:21 J -34952342.96 -34952342.86 -34952342.75 0.0144 0.0108

Mercury -100408-12-10 20:52 J -34952254.76 -34952254.63 -34952254.51 0.0144 0.0086

Mercury -100407-03-09 02:09 J -34952166.55 -34952166.41 -34952166.27 0.0145 0.0064

Mercury -100407-06-05 07:40 J -34952078.33 -34952078.18 -34952078.03 0.0145 0.0042

Mercury -100407-09-01 13:11 J -34951990.10 -34951989.95 -34951989.79 0.0145 0.0019

Mercury -100407-11-28 18:57 J -34951901.87 -34951901.71 -34951901.55 0.0145 0.0005

Mercury -100406-02-25 00:28 J -34951813.64 -34951813.48 -34951813.32 0.0145 0.0026

Mercury -100406-05-24 06:13 J -34951725.39 -34951725.24 -34951725.09 0.0145 0.0050

Mercury -100406-08-20 11:45 J -34951637.14 -34951637.01 -34951636.86 0.0145 0.0074

Mercury -100406-11-16 17:45 J -34951548.88 -34951548.76 -34951548.64 0.0145 0.0097

Mercury -100405-02-12 23:30 J -34951460.60 -34951460.52 -34951460.42 0.0146 0.0121

Mercury -100405-05-11 05:30 J -34951372.27 -34951372.27 -34951372.25 0.0146 0.0145

Venus -100404-08-26 11:59 J -34950900.08 -34950900.00 -34950899.89 0.0146 0.0132

Venus -100403-04-10 00:28 J -34950673.67 -34950673.48 -34950673.27 0.0147 0.0060

Venus -100403-11-22 13:25 J -34950447.16 -34950446.94 -34950446.73 0.0147 0.0012

Venus -100402-07-07 01:54 J -34950220.58 -34950220.42 -34950220.23 0.0147 0.0085

Moon -100384-03-28 20:52 J -34943745.80 -34943745.63 -34943745.45 0.0144 0.0111

Earth -100384-03-28 21:21 J -34943745.74 -34943745.61 -34943745.44 0.0144 0.0118 *

Moon -100383-04-03 06:13 J -34943375.48 -34943375.24 -34943374.99 0.0144 0.0044

Earth -100383-04-03 06:13 J -34943375.48 -34943375.24 -34943374.97 0.0144 0.0038 *

Earth -100382-04-08 14:23 J -34943005.15 -34943004.90 -34943004.64 0.0143 0.0042

Moon -100382-04-08 15:21 J -34943005.12 -34943004.86 -34943004.60 0.0143 0.0044 *

Moon -100381-04-12 19:11 J -34942634.82 -34942634.70 -34942634.57 0.0142 0.0124

Earth -100381-04-12 20:52 J -34942634.75 -34942634.63 -34942634.47 0.0142 0.0121 *

Mars -100373-03-04 20:09 J -34939751.90 -34939751.66 -34939751.39 0.0137 0.0066

Mercury -100369-08-17 02:37 J -34938125.43 -34938125.39 -34938125.34 0.0135 0.0128

Mercury -100369-11-13 07:11 J -34938037.28 -34938037.20 -34938037.10 0.0135 0.0110

Mercury -100368-02-09 11:59 J -34937949.11 -34937949.00 -34937948.88 0.0135 0.0091

Mercury -100368-05-08 16:33 J -34937860.94 -34937860.81 -34937860.67 0.0134 0.0073

Mercury -100368-08-04 21:21 J -34937772.76 -34937772.61 -34937772.47 0.0134 0.0054

Mercury -100368-11-01 01:54 J -34937684.57 -34937684.42 -34937684.27 0.0134 0.0037

Mercury -100367-01-28 06:13 J -34937596.39 -34937596.24 -34937596.08 0.0134 0.0019

Mercury -100367-04-26 10:47 J -34937508.20 -34937508.05 -34937507.89 0.0134 0.0002

Mercury -100367-07-23 15:06 J -34937420.02 -34937419.87 -34937419.71 0.0134 0.0017

Mercury -100367-10-19 19:40 J -34937331.83 -34937331.68 -34937331.53 0.0134 0.0034

Mercury -100366-01-15 23:59 J -34937243.64 -34937243.50 -34937243.36 0.0134 0.0051

Mercury -100366-04-14 04:18 J -34937155.45 -34937155.32 -34937155.19 0.0134 0.0068

Mercury -100366-07-11 08:37 J -34937067.26 -34937067.14 -34937067.03 0.0133 0.0085

Mercury -100366-10-07 12:42 J -34936979.06 -34936978.97 -34936978.87 0.0133 0.0101

Mercury -100365-01-03 16:47 J -34936890.86 -34936890.80 -34936890.72 0.0133 0.0118

Venus -100364-12-17 12:28 J -34936177.12 -34936176.98 -34936176.80 0.0133 0.0092

Venus -100363-07-31 18:13 J -34935950.95 -34935950.74 -34935950.54 0.0132 0.0038

Venus -100362-03-14 23:01 J -34935724.75 -34935724.54 -34935724.32 0.0132 0.0016

Venus -100362-10-27 03:35 J -34935498.52 -34935498.35 -34935498.15 0.0132 0.0068

Venus -100361-06-09 08:09 J -34935272.24 -34935272.16 -34935272.06 0.0132 0.0120

Earth -100340-09-28 04:18 J -34927491.44 -34927491.32 -34927491.17 0.0135 0.0112

Moon -100340-09-28 06:28 J -34927491.34 -34927491.23 -34927491.07 0.0135 0.0111 *

Moon -100339-10-02 03:35 J -34927122.56 -34927122.35 -34927122.10 0.0135 0.0058

Earth -100339-10-02 05:59 J -34927122.46 -34927122.25 -34927122.01 0.0135 0.0052 *

Earth -100338-10-06 08:23 J -34926753.39 -34926753.15 -34926752.90 0.0136 0.0009

Moon -100338-10-06 11:01 J -34926753.28 -34926753.04 -34926752.80 0.0136 0.0015 *

Moon -100337-10-09 08:52 J -34926384.34 -34926384.13 -34926383.90 0.0136 0.0064

Earth -100337-10-09 11:01 J -34926384.23 -34926384.04 -34926383.82 0.0136 0.0071 *

Earth -100336-10-13 15:06 J -34926014.92 -34926014.87 -34926014.82 0.0137 0.0133

Mars -100327-04-05 06:28 J -34922919.52 -34922919.23 -34922918.90 0.0142 0.0052

Mercury -100324-04-10 12:28 J -34921817.99 -34921817.98 -34921817.97 0.0144 0.0143

Mercury -100324-07-07 17:45 J -34921729.84 -34921729.76 -34921729.68 0.0144 0.0122

Mercury -100324-10-03 22:47 J -34921641.65 -34921641.55 -34921641.43 0.0144 0.0102

Mercury -100324-12-31 04:18 J -34921553.44 -34921553.32 -34921553.18 0.0144 0.0080

Mercury -100323-03-29 09:49 J -34921465.23 -34921465.09 -34921464.94 0.0145 0.0057

Mercury -100323-06-25 15:21 J -34921377.01 -34921376.86 -34921376.71 0.0145 0.0035

Mercury -100323-09-21 20:52 J -34921288.79 -34921288.63 -34921288.47 0.0145 0.0013

Mercury -100323-12-19 02:23 J -34921200.55 -34921200.40 -34921200.24 0.0145 0.0011

Mercury -100322-03-17 08:09 J -34921112.32 -34921112.16 -34921112.00 0.0145 0.0033

Mercury -100322-06-13 13:40 J -34921024.07 -34921023.93 -34921023.77 0.0145 0.0057

Mercury -100322-09-09 19:40 J -34920935.82 -34920935.68 -34920935.55 0.0145 0.0080

Mercury -100322-12-07 01:11 J -34920847.55 -34920847.45 -34920847.33 0.0145 0.0104

Mercury -100321-03-04 07:11 J -34920759.27 -34920759.20 -34920759.12 0.0146 0.0127

Venus -100320-12-08 06:57 J -34920115.36 -34920115.21 -34920115.03 0.0146 0.0095

Venus -100319-07-22 19:40 J -34919888.89 -34919888.68 -34919888.46 0.0147 0.0023

Venus -100318-03-06 08:09 J -34919662.35 -34919662.16 -34919661.94 0.0147 0.0050

Venus -100318-10-18 21:06 J -34919435.72 -34919435.62 -34919435.49 0.0147 0.0123

Moon -100300-03-29 07:40 J -34913064.32 -34913064.18 -34913064.02 0.0144 0.0120

Earth -100300-03-29 09:06 J -34913064.27 -34913064.12 -34913063.94 0.0144 0.0112 *

Earth -100299-04-03 18:28 J -34912693.98 -34912693.73 -34912693.47 0.0144 0.0032

Moon -100299-04-03 19:11 J -34912693.94 -34912693.70 -34912693.44 0.0144 0.0026 *

Earth -100298-04-09 02:23 J -34912323.64 -34912323.40 -34912323.14 0.0143 0.0048

Moon -100298-04-09 03:06 J -34912323.62 -34912323.37 -34912323.10 0.0143 0.0046 *

Moon -100297-04-13 08:23 J -34911953.26 -34911953.15 -34911953.01 0.0142 0.0124

Earth -100297-04-13 09:21 J -34911953.22 -34911953.11 -34911952.97 0.0142 0.0125 *

Mars -100289-10-28 13:40 J -34908833.22 -34908832.93 -34908832.65 0.0137 0.0014

Mercury -100285-09-06 10:47 J -34907424.12 -34907424.05 -34907423.98 0.0135 0.0120

Mercury -100285-12-03 15:21 J -34907335.95 -34907335.86 -34907335.75 0.0135 0.0102

Mercury -100284-03-01 19:54 J -34907247.78 -34907247.67 -34907247.53 0.0135 0.0084

Mercury -100284-05-29 00:57 J -34907159.60 -34907159.46 -34907159.33 0.0134 0.0065

Mercury -100284-08-25 05:30 J -34907071.42 -34907071.27 -34907071.13 0.0134 0.0047

Mercury -100284-11-21 09:49 J -34906983.24 -34906983.09 -34906982.93 0.0134 0.0029

Mercury -100283-02-17 14:37 J -34906895.05 -34906894.89 -34906894.74 0.0134 0.0012

Mercury -100283-05-16 18:57 J -34906806.86 -34906806.71 -34906806.55 0.0134 0.0007

Mercury -100283-08-12 23:16 J -34906718.68 -34906718.53 -34906718.37 0.0134 0.0025

Mercury -100283-11-09 03:35 J -34906630.49 -34906630.35 -34906630.19 0.0134 0.0042

Mercury -100282-02-05 07:54 J -34906542.30 -34906542.17 -34906542.02 0.0134 0.0059

Mercury -100282-05-04 12:13 J -34906454.11 -34906453.99 -34906453.86 0.0134 0.0076

Mercury -100282-07-31 16:33 J -34906365.91 -34906365.81 -34906365.69 0.0133 0.0092

Mercury -100282-10-27 20:37 J -34906277.71 -34906277.64 -34906277.54 0.0133 0.0109

Mercury -100281-01-24 00:57 J -34906189.50 -34906189.46 -34906189.40 0.0133 0.0125

Venus -100280-08-17 01:25 J -34905618.54 -34905618.44 -34905618.31 0.0133 0.0113
 Venus -100279-03-31 07:11 J -34905392.40 -34905392.20 -34905392.00 0.0132 0.0059
 Venus -100279-11-12 12:13 J -34905166.21 -34905165.99 -34905165.77 0.0132 0.0005
 Venus -100278-06-26 17:01 J -34904939.99 -34904939.79 -34904939.58 0.0132 0.0048
 Venus -100277-02-07 21:21 J -34904713.74 -34904713.61 -34904713.46 0.0132 0.0100
 Earth -100256-09-28 18:57 J -34896809.84 -34896809.71 -34896809.53 0.0134 0.0106
 Moon -100256-09-28 21:35 J -34896809.72 -34896809.60 -34896809.44 0.0134 0.0109 *
 Moon -100255-10-02 17:59 J -34896440.98 -34896440.75 -34896440.51 0.0135 0.0042
 Earth -100255-10-02 20:52 J -34896440.85 -34896440.63 -34896440.39 0.0135 0.0046 *
 Earth -100254-10-06 23:16 J -34896071.77 -34896071.53 -34896071.29 0.0136 0.0015
 Moon -100254-10-07 01:54 J -34896071.66 -34896071.42 -34896071.19 0.0136 0.0009 *
 Moon -100253-10-09 23:16 J -34895702.73 -34895702.53 -34895702.33 0.0136 0.0084
 Earth -100253-10-10 01:54 J -34895702.61 -34895702.42 -34895702.20 0.0136 0.0077 *
 Moon -100252-10-14 08:23 J -34895333.20 -34895333.15 -34895333.08 0.0137 0.0132
 Mars -100245-12-24 16:33 J -34892704.98 -34892704.81 -34892704.59 0.0141 0.0115
 Mercury -100240-04-30 20:37 J -34891116.69 -34891116.64 -34891116.59 0.0144 0.0135
 Mercury -100240-07-28 01:54 J -34891028.51 -34891028.42 -34891028.32 0.0144 0.0114
 Mercury -100240-10-24 07:11 J -34890940.31 -34890940.20 -34890940.08 0.0144 0.0093
 Mercury -100239-01-20 12:28 J -34890852.11 -34890851.98 -34890851.84 0.0144 0.0071
 Mercury -100239-04-18 17:59 J -34890763.89 -34890763.75 -34890763.60 0.0145 0.0049
 Mercury -100239-07-15 23:30 J -34890675.67 -34890675.52 -34890675.36 0.0145 0.0027
 Mercury -100239-10-12 05:01 J -34890587.45 -34890587.29 -34890587.13 0.0145 0.0005
 Mercury -100238-01-08 10:33 J -34890499.21 -34890499.06 -34890498.90 0.0145 0.0019
 Mercury -100238-04-06 16:18 J -34890410.97 -34890410.82 -34890410.67 0.0145 0.0042
 Mercury -100238-07-03 21:49 J -34890322.72 -34890322.59 -34890322.44 0.0145 0.0065
 Mercury -100238-09-30 03:35 J -34890234.47 -34890234.35 -34890234.21 0.0145 0.0089
 Mercury -100238-12-27 09:21 J -34890146.20 -34890146.11 -34890146.00 0.0145 0.0113
 Mercury -100237-03-24 15:35 J -34890057.91 -34890057.85 -34890057.80 0.0146 0.0136
 Venus -100236-08-07 15:35 J -34889556.95 -34889556.85 -34889556.74 0.0146 0.0125
 Venus -100235-03-22 03:49 J -34889330.54 -34889330.34 -34889330.13 0.0146 0.0054

Venus -100235-11-03 16:33 J -34889104.02 -34889103.81 -34889103.59 0.0147 0.0018

Venus -100234-06-18 05:16 J -34888877.45 -34888877.28 -34888877.11 0.0147 0.0090

Moon -100216-03-29 19:40 J -34882382.86 -34882382.68 -34882382.46 0.0144 0.0099

Earth -100216-03-29 22:04 J -34882382.74 -34882382.58 -34882382.38 0.0144 0.0106 *

Earth -100215-04-04 07:25 J -34882012.45 -34882012.19 -34882011.93 0.0144 0.0026

Moon -100215-04-04 08:23 J -34882012.39 -34882012.15 -34882011.90 0.0144 0.0032 *

Moon -100214-04-09 14:52 J -34881642.12 -34881641.88 -34881641.61 0.0143 0.0056

Earth -100214-04-09 15:35 J -34881642.09 -34881641.85 -34881641.59 0.0143 0.0053 *

Moon -100213-04-13 21:49 J -34881271.66 -34881271.59 -34881271.49 0.0142 0.0134

Earth -100213-04-13 22:33 J -34881271.64 -34881271.56 -34881271.43 0.0142 0.0131 *

Mars -100206-07-24 05:30 J -34878614.41 -34878614.27 -34878614.08 0.0138 0.0112

Mars -100204-06-23 04:47 J -34877914.49 -34877914.30 -34877914.07 0.0137 0.0093

Mercury -100201-06-30 13:54 J -34876810.94 -34876810.92 -34876810.88 0.0135 0.0132

Mercury -100201-09-26 18:42 J -34876722.80 -34876722.72 -34876722.63 0.0135 0.0113

Mercury -100201-12-23 23:16 J -34876634.63 -34876634.53 -34876634.40 0.0135 0.0095

Mercury -100200-03-22 04:18 J -34876546.45 -34876546.32 -34876546.19 0.0135 0.0076

Mercury -100200-06-18 08:52 J -34876458.27 -34876458.13 -34876457.99 0.0134 0.0058

Mercury -100200-09-14 13:25 J -34876370.09 -34876369.94 -34876369.79 0.0134 0.0039

Mercury -100200-12-11 17:59 J -34876281.90 -34876281.75 -34876281.59 0.0134 0.0022

Mercury -100199-03-09 22:33 J -34876193.72 -34876193.56 -34876193.40 0.0134 0.0004

Mercury -100199-06-06 03:06 J -34876105.53 -34876105.37 -34876105.22 0.0134 0.0014

Mercury -100199-09-02 07:25 J -34876017.34 -34876017.19 -34876017.04 0.0134 0.0031

Mercury -100199-11-29 11:45 J -34875929.15 -34875929.01 -34875928.86 0.0134 0.0049

Mercury -100198-02-25 16:04 J -34875840.96 -34875840.83 -34875840.69 0.0134 0.0066

Mercury -100198-05-24 20:23 J -34875752.77 -34875752.65 -34875752.53 0.0134 0.0083

Mercury -100198-08-21 00:28 J -34875664.57 -34875664.48 -34875664.37 0.0133 0.0100

Mercury -100198-11-17 05:01 J -34875576.36 -34875576.29 -34875576.22 0.0133 0.0116

Mercury -100197-02-13 08:52 J -34875488.13 -34875488.13 -34875488.10 0.0133 0.0133

Venus -100196-11-28 19:40 J -34874833.85 -34874833.68 -34874833.50 0.0133 0.0081

Venus -100195-07-13 00:42 J -34874607.67 -34874607.47 -34874607.24 0.0132 0.0028

Venus -100194-02-24 05:45 J -34874381.47 -34874381.26 -34874381.04 0.0132 0.0026
 Venus -100194-10-08 10:18 J -34874155.23 -34874155.07 -34874154.88 0.0132 0.0079
 Venus -100193-05-21 14:52 J -34873928.89 -34873928.88 -34873928.85 0.0132 0.0131
 Earth -100172-09-29 09:49 J -34866128.23 -34866128.09 -34866127.90 0.0134 0.0100
 Moon -100172-09-29 13:25 J -34866128.10 -34866127.94 -34866127.77 0.0134 0.0098 *
 Moon -100171-10-03 08:37 J -34865759.36 -34865759.14 -34865758.89 0.0135 0.0045
 Earth -100171-10-03 11:45 J -34865759.24 -34865759.01 -34865758.77 0.0135 0.0040 *
 Earth -100170-10-07 13:40 J -34865390.16 -34865389.93 -34865389.68 0.0135 0.0021
 Moon -100170-10-07 17:01 J -34865390.02 -34865389.79 -34865389.55 0.0135 0.0027 *
 Moon -100169-10-10 13:25 J -34865021.14 -34865020.94 -34865020.73 0.0136 0.0074
 Earth -100169-10-10 16:33 J -34865021.00 -34865020.81 -34865020.61 0.0136 0.0081 *
 Mars -100160-08-21 04:04 J -34861784.67 -34861784.33 -34861784.00 0.0142 0.0012
 Mercury -100156-05-21 04:18 J -34860415.38 -34860415.32 -34860415.24 0.0144 0.0128
 Mercury -100156-08-17 09:35 J -34860327.19 -34860327.10 -34860326.99 0.0144 0.0107
 Mercury -100156-11-13 15:06 J -34860238.99 -34860238.87 -34860238.74 0.0144 0.0085
 Mercury -100155-02-09 20:23 J -34860150.78 -34860150.65 -34860150.50 0.0144 0.0064
 Mercury -100155-05-09 01:54 J -34860062.57 -34860062.42 -34860062.27 0.0144 0.0042
 Mercury -100155-08-05 07:25 J -34859974.35 -34859974.19 -34859974.03 0.0145 0.0019
 Mercury -100155-11-01 12:57 J -34859886.12 -34859885.96 -34859885.80 0.0145 0.0003
 Mercury -100154-01-28 18:28 J -34859797.88 -34859797.73 -34859797.57 0.0145 0.0026
 Mercury -100154-04-27 00:13 J -34859709.64 -34859709.49 -34859709.34 0.0145 0.0049
 Mercury -100154-07-24 05:45 J -34859621.39 -34859621.26 -34859621.11 0.0145 0.0072
 Mercury -100154-10-20 11:45 J -34859533.13 -34859533.01 -34859532.89 0.0145 0.0096
 Mercury -100153-01-16 17:16 J -34859444.86 -34859444.78 -34859444.68 0.0145 0.0120
 Mercury -100153-04-13 23:16 J -34859356.55 -34859356.53 -34859356.50 0.0146 0.0143
 Venus -100152-11-19 11:16 J -34858772.20 -34858772.03 -34858771.85 0.0146 0.0087
 Venus -100151-07-03 23:45 J -34858545.73 -34858545.51 -34858545.30 0.0147 0.0016
 Venus -100150-02-15 11:59 J -34858319.19 -34858319.00 -34858318.79 0.0147 0.0057
 Venus -100150-09-30 00:57 J -34858092.55 -34858092.46 -34858092.35 0.0147 0.0129
 Moon -100132-03-30 06:57 J -34851701.37 -34851701.21 -34851701.02 0.0144 0.0109

Earth -100132-03-30 09:49 J -34851701.27 -34851701.09 -34851700.90 0.0144 0.0101 *
 Earth -100131-04-04 19:11 J -34851330.96 -34851330.70 -34851330.44 0.0144 0.0021
 Moon -100131-04-04 21:21 J -34851330.86 -34851330.61 -34851330.35 0.0144 0.0014 *
 Moon -100130-04-10 02:52 J -34850960.63 -34850960.38 -34850960.12 0.0143 0.0055
 Earth -100130-04-10 03:21 J -34850960.59 -34850960.36 -34850960.10 0.0143 0.0058 *
 Earth -100129-04-14 10:47 J -34850590.12 -34850590.05 -34850589.95 0.0142 0.0135
 Moon -100129-04-14 10:47 J -34850590.11 -34850590.05 -34850589.93 0.0142 0.0134 *
 Mars -100121-03-17 23:30 J -34847695.79 -34847695.52 -34847695.24 0.0137 0.0032
 Mercury -100117-07-20 22:04 J -34846109.64 -34846109.58 -34846109.52 0.0135 0.0124
 Mercury -100117-10-17 02:37 J -34846021.48 -34846021.39 -34846021.28 0.0135 0.0106
 Mercury -100116-01-13 07:25 J -34845933.30 -34845933.19 -34845933.06 0.0135 0.0087
 Mercury -100116-04-11 12:13 J -34845845.12 -34845844.99 -34845844.85 0.0135 0.0069
 Mercury -100116-07-08 16:47 J -34845756.94 -34845756.80 -34845756.65 0.0134 0.0050
 Mercury -100116-10-04 21:21 J -34845668.76 -34845668.61 -34845668.45 0.0134 0.0033
 Mercury -100115-01-01 02:09 J -34845580.57 -34845580.41 -34845580.26 0.0134 0.0015
 Mercury -100115-03-30 06:28 J -34845492.38 -34845492.23 -34845492.07 0.0134 0.0005
 Mercury -100115-06-26 11:01 J -34845404.19 -34845404.04 -34845403.89 0.0134 0.0021
 Mercury -100115-09-22 15:21 J -34845316.00 -34845315.86 -34845315.71 0.0134 0.0039
 Mercury -100115-12-19 19:40 J -34845227.81 -34845227.68 -34845227.53 0.0134 0.0056
 Mercury -100114-03-17 23:59 J -34845139.62 -34845139.50 -34845139.36 0.0134 0.0073
 Mercury -100114-06-14 04:18 J -34845051.43 -34845051.32 -34845051.20 0.0134 0.0090
 Mercury -100114-09-10 08:23 J -34844963.23 -34844963.15 -34844963.04 0.0134 0.0107
 Mercury -100114-12-07 12:57 J -34844875.02 -34844874.96 -34844874.90 0.0133 0.0123
 Venus -100112-07-29 07:54 J -34844275.30 -34844275.17 -34844275.03 0.0133 0.0103
 Venus -100111-03-12 13:25 J -34844049.14 -34844048.94 -34844048.74 0.0133 0.0049
 Venus -100111-10-24 18:28 J -34843822.95 -34843822.73 -34843822.51 0.0132 0.0005
 Venus -100110-06-07 23:16 J -34843596.72 -34843596.53 -34843596.33 0.0132 0.0058
 Venus -100109-01-20 03:49 J -34843370.45 -34843370.34 -34843370.21 0.0132 0.0110
 Earth -100088-09-30 01:11 J -34835446.60 -34835446.45 -34835446.25 0.0134 0.0094
 Moon -100088-09-30 04:18 J -34835446.47 -34835446.32 -34835446.13 0.0134 0.0097 *

Moon -100087-10-03 23:30 J -34835077.75 -34835077.52 -34835077.27 0.0135 0.0030
 Earth -100087-10-04 03:06 J -34835077.60 -34835077.37 -34835077.13 0.0135 0.0034 *
 Earth -100086-10-08 05:01 J -34834708.53 -34834708.29 -34834708.05 0.0136 0.0026
 Moon -100086-10-08 08:09 J -34834708.40 -34834708.16 -34834707.92 0.0136 0.0020 *
 Moon -100085-10-11 04:04 J -34834339.49 -34834339.33 -34834339.14 0.0136 0.0094
 Earth -100085-10-11 07:40 J -34834339.36 -34834339.18 -34834338.99 0.0136 0.0086 *
 Mars -100075-04-17 19:40 J -34830863.91 -34830863.68 -34830863.41 0.0142 0.0093
 Mercury -100072-03-14 07:40 J -34829802.21 -34829802.18 -34829802.15 0.0144 0.0140
 Mercury -100072-06-10 12:57 J -34829714.05 -34829713.96 -34829713.88 0.0144 0.0119
 Mercury -100072-09-06 17:59 J -34829625.85 -34829625.75 -34829625.63 0.0144 0.0098
 Mercury -100072-12-03 23:30 J -34829537.65 -34829537.52 -34829537.39 0.0144 0.0077
 Mercury -100071-03-02 04:47 J -34829449.44 -34829449.30 -34829449.15 0.0144 0.0055
 Mercury -100071-05-29 10:18 J -34829361.22 -34829361.07 -34829360.92 0.0144 0.0033
 Mercury -100071-08-25 15:49 J -34829273.00 -34829272.84 -34829272.68 0.0145 0.0011
 Mercury -100071-11-21 21:21 J -34829184.77 -34829184.61 -34829184.45 0.0145 0.0012
 Mercury -100070-02-18 02:52 J -34829096.53 -34829096.38 -34829096.22 0.0145 0.0035
 Mercury -100070-05-17 08:37 J -34829008.29 -34829008.14 -34829007.99 0.0145 0.0058
 Mercury -100070-08-13 14:09 J -34828920.04 -34828919.91 -34828919.77 0.0145 0.0082
 Mercury -100070-11-09 19:54 J -34828831.77 -34828831.67 -34828831.55 0.0145 0.0105
 Mercury -100069-02-06 01:54 J -34828743.49 -34828743.42 -34828743.35 0.0145 0.0129
 Venus -100068-07-19 20:09 J -34828213.77 -34828213.66 -34828213.52 0.0146 0.0118
 Venus -100067-03-03 08:37 J -34827987.35 -34827987.14 -34827986.94 0.0146 0.0047
 Venus -100067-10-15 20:52 J -34827760.84 -34827760.63 -34827760.41 0.0147 0.0026
 Venus -100066-05-30 09:35 J -34827534.25 -34827534.10 -34827533.93 0.0147 0.0098
 Jupiter -100061-04-30 05:01 J -34825737.72 -34825737.29 -34825736.80 0.0148 0.0078
 Moon -100048-03-30 20:37 J -34821019.83 -34821019.64 -34821019.40 0.0144 0.0088
 Earth -100048-03-31 00:13 J -34821019.68 -34821019.49 -34821019.28 0.0144 0.0094 *
 Earth -100047-04-05 09:35 J -34820649.36 -34820649.10 -34820648.83 0.0144 0.0015
 Moon -100047-04-05 11:45 J -34820649.26 -34820649.01 -34820648.76 0.0144 0.0021 *
 Moon -100046-04-10 15:49 J -34820279.06 -34820278.84 -34820278.58 0.0143 0.0067

Earth -100046-04-10 17:59 J -34820278.98 -34820278.75 -34820278.51 0.0143 0.0063 *
 Earth -100045-04-15 01:11 J -34819908.49 -34819908.45 -34819908.39 0.0143 0.0140
 Moon -100045-04-15 01:40 J -34819908.43 -34819908.43 -34819908.41 0.0143 0.0142 *
 Mars -100037-11-10 15:35 J -34816777.11 -34816776.85 -34816776.57 0.0137 0.0047
 Mercury -100033-08-10 05:59 J -34815408.32 -34815408.25 -34815408.16 0.0135 0.0117
 Mercury -100033-11-06 10:47 J -34815320.15 -34815320.05 -34815319.93 0.0135 0.0098
 Mercury -100032-02-02 15:35 J -34815231.97 -34815231.85 -34815231.72 0.0135 0.0080
 Mercury -100032-05-01 20:23 J -34815143.79 -34815143.65 -34815143.51 0.0135 0.0061
 Mercury -100032-07-29 00:57 J -34815055.61 -34815055.46 -34815055.31 0.0134 0.0043
 Mercury -100032-10-25 05:30 J -34814967.42 -34814967.27 -34814967.11 0.0134 0.0025
 Mercury -100031-01-21 10:04 J -34814879.23 -34814879.08 -34814878.92 0.0134 0.0008
 Mercury -100031-04-19 14:37 J -34814791.04 -34814790.89 -34814790.73 0.0134 0.0011
 Mercury -100031-07-16 19:11 J -34814702.85 -34814702.70 -34814702.55 0.0134 0.0028
 Mercury -100031-10-12 23:30 J -34814614.66 -34814614.52 -34814614.37 0.0134 0.0046
 Mercury -100030-01-09 03:49 J -34814526.47 -34814526.34 -34814526.20 0.0134 0.0063
 Mercury -100030-04-07 08:09 J -34814438.28 -34814438.16 -34814438.03 0.0134 0.0080
 Mercury -100030-07-04 12:28 J -34814350.08 -34814349.98 -34814349.87 0.0134 0.0097
 Mercury -100030-09-30 16:33 J -34814261.88 -34814261.81 -34814261.72 0.0134 0.0114
 Mercury -100030-12-27 20:52 J -34814173.66 -34814173.63 -34814173.59 0.0133 0.0130
 Venus -100028-03-28 20:09 J -34813716.71 -34813716.66 -34813716.57 0.0133 0.0126
 Venus -100028-11-10 01:40 J -34813490.60 -34813490.43 -34813490.23 0.0133 0.0072
 Venus -100027-06-24 07:11 J -34813264.42 -34813264.20 -34813263.98 0.0133 0.0017
 Venus -100026-02-05 11:59 J -34813038.21 -34813038.00 -34813037.78 0.0132 0.0036
 Venus -100026-09-19 16:33 J -34812811.96 -34812811.81 -34812811.64 0.0132 0.0089
 Jupiter -100020-12-31 12:57 J -34810517.40 -34810516.96 -34810516.47 0.0131 0.0047
 Earth -100004-09-30 16:47 J -34804764.97 -34804764.80 -34804764.60 0.0134 0.0087
 Moon -100004-09-30 20:37 J -34804764.83 -34804764.64 -34804764.45 0.0134 0.0085 *
 Moon -100003-10-04 14:52 J -34804396.11 -34804395.88 -34804395.63 0.0135 0.0033
 Earth -100003-10-04 18:13 J -34804395.97 -34804395.74 -34804395.50 0.0135 0.0028 *
 Earth -100002-10-08 19:54 J -34804026.90 -34804026.67 -34804026.42 0.0136 0.0032

Moon -100002-10-08 23:30 J -34804026.75 -34804026.52 -34804026.28 0.0136 0.0039 *

Moon -100001-10-11 18:57 J -34803657.88 -34803657.71 -34803657.50 0.0136 0.0085

Earth -100001-10-11 22:18 J -34803657.73 -34803657.57 -34803657.37 0.0136 0.0092 *

100TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 100th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-99992-01-06 06:42 J	-34800649.48	-34800649.22	-34800648.91	0.0141	0.0072		
Mercury	-99988-04-03 15:49 J	-34799100.90	-34799100.84	-34799100.78	0.0144	0.0132		
Mercury	-99988-06-30 21:06 J	-34799012.72	-34799012.62	-34799012.53	0.0144	0.0111		
Mercury	-99988-09-27 02:09 J	-34798924.53	-34798924.41	-34798924.28	0.0144	0.0090		
Mercury	-99988-12-24 07:40 J	-34798836.32	-34798836.18	-34798836.05	0.0144	0.0069		
Mercury	-99987-03-22 12:57 J	-34798748.11	-34798747.96	-34798747.81	0.0144	0.0047		
Mercury	-99987-06-18 18:28 J	-34798659.89	-34798659.73	-34798659.58	0.0144	0.0025		
Mercury	-99987-09-14 23:59 J	-34798571.66	-34798571.50	-34798571.35	0.0145	0.0004		
Mercury	-99987-12-12 05:16 J	-34798483.43	-34798483.28	-34798483.12	0.0145	0.0021		
Mercury	-99986-03-10 11:01 J	-34798395.19	-34798395.04	-34798394.89	0.0145	0.0043		
Mercury	-99986-06-06 16:33 J	-34798306.95	-34798306.81	-34798306.66	0.0145	0.0066		
Mercury	-99986-09-02 22:18 J	-34798218.69	-34798218.57	-34798218.44	0.0145	0.0090		
Mercury	-99986-11-30 04:04 J	-34798130.42	-34798130.33	-34798130.23	0.0145	0.0113		

Mercury -99985-02-26 10:04 J -34798042.13 -34798042.08 -34798042.03 0.0145 0.0137

Venus -99984-10-31 16:33 J -34797428.98 -34797428.81 -34797428.62 0.0146 0.0079

Venus -99983-06-15 05:01 J -34797202.51 -34797202.29 -34797202.08 0.0146 0.0007

Venus -99982-01-27 17:16 J -34796975.97 -34796975.78 -34796975.58 0.0147 0.0065

Venus -99982-09-11 06:13 J -34796749.31 -34796749.24 -34796749.17 0.0147 0.0138

Moon -99964-03-31 09:49 J -34790338.27 -34790338.09 -34790337.87 0.0144 0.0095

Earth -99964-03-31 13:25 J -34790338.14 -34790337.94 -34790337.72 0.0144 0.0088 *

Earth -99963-04-05 22:47 J -34789967.81 -34789967.55 -34789967.28 0.0144 0.0009

Moon -99963-04-06 01:54 J -34789967.67 -34789967.42 -34789967.16 0.0144 0.0003 *

Moon -99962-04-11 05:01 J -34789597.52 -34789597.29 -34789597.03 0.0143 0.0066

Earth -99962-04-11 07:11 J -34789597.42 -34789597.20 -34789596.96 0.0143 0.0069 *

Mars -99954-08-06 08:09 J -34786558.37 -34786558.16 -34786557.90 0.0138 0.0079

Mars -99952-07-06 07:11 J -34785858.30 -34785858.20 -34785858.07 0.0137 0.0125

Mercury -99949-06-03 09:21 J -34784795.15 -34784795.11 -34784795.05 0.0135 0.0128

Mercury -99949-08-30 14:09 J -34784706.99 -34784706.91 -34784706.81 0.0135 0.0109

Mercury -99949-11-26 18:57 J -34784618.82 -34784618.71 -34784618.59 0.0135 0.0091

Mercury -99948-02-22 23:45 J -34784530.64 -34784530.51 -34784530.37 0.0135 0.0072

Mercury -99948-05-22 04:18 J -34784442.46 -34784442.32 -34784442.17 0.0135 0.0054

Mercury -99948-08-18 09:06 J -34784354.27 -34784354.12 -34784353.97 0.0135 0.0035

Mercury -99948-11-14 13:40 J -34784266.08 -34784265.93 -34784265.77 0.0134 0.0017

Mercury -99947-02-10 18:13 J -34784177.90 -34784177.74 -34784177.58 0.0134 0.0000

Mercury -99947-05-09 22:47 J -34784089.71 -34784089.55 -34784089.40 0.0134 0.0018

Mercury -99947-08-06 03:06 J -34784001.52 -34784001.37 -34784001.22 0.0134 0.0036

Mercury -99947-11-02 07:25 J -34783913.33 -34783913.19 -34783913.04 0.0134 0.0053

Mercury -99946-01-29 11:45 J -34783825.13 -34783825.01 -34783824.87 0.0134 0.0070

Mercury -99946-04-27 16:04 J -34783736.94 -34783736.83 -34783736.71 0.0134 0.0087

Mercury -99946-07-24 20:23 J -34783648.74 -34783648.65 -34783648.55 0.0134 0.0104

Mercury -99946-10-21 00:28 J -34783560.53 -34783560.48 -34783560.40 0.0134 0.0121

Venus -99944-07-10 14:09 J -34782932.05 -34782931.91 -34782931.75 0.0133 0.0094

Venus -99943-02-21 19:25 J -34782705.89 -34782705.69 -34782705.47 0.0133 0.0040

Venus -99943-10-06 00:42 J -34782479.68 -34782479.47 -34782479.25 0.0132 0.0014
 Venus -99942-05-20 05:45 J -34782253.45 -34782253.26 -34782253.07 0.0132 0.0067
 Venus -99941-01-01 10:18 J -34782027.15 -34782027.07 -34782026.97 0.0132 0.0120
 Earth -99920-10-01 07:54 J -34774083.36 -34774083.17 -34774082.97 0.0134 0.0081
 Moon -99920-10-01 11:01 J -34774083.21 -34774083.04 -34774082.83 0.0134 0.0084 *
 Moon -99919-10-05 05:30 J -34773714.50 -34773714.27 -34773714.02 0.0135 0.0018
 Earth -99919-10-05 09:21 J -34773714.35 -34773714.11 -34773713.87 0.0135 0.0022 *
 Earth -99918-10-09 11:01 J -34773345.27 -34773345.04 -34773344.80 0.0136 0.0037
 Moon -99918-10-09 14:23 J -34773345.13 -34773344.90 -34773344.66 0.0136 0.0031 *
 Moon -99917-10-12 09:49 J -34772976.23 -34772976.09 -34772975.92 0.0136 0.0104
 Earth -99917-10-12 13:40 J -34772976.10 -34772975.93 -34772975.76 0.0136 0.0097 *
 Mars -99908-09-02 20:23 J -34769728.97 -34769728.65 -34769728.31 0.0142 0.0032
 Mercury -99904-04-23 23:59 J -34768399.57 -34768399.50 -34768399.42 0.0144 0.0124
 Mercury -99904-07-21 05:01 J -34768311.39 -34768311.29 -34768311.17 0.0144 0.0103
 Mercury -99904-10-17 10:33 J -34768223.19 -34768223.06 -34768222.93 0.0144 0.0082
 Mercury -99903-01-13 15:49 J -34768134.98 -34768134.84 -34768134.70 0.0144 0.0060
 Mercury -99903-04-11 21:06 J -34768046.77 -34768046.62 -34768046.46 0.0144 0.0038
 Mercury -99903-07-09 02:37 J -34767958.55 -34767958.39 -34767958.23 0.0145 0.0016
 Mercury -99903-10-05 08:09 J -34767870.32 -34767870.16 -34767870.00 0.0145 0.0006
 Mercury -99902-01-01 13:40 J -34767782.08 -34767781.93 -34767781.77 0.0145 0.0029
 Mercury -99902-03-30 19:11 J -34767693.84 -34767693.70 -34767693.55 0.0145 0.0052
 Mercury -99902-06-27 00:57 J -34767605.59 -34767605.46 -34767605.32 0.0145 0.0075
 Mercury -99902-09-23 06:42 J -34767517.34 -34767517.22 -34767517.10 0.0145 0.0098
 Mercury -99902-12-20 12:13 J -34767429.06 -34767428.99 -34767428.89 0.0145 0.0123
 Venus -99900-07-01 01:40 J -34766870.57 -34766870.43 -34766870.29 0.0146 0.0109
 Venus -99899-02-12 13:40 J -34766644.13 -34766643.93 -34766643.72 0.0146 0.0038
 Venus -99899-09-27 02:09 J -34766417.62 -34766417.41 -34766417.20 0.0146 0.0034
 Venus -99898-05-11 14:52 J -34766191.02 -34766190.88 -34766190.73 0.0147 0.0107
 Moon -99880-04-01 00:42 J -34759656.69 -34759656.47 -34759656.23 0.0144 0.0072
 Earth -99880-04-01 04:18 J -34759656.52 -34759656.32 -34759656.08 0.0144 0.0081 *

Earth -99879-04-06 14:09 J -34759286.18 -34759285.91 -34759285.65 0.0144 0.0002
 Moon -99879-04-06 17:01 J -34759286.05 -34759285.79 -34759285.53 0.0144 0.0008 *
 Moon -99878-04-11 19:40 J -34758915.90 -34758915.68 -34758915.45 0.0143 0.0079
 Earth -99878-04-11 22:18 J -34758915.78 -34758915.57 -34758915.33 0.0143 0.0076 *
 Mars -99869-03-31 04:33 J -34755639.60 -34755639.31 -34755639.02 0.0138 0.0003
 Mercury -99865-06-23 17:30 J -34754093.83 -34754093.77 -34754093.68 0.0135 0.0120
 Mercury -99865-09-19 22:33 J -34754005.66 -34754005.56 -34754005.45 0.0135 0.0101
 Mercury -99865-12-17 03:06 J -34753917.48 -34753917.37 -34753917.23 0.0135 0.0083
 Mercury -99864-03-15 08:09 J -34753829.30 -34753829.16 -34753829.02 0.0135 0.0064
 Mercury -99864-06-11 12:42 J -34753741.12 -34753740.97 -34753740.82 0.0135 0.0046
 Mercury -99864-09-07 17:16 J -34753652.93 -34753652.78 -34753652.62 0.0135 0.0028
 Mercury -99864-12-04 21:49 J -34753564.74 -34753564.59 -34753564.43 0.0134 0.0010
 Mercury -99863-03-03 02:23 J -34753476.55 -34753476.40 -34753476.24 0.0134 0.0008
 Mercury -99863-05-30 06:57 J -34753388.36 -34753388.21 -34753388.06 0.0134 0.0026
 Mercury -99863-08-26 11:16 J -34753300.17 -34753300.03 -34753299.88 0.0134 0.0043
 Mercury -99863-11-22 15:49 J -34753211.98 -34753211.84 -34753211.71 0.0134 0.0060
 Mercury -99862-02-18 19:54 J -34753123.79 -34753123.67 -34753123.54 0.0134 0.0078
 Mercury -99862-05-18 00:13 J -34753035.59 -34753035.49 -34753035.38 0.0134 0.0094
 Mercury -99862-08-14 04:33 J -34752947.39 -34752947.31 -34752947.22 0.0134 0.0111
 Mercury -99862-11-10 08:37 J -34752859.17 -34752859.14 -34752859.09 0.0134 0.0128
 Venus -99860-03-10 02:37 J -34752373.48 -34752373.39 -34752373.27 0.0133 0.0116
 Venus -99860-10-22 08:09 J -34752147.34 -34752147.16 -34752146.95 0.0133 0.0062
 Venus -99859-06-05 13:40 J -34751921.15 -34751920.93 -34751920.71 0.0133 0.0007
 Venus -99858-01-17 18:28 J -34751694.93 -34751694.73 -34751694.52 0.0132 0.0047
 Venus -99858-08-31 23:16 J -34751468.66 -34751468.53 -34751468.38 0.0132 0.0099
 Moon -99837-09-27 18:28 J -34743770.76 -34743770.73 -34743770.66 0.0134 0.0131
 Earth -99837-09-27 21:49 J -34743770.62 -34743770.59 -34743770.52 0.0134 0.0131
 Earth -99836-10-01 22:33 J -34743401.75 -34743401.56 -34743401.34 0.0134 0.0075
 Moon -99836-10-02 02:23 J -34743401.60 -34743401.40 -34743401.19 0.0134 0.0072 *
 Moon -99835-10-05 20:52 J -34743032.87 -34743032.63 -34743032.39 0.0135 0.0020

Earth -99835-10-05 23:59 J -34743032.74 -34743032.50 -34743032.25 0.0135 0.0016 *
 Earth -99834-10-10 01:40 J -34742663.66 -34742663.43 -34742663.19 0.0135 0.0042
 Moon -99834-10-10 05:01 J -34742663.51 -34742663.29 -34742663.05 0.0135 0.0050 *
 Moon -99833-10-13 00:42 J -34742294.63 -34742294.47 -34742294.28 0.0136 0.0095
 Earth -99833-10-13 04:04 J -34742294.48 -34742294.33 -34742294.16 0.0136 0.0102 *
 Mars -99825-05-24 08:23 J -34739514.24 -34739514.15 -34739514.00 0.0141 0.0131
 Mars -99823-04-30 08:37 J -34738808.21 -34738808.14 -34738808.01 0.0142 0.0135
 Mercury -99820-02-15 02:37 J -34737786.43 -34737786.39 -34737786.34 0.0144 0.0138
 Mercury -99820-05-14 07:40 J -34737698.26 -34737698.18 -34737698.08 0.0144 0.0117
 Mercury -99820-08-10 12:57 J -34737610.07 -34737609.96 -34737609.84 0.0144 0.0096
 Mercury -99820-11-06 18:13 J -34737521.87 -34737521.74 -34737521.60 0.0144 0.0075
 Mercury -99819-02-02 23:45 J -34737433.66 -34737433.51 -34737433.37 0.0144 0.0053
 Mercury -99819-05-02 05:01 J -34737345.44 -34737345.29 -34737345.13 0.0144 0.0031
 Mercury -99819-07-29 10:33 J -34737257.22 -34737257.06 -34737256.90 0.0144 0.0009
 Mercury -99819-10-25 16:04 J -34737168.99 -34737168.83 -34737168.68 0.0145 0.0014
 Mercury -99818-01-21 21:21 J -34737080.76 -34737080.61 -34737080.45 0.0145 0.0037
 Mercury -99818-04-20 02:52 J -34736992.51 -34736992.38 -34736992.22 0.0145 0.0060
 Mercury -99818-07-17 08:37 J -34736904.26 -34736904.14 -34736904.00 0.0145 0.0083
 Mercury -99818-10-13 14:23 J -34736816.00 -34736815.90 -34736815.78 0.0145 0.0106
 Mercury -99817-01-09 20:09 J -34736727.72 -34736727.66 -34736727.58 0.0145 0.0130
 Venus -99816-02-28 08:52 J -34736312.16 -34736312.13 -34736312.06 0.0146 0.0142
 Venus -99816-10-12 21:06 J -34736085.79 -34736085.62 -34736085.42 0.0146 0.0071
 Venus -99815-05-27 09:35 J -34735859.31 -34735859.10 -34735858.88 0.0146 0.0002
 Venus -99814-01-08 21:49 J -34735632.76 -34735632.59 -34735632.39 0.0147 0.0074
 Venus -99814-08-23 10:47 J -34735406.05 -34735406.05 -34735406.04 0.0147 0.0147
 Moon -99796-04-01 12:13 J -34728975.19 -34728974.99 -34728974.76 0.0144 0.0082
 Earth -99796-04-01 15:49 J -34728975.05 -34728974.84 -34728974.60 0.0144 0.0075 *
 Earth -99795-04-07 01:40 J -34728604.70 -34728604.43 -34728604.17 0.0144 0.0004
 Moon -99795-04-07 05:16 J -34728604.54 -34728604.28 -34728604.02 0.0144 0.0011 *
 Moon -99794-04-12 06:57 J -34728234.44 -34728234.21 -34728233.98 0.0143 0.0077

Earth -99794-04-12 09:49 J -34728234.29 -34728234.09 -34728233.86 0.0143 0.0081 *
 Mars -99787-12-24 17:30 J -34725420.89 -34725420.77 -34725420.64 0.0138 0.0124
 Mars -99785-11-23 19:25 J -34724720.91 -34724720.69 -34724720.45 0.0137 0.0081
 Mercury -99781-04-16 20:52 J -34723480.66 -34723480.63 -34723480.59 0.0135 0.0132
 Mercury -99781-07-14 01:25 J -34723392.51 -34723392.44 -34723392.34 0.0135 0.0113
 Mercury -99781-10-10 06:28 J -34723304.34 -34723304.23 -34723304.11 0.0135 0.0094
 Mercury -99780-01-06 11:16 J -34723216.16 -34723216.03 -34723215.90 0.0135 0.0075
 Mercury -99780-04-04 15:49 J -34723127.97 -34723127.84 -34723127.69 0.0135 0.0057
 Mercury -99780-07-01 20:37 J -34723039.79 -34723039.64 -34723039.49 0.0135 0.0039
 Mercury -99780-09-28 01:11 J -34722951.60 -34722951.45 -34722951.29 0.0135 0.0021
 Mercury -99780-12-25 05:45 J -34722863.41 -34722863.26 -34722863.10 0.0134 0.0004
 Mercury -99779-03-23 10:18 J -34722775.22 -34722775.07 -34722774.91 0.0134 0.0015
 Mercury -99779-06-19 14:37 J -34722687.03 -34722686.89 -34722686.73 0.0134 0.0033
 Mercury -99779-09-15 19:11 J -34722598.84 -34722598.70 -34722598.55 0.0134 0.0050
 Mercury -99779-12-12 23:30 J -34722510.65 -34722510.52 -34722510.38 0.0134 0.0067
 Mercury -99778-03-11 03:49 J -34722422.45 -34722422.34 -34722422.22 0.0134 0.0084
 Mercury -99778-06-07 08:09 J -34722334.25 -34722334.16 -34722334.06 0.0134 0.0101
 Mercury -99778-09-03 12:13 J -34722246.05 -34722245.99 -34722245.91 0.0134 0.0118
 Venus -99776-06-21 20:09 J -34721588.81 -34721588.66 -34721588.47 0.0133 0.0084
 Venus -99775-02-03 01:40 J -34721362.63 -34721362.43 -34721362.20 0.0133 0.0030
 Venus -99775-09-17 06:57 J -34721136.42 -34721136.21 -34721135.99 0.0133 0.0025
 Venus -99774-05-01 11:59 J -34720910.16 -34720910.00 -34720909.81 0.0132 0.0078
 Venus -99774-12-13 16:33 J -34720683.81 -34720683.81 -34720683.76 0.0132 0.0132
 Moon -99753-09-28 09:06 J -34713089.19 -34713089.12 -34713089.03 0.0134 0.0126
 Earth -99753-09-28 12:13 J -34713089.05 -34713088.99 -34713088.88 0.0134 0.0125 *
 Earth -99752-10-02 12:56 J -34712720.16 -34712719.96 -34712719.74 0.0134 0.0069
 Moon -99752-10-02 16:04 J -34712720.03 -34712719.83 -34712719.61 0.0134 0.0071 *
 Moon -99751-10-06 11:01 J -34712351.29 -34712351.04 -34712350.80 0.0135 0.0006
 Earth -99751-10-06 14:23 J -34712351.14 -34712350.90 -34712350.66 0.0135 0.0011 *
 Earth -99750-10-10 15:49 J -34711982.06 -34711981.84 -34711981.60 0.0135 0.0048

Moon -99750-10-10 19:11 J -34711981.93 -34711981.70 -34711981.46 0.0135 0.0041 *
 Moon -99749-10-13 14:52 J -34711612.99 -34711612.88 -34711612.73 0.0136 0.0114
 Earth -99749-10-13 18:13 J -34711612.88 -34711612.74 -34711612.58 0.0136 0.0107 *
 Mars -99740-01-18 18:42 J -34708594.04 -34708593.72 -34708593.39 0.0141 0.0030
 Mercury -99736-03-07 10:18 J -34707085.12 -34707085.07 -34707084.99 0.0144 0.0131
 Mercury -99736-06-03 15:35 J -34706996.94 -34706996.85 -34706996.74 0.0144 0.0110
 Mercury -99736-08-30 21:06 J -34706908.74 -34706908.62 -34706908.50 0.0144 0.0088
 Mercury -99736-11-27 02:08 J -34706820.54 -34706820.41 -34706820.27 0.0144 0.0067
 Mercury -99735-02-23 07:40 J -34706732.33 -34706732.18 -34706732.03 0.0144 0.0045
 Mercury -99735-05-22 12:56 J -34706644.11 -34706643.96 -34706643.80 0.0144 0.0023
 Mercury -99735-08-18 18:28 J -34706555.89 -34706555.73 -34706555.57 0.0144 0.0001
 Mercury -99735-11-14 23:59 J -34706467.66 -34706467.50 -34706467.34 0.0145 0.0021
 Mercury -99734-02-11 05:30 J -34706379.42 -34706379.27 -34706379.12 0.0145 0.0044
 Mercury -99734-05-10 11:01 J -34706291.18 -34706291.04 -34706290.89 0.0145 0.0067
 Mercury -99734-08-06 16:47 J -34706202.92 -34706202.80 -34706202.67 0.0145 0.0090
 Mercury -99734-11-02 22:18 J -34706114.66 -34706114.57 -34706114.46 0.0145 0.0114
 Mercury -99733-01-30 04:18 J -34706026.37 -34706026.32 -34706026.27 0.0145 0.0137
 Venus -99732-06-12 05:16 J -34705527.42 -34705527.28 -34705527.12 0.0146 0.0103
 Venus -99731-01-24 17:30 J -34705300.98 -34705300.77 -34705300.56 0.0146 0.0031
 Venus -99731-09-08 05:44 J -34705074.46 -34705074.26 -34705074.05 0.0146 0.0041
 Venus -99730-04-22 18:13 J -34704847.86 -34704847.74 -34704847.59 0.0147 0.0114
 Moon -99712-04-02 00:28 J -34698293.70 -34698293.48 -34698293.23 0.0144 0.0061
 Earth -99712-04-02 04:32 J -34698293.54 -34698293.31 -34698293.07 0.0144 0.0069 *
 Earth -99711-04-07 13:54 J -34697923.18 -34697922.92 -34697922.65 0.0144 0.0010
 Moon -99711-04-07 17:44 J -34697923.03 -34697922.76 -34697922.50 0.0144 0.0003 *
 Moon -99710-04-12 18:28 J -34697552.92 -34697552.73 -34697552.50 0.0143 0.0090
 Earth -99710-04-12 22:18 J -34697552.78 -34697552.57 -34697552.35 0.0143 0.0086 *
 Mars -99702-08-19 10:32 J -34694502.32 -34694502.06 -34694501.77 0.0138 0.0044
 Mercury -99697-05-07 04:47 J -34692779.35 -34692779.30 -34692779.24 0.0135 0.0125
 Mercury -99697-08-03 09:20 J -34692691.19 -34692691.11 -34692691.00 0.0135 0.0106

Mercury -99697-10-30 14:23 J -34692603.02 -34692602.90 -34692602.77 0.0135 0.0087

Mercury -99696-01-26 19:11 J -34692514.83 -34692514.70 -34692514.56 0.0135 0.0068

Mercury -99696-04-24 23:59 J -34692426.65 -34692426.50 -34692426.36 0.0135 0.0050

Mercury -99696-07-22 04:32 J -34692338.46 -34692338.31 -34692338.16 0.0135 0.0032

Mercury -99696-10-18 09:06 J -34692250.27 -34692250.12 -34692249.96 0.0135 0.0014

Mercury -99695-01-14 13:40 J -34692162.08 -34692161.93 -34692161.77 0.0134 0.0004

Mercury -99695-04-12 18:13 J -34692073.89 -34692073.74 -34692073.59 0.0134 0.0022

Mercury -99695-07-09 22:32 J -34691985.70 -34691985.56 -34691985.41 0.0134 0.0040

Mercury -99695-10-06 02:52 J -34691897.51 -34691897.38 -34691897.23 0.0134 0.0057

Mercury -99694-01-02 07:25 J -34691809.32 -34691809.19 -34691809.06 0.0134 0.0074

Mercury -99694-03-31 11:44 J -34691721.12 -34691721.01 -34691720.89 0.0134 0.0091

Mercury -99694-06-27 15:49 J -34691632.92 -34691632.84 -34691632.74 0.0134 0.0108

Mercury -99694-09-23 20:23 J -34691544.70 -34691544.65 -34691544.59 0.0134 0.0124

Venus -99692-02-19 08:08 J -34691030.27 -34691030.16 -34691030.01 0.0133 0.0107

Venus -99692-10-03 13:54 J -34690804.11 -34690803.92 -34690803.71 0.0133 0.0052

Venus -99691-05-17 19:25 J -34690577.91 -34690577.69 -34690577.47 0.0133 0.0003

Venus -99691-12-30 00:13 J -34690351.67 -34690351.49 -34690351.28 0.0132 0.0057

Venus -99690-08-13 05:16 J -34690125.39 -34690125.28 -34690125.15 0.0132 0.0110

Moon -99669-09-28 23:30 J -34682407.61 -34682407.52 -34682407.39 0.0134 0.0119

Earth -99669-09-29 02:37 J -34682407.48 -34682407.39 -34682407.26 0.0134 0.0119 *

Earth -99668-10-03 03:06 J -34682038.57 -34682038.37 -34682038.14 0.0134 0.0063

Moon -99668-10-03 06:28 J -34682038.43 -34682038.23 -34682037.99 0.0134 0.0061 *

Moon -99667-10-07 01:40 J -34681669.67 -34681669.43 -34681669.19 0.0135 0.0009

Earth -99667-10-07 04:32 J -34681669.55 -34681669.31 -34681669.06 0.0135 0.0006 *

Earth -99666-10-11 06:13 J -34681300.46 -34681300.24 -34681300.01 0.0135 0.0053

Moon -99666-10-11 09:06 J -34681300.33 -34681300.12 -34681299.88 0.0135 0.0060 *

Moon -99665-10-14 05:44 J -34680931.41 -34680931.26 -34680931.11 0.0136 0.0104

Earth -99665-10-14 08:23 J -34680931.27 -34680931.15 -34680930.99 0.0136 0.0112 *

Mars -99656-09-15 04:32 J -34677673.59 -34677673.31 -34677673.01 0.0141 0.0072

Mercury -99652-03-27 18:28 J -34676383.81 -34676383.73 -34676383.65 0.0144 0.0123

Mercury -99652-06-23 23:16 J -34676295.62 -34676295.53 -34676295.41 0.0144 0.0103

Mercury -99652-09-20 04:47 J -34676207.42 -34676207.30 -34676207.17 0.0144 0.0081

Mercury -99652-12-17 10:04 J -34676119.22 -34676119.08 -34676118.94 0.0144 0.0060

Mercury -99651-03-15 15:20 J -34676031.01 -34676030.86 -34676030.70 0.0144 0.0038

Mercury -99651-06-11 20:52 J -34675942.79 -34675942.63 -34675942.47 0.0144 0.0016

Mercury -99651-09-08 02:23 J -34675854.56 -34675854.40 -34675854.25 0.0144 0.0007

Mercury -99651-12-05 07:40 J -34675766.33 -34675766.18 -34675766.02 0.0145 0.0029

Mercury -99650-03-03 13:11 J -34675678.09 -34675677.95 -34675677.79 0.0145 0.0052

Mercury -99650-05-30 18:42 J -34675589.85 -34675589.72 -34675589.57 0.0145 0.0075

Mercury -99650-08-27 00:28 J -34675501.59 -34675501.48 -34675501.36 0.0145 0.0098

Mercury -99650-11-23 06:13 J -34675413.32 -34675413.24 -34675413.15 0.0145 0.0121

Mercury -99649-02-19 11:59 J -34675325.00 -34675325.00 -34675324.99 0.0145 0.0145

Venus -99648-02-09 12:56 J -34674969.03 -34674968.96 -34674968.87 0.0146 0.0135

Venus -99648-09-24 00:56 J -34674742.65 -34674742.46 -34674742.26 0.0146 0.0064

Venus -99647-05-08 13:11 J -34674516.16 -34674515.95 -34674515.73 0.0146 0.0008

Venus -99647-12-21 01:25 J -34674289.61 -34674289.44 -34674289.25 0.0146 0.0080

Earth -99629-03-28 03:35 J -34667982.37 -34667982.35 -34667982.30 0.0145 0.0143

Moon -99629-03-28 06:42 J -34667982.27 -34667982.22 -34667982.12 0.0145 0.0139

Moon -99628-04-02 10:47 J -34667612.27 -34667612.05 -34667611.82 0.0144 0.0072

Earth -99628-04-02 14:08 J -34667612.14 -34667611.91 -34667611.67 0.0144 0.0065 *

Earth -99627-04-07 23:30 J -34667241.78 -34667241.52 -34667241.25 0.0144 0.0012

Moon -99627-04-08 03:20 J -34667241.62 -34667241.36 -34667241.09 0.0144 0.0020 *

Moon -99626-04-13 04:04 J -34666871.54 -34666871.33 -34666871.11 0.0143 0.0083

Earth -99626-04-13 07:54 J -34666871.37 -34666871.17 -34666870.96 0.0143 0.0089 *

Mars -99617-04-13 00:42 J -34663583.74 -34663583.47 -34663583.18 0.0138 0.0034

Mercury -99613-05-27 11:59 J -34662078.06 -34662078.00 -34662077.91 0.0135 0.0120

Mercury -99613-08-23 17:01 J -34661989.89 -34661989.79 -34661989.68 0.0135 0.0100

Mercury -99613-11-19 21:49 J -34661901.71 -34661901.59 -34661901.46 0.0135 0.0082

Mercury -99612-02-16 02:37 J -34661813.53 -34661813.39 -34661813.25 0.0135 0.0063

Mercury -99612-05-15 07:11 J -34661725.34 -34661725.20 -34661725.04 0.0135 0.0045

Mercury -99612-08-11 11:59 J -34661637.15 -34661637.00 -34661636.84 0.0135 0.0026

Mercury -99612-11-07 16:32 J -34661548.96 -34661548.81 -34661548.65 0.0135 0.0009

Mercury -99611-02-03 21:06 J -34661460.77 -34661460.62 -34661460.46 0.0135 0.0010

Mercury -99611-05-03 01:40 J -34661372.58 -34661372.43 -34661372.28 0.0134 0.0027

Mercury -99611-07-30 05:59 J -34661284.39 -34661284.25 -34661284.10 0.0134 0.0045

Mercury -99611-10-26 10:32 J -34661196.19 -34661196.06 -34661195.92 0.0134 0.0062

Mercury -99610-01-22 14:52 J -34661108.00 -34661107.88 -34661107.75 0.0134 0.0079

Mercury -99610-04-20 19:11 J -34661019.80 -34661019.70 -34661019.59 0.0134 0.0096

Mercury -99610-07-17 23:30 J -34660931.59 -34660931.52 -34660931.43 0.0134 0.0113

Mercury -99610-10-14 03:35 J -34660843.37 -34660843.35 -34660843.30 0.0134 0.0130

Venus -99609-10-19 19:11 J -34660471.72 -34660471.70 -34660471.65 0.0133 0.0131

Venus -99608-06-03 00:56 J -34660245.63 -34660245.46 -34660245.27 0.0133 0.0076

Venus -99607-01-15 06:42 J -34660019.44 -34660019.22 -34660019.00 0.0133 0.0021

Venus -99607-08-29 11:59 J -34659793.21 -34659793.00 -34659792.79 0.0133 0.0033

Venus -99606-04-12 17:16 J -34659566.94 -34659566.78 -34659566.62 0.0132 0.0087

Moon -99585-09-29 13:25 J -34651726.04 -34651725.94 -34651725.80 0.0134 0.0115

Earth -99585-09-29 16:32 J -34651725.92 -34651725.81 -34651725.67 0.0134 0.0114 *

Earth -99584-10-03 17:01 J -34651357.00 -34651356.79 -34651356.56 0.0134 0.0058

Moon -99584-10-03 19:40 J -34651356.89 -34651356.68 -34651356.45 0.0134 0.0060 *

Moon -99583-10-07 15:35 J -34650988.09 -34650987.85 -34650987.61 0.0135 0.0004

Earth -99583-10-07 18:28 J -34650987.98 -34650987.73 -34650987.49 0.0135 0.0001 *

Earth -99582-10-11 19:54 J -34650618.88 -34650618.67 -34650618.44 0.0135 0.0057

Moon -99582-10-11 22:47 J -34650618.78 -34650618.55 -34650618.31 0.0135 0.0051 *

Moon -99581-10-14 19:40 J -34650249.76 -34650249.68 -34650249.56 0.0136 0.0123

Earth -99581-10-14 22:18 J -34650249.68 -34650249.57 -34650249.43 0.0136 0.0116 *

Mars -99573-06-05 16:32 J -34647459.05 -34647458.81 -34647458.54 0.0141 0.0091

Mercury -99568-01-18 21:06 J -34645770.66 -34645770.62 -34645770.57 0.0143 0.0137

Mercury -99568-04-17 02:23 J -34645682.49 -34645682.40 -34645682.31 0.0144 0.0116

Mercury -99568-07-14 07:25 J -34645594.30 -34645594.19 -34645594.07 0.0144 0.0095

Mercury -99568-10-10 12:42 J -34645506.10 -34645505.97 -34645505.83 0.0144 0.0074

Mercury -99567-01-06 17:59 J -34645417.89 -34645417.75 -34645417.60 0.0144 0.0052

Mercury -99567-04-04 23:16 J -34645329.68 -34645329.53 -34645329.37 0.0144 0.0031

Mercury -99567-07-02 04:47 J -34645241.46 -34645241.30 -34645241.14 0.0144 0.0008

Mercury -99567-09-28 10:18 J -34645153.23 -34645153.07 -34645152.92 0.0144 0.0014

Mercury -99567-12-25 15:49 J -34645065.00 -34645064.84 -34645064.69 0.0144 0.0036

Mercury -99566-03-23 21:06 J -34644976.75 -34644976.62 -34644976.47 0.0145 0.0060

Mercury -99566-06-20 02:52 J -34644888.51 -34644888.38 -34644888.24 0.0145 0.0082

Mercury -99566-09-16 08:23 J -34644800.25 -34644800.15 -34644800.03 0.0145 0.0106

Mercury -99566-12-13 14:08 J -34644711.97 -34644711.91 -34644711.83 0.0145 0.0129

Venus -99564-05-24 09:06 J -34644184.27 -34644184.12 -34644183.95 0.0146 0.0096

Venus -99563-01-05 21:06 J -34643957.83 -34643957.62 -34643957.40 0.0146 0.0025

Venus -99563-08-20 09:20 J -34643731.31 -34643731.11 -34643730.90 0.0146 0.0048

Venus -99562-04-03 21:35 J -34643504.70 -34643504.60 -34643504.46 0.0146 0.0121

Earth -99545-03-28 15:20 J -34637300.92 -34637300.86 -34637300.77 0.0145 0.0138

Moon -99545-03-28 17:44 J -34637300.81 -34637300.76 -34637300.69 0.0145 0.0141 *

Moon -99544-04-02 22:04 J -34636930.80 -34636930.58 -34636930.32 0.0145 0.0054

Earth -99544-04-03 01:40 J -34636930.66 -34636930.43 -34636930.18 0.0145 0.0061 *

Earth -99543-04-08 11:01 J -34636560.30 -34636560.04 -34636559.77 0.0144 0.0017

Moon -99543-04-08 14:37 J -34636560.16 -34636559.89 -34636559.62 0.0144 0.0009 *

Moon -99542-04-13 15:06 J -34636190.05 -34636189.87 -34636189.65 0.0143 0.0096

Earth -99542-04-13 18:56 J -34636189.90 -34636189.71 -34636189.49 0.0143 0.0092 *

Mars -99534-01-06 12:28 J -34633365.19 -34633364.98 -34633364.77 0.0138 0.0095

Mars -99533-12-06 14:08 J -34632665.06 -34632664.91 -34632664.72 0.0137 0.0110

Saturn -99530-08-08 23:30 J -34631689.92 -34631689.52 -34631688.99 0.0136 0.0097

Mercury -99529-03-20 14:52 J -34631464.90 -34631464.88 -34631464.84 0.0135 0.0132

Mercury -99529-06-16 19:40 J -34631376.75 -34631376.68 -34631376.58 0.0135 0.0114

Mercury -99529-09-13 00:42 J -34631288.58 -34631288.47 -34631288.35 0.0135 0.0094

Mercury -99529-12-10 05:16 J -34631200.40 -34631200.28 -34631200.14 0.0135 0.0076

Mercury -99528-03-08 10:18 J -34631112.21 -34631112.07 -34631111.93 0.0135 0.0057

Mercury -99528-06-04 14:52 J -34631024.03 -34631023.88 -34631023.72 0.0135 0.0039

Mercury -99528-08-31 19:40 J -34630935.84 -34630935.68 -34630935.53 0.0135 0.0021

Mercury -99528-11-28 00:13 J -34630847.65 -34630847.49 -34630847.33 0.0135 0.0002

Mercury -99527-02-24 04:47 J -34630759.45 -34630759.30 -34630759.14 0.0135 0.0015

Mercury -99527-05-23 09:06 J -34630671.26 -34630671.12 -34630670.96 0.0134 0.0034

Mercury -99527-08-19 13:40 J -34630583.07 -34630582.93 -34630582.78 0.0134 0.0051

Mercury -99527-11-15 17:59 J -34630494.87 -34630494.75 -34630494.61 0.0134 0.0068

Mercury -99526-02-11 22:32 J -34630406.68 -34630406.56 -34630406.44 0.0134 0.0085

Mercury -99526-05-11 02:52 J -34630318.47 -34630318.38 -34630318.28 0.0134 0.0102

Mercury -99526-08-07 06:56 J -34630230.26 -34630230.21 -34630230.13 0.0134 0.0119

Venus -99524-01-31 12:13 J -34629687.12 -34629686.99 -34629686.84 0.0133 0.0100

Venus -99524-09-14 17:59 J -34629460.95 -34629460.75 -34629460.54 0.0133 0.0045

Venus -99523-04-28 23:44 J -34629234.73 -34629234.51 -34629234.29 0.0133 0.0009

Venus -99523-12-11 04:47 J -34629008.48 -34629008.30 -34629008.10 0.0133 0.0064

Venus -99522-07-25 09:35 J -34628782.18 -34628782.10 -34628781.98 0.0132 0.0118

Moon -99501-09-30 04:04 J -34621044.45 -34621044.33 -34621044.17 0.0134 0.0108

Earth -99501-09-30 06:28 J -34621044.35 -34621044.23 -34621044.07 0.0134 0.0109 *

Earth -99500-10-04 07:11 J -34620675.42 -34620675.20 -34620674.97 0.0134 0.0053

Moon -99500-10-04 09:49 J -34620675.31 -34620675.09 -34620674.85 0.0134 0.0051 *

Moon -99499-10-08 06:13 J -34620306.47 -34620306.24 -34620306.00 0.0135 0.0002

Earth -99499-10-08 08:23 J -34620306.39 -34620306.15 -34620305.90 0.0135 0.0005 *

Earth -99498-10-12 10:18 J -34619937.29 -34619937.07 -34619936.86 0.0135 0.0062

Moon -99498-10-12 12:28 J -34619937.19 -34619936.98 -34619936.76 0.0135 0.0068 *

Moon -99497-10-15 10:18 J -34619568.19 -34619568.07 -34619567.93 0.0136 0.0113

Earth -99497-10-15 12:56 J -34619568.07 -34619567.96 -34619567.85 0.0136 0.0120 *

Mars -99488-01-31 01:54 J -34616538.75 -34616538.42 -34616538.09 0.0141 0.0009

Mercury -99484-02-08 05:01 J -34615069.35 -34615069.29 -34615069.22 0.0143 0.0129

Mercury -99484-05-07 10:04 J -34614981.17 -34614981.08 -34614980.97 0.0143 0.0109

Mercury -99484-08-03 15:20 J -34614892.98 -34614892.86 -34614892.73 0.0144 0.0088

Mercury -99484-10-30 20:37 J -34614804.77 -34614804.64 -34614804.50 0.0144 0.0066

Mercury -99483-01-27 01:54 J -34614716.56 -34614716.42 -34614716.27 0.0144 0.0045

Mercury -99483-04-25 07:25 J -34614628.35 -34614628.19 -34614628.04 0.0144 0.0023

Mercury -99483-07-22 12:42 J -34614540.12 -34614539.97 -34614539.81 0.0144 0.0003

Mercury -99483-10-18 18:13 J -34614451.90 -34614451.74 -34614451.58 0.0144 0.0022

Mercury -99482-01-14 23:44 J -34614363.66 -34614363.51 -34614363.36 0.0144 0.0044

Mercury -99482-04-13 05:16 J -34614275.42 -34614275.28 -34614275.14 0.0145 0.0067

Mercury -99482-07-10 11:01 J -34614187.17 -34614187.04 -34614186.92 0.0145 0.0090

Mercury -99482-10-06 16:18 J -34614098.90 -34614098.82 -34614098.71 0.0145 0.0114

Mercury -99481-01-02 22:04 J -34614010.61 -34614010.58 -34614010.51 0.0145 0.0137

Venus -99480-01-21 17:16 J -34613625.87 -34613625.78 -34613625.67 0.0145 0.0128

Venus -99480-09-05 05:16 J -34613399.48 -34613399.28 -34613399.08 0.0146 0.0057

Venus -99479-04-19 17:16 J -34613172.99 -34613172.78 -34613172.56 0.0146 0.0015

Venus -99479-12-02 05:30 J -34612946.44 -34612946.27 -34612946.09 0.0146 0.0087

Earth -99461-03-29 01:40 J -34606619.51 -34606619.43 -34606619.32 0.0145 0.0134

Moon -99461-03-29 03:49 J -34606619.43 -34606619.34 -34606619.20 0.0145 0.0130 *

Moon -99460-04-03 09:20 J -34606249.33 -34606249.11 -34606248.87 0.0145 0.0064

Earth -99460-04-03 11:59 J -34606249.24 -34606249.00 -34606248.75 0.0145 0.0057 *

Earth -99459-04-08 20:52 J -34605878.88 -34605878.63 -34605878.36 0.0144 0.0020

Moon -99459-04-09 00:28 J -34605878.74 -34605878.48 -34605878.21 0.0144 0.0027 *

Moon -99458-04-14 01:40 J -34605508.63 -34605508.43 -34605508.22 0.0143 0.0090

Earth -99458-04-14 05:01 J -34605508.47 -34605508.29 -34605508.08 0.0143 0.0096 *

Mars -99450-09-01 01:11 J -34602446.73 -34602446.45 -34602446.16 0.0138 0.0018

Mercury -99445-04-09 22:04 J -34600763.62 -34600763.58 -34600763.51 0.0136 0.0128

Mercury -99445-07-07 03:06 J -34600675.46 -34600675.37 -34600675.27 0.0135 0.0108

Mercury -99445-10-03 07:54 J -34600587.28 -34600587.17 -34600587.04 0.0135 0.0090

Mercury -99445-12-30 12:56 J -34600499.10 -34600498.96 -34600498.83 0.0135 0.0071

Mercury -99444-03-28 17:30 J -34600410.91 -34600410.77 -34600410.62 0.0135 0.0052

Mercury -99444-06-24 22:18 J -34600322.72 -34600322.57 -34600322.42 0.0135 0.0034

Mercury -99444-09-21 02:52 J -34600234.53 -34600234.38 -34600234.22 0.0135 0.0016

Mercury -99444-12-18 07:40 J -34600146.34 -34600146.18 -34600146.03 0.0135 0.0004

Mercury -99443-03-16 12:13 J -34600058.15 -34600057.99 -34600057.84 0.0135 0.0021

Mercury -99443-06-12 16:32 J -34599969.95 -34599969.81 -34599969.65 0.0134 0.0038

Mercury -99443-09-08 21:06 J -34599881.76 -34599881.62 -34599881.48 0.0134 0.0056

Mercury -99443-12-06 01:25 J -34599793.56 -34599793.44 -34599793.30 0.0134 0.0073

Mercury -99442-03-04 05:44 J -34599705.36 -34599705.26 -34599705.14 0.0134 0.0090

Mercury -99442-05-31 10:04 J -34599617.16 -34599617.08 -34599616.98 0.0134 0.0107

Mercury -99442-08-27 14:23 J -34599528.94 -34599528.90 -34599528.83 0.0134 0.0124

Venus -99441-09-30 22:47 J -34599128.62 -34599128.55 -34599128.48 0.0133 0.0126

Venus -99440-05-15 04:32 J -34598902.48 -34598902.31 -34598902.11 0.0133 0.0071

Venus -99440-12-27 10:32 J -34598676.28 -34598676.06 -34598675.85 0.0133 0.0015

Venus -99439-08-10 15:35 J -34598450.05 -34598449.85 -34598449.63 0.0133 0.0040

Venus -99438-03-24 20:52 J -34598223.77 -34598223.63 -34598223.46 0.0132 0.0094

Moon -99417-09-30 17:44 J -34590362.89 -34590362.76 -34590362.60 0.0134 0.0105

Earth -99417-09-30 20:08 J -34590362.80 -34590362.66 -34590362.50 0.0134 0.0104 *

Earth -99416-10-04 20:37 J -34589993.86 -34589993.64 -34589993.40 0.0134 0.0049

Moon -99416-10-04 22:32 J -34589993.79 -34589993.56 -34589993.32 0.0134 0.0049 *

Moon -99415-10-08 20:08 J -34589624.89 -34589624.66 -34589624.42 0.0135 0.0013

Earth -99415-10-08 22:04 J -34589624.82 -34589624.58 -34589624.33 0.0135 0.0008 *

Earth -99414-10-12 23:44 J -34589255.71 -34589255.51 -34589255.29 0.0135 0.0066

Moon -99414-10-13 01:54 J -34589255.64 -34589255.42 -34589255.19 0.0135 0.0060 *

Moon -99413-10-16 00:42 J -34588886.51 -34588886.47 -34588886.39 0.0136 0.0131

Earth -99413-10-16 02:23 J -34588886.49 -34588886.40 -34588886.29 0.0136 0.0124 *

Mars -99404-09-27 10:18 J -34585618.27 -34585618.07 -34585617.84 0.0141 0.0108

Mercury -99401-12-02 07:54 J -34584456.18 -34584456.17 -34584456.15 0.0143 0.0143

Mercury -99400-02-28 12:56 J -34584368.03 -34584367.96 -34584367.87 0.0143 0.0122

Mercury -99400-05-27 17:59 J -34584279.85 -34584279.75 -34584279.63 0.0143 0.0102

Mercury -99400-08-23 23:16 J -34584191.65 -34584191.53 -34584191.39 0.0144 0.0080

Mercury -99400-11-20 04:32 J -34584103.45 -34584103.31 -34584103.16 0.0144 0.0059

Mercury -99399-02-16 09:49 J -34584015.23 -34584015.09 -34584014.93 0.0144 0.0038

Mercury -99399-05-15 15:20 J -34583927.02 -34583926.86 -34583926.70 0.0144 0.0015

Mercury -99399-08-11 20:37 J -34583838.79 -34583838.64 -34583838.48 0.0144 0.0008

Mercury -99399-11-08 02:08 J -34583750.56 -34583750.41 -34583750.25 0.0144 0.0029

Mercury -99398-02-04 07:40 J -34583662.32 -34583662.18 -34583662.03 0.0144 0.0052

Mercury -99398-05-03 13:11 J -34583574.08 -34583573.95 -34583573.81 0.0145 0.0075

Mercury -99398-07-30 18:42 J -34583485.83 -34583485.72 -34583485.59 0.0145 0.0098

Mercury -99398-10-27 00:28 J -34583397.56 -34583397.48 -34583397.38 0.0145 0.0121

Mercury -99397-01-23 06:13 J -34583309.24 -34583309.24 -34583309.22 0.0145 0.0145

Venus -99396-05-05 13:11 J -34582841.11 -34582840.95 -34582840.77 0.0146 0.0090

Venus -99396-12-18 01:11 J -34582614.66 -34582614.45 -34582614.23 0.0146 0.0018

Venus -99395-08-01 13:11 J -34582388.14 -34582387.95 -34582387.74 0.0146 0.0054

Venus -99394-03-16 01:40 J -34582161.53 -34582161.43 -34582161.32 0.0146 0.0127

Earth -99377-03-29 14:08 J -34575938.02 -34575937.91 -34575937.78 0.0145 0.0128

Moon -99377-03-29 15:06 J -34575937.97 -34575937.87 -34575937.73 0.0145 0.0130 *

Moon -99376-04-03 21:49 J -34575567.83 -34575567.59 -34575567.34 0.0144 0.0045

Earth -99376-04-04 00:13 J -34575567.73 -34575567.49 -34575567.23 0.0144 0.0052 *

Earth -99375-04-09 09:35 J -34575197.36 -34575197.10 -34575196.84 0.0144 0.0025

Moon -99375-04-09 12:28 J -34575197.24 -34575196.98 -34575196.71 0.0144 0.0017 *

Moon -99374-04-14 14:08 J -34574827.07 -34574826.91 -34574826.72 0.0143 0.0104

Earth -99374-04-14 17:44 J -34574826.94 -34574826.76 -34574826.57 0.0143 0.0100 *

Mars -99365-04-25 16:32 J -34571528.05 -34571527.81 -34571527.53 0.0138 0.0060

Mercury -99361-04-30 05:44 J -34570062.31 -34570062.26 -34570062.17 0.0135 0.0122

Mercury -99361-07-27 10:47 J -34569974.14 -34569974.05 -34569973.94 0.0135 0.0102

Mercury -99361-10-23 15:35 J -34569885.96 -34569885.85 -34569885.71 0.0135 0.0084

Mercury -99360-01-19 20:37 J -34569797.78 -34569797.64 -34569797.50 0.0135 0.0065

Mercury -99360-04-18 01:11 J -34569709.59 -34569709.45 -34569709.30 0.0135 0.0046

Mercury -99360-07-15 05:59 J -34569621.40 -34569621.25 -34569621.09 0.0135 0.0028

Mercury -99360-10-11 10:47 J -34569533.21 -34569533.05 -34569532.90 0.0135 0.0010

Mercury -99359-01-07 15:20 J -34569445.02 -34569444.86 -34569444.71 0.0135 0.0009

Mercury -99359-04-05 19:40 J -34569356.83 -34569356.68 -34569356.52 0.0135 0.0027

Mercury -99359-07-03 00:13 J -34569268.63 -34569268.49 -34569268.34 0.0134 0.0044

Mercury -99359-09-29 04:47 J -34569180.44 -34569180.30 -34569180.16 0.0134 0.0061

Mercury -99359-12-26 09:06 J -34569092.24 -34569092.12 -34569091.99 0.0134 0.0079

Mercury -99358-03-24 13:25 J -34569004.04 -34569003.94 -34569003.82 0.0134 0.0096

Mercury -99358-06-20 17:44 J -34568915.83 -34568915.76 -34568915.67 0.0134 0.0113

Mercury -99358-09-16 22:18 J -34568827.60 -34568827.57 -34568827.53 0.0134 0.0129

Venus -99356-01-12 15:49 J -34568343.99 -34568343.84 -34568343.68 0.0133 0.0095

Venus -99356-08-26 21:49 J -34568117.80 -34568117.59 -34568117.38 0.0133 0.0039

Venus -99355-04-10 03:20 J -34567891.57 -34567891.36 -34567891.14 0.0133 0.0016

Venus -99355-11-22 08:37 J -34567665.32 -34567665.14 -34567664.95 0.0133 0.0070

Venus -99354-07-06 13:40 J -34567439.00 -34567438.93 -34567438.85 0.0132 0.0124

Moon -99333-10-01 08:08 J -34559681.31 -34559681.16 -34559680.99 0.0134 0.0097

Earth -99333-10-01 09:20 J -34559681.26 -34559681.11 -34559680.93 0.0134 0.0099 *

Earth -99332-10-05 10:04 J -34559312.30 -34559312.08 -34559311.84 0.0134 0.0044

Moon -99332-10-05 11:44 J -34559312.24 -34559312.01 -34559311.76 0.0134 0.0041 *

Moon -99331-10-09 10:18 J -34558943.31 -34558943.07 -34558942.83 0.0135 0.0009

Earth -99331-10-09 11:30 J -34558943.26 -34558943.02 -34558942.77 0.0135 0.0014 *

Earth -99330-10-13 13:25 J -34558574.14 -34558573.94 -34558573.73 0.0135 0.0070

Moon -99330-10-13 14:37 J -34558574.10 -34558573.89 -34558573.68 0.0135 0.0076 *

Moon -99329-10-16 14:23 J -34558204.99 -34558204.90 -34558204.78 0.0136 0.0122

Earth -99329-10-16 16:18 J -34558204.90 -34558204.82 -34558204.74 0.0136 0.0128 *

Mars -99321-06-17 21:06 J -34555403.92 -34555403.62 -34555403.30 0.0141 0.0054

Mercury -99317-12-22 15:49 J -34553754.88 -34553754.84 -34553754.79 0.0143 0.0136

Mercury -99316-03-20 20:37 J -34553666.72 -34553666.64 -34553666.54 0.0143 0.0116

Mercury -99316-06-17 01:54 J -34553578.53 -34553578.42 -34553578.30 0.0143 0.0094

Mercury -99316-09-13 06:56 J -34553490.33 -34553490.21 -34553490.06 0.0144 0.0074

Mercury -99316-12-10 12:28 J -34553402.12 -34553401.98 -34553401.83 0.0144 0.0052

Mercury -99315-03-08 17:44 J -34553313.91 -34553313.76 -34553313.60 0.0144 0.0030

Mercury -99315-06-04 23:16 J -34553225.69 -34553225.53 -34553225.38 0.0144 0.0009

Mercury -99315-09-01 04:32 J -34553137.47 -34553137.31 -34553137.15 0.0144 0.0014

Mercury -99315-11-28 10:04 J -34553049.23 -34553049.08 -34553048.93 0.0144 0.0036

Mercury -99314-02-24 15:20 J -34552961.00 -34552960.86 -34552960.71 0.0144 0.0060

Mercury -99314-05-23 21:06 J -34552872.75 -34552872.62 -34552872.49 0.0145 0.0082

Mercury -99314-08-20 02:37 J -34552784.49 -34552784.39 -34552784.27 0.0145 0.0105

Mercury -99314-11-16 08:23 J -34552696.22 -34552696.15 -34552696.07 0.0145 0.0128

Venus -99312-01-02 21:06 J -34552282.73 -34552282.62 -34552282.50 0.0145 0.0122

Venus -99312-08-17 08:52 J -34552056.33 -34552056.13 -34552055.93 0.0146 0.0051

Venus -99311-03-31 20:37 J -34551829.85 -34551829.64 -34551829.42 0.0146 0.0021

Venus -99311-11-13 08:52 J -34551603.29 -34551603.13 -34551602.95 0.0146 0.0093

Earth -99293-03-29 23:59 J -34545256.62 -34545256.50 -34545256.35 0.0145 0.0124

Moon -99293-03-30 01:25 J -34545256.59 -34545256.44 -34545256.29 0.0145 0.0120 *

Moon -99292-04-04 08:52 J -34544886.36 -34544886.13 -34544885.88 0.0144 0.0054

Earth -99292-04-04 10:18 J -34544886.31 -34544886.07 -34544885.81 0.0144 0.0047 *

Earth -99291-04-09 19:25 J -34544515.94 -34544515.69 -34544515.43 0.0144 0.0029

Moon -99291-04-09 21:49 J -34544515.84 -34544515.59 -34544515.31 0.0144 0.0036 *

Moon -99290-04-15 00:28 J -34544145.65 -34544145.48 -34544145.28 0.0143 0.0098

Earth -99290-04-15 03:49 J -34544145.51 -34544145.34 -34544145.15 0.0143 0.0103 *

Mars -99282-01-19 01:40 J -34541309.67 -34541309.43 -34541309.17 0.0139 0.0069

Mars -99281-12-19 04:32 J -34540609.36 -34540609.31 -34540609.24 0.0137 0.0134

Mercury -99277-02-22 08:37 J -34539449.15 -34539449.14 -34539449.13 0.0136 0.0135

Mercury -99277-05-20 13:25 J -34539361.02 -34539360.94 -34539360.86 0.0135 0.0116

Mercury -99277-08-16 17:59 J -34539272.85 -34539272.75 -34539272.62 0.0135 0.0098

Mercury -99277-11-12 23:01 J -34539184.66 -34539184.54 -34539184.40 0.0135 0.0078

Mercury -99276-02-09 03:49 J -34539096.48 -34539096.34 -34539096.19 0.0135 0.0060

Mercury -99276-05-08 08:37 J -34539008.29 -34539008.14 -34539007.99 0.0135 0.0041

Mercury -99276-08-04 13:25 J -34538920.10 -34538919.94 -34538919.79 0.0135 0.0022

Mercury -99276-10-31 17:59 J -34538831.90 -34538831.75 -34538831.59 0.0135 0.0005

Mercury -99275-01-27 22:32 J -34538743.71 -34538743.56 -34538743.40 0.0135 0.0014

Mercury -99275-04-26 03:06 J -34538655.52 -34538655.37 -34538655.21 0.0135 0.0032

Mercury -99275-07-23 07:40 J -34538567.32 -34538567.18 -34538567.03 0.0134 0.0049

Mercury -99275-10-19 12:13 J -34538479.13 -34538478.99 -34538478.86 0.0134 0.0067

Mercury -99274-01-15 16:18 J -34538390.93 -34538390.82 -34538390.69 0.0134 0.0085

Mercury -99274-04-13 20:52 J -34538302.72 -34538302.63 -34538302.52 0.0134 0.0101

Mercury -99274-07-11 01:11 J -34538214.51 -34538214.45 -34538214.37 0.0134 0.0118

Venus -99273-09-12 01:54 J -34537785.50 -34537785.42 -34537785.31 0.0133 0.0121

Venus -99272-04-26 08:08 J -34537559.34 -34537559.16 -34537558.96 0.0133 0.0065

Venus -99272-12-08 13:54 J -34537333.13 -34537332.92 -34537332.70 0.0133 0.0010

Venus -99271-07-22 19:11 J -34537106.89 -34537106.70 -34537106.48 0.0133 0.0046

Venus -99270-03-06 00:13 J -34536880.62 -34536880.49 -34536880.33 0.0133 0.0100

Moon -99249-10-01 20:52 J -34528999.79 -34528999.63 -34528999.45 0.0134 0.0095

Earth -99249-10-01 21:49 J -34528999.75 -34528999.59 -34528999.40 0.0134 0.0094 *

Earth -99248-10-05 22:47 J -34528630.78 -34528630.55 -34528630.31 0.0134 0.0039

Moon -99248-10-05 23:30 J -34528630.75 -34528630.52 -34528630.27 0.0134 0.0040 *

Moon -99247-10-09 23:30 J -34528261.75 -34528261.52 -34528261.28 0.0135 0.0021

Earth -99247-10-10 00:13 J -34528261.73 -34528261.49 -34528261.24 0.0135 0.0018 *

Earth -99246-10-14 02:08 J -34527892.61 -34527892.41 -34527892.20 0.0135 0.0074

Moon -99246-10-14 03:06 J -34527892.58 -34527892.37 -34527892.14 0.0135 0.0068 *

Earth -99245-10-17 04:18 J -34527523.35 -34527523.32 -34527523.24 0.0136 0.0132

Mars -99236-02-12 02:08 J -34524483.72 -34524483.41 -34524483.09 0.0141 0.0043

Mercury -99232-01-11 23:01 J -34523053.59 -34523053.54 -34523053.46 0.0143 0.0130

Mercury -99232-04-10 04:18 J -34522965.41 -34522965.32 -34522965.21 0.0143 0.0109

Mercury -99232-07-07 09:20 J -34522877.22 -34522877.11 -34522876.98 0.0143 0.0089

Mercury -99232-10-03 14:37 J -34522789.02 -34522788.89 -34522788.75 0.0144 0.0067

Mercury -99232-12-30 19:54 J -34522700.81 -34522700.67 -34522700.52 0.0144 0.0046

Mercury -99231-03-29 01:25 J -34522612.60 -34522612.44 -34522612.29 0.0144 0.0024

Mercury -99231-06-25 06:42 J -34522524.38 -34522524.22 -34522524.06 0.0144 0.0002

Mercury -99231-09-21 11:59 J -34522436.15 -34522436.00 -34522435.84 0.0144 0.0021

Mercury -99231-12-18 17:30 J -34522347.92 -34522347.77 -34522347.62 0.0144 0.0042

Mercury -99230-03-16 23:01 J -34522259.68 -34522259.54 -34522259.39 0.0144 0.0065

Mercury -99230-06-13 04:47 J -34522171.43 -34522171.30 -34522171.18 0.0145 0.0088

Mercury -99230-09-09 10:18 J -34522083.17 -34522083.07 -34522082.97 0.0145 0.0111

Mercury -99230-12-06 16:04 J -34521994.89 -34521994.83 -34521994.77 0.0145 0.0134

Venus	-99228-04-16 15:35 J	-34521498.01	-34521497.85	-34521497.66	0.0145	0.0085
Venus	-99228-11-29 03:35 J	-34521271.56	-34521271.35	-34521271.13	0.0146	0.0014
Venus	-99227-07-13 15:35 J	-34521045.05	-34521044.85	-34521044.65	0.0146	0.0058
Venus	-99226-02-25 03:49 J	-34520818.43	-34520818.34	-34520818.25	0.0146	0.0131
Moon	-99209-03-30 09:49 J	-34514575.23	-34514575.09	-34514574.92	0.0145	0.0120
Earth	-99209-03-30 10:18 J	-34514575.21	-34514575.07	-34514574.91	0.0145	0.0119 *
Moon	-99208-04-04 19:25 J	-34514204.93	-34514204.69	-34514204.44	0.0144	0.0037
Earth	-99208-04-04 20:37 J	-34514204.89	-34514204.64	-34514204.39	0.0144	0.0043 *
Earth	-99207-04-10 05:44 J	-34513834.51	-34513834.26	-34513834.00	0.0144	0.0033
Moon	-99207-04-10 07:54 J	-34513834.44	-34513834.17	-34513833.90	0.0144	0.0025 *
Moon	-99206-04-15 11:44 J	-34513464.16	-34513464.01	-34513463.84	0.0143	0.0113
Earth	-99206-04-15 13:54 J	-34513464.07	-34513463.92	-34513463.72	0.0143	0.0108 *
Mars	-99198-09-13 16:18 J	-34510391.10	-34510390.82	-34510390.53	0.0138	0.0008
Mercury	-99193-03-13 15:49 J	-34508747.87	-34508747.84	-34508747.79	0.0136	0.0130
Mercury	-99193-06-09 20:37 J	-34508659.72	-34508659.64	-34508659.53	0.0135	0.0111
Mercury	-99193-09-06 01:40 J	-34508571.54	-34508571.43	-34508571.30	0.0135	0.0091
Mercury	-99193-12-03 06:42 J	-34508483.35	-34508483.22	-34508483.09	0.0135	0.0072
Mercury	-99192-03-01 11:16 J	-34508395.17	-34508395.03	-34508394.87	0.0135	0.0054
Mercury	-99192-05-28 16:18 J	-34508306.98	-34508306.82	-34508306.67	0.0135	0.0035
Mercury	-99192-08-24 20:52 J	-34508218.78	-34508218.63	-34508218.47	0.0135	0.0017
Mercury	-99192-11-21 01:40 J	-34508130.59	-34508130.43	-34508130.28	0.0135	0.0004
Mercury	-99191-02-17 06:13 J	-34508042.40	-34508042.24	-34508042.09	0.0135	0.0019
Mercury	-99191-05-16 10:47 J	-34507954.20	-34507954.05	-34507953.90	0.0135	0.0037
Mercury	-99191-08-12 15:06 J	-34507866.01	-34507865.87	-34507865.72	0.0134	0.0055
Mercury	-99191-11-08 19:25 J	-34507777.81	-34507777.69	-34507777.55	0.0134	0.0073
Mercury	-99190-02-04 23:59 J	-34507689.61	-34507689.50	-34507689.38	0.0134	0.0089
Mercury	-99190-05-04 04:18 J	-34507601.40	-34507601.32	-34507601.22	0.0134	0.0107
Mercury	-99190-07-31 08:37 J	-34507513.19	-34507513.14	-34507513.07	0.0134	0.0123
Venus	-99189-12-24 18:56 J	-34507000.87	-34507000.71	-34507000.55	0.0133	0.0090
Venus	-99188-08-08 00:42 J	-34506774.68	-34506774.47	-34506774.26	0.0133	0.0034

Venus	-99187-03-22 06:13 J	-34506548.45	-34506548.24	-34506548.02	0.0133	0.0021
Venus	-99187-11-03 11:16 J	-34506322.19	-34506322.03	-34506321.83	0.0133	0.0076
Venus	-99186-06-17 16:18 J	-34506095.84	-34506095.82	-34506095.76	0.0133	0.0130
Moon	-99165-10-02 10:04 J	-34498318.24	-34498318.08	-34498317.89	0.0134	0.0088
Earth	-99165-10-02 10:32 J	-34498318.24	-34498318.06	-34498317.88	0.0134	0.0089 *
Moon	-99164-10-06 11:30 J	-34497949.26	-34497949.02	-34497948.77	0.0134	0.0034
Earth	-99164-10-06 11:16 J	-34497949.26	-34497949.03	-34497948.78	0.0134	0.0035 *
Moon	-99163-10-10 12:28 J	-34497580.21	-34497579.98	-34497579.74	0.0135	0.0018
Earth	-99163-10-10 12:42 J	-34497580.20	-34497579.97	-34497579.72	0.0135	0.0022 *
Moon	-99162-10-14 14:37 J	-34497211.09	-34497210.89	-34497210.69	0.0135	0.0083
Earth	-99162-10-14 14:23 J	-34497211.08	-34497210.90	-34497210.68	0.0135	0.0079 *
Moon	-99161-10-17 16:47 J	-34496841.86	-34496841.80	-34496841.72	0.0136	0.0129
Earth	-99161-10-17 17:16 J	-34496841.80	-34496841.78	-34496841.76	0.0136	0.0135 *
Mars	-99154-11-03 12:56 J	-34494269.12	-34494268.96	-34494268.76	0.0140	0.0116
Mars	-99152-10-09 07:11 J	-34493563.20	-34493563.20	-34493563.15	0.0141	0.0141
Mercury	-99148-02-01 06:42 J	-34492352.29	-34492352.22	-34492352.14	0.0143	0.0124
Mercury	-99148-04-30 11:44 J	-34492264.10	-34492264.01	-34492263.89	0.0143	0.0104
Mercury	-99148-07-27 17:01 J	-34492175.91	-34492175.79	-34492175.66	0.0143	0.0082
Mercury	-99148-10-23 22:04 J	-34492087.71	-34492087.58	-34492087.43	0.0144	0.0062
Mercury	-99147-01-20 03:35 J	-34491999.50	-34491999.35	-34491999.20	0.0144	0.0040
Mercury	-99147-04-18 08:52 J	-34491911.29	-34491911.13	-34491910.97	0.0144	0.0018
Mercury	-99147-07-15 14:08 J	-34491823.06	-34491822.91	-34491822.75	0.0144	0.0005
Mercury	-99147-10-11 19:40 J	-34491734.84	-34491734.68	-34491734.53	0.0144	0.0026
Mercury	-99146-01-08 01:11 J	-34491646.60	-34491646.45	-34491646.30	0.0144	0.0049
Mercury	-99146-04-06 06:28 J	-34491558.36	-34491558.23	-34491558.09	0.0144	0.0071
Mercury	-99146-07-03 12:13 J	-34491470.11	-34491469.99	-34491469.87	0.0145	0.0094
Mercury	-99146-09-29 17:44 J	-34491381.85	-34491381.76	-34491381.66	0.0145	0.0117
Mercury	-99146-12-26 23:16 J	-34491293.55	-34491293.53	-34491293.48	0.0145	0.0141
Venus	-99145-12-14 22:47 J	-34490939.67	-34490939.55	-34490939.43	0.0145	0.0119
Venus	-99144-07-29 10:18 J	-34490713.28	-34490713.07	-34490712.87	0.0146	0.0048

Venus -99143-03-12 21:49 J -34490486.80 -34490486.59 -34490486.37 0.0146 0.0024

Venus -99143-10-25 09:49 J -34490260.24 -34490260.09 -34490259.91 0.0146 0.0096

Moon -99125-03-30 17:16 J -34483893.93 -34483893.78 -34483893.60 0.0145 0.0115

Earth -99125-03-30 18:13 J -34483893.88 -34483893.74 -34483893.57 0.0145 0.0116 *

Earth -99124-04-05 04:18 J -34483523.56 -34483523.32 -34483523.05 0.0144 0.0041

Moon -99124-04-05 04:18 J -34483523.55 -34483523.32 -34483523.07 0.0144 0.0047 *

Earth -99123-04-10 13:40 J -34483153.18 -34483152.93 -34483152.66 0.0144 0.0035

Moon -99123-04-10 14:37 J -34483153.14 -34483152.89 -34483152.62 0.0144 0.0042 *

Moon -99122-04-15 20:08 J -34482782.83 -34482782.66 -34482782.48 0.0143 0.0103

Earth -99122-04-15 22:04 J -34482782.73 -34482782.58 -34482782.39 0.0143 0.0109 *

Mars -99115-06-07 19:54 J -34480172.78 -34480172.67 -34480172.52 0.0139 0.0123

Mars -99113-05-08 02:37 J -34479472.61 -34479472.39 -34479472.15 0.0138 0.0082

Mercury -99109-04-02 22:47 J -34478046.60 -34478046.55 -34478046.48 0.0136 0.0126

Mercury -99109-06-30 03:49 J -34477958.43 -34477958.34 -34477958.24 0.0135 0.0106

Mercury -99109-09-26 08:37 J -34477870.25 -34477870.14 -34477870.01 0.0135 0.0088

Mercury -99109-12-23 13:40 J -34477782.07 -34477781.93 -34477781.79 0.0135 0.0068

Mercury -99108-03-21 18:13 J -34477693.88 -34477693.74 -34477693.58 0.0135 0.0050

Mercury -99108-06-17 23:16 J -34477605.69 -34477605.53 -34477605.38 0.0135 0.0031

Mercury -99108-09-14 03:49 J -34477517.49 -34477517.34 -34477517.18 0.0135 0.0013

Mercury -99108-12-11 08:37 J -34477429.30 -34477429.14 -34477428.98 0.0135 0.0005

Mercury -99107-03-09 13:11 J -34477341.10 -34477340.95 -34477340.79 0.0135 0.0023

Mercury -99107-06-05 17:44 J -34477252.91 -34477252.76 -34477252.61 0.0135 0.0041

Mercury -99107-09-01 22:18 J -34477164.71 -34477164.57 -34477164.43 0.0134 0.0059

Mercury -99107-11-29 02:37 J -34477076.51 -34477076.39 -34477076.26 0.0134 0.0076

Mercury -99106-02-25 06:56 J -34476988.31 -34476988.21 -34476988.09 0.0134 0.0094

Mercury -99106-05-24 11:30 J -34476900.10 -34476900.02 -34476899.93 0.0134 0.0110

Mercury -99106-08-20 15:49 J -34476811.88 -34476811.84 -34476811.79 0.0134 0.0127

Venus -99105-08-24 04:04 J -34476442.43 -34476442.33 -34476442.22 0.0134 0.0117

Venus -99104-04-07 10:18 J -34476216.26 -34476216.07 -34476215.87 0.0133 0.0061

Venus -99104-11-19 16:04 J -34475990.05 -34475989.83 -34475989.61 0.0133 0.0005

Venus -99103-07-03 21:06 J -34475763.81 -34475763.62 -34475763.40 0.0133 0.0050
 Venus -99102-02-15 02:23 J -34475537.53 -34475537.40 -34475537.26 0.0133 0.0104
 Earth -99081-10-02 22:04 J -34467636.75 -34467636.58 -34467636.38 0.0134 0.0086
 Moon -99081-10-02 22:32 J -34467636.73 -34467636.56 -34467636.37 0.0134 0.0088 *
 Moon -99080-10-06 23:01 J -34467267.78 -34467267.54 -34467267.29 0.0134 0.0032
 Earth -99080-10-06 23:16 J -34467267.76 -34467267.53 -34467267.29 0.0134 0.0031 *
 Earth -99079-10-11 00:28 J -34466898.71 -34466898.48 -34466898.23 0.0135 0.0025
 Moon -99079-10-11 01:25 J -34466898.67 -34466898.44 -34466898.21 0.0135 0.0027 *
 Moon -99078-10-15 01:54 J -34466529.62 -34466529.42 -34466529.20 0.0135 0.0076
 Earth -99078-10-15 02:08 J -34466529.59 -34466529.41 -34466529.20 0.0135 0.0082 *
 Mars -99069-06-29 15:20 J -34463349.18 -34463348.86 -34463348.53 0.0140 0.0022
 Mercury -99065-11-25 09:06 J -34461739.15 -34461739.12 -34461739.08 0.0143 0.0139
 Mercury -99064-02-21 14:08 J -34461650.99 -34461650.91 -34461650.82 0.0143 0.0119
 Mercury -99064-05-20 19:11 J -34461562.80 -34461562.70 -34461562.58 0.0143 0.0098
 Mercury -99064-08-17 00:13 J -34461474.61 -34461474.49 -34461474.35 0.0143 0.0078
 Mercury -99064-11-13 05:44 J -34461386.40 -34461386.26 -34461386.12 0.0144 0.0056
 Mercury -99063-02-09 10:47 J -34461298.19 -34461298.05 -34461297.89 0.0144 0.0035
 Mercury -99063-05-08 16:18 J -34461209.98 -34461209.82 -34461209.67 0.0144 0.0013
 Mercury -99063-08-04 21:35 J -34461121.76 -34461121.60 -34461121.44 0.0144 0.0009
 Mercury -99063-11-01 02:52 J -34461033.53 -34461033.38 -34461033.22 0.0144 0.0032
 Mercury -99062-01-28 08:23 J -34460945.29 -34460945.15 -34460945.00 0.0144 0.0054
 Mercury -99062-04-26 13:54 J -34460857.05 -34460856.92 -34460856.78 0.0144 0.0077
 Mercury -99062-07-23 19:25 J -34460768.80 -34460768.69 -34460768.57 0.0145 0.0099
 Mercury -99062-10-20 00:56 J -34460680.53 -34460680.46 -34460680.37 0.0145 0.0123
 Venus -99060-03-28 16:32 J -34460154.97 -34460154.81 -34460154.62 0.0145 0.0083
 Venus -99060-11-10 04:32 J -34459928.53 -34459928.31 -34459928.09 0.0146 0.0012
 Venus -99059-06-24 16:18 J -34459702.01 -34459701.82 -34459701.62 0.0146 0.0060
 Venus -99058-02-06 04:18 J -34459475.40 -34459475.32 -34459475.23 0.0146 0.0133
 Jupiter -99053-08-15 13:40 J -34457458.43 -34457457.93 -34457457.40 0.0147 0.0050
 Moon -99041-03-31 01:25 J -34453212.61 -34453212.44 -34453212.27 0.0145 0.0113

Earth	-99041-03-31 02:52 J	-34453212.53	-34453212.38	-34453212.20	0.0145	0.0113	*
Earth	-99040-04-05 12:56 J	-34452842.21	-34452841.96	-34452841.70	0.0144	0.0038	
Moon	-99040-04-05 14:08 J	-34452842.16	-34452841.91	-34452841.67	0.0144	0.0033	*
Earth	-99039-04-10 22:18 J	-34452471.81	-34452471.57	-34452471.30	0.0144	0.0038	
Moon	-99039-04-10 23:01 J	-34452471.80	-34452471.54	-34452471.27	0.0144	0.0030	*
Moon	-99038-04-16 05:59 J	-34452101.38	-34452101.25	-34452101.09	0.0143	0.0118	
Earth	-99038-04-16 07:11 J	-34452101.36	-34452101.20	-34452101.03	0.0143	0.0111	*
Mars	-99030-01-31 09:20 J	-34449254.37	-34449254.11	-34449253.83	0.0139	0.0048	
Mercury	-99025-04-23 05:44 J	-34447345.31	-34447345.26	-34447345.17	0.0136	0.0122	
Mercury	-99025-07-20 10:47 J	-34447257.14	-34447257.05	-34447256.93	0.0135	0.0103	
Mercury	-99025-10-16 15:49 J	-34447168.96	-34447168.84	-34447168.71	0.0135	0.0083	
Mercury	-99024-01-12 20:37 J	-34447080.77	-34447080.64	-34447080.49	0.0135	0.0065	
Mercury	-99024-04-11 01:40 J	-34446992.58	-34446992.43	-34446992.28	0.0135	0.0046	
Mercury	-99024-07-08 06:13 J	-34446904.39	-34446904.24	-34446904.08	0.0135	0.0027	
Mercury	-99024-10-04 11:01 J	-34446816.20	-34446816.04	-34446815.88	0.0135	0.0009	
Mercury	-99024-12-31 15:49 J	-34446728.00	-34446727.84	-34446727.69	0.0135	0.0010	
Mercury	-99023-03-29 20:23 J	-34446639.81	-34446639.65	-34446639.50	0.0135	0.0027	
Mercury	-99023-06-26 00:56 J	-34446551.61	-34446551.46	-34446551.31	0.0135	0.0045	
Mercury	-99023-09-22 05:16 J	-34446463.41	-34446463.28	-34446463.14	0.0134	0.0063	
Mercury	-99023-12-19 09:49 J	-34446375.21	-34446375.09	-34446374.96	0.0134	0.0080	
Mercury	-99022-03-17 14:08 J	-34446287.01	-34446286.91	-34446286.79	0.0134	0.0097	
Mercury	-99022-06-13 18:28 J	-34446198.80	-34446198.73	-34446198.64	0.0134	0.0115	
Mercury	-99022-09-09 22:47 J	-34446110.56	-34446110.55	-34446110.51	0.0134	0.0131	
Venus	-99021-12-05 19:40 J	-34445657.83	-34445657.68	-34445657.51	0.0134	0.0088	
Venus	-99020-07-20 01:25 J	-34445431.64	-34445431.44	-34445431.22	0.0133	0.0033	
Venus	-99019-03-03 07:11 J	-34445205.41	-34445205.20	-34445204.98	0.0133	0.0023	
Venus	-99019-10-15 12:28 J	-34444979.15	-34444978.98	-34444978.80	0.0133	0.0078	
Venus	-99018-05-29 17:44 J	-34444752.77	-34444752.76	-34444752.74	0.0133	0.0132	
Jupiter	-99011-04-25 03:20 J	-34442230.75	-34442230.36	-34442229.91	0.0131	0.0068	

99TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 99th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-98997-10-03 10:04 J	-34436955.26	-34436955.08	-34436954.88	0.0134	0.0082		
Moon	-98997-10-03 11:01 J	-34436955.22	-34436955.04	-34436954.84	0.0134	0.0080	*	
Moon	-98996-10-07 09:35 J	-34436586.34	-34436586.10	-34436585.84	0.0134	0.0028		
Earth	-98996-10-07 11:01 J	-34436586.27	-34436586.04	-34436585.79	0.0134	0.0028	*	
Earth	-98995-10-11 12:28 J	-34436217.22	-34436216.98	-34436216.74	0.0135	0.0028		
Moon	-98995-10-11 13:11 J	-34436217.18	-34436216.95	-34436216.71	0.0135	0.0025	*	
Moon	-98994-10-15 12:13 J	-34435848.16	-34435847.99	-34435847.78	0.0135	0.0089		
Earth	-98994-10-15 14:08 J	-34435848.10	-34435847.91	-34435847.72	0.0135	0.0084	*	
Moon	-98993-10-18 17:16 J	-34435478.79	-34435478.78	-34435478.72	0.0136	0.0135		
Mars	-98984-02-23 19:11 J	-34432428.98	-34432428.70	-34432428.41	0.0141	0.0073		
Mercury	-98981-12-15 16:47 J	-34431037.85	-34431037.80	-34431037.75	0.0143	0.0133		
Mercury	-98980-03-13 21:35 J	-34430949.68	-34430949.60	-34430949.50	0.0143	0.0113		
Mercury	-98980-06-10 02:37 J	-34430861.50	-34430861.39	-34430861.26	0.0143	0.0093		
Mercury	-98980-09-06 07:54 J	-34430773.30	-34430773.17	-34430773.03	0.0143	0.0071		
Mercury	-98980-12-03 12:56 J	-34430685.10	-34430684.96	-34430684.81	0.0144	0.0051		
Mercury	-98979-03-01 18:28 J	-34430596.89	-34430596.73	-34430596.58	0.0144	0.0029		
Mercury	-98979-05-28 23:44 J	-34430508.67	-34430508.51	-34430508.36	0.0144	0.0007		
Mercury	-98979-08-25 05:01 J	-34430420.45	-34430420.29	-34430420.13	0.0144	0.0015		
Mercury	-98979-11-21 10:18 J	-34430332.22	-34430332.07	-34430331.91	0.0144	0.0037		

Mercury -98978-02-17 15:49 J -34430243.98 -34430243.84 -34430243.69 0.0144 0.0059

Mercury -98978-05-16 21:20 J -34430155.74 -34430155.61 -34430155.48 0.0144 0.0082

Mercury -98978-08-13 02:37 J -34430067.48 -34430067.39 -34430067.27 0.0144 0.0106

Mercury -98978-11-09 08:37 J -34429979.21 -34429979.14 -34429979.07 0.0145 0.0128

Venus -98977-11-25 23:30 J -34429596.63 -34429596.52 -34429596.38 0.0145 0.0117

Venus -98976-07-10 11:01 J -34429370.23 -34429370.04 -34429369.83 0.0145 0.0047

Venus -98975-02-21 22:47 J -34429143.76 -34429143.55 -34429143.33 0.0146 0.0025

Venus -98975-10-06 10:32 J -34428917.20 -34428917.06 -34428916.88 0.0146 0.0098

Moon -98957-03-31 08:23 J -34422531.32 -34422531.15 -34422530.97 0.0145 0.0111

Earth -98957-03-31 10:32 J -34422531.20 -34422531.06 -34422530.86 0.0145 0.0111 *

Earth -98956-04-05 20:52 J -34422160.88 -34422160.63 -34422160.36 0.0144 0.0036

Moon -98956-04-05 22:04 J -34422160.81 -34422160.58 -34422160.32 0.0144 0.0042 *

Moon -98955-04-11 05:16 J -34421790.53 -34421790.28 -34421790.01 0.0144 0.0046

Earth -98955-04-11 06:13 J -34421790.48 -34421790.24 -34421789.98 0.0144 0.0039 *

Moon -98954-04-16 13:54 J -34421420.07 -34421419.92 -34421419.74 0.0143 0.0107

Earth -98954-04-16 14:37 J -34421420.04 -34421419.89 -34421419.71 0.0143 0.0112 *

Mars -98946-09-25 18:42 J -34418336.00 -34418335.72 -34418335.44 0.0138 0.0026

Mercury -98941-05-13 12:42 J -34416644.04 -34416643.97 -34416643.88 0.0136 0.0118

Mercury -98941-08-09 17:30 J -34416555.86 -34416555.77 -34416555.65 0.0135 0.0100

Mercury -98941-11-05 22:32 J -34416467.68 -34416467.56 -34416467.42 0.0135 0.0080

Mercury -98940-02-02 03:35 J -34416379.49 -34416379.35 -34416379.21 0.0135 0.0061

Mercury -98940-05-01 08:23 J -34416291.30 -34416291.15 -34416291.00 0.0135 0.0043

Mercury -98940-07-28 13:11 J -34416203.11 -34416202.95 -34416202.79 0.0135 0.0024

Mercury -98940-10-24 17:44 J -34416114.91 -34416114.76 -34416114.60 0.0135 0.0007

Mercury -98939-01-20 22:32 J -34416026.72 -34416026.56 -34416026.40 0.0135 0.0012

Mercury -98939-04-19 03:06 J -34415938.52 -34415938.37 -34415938.22 0.0135 0.0030

Mercury -98939-07-16 07:40 J -34415850.32 -34415850.18 -34415850.03 0.0135 0.0048

Mercury -98939-10-12 12:13 J -34415762.12 -34415761.99 -34415761.85 0.0134 0.0066

Mercury -98938-01-08 16:32 J -34415673.92 -34415673.81 -34415673.68 0.0134 0.0083

Mercury -98938-04-06 20:52 J -34415585.72 -34415585.63 -34415585.52 0.0134 0.0101

Mercury -98938-07-04 01:25 J -34415497.51 -34415497.44 -34415497.36 0.0134 0.0117

Mercury -98938-09-30 05:44 J -34415409.26 -34415409.26 -34415409.25 0.0134 0.0134

Venus -98937-08-05 03:49 J -34415099.43 -34415099.34 -34415099.21 0.0134 0.0117

Venus -98936-03-19 10:04 J -34414873.26 -34414873.08 -34414872.87 0.0133 0.0061

Venus -98936-10-31 16:04 J -34414647.05 -34414646.83 -34414646.61 0.0133 0.0005

Venus -98935-06-14 21:20 J -34414420.80 -34414420.61 -34414420.40 0.0133 0.0051

Venus -98934-01-27 02:52 J -34414194.51 -34414194.38 -34414194.25 0.0133 0.0105

Moon -98914-09-30 19:11 J -34406642.76 -34406642.70 -34406642.61 0.0134 0.0127

Earth -98914-09-30 20:37 J -34406642.65 -34406642.64 -34406642.58 0.0134 0.0133 *

Earth -98913-10-03 21:20 J -34406273.80 -34406273.61 -34406273.40 0.0134 0.0079

Moon -98913-10-03 23:16 J -34406273.71 -34406273.53 -34406273.34 0.0134 0.0082 *

Moon -98912-10-07 20:52 J -34405904.87 -34405904.63 -34405904.38 0.0134 0.0025

Earth -98912-10-07 22:32 J -34405904.80 -34405904.56 -34405904.32 0.0134 0.0025 *

Earth -98911-10-11 23:16 J -34405535.75 -34405535.53 -34405535.28 0.0135 0.0031

Moon -98911-10-12 01:25 J -34405535.66 -34405535.44 -34405535.20 0.0135 0.0033 *

Moon -98910-10-15 23:30 J -34405166.71 -34405166.52 -34405166.31 0.0135 0.0081

Earth -98910-10-16 00:56 J -34405166.63 -34405166.46 -34405166.25 0.0135 0.0087 *

Mars -98902-11-15 05:16 J -34402214.53 -34402214.28 -34402214.01 0.0140 0.0087

Mercury -98896-01-04 23:59 J -34400336.56 -34400336.50 -34400336.43 0.0143 0.0128

Mercury -98896-04-03 05:01 J -34400248.39 -34400248.29 -34400248.19 0.0143 0.0108

Mercury -98896-06-30 10:04 J -34400160.20 -34400160.08 -34400159.95 0.0143 0.0087

Mercury -98896-09-26 15:06 J -34400072.00 -34400071.87 -34400071.72 0.0143 0.0067

Mercury -98896-12-23 20:23 J -34399983.79 -34399983.65 -34399983.50 0.0144 0.0045

Mercury -98895-03-22 01:40 J -34399895.58 -34399895.43 -34399895.27 0.0144 0.0024

Mercury -98895-06-18 06:56 J -34399807.36 -34399807.21 -34399807.05 0.0144 0.0003

Mercury -98895-09-14 12:28 J -34399719.14 -34399718.98 -34399718.83 0.0144 0.0020

Mercury -98895-12-11 17:44 J -34399630.91 -34399630.76 -34399630.61 0.0144 0.0042

Mercury -98894-03-09 23:16 J -34399542.67 -34399542.53 -34399542.39 0.0144 0.0065

Mercury -98894-06-06 04:32 J -34399454.43 -34399454.31 -34399454.18 0.0144 0.0087

Mercury -98894-09-02 10:04 J -34399366.17 -34399366.08 -34399365.97 0.0144 0.0110

Mercury -98894-11-29 15:35 J -34399277.90 -34399277.85 -34399277.78 0.0145 0.0134

Venus -98892-03-09 17:44 J -34398811.93 -34398811.76 -34398811.58 0.0145 0.0081

Venus -98892-10-22 05:30 J -34398585.48 -34398585.27 -34398585.05 0.0145 0.0010

Venus -98891-06-05 17:01 J -34398358.97 -34398358.79 -34398358.58 0.0146 0.0062

Venus -98890-01-18 05:01 J -34398132.36 -34398132.29 -34398132.20 0.0146 0.0134

Moon -98873-03-31 17:16 J -34391849.94 -34391849.78 -34391849.58 0.0145 0.0107

Earth -98873-03-31 20:08 J -34391849.81 -34391849.66 -34391849.46 0.0145 0.0107 *

Earth -98872-04-06 06:13 J -34391479.49 -34391479.24 -34391478.97 0.0144 0.0033

Moon -98872-04-06 08:52 J -34391479.38 -34391479.13 -34391478.87 0.0144 0.0028 *

Moon -98871-04-11 14:37 J -34391109.15 -34391108.89 -34391108.62 0.0144 0.0035

Earth -98871-04-11 15:35 J -34391109.09 -34391108.85 -34391108.58 0.0144 0.0042 *

Earth -98870-04-16 23:44 J -34390738.64 -34390738.51 -34390738.33 0.0143 0.0115

Moon -98870-04-17 00:28 J -34390738.59 -34390738.48 -34390738.33 0.0143 0.0122 *

Mars -98863-06-19 23:16 J -34388117.70 -34388117.53 -34388117.33 0.0139 0.0105

Mars -98861-05-20 05:16 J -34387417.46 -34387417.28 -34387417.07 0.0138 0.0099

Mercury -98857-03-06 14:37 J -34386030.90 -34386030.89 -34386030.85 0.0136 0.0134

Mercury -98857-06-02 19:40 J -34385942.75 -34385942.68 -34385942.58 0.0136 0.0115

Mercury -98857-08-30 00:42 J -34385854.57 -34385854.47 -34385854.35 0.0135 0.0095

Mercury -98857-11-26 05:44 J -34385766.39 -34385766.26 -34385766.12 0.0135 0.0076

Mercury -98856-02-22 10:32 J -34385678.20 -34385678.06 -34385677.91 0.0135 0.0057

Mercury -98856-05-21 15:20 J -34385590.01 -34385589.86 -34385589.70 0.0135 0.0039

Mercury -98856-08-17 20:08 J -34385501.81 -34385501.66 -34385501.50 0.0135 0.0020

Mercury -98856-11-14 00:56 J -34385413.62 -34385413.46 -34385413.30 0.0135 0.0002

Mercury -98855-02-10 05:30 J -34385325.42 -34385325.27 -34385325.11 0.0135 0.0016

Mercury -98855-05-09 10:04 J -34385237.23 -34385237.08 -34385236.92 0.0135 0.0034

Mercury -98855-08-05 14:37 J -34385149.03 -34385148.89 -34385148.74 0.0135 0.0052

Mercury -98855-11-01 19:11 J -34385060.83 -34385060.70 -34385060.56 0.0134 0.0069

Mercury -98854-01-28 23:44 J -34384972.63 -34384972.51 -34384972.39 0.0134 0.0087

Mercury -98854-04-27 04:04 J -34384884.42 -34384884.33 -34384884.23 0.0134 0.0104

Mercury -98854-07-24 08:37 J -34384796.21 -34384796.14 -34384796.08 0.0134 0.0121

Venus	-98853-11-16 19:40 J	-34384314.85	-34384314.68	-34384314.52	0.0134	0.0088
Venus	-98852-07-01 01:11 J	-34384088.65	-34384088.45	-34384088.22	0.0133	0.0033
Venus	-98851-02-12 06:56 J	-34383862.42	-34383862.21	-34383861.99	0.0133	0.0024
Venus	-98851-09-26 12:13 J	-34383636.15	-34383635.99	-34383635.80	0.0133	0.0079
Moon	-98830-10-01 05:59 J	-34375961.25	-34375961.25	-34375961.23	0.0134	0.0134
Earth	-98830-10-01 07:54 J	-34375961.21	-34375961.17	-34375961.08	0.0134	0.0129
Earth	-98829-10-04 08:37 J	-34375592.33	-34375592.14	-34375591.93	0.0134	0.0075
Moon	-98829-10-04 10:32 J	-34375592.25	-34375592.06	-34375591.85	0.0134	0.0073 *
Moon	-98828-10-08 06:56 J	-34375223.46	-34375223.21	-34375222.96	0.0134	0.0023
Earth	-98828-10-08 09:35 J	-34375223.34	-34375223.10	-34375222.86	0.0134	0.0021 *
Earth	-98827-10-12 10:47 J	-34374854.29	-34374854.05	-34374853.81	0.0135	0.0033
Moon	-98827-10-12 12:42 J	-34374854.20	-34374853.97	-34374853.73	0.0135	0.0031 *
Moon	-98826-10-16 09:35 J	-34374485.26	-34374485.10	-34374484.90	0.0135	0.0093
Earth	-98826-10-16 12:13 J	-34374485.16	-34374484.99	-34374484.79	0.0135	0.0089 *
Mars	-98817-07-11 06:56 J	-34371294.54	-34371294.21	-34371293.88	0.0140	0.0005
Mercury	-98812-01-25 07:25 J	-34369635.26	-34369635.19	-34369635.11	0.0143	0.0123
Mercury	-98812-04-23 12:13 J	-34369547.08	-34369546.99	-34369546.87	0.0143	0.0103
Mercury	-98812-07-20 17:30 J	-34369458.89	-34369458.77	-34369458.64	0.0143	0.0082
Mercury	-98812-10-16 22:32 J	-34369370.69	-34369370.56	-34369370.41	0.0143	0.0061
Mercury	-98811-01-13 03:49 J	-34369282.49	-34369282.34	-34369282.19	0.0144	0.0040
Mercury	-98811-04-11 09:06 J	-34369194.28	-34369194.12	-34369193.97	0.0144	0.0018
Mercury	-98811-07-08 14:23 J	-34369106.06	-34369105.90	-34369105.74	0.0144	0.0003
Mercury	-98811-10-04 19:40 J	-34369017.83	-34369017.68	-34369017.52	0.0144	0.0025
Mercury	-98810-01-01 01:11 J	-34368929.60	-34368929.45	-34368929.30	0.0144	0.0048
Mercury	-98810-03-30 06:28 J	-34368841.36	-34368841.23	-34368841.09	0.0144	0.0070
Mercury	-98810-06-26 11:59 J	-34368753.12	-34368753.00	-34368752.87	0.0144	0.0093
Mercury	-98810-09-22 17:30 J	-34368664.86	-34368664.77	-34368664.67	0.0144	0.0116
Mercury	-98810-12-19 23:01 J	-34368576.57	-34368576.54	-34368576.49	0.0145	0.0139
Venus	-98809-11-07 00:42 J	-34368253.58	-34368253.47	-34368253.33	0.0145	0.0116
Venus	-98808-06-21 12:13 J	-34368027.19	-34368026.99	-34368026.78	0.0145	0.0045

Venus	-98807-02-02 23:59 J	-34367800.72	-34367800.50	-34367800.29	0.0146	0.0027
Venus	-98807-09-17 11:44 J	-34367574.16	-34367574.01	-34367573.85	0.0146	0.0099
Moon	-98789-04-01 01:54 J	-34361168.59	-34361168.42	-34361168.23	0.0145	0.0105
Earth	-98789-04-01 05:30 J	-34361168.44	-34361168.27	-34361168.07	0.0145	0.0103 *
Earth	-98788-04-06 15:35 J	-34360798.11	-34360797.85	-34360797.59	0.0144	0.0029
Moon	-98788-04-06 17:59 J	-34360797.99	-34360797.75	-34360797.49	0.0144	0.0034 *
Moon	-98787-04-11 22:04 J	-34360427.82	-34360427.58	-34360427.31	0.0144	0.0052
Earth	-98787-04-12 00:42 J	-34360427.71	-34360427.47	-34360427.21	0.0144	0.0045 *
Earth	-98786-04-17 08:52 J	-34360057.27	-34360057.13	-34360056.97	0.0143	0.0116
Moon	-98786-04-17 09:49 J	-34360057.24	-34360057.09	-34360056.92	0.0143	0.0110 *
Mars	-98778-02-12 11:44 J	-34357199.28	-34357199.01	-34357198.72	0.0139	0.0030
Mercury	-98773-03-26 21:49 J	-34355329.63	-34355329.59	-34355329.54	0.0136	0.0130
Mercury	-98773-06-23 02:52 J	-34355241.47	-34355241.38	-34355241.29	0.0136	0.0111
Mercury	-98773-09-19 07:40 J	-34355153.29	-34355153.18	-34355153.06	0.0135	0.0092
Mercury	-98773-12-16 12:42 J	-34355065.10	-34355064.97	-34355064.84	0.0135	0.0073
Mercury	-98772-03-14 17:30 J	-34354976.91	-34354976.77	-34354976.62	0.0135	0.0054
Mercury	-98772-06-10 22:18 J	-34354888.72	-34354888.57	-34354888.42	0.0135	0.0035
Mercury	-98772-09-07 03:06 J	-34354800.53	-34354800.37	-34354800.21	0.0135	0.0017
Mercury	-98772-12-04 07:40 J	-34354712.33	-34354712.18	-34354712.02	0.0135	0.0004
Mercury	-98771-03-02 12:28 J	-34354624.14	-34354623.98	-34354623.83	0.0135	0.0019
Mercury	-98771-05-29 17:01 J	-34354535.94	-34354535.79	-34354535.64	0.0135	0.0037
Mercury	-98771-08-25 21:35 J	-34354447.74	-34354447.60	-34354447.46	0.0135	0.0055
Mercury	-98771-11-22 01:54 J	-34354359.54	-34354359.42	-34354359.28	0.0134	0.0073
Mercury	-98770-02-18 06:28 J	-34354271.34	-34354271.23	-34354271.11	0.0134	0.0090
Mercury	-98770-05-17 11:01 J	-34354183.13	-34354183.04	-34354182.95	0.0134	0.0107
Mercury	-98770-08-13 15:20 J	-34354094.92	-34354094.86	-34354094.80	0.0134	0.0124
Venus	-98769-07-17 03:49 J	-34353756.43	-34353756.34	-34353756.22	0.0134	0.0117
Venus	-98768-02-28 09:49 J	-34353530.27	-34353530.09	-34353529.88	0.0134	0.0061
Venus	-98768-10-12 15:49 J	-34353304.06	-34353303.84	-34353303.62	0.0133	0.0005
Venus	-98767-05-26 21:20 J	-34353077.80	-34353077.61	-34353077.40	0.0133	0.0051

Venus -98766-01-08 02:37 J -34352851.51 -34352851.39 -34352851.24 0.0133 0.0106

Moon -98746-10-01 15:49 J -34345279.93 -34345279.84 -34345279.71 0.0134 0.0120

Earth -98746-10-01 18:42 J -34345279.80 -34345279.72 -34345279.63 0.0134 0.0125 *

Earth -98745-10-04 18:56 J -34344910.91 -34344910.71 -34344910.50 0.0134 0.0072

Moon -98745-10-04 21:49 J -34344910.78 -34344910.59 -34344910.38 0.0134 0.0076 *

Moon -98744-10-08 17:16 J -34344542.02 -34344541.78 -34344541.53 0.0134 0.0018

Earth -98744-10-08 19:54 J -34344541.91 -34344541.67 -34344541.42 0.0134 0.0019 *

Earth -98743-10-12 20:52 J -34344172.86 -34344172.63 -34344172.38 0.0135 0.0036

Moon -98743-10-12 23:44 J -34344172.73 -34344172.51 -34344172.27 0.0135 0.0038 *

Moon -98742-10-16 19:40 J -34343803.85 -34343803.68 -34343803.47 0.0135 0.0087

Earth -98742-10-16 22:47 J -34343803.72 -34343803.55 -34343803.36 0.0135 0.0091 *

Mars -98732-03-07 07:11 J -34340374.42 -34340374.20 -34340373.95 0.0141 0.0098

Mercury -98729-11-18 09:35 J -34339022.13 -34339022.10 -34339022.07 0.0143 0.0139

Mercury -98728-02-14 14:23 J -34338933.98 -34338933.90 -34338933.81 0.0143 0.0119

Mercury -98728-05-13 19:40 J -34338845.79 -34338845.68 -34338845.57 0.0143 0.0099

Mercury -98728-08-10 00:28 J -34338757.60 -34338757.48 -34338757.34 0.0143 0.0078

Mercury -98728-11-06 05:44 J -34338669.40 -34338669.26 -34338669.12 0.0143 0.0057

Mercury -98727-02-02 11:01 J -34338581.19 -34338581.04 -34338580.89 0.0144 0.0036

Mercury -98727-05-01 16:04 J -34338492.98 -34338492.83 -34338492.67 0.0144 0.0015

Mercury -98727-07-28 21:20 J -34338404.76 -34338404.61 -34338404.45 0.0144 0.0009

Mercury -98727-10-25 02:37 J -34338316.54 -34338316.39 -34338316.23 0.0144 0.0030

Mercury -98726-01-21 08:08 J -34338228.30 -34338228.16 -34338228.01 0.0144 0.0052

Mercury -98726-04-19 13:40 J -34338140.06 -34338139.93 -34338139.79 0.0144 0.0074

Mercury -98726-07-16 18:56 J -34338051.82 -34338051.71 -34338051.58 0.0144 0.0098

Mercury -98726-10-13 00:28 J -34337963.55 -34337963.48 -34337963.38 0.0144 0.0120

Mercury -98725-01-09 05:59 J -34337875.25 -34337875.25 -34337875.21 0.0145 0.0144

Venus -98724-02-18 18:28 J -34337468.91 -34337468.73 -34337468.55 0.0145 0.0080

Venus -98724-10-03 05:59 J -34337242.46 -34337242.25 -34337242.03 0.0145 0.0009

Venus -98723-05-17 17:44 J -34337015.95 -34337015.76 -34337015.56 0.0146 0.0063

Venus -98723-12-30 05:16 J -34336789.33 -34336789.28 -34336789.18 0.0146 0.0136

Moon -98705-04-01 10:47 J -34330487.24 -34330487.05 -34330486.85 0.0145 0.0098
 Earth -98705-04-01 14:23 J -34330487.08 -34330486.90 -34330486.70 0.0145 0.0099 *
 Earth -98704-04-07 00:13 J -34330116.75 -34330116.49 -34330116.23 0.0144 0.0025
 Moon -98704-04-07 03:35 J -34330116.60 -34330116.35 -34330116.09 0.0144 0.0022 *
 Moon -98703-04-12 06:42 J -34329746.47 -34329746.22 -34329745.95 0.0144 0.0041
 Earth -98703-04-12 09:20 J -34329746.35 -34329746.11 -34329745.85 0.0144 0.0048 *
 Earth -98702-04-17 17:30 J -34329375.91 -34329375.77 -34329375.62 0.0143 0.0119
 Moon -98702-04-17 19:11 J -34329375.80 -34329375.70 -34329375.56 0.0143 0.0127 *
 Mars -98694-10-07 23:30 J -34326280.78 -34326280.52 -34326280.24 0.0138 0.0044
 Mercury -98689-04-16 04:47 J -34324628.35 -34324628.30 -34324628.24 0.0136 0.0126
 Mercury -98689-07-13 09:49 J -34324540.18 -34324540.09 -34324539.99 0.0136 0.0107
 Mercury -98689-10-09 14:52 J -34324452.00 -34324451.88 -34324451.76 0.0136 0.0088
 Mercury -98688-01-05 19:40 J -34324363.81 -34324363.68 -34324363.54 0.0135 0.0069
 Mercury -98688-04-04 00:28 J -34324275.62 -34324275.48 -34324275.33 0.0135 0.0050
 Mercury -98688-07-01 05:16 J -34324187.43 -34324187.28 -34324187.12 0.0135 0.0032
 Mercury -98688-09-27 10:04 J -34324099.24 -34324099.08 -34324098.92 0.0135 0.0013
 Mercury -98688-12-24 14:52 J -34324011.04 -34324010.88 -34324010.73 0.0135 0.0006
 Mercury -98687-03-22 19:25 J -34323922.84 -34323922.69 -34323922.53 0.0135 0.0023
 Mercury -98687-06-18 23:59 J -34323834.65 -34323834.50 -34323834.35 0.0135 0.0041
 Mercury -98687-09-15 04:32 J -34323746.45 -34323746.31 -34323746.17 0.0135 0.0059
 Mercury -98687-12-12 09:06 J -34323658.25 -34323658.12 -34323657.99 0.0134 0.0076
 Mercury -98686-03-10 13:25 J -34323570.04 -34323569.94 -34323569.82 0.0134 0.0093
 Mercury -98686-06-06 17:44 J -34323481.83 -34323481.76 -34323481.66 0.0134 0.0111
 Mercury -98686-09-02 22:18 J -34323393.61 -34323393.57 -34323393.52 0.0134 0.0127
 Venus -98685-10-28 19:11 J -34322971.86 -34322971.70 -34322971.53 0.0134 0.0088
 Venus -98684-06-12 01:11 J -34322745.66 -34322745.45 -34322745.23 0.0133 0.0032
 Venus -98683-01-24 06:56 J -34322519.42 -34322519.21 -34322518.99 0.0133 0.0024
 Venus -98683-09-07 12:28 J -34322293.15 -34322292.98 -34322292.80 0.0133 0.0079
 Moon -98662-10-02 01:25 J -34314598.49 -34314598.44 -34314598.35 0.0134 0.0128
 Earth -98662-10-02 04:32 J -34314598.39 -34314598.31 -34314598.19 0.0134 0.0122 *

Earth -98661-10-05 05:01 J -34314229.48 -34314229.29 -34314229.07 0.0134 0.0069
 Moon -98661-10-05 07:54 J -34314229.37 -34314229.17 -34314228.95 0.0134 0.0066 *
 Moon -98660-10-09 02:37 J -34313860.63 -34313860.39 -34313860.14 0.0134 0.0018
 Earth -98660-10-09 06:13 J -34313860.49 -34313860.24 -34313860.00 0.0134 0.0016 *
 Earth -98659-10-13 07:11 J -34313491.43 -34313491.20 -34313490.96 0.0135 0.0038
 Moon -98659-10-13 10:18 J -34313491.30 -34313491.07 -34313490.83 0.0135 0.0037 *
 Moon -98658-10-17 05:44 J -34313122.42 -34313122.26 -34313122.08 0.0135 0.0097
 Earth -98658-10-17 09:06 J -34313122.29 -34313122.12 -34313121.94 0.0135 0.0093 *
 Mars -98650-11-26 15:35 J -34310160.14 -34310159.85 -34310159.54 0.0140 0.0062
 Mercury -98645-12-08 16:32 J -34308320.85 -34308320.81 -34308320.76 0.0143 0.0135
 Mercury -98644-03-06 21:20 J -34308232.69 -34308232.61 -34308232.51 0.0143 0.0115
 Mercury -98644-06-03 02:37 J -34308144.50 -34308144.39 -34308144.28 0.0143 0.0094
 Mercury -98644-08-30 07:40 J -34308056.31 -34308056.18 -34308056.05 0.0143 0.0074
 Mercury -98644-11-26 12:42 J -34307968.11 -34307967.97 -34307967.82 0.0143 0.0053
 Mercury -98643-02-22 17:59 J -34307879.90 -34307879.75 -34307879.60 0.0144 0.0031
 Mercury -98643-05-21 23:16 J -34307791.69 -34307791.53 -34307791.38 0.0144 0.0010
 Mercury -98643-08-18 04:32 J -34307703.47 -34307703.31 -34307703.16 0.0144 0.0012
 Mercury -98643-11-14 09:49 J -34307615.24 -34307615.09 -34307614.94 0.0144 0.0034
 Mercury -98642-02-10 15:06 J -34307527.01 -34307526.87 -34307526.72 0.0144 0.0056
 Mercury -98642-05-09 20:23 J -34307438.77 -34307438.65 -34307438.50 0.0144 0.0080
 Mercury -98642-08-06 02:08 J -34307350.52 -34307350.41 -34307350.29 0.0144 0.0101
 Mercury -98642-11-02 07:40 J -34307262.25 -34307262.18 -34307262.09 0.0144 0.0124
 Venus -98641-10-19 00:28 J -34306910.60 -34306910.48 -34306910.34 0.0145 0.0116
 Venus -98640-06-02 11:59 J -34306684.20 -34306684.00 -34306683.79 0.0145 0.0045
 Venus -98639-01-14 23:30 J -34306457.73 -34306457.52 -34306457.30 0.0145 0.0026
 Venus -98639-08-29 11:16 J -34306231.18 -34306231.03 -34306230.86 0.0146 0.0099
 Moon -98621-04-01 17:59 J -34299805.94 -34299805.75 -34299805.56 0.0145 0.0099
 Earth -98621-04-01 21:20 J -34299805.78 -34299805.61 -34299805.39 0.0145 0.0097 *
 Earth -98620-04-07 07:25 J -34299435.44 -34299435.19 -34299434.92 0.0144 0.0024
 Moon -98620-04-07 11:01 J -34299435.29 -34299435.04 -34299434.78 0.0144 0.0027 *

Moon	-98619-04-12 13:11 J	-34299065.19	-34299064.95	-34299064.69	0.0144	0.0056
Earth	-98619-04-12 16:32 J	-34299065.05	-34299064.81	-34299064.55	0.0144	0.0049 *
Earth	-98618-04-18 00:13 J	-34298694.61	-34298694.49	-34298694.33	0.0143	0.0120
Moon	-98618-04-18 02:52 J	-34298694.52	-34298694.38	-34298694.21	0.0143	0.0113 *
Mars	-98611-07-02 01:54 J	-34296062.63	-34296062.42	-34296062.18	0.0139	0.0086
Mars	-98609-06-01 09:20 J	-34295362.25	-34295362.11	-34295361.94	0.0138	0.0116
Mercury	-98605-05-06 11:16 J	-34293927.08	-34293927.03	-34293926.95	0.0136	0.0124
Mercury	-98605-08-02 16:32 J	-34293838.91	-34293838.81	-34293838.71	0.0136	0.0104
Mercury	-98605-10-29 21:35 J	-34293750.73	-34293750.60	-34293750.48	0.0136	0.0085
Mercury	-98604-01-26 02:08 J	-34293662.54	-34293662.41	-34293662.26	0.0135	0.0067
Mercury	-98604-04-24 07:11 J	-34293574.35	-34293574.20	-34293574.05	0.0135	0.0047
Mercury	-98604-07-21 11:59 J	-34293486.15	-34293486.00	-34293485.84	0.0135	0.0029
Mercury	-98604-10-17 16:47 J	-34293397.96	-34293397.80	-34293397.64	0.0135	0.0010
Mercury	-98603-01-13 21:20 J	-34293309.76	-34293309.61	-34293309.45	0.0135	0.0009
Mercury	-98603-04-12 02:08 J	-34293221.57	-34293221.41	-34293221.26	0.0135	0.0026
Mercury	-98603-07-09 06:42 J	-34293133.37	-34293133.22	-34293133.07	0.0135	0.0044
Mercury	-98603-10-05 11:01 J	-34293045.17	-34293045.04	-34293044.89	0.0135	0.0062
Mercury	-98602-01-01 15:49 J	-34292956.97	-34292956.84	-34292956.72	0.0134	0.0079
Mercury	-98602-03-30 19:54 J	-34292868.76	-34292868.67	-34292868.55	0.0134	0.0097
Mercury	-98602-06-27 00:28 J	-34292780.55	-34292780.48	-34292780.39	0.0134	0.0113
Mercury	-98602-09-23 04:47 J	-34292692.32	-34292692.30	-34292692.25	0.0134	0.0130
Venus	-98601-06-28 03:20 J	-34292413.45	-34292413.36	-34292413.24	0.0134	0.0117
Venus	-98600-02-09 09:20 J	-34292187.29	-34292187.11	-34292186.90	0.0134	0.0061
Venus	-98600-09-23 15:35 J	-34291961.07	-34291960.85	-34291960.63	0.0133	0.0004
Venus	-98599-05-07 21:06 J	-34291734.81	-34291734.62	-34291734.41	0.0133	0.0052
Venus	-98599-12-20 02:37 J	-34291508.51	-34291508.39	-34291508.25	0.0133	0.0107
Moon	-98578-10-02 11:16 J	-34283917.16	-34283917.03	-34283916.90	0.0134	0.0113
Earth	-98578-10-02 14:23 J	-34283917.00	-34283916.90	-34283916.78	0.0134	0.0119 *
Earth	-98577-10-05 14:23 J	-34283548.09	-34283547.90	-34283547.67	0.0134	0.0067
Moon	-98577-10-05 18:13 J	-34283547.94	-34283547.74	-34283547.53	0.0134	0.0071 *

Moon -98576-10-09 12:28 J -34283179.23 -34283178.98 -34283178.74 0.0134 0.0012
 Earth -98576-10-09 15:35 J -34283179.09 -34283178.85 -34283178.60 0.0134 0.0014 *
 Earth -98575-10-13 16:47 J -34282810.03 -34282809.80 -34282809.56 0.0135 0.0040
 Moon -98575-10-13 20:08 J -34282809.89 -34282809.66 -34282809.43 0.0135 0.0042 *
 Moon -98574-10-17 15:20 J -34282441.04 -34282440.86 -34282440.68 0.0135 0.0092
 Earth -98574-10-17 18:28 J -34282440.89 -34282440.73 -34282440.54 0.0135 0.0095 *
 Mars -98565-07-22 12:28 J -34279240.30 -34279239.98 -34279239.64 0.0140 0.0028
 Mercury -98561-12-28 23:16 J -34277619.57 -34277619.53 -34277619.46 0.0143 0.0132
 Mercury -98560-03-27 04:18 J -34277531.41 -34277531.32 -34277531.22 0.0143 0.0112
 Mercury -98560-06-23 09:20 J -34277443.22 -34277443.11 -34277442.98 0.0143 0.0091
 Mercury -98560-09-19 14:23 J -34277355.02 -34277354.90 -34277354.76 0.0143 0.0070
 Mercury -98560-12-16 19:40 J -34277266.82 -34277266.68 -34277266.53 0.0143 0.0049
 Mercury -98559-03-15 00:56 J -34277178.61 -34277178.46 -34277178.31 0.0144 0.0028
 Mercury -98559-06-11 06:13 J -34277090.40 -34277090.24 -34277090.09 0.0144 0.0007
 Mercury -98559-09-07 11:30 J -34277002.18 -34277002.02 -34277001.87 0.0144 0.0016
 Mercury -98559-12-04 16:47 J -34276913.95 -34276913.80 -34276913.65 0.0144 0.0038
 Mercury -98558-03-02 22:04 J -34276825.72 -34276825.58 -34276825.43 0.0144 0.0060
 Mercury -98558-05-30 03:35 J -34276737.48 -34276737.35 -34276737.22 0.0144 0.0083
 Mercury -98558-08-26 09:06 J -34276649.22 -34276649.12 -34276649.01 0.0144 0.0105
 Mercury -98558-11-22 14:37 J -34276560.95 -34276560.89 -34276560.81 0.0144 0.0128
 Venus -98556-01-30 17:16 J -34276125.94 -34276125.78 -34276125.58 0.0145 0.0082
 Venus -98556-09-14 05:01 J -34275899.50 -34275899.29 -34275899.07 0.0145 0.0011
 Venus -98555-04-28 16:47 J -34275672.99 -34275672.80 -34275672.60 0.0146 0.0062
 Venus -98555-12-11 04:47 J -34275446.38 -34275446.30 -34275446.22 0.0146 0.0134
 Moon -98537-04-02 00:56 J -34269124.65 -34269124.46 -34269124.25 0.0145 0.0092
 Earth -98537-04-02 04:47 J -34269124.50 -34269124.30 -34269124.10 0.0145 0.0094 *
 Earth -98536-04-07 14:23 J -34268754.16 -34268753.90 -34268753.64 0.0144 0.0022
 Moon -98536-04-07 18:13 J -34268753.99 -34268753.74 -34268753.47 0.0144 0.0019 *
 Moon -98535-04-12 19:54 J -34268383.92 -34268383.67 -34268383.42 0.0144 0.0044
 Earth -98535-04-12 23:30 J -34268383.77 -34268383.52 -34268383.28 0.0144 0.0050 *

Earth -98534-04-18 07:11 J -34268013.33 -34268013.20 -34268013.05 0.0143 0.0121
 Moon -98534-04-18 10:04 J -34268013.18 -34268013.08 -34268012.95 0.0143 0.0129 *
 Mars -98526-02-24 14:08 J -34265144.20 -34265143.91 -34265143.62 0.0139 0.0013
 Mercury -98521-05-26 17:59 J -34263225.81 -34263225.75 -34263225.67 0.0136 0.0121
 Mercury -98521-08-22 23:01 J -34263137.64 -34263137.54 -34263137.42 0.0136 0.0102
 Mercury -98521-11-19 04:04 J -34263049.45 -34263049.33 -34263049.20 0.0135 0.0082
 Mercury -98520-02-15 08:52 J -34262961.26 -34262961.13 -34262960.98 0.0135 0.0064
 Mercury -98520-05-14 13:54 J -34262873.07 -34262872.92 -34262872.77 0.0135 0.0044
 Mercury -98520-08-10 18:42 J -34262784.88 -34262784.72 -34262784.56 0.0135 0.0026
 Mercury -98520-11-06 23:30 J -34262696.68 -34262696.52 -34262696.36 0.0135 0.0008
 Mercury -98519-02-03 04:04 J -34262608.48 -34262608.33 -34262608.17 0.0135 0.0011
 Mercury -98519-05-02 08:52 J -34262520.29 -34262520.13 -34262519.98 0.0135 0.0029
 Mercury -98519-07-29 13:25 J -34262432.09 -34262431.94 -34262431.79 0.0135 0.0046
 Mercury -98519-10-25 17:44 J -34262343.89 -34262343.76 -34262343.61 0.0135 0.0065
 Mercury -98518-01-21 22:32 J -34262255.68 -34262255.56 -34262255.44 0.0134 0.0082
 Mercury -98518-04-20 03:06 J -34262167.48 -34262167.37 -34262167.27 0.0134 0.0099
 Mercury -98518-07-17 07:11 J -34262079.26 -34262079.20 -34262079.11 0.0134 0.0116
 Mercury -98518-10-13 11:30 J -34261991.02 -34261991.02 -34261990.99 0.0134 0.0133
 Venus -98517-10-09 17:59 J -34261628.90 -34261628.75 -34261628.58 0.0134 0.0089
 Venus -98516-05-24 00:13 J -34261402.70 -34261402.49 -34261402.27 0.0133 0.0032
 Venus -98515-01-05 05:59 J -34261176.46 -34261176.25 -34261176.03 0.0133 0.0024
 Venus -98515-08-19 11:44 J -34260950.18 -34260950.01 -34260949.83 0.0133 0.0079
 Moon -98494-10-02 20:23 J -34253235.74 -34253235.65 -34253235.56 0.0134 0.0123
 Earth -98494-10-02 23:59 J -34253235.62 -34253235.50 -34253235.38 0.0134 0.0116 *
 Earth -98493-10-06 00:13 J -34252866.70 -34252866.49 -34252866.27 0.0134 0.0064
 Moon -98493-10-06 03:35 J -34252866.56 -34252866.35 -34252866.13 0.0134 0.0060 *
 Moon -98492-10-09 21:35 J -34252497.85 -34252497.60 -34252497.36 0.0134 0.0014
 Earth -98492-10-10 01:11 J -34252497.69 -34252497.45 -34252497.21 0.0134 0.0012 *
 Earth -98491-10-14 02:23 J -34252128.63 -34252128.40 -34252128.17 0.0135 0.0042
 Moon -98491-10-14 05:44 J -34252128.49 -34252128.26 -34252128.02 0.0135 0.0042 *

Moon -98490-10-18 00:28 J -34251759.62 -34251759.48 -34251759.29 0.0135 0.0101
 Earth -98490-10-18 04:04 J -34251759.48 -34251759.33 -34251759.14 0.0135 0.0096 *
 Mars -98482-04-12 22:18 J -34249025.66 -34249025.57 -34249025.41 0.0139 0.0130
 Mars -98480-03-18 10:47 J -34248320.22 -34248320.05 -34248319.86 0.0141 0.0118
 Mercury -98476-01-18 06:13 J -34246918.29 -34246918.24 -34246918.16 0.0143 0.0128
 Mercury -98476-04-16 11:16 J -34246830.12 -34246830.03 -34246829.92 0.0143 0.0108
 Mercury -98476-07-13 16:18 J -34246741.93 -34246741.82 -34246741.69 0.0143 0.0087
 Mercury -98476-10-09 21:20 J -34246653.74 -34246653.61 -34246653.46 0.0143 0.0067
 Mercury -98475-01-06 02:37 J -34246565.53 -34246565.39 -34246565.24 0.0143 0.0045
 Mercury -98475-04-04 07:54 J -34246477.32 -34246477.17 -34246477.02 0.0144 0.0024
 Mercury -98475-07-01 13:11 J -34246389.11 -34246388.95 -34246388.80 0.0144 0.0003
 Mercury -98475-09-27 18:28 J -34246300.89 -34246300.73 -34246300.58 0.0144 0.0020
 Mercury -98475-12-24 23:44 J -34246212.66 -34246212.51 -34246212.36 0.0144 0.0042
 Mercury -98474-03-23 05:01 J -34246124.42 -34246124.29 -34246124.14 0.0144 0.0064
 Mercury -98474-06-19 10:47 J -34246036.18 -34246036.05 -34246035.93 0.0144 0.0087
 Mercury -98474-09-15 16:04 J -34245947.93 -34245947.83 -34245947.72 0.0144 0.0109
 Mercury -98474-12-12 21:35 J -34245859.65 -34245859.60 -34245859.53 0.0144 0.0132
 Venus -98473-09-29 23:16 J -34245567.63 -34245567.53 -34245567.38 0.0145 0.0118
 Venus -98472-05-14 10:47 J -34245341.24 -34245341.05 -34245340.84 0.0145 0.0047
 Venus -98472-12-26 22:18 J -34245114.78 -34245114.57 -34245114.35 0.0145 0.0025
 Venus -98471-08-10 10:18 J -34244888.23 -34244888.07 -34244887.91 0.0146 0.0097
 Moon -98453-04-02 07:40 J -34238443.37 -34238443.18 -34238442.98 0.0145 0.0096
 Earth -98453-04-02 11:01 J -34238443.23 -34238443.04 -34238442.83 0.0145 0.0093 *
 Earth -98452-04-07 20:52 J -34238072.89 -34238072.63 -34238072.37 0.0144 0.0021
 Moon -98452-04-08 00:13 J -34238072.75 -34238072.49 -34238072.22 0.0144 0.0023 *
 Moon -98451-04-13 01:40 J -34237702.66 -34237702.43 -34237702.18 0.0144 0.0058
 Earth -98451-04-13 05:30 J -34237702.51 -34237702.27 -34237702.01 0.0144 0.0051 *
 Earth -98450-04-18 12:56 J -34237332.07 -34237331.96 -34237331.80 0.0143 0.0122
 Moon -98450-04-18 16:47 J -34237331.94 -34237331.80 -34237331.63 0.0143 0.0114 *
 Mars -98442-10-19 22:04 J -34234225.83 -34234225.58 -34234225.31 0.0138 0.0059

Mercury -98437-06-16 00:28 J -34232524.55 -34232524.48 -34232524.39 0.0136 0.0119

Mercury -98437-09-12 05:30 J -34232436.37 -34232436.27 -34232436.15 0.0136 0.0099

Mercury -98437-12-09 10:32 J -34232348.19 -34232348.06 -34232347.93 0.0135 0.0080

Mercury -98436-03-07 15:20 J -34232259.99 -34232259.86 -34232259.71 0.0135 0.0062

Mercury -98436-06-03 20:23 J -34232171.80 -34232171.65 -34232171.50 0.0135 0.0043

Mercury -98436-08-31 01:11 J -34232083.61 -34232083.45 -34232083.29 0.0135 0.0024

Mercury -98436-11-27 05:59 J -34231995.41 -34231995.25 -34231995.09 0.0135 0.0006

Mercury -98435-02-23 10:32 J -34231907.21 -34231907.06 -34231906.90 0.0135 0.0013

Mercury -98435-05-22 15:20 J -34231819.02 -34231818.86 -34231818.71 0.0135 0.0031

Mercury -98435-08-18 19:54 J -34231730.82 -34231730.67 -34231730.52 0.0135 0.0048

Mercury -98435-11-15 00:13 J -34231642.61 -34231642.49 -34231642.34 0.0135 0.0067

Mercury -98434-02-11 05:01 J -34231554.41 -34231554.29 -34231554.17 0.0134 0.0083

Mercury -98434-05-10 09:35 J -34231466.20 -34231466.10 -34231466.00 0.0134 0.0101

Mercury -98434-08-06 13:40 J -34231377.99 -34231377.93 -34231377.84 0.0134 0.0118

Venus -98433-06-09 01:40 J -34231070.52 -34231070.43 -34231070.32 0.0134 0.0119

Venus -98432-01-21 08:08 J -34230844.36 -34230844.16 -34230843.97 0.0134 0.0062

Venus -98432-09-04 14:08 J -34230618.13 -34230617.91 -34230617.69 0.0133 0.0006

Venus -98431-04-18 20:08 J -34230391.86 -34230391.66 -34230391.46 0.0133 0.0050

Venus -98431-12-01 01:25 J -34230165.56 -34230165.44 -34230165.30 0.0133 0.0106

Moon -98410-10-03 05:16 J -34222554.40 -34222554.28 -34222554.12 0.0134 0.0109

Earth -98410-10-03 08:37 J -34222554.25 -34222554.14 -34222554.00 0.0134 0.0115 *

Earth -98409-10-06 09:20 J -34222185.33 -34222185.11 -34222184.89 0.0134 0.0062

Moon -98409-10-06 12:42 J -34222185.17 -34222184.97 -34222184.74 0.0134 0.0067 *

Moon -98408-10-10 06:56 J -34221816.45 -34221816.21 -34221815.96 0.0134 0.0007

Earth -98408-10-10 10:18 J -34221816.31 -34221816.07 -34221815.82 0.0134 0.0010 *

Earth -98407-10-14 11:30 J -34221447.24 -34221447.02 -34221446.78 0.0135 0.0044

Moon -98407-10-14 15:06 J -34221447.10 -34221446.87 -34221446.64 0.0135 0.0045 *

Moon -98406-10-18 09:49 J -34221078.24 -34221078.09 -34221077.90 0.0135 0.0096

Earth -98406-10-18 13:25 J -34221078.10 -34221077.94 -34221077.76 0.0135 0.0098 *

Mars -98398-12-07 17:44 J -34218106.07 -34218105.76 -34218105.44 0.0140 0.0042

Mercury -98392-02-07 13:25 J -34216217.01 -34216216.94 -34216216.87 0.0143 0.0124

Mercury -98392-05-06 18:13 J -34216128.83 -34216128.74 -34216128.63 0.0143 0.0104

Mercury -98392-08-02 23:30 J -34216040.65 -34216040.52 -34216040.40 0.0143 0.0083

Mercury -98392-10-30 04:32 J -34215952.45 -34215952.31 -34215952.17 0.0143 0.0062

Mercury -98391-01-26 09:35 J -34215864.24 -34215864.10 -34215863.95 0.0143 0.0041

Mercury -98391-04-24 14:52 J -34215776.03 -34215775.88 -34215775.73 0.0144 0.0020

Mercury -98391-07-21 20:08 J -34215687.82 -34215687.66 -34215687.51 0.0144 0.0002

Mercury -98391-10-18 01:25 J -34215599.60 -34215599.44 -34215599.29 0.0144 0.0023

Mercury -98390-01-14 06:42 J -34215511.37 -34215511.22 -34215511.07 0.0144 0.0046

Mercury -98390-04-12 11:59 J -34215423.13 -34215423.00 -34215422.85 0.0144 0.0068

Mercury -98390-07-09 17:30 J -34215334.89 -34215334.77 -34215334.64 0.0144 0.0090

Mercury -98390-10-05 23:01 J -34215246.63 -34215246.54 -34215246.44 0.0144 0.0113

Mercury -98389-01-02 04:32 J -34215158.35 -34215158.31 -34215158.25 0.0144 0.0136

Venus -98388-01-11 16:32 J -34214782.98 -34214782.81 -34214782.62 0.0145 0.0084

Venus -98388-08-26 04:04 J -34214556.54 -34214556.33 -34214556.11 0.0145 0.0012

Venus -98387-04-09 15:35 J -34214330.04 -34214329.85 -34214329.65 0.0145 0.0060

Venus -98387-11-22 03:06 J -34214103.43 -34214103.37 -34214103.26 0.0146 0.0133

Moon -98369-04-02 15:20 J -34207762.05 -34207761.86 -34207761.65 0.0145 0.0087

Earth -98369-04-02 17:59 J -34207761.95 -34207761.75 -34207761.54 0.0145 0.0091 *

Earth -98368-04-08 03:35 J -34207391.61 -34207391.35 -34207391.09 0.0144 0.0019

Moon -98368-04-08 07:11 J -34207391.46 -34207391.20 -34207390.93 0.0144 0.0017 *

Moon -98367-04-13 08:23 J -34207021.38 -34207021.15 -34207020.89 0.0144 0.0047

Earth -98367-04-13 12:13 J -34207021.23 -34207020.99 -34207020.74 0.0144 0.0052 *

Earth -98366-04-18 20:08 J -34206650.79 -34206650.66 -34206650.51 0.0143 0.0122

Moon -98366-04-18 23:30 J -34206650.61 -34206650.52 -34206650.39 0.0143 0.0130 *

Mars -98359-07-13 23:44 J -34204007.75 -34204007.51 -34204007.26 0.0139 0.0072

Mars -98357-06-13 05:59 J -34203307.34 -34203307.25 -34203307.14 0.0138 0.0128

Mercury -98353-04-09 02:08 J -34201911.41 -34201911.41 -34201911.40 0.0136 0.0136

Mercury -98353-07-06 07:11 J -34201823.28 -34201823.20 -34201823.11 0.0136 0.0116

Mercury -98353-10-02 12:13 J -34201735.10 -34201734.99 -34201734.88 0.0136 0.0097

Mercury -98353-12-29 17:16 J -34201646.91 -34201646.78 -34201646.65 0.0135 0.0078

Mercury -98352-03-27 22:04 J -34201558.72 -34201558.58 -34201558.43 0.0135 0.0059

Mercury -98352-06-24 02:52 J -34201470.53 -34201470.38 -34201470.22 0.0135 0.0040

Mercury -98352-09-20 07:40 J -34201382.33 -34201382.18 -34201382.02 0.0135 0.0022

Mercury -98352-12-17 12:28 J -34201294.13 -34201293.98 -34201293.82 0.0135 0.0004

Mercury -98351-03-15 17:16 J -34201205.94 -34201205.78 -34201205.62 0.0135 0.0015

Mercury -98351-06-11 21:49 J -34201117.74 -34201117.59 -34201117.43 0.0135 0.0033

Mercury -98351-09-08 02:37 J -34201029.54 -34201029.39 -34201029.25 0.0135 0.0051

Mercury -98351-12-05 06:56 J -34200941.33 -34200941.21 -34200941.07 0.0135 0.0069

Mercury -98350-03-03 11:30 J -34200853.13 -34200853.02 -34200852.89 0.0134 0.0086

Mercury -98350-05-30 16:04 J -34200764.92 -34200764.83 -34200764.73 0.0134 0.0103

Mercury -98350-08-26 20:37 J -34200676.70 -34200676.64 -34200676.57 0.0134 0.0120

Venus -98349-09-20 15:49 J -34200285.98 -34200285.84 -34200285.66 0.0134 0.0092

Venus -98348-05-04 22:32 J -34200059.77 -34200059.56 -34200059.35 0.0133 0.0035

Venus -98348-12-17 04:32 J -34199833.53 -34199833.31 -34199833.09 0.0133 0.0022

Venus -98347-07-31 10:04 J -34199607.25 -34199607.08 -34199606.89 0.0133 0.0078

Venus -98346-03-14 15:35 J -34199380.85 -34199380.85 -34199380.83 0.0133 0.0133

Moon -98326-10-03 14:37 J -34191872.98 -34191872.89 -34191872.77 0.0134 0.0119

Earth -98326-10-03 17:59 J -34191872.86 -34191872.75 -34191872.60 0.0134 0.0112 *

Earth -98325-10-06 18:42 J -34191503.93 -34191503.72 -34191503.50 0.0134 0.0060

Moon -98325-10-06 21:49 J -34191503.81 -34191503.59 -34191503.36 0.0134 0.0055 *

Moon -98324-10-10 16:18 J -34191135.06 -34191134.82 -34191134.57 0.0134 0.0010

Earth -98324-10-10 19:40 J -34191134.92 -34191134.68 -34191134.43 0.0134 0.0008 *

Earth -98323-10-14 21:06 J -34190765.85 -34190765.62 -34190765.39 0.0135 0.0045

Moon -98323-10-15 00:13 J -34190765.72 -34190765.49 -34190765.25 0.0135 0.0046 *

Moon -98322-10-18 20:08 J -34190396.81 -34190396.66 -34190396.50 0.0135 0.0102

Earth -98322-10-18 23:16 J -34190396.69 -34190396.53 -34190396.36 0.0135 0.0099 *

Mars -98313-08-02 13:25 J -34187186.24 -34187185.94 -34187185.61 0.0140 0.0047

Mercury -98309-12-01 15:20 J -34185603.87 -34185603.86 -34185603.83 0.0143 0.0141

Mercury -98308-02-27 20:08 J -34185515.73 -34185515.66 -34185515.57 0.0143 0.0121

Mercury -98308-05-27 01:25 J -34185427.55 -34185427.44 -34185427.33 0.0143 0.0100

Mercury -98308-08-23 06:28 J -34185339.36 -34185339.23 -34185339.10 0.0143 0.0080

Mercury -98308-11-19 11:30 J -34185251.16 -34185251.02 -34185250.88 0.0143 0.0059

Mercury -98307-02-15 16:47 J -34185162.95 -34185162.80 -34185162.65 0.0143 0.0038

Mercury -98307-05-14 21:49 J -34185074.74 -34185074.59 -34185074.43 0.0144 0.0016

Mercury -98307-08-11 03:06 J -34184986.53 -34184986.37 -34184986.21 0.0144 0.0006

Mercury -98307-11-07 08:23 J -34184898.30 -34184898.15 -34184897.99 0.0144 0.0027

Mercury -98306-02-03 13:40 J -34184810.07 -34184809.93 -34184809.78 0.0144 0.0050

Mercury -98306-05-02 18:56 J -34184721.84 -34184721.71 -34184721.56 0.0144 0.0072

Mercury -98306-07-30 00:28 J -34184633.59 -34184633.48 -34184633.35 0.0144 0.0094

Mercury -98306-10-26 05:59 J -34184545.33 -34184545.25 -34184545.15 0.0144 0.0117

Mercury -98305-01-22 11:30 J -34184457.05 -34184457.02 -34184456.97 0.0144 0.0140

Venus -98305-09-10 22:32 J -34184224.67 -34184224.56 -34184224.43 0.0145 0.0120

Venus -98304-04-25 09:49 J -34183998.29 -34183998.09 -34183997.88 0.0145 0.0049

Venus -98304-12-07 21:20 J -34183771.82 -34183771.61 -34183771.39 0.0145 0.0023

Venus -98303-07-22 09:06 J -34183545.28 -34183545.12 -34183544.96 0.0146 0.0095

Moon -98285-04-02 23:16 J -34177080.72 -34177080.53 -34177080.32 0.0145 0.0092

Earth -98285-04-03 01:54 J -34177080.62 -34177080.42 -34177080.21 0.0145 0.0088 *

Earth -98284-04-08 11:16 J -34176710.29 -34176710.03 -34176709.77 0.0144 0.0017

Moon -98284-04-08 14:08 J -34176710.18 -34176709.91 -34176709.64 0.0144 0.0017 *

Moon -98283-04-13 16:18 J -34176340.05 -34176339.82 -34176339.57 0.0144 0.0060

Earth -98283-04-13 19:54 J -34176339.91 -34176339.67 -34176339.42 0.0144 0.0054 *

Earth -98282-04-19 03:35 J -34175969.46 -34175969.35 -34175969.20 0.0143 0.0124

Moon -98282-04-19 07:25 J -34175969.33 -34175969.19 -34175969.01 0.0143 0.0116 *

Mars -98274-03-08 10:18 J -34173089.36 -34173089.07 -34173088.78 0.0139 0.0000

Mercury -98269-04-29 08:52 J -34171210.16 -34171210.13 -34171210.11 0.0136 0.0133

Mercury -98269-07-26 13:40 J -34171122.01 -34171121.93 -34171121.84 0.0136 0.0114

Mercury -98269-10-22 18:42 J -34171033.83 -34171033.72 -34171033.60 0.0136 0.0095

Mercury -98268-01-18 23:44 J -34170945.64 -34170945.51 -34170945.37 0.0135 0.0075

Mercury -98268-04-17 04:32 J -34170857.45 -34170857.31 -34170857.16 0.0135 0.0057

Mercury -98268-07-14 09:20 J -34170769.25 -34170769.11 -34170768.95 0.0135 0.0038
 Mercury -98268-10-10 14:23 J -34170681.06 -34170680.90 -34170680.74 0.0135 0.0019
 Mercury -98267-01-06 19:11 J -34170592.86 -34170592.70 -34170592.54 0.0135 0.0002
 Mercury -98267-04-04 23:44 J -34170504.66 -34170504.51 -34170504.35 0.0135 0.0018
 Mercury -98267-07-02 04:32 J -34170416.46 -34170416.31 -34170416.16 0.0135 0.0035
 Mercury -98267-09-28 09:06 J -34170328.26 -34170328.12 -34170327.97 0.0135 0.0053
 Mercury -98267-12-25 13:40 J -34170240.06 -34170239.93 -34170239.79 0.0134 0.0071
 Mercury -98266-03-23 18:13 J -34170151.85 -34170151.74 -34170151.62 0.0134 0.0088
 Mercury -98266-06-19 22:47 J -34170063.64 -34170063.55 -34170063.45 0.0134 0.0105
 Mercury -98266-09-16 03:06 J -34169975.42 -34169975.37 -34169975.30 0.0134 0.0123
 Venus -98265-05-20 23:44 J -34169727.58 -34169727.51 -34169727.40 0.0134 0.0122
 Venus -98264-01-02 06:13 J -34169501.42 -34169501.24 -34169501.04 0.0134 0.0065
 Venus -98264-08-16 12:28 J -34169275.20 -34169274.98 -34169274.76 0.0133 0.0008
 Venus -98263-03-30 18:28 J -34169048.93 -34169048.73 -34169048.53 0.0133 0.0048
 Venus -98263-11-11 23:44 J -34168822.63 -34168822.51 -34168822.36 0.0133 0.0104
 Moon -98242-10-04 00:13 J -34161191.63 -34161191.49 -34161191.33 0.0134 0.0103
 Earth -98242-10-04 02:52 J -34161191.50 -34161191.38 -34161191.22 0.0134 0.0110 *
 Earth -98241-10-07 03:20 J -34160822.57 -34160822.36 -34160822.12 0.0134 0.0058
 Moon -98241-10-07 06:56 J -34160822.43 -34160822.21 -34160821.99 0.0134 0.0062 *
 Moon -98240-10-11 02:08 J -34160453.65 -34160453.41 -34160453.17 0.0134 0.0002
 Earth -98240-10-11 04:47 J -34160453.54 -34160453.30 -34160453.05 0.0134 0.0006 *
 Earth -98239-10-15 06:13 J -34160084.46 -34160084.24 -34160084.00 0.0135 0.0047
 Moon -98239-10-15 09:06 J -34160084.34 -34160084.12 -34160083.88 0.0135 0.0048 *
 Moon -98238-10-19 05:16 J -34159715.42 -34159715.28 -34159715.10 0.0135 0.0099
 Earth -98238-10-19 08:23 J -34159715.30 -34159715.15 -34159714.98 0.0135 0.0100 *
 Mars -98230-04-23 23:16 J -34156971.71 -34156971.53 -34156971.31 0.0140 0.0111
 Mars -98228-03-29 10:18 J -34156266.13 -34156266.07 -34156265.96 0.0141 0.0136
 Mercury -98225-12-21 22:18 J -34154902.60 -34154902.57 -34154902.52 0.0143 0.0137
 Mercury -98224-03-20 03:20 J -34154814.44 -34154814.36 -34154814.27 0.0143 0.0117
 Mercury -98224-06-16 08:23 J -34154726.26 -34154726.15 -34154726.04 0.0143 0.0096

Mercury -98224-09-12 13:11 J -34154638.07 -34154637.95 -34154637.81 0.0143 0.0076
 Mercury -98224-12-09 18:28 J -34154549.87 -34154549.73 -34154549.59 0.0143 0.0055
 Mercury -98223-03-07 23:44 J -34154461.66 -34154461.51 -34154461.36 0.0143 0.0034
 Mercury -98223-06-04 04:47 J -34154373.45 -34154373.30 -34154373.14 0.0144 0.0013
 Mercury -98223-08-31 10:04 J -34154285.23 -34154285.08 -34154284.92 0.0144 0.0009
 Mercury -98223-11-27 15:20 J -34154197.01 -34154196.86 -34154196.71 0.0144 0.0031
 Mercury -98222-02-23 20:37 J -34154108.78 -34154108.64 -34154108.49 0.0144 0.0053
 Mercury -98222-05-23 02:08 J -34154020.54 -34154020.41 -34154020.28 0.0144 0.0076
 Mercury -98222-08-19 07:25 J -34153932.30 -34153932.19 -34153932.07 0.0144 0.0098
 Mercury -98222-11-15 12:42 J -34153844.04 -34153843.97 -34153843.87 0.0144 0.0122
 Mercury -98221-02-11 18:42 J -34153755.73 -34153755.72 -34153755.71 0.0144 0.0144
 Venus -98221-12-23 15:35 J -34153440.01 -34153439.85 -34153439.67 0.0145 0.0086
 Venus -98220-08-07 03:06 J -34153213.59 -34153213.37 -34153213.16 0.0145 0.0015
 Venus -98219-03-21 14:23 J -34152987.09 -34152986.90 -34152986.70 0.0145 0.0058
 Venus -98219-11-03 02:23 J -34152760.49 -34152760.40 -34152760.30 0.0146 0.0130
 Moon -98201-04-03 08:23 J -34146399.36 -34146399.15 -34146398.93 0.0145 0.0080
 Earth -98201-04-03 09:49 J -34146399.31 -34146399.09 -34146398.88 0.0145 0.0085 *
 Earth -98200-04-08 18:56 J -34146028.97 -34146028.71 -34146028.44 0.0144 0.0015
 Moon -98200-04-08 21:49 J -34146028.86 -34146028.59 -34146028.32 0.0144 0.0013 *
 Moon -98199-04-14 00:28 J -34145658.70 -34145658.48 -34145658.22 0.0144 0.0052
 Earth -98199-04-14 03:49 J -34145658.58 -34145658.34 -34145658.09 0.0144 0.0056 *
 Earth -98198-04-19 11:30 J -34145288.13 -34145288.02 -34145287.87 0.0143 0.0125
 Moon -98198-04-19 15:06 J -34145287.95 -34145287.87 -34145287.75 0.0143 0.0132 *
 Mars -98192-11-30 10:32 J -34142871.14 -34142871.06 -34142870.94 0.0139 0.0131
 Mars -98190-10-31 20:52 J -34142170.87 -34142170.63 -34142170.38 0.0138 0.0072
 Mercury -98185-05-19 15:35 J -34140508.89 -34140508.85 -34140508.81 0.0136 0.0130
 Mercury -98185-08-15 20:23 J -34140420.73 -34140420.65 -34140420.55 0.0136 0.0111
 Mercury -98185-11-12 01:25 J -34140332.55 -34140332.44 -34140332.31 0.0135 0.0092
 Mercury -98184-02-08 06:28 J -34140244.36 -34140244.23 -34140244.09 0.0135 0.0072
 Mercury -98184-05-07 11:30 J -34140156.17 -34140156.02 -34140155.87 0.0135 0.0053

Mercury -98184-08-03 16:18 J -34140067.97 -34140067.82 -34140067.66 0.0135 0.0035

Mercury -98184-10-30 21:06 J -34139979.78 -34139979.62 -34139979.46 0.0135 0.0016

Mercury -98183-01-27 01:54 J -34139891.58 -34139891.42 -34139891.26 0.0135 0.0003

Mercury -98183-04-25 06:42 J -34139803.38 -34139803.22 -34139803.06 0.0135 0.0020

Mercury -98183-07-22 11:16 J -34139715.18 -34139715.03 -34139714.88 0.0135 0.0038

Mercury -98183-10-18 15:49 J -34139626.98 -34139626.84 -34139626.69 0.0135 0.0056

Mercury -98182-01-14 20:37 J -34139538.77 -34139538.64 -34139538.51 0.0134 0.0074

Mercury -98182-04-13 00:56 J -34139450.57 -34139450.46 -34139450.34 0.0134 0.0091

Mercury -98182-07-10 05:30 J -34139362.35 -34139362.27 -34139362.17 0.0134 0.0108

Mercury -98182-10-06 10:04 J -34139274.13 -34139274.08 -34139274.03 0.0134 0.0125

Venus -98181-09-01 14:23 J -34138943.04 -34138942.90 -34138942.73 0.0134 0.0094

Venus -98180-04-15 21:06 J -34138716.83 -34138716.62 -34138716.41 0.0134 0.0037

Venus -98180-11-28 03:06 J -34138490.58 -34138490.37 -34138490.15 0.0133 0.0020

Venus -98179-07-12 08:37 J -34138264.31 -34138264.14 -34138263.95 0.0133 0.0076

Venus -98178-02-23 13:54 J -34138037.94 -34138037.92 -34138037.87 0.0133 0.0131

Moon -98158-10-04 09:06 J -34130510.23 -34130510.12 -34130509.98 0.0134 0.0114

Earth -98158-10-04 11:44 J -34130510.13 -34130510.01 -34130509.84 0.0134 0.0107 *

Earth -98157-10-07 12:56 J -34130141.18 -34130140.96 -34130140.74 0.0134 0.0055

Moon -98157-10-07 15:06 J -34130141.10 -34130140.87 -34130140.63 0.0134 0.0049 *

Moon -98156-10-11 11:30 J -34129772.25 -34129772.02 -34129771.78 0.0134 0.0007

Earth -98156-10-11 14:08 J -34129772.16 -34129771.91 -34129771.67 0.0134 0.0003 *

Earth -98155-10-15 15:35 J -34129403.07 -34129402.85 -34129402.62 0.0135 0.0049

Moon -98155-10-15 17:59 J -34129402.97 -34129402.75 -34129402.51 0.0135 0.0050 *

Moon -98154-10-19 15:35 J -34129033.99 -34129033.85 -34129033.69 0.0135 0.0104

Earth -98154-10-19 17:59 J -34129033.91 -34129033.75 -34129033.59 0.0135 0.0102 *

Mars -98146-12-18 16:47 J -34126052.12 -34126051.80 -34126051.46 0.0140 0.0024

Mercury -98140-01-11 05:01 J -34124201.33 -34124201.29 -34124201.23 0.0143 0.0134

Mercury -98140-04-09 10:04 J -34124113.16 -34124113.08 -34124112.98 0.0143 0.0114

Mercury -98140-07-06 15:06 J -34124024.98 -34124024.87 -34124024.75 0.0143 0.0093

Mercury -98140-10-02 20:08 J -34123936.79 -34123936.66 -34123936.52 0.0143 0.0073

Mercury -98140-12-30 01:25 J -34123848.59 -34123848.44 -34123848.30 0.0143 0.0052

Mercury -98139-03-28 06:28 J -34123760.38 -34123760.23 -34123760.08 0.0144 0.0031

Mercury -98139-06-24 11:44 J -34123672.17 -34123672.01 -34123671.86 0.0144 0.0010

Mercury -98139-09-20 16:47 J -34123583.95 -34123583.80 -34123583.64 0.0144 0.0013

Mercury -98139-12-17 22:04 J -34123495.73 -34123495.58 -34123495.42 0.0144 0.0035

Mercury -98138-03-16 03:20 J -34123407.50 -34123407.36 -34123407.21 0.0144 0.0057

Mercury -98138-06-12 08:52 J -34123319.26 -34123319.13 -34123319.00 0.0144 0.0079

Mercury -98138-09-08 14:23 J -34123231.01 -34123230.90 -34123230.79 0.0144 0.0101

Mercury -98138-12-05 19:40 J -34123142.75 -34123142.68 -34123142.59 0.0144 0.0125

Venus -98137-08-22 20:52 J -34122881.72 -34122881.63 -34122881.50 0.0145 0.0123

Venus -98136-04-06 08:08 J -34122655.35 -34122655.16 -34122654.95 0.0145 0.0052

Venus -98136-11-18 19:40 J -34122428.89 -34122428.68 -34122428.46 0.0145 0.0020

Venus -98135-07-03 07:25 J -34122202.36 -34122202.19 -34122202.02 0.0146 0.0092

Moon -98118-03-30 06:13 J -34116088.24 -34116088.24 -34116088.23 0.0145 0.0145

Moon -98117-04-03 15:49 J -34115718.03 -34115717.84 -34115717.62 0.0145 0.0087

Earth -98117-04-03 17:01 J -34115718.00 -34115717.79 -34115717.57 0.0145 0.0082 *

Earth -98116-04-09 02:23 J -34115347.66 -34115347.40 -34115347.13 0.0144 0.0012

Moon -98116-04-09 04:04 J -34115347.60 -34115347.33 -34115347.06 0.0144 0.0011 *

Moon -98115-04-14 08:52 J -34114977.35 -34114977.13 -34114976.89 0.0144 0.0063

Earth -98115-04-14 11:30 J -34114977.26 -34114977.02 -34114976.78 0.0144 0.0058 *

Earth -98114-04-19 19:11 J -34114606.80 -34114606.70 -34114606.56 0.0143 0.0127

Moon -98114-04-19 22:32 J -34114606.69 -34114606.56 -34114606.39 0.0143 0.0119 *

Mars -98107-07-25 22:47 J -34111952.82 -34111952.55 -34111952.29 0.0139 0.0056

Mercury -98101-06-08 22:18 J -34109807.63 -34109807.57 -34109807.52 0.0136 0.0127

Mercury -98101-09-05 03:06 J -34109719.46 -34109719.37 -34109719.26 0.0136 0.0108

Mercury -98101-12-02 08:08 J -34109631.27 -34109631.16 -34109631.03 0.0135 0.0089

Mercury -98100-02-28 13:11 J -34109543.08 -34109542.95 -34109542.81 0.0135 0.0069

Mercury -98100-05-27 18:13 J -34109454.89 -34109454.74 -34109454.59 0.0135 0.0050

Mercury -98100-08-23 23:01 J -34109366.69 -34109366.54 -34109366.38 0.0135 0.0032

Mercury -98100-11-20 03:49 J -34109278.50 -34109278.34 -34109278.18 0.0135 0.0013

Mercury -98099-02-16 08:37 J -34109190.30 -34109190.14 -34109189.98 0.0135 0.0005

Mercury -98099-05-15 13:25 J -34109102.10 -34109101.94 -34109101.79 0.0135 0.0023

Mercury -98099-08-11 17:59 J -34109013.90 -34109013.75 -34109013.60 0.0135 0.0041

Mercury -98099-11-07 22:47 J -34108925.69 -34108925.55 -34108925.41 0.0135 0.0059

Mercury -98098-02-04 03:06 J -34108837.49 -34108837.37 -34108837.23 0.0134 0.0077

Mercury -98098-05-03 07:40 J -34108749.28 -34108749.18 -34108749.06 0.0134 0.0094

Mercury -98098-07-30 12:13 J -34108661.07 -34108660.99 -34108660.90 0.0134 0.0111

Mercury -98098-10-26 16:32 J -34108572.84 -34108572.81 -34108572.75 0.0134 0.0129

Venus -98097-05-01 22:47 J -34108384.62 -34108384.55 -34108384.46 0.0134 0.0123

Venus -98097-12-14 05:01 J -34108158.47 -34108158.29 -34108158.09 0.0134 0.0066

Venus -98096-07-28 11:16 J -34107932.25 -34107932.03 -34107931.81 0.0133 0.0009

Venus -98095-03-11 17:01 J -34107705.99 -34107705.79 -34107705.58 0.0133 0.0047

Venus -98095-10-23 22:18 J -34107479.69 -34107479.57 -34107479.41 0.0133 0.0103

Moon -98074-10-04 18:42 J -34099828.86 -34099828.72 -34099828.54 0.0134 0.0098

Earth -98074-10-04 20:37 J -34099828.78 -34099828.64 -34099828.48 0.0134 0.0104 *

Earth -98073-10-07 21:20 J -34099459.83 -34099459.61 -34099459.38 0.0134 0.0053

Moon -98073-10-07 23:30 J -34099459.74 -34099459.52 -34099459.28 0.0134 0.0058 *

Moon -98072-10-11 21:06 J -34099090.86 -34099090.62 -34099090.38 0.0134 0.0003

Earth -98072-10-11 22:47 J -34099090.79 -34099090.55 -34099090.30 0.0134 0.0002 *

Earth -98071-10-16 00:13 J -34098721.71 -34098721.49 -34098721.26 0.0135 0.0051

Moon -98071-10-16 01:54 J -34098721.65 -34098721.42 -34098721.18 0.0135 0.0050 *

Moon -98070-10-20 00:13 J -34098352.63 -34098352.49 -34098352.32 0.0135 0.0102

Earth -98070-10-20 02:08 J -34098352.55 -34098352.41 -34098352.24 0.0135 0.0103 *

Mars -98061-08-13 10:47 J -34095132.33 -34095132.05 -34095131.74 0.0140 0.0065

Mercury -98056-01-31 11:59 J -34093500.05 -34093500.00 -34093499.94 0.0143 0.0131

Mercury -98056-04-29 16:47 J -34093411.88 -34093411.80 -34093411.70 0.0143 0.0111

Mercury -98056-07-26 21:49 J -34093323.70 -34093323.59 -34093323.46 0.0143 0.0090

Mercury -98056-10-23 03:06 J -34093235.51 -34093235.37 -34093235.24 0.0143 0.0070

Mercury -98055-01-19 08:08 J -34093147.31 -34093147.16 -34093147.02 0.0143 0.0049

Mercury -98055-04-17 13:11 J -34093059.10 -34093058.95 -34093058.80 0.0144 0.0027

Mercury -98055-07-14 18:28 J -34092970.89 -34092970.73 -34092970.58 0.0144 0.0007

Mercury -98055-10-10 23:44 J -34092882.67 -34092882.51 -34092882.36 0.0144 0.0016

Mercury -98054-01-07 04:47 J -34092794.45 -34092794.30 -34092794.14 0.0144 0.0038

Mercury -98054-04-05 10:04 J -34092706.21 -34092706.08 -34092705.93 0.0144 0.0060

Mercury -98054-07-02 15:35 J -34092617.98 -34092617.85 -34092617.72 0.0144 0.0082

Mercury -98054-09-28 21:06 J -34092529.73 -34092529.62 -34092529.51 0.0144 0.0105

Mercury -98054-12-26 02:23 J -34092441.46 -34092441.40 -34092441.32 0.0144 0.0128

Venus -98053-12-04 13:25 J -34092097.10 -34092096.94 -34092096.76 0.0145 0.0089

Venus -98052-07-19 00:42 J -34091870.68 -34091870.47 -34091870.25 0.0145 0.0018

Venus -98051-03-02 11:59 J -34091644.19 -34091644.00 -34091643.79 0.0145 0.0054

Venus -98051-10-14 23:30 J -34091417.61 -34091417.52 -34091417.40 0.0146 0.0127

Jupiter -98045-11-04 02:52 J -34089205.86 -34089205.38 -34089204.85 0.0147 0.0057

Earth -98033-04-03 23:30 J -34085036.73 -34085036.52 -34085036.29 0.0145 0.0080

Moon -98033-04-03 23:59 J -34085036.71 -34085036.50 -34085036.28 0.0145 0.0074 *

Earth -98032-04-09 09:20 J -34084666.37 -34084666.11 -34084665.84 0.0144 0.0010

Moon -98032-04-09 10:18 J -34084666.34 -34084666.07 -34084665.80 0.0144 0.0010 *

Moon -98031-04-14 16:18 J -34084296.05 -34084295.82 -34084295.58 0.0144 0.0056

Earth -98031-04-14 18:13 J -34084295.97 -34084295.74 -34084295.49 0.0144 0.0060 *

Earth -98030-04-20 02:08 J -34083925.51 -34083925.41 -34083925.27 0.0143 0.0128

Moon -98030-04-20 04:47 J -34083925.38 -34083925.30 -34083925.20 0.0143 0.0135 *

Mars -98022-03-20 10:32 J -34081034.34 -34081034.06 -34081033.77 0.0139 0.0016

Mercury -98017-06-29 05:01 J -34079106.35 -34079106.29 -34079106.23 0.0136 0.0124

Mercury -98017-09-25 09:49 J -34079018.18 -34079018.09 -34079017.98 0.0136 0.0105

Mercury -98017-12-22 14:51 J -34078930.00 -34078929.88 -34078929.75 0.0135 0.0086

Mercury -98016-03-20 19:54 J -34078841.81 -34078841.67 -34078841.53 0.0135 0.0066

Mercury -98016-06-17 00:56 J -34078753.61 -34078753.46 -34078753.31 0.0135 0.0047

Mercury -98016-09-13 05:44 J -34078665.41 -34078665.26 -34078665.10 0.0135 0.0029

Mercury -98016-12-10 10:32 J -34078577.22 -34078577.06 -34078576.90 0.0135 0.0011

Mercury -98015-03-08 15:20 J -34078489.02 -34078488.86 -34078488.70 0.0135 0.0008

Mercury -98015-06-04 20:08 J -34078400.82 -34078400.66 -34078400.51 0.0135 0.0026

Mercury -98015-09-01 00:42 J -34078312.61 -34078312.47 -34078312.32 0.0135 0.0044

Mercury -98015-11-28 05:30 J -34078224.41 -34078224.27 -34078224.13 0.0135 0.0062

Mercury -98014-02-24 09:49 J -34078136.21 -34078136.09 -34078135.95 0.0134 0.0080

Mercury -98014-05-23 14:37 J -34078048.00 -34078047.89 -34078047.78 0.0134 0.0097

Mercury -98014-08-19 18:56 J -34077959.78 -34077959.71 -34077959.62 0.0134 0.0114

Mercury -98014-11-15 23:15 J -34077871.55 -34077871.53 -34077871.49 0.0134 0.0131

Venus -98013-08-13 13:11 J -34077600.09 -34077599.95 -34077599.78 0.0134 0.0095

Venus -98012-03-27 19:39 J -34077373.89 -34077373.68 -34077373.47 0.0134 0.0038

Venus -98012-11-09 01:39 J -34077147.65 -34077147.43 -34077147.21 0.0133 0.0019

Venus -98011-06-23 06:56 J -34076921.37 -34076921.21 -34076921.01 0.0133 0.0075

Venus -98010-02-04 12:27 J -34076695.01 -34076694.98 -34076694.92 0.0133 0.0130

Jupiter -98003-07-26 23:44 J -34073965.88 -34073965.51 -34073965.06 0.0131 0.0074

98TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 98th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-97990-10-05 04:03 J	-34069147.47	-34069147.33	-34069147.19	0.0133	0.0108		
Earth	-97990-10-05 05:15 J	-34069147.42	-34069147.28	-34069147.10	0.0133	0.0101	*	
Earth	-97989-10-08 06:13 J	-34068778.46	-34068778.24	-34068778.00	0.0134	0.0051		
Moon	-97989-10-08 07:39 J	-34068778.42	-34068778.18	-34068777.94	0.0134	0.0044	*	
Moon	-97988-10-12 06:42 J	-34068409.46	-34068409.22	-34068408.99	0.0134	0.0004		
Earth	-97988-10-12 07:39 J	-34068409.42	-34068409.18	-34068408.93	0.0134	0.0001	*	

Earth -97987-10-16 09:06 J -34068040.34 -34068040.12 -34068039.89 0.0135 0.0052
 Moon -97987-10-16 10:03 J -34068040.29 -34068040.08 -34068039.83 0.0135 0.0054 *
 Moon -97986-10-20 10:18 J -34067671.21 -34067671.07 -34067670.91 0.0135 0.0105
 Earth -97986-10-20 10:47 J -34067671.19 -34067671.05 -34067670.88 0.0135 0.0105 *
 Mars -97978-05-04 19:39 J -34064917.92 -34064917.68 -34064917.42 0.0139 0.0092
 Mercury -97972-02-20 18:42 J -34062798.78 -34062798.72 -34062798.65 0.0143 0.0128
 Mercury -97972-05-19 23:30 J -34062710.61 -34062710.52 -34062710.41 0.0143 0.0108
 Mercury -97972-08-16 04:32 J -34062622.42 -34062622.31 -34062622.18 0.0143 0.0088
 Mercury -97972-11-12 09:49 J -34062534.23 -34062534.09 -34062533.96 0.0143 0.0067
 Mercury -97971-02-08 14:51 J -34062446.03 -34062445.88 -34062445.74 0.0143 0.0046
 Mercury -97971-05-07 19:54 J -34062357.82 -34062357.67 -34062357.52 0.0144 0.0025
 Mercury -97971-08-04 01:11 J -34062269.61 -34062269.45 -34062269.30 0.0144 0.0005
 Mercury -97971-10-31 06:13 J -34062181.39 -34062181.24 -34062181.08 0.0144 0.0019
 Mercury -97970-01-27 11:30 J -34062093.17 -34062093.02 -34062092.87 0.0144 0.0040
 Mercury -97970-04-25 17:01 J -34062004.93 -34062004.79 -34062004.65 0.0144 0.0063
 Mercury -97970-07-22 22:03 J -34061916.70 -34061916.58 -34061916.44 0.0144 0.0085
 Mercury -97970-10-19 03:35 J -34061828.45 -34061828.35 -34061828.24 0.0144 0.0107
 Mercury -97969-01-15 08:51 J -34061740.18 -34061740.13 -34061740.05 0.0144 0.0131
 Venus -97969-08-03 18:27 J -34061538.82 -34061538.73 -34061538.61 0.0145 0.0127
 Venus -97968-03-18 05:30 J -34061312.46 -34061312.27 -34061312.06 0.0145 0.0056
 Venus -97968-10-30 17:01 J -34061086.00 -34061085.79 -34061085.57 0.0145 0.0016
 Venus -97967-06-14 04:32 J -34060859.48 -34060859.31 -34060859.14 0.0146 0.0088
 Moon -97950-03-30 18:13 J -34054725.81 -34054725.74 -34054725.67 0.0145 0.0140
 Earth -97949-04-04 06:13 J -34054355.45 -34054355.24 -34054355.01 0.0145 0.0078
 Moon -97949-04-04 07:11 J -34054355.39 -34054355.20 -34054354.98 0.0145 0.0084 *
 Moon -97948-04-09 16:03 J -34053985.10 -34053984.83 -34053984.56 0.0144 0.0006
 Earth -97948-04-09 16:03 J -34053985.10 -34053984.83 -34053984.57 0.0144 0.0008 *
 Moon -97947-04-15 00:13 J -34053614.71 -34053614.49 -34053614.26 0.0144 0.0064
 Earth -97947-04-15 00:56 J -34053614.69 -34053614.46 -34053614.22 0.0144 0.0061 *
 Earth -97946-04-20 08:37 J -34053244.22 -34053244.14 -34053244.00 0.0143 0.0130

Moon -97946-04-20 11:15 J -34053244.16 -34053244.03 -34053243.87 0.0143 0.0121 *
 Mars -97940-12-12 08:08 J -34050816.32 -34050816.16 -34050815.99 0.0139 0.0115
 Mars -97938-11-12 18:13 J -34050115.95 -34050115.74 -34050115.50 0.0138 0.0086
 Mercury -97933-07-19 11:15 J -34048405.09 -34048405.03 -34048404.95 0.0136 0.0122
 Mercury -97933-10-15 16:18 J -34048316.91 -34048316.82 -34048316.70 0.0136 0.0103
 Mercury -97932-01-11 21:20 J -34048228.73 -34048228.61 -34048228.47 0.0135 0.0084
 Mercury -97932-04-10 02:23 J -34048140.53 -34048140.40 -34048140.25 0.0135 0.0064
 Mercury -97932-07-07 07:25 J -34048052.34 -34048052.19 -34048052.04 0.0135 0.0045
 Mercury -97932-10-03 12:13 J -34047964.14 -34047963.99 -34047963.83 0.0135 0.0027
 Mercury -97932-12-30 17:15 J -34047875.94 -34047875.78 -34047875.62 0.0135 0.0008
 Mercury -97931-03-28 22:03 J -34047787.74 -34047787.58 -34047787.42 0.0135 0.0011
 Mercury -97931-06-25 02:37 J -34047699.54 -34047699.39 -34047699.23 0.0135 0.0029
 Mercury -97931-09-21 07:11 J -34047611.34 -34047611.20 -34047611.04 0.0135 0.0047
 Mercury -97931-12-18 11:44 J -34047523.14 -34047523.01 -34047522.86 0.0135 0.0065
 Mercury -97930-03-16 16:32 J -34047434.93 -34047434.81 -34047434.68 0.0134 0.0082
 Mercury -97930-06-12 20:51 J -34047346.72 -34047346.63 -34047346.51 0.0134 0.0100
 Mercury -97930-09-09 01:25 J -34047258.51 -34047258.44 -34047258.35 0.0134 0.0116
 Mercury -97930-12-06 05:59 J -34047170.26 -34047170.25 -34047170.23 0.0134 0.0133
 Venus -97929-04-12 20:51 J -34047041.69 -34047041.63 -34047041.54 0.0134 0.0125
 Venus -97929-11-25 03:20 J -34046815.54 -34046815.36 -34046815.16 0.0134 0.0068
 Venus -97928-07-09 09:35 J -34046589.32 -34046589.10 -34046588.88 0.0134 0.0011
 Venus -97927-02-20 15:06 J -34046363.07 -34046362.87 -34046362.65 0.0133 0.0046
 Venus -97927-10-04 20:37 J -34046136.77 -34046136.64 -34046136.49 0.0133 0.0101
 Moon -97906-10-05 13:25 J -34038466.10 -34038465.94 -34038465.76 0.0134 0.0093
 Earth -97906-10-05 13:39 J -34038466.07 -34038465.93 -34038465.75 0.0134 0.0100 *
 Earth -97905-10-08 14:51 J -34038097.11 -34038096.88 -34038096.65 0.0134 0.0049
 Moon -97905-10-08 15:06 J -34038097.09 -34038096.87 -34038096.62 0.0134 0.0055 *
 Moon -97904-10-12 15:20 J -34037728.10 -34037727.86 -34037727.62 0.0134 0.0006
 Earth -97904-10-12 16:03 J -34037728.08 -34037727.83 -34037727.59 0.0134 0.0003 *
 Earth -97903-10-16 17:30 J -34037359.00 -34037358.77 -34037358.55 0.0135 0.0053

Moon	-97903-10-16 17:30 J	-34037359.00	-34037358.77	-34037358.53	0.0135	0.0050	*
Moon	-97902-10-20 18:27 J	-34036989.86	-34036989.73	-34036989.56	0.0135	0.0105	
Earth	-97902-10-20 18:56 J	-34036989.84	-34036989.71	-34036989.54	0.0135	0.0105	*
Mars	-97894-12-29 12:27 J	-34033998.31	-34033997.98	-34033997.65	0.0140	0.0007	
Mercury	-97888-03-13 01:25 J	-34032097.50	-34032097.44	-34032097.36	0.0143	0.0125	
Mercury	-97888-06-09 06:13 J	-34032009.33	-34032009.24	-34032009.13	0.0143	0.0105	
Mercury	-97888-09-05 11:30 J	-34031921.14	-34031921.02	-34031920.90	0.0143	0.0085	
Mercury	-97888-12-02 16:18 J	-34031832.95	-34031832.82	-34031832.68	0.0143	0.0064	
Mercury	-97887-02-28 21:20 J	-34031744.75	-34031744.61	-34031744.46	0.0143	0.0043	
Mercury	-97887-05-28 02:37 J	-34031656.54	-34031656.39	-34031656.24	0.0144	0.0022	
Mercury	-97887-08-24 07:54 J	-34031568.33	-34031568.17	-34031568.02	0.0144	0.0004	
Mercury	-97887-11-20 12:56 J	-34031480.11	-34031479.96	-34031479.80	0.0144	0.0022	
Mercury	-97886-02-16 18:13 J	-34031391.89	-34031391.74	-34031391.59	0.0144	0.0043	
Mercury	-97886-05-15 23:30 J	-34031303.65	-34031303.52	-34031303.38	0.0144	0.0066	
Mercury	-97886-08-12 05:01 J	-34031215.41	-34031215.29	-34031215.17	0.0144	0.0088	
Mercury	-97886-11-08 10:18 J	-34031127.16	-34031127.07	-34031126.96	0.0144	0.0110	
Mercury	-97885-02-04 15:35 J	-34031038.89	-34031038.85	-34031038.78	0.0144	0.0134	
Venus	-97885-11-15 11:15 J	-34030754.19	-34030754.03	-34030753.87	0.0145	0.0093	
Venus	-97884-06-29 22:18 J	-34030527.78	-34030527.57	-34030527.36	0.0145	0.0022	
Venus	-97883-02-11 09:20 J	-34030301.30	-34030301.11	-34030300.90	0.0145	0.0050	
Venus	-97883-09-25 21:06 J	-34030074.73	-34030074.62	-34030074.50	0.0146	0.0123	
Earth	-97865-04-04 12:56 J	-34023674.18	-34023673.96	-34023673.74	0.0145	0.0076	
Moon	-97865-04-04 14:23 J	-34023674.11	-34023673.90	-34023673.66	0.0145	0.0070	*
Moon	-97864-04-09 21:20 J	-34023303.88	-34023303.61	-34023303.33	0.0144	0.0010	
Earth	-97864-04-09 22:32 J	-34023303.82	-34023303.56	-34023303.29	0.0144	0.0007	*
Moon	-97863-04-15 07:11 J	-34022933.43	-34022933.20	-34022932.97	0.0144	0.0059	
Earth	-97863-04-15 07:25 J	-34022933.42	-34022933.19	-34022932.94	0.0144	0.0062	*
Earth	-97862-04-20 15:20 J	-34022562.95	-34022562.86	-34022562.73	0.0143	0.0130	
Moon	-97862-04-20 16:03 J	-34022562.89	-34022562.83	-34022562.72	0.0143	0.0136	*
Mars	-97855-08-06 18:42 J	-34019897.99	-34019897.72	-34019897.44	0.0139	0.0042	

Mercury -97849-08-08 17:44 J -34017703.82 -34017703.76 -34017703.67 0.0136 0.0120

Mercury -97849-11-04 23:01 J -34017615.64 -34017615.54 -34017615.42 0.0136 0.0100

Mercury -97848-02-01 04:03 J -34017527.45 -34017527.33 -34017527.19 0.0135 0.0081

Mercury -97848-04-30 09:06 J -34017439.26 -34017439.12 -34017438.97 0.0135 0.0062

Mercury -97848-07-27 13:54 J -34017351.06 -34017350.92 -34017350.76 0.0135 0.0043

Mercury -97848-10-23 18:56 J -34017262.87 -34017262.71 -34017262.55 0.0135 0.0024

Mercury -97847-01-19 23:44 J -34017174.67 -34017174.51 -34017174.35 0.0135 0.0006

Mercury -97847-04-18 04:32 J -34017086.47 -34017086.31 -34017086.15 0.0135 0.0013

Mercury -97847-07-15 09:20 J -34016998.27 -34016998.11 -34016997.96 0.0135 0.0031

Mercury -97847-10-11 13:54 J -34016910.06 -34016909.92 -34016909.77 0.0135 0.0049

Mercury -97846-01-07 18:27 J -34016821.86 -34016821.73 -34016821.59 0.0135 0.0067

Mercury -97846-04-05 23:15 J -34016733.65 -34016733.53 -34016733.41 0.0134 0.0084

Mercury -97846-07-03 03:35 J -34016645.44 -34016645.35 -34016645.24 0.0134 0.0101

Mercury -97846-09-29 08:08 J -34016557.23 -34016557.16 -34016557.08 0.0134 0.0118

Venus -97845-07-25 11:01 J -34016257.18 -34016257.04 -34016256.88 0.0134 0.0098

Venus -97844-03-08 17:15 J -34016030.98 -34016030.78 -34016030.56 0.0134 0.0041

Venus -97844-10-20 23:30 J -34015804.74 -34015804.52 -34015804.30 0.0133 0.0016

Venus -97843-06-04 05:01 J -34015578.46 -34015578.29 -34015578.09 0.0133 0.0073

Venus -97842-01-16 10:32 J -34015352.10 -34015352.06 -34015351.99 0.0133 0.0128

Earth -97822-10-05 23:01 J -34007784.70 -34007784.54 -34007784.37 0.0134 0.0097

Moon -97822-10-05 22:47 J -34007784.68 -34007784.55 -34007784.39 0.0134 0.0104 *

Moon -97821-10-08 23:30 J -34007415.75 -34007415.52 -34007415.27 0.0134 0.0041

Earth -97821-10-08 23:44 J -34007415.74 -34007415.51 -34007415.28 0.0134 0.0047 *

Earth -97820-10-13 00:42 J -34007046.71 -34007046.47 -34007046.22 0.0134 0.0004

Moon -97820-10-13 01:25 J -34007046.68 -34007046.44 -34007046.21 0.0134 0.0002 *

Moon -97819-10-17 01:39 J -34006677.64 -34006677.43 -34006677.18 0.0135 0.0057

Earth -97819-10-17 02:08 J -34006677.63 -34006677.41 -34006677.18 0.0135 0.0054 *

Earth -97818-10-21 03:49 J -34006308.48 -34006308.34 -34006308.18 0.0135 0.0106

Moon -97818-10-21 04:18 J -34006308.45 -34006308.32 -34006308.15 0.0135 0.0106 *

Mars -97809-08-24 05:30 J -34003078.52 -34003078.27 -34003077.98 0.0140 0.0080

Mercury -97804-01-04 03:20 J -34001484.36 -34001484.36 -34001484.35 0.0143 0.0142

Mercury -97804-04-02 08:23 J -34001396.23 -34001396.15 -34001396.08 0.0143 0.0122

Mercury -97804-06-29 13:11 J -34001308.05 -34001307.95 -34001307.84 0.0143 0.0102

Mercury -97804-09-25 17:59 J -34001219.87 -34001219.75 -34001219.62 0.0143 0.0082

Mercury -97804-12-22 23:01 J -34001131.67 -34001131.54 -34001131.39 0.0143 0.0061

Mercury -97803-03-21 04:03 J -34001043.47 -34001043.33 -34001043.17 0.0143 0.0041

Mercury -97803-06-17 09:20 J -34000955.26 -34000955.11 -34000954.96 0.0144 0.0019

Mercury -97803-09-13 14:37 J -34000867.05 -34000866.89 -34000866.74 0.0144 0.0004

Mercury -97803-12-10 19:39 J -34000778.83 -34000778.68 -34000778.52 0.0144 0.0024

Mercury -97802-03-09 00:56 J -34000690.61 -34000690.46 -34000690.31 0.0144 0.0046

Mercury -97802-06-05 06:13 J -34000602.37 -34000602.24 -34000602.10 0.0144 0.0068

Mercury -97802-09-01 11:44 J -34000514.13 -34000514.01 -34000513.89 0.0144 0.0090

Mercury -97802-11-28 17:01 J -34000425.88 -34000425.79 -34000425.69 0.0144 0.0113

Mercury -97801-02-24 22:32 J -34000337.61 -34000337.56 -34000337.51 0.0144 0.0136

Venus -97801-07-15 16:18 J -34000195.90 -34000195.82 -34000195.72 0.0145 0.0131

Venus -97800-02-27 03:20 J -33999969.55 -33999969.36 -33999969.16 0.0145 0.0060

Venus -97800-10-11 14:51 J -33999743.10 -33999742.88 -33999742.67 0.0145 0.0012

Venus -97799-05-26 02:08 J -33999516.58 -33999516.41 -33999516.23 0.0145 0.0084

Moon -97782-03-31 06:42 J -33993363.29 -33993363.22 -33993363.09 0.0145 0.0136

Earth -97782-03-31 10:03 J -33993363.10 -33993363.08 -33993363.01 0.0145 0.0144 *

Earth -97781-04-04 20:23 J -33992992.87 -33992992.65 -33992992.41 0.0145 0.0074

Moon -97781-04-04 23:01 J -33992992.74 -33992992.54 -33992992.32 0.0145 0.0081 *

Moon -97780-04-10 04:47 J -33992622.57 -33992622.30 -33992622.03 0.0144 0.0002

Earth -97780-04-10 06:13 J -33992622.51 -33992622.24 -33992621.98 0.0144 0.0005 *

Earth -97779-04-15 14:51 J -33992252.11 -33992251.88 -33992251.63 0.0144 0.0064

Moon -97779-04-15 16:03 J -33992252.05 -33992251.83 -33992251.60 0.0144 0.0065 *

Earth -97778-04-20 22:47 J -33991881.64 -33991881.55 -33991881.42 0.0143 0.0131

Moon -97778-04-20 23:44 J -33991881.64 -33991881.51 -33991881.37 0.0143 0.0124 *

Mars -97770-04-01 05:15 J -33988979.55 -33988979.28 -33988978.99 0.0139 0.0029

Mercury -97765-08-29 00:27 J -33987002.55 -33987002.48 -33987002.39 0.0136 0.0117

Mercury -97765-11-25 05:30 J -33986914.37 -33986914.27 -33986914.15 0.0135 0.0098

Mercury -97764-02-21 10:32 J -33986826.18 -33986826.06 -33986825.92 0.0135 0.0079

Mercury -97764-05-20 15:35 J -33986737.99 -33986737.85 -33986737.70 0.0135 0.0059

Mercury -97764-08-16 20:37 J -33986649.79 -33986649.64 -33986649.48 0.0135 0.0040

Mercury -97764-11-13 01:25 J -33986561.59 -33986561.44 -33986561.28 0.0135 0.0022

Mercury -97763-02-09 06:27 J -33986473.39 -33986473.23 -33986473.07 0.0135 0.0005

Mercury -97763-05-08 11:01 J -33986385.19 -33986385.04 -33986384.88 0.0135 0.0015

Mercury -97763-08-04 15:49 J -33986296.99 -33986296.84 -33986296.68 0.0135 0.0033

Mercury -97763-10-31 20:37 J -33986208.79 -33986208.64 -33986208.50 0.0135 0.0051

Mercury -97762-01-28 01:11 J -33986120.59 -33986120.45 -33986120.32 0.0135 0.0069

Mercury -97762-04-26 05:30 J -33986032.38 -33986032.27 -33986032.14 0.0134 0.0087

Mercury -97762-07-23 10:03 J -33985944.17 -33985944.08 -33985943.97 0.0134 0.0104

Mercury -97762-10-19 14:37 J -33985855.95 -33985855.89 -33985855.82 0.0134 0.0121

Venus -97761-03-24 18:42 J -33985698.77 -33985698.72 -33985698.65 0.0134 0.0128

Venus -97761-11-06 00:56 J -33985472.63 -33985472.46 -33985472.26 0.0134 0.0071

Venus -97760-06-20 07:25 J -33985246.41 -33985246.19 -33985245.97 0.0134 0.0014

Venus -97759-02-01 12:56 J -33985020.15 -33985019.96 -33985019.74 0.0133 0.0044

Venus -97759-09-15 18:42 J -33984793.85 -33984793.72 -33984793.56 0.0133 0.0099

Earth -97738-10-06 07:11 J -33977103.35 -33977103.20 -33977103.01 0.0134 0.0096

Moon -97738-10-06 08:08 J -33977103.32 -33977103.16 -33977102.97 0.0134 0.0089 *

Moon -97737-10-09 06:56 J -33976734.44 -33976734.21 -33976733.97 0.0134 0.0052

Earth -97737-10-09 07:54 J -33976734.38 -33976734.17 -33976733.92 0.0134 0.0046 *

Earth -97736-10-13 09:06 J -33976365.36 -33976365.12 -33976364.87 0.0134 0.0005

Moon -97736-10-13 10:03 J -33976365.32 -33976365.08 -33976364.85 0.0134 0.0010 *

Moon -97735-10-17 09:06 J -33975996.35 -33975996.12 -33975995.88 0.0135 0.0051

Earth -97735-10-17 10:32 J -33975996.28 -33975996.06 -33975995.83 0.0135 0.0055 *

Earth -97734-10-21 12:13 J -33975627.12 -33975626.99 -33975626.82 0.0135 0.0107

Moon -97734-10-21 13:25 J -33975627.07 -33975626.94 -33975626.79 0.0135 0.0107 *

Mars -97726-05-15 15:49 J -33972864.10 -33972863.84 -33972863.55 0.0139 0.0075

Mercury -97720-01-24 10:18 J -33970783.10 -33970783.07 -33970783.04 0.0143 0.0139

Mercury -97720-04-22 15:06 J -33970694.95 -33970694.87 -33970694.79 0.0143 0.0119

Mercury -97720-07-19 19:54 J -33970606.77 -33970606.67 -33970606.56 0.0143 0.0099

Mercury -97720-10-16 00:56 J -33970518.58 -33970518.46 -33970518.33 0.0143 0.0079

Mercury -97719-01-12 05:44 J -33970430.39 -33970430.26 -33970430.11 0.0143 0.0059

Mercury -97719-04-10 11:01 J -33970342.19 -33970342.04 -33970341.89 0.0144 0.0037

Mercury -97719-07-07 16:03 J -33970253.98 -33970253.83 -33970253.67 0.0144 0.0016

Mercury -97719-10-03 21:20 J -33970165.77 -33970165.61 -33970165.46 0.0144 0.0006

Mercury -97719-12-31 02:23 J -33970077.55 -33970077.40 -33970077.24 0.0144 0.0028

Mercury -97718-03-29 07:54 J -33969989.32 -33969989.17 -33969989.03 0.0144 0.0049

Mercury -97718-06-25 13:11 J -33969901.09 -33969900.95 -33969900.82 0.0144 0.0071

Mercury -97718-09-21 18:13 J -33969812.85 -33969812.74 -33969812.61 0.0144 0.0094

Mercury -97718-12-18 23:44 J -33969724.59 -33969724.51 -33969724.41 0.0144 0.0117

Mercury -97717-03-16 05:15 J -33969636.31 -33969636.28 -33969636.23 0.0144 0.0139

Venus -97717-10-27 09:06 J -33969411.27 -33969411.12 -33969410.95 0.0145 0.0097

Venus -97716-06-10 20:23 J -33969184.86 -33969184.65 -33969184.44 0.0145 0.0025

Venus -97715-01-23 07:39 J -33968958.38 -33968958.18 -33968957.97 0.0145 0.0047

Venus -97715-09-06 19:11 J -33968731.81 -33968731.70 -33968731.57 0.0146 0.0120

Earth -97698-03-31 18:42 J -33962681.77 -33962681.72 -33962681.63 0.0145 0.0140

Earth -97697-04-05 04:47 J -33962311.52 -33962311.30 -33962311.06 0.0145 0.0071

Moon -97697-04-05 07:39 J -33962311.41 -33962311.18 -33962310.95 0.0145 0.0064 *

Moon -97696-04-10 11:44 J -33961941.28 -33961941.01 -33961940.74 0.0144 0.0007

Earth -97696-04-10 14:23 J -33961941.16 -33961940.90 -33961940.63 0.0144 0.0004 *

Earth -97695-04-15 23:01 J -33961570.76 -33961570.54 -33961570.29 0.0144 0.0066

Moon -97695-04-16 00:13 J -33961570.70 -33961570.49 -33961570.25 0.0144 0.0064 *

Moon -97694-04-21 05:44 J -33961200.31 -33961200.26 -33961200.16 0.0143 0.0137

Earth -97694-04-21 06:56 J -33961200.30 -33961200.21 -33961200.10 0.0143 0.0132 *

Mars -97688-12-24 04:18 J -33958761.51 -33958761.32 -33958761.10 0.0139 0.0100

Mars -97686-11-24 15:06 J -33958061.04 -33958060.87 -33958060.65 0.0138 0.0100

Mercury -97681-06-22 02:23 J -33956389.43 -33956389.40 -33956389.37 0.0136 0.0133

Mercury -97681-09-18 07:11 J -33956301.27 -33956301.20 -33956301.10 0.0136 0.0114

Mercury -97681-12-15 12:13 J -33956213.09 -33956212.99 -33956212.86 0.0136 0.0095

Mercury -97680-03-13 17:15 J -33956124.90 -33956124.78 -33956124.63 0.0135 0.0076

Mercury -97680-06-09 22:18 J -33956036.71 -33956036.57 -33956036.42 0.0135 0.0057

Mercury -97680-09-06 03:20 J -33955948.51 -33955948.36 -33955948.20 0.0135 0.0038

Mercury -97680-12-03 08:23 J -33955860.31 -33955860.15 -33955859.99 0.0135 0.0019

Mercury -97679-03-01 13:11 J -33955772.11 -33955771.95 -33955771.79 0.0135 0.0003

Mercury -97679-05-28 17:44 J -33955683.91 -33955683.76 -33955683.60 0.0135 0.0018

Mercury -97679-08-24 22:32 J -33955595.71 -33955595.56 -33955595.41 0.0135 0.0036

Mercury -97679-11-21 03:06 J -33955507.51 -33955507.37 -33955507.22 0.0135 0.0054

Mercury -97678-02-17 07:39 J -33955419.30 -33955419.18 -33955419.04 0.0135 0.0072

Mercury -97678-05-16 12:27 J -33955331.10 -33955330.98 -33955330.86 0.0134 0.0089

Mercury -97678-08-12 16:47 J -33955242.88 -33955242.80 -33955242.69 0.0134 0.0106

Mercury -97678-11-08 21:20 J -33955154.66 -33955154.61 -33955154.54 0.0134 0.0123

Venus -97677-07-06 09:20 J -33954914.25 -33954914.11 -33954913.96 0.0134 0.0100

Venus -97676-02-17 15:35 J -33954688.05 -33954687.85 -33954687.63 0.0134 0.0043

Venus -97676-10-01 21:49 J -33954461.81 -33954461.59 -33954461.37 0.0133 0.0014

Venus -97675-05-16 03:35 J -33954235.53 -33954235.35 -33954235.16 0.0133 0.0071

Venus -97675-12-28 09:06 J -33954009.17 -33954009.12 -33954009.04 0.0133 0.0126

Earth -97654-10-06 16:18 J -33946421.98 -33946421.82 -33946421.62 0.0134 0.0093

Moon -97654-10-06 18:13 J -33946421.89 -33946421.74 -33946421.57 0.0134 0.0099 *

Moon -97653-10-09 15:35 J -33946053.08 -33946052.85 -33946052.59 0.0134 0.0037

Earth -97653-10-09 17:15 J -33946053.01 -33946052.78 -33946052.54 0.0134 0.0043 *

Earth -97652-10-13 18:13 J -33945683.98 -33945683.74 -33945683.49 0.0134 0.0007

Moon -97652-10-13 20:23 J -33945683.89 -33945683.65 -33945683.41 0.0134 0.0002 *

Moon -97651-10-17 17:59 J -33945314.97 -33945314.75 -33945314.52 0.0135 0.0060

Earth -97651-10-17 19:25 J -33945314.90 -33945314.69 -33945314.45 0.0135 0.0057 *

Earth -97650-10-21 21:20 J -33944945.74 -33944945.61 -33944945.45 0.0135 0.0108

Moon -97650-10-21 23:15 J -33944945.66 -33944945.53 -33944945.37 0.0135 0.0107 *

Mars -97641-01-09 08:37 J -33941944.46 -33941944.14 -33941943.80 0.0140 0.0011

Mercury -97636-02-13 17:01 J -33940081.83 -33940081.79 -33940081.75 0.0143 0.0136

Mercury -97636-05-12 21:49 J -33939993.67 -33939993.59 -33939993.50 0.0143 0.0116

Mercury -97636-08-09 02:37 J -33939905.49 -33939905.39 -33939905.27 0.0143 0.0096

Mercury -97636-11-05 07:39 J -33939817.30 -33939817.18 -33939817.05 0.0143 0.0076

Mercury -97635-02-01 12:42 J -33939729.11 -33939728.97 -33939728.83 0.0143 0.0055

Mercury -97635-04-30 17:44 J -33939640.90 -33939640.76 -33939640.61 0.0144 0.0034

Mercury -97635-07-27 23:01 J -33939552.70 -33939552.54 -33939552.39 0.0144 0.0013

Mercury -97635-10-24 04:03 J -33939464.48 -33939464.33 -33939464.17 0.0144 0.0009

Mercury -97634-01-20 09:20 J -33939376.26 -33939376.11 -33939375.96 0.0144 0.0031

Mercury -97634-04-18 14:23 J -33939288.03 -33939287.90 -33939287.74 0.0144 0.0053

Mercury -97634-07-15 19:39 J -33939199.80 -33939199.68 -33939199.53 0.0144 0.0076

Mercury -97634-10-12 01:11 J -33939111.56 -33939111.45 -33939111.33 0.0144 0.0097

Mercury -97633-01-08 06:42 J -33939023.30 -33939023.22 -33939023.13 0.0144 0.0120

Mercury -97633-04-05 12:13 J -33938935.01 -33938934.99 -33938934.96 0.0145 0.0143

Venus -97633-06-26 14:37 J -33938852.95 -33938852.89 -33938852.79 0.0145 0.0134

Venus -97632-02-08 01:39 J -33938626.61 -33938626.43 -33938626.22 0.0145 0.0063

Venus -97632-09-22 13:11 J -33938400.16 -33938399.95 -33938399.73 0.0145 0.0010

Venus -97631-05-07 00:42 J -33938173.64 -33938173.47 -33938173.29 0.0145 0.0082

Moon -97614-03-31 23:15 J -33932000.63 -33932000.53 -33932000.39 0.0145 0.0128

Earth -97614-04-01 03:20 J -33932000.45 -33932000.36 -33932000.27 0.0145 0.0136 *

Earth -97613-04-05 13:11 J -33931630.18 -33931629.95 -33931629.71 0.0145 0.0067

Moon -97613-04-05 16:47 J -33931630.01 -33931629.80 -33931629.57 0.0145 0.0075 *

Moon -97612-04-10 20:08 J -33931259.93 -33931259.66 -33931259.39 0.0144 0.0005

Earth -97612-04-10 23:01 J -33931259.81 -33931259.54 -33931259.28 0.0144 0.0003 *

Earth -97611-04-16 07:25 J -33930889.41 -33930889.19 -33930888.95 0.0144 0.0068

Moon -97611-04-16 09:49 J -33930889.31 -33930889.09 -33930888.86 0.0144 0.0069 *

Moon -97610-04-21 13:54 J -33930519.02 -33930518.92 -33930518.78 0.0143 0.0129

Earth -97610-04-21 15:20 J -33930518.94 -33930518.86 -33930518.76 0.0143 0.0134 *

Mars -97603-08-18 18:13 J -33927843.03 -33927842.74 -33927842.46 0.0139 0.0025

Mercury -97597-07-12 08:51 J -33925688.16 -33925688.13 -33925688.07 0.0136 0.0130

Mercury -97597-10-08 13:54 J -33925600.00 -33925599.92 -33925599.81 0.0136 0.0111

Mercury -97596-01-04 19:25 J -33925511.81 -33925511.69 -33925511.57 0.0135 0.0091

Mercury -97596-04-03 00:13 J -33925423.62 -33925423.49 -33925423.35 0.0135 0.0072

Mercury -97596-06-30 05:15 J -33925335.43 -33925335.28 -33925335.13 0.0135 0.0053

Mercury -97596-09-26 10:03 J -33925247.23 -33925247.08 -33925246.92 0.0135 0.0035

Mercury -97596-12-23 15:06 J -33925159.03 -33925158.87 -33925158.71 0.0135 0.0016

Mercury -97595-03-21 19:54 J -33925070.83 -33925070.67 -33925070.51 0.0135 0.0003

Mercury -97595-06-18 00:42 J -33924982.63 -33924982.47 -33924982.31 0.0135 0.0021

Mercury -97595-09-14 05:30 J -33924894.43 -33924894.27 -33924894.12 0.0135 0.0039

Mercury -97595-12-11 10:03 J -33924806.22 -33924806.08 -33924805.94 0.0135 0.0057

Mercury -97594-03-09 14:37 J -33924718.02 -33924717.89 -33924717.76 0.0134 0.0074

Mercury -97594-06-05 18:56 J -33924629.81 -33924629.71 -33924629.58 0.0134 0.0093

Mercury -97594-09-01 23:30 J -33924541.59 -33924541.52 -33924541.42 0.0134 0.0110

Mercury -97594-11-29 04:03 J -33924453.37 -33924453.33 -33924453.27 0.0134 0.0127

Venus -97593-03-05 17:44 J -33924355.81 -33924355.76 -33924355.70 0.0134 0.0129

Venus -97593-10-17 23:59 J -33924129.68 -33924129.50 -33924129.30 0.0134 0.0072

Venus -97592-06-01 06:27 J -33923903.45 -33923903.23 -33923903.01 0.0134 0.0014

Venus -97591-01-13 12:13 J -33923677.19 -33923676.99 -33923676.77 0.0133 0.0043

Venus -97591-08-27 17:59 J -33923450.89 -33923450.75 -33923450.60 0.0133 0.0099

Earth -97570-10-07 00:42 J -33915740.63 -33915740.47 -33915740.27 0.0134 0.0091

Moon -97570-10-07 02:51 J -33915740.55 -33915740.38 -33915740.18 0.0134 0.0084 *

Moon -97569-10-09 23:15 J -33915371.76 -33915371.53 -33915371.29 0.0134 0.0048

Earth -97569-10-10 01:54 J -33915371.65 -33915371.42 -33915371.18 0.0134 0.0041 *

Earth -97568-10-14 02:51 J -33915002.63 -33915002.38 -33915002.14 0.0134 0.0008

Moon -97568-10-14 04:47 J -33915002.53 -33915002.30 -33915002.06 0.0134 0.0014 *

Moon -97567-10-18 01:25 J -33914633.66 -33914633.44 -33914633.20 0.0135 0.0054

Earth -97567-10-18 04:18 J -33914633.54 -33914633.32 -33914633.10 0.0135 0.0058 *

Earth -97566-10-22 06:13 J -33914264.38 -33914264.24 -33914264.09 0.0135 0.0109

Moon -97566-10-22 08:23 J -33914264.27 -33914264.15 -33914264.00 0.0135 0.0112 *

Mars -97557-09-04 01:25 J -33911024.65 -33911024.44 -33911024.18 0.0140 0.0097

Mercury -97552-03-05 23:44 J -33909380.56 -33909380.51 -33909380.46 0.0143 0.0133

Mercury -97552-06-02 04:32 J -33909292.39 -33909292.31 -33909292.21 0.0143 0.0113
 Mercury -97552-08-29 09:20 J -33909204.21 -33909204.11 -33909203.99 0.0143 0.0094
 Mercury -97552-11-25 14:23 J -33909116.02 -33909115.90 -33909115.76 0.0143 0.0073
 Mercury -97551-02-21 19:25 J -33909027.83 -33909027.69 -33909027.54 0.0143 0.0052
 Mercury -97551-05-21 00:42 J -33908939.62 -33908939.47 -33908939.32 0.0144 0.0031
 Mercury -97551-08-17 05:44 J -33908851.41 -33908851.26 -33908851.11 0.0144 0.0009
 Mercury -97551-11-13 10:47 J -33908763.20 -33908763.05 -33908762.89 0.0144 0.0013
 Mercury -97550-02-09 16:03 J -33908674.98 -33908674.83 -33908674.68 0.0144 0.0034
 Mercury -97550-05-08 21:20 J -33908586.75 -33908586.61 -33908586.46 0.0144 0.0056
 Mercury -97550-08-05 02:37 J -33908498.51 -33908498.39 -33908498.25 0.0144 0.0078
 Mercury -97550-11-01 08:08 J -33908410.27 -33908410.16 -33908410.05 0.0144 0.0101
 Mercury -97549-01-28 13:25 J -33908322.01 -33908321.94 -33908321.85 0.0144 0.0124
 Venus -97549-10-08 07:25 J -33908068.33 -33908068.19 -33908068.02 0.0145 0.0100
 Venus -97548-05-22 18:42 J -33907841.93 -33907841.72 -33907841.50 0.0145 0.0028
 Venus -97547-01-04 05:59 J -33907615.45 -33907615.25 -33907615.04 0.0145 0.0045
 Venus -97547-08-18 17:30 J -33907388.88 -33907388.77 -33907388.63 0.0146 0.0118
 Moon -97530-04-01 07:54 J -33901319.24 -33901319.17 -33901319.09 0.0145 0.0139
 Earth -97530-04-01 11:15 J -33901319.11 -33901319.03 -33901318.90 0.0145 0.0133 *
 Earth -97529-04-05 21:35 J -33900948.83 -33900948.60 -33900948.36 0.0145 0.0064
 Moon -97529-04-06 00:56 J -33900948.69 -33900948.46 -33900948.21 0.0145 0.0057 *
 Moon -97528-04-11 03:35 J -33900578.62 -33900578.35 -33900578.08 0.0144 0.0002
 Earth -97528-04-11 07:11 J -33900578.46 -33900578.20 -33900577.94 0.0144 0.0004 *
 Earth -97527-04-16 15:35 J -33900208.07 -33900207.85 -33900207.61 0.0144 0.0070
 Moon -97527-04-16 18:13 J -33900207.95 -33900207.74 -33900207.50 0.0144 0.0070 *
 Moon -97526-04-21 21:06 J -33899837.66 -33899837.62 -33899837.55 0.0143 0.0140
 Earth -97526-04-21 23:15 J -33899837.60 -33899837.53 -33899837.43 0.0143 0.0136 *
 Mars -97518-04-13 07:54 J -33896924.43 -33896924.17 -33896923.89 0.0139 0.0048
 Mercury -97513-08-01 16:03 J -33894986.88 -33894986.83 -33894986.77 0.0136 0.0126
 Mercury -97513-10-28 21:06 J -33894898.71 -33894898.62 -33894898.52 0.0136 0.0107
 Mercury -97512-01-25 02:08 J -33894810.53 -33894810.41 -33894810.28 0.0135 0.0087

Mercury -97512-04-23 07:11 J -33894722.34 -33894722.20 -33894722.06 0.0135 0.0068

Mercury -97512-07-20 12:13 J -33894634.14 -33894633.99 -33894633.84 0.0135 0.0049

Mercury -97512-10-16 17:01 J -33894545.94 -33894545.79 -33894545.63 0.0135 0.0031

Mercury -97511-01-12 22:03 J -33894457.74 -33894457.58 -33894457.42 0.0135 0.0012

Mercury -97511-04-11 02:51 J -33894369.54 -33894369.38 -33894369.22 0.0135 0.0007

Mercury -97511-07-08 07:25 J -33894281.34 -33894281.19 -33894281.03 0.0135 0.0025

Mercury -97511-10-04 12:13 J -33894193.14 -33894192.99 -33894192.84 0.0135 0.0043

Mercury -97511-12-31 16:47 J -33894104.93 -33894104.80 -33894104.65 0.0135 0.0061

Mercury -97510-03-29 21:35 J -33894016.73 -33894016.60 -33894016.47 0.0134 0.0078

Mercury -97510-06-26 02:08 J -33893928.52 -33893928.41 -33893928.30 0.0134 0.0095

Mercury -97510-09-22 06:42 J -33893840.30 -33893840.22 -33893840.13 0.0134 0.0113

Mercury -97510-12-19 11:15 J -33893752.06 -33893752.03 -33893751.99 0.0134 0.0130

Venus -97509-06-17 08:51 J -33893571.27 -33893571.13 -33893570.98 0.0134 0.0100

Venus -97508-01-29 15:06 J -33893345.07 -33893344.87 -33893344.65 0.0134 0.0043

Venus -97508-09-12 21:20 J -33893118.83 -33893118.61 -33893118.39 0.0133 0.0015

Venus -97507-04-27 03:20 J -33892892.54 -33892892.36 -33892892.17 0.0133 0.0071

Venus -97507-12-09 08:51 J -33892666.18 -33892666.13 -33892666.06 0.0133 0.0127

Moon -97487-10-03 07:11 J -33885428.24 -33885428.20 -33885428.12 0.0133 0.0129

Earth -97486-10-07 10:03 J -33885059.25 -33885059.08 -33885058.88 0.0134 0.0088

Moon -97486-10-07 13:11 J -33885059.11 -33885058.95 -33885058.77 0.0134 0.0094 *

Moon -97485-10-10 08:23 J -33884690.39 -33884690.15 -33884689.90 0.0134 0.0032

Earth -97485-10-10 11:01 J -33884690.27 -33884690.04 -33884689.80 0.0134 0.0039 *

Earth -97484-10-14 11:59 J -33884321.24 -33884321.00 -33884320.75 0.0134 0.0011

Moon -97484-10-14 15:06 J -33884321.11 -33884320.87 -33884320.63 0.0134 0.0004 *

Moon -97483-10-18 10:32 J -33883952.27 -33883952.06 -33883951.83 0.0135 0.0065

Earth -97483-10-18 13:25 J -33883952.15 -33883951.94 -33883951.71 0.0135 0.0060 *

Earth -97482-10-22 15:20 J -33883582.99 -33883582.86 -33883582.71 0.0135 0.0110

Moon -97482-10-22 17:44 J -33883582.88 -33883582.76 -33883582.60 0.0135 0.0110 *

Mars -97474-05-26 13:25 J -33880810.23 -33880809.94 -33880809.63 0.0140 0.0056

Mercury -97468-03-26 06:27 J -33878679.28 -33878679.23 -33878679.16 0.0143 0.0130

Mercury -97468-06-22 11:15 J -33878591.12 -33878591.03 -33878590.93 0.0143 0.0110

Mercury -97468-09-18 16:18 J -33878502.93 -33878502.82 -33878502.70 0.0143 0.0090

Mercury -97468-12-15 21:20 J -33878414.74 -33878414.61 -33878414.48 0.0143 0.0069

Mercury -97467-03-14 02:23 J -33878326.54 -33878326.40 -33878326.26 0.0143 0.0048

Mercury -97467-06-10 07:25 J -33878238.34 -33878238.19 -33878238.04 0.0144 0.0027

Mercury -97467-09-06 12:27 J -33878150.13 -33878149.98 -33878149.82 0.0144 0.0007

Mercury -97467-12-03 17:44 J -33878061.91 -33878061.76 -33878061.61 0.0144 0.0016

Mercury -97466-03-01 23:01 J -33877973.69 -33877973.54 -33877973.39 0.0144 0.0037

Mercury -97466-05-29 04:18 J -33877885.46 -33877885.32 -33877885.18 0.0144 0.0059

Mercury -97466-08-25 09:35 J -33877797.23 -33877797.10 -33877796.97 0.0144 0.0082

Mercury -97466-11-21 14:51 J -33877708.98 -33877708.88 -33877708.77 0.0144 0.0104

Mercury -97465-02-17 20:23 J -33877620.72 -33877620.65 -33877620.57 0.0144 0.0127

Venus -97465-06-07 13:25 J -33877510.01 -33877509.94 -33877509.87 0.0145 0.0136

Venus -97464-01-20 00:13 J -33877283.68 -33877283.49 -33877283.29 0.0145 0.0065

Venus -97464-09-03 11:30 J -33877057.23 -33877057.02 -33877056.80 0.0145 0.0007

Venus -97463-04-17 22:47 J -33876830.72 -33876830.55 -33876830.36 0.0145 0.0080

Moon -97446-04-01 15:49 J -33870637.97 -33870637.84 -33870637.69 0.0145 0.0123

Earth -97446-04-01 19:11 J -33870637.80 -33870637.70 -33870637.56 0.0145 0.0129 *

Earth -97445-04-06 05:01 J -33870267.51 -33870267.29 -33870267.03 0.0145 0.0062

Moon -97445-04-06 09:06 J -33870267.34 -33870267.12 -33870266.88 0.0145 0.0070 *

Moon -97444-04-11 11:15 J -33869897.29 -33869897.03 -33869896.76 0.0144 0.0011

Earth -97444-04-11 14:51 J -33869897.14 -33869896.88 -33869896.61 0.0144 0.0006 *

Earth -97443-04-16 23:15 J -33869526.75 -33869526.53 -33869526.30 0.0144 0.0072

Moon -97443-04-17 02:37 J -33869526.61 -33869526.39 -33869526.16 0.0144 0.0072 *

Moon -97442-04-22 04:03 J -33869156.41 -33869156.33 -33869156.21 0.0143 0.0133

Earth -97442-04-22 06:56 J -33869156.26 -33869156.21 -33869156.11 0.0143 0.0137 *

Mars -97435-01-05 07:11 J -33866706.42 -33866706.20 -33866705.94 0.0139 0.0080

Mars -97434-12-06 19:25 J -33866005.82 -33866005.69 -33866005.53 0.0138 0.0119

Mercury -97429-08-21 22:47 J -33864285.61 -33864285.55 -33864285.47 0.0136 0.0123

Mercury -97429-11-18 04:03 J -33864197.43 -33864197.33 -33864197.22 0.0136 0.0103

Mercury -97428-02-14 09:06 J -33864109.24 -33864109.12 -33864108.99 0.0135 0.0084

Mercury -97428-05-13 14:08 J -33864021.05 -33864020.91 -33864020.77 0.0135 0.0065

Mercury -97428-08-09 18:56 J -33863932.86 -33863932.71 -33863932.55 0.0135 0.0046

Mercury -97428-11-05 23:59 J -33863844.66 -33863844.50 -33863844.34 0.0135 0.0027

Mercury -97427-02-02 04:47 J -33863756.46 -33863756.30 -33863756.14 0.0135 0.0009

Mercury -97427-05-01 09:35 J -33863668.25 -33863668.10 -33863667.94 0.0135 0.0011

Mercury -97427-07-28 14:23 J -33863580.05 -33863579.90 -33863579.74 0.0135 0.0028

Mercury -97427-10-24 19:11 J -33863491.85 -33863491.70 -33863491.55 0.0135 0.0046

Mercury -97426-01-20 23:44 J -33863403.64 -33863403.51 -33863403.36 0.0135 0.0064

Mercury -97426-04-19 04:18 J -33863315.43 -33863315.32 -33863315.19 0.0134 0.0082

Mercury -97426-07-16 09:06 J -33863227.22 -33863227.12 -33863227.01 0.0134 0.0099

Mercury -97426-10-12 13:25 J -33863139.01 -33863138.94 -33863138.85 0.0134 0.0116

Mercury -97425-01-08 17:59 J -33863050.76 -33863050.75 -33863050.72 0.0134 0.0133

Venus -97425-02-15 17:01 J -33863012.83 -33863012.79 -33863012.71 0.0134 0.0129

Venus -97425-09-28 23:44 J -33862786.68 -33862786.51 -33862786.31 0.0134 0.0071

Venus -97424-05-13 06:27 J -33862560.45 -33862560.23 -33862560.01 0.0134 0.0013

Venus -97424-12-25 12:27 J -33862334.19 -33862333.98 -33862333.77 0.0133 0.0044

Venus -97423-08-08 17:44 J -33862107.88 -33862107.76 -33862107.60 0.0133 0.0100

Earth -97403-10-03 18:27 J -33854746.73 -33854746.73 -33854746.69 0.0133 0.0133

Earth -97402-10-07 18:42 J -33854377.89 -33854377.72 -33854377.52 0.0133 0.0086

Moon -97402-10-07 21:49 J -33854377.78 -33854377.59 -33854377.39 0.0133 0.0079 *

Moon -97401-10-10 16:03 J -33854009.05 -33854008.83 -33854008.58 0.0134 0.0045

Earth -97401-10-10 19:39 J -33854008.91 -33854008.68 -33854008.44 0.0134 0.0037 *

Earth -97400-10-14 20:37 J -33853639.88 -33853639.64 -33853639.39 0.0134 0.0012

Moon -97400-10-14 23:44 J -33853639.75 -33853639.51 -33853639.27 0.0134 0.0018 *

Moon -97399-10-18 18:42 J -33853270.93 -33853270.72 -33853270.48 0.0135 0.0057

Earth -97399-10-18 22:03 J -33853270.79 -33853270.58 -33853270.35 0.0135 0.0062 *

Earth -97398-10-22 23:59 J -33852901.62 -33852901.50 -33852901.35 0.0135 0.0111

Moon -97398-10-23 03:06 J -33852901.47 -33852901.37 -33852901.22 0.0135 0.0115 *

Mars -97389-01-20 05:01 J -33849890.60 -33849890.29 -33849889.96 0.0140 0.0029

Mercury -97384-04-15 13:11 J -33847978.00 -33847977.95 -33847977.87 0.0143 0.0127

Mercury -97384-07-12 18:13 J -33847889.83 -33847889.74 -33847889.64 0.0143 0.0107

Mercury -97384-10-08 23:15 J -33847801.65 -33847801.53 -33847801.41 0.0143 0.0086

Mercury -97383-01-05 04:18 J -33847713.46 -33847713.32 -33847713.19 0.0143 0.0066

Mercury -97383-04-03 09:06 J -33847625.26 -33847625.12 -33847624.97 0.0143 0.0045

Mercury -97383-06-30 14:23 J -33847537.05 -33847536.90 -33847536.75 0.0144 0.0024

Mercury -97383-09-26 19:25 J -33847448.84 -33847448.69 -33847448.53 0.0144 0.0003

Mercury -97383-12-24 00:42 J -33847360.63 -33847360.47 -33847360.32 0.0144 0.0019

Mercury -97382-03-22 05:44 J -33847272.40 -33847272.26 -33847272.11 0.0144 0.0041

Mercury -97382-06-18 11:01 J -33847184.17 -33847184.04 -33847183.89 0.0144 0.0063

Mercury -97382-09-14 16:18 J -33847095.94 -33847095.82 -33847095.69 0.0144 0.0086

Mercury -97382-12-11 21:49 J -33847007.69 -33847007.59 -33847007.48 0.0144 0.0108

Mercury -97381-03-09 03:06 J -33846919.42 -33846919.37 -33846919.29 0.0145 0.0131

Venus -97381-09-19 05:59 J -33846725.39 -33846725.25 -33846725.09 0.0145 0.0102

Venus -97380-05-03 17:15 J -33846498.99 -33846498.78 -33846498.57 0.0145 0.0030

Venus -97380-12-16 04:32 J -33846272.51 -33846272.31 -33846272.10 0.0145 0.0042

Venus -97379-07-30 15:49 J -33846045.96 -33846045.84 -33846045.70 0.0146 0.0115

Moon -97362-04-01 23:44 J -33839956.58 -33839956.51 -33839956.38 0.0145 0.0134

Earth -97362-04-02 03:06 J -33839956.48 -33839956.37 -33839956.22 0.0145 0.0127 *

Earth -97361-04-06 13:25 J -33839586.18 -33839585.94 -33839585.70 0.0145 0.0059

Moon -97361-04-06 16:47 J -33839586.04 -33839585.80 -33839585.55 0.0145 0.0052 *

Moon -97360-04-11 18:56 J -33839215.97 -33839215.71 -33839215.45 0.0144 0.0002

Earth -97360-04-11 22:47 J -33839215.81 -33839215.55 -33839215.28 0.0144 0.0008 *

Earth -97359-04-17 07:11 J -33838845.41 -33838845.20 -33838844.96 0.0144 0.0074

Moon -97359-04-17 10:47 J -33838845.26 -33838845.05 -33838844.81 0.0144 0.0075 *

Moon -97358-04-22 11:59 J -33838475.01 -33838475.00 -33838474.96 0.0143 0.0143

Earth -97358-04-22 15:06 J -33838474.92 -33838474.87 -33838474.78 0.0143 0.0139

Mars -97351-08-30 21:20 J -33835787.90 -33835787.61 -33835787.32 0.0139 0.0006

Mercury -97345-09-11 05:44 J -33833584.33 -33833584.26 -33833584.18 0.0136 0.0119

Mercury -97345-12-08 10:47 J -33833496.15 -33833496.05 -33833495.93 0.0136 0.0100

Mercury -97344-03-06 15:49 J -33833407.96 -33833407.84 -33833407.70 0.0135 0.0081

Mercury -97344-06-02 20:51 J -33833319.77 -33833319.63 -33833319.48 0.0135 0.0062

Mercury -97344-08-30 01:54 J -33833231.57 -33833231.42 -33833231.26 0.0135 0.0042

Mercury -97344-11-26 06:56 J -33833143.37 -33833143.21 -33833143.05 0.0135 0.0024

Mercury -97343-02-22 11:44 J -33833055.17 -33833055.01 -33833054.85 0.0135 0.0006

Mercury -97343-05-21 16:32 J -33832966.96 -33832966.81 -33832966.65 0.0135 0.0014

Mercury -97343-08-17 21:20 J -33832878.76 -33832878.61 -33832878.45 0.0135 0.0032

Mercury -97343-11-14 02:08 J -33832790.56 -33832790.41 -33832790.26 0.0135 0.0049

Mercury -97342-02-10 06:42 J -33832702.35 -33832702.22 -33832702.08 0.0134 0.0067

Mercury -97342-05-09 11:15 J -33832614.14 -33832614.03 -33832613.90 0.0134 0.0085

Mercury -97342-08-05 15:49 J -33832525.93 -33832525.84 -33832525.73 0.0134 0.0103

Mercury -97342-11-01 20:37 J -33832437.71 -33832437.64 -33832437.57 0.0134 0.0119

Venus -97341-05-29 08:51 J -33832228.27 -33832228.13 -33832227.98 0.0134 0.0099

Venus -97340-01-10 15:06 J -33832002.07 -33832001.87 -33832001.65 0.0134 0.0042

Venus -97340-08-24 21:35 J -33831775.82 -33831775.60 -33831775.38 0.0133 0.0016

Venus -97339-04-08 03:20 J -33831549.53 -33831549.36 -33831549.17 0.0133 0.0073

Venus -97339-11-20 09:20 J -33831323.16 -33831323.11 -33831323.06 0.0133 0.0128

Moon -97319-10-04 00:42 J -33824065.53 -33824065.47 -33824065.36 0.0133 0.0125

Earth -97319-10-04 04:03 J -33824065.36 -33824065.33 -33824065.26 0.0133 0.0131 *

Earth -97318-10-08 04:47 J -33823696.49 -33823696.30 -33823696.11 0.0133 0.0083

Moon -97318-10-08 07:54 J -33823696.33 -33823696.17 -33823695.97 0.0133 0.0090 *

Moon -97317-10-11 02:08 J -33823327.65 -33823327.41 -33823327.17 0.0134 0.0028

Earth -97317-10-11 05:15 J -33823327.51 -33823327.28 -33823327.03 0.0134 0.0035 *

Earth -97316-10-15 06:13 J -33822958.48 -33822958.24 -33822957.99 0.0134 0.0015

Moon -97316-10-15 09:49 J -33822958.33 -33822958.09 -33822957.84 0.0134 0.0007 *

Moon -97315-10-19 04:32 J -33822589.52 -33822589.31 -33822589.09 0.0135 0.0069

Earth -97315-10-19 08:08 J -33822589.38 -33822589.16 -33822588.95 0.0135 0.0063 *

Earth -97314-10-23 09:35 J -33822220.21 -33822220.10 -33822219.95 0.0135 0.0113

Moon -97314-10-23 13:25 J -33822220.08 -33822219.94 -33822219.80 0.0135 0.0111 *

Mars -97307-10-10 21:06 J -33819675.76 -33819675.62 -33819675.44 0.0139 0.0120

Mars -97305-09-14 23:30 J -33818970.71 -33818970.52 -33818970.32 0.0140 0.0114
 Mercury -97300-05-05 20:23 J -33817276.72 -33817276.65 -33817276.57 0.0143 0.0123
 Mercury -97300-08-02 01:11 J -33817188.55 -33817188.45 -33817188.34 0.0143 0.0103
 Mercury -97300-10-29 05:59 J -33817100.36 -33817100.25 -33817100.11 0.0143 0.0083
 Mercury -97299-01-25 11:01 J -33817012.17 -33817012.04 -33817011.89 0.0143 0.0063
 Mercury -97299-04-23 16:03 J -33816923.97 -33816923.83 -33816923.68 0.0143 0.0042
 Mercury -97299-07-20 21:20 J -33816835.76 -33816835.61 -33816835.46 0.0144 0.0020
 Mercury -97299-10-17 02:23 J -33816747.55 -33816747.40 -33816747.24 0.0144 0.0003
 Mercury -97298-01-13 07:39 J -33816659.33 -33816659.18 -33816659.03 0.0144 0.0023
 Mercury -97298-04-11 12:42 J -33816571.11 -33816570.97 -33816570.82 0.0144 0.0045
 Mercury -97298-07-08 17:59 J -33816482.88 -33816482.75 -33816482.60 0.0144 0.0067
 Mercury -97298-10-04 23:15 J -33816394.64 -33816394.53 -33816394.40 0.0144 0.0090
 Mercury -97297-01-01 04:47 J -33816306.39 -33816306.30 -33816306.20 0.0144 0.0112
 Mercury -97297-03-29 10:03 J -33816218.12 -33816218.08 -33816218.01 0.0145 0.0135
 Venus -97297-05-19 12:13 J -33816167.04 -33816166.99 -33816166.92 0.0145 0.0138
 Venus -97297-12-31 23:01 J -33815940.72 -33815940.54 -33815940.34 0.0145 0.0067
 Venus -97296-08-15 10:18 J -33815714.28 -33815714.07 -33815713.85 0.0145 0.0005
 Venus -97295-03-29 21:35 J -33815487.78 -33815487.60 -33815487.41 0.0145 0.0078
 Moon -97278-04-02 08:51 J -33809275.26 -33809275.13 -33809274.97 0.0145 0.0119
 Earth -97278-04-02 11:30 J -33809275.14 -33809275.02 -33809274.87 0.0145 0.0124 *
 Earth -97277-04-06 21:20 J -33808904.84 -33808904.61 -33808904.36 0.0145 0.0057
 Moon -97277-04-07 00:56 J -33808904.69 -33808904.46 -33808904.21 0.0145 0.0065 *
 Moon -97276-04-12 03:35 J -33808534.61 -33808534.35 -33808534.09 0.0145 0.0016
 Earth -97276-04-12 06:56 J -33808534.47 -33808534.21 -33808533.94 0.0145 0.0010 *
 Earth -97275-04-17 15:20 J -33808164.07 -33808163.86 -33808163.63 0.0144 0.0075
 Moon -97275-04-17 19:11 J -33808163.92 -33808163.70 -33808163.47 0.0144 0.0075 *
 Moon -97274-04-22 20:08 J -33807793.74 -33807793.66 -33807793.58 0.0143 0.0137
 Earth -97274-04-22 23:30 J -33807793.56 -33807793.52 -33807793.45 0.0143 0.0140
 Mars -97268-05-24 18:42 J -33805569.78 -33805569.72 -33805569.62 0.0140 0.0134
 Mars -97266-04-25 10:18 J -33804869.31 -33804869.07 -33804868.81 0.0139 0.0066

Mercury -97261-07-05 07:25 J -33802971.20 -33802971.19 -33802971.16 0.0136 0.0135

Mercury -97261-10-01 12:27 J -33802883.05 -33802882.98 -33802882.88 0.0136 0.0116

Mercury -97261-12-28 17:44 J -33802794.87 -33802794.76 -33802794.64 0.0135 0.0096

Mercury -97260-03-26 22:47 J -33802706.67 -33802706.55 -33802706.41 0.0135 0.0077

Mercury -97260-06-23 04:03 J -33802618.48 -33802618.33 -33802618.19 0.0135 0.0057

Mercury -97260-09-19 08:51 J -33802530.28 -33802530.13 -33802529.97 0.0135 0.0039

Mercury -97260-12-16 13:54 J -33802442.08 -33802441.92 -33802441.76 0.0135 0.0020

Mercury -97259-03-14 18:42 J -33802353.88 -33802353.72 -33802353.56 0.0135 0.0003

Mercury -97259-06-10 23:30 J -33802265.67 -33802265.52 -33802265.36 0.0135 0.0017

Mercury -97259-09-07 04:18 J -33802177.47 -33802177.32 -33802177.16 0.0135 0.0035

Mercury -97259-12-04 08:51 J -33802089.26 -33802089.13 -33802088.97 0.0135 0.0054

Mercury -97258-03-02 13:39 J -33802001.06 -33802000.93 -33802000.79 0.0134 0.0071

Mercury -97258-05-29 18:27 J -33801912.85 -33801912.73 -33801912.61 0.0134 0.0088

Mercury -97258-08-25 22:47 J -33801824.63 -33801824.55 -33801824.44 0.0134 0.0106

Mercury -97258-11-22 03:20 J -33801736.41 -33801736.36 -33801736.29 0.0134 0.0123

Venus -97257-01-27 17:15 J -33801669.83 -33801669.78 -33801669.70 0.0134 0.0128

Venus -97257-09-09 23:59 J -33801443.68 -33801443.50 -33801443.30 0.0134 0.0070

Venus -97256-04-24 06:42 J -33801217.44 -33801217.22 -33801217.00 0.0134 0.0012

Venus -97256-12-06 12:42 J -33800991.17 -33800990.97 -33800990.76 0.0133 0.0045

Venus -97255-07-20 18:13 J -33800764.87 -33800764.74 -33800764.58 0.0133 0.0101

Moon -97235-10-04 09:35 J -33793384.11 -33793384.10 -33793384.04 0.0133 0.0132

Earth -97235-10-04 13:11 J -33793383.99 -33793383.95 -33793383.86 0.0133 0.0128

Earth -97234-10-08 13:54 J -33793015.11 -33793014.92 -33793014.72 0.0133 0.0081

Moon -97234-10-08 17:01 J -33793014.98 -33793014.79 -33793014.58 0.0133 0.0075 *

Moon -97233-10-11 10:47 J -33792646.27 -33792646.05 -33792645.80 0.0134 0.0041

Earth -97233-10-11 14:37 J -33792646.12 -33792645.89 -33792645.65 0.0134 0.0033 *

Earth -97232-10-15 15:35 J -33792277.09 -33792276.85 -33792276.60 0.0134 0.0016

Moon -97232-10-15 19:11 J -33792276.95 -33792276.70 -33792276.46 0.0134 0.0023 *

Moon -97231-10-19 13:25 J -33791908.14 -33791907.94 -33791907.70 0.0135 0.0060

Earth -97231-10-19 17:01 J -33791907.99 -33791907.79 -33791907.56 0.0135 0.0065 *

Earth -97230-10-23 18:56 J -33791538.82 -33791538.71 -33791538.56 0.0135 0.0114
 Moon -97230-10-23 22:32 J -33791538.65 -33791538.56 -33791538.42 0.0135 0.0118 *
 Mars -97222-06-06 11:59 J -33788756.31 -33788756.00 -33788755.67 0.0139 0.0038
 Mercury -97216-02-26 22:18 J -33786663.58 -33786663.57 -33786663.53 0.0143 0.0140
 Mercury -97216-05-26 03:06 J -33786575.44 -33786575.37 -33786575.27 0.0143 0.0120
 Mercury -97216-08-22 08:23 J -33786487.26 -33786487.15 -33786487.04 0.0143 0.0100
 Mercury -97216-11-18 13:11 J -33786399.07 -33786398.95 -33786398.82 0.0143 0.0079
 Mercury -97215-02-14 18:13 J -33786310.88 -33786310.74 -33786310.60 0.0143 0.0058
 Mercury -97215-05-13 23:15 J -33786222.68 -33786222.53 -33786222.38 0.0144 0.0038
 Mercury -97215-08-10 04:18 J -33786134.47 -33786134.32 -33786134.17 0.0144 0.0016
 Mercury -97215-11-06 09:20 J -33786046.26 -33786046.11 -33786045.95 0.0144 0.0007
 Mercury -97214-02-02 14:37 J -33785958.04 -33785957.89 -33785957.74 0.0144 0.0027
 Mercury -97214-05-01 19:39 J -33785869.82 -33785869.68 -33785869.53 0.0144 0.0049
 Mercury -97214-07-29 00:56 J -33785781.59 -33785781.46 -33785781.32 0.0144 0.0071
 Mercury -97214-10-25 06:13 J -33785693.35 -33785693.24 -33785693.11 0.0144 0.0094
 Mercury -97213-01-21 11:44 J -33785605.10 -33785605.01 -33785604.91 0.0144 0.0116
 Mercury -97213-04-18 17:01 J -33785516.82 -33785516.79 -33785516.73 0.0145 0.0139
 Venus -97213-08-31 05:01 J -33785382.43 -33785382.29 -33785382.13 0.0145 0.0104
 Venus -97212-04-14 16:18 J -33785156.03 -33785155.82 -33785155.61 0.0145 0.0032
 Venus -97212-11-27 03:35 J -33784929.55 -33784929.35 -33784929.14 0.0145 0.0041
 Venus -97211-07-11 14:51 J -33784703.00 -33784702.88 -33784702.73 0.0146 0.0114
 Moon -97194-04-02 18:42 J -33778593.83 -33778593.72 -33778593.58 0.0146 0.0127
 Earth -97194-04-02 20:51 J -33778593.75 -33778593.63 -33778593.46 0.0146 0.0121 *
 Earth -97193-04-07 06:56 J -33778223.44 -33778223.21 -33778222.96 0.0145 0.0054
 Moon -97193-04-07 09:49 J -33778223.34 -33778223.09 -33778222.83 0.0145 0.0046 *
 Moon -97192-04-12 12:56 J -33777853.22 -33777852.96 -33777852.70 0.0145 0.0007
 Earth -97192-04-12 16:32 J -33777853.07 -33777852.81 -33777852.55 0.0145 0.0012 *
 Earth -97191-04-18 00:56 J -33777482.67 -33777482.46 -33777482.22 0.0144 0.0078
 Moon -97191-04-18 04:47 J -33777482.51 -33777482.30 -33777482.07 0.0144 0.0080 *
 Earth -97190-04-23 09:20 J -33777112.14 -33777112.11 -33777112.06 0.0143 0.0142

Mars -97183-01-17 11:15 J -33774651.28 -33774651.03 -33774650.76 0.0139 0.0060
 Mars -97182-12-18 23:30 J -33773950.56 -33773950.52 -33773950.46 0.0138 0.0136
 Mercury -97177-07-25 14:23 J -33772269.92 -33772269.90 -33772269.84 0.0136 0.0131
 Mercury -97177-10-21 19:54 J -33772181.76 -33772181.67 -33772181.57 0.0136 0.0111
 Mercury -97176-01-18 00:56 J -33772093.57 -33772093.46 -33772093.33 0.0135 0.0091
 Mercury -97176-04-16 05:59 J -33772005.38 -33772005.25 -33772005.11 0.0135 0.0072
 Mercury -97176-07-13 11:01 J -33771917.18 -33771917.04 -33771916.89 0.0135 0.0053
 Mercury -97176-10-09 16:03 J -33771828.98 -33771828.83 -33771828.67 0.0135 0.0034
 Mercury -97175-01-05 21:06 J -33771740.78 -33771740.62 -33771740.46 0.0135 0.0016
 Mercury -97175-04-04 01:54 J -33771652.58 -33771652.42 -33771652.26 0.0135 0.0003
 Mercury -97175-07-01 06:42 J -33771564.38 -33771564.22 -33771564.06 0.0135 0.0021
 Mercury -97175-09-27 11:30 J -33771476.17 -33771476.02 -33771475.87 0.0135 0.0039
 Mercury -97175-12-24 16:03 J -33771387.96 -33771387.83 -33771387.68 0.0134 0.0058
 Mercury -97174-03-22 20:51 J -33771299.76 -33771299.63 -33771299.49 0.0134 0.0075
 Mercury -97174-06-19 01:25 J -33771211.54 -33771211.44 -33771211.32 0.0134 0.0093
 Mercury -97174-09-15 05:59 J -33771123.33 -33771123.25 -33771123.15 0.0134 0.0110
 Mercury -97174-12-12 10:32 J -33771035.10 -33771035.06 -33771035.00 0.0134 0.0127
 Venus -97173-05-10 09:20 J -33770885.25 -33770885.11 -33770884.95 0.0134 0.0098
 Venus -97173-12-22 15:49 J -33770659.04 -33770658.84 -33770658.62 0.0134 0.0041
 Venus -97172-08-05 22:03 J -33770432.79 -33770432.58 -33770432.35 0.0133 0.0018
 Venus -97171-03-20 03:49 J -33770206.51 -33770206.34 -33770206.14 0.0133 0.0075
 Venus -97171-11-01 09:35 J -33769980.13 -33769980.10 -33769980.04 0.0133 0.0130
 Moon -97151-10-04 20:23 J -33762702.73 -33762702.65 -33762702.52 0.0133 0.0120
 Earth -97151-10-04 23:59 J -33762702.57 -33762702.50 -33762702.40 0.0133 0.0124 *
 Earth -97150-10-09 00:13 J -33762333.67 -33762333.49 -33762333.27 0.0133 0.0078
 Moon -97150-10-09 04:18 J -33762333.51 -33762333.32 -33762333.13 0.0133 0.0084 *
 Moon -97149-10-11 22:03 J -33761964.82 -33761964.58 -33761964.34 0.0134 0.0023
 Earth -97149-10-12 01:11 J -33761964.68 -33761964.45 -33761964.20 0.0134 0.0030 *
 Earth -97148-10-16 02:23 J -33761595.64 -33761595.40 -33761595.15 0.0134 0.0018
 Moon -97148-10-16 05:59 J -33761595.50 -33761595.25 -33761595.01 0.0134 0.0011 *

Moon -97147-10-20 00:27 J -33761226.67 -33761226.48 -33761226.26 0.0135 0.0074
 Earth -97147-10-20 04:03 J -33761226.54 -33761226.33 -33761226.11 0.0135 0.0067 *
 Earth -97146-10-24 06:13 J -33760857.36 -33760857.24 -33760857.12 0.0135 0.0116
 Moon -97146-10-24 09:20 J -33760857.24 -33760857.11 -33760856.97 0.0135 0.0113 *
 Mars -97137-01-31 07:25 J -33757836.49 -33757836.19 -33757835.87 0.0140 0.0048
 Mercury -97132-03-19 05:44 J -33755962.30 -33755962.26 -33755962.21 0.0143 0.0135
 Mercury -97132-06-15 10:32 J -33755874.14 -33755874.06 -33755873.97 0.0143 0.0115
 Mercury -97132-09-11 15:20 J -33755785.96 -33755785.86 -33755785.74 0.0143 0.0095
 Mercury -97132-12-08 20:23 J -33755697.78 -33755697.65 -33755697.52 0.0143 0.0075
 Mercury -97131-03-07 01:11 J -33755609.58 -33755609.45 -33755609.30 0.0143 0.0055
 Mercury -97131-06-03 06:27 J -33755521.38 -33755521.23 -33755521.08 0.0144 0.0033
 Mercury -97131-08-30 11:30 J -33755433.17 -33755433.02 -33755432.87 0.0144 0.0012
 Mercury -97131-11-26 16:32 J -33755344.96 -33755344.81 -33755344.65 0.0144 0.0011
 Mercury -97130-02-22 21:49 J -33755256.74 -33755256.59 -33755256.44 0.0144 0.0031
 Mercury -97130-05-22 03:06 J -33755168.52 -33755168.37 -33755168.23 0.0144 0.0053
 Mercury -97130-08-18 08:08 J -33755080.28 -33755080.16 -33755080.02 0.0144 0.0076
 Mercury -97130-11-14 13:39 J -33754992.04 -33754991.93 -33754991.81 0.0144 0.0098
 Mercury -97129-02-10 18:56 J -33754903.79 -33754903.71 -33754903.62 0.0144 0.0120
 Venus -97129-04-30 11:59 J -33754824.05 -33754824.00 -33754823.94 0.0145 0.0139
 Mercury -97129-05-09 00:27 J -33754815.50 -33754815.48 -33754815.46 0.0145 0.0143
 Venus -97129-12-12 22:47 J -33754597.73 -33754597.55 -33754597.35 0.0145 0.0068
 Venus -97128-07-27 10:03 J -33754371.30 -33754371.08 -33754370.87 0.0145 0.0005
 Venus -97127-03-10 21:20 J -33754144.79 -33754144.61 -33754144.43 0.0145 0.0077
 Moon -97110-04-03 05:59 J -33747912.40 -33747912.25 -33747912.08 0.0146 0.0112
 Earth -97110-04-03 06:42 J -33747912.35 -33747912.22 -33747912.04 0.0146 0.0117 *
 Earth -97109-04-07 16:47 J -33747542.03 -33747541.80 -33747541.54 0.0145 0.0050
 Moon -97109-04-07 19:39 J -33747541.92 -33747541.68 -33747541.43 0.0145 0.0058 *
 Moon -97108-04-12 23:44 J -33747171.76 -33747171.51 -33747171.25 0.0145 0.0023
 Earth -97108-04-13 02:37 J -33747171.65 -33747171.39 -33747171.13 0.0145 0.0016 *
 Earth -97107-04-18 11:01 J -33746801.24 -33746801.04 -33746800.80 0.0144 0.0081

Moon -97107-04-18 14:51 J -33746801.09 -33746800.88 -33746800.65 0.0144 0.0080 *
 Moon -97106-04-23 16:03 J -33746430.86 -33746430.83 -33746430.79 0.0143 0.0142
 Mars -97099-09-12 03:49 J -33743732.62 -33743732.34 -33743732.05 0.0139 0.0014
 Mercury -97093-08-14 21:49 J -33741568.64 -33741568.59 -33741568.52 0.0136 0.0126
 Mercury -97093-11-11 03:06 J -33741480.46 -33741480.37 -33741480.26 0.0136 0.0106
 Mercury -97092-02-07 08:08 J -33741392.27 -33741392.16 -33741392.03 0.0135 0.0087
 Mercury -97092-05-06 13:25 J -33741304.08 -33741303.94 -33741303.80 0.0135 0.0067
 Mercury -97092-08-02 18:27 J -33741215.88 -33741215.73 -33741215.58 0.0135 0.0048
 Mercury -97092-10-29 23:15 J -33741127.68 -33741127.53 -33741127.37 0.0135 0.0030
 Mercury -97091-01-26 04:18 J -33741039.48 -33741039.32 -33741039.16 0.0135 0.0011
 Mercury -97091-04-24 09:06 J -33740951.28 -33740951.12 -33740950.95 0.0135 0.0009
 Mercury -97091-07-21 14:08 J -33740863.07 -33740862.91 -33740862.76 0.0135 0.0026
 Mercury -97091-10-17 18:42 J -33740774.87 -33740774.72 -33740774.56 0.0135 0.0044
 Mercury -97090-01-13 23:30 J -33740686.66 -33740686.52 -33740686.38 0.0134 0.0062
 Mercury -97090-04-12 04:03 J -33740598.45 -33740598.33 -33740598.19 0.0134 0.0080
 Mercury -97090-07-09 08:37 J -33740510.24 -33740510.14 -33740510.02 0.0134 0.0097
 Mercury -97090-10-05 13:25 J -33740422.02 -33740421.94 -33740421.86 0.0134 0.0114
 Mercury -97089-01-01 17:59 J -33740333.77 -33740333.75 -33740333.72 0.0134 0.0131
 Venus -97089-01-08 18:27 J -33740326.78 -33740326.73 -33740326.63 0.0134 0.0126
 Venus -97089-08-22 01:11 J -33740100.62 -33740100.45 -33740100.24 0.0134 0.0068
 Venus -97088-04-05 07:54 J -33739874.39 -33739874.17 -33739873.95 0.0134 0.0010
 Venus -97088-11-17 13:54 J -33739648.12 -33739647.92 -33739647.71 0.0133 0.0047
 Venus -97087-07-01 19:25 J -33739421.81 -33739421.69 -33739421.54 0.0133 0.0104
 Moon -97067-10-05 06:27 J -33732021.29 -33732021.23 -33732021.13 0.0133 0.0125
 Earth -97067-10-05 09:49 J -33732021.17 -33732021.09 -33732020.97 0.0133 0.0121 *
 Earth -97066-10-09 10:18 J -33731652.26 -33731652.07 -33731651.85 0.0133 0.0075
 Moon -97066-10-09 13:39 J -33731652.14 -33731651.93 -33731651.71 0.0133 0.0069 *
 Moon -97065-10-12 07:54 J -33731283.40 -33731283.17 -33731282.93 0.0134 0.0035
 Earth -97065-10-12 11:30 J -33731283.26 -33731283.02 -33731282.78 0.0134 0.0027 *
 Earth -97064-10-16 12:42 J -33730914.21 -33730913.97 -33730913.73 0.0134 0.0020

Moon -97064-10-16 15:49 J -33730914.08 -33730913.84 -33730913.60 0.0134 0.0028 *
 Moon -97063-10-20 10:47 J -33730545.25 -33730545.05 -33730544.82 0.0135 0.0064
 Earth -97063-10-20 14:08 J -33730545.11 -33730544.91 -33730544.69 0.0135 0.0069 *
 Earth -97062-10-24 15:49 J -33730175.94 -33730175.84 -33730175.70 0.0135 0.0117
 Moon -97062-10-24 19:11 J -33730175.79 -33730175.70 -33730175.57 0.0135 0.0121 *
 Mars -97055-10-22 00:42 J -33727621.68 -33727621.47 -33727621.23 0.0139 0.0100
 Mars -97053-09-26 02:23 J -33726916.49 -33726916.40 -33726916.29 0.0140 0.0134
 Mercury -97048-04-08 12:56 J -33725261.02 -33725260.96 -33725260.91 0.0143 0.0131
 Mercury -97048-07-05 17:44 J -33725172.85 -33725172.76 -33725172.67 0.0143 0.0111
 Mercury -97048-10-01 22:32 J -33725084.67 -33725084.56 -33725084.44 0.0143 0.0091
 Mercury -97048-12-29 03:35 J -33724996.48 -33724996.35 -33724996.22 0.0143 0.0071
 Mercury -97047-03-27 08:23 J -33724908.29 -33724908.15 -33724908.00 0.0144 0.0050
 Mercury -97047-06-23 13:25 J -33724820.09 -33724819.94 -33724819.79 0.0144 0.0029
 Mercury -97047-09-19 18:27 J -33724731.88 -33724731.73 -33724731.57 0.0144 0.0009
 Mercury -97047-12-16 23:44 J -33724643.66 -33724643.51 -33724643.36 0.0144 0.0014
 Mercury -97046-03-15 04:47 J -33724555.45 -33724555.30 -33724555.15 0.0144 0.0036
 Mercury -97046-06-11 10:03 J -33724467.22 -33724467.08 -33724466.93 0.0144 0.0057
 Mercury -97046-09-07 15:20 J -33724378.99 -33724378.86 -33724378.73 0.0144 0.0080
 Mercury -97046-12-04 20:23 J -33724290.74 -33724290.65 -33724290.52 0.0144 0.0103
 Mercury -97045-03-02 01:54 J -33724202.49 -33724202.42 -33724202.33 0.0145 0.0125
 Venus -97045-08-12 05:01 J -33724039.43 -33724039.29 -33724039.13 0.0145 0.0104
 Venus -97044-03-26 16:03 J -33723813.03 -33723812.83 -33723812.62 0.0145 0.0032
 Venus -97044-11-08 03:20 J -33723586.56 -33723586.36 -33723586.15 0.0145 0.0041
 Venus -97043-06-22 14:37 J -33723360.01 -33723359.89 -33723359.74 0.0146 0.0114
 Jupiter -97036-01-22 18:13 J -33720954.18 -33720953.74 -33720953.26 0.0147 0.0079
 Moon -97026-04-03 16:18 J -33717230.94 -33717230.82 -33717230.65 0.0146 0.0118
 Earth -97026-04-03 17:30 J -33717230.92 -33717230.77 -33717230.58 0.0146 0.0112 *
 Earth -97025-04-08 03:49 J -33716860.58 -33716860.34 -33716860.08 0.0145 0.0046
 Moon -97025-04-08 05:15 J -33716860.53 -33716860.28 -33716860.01 0.0145 0.0038 *
 Moon -97024-04-13 10:47 J -33716490.30 -33716490.05 -33716489.79 0.0145 0.0014

Earth	-97024-04-13 13:39 J	-33716490.20	-33716489.93	-33716489.67	0.0145	0.0020	*
Earth	-97023-04-18 22:32 J	-33716119.77	-33716119.56	-33716119.34	0.0144	0.0084	
Moon	-97023-04-19 01:39 J	-33716119.63	-33716119.43	-33716119.21	0.0144	0.0087	*
Mars	-97016-06-06 05:01 J	-33713514.46	-33713514.29	-33713514.10	0.0140	0.0110	
Mars	-97014-05-07 22:03 J	-33712813.78	-33712813.58	-33712813.33	0.0139	0.0088	
Mercury	-97009-09-04 05:30 J	-33710867.34	-33710867.27	-33710867.19	0.0136	0.0120	
Mercury	-97009-12-01 10:32 J	-33710779.16	-33710779.06	-33710778.94	0.0135	0.0101	
Mercury	-97008-02-27 15:35 J	-33710690.97	-33710690.85	-33710690.71	0.0135	0.0082	
Mercury	-97008-05-26 20:51 J	-33710602.77	-33710602.63	-33710602.48	0.0135	0.0062	
Mercury	-97008-08-23 01:54 J	-33710514.57	-33710514.42	-33710514.26	0.0135	0.0043	
Mercury	-97008-11-19 06:56 J	-33710426.37	-33710426.21	-33710426.05	0.0135	0.0024	
Mercury	-97007-02-15 11:44 J	-33710338.17	-33710338.01	-33710337.84	0.0135	0.0006	
Mercury	-97007-05-14 16:47 J	-33710249.96	-33710249.80	-33710249.64	0.0135	0.0013	
Mercury	-97007-08-10 21:20 J	-33710161.76	-33710161.61	-33710161.45	0.0135	0.0032	
Mercury	-97007-11-07 02:08 J	-33710073.55	-33710073.41	-33710073.25	0.0135	0.0050	
Mercury	-97006-02-03 06:56 J	-33709985.34	-33709985.21	-33709985.07	0.0134	0.0067	
Mercury	-97006-05-02 11:44 J	-33709897.13	-33709897.01	-33709896.89	0.0134	0.0085	
Mercury	-97006-07-29 16:18 J	-33709808.92	-33709808.82	-33709808.72	0.0134	0.0102	
Mercury	-97006-10-25 20:51 J	-33709720.69	-33709720.63	-33709720.56	0.0134	0.0119	
Venus	-97005-04-21 11:30 J	-33709542.16	-33709542.02	-33709541.85	0.0134	0.0094	
Venus	-97005-12-03 18:13 J	-33709315.95	-33709315.74	-33709315.53	0.0134	0.0036	
Venus	-97004-07-18 00:13 J	-33709089.70	-33709089.49	-33709089.27	0.0133	0.0021	
Venus	-97003-03-01 05:44 J	-33708863.42	-33708863.26	-33708863.07	0.0133	0.0079	

97TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 97th millennium

BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-96995-10-24 01:25 J	-33705704.75	-33705704.44	-33705704.08	0.0131	0.0097		
Moon	-96983-10-05 18:42 J	-33701339.84	-33701339.72	-33701339.59	0.0133	0.0113		
Earth	-96983-10-05 21:06 J	-33701339.72	-33701339.62	-33701339.48	0.0133	0.0117	*	
Earth	-96982-10-09 21:49 J	-33700970.79	-33700970.59	-33700970.37	0.0133	0.0071		
Moon	-96982-10-10 01:11 J	-33700970.65	-33700970.45	-33700970.24	0.0133	0.0077	*	
Moon	-96981-10-12 20:08 J	-33700601.89	-33700601.66	-33700601.42	0.0134	0.0017		
Earth	-96981-10-12 22:47 J	-33700601.79	-33700601.55	-33700601.30	0.0134	0.0024	*	
Earth	-96980-10-16 23:44 J	-33700232.74	-33700232.51	-33700232.26	0.0134	0.0024		
Moon	-96980-10-17 02:51 J	-33700232.62	-33700232.38	-33700232.13	0.0134	0.0018	*	
Moon	-96979-10-20 22:18 J	-33699863.75	-33699863.57	-33699863.36	0.0135	0.0079		
Earth	-96979-10-21 01:11 J	-33699863.64	-33699863.45	-33699863.23	0.0135	0.0072	*	
Earth	-96978-10-25 03:20 J	-33699494.47	-33699494.36	-33699494.25	0.0135	0.0120		
Moon	-96978-10-25 05:59 J	-33699494.37	-33699494.25	-33699494.12	0.0135	0.0116	*	
Mars	-96970-06-17 20:37 J	-33696701.96	-33696701.64	-33696701.31	0.0139	0.0014		
Mercury	-96964-04-28 19:54 J	-33694559.73	-33694559.67	-33694559.59	0.0143	0.0127		
Mercury	-96964-07-26 00:42 J	-33694471.56	-33694471.47	-33694471.36	0.0143	0.0107		
Mercury	-96964-10-22 05:44 J	-33694383.37	-33694383.26	-33694383.13	0.0143	0.0087		
Mercury	-96963-01-18 10:47 J	-33694295.18	-33694295.05	-33694294.92	0.0143	0.0066		
Mercury	-96963-04-16 15:35 J	-33694206.99	-33694206.85	-33694206.70	0.0144	0.0046		
Mercury	-96963-07-13 20:37 J	-33694118.78	-33694118.64	-33694118.48	0.0144	0.0025		
Mercury	-96963-10-10 01:54 J	-33694030.58	-33694030.42	-33694030.27	0.0144	0.0003		
Mercury	-96962-01-06 06:56 J	-33693942.36	-33693942.21	-33693942.06	0.0144	0.0019		
Mercury	-96962-04-04 12:13 J	-33693854.14	-33693853.99	-33693853.84	0.0144	0.0040		
Mercury	-96962-07-01 17:15 J	-33693765.91	-33693765.78	-33693765.64	0.0144	0.0062		
Mercury	-96962-09-27 22:32 J	-33693677.68	-33693677.56	-33693677.43	0.0144	0.0085		

Mercury -96962-12-25 04:03 J -33693589.44 -33693589.33 -33693589.23 0.0145 0.0107

Mercury -96961-03-22 09:06 J -33693501.17 -33693501.12 -33693501.04 0.0145 0.0130

Venus -96961-04-11 11:59 J -33693481.05 -33693481.00 -33693480.93 0.0145 0.0139

Venus -96961-11-23 22:47 J -33693254.73 -33693254.55 -33693254.35 0.0145 0.0068

Venus -96960-07-08 10:03 J -33693028.30 -33693028.08 -33693027.86 0.0145 0.0004

Venus -96959-02-19 21:06 J -33692801.79 -33692801.62 -33692801.43 0.0146 0.0078

Earth -96942-04-04 03:35 J -33686549.50 -33686549.35 -33686549.15 0.0146 0.0108

Moon -96942-04-04 04:03 J -33686549.49 -33686549.33 -33686549.13 0.0146 0.0104 *

Earth -96941-04-08 14:08 J -33686179.16 -33686178.91 -33686178.65 0.0145 0.0041

Moon -96941-04-08 15:20 J -33686179.11 -33686178.86 -33686178.60 0.0145 0.0049 *

Moon -96940-04-13 22:03 J -33685808.82 -33685808.58 -33685808.32 0.0145 0.0031

Earth -96940-04-13 23:59 J -33685808.76 -33685808.50 -33685808.24 0.0145 0.0024 *

Earth -96939-04-19 08:51 J -33685438.32 -33685438.13 -33685437.91 0.0144 0.0088

Moon -96939-04-19 11:30 J -33685438.22 -33685438.02 -33685437.78 0.0144 0.0086 *

Mars -96931-01-30 01:25 J -33682595.72 -33682595.44 -33682595.15 0.0139 0.0034

Mercury -96925-06-28 07:39 J -33680254.19 -33680254.18 -33680254.14 0.0136 0.0134

Mercury -96925-09-24 13:11 J -33680166.04 -33680165.95 -33680165.86 0.0136 0.0114

Mercury -96925-12-21 18:13 J -33680077.85 -33680077.74 -33680077.62 0.0135 0.0094

Mercury -96924-03-19 23:15 J -33679989.66 -33679989.53 -33679989.39 0.0135 0.0075

Mercury -96924-06-16 04:18 J -33679901.46 -33679901.32 -33679901.16 0.0135 0.0056

Mercury -96924-09-12 09:20 J -33679813.26 -33679813.11 -33679812.95 0.0135 0.0038

Mercury -96924-12-09 14:23 J -33679725.06 -33679724.90 -33679724.74 0.0135 0.0019

Mercury -96923-03-07 19:25 J -33679636.85 -33679636.69 -33679636.53 0.0135 0.0001

Mercury -96923-06-04 00:13 J -33679548.65 -33679548.49 -33679548.33 0.0135 0.0019

Mercury -96923-08-31 05:01 J -33679460.44 -33679460.29 -33679460.13 0.0135 0.0037

Mercury -96923-11-27 09:49 J -33679372.24 -33679372.09 -33679371.94 0.0135 0.0055

Mercury -96922-02-23 14:23 J -33679284.03 -33679283.90 -33679283.76 0.0134 0.0073

Mercury -96922-05-22 18:56 J -33679195.81 -33679195.71 -33679195.58 0.0134 0.0091

Mercury -96922-08-18 23:44 J -33679107.60 -33679107.51 -33679107.41 0.0134 0.0108

Mercury -96922-11-15 04:03 J -33679019.37 -33679019.33 -33679019.26 0.0134 0.0125

Venus	-96922-12-20 21:20 J	-33678983.68	-33678983.61	-33678983.49	0.0134	0.0121
Venus	-96921-08-03 04:03 J	-33678757.51	-33678757.33	-33678757.12	0.0134	0.0063
Venus	-96920-03-17 10:32 J	-33678531.28	-33678531.06	-33678530.84	0.0134	0.0005
Venus	-96920-10-29 16:18 J	-33678305.01	-33678304.82	-33678304.61	0.0133	0.0053
Venus	-96919-06-12 21:49 J	-33678078.69	-33678078.59	-33678078.44	0.0133	0.0110
Jupiter	-96912-09-21 14:08 J	-33675420.99	-33675420.91	-33675420.72	0.0131	0.0127
Moon	-96899-10-06 05:15 J	-33670658.38	-33670658.28	-33670658.16	0.0133	0.0117
Earth	-96899-10-06 08:08 J	-33670658.28	-33670658.16	-33670658.03	0.0133	0.0113 *
Earth	-96898-10-10 08:37 J	-33670289.35	-33670289.14	-33670288.93	0.0133	0.0068
Moon	-96898-10-10 10:47 J	-33670289.26	-33670289.05	-33670288.82	0.0133	0.0063 *
Moon	-96897-10-13 06:42 J	-33669920.45	-33669920.22	-33669919.98	0.0134	0.0028
Earth	-96897-10-13 09:35 J	-33669920.35	-33669920.10	-33669919.86	0.0134	0.0021 *
Earth	-96896-10-17 10:18 J	-33669551.30	-33669551.07	-33669550.82	0.0134	0.0026
Moon	-96896-10-17 12:56 J	-33669551.20	-33669550.96	-33669550.72	0.0134	0.0033 *
Moon	-96895-10-21 09:35 J	-33669182.30	-33669182.10	-33669181.89	0.0135	0.0068
Earth	-96895-10-21 11:30 J	-33669182.21	-33669182.02	-33669181.80	0.0135	0.0074 *
Earth	-96894-10-25 13:25 J	-33668813.03	-33668812.94	-33668812.82	0.0135	0.0121
Moon	-96894-10-25 15:49 J	-33668812.91	-33668812.84	-33668812.72	0.0135	0.0125 *
Mars	-96885-02-11 15:49 J	-33665782.11	-33665781.84	-33665781.54	0.0140	0.0071
Mercury	-96880-02-19 22:32 J	-33663946.57	-33663946.56	-33663946.55	0.0143	0.0142
Mercury	-96880-05-19 03:20 J	-33663858.44	-33663858.36	-33663858.29	0.0143	0.0123
Mercury	-96880-08-15 08:08 J	-33663770.27	-33663770.16	-33663770.06	0.0143	0.0103
Mercury	-96880-11-11 12:56 J	-33663682.08	-33663681.96	-33663681.84	0.0143	0.0082
Mercury	-96879-02-07 17:44 J	-33663593.89	-33663593.76	-33663593.62	0.0144	0.0062
Mercury	-96879-05-06 22:47 J	-33663505.69	-33663505.55	-33663505.40	0.0144	0.0041
Mercury	-96879-08-03 03:49 J	-33663417.49	-33663417.34	-33663417.19	0.0144	0.0020
Mercury	-96879-10-30 08:51 J	-33663329.28	-33663329.13	-33663328.97	0.0144	0.0003
Mercury	-96878-01-26 14:08 J	-33663241.07	-33663240.91	-33663240.76	0.0144	0.0023
Mercury	-96878-04-24 19:11 J	-33663152.84	-33663152.70	-33663152.55	0.0144	0.0045
Mercury	-96878-07-22 00:27 J	-33663064.62	-33663064.48	-33663064.34	0.0144	0.0067

Mercury -96878-10-18 05:44 J -33662976.38 -33662976.26 -33662976.14 0.0144 0.0089

Mercury -96877-01-14 10:47 J -33662888.14 -33662888.05 -33662887.94 0.0145 0.0112

Mercury -96877-04-11 16:18 J -33662799.87 -33662799.82 -33662799.76 0.0145 0.0134

Venus -96877-07-24 05:30 J -33662696.42 -33662696.27 -33662696.12 0.0145 0.0103

Venus -96876-03-07 16:03 J -33662470.03 -33662469.83 -33662469.61 0.0145 0.0032

Venus -96876-10-20 03:20 J -33662243.56 -33662243.36 -33662243.15 0.0145 0.0041

Venus -96875-06-03 14:37 J -33662017.01 -33662016.89 -33662016.74 0.0146 0.0115

Earth -96858-04-04 14:37 J -33655868.06 -33655867.89 -33655867.69 0.0146 0.0103

Moon -96858-04-04 14:51 J -33655868.03 -33655867.88 -33655867.69 0.0146 0.0108 *

Earth -96857-04-09 00:56 J -33655497.71 -33655497.46 -33655497.20 0.0145 0.0038

Moon -96857-04-09 01:11 J -33655497.71 -33655497.45 -33655497.18 0.0145 0.0030 *

Moon -96856-04-14 09:35 J -33655127.35 -33655127.10 -33655126.85 0.0145 0.0021

Earth -96856-04-14 10:47 J -33655127.30 -33655127.05 -33655126.79 0.0145 0.0027 *

Earth -96855-04-19 19:39 J -33654756.86 -33654756.68 -33654756.45 0.0144 0.0092

Moon -96855-04-19 22:32 J -33654756.76 -33654756.56 -33654756.35 0.0144 0.0094 *

Mars -96847-09-24 20:08 J -33651676.93 -33651676.66 -33651676.38 0.0139 0.0040

Mercury -96841-07-18 15:20 J -33649552.90 -33649552.86 -33649552.79 0.0136 0.0128

Mercury -96841-10-14 20:51 J -33649464.73 -33649464.63 -33649464.53 0.0136 0.0108

Mercury -96840-01-11 01:54 J -33649376.54 -33649376.42 -33649376.29 0.0135 0.0089

Mercury -96840-04-09 06:56 J -33649288.34 -33649288.21 -33649288.06 0.0135 0.0069

Mercury -96840-07-06 11:59 J -33649200.14 -33649200.00 -33649199.84 0.0135 0.0050

Mercury -96840-10-02 17:01 J -33649111.94 -33649111.79 -33649111.63 0.0135 0.0031

Mercury -96840-12-29 22:03 J -33649023.74 -33649023.58 -33649023.42 0.0135 0.0013

Mercury -96839-03-28 03:06 J -33648935.54 -33648935.37 -33648935.21 0.0135 0.0007

Mercury -96839-06-24 07:39 J -33648847.33 -33648847.18 -33648847.02 0.0135 0.0025

Mercury -96839-09-20 12:27 J -33648759.12 -33648758.98 -33648758.82 0.0135 0.0043

Mercury -96839-12-17 17:15 J -33648670.92 -33648670.78 -33648670.63 0.0135 0.0060

Mercury -96838-03-15 21:49 J -33648582.71 -33648582.59 -33648582.45 0.0134 0.0079

Mercury -96838-06-12 02:37 J -33648494.49 -33648494.39 -33648494.27 0.0134 0.0096

Mercury -96838-09-08 07:11 J -33648406.27 -33648406.20 -33648406.11 0.0134 0.0113

Mercury -96838-12-05 11:44 J -33648318.04 -33648318.01 -33648317.97 0.0134 0.0130
 Venus -96837-04-02 14:23 J -33648199.05 -33648198.90 -33648198.72 0.0134 0.0089
 Venus -96837-11-14 20:51 J -33647972.83 -33647972.63 -33647972.41 0.0134 0.0031
 Venus -96836-06-29 03:06 J -33647746.58 -33647746.37 -33647746.15 0.0133 0.0027
 Venus -96835-02-10 08:51 J -33647520.29 -33647520.13 -33647519.95 0.0133 0.0084
 Moon -96815-10-06 17:59 J -33639976.87 -33639976.75 -33639976.59 0.0133 0.0107
 Earth -96815-10-06 20:08 J -33639976.79 -33639976.66 -33639976.52 0.0133 0.0109 *
 Earth -96814-10-10 20:37 J -33639607.85 -33639607.64 -33639607.42 0.0133 0.0064
 Moon -96814-10-10 22:47 J -33639607.75 -33639607.55 -33639607.32 0.0133 0.0070 *
 Moon -96813-10-13 19:25 J -33639238.92 -33639238.69 -33639238.45 0.0134 0.0012
 Earth -96813-10-13 21:20 J -33639238.85 -33639238.61 -33639238.36 0.0134 0.0018 *
 Earth -96812-10-17 22:03 J -33638869.81 -33638869.58 -33638869.33 0.0134 0.0029
 Moon -96812-10-17 23:59 J -33638869.74 -33638869.50 -33638869.24 0.0134 0.0023 *
 Moon -96811-10-21 21:20 J -33638500.79 -33638500.61 -33638500.41 0.0135 0.0083
 Earth -96811-10-21 23:30 J -33638500.72 -33638500.52 -33638500.31 0.0135 0.0076 *
 Earth -96810-10-26 01:11 J -33638131.54 -33638131.45 -33638131.35 0.0135 0.0123
 Moon -96810-10-26 02:37 J -33638131.50 -33638131.39 -33638131.26 0.0135 0.0118 *
 Mars -96803-11-02 14:37 J -33635567.15 -33635566.89 -33635566.59 0.0139 0.0073
 Mercury -96796-03-12 05:44 J -33633245.29 -33633245.26 -33633245.21 0.0143 0.0137
 Mercury -96796-06-08 10:32 J -33633157.14 -33633157.06 -33633156.97 0.0143 0.0118
 Mercury -96796-09-04 15:20 J -33633068.96 -33633068.86 -33633068.74 0.0143 0.0098
 Mercury -96796-12-01 20:08 J -33632980.78 -33632980.66 -33632980.52 0.0143 0.0078
 Mercury -96795-02-28 01:11 J -33632892.58 -33632892.45 -33632892.31 0.0144 0.0057
 Mercury -96795-05-27 06:13 J -33632804.39 -33632804.24 -33632804.09 0.0144 0.0036
 Mercury -96795-08-23 11:15 J -33632716.18 -33632716.03 -33632715.88 0.0144 0.0015
 Mercury -96795-11-19 16:18 J -33632627.97 -33632627.82 -33632627.66 0.0144 0.0007
 Mercury -96794-02-15 21:35 J -33632539.76 -33632539.60 -33632539.45 0.0144 0.0029
 Mercury -96794-05-15 02:37 J -33632451.53 -33632451.39 -33632451.24 0.0144 0.0050
 Mercury -96794-08-11 07:39 J -33632363.30 -33632363.18 -33632363.04 0.0144 0.0073
 Mercury -96794-11-07 12:56 J -33632275.07 -33632274.96 -33632274.83 0.0144 0.0095

Mercury -96793-02-03 18:27 J -33632186.82 -33632186.73 -33632186.64 0.0145 0.0117

Venus -96793-03-23 12:27 J -33632138.03 -33632137.98 -33632137.90 0.0145 0.0138

Mercury -96793-05-01 23:30 J -33632098.54 -33632098.52 -33632098.46 0.0145 0.0140

Venus -96793-11-04 23:44 J -33631911.70 -33631911.51 -33631911.32 0.0145 0.0066

Venus -96792-06-19 10:47 J -33631685.27 -33631685.05 -33631684.84 0.0145 0.0007

Venus -96791-01-31 21:49 J -33631458.77 -33631458.59 -33631458.41 0.0146 0.0079

Earth -96774-04-05 01:11 J -33625186.63 -33625186.45 -33625186.24 0.0146 0.0099

Moon -96774-04-05 02:37 J -33625186.56 -33625186.39 -33625186.18 0.0146 0.0096 *

Moon -96773-04-09 11:15 J -33624816.29 -33624816.03 -33624815.77 0.0145 0.0040

Earth -96773-04-09 11:30 J -33624816.27 -33624816.02 -33624815.76 0.0145 0.0034 *

Moon -96772-04-14 20:51 J -33624445.87 -33624445.63 -33624445.38 0.0145 0.0038

Earth -96772-04-14 21:20 J -33624445.85 -33624445.61 -33624445.34 0.0145 0.0031 *

Earth -96771-04-20 06:27 J -33624075.41 -33624075.23 -33624075.01 0.0144 0.0094

Moon -96771-04-20 08:08 J -33624075.36 -33624075.16 -33624074.94 0.0144 0.0090 *

Mars -96764-06-18 19:54 J -33621458.88 -33621458.67 -33621458.41 0.0140 0.0084

Mars -96762-05-20 13:11 J -33620758.10 -33620757.95 -33620757.77 0.0139 0.0113

Mercury -96757-08-07 23:01 J -33618851.60 -33618851.54 -33618851.46 0.0136 0.0122

Mercury -96757-11-04 04:03 J -33618763.42 -33618763.33 -33618763.21 0.0136 0.0103

Mercury -96756-01-31 09:35 J -33618675.23 -33618675.10 -33618674.97 0.0135 0.0083

Mercury -96756-04-29 14:37 J -33618587.03 -33618586.89 -33618586.75 0.0135 0.0064

Mercury -96756-07-26 19:39 J -33618498.83 -33618498.68 -33618498.53 0.0135 0.0045

Mercury -96756-10-23 00:42 J -33618410.63 -33618410.47 -33618410.31 0.0135 0.0026

Mercury -96755-01-19 05:30 J -33618322.43 -33618322.27 -33618322.10 0.0135 0.0008

Mercury -96755-04-17 10:32 J -33618234.22 -33618234.06 -33618233.90 0.0135 0.0012

Mercury -96755-07-14 15:20 J -33618146.02 -33618145.86 -33618145.70 0.0135 0.0030

Mercury -96755-10-10 20:08 J -33618057.81 -33618057.66 -33618057.51 0.0135 0.0048

Mercury -96754-01-07 00:42 J -33617969.60 -33617969.47 -33617969.32 0.0135 0.0066

Mercury -96754-04-05 05:30 J -33617881.39 -33617881.27 -33617881.14 0.0134 0.0083

Mercury -96754-07-02 10:18 J -33617793.18 -33617793.07 -33617792.97 0.0134 0.0101

Mercury -96754-09-28 14:37 J -33617704.95 -33617704.89 -33617704.81 0.0134 0.0118

Venus	-96754-12-02 00:42 J	-33617640.57	-33617640.47	-33617640.35	0.0134	0.0115
Venus	-96753-07-15 07:11 J	-33617414.39	-33617414.20	-33617413.99	0.0134	0.0057
Venus	-96752-02-26 13:39 J	-33617188.15	-33617187.93	-33617187.71	0.0134	0.0002
Venus	-96752-10-10 19:25 J	-33616961.88	-33616961.69	-33616961.48	0.0133	0.0058
Venus	-96751-05-25 01:11 J	-33616735.54	-33616735.45	-33616735.33	0.0133	0.0115
Moon	-96731-10-07 05:15 J	-33609295.39	-33609295.28	-33609295.13	0.0133	0.0110
Earth	-96731-10-07 07:25 J	-33609295.33	-33609295.19	-33609295.04	0.0133	0.0106 *
Earth	-96730-10-11 07:25 J	-33608926.39	-33608926.19	-33608925.95	0.0133	0.0062
Moon	-96730-10-11 08:51 J	-33608926.35	-33608926.13	-33608925.89	0.0133	0.0056 *
Moon	-96729-10-14 06:56 J	-33608557.45	-33608557.21	-33608556.98	0.0134	0.0021
Earth	-96729-10-14 08:23 J	-33608557.40	-33608557.15	-33608556.91	0.0134	0.0015 *
Earth	-96728-10-18 09:06 J	-33608188.36	-33608188.12	-33608187.88	0.0134	0.0031
Moon	-96728-10-18 10:32 J	-33608188.30	-33608188.06	-33608187.81	0.0134	0.0038 *
Moon	-96727-10-22 09:20 J	-33607819.31	-33607819.11	-33607818.91	0.0135	0.0072
Earth	-96727-10-22 10:18 J	-33607819.27	-33607819.07	-33607818.87	0.0135	0.0078 *
Earth	-96726-10-26 11:30 J	-33607450.09	-33607450.02	-33607449.90	0.0135	0.0125
Moon	-96726-10-26 12:56 J	-33607450.00	-33607449.96	-33607449.86	0.0135	0.0130 *
Mars	-96718-06-29 09:20 J	-33604647.43	-33604647.11	-33604646.78	0.0139	0.0011
Mercury	-96712-04-01 12:56 J	-33602544.01	-33602543.96	-33602543.90	0.0143	0.0133
Mercury	-96712-06-28 17:44 J	-33602455.85	-33602455.76	-33602455.67	0.0143	0.0113
Mercury	-96712-09-24 22:32 J	-33602367.67	-33602367.56	-33602367.44	0.0143	0.0093
Mercury	-96712-12-22 03:35 J	-33602279.48	-33602279.35	-33602279.22	0.0143	0.0073
Mercury	-96711-03-20 08:23 J	-33602191.29	-33602191.15	-33602191.01	0.0144	0.0052
Mercury	-96711-06-16 13:25 J	-33602103.09	-33602102.94	-33602102.79	0.0144	0.0031
Mercury	-96711-09-12 18:27 J	-33602014.88	-33602014.73	-33602014.58	0.0144	0.0010
Mercury	-96711-12-09 23:30 J	-33601926.67	-33601926.52	-33601926.37	0.0144	0.0011
Mercury	-96710-03-08 04:32 J	-33601838.46	-33601838.31	-33601838.16	0.0144	0.0033
Mercury	-96710-06-04 09:49 J	-33601750.23	-33601750.09	-33601749.95	0.0144	0.0055
Mercury	-96710-08-31 15:06 J	-33601662.00	-33601661.87	-33601661.74	0.0144	0.0077
Mercury	-96710-11-27 20:23 J	-33601573.76	-33601573.65	-33601573.54	0.0144	0.0099

Mercury -96709-02-24 01:25 J -33601485.51 -33601485.44 -33601485.34 0.0145 0.0122

Mercury -96709-05-22 07:11 J -33601397.21 -33601397.20 -33601397.19 0.0145 0.0144

Venus -96709-07-05 06:13 J -33601353.38 -33601353.24 -33601353.08 0.0145 0.0102

Venus -96708-02-16 17:15 J -33601126.99 -33601126.78 -33601126.57 0.0145 0.0030

Venus -96708-10-01 04:18 J -33600900.51 -33600900.32 -33600900.10 0.0145 0.0044

Venus -96707-05-15 15:49 J -33600673.96 -33600673.84 -33600673.70 0.0146 0.0117

Earth -96690-04-05 12:27 J -33594505.16 -33594504.98 -33594504.77 0.0146 0.0095

Moon -96690-04-05 14:37 J -33594505.07 -33594504.89 -33594504.70 0.0146 0.0098 *

Moon -96689-04-09 21:49 J -33594134.85 -33594134.59 -33594134.31 0.0145 0.0024

Earth -96689-04-09 23:01 J -33594134.79 -33594134.54 -33594134.27 0.0145 0.0031 *

Earth -96688-04-15 09:06 J -33593764.37 -33593764.12 -33593763.86 0.0145 0.0034

Moon -96688-04-15 09:20 J -33593764.35 -33593764.11 -33593763.86 0.0145 0.0027 *

Earth -96687-04-20 18:27 J -33593393.93 -33593393.73 -33593393.54 0.0144 0.0097

Moon -96687-04-20 19:25 J -33593393.88 -33593393.69 -33593393.48 0.0144 0.0100 *

Mars -96679-02-11 17:59 J -33590540.03 -33590539.75 -33590539.45 0.0140 0.0008

Mercury -96673-06-01 01:39 J -33588238.44 -33588238.43 -33588238.42 0.0136 0.0135

Mercury -96673-08-28 06:42 J -33588150.29 -33588150.22 -33588150.13 0.0136 0.0116

Mercury -96673-11-24 11:44 J -33588062.11 -33588062.01 -33588061.88 0.0136 0.0097

Mercury -96672-02-20 17:15 J -33587973.91 -33587973.78 -33587973.65 0.0135 0.0077

Mercury -96672-05-19 22:18 J -33587885.72 -33587885.57 -33587885.42 0.0135 0.0058

Mercury -96672-08-16 03:20 J -33587797.51 -33587797.36 -33587797.20 0.0135 0.0039

Mercury -96672-11-12 08:23 J -33587709.31 -33587709.15 -33587708.99 0.0135 0.0020

Mercury -96671-02-08 13:11 J -33587621.11 -33587620.95 -33587620.78 0.0135 0.0003

Mercury -96671-05-07 17:59 J -33587532.90 -33587532.75 -33587532.58 0.0135 0.0018

Mercury -96671-08-03 22:47 J -33587444.70 -33587444.55 -33587444.39 0.0135 0.0036

Mercury -96671-10-31 03:35 J -33587356.49 -33587356.35 -33587356.20 0.0135 0.0054

Mercury -96670-01-27 08:23 J -33587268.28 -33587268.15 -33587268.01 0.0134 0.0071

Mercury -96670-04-25 12:56 J -33587180.07 -33587179.96 -33587179.83 0.0134 0.0089

Mercury -96670-07-22 17:44 J -33587091.85 -33587091.76 -33587091.66 0.0134 0.0106

Mercury -96670-10-18 22:32 J -33587003.62 -33587003.56 -33587003.50 0.0134 0.0124

Venus	-96669-03-14 17:44 J	-33586855.92	-33586855.76	-33586855.58	0.0134	0.0083
Venus	-96669-10-27 00:27 J	-33586629.70	-33586629.48	-33586629.27	0.0134	0.0025
Venus	-96668-06-10 06:27 J	-33586403.44	-33586403.23	-33586403.01	0.0133	0.0033
Venus	-96667-01-22 12:13 J	-33586177.14	-33586176.99	-33586176.82	0.0133	0.0090
Moon	-96647-10-07 19:11 J	-33578613.84	-33578613.70	-33578613.53	0.0133	0.0100
Earth	-96647-10-07 19:54 J	-33578613.81	-33578613.67	-33578613.50	0.0133	0.0102 *
Earth	-96646-10-11 20:08 J	-33578244.87	-33578244.66	-33578244.42	0.0133	0.0057
Moon	-96646-10-11 21:35 J	-33578244.82	-33578244.60	-33578244.37	0.0133	0.0062 *
Moon	-96645-10-14 20:08 J	-33577875.90	-33577875.66	-33577875.42	0.0134	0.0005
Earth	-96645-10-14 20:51 J	-33577875.87	-33577875.63	-33577875.38	0.0134	0.0012 *
Earth	-96644-10-18 21:35 J	-33577506.84	-33577506.60	-33577506.36	0.0134	0.0035
Moon	-96644-10-18 22:03 J	-33577506.82	-33577506.58	-33577506.33	0.0134	0.0028 *
Moon	-96643-10-22 21:35 J	-33577137.76	-33577137.60	-33577137.40	0.0135	0.0087
Earth	-96643-10-22 22:32 J	-33577137.74	-33577137.56	-33577137.35	0.0135	0.0081 *
Moon	-96642-10-27 00:56 J	-33576768.56	-33576768.46	-33576768.35	0.0135	0.0121
Earth	-96642-10-27 00:27 J	-33576768.55	-33576768.48	-33576768.39	0.0135	0.0127 *
Mars	-96635-03-20 14:23 J	-33574431.99	-33574431.90	-33574431.75	0.0139	0.0129
Mars	-96633-02-23 09:20 J	-33573727.34	-33573727.11	-33573726.86	0.0140	0.0097
Mercury	-96628-04-21 20:37 J	-33571842.70	-33571842.64	-33571842.57	0.0143	0.0127
Mercury	-96628-07-19 01:25 J	-33571754.54	-33571754.44	-33571754.34	0.0143	0.0107
Mercury	-96628-10-15 06:13 J	-33571666.36	-33571666.24	-33571666.12	0.0143	0.0087
Mercury	-96627-01-11 11:01 J	-33571578.17	-33571578.04	-33571577.90	0.0143	0.0067
Mercury	-96627-04-09 16:03 J	-33571489.97	-33571489.83	-33571489.69	0.0144	0.0046
Mercury	-96627-07-06 20:51 J	-33571401.77	-33571401.63	-33571401.47	0.0144	0.0026
Mercury	-96627-10-03 02:08 J	-33571313.57	-33571313.41	-33571313.26	0.0144	0.0005
Mercury	-96627-12-30 07:11 J	-33571225.35	-33571225.20	-33571225.05	0.0144	0.0017
Mercury	-96626-03-28 12:13 J	-33571137.14	-33571136.99	-33571136.84	0.0144	0.0039
Mercury	-96626-06-24 17:15 J	-33571048.91	-33571048.78	-33571048.63	0.0144	0.0061
Mercury	-96626-09-20 22:32 J	-33570960.68	-33570960.56	-33570960.43	0.0144	0.0083
Mercury	-96626-12-18 03:49 J	-33570872.44	-33570872.34	-33570872.23	0.0144	0.0105

Venus -96625-03-04 13:54 J -33570794.97 -33570794.92 -33570794.82 0.0145 0.0136
 Mercury -96625-03-15 09:20 J -33570784.18 -33570784.11 -33570784.04 0.0145 0.0128
 Venus -96625-10-17 01:11 J -33570568.64 -33570568.45 -33570568.25 0.0145 0.0064
 Venus -96624-05-31 12:27 J -33570342.20 -33570341.98 -33570341.77 0.0145 0.0009
 Venus -96623-01-12 23:44 J -33570115.69 -33570115.51 -33570115.33 0.0145 0.0082
 Earth -96606-04-06 00:56 J -33563823.66 -33563823.46 -33563823.24 0.0146 0.0090
 Moon -96606-04-06 03:35 J -33563823.55 -33563823.35 -33563823.14 0.0146 0.0086 *
 Moon -96605-04-10 09:06 J -33563453.37 -33563453.12 -33563452.84 0.0145 0.0033
 Earth -96605-04-10 11:30 J -33563453.28 -33563453.02 -33563452.76 0.0145 0.0026 *
 Earth -96604-04-15 21:06 J -33563082.86 -33563082.62 -33563082.35 0.0145 0.0038
 Moon -96604-04-15 21:49 J -33563082.83 -33563082.59 -33563082.35 0.0145 0.0045 *
 Moon -96603-04-21 06:13 J -33562712.43 -33562712.24 -33562712.03 0.0144 0.0096
 Earth -96603-04-21 06:13 J -33562712.41 -33562712.24 -33562712.04 0.0144 0.0101 *
 Mars -96597-11-05 16:18 J -33560321.89 -33560321.82 -33560321.70 0.0140 0.0133
 Mars -96595-10-07 13:39 J -33559621.17 -33559620.93 -33559620.66 0.0139 0.0067
 Mercury -96589-06-21 09:20 J -33557537.15 -33557537.11 -33557537.06 0.0136 0.0129
 Mercury -96589-09-17 14:23 J -33557448.98 -33557448.90 -33557448.79 0.0136 0.0110
 Mercury -96589-12-14 19:39 J -33557360.79 -33557360.68 -33557360.55 0.0136 0.0090
 Mercury -96588-03-13 00:56 J -33557272.60 -33557272.46 -33557272.32 0.0135 0.0071
 Mercury -96588-06-09 05:59 J -33557184.40 -33557184.25 -33557184.10 0.0135 0.0051
 Mercury -96588-09-05 11:01 J -33557096.20 -33557096.04 -33557095.88 0.0135 0.0032
 Mercury -96588-12-02 16:03 J -33557007.99 -33557007.83 -33557007.67 0.0135 0.0014
 Mercury -96587-02-28 20:51 J -33556919.79 -33556919.63 -33556919.46 0.0135 0.0006
 Mercury -96587-05-28 01:54 J -33556831.58 -33556831.42 -33556831.26 0.0135 0.0023
 Mercury -96587-08-24 06:27 J -33556743.37 -33556743.23 -33556743.07 0.0135 0.0042
 Mercury -96587-11-20 11:15 J -33556655.16 -33556655.03 -33556654.88 0.0135 0.0060
 Mercury -96586-02-16 16:03 J -33556566.95 -33556566.83 -33556566.69 0.0134 0.0077
 Mercury -96586-05-15 20:51 J -33556478.74 -33556478.63 -33556478.52 0.0134 0.0095
 Mercury -96586-08-12 01:25 J -33556390.52 -33556390.44 -33556390.35 0.0134 0.0112
 Mercury -96586-11-08 05:59 J -33556302.28 -33556302.25 -33556302.20 0.0134 0.0129

Venus	-96586-11-13 04:18 J	-33556297.43	-33556297.32	-33556297.18	0.0134	0.0109
Venus	-96585-06-26 11:01 J	-33556071.23	-33556071.04	-33556070.83	0.0134	0.0051
Venus	-96584-02-07 17:30 J	-33555844.99	-33555844.77	-33555844.55	0.0134	0.0008
Venus	-96584-09-21 23:15 J	-33555618.71	-33555618.53	-33555618.32	0.0133	0.0065
Venus	-96583-05-06 05:15 J	-33555392.35	-33555392.28	-33555392.18	0.0133	0.0122
Moon	-96563-10-08 07:25 J	-33547932.32	-33547932.19	-33547932.02	0.0133	0.0101
Earth	-96563-10-08 08:08 J	-33547932.31	-33547932.16	-33547931.98	0.0133	0.0098 *
Earth	-96562-10-12 08:37 J	-33547563.36	-33547563.14	-33547562.91	0.0133	0.0053
Moon	-96562-10-12 08:51 J	-33547563.36	-33547563.13	-33547562.89	0.0133	0.0049 *
Earth	-96561-10-15 08:51 J	-33547194.37	-33547194.13	-33547193.88	0.0134	0.0008
Moon	-96561-10-15 08:51 J	-33547194.36	-33547194.13	-33547193.89	0.0134	0.0014 *
Earth	-96560-10-19 09:35 J	-33546825.33	-33546825.10	-33546824.86	0.0134	0.0037
Moon	-96560-10-19 09:49 J	-33546825.32	-33546825.09	-33546824.84	0.0134	0.0044 *
Earth	-96559-10-23 10:32 J	-33546456.24	-33546456.06	-33546455.86	0.0135	0.0084
Moon	-96559-10-23 11:01 J	-33546456.23	-33546456.04	-33546455.84	0.0135	0.0077 *
Earth	-96558-10-27 12:13 J	-33546087.05	-33546086.99	-33546086.91	0.0135	0.0129
Moon	-96558-10-27 11:59 J	-33546087.00	-33546087.00	-33546086.94	0.0135	0.0134 *
Mars	-96551-11-14 09:06 J	-33543512.41	-33543512.12	-33543511.79	0.0139	0.0046
Mercury	-96544-02-12 23:15 J	-33541229.54	-33541229.53	-33541229.52	0.0143	0.0142
Mercury	-96544-05-12 03:49 J	-33541141.41	-33541141.34	-33541141.26	0.0143	0.0123
Mercury	-96544-08-08 08:51 J	-33541053.24	-33541053.13	-33541053.03	0.0143	0.0103
Mercury	-96544-11-04 13:25 J	-33540965.06	-33540964.94	-33540964.81	0.0143	0.0083
Mercury	-96543-01-31 18:27 J	-33540876.87	-33540876.73	-33540876.59	0.0143	0.0062
Mercury	-96543-04-29 23:15 J	-33540788.67	-33540788.53	-33540788.38	0.0144	0.0042
Mercury	-96543-07-27 04:18 J	-33540700.47	-33540700.32	-33540700.16	0.0144	0.0021
Mercury	-96543-10-23 09:20 J	-33540612.26	-33540612.11	-33540611.95	0.0144	0.0004
Mercury	-96542-01-19 14:23 J	-33540524.05	-33540523.90	-33540523.74	0.0144	0.0023
Mercury	-96542-04-17 19:39 J	-33540435.83	-33540435.68	-33540435.53	0.0144	0.0044
Mercury	-96542-07-15 00:42 J	-33540347.60	-33540347.47	-33540347.32	0.0144	0.0067
Mercury	-96542-10-11 05:59 J	-33540259.36	-33540259.25	-33540259.12	0.0144	0.0089

Mercury -96541-01-07 11:15 J -33540171.12 -33540171.03 -33540170.92 0.0144 0.0111

Mercury -96541-04-04 16:32 J -33540082.86 -33540082.81 -33540082.74 0.0145 0.0134

Venus -96541-06-16 08:23 J -33540010.29 -33540010.15 -33540009.98 0.0145 0.0099

Venus -96540-01-28 19:39 J -33539783.89 -33539783.68 -33539783.47 0.0145 0.0026

Venus -96540-09-12 06:42 J -33539557.42 -33539557.22 -33539557.01 0.0145 0.0047

Venus -96539-04-26 17:59 J -33539330.85 -33539330.75 -33539330.62 0.0146 0.0121

Earth -96522-04-06 13:11 J -33533142.14 -33533141.95 -33533141.72 0.0146 0.0085

Moon -96522-04-06 16:32 J -33533142.01 -33533141.81 -33533141.60 0.0146 0.0087 *

Moon -96521-04-10 22:03 J -33532771.85 -33532771.58 -33532771.31 0.0145 0.0014

Earth -96521-04-10 23:59 J -33532771.75 -33532771.50 -33532771.23 0.0145 0.0021 *

Earth -96520-04-16 10:03 J -33532401.33 -33532401.08 -33532400.83 0.0145 0.0042

Moon -96520-04-16 11:44 J -33532401.25 -33532401.01 -33532400.76 0.0145 0.0035 *

Moon -96519-04-21 18:42 J -33532030.88 -33532030.72 -33532030.52 0.0144 0.0108

Earth -96519-04-21 18:42 J -33532030.88 -33532030.72 -33532030.52 0.0144 0.0105 *

Mars -96512-07-01 17:30 J -33529403.03 -33529402.77 -33529402.49 0.0140 0.0054

Mercury -96505-07-11 17:15 J -33526835.84 -33526835.78 -33526835.70 0.0136 0.0122

Mercury -96505-10-07 22:18 J -33526747.66 -33526747.57 -33526747.45 0.0136 0.0103

Mercury -96504-01-04 03:49 J -33526659.47 -33526659.34 -33526659.21 0.0136 0.0083

Mercury -96504-04-02 08:51 J -33526571.27 -33526571.13 -33526570.98 0.0135 0.0064

Mercury -96504-06-29 13:54 J -33526483.07 -33526482.92 -33526482.76 0.0135 0.0045

Mercury -96504-09-25 18:56 J -33526394.87 -33526394.71 -33526394.55 0.0135 0.0026

Mercury -96504-12-22 23:59 J -33526306.66 -33526306.50 -33526306.34 0.0135 0.0007

Mercury -96503-03-21 05:01 J -33526218.46 -33526218.29 -33526218.13 0.0135 0.0012

Mercury -96503-06-17 09:49 J -33526130.25 -33526130.09 -33526129.93 0.0135 0.0030

Mercury -96503-09-13 14:37 J -33526042.04 -33526041.89 -33526041.74 0.0135 0.0048

Mercury -96503-12-10 19:11 J -33525953.83 -33525953.70 -33525953.55 0.0135 0.0066

Mercury -96502-03-08 23:59 J -33525865.62 -33525865.50 -33525865.37 0.0134 0.0084

Mercury -96502-06-05 04:32 J -33525777.40 -33525777.31 -33525777.20 0.0134 0.0102

Venus -96502-07-13 15:49 J -33525738.84 -33525738.84 -33525738.83 0.0134 0.0134

Mercury -96502-09-01 09:06 J -33525689.18 -33525689.12 -33525689.03 0.0134 0.0119

Venus	-96501-02-24 22:32 J	-33525512.74	-33525512.56	-33525512.37	0.0134	0.0075
Venus	-96501-10-08 05:01 J	-33525286.51	-33525286.29	-33525286.07	0.0134	0.0017
Venus	-96500-05-22 11:30 J	-33525060.23	-33525060.02	-33525059.81	0.0133	0.0041
Venus	-96499-01-03 17:01 J	-33524833.92	-33524833.79	-33524833.62	0.0133	0.0099
Earth	-96479-10-08 21:35 J	-33517250.76	-33517250.60	-33517250.41	0.0133	0.0093
Moon	-96479-10-08 22:03 J	-33517250.74	-33517250.58	-33517250.40	0.0133	0.0091 *
Moon	-96478-10-12 21:35 J	-33516881.83	-33516881.60	-33516881.36	0.0133	0.0052
Earth	-96478-10-12 22:03 J	-33516881.81	-33516881.58	-33516881.35	0.0133	0.0049 *
Earth	-96477-10-15 22:18 J	-33516512.81	-33516512.57	-33516512.32	0.0134	0.0005
Moon	-96477-10-15 22:32 J	-33516512.80	-33516512.56	-33516512.32	0.0134	0.0002 *
Moon	-96476-10-19 22:03 J	-33516143.82	-33516143.58	-33516143.33	0.0134	0.0035
Earth	-96476-10-19 23:01 J	-33516143.77	-33516143.54	-33516143.31	0.0134	0.0041 *
Earth	-96475-10-23 23:59 J	-33515774.68	-33515774.50	-33515774.30	0.0134	0.0087
Moon	-96475-10-24 00:13 J	-33515774.65	-33515774.49	-33515774.31	0.0134	0.0093 *
Moon	-96474-10-28 00:42 J	-33515405.53	-33515405.47	-33515405.36	0.0135	0.0127
Earth	-96474-10-28 01:25 J	-33515405.46	-33515405.44	-33515405.38	0.0135	0.0133 *
Mars	-96466-07-11 08:51 J	-33512592.43	-33512592.13	-33512591.80	0.0139	0.0041
Mercury	-96460-03-05 06:42 J	-33510528.25	-33510528.22	-33510528.16	0.0143	0.0136
Mercury	-96460-06-01 11:30 J	-33510440.09	-33510440.02	-33510439.92	0.0143	0.0116
Mercury	-96460-08-28 16:18 J	-33510351.92	-33510351.82	-33510351.70	0.0143	0.0097
Mercury	-96460-11-24 21:20 J	-33510263.74	-33510263.61	-33510263.48	0.0143	0.0076
Mercury	-96459-02-21 02:08 J	-33510175.54	-33510175.41	-33510175.26	0.0143	0.0055
Mercury	-96459-05-20 07:11 J	-33510087.35	-33510087.20	-33510087.05	0.0144	0.0034
Mercury	-96459-08-16 12:13 J	-33509999.14	-33509998.99	-33509998.84	0.0144	0.0013
Mercury	-96459-11-12 17:15 J	-33509910.93	-33509910.78	-33509910.63	0.0144	0.0008
Mercury	-96458-02-08 22:18 J	-33509822.72	-33509822.57	-33509822.42	0.0144	0.0030
Mercury	-96458-05-08 03:35 J	-33509734.50	-33509734.35	-33509734.21	0.0144	0.0051
Mercury	-96458-08-04 08:37 J	-33509646.27	-33509646.14	-33509646.00	0.0144	0.0073
Mercury	-96458-10-31 13:54 J	-33509558.03	-33509557.92	-33509557.80	0.0144	0.0096
Mercury	-96457-01-27 19:11 J	-33509469.78	-33509469.70	-33509469.60	0.0145	0.0118

Venus -96457-02-14 17:01 J -33509451.87 -33509451.79 -33509451.69 0.0145 0.0131
 Mercury -96457-04-25 00:27 J -33509381.50 -33509381.48 -33509381.43 0.0145 0.0141
 Venus -96457-09-28 04:03 J -33509225.52 -33509225.33 -33509225.13 0.0145 0.0059
 Venus -96456-05-12 15:06 J -33508999.08 -33508998.87 -33508998.65 0.0145 0.0014
 Venus -96456-12-25 02:37 J -33508772.56 -33508772.39 -33508772.22 0.0145 0.0087
 Moon -96439-04-01 11:59 J -33502831.07 -33502831.00 -33502830.91 0.0146 0.0139
 Earth -96439-04-01 15:20 J -33502830.90 -33502830.86 -33502830.78 0.0146 0.0143
 Earth -96438-04-07 02:23 J -33502460.61 -33502460.40 -33502460.17 0.0146 0.0079
 Moon -96438-04-07 05:44 J -33502460.47 -33502460.26 -33502460.03 0.0146 0.0075 *
 Moon -96437-04-11 10:03 J -33502090.35 -33502090.08 -33502089.82 0.0145 0.0022
 Earth -96437-04-11 13:11 J -33502090.21 -33502089.95 -33502089.69 0.0145 0.0015 *
 Earth -96436-04-16 22:47 J -33501719.79 -33501719.55 -33501719.29 0.0145 0.0047
 Moon -96436-04-17 00:27 J -33501719.71 -33501719.48 -33501719.23 0.0145 0.0054 *
 Moon -96435-04-22 06:13 J -33501349.40 -33501349.24 -33501349.03 0.0144 0.0104
 Earth -96435-04-22 07:54 J -33501349.33 -33501349.17 -33501348.98 0.0144 0.0109 *
 Mars -96427-02-24 18:42 J -33498484.00 -33498483.72 -33498483.43 0.0140 0.0024
 Mercury -96421-05-04 20:08 J -33496222.68 -33496222.66 -33496222.63 0.0136 0.0134
 Mercury -96421-08-01 01:11 J -33496134.52 -33496134.45 -33496134.35 0.0136 0.0115
 Mercury -96421-10-28 06:42 J -33496046.34 -33496046.22 -33496046.10 0.0136 0.0095
 Mercury -96420-01-24 11:44 J -33495958.14 -33495958.01 -33495957.87 0.0136 0.0076
 Mercury -96420-04-22 16:47 J -33495869.94 -33495869.80 -33495869.64 0.0135 0.0057
 Mercury -96420-07-19 21:49 J -33495781.74 -33495781.59 -33495781.43 0.0135 0.0038
 Mercury -96420-10-16 03:06 J -33495693.53 -33495693.37 -33495693.21 0.0135 0.0018
 Mercury -96419-01-12 07:54 J -33495605.33 -33495605.17 -33495605.00 0.0135 0.0003
 Mercury -96419-04-10 12:56 J -33495517.12 -33495516.96 -33495516.80 0.0135 0.0019
 Mercury -96419-07-07 17:44 J -33495428.91 -33495428.76 -33495428.60 0.0135 0.0037
 Mercury -96419-10-03 22:18 J -33495340.70 -33495340.57 -33495340.41 0.0135 0.0056
 Mercury -96419-12-31 03:06 J -33495252.49 -33495252.37 -33495252.23 0.0135 0.0074
 Mercury -96418-03-29 08:08 J -33495164.28 -33495164.16 -33495164.05 0.0134 0.0091
 Mercury -96418-06-25 12:42 J -33495076.06 -33495075.97 -33495075.87 0.0134 0.0108

Mercury -96418-09-21 17:15 J -33494987.82 -33494987.78 -33494987.72 0.0134 0.0126

Venus -96418-10-25 09:49 J -33494954.22 -33494954.09 -33494953.93 0.0134 0.0100

Venus -96417-06-07 16:47 J -33494728.01 -33494727.80 -33494727.59 0.0134 0.0041

Venus -96416-01-19 23:01 J -33494501.75 -33494501.54 -33494501.32 0.0134 0.0017

Venus -96416-09-03 05:01 J -33494275.46 -33494275.29 -33494275.10 0.0133 0.0075

Venus -96415-04-17 11:01 J -33494049.06 -33494049.04 -33494049.00 0.0133 0.0132

Moon -96396-10-05 09:49 J -33486938.09 -33486938.09 -33486938.06 0.0132 0.0132

Earth -96396-10-05 10:32 J -33486938.06 -33486938.06 -33486938.01 0.0132 0.0132 *

Earth -96395-10-09 11:01 J -33486569.23 -33486569.04 -33486568.86 0.0133 0.0088

Moon -96395-10-09 11:30 J -33486569.19 -33486569.02 -33486568.84 0.0133 0.0090 *

Moon -96394-10-13 10:03 J -33486200.32 -33486200.08 -33486199.83 0.0133 0.0040

Earth -96394-10-13 11:01 J -33486200.27 -33486200.04 -33486199.81 0.0133 0.0045 *

Earth -96393-10-16 11:15 J -33485831.28 -33485831.03 -33485830.79 0.0134 0.0002

Moon -96393-10-16 12:27 J -33485831.22 -33485830.98 -33485830.74 0.0134 0.0005 *

Moon -96392-10-20 11:01 J -33485462.27 -33485462.04 -33485461.80 0.0134 0.0051

Earth -96392-10-20 11:44 J -33485462.24 -33485462.01 -33485461.77 0.0134 0.0045 *

Earth -96391-10-24 12:42 J -33485093.14 -33485092.97 -33485092.78 0.0134 0.0091

Moon -96391-10-24 14:08 J -33485093.09 -33485092.91 -33485092.72 0.0134 0.0084 *

Mars -96383-04-01 15:20 J -33482377.08 -33482376.86 -33482376.62 0.0139 0.0097

Mars -96381-03-06 07:39 J -33481672.29 -33481672.18 -33481672.01 0.0140 0.0126

Mercury -96376-03-25 14:08 J -33479826.95 -33479826.91 -33479826.84 0.0143 0.0131

Mercury -96376-06-21 18:56 J -33479738.79 -33479738.71 -33479738.60 0.0143 0.0111

Mercury -96376-09-17 23:59 J -33479650.61 -33479650.50 -33479650.38 0.0143 0.0091

Mercury -96376-12-15 04:47 J -33479562.43 -33479562.30 -33479562.16 0.0143 0.0070

Mercury -96375-03-13 09:49 J -33479474.23 -33479474.09 -33479473.95 0.0143 0.0050

Mercury -96375-06-09 14:37 J -33479386.03 -33479385.89 -33479385.74 0.0144 0.0029

Mercury -96375-09-05 19:39 J -33479297.83 -33479297.68 -33479297.53 0.0144 0.0008

Mercury -96375-12-03 00:42 J -33479209.62 -33479209.47 -33479209.31 0.0144 0.0014

Mercury -96374-03-01 05:59 J -33479121.40 -33479121.25 -33479121.10 0.0144 0.0035

Mercury -96374-05-28 11:01 J -33479033.18 -33479033.04 -33479032.90 0.0144 0.0057

Mercury -96374-08-24 16:03 J -33478944.95 -33478944.83 -33478944.69 0.0144 0.0079

Mercury -96374-11-20 21:20 J -33478856.71 -33478856.61 -33478856.49 0.0144 0.0101

Mercury -96373-02-17 02:37 J -33478768.46 -33478768.39 -33478768.30 0.0145 0.0124

Venus -96373-05-28 11:44 J -33478667.17 -33478667.01 -33478666.85 0.0145 0.0093

Venus -96372-01-09 22:32 J -33478440.77 -33478440.56 -33478440.35 0.0145 0.0021

Venus -96372-08-24 09:20 J -33478214.30 -33478214.11 -33478213.90 0.0145 0.0053

Venus -96371-04-07 20:51 J -33477987.73 -33477987.63 -33477987.51 0.0146 0.0126

Moon -96355-04-01 23:30 J -33472149.57 -33472149.52 -33472149.41 0.0146 0.0140

Earth -96355-04-02 03:49 J -33472149.42 -33472149.34 -33472149.24 0.0146 0.0137 *

Earth -96354-04-07 14:23 J -33471779.11 -33471778.90 -33471778.66 0.0146 0.0074

Moon -96354-04-07 18:13 J -33471778.96 -33471778.74 -33471778.51 0.0146 0.0076 *

Moon -96353-04-11 22:18 J -33471408.84 -33471408.57 -33471408.31 0.0146 0.0005

Earth -96353-04-12 01:11 J -33471408.71 -33471408.45 -33471408.18 0.0146 0.0011 *

Earth -96352-04-17 11:01 J -33471038.28 -33471038.04 -33471037.79 0.0145 0.0051

Moon -96352-04-17 13:54 J -33471038.16 -33471037.92 -33471037.67 0.0145 0.0043 *

Moon -96351-04-22 18:13 J -33470667.88 -33470667.74 -33470667.56 0.0144 0.0117

Earth -96351-04-22 19:54 J -33470667.82 -33470667.67 -33470667.49 0.0144 0.0113 *

Mars -96345-11-18 18:27 J -33468265.91 -33468265.73 -33468265.50 0.0140 0.0099

Mars -96343-10-20 17:44 J -33467564.96 -33467564.76 -33467564.55 0.0139 0.0099

Mercury -96337-05-25 04:03 J -33465521.37 -33465521.33 -33465521.26 0.0136 0.0127

Mercury -96337-08-21 09:20 J -33465433.20 -33465433.11 -33465433.00 0.0136 0.0107

Mercury -96337-11-17 14:51 J -33465345.00 -33465344.88 -33465344.76 0.0136 0.0087

Mercury -96336-02-13 19:54 J -33465256.81 -33465256.67 -33465256.52 0.0136 0.0068

Mercury -96336-05-13 00:56 J -33465168.61 -33465168.46 -33465168.30 0.0135 0.0049

Mercury -96336-08-09 06:13 J -33465080.40 -33465080.24 -33465080.08 0.0135 0.0030

Mercury -96336-11-05 11:15 J -33464992.20 -33464992.03 -33464991.87 0.0135 0.0011

Mercury -96335-02-01 16:03 J -33464903.99 -33464903.83 -33464903.67 0.0135 0.0008

Mercury -96335-04-30 20:51 J -33464815.78 -33464815.63 -33464815.46 0.0135 0.0027

Mercury -96335-07-28 01:54 J -33464727.57 -33464727.42 -33464727.27 0.0135 0.0045

Mercury -96335-10-24 06:42 J -33464639.36 -33464639.22 -33464639.08 0.0135 0.0063

Mercury -96334-01-20 11:15 J -33464551.15 -33464551.03 -33464550.89 0.0135 0.0081

Mercury -96334-04-18 16:03 J -33464462.93 -33464462.83 -33464462.72 0.0134 0.0098

Venus -96334-06-24 21:20 J -33464395.67 -33464395.61 -33464395.51 0.0134 0.0125

Mercury -96334-07-15 20:51 J -33464374.71 -33464374.63 -33464374.55 0.0134 0.0116

Mercury -96334-10-12 01:11 J -33464286.45 -33464286.45 -33464286.42 0.0134 0.0133

Venus -96333-02-06 04:18 J -33464169.50 -33464169.32 -33464169.11 0.0134 0.0065

Venus -96333-09-19 11:01 J -33463943.26 -33463943.04 -33463942.82 0.0134 0.0007

Venus -96332-05-03 17:30 J -33463716.97 -33463716.77 -33463716.56 0.0134 0.0051

Venus -96332-12-15 23:30 J -33463490.64 -33463490.52 -33463490.39 0.0133 0.0109

Moon -96312-10-05 23:30 J -33456256.58 -33456256.52 -33456256.42 0.0132 0.0125

Earth -96312-10-06 00:42 J -33456256.52 -33456256.47 -33456256.38 0.0132 0.0127 *

Earth -96311-10-10 00:27 J -33455887.65 -33455887.48 -33455887.27 0.0133 0.0084

Moon -96311-10-10 01:54 J -33455887.60 -33455887.42 -33455887.22 0.0133 0.0082 *

Moon -96310-10-13 23:01 J -33455518.77 -33455518.54 -33455518.29 0.0133 0.0043

Earth -96310-10-14 00:42 J -33455518.70 -33455518.47 -33455518.23 0.0133 0.0040 *

Earth -96309-10-17 01:11 J -33455149.70 -33455149.45 -33455149.20 0.0133 0.0004

Moon -96309-10-17 02:23 J -33455149.64 -33455149.40 -33455149.16 0.0133 0.0010 *

Moon -96308-10-20 23:59 J -33454780.74 -33454780.50 -33454780.26 0.0134 0.0042

Earth -96308-10-21 01:54 J -33454780.65 -33454780.42 -33454780.19 0.0134 0.0049 *

Earth -96307-10-25 02:37 J -33454411.55 -33454411.39 -33454411.20 0.0134 0.0094

Moon -96307-10-25 04:18 J -33454411.46 -33454411.32 -33454411.15 0.0134 0.0101 *

Moon -96306-10-29 02:51 J -33454042.41 -33454042.38 -33454042.33 0.0135 0.0133

Mars -96299-11-26 14:51 J -33451457.20 -33451456.88 -33451456.55 0.0139 0.0012

Mercury -96292-04-14 22:18 J -33449125.64 -33449125.57 -33449125.49 0.0143 0.0123

Mercury -96292-07-12 03:06 J -33449037.47 -33449037.37 -33449037.26 0.0143 0.0103

Mercury -96292-10-08 07:54 J -33448949.29 -33448949.17 -33448949.04 0.0143 0.0083

Mercury -96291-01-04 12:56 J -33448861.10 -33448860.96 -33448860.83 0.0143 0.0063

Mercury -96291-04-02 17:44 J -33448772.90 -33448772.76 -33448772.61 0.0143 0.0042

Mercury -96291-06-29 22:47 J -33448684.70 -33448684.55 -33448684.40 0.0144 0.0021

Mercury -96291-09-26 03:49 J -33448596.50 -33448596.34 -33448596.19 0.0144 0.0003

Mercury -96291-12-23 08:51 J -33448508.28 -33448508.13 -33448507.98 0.0144 0.0021

Mercury -96290-03-21 13:54 J -33448420.07 -33448419.92 -33448419.77 0.0144 0.0043

Mercury -96290-06-17 18:56 J -33448331.84 -33448331.71 -33448331.57 0.0144 0.0065

Mercury -96290-09-14 00:13 J -33448243.61 -33448243.49 -33448243.36 0.0144 0.0087

Mercury -96290-12-11 05:15 J -33448155.37 -33448155.28 -33448155.17 0.0144 0.0110

Venus -96289-01-26 20:37 J -33448108.74 -33448108.64 -33448108.53 0.0145 0.0125

Mercury -96289-03-08 10:47 J -33448067.11 -33448067.05 -33448066.98 0.0145 0.0132

Venus -96289-09-09 07:25 J -33447882.39 -33447882.19 -33447881.99 0.0145 0.0053

Venus -96288-04-23 18:27 J -33447655.94 -33447655.73 -33447655.52 0.0145 0.0019

Venus -96288-12-06 05:44 J -33447429.42 -33447429.26 -33447429.09 0.0146 0.0093

Moon -96271-04-02 12:56 J -33441468.07 -33441467.96 -33441467.82 0.0146 0.0128

Earth -96271-04-02 16:18 J -33441467.91 -33441467.82 -33441467.69 0.0146 0.0132 *

Earth -96270-04-08 03:20 J -33441097.58 -33441097.36 -33441097.12 0.0146 0.0069

Moon -96270-04-08 07:11 J -33441097.43 -33441097.20 -33441096.97 0.0146 0.0065 *

Moon -96269-04-12 10:18 J -33440727.33 -33440727.07 -33440726.80 0.0146 0.0013

Earth -96269-04-12 14:08 J -33440727.17 -33440726.91 -33440726.65 0.0146 0.0006 *

Earth -96268-04-17 23:44 J -33440356.75 -33440356.51 -33440356.26 0.0145 0.0055

Moon -96268-04-18 02:23 J -33440356.62 -33440356.40 -33440356.16 0.0145 0.0063 *

Moon -96267-04-23 06:42 J -33439986.38 -33439986.22 -33439986.04 0.0144 0.0111

Earth -96267-04-23 08:51 J -33439986.26 -33439986.13 -33439985.95 0.0144 0.0117 *

Mars -96260-07-14 20:23 J -33437346.93 -33437346.65 -33437346.36 0.0140 0.0021

Mercury -96253-06-14 12:13 J -33434820.06 -33434819.99 -33434819.90 0.0136 0.0119

Mercury -96253-09-10 17:30 J -33434731.87 -33434731.77 -33434731.65 0.0136 0.0100

Mercury -96253-12-07 22:47 J -33434643.68 -33434643.55 -33434643.41 0.0136 0.0080

Mercury -96252-03-06 03:49 J -33434555.48 -33434555.34 -33434555.18 0.0136 0.0061

Mercury -96252-06-02 09:06 J -33434467.27 -33434467.12 -33434466.96 0.0135 0.0041

Mercury -96252-08-29 14:08 J -33434379.07 -33434378.91 -33434378.75 0.0135 0.0022

Mercury -96252-11-25 19:11 J -33434290.86 -33434290.70 -33434290.54 0.0135 0.0004

Mercury -96251-02-22 00:13 J -33434202.65 -33434202.49 -33434202.33 0.0135 0.0015

Mercury -96251-05-21 05:01 J -33434114.44 -33434114.29 -33434114.13 0.0135 0.0034

Mercury -96251-08-17 09:49 J -33434026.23 -33434026.09 -33434025.94 0.0135 0.0052

Mercury -96251-11-13 14:37 J -33433938.02 -33433937.89 -33433937.75 0.0135 0.0070

Mercury -96250-02-09 19:25 J -33433849.80 -33433849.69 -33433849.57 0.0135 0.0088

Mercury -96250-05-08 23:59 J -33433761.58 -33433761.50 -33433761.39 0.0134 0.0106

Mercury -96250-08-05 04:47 J -33433673.35 -33433673.30 -33433673.23 0.0134 0.0123

Venus -96250-10-06 16:03 J -33433610.99 -33433610.83 -33433610.66 0.0134 0.0090

Venus -96249-05-19 22:47 J -33433384.75 -33433384.55 -33433384.32 0.0134 0.0031

Venus -96248-01-01 05:30 J -33433158.49 -33433158.27 -33433158.05 0.0134 0.0028

Venus -96248-08-15 11:30 J -33432932.18 -33432932.02 -33432931.84 0.0133 0.0085

Moon -96228-10-06 12:27 J -33425575.05 -33425574.98 -33425574.87 0.0132 0.0123

Earth -96228-10-06 14:23 J -33425574.98 -33425574.90 -33425574.79 0.0132 0.0122 *

Earth -96227-10-10 14:08 J -33425206.09 -33425205.91 -33425205.70 0.0133 0.0079

Moon -96227-10-10 16:18 J -33425206.01 -33425205.82 -33425205.63 0.0133 0.0080 *

Moon -96226-10-14 12:42 J -33424837.22 -33424836.97 -33424836.72 0.0133 0.0031

Earth -96226-10-14 14:08 J -33424837.13 -33424836.91 -33424836.66 0.0133 0.0036 *

Earth -96225-10-17 14:37 J -33424468.14 -33424467.89 -33424467.65 0.0133 0.0008

Moon -96225-10-17 16:47 J -33424468.04 -33424467.80 -33424467.56 0.0133 0.0004 *

Moon -96224-10-21 13:11 J -33424099.17 -33424098.95 -33424098.72 0.0134 0.0059

Earth -96224-10-21 15:06 J -33424099.09 -33424098.87 -33424098.63 0.0134 0.0053 *

Earth -96223-10-25 16:18 J -33423729.98 -33423729.82 -33423729.64 0.0134 0.0097

Moon -96223-10-25 18:27 J -33423729.90 -33423729.73 -33423729.55 0.0134 0.0091 *

Mars -96214-07-23 11:59 J -33420537.27 -33420537.00 -33420536.71 0.0139 0.0072

Mercury -96208-02-06 01:11 J -33418512.48 -33418512.45 -33418512.40 0.0143 0.0137

Mercury -96208-05-05 05:59 J -33418424.33 -33418424.25 -33418424.16 0.0143 0.0117

Mercury -96208-08-01 10:47 J -33418336.16 -33418336.05 -33418335.94 0.0143 0.0097

Mercury -96208-10-28 15:35 J -33418247.97 -33418247.85 -33418247.72 0.0143 0.0077

Mercury -96207-01-24 20:23 J -33418159.78 -33418159.65 -33418159.51 0.0143 0.0057

Mercury -96207-04-23 01:25 J -33418071.59 -33418071.44 -33418071.29 0.0143 0.0036

Mercury -96207-07-20 06:27 J -33417983.38 -33417983.23 -33417983.08 0.0144 0.0015

Mercury -96207-10-16 11:15 J -33417895.18 -33417895.03 -33417894.87 0.0144 0.0008

Mercury -96206-01-12 16:18 J -33417806.96 -33417806.82 -33417806.66 0.0144 0.0028

Mercury -96206-04-10 21:35 J -33417718.75 -33417718.60 -33417718.46 0.0144 0.0049

Mercury -96206-07-08 02:37 J -33417630.52 -33417630.39 -33417630.25 0.0144 0.0071

Mercury -96206-10-04 07:39 J -33417542.29 -33417542.18 -33417542.05 0.0144 0.0094

Mercury -96206-12-31 12:56 J -33417454.04 -33417453.96 -33417453.86 0.0144 0.0116

Mercury -96205-03-28 18:27 J -33417365.77 -33417365.73 -33417365.68 0.0145 0.0138

Venus -96205-05-09 15:20 J -33417324.03 -33417323.86 -33417323.68 0.0145 0.0087

Venus -96205-12-22 02:08 J -33417097.62 -33417097.41 -33417097.19 0.0145 0.0015

Venus -96204-08-05 13:11 J -33416871.14 -33416870.95 -33416870.75 0.0145 0.0058

Venus -96203-03-20 00:27 J -33416644.56 -33416644.48 -33416644.39 0.0146 0.0132

Moon -96187-04-03 00:27 J -33410786.58 -33410786.48 -33410786.34 0.0147 0.0130

Earth -96187-04-03 04:18 J -33410786.44 -33410786.32 -33410786.19 0.0147 0.0127 *

Earth -96186-04-08 14:51 J -33410416.10 -33410415.88 -33410415.63 0.0146 0.0065

Moon -96186-04-08 18:42 J -33410415.94 -33410415.72 -33410415.47 0.0146 0.0067 *

Moon -96185-04-12 22:18 J -33410045.83 -33410045.57 -33410045.30 0.0146 0.0004

Earth -96185-04-13 01:54 J -33410045.68 -33410045.42 -33410045.16 0.0146 0.0003 *

Earth -96184-04-18 11:44 J -33409675.24 -33409675.01 -33409674.76 0.0145 0.0059

Moon -96184-04-18 15:20 J -33409675.10 -33409674.86 -33409674.61 0.0145 0.0051 *

Moon -96183-04-23 18:27 J -33409304.85 -33409304.73 -33409304.59 0.0145 0.0125

Earth -96183-04-23 21:06 J -33409304.75 -33409304.62 -33409304.45 0.0145 0.0120 *

Mars -96175-03-09 20:08 J -33406427.92 -33406427.66 -33406427.39 0.0140 0.0055

Mercury -96169-04-07 15:06 J -33404206.90 -33404206.87 -33404206.82 0.0136 0.0131

Mercury -96169-07-04 20:08 J -33404118.73 -33404118.66 -33404118.55 0.0136 0.0112

Mercury -96169-10-01 01:39 J -33404030.54 -33404030.43 -33404030.30 0.0136 0.0092

Mercury -96169-12-28 06:42 J -33403942.35 -33403942.22 -33403942.07 0.0136 0.0073

Mercury -96168-03-26 12:13 J -33403854.14 -33403853.99 -33403853.84 0.0135 0.0053

Mercury -96168-06-22 17:15 J -33403765.94 -33403765.78 -33403765.62 0.0135 0.0034

Mercury -96168-09-18 22:18 J -33403677.73 -33403677.57 -33403677.41 0.0135 0.0015

Mercury -96168-12-16 03:20 J -33403589.52 -33403589.36 -33403589.20 0.0135 0.0004

Mercury -96167-03-14 08:08 J -33403501.31 -33403501.16 -33403500.99 0.0135 0.0023

Mercury -96167-06-10 13:11 J -33403413.10 -33403412.95 -33403412.80 0.0135 0.0041

Mercury -96167-09-06 17:59 J -33403324.89 -33403324.75 -33403324.60 0.0135 0.0059

Mercury -96167-12-03 22:32 J -33403236.68 -33403236.56 -33403236.42 0.0135 0.0078

Mercury -96166-03-02 03:35 J -33403148.46 -33403148.35 -33403148.24 0.0134 0.0095

Mercury -96166-05-29 08:08 J -33403060.24 -33403060.16 -33403060.07 0.0134 0.0113

Venus -96166-06-06 03:35 J -33403052.45 -33403052.35 -33403052.22 0.0134 0.0114

Mercury -96166-08-25 12:56 J -33402971.99 -33402971.96 -33402971.92 0.0134 0.0130

Venus -96165-01-18 10:32 J -33402826.25 -33402826.06 -33402825.85 0.0134 0.0055

Venus -96165-08-31 17:30 J -33402599.99 -33402599.77 -33402599.55 0.0134 0.0004

Venus -96164-04-14 23:59 J -33402373.70 -33402373.50 -33402373.31 0.0134 0.0062

Venus -96164-11-27 05:44 J -33402147.34 -33402147.26 -33402147.15 0.0133 0.0119

Moon -96144-10-07 02:23 J -33394893.51 -33394893.40 -33394893.26 0.0132 0.0115

Earth -96144-10-07 04:47 J -33394893.40 -33394893.30 -33394893.17 0.0132 0.0117 *

Earth -96143-10-11 04:47 J -33394524.50 -33394524.30 -33394524.09 0.0133 0.0074

Moon -96143-10-11 06:27 J -33394524.41 -33394524.23 -33394524.01 0.0133 0.0073 *

Moon -96142-10-15 01:54 J -33394155.66 -33394155.42 -33394155.17 0.0133 0.0034

Earth -96142-10-15 04:47 J -33394155.54 -33394155.30 -33394155.06 0.0133 0.0031 *

Earth -96141-10-18 05:01 J -33393786.53 -33393786.29 -33393786.04 0.0133 0.0013

Moon -96141-10-18 07:11 J -33393786.43 -33393786.20 -33393785.96 0.0133 0.0019 *

Moon -96140-10-22 02:51 J -33393417.60 -33393417.38 -33393417.13 0.0134 0.0050

Earth -96140-10-22 05:44 J -33393417.47 -33393417.26 -33393417.03 0.0134 0.0057 *

Earth -96139-10-26 06:42 J -33393048.36 -33393048.22 -33393048.04 0.0134 0.0101

Moon -96139-10-26 09:06 J -33393048.24 -33393048.12 -33393047.95 0.0134 0.0109 *

Mars -96131-04-13 23:44 J -33390321.78 -33390321.51 -33390321.20 0.0138 0.0063

Mercury -96124-02-26 09:06 J -33387811.17 -33387811.12 -33387811.05 0.0143 0.0130

Mercury -96124-05-25 13:54 J -33387723.00 -33387722.92 -33387722.82 0.0143 0.0110

Mercury -96124-08-21 18:42 J -33387634.83 -33387634.72 -33387634.60 0.0143 0.0090

Mercury -96124-11-17 23:44 J -33387546.64 -33387546.51 -33387546.38 0.0143 0.0070

Mercury -96123-02-14 04:32 J -33387458.45 -33387458.31 -33387458.17 0.0143 0.0049

Mercury -96123-05-13 09:35 J -33387370.25 -33387370.10 -33387369.95 0.0143 0.0029

Mercury -96123-08-09 14:23 J -33387282.05 -33387281.90 -33387281.74 0.0144 0.0008

Mercury -96123-11-05 19:25 J -33387193.84 -33387193.69 -33387193.54 0.0144 0.0014

Mercury -96122-02-02 00:27 J -33387105.62 -33387105.48 -33387105.33 0.0144 0.0035

Mercury -96122-05-01 05:30 J -33387017.40 -33387017.27 -33387017.12 0.0144 0.0057

Mercury -96122-07-28 10:32 J -33386929.18 -33386929.06 -33386928.92 0.0144 0.0080

Mercury -96122-10-24 16:03 J -33386840.94 -33386840.83 -33386840.72 0.0144 0.0101

Venus -96121-01-08 00:27 J -33386765.59 -33386765.48 -33386765.34 0.0144 0.0118

Mercury -96121-01-20 21:06 J -33386752.69 -33386752.62 -33386752.53 0.0144 0.0124

Venus -96121-08-21 11:15 J -33386539.23 -33386539.03 -33386538.82 0.0145 0.0047

Venus -96120-04-04 22:03 J -33386312.78 -33386312.58 -33386312.36 0.0145 0.0026

Venus -96120-11-17 09:06 J -33386086.26 -33386086.12 -33386085.95 0.0145 0.0100

Moon -96103-04-03 14:51 J -33380105.02 -33380104.88 -33380104.72 0.0147 0.0118

Earth -96103-04-03 17:44 J -33380104.89 -33380104.76 -33380104.60 0.0147 0.0122 *

Earth -96102-04-09 04:32 J -33379734.53 -33379734.31 -33379734.05 0.0146 0.0060

Moon -96102-04-09 08:08 J -33379734.39 -33379734.16 -33379733.90 0.0146 0.0057 *

Moon -96101-04-13 11:44 J -33379364.28 -33379364.01 -33379363.75 0.0146 0.0005

Earth -96101-04-13 15:35 J -33379364.11 -33379363.85 -33379363.59 0.0146 0.0002 *

Earth -96100-04-19 01:25 J -33378993.67 -33378993.44 -33378993.20 0.0145 0.0063

Moon -96100-04-19 04:47 J -33378993.52 -33378993.30 -33378993.07 0.0145 0.0071 *

Moon -96099-04-24 07:54 J -33378623.32 -33378623.17 -33378623.01 0.0145 0.0118

Earth -96099-04-24 11:01 J -33378623.16 -33378623.04 -33378622.89 0.0145 0.0124 *

Mars -96093-12-01 19:54 J -33376209.92 -33376209.67 -33376209.40 0.0141 0.0066

Mars -96091-11-02 18:27 J -33375508.83 -33375508.73 -33375508.61 0.0139 0.0129

Mercury -96085-04-27 23:01 J -33373505.59 -33373505.54 -33373505.46 0.0136 0.0124

Mercury -96085-07-25 04:32 J -33373417.41 -33373417.31 -33373417.20 0.0136 0.0104

Mercury -96085-10-21 10:03 J -33373329.21 -33373329.08 -33373328.96 0.0136 0.0084

Mercury -96084-01-17 15:06 J -33373241.01 -33373240.87 -33373240.72 0.0136 0.0065

Mercury -96084-04-15 20:08 J -33373152.81 -33373152.66 -33373152.50 0.0135 0.0046

Mercury -96084-07-13 01:25 J -33373064.60 -33373064.44 -33373064.28 0.0135 0.0026

Mercury -96084-10-09 06:27 J -33372976.39 -33372976.23 -33372976.07 0.0135 0.0007

Mercury -96083-01-05 11:30 J -33372888.18 -33372888.02 -33372887.86 0.0135 0.0011

Mercury -96083-04-03 16:18 J -33372799.97 -33372799.82 -33372799.66 0.0135 0.0030

Mercury -96083-06-30 21:20 J -33372711.76 -33372711.61 -33372711.46 0.0135 0.0048

Mercury -96083-09-27 01:54 J -33372623.55 -33372623.42 -33372623.27 0.0135 0.0067

Mercury -96083-12-24 06:42 J -33372535.33 -33372535.22 -33372535.08 0.0135 0.0085

Mercury -96082-03-22 11:44 J -33372447.11 -33372447.01 -33372446.91 0.0134 0.0102

Mercury -96082-06-18 16:18 J -33372358.88 -33372358.82 -33372358.74 0.0134 0.0120

Venus -96082-09-17 22:18 J -33372267.74 -33372267.57 -33372267.39 0.0134 0.0080

Venus -96081-05-01 05:15 J -33372041.49 -33372041.28 -33372041.06 0.0134 0.0021

Venus -96081-12-13 11:44 J -33371815.22 -33371815.01 -33371814.79 0.0134 0.0038

Venus -96080-07-27 17:59 J -33371588.90 -33371588.75 -33371588.59 0.0133 0.0096

Moon -96060-10-07 16:32 J -33364211.92 -33364211.81 -33364211.66 0.0132 0.0113

Earth -96060-10-07 19:11 J -33364211.81 -33364211.70 -33364211.55 0.0132 0.0112 *

Earth -96059-10-11 19:11 J -33363842.91 -33363842.70 -33363842.49 0.0133 0.0069

Moon -96059-10-11 21:49 J -33363842.78 -33363842.59 -33363842.37 0.0133 0.0070 *

Moon -96058-10-15 16:32 J -33363474.05 -33363473.81 -33363473.56 0.0133 0.0022

Earth -96058-10-15 19:11 J -33363473.94 -33363473.70 -33363473.45 0.0133 0.0026 *

Earth -96057-10-18 19:25 J -33363104.93 -33363104.69 -33363104.44 0.0133 0.0017

Moon -96057-10-18 22:32 J -33363104.80 -33363104.56 -33363104.32 0.0133 0.0011 *

Moon -96056-10-22 17:15 J -33362735.99 -33362735.78 -33362735.56 0.0134 0.0067

Earth -96056-10-22 20:08 J -33362735.87 -33362735.66 -33362735.43 0.0134 0.0061 *

Earth -96055-10-26 20:51 J -33362366.75 -33362366.63 -33362366.45 0.0134 0.0106

Moon -96055-10-26 23:44 J -33362366.65 -33362366.51 -33362366.32 0.0134 0.0099 *

Mars -96047-12-08 21:20 J -33359401.93 -33359401.61 -33359401.29 0.0139 0.0021

Mercury -96040-03-18 17:15 J -33357109.86 -33357109.78 -33357109.71 0.0143 0.0123

Mercury -96040-06-14 21:35 J -33357021.69 -33357021.60 -33357021.49 0.0143 0.0104

Mercury -96040-09-11 02:37 J -33356933.51 -33356933.39 -33356933.27 0.0143 0.0083

Mercury -96040-12-08 07:25 J -33356845.32 -33356845.19 -33356845.05 0.0143 0.0063

Mercury -96039-03-06 12:13 J -33356757.13 -33356756.99 -33356756.84 0.0143 0.0043

Mercury -96039-06-02 17:15 J -33356668.93 -33356668.78 -33356668.63 0.0143 0.0022

Mercury -96039-08-29 22:18 J -33356580.73 -33356580.57 -33356580.42 0.0144 0.0004

Mercury -96039-11-26 03:06 J -33356492.52 -33356492.37 -33356492.21 0.0144 0.0021

Mercury -96038-02-22 08:08 J -33356404.30 -33356404.16 -33356404.01 0.0144 0.0042

Mercury -96038-05-21 13:25 J -33356316.08 -33356315.94 -33356315.80 0.0144 0.0063

Mercury -96038-08-17 18:27 J -33356227.85 -33356227.73 -33356227.60 0.0144 0.0085

Mercury -96038-11-13 23:44 J -33356139.61 -33356139.51 -33356139.40 0.0144 0.0107

Mercury -96037-02-10 05:01 J -33356051.35 -33356051.29 -33356051.22 0.0144 0.0130

Venus -96037-04-20 19:39 J -33355980.86 -33355980.68 -33355980.50 0.0145 0.0080

Venus -96037-12-03 06:27 J -33355754.45 -33355754.23 -33355754.02 0.0145 0.0008

Venus -96036-07-17 17:01 J -33355527.97 -33355527.79 -33355527.59 0.0145 0.0066

Venus -96035-03-01 04:18 J -33355301.37 -33355301.32 -33355301.25 0.0146 0.0139

Moon -96019-04-04 03:20 J -33349423.49 -33349423.36 -33349423.20 0.0147 0.0120

Earth -96019-04-04 05:59 J -33349423.39 -33349423.25 -33349423.07 0.0147 0.0117 *

Earth -96018-04-09 17:15 J -33349053.02 -33349052.78 -33349052.53 0.0146 0.0055

Moon -96018-04-09 20:37 J -33349052.87 -33349052.64 -33349052.38 0.0146 0.0057 *

Moon -96017-04-14 00:27 J -33348682.73 -33348682.48 -33348682.22 0.0146 0.0013

Earth -96017-04-14 04:03 J -33348682.59 -33348682.33 -33348682.07 0.0146 0.0007 *

Earth -96016-04-19 14:08 J -33348312.13 -33348311.91 -33348311.67 0.0145 0.0068

Moon -96016-04-19 17:59 J -33348311.98 -33348311.75 -33348311.50 0.0145 0.0060 *

Moon -96015-04-24 20:23 J -33347941.73 -33347941.65 -33347941.54 0.0145 0.0134

Earth -96015-04-24 23:59 J -33347941.61 -33347941.50 -33347941.36 0.0145 0.0128 *

Mars -96008-07-27 20:23 J -33345290.93 -33345290.65 -33345290.35 0.0140 0.0012

Mercury -96001-02-20 02:08 J -33342892.41 -33342892.41 -33342892.40 0.0136 0.0136

Mercury -96001-05-18 07:25 J -33342804.27 -33342804.19 -33342804.10 0.0136 0.0116

Mercury -96001-08-14 12:42 J -33342716.08 -33342715.97 -33342715.85 0.0136 0.0096

Mercury -96001-11-10 17:59 J -33342627.88 -33342627.75 -33342627.61 0.0136 0.0077

96TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 96th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Mercury	-96000-02-06 23:15 J	-33342539.67	-33342539.53	-33342539.38	0.0136	0.0057		
Mercury	-96000-05-06 04:32 J	-33342451.47	-33342451.31	-33342451.15	0.0135	0.0038		
Mercury	-96000-08-02 09:35 J	-33342363.26	-33342363.10	-33342362.94	0.0135	0.0018		
Mercury	-96000-10-29 14:37 J	-33342275.05	-33342274.89	-33342274.73	0.0135	0.0001		
Mercury	-95999-01-25 19:39 J	-33342186.84	-33342186.68	-33342186.52	0.0135	0.0019		
Mercury	-95999-04-24 00:27 J	-33342098.63	-33342098.48	-33342098.32	0.0135	0.0038		
Mercury	-95999-07-21 05:30 J	-33342010.42	-33342010.27	-33342010.12	0.0135	0.0056		
Mercury	-95999-10-17 10:18 J	-33341922.20	-33341922.07	-33341921.93	0.0135	0.0074		
Mercury	-95998-01-13 15:06 J	-33341833.98	-33341833.87	-33341833.75	0.0135	0.0092		
Mercury	-95998-04-11 19:39 J	-33341745.76	-33341745.68	-33341745.58	0.0135	0.0110		
Venus	-95998-05-18 10:18 J	-33341709.20	-33341709.07	-33341708.93	0.0134	0.0104		
Mercury	-95998-07-09 00:42 J	-33341657.52	-33341657.47	-33341657.42	0.0134	0.0127		
Venus	-95998-12-30 17:15 J	-33341482.99	-33341482.78	-33341482.57	0.0134	0.0044		
Venus	-95997-08-12 23:44 J	-33341256.72	-33341256.51	-33341256.28	0.0134	0.0015		
Venus	-95996-03-27 05:59 J	-33341030.42	-33341030.25	-33341030.05	0.0134	0.0073		
Venus	-95996-11-08 12:13 J	-33340804.03	-33340803.99	-33340803.94	0.0133	0.0130		
Moon	-95976-10-08 06:56 J	-33333530.34	-33333530.21	-33333530.03	0.0132	0.0104		
Earth	-95976-10-08 10:32 J	-33333530.20	-33333530.06	-33333529.91	0.0132	0.0105	*	
Earth	-95975-10-12 10:03 J	-33333161.28	-33333161.08	-33333160.85	0.0133	0.0064		
Moon	-95975-10-12 12:56 J	-33333161.16	-33333160.96	-33333160.74	0.0133	0.0062	*	
Moon	-95974-10-16 07:11 J	-33332792.45	-33332792.20	-33332791.96	0.0133	0.0024		

Earth -95974-10-16 10:18 J -33332792.31 -33332792.07 -33332791.82 0.0133 0.0021 *
 Earth -95973-10-19 10:47 J -33332423.29 -33332423.05 -33332422.81 0.0133 0.0022
 Moon -95973-10-19 13:39 J -33332423.16 -33332422.93 -33332422.69 0.0133 0.0027 *
 Moon -95972-10-23 08:08 J -33332054.37 -33332054.16 -33332053.92 0.0134 0.0058
 Earth -95972-10-23 11:15 J -33332054.23 -33332054.03 -33332053.80 0.0134 0.0066 *
 Earth -95971-10-27 12:13 J -33331685.12 -33331684.99 -33331684.83 0.0134 0.0109
 Moon -95971-10-27 15:20 J -33331684.96 -33331684.86 -33331684.72 0.0134 0.0116 *
 Mars -95964-08-30 14:23 J -33329186.10 -33329185.90 -33329185.70 0.0138 0.0108
 Mars -95962-08-04 22:47 J -33328481.73 -33328481.55 -33328481.32 0.0139 0.0107
 Mercury -95956-01-09 20:37 J -33326496.68 -33326496.64 -33326496.59 0.0143 0.0135
 Mercury -95956-04-08 01:11 J -33326408.53 -33326408.45 -33326408.36 0.0143 0.0116
 Mercury -95956-07-05 05:44 J -33326320.36 -33326320.26 -33326320.14 0.0143 0.0096
 Mercury -95956-10-01 10:32 J -33326232.18 -33326232.06 -33326231.92 0.0143 0.0076
 Mercury -95956-12-28 15:35 J -33326143.99 -33326143.85 -33326143.71 0.0143 0.0055
 Mercury -95955-03-26 20:23 J -33326055.79 -33326055.65 -33326055.50 0.0143 0.0035
 Mercury -95955-06-23 01:25 J -33325967.59 -33325967.44 -33325967.29 0.0144 0.0014
 Mercury -95955-09-19 06:27 J -33325879.38 -33325879.23 -33325879.08 0.0144 0.0007
 Mercury -95955-12-16 11:15 J -33325791.17 -33325791.03 -33325790.87 0.0144 0.0029
 Mercury -95954-03-14 16:18 J -33325702.96 -33325702.82 -33325702.67 0.0144 0.0050
 Mercury -95954-06-10 21:35 J -33325614.73 -33325614.60 -33325614.47 0.0144 0.0072
 Mercury -95954-09-07 02:51 J -33325526.50 -33325526.38 -33325526.27 0.0144 0.0094
 Mercury -95954-12-04 07:54 J -33325438.26 -33325438.17 -33325438.07 0.0144 0.0116
 Venus -95954-12-20 05:15 J -33325422.41 -33325422.28 -33325422.14 0.0144 0.0111
 Mercury -95953-03-01 12:56 J -33325349.99 -33325349.96 -33325349.90 0.0144 0.0139
 Venus -95953-08-02 15:49 J -33325196.05 -33325195.84 -33325195.63 0.0145 0.0039
 Venus -95952-03-17 02:37 J -33324969.60 -33324969.39 -33324969.18 0.0145 0.0033
 Venus -95952-10-29 13:39 J -33324743.07 -33324742.93 -33324742.78 0.0145 0.0107
 Moon -95935-04-04 18:27 J -33318741.90 -33318741.73 -33318741.55 0.0147 0.0106
 Earth -95935-04-04 20:37 J -33318741.80 -33318741.64 -33318741.45 0.0147 0.0110 *
 Earth -95934-04-10 07:54 J -33318371.41 -33318371.17 -33318370.92 0.0146 0.0048

Moon	-95934-04-10 10:47 J	-33318371.30	-33318371.05	-33318370.79	0.0146	0.0046	*
Moon	-95933-04-14 15:06 J	-33318001.12	-33318000.87	-33318000.60	0.0146	0.0007	
Earth	-95933-04-14 18:56 J	-33318000.97	-33318000.71	-33318000.45	0.0146	0.0013	*
Earth	-95932-04-20 05:01 J	-33317630.51	-33317630.29	-33317630.06	0.0145	0.0073	
Moon	-95932-04-20 08:37 J	-33317630.35	-33317630.14	-33317629.91	0.0145	0.0081	*
Moon	-95931-04-25 11:30 J	-33317260.14	-33317260.02	-33317259.89	0.0145	0.0127	
Earth	-95931-04-25 14:51 J	-33317259.97	-33317259.88	-33317259.76	0.0145	0.0133	*
Mars	-95925-04-20 19:11 J	-33315072.86	-33315072.70	-33315072.50	0.0141	0.0110	
Mars	-95923-03-22 23:59 J	-33314371.71	-33314371.50	-33314371.26	0.0140	0.0087	
Mercury	-95917-03-11 10:32 J	-33312191.11	-33312191.06	-33312191.00	0.0136	0.0127	
Mercury	-95917-06-07 16:03 J	-33312102.93	-33312102.83	-33312102.73	0.0136	0.0107	
Mercury	-95917-09-03 21:06 J	-33312014.74	-33312014.62	-33312014.49	0.0136	0.0088	
Mercury	-95917-12-01 02:23 J	-33311926.54	-33311926.40	-33311926.25	0.0136	0.0068	
Mercury	-95916-02-27 07:39 J	-33311838.33	-33311838.18	-33311838.02	0.0136	0.0049	
Mercury	-95916-05-26 12:42 J	-33311750.12	-33311749.97	-33311749.80	0.0135	0.0030	
Mercury	-95916-08-22 17:59 J	-33311661.91	-33311661.75	-33311661.59	0.0135	0.0010	
Mercury	-95916-11-18 23:01 J	-33311573.70	-33311573.54	-33311573.38	0.0135	0.0009	
Mercury	-95915-02-15 03:49 J	-33311485.49	-33311485.34	-33311485.18	0.0135	0.0027	
Mercury	-95915-05-14 08:37 J	-33311397.28	-33311397.14	-33311396.98	0.0135	0.0046	
Mercury	-95915-08-10 13:39 J	-33311309.07	-33311308.93	-33311308.78	0.0135	0.0064	
Mercury	-95915-11-06 18:27 J	-33311220.85	-33311220.73	-33311220.60	0.0135	0.0082	
Venus	-95914-01-15 22:18 J	-33311150.64	-33311150.57	-33311150.51	0.0135	0.0128	
Mercury	-95914-02-02 23:15 J	-33311132.63	-33311132.53	-33311132.42	0.0135	0.0100	
Mercury	-95914-05-02 03:49 J	-33311044.40	-33311044.34	-33311044.25	0.0135	0.0118	
Mercury	-95914-07-29 08:51 J	-33310956.13	-33310956.13	-33310956.13	0.0134	0.0134	
Venus	-95914-08-30 05:01 J	-33310924.47	-33310924.29	-33310924.09	0.0134	0.0069	
Venus	-95913-04-12 11:59 J	-33310698.22	-33310698.00	-33310697.78	0.0134	0.0009	
Venus	-95913-11-24 18:27 J	-33310471.93	-33310471.73	-33310471.52	0.0134	0.0049	
Venus	-95912-07-09 00:42 J	-33310245.60	-33310245.47	-33310245.34	0.0134	0.0107	
Jupiter	-95903-01-16 20:23 J	-33307132.10	-33307131.65	-33307131.16	0.0131	0.0042	

Moon	-95892-10-08 22:18 J	-33302848.72	-33302848.57	-33302848.40	0.0132	0.0100
Earth	-95892-10-09 01:25 J	-33302848.59	-33302848.44	-33302848.27	0.0132	0.0100 *
Earth	-95891-10-13 01:25 J	-33302479.66	-33302479.44	-33302479.22	0.0133	0.0058
Moon	-95891-10-13 04:32 J	-33302479.52	-33302479.31	-33302479.08	0.0133	0.0059 *
Moon	-95890-10-16 22:18 J	-33302110.81	-33302110.57	-33302110.32	0.0133	0.0012
Earth	-95890-10-17 01:25 J	-33302110.68	-33302110.44	-33302110.19	0.0133	0.0016 *
Earth	-95889-10-20 01:39 J	-33301741.66	-33301741.43	-33301741.18	0.0133	0.0028
Moon	-95889-10-20 05:15 J	-33301741.52	-33301741.28	-33301741.04	0.0133	0.0021 *
Moon	-95888-10-23 22:47 J	-33301372.74	-33301372.55	-33301372.33	0.0134	0.0077
Earth	-95888-10-24 02:23 J	-33301372.60	-33301372.40	-33301372.18	0.0134	0.0070 *
Earth	-95887-10-28 03:06 J	-33301003.49	-33301003.37	-33301003.22	0.0134	0.0113
Moon	-95887-10-28 06:13 J	-33301003.37	-33301003.24	-33301003.07	0.0134	0.0107 *
Mars	-95879-04-26 11:01 J	-33298266.35	-33298266.04	-33298265.71	0.0138	0.0026
Mercury	-95872-01-30 04:18 J	-33295795.37	-33295795.32	-33295795.25	0.0143	0.0128
Mercury	-95872-04-28 08:51 J	-33295707.21	-33295707.13	-33295707.02	0.0143	0.0109
Mercury	-95872-07-25 13:39 J	-33295619.04	-33295618.93	-33295618.80	0.0143	0.0089
Mercury	-95872-10-21 18:27 J	-33295530.85	-33295530.73	-33295530.59	0.0143	0.0069
Mercury	-95871-01-17 23:30 J	-33295442.66	-33295442.52	-33295442.38	0.0143	0.0048
Mercury	-95871-04-16 04:18 J	-33295354.47	-33295354.32	-33295354.17	0.0143	0.0028
Mercury	-95871-07-13 09:06 J	-33295266.27	-33295266.12	-33295265.96	0.0144	0.0009
Mercury	-95871-10-09 14:08 J	-33295178.06	-33295177.91	-33295177.76	0.0144	0.0014
Mercury	-95870-01-05 19:11 J	-33295089.85	-33295089.70	-33295089.55	0.0144	0.0035
Mercury	-95870-04-04 00:13 J	-33295001.63	-33295001.49	-33295001.35	0.0144	0.0057
Mercury	-95870-07-01 05:30 J	-33294913.40	-33294913.27	-33294913.15	0.0144	0.0079
Venus	-95870-08-19 13:54 J	-33294863.94	-33294863.92	-33294863.88	0.0144	0.0143
Mercury	-95870-09-27 10:32 J	-33294825.17	-33294825.06	-33294824.95	0.0144	0.0100
Mercury	-95870-12-24 15:49 J	-33294736.92	-33294736.84	-33294736.76	0.0144	0.0123
Venus	-95869-04-02 00:13 J	-33294637.67	-33294637.49	-33294637.30	0.0145	0.0072
Venus	-95869-11-14 11:01 J	-33294411.26	-33294411.04	-33294410.83	0.0145	0.0000
Venus	-95868-06-28 21:35 J	-33294184.77	-33294184.60	-33294184.40	0.0145	0.0074

Moon	-95851-04-05 07:25 J	-33288060.35	-33288060.19	-33288060.01	0.0147	0.0108
Earth	-95851-04-05 08:51 J	-33288060.30	-33288060.13	-33288059.94	0.0147	0.0104 *
Earth	-95850-04-10 20:08 J	-33287689.91	-33287689.66	-33287689.40	0.0146	0.0043
Moon	-95850-04-10 23:01 J	-33287689.79	-33287689.54	-33287689.28	0.0146	0.0045 *
Moon	-95849-04-15 04:03 J	-33287319.58	-33287319.33	-33287319.07	0.0146	0.0023
Earth	-95849-04-15 07:11 J	-33287319.46	-33287319.20	-33287318.94	0.0146	0.0018 *
Earth	-95848-04-20 17:15 J	-33286948.98	-33286948.78	-33286948.54	0.0145	0.0078
Moon	-95848-04-20 21:06 J	-33286948.84	-33286948.62	-33286948.37	0.0145	0.0071 *
Moon	-95847-04-25 23:59 J	-33286578.53	-33286578.50	-33286578.46	0.0145	0.0143
Earth	-95847-04-26 03:20 J	-33286578.42	-33286578.36	-33286578.26	0.0145	0.0137
Mars	-95841-12-14 22:03 J	-33284153.85	-33284153.58	-33284153.28	0.0141	0.0032
Mercury	-95833-03-31 18:42 J	-33281489.79	-33281489.72	-33281489.63	0.0136	0.0119
Mercury	-95833-06-28 00:13 J	-33281401.60	-33281401.49	-33281401.38	0.0136	0.0099
Mercury	-95833-09-24 05:15 J	-33281313.40	-33281313.28	-33281313.13	0.0136	0.0080
Mercury	-95833-12-21 10:47 J	-33281225.20	-33281225.05	-33281224.90	0.0136	0.0060
Mercury	-95832-03-19 15:49 J	-33281136.99	-33281136.84	-33281136.68	0.0136	0.0041
Mercury	-95832-06-15 21:06 J	-33281048.78	-33281048.62	-33281048.46	0.0136	0.0021
Mercury	-95832-09-12 02:08 J	-33280960.57	-33280960.41	-33280960.25	0.0135	0.0003
Mercury	-95832-12-09 07:11 J	-33280872.36	-33280872.20	-33280872.04	0.0135	0.0017
Mercury	-95831-03-07 12:13 J	-33280784.15	-33280783.99	-33280783.83	0.0135	0.0035
Mercury	-95831-06-03 17:01 J	-33280695.93	-33280695.79	-33280695.64	0.0135	0.0053
Mercury	-95831-08-30 21:49 J	-33280607.72	-33280607.59	-33280607.45	0.0135	0.0072
Mercury	-95831-11-27 02:37 J	-33280519.50	-33280519.39	-33280519.26	0.0135	0.0090
Mercury	-95830-02-23 07:39 J	-33280431.28	-33280431.18	-33280431.09	0.0135	0.0107
Venus	-95830-04-29 16:47 J	-33280365.94	-33280365.80	-33280365.62	0.0135	0.0093
Mercury	-95830-05-22 12:13 J	-33280343.04	-33280342.99	-33280342.93	0.0135	0.0125
Venus	-95830-12-11 23:44 J	-33280139.71	-33280139.51	-33280139.28	0.0134	0.0034
Venus	-95829-07-25 06:27 J	-33279913.44	-33279913.23	-33279913.01	0.0134	0.0026
Venus	-95828-03-08 12:42 J	-33279687.13	-33279686.97	-33279686.79	0.0134	0.0084
Moon	-95808-10-09 12:56 J	-33272167.12	-33272166.96	-33272166.77	0.0132	0.0092

Earth -95808-10-09 16:32 J -33272166.97 -33272166.81 -33272166.62 0.0132 0.0094 *
 Earth -95807-10-13 16:32 J -33271798.03 -33271797.81 -33271797.58 0.0132 0.0053
 Moon -95807-10-13 19:54 J -33271797.89 -33271797.67 -33271797.44 0.0132 0.0051 *
 Moon -95806-10-17 13:11 J -33271429.19 -33271428.95 -33271428.70 0.0133 0.0014
 Earth -95806-10-17 16:47 J -33271429.04 -33271428.80 -33271428.55 0.0133 0.0011 *
 Earth -95805-10-20 17:01 J -33271060.03 -33271059.79 -33271059.55 0.0133 0.0032
 Moon -95805-10-20 20:23 J -33271059.88 -33271059.65 -33271059.41 0.0133 0.0037 *
 Moon -95804-10-24 14:08 J -33270691.12 -33270690.91 -33270690.69 0.0134 0.0067
 Earth -95804-10-24 17:15 J -33270690.96 -33270690.78 -33270690.56 0.0134 0.0075 *
 Earth -95803-10-28 17:59 J -33270321.85 -33270321.75 -33270321.61 0.0134 0.0117
 Moon -95803-10-28 21:35 J -33270321.67 -33270321.60 -33270321.49 0.0134 0.0125 *
 Mars -95795-12-21 12:56 J -33267346.25 -33267345.96 -33267345.66 0.0139 0.0060
 Mercury -95789-11-23 07:54 J -33265182.19 -33265182.17 -33265182.14 0.0142 0.0140
 Mercury -95788-02-19 12:27 J -33265094.05 -33265093.98 -33265093.90 0.0143 0.0121
 Mercury -95788-05-18 17:15 J -33265005.88 -33265005.78 -33265005.67 0.0143 0.0101
 Mercury -95788-08-14 21:49 J -33264917.70 -33264917.59 -33264917.46 0.0143 0.0081
 Mercury -95788-11-11 02:37 J -33264829.52 -33264829.39 -33264829.25 0.0143 0.0061
 Mercury -95787-02-07 07:39 J -33264741.33 -33264741.18 -33264741.04 0.0143 0.0041
 Mercury -95787-05-06 12:27 J -33264653.13 -33264652.98 -33264652.83 0.0143 0.0020
 Mercury -95787-08-02 17:30 J -33264564.93 -33264564.77 -33264564.62 0.0144 0.0004
 Mercury -95787-10-29 22:18 J -33264476.72 -33264476.57 -33264476.42 0.0144 0.0022
 Mercury -95786-01-26 03:20 J -33264388.50 -33264388.36 -33264388.21 0.0144 0.0043
 Mercury -95786-04-24 08:23 J -33264300.28 -33264300.15 -33264300.01 0.0144 0.0065
 Mercury -95786-07-21 13:25 J -33264212.06 -33264211.94 -33264211.81 0.0144 0.0087
 Mercury -95786-10-17 18:42 J -33264123.82 -33264123.72 -33264123.62 0.0144 0.0109
 Venus -95786-12-01 09:49 J -33264079.23 -33264079.09 -33264078.93 0.0144 0.0103
 Mercury -95785-01-13 23:59 J -33264035.56 -33264035.50 -33264035.44 0.0144 0.0131
 Venus -95785-07-14 20:23 J -33263852.85 -33263852.65 -33263852.44 0.0145 0.0031
 Venus -95784-02-26 06:56 J -33263626.41 -33263626.21 -33263625.99 0.0145 0.0042
 Venus -95784-10-10 17:59 J -33263399.87 -33263399.75 -33263399.61 0.0145 0.0115

Moon -95767-04-05 21:35 J -33257378.78 -33257378.60 -33257378.40 0.0147 0.0095
 Earth -95767-04-05 23:01 J -33257378.73 -33257378.54 -33257378.34 0.0147 0.0098 *
 Earth -95766-04-11 10:18 J -33257008.32 -33257008.07 -33257007.82 0.0146 0.0037
 Moon -95766-04-11 11:59 J -33257008.25 -33257008.00 -33257007.73 0.0146 0.0036 *
 Moon -95765-04-15 18:13 J -33256637.99 -33256637.74 -33256637.48 0.0146 0.0017
 Earth -95765-04-15 21:06 J -33256637.87 -33256637.62 -33256637.35 0.0146 0.0024 *
 Earth -95764-04-21 07:54 J -33256267.39 -33256267.17 -33256266.96 0.0145 0.0083
 Moon -95764-04-21 11:01 J -33256267.24 -33256267.04 -33256266.82 0.0145 0.0091 *
 Moon -95763-04-26 13:54 J -33255896.99 -33255896.92 -33255896.82 0.0145 0.0136
 Earth -95763-04-26 17:44 J -33255896.81 -33255896.76 -33255896.69 0.0145 0.0141
 Mars -95756-08-10 00:56 J -33253234.73 -33253234.46 -33253234.18 0.0140 0.0046
 Mercury -95749-01-23 21:35 J -33250876.63 -33250876.60 -33250876.54 0.0136 0.0131
 Mercury -95749-04-21 03:06 J -33250788.46 -33250788.37 -33250788.27 0.0136 0.0111
 Mercury -95749-07-18 08:23 J -33250700.26 -33250700.15 -33250700.02 0.0136 0.0091
 Mercury -95749-10-14 13:54 J -33250612.06 -33250611.92 -33250611.78 0.0136 0.0071
 Mercury -95748-01-10 18:56 J -33250523.85 -33250523.71 -33250523.55 0.0136 0.0052
 Mercury -95748-04-09 00:13 J -33250435.65 -33250435.49 -33250435.33 0.0136 0.0032
 Mercury -95748-07-06 05:15 J -33250347.44 -33250347.28 -33250347.11 0.0136 0.0014
 Mercury -95748-10-02 10:32 J -33250259.23 -33250259.06 -33250258.90 0.0135 0.0006
 Mercury -95748-12-29 15:20 J -33250171.01 -33250170.86 -33250170.70 0.0135 0.0025
 Mercury -95747-03-27 20:23 J -33250082.80 -33250082.65 -33250082.49 0.0135 0.0043
 Mercury -95747-06-24 01:11 J -33249994.59 -33249994.45 -33249994.30 0.0135 0.0061
 Mercury -95747-09-20 06:13 J -33249906.37 -33249906.24 -33249906.11 0.0135 0.0079
 Mercury -95747-12-17 11:01 J -33249818.15 -33249818.04 -33249817.93 0.0135 0.0097
 Venus -95747-12-28 04:32 J -33249807.40 -33249807.31 -33249807.19 0.0135 0.0117
 Mercury -95746-03-15 15:35 J -33249729.92 -33249729.85 -33249729.76 0.0135 0.0115
 Mercury -95746-06-11 20:08 J -33249641.67 -33249641.66 -33249641.62 0.0135 0.0133
 Venus -95746-08-11 11:30 J -33249581.20 -33249581.02 -33249580.81 0.0135 0.0058
 Venus -95745-03-24 18:42 J -33249354.94 -33249354.72 -33249354.50 0.0134 0.0003
 Venus -95745-11-06 00:56 J -33249128.65 -33249128.46 -33249128.26 0.0134 0.0061

Venus -95744-06-20 06:56 J -33248902.29 -33248902.21 -33248902.09 0.0134 0.0119
 Earth -95725-10-06 07:54 J -33241854.20 -33241854.17 -33241854.10 0.0132 0.0129
 Moon -95725-10-06 11:44 J -33241854.09 -33241854.01 -33241853.93 0.0132 0.0124
 Moon -95724-10-10 04:32 J -33241485.48 -33241485.31 -33241485.12 0.0132 0.0089
 Earth -95724-10-10 07:54 J -33241485.34 -33241485.17 -33241484.98 0.0132 0.0088 *
 Earth -95723-10-14 07:39 J -33241116.40 -33241116.18 -33241115.94 0.0132 0.0047
 Moon -95723-10-14 11:15 J -33241116.25 -33241116.03 -33241115.79 0.0132 0.0049 *
 Moon -95722-10-18 04:32 J -33240747.55 -33240747.31 -33240747.06 0.0133 0.0003
 Earth -95722-10-18 07:54 J -33240747.41 -33240747.17 -33240746.92 0.0133 0.0006 *
 Earth -95721-10-21 07:54 J -33240378.40 -33240378.17 -33240377.93 0.0133 0.0037
 Moon -95721-10-21 11:30 J -33240378.25 -33240378.02 -33240377.78 0.0133 0.0030 *
 Moon -95720-10-25 04:32 J -33240009.48 -33240009.31 -33240009.10 0.0134 0.0086
 Earth -95720-10-25 08:08 J -33240009.34 -33240009.16 -33240008.95 0.0134 0.0079 *
 Earth -95719-10-29 08:37 J -33239640.22 -33239640.14 -33239640.01 0.0134 0.0121
 Moon -95719-10-29 12:13 J -33239640.10 -33239639.99 -33239639.85 0.0134 0.0114 *
 Mars -95712-09-12 05:15 J -33237130.55 -33237130.28 -33237129.98 0.0138 0.0068
 Mercury -95705-12-13 15:49 J -33234480.89 -33234480.84 -33234480.79 0.0142 0.0133
 Mercury -95704-03-11 20:23 J -33234392.73 -33234392.65 -33234392.56 0.0143 0.0114
 Mercury -95704-06-08 01:11 J -33234304.56 -33234304.45 -33234304.34 0.0143 0.0094
 Mercury -95704-09-04 05:44 J -33234216.38 -33234216.26 -33234216.12 0.0143 0.0074
 Mercury -95704-12-01 10:32 J -33234128.19 -33234128.06 -33234127.91 0.0143 0.0054
 Mercury -95703-02-27 15:35 J -33234040.00 -33234039.85 -33234039.71 0.0143 0.0033
 Mercury -95703-05-26 20:23 J -33233951.80 -33233951.65 -33233951.50 0.0143 0.0013
 Mercury -95703-08-23 01:11 J -33233863.60 -33233863.45 -33233863.29 0.0143 0.0009
 Mercury -95703-11-19 06:13 J -33233775.39 -33233775.24 -33233775.09 0.0144 0.0029
 Mercury -95702-02-15 11:15 J -33233687.17 -33233687.03 -33233686.89 0.0144 0.0051
 Mercury -95702-05-14 16:18 J -33233598.95 -33233598.82 -33233598.69 0.0144 0.0072
 Venus -95702-07-31 18:56 J -33233520.78 -33233520.71 -33233520.62 0.0144 0.0133
 Mercury -95702-08-10 21:20 J -33233510.72 -33233510.61 -33233510.49 0.0144 0.0094
 Mercury -95702-11-07 02:23 J -33233422.48 -33233422.40 -33233422.30 0.0144 0.0116

Mercury -95701-02-03 07:39 J -33233334.21 -33233334.18 -33233334.13 0.0144 0.0138

Venus -95701-03-14 05:15 J -33233294.47 -33233294.28 -33233294.09 0.0144 0.0062

Venus -95701-10-26 15:49 J -33233068.05 -33233067.84 -33233067.62 0.0145 0.0010

Venus -95700-06-10 02:37 J -33232841.56 -33232841.39 -33232841.21 0.0145 0.0082

Moon -95684-03-31 22:47 J -33227067.58 -33227067.55 -33227067.51 0.0147 0.0145

Earth -95683-04-06 10:47 J -33226697.25 -33226697.05 -33226696.85 0.0147 0.0093

Moon -95683-04-06 10:32 J -33226697.24 -33226697.06 -33226696.87 0.0147 0.0098 *

Earth -95682-04-11 21:49 J -33226326.84 -33226326.59 -33226326.33 0.0146 0.0033

Moon -95682-04-11 23:44 J -33226326.77 -33226326.51 -33226326.24 0.0146 0.0035 *

Moon -95681-04-16 06:42 J -33225956.46 -33225956.22 -33225955.96 0.0146 0.0033

Earth -95681-04-16 08:51 J -33225956.38 -33225956.13 -33225955.87 0.0146 0.0027 *

Earth -95680-04-21 19:11 J -33225585.89 -33225585.70 -33225585.47 0.0145 0.0087

Moon -95680-04-21 22:47 J -33225585.77 -33225585.55 -33225585.32 0.0145 0.0079 *

Earth -95679-04-27 05:15 J -33225215.29 -33225215.28 -33225215.24 0.0145 0.0144

Mars -95673-05-03 18:27 J -33223016.96 -33223016.73 -33223016.47 0.0141 0.0076

Mars -95671-04-04 23:30 J -33222315.65 -33222315.52 -33222315.35 0.0140 0.0120

Mercury -95665-02-13 05:44 J -33220175.32 -33220175.26 -33220175.19 0.0136 0.0124

Mercury -95665-05-11 11:15 J -33220087.14 -33220087.03 -33220086.92 0.0136 0.0104

Mercury -95665-08-07 16:18 J -33219998.94 -33219998.82 -33219998.68 0.0136 0.0084

Mercury -95665-11-03 21:49 J -33219910.73 -33219910.59 -33219910.44 0.0136 0.0064

Mercury -95664-01-31 02:51 J -33219822.53 -33219822.38 -33219822.22 0.0136 0.0045

Mercury -95664-04-29 08:08 J -33219734.32 -33219734.16 -33219734.00 0.0136 0.0025

Mercury -95664-07-26 13:25 J -33219646.11 -33219645.94 -33219645.78 0.0136 0.0007

Mercury -95664-10-22 18:27 J -33219557.89 -33219557.73 -33219557.57 0.0135 0.0013

Mercury -95663-01-18 23:15 J -33219469.68 -33219469.53 -33219469.37 0.0135 0.0032

Mercury -95663-04-17 04:18 J -33219381.47 -33219381.32 -33219381.17 0.0135 0.0050

Mercury -95663-07-14 09:06 J -33219293.25 -33219293.12 -33219292.97 0.0135 0.0068

Mercury -95663-10-10 13:54 J -33219205.03 -33219204.92 -33219204.79 0.0135 0.0086

Mercury -95662-01-06 18:42 J -33219116.81 -33219116.72 -33219116.61 0.0135 0.0104

Mercury -95662-04-04 23:30 J -33219028.58 -33219028.52 -33219028.45 0.0135 0.0122

Venus	-95662-04-10 23:01 J	-33219022.71	-33219022.54	-33219022.37	0.0135	0.0082
Venus	-95662-11-23 05:59 J	-33218796.47	-33218796.25	-33218796.03	0.0134	0.0022
Venus	-95661-07-06 12:27 J	-33218570.19	-33218569.98	-33218569.76	0.0134	0.0037
Venus	-95660-02-17 18:42 J	-33218343.86	-33218343.72	-33218343.56	0.0134	0.0095
Earth	-95641-10-06 22:47 J	-33211172.61	-33211172.55	-33211172.45	0.0132	0.0124
Moon	-95641-10-07 02:08 J	-33211172.45	-33211172.41	-33211172.32	0.0132	0.0127 *
Moon	-95640-10-10 19:11 J	-33210803.89	-33210803.70	-33210803.50	0.0132	0.0081
Earth	-95640-10-10 22:47 J	-33210803.73	-33210803.55	-33210803.35	0.0132	0.0083 *
Earth	-95639-10-14 22:32 J	-33210434.79	-33210434.56	-33210434.32	0.0132	0.0043
Moon	-95639-10-15 01:54 J	-33210434.65	-33210434.42	-33210434.18	0.0132	0.0041 *
Moon	-95638-10-18 18:56 J	-33210065.95	-33210065.71	-33210065.46	0.0133	0.0006
Earth	-95638-10-18 22:47 J	-33210065.80	-33210065.55	-33210065.31	0.0133	0.0002 *
Earth	-95637-10-21 22:32 J	-33209696.79	-33209696.56	-33209696.32	0.0133	0.0040
Moon	-95637-10-22 02:08 J	-33209696.65	-33209696.41	-33209696.18	0.0133	0.0046 *
Moon	-95636-10-25 19:25 J	-33209327.88	-33209327.69	-33209327.47	0.0134	0.0076
Earth	-95636-10-25 22:47 J	-33209327.73	-33209327.55	-33209327.34	0.0134	0.0083 *
Earth	-95635-10-29 23:15 J	-33208958.60	-33208958.53	-33208958.41	0.0134	0.0125
Moon	-95635-10-30 03:06 J	-33208958.40	-33208958.37	-33208958.31	0.0134	0.0131
Mars	-95627-05-09 03:49 J	-33206210.66	-33206210.34	-33206210.01	0.0138	0.0014
Mercury	-95620-01-02 23:44 J	-33203779.57	-33203779.51	-33203779.43	0.0142	0.0126
Mercury	-95620-04-01 04:32 J	-33203691.41	-33203691.31	-33203691.21	0.0143	0.0106
Mercury	-95620-06-28 09:06 J	-33203603.23	-33203603.12	-33203603.00	0.0143	0.0086
Mercury	-95620-09-24 13:54 J	-33203515.05	-33203514.92	-33203514.78	0.0143	0.0066
Mercury	-95620-12-21 18:42 J	-33203426.86	-33203426.72	-33203426.58	0.0143	0.0046
Mercury	-95619-03-19 23:30 J	-33203338.67	-33203338.52	-33203338.37	0.0143	0.0026
Mercury	-95619-06-16 04:32 J	-33203250.47	-33203250.31	-33203250.16	0.0143	0.0006
Mercury	-95619-09-12 09:20 J	-33203162.26	-33203162.11	-33203161.96	0.0143	0.0016
Mercury	-95619-12-09 14:23 J	-33203074.05	-33203073.90	-33203073.75	0.0144	0.0037
Mercury	-95618-03-07 19:11 J	-33202985.83	-33202985.70	-33202985.55	0.0144	0.0059
Mercury	-95618-06-04 00:27 J	-33202897.61	-33202897.48	-33202897.35	0.0144	0.0080

Mercury -95618-08-31 05:30 J -33202809.37 -33202809.27 -33202809.16 0.0144 0.0102
 Venus -95618-11-12 14:51 J -33202736.03 -33202735.88 -33202735.71 0.0144 0.0094
 Mercury -95618-11-27 10:32 J -33202721.12 -33202721.06 -33202720.97 0.0144 0.0125
 Venus -95617-06-26 01:25 J -33202509.65 -33202509.44 -33202509.23 0.0144 0.0022
 Venus -95616-02-07 11:44 J -33202283.20 -33202283.01 -33202282.80 0.0145 0.0051
 Venus -95616-09-21 22:47 J -33202056.65 -33202056.55 -33202056.43 0.0145 0.0124
 Moon -95599-04-06 23:59 J -33196015.69 -33196015.50 -33196015.28 0.0147 0.0085
 Earth -95599-04-07 00:27 J -33196015.68 -33196015.48 -33196015.27 0.0147 0.0088 *
 Earth -95598-04-12 11:30 J -33195645.27 -33195645.02 -33195644.76 0.0146 0.0028
 Moon -95598-04-12 12:13 J -33195645.25 -33195644.99 -33195644.72 0.0146 0.0028 *
 Moon -95597-04-16 20:23 J -33195274.89 -33195274.65 -33195274.39 0.0146 0.0026
 Earth -95597-04-16 22:32 J -33195274.81 -33195274.56 -33195274.30 0.0146 0.0032 *
 Earth -95596-04-22 08:37 J -33194904.32 -33194904.14 -33194903.91 0.0145 0.0091
 Moon -95596-04-22 11:30 J -33194904.20 -33194904.02 -33194903.81 0.0145 0.0098 *
 Moon -95595-04-27 15:20 J -33194533.89 -33194533.86 -33194533.79 0.0145 0.0142
 Mars -95589-12-27 21:35 J -33192097.89 -33192097.60 -33192097.30 0.0141 0.0002
 Mercury -95581-03-04 13:39 J -33189474.00 -33189473.93 -33189473.83 0.0136 0.0117
 Mercury -95581-05-31 19:11 J -33189385.81 -33189385.70 -33189385.58 0.0136 0.0096
 Mercury -95581-08-28 00:42 J -33189297.61 -33189297.47 -33189297.34 0.0136 0.0076
 Mercury -95581-11-24 05:44 J -33189209.40 -33189209.26 -33189209.10 0.0136 0.0057
 Mercury -95580-02-20 11:01 J -33189121.19 -33189121.04 -33189120.88 0.0136 0.0037
 Mercury -95580-05-19 16:03 J -33189032.98 -33189032.83 -33189032.66 0.0136 0.0019
 Mercury -95580-08-15 21:20 J -33188944.77 -33188944.61 -33188944.45 0.0136 0.0001
 Mercury -95580-11-12 02:23 J -33188856.56 -33188856.40 -33188856.24 0.0135 0.0020
 Mercury -95579-02-08 07:25 J -33188768.35 -33188768.19 -33188768.04 0.0135 0.0038
 Mercury -95579-05-07 12:13 J -33188680.13 -33188679.99 -33188679.84 0.0135 0.0057
 Mercury -95579-08-03 17:01 J -33188591.91 -33188591.79 -33188591.65 0.0135 0.0075
 Mercury -95579-10-30 22:03 J -33188503.69 -33188503.58 -33188503.46 0.0135 0.0093
 Venus -95579-12-09 09:49 J -33188464.20 -33188464.09 -33188463.94 0.0135 0.0108
 Mercury -95578-01-27 02:37 J -33188415.47 -33188415.39 -33188415.29 0.0135 0.0111

Mercury -95578-04-25 07:25 J -33188327.22 -33188327.19 -33188327.13 0.0135 0.0129

Venus -95578-07-23 17:15 J -33188237.99 -33188237.78 -33188237.57 0.0135 0.0048

Venus -95577-03-05 23:59 J -33188011.72 -33188011.50 -33188011.28 0.0134 0.0012

Venus -95577-10-18 06:13 J -33187785.41 -33187785.24 -33187785.04 0.0134 0.0071

Venus -95576-06-01 12:42 J -33187559.01 -33187558.97 -33187558.90 0.0134 0.0129

Earth -95557-10-07 13:54 J -33180491.02 -33180490.92 -33180490.81 0.0132 0.0118

Moon -95557-10-07 17:15 J -33180490.89 -33180490.78 -33180490.64 0.0132 0.0114 *

Moon -95556-10-11 10:32 J -33180122.25 -33180122.06 -33180121.87 0.0132 0.0080

Earth -95556-10-11 13:39 J -33180122.12 -33180121.93 -33180121.72 0.0132 0.0078 *

Earth -95555-10-15 13:25 J -33179753.18 -33179752.94 -33179752.70 0.0133 0.0038

Moon -95555-10-15 16:47 J -33179753.03 -33179752.80 -33179752.55 0.0133 0.0040 *

Moon -95554-10-19 10:03 J -33179384.32 -33179384.08 -33179383.83 0.0133 0.0006

Earth -95554-10-19 13:25 J -33179384.19 -33179383.94 -33179383.70 0.0133 0.0004 *

Earth -95553-10-22 13:11 J -33179015.18 -33179014.95 -33179014.71 0.0133 0.0045

Moon -95553-10-22 16:32 J -33179015.04 -33179014.81 -33179014.56 0.0133 0.0039 *

Moon -95552-10-26 10:18 J -33178646.24 -33178646.07 -33178645.89 0.0134 0.0093

Earth -95552-10-26 13:25 J -33178646.12 -33178645.94 -33178645.74 0.0134 0.0086 *

Earth -95551-10-30 14:08 J -33178276.97 -33178276.91 -33178276.82 0.0134 0.0128

Moon -95551-10-30 17:30 J -33178276.87 -33178276.77 -33178276.66 0.0134 0.0120 *

Mars -95544-01-29 00:56 J -33175994.63 -33175994.46 -33175994.25 0.0137 0.0110

Mars -95542-01-03 01:54 J -33175290.63 -33175290.42 -33175290.16 0.0139 0.0098

Saturn -95540-09-10 16:18 J -33174308.89 -33174308.82 -33174308.63 0.0140 0.0138

Mercury -95537-10-27 02:51 J -33173166.40 -33173166.38 -33173166.33 0.0142 0.0138

Mercury -95536-01-23 07:39 J -33173078.25 -33173078.18 -33173078.09 0.0142 0.0119

Mercury -95536-04-21 12:13 J -33172990.09 -33172989.99 -33172989.88 0.0143 0.0099

Mercury -95536-07-18 17:01 J -33172901.91 -33172901.79 -33172901.66 0.0143 0.0079

Mercury -95536-10-14 21:35 J -33172813.73 -33172813.60 -33172813.45 0.0143 0.0060

Mercury -95535-01-11 02:37 J -33172725.53 -33172725.39 -33172725.25 0.0143 0.0039

Mercury -95535-04-09 07:25 J -33172637.34 -33172637.19 -33172637.04 0.0143 0.0019

Mercury -95535-07-06 12:13 J -33172549.14 -33172548.99 -33172548.83 0.0143 0.0005

Mercury -95535-10-02 17:15 J -33172460.93 -33172460.78 -33172460.63 0.0143 0.0023
 Mercury -95535-12-29 22:03 J -33172372.72 -33172372.58 -33172372.43 0.0144 0.0045
 Mercury -95534-03-28 03:20 J -33172284.50 -33172284.36 -33172284.23 0.0144 0.0066
 Mercury -95534-06-24 08:08 J -33172196.27 -33172196.16 -33172196.03 0.0144 0.0088
 Venus -95534-07-12 23:44 J -33172177.60 -33172177.51 -33172177.39 0.0144 0.0125
 Mercury -95534-09-20 13:25 J -33172108.03 -33172107.94 -33172107.84 0.0144 0.0109
 Mercury -95534-12-17 18:42 J -33172019.78 -33172019.72 -33172019.66 0.0144 0.0131
 Venus -95533-02-24 10:03 J -33171951.27 -33171951.08 -33171950.87 0.0144 0.0054
 Venus -95533-10-07 20:51 J -33171724.84 -33171724.63 -33171724.42 0.0144 0.0018
 Venus -95532-05-22 07:25 J -33171498.35 -33171498.19 -33171498.01 0.0145 0.0091
 Moon -95516-04-01 22:47 J -33165704.64 -33165704.55 -33165704.43 0.0147 0.0135
 Earth -95516-04-02 00:13 J -33165704.53 -33165704.49 -33165704.41 0.0147 0.0143 *
 Earth -95515-04-07 11:30 J -33165334.22 -33165334.02 -33165333.79 0.0147 0.0084
 Moon -95515-04-07 12:42 J -33165334.16 -33165333.97 -33165333.76 0.0147 0.0089 *
 Earth -95514-04-12 22:47 J -33164963.80 -33164963.55 -33164963.28 0.0146 0.0025
 Moon -95514-04-12 23:15 J -33164963.79 -33164963.53 -33164963.25 0.0146 0.0026 *
 Moon -95513-04-17 08:37 J -33164593.38 -33164593.14 -33164592.89 0.0146 0.0041
 Earth -95513-04-17 09:49 J -33164593.34 -33164593.09 -33164592.83 0.0146 0.0035 *
 Earth -95512-04-22 19:54 J -33164222.85 -33164222.67 -33164222.45 0.0145 0.0094
 Moon -95512-04-22 22:03 J -33164222.78 -33164222.58 -33164222.34 0.0145 0.0087 *
 Mars -95506-09-21 09:49 J -33161880.21 -33161880.09 -33161879.93 0.0142 0.0123
 Mars -95504-08-22 20:08 J -33161178.90 -33161178.66 -33161178.41 0.0140 0.0076
 Mercury -95498-12-27 15:49 J -33158860.87 -33158860.84 -33158860.77 0.0137 0.0131
 Mercury -95497-03-24 21:20 J -33158772.69 -33158772.61 -33158772.50 0.0136 0.0111
 Mercury -95497-06-21 02:51 J -33158684.50 -33158684.38 -33158684.25 0.0136 0.0090
 Mercury -95497-09-17 08:08 J -33158596.29 -33158596.16 -33158596.01 0.0136 0.0070
 Mercury -95497-12-14 13:39 J -33158508.08 -33158507.93 -33158507.78 0.0136 0.0050
 Mercury -95496-03-12 18:42 J -33158419.87 -33158419.72 -33158419.56 0.0136 0.0031
 Mercury -95496-06-08 23:59 J -33158331.66 -33158331.50 -33158331.34 0.0136 0.0012
 Mercury -95496-09-05 05:01 J -33158243.45 -33158243.29 -33158243.13 0.0136 0.0007

Mercury -95496-12-02 10:03 J -33158155.24 -33158155.08 -33158154.92 0.0135 0.0026

Mercury -95495-02-28 15:06 J -33158067.02 -33158066.87 -33158066.72 0.0135 0.0045

Mercury -95495-05-27 19:54 J -33157978.81 -33157978.67 -33157978.52 0.0135 0.0063

Venus -95495-08-08 20:23 J -33157905.66 -33157905.65 -33157905.63 0.0135 0.0134

Mercury -95495-08-24 00:56 J -33157890.59 -33157890.46 -33157890.33 0.0135 0.0081

Mercury -95495-11-20 05:44 J -33157802.36 -33157802.26 -33157802.15 0.0135 0.0099

Mercury -95494-02-16 10:32 J -33157714.13 -33157714.06 -33157713.98 0.0135 0.0117

Venus -95494-03-23 03:35 J -33157679.53 -33157679.35 -33157679.16 0.0135 0.0074

Mercury -95494-05-15 15:20 J -33157625.86 -33157625.86 -33157625.85 0.0135 0.0134

Venus -95494-11-04 10:47 J -33157453.27 -33157453.05 -33157452.83 0.0135 0.0014

Venus -95493-06-17 17:44 J -33157226.97 -33157226.76 -33157226.56 0.0134 0.0046

Venus -95492-01-29 23:59 J -33157000.63 -33157000.50 -33157000.36 0.0134 0.0104

Earth -95473-10-08 04:32 J -33149809.43 -33149809.31 -33149809.18 0.0132 0.0113

Moon -95473-10-08 07:54 J -33149809.28 -33149809.17 -33149809.05 0.0132 0.0116 *

Moon -95472-10-12 00:27 J -33149440.67 -33149440.48 -33149440.26 0.0132 0.0072

Earth -95472-10-12 04:03 J -33149440.52 -33149440.33 -33149440.11 0.0132 0.0074 *

Earth -95471-10-16 03:35 J -33149071.58 -33149071.35 -33149071.10 0.0133 0.0034

Moon -95471-10-16 06:42 J -33149071.45 -33149071.22 -33149070.97 0.0133 0.0033 *

Moon -95470-10-20 00:27 J -33148702.72 -33148702.48 -33148702.23 0.0133 0.0003

Earth -95470-10-20 03:49 J -33148702.59 -33148702.34 -33148702.09 0.0133 0.0007 *

Earth -95469-10-23 03:20 J -33148333.58 -33148333.36 -33148333.12 0.0133 0.0049

Moon -95469-10-23 06:42 J -33148333.45 -33148333.22 -33148332.99 0.0133 0.0054 *

Moon -95468-10-27 00:56 J -33147964.64 -33147964.46 -33147964.26 0.0134 0.0083

Earth -95468-10-27 03:49 J -33147964.51 -33147964.34 -33147964.14 0.0134 0.0090 *

Earth -95467-10-31 04:47 J -33147595.35 -33147595.30 -33147595.24 0.0134 0.0130

Mars -95460-09-24 19:54 J -33145074.97 -33145074.67 -33145074.34 0.0138 0.0031

Mercury -95453-11-16 10:47 J -33142465.09 -33142465.05 -33142464.98 0.0142 0.0132

Mercury -95452-02-12 15:35 J -33142376.93 -33142376.85 -33142376.75 0.0142 0.0112

Mercury -95452-05-11 20:23 J -33142288.76 -33142288.65 -33142288.54 0.0143 0.0092

Mercury -95452-08-08 01:11 J -33142200.58 -33142200.45 -33142200.32 0.0143 0.0072

Mercury -95452-11-04 05:44 J -33142112.40 -33142112.26 -33142112.12 0.0143 0.0052

Mercury -95451-01-31 10:32 J -33142024.20 -33142024.06 -33142023.91 0.0143 0.0032

Mercury -95451-04-29 15:20 J -33141936.00 -33141935.86 -33141935.70 0.0143 0.0012

Mercury -95451-07-26 20:23 J -33141847.80 -33141847.65 -33141847.50 0.0143 0.0010

Mercury -95451-10-23 01:11 J -33141759.59 -33141759.45 -33141759.30 0.0143 0.0031

Mercury -95450-01-19 06:13 J -33141671.38 -33141671.24 -33141671.09 0.0143 0.0052

Mercury -95450-04-17 11:15 J -33141583.16 -33141583.03 -33141582.89 0.0144 0.0074

Mercury -95450-07-14 16:32 J -33141494.93 -33141494.81 -33141494.70 0.0144 0.0095

Mercury -95450-10-10 21:35 J -33141406.68 -33141406.60 -33141406.51 0.0144 0.0117

Venus -95450-10-24 19:39 J -33141392.84 -33141392.68 -33141392.50 0.0144 0.0085

Mercury -95449-01-07 02:37 J -33141318.42 -33141318.39 -33141318.34 0.0144 0.0139

Venus -95449-06-07 06:13 J -33141166.45 -33141166.24 -33141166.03 0.0144 0.0013

Venus -95448-01-19 16:47 J -33140939.99 -33140939.80 -33140939.60 0.0145 0.0059

Venus -95448-09-03 03:20 J -33140713.43 -33140713.36 -33140713.26 0.0145 0.0132

Moon -95432-04-02 11:15 J -33135023.06 -33135023.03 -33135022.95 0.0147 0.0144

Earth -95432-04-02 14:08 J -33135022.99 -33135022.91 -33135022.79 0.0147 0.0136 *

Earth -95431-04-08 01:25 J -33134652.65 -33134652.44 -33134652.20 0.0147 0.0078

Moon -95431-04-08 02:37 J -33134652.59 -33134652.39 -33134652.16 0.0147 0.0074 *

Moon -95430-04-13 12:13 J -33134282.26 -33134281.99 -33134281.72 0.0146 0.0019

Earth -95430-04-13 12:42 J -33134282.23 -33134281.97 -33134281.71 0.0146 0.0019 *

Moon -95429-04-17 23:01 J -33133911.79 -33133911.54 -33133911.29 0.0146 0.0035

Earth -95429-04-17 23:30 J -33133911.77 -33133911.52 -33133911.26 0.0146 0.0040 *

Earth -95428-04-23 09:35 J -33133541.28 -33133541.10 -33133540.89 0.0145 0.0098

Moon -95428-04-23 11:15 J -33133541.19 -33133541.03 -33133540.82 0.0145 0.0106 *

Mars -95421-05-16 14:51 J -33130961.15 -33130960.88 -33130960.59 0.0141 0.0045

Mercury -95413-01-17 00:13 J -33128159.56 -33128159.49 -33128159.42 0.0137 0.0123

Mercury -95413-04-14 05:44 J -33128071.37 -33128071.26 -33128071.15 0.0136 0.0103

Mercury -95413-07-11 10:47 J -33127983.17 -33127983.05 -33127982.91 0.0136 0.0083

Mercury -95413-10-07 16:18 J -33127894.96 -33127894.82 -33127894.67 0.0136 0.0063

Mercury -95412-01-03 21:35 J -33127806.76 -33127806.60 -33127806.44 0.0136 0.0043

Mercury -95412-04-02 02:51 J -33127718.54 -33127718.38 -33127718.22 0.0136 0.0024

Mercury -95412-06-29 07:54 J -33127630.33 -33127630.17 -33127630.00 0.0136 0.0005

Mercury -95412-09-25 12:56 J -33127542.12 -33127541.96 -33127541.79 0.0136 0.0014

Mercury -95412-12-22 17:59 J -33127453.90 -33127453.75 -33127453.59 0.0135 0.0033

Mercury -95411-03-20 23:01 J -33127365.69 -33127365.54 -33127365.39 0.0135 0.0051

Mercury -95411-06-17 03:49 J -33127277.47 -33127277.34 -33127277.19 0.0135 0.0070

Mercury -95411-09-13 08:37 J -33127189.25 -33127189.14 -33127189.01 0.0135 0.0089

Venus -95411-11-20 14:23 J -33127121.03 -33127120.90 -33127120.73 0.0135 0.0100

Mercury -95411-12-10 13:39 J -33127101.02 -33127100.93 -33127100.83 0.0135 0.0106

Mercury -95410-03-08 18:13 J -33127012.79 -33127012.74 -33127012.66 0.0135 0.0124

Venus -95410-07-04 21:49 J -33126894.79 -33126894.59 -33126894.37 0.0135 0.0039

Venus -95409-02-16 04:47 J -33126668.51 -33126668.30 -33126668.08 0.0134 0.0021

Venus -95409-09-29 11:15 J -33126442.19 -33126442.03 -33126441.84 0.0134 0.0080

Earth -95389-10-08 18:42 J -33119127.84 -33119127.72 -33119127.56 0.0132 0.0108

Moon -95389-10-08 21:49 J -33119127.72 -33119127.59 -33119127.41 0.0132 0.0104 *

Moon -95388-10-12 15:49 J -33118759.04 -33118758.84 -33118758.63 0.0132 0.0070

Earth -95388-10-12 18:27 J -33118758.93 -33118758.73 -33118758.51 0.0132 0.0069 *

Earth -95387-10-16 18:13 J -33118389.98 -33118389.74 -33118389.49 0.0133 0.0029

Moon -95387-10-16 21:20 J -33118389.84 -33118389.61 -33118389.36 0.0133 0.0031 *

Moon -95386-10-20 15:20 J -33118021.09 -33118020.86 -33118020.61 0.0133 0.0015

Earth -95386-10-20 18:13 J -33118020.99 -33118020.74 -33118020.50 0.0133 0.0012 *

Earth -95385-10-23 17:59 J -33117651.97 -33117651.75 -33117651.51 0.0133 0.0053

Moon -95385-10-23 21:06 J -33117651.85 -33117651.62 -33117651.39 0.0133 0.0047 *

Moon -95384-10-27 15:20 J -33117283.00 -33117282.86 -33117282.68 0.0134 0.0101

Earth -95384-10-27 18:13 J -33117282.90 -33117282.74 -33117282.55 0.0134 0.0094 *

Moon -95383-10-31 21:35 J -33116913.66 -33116913.60 -33116913.51 0.0134 0.0127

Mars -95375-05-21 16:32 J -33114155.10 -33114154.81 -33114154.49 0.0138 0.0052

Mercury -95369-12-06 18:42 J -33111763.78 -33111763.72 -33111763.63 0.0142 0.0125

Mercury -95368-03-04 23:30 J -33111675.61 -33111675.52 -33111675.41 0.0142 0.0105

Mercury -95368-06-01 04:18 J -33111587.44 -33111587.32 -33111587.20 0.0142 0.0085

Mercury -95368-08-28 09:06 J -33111499.26 -33111499.12 -33111498.99 0.0143 0.0065

Mercury -95368-11-24 13:39 J -33111411.07 -33111410.93 -33111410.78 0.0143 0.0045

Mercury -95367-02-20 18:27 J -33111322.87 -33111322.73 -33111322.58 0.0143 0.0025

Mercury -95367-05-19 23:30 J -33111234.68 -33111234.52 -33111234.37 0.0143 0.0005

Mercury -95367-08-16 04:18 J -33111146.47 -33111146.32 -33111146.17 0.0143 0.0017

Mercury -95367-11-12 09:06 J -33111058.26 -33111058.12 -33111057.97 0.0143 0.0039

Mercury -95366-02-08 14:08 J -33110970.04 -33110969.91 -33110969.77 0.0143 0.0060

Mercury -95366-05-07 19:11 J -33110881.82 -33110881.70 -33110881.57 0.0144 0.0081

Venus -95366-06-24 05:01 J -33110834.41 -33110834.29 -33110834.16 0.0144 0.0116

Mercury -95366-08-04 00:13 J -33110793.59 -33110793.49 -33110793.37 0.0144 0.0103

Mercury -95366-10-31 05:15 J -33110705.34 -33110705.28 -33110705.19 0.0144 0.0125

Venus -95365-02-05 15:06 J -33110608.07 -33110607.87 -33110607.66 0.0144 0.0045

Venus -95365-09-19 01:39 J -33110381.64 -33110381.43 -33110381.22 0.0144 0.0027

Venus -95364-05-03 11:59 J -33110155.14 -33110155.00 -33110154.83 0.0145 0.0100

Moon -95348-04-02 22:32 J -33104341.68 -33104341.56 -33104341.39 0.0147 0.0124

Earth -95348-04-03 01:39 J -33104341.54 -33104341.43 -33104341.31 0.0147 0.0131 *

Earth -95347-04-08 12:42 J -33103971.19 -33103970.97 -33103970.74 0.0147 0.0073

Moon -95347-04-08 14:37 J -33103971.09 -33103970.89 -33103970.66 0.0147 0.0079 *

Moon -95346-04-13 22:32 J -33103600.82 -33103600.56 -33103600.28 0.0146 0.0015

Earth -95346-04-13 23:44 J -33103600.77 -33103600.51 -33103600.25 0.0146 0.0015 *

Earth -95345-04-18 10:32 J -33103230.31 -33103230.06 -33103229.81 0.0146 0.0043

Moon -95345-04-18 10:18 J -33103230.30 -33103230.07 -33103229.82 0.0146 0.0049 *

Earth -95344-04-23 20:23 J -33102859.82 -33102859.65 -33102859.45 0.0145 0.0101

Moon -95344-04-23 21:06 J -33102859.81 -33102859.62 -33102859.39 0.0145 0.0094 *

Mars -95336-01-09 16:03 J -33100042.11 -33100041.83 -33100041.54 0.0141 0.0031

Mercury -95329-02-06 07:39 J -33097458.25 -33097458.18 -33097458.08 0.0137 0.0117

Mercury -95329-05-04 13:11 J -33097370.06 -33097369.95 -33097369.83 0.0136 0.0097

Mercury -95329-07-31 18:42 J -33097281.86 -33097281.72 -33097281.58 0.0136 0.0077

Mercury -95329-10-27 23:44 J -33097193.65 -33097193.51 -33097193.35 0.0136 0.0057

Mercury -95328-01-24 05:15 J -33097105.44 -33097105.28 -33097105.12 0.0136 0.0037

Mercury -95328-04-22 10:32 J -33097017.23 -33097017.06 -33097016.90 0.0136 0.0018

Mercury -95328-07-19 15:35 J -33096929.01 -33096928.85 -33096928.69 0.0136 0.0001

Mercury -95328-10-15 20:37 J -33096840.80 -33096840.64 -33096840.48 0.0136 0.0020

Mercury -95327-01-12 01:39 J -33096752.58 -33096752.43 -33096752.27 0.0136 0.0039

Mercury -95327-04-10 06:42 J -33096664.36 -33096664.22 -33096664.07 0.0135 0.0058

Mercury -95327-07-07 11:30 J -33096576.14 -33096576.02 -33096575.88 0.0135 0.0076

Venus -95327-07-21 00:42 J -33096562.54 -33096562.47 -33096562.39 0.0135 0.0127

Mercury -95327-10-03 16:18 J -33096487.92 -33096487.82 -33096487.69 0.0135 0.0095

Mercury -95327-12-30 21:20 J -33096399.69 -33096399.61 -33096399.52 0.0135 0.0112

Venus -95326-03-04 07:54 J -33096336.35 -33096336.17 -33096335.96 0.0135 0.0066

Mercury -95326-03-29 01:54 J -33096311.45 -33096311.42 -33096311.36 0.0135 0.0130

Venus -95326-10-16 15:20 J -33096110.08 -33096109.86 -33096109.64 0.0135 0.0006

Venus -95325-05-29 22:18 J -33095883.77 -33095883.57 -33095883.36 0.0134 0.0054

Venus -95324-01-11 04:47 J -33095657.41 -33095657.30 -33095657.17 0.0134 0.0113

Earth -95305-10-09 08:37 J -33088446.28 -33088446.14 -33088445.97 0.0132 0.0103

Moon -95305-10-09 11:30 J -33088446.16 -33088446.02 -33088445.87 0.0132 0.0106 *

Moon -95304-10-13 05:30 J -33088077.47 -33088077.27 -33088077.05 0.0132 0.0063

Earth -95304-10-13 08:37 J -33088077.36 -33088077.14 -33088076.93 0.0132 0.0064 *

Earth -95303-10-17 07:54 J -33087708.40 -33087708.17 -33087707.91 0.0133 0.0025

Moon -95303-10-17 10:32 J -33087708.31 -33087708.06 -33087707.81 0.0133 0.0024 *

Moon -95302-10-21 05:30 J -33087339.51 -33087339.27 -33087339.03 0.0133 0.0012

Earth -95302-10-21 08:08 J -33087339.40 -33087339.16 -33087338.91 0.0133 0.0016 *

Earth -95301-10-24 07:54 J -33086970.38 -33086970.17 -33086969.94 0.0133 0.0056

Moon -95301-10-24 10:18 J -33086970.28 -33086970.07 -33086969.83 0.0133 0.0062 *

Moon -95300-10-28 06:27 J -33086601.40 -33086601.23 -33086601.05 0.0134 0.0091

Earth -95300-10-28 08:23 J -33086601.31 -33086601.15 -33086600.97 0.0134 0.0097 *

Mars -95292-02-10 14:08 J -33083939.16 -33083938.91 -33083938.62 0.0137 0.0073

Mars -95290-01-15 13:54 J -33083234.99 -33083234.92 -33083234.80 0.0139 0.0133

Mercury -95285-09-29 22:18 J -33081150.61 -33081150.57 -33081150.53 0.0142 0.0136

Mercury -95285-12-27 02:37 J -33081062.46 -33081062.39 -33081062.29 0.0142 0.0118

Mercury -95284-03-25 07:25 J -33080974.29 -33080974.19 -33080974.08 0.0142 0.0098
 Mercury -95284-06-21 12:13 J -33080886.11 -33080885.99 -33080885.87 0.0142 0.0078
 Mercury -95284-09-17 17:01 J -33080797.93 -33080797.79 -33080797.66 0.0143 0.0058
 Mercury -95284-12-14 21:35 J -33080709.74 -33080709.60 -33080709.45 0.0143 0.0038
 Mercury -95283-03-13 02:23 J -33080621.54 -33080621.40 -33080621.25 0.0143 0.0018
 Mercury -95283-06-09 07:25 J -33080533.34 -33080533.19 -33080533.04 0.0143 0.0004
 Mercury -95283-09-05 12:13 J -33080445.14 -33080444.99 -33080444.84 0.0143 0.0024
 Mercury -95283-12-02 17:15 J -33080356.93 -33080356.78 -33080356.64 0.0143 0.0045
 Mercury -95282-02-28 22:03 J -33080268.71 -33080268.58 -33080268.44 0.0143 0.0067
 Mercury -95282-05-28 03:06 J -33080180.48 -33080180.37 -33080180.24 0.0144 0.0088
 Mercury -95282-08-24 08:23 J -33080092.25 -33080092.15 -33080092.05 0.0144 0.0110
 Venus -95282-10-06 00:13 J -33080049.66 -33080049.49 -33080049.30 0.0144 0.0077
 Mercury -95282-11-20 13:25 J -33080003.99 -33080003.94 -33080003.88 0.0144 0.0132
 Venus -95281-05-19 10:47 J -33079823.27 -33079823.05 -33079822.84 0.0144 0.0006
 Venus -95281-12-31 21:20 J -33079596.80 -33079596.61 -33079596.42 0.0145 0.0067
 Venus -95280-08-15 07:39 J -33079370.22 -33079370.18 -33079370.11 0.0145 0.0140
 Moon -95264-04-03 10:18 J -33073660.16 -33073660.07 -33073659.94 0.0147 0.0134
 Earth -95264-04-03 14:08 J -33073660.04 -33073659.91 -33073659.77 0.0147 0.0125 *
 Earth -95263-04-09 01:11 J -33073289.68 -33073289.45 -33073289.22 0.0147 0.0068
 Moon -95263-04-09 03:35 J -33073289.58 -33073289.35 -33073289.12 0.0147 0.0063 *
 Moon -95262-04-14 10:18 J -33072919.33 -33072919.07 -33072918.79 0.0146 0.0011
 Earth -95262-04-14 12:13 J -33072919.25 -33072918.99 -33072918.73 0.0146 0.0010 *
 Earth -95261-04-18 22:32 J -33072548.80 -33072548.56 -33072548.30 0.0146 0.0048
 Moon -95261-04-18 23:30 J -33072548.75 -33072548.52 -33072548.27 0.0146 0.0044 *
 Earth -95260-04-24 08:37 J -33072178.31 -33072178.14 -33072177.94 0.0145 0.0104
 Moon -95260-04-24 09:20 J -33072178.27 -33072178.11 -33072177.92 0.0145 0.0112 *
 Mars -95254-10-04 05:30 J -33069824.48 -33069824.27 -33069824.03 0.0142 0.0091
 Mars -95252-09-04 17:15 J -33069122.95 -33069122.78 -33069122.57 0.0140 0.0106
 Mercury -95246-11-30 10:18 J -33066845.11 -33066845.07 -33066845.02 0.0137 0.0130
 Mercury -95245-02-26 15:35 J -33066756.94 -33066756.85 -33066756.74 0.0137 0.0110

Mercury -95245-05-24 21:06 J -33066668.74 -33066668.62 -33066668.49 0.0136 0.0090

Mercury -95245-08-21 02:37 J -33066580.53 -33066580.39 -33066580.25 0.0136 0.0070

Mercury -95245-11-17 07:39 J -33066492.32 -33066492.18 -33066492.02 0.0136 0.0051

Mercury -95244-02-13 13:11 J -33066404.11 -33066403.95 -33066403.79 0.0136 0.0030

Mercury -95244-05-12 18:13 J -33066315.90 -33066315.74 -33066315.57 0.0136 0.0012

Mercury -95244-08-08 23:30 J -33066227.68 -33066227.52 -33066227.36 0.0136 0.0008

Mercury -95244-11-05 04:32 J -33066139.47 -33066139.31 -33066139.15 0.0136 0.0027

Mercury -95243-02-01 09:35 J -33066051.25 -33066051.10 -33066050.94 0.0136 0.0046

Mercury -95243-04-30 14:37 J -33065963.03 -33065962.89 -33065962.75 0.0135 0.0064

Mercury -95243-07-27 19:39 J -33065874.81 -33065874.68 -33065874.56 0.0135 0.0083

Mercury -95243-10-24 00:13 J -33065786.58 -33065786.49 -33065786.37 0.0135 0.0101

Venus -95243-11-01 18:42 J -33065777.87 -33065777.72 -33065777.54 0.0135 0.0092

Mercury -95242-01-20 05:01 J -33065698.35 -33065698.29 -33065698.20 0.0135 0.0119

Venus -95242-06-16 02:23 J -33065551.62 -33065551.40 -33065551.18 0.0135 0.0031

Venus -95241-01-28 09:20 J -33065325.32 -33065325.11 -33065324.89 0.0134 0.0029

Venus -95241-09-10 16:03 J -33065098.99 -33065098.83 -33065098.66 0.0134 0.0088

Earth -95221-10-09 22:18 J -33057764.72 -33057764.57 -33057764.39 0.0132 0.0098

Moon -95221-10-10 00:56 J -33057764.62 -33057764.46 -33057764.27 0.0132 0.0094 *

Moon -95220-10-13 20:23 J -33057395.86 -33057395.65 -33057395.44 0.0132 0.0062

Earth -95220-10-13 22:03 J -33057395.79 -33057395.58 -33057395.35 0.0132 0.0059 *

Earth -95219-10-17 22:03 J -33057026.82 -33057026.58 -33057026.34 0.0132 0.0020

Moon -95219-10-18 00:27 J -33057026.73 -33057026.48 -33057026.23 0.0132 0.0021 *

Moon -95218-10-21 19:54 J -33056657.90 -33056657.67 -33056657.43 0.0133 0.0023

Earth -95218-10-21 21:49 J -33056657.83 -33056657.59 -33056657.34 0.0133 0.0020 *

Earth -95217-10-24 21:49 J -33056288.80 -33056288.59 -33056288.36 0.0133 0.0061

Moon -95217-10-24 23:44 J -33056288.73 -33056288.51 -33056288.27 0.0133 0.0055 *

Moon -95216-10-28 20:23 J -33055919.78 -33055919.65 -33055919.50 0.0134 0.0108

Earth -95216-10-28 22:18 J -33055919.71 -33055919.57 -33055919.39 0.0134 0.0101 *

Moon -95215-11-02 00:42 J -33055550.47 -33055550.47 -33055550.44 0.0134 0.0134

Mars -95208-10-07 08:51 J -33053019.45 -33053019.13 -33053018.81 0.0138 0.0006

Mercury -95201-10-20 06:13 J -33050449.30 -33050449.24 -33050449.18 0.0142 0.0129
 Mercury -95200-01-16 10:32 J -33050361.14 -33050361.06 -33050360.96 0.0142 0.0110
 Mercury -95200-04-14 15:20 J -33050272.97 -33050272.86 -33050272.74 0.0142 0.0091
 Mercury -95200-07-11 20:08 J -33050184.79 -33050184.66 -33050184.53 0.0142 0.0071
 Mercury -95200-10-08 00:42 J -33050096.60 -33050096.47 -33050096.32 0.0143 0.0051
 Mercury -95199-01-04 05:30 J -33050008.41 -33050008.27 -33050008.12 0.0143 0.0031
 Mercury -95199-04-02 10:18 J -33049920.22 -33049920.07 -33049919.92 0.0143 0.0011
 Mercury -95199-06-29 15:20 J -33049832.01 -33049831.86 -33049831.71 0.0143 0.0011
 Mercury -95199-09-25 20:08 J -33049743.81 -33049743.66 -33049743.51 0.0143 0.0031
 Mercury -95199-12-23 01:11 J -33049655.59 -33049655.45 -33049655.31 0.0143 0.0053
 Mercury -95198-03-21 06:13 J -33049567.37 -33049567.24 -33049567.11 0.0143 0.0074
 Venus -95198-06-05 09:35 J -33049491.24 -33049491.10 -33049490.96 0.0144 0.0108
 Mercury -95198-06-17 11:01 J -33049479.15 -33049479.04 -33049478.92 0.0144 0.0096
 Mercury -95198-09-13 16:18 J -33049390.91 -33049390.82 -33049390.73 0.0144 0.0117
 Mercury -95198-12-10 21:20 J -33049302.64 -33049302.61 -33049302.57 0.0144 0.0139
 Venus -95197-01-17 19:25 J -33049264.89 -33049264.69 -33049264.48 0.0144 0.0037
 Venus -95197-08-31 05:44 J -33049038.46 -33049038.26 -33049038.05 0.0144 0.0035
 Venus -95196-04-14 16:03 J -33048811.96 -33048811.83 -33048811.67 0.0145 0.0108
 Moon -95180-04-03 20:51 J -33042978.78 -33042978.63 -33042978.45 0.0147 0.0114
 Earth -95180-04-04 00:13 J -33042978.62 -33042978.49 -33042978.33 0.0147 0.0122 *
 Earth -95179-04-09 11:01 J -33042608.26 -33042608.04 -33042607.79 0.0147 0.0065
 Moon -95179-04-09 14:23 J -33042608.12 -33042607.90 -33042607.67 0.0147 0.0070 *
 Moon -95178-04-14 19:39 J -33042237.95 -33042237.68 -33042237.41 0.0146 0.0005
 Earth -95178-04-14 22:18 J -33042237.83 -33042237.57 -33042237.31 0.0146 0.0007 *
 Earth -95177-04-19 08:37 J -33041867.38 -33041867.14 -33041866.89 0.0146 0.0050
 Moon -95177-04-19 09:49 J -33041867.32 -33041867.09 -33041866.85 0.0146 0.0055 *
 Moon -95176-04-24 17:30 J -33041496.95 -33041496.77 -33041496.55 0.0145 0.0100
 Earth -95176-04-24 18:27 J -33041496.89 -33041496.73 -33041496.54 0.0145 0.0107 *
 Mars -95169-05-29 06:42 J -33038905.51 -33038905.22 -33038904.92 0.0141 0.0016
 Mercury -95162-12-20 17:30 J -33036143.82 -33036143.77 -33036143.69 0.0137 0.0125

Mercury -95161-03-17 23:01 J -33036055.64 -33036055.54 -33036055.42 0.0137 0.0104

Mercury -95161-06-14 04:18 J -33035967.44 -33035967.32 -33035967.18 0.0136 0.0085

Mercury -95161-09-10 09:49 J -33035879.23 -33035879.09 -33035878.94 0.0136 0.0064

Mercury -95161-12-07 15:20 J -33035791.02 -33035790.86 -33035790.71 0.0136 0.0044

Mercury -95160-03-05 20:37 J -33035702.80 -33035702.64 -33035702.48 0.0136 0.0025

Mercury -95160-06-02 01:39 J -33035614.59 -33035614.43 -33035614.26 0.0136 0.0007

Mercury -95160-08-29 06:56 J -33035526.37 -33035526.21 -33035526.05 0.0136 0.0014

Mercury -95160-11-25 11:59 J -33035438.16 -33035438.00 -33035437.84 0.0136 0.0033

Mercury -95159-02-21 17:01 J -33035349.94 -33035349.79 -33035349.64 0.0136 0.0051

Mercury -95159-05-20 22:03 J -33035261.72 -33035261.58 -33035261.44 0.0135 0.0070

Venus -95159-07-02 04:18 J -33035219.41 -33035219.32 -33035219.21 0.0135 0.0120

Mercury -95159-08-17 02:51 J -33035173.49 -33035173.38 -33035173.25 0.0135 0.0088

Mercury -95159-11-13 07:39 J -33035085.27 -33035085.18 -33035085.07 0.0135 0.0107

Mercury -95158-02-09 12:42 J -33034997.03 -33034996.97 -33034996.90 0.0135 0.0124

Venus -95158-02-13 11:59 J -33034993.20 -33034993.00 -33034992.80 0.0135 0.0058

Venus -95158-09-27 19:11 J -33034766.92 -33034766.70 -33034766.48 0.0135 0.0003

Venus -95157-05-11 02:08 J -33034540.59 -33034540.41 -33034540.20 0.0134 0.0062

Venus -95157-12-23 08:51 J -33034314.21 -33034314.13 -33034314.03 0.0134 0.0121

Moon -95138-10-07 09:35 J -33027452.15 -33027452.10 -33027452.02 0.0132 0.0127

Earth -95137-10-10 11:15 J -33027083.19 -33027083.03 -33027082.84 0.0132 0.0094

Moon -95137-10-10 13:11 J -33027083.11 -33027082.95 -33027082.78 0.0132 0.0098 *

Moon -95136-10-14 09:06 J -33026714.33 -33026714.12 -33026713.89 0.0132 0.0055

Earth -95136-10-14 11:15 J -33026714.25 -33026714.03 -33026713.80 0.0132 0.0055 *

Earth -95135-10-18 11:01 J -33026345.28 -33026345.04 -33026344.79 0.0132 0.0016

Moon -95135-10-18 12:27 J -33026345.23 -33026344.98 -33026344.72 0.0132 0.0016 *

Moon -95134-10-22 09:35 J -33025976.34 -33025976.10 -33025975.86 0.0133 0.0021

Earth -95134-10-22 11:01 J -33025976.28 -33025976.04 -33025975.80 0.0133 0.0024 *

Earth -95133-10-25 11:01 J -33025607.25 -33025607.04 -33025606.81 0.0133 0.0064

Moon -95133-10-25 12:27 J -33025607.18 -33025606.98 -33025606.75 0.0133 0.0069 *

Moon -95132-10-29 10:32 J -33025238.21 -33025238.06 -33025237.88 0.0134 0.0098

Earth -95132-10-29 11:30 J -33025238.16 -33025238.02 -33025237.85 0.0134 0.0104 *
 Mars -95125-06-29 08:08 J -33022803.30 -33022803.16 -33022802.96 0.0137 0.0116
 Mars -95123-06-03 01:54 J -33022099.67 -33022099.42 -33022099.15 0.0138 0.0084
 Mercury -95117-08-13 09:35 J -33019836.10 -33019836.10 -33019836.10 0.0142 0.0142
 Mercury -95117-11-09 13:54 J -33019747.99 -33019747.92 -33019747.84 0.0142 0.0123
 Mercury -95116-02-05 18:42 J -33019659.82 -33019659.72 -33019659.62 0.0142 0.0104
 Mercury -95116-05-04 23:01 J -33019571.65 -33019571.54 -33019571.41 0.0142 0.0084
 Mercury -95116-08-01 03:49 J -33019483.47 -33019483.34 -33019483.20 0.0142 0.0064
 Mercury -95116-10-28 08:37 J -33019395.28 -33019395.14 -33019395.00 0.0143 0.0044
 Mercury -95115-01-24 13:25 J -33019307.09 -33019306.94 -33019306.79 0.0143 0.0024
 Mercury -95115-04-22 18:13 J -33019218.89 -33019218.74 -33019218.59 0.0143 0.0004
 Mercury -95115-07-19 23:01 J -33019130.69 -33019130.54 -33019130.39 0.0143 0.0017
 Mercury -95115-10-16 03:49 J -33019042.48 -33019042.34 -33019042.19 0.0143 0.0039
 Mercury -95114-01-12 08:51 J -33018954.27 -33018954.13 -33018953.99 0.0143 0.0059
 Venus -95114-02-02 18:27 J -33018932.77 -33018932.73 -33018932.68 0.0143 0.0140
 Mercury -95114-04-10 13:54 J -33018866.04 -33018865.92 -33018865.79 0.0143 0.0081
 Mercury -95114-07-07 18:42 J -33018777.81 -33018777.72 -33018777.60 0.0144 0.0103
 Venus -95114-09-17 04:18 J -33018706.50 -33018706.32 -33018706.13 0.0144 0.0070
 Mercury -95114-10-03 23:59 J -33018689.57 -33018689.50 -33018689.42 0.0144 0.0124
 Venus -95113-04-30 14:37 J -33018480.11 -33018479.89 -33018479.68 0.0144 0.0002
 Venus -95113-12-13 00:42 J -33018253.64 -33018253.47 -33018253.27 0.0144 0.0074
 Moon -95096-04-04 07:25 J -33012297.30 -33012297.19 -33012297.04 0.0147 0.0126
 Earth -95096-04-04 11:30 J -33012297.16 -33012297.02 -33012296.85 0.0147 0.0117 *
 Earth -95095-04-09 22:18 J -33011926.80 -33011926.57 -33011926.32 0.0147 0.0061
 Moon -95095-04-10 01:39 J -33011926.66 -33011926.43 -33011926.18 0.0147 0.0055 *
 Moon -95094-04-15 06:27 J -33011556.49 -33011556.23 -33011555.96 0.0146 0.0005
 Earth -95094-04-15 09:20 J -33011556.37 -33011556.11 -33011555.85 0.0146 0.0003 *
 Earth -95093-04-19 19:25 J -33011185.92 -33011185.69 -33011185.43 0.0146 0.0054
 Moon -95093-04-19 22:03 J -33011185.82 -33011185.58 -33011185.34 0.0146 0.0050 *
 Moon -95092-04-25 04:32 J -33010815.45 -33010815.31 -33010815.12 0.0145 0.0117

Earth	-95092-04-25 05:30 J	-33010815.42	-33010815.27	-33010815.08	0.0145	0.0110	*
Mars	-95086-02-20 14:51 J	-33008687.90	-33008687.88	-33008687.82	0.0142	0.0141	
Mars	-95084-01-22 07:25 J	-33007986.45	-33007986.19	-33007985.91	0.0141	0.0058	
Mercury	-95077-01-10 01:11 J	-33005442.52	-33005442.45	-33005442.36	0.0137	0.0119	
Mercury	-95077-04-07 06:42 J	-33005354.33	-33005354.22	-33005354.10	0.0137	0.0098	
Mercury	-95077-07-04 11:59 J	-33005266.12	-33005266.00	-33005265.85	0.0136	0.0079	
Mercury	-95077-09-30 17:30 J	-33005177.91	-33005177.77	-33005177.62	0.0136	0.0058	
Mercury	-95077-12-27 23:01 J	-33005089.70	-33005089.54	-33005089.39	0.0136	0.0039	
Mercury	-95076-03-26 04:03 J	-33005001.49	-33005001.33	-33005001.16	0.0136	0.0019	
Mercury	-95076-06-22 09:20 J	-33004913.27	-33004913.11	-33004912.94	0.0136	0.0002	
Mercury	-95076-09-18 14:37 J	-33004825.05	-33004824.89	-33004824.73	0.0136	0.0020	
Mercury	-95076-12-15 19:39 J	-33004736.84	-33004736.68	-33004736.52	0.0136	0.0038	
Mercury	-95075-03-14 00:27 J	-33004648.62	-33004648.48	-33004648.32	0.0135	0.0058	
Mercury	-95075-06-10 05:30 J	-33004560.39	-33004560.27	-33004560.13	0.0135	0.0076	
Mercury	-95075-09-06 10:18 J	-33004472.17	-33004472.07	-33004471.94	0.0135	0.0095	
Venus	-95075-10-13 21:35 J	-33004434.75	-33004434.60	-33004434.41	0.0135	0.0087	
Mercury	-95075-12-03 15:20 J	-33004383.94	-33004383.86	-33004383.76	0.0135	0.0112	
Mercury	-95074-03-01 20:08 J	-33004295.69	-33004295.66	-33004295.61	0.0135	0.0130	
Venus	-95074-05-28 05:30 J	-33004208.49	-33004208.27	-33004208.05	0.0135	0.0025	
Venus	-95073-01-09 12:27 J	-33003982.18	-33003981.98	-33003981.76	0.0135	0.0036	
Venus	-95073-08-22 19:25 J	-33003755.84	-33003755.69	-33003755.53	0.0134	0.0095	
Earth	-95054-10-08 00:27 J	-32996770.53	-32996770.48	-32996770.42	0.0132	0.0128	
Earth	-95053-10-10 23:59 J	-32996401.67	-32996401.50	-32996401.31	0.0132	0.0090	
Moon	-95053-10-11 01:39 J	-32996401.61	-32996401.43	-32996401.22	0.0132	0.0086	*
Moon	-95052-10-14 23:01 J	-32996032.75	-32996032.54	-32996032.32	0.0132	0.0055	
Earth	-95052-10-14 23:59 J	-32996032.72	-32996032.50	-32996032.27	0.0132	0.0051	*
Earth	-95051-10-18 23:59 J	-32995663.75	-32995663.50	-32995663.26	0.0133	0.0012	
Moon	-95051-10-19 00:56 J	-32995663.71	-32995663.46	-32995663.20	0.0133	0.0014	*
Moon	-95050-10-22 22:47 J	-32995294.78	-32995294.55	-32995294.31	0.0133	0.0030	
Earth	-95050-10-22 23:44 J	-32995294.74	-32995294.51	-32995294.26	0.0133	0.0027	*

Earth -95049-10-26 00:13 J -32994925.70 -32994925.49 -32994925.28 0.0133 0.0067
 Moon -95049-10-26 00:42 J -32994925.69 -32994925.47 -32994925.24 0.0133 0.0062 *
 Moon -95048-10-29 23:44 J -32994556.62 -32994556.51 -32994556.37 0.0134 0.0113
 Earth -95048-10-30 00:27 J -32994556.60 -32994556.48 -32994556.31 0.0134 0.0107 *
 Mars -95040-02-22 22:47 J -32991883.84 -32991883.55 -32991883.23 0.0137 0.0040
 Mercury -95033-09-02 17:01 J -32989134.82 -32989134.79 -32989134.74 0.0142 0.0136
 Mercury -95033-11-29 21:35 J -32989046.67 -32989046.60 -32989046.51 0.0142 0.0117
 Mercury -95032-02-26 02:08 J -32988958.51 -32988958.41 -32988958.29 0.0142 0.0098
 Mercury -95032-05-25 06:56 J -32988870.33 -32988870.21 -32988870.09 0.0142 0.0078
 Mercury -95032-08-21 11:30 J -32988782.15 -32988782.02 -32988781.88 0.0142 0.0058
 Mercury -95032-11-17 16:18 J -32988693.96 -32988693.82 -32988693.67 0.0143 0.0038
 Mercury -95031-02-13 21:06 J -32988605.77 -32988605.62 -32988605.47 0.0143 0.0018
 Mercury -95031-05-13 01:54 J -32988517.57 -32988517.42 -32988517.27 0.0143 0.0003
 Mercury -95031-08-09 06:42 J -32988429.37 -32988429.22 -32988429.07 0.0143 0.0024
 Mercury -95031-11-05 11:44 J -32988341.16 -32988341.01 -32988340.87 0.0143 0.0045
 Mercury -95030-02-01 16:32 J -32988252.94 -32988252.81 -32988252.67 0.0143 0.0066
 Mercury -95030-04-30 21:20 J -32988164.72 -32988164.61 -32988164.48 0.0143 0.0088
 Venus -95030-05-17 13:11 J -32988148.09 -32988147.95 -32988147.79 0.0143 0.0102
 Mercury -95030-07-28 02:37 J -32988076.48 -32988076.39 -32988076.29 0.0144 0.0109
 Mercury -95030-10-24 07:39 J -32987988.23 -32987988.18 -32987988.11 0.0144 0.0131
 Venus -95030-12-29 23:01 J -32987921.74 -32987921.54 -32987921.33 0.0144 0.0031
 Venus -95029-08-12 09:06 J -32987695.32 -32987695.12 -32987694.91 0.0144 0.0041
 Venus -95028-03-26 19:11 J -32987468.81 -32987468.70 -32987468.55 0.0145 0.0114
 Moon -95012-04-04 17:30 J -32981615.93 -32981615.77 -32981615.58 0.0147 0.0107
 Earth -95012-04-04 21:20 J -32981615.77 -32981615.61 -32981615.44 0.0147 0.0114 *
 Earth -95011-04-10 07:39 J -32981245.41 -32981245.18 -32981244.93 0.0147 0.0058
 Moon -95011-04-10 11:15 J -32981245.25 -32981245.03 -32981244.78 0.0147 0.0064 *
 Moon -95010-04-15 15:06 J -32980875.14 -32980874.87 -32980874.60 0.0146 0.0002
 Earth -95010-04-15 18:42 J -32980874.98 -32980874.72 -32980874.46 0.0146 0.0001 *
 Earth -95009-04-20 04:47 J -32980504.53 -32980504.30 -32980504.05 0.0146 0.0056

Moon	-95009-04-20 07:11 J	-32980504.42	-32980504.20	-32980503.96	0.0146	0.0060	*
Moon	-95008-04-25 12:56 J	-32980134.14	-32980133.96	-32980133.77	0.0145	0.0104	
Earth	-95008-04-25 14:37 J	-32980134.03	-32980133.89	-32980133.70	0.0145	0.0112	*
Mars	-95002-10-16 15:06 J	-32977769.12	-32977768.87	-32977768.60	0.0142	0.0066	

95TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 95th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-95000-09-17 02:23 J	-32977067.50	-32977067.40	-32977067.26	0.0141	0.0128		
Mercury	-94994-11-03 02:37 J	-32974829.40	-32974829.39	-32974829.35	0.0137	0.0135		
Mercury	-94993-01-30 08:23 J	-32974741.23	-32974741.15	-32974741.05	0.0137	0.0114		
Mercury	-94993-04-27 13:54 J	-32974653.04	-32974652.92	-32974652.80	0.0137	0.0094		
Mercury	-94993-07-24 19:25 J	-32974564.83	-32974564.69	-32974564.55	0.0136	0.0074		
Mercury	-94993-10-21 00:42 J	-32974476.62	-32974476.47	-32974476.31	0.0136	0.0054		
Mercury	-94992-01-17 05:59 J	-32974388.40	-32974388.25	-32974388.09	0.0136	0.0034		
Mercury	-94992-04-15 11:15 J	-32974300.19	-32974300.03	-32974299.86	0.0136	0.0015		
Mercury	-94992-07-12 16:32 J	-32974211.97	-32974211.81	-32974211.65	0.0136	0.0005		
Mercury	-94992-10-08 21:49 J	-32974123.76	-32974123.59	-32974123.43	0.0136	0.0024		
Mercury	-94991-01-05 02:51 J	-32974035.54	-32974035.38	-32974035.23	0.0136	0.0043		
Mercury	-94991-04-03 07:39 J	-32973947.31	-32973947.18	-32973947.03	0.0135	0.0062		
Venus	-94991-06-13 06:27 J	-32973876.33	-32973876.23	-32973876.11	0.0135	0.0115		
Mercury	-94991-06-30 12:42 J	-32973859.09	-32973858.97	-32973858.83	0.0135	0.0080		

Mercury -94991-09-26 17:44 J -32973770.86 -32973770.76 -32973770.65 0.0135 0.0098

Mercury -94991-12-23 22:32 J -32973682.63 -32973682.56 -32973682.47 0.0135 0.0116

Venus -94990-01-25 14:08 J -32973650.11 -32973649.91 -32973649.70 0.0135 0.0054

Mercury -94990-03-22 03:20 J -32973594.36 -32973594.36 -32973594.33 0.0135 0.0134

Venus -94990-09-08 21:35 J -32973423.82 -32973423.60 -32973423.38 0.0135 0.0007

Venus -94989-04-22 04:47 J -32973197.49 -32973197.30 -32973197.11 0.0134 0.0067

Venus -94989-12-04 11:15 J -32972971.09 -32972971.03 -32972970.94 0.0134 0.0126

Moon -94970-10-08 11:15 J -32966089.11 -32966089.03 -32966088.91 0.0132 0.0119

Earth -94970-10-08 12:13 J -32966089.05 -32966088.99 -32966088.89 0.0132 0.0125 *

Earth -94969-10-11 12:27 J -32965720.16 -32965719.98 -32965719.79 0.0132 0.0086

Moon -94969-10-11 12:42 J -32965720.15 -32965719.97 -32965719.78 0.0132 0.0091 *

Moon -94968-10-15 11:30 J -32965351.24 -32965351.02 -32965350.79 0.0132 0.0046

Earth -94968-10-15 12:13 J -32965351.22 -32965350.99 -32965350.75 0.0132 0.0048 *

Earth -94967-10-19 12:13 J -32964982.24 -32964981.99 -32964981.75 0.0133 0.0009

Moon -94967-10-19 12:27 J -32964982.23 -32964981.98 -32964981.72 0.0133 0.0010 *

Earth -94966-10-23 12:13 J -32964613.23 -32964612.99 -32964612.74 0.0133 0.0030

Moon -94966-10-23 12:13 J -32964613.22 -32964612.99 -32964612.76 0.0133 0.0028 *

Earth -94965-10-26 12:27 J -32964244.17 -32964243.98 -32964243.75 0.0133 0.0070

Moon -94965-10-26 12:56 J -32964244.15 -32964243.96 -32964243.73 0.0133 0.0075 *

Moon -94964-10-30 13:25 J -32963875.08 -32963874.94 -32963874.78 0.0134 0.0103

Earth -94964-10-30 13:11 J -32963875.07 -32963874.95 -32963874.79 0.0134 0.0109 *

Mars -94956-10-19 11:59 J -32960964.30 -32960964.00 -32960963.68 0.0138 0.0036

Mercury -94949-09-23 00:42 J -32958433.52 -32958433.47 -32958433.41 0.0142 0.0130

Mercury -94949-12-20 05:15 J -32958345.37 -32958345.28 -32958345.19 0.0142 0.0111

Mercury -94948-03-18 09:35 J -32958257.20 -32958257.10 -32958256.97 0.0142 0.0093

Mercury -94948-06-14 14:23 J -32958169.02 -32958168.90 -32958168.77 0.0142 0.0072

Mercury -94948-09-10 19:11 J -32958080.84 -32958080.70 -32958080.56 0.0142 0.0052

Mercury -94948-12-07 23:44 J -32957992.65 -32957992.51 -32957992.36 0.0143 0.0033

Mercury -94947-03-06 04:32 J -32957904.46 -32957904.31 -32957904.16 0.0143 0.0013

Mercury -94947-06-02 09:20 J -32957816.26 -32957816.11 -32957815.95 0.0143 0.0010

Mercury -94947-08-29 14:23 J -32957728.05 -32957727.90 -32957727.75 0.0143 0.0029

Mercury -94947-11-25 19:11 J -32957639.84 -32957639.70 -32957639.56 0.0143 0.0050

Venus -94946-01-14 21:35 J -32957589.67 -32957589.60 -32957589.53 0.0143 0.0135

Mercury -94946-02-21 23:59 J -32957551.62 -32957551.50 -32957551.36 0.0143 0.0072

Mercury -94946-05-21 05:01 J -32957463.40 -32957463.29 -32957463.17 0.0143 0.0093

Mercury -94946-08-17 10:03 J -32957375.16 -32957375.08 -32957374.98 0.0144 0.0114

Venus -94946-08-29 07:11 J -32957363.39 -32957363.20 -32957363.01 0.0144 0.0065

Mercury -94946-11-13 15:20 J -32957286.91 -32957286.86 -32957286.81 0.0144 0.0136

Venus -94945-04-11 17:15 J -32957137.00 -32957136.78 -32957136.57 0.0144 0.0007

Venus -94945-11-24 03:20 J -32956910.53 -32956910.36 -32956910.17 0.0144 0.0079

Jupiter -94937-06-20 23:01 J -32954145.01 -32954144.54 -32954144.01 0.0147 0.0059

Moon -94928-04-05 04:03 J -32950934.47 -32950934.33 -32950934.17 0.0147 0.0118

Earth -94928-04-05 07:39 J -32950934.34 -32950934.18 -32950933.99 0.0147 0.0110 *

Earth -94927-04-10 18:27 J -32950563.97 -32950563.73 -32950563.48 0.0147 0.0054

Moon -94927-04-10 22:18 J -32950563.81 -32950563.57 -32950563.32 0.0147 0.0047 *

Moon -94926-04-16 01:54 J -32950193.68 -32950193.42 -32950193.15 0.0146 0.0001

Earth -94926-04-16 05:30 J -32950193.54 -32950193.27 -32950193.01 0.0146 0.0003 *

Earth -94925-04-20 15:20 J -32949823.09 -32949822.86 -32949822.61 0.0146 0.0059

Moon -94925-04-20 18:42 J -32949822.94 -32949822.72 -32949822.47 0.0146 0.0056 *

Moon -94924-04-25 23:30 J -32949452.67 -32949452.52 -32949452.36 0.0145 0.0120

Earth -94924-04-26 01:39 J -32949452.58 -32949452.43 -32949452.25 0.0145 0.0114 *

Mars -94917-06-10 15:35 J -32946850.14 -32946849.85 -32946849.55 0.0141 0.0008

Mercury -94910-11-23 10:03 J -32944128.12 -32944128.08 -32944128.01 0.0137 0.0130

Mercury -94909-02-19 15:49 J -32944039.93 -32944039.84 -32944039.73 0.0137 0.0109

Mercury -94909-05-17 21:20 J -32943951.73 -32943951.61 -32943951.48 0.0137 0.0089

Mercury -94909-08-14 02:37 J -32943863.52 -32943863.39 -32943863.24 0.0136 0.0069

Mercury -94909-11-10 08:08 J -32943775.31 -32943775.16 -32943775.00 0.0136 0.0049

Mercury -94908-02-06 13:25 J -32943687.10 -32943686.94 -32943686.77 0.0136 0.0029

Mercury -94908-05-05 18:42 J -32943598.88 -32943598.72 -32943598.55 0.0136 0.0010

Mercury -94908-08-01 23:59 J -32943510.66 -32943510.50 -32943510.34 0.0136 0.0010

Mercury -94908-10-29 05:01 J -32943422.44 -32943422.29 -32943422.13 0.0136 0.0029

Mercury -94907-01-25 10:18 J -32943334.22 -32943334.07 -32943333.92 0.0136 0.0048

Mercury -94907-04-23 15:06 J -32943246.00 -32943245.87 -32943245.72 0.0135 0.0067

Mercury -94907-07-20 20:08 J -32943157.78 -32943157.66 -32943157.53 0.0135 0.0085

Venus -94907-09-24 23:30 J -32943091.69 -32943091.52 -32943091.34 0.0135 0.0083

Mercury -94907-10-17 00:56 J -32943069.55 -32943069.46 -32943069.34 0.0135 0.0104

Mercury -94906-01-13 05:59 J -32942981.31 -32942981.25 -32942981.17 0.0135 0.0121

Venus -94906-05-09 07:11 J -32942865.42 -32942865.20 -32942864.98 0.0135 0.0022

Venus -94906-12-21 14:23 J -32942639.11 -32942638.90 -32942638.69 0.0135 0.0039

Venus -94905-08-03 21:06 J -32942412.76 -32942412.62 -32942412.46 0.0134 0.0099

Earth -94886-10-09 00:27 J -32935407.56 -32935407.48 -32935407.36 0.0132 0.0120

Moon -94886-10-09 00:27 J -32935407.52 -32935407.48 -32935407.40 0.0132 0.0127 *

Earth -94885-10-12 00:42 J -32935038.66 -32935038.47 -32935038.28 0.0132 0.0082

Moon -94885-10-12 00:42 J -32935038.66 -32935038.47 -32935038.25 0.0132 0.0078 *

Earth -94884-10-16 00:13 J -32934669.71 -32934669.49 -32934669.24 0.0132 0.0045

Moon -94884-10-16 00:27 J -32934669.69 -32934669.48 -32934669.25 0.0132 0.0048 *

Moon -94883-10-20 00:13 J -32934300.74 -32934300.49 -32934300.23 0.0133 0.0005

Earth -94883-10-20 00:27 J -32934300.72 -32934300.48 -32934300.23 0.0133 0.0006 *

Earth -94882-10-24 00:42 J -32933931.70 -32933931.47 -32933931.23 0.0133 0.0033

Moon -94882-10-24 00:42 J -32933931.69 -32933931.47 -32933931.23 0.0133 0.0036 *

Moon -94881-10-27 00:13 J -32933562.69 -32933562.49 -32933562.26 0.0133 0.0068

Earth -94881-10-27 00:56 J -32933562.65 -32933562.46 -32933562.24 0.0133 0.0073 *

Earth -94880-10-31 01:54 J -32933193.55 -32933193.42 -32933193.28 0.0134 0.0111

Moon -94880-10-31 02:23 J -32933193.51 -32933193.40 -32933193.29 0.0134 0.0117 *

Mars -94873-07-11 11:30 J -32930748.25 -32930748.02 -32930747.76 0.0137 0.0086

Mars -94871-06-15 03:06 J -32930044.53 -32930044.37 -32930044.16 0.0138 0.0113

Mercury -94865-10-13 08:08 J -32927732.22 -32927732.16 -32927732.08 0.0142 0.0125

Mercury -94864-01-09 12:42 J -32927644.06 -32927643.97 -32927643.87 0.0142 0.0106

Mercury -94864-04-07 17:15 J -32927555.89 -32927555.78 -32927555.65 0.0142 0.0086

Mercury -94864-07-04 22:03 J -32927467.71 -32927467.58 -32927467.45 0.0142 0.0067

Mercury -94864-10-01 02:37 J -32927379.53 -32927379.39 -32927379.24 0.0142 0.0047

Mercury -94864-12-28 07:25 J -32927291.34 -32927291.19 -32927291.04 0.0143 0.0027

Mercury -94863-03-26 12:13 J -32927203.14 -32927202.99 -32927202.84 0.0143 0.0006

Mercury -94863-06-22 17:01 J -32927114.94 -32927114.79 -32927114.64 0.0143 0.0014

Mercury -94863-09-18 21:49 J -32927026.73 -32927026.59 -32927026.44 0.0143 0.0035

Mercury -94863-12-16 02:37 J -32926938.52 -32926938.39 -32926938.24 0.0143 0.0056

Mercury -94862-03-14 07:39 J -32926850.31 -32926850.18 -32926850.05 0.0143 0.0077

Venus -94862-04-28 15:35 J -32926805.00 -32926804.85 -32926804.69 0.0143 0.0098

Mercury -94862-06-10 12:27 J -32926762.08 -32926761.98 -32926761.86 0.0143 0.0099

Mercury -94862-09-06 17:44 J -32926673.84 -32926673.76 -32926673.68 0.0144 0.0120

Mercury -94862-12-03 22:47 J -32926585.57 -32926585.55 -32926585.52 0.0144 0.0142

Venus -94862-12-11 01:25 J -32926578.65 -32926578.44 -32926578.23 0.0144 0.0027

Venus -94861-07-24 11:30 J -32926352.22 -32926352.02 -32926351.82 0.0144 0.0044

Venus -94860-03-07 21:35 J -32926125.72 -32926125.60 -32926125.47 0.0144 0.0117

Moon -94844-04-05 14:08 J -32920253.08 -32920252.91 -32920252.71 0.0147 0.0099

Earth -94844-04-05 17:30 J -32920252.94 -32920252.77 -32920252.59 0.0147 0.0106 *

Earth -94843-04-11 03:49 J -32919882.57 -32919882.34 -32919882.08 0.0146 0.0051

Moon -94843-04-11 07:39 J -32919882.41 -32919882.18 -32919881.93 0.0146 0.0056 *

Moon -94842-04-16 10:47 J -32919512.31 -32919512.05 -32919511.78 0.0146 0.0009

Earth -94842-04-16 14:51 J -32919512.14 -32919511.88 -32919511.62 0.0146 0.0006 *

Earth -94841-04-21 00:56 J -32919141.69 -32919141.46 -32919141.21 0.0146 0.0061

Moon -94841-04-21 04:18 J -32919141.54 -32919141.32 -32919141.08 0.0146 0.0064 *

Moon -94840-04-26 07:54 J -32918771.33 -32918771.17 -32918770.98 0.0145 0.0108

Earth -94840-04-26 11:15 J -32918771.18 -32918771.03 -32918770.86 0.0145 0.0116 *

Mars -94834-03-04 19:25 J -32916632.83 -32916632.69 -32916632.50 0.0142 0.0119

Mars -94832-02-03 13:39 J -32915931.17 -32915930.93 -32915930.68 0.0141 0.0078

Mercury -94826-12-13 17:15 J -32913426.84 -32913426.78 -32913426.71 0.0137 0.0125

Mercury -94825-03-10 22:47 J -32913338.65 -32913338.55 -32913338.44 0.0137 0.0105

Mercury -94825-06-07 04:18 J -32913250.44 -32913250.32 -32913250.18 0.0137 0.0085

Mercury -94825-09-03 09:49 J -32913162.23 -32913162.09 -32913161.94 0.0136 0.0064

Mercury -94825-11-30 15:06 J -32913074.02 -32913073.87 -32913073.71 0.0136 0.0045

Mercury -94824-02-26 20:23 J -32912985.80 -32912985.65 -32912985.48 0.0136 0.0026

Mercury -94824-05-26 01:54 J -32912897.59 -32912897.42 -32912897.26 0.0136 0.0006

Mercury -94824-08-22 06:56 J -32912809.37 -32912809.21 -32912809.04 0.0136 0.0014

Mercury -94824-11-18 12:13 J -32912721.15 -32912720.99 -32912720.83 0.0136 0.0033

Mercury -94823-02-14 17:15 J -32912632.93 -32912632.78 -32912632.63 0.0136 0.0052

Mercury -94823-05-13 22:18 J -32912544.71 -32912544.57 -32912544.43 0.0136 0.0070

Venus -94823-05-25 07:54 J -32912533.29 -32912533.17 -32912533.05 0.0136 0.0113

Mercury -94823-08-10 03:20 J -32912456.48 -32912456.36 -32912456.24 0.0135 0.0089

Mercury -94823-11-06 08:08 J -32912368.25 -32912368.16 -32912368.06 0.0135 0.0107

Venus -94822-01-06 15:35 J -32912307.05 -32912306.85 -32912306.64 0.0135 0.0051

Mercury -94822-02-02 12:56 J -32912280.01 -32912279.96 -32912279.89 0.0135 0.0125

Venus -94822-08-20 22:47 J -32912080.76 -32912080.55 -32912080.32 0.0135 0.0010

Venus -94821-04-03 05:44 J -32911854.44 -32911854.26 -32911854.06 0.0135 0.0070

Venus -94821-11-15 12:13 J -32911628.02 -32911627.99 -32911627.91 0.0134 0.0130

Jupiter -94812-04-11 11:59 J -32908559.50 -32908559.00 -32908558.50 0.0132 0.0003

Earth -94802-10-09 11:59 J -32904726.11 -32904726.00 -32904725.88 0.0132 0.0116

Moon -94802-10-09 11:59 J -32904726.11 -32904726.00 -32904725.86 0.0132 0.0111 *

Moon -94801-10-12 11:01 J -32904357.22 -32904357.04 -32904356.83 0.0132 0.0084

Earth -94801-10-12 11:44 J -32904357.19 -32904357.01 -32904356.80 0.0132 0.0079 *

Earth -94800-10-16 12:13 J -32903988.23 -32903987.99 -32903987.76 0.0132 0.0041

Moon -94800-10-16 12:42 J -32903988.19 -32903987.97 -32903987.73 0.0132 0.0038 *

Moon -94799-10-20 11:44 J -32903619.27 -32903619.01 -32903618.76 0.0133 0.0003

Earth -94799-10-20 12:13 J -32903619.23 -32903618.99 -32903618.74 0.0133 0.0003 *

Earth -94798-10-24 12:27 J -32903250.21 -32903249.98 -32903249.73 0.0133 0.0036

Moon -94798-10-24 13:39 J -32903250.15 -32903249.93 -32903249.69 0.0133 0.0035 *

Moon -94797-10-27 12:13 J -32902881.19 -32902880.99 -32902880.78 0.0133 0.0079

Earth -94797-10-27 12:56 J -32902881.15 -32902880.96 -32902880.75 0.0133 0.0075 *

Earth -94796-10-31 13:11 J -32902512.05 -32902511.95 -32902511.80 0.0134 0.0114

Moon -94796-10-31 14:37 J -32902512.02 -32902511.89 -32902511.74 0.0134 0.0108 *

Mars -94788-03-06 22:18 J -32899828.89 -32899828.57 -32899828.25 0.0137 0.0012
 Mercury -94781-08-06 11:01 J -32897119.06 -32897119.04 -32897119.00 0.0142 0.0139
 Mercury -94781-11-02 15:35 J -32897030.92 -32897030.85 -32897030.77 0.0142 0.0120
 Mercury -94780-01-29 20:08 J -32896942.76 -32896942.66 -32896942.55 0.0142 0.0101
 Mercury -94780-04-28 00:42 J -32896854.59 -32896854.47 -32896854.34 0.0142 0.0081
 Mercury -94780-07-25 05:30 J -32896766.41 -32896766.27 -32896766.14 0.0142 0.0062
 Mercury -94780-10-21 10:03 J -32896678.22 -32896678.08 -32896677.94 0.0142 0.0042
 Mercury -94779-01-17 14:51 J -32896590.03 -32896589.88 -32896589.73 0.0143 0.0022
 Mercury -94779-04-15 19:39 J -32896501.83 -32896501.68 -32896501.53 0.0143 0.0004
 Mercury -94779-07-13 00:13 J -32896413.63 -32896413.49 -32896413.33 0.0143 0.0020
 Mercury -94779-10-09 05:15 J -32896325.43 -32896325.28 -32896325.14 0.0143 0.0040
 Venus -94779-12-26 23:30 J -32896246.60 -32896246.52 -32896246.43 0.0143 0.0131
 Mercury -94778-01-05 10:03 J -32896237.21 -32896237.08 -32896236.94 0.0143 0.0061
 Mercury -94778-04-03 14:51 J -32896149.00 -32896148.88 -32896148.75 0.0143 0.0082
 Mercury -94778-06-30 19:54 J -32896060.77 -32896060.67 -32896060.56 0.0143 0.0104
 Venus -94778-08-10 08:51 J -32896020.31 -32896020.13 -32896019.92 0.0144 0.0062
 Mercury -94778-09-27 01:11 J -32895972.53 -32895972.45 -32895972.38 0.0144 0.0125
 Venus -94777-03-23 18:56 J -32895793.92 -32895793.71 -32895793.49 0.0144 0.0010
 Venus -94777-11-05 05:15 J -32895567.46 -32895567.28 -32895567.10 0.0144 0.0081
 Moon -94760-04-06 00:13 J -32889571.65 -32889571.49 -32889571.31 0.0147 0.0109
 Earth -94760-04-06 02:51 J -32889571.55 -32889571.38 -32889571.17 0.0147 0.0102 *
 Earth -94759-04-11 13:39 J -32889201.16 -32889200.93 -32889200.67 0.0146 0.0047
 Moon -94759-04-11 17:30 J -32889201.03 -32889200.77 -32889200.51 0.0146 0.0039 *
 Moon -94758-04-16 21:06 J -32888830.88 -32888830.62 -32888830.36 0.0146 0.0006
 Earth -94758-04-17 00:42 J -32888830.73 -32888830.47 -32888830.21 0.0146 0.0009 *
 Earth -94757-04-21 10:47 J -32888460.28 -32888460.05 -32888459.81 0.0146 0.0064
 Moon -94757-04-21 14:51 J -32888460.12 -32888459.88 -32888459.64 0.0146 0.0061 *
 Moon -94756-04-26 17:44 J -32888089.89 -32888089.76 -32888089.61 0.0145 0.0124
 Earth -94756-04-26 21:20 J -32888089.76 -32888089.61 -32888089.46 0.0145 0.0118 *
 Mars -94750-10-28 21:49 J -32885713.86 -32885713.59 -32885713.30 0.0142 0.0044

Mercury -94741-01-03 00:42 J -32882725.54 -32882725.47 -32882725.39 0.0137 0.0120

Mercury -94741-03-31 06:13 J -32882637.35 -32882637.24 -32882637.12 0.0137 0.0100

Mercury -94741-06-27 11:30 J -32882549.14 -32882549.02 -32882548.87 0.0137 0.0080

Mercury -94741-09-23 17:01 J -32882460.93 -32882460.79 -32882460.63 0.0136 0.0060

Mercury -94741-12-20 22:32 J -32882372.72 -32882372.56 -32882372.40 0.0136 0.0040

Mercury -94740-03-19 03:49 J -32882284.50 -32882284.34 -32882284.17 0.0136 0.0020

Mercury -94740-06-15 09:06 J -32882196.28 -32882196.12 -32882195.95 0.0136 0.0001

Mercury -94740-09-11 14:23 J -32882108.06 -32882107.90 -32882107.74 0.0136 0.0019

Mercury -94740-12-08 19:25 J -32882019.84 -32882019.69 -32882019.53 0.0136 0.0038

Mercury -94739-03-07 00:27 J -32881931.62 -32881931.48 -32881931.33 0.0136 0.0057

Mercury -94739-06-03 05:30 J -32881843.40 -32881843.27 -32881843.13 0.0136 0.0075

Mercury -94739-08-30 10:32 J -32881755.17 -32881755.06 -32881754.94 0.0135 0.0094

Venus -94739-09-06 00:13 J -32881748.66 -32881748.49 -32881748.30 0.0135 0.0081

Mercury -94739-11-26 15:35 J -32881666.94 -32881666.85 -32881666.76 0.0135 0.0112

Mercury -94738-02-22 20:23 J -32881578.69 -32881578.65 -32881578.60 0.0135 0.0130

Venus -94738-04-20 07:54 J -32881522.38 -32881522.17 -32881521.94 0.0135 0.0020

Venus -94738-12-02 15:06 J -32881296.07 -32881295.87 -32881295.65 0.0135 0.0042

Venus -94737-07-15 21:49 J -32881069.72 -32881069.59 -32881069.43 0.0135 0.0102

Earth -94718-10-09 23:15 J -32874044.64 -32874044.53 -32874044.39 0.0132 0.0112

Moon -94718-10-10 00:42 J -32874044.56 -32874044.47 -32874044.36 0.0132 0.0119 *

Moon -94717-10-12 22:32 J -32873675.78 -32873675.56 -32873675.34 0.0132 0.0069

Earth -94717-10-12 23:30 J -32873675.71 -32873675.52 -32873675.30 0.0132 0.0075 *

Earth -94716-10-16 23:44 J -32873306.74 -32873306.51 -32873306.27 0.0132 0.0037

Moon -94716-10-17 00:56 J -32873306.68 -32873306.46 -32873306.23 0.0132 0.0040 *

Moon -94715-10-20 22:18 J -32872937.82 -32872937.57 -32872937.31 0.0133 0.0003

Earth -94715-10-21 00:13 J -32872937.74 -32872937.49 -32872937.25 0.0133 0.0001 *

Earth -94714-10-25 00:27 J -32872568.71 -32872568.48 -32872568.24 0.0133 0.0039

Moon -94714-10-25 01:39 J -32872568.65 -32872568.43 -32872568.20 0.0133 0.0041 *

Moon -94713-10-27 22:47 J -32872199.75 -32872199.55 -32872199.33 0.0133 0.0074

Earth -94713-10-28 00:42 J -32872199.66 -32872199.47 -32872199.26 0.0133 0.0078 *

Earth -94712-11-01 01:11 J -32871830.56 -32871830.45 -32871830.31 0.0134 0.0116
 Moon -94712-11-01 03:06 J -32871830.46 -32871830.37 -32871830.27 0.0134 0.0121 *
 Mars -94706-11-28 00:42 J -32869612.53 -32869612.47 -32869612.34 0.0137 0.0131
 Mars -94704-10-31 11:15 J -32868909.30 -32868909.03 -32868908.73 0.0138 0.0064
 Mercury -94697-08-26 18:27 J -32866417.77 -32866417.73 -32866417.68 0.0142 0.0134
 Mercury -94697-11-22 23:01 J -32866329.62 -32866329.54 -32866329.45 0.0142 0.0115
 Mercury -94696-02-19 03:20 J -32866241.45 -32866241.36 -32866241.24 0.0142 0.0096
 Mercury -94696-05-18 08:08 J -32866153.28 -32866153.16 -32866153.03 0.0142 0.0076
 Mercury -94696-08-14 12:42 J -32866065.10 -32866064.97 -32866064.83 0.0142 0.0057
 Mercury -94696-11-10 17:30 J -32865976.91 -32865976.77 -32865976.63 0.0142 0.0037
 Mercury -94695-02-06 22:18 J -32865888.72 -32865888.57 -32865888.42 0.0143 0.0017
 Mercury -94695-05-06 02:51 J -32865800.53 -32865800.38 -32865800.22 0.0143 0.0006
 Mercury -94695-08-02 07:39 J -32865712.32 -32865712.18 -32865712.03 0.0143 0.0025
 Mercury -94695-10-29 12:27 J -32865624.12 -32865623.98 -32865623.83 0.0143 0.0045
 Mercury -94694-01-25 17:30 J -32865535.90 -32865535.77 -32865535.63 0.0143 0.0066
 Venus -94694-04-09 16:47 J -32865461.95 -32865461.80 -32865461.63 0.0143 0.0095
 Mercury -94694-04-23 22:18 J -32865447.68 -32865447.57 -32865447.44 0.0143 0.0087
 Mercury -94694-07-21 03:20 J -32865359.45 -32865359.36 -32865359.26 0.0143 0.0109
 Mercury -94694-10-17 08:08 J -32865271.21 -32865271.16 -32865271.08 0.0144 0.0131
 Venus -94694-11-22 02:51 J -32865235.59 -32865235.38 -32865235.17 0.0144 0.0025
 Venus -94693-07-05 12:42 J -32865009.17 -32865008.97 -32865008.76 0.0144 0.0047
 Venus -94692-02-16 22:47 J -32864782.66 -32864782.55 -32864782.42 0.0144 0.0119
 Moon -94676-04-06 10:03 J -32858890.27 -32858890.08 -32858889.87 0.0147 0.0091
 Earth -94676-04-06 12:27 J -32858890.17 -32858889.98 -32858889.79 0.0147 0.0098 *
 Earth -94675-04-11 22:47 J -32858519.79 -32858519.55 -32858519.29 0.0146 0.0043
 Moon -94675-04-12 01:54 J -32858519.67 -32858519.42 -32858519.16 0.0146 0.0050 *
 Moon -94674-04-17 05:44 J -32858149.52 -32858149.26 -32858149.00 0.0146 0.0015
 Earth -94674-04-17 09:20 J -32858149.37 -32858149.11 -32858148.85 0.0146 0.0012 *
 Earth -94673-04-21 19:39 J -32857778.91 -32857778.68 -32857778.44 0.0146 0.0066
 Moon -94673-04-21 23:01 J -32857778.76 -32857778.54 -32857778.29 0.0146 0.0068 *

Moon -94672-04-27 02:08 J -32857408.57 -32857408.41 -32857408.24 0.0145 0.0112
 Earth -94672-04-27 05:44 J -32857408.40 -32857408.26 -32857408.10 0.0145 0.0120 *
 Mars -94665-06-22 19:54 J -32854794.95 -32854794.67 -32854794.37 0.0141 0.0028
 Mercury -94658-10-27 02:08 J -32852112.41 -32852112.41 -32852112.41 0.0137 0.0137
 Mercury -94657-01-23 07:39 J -32852024.26 -32852024.18 -32852024.09 0.0137 0.0116
 Mercury -94657-04-20 13:11 J -32851936.06 -32851935.95 -32851935.83 0.0137 0.0096
 Mercury -94657-07-17 18:42 J -32851847.86 -32851847.72 -32851847.58 0.0137 0.0076
 Mercury -94657-10-13 23:59 J -32851759.65 -32851759.50 -32851759.34 0.0136 0.0056
 Mercury -94656-01-10 05:15 J -32851671.43 -32851671.28 -32851671.11 0.0136 0.0037
 Mercury -94656-04-08 10:47 J -32851583.21 -32851583.05 -32851582.89 0.0136 0.0016
 Mercury -94656-07-05 16:03 J -32851495.00 -32851494.83 -32851494.67 0.0136 0.0003
 Mercury -94656-10-01 21:06 J -32851406.78 -32851406.62 -32851406.45 0.0136 0.0023
 Mercury -94656-12-29 02:08 J -32851318.56 -32851318.41 -32851318.24 0.0136 0.0042
 Mercury -94655-03-27 07:25 J -32851230.33 -32851230.19 -32851230.04 0.0136 0.0060
 Venus -94655-05-06 07:54 J -32851190.27 -32851190.17 -32851190.02 0.0136 0.0112
 Mercury -94655-06-23 12:27 J -32851142.11 -32851141.98 -32851141.85 0.0136 0.0079
 Mercury -94655-09-19 17:15 J -32851053.88 -32851053.78 -32851053.66 0.0135 0.0097
 Mercury -94655-12-16 22:03 J -32850965.65 -32850965.58 -32850965.48 0.0135 0.0116
 Venus -94655-12-18 16:03 J -32850964.04 -32850963.83 -32850963.62 0.0135 0.0050
 Mercury -94654-03-15 03:06 J -32850877.39 -32850877.37 -32850877.33 0.0135 0.0133
 Venus -94654-08-01 23:15 J -32850737.75 -32850737.53 -32850737.30 0.0135 0.0012
 Venus -94653-03-15 06:13 J -32850511.42 -32850511.24 -32850511.05 0.0135 0.0072
 Venus -94653-10-27 12:42 J -32850284.99 -32850284.97 -32850284.90 0.0134 0.0132
 Earth -94634-10-10 09:49 J -32843363.21 -32843363.09 -32843362.93 0.0132 0.0109
 Moon -94634-10-10 11:30 J -32843363.15 -32843363.02 -32843362.85 0.0132 0.0103 *
 Moon -94633-10-13 08:23 J -32842994.34 -32842994.15 -32842993.93 0.0132 0.0077
 Earth -94633-10-13 10:32 J -32842994.26 -32842994.06 -32842993.85 0.0132 0.0071 *
 Earth -94632-10-17 10:32 J -32842625.29 -32842625.06 -32842624.81 0.0132 0.0035
 Moon -94632-10-17 12:42 J -32842625.20 -32842624.97 -32842624.73 0.0132 0.0030 *
 Moon -94631-10-21 09:20 J -32842256.37 -32842256.11 -32842255.86 0.0133 0.0003

Earth -94631-10-21 11:01 J -32842256.28 -32842256.04 -32842255.79 0.0133 0.0004 *
 Earth -94630-10-25 11:01 J -32841887.26 -32841887.04 -32841886.79 0.0133 0.0042
 Moon -94630-10-25 13:25 J -32841887.16 -32841886.94 -32841886.70 0.0133 0.0041 *
 Moon -94629-10-28 09:20 J -32841518.30 -32841518.11 -32841517.90 0.0133 0.0082
 Earth -94629-10-28 11:30 J -32841518.21 -32841518.02 -32841517.81 0.0133 0.0079 *
 Earth -94628-11-01 12:13 J -32841149.10 -32841148.99 -32841148.87 0.0134 0.0117
 Moon -94628-11-01 13:54 J -32841149.03 -32841148.92 -32841148.77 0.0134 0.0112 *
 Mars -94621-07-23 09:20 J -32838693.40 -32838693.11 -32838692.82 0.0137 0.0058
 Mercury -94613-09-16 01:54 J -32835716.48 -32835716.42 -32835716.36 0.0142 0.0129
 Mercury -94613-12-13 06:27 J -32835628.32 -32835628.23 -32835628.14 0.0142 0.0110
 Mercury -94612-03-11 10:47 J -32835540.16 -32835540.05 -32835539.93 0.0142 0.0091
 Mercury -94612-06-07 15:35 J -32835451.98 -32835451.85 -32835451.73 0.0142 0.0072
 Mercury -94612-09-03 19:54 J -32835363.80 -32835363.67 -32835363.52 0.0142 0.0053
 Mercury -94612-12-01 00:42 J -32835275.61 -32835275.47 -32835275.32 0.0142 0.0032
 Mercury -94611-02-27 05:30 J -32835187.42 -32835187.27 -32835187.12 0.0143 0.0012
 Mercury -94611-05-26 10:18 J -32835099.22 -32835099.07 -32835098.92 0.0143 0.0009
 Mercury -94611-08-22 15:06 J -32835011.02 -32835010.87 -32835010.72 0.0143 0.0029
 Mercury -94611-11-18 19:39 J -32834922.81 -32834922.68 -32834922.53 0.0143 0.0051
 Venus -94611-12-08 00:42 J -32834903.55 -32834903.47 -32834903.37 0.0143 0.0129
 Mercury -94610-02-15 00:42 J -32834834.60 -32834834.47 -32834834.33 0.0143 0.0071
 Mercury -94610-05-14 05:30 J -32834746.38 -32834746.27 -32834746.14 0.0143 0.0092
 Venus -94610-07-22 10:03 J -32834677.26 -32834677.08 -32834676.87 0.0143 0.0060
 Mercury -94610-08-10 10:32 J -32834658.14 -32834658.06 -32834657.96 0.0143 0.0114
 Mercury -94610-11-06 15:35 J -32834569.89 -32834569.85 -32834569.79 0.0144 0.0135
 Venus -94609-03-04 20:08 J -32834450.87 -32834450.66 -32834450.44 0.0144 0.0012
 Venus -94609-10-17 06:13 J -32834224.41 -32834224.24 -32834224.06 0.0144 0.0084
 Moon -94593-04-01 10:47 J -32828579.06 -32828579.05 -32828578.97 0.0147 0.0145
 Moon -94592-04-06 19:25 J -32828208.85 -32828208.69 -32828208.49 0.0147 0.0102
 Earth -94592-04-06 21:06 J -32828208.80 -32828208.62 -32828208.41 0.0147 0.0095 *
 Earth -94591-04-12 07:39 J -32827838.42 -32827838.18 -32827837.92 0.0146 0.0040

Moon	-94591-04-12 10:32 J	-32827838.32	-32827838.06	-32827837.80	0.0146	0.0033	*
Moon	-94590-04-17 15:20 J	-32827468.11	-32827467.86	-32827467.60	0.0146	0.0011	
Earth	-94590-04-17 18:27 J	-32827467.99	-32827467.73	-32827467.47	0.0146	0.0014	*
Earth	-94589-04-22 04:18 J	-32827097.54	-32827097.32	-32827097.08	0.0146	0.0069	
Moon	-94589-04-22 08:08 J	-32827097.38	-32827097.16	-32827096.91	0.0146	0.0066	*
Moon	-94588-04-27 10:32 J	-32826727.17	-32826727.06	-32826726.91	0.0145	0.0127	
Earth	-94588-04-27 14:08 J	-32826727.03	-32826726.91	-32826726.74	0.0145	0.0122	*
Mars	-94582-03-16 23:15 J	-32824577.74	-32824577.53	-32824577.30	0.0142	0.0096	
Mars	-94580-02-15 17:30 J	-32823875.95	-32823875.77	-32823875.54	0.0141	0.0099	
Mercury	-94574-11-16 08:51 J	-32821411.15	-32821411.13	-32821411.08	0.0137	0.0133	
Mercury	-94573-02-12 14:37 J	-32821322.98	-32821322.89	-32821322.79	0.0137	0.0112	
Mercury	-94573-05-10 20:08 J	-32821234.78	-32821234.66	-32821234.53	0.0137	0.0092	
Mercury	-94573-08-07 01:39 J	-32821146.57	-32821146.43	-32821146.28	0.0137	0.0072	
Mercury	-94573-11-03 07:11 J	-32821058.35	-32821058.20	-32821058.05	0.0136	0.0052	
Mercury	-94572-01-30 12:27 J	-32820970.14	-32820969.98	-32820969.82	0.0136	0.0032	
Mercury	-94572-04-28 17:44 J	-32820881.92	-32820881.76	-32820881.59	0.0136	0.0012	
Mercury	-94572-07-25 23:01 J	-32820793.70	-32820793.54	-32820793.37	0.0136	0.0007	
Mercury	-94572-10-22 04:18 J	-32820705.48	-32820705.32	-32820705.16	0.0136	0.0026	
Mercury	-94571-01-18 09:20 J	-32820617.26	-32820617.11	-32820616.95	0.0136	0.0045	
Mercury	-94571-04-16 14:23 J	-32820529.04	-32820528.90	-32820528.75	0.0136	0.0064	
Mercury	-94571-07-13 19:25 J	-32820440.81	-32820440.69	-32820440.56	0.0136	0.0083	
Venus	-94571-08-18 00:13 J	-32820405.67	-32820405.49	-32820405.31	0.0136	0.0080	
Mercury	-94571-10-10 00:27 J	-32820352.58	-32820352.48	-32820352.37	0.0135	0.0101	
Mercury	-94570-01-06 05:01 J	-32820264.35	-32820264.29	-32820264.20	0.0135	0.0120	
Venus	-94570-04-01 07:54 J	-32820179.39	-32820179.17	-32820178.95	0.0135	0.0018	
Venus	-94570-11-13 14:51 J	-32819953.08	-32819952.88	-32819952.66	0.0135	0.0043	
Venus	-94569-06-26 21:49 J	-32819726.72	-32819726.59	-32819726.44	0.0135	0.0103	
Earth	-94550-10-10 20:51 J	-32812681.77	-32812681.63	-32812681.47	0.0132	0.0105	
Moon	-94550-10-10 23:15 J	-32812681.65	-32812681.53	-32812681.40	0.0132	0.0112	*
Moon	-94549-10-13 18:42 J	-32812312.94	-32812312.72	-32812312.49	0.0132	0.0062	

Earth -94549-10-13 21:20 J -32812312.82 -32812312.61 -32812312.39 0.0132 0.0068 *
 Earth -94548-10-17 21:20 J -32811943.85 -32811943.61 -32811943.36 0.0132 0.0031
 Moon -94548-10-17 23:30 J -32811943.75 -32811943.52 -32811943.28 0.0132 0.0035 *
 Moon -94547-10-21 18:56 J -32811574.97 -32811574.71 -32811574.46 0.0133 0.0009
 Earth -94547-10-21 21:35 J -32811574.84 -32811574.60 -32811574.35 0.0133 0.0007 *
 Earth -94546-10-25 21:35 J -32811205.82 -32811205.60 -32811205.35 0.0133 0.0044
 Moon -94546-10-26 00:13 J -32811205.71 -32811205.49 -32811205.26 0.0133 0.0045 *
 Moon -94545-10-28 19:25 J -32810836.89 -32810836.69 -32810836.48 0.0133 0.0077
 Earth -94545-10-28 22:03 J -32810836.76 -32810836.58 -32810836.37 0.0133 0.0081 *
 Earth -94544-11-01 22:32 J -32810467.65 -32810467.56 -32810467.43 0.0134 0.0119
 Moon -94544-11-02 01:25 J -32810467.51 -32810467.44 -32810467.34 0.0134 0.0124 *
 Mars -94536-03-18 18:27 J -32807774.04 -32807773.73 -32807773.40 0.0137 0.0014
 Mercury -94529-10-06 09:06 J -32805015.18 -32805015.12 -32805015.05 0.0142 0.0125
 Mercury -94528-01-02 13:25 J -32804927.03 -32804926.94 -32804926.83 0.0142 0.0106
 Mercury -94528-03-31 17:59 J -32804838.86 -32804838.75 -32804838.63 0.0142 0.0087
 Mercury -94528-06-27 22:32 J -32804750.68 -32804750.56 -32804750.42 0.0142 0.0068
 Mercury -94528-09-24 03:20 J -32804662.50 -32804662.36 -32804662.22 0.0142 0.0047
 Mercury -94528-12-21 07:54 J -32804574.31 -32804574.17 -32804574.02 0.0142 0.0028
 Mercury -94527-03-19 12:42 J -32804486.12 -32804485.97 -32804485.82 0.0143 0.0007
 Mercury -94527-06-15 17:30 J -32804397.92 -32804397.77 -32804397.62 0.0143 0.0013
 Mercury -94527-09-11 22:18 J -32804309.72 -32804309.57 -32804309.42 0.0143 0.0034
 Mercury -94527-12-09 03:06 J -32804221.51 -32804221.37 -32804221.23 0.0143 0.0055
 Mercury -94526-03-07 07:54 J -32804133.29 -32804133.17 -32804133.03 0.0143 0.0076
 Venus -94526-03-21 17:59 J -32804118.90 -32804118.75 -32804118.58 0.0143 0.0093
 Mercury -94526-06-03 12:42 J -32804045.07 -32804044.97 -32804044.84 0.0143 0.0098
 Mercury -94526-08-30 17:59 J -32803956.83 -32803956.75 -32803956.66 0.0143 0.0118
 Venus -94526-11-03 03:49 J -32803892.55 -32803892.34 -32803892.12 0.0143 0.0023
 Mercury -94526-11-26 22:47 J -32803868.57 -32803868.55 -32803868.51 0.0144 0.0141
 Venus -94525-06-16 13:54 J -32803666.12 -32803665.92 -32803665.72 0.0144 0.0049
 Venus -94524-01-28 23:44 J -32803439.61 -32803439.51 -32803439.38 0.0144 0.0122

Earth -94509-04-01 19:25 J -32797897.72 -32797897.69 -32797897.64 0.0147 0.0145
 Moon -94508-04-07 04:47 J -32797527.49 -32797527.30 -32797527.08 0.0147 0.0085
 Earth -94508-04-07 05:44 J -32797527.45 -32797527.26 -32797527.04 0.0147 0.0092 *
 Earth -94507-04-12 16:18 J -32797157.07 -32797156.82 -32797156.56 0.0146 0.0038
 Moon -94507-04-12 17:59 J -32797157.00 -32797156.75 -32797156.49 0.0146 0.0045 *
 Moon -94506-04-17 23:30 J -32796786.77 -32796786.52 -32796786.26 0.0146 0.0020
 Earth -94506-04-18 02:37 J -32796786.65 -32796786.39 -32796786.13 0.0146 0.0016 *
 Earth -94505-04-22 12:27 J -32796416.20 -32796415.98 -32796415.74 0.0146 0.0070
 Moon -94505-04-22 15:49 J -32796416.07 -32796415.84 -32796415.60 0.0146 0.0070 *
 Moon -94504-04-27 18:56 J -32796045.87 -32796045.71 -32796045.55 0.0145 0.0116
 Earth -94504-04-27 22:03 J -32796045.70 -32796045.58 -32796045.41 0.0145 0.0123 *
 Mars -94498-11-09 20:51 J -32793658.91 -32793658.63 -32793658.33 0.0142 0.0025
 Mercury -94490-12-06 15:35 J -32790709.89 -32790709.85 -32790709.79 0.0137 0.0130
 Mercury -94489-03-03 21:06 J -32790621.71 -32790621.62 -32790621.51 0.0137 0.0110
 Mercury -94489-05-31 02:51 J -32790533.50 -32790533.38 -32790533.25 0.0137 0.0089
 Mercury -94489-08-27 08:23 J -32790445.29 -32790445.15 -32790445.01 0.0137 0.0069
 Mercury -94489-11-23 13:39 J -32790357.08 -32790356.93 -32790356.77 0.0136 0.0049
 Mercury -94488-02-19 19:11 J -32790268.86 -32790268.70 -32790268.54 0.0136 0.0029
 Mercury -94488-05-19 00:27 J -32790180.65 -32790180.48 -32790180.32 0.0136 0.0010
 Mercury -94488-08-15 05:44 J -32790092.43 -32790092.26 -32790092.10 0.0136 0.0010
 Mercury -94488-11-11 10:47 J -32790004.21 -32790004.05 -32790003.89 0.0136 0.0029
 Mercury -94487-02-07 16:03 J -32789915.98 -32789915.83 -32789915.68 0.0136 0.0048
 Venus -94487-04-17 07:11 J -32789847.31 -32789847.20 -32789847.06 0.0136 0.0112
 Mercury -94487-05-06 20:51 J -32789827.76 -32789827.63 -32789827.48 0.0136 0.0067
 Mercury -94487-08-03 01:54 J -32789739.53 -32789739.42 -32789739.28 0.0136 0.0086
 Mercury -94487-10-30 06:56 J -32789651.30 -32789651.21 -32789651.10 0.0135 0.0104
 Venus -94487-11-29 15:06 J -32789621.07 -32789620.87 -32789620.66 0.0135 0.0050
 Mercury -94486-01-26 11:59 J -32789563.06 -32789563.00 -32789562.93 0.0135 0.0122
 Venus -94486-07-13 22:32 J -32789394.78 -32789394.56 -32789394.33 0.0135 0.0012
 Venus -94485-02-25 05:30 J -32789168.44 -32789168.27 -32789168.07 0.0135 0.0072

Venus -94485-10-08 12:27 J -32788942.01 -32788941.98 -32788941.93 0.0134 0.0132
 Earth -94466-10-11 06:56 J -32782000.36 -32782000.21 -32782000.05 0.0132 0.0102
 Moon -94466-10-11 09:20 J -32782000.26 -32782000.11 -32781999.93 0.0132 0.0096 *
 Moon -94465-10-14 04:03 J -32781631.53 -32781631.33 -32781631.10 0.0132 0.0072
 Earth -94465-10-14 06:56 J -32781631.41 -32781631.21 -32781630.98 0.0132 0.0066 *
 Earth -94464-10-18 07:11 J -32781262.44 -32781262.20 -32781261.95 0.0132 0.0029
 Moon -94464-10-18 10:18 J -32781262.30 -32781262.07 -32781261.83 0.0132 0.0024 *
 Moon -94463-10-22 04:47 J -32780893.55 -32780893.30 -32780893.05 0.0133 0.0006
 Earth -94463-10-22 07:39 J -32780893.43 -32780893.18 -32780892.94 0.0133 0.0008 *
 Earth -94462-10-26 07:39 J -32780524.41 -32780524.18 -32780523.94 0.0133 0.0045
 Moon -94462-10-26 10:32 J -32780524.27 -32780524.06 -32780523.82 0.0133 0.0045 *
 Moon -94461-10-29 04:47 J -32780155.48 -32780155.30 -32780155.09 0.0133 0.0085
 Earth -94461-10-29 08:08 J -32780155.35 -32780155.16 -32780154.96 0.0133 0.0082 *
 Earth -94460-11-02 08:37 J -32779786.23 -32779786.14 -32779786.02 0.0134 0.0120
 Moon -94460-11-02 11:44 J -32779786.13 -32779786.01 -32779785.88 0.0134 0.0114 *
 Mars -94454-12-09 18:42 J -32777557.90 -32777557.72 -32777557.50 0.0136 0.0106
 Mars -94452-11-12 02:51 J -32776854.60 -32776854.38 -32776854.10 0.0138 0.0087
 Mercury -94445-07-30 11:44 J -32774402.03 -32774402.01 -32774401.99 0.0142 0.0140
 Mercury -94445-10-26 16:18 J -32774313.90 -32774313.82 -32774313.75 0.0142 0.0121
 Mercury -94444-01-22 20:37 J -32774225.74 -32774225.64 -32774225.53 0.0142 0.0102
 Mercury -94444-04-21 01:11 J -32774137.57 -32774137.45 -32774137.33 0.0142 0.0083
 Mercury -94444-07-18 05:44 J -32774049.39 -32774049.26 -32774049.12 0.0142 0.0063
 Mercury -94444-10-14 10:32 J -32773961.21 -32773961.06 -32773960.92 0.0142 0.0044
 Mercury -94443-01-10 15:06 J -32773873.02 -32773872.87 -32773872.72 0.0142 0.0024
 Mercury -94443-04-08 19:54 J -32773784.82 -32773784.67 -32773784.52 0.0143 0.0004
 Mercury -94443-07-06 00:27 J -32773696.62 -32773696.48 -32773696.32 0.0143 0.0018
 Mercury -94443-10-02 05:15 J -32773608.42 -32773608.28 -32773608.13 0.0143 0.0038
 Venus -94443-11-19 01:25 J -32773560.52 -32773560.44 -32773560.34 0.0143 0.0128
 Mercury -94443-12-29 10:03 J -32773520.21 -32773520.08 -32773519.93 0.0143 0.0059
 Mercury -94442-03-27 15:06 J -32773431.99 -32773431.87 -32773431.74 0.0143 0.0080

Mercury -94442-06-23 19:54 J -32773343.77 -32773343.67 -32773343.55 0.0143 0.0101
 Venus -94442-07-03 10:47 J -32773334.23 -32773334.05 -32773333.84 0.0143 0.0059
 Mercury -94442-09-20 00:56 J -32773255.53 -32773255.46 -32773255.37 0.0143 0.0123
 Venus -94441-02-14 20:51 J -32773107.84 -32773107.63 -32773107.42 0.0144 0.0013
 Venus -94441-09-28 06:42 J -32772881.38 -32772881.22 -32772881.04 0.0144 0.0085
 Moon -94425-04-02 03:20 J -32767216.44 -32767216.36 -32767216.26 0.0147 0.0138
 Earth -94425-04-02 03:49 J -32767216.38 -32767216.34 -32767216.25 0.0147 0.0142 *
 Earth -94424-04-07 14:08 J -32766846.10 -32766845.91 -32766845.69 0.0147 0.0089
 Moon -94424-04-07 14:23 J -32766846.08 -32766845.90 -32766845.70 0.0147 0.0095 *
 Earth -94423-04-13 00:27 J -32766475.73 -32766475.48 -32766475.22 0.0146 0.0035
 Moon -94423-04-13 02:08 J -32766475.68 -32766475.41 -32766475.15 0.0146 0.0028 *
 Moon -94422-04-18 09:06 J -32766105.37 -32766105.12 -32766104.87 0.0146 0.0013
 Earth -94422-04-18 10:47 J -32766105.31 -32766105.05 -32766104.79 0.0146 0.0018 *
 Earth -94421-04-22 20:51 J -32765734.86 -32765734.63 -32765734.40 0.0146 0.0071
 Moon -94421-04-22 23:44 J -32765734.73 -32765734.51 -32765734.26 0.0146 0.0070 *
 Moon -94420-04-28 03:06 J -32765364.49 -32765364.37 -32765364.24 0.0145 0.0128
 Earth -94420-04-28 06:27 J -32765364.36 -32765364.23 -32765364.09 0.0145 0.0123 *
 Mars -94413-07-04 18:13 J -32762740.01 -32762739.74 -32762739.45 0.0141 0.0046
 Mercury -94406-12-26 22:18 J -32760008.62 -32760008.57 -32760008.50 0.0137 0.0127
 Mercury -94405-03-24 03:49 J -32759920.43 -32759920.34 -32759920.22 0.0137 0.0107
 Mercury -94405-06-20 09:35 J -32759832.22 -32759832.10 -32759831.97 0.0137 0.0086
 Mercury -94405-09-16 15:06 J -32759744.01 -32759743.87 -32759743.72 0.0137 0.0066
 Mercury -94405-12-13 20:37 J -32759655.80 -32759655.64 -32759655.49 0.0136 0.0046
 Mercury -94404-03-12 01:54 J -32759567.58 -32759567.42 -32759567.26 0.0136 0.0026
 Mercury -94404-06-08 07:11 J -32759479.36 -32759479.20 -32759479.03 0.0136 0.0007
 Mercury -94404-09-04 12:27 J -32759391.14 -32759390.98 -32759390.82 0.0136 0.0013
 Mercury -94404-12-01 17:44 J -32759302.92 -32759302.76 -32759302.60 0.0136 0.0032
 Mercury -94403-02-27 22:47 J -32759214.70 -32759214.55 -32759214.40 0.0136 0.0051
 Mercury -94403-05-27 03:49 J -32759126.47 -32759126.34 -32759126.20 0.0136 0.0070
 Venus -94403-07-29 22:32 J -32759062.72 -32759062.56 -32759062.37 0.0136 0.0082

Mercury -94403-08-23 08:51 J -32759038.25 -32759038.13 -32759038.00 0.0136 0.0088
 Mercury -94403-11-19 13:54 J -32758950.01 -32758949.92 -32758949.82 0.0135 0.0107
 Mercury -94402-02-15 18:56 J -32758861.77 -32758861.71 -32758861.65 0.0135 0.0125
 Venus -94402-03-13 06:27 J -32758836.45 -32758836.23 -32758836.01 0.0135 0.0020
 Venus -94402-10-25 13:39 J -32758610.13 -32758609.93 -32758609.71 0.0135 0.0042
 Venus -94401-06-07 20:51 J -32758383.76 -32758383.63 -32758383.48 0.0135 0.0102
 Moon -94383-10-07 13:11 J -32751687.98 -32751687.95 -32751687.88 0.0132 0.0129
 Earth -94382-10-11 16:47 J -32751318.95 -32751318.80 -32751318.63 0.0132 0.0099
 Moon -94382-10-11 20:08 J -32751318.80 -32751318.66 -32751318.52 0.0132 0.0106 *
 Moon -94381-10-14 13:39 J -32750950.15 -32750949.93 -32750949.69 0.0132 0.0056
 Earth -94381-10-14 17:01 J -32750950.00 -32750949.79 -32750949.56 0.0132 0.0063 *
 Earth -94380-10-18 17:15 J -32750581.02 -32750580.78 -32750580.54 0.0132 0.0026
 Moon -94380-10-18 20:08 J -32750580.89 -32750580.66 -32750580.42 0.0132 0.0031 *
 Moon -94379-10-22 13:54 J -32750212.16 -32750211.92 -32750211.67 0.0133 0.0013
 Earth -94379-10-22 17:30 J -32750212.02 -32750211.77 -32750211.52 0.0133 0.0010 *
 Earth -94378-10-26 17:30 J -32749842.99 -32749842.77 -32749842.53 0.0133 0.0047
 Moon -94378-10-26 20:37 J -32749842.86 -32749842.64 -32749842.40 0.0133 0.0047 *
 Moon -94377-10-29 14:37 J -32749474.08 -32749473.89 -32749473.69 0.0133 0.0081
 Earth -94377-10-29 17:44 J -32749473.93 -32749473.76 -32749473.55 0.0133 0.0084 *
 Earth -94376-11-02 18:27 J -32749104.82 -32749104.73 -32749104.61 0.0134 0.0121
 Moon -94376-11-02 21:49 J -32749104.65 -32749104.59 -32749104.49 0.0134 0.0126 *
 Mars -94369-08-03 23:15 J -32746638.83 -32746638.53 -32746638.21 0.0137 0.0036
 Mercury -94361-08-19 18:42 J -32743700.75 -32743700.72 -32743700.68 0.0142 0.0136
 Mercury -94361-11-15 23:01 J -32743612.61 -32743612.54 -32743612.45 0.0142 0.0118
 Mercury -94360-02-12 03:49 J -32743524.45 -32743524.34 -32743524.24 0.0142 0.0098
 Mercury -94360-05-11 08:08 J -32743436.27 -32743436.16 -32743436.03 0.0142 0.0079
 Mercury -94360-08-07 12:56 J -32743348.09 -32743347.96 -32743347.83 0.0142 0.0059
 Mercury -94360-11-03 17:30 J -32743259.91 -32743259.77 -32743259.63 0.0142 0.0040
 Mercury -94359-01-30 22:03 J -32743171.72 -32743171.58 -32743171.43 0.0142 0.0021
 Mercury -94359-04-29 02:51 J -32743083.53 -32743083.38 -32743083.23 0.0143 0.0003

Mercury -94359-07-26 07:39 J -32742995.33 -32742995.18 -32742995.03 0.0143 0.0021

Mercury -94359-10-22 12:27 J -32742907.12 -32742906.98 -32742906.83 0.0143 0.0042

Mercury -94358-01-18 17:15 J -32742818.91 -32742818.78 -32742818.64 0.0143 0.0063

Venus -94358-03-02 18:13 J -32742775.90 -32742775.74 -32742775.57 0.0143 0.0093

Mercury -94358-04-16 22:03 J -32742730.69 -32742730.58 -32742730.45 0.0143 0.0084

Mercury -94358-07-14 03:06 J -32742642.46 -32742642.37 -32742642.26 0.0143 0.0105

Mercury -94358-10-10 08:08 J -32742554.22 -32742554.16 -32742554.08 0.0143 0.0127

Venus -94358-10-15 04:03 J -32742549.54 -32742549.33 -32742549.12 0.0143 0.0023

Venus -94357-05-28 13:54 J -32742323.12 -32742322.92 -32742322.72 0.0144 0.0049

Venus -94356-01-09 23:44 J -32742096.61 -32742096.51 -32742096.38 0.0144 0.0121

Moon -94341-04-02 11:01 J -32736535.12 -32736535.04 -32736534.94 0.0147 0.0138

Earth -94341-04-02 12:42 J -32736535.04 -32736534.97 -32736534.86 0.0147 0.0138 *

Earth -94340-04-07 22:32 J -32736164.75 -32736164.56 -32736164.33 0.0147 0.0086

Moon -94340-04-07 23:15 J -32736164.74 -32736164.53 -32736164.31 0.0147 0.0079 *

Moon -94339-04-13 09:06 J -32735794.38 -32735794.12 -32735793.86 0.0146 0.0040

Earth -94339-04-13 08:51 J -32735794.38 -32735794.13 -32735793.87 0.0146 0.0033 *

Moon -94338-04-18 17:15 J -32735424.02 -32735423.78 -32735423.52 0.0146 0.0025

Earth -94338-04-18 18:56 J -32735423.96 -32735423.71 -32735423.45 0.0146 0.0020 *

Earth -94337-04-23 04:32 J -32735053.52 -32735053.31 -32735053.07 0.0146 0.0073

Moon -94337-04-23 06:42 J -32735053.44 -32735053.22 -32735052.97 0.0146 0.0072 *

Moon -94336-04-28 11:01 J -32734683.17 -32734683.04 -32734682.88 0.0145 0.0119

Earth -94336-04-28 14:23 J -32734683.03 -32734682.90 -32734682.76 0.0145 0.0124 *

Mars -94330-03-28 18:27 J -32732522.98 -32732522.73 -32732522.49 0.0142 0.0079

Mars -94328-02-27 14:23 J -32731821.05 -32731820.90 -32731820.70 0.0141 0.0114

Mercury -94321-01-16 04:47 J -32729307.35 -32729307.30 -32729307.22 0.0137 0.0125

Mercury -94321-04-13 10:32 J -32729219.16 -32729219.06 -32729218.95 0.0137 0.0104

Mercury -94321-07-10 16:03 J -32729130.95 -32729130.83 -32729130.69 0.0137 0.0084

Mercury -94321-10-06 21:35 J -32729042.74 -32729042.60 -32729042.45 0.0137 0.0063

Mercury -94320-01-03 03:06 J -32728954.53 -32728954.37 -32728954.21 0.0136 0.0043

Mercury -94320-04-01 08:23 J -32728866.31 -32728866.15 -32728865.98 0.0136 0.0024

Mercury -94320-06-28 13:54 J -32728778.09 -32728777.92 -32728777.76 0.0136 0.0006

Mercury -94320-09-24 18:56 J -32728689.87 -32728689.71 -32728689.54 0.0136 0.0016

Mercury -94320-12-22 00:13 J -32728601.65 -32728601.49 -32728601.33 0.0136 0.0034

Mercury -94319-03-20 05:15 J -32728513.42 -32728513.28 -32728513.12 0.0136 0.0054

Venus -94319-03-29 05:30 J -32728504.37 -32728504.27 -32728504.14 0.0136 0.0114

Mercury -94319-06-16 10:32 J -32728425.20 -32728425.06 -32728424.92 0.0136 0.0072

Mercury -94319-09-12 15:20 J -32728336.97 -32728336.86 -32728336.73 0.0135 0.0091

Venus -94319-11-10 13:39 J -32728278.13 -32728277.93 -32728277.72 0.0135 0.0052

Mercury -94319-12-09 20:23 J -32728248.74 -32728248.65 -32728248.55 0.0135 0.0109

Mercury -94318-03-08 01:11 J -32728160.49 -32728160.45 -32728160.38 0.0135 0.0128

Venus -94318-06-24 21:20 J -32728051.83 -32728051.61 -32728051.39 0.0135 0.0010

Venus -94317-02-06 04:18 J -32727825.50 -32727825.32 -32727825.12 0.0135 0.0071

Venus -94317-09-19 11:15 J -32727599.06 -32727599.03 -32727598.97 0.0134 0.0131

Earth -94299-10-08 01:39 J -32721006.43 -32721006.43 -32721006.40 0.0132 0.0131

Earth -94298-10-12 01:54 J -32720637.58 -32720637.42 -32720637.24 0.0132 0.0096

Moon -94298-10-12 05:30 J -32720637.44 -32720637.27 -32720637.08 0.0132 0.0089 *

Moon -94297-10-14 23:01 J -32720268.75 -32720268.54 -32720268.32 0.0132 0.0067

Earth -94297-10-15 02:08 J -32720268.62 -32720268.41 -32720268.18 0.0132 0.0061 *

Earth -94296-10-19 02:23 J -32719899.64 -32719899.40 -32719899.15 0.0132 0.0025

Moon -94296-10-19 05:59 J -32719899.49 -32719899.25 -32719899.00 0.0132 0.0019 *

Moon -94295-10-22 23:30 J -32719530.77 -32719530.52 -32719530.27 0.0133 0.0009

Earth -94295-10-23 02:51 J -32719530.63 -32719530.38 -32719530.13 0.0133 0.0012 *

Earth -94294-10-27 02:37 J -32719161.60 -32719161.39 -32719161.14 0.0133 0.0049

Moon -94294-10-27 06:27 J -32719161.45 -32719161.23 -32719161.00 0.0133 0.0048 *

Moon -94293-10-29 23:59 J -32718792.68 -32718792.50 -32718792.31 0.0133 0.0087

Earth -94293-10-30 03:20 J -32718792.54 -32718792.36 -32718792.16 0.0133 0.0085 *

Earth -94292-11-03 04:18 J -32718423.41 -32718423.32 -32718423.22 0.0134 0.0122

Moon -94292-11-03 07:25 J -32718423.29 -32718423.19 -32718423.06 0.0134 0.0117 *

Mars -94284-03-30 04:47 J -32715719.60 -32715719.30 -32715718.98 0.0137 0.0035

Mercury -94277-09-09 01:39 J -32712999.47 -32712999.43 -32712999.37 0.0142 0.0133

Mercury -94277-12-06 06:13 J -32712911.32 -32712911.24 -32712911.15 0.0142 0.0114

Mercury -94276-03-04 10:47 J -32712823.16 -32712823.05 -32712822.94 0.0142 0.0095

Mercury -94276-05-31 15:20 J -32712734.98 -32712734.86 -32712734.73 0.0142 0.0075

Mercury -94276-08-27 19:54 J -32712646.80 -32712646.67 -32712646.53 0.0142 0.0056

Mercury -94276-11-24 00:27 J -32712558.62 -32712558.48 -32712558.33 0.0142 0.0036

Mercury -94275-02-20 05:15 J -32712470.43 -32712470.28 -32712470.13 0.0142 0.0016

Mercury -94275-05-19 10:03 J -32712382.23 -32712382.08 -32712381.93 0.0143 0.0005

Mercury -94275-08-15 14:51 J -32712294.03 -32712293.88 -32712293.74 0.0143 0.0025

Venus -94275-10-31 01:11 J -32712217.52 -32712217.45 -32712217.34 0.0143 0.0129

Mercury -94275-11-11 19:25 J -32712205.83 -32712205.69 -32712205.54 0.0143 0.0046

Mercury -94274-02-08 00:27 J -32712117.61 -32712117.48 -32712117.35 0.0143 0.0066

Mercury -94274-05-07 05:15 J -32712029.40 -32712029.28 -32712029.16 0.0143 0.0087

Venus -94274-06-14 11:01 J -32711991.24 -32711991.04 -32711990.85 0.0143 0.0059

Mercury -94274-08-03 10:18 J -32711941.17 -32711941.07 -32711940.97 0.0143 0.0109

Mercury -94274-10-30 15:06 J -32711852.92 -32711852.87 -32711852.80 0.0143 0.0131

Venus -94273-01-26 20:37 J -32711764.85 -32711764.64 -32711764.42 0.0143 0.0013

Venus -94273-09-09 06:42 J -32711538.39 -32711538.22 -32711538.05 0.0144 0.0084

Moon -94257-04-02 18:27 J -32705853.82 -32705853.73 -32705853.59 0.0147 0.0132

Earth -94257-04-02 20:51 J -32705853.72 -32705853.63 -32705853.51 0.0147 0.0134 *

Earth -94256-04-08 06:56 J -32705483.42 -32705483.21 -32705482.99 0.0147 0.0082

Moon -94256-04-08 08:23 J -32705483.33 -32705483.15 -32705482.93 0.0147 0.0088 *

Moon -94255-04-13 16:47 J -32705113.07 -32705112.80 -32705112.53 0.0146 0.0022

Earth -94255-04-13 17:01 J -32705113.05 -32705112.79 -32705112.54 0.0146 0.0030 *

Moon -94254-04-19 02:23 J -32704742.64 -32704742.40 -32704742.14 0.0146 0.0017

Earth -94254-04-19 02:51 J -32704742.64 -32704742.38 -32704742.12 0.0146 0.0023 *

Earth -94253-04-23 12:42 J -32704372.20 -32704371.97 -32704371.75 0.0146 0.0074

Moon -94253-04-23 14:23 J -32704372.13 -32704371.90 -32704371.66 0.0146 0.0074 *

Moon -94252-04-28 19:11 J -32704001.80 -32704001.70 -32704001.57 0.0145 0.0130

Earth -94252-04-28 21:20 J -32704001.71 -32704001.61 -32704001.45 0.0145 0.0126 *

Mars -94246-11-21 17:30 J -32701604.07 -32701603.77 -32701603.47 0.0142 0.0007

Mercury -94237-02-05 11:44 J -32698606.08 -32698606.01 -32698605.93 0.0137 0.0121

Mercury -94237-05-03 17:15 J -32698517.88 -32698517.78 -32698517.66 0.0137 0.0101

Mercury -94237-07-30 22:47 J -32698429.68 -32698429.55 -32698429.41 0.0137 0.0081

Mercury -94237-10-27 04:18 J -32698341.46 -32698341.32 -32698341.16 0.0137 0.0060

Mercury -94236-01-23 09:49 J -32698253.25 -32698253.09 -32698252.93 0.0136 0.0040

Mercury -94236-04-21 15:06 J -32698165.03 -32698164.87 -32698164.70 0.0136 0.0021

Mercury -94236-07-18 20:37 J -32698076.81 -32698076.64 -32698076.48 0.0136 0.0003

Mercury -94236-10-15 01:39 J -32697988.59 -32697988.43 -32697988.26 0.0136 0.0019

Mercury -94235-01-11 06:56 J -32697900.36 -32697900.21 -32697900.05 0.0136 0.0038

Mercury -94235-04-09 11:59 J -32697812.14 -32697812.00 -32697811.84 0.0136 0.0057

Mercury -94235-07-06 17:01 J -32697723.91 -32697723.79 -32697723.64 0.0136 0.0076

Venus -94235-07-10 21:20 J -32697719.79 -32697719.61 -32697719.44 0.0136 0.0083

Mercury -94235-10-02 22:18 J -32697635.68 -32697635.57 -32697635.45 0.0135 0.0094

Mercury -94235-12-30 03:06 J -32697547.45 -32697547.37 -32697547.27 0.0135 0.0112

Venus -94234-02-22 04:47 J -32697493.51 -32697493.30 -32697493.07 0.0135 0.0021

Mercury -94234-03-28 08:08 J -32697459.19 -32697459.16 -32697459.11 0.0135 0.0130

Venus -94234-10-06 12:13 J -32697267.19 -32697266.99 -32697266.77 0.0135 0.0040

Venus -94233-05-19 19:25 J -32697040.82 -32697040.69 -32697040.53 0.0135 0.0101

Moon -94215-10-08 07:54 J -32690325.26 -32690325.17 -32690325.08 0.0132 0.0122

Earth -94215-10-08 11:15 J -32690325.08 -32690325.03 -32690324.97 0.0132 0.0128 *

Earth -94214-10-12 11:15 J -32689956.19 -32689956.03 -32689955.84 0.0132 0.0093

Moon -94214-10-12 14:51 J -32689956.03 -32689955.88 -32689955.71 0.0132 0.0100 *

Moon -94213-10-15 08:08 J -32689587.38 -32689587.16 -32689586.92 0.0132 0.0051

Earth -94213-10-15 11:59 J -32689587.22 -32689587.00 -32689586.78 0.0132 0.0058 *

Earth -94212-10-19 11:59 J -32689218.24 -32689218.00 -32689217.75 0.0132 0.0022

Moon -94212-10-19 15:20 J -32689218.10 -32689217.86 -32689217.61 0.0132 0.0027 *

Moon -94211-10-23 08:37 J -32688849.38 -32688849.14 -32688848.89 0.0133 0.0018

Earth -94211-10-23 12:13 J -32688849.23 -32688848.99 -32688848.74 0.0133 0.0015 *

Earth -94210-10-27 12:27 J -32688480.19 -32688479.98 -32688479.74 0.0133 0.0051

Moon -94210-10-27 16:03 J -32688480.05 -32688479.83 -32688479.59 0.0133 0.0049 *

Moon -94209-10-30 09:35 J -32688111.27 -32688111.10 -32688110.90 0.0133 0.0085
 Earth -94209-10-30 12:56 J -32688111.13 -32688110.96 -32688110.75 0.0133 0.0088 *
 Earth -94208-11-03 13:39 J -32687742.00 -32687741.93 -32687741.81 0.0134 0.0124
 Moon -94208-11-03 17:30 J -32687741.83 -32687741.77 -32687741.69 0.0134 0.0128 *
 Mars -94202-12-21 05:01 J -32685503.53 -32685503.29 -32685503.03 0.0137 0.0084
 Mars -94200-11-23 11:59 J -32684800.20 -32684800.00 -32684799.79 0.0138 0.0105
 Mercury -94193-09-29 08:37 J -32682298.19 -32682298.14 -32682298.07 0.0142 0.0130
 Mercury -94193-12-26 13:11 J -32682210.03 -32682209.95 -32682209.85 0.0142 0.0111
 Mercury -94192-03-24 17:44 J -32682121.87 -32682121.76 -32682121.64 0.0142 0.0091
 Mercury -94192-06-20 22:18 J -32682033.69 -32682033.57 -32682033.44 0.0142 0.0072
 Mercury -94192-09-17 02:51 J -32681945.51 -32681945.38 -32681945.24 0.0142 0.0052
 Mercury -94192-12-14 07:39 J -32681857.33 -32681857.18 -32681857.04 0.0142 0.0032
 Mercury -94191-03-12 12:13 J -32681769.14 -32681768.99 -32681768.84 0.0142 0.0013
 Mercury -94191-06-08 17:01 J -32681680.94 -32681680.79 -32681680.64 0.0143 0.0008
 Mercury -94191-09-04 21:49 J -32681592.74 -32681592.59 -32681592.44 0.0143 0.0028
 Mercury -94191-12-02 02:37 J -32681504.53 -32681504.39 -32681504.25 0.0143 0.0049
 Venus -94190-02-11 17:44 J -32681432.91 -32681432.76 -32681432.59 0.0143 0.0094
 Mercury -94190-02-28 07:25 J -32681416.32 -32681416.19 -32681416.06 0.0143 0.0070
 Mercury -94190-05-27 12:13 J -32681328.10 -32681327.99 -32681327.87 0.0143 0.0091
 Mercury -94190-08-23 17:15 J -32681239.87 -32681239.78 -32681239.68 0.0143 0.0112
 Venus -94190-09-26 03:35 J -32681206.56 -32681206.35 -32681206.14 0.0143 0.0024
 Mercury -94190-11-19 22:03 J -32681151.62 -32681151.58 -32681151.52 0.0143 0.0134
 Venus -94189-05-09 13:11 J -32680980.14 -32680979.95 -32680979.74 0.0144 0.0048
 Venus -94189-12-21 23:15 J -32680753.64 -32680753.53 -32680753.40 0.0144 0.0120
 Moon -94173-04-03 01:25 J -32675172.54 -32675172.44 -32675172.29 0.0147 0.0130
 Earth -94173-04-03 05:01 J -32675172.40 -32675172.29 -32675172.16 0.0147 0.0130 *
 Earth -94172-04-08 14:37 J -32674802.10 -32674801.89 -32674801.67 0.0147 0.0079
 Moon -94172-04-08 16:18 J -32674802.03 -32674801.82 -32674801.59 0.0147 0.0073 *
 Moon -94171-04-13 23:01 J -32674431.80 -32674431.54 -32674431.27 0.0146 0.0035
 Earth -94171-04-14 00:27 J -32674431.73 -32674431.48 -32674431.22 0.0146 0.0027 *

Earth -94170-04-19 10:18 J -32674061.32 -32674061.07 -32674060.80 0.0146 0.0025
 Moon -94170-04-19 10:32 J -32674061.30 -32674061.06 -32674060.81 0.0146 0.0030 *
 Earth -94169-04-23 19:54 J -32673690.88 -32673690.67 -32673690.44 0.0146 0.0076
 Moon -94169-04-23 20:51 J -32673690.86 -32673690.63 -32673690.40 0.0146 0.0074 *
 Moon -94168-04-29 03:35 J -32673320.47 -32673320.35 -32673320.20 0.0145 0.0123
 Earth -94168-04-29 05:15 J -32673320.40 -32673320.28 -32673320.14 0.0145 0.0126 *
 Mars -94163-08-14 11:44 J -32671387.09 -32671387.01 -32671386.87 0.0142 0.0133
 Mars -94161-07-16 15:06 J -32670685.13 -32670684.87 -32670684.60 0.0141 0.0063
 Mercury -94153-02-25 18:13 J -32667904.81 -32667904.74 -32667904.65 0.0137 0.0119
 Mercury -94153-05-23 23:59 J -32667816.61 -32667816.50 -32667816.38 0.0137 0.0098
 Mercury -94153-08-20 05:30 J -32667728.40 -32667728.27 -32667728.13 0.0137 0.0078
 Mercury -94153-11-16 11:01 J -32667640.19 -32667640.04 -32667639.89 0.0136 0.0057
 Mercury -94152-02-12 16:32 J -32667551.97 -32667551.81 -32667551.65 0.0136 0.0038
 Mercury -94152-05-11 21:49 J -32667463.75 -32667463.59 -32667463.42 0.0136 0.0018
 Mercury -94152-08-08 03:06 J -32667375.53 -32667375.37 -32667375.20 0.0136 0.0003
 Mercury -94152-11-04 08:23 J -32667287.31 -32667287.15 -32667286.98 0.0136 0.0021
 Mercury -94151-01-31 13:39 J -32667199.09 -32667198.93 -32667198.77 0.0136 0.0040
 Venus -94151-03-10 04:18 J -32667161.44 -32667161.32 -32667161.21 0.0136 0.0115
 Mercury -94151-04-29 18:42 J -32667110.86 -32667110.72 -32667110.57 0.0136 0.0059
 Mercury -94151-07-26 23:59 J -32667022.63 -32667022.50 -32667022.37 0.0136 0.0078
 Venus -94151-10-22 11:59 J -32666935.19 -32666935.00 -32666934.79 0.0135 0.0053
 Mercury -94151-10-23 04:47 J -32666934.40 -32666934.30 -32666934.18 0.0135 0.0097
 Mercury -94150-01-19 10:03 J -32666846.16 -32666846.08 -32666846.00 0.0135 0.0115
 Mercury -94150-04-17 14:37 J -32666757.90 -32666757.89 -32666757.85 0.0135 0.0133
 Venus -94150-06-05 19:54 J -32666708.89 -32666708.67 -32666708.45 0.0135 0.0009
 Venus -94149-01-18 03:06 J -32666482.55 -32666482.37 -32666482.17 0.0135 0.0070
 Venus -94149-08-31 10:18 J -32666256.12 -32666256.07 -32666256.01 0.0135 0.0130
 Moon -94131-10-08 16:03 J -32659643.83 -32659643.83 -32659643.80 0.0132 0.0132
 Earth -94131-10-08 19:39 J -32659643.74 -32659643.68 -32659643.59 0.0132 0.0125
 Earth -94130-10-12 20:08 J -32659274.83 -32659274.66 -32659274.47 0.0132 0.0090

Moon	-94130-10-12 23:30 J	-32659274.70	-32659274.52	-32659274.31	0.0132	0.0083	*
Moon	-94129-10-15 17:15 J	-32658905.99	-32658905.78	-32658905.56	0.0132	0.0061	
Earth	-94129-10-15 20:23 J	-32658905.86	-32658905.65	-32658905.41	0.0132	0.0055	*
Earth	-94128-10-19 20:51 J	-32658536.87	-32658536.63	-32658536.38	0.0132	0.0020	
Moon	-94128-10-20 00:27 J	-32658536.72	-32658536.48	-32658536.23	0.0132	0.0014	*
Moon	-94127-10-23 18:13 J	-32658167.98	-32658167.74	-32658167.50	0.0133	0.0012	
Earth	-94127-10-23 21:20 J	-32658167.85	-32658167.61	-32658167.36	0.0133	0.0017	*
Earth	-94126-10-27 21:20 J	-32657798.82	-32657798.61	-32657798.37	0.0133	0.0053	
Moon	-94126-10-28 01:11 J	-32657798.68	-32657798.45	-32657798.22	0.0133	0.0052	*
Moon	-94125-10-30 18:56 J	-32657429.88	-32657429.71	-32657429.52	0.0133	0.0090	
Earth	-94125-10-30 22:18 J	-32657429.74	-32657429.57	-32657429.38	0.0133	0.0089	*
Earth	-94124-11-03 23:01 J	-32657060.60	-32657060.54	-32657060.43	0.0134	0.0125	
Moon	-94124-11-04 02:37 J	-32657060.49	-32657060.39	-32657060.28	0.0134	0.0120	*
Mars	-94117-08-15 08:08 J	-32654584.47	-32654584.16	-32654583.83	0.0137	0.0016	
Mercury	-94109-10-19 15:49 J	-32651596.90	-32651596.84	-32651596.77	0.0142	0.0126	
Mercury	-94108-01-15 20:08 J	-32651508.75	-32651508.66	-32651508.56	0.0142	0.0107	
Mercury	-94108-04-14 00:42 J	-32651420.58	-32651420.47	-32651420.35	0.0142	0.0088	
Mercury	-94108-07-11 05:15 J	-32651332.40	-32651332.28	-32651332.14	0.0142	0.0069	
Mercury	-94108-10-07 09:49 J	-32651244.22	-32651244.09	-32651243.94	0.0142	0.0049	
Mercury	-94107-01-03 14:37 J	-32651156.04	-32651155.89	-32651155.74	0.0142	0.0029	
Mercury	-94107-04-01 19:11 J	-32651067.85	-32651067.70	-32651067.55	0.0142	0.0010	
Mercury	-94107-06-28 23:59 J	-32650979.65	-32650979.50	-32650979.35	0.0143	0.0012	
Mercury	-94107-09-25 04:47 J	-32650891.45	-32650891.30	-32650891.15	0.0143	0.0032	
Venus	-94107-10-12 00:42 J	-32650874.54	-32650874.47	-32650874.37	0.0143	0.0130	
Mercury	-94107-12-22 09:35 J	-32650803.24	-32650803.10	-32650802.96	0.0143	0.0053	
Mercury	-94106-03-20 14:23 J	-32650715.03	-32650714.90	-32650714.77	0.0143	0.0074	
Venus	-94106-05-26 10:32 J	-32650648.26	-32650648.06	-32650647.87	0.0143	0.0060	
Mercury	-94106-06-16 19:11 J	-32650626.81	-32650626.70	-32650626.58	0.0143	0.0095	
Mercury	-94106-09-13 00:13 J	-32650538.57	-32650538.49	-32650538.40	0.0143	0.0116	
Mercury	-94106-12-10 05:15 J	-32650450.32	-32650450.28	-32650450.24	0.0143	0.0138	

Venus	-94105-01-07 19:54 J	-32650421.88	-32650421.67	-32650421.45	0.0143	0.0012
Venus	-94105-08-21 05:44 J	-32650195.43	-32650195.26	-32650195.08	0.0144	0.0083
Moon	-94089-04-03 09:20 J	-32644491.23	-32644491.11	-32644490.97	0.0147	0.0126
Earth	-94089-04-03 12:27 J	-32644491.10	-32644490.98	-32644490.84	0.0147	0.0127 *
Earth	-94088-04-08 22:18 J	-32644120.79	-32644120.57	-32644120.35	0.0147	0.0076
Moon	-94088-04-09 01:11 J	-32644120.66	-32644120.45	-32644120.24	0.0147	0.0081 *
Moon	-94087-04-14 05:59 J	-32643750.51	-32643750.25	-32643749.98	0.0146	0.0018
Earth	-94087-04-14 07:54 J	-32643750.42	-32643750.17	-32643749.91	0.0146	0.0025 *
Earth	-94086-04-19 17:30 J	-32643380.02	-32643379.77	-32643379.50	0.0146	0.0027
Moon	-94086-04-19 18:42 J	-32643379.97	-32643379.72	-32643379.47	0.0146	0.0020 *
Moon	-94085-04-24 02:51 J	-32643009.59	-32643009.38	-32643009.14	0.0146	0.0080
Earth	-94085-04-24 02:51 J	-32643009.58	-32643009.38	-32643009.14	0.0146	0.0078 *
Moon	-94084-04-29 11:01 J	-32642639.13	-32642639.04	-32642638.91	0.0145	0.0131
Earth	-94084-04-29 12:13 J	-32642639.10	-32642638.99	-32642638.85	0.0145	0.0127 *
Mars	-94078-04-09 13:11 J	-32640468.20	-32640467.95	-32640467.66	0.0142	0.0060
Mars	-94076-03-11 11:01 J	-32639766.13	-32639766.04	-32639765.91	0.0141	0.0130
Mercury	-94070-12-19 19:25 J	-32637291.70	-32637291.69	-32637291.67	0.0137	0.0136
Mercury	-94069-03-17 01:11 J	-32637203.54	-32637203.45	-32637203.36	0.0137	0.0115
Mercury	-94069-06-13 06:42 J	-32637115.34	-32637115.22	-32637115.10	0.0137	0.0095
Mercury	-94069-09-09 12:13 J	-32637027.13	-32637026.99	-32637026.85	0.0137	0.0075
Mercury	-94069-12-06 17:44 J	-32636938.91	-32636938.76	-32636938.61	0.0136	0.0054
Mercury	-94068-03-04 23:15 J	-32636850.69	-32636850.53	-32636850.37	0.0136	0.0034
Mercury	-94068-06-01 04:32 J	-32636762.47	-32636762.31	-32636762.14	0.0136	0.0015
Mercury	-94068-08-28 09:49 J	-32636674.25	-32636674.09	-32636673.92	0.0136	0.0006
Mercury	-94068-11-24 15:06 J	-32636586.03	-32636585.87	-32636585.70	0.0136	0.0025
Mercury	-94067-02-20 20:23 J	-32636497.80	-32636497.65	-32636497.49	0.0136	0.0043
Mercury	-94067-05-20 01:25 J	-32636409.58	-32636409.44	-32636409.29	0.0136	0.0063
Venus	-94067-06-21 19:25 J	-32636376.85	-32636376.69	-32636376.50	0.0136	0.0085
Mercury	-94067-08-16 06:42 J	-32636321.35	-32636321.22	-32636321.09	0.0136	0.0081
Mercury	-94067-11-12 11:44 J	-32636233.12	-32636233.01	-32636232.90	0.0135	0.0100

Venus -94066-02-03 03:20 J -32636150.57 -32636150.36 -32636150.13 0.0135 0.0023

Mercury -94066-02-08 16:47 J -32636144.88 -32636144.80 -32636144.72 0.0135 0.0118

Venus -94066-09-17 11:01 J -32635924.25 -32635924.04 -32635923.83 0.0135 0.0039

Venus -94065-04-30 18:13 J -32635697.87 -32635697.74 -32635697.58 0.0135 0.0100

Moon -94047-10-09 01:25 J -32628962.53 -32628962.44 -32628962.31 0.0132 0.0117

Earth -94047-10-09 04:47 J -32628962.38 -32628962.30 -32628962.20 0.0132 0.0122 *

Earth -94046-10-13 05:15 J -32628593.46 -32628593.28 -32628593.09 0.0132 0.0087

Moon -94046-10-13 08:23 J -32628593.32 -32628593.15 -32628592.97 0.0132 0.0094 *

Moon -94045-10-16 02:23 J -32628224.63 -32628224.40 -32628224.17 0.0132 0.0046

Earth -94045-10-16 05:30 J -32628224.49 -32628224.27 -32628224.03 0.0132 0.0053 *

Earth -94044-10-20 05:59 J -32627855.49 -32627855.25 -32627855.00 0.0132 0.0017

Moon -94044-10-20 08:51 J -32627855.37 -32627855.13 -32627854.87 0.0132 0.0024 *

Moon -94043-10-24 03:06 J -32627486.61 -32627486.37 -32627486.12 0.0133 0.0022

Earth -94043-10-24 06:27 J -32627486.47 -32627486.23 -32627485.98 0.0133 0.0018 *

Earth -94042-10-28 06:56 J -32627117.43 -32627117.21 -32627116.98 0.0133 0.0054

Moon -94042-10-28 09:49 J -32627117.31 -32627117.09 -32627116.85 0.0133 0.0052 *

Moon -94041-10-31 04:47 J -32626748.47 -32626748.30 -32626748.11 0.0133 0.0089

Earth -94041-10-31 07:39 J -32626748.35 -32626748.18 -32626747.99 0.0133 0.0090 *

Earth -94040-11-04 08:37 J -32626379.20 -32626379.14 -32626379.04 0.0134 0.0126

Moon -94040-11-04 11:44 J -32626379.05 -32626379.01 -32626378.93 0.0134 0.0130 *

Mars -94034-05-08 11:30 J -32624368.09 -32624368.02 -32624367.91 0.0136 0.0131

Mars -94032-04-10 11:59 J -32623665.28 -32623665.00 -32623664.69 0.0137 0.0054

Mercury -94025-08-12 18:27 J -32620983.74 -32620983.73 -32620983.72 0.0142 0.0141

Mercury -94025-11-08 22:47 J -32620895.62 -32620895.55 -32620895.47 0.0142 0.0122

Mercury -94024-02-05 03:06 J -32620807.46 -32620807.37 -32620807.26 0.0142 0.0104

Mercury -94024-05-04 07:54 J -32620719.29 -32620719.17 -32620719.05 0.0142 0.0084

Mercury -94024-07-31 12:13 J -32620631.11 -32620630.99 -32620630.85 0.0142 0.0065

Mercury -94024-10-27 17:01 J -32620542.93 -32620542.79 -32620542.65 0.0142 0.0045

Mercury -94023-01-23 21:35 J -32620454.75 -32620454.60 -32620454.45 0.0142 0.0025

Mercury -94023-04-22 02:23 J -32620366.55 -32620366.40 -32620366.26 0.0142 0.0007

Mercury	-94023-07-19 06:56 J	-32620278.36	-32620278.21	-32620278.06	0.0143	0.0015
Mercury	-94023-10-15 11:44 J	-32620190.15	-32620190.01	-32620189.86	0.0143	0.0036
Mercury	-94022-01-11 16:32 J	-32620101.95	-32620101.81	-32620101.67	0.0143	0.0056
Venus	-94022-01-23 17:15 J	-32620089.94	-32620089.78	-32620089.62	0.0143	0.0095
Mercury	-94022-04-09 21:20 J	-32620013.73	-32620013.61	-32620013.48	0.0143	0.0077
Mercury	-94022-07-07 02:08 J	-32619925.51	-32619925.41	-32619925.29	0.0143	0.0099
Venus	-94022-09-07 02:37 J	-32619863.60	-32619863.39	-32619863.17	0.0143	0.0025
Mercury	-94022-10-03 07:11 J	-32619837.28	-32619837.20	-32619837.11	0.0143	0.0120
Mercury	-94022-12-30 11:59 J	-32619749.01	-32619749.00	-32619748.96	0.0143	0.0142
Venus	-94021-04-20 12:13 J	-32619637.18	-32619636.99	-32619636.78	0.0144	0.0047
Venus	-94021-12-02 22:32 J	-32619410.68	-32619410.56	-32619410.44	0.0144	0.0118
Moon	-94005-04-03 16:18 J	-32613809.94	-32613809.82	-32613809.66	0.0147	0.0123
Earth	-94005-04-03 20:23 J	-32613809.78	-32613809.65	-32613809.50	0.0147	0.0124 *
Earth	-94004-04-09 05:30 J	-32613439.48	-32613439.27	-32613439.03	0.0147	0.0074
Moon	-94004-04-09 08:51 J	-32613439.35	-32613439.13	-32613438.90	0.0147	0.0069 *
Moon	-94003-04-14 12:42 J	-32613069.23	-32613068.97	-32613068.70	0.0146	0.0031
Earth	-94003-04-14 15:35 J	-32613069.11	-32613068.85	-32613068.59	0.0146	0.0023 *
Earth	-94002-04-20 01:11 J	-32612698.70	-32612698.45	-32612698.19	0.0146	0.0028
Moon	-94002-04-20 02:51 J	-32612698.62	-32612698.38	-32612698.12	0.0146	0.0035 *
Moon	-94001-04-24 10:03 J	-32612328.31	-32612328.08	-32612327.85	0.0146	0.0076
Earth	-94001-04-24 10:32 J	-32612328.27	-32612328.06	-32612327.83	0.0146	0.0079 *

94TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 94th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-94000-04-29 19:54 J	-32611957.78	-32611957.67	-32611957.54	0.0145	0.0128		
Moon	-94000-04-29 19:54 J	-32611957.77	-32611957.67	-32611957.53	0.0145	0.0127	*	
Mars	-93994-12-03 11:44 J	-32609549.31	-32609549.01	-32609548.71	0.0142	0.0010		
Mercury	-93985-01-09 01:39 J	-32606590.45	-32606590.43	-32606590.38	0.0137	0.0134		
Mercury	-93985-04-06 07:25 J	-32606502.27	-32606502.19	-32606502.08	0.0137	0.0113		
Mercury	-93985-07-03 12:56 J	-32606414.07	-32606413.96	-32606413.82	0.0137	0.0093		
Mercury	-93985-09-29 18:56 J	-32606325.85	-32606325.71	-32606325.57	0.0137	0.0072		
Mercury	-93985-12-27 00:27 J	-32606237.64	-32606237.48	-32606237.33	0.0136	0.0052		
Mercury	-93984-03-25 05:44 J	-32606149.42	-32606149.26	-32606149.10	0.0136	0.0032		
Mercury	-93984-06-21 11:15 J	-32606061.20	-32606061.03	-32606060.87	0.0136	0.0012		
Mercury	-93984-09-17 16:32 J	-32605972.98	-32605972.81	-32605972.65	0.0136	0.0008		
Mercury	-93984-12-14 21:49 J	-32605884.75	-32605884.59	-32605884.43	0.0136	0.0027		
Venus	-93983-02-19 02:23 J	-32605818.50	-32605818.40	-32605818.28	0.0136	0.0117		
Mercury	-93983-03-13 02:51 J	-32605796.53	-32605796.38	-32605796.22	0.0136	0.0046		
Mercury	-93983-06-09 08:08 J	-32605708.30	-32605708.16	-32605708.01	0.0136	0.0065		
Mercury	-93983-09-05 13:11 J	-32605620.07	-32605619.95	-32605619.82	0.0136	0.0084		
Venus	-93983-10-03 10:18 J	-32605592.26	-32605592.07	-32605591.86	0.0135	0.0055		
Mercury	-93983-12-02 18:13 J	-32605531.84	-32605531.74	-32605531.63	0.0135	0.0102		
Mercury	-93982-02-28 23:15 J	-32605443.59	-32605443.53	-32605443.45	0.0135	0.0120		
Venus	-93982-05-17 18:27 J	-32605365.95	-32605365.73	-32605365.51	0.0135	0.0007		
Venus	-93982-12-30 01:25 J	-32605139.61	-32605139.44	-32605139.23	0.0135	0.0069		
Venus	-93981-08-12 08:37 J	-32604913.18	-32604913.14	-32604913.06	0.0135	0.0129		
Moon	-93963-10-09 09:20 J	-32598281.16	-32598281.11	-32598281.01	0.0132	0.0126		
Earth	-93963-10-09 12:27 J	-32598281.06	-32598280.98	-32598280.86	0.0132	0.0120	*	
Earth	-93962-10-13 13:25 J	-32597912.13	-32597911.94	-32597911.75	0.0132	0.0085		
Moon	-93962-10-13 16:18 J	-32597912.02	-32597911.82	-32597911.61	0.0132	0.0078	*	
Moon	-93961-10-16 11:15 J	-32597543.24	-32597543.03	-32597542.81	0.0132	0.0057		

Earth	-93961-10-16 13:54 J	-32597543.14	-32597542.92	-32597542.69	0.0132	0.0051	*
Earth	-93960-10-20 14:23 J	-32597174.15	-32597173.90	-32597173.65	0.0132	0.0015	
Moon	-93960-10-20 17:30 J	-32597174.02	-32597173.77	-32597173.52	0.0132	0.0010	*
Moon	-93959-10-24 12:27 J	-32596805.22	-32596804.98	-32596804.74	0.0133	0.0015	
Earth	-93959-10-24 14:51 J	-32596805.12	-32596804.88	-32596804.63	0.0133	0.0020	*
Earth	-93958-10-28 15:20 J	-32596436.07	-32596435.86	-32596435.62	0.0133	0.0056	
Moon	-93958-10-28 18:27 J	-32596435.96	-32596435.73	-32596435.50	0.0133	0.0056	*
Moon	-93957-10-31 13:54 J	-32596067.09	-32596066.92	-32596066.74	0.0133	0.0092	
Earth	-93957-10-31 16:18 J	-32596066.98	-32596066.82	-32596066.63	0.0133	0.0091	*
Earth	-93956-11-04 17:30 J	-32595697.83	-32595697.77	-32595697.68	0.0134	0.0127	
Moon	-93956-11-04 20:08 J	-32595697.75	-32595697.66	-32595697.56	0.0134	0.0123	*
Mars	-93949-01-01 11:44 J	-32593449.28	-32593449.01	-32593448.72	0.0137	0.0065	
Mars	-93948-12-04 16:03 J	-32592745.97	-32592745.83	-32592745.68	0.0138	0.0122	
Mercury	-93941-09-02 01:25 J	-32590282.47	-32590282.44	-32590282.41	0.0142	0.0138	
Mercury	-93941-11-29 05:30 J	-32590194.33	-32590194.27	-32590194.18	0.0142	0.0120	
Mercury	-93940-02-25 10:18 J	-32590106.17	-32590106.07	-32590105.97	0.0142	0.0100	
Mercury	-93940-05-24 14:37 J	-32590018.00	-32590017.89	-32590017.76	0.0142	0.0081	
Mercury	-93940-08-20 19:11 J	-32589929.83	-32589929.70	-32589929.56	0.0142	0.0062	
Mercury	-93940-11-16 23:44 J	-32589841.64	-32589841.51	-32589841.36	0.0142	0.0042	
Mercury	-93939-02-13 04:32 J	-32589753.46	-32589753.31	-32589753.16	0.0142	0.0022	
Mercury	-93939-05-12 09:06 J	-32589665.27	-32589665.12	-32589664.97	0.0143	0.0004	
Mercury	-93939-08-08 13:54 J	-32589577.07	-32589576.92	-32589576.77	0.0143	0.0018	
Venus	-93939-09-22 23:59 J	-32589531.57	-32589531.50	-32589531.41	0.0143	0.0131	
Mercury	-93939-11-04 18:42 J	-32589488.87	-32589488.72	-32589488.58	0.0143	0.0039	
Mercury	-93938-01-31 23:15 J	-32589400.66	-32589400.53	-32589400.38	0.0143	0.0060	
Mercury	-93938-04-30 04:18 J	-32589312.44	-32589312.32	-32589312.19	0.0143	0.0081	
Venus	-93938-05-07 09:20 J	-32589305.30	-32589305.11	-32589304.91	0.0143	0.0061	
Mercury	-93938-07-27 08:51 J	-32589224.22	-32589224.13	-32589224.01	0.0143	0.0103	
Mercury	-93938-10-23 13:54 J	-32589135.98	-32589135.92	-32589135.83	0.0143	0.0123	
Venus	-93938-12-19 18:56 J	-32589078.92	-32589078.71	-32589078.49	0.0143	0.0010	

Venus	-93937-08-02 04:47 J	-32588852.47	-32588852.30	-32588852.12	0.0144	0.0081
Moon	-93921-04-04 00:13 J	-32583128.63	-32583128.49	-32583128.35	0.0147	0.0122
Earth	-93921-04-04 03:35 J	-32583128.49	-32583128.35	-32583128.20	0.0147	0.0121 *
Earth	-93920-04-09 12:42 J	-32582758.18	-32582757.97	-32582757.73	0.0147	0.0072
Moon	-93920-04-09 16:47 J	-32582758.02	-32582757.80	-32582757.58	0.0147	0.0076 *
Moon	-93919-04-14 19:25 J	-32582387.95	-32582387.69	-32582387.42	0.0146	0.0014
Earth	-93919-04-14 22:32 J	-32582387.81	-32582387.56	-32582387.29	0.0146	0.0021 *
Earth	-93918-04-20 08:08 J	-32582017.41	-32582017.16	-32582016.90	0.0146	0.0030
Moon	-93918-04-20 10:32 J	-32582017.31	-32582017.06	-32582016.81	0.0146	0.0023 *
Moon	-93917-04-24 15:49 J	-32581647.05	-32581646.84	-32581646.61	0.0146	0.0084
Earth	-93917-04-24 17:44 J	-32581646.97	-32581646.76	-32581646.53	0.0146	0.0080 *
Earth	-93916-04-30 02:51 J	-32581276.47	-32581276.38	-32581276.24	0.0145	0.0130
Moon	-93916-04-30 03:49 J	-32581276.44	-32581276.34	-32581276.24	0.0145	0.0132 *
Mars	-93911-08-26 04:03 J	-32579332.49	-32579332.33	-32579332.13	0.0142	0.0115
Mars	-93909-07-28 07:25 J	-32578630.44	-32578630.19	-32578629.95	0.0141	0.0078
Mercury	-93901-01-29 08:23 J	-32575889.18	-32575889.15	-32575889.09	0.0137	0.0131
Mercury	-93901-04-26 14:08 J	-32575801.00	-32575800.91	-32575800.80	0.0137	0.0110
Mercury	-93901-07-23 19:39 J	-32575712.79	-32575712.68	-32575712.54	0.0137	0.0090
Mercury	-93901-10-20 01:11 J	-32575624.58	-32575624.45	-32575624.29	0.0136	0.0070
Mercury	-93900-01-16 06:56 J	-32575536.36	-32575536.21	-32575536.05	0.0136	0.0049
Mercury	-93900-04-14 12:27 J	-32575448.14	-32575447.98	-32575447.82	0.0136	0.0029
Mercury	-93900-07-11 17:44 J	-32575359.92	-32575359.76	-32575359.59	0.0136	0.0010
Mercury	-93900-10-07 23:01 J	-32575271.70	-32575271.54	-32575271.37	0.0136	0.0011
Mercury	-93899-01-04 04:18 J	-32575183.47	-32575183.32	-32575183.15	0.0136	0.0030
Mercury	-93899-04-02 09:35 J	-32575095.25	-32575095.10	-32575094.94	0.0136	0.0049
Venus	-93899-06-02 17:44 J	-32575033.93	-32575033.76	-32575033.59	0.0136	0.0087
Mercury	-93899-06-29 14:37 J	-32575007.02	-32575006.89	-32575006.74	0.0136	0.0068
Mercury	-93899-09-25 19:39 J	-32574918.79	-32574918.68	-32574918.54	0.0135	0.0087
Mercury	-93899-12-23 00:56 J	-32574830.56	-32574830.46	-32574830.35	0.0135	0.0105
Venus	-93898-01-15 01:39 J	-32574807.65	-32574807.43	-32574807.21	0.0135	0.0025

Mercury -93898-03-21 05:44 J -32574742.31 -32574742.26 -32574742.18 0.0135 0.0123
 Venus -93898-08-29 09:06 J -32574581.32 -32574581.12 -32574580.90 0.0135 0.0037
 Venus -93897-04-11 16:18 J -32574354.96 -32574354.82 -32574354.65 0.0135 0.0098
 Moon -93879-10-09 19:11 J -32567599.82 -32567599.70 -32567599.57 0.0132 0.0112
 Earth -93879-10-09 21:20 J -32567599.71 -32567599.61 -32567599.49 0.0132 0.0117 *
 Earth -93878-10-13 21:49 J -32567230.77 -32567230.59 -32567230.39 0.0132 0.0083
 Moon -93878-10-14 00:13 J -32567230.67 -32567230.49 -32567230.29 0.0132 0.0089 *
 Moon -93877-10-16 20:08 J -32566861.89 -32566861.66 -32566861.43 0.0132 0.0041
 Earth -93877-10-16 22:32 J -32566861.78 -32566861.56 -32566861.32 0.0132 0.0048 *
 Earth -93876-10-20 23:01 J -32566492.78 -32566492.54 -32566492.29 0.0132 0.0014
 Moon -93876-10-21 01:11 J -32566492.70 -32566492.45 -32566492.20 0.0132 0.0020 *
 Moon -93875-10-24 21:20 J -32566123.84 -32566123.61 -32566123.37 0.0133 0.0026
 Earth -93875-10-24 23:44 J -32566123.75 -32566123.51 -32566123.27 0.0133 0.0022 *
 Earth -93874-10-29 00:13 J -32565754.70 -32565754.49 -32565754.26 0.0133 0.0057
 Moon -93874-10-29 02:37 J -32565754.62 -32565754.39 -32565754.16 0.0133 0.0054 *
 Moon -93873-10-31 23:15 J -32565385.68 -32565385.53 -32565385.34 0.0133 0.0093
 Earth -93873-11-01 01:11 J -32565385.61 -32565385.45 -32565385.25 0.0133 0.0092 *
 Earth -93872-11-05 02:23 J -32565016.46 -32565016.40 -32565016.31 0.0134 0.0127
 Moon -93872-11-05 04:18 J -32565016.34 -32565016.32 -32565016.24 0.0134 0.0131 *
 Mars -93865-08-26 11:44 J -32562530.32 -32562530.01 -32562529.69 0.0137 0.0002
 Mercury -93857-09-22 07:54 J -32559581.19 -32559581.17 -32559581.12 0.0142 0.0136
 Mercury -93857-12-19 12:27 J -32559493.05 -32559492.98 -32559492.89 0.0142 0.0117
 Mercury -93856-03-17 17:01 J -32559404.89 -32559404.79 -32559404.68 0.0142 0.0098
 Mercury -93856-06-13 21:35 J -32559316.72 -32559316.60 -32559316.48 0.0142 0.0078
 Mercury -93856-09-10 01:54 J -32559228.54 -32559228.42 -32559228.28 0.0142 0.0060
 Mercury -93856-12-07 06:42 J -32559140.36 -32559140.22 -32559140.08 0.0142 0.0039
 Mercury -93855-03-05 11:15 J -32559052.18 -32559052.03 -32559051.88 0.0142 0.0020
 Mercury -93855-06-01 16:03 J -32558963.98 -32558963.83 -32558963.68 0.0143 0.0003
 Mercury -93855-08-28 20:37 J -32558875.79 -32558875.64 -32558875.49 0.0143 0.0021
 Mercury -93855-11-25 01:25 J -32558787.58 -32558787.44 -32558787.30 0.0143 0.0041

Venus -93854-01-04 15:49 J -32558746.99 -32558746.84 -32558746.68 0.0143 0.0098

Mercury -93854-02-21 06:13 J -32558699.37 -32558699.24 -32558699.10 0.0143 0.0062

Mercury -93854-05-20 11:01 J -32558611.16 -32558611.04 -32558610.91 0.0143 0.0083

Mercury -93854-08-16 15:49 J -32558522.94 -32558522.84 -32558522.73 0.0143 0.0105

Venus -93854-08-19 01:11 J -32558520.66 -32558520.45 -32558520.24 0.0143 0.0028

Mercury -93854-11-12 20:51 J -32558434.70 -32558434.63 -32558434.56 0.0143 0.0126

Venus -93853-04-01 10:47 J -32558294.25 -32558294.05 -32558293.84 0.0144 0.0043

Venus -93853-11-13 20:51 J -32558067.75 -32558067.63 -32558067.50 0.0144 0.0115

Moon -93837-04-04 07:11 J -32552447.33 -32552447.20 -32552447.02 0.0147 0.0117

Earth -93837-04-04 11:15 J -32552447.17 -32552447.03 -32552446.87 0.0147 0.0118 *

Earth -93836-04-09 20:23 J -32552076.87 -32552076.65 -32552076.41 0.0147 0.0069

Moon -93836-04-09 23:59 J -32552076.72 -32552076.50 -32552076.25 0.0147 0.0066 *

Moon -93835-04-15 02:37 J -32551706.64 -32551706.39 -32551706.12 0.0146 0.0027

Earth -93835-04-15 06:27 J -32551706.49 -32551706.23 -32551705.97 0.0146 0.0018 *

Earth -93834-04-20 15:49 J -32551336.09 -32551335.84 -32551335.58 0.0146 0.0032

Moon -93834-04-20 19:11 J -32551335.95 -32551335.70 -32551335.45 0.0146 0.0039 *

Moon -93833-04-24 23:01 J -32550965.75 -32550965.54 -32550965.30 0.0146 0.0078

Earth -93833-04-25 01:11 J -32550965.65 -32550965.45 -32550965.22 0.0146 0.0082 *

Earth -93832-04-30 10:32 J -32550595.15 -32550595.06 -32550594.92 0.0145 0.0130

Moon -93832-04-30 12:56 J -32550595.08 -32550594.96 -32550594.85 0.0145 0.0130 *

Mars -93826-04-21 04:18 J -32548413.60 -32548413.32 -32548413.03 0.0142 0.0044

Mercury -93817-02-18 15:06 J -32545187.92 -32545187.87 -32545187.81 0.0137 0.0128

Mercury -93817-05-16 20:37 J -32545099.73 -32545099.64 -32545099.53 0.0137 0.0108

Mercury -93817-08-13 02:23 J -32545011.52 -32545011.40 -32545011.27 0.0137 0.0087

Mercury -93817-11-09 07:54 J -32544923.31 -32544923.17 -32544923.02 0.0136 0.0067

Mercury -93816-02-05 13:25 J -32544835.09 -32544834.94 -32544834.78 0.0136 0.0047

Mercury -93816-05-04 18:56 J -32544746.87 -32544746.71 -32544746.54 0.0136 0.0027

Mercury -93816-08-01 00:27 J -32544658.65 -32544658.48 -32544658.32 0.0136 0.0007

Mercury -93816-10-28 05:44 J -32544570.43 -32544570.26 -32544570.10 0.0136 0.0013

Mercury -93815-01-24 11:01 J -32544482.20 -32544482.04 -32544481.88 0.0136 0.0032

Venus -93815-01-31 00:13 J -32544475.58 -32544475.49 -32544475.38 0.0136 0.0120
 Mercury -93815-04-22 16:18 J -32544393.97 -32544393.82 -32544393.67 0.0136 0.0051
 Mercury -93815-07-19 21:20 J -32544305.75 -32544305.61 -32544305.47 0.0136 0.0070
 Venus -93815-09-14 08:08 J -32544249.34 -32544249.16 -32544248.94 0.0136 0.0058
 Mercury -93815-10-16 02:23 J -32544217.52 -32544217.40 -32544217.27 0.0135 0.0089
 Mercury -93814-01-12 07:39 J -32544129.28 -32544129.18 -32544129.08 0.0135 0.0107
 Mercury -93814-04-10 12:27 J -32544041.03 -32544040.98 -32544040.91 0.0135 0.0125
 Venus -93814-04-28 16:18 J -32544023.04 -32544022.82 -32544022.59 0.0135 0.0005
 Venus -93814-12-10 23:44 J -32543796.70 -32543796.51 -32543796.31 0.0135 0.0066
 Venus -93813-07-24 06:27 J -32543570.28 -32543570.23 -32543570.14 0.0135 0.0127
 Jupiter -93804-07-12 15:20 J -32540295.29 -32540294.86 -32540294.37 0.0132 0.0051
 Moon -93795-10-10 03:35 J -32536918.45 -32536918.35 -32536918.24 0.0132 0.0119
 Earth -93795-10-10 05:30 J -32536918.39 -32536918.27 -32536918.15 0.0132 0.0114 *
 Earth -93794-10-14 05:44 J -32536549.44 -32536549.26 -32536549.05 0.0132 0.0081
 Moon -93794-10-14 07:54 J -32536549.37 -32536549.17 -32536548.94 0.0132 0.0074 *
 Moon -93793-10-17 05:01 J -32536180.49 -32536180.29 -32536180.05 0.0132 0.0054
 Earth -93793-10-17 06:42 J -32536180.45 -32536180.22 -32536179.98 0.0132 0.0046 *
 Earth -93792-10-21 07:25 J -32535811.44 -32535811.19 -32535810.95 0.0132 0.0012
 Moon -93792-10-21 09:20 J -32535811.37 -32535811.11 -32535810.86 0.0132 0.0006 *
 Moon -93791-10-25 06:42 J -32535442.46 -32535442.22 -32535441.98 0.0133 0.0018
 Earth -93791-10-25 07:54 J -32535442.41 -32535442.17 -32535441.92 0.0133 0.0024 *
 Earth -93790-10-29 08:51 J -32535073.35 -32535073.13 -32535072.90 0.0133 0.0058
 Moon -93790-10-29 10:32 J -32535073.29 -32535073.06 -32535072.84 0.0133 0.0060 *
 Moon -93789-11-01 08:08 J -32534704.32 -32534704.16 -32534703.98 0.0133 0.0093
 Earth -93789-11-01 09:35 J -32534704.26 -32534704.10 -32534703.91 0.0133 0.0093 *
 Earth -93788-11-05 10:47 J -32534335.11 -32534335.05 -32534334.97 0.0134 0.0128
 Moon -93788-11-05 11:44 J -32534335.08 -32534335.01 -32534334.91 0.0134 0.0126 *
 Mars -93782-05-19 14:08 J -32532314.07 -32532313.91 -32532313.72 0.0136 0.0114
 Mars -93780-04-21 11:59 J -32531611.26 -32531611.00 -32531610.70 0.0137 0.0069
 Mercury -93773-10-12 14:51 J -32528879.92 -32528879.88 -32528879.83 0.0142 0.0133

Mercury -93772-01-08 19:25 J -32528791.77 -32528791.69 -32528791.60 0.0142 0.0114

Mercury -93772-04-06 23:44 J -32528703.61 -32528703.51 -32528703.40 0.0142 0.0095

Mercury -93772-07-04 04:18 J -32528615.44 -32528615.32 -32528615.19 0.0142 0.0076

Mercury -93772-09-30 08:51 J -32528527.26 -32528527.13 -32528526.99 0.0142 0.0056

Mercury -93772-12-27 13:25 J -32528439.08 -32528438.94 -32528438.80 0.0142 0.0037

Mercury -93771-03-25 17:59 J -32528350.89 -32528350.75 -32528350.60 0.0142 0.0017

Mercury -93771-06-21 22:47 J -32528262.70 -32528262.55 -32528262.40 0.0143 0.0004

Venus -93771-09-03 22:03 J -32528188.64 -32528188.58 -32528188.50 0.0143 0.0135

Mercury -93771-09-18 03:20 J -32528174.50 -32528174.36 -32528174.21 0.0143 0.0024

Mercury -93771-12-15 08:08 J -32528086.30 -32528086.16 -32528086.02 0.0143 0.0044

Mercury -93770-03-13 12:56 J -32527998.09 -32527997.96 -32527997.82 0.0143 0.0065

Venus -93770-04-18 07:11 J -32527962.38 -32527962.20 -32527962.00 0.0143 0.0065

Mercury -93770-06-09 17:30 J -32527909.88 -32527909.77 -32527909.64 0.0143 0.0087

Mercury -93770-09-05 22:32 J -32527821.65 -32527821.56 -32527821.45 0.0143 0.0107

Venus -93770-11-30 17:01 J -32527736.00 -32527735.79 -32527735.58 0.0143 0.0006

Mercury -93770-12-03 03:20 J -32527733.41 -32527733.36 -32527733.28 0.0143 0.0129

Venus -93769-07-14 02:37 J -32527509.57 -32527509.39 -32527509.20 0.0144 0.0077

Moon -93753-04-04 15:20 J -32521765.99 -32521765.86 -32521765.69 0.0147 0.0118

Earth -93753-04-04 18:42 J -32521765.87 -32521765.72 -32521765.55 0.0147 0.0115 *

Earth -93752-04-10 04:03 J -32521395.55 -32521395.33 -32521395.09 0.0147 0.0066

Moon -93752-04-10 07:54 J -32521395.39 -32521395.17 -32521394.93 0.0147 0.0070 *

Moon -93751-04-15 10:18 J -32521025.33 -32521025.07 -32521024.81 0.0146 0.0010

Earth -93751-04-15 13:54 J -32521025.17 -32521024.92 -32521024.65 0.0146 0.0016 *

Earth -93750-04-20 23:15 J -32520654.77 -32520654.53 -32520654.27 0.0146 0.0034

Moon -93750-04-21 02:37 J -32520654.64 -32520654.39 -32520654.13 0.0146 0.0027 *

Moon -93749-04-25 05:30 J -32520284.46 -32520284.27 -32520284.04 0.0146 0.0089

Earth -93749-04-25 08:51 J -32520284.33 -32520284.13 -32520283.90 0.0146 0.0083 *

Earth -93748-04-30 17:59 J -32519913.83 -32519913.75 -32519913.61 0.0145 0.0131

Moon -93748-04-30 20:08 J -32519913.75 -32519913.66 -32519913.54 0.0145 0.0132 *

Mars -93742-12-15 02:37 J -32517494.68 -32517494.39 -32517494.09 0.0142 0.0025

Mercury -93733-03-09 21:35 J -32514486.65 -32514486.60 -32514486.52 0.0137 0.0126

Mercury -93733-06-06 03:20 J -32514398.46 -32514398.36 -32514398.24 0.0137 0.0105

Mercury -93733-09-02 08:51 J -32514310.25 -32514310.13 -32514309.99 0.0137 0.0085

Mercury -93733-11-29 14:23 J -32514222.03 -32514221.90 -32514221.74 0.0136 0.0065

Mercury -93732-02-25 20:08 J -32514133.82 -32514133.66 -32514133.50 0.0136 0.0044

Mercury -93732-05-25 01:39 J -32514045.60 -32514045.43 -32514045.27 0.0136 0.0024

Mercury -93732-08-21 06:56 J -32513957.37 -32513957.21 -32513957.04 0.0136 0.0005

Mercury -93732-11-17 12:27 J -32513869.15 -32513868.98 -32513868.82 0.0136 0.0015

Mercury -93731-02-13 17:30 J -32513780.92 -32513780.77 -32513780.60 0.0136 0.0035

Mercury -93731-05-12 22:47 J -32513692.70 -32513692.55 -32513692.40 0.0136 0.0054

Venus -93731-05-14 15:20 J -32513691.01 -32513690.86 -32513690.68 0.0136 0.0090

Mercury -93731-08-09 03:49 J -32513604.47 -32513604.34 -32513604.19 0.0136 0.0073

Mercury -93731-11-05 09:06 J -32513516.24 -32513516.12 -32513516.00 0.0135 0.0091

Venus -93731-12-26 23:30 J -32513464.74 -32513464.52 -32513464.30 0.0135 0.0027

Mercury -93730-02-01 14:08 J -32513428.00 -32513427.91 -32513427.81 0.0135 0.0109

Mercury -93730-04-30 19:11 J -32513339.75 -32513339.70 -32513339.65 0.0135 0.0127

Venus -93730-08-10 06:56 J -32513238.42 -32513238.21 -32513237.99 0.0135 0.0034

Venus -93729-03-23 14:08 J -32513012.06 -32513011.91 -32513011.75 0.0135 0.0095

Moon -93711-10-10 12:27 J -32506237.10 -32506236.98 -32506236.82 0.0132 0.0107

Earth -93711-10-10 14:08 J -32506237.04 -32506236.91 -32506236.78 0.0132 0.0111 *

Earth -93710-10-14 14:51 J -32505868.08 -32505867.88 -32505867.68 0.0132 0.0077

Moon -93710-10-14 15:35 J -32505868.04 -32505867.85 -32505867.64 0.0132 0.0083 *

Moon -93709-10-17 14:08 J -32505499.13 -32505498.91 -32505498.67 0.0132 0.0037

Earth -93709-10-17 15:35 J -32505499.08 -32505498.85 -32505498.61 0.0132 0.0044 *

Earth -93708-10-21 16:18 J -32505130.06 -32505129.82 -32505129.57 0.0132 0.0009

Moon -93708-10-21 17:01 J -32505130.04 -32505129.79 -32505129.53 0.0132 0.0016 *

Moon -93707-10-25 16:18 J -32504761.06 -32504760.82 -32504760.59 0.0133 0.0030

Earth -93707-10-25 17:01 J -32504761.03 -32504760.79 -32504760.54 0.0133 0.0025 *

Earth -93706-10-29 17:44 J -32504391.97 -32504391.76 -32504391.53 0.0133 0.0060

Moon -93706-10-29 18:56 J -32504391.94 -32504391.71 -32504391.48 0.0133 0.0056 *

Moon -93705-11-01 18:27 J -32504022.89 -32504022.73 -32504022.56 0.0133 0.0096
 Earth -93705-11-01 18:27 J -32504022.89 -32504022.73 -32504022.54 0.0133 0.0095 *
 Earth -93704-11-05 19:11 J -32503653.74 -32503653.70 -32503653.61 0.0134 0.0129
 Moon -93704-11-05 20:08 J -32503653.69 -32503653.66 -32503653.58 0.0134 0.0131 *
 Mars -93697-01-12 12:56 J -32501395.24 -32501394.96 -32501394.65 0.0137 0.0048
 Mars -93696-12-15 16:18 J -32500691.84 -32500691.82 -32500691.78 0.0138 0.0137
 Mercury -93689-11-01 21:35 J -32498178.65 -32498178.60 -32498178.54 0.0142 0.0131
 Mercury -93688-01-29 01:54 J -32498090.50 -32498090.42 -32498090.32 0.0142 0.0112
 Mercury -93688-04-27 06:27 J -32498002.33 -32498002.23 -32498002.11 0.0142 0.0093
 Mercury -93688-07-24 11:01 J -32497914.16 -32497914.04 -32497913.91 0.0142 0.0074
 Mercury -93688-10-20 15:35 J -32497825.99 -32497825.85 -32497825.71 0.0142 0.0054
 Mercury -93687-01-16 20:08 J -32497737.80 -32497737.66 -32497737.52 0.0142 0.0034
 Mercury -93687-04-15 00:42 J -32497649.62 -32497649.47 -32497649.32 0.0142 0.0015
 Mercury -93687-07-12 05:30 J -32497561.42 -32497561.27 -32497561.12 0.0143 0.0006
 Mercury -93687-10-08 10:03 J -32497473.22 -32497473.08 -32497472.93 0.0143 0.0026
 Venus -93687-12-16 13:39 J -32497404.07 -32497403.93 -32497403.78 0.0143 0.0102
 Mercury -93686-01-04 14:51 J -32497385.02 -32497384.88 -32497384.74 0.0143 0.0046
 Mercury -93686-04-02 19:39 J -32497296.81 -32497296.68 -32497296.55 0.0143 0.0067
 Mercury -93686-06-30 00:27 J -32497208.60 -32497208.48 -32497208.36 0.0143 0.0088
 Venus -93686-07-30 23:01 J -32497177.75 -32497177.54 -32497177.33 0.0143 0.0032
 Mercury -93686-09-26 05:15 J -32497120.37 -32497120.28 -32497120.18 0.0143 0.0109
 Mercury -93686-12-23 10:18 J -32497032.13 -32497032.07 -32497032.01 0.0143 0.0131
 Venus -93685-03-13 08:23 J -32496951.35 -32496951.15 -32496950.93 0.0144 0.0040
 Venus -93685-10-25 18:27 J -32496724.86 -32496724.73 -32496724.59 0.0144 0.0111
 Moon -93669-04-04 23:15 J -32491084.70 -32491084.53 -32491084.36 0.0147 0.0109
 Earth -93669-04-05 01:54 J -32491084.57 -32491084.42 -32491084.23 0.0147 0.0112 *
 Earth -93668-04-10 11:30 J -32490714.24 -32490714.02 -32490713.77 0.0147 0.0063
 Moon -93668-04-10 14:51 J -32490714.11 -32490713.88 -32490713.63 0.0147 0.0061 *
 Moon -93667-04-15 17:44 J -32490344.02 -32490343.76 -32490343.50 0.0146 0.0020
 Earth -93667-04-15 21:20 J -32490343.86 -32490343.61 -32490343.34 0.0146 0.0014 *

Earth -93666-04-21 06:56 J -32489973.46 -32489973.21 -32489972.95 0.0146 0.0036
 Moon -93666-04-21 10:47 J -32489973.29 -32489973.05 -32489972.80 0.0146 0.0044 *
 Moon -93665-04-25 13:25 J -32489603.15 -32489602.94 -32489602.71 0.0146 0.0080
 Earth -93665-04-25 16:32 J -32489603.01 -32489602.81 -32489602.58 0.0146 0.0085 *
 Earth -93664-05-01 01:54 J -32489232.51 -32489232.42 -32489232.30 0.0145 0.0132
 Moon -93664-05-01 05:15 J -32489232.38 -32489232.28 -32489232.18 0.0145 0.0133 *
 Mars -93659-09-06 18:56 J -32487277.91 -32487277.71 -32487277.48 0.0142 0.0098
 Mars -93657-08-09 00:27 J -32486575.68 -32486575.48 -32486575.23 0.0141 0.0094
 Mercury -93649-03-30 04:18 J -32483785.38 -32483785.32 -32483785.24 0.0137 0.0123
 Mercury -93649-06-26 10:03 J -32483697.19 -32483697.08 -32483696.96 0.0137 0.0102
 Mercury -93649-09-22 15:35 J -32483608.98 -32483608.85 -32483608.71 0.0137 0.0082
 Mercury -93649-12-19 21:06 J -32483520.76 -32483520.62 -32483520.46 0.0136 0.0062
 Mercury -93648-03-18 02:37 J -32483432.54 -32483432.39 -32483432.22 0.0136 0.0042
 Mercury -93648-06-14 08:08 J -32483344.32 -32483344.16 -32483343.99 0.0136 0.0022
 Mercury -93648-09-10 13:39 J -32483256.10 -32483255.93 -32483255.77 0.0136 0.0002
 Mercury -93648-12-07 18:56 J -32483167.87 -32483167.71 -32483167.54 0.0136 0.0018
 Venus -93647-01-11 22:18 J -32483132.65 -32483132.57 -32483132.47 0.0136 0.0122
 Mercury -93647-03-06 00:13 J -32483079.65 -32483079.49 -32483079.33 0.0136 0.0037
 Mercury -93647-06-02 05:30 J -32482991.42 -32482991.27 -32482991.12 0.0136 0.0056
 Venus -93647-08-26 06:13 J -32482906.43 -32482906.24 -32482906.03 0.0136 0.0060
 Mercury -93647-08-29 10:32 J -32482903.19 -32482903.06 -32482902.92 0.0136 0.0075
 Mercury -93647-11-25 15:35 J -32482814.96 -32482814.85 -32482814.73 0.0135 0.0094
 Mercury -93646-02-21 20:51 J -32482726.72 -32482726.63 -32482726.54 0.0135 0.0112
 Venus -93646-04-09 14:08 J -32482680.13 -32482679.91 -32482679.68 0.0135 0.0004
 Mercury -93646-05-21 01:25 J -32482638.46 -32482638.44 -32482638.38 0.0135 0.0131
 Venus -93646-11-21 21:20 J -32482453.79 -32482453.61 -32482453.40 0.0135 0.0064
 Venus -93645-07-05 04:18 J -32482227.38 -32482227.32 -32482227.22 0.0135 0.0125
 Moon -93627-10-10 21:35 J -32475555.71 -32475555.60 -32475555.46 0.0132 0.0112
 Earth -93627-10-10 22:03 J -32475555.71 -32475555.58 -32475555.43 0.0132 0.0108 *
 Earth -93626-10-14 22:47 J -32475186.74 -32475186.55 -32475186.33 0.0132 0.0075

Moon -93626-10-14 23:30 J -32475186.72 -32475186.52 -32475186.29 0.0132 0.0069 *
 Earth -93625-10-17 23:44 J -32474817.74 -32474817.51 -32474817.26 0.0132 0.0041
 Moon -93625-10-17 23:59 J -32474817.72 -32474817.50 -32474817.28 0.0132 0.0048 *
 Earth -93624-10-22 00:42 J -32474448.72 -32474448.47 -32474448.22 0.0132 0.0007
 Moon -93624-10-22 00:56 J -32474448.71 -32474448.46 -32474448.20 0.0132 0.0003 *
 Moon -93623-10-26 01:11 J -32474079.68 -32474079.45 -32474079.21 0.0133 0.0022
 Earth -93623-10-26 01:11 J -32474079.68 -32474079.45 -32474079.19 0.0133 0.0028 *
 Moon -93622-10-30 01:54 J -32473710.63 -32473710.42 -32473710.19 0.0133 0.0065
 Earth -93622-10-30 02:08 J -32473710.62 -32473710.41 -32473710.18 0.0133 0.0061 *
 Moon -93621-11-02 02:37 J -32473341.55 -32473341.39 -32473341.21 0.0133 0.0095
 Earth -93621-11-02 02:37 J -32473341.54 -32473341.39 -32473341.20 0.0133 0.0096 *
 Moon -93620-11-06 03:35 J -32472972.41 -32472972.35 -32472972.27 0.0134 0.0128
 Earth -93620-11-06 03:49 J -32472972.39 -32472972.34 -32472972.27 0.0134 0.0129 *
 Mars -93613-09-06 12:42 J -32470476.28 -32470475.97 -32470475.65 0.0137 0.0018
 Mercury -93605-11-22 04:32 J -32467477.37 -32467477.31 -32467477.25 0.0142 0.0128
 Mercury -93604-02-18 08:51 J -32467389.22 -32467389.13 -32467389.04 0.0142 0.0109
 Mercury -93604-05-17 13:11 J -32467301.06 -32467300.95 -32467300.83 0.0142 0.0090
 Mercury -93604-08-13 17:44 J -32467212.88 -32467212.76 -32467212.63 0.0142 0.0071
 Mercury -93604-11-09 22:18 J -32467124.71 -32467124.57 -32467124.43 0.0142 0.0052
 Mercury -93603-02-06 02:51 J -32467036.52 -32467036.38 -32467036.24 0.0142 0.0032
 Mercury -93603-05-05 07:25 J -32466948.34 -32466948.19 -32466948.04 0.0143 0.0012
 Mercury -93603-08-01 12:13 J -32466860.14 -32466859.99 -32466859.84 0.0143 0.0009
 Venus -93603-08-15 19:39 J -32466845.71 -32466845.68 -32466845.61 0.0143 0.0139
 Mercury -93603-10-28 16:47 J -32466771.94 -32466771.80 -32466771.65 0.0143 0.0029
 Mercury -93602-01-24 21:35 J -32466683.74 -32466683.60 -32466683.46 0.0143 0.0049
 Venus -93602-03-30 05:01 J -32466619.47 -32466619.29 -32466619.09 0.0143 0.0069
 Mercury -93602-04-23 02:08 J -32466595.53 -32466595.41 -32466595.27 0.0143 0.0071
 Mercury -93602-07-20 06:56 J -32466507.31 -32466507.21 -32466507.08 0.0143 0.0092
 Mercury -93602-10-16 11:59 J -32466419.09 -32466419.00 -32466418.90 0.0143 0.0112
 Venus -93602-11-11 14:51 J -32466393.10 -32466392.88 -32466392.67 0.0143 0.0002

Mercury -93601-01-12 16:47 J -32466330.84 -32466330.80 -32466330.74 0.0143 0.0134

Venus -93601-06-25 00:13 J -32466166.66 -32466166.49 -32466166.29 0.0144 0.0074

Moon -93585-04-05 07:39 J -32460403.33 -32460403.18 -32460403.01 0.0147 0.0112

Earth -93585-04-05 09:35 J -32460403.26 -32460403.10 -32460402.91 0.0147 0.0108 *

Earth -93584-04-10 19:11 J -32460032.93 -32460032.70 -32460032.46 0.0146 0.0059

Moon -93584-04-10 22:18 J -32460032.80 -32460032.57 -32460032.32 0.0146 0.0063 *

Moon -93583-04-16 01:39 J -32459662.69 -32459662.43 -32459662.18 0.0146 0.0005

Earth -93583-04-16 05:01 J -32459662.55 -32459662.29 -32459662.03 0.0146 0.0011 *

Earth -93582-04-21 14:23 J -32459292.15 -32459291.90 -32459291.64 0.0146 0.0038

Moon -93582-04-21 17:59 J -32459292.00 -32459291.75 -32459291.49 0.0146 0.0031 *

Moon -93581-04-25 19:54 J -32458921.85 -32458921.67 -32458921.45 0.0146 0.0093

Earth -93581-04-26 00:13 J -32458921.70 -32458921.49 -32458921.28 0.0146 0.0086 *

Earth -93580-05-01 09:06 J -32458551.20 -32458551.12 -32458551.00 0.0145 0.0134

Moon -93580-05-01 12:27 J -32458551.07 -32458550.98 -32458550.87 0.0145 0.0132 *

Mars -93574-05-02 20:51 J -32456358.92 -32456358.63 -32456358.33 0.0142 0.0027

Mercury -93565-04-19 11:01 J -32453084.11 -32453084.04 -32453083.95 0.0137 0.0120

Mercury -93565-07-16 16:47 J -32452995.91 -32452995.80 -32452995.68 0.0137 0.0099

Mercury -93565-10-12 22:18 J -32452907.70 -32452907.57 -32452907.43 0.0137 0.0079

Mercury -93564-01-09 03:49 J -32452819.48 -32452819.34 -32452819.18 0.0136 0.0059

Mercury -93564-04-07 09:20 J -32452731.26 -32452731.11 -32452730.94 0.0136 0.0039

Mercury -93564-07-04 14:51 J -32452643.04 -32452642.88 -32452642.71 0.0136 0.0018

Mercury -93564-09-30 20:23 J -32452554.82 -32452554.65 -32452554.49 0.0136 0.0003

Mercury -93564-12-28 01:39 J -32452466.60 -32452466.43 -32452466.27 0.0136 0.0021

Mercury -93563-03-26 06:56 J -32452378.37 -32452378.21 -32452378.05 0.0136 0.0040

Venus -93563-04-25 13:25 J -32452348.09 -32452347.94 -32452347.76 0.0136 0.0092

Mercury -93563-06-22 11:59 J -32452290.14 -32452290.00 -32452289.85 0.0136 0.0059

Mercury -93563-09-18 17:15 J -32452201.91 -32452201.78 -32452201.65 0.0136 0.0078

Venus -93563-12-07 21:35 J -32452121.81 -32452121.60 -32452121.38 0.0136 0.0029

Mercury -93563-12-15 22:03 J -32452113.68 -32452113.58 -32452113.45 0.0135 0.0097

Mercury -93562-03-14 03:20 J -32452025.44 -32452025.36 -32452025.27 0.0135 0.0115

Mercury -93562-06-10 08:23 J -32451937.17 -32451937.15 -32451937.12 0.0135 0.0133
 Venus -93562-07-22 05:15 J -32451895.50 -32451895.28 -32451895.07 0.0135 0.0033
 Venus -93561-03-04 11:59 J -32451669.14 -32451669.00 -32451668.82 0.0135 0.0094
 Moon -93543-10-11 07:11 J -32444874.35 -32444874.20 -32444874.05 0.0132 0.0101
 Earth -93543-10-11 06:56 J -32444874.35 -32444874.21 -32444874.05 0.0132 0.0105 *
 Moon -93542-10-15 07:11 J -32444505.39 -32444505.20 -32444504.98 0.0132 0.0077
 Earth -93542-10-15 07:54 J -32444505.37 -32444505.17 -32444504.95 0.0132 0.0072 *
 Earth -93541-10-18 08:51 J -32444136.36 -32444136.13 -32444135.89 0.0132 0.0038
 Moon -93541-10-18 09:06 J -32444136.35 -32444136.12 -32444135.88 0.0132 0.0032 *
 Moon -93540-10-22 09:06 J -32443767.37 -32443767.12 -32443766.86 0.0132 0.0012
 Earth -93540-10-22 09:35 J -32443767.34 -32443767.10 -32443766.85 0.0132 0.0006 *
 Earth -93539-10-26 10:32 J -32443398.30 -32443398.06 -32443397.82 0.0133 0.0029
 Moon -93539-10-26 11:01 J -32443398.26 -32443398.04 -32443397.80 0.0133 0.0035 *
 Moon -93538-10-30 10:32 J -32443029.28 -32443029.06 -32443028.82 0.0133 0.0059
 Earth -93538-10-30 11:01 J -32443029.25 -32443029.04 -32443028.82 0.0133 0.0063 *
 Earth -93537-11-02 11:44 J -32442660.17 -32442660.01 -32442659.83 0.0133 0.0097
 Moon -93537-11-02 12:42 J -32442660.11 -32442659.97 -32442659.80 0.0133 0.0099 *
 Moon -93536-11-06 11:44 J -32442291.04 -32442291.01 -32442290.93 0.0134 0.0131
 Earth -93536-11-06 12:42 J -32442291.01 -32442290.97 -32442290.90 0.0134 0.0130 *
 Mars -93530-05-30 18:27 J -32440259.94 -32440259.73 -32440259.49 0.0136 0.0094
 Mars -93528-05-02 15:49 J -32439557.08 -32439556.84 -32439556.58 0.0137 0.0086
 Mercury -93521-12-12 11:01 J -32436776.09 -32436776.04 -32436775.96 0.0142 0.0126
 Mercury -93520-03-10 15:20 J -32436687.94 -32436687.86 -32436687.75 0.0142 0.0107
 Mercury -93520-06-06 19:54 J -32436599.78 -32436599.67 -32436599.55 0.0142 0.0088
 Mercury -93520-09-03 00:27 J -32436511.60 -32436511.48 -32436511.35 0.0142 0.0068
 Mercury -93520-11-30 05:01 J -32436423.43 -32436423.29 -32436423.15 0.0142 0.0049
 Mercury -93519-02-26 09:35 J -32436335.24 -32436335.10 -32436334.95 0.0142 0.0029
 Mercury -93519-05-25 14:08 J -32436247.05 -32436246.91 -32436246.76 0.0143 0.0010
 Mercury -93519-08-21 18:56 J -32436158.86 -32436158.71 -32436158.56 0.0143 0.0011
 Mercury -93519-11-17 23:30 J -32436070.66 -32436070.52 -32436070.37 0.0143 0.0032

Venus -93519-11-27 11:44 J -32436061.15 -32436061.01 -32436060.86 0.0143 0.0105
 Mercury -93518-02-14 04:18 J -32435982.46 -32435982.32 -32435982.18 0.0143 0.0052
 Mercury -93518-05-13 09:06 J -32435894.25 -32435894.12 -32435893.99 0.0143 0.0073
 Venus -93518-07-11 21:06 J -32435834.83 -32435834.62 -32435834.41 0.0143 0.0035
 Mercury -93518-08-09 13:54 J -32435806.03 -32435805.92 -32435805.80 0.0143 0.0094
 Mercury -93518-11-05 18:42 J -32435717.80 -32435717.72 -32435717.62 0.0143 0.0115
 Mercury -93517-02-01 23:44 J -32435629.55 -32435629.51 -32435629.46 0.0143 0.0136
 Venus -93517-02-23 06:27 J -32435608.43 -32435608.23 -32435608.01 0.0143 0.0037
 Venus -93517-10-06 16:32 J -32435381.95 -32435381.81 -32435381.67 0.0144 0.0108
 Moon -93501-04-05 15:35 J -32429722.02 -32429721.85 -32429721.66 0.0147 0.0102
 Earth -93501-04-05 17:30 J -32429721.94 -32429721.77 -32429721.58 0.0147 0.0105 *
 Earth -93500-04-11 03:06 J -32429351.61 -32429351.37 -32429351.13 0.0147 0.0057
 Moon -93500-04-11 05:30 J -32429351.51 -32429351.27 -32429351.02 0.0147 0.0056 *
 Moon -93499-04-16 09:35 J -32428981.36 -32428981.10 -32428980.85 0.0146 0.0014
 Earth -93499-04-16 12:42 J -32428981.23 -32428980.97 -32428980.71 0.0146 0.0008 *
 Earth -93498-04-21 22:03 J -32428610.82 -32428610.58 -32428610.32 0.0146 0.0040
 Moon -93498-04-22 01:54 J -32428610.66 -32428610.42 -32428610.17 0.0146 0.0048 *
 Moon -93497-04-26 04:03 J -32428240.54 -32428240.33 -32428240.10 0.0146 0.0082
 Earth -93497-04-26 07:39 J -32428240.38 -32428240.18 -32428239.96 0.0146 0.0088 *
 Earth -93496-05-01 16:32 J -32427869.89 -32427869.81 -32427869.69 0.0145 0.0135
 Moon -93496-05-01 20:23 J -32427869.73 -32427869.65 -32427869.55 0.0145 0.0135 *
 Mars -93490-12-26 20:23 J -32425439.92 -32425439.65 -32425439.35 0.0142 0.0043
 Mercury -93481-05-09 17:30 J -32422382.84 -32422382.77 -32422382.67 0.0137 0.0117
 Mercury -93481-08-05 23:30 J -32422294.64 -32422294.52 -32422294.40 0.0137 0.0096
 Mercury -93481-11-02 05:01 J -32422206.43 -32422206.29 -32422206.15 0.0137 0.0076
 Mercury -93480-01-29 10:32 J -32422118.21 -32422118.06 -32422117.90 0.0136 0.0055
 Mercury -93480-04-27 16:03 J -32422029.99 -32422029.83 -32422029.67 0.0136 0.0035
 Mercury -93480-07-24 21:35 J -32421941.77 -32421941.60 -32421941.44 0.0136 0.0016
 Mercury -93480-10-21 02:51 J -32421853.54 -32421853.38 -32421853.21 0.0136 0.0005
 Venus -93480-12-23 20:23 J -32421789.72 -32421789.65 -32421789.54 0.0136 0.0124

Mercury -93479-01-17 08:08 J -32421765.32 -32421765.16 -32421764.99 0.0136 0.0024

Mercury -93479-04-15 13:25 J -32421677.09 -32421676.94 -32421676.78 0.0136 0.0043

Mercury -93479-07-12 18:42 J -32421588.86 -32421588.72 -32421588.57 0.0136 0.0062

Venus -93479-08-07 04:47 J -32421563.50 -32421563.30 -32421563.10 0.0136 0.0061

Mercury -93479-10-08 23:44 J -32421500.63 -32421500.51 -32421500.37 0.0136 0.0081

Mercury -93478-01-05 05:01 J -32421412.40 -32421412.29 -32421412.18 0.0135 0.0099

Venus -93478-03-21 12:27 J -32421337.20 -32421336.98 -32421336.76 0.0135 0.0001

Mercury -93478-04-03 09:49 J -32421324.16 -32421324.09 -32421324.00 0.0135 0.0118

Venus -93478-11-02 19:54 J -32421110.86 -32421110.67 -32421110.47 0.0135 0.0063

Venus -93477-06-16 02:37 J -32420884.45 -32420884.39 -32420884.28 0.0135 0.0124

Earth -93459-10-11 15:20 J -32414193.01 -32414192.86 -32414192.70 0.0132 0.0102

Moon -93459-10-11 16:18 J -32414192.95 -32414192.82 -32414192.66 0.0132 0.0105 *

Moon -93458-10-15 15:35 J -32413824.07 -32413823.85 -32413823.62 0.0132 0.0064

Earth -93458-10-15 16:32 J -32413824.02 -32413823.81 -32413823.60 0.0132 0.0069 *

Earth -93457-10-18 17:15 J -32413455.02 -32413454.78 -32413454.54 0.0132 0.0036

Moon -93457-10-18 18:13 J -32413454.95 -32413454.74 -32413454.50 0.0132 0.0044 *

Moon -93456-10-22 16:32 J -32413086.06 -32413085.81 -32413085.55 0.0132 0.0004

Earth -93456-10-22 17:59 J -32413086.00 -32413085.75 -32413085.50 0.0132 0.0003 *

Earth -93455-10-26 18:27 J -32412716.96 -32412716.73 -32412716.48 0.0133 0.0031

Moon -93455-10-26 19:39 J -32412716.91 -32412716.68 -32412716.44 0.0133 0.0025 *

Moon -93454-10-30 17:30 J -32412347.98 -32412347.77 -32412347.55 0.0133 0.0069

Earth -93454-10-30 19:11 J -32412347.91 -32412347.70 -32412347.47 0.0133 0.0064 *

Earth -93453-11-02 19:39 J -32411978.83 -32411978.68 -32411978.49 0.0133 0.0098

Moon -93453-11-02 21:06 J -32411978.77 -32411978.62 -32411978.44 0.0133 0.0096 *

Moon -93452-11-06 19:25 J -32411609.74 -32411609.69 -32411609.62 0.0134 0.0130

Earth -93452-11-06 20:37 J -32411609.66 -32411609.64 -32411609.56 0.0134 0.0131 *

Mars -93445-01-23 17:44 J -32409341.06 -32409340.76 -32409340.44 0.0136 0.0030

Mercury -93437-10-05 13:39 J -32406162.93 -32406162.93 -32406162.92 0.0142 0.0141

Mercury -93436-01-01 17:59 J -32406074.81 -32406074.75 -32406074.67 0.0142 0.0123

Mercury -93436-03-30 22:18 J -32405986.66 -32405986.57 -32405986.46 0.0142 0.0104

Mercury -93436-06-27 02:37 J -32405898.49 -32405898.39 -32405898.26 0.0142 0.0085

Mercury -93436-09-23 07:25 J -32405810.32 -32405810.19 -32405810.06 0.0142 0.0065

Mercury -93436-12-20 11:59 J -32405722.14 -32405722.00 -32405721.86 0.0142 0.0046

Mercury -93435-03-18 16:32 J -32405633.96 -32405633.81 -32405633.67 0.0142 0.0026

Mercury -93435-06-14 21:06 J -32405545.77 -32405545.62 -32405545.47 0.0143 0.0006

Venus -93435-07-27 18:27 J -32405502.75 -32405502.73 -32405502.69 0.0143 0.0141

Mercury -93435-09-11 01:39 J -32405457.57 -32405457.43 -32405457.28 0.0143 0.0015

Mercury -93435-12-08 06:27 J -32405369.37 -32405369.23 -32405369.08 0.0143 0.0035

Mercury -93434-03-06 11:15 J -32405281.17 -32405281.03 -32405280.89 0.0143 0.0055

Venus -93434-03-11 03:35 J -32405276.53 -32405276.35 -32405276.16 0.0143 0.0071

Mercury -93434-06-02 16:03 J -32405192.96 -32405192.83 -32405192.70 0.0143 0.0076

Mercury -93434-08-29 20:51 J -32405104.74 -32405104.63 -32405104.52 0.0143 0.0097

Venus -93434-10-23 13:25 J -32405050.16 -32405049.94 -32405049.73 0.0143 0.0003

Mercury -93434-11-26 01:39 J -32405016.51 -32405016.43 -32405016.34 0.0143 0.0119

Mercury -93433-02-22 06:42 J -32404928.25 -32404928.22 -32404928.19 0.0143 0.0140

Venus -93433-06-05 22:47 J -32404823.72 -32404823.55 -32404823.35 0.0144 0.0072

Venus -93432-01-18 08:51 J -32404597.13 -32404597.13 -32404597.11 0.0144 0.0144

Moon -93418-04-01 16:47 J -32399410.86 -32399410.80 -32399410.72 0.0147 0.0141

Moon -93417-04-06 00:42 J -32399040.62 -32399040.47 -32399040.28 0.0147 0.0107

Earth -93417-04-06 01:25 J -32399040.61 -32399040.44 -32399040.24 0.0147 0.0102 *

Earth -93416-04-11 11:01 J -32398670.28 -32398670.04 -32398669.80 0.0147 0.0054

Moon -93416-04-11 12:56 J -32398670.20 -32398669.96 -32398669.70 0.0147 0.0055 *

Moon -93415-04-16 17:59 J -32398300.00 -32398299.75 -32398299.50 0.0146 0.0001

Earth -93415-04-16 20:37 J -32398299.90 -32398299.64 -32398299.38 0.0146 0.0006 *

Earth -93414-04-22 05:59 J -32397929.49 -32397929.25 -32397928.99 0.0146 0.0042

Moon -93414-04-22 09:20 J -32397929.37 -32397929.11 -32397928.85 0.0146 0.0034 *

Moon -93413-04-26 11:30 J -32397559.20 -32397559.02 -32397558.81 0.0146 0.0096

Earth -93413-04-26 15:35 J -32397559.05 -32397558.85 -32397558.64 0.0146 0.0089 *

Earth -93412-05-02 00:13 J -32397188.56 -32397188.49 -32397188.37 0.0145 0.0135

Moon -93412-05-02 04:03 J -32397188.42 -32397188.33 -32397188.21 0.0145 0.0133 *

Mars -93407-09-18 11:59 J -32395223.23 -32395223.00 -32395222.73 0.0142 0.0079
 Mars -93405-08-20 18:27 J -32394520.89 -32394520.73 -32394520.52 0.0141 0.0111
 Mercury -93397-03-02 18:42 J -32391769.74 -32391769.72 -32391769.69 0.0137 0.0134
 Mercury -93397-05-30 00:13 J -32391681.57 -32391681.49 -32391681.38 0.0137 0.0114
 Mercury -93397-08-26 06:13 J -32391593.36 -32391593.24 -32391593.12 0.0137 0.0093
 Mercury -93397-11-22 11:44 J -32391505.15 -32391505.01 -32391504.87 0.0137 0.0073
 Mercury -93396-02-18 17:15 J -32391416.93 -32391416.78 -32391416.62 0.0136 0.0052
 Mercury -93396-05-17 22:47 J -32391328.71 -32391328.55 -32391328.39 0.0136 0.0032
 Mercury -93396-08-14 04:18 J -32391240.49 -32391240.32 -32391240.16 0.0136 0.0013
 Mercury -93396-11-10 09:35 J -32391152.26 -32391152.10 -32391151.93 0.0136 0.0007
 Mercury -93395-02-06 14:51 J -32391064.04 -32391063.88 -32391063.71 0.0136 0.0027
 Venus -93395-04-06 11:59 J -32391005.16 -32391005.00 -32391004.84 0.0136 0.0093
 Mercury -93395-05-05 20:08 J -32390975.81 -32390975.66 -32390975.50 0.0136 0.0046
 Mercury -93395-08-02 01:25 J -32390887.58 -32390887.44 -32390887.29 0.0136 0.0065
 Mercury -93395-10-29 06:27 J -32390799.35 -32390799.23 -32390799.09 0.0136 0.0083
 Venus -93395-11-18 19:54 J -32390778.88 -32390778.67 -32390778.45 0.0136 0.0031
 Mercury -93394-01-25 11:44 J -32390711.11 -32390711.01 -32390710.90 0.0135 0.0102
 Mercury -93394-04-23 16:32 J -32390622.87 -32390622.81 -32390622.72 0.0135 0.0121
 Venus -93394-07-03 03:35 J -32390552.56 -32390552.35 -32390552.13 0.0135 0.0032
 Venus -93393-02-14 10:47 J -32390326.20 -32390326.05 -32390325.88 0.0135 0.0093
 Moon -93376-10-07 20:37 J -32383880.65 -32383880.64 -32383880.58 0.0132 0.0131
 Earth -93376-10-07 23:01 J -32383880.54 -32383880.54 -32383880.52 0.0132 0.0131
 Earth -93375-10-11 23:59 J -32383511.64 -32383511.50 -32383511.32 0.0132 0.0100
 Moon -93375-10-12 01:25 J -32383511.59 -32383511.44 -32383511.26 0.0132 0.0097 *
 Moon -93374-10-15 23:15 J -32383142.74 -32383142.53 -32383142.31 0.0132 0.0071
 Earth -93374-10-16 01:11 J -32383142.65 -32383142.45 -32383142.22 0.0132 0.0067 *
 Earth -93373-10-19 01:54 J -32382773.65 -32382773.42 -32382773.17 0.0132 0.0034
 Moon -93373-10-19 03:49 J -32382773.57 -32382773.34 -32382773.10 0.0132 0.0028 *
 Moon -93372-10-23 00:56 J -32382404.71 -32382404.46 -32382404.20 0.0132 0.0008
 Earth -93372-10-23 02:51 J -32382404.63 -32382404.38 -32382404.14 0.0132 0.0002 *

Earth -93371-10-27 03:20 J -32382035.60 -32382035.36 -32382035.12 0.0133 0.0032
 Moon -93371-10-27 05:30 J -32382035.50 -32382035.27 -32382035.04 0.0133 0.0039 *
 Moon -93370-10-31 02:08 J -32381666.63 -32381666.41 -32381666.18 0.0133 0.0060
 Earth -93370-10-31 03:49 J -32381666.54 -32381666.34 -32381666.11 0.0133 0.0065 *
 Earth -93369-11-03 04:32 J -32381297.46 -32381297.31 -32381297.13 0.0133 0.0098
 Moon -93369-11-03 06:56 J -32381297.36 -32381297.21 -32381297.05 0.0133 0.0101 *
 Moon -93368-11-07 03:20 J -32380928.40 -32380928.36 -32380928.28 0.0134 0.0130
 Earth -93368-11-07 05:44 J -32380928.29 -32380928.26 -32380928.20 0.0134 0.0131 *
 Mars -93361-09-17 17:44 J -32378422.05 -32378421.76 -32378421.44 0.0137 0.0036
 Mercury -93353-10-25 20:23 J -32375461.67 -32375461.65 -32375461.61 0.0142 0.0139
 Mercury -93352-01-22 00:42 J -32375373.53 -32375373.47 -32375373.38 0.0142 0.0120
 Mercury -93352-04-20 05:15 J -32375285.38 -32375285.28 -32375285.17 0.0142 0.0101
 Mercury -93352-07-17 09:35 J -32375197.21 -32375197.10 -32375196.97 0.0142 0.0082
 Mercury -93352-10-13 14:08 J -32375109.04 -32375108.91 -32375108.77 0.0142 0.0063
 Mercury -93351-01-09 18:42 J -32375020.86 -32375020.72 -32375020.58 0.0142 0.0043
 Mercury -93351-04-07 23:15 J -32374932.67 -32374932.53 -32374932.38 0.0142 0.0023
 Mercury -93351-07-05 04:03 J -32374844.48 -32374844.33 -32374844.18 0.0143 0.0004
 Mercury -93351-10-01 08:37 J -32374756.29 -32374756.14 -32374755.99 0.0143 0.0017
 Venus -93351-11-08 10:18 J -32374718.19 -32374718.07 -32374717.92 0.0143 0.0108
 Mercury -93351-12-28 13:11 J -32374668.09 -32374667.95 -32374667.80 0.0143 0.0038
 Mercury -93350-03-26 18:13 J -32374579.88 -32374579.74 -32374579.61 0.0143 0.0058
 Venus -93350-06-22 19:54 J -32374491.87 -32374491.67 -32374491.46 0.0143 0.0037
 Mercury -93350-06-22 22:47 J -32374491.67 -32374491.55 -32374491.42 0.0143 0.0079 *
 Mercury -93350-09-19 03:35 J -32374403.45 -32374403.35 -32374403.23 0.0143 0.0101
 Mercury -93350-12-16 08:37 J -32374315.22 -32374315.14 -32374315.06 0.0143 0.0122
 Venus -93349-02-04 05:15 J -32374265.48 -32374265.28 -32374265.06 0.0143 0.0035
 Mercury -93349-03-13 13:39 J -32374226.94 -32374226.93 -32374226.92 0.0143 0.0143
 Venus -93349-09-17 15:20 J -32374039.00 -32374038.86 -32374038.72 0.0144 0.0106
 Earth -93334-04-02 00:27 J -32368729.50 -32368729.48 -32368729.42 0.0147 0.0145
 Moon -93333-04-06 09:20 J -32368359.29 -32368359.11 -32368358.91 0.0147 0.0095

Earth -93333-04-06 09:35 J -32368359.28 -32368359.10 -32368358.89 0.0147 0.0099 *
 Earth -93332-04-11 18:56 J -32367988.94 -32367988.71 -32367988.45 0.0147 0.0052
 Moon -93332-04-11 20:23 J -32367988.90 -32367988.65 -32367988.40 0.0147 0.0051 *
 Moon -93331-04-17 02:37 J -32367618.64 -32367618.39 -32367618.13 0.0146 0.0009
 Earth -93331-04-17 04:32 J -32367618.57 -32367618.31 -32367618.05 0.0146 0.0004 *
 Earth -93330-04-22 13:54 J -32367248.16 -32367247.92 -32367247.66 0.0146 0.0043
 Moon -93330-04-22 17:01 J -32367248.03 -32367247.79 -32367247.53 0.0146 0.0051 *
 Moon -93329-04-26 19:54 J -32366877.86 -32366877.67 -32366877.44 0.0146 0.0084
 Earth -93329-04-26 23:30 J -32366877.72 -32366877.52 -32366877.31 0.0146 0.0090 *
 Earth -93328-05-02 08:08 J -32366507.24 -32366507.16 -32366507.06 0.0145 0.0136
 Moon -93328-05-02 11:44 J -32366507.07 -32366507.01 -32366506.91 0.0145 0.0137 *
 Mars -93322-05-14 14:37 J -32364304.19 -32364303.89 -32364303.59 0.0142 0.0008
 Mercury -93313-03-23 01:25 J -32361068.48 -32361068.44 -32361068.39 0.0137 0.0131
 Mercury -93313-06-19 06:56 J -32360980.30 -32360980.21 -32360980.10 0.0137 0.0111
 Mercury -93313-09-15 12:42 J -32360892.09 -32360891.97 -32360891.84 0.0137 0.0090
 Mercury -93313-12-12 18:27 J -32360803.87 -32360803.73 -32360803.59 0.0136 0.0070
 Mercury -93312-03-10 23:59 J -32360715.65 -32360715.50 -32360715.34 0.0136 0.0049
 Mercury -93312-06-07 05:30 J -32360627.43 -32360627.27 -32360627.11 0.0136 0.0029
 Mercury -93312-09-03 11:01 J -32360539.21 -32360539.04 -32360538.88 0.0136 0.0010
 Mercury -93312-11-30 16:18 J -32360450.99 -32360450.82 -32360450.65 0.0136 0.0010
 Venus -93312-12-04 19:11 J -32360446.78 -32360446.70 -32360446.61 0.0136 0.0125
 Mercury -93311-02-26 21:35 J -32360362.76 -32360362.60 -32360362.43 0.0136 0.0029
 Mercury -93311-05-26 02:51 J -32360274.53 -32360274.38 -32360274.22 0.0136 0.0049
 Venus -93311-07-19 03:06 J -32360220.56 -32360220.37 -32360220.17 0.0136 0.0062
 Mercury -93311-08-22 08:08 J -32360186.30 -32360186.16 -32360186.02 0.0136 0.0067
 Mercury -93311-11-18 13:11 J -32360098.07 -32360097.95 -32360097.82 0.0135 0.0086
 Mercury -93310-02-14 18:27 J -32360009.83 -32360009.73 -32360009.63 0.0135 0.0105
 Venus -93310-03-02 11:01 J -32359994.26 -32359994.04 -32359993.82 0.0135 0.0001
 Mercury -93310-05-13 23:15 J -32359921.58 -32359921.53 -32359921.45 0.0135 0.0123
 Venus -93310-10-14 18:27 J -32359767.92 -32359767.73 -32359767.53 0.0135 0.0062

Venus	-93309-05-28 01:39 J	-32359541.50	-32359541.43	-32359541.32	0.0135	0.0123
Moon	-93292-10-08 05:15 J	-32353199.31	-32353199.28	-32353199.21	0.0132	0.0129
Earth	-93292-10-08 07:25 J	-32353199.23	-32353199.19	-32353199.13	0.0132	0.0129 *
Earth	-93291-10-12 08:37 J	-32352830.30	-32352830.14	-32352829.96	0.0132	0.0097
Moon	-93291-10-12 11:01 J	-32352830.19	-32352830.04	-32352829.87	0.0132	0.0099 *
Moon	-93290-10-16 06:56 J	-32352461.42	-32352461.21	-32352460.97	0.0132	0.0061
Earth	-93290-10-16 09:20 J	-32352461.31	-32352461.11	-32352460.88	0.0132	0.0065 *
Earth	-93289-10-19 10:03 J	-32352092.31	-32352092.08	-32352091.83	0.0132	0.0032
Moon	-93289-10-19 12:13 J	-32352092.21	-32352091.99	-32352091.74	0.0132	0.0040 *
Moon	-93288-10-23 08:08 J	-32351723.41	-32351723.16	-32351722.91	0.0132	0.0007
Earth	-93288-10-23 11:01 J	-32351723.29	-32351723.04	-32351722.80	0.0132	0.0002 *
Earth	-93287-10-27 11:15 J	-32351354.26	-32351354.03	-32351353.78	0.0133	0.0033
Moon	-93287-10-27 13:39 J	-32351354.17	-32351353.93	-32351353.69	0.0133	0.0027 *
Moon	-93286-10-31 09:06 J	-32350985.32	-32350985.12	-32350984.90	0.0133	0.0072
Earth	-93286-10-31 11:59 J	-32350985.20	-32350985.00	-32350984.78	0.0133	0.0066 *
Earth	-93285-11-03 12:56 J	-32350616.12	-32350615.96	-32350615.79	0.0133	0.0099
Moon	-93285-11-03 15:20 J	-32350616.02	-32350615.86	-32350615.68	0.0133	0.0095 *
Moon	-93284-11-07 11:01 J	-32350247.06	-32350247.04	-32350246.98	0.0134	0.0132
Earth	-93284-11-07 13:39 J	-32350246.95	-32350246.93	-32350246.86	0.0134	0.0132
Mars	-93278-06-10 23:44 J	-32348205.76	-32348205.51	-32348205.25	0.0136	0.0076
Mars	-93276-05-13 17:44 J	-32347502.95	-32347502.76	-32347502.52	0.0137	0.0101
Mercury	-93269-11-15 03:20 J	-32344760.40	-32344760.36	-32344760.32	0.0142	0.0136
Mercury	-93268-02-11 07:25 J	-32344672.26	-32344672.19	-32344672.10	0.0142	0.0118
Mercury	-93268-05-10 11:59 J	-32344584.10	-32344584.00	-32344583.89	0.0142	0.0098
Mercury	-93268-08-06 16:32 J	-32344495.93	-32344495.81	-32344495.69	0.0142	0.0079
Mercury	-93268-11-02 20:51 J	-32344407.76	-32344407.63	-32344407.49	0.0142	0.0060
Mercury	-93267-01-30 01:25 J	-32344319.57	-32344319.44	-32344319.29	0.0142	0.0041
Mercury	-93267-04-28 06:13 J	-32344231.39	-32344231.24	-32344231.10	0.0142	0.0020
Mercury	-93267-07-25 10:47 J	-32344143.20	-32344143.05	-32344142.90	0.0143	0.0000
Mercury	-93267-10-21 15:20 J	-32344055.00	-32344054.86	-32344054.71	0.0143	0.0020

Mercury -93266-01-17 20:08 J -32343966.80 -32343966.66 -32343966.52 0.0143 0.0040

Venus -93266-02-20 02:08 J -32343933.59 -32343933.41 -32343933.22 0.0143 0.0074

Mercury -93266-04-16 00:56 J -32343878.60 -32343878.46 -32343878.33 0.0143 0.0061

Mercury -93266-07-13 05:30 J -32343790.38 -32343790.27 -32343790.14 0.0143 0.0083

Venus -93266-10-04 11:44 J -32343707.22 -32343707.01 -32343706.79 0.0143 0.0003

Mercury -93266-10-09 10:32 J -32343702.16 -32343702.06 -32343701.95 0.0143 0.0103

Mercury -93265-01-05 15:20 J -32343613.93 -32343613.86 -32343613.78 0.0143 0.0125

Venus -93265-05-17 21:20 J -32343480.79 -32343480.61 -32343480.41 0.0144 0.0069

Venus -93265-12-30 07:11 J -32343254.22 -32343254.20 -32343254.14 0.0144 0.0141

Moon -93250-04-02 07:54 J -32338048.26 -32338048.17 -32338048.05 0.0147 0.0134

Earth -93250-04-02 09:35 J -32338048.16 -32338048.10 -32338048.03 0.0147 0.0141 *

Earth -93249-04-06 18:27 J -32337677.92 -32337677.73 -32337677.53 0.0147 0.0095

Moon -93249-04-06 19:11 J -32337677.88 -32337677.70 -32337677.51 0.0147 0.0101 *

Earth -93248-04-12 03:35 J -32337307.59 -32337307.35 -32337307.10 0.0147 0.0049

Moon -93248-04-12 03:49 J -32337307.59 -32337307.34 -32337307.08 0.0147 0.0048 *

Moon -93247-04-17 11:30 J -32336937.27 -32336937.02 -32336936.76 0.0146 0.0004

Earth -93247-04-17 13:11 J -32336937.21 -32336936.95 -32336936.69 0.0146 0.0002 *

Earth -93246-04-22 22:18 J -32336566.81 -32336566.57 -32336566.32 0.0146 0.0045

Moon -93246-04-23 00:13 J -32336566.74 -32336566.49 -32336566.22 0.0146 0.0038 *

Moon -93245-04-27 04:18 J -32336196.50 -32336196.32 -32336196.12 0.0146 0.0098

Earth -93245-04-27 07:39 J -32336196.38 -32336196.18 -32336195.97 0.0146 0.0091 *

Earth -93244-05-02 16:18 J -32335825.89 -32335825.82 -32335825.72 0.0145 0.0137

Moon -93244-05-02 19:54 J -32335825.77 -32335825.67 -32335825.56 0.0145 0.0133 *

Mars -93239-02-04 02:51 J -32334087.47 -32334087.38 -32334087.23 0.0143 0.0131

Mars -93237-01-07 16:47 J -32333385.06 -32333384.80 -32333384.52 0.0142 0.0061

Mercury -93229-04-12 08:08 J -32330367.21 -32330367.16 -32330367.10 0.0137 0.0128

Mercury -93229-07-09 13:39 J -32330279.02 -32330278.93 -32330278.81 0.0137 0.0108

Mercury -93229-10-05 19:25 J -32330190.81 -32330190.69 -32330190.55 0.0137 0.0087

Mercury -93228-01-02 01:11 J -32330102.59 -32330102.45 -32330102.30 0.0136 0.0066

Mercury -93228-03-31 06:42 J -32330014.37 -32330014.22 -32330014.06 0.0136 0.0046

Mercury -93228-06-27 12:13 J -32329926.15 -32329925.99 -32329925.82 0.0136 0.0026

Mercury -93228-09-23 17:44 J -32329837.93 -32329837.76 -32329837.59 0.0136 0.0006

Mercury -93228-12-20 23:01 J -32329749.70 -32329749.54 -32329749.37 0.0136 0.0014

Venus -93227-03-18 10:32 J -32329662.21 -32329662.06 -32329661.89 0.0136 0.0094

Mercury -93227-03-19 04:18 J -32329661.47 -32329661.32 -32329661.15 0.0136 0.0033

Mercury -93227-06-15 09:49 J -32329573.24 -32329573.09 -32329572.94 0.0136 0.0052

Mercury -93227-09-11 14:51 J -32329485.01 -32329484.88 -32329484.73 0.0136 0.0071

Venus -93227-10-30 18:42 J -32329435.93 -32329435.72 -32329435.50 0.0135 0.0031

Mercury -93227-12-08 20:08 J -32329396.78 -32329396.66 -32329396.53 0.0135 0.0089

Mercury -93226-03-07 00:56 J -32329308.54 -32329308.46 -32329308.35 0.0135 0.0109

Mercury -93226-06-03 06:13 J -32329220.29 -32329220.24 -32329220.18 0.0135 0.0126

Venus -93226-06-14 02:23 J -32329209.61 -32329209.40 -32329209.17 0.0135 0.0031

Venus -93225-01-26 10:03 J -32328983.24 -32328983.08 -32328982.92 0.0135 0.0092

Moon -93208-10-08 13:54 J -32322518.01 -32322517.92 -32322517.83 0.0132 0.0123

Earth -93208-10-08 17:01 J -32322517.86 -32322517.79 -32322517.71 0.0132 0.0125 *

Earth -93207-10-12 17:30 J -32322148.92 -32322148.77 -32322148.58 0.0132 0.0094

Moon -93207-10-12 20:23 J -32322148.81 -32322148.65 -32322148.47 0.0132 0.0092 *

Moon -93206-10-16 15:35 J -32321780.06 -32321779.85 -32321779.62 0.0132 0.0066

Earth -93206-10-16 18:27 J -32321779.93 -32321779.73 -32321779.49 0.0132 0.0062 *

Earth -93205-10-19 19:11 J -32321410.94 -32321410.70 -32321410.45 0.0132 0.0030

Moon -93205-10-19 22:18 J -32321410.81 -32321410.57 -32321410.33 0.0132 0.0024 *

Moon -93204-10-23 17:15 J -32321042.03 -32321041.78 -32321041.53 0.0132 0.0005

Earth -93204-10-23 19:54 J -32321041.91 -32321041.67 -32321041.42 0.0132 0.0004 *

Earth -93203-10-27 20:23 J -32320672.88 -32320672.65 -32320672.40 0.0133 0.0035

Moon -93203-10-27 23:44 J -32320672.74 -32320672.51 -32320672.28 0.0133 0.0042 *

Moon -93202-10-31 17:59 J -32320303.96 -32320303.75 -32320303.51 0.0133 0.0062

Earth -93202-10-31 21:06 J -32320303.83 -32320303.62 -32320303.40 0.0133 0.0067 *

Earth -93201-11-03 22:03 J -32319934.74 -32319934.58 -32319934.41 0.0133 0.0100

Moon -93201-11-04 00:56 J -32319934.60 -32319934.46 -32319934.30 0.0133 0.0104 *

Moon -93200-11-07 19:39 J -32319565.72 -32319565.68 -32319565.60 0.0134 0.0130

Earth	-93200-11-07 23:15 J	-32319565.56	-32319565.53	-32319565.49	0.0134	0.0132
Mars	-93193-02-03 22:32 J	-32317286.87	-32317286.56	-32317286.24	0.0137	0.0013
Mercury	-93185-12-05 09:49 J	-32314059.12	-32314059.09	-32314059.03	0.0142	0.0134
Mercury	-93184-03-03 14:23 J	-32313970.98	-32313970.90	-32313970.81	0.0142	0.0115
Mercury	-93184-05-30 18:42 J	-32313882.82	-32313882.72	-32313882.60	0.0142	0.0096
Mercury	-93184-08-26 23:30 J	-32313794.65	-32313794.52	-32313794.40	0.0142	0.0076
Mercury	-93184-11-23 03:49 J	-32313706.47	-32313706.34	-32313706.20	0.0142	0.0057
Mercury	-93183-02-19 08:23 J	-32313618.29	-32313618.15	-32313618.00	0.0142	0.0037
Mercury	-93183-05-18 12:56 J	-32313530.10	-32313529.96	-32313529.81	0.0142	0.0018
Mercury	-93183-08-14 17:44 J	-32313441.91	-32313441.76	-32313441.62	0.0143	0.0005
Venus	-93183-10-20 08:37 J	-32313375.25	-32313375.14	-32313374.99	0.0143	0.0111
Mercury	-93183-11-10 22:18 J	-32313353.72	-32313353.57	-32313353.42	0.0143	0.0023
Mercury	-93182-02-07 02:51 J	-32313265.52	-32313265.38	-32313265.23	0.0143	0.0044
Mercury	-93182-05-06 07:39 J	-32313177.31	-32313177.18	-32313177.04	0.0143	0.0064
Venus	-93182-06-03 18:13 J	-32313148.94	-32313148.74	-32313148.53	0.0143	0.0040
Mercury	-93182-08-02 12:27 J	-32313089.10	-32313088.98	-32313088.85	0.0143	0.0085
Mercury	-93182-10-29 17:15 J	-32313000.87	-32313000.78	-32313000.67	0.0143	0.0106
Venus	-93181-01-16 03:49 J	-32312922.55	-32312922.34	-32312922.13	0.0143	0.0031
Mercury	-93181-01-25 22:03 J	-32312912.63	-32312912.58	-32312912.50	0.0143	0.0128
Venus	-93181-08-29 13:25 J	-32312696.08	-32312695.94	-32312695.78	0.0144	0.0103
Moon	-93166-04-02 15:06 J	-32307366.89	-32307366.87	-32307366.81	0.0147	0.0145
Earth	-93166-04-02 17:44 J	-32307366.84	-32307366.76	-32307366.66	0.0147	0.0137 *
Earth	-93165-04-07 02:23 J	-32306996.59	-32306996.40	-32306996.18	0.0147	0.0092
Moon	-93165-04-07 04:03 J	-32306996.53	-32306996.33	-32306996.12	0.0147	0.0086 *
Moon	-93164-04-12 11:44 J	-32306626.27	-32306626.01	-32306625.76	0.0147	0.0046
Earth	-93164-04-12 11:44 J	-32306626.25	-32306626.01	-32306625.75	0.0147	0.0046 *
Moon	-93163-04-17 20:51 J	-32306255.88	-32306255.63	-32306255.37	0.0146	0.0003
Earth	-93163-04-17 21:20 J	-32306255.88	-32306255.61	-32306255.35	0.0146	0.0003 *
Earth	-93162-04-23 06:27 J	-32305885.47	-32305885.23	-32305884.98	0.0146	0.0047
Moon	-93162-04-23 08:23 J	-32305885.39	-32305885.15	-32305884.89	0.0146	0.0055 *

Moon -93161-04-27 13:25 J -32305515.13 -32305514.94 -32305514.72 0.0146 0.0086
 Earth -93161-04-27 15:35 J -32305515.04 -32305514.85 -32305514.64 0.0146 0.0093 *
 Earth -93160-05-03 00:27 J -32305144.55 -32305144.48 -32305144.39 0.0145 0.0138
 Moon -93160-05-03 04:03 J -32305144.40 -32305144.33 -32305144.26 0.0145 0.0140 *
 Mars -93155-09-30 08:23 J -32303168.41 -32303168.15 -32303167.86 0.0142 0.0059
 Mars -93153-09-01 17:59 J -32302465.87 -32302465.75 -32302465.61 0.0141 0.0128
 Mercury -93145-05-02 15:06 J -32299665.94 -32299665.87 -32299665.80 0.0137 0.0124
 Mercury -93145-07-29 20:37 J -32299577.74 -32299577.64 -32299577.52 0.0137 0.0104
 Mercury -93145-10-26 02:37 J -32299489.53 -32299489.39 -32299489.26 0.0137 0.0083
 Mercury -93144-01-22 08:08 J -32299401.31 -32299401.16 -32299401.01 0.0136 0.0063
 Mercury -93144-04-20 13:39 J -32299313.09 -32299312.93 -32299312.77 0.0136 0.0042
 Mercury -93144-07-17 19:11 J -32299224.86 -32299224.70 -32299224.53 0.0136 0.0022
 Mercury -93144-10-14 00:42 J -32299136.64 -32299136.47 -32299136.30 0.0136 0.0003
 Venus -93144-11-15 17:59 J -32299103.81 -32299103.75 -32299103.65 0.0136 0.0126
 Mercury -93143-01-10 05:59 J -32299048.41 -32299048.25 -32299048.08 0.0136 0.0017
 Mercury -93143-04-08 11:15 J -32298960.18 -32298960.03 -32298959.86 0.0136 0.0036
 Venus -93143-06-30 02:23 J -32298877.59 -32298877.40 -32298877.19 0.0136 0.0063
 Mercury -93143-07-05 16:32 J -32298871.96 -32298871.81 -32298871.65 0.0136 0.0056
 Mercury -93143-10-01 21:49 J -32298783.72 -32298783.59 -32298783.45 0.0136 0.0074
 Mercury -93143-12-29 02:51 J -32298695.49 -32298695.38 -32298695.25 0.0135 0.0093
 Venus -93142-02-11 10:32 J -32298651.29 -32298651.06 -32298650.84 0.0135 0.0002
 Mercury -93142-03-27 08:08 J -32298607.25 -32298607.16 -32298607.06 0.0135 0.0111
 Mercury -93142-06-23 12:56 J -32298518.99 -32298518.96 -32298518.90 0.0135 0.0130
 Venus -93142-09-25 17:59 J -32298424.94 -32298424.75 -32298424.55 0.0135 0.0062
 Venus -93141-05-09 01:25 J -32298198.52 -32298198.44 -32298198.34 0.0135 0.0123
 Moon -93124-10-08 22:32 J -32291836.64 -32291836.56 -32291836.46 0.0132 0.0123
 Earth -93124-10-09 01:25 J -32291836.52 -32291836.44 -32291836.33 0.0132 0.0122 *
 Earth -93123-10-13 02:23 J -32291467.57 -32291467.40 -32291467.21 0.0132 0.0091
 Moon -93123-10-13 05:30 J -32291467.42 -32291467.27 -32291467.08 0.0132 0.0093 *
 Moon -93122-10-16 23:44 J -32291098.72 -32291098.51 -32291098.27 0.0132 0.0057

Earth -93122-10-17 03:20 J -32291098.58 -32291098.36 -32291098.14 0.0132 0.0059 *
 Earth -93121-10-20 04:03 J -32290729.58 -32290729.33 -32290729.09 0.0132 0.0028
 Moon -93121-10-20 06:56 J -32290729.44 -32290729.21 -32290728.97 0.0132 0.0034 *
 Moon -93120-10-24 01:11 J -32290360.70 -32290360.45 -32290360.20 0.0132 0.0011
 Earth -93120-10-24 04:47 J -32290360.55 -32290360.30 -32290360.05 0.0132 0.0005 *
 Earth -93119-10-28 05:01 J -32289991.52 -32289991.29 -32289991.04 0.0133 0.0037
 Moon -93119-10-28 08:08 J -32289991.39 -32289991.16 -32289990.92 0.0133 0.0030 *
 Moon -93118-11-01 02:08 J -32289622.60 -32289622.41 -32289622.19 0.0133 0.0075
 Earth -93118-11-01 05:44 J -32289622.46 -32289622.26 -32289622.04 0.0133 0.0069 *
 Earth -93117-11-04 06:27 J -32289253.37 -32289253.23 -32289253.05 0.0133 0.0101
 Moon -93117-11-04 09:49 J -32289253.24 -32289253.09 -32289252.90 0.0133 0.0097 *
 Earth -93116-11-08 07:54 J -32288884.18 -32288884.17 -32288884.14 0.0134 0.0133
 Mars -93111-10-27 09:35 J -32287070.21 -32287070.10 -32287069.93 0.0136 0.0121
 Mars -93109-09-28 21:49 J -32286367.87 -32286367.59 -32286367.28 0.0137 0.0052
 Mercury -93101-12-25 16:47 J -32283357.84 -32283357.80 -32283357.74 0.0142 0.0131
 Mercury -93100-03-23 21:20 J -32283269.70 -32283269.61 -32283269.52 0.0142 0.0112
 Mercury -93100-06-20 01:39 J -32283181.53 -32283181.43 -32283181.31 0.0142 0.0093
 Mercury -93100-09-16 06:13 J -32283093.36 -32283093.24 -32283093.11 0.0142 0.0074
 Mercury -93100-12-13 10:32 J -32283005.19 -32283005.06 -32283004.92 0.0142 0.0055
 Mercury -93099-03-11 15:20 J -32282917.01 -32282916.86 -32282916.72 0.0142 0.0035
 Mercury -93099-06-07 19:54 J -32282828.82 -32282828.67 -32282828.52 0.0143 0.0015
 Mercury -93099-09-04 00:27 J -32282740.63 -32282740.48 -32282740.33 0.0143 0.0006
 Mercury -93099-12-01 05:01 J -32282652.43 -32282652.29 -32282652.14 0.0143 0.0026
 Venus -93098-02-01 00:42 J -32282590.64 -32282590.47 -32282590.28 0.0143 0.0077
 Mercury -93098-02-27 09:49 J -32282564.23 -32282564.09 -32282563.95 0.0143 0.0046
 Mercury -93098-05-26 14:37 J -32282476.02 -32282475.89 -32282475.76 0.0143 0.0067
 Mercury -93098-08-22 19:11 J -32282387.81 -32282387.70 -32282387.57 0.0143 0.0088
 Venus -93098-09-15 10:18 J -32282364.29 -32282364.07 -32282363.86 0.0143 0.0006
 Mercury -93098-11-18 23:59 J -32282299.58 -32282299.50 -32282299.39 0.0143 0.0110
 Mercury -93097-02-15 05:01 J -32282211.34 -32282211.29 -32282211.22 0.0143 0.0131

Venus	-93097-04-28 19:39 J	-32282137.86	-32282137.68	-32282137.48	0.0144	0.0066
Venus	-93097-12-11 05:44 J	-32281911.31	-32281911.26	-32281911.19	0.0144	0.0138
Moon	-93082-04-02 23:15 J	-32276685.65	-32276685.53	-32276685.38	0.0147	0.0126
Earth	-93082-04-03 02:23 J	-32276685.50	-32276685.40	-32276685.29	0.0147	0.0134 *
Earth	-93081-04-07 11:15 J	-32276315.23	-32276315.03	-32276314.82	0.0147	0.0088
Moon	-93081-04-07 13:11 J	-32276315.14	-32276314.95	-32276314.76	0.0147	0.0094 *
Moon	-93080-04-12 18:42 J	-32275944.97	-32275944.72	-32275944.45	0.0147	0.0040
Earth	-93080-04-12 20:08 J	-32275944.90	-32275944.66	-32275944.40	0.0147	0.0043 *
Earth	-93079-04-18 05:44 J	-32275574.52	-32275574.26	-32275574.00	0.0146	0.0004
Moon	-93079-04-18 05:44 J	-32275574.51	-32275574.26	-32275574.01	0.0146	0.0008 *
Earth	-93078-04-23 15:06 J	-32275204.11	-32275203.87	-32275203.62	0.0146	0.0049
Moon	-93078-04-23 15:35 J	-32275204.10	-32275203.85	-32275203.59	0.0146	0.0043 *
Moon	-93077-04-27 22:03 J	-32274833.74	-32274833.58	-32274833.38	0.0146	0.0102
Earth	-93077-04-27 23:59 J	-32274833.68	-32274833.50	-32274833.29	0.0146	0.0095 *
Earth	-93076-05-03 09:06 J	-32274463.18	-32274463.12	-32274463.03	0.0145	0.0139
Moon	-93076-05-03 11:44 J	-32274463.09	-32274463.01	-32274462.90	0.0145	0.0135 *
Mars	-93070-05-26 14:37 J	-32272249.18	-32272248.89	-32272248.58	0.0142	0.0013
Mercury	-93061-05-22 22:03 J	-32268964.65	-32268964.58	-32268964.49	0.0137	0.0120
Mercury	-93061-08-19 03:35 J	-32268876.45	-32268876.35	-32268876.22	0.0137	0.0100
Mercury	-93061-11-15 09:35 J	-32268788.24	-32268788.10	-32268787.96	0.0137	0.0079
Mercury	-93060-02-11 15:06 J	-32268700.02	-32268699.87	-32268699.71	0.0136	0.0059
Mercury	-93060-05-10 20:37 J	-32268611.80	-32268611.64	-32268611.47	0.0136	0.0039
Mercury	-93060-08-07 02:08 J	-32268523.57	-32268523.41	-32268523.24	0.0136	0.0019
Mercury	-93060-11-03 07:39 J	-32268435.35	-32268435.18	-32268435.01	0.0136	0.0002
Mercury	-93059-01-30 13:11 J	-32268347.12	-32268346.95	-32268346.79	0.0136	0.0021
Venus	-93059-02-27 10:32 J	-32268319.22	-32268319.06	-32268318.90	0.0136	0.0093
Mercury	-93059-04-28 18:13 J	-32268258.89	-32268258.74	-32268258.57	0.0136	0.0041
Mercury	-93059-07-25 23:30 J	-32268170.66	-32268170.52	-32268170.36	0.0136	0.0060
Venus	-93059-10-11 18:27 J	-32268092.94	-32268092.73	-32268092.50	0.0136	0.0031
Mercury	-93059-10-22 04:47 J	-32268082.43	-32268082.30	-32268082.16	0.0135	0.0079

Mercury -93058-01-18 09:49 J -32267994.19 -32267994.09 -32267993.96 0.0135 0.0098

Mercury -93058-04-16 15:06 J -32267905.94 -32267905.87 -32267905.78 0.0135 0.0116

Venus -93058-05-26 02:23 J -32267866.60 -32267866.40 -32267866.17 0.0135 0.0033

Mercury -93058-07-13 20:23 J -32267817.67 -32267817.65 -32267817.63 0.0135 0.0134

Venus -93057-01-07 10:18 J -32267640.23 -32267640.07 -32267639.92 0.0135 0.0093

Moon -93040-10-09 07:39 J -32261155.29 -32261155.18 -32261155.05 0.0132 0.0116

Earth -93040-10-09 11:01 J -32261155.12 -32261155.04 -32261154.91 0.0132 0.0119 *

Earth -93039-10-13 11:59 J -32260786.17 -32260786.00 -32260785.80 0.0132 0.0088

Moon -93039-10-13 15:20 J -32260786.03 -32260785.86 -32260785.66 0.0132 0.0087 *

Moon -93038-10-17 09:35 J -32260417.32 -32260417.10 -32260416.87 0.0132 0.0060

Earth -93038-10-17 13:11 J -32260417.17 -32260416.95 -32260416.72 0.0132 0.0056 *

Earth -93037-10-20 13:39 J -32260048.17 -32260047.93 -32260047.68 0.0132 0.0025

Moon -93037-10-20 17:15 J -32260048.02 -32260047.78 -32260047.53 0.0132 0.0020 *

Moon -93036-10-24 11:15 J -32259679.28 -32259679.03 -32259678.78 0.0132 0.0002

Earth -93036-10-24 14:23 J -32259679.14 -32259678.90 -32259678.65 0.0132 0.0008 *

Earth -93035-10-28 15:06 J -32259310.11 -32259309.87 -32259309.63 0.0133 0.0039

Moon -93035-10-28 18:27 J -32259309.95 -32259309.73 -32259309.49 0.0133 0.0047 *

Moon -93034-11-01 12:27 J -32258941.19 -32258940.98 -32258940.76 0.0133 0.0064

Earth -93034-11-01 15:35 J -32258941.04 -32258940.85 -32258940.63 0.0133 0.0071 *

Earth -93033-11-04 16:47 J -32258571.95 -32258571.80 -32258571.64 0.0133 0.0102

Moon -93033-11-04 20:08 J -32258571.80 -32258571.66 -32258571.50 0.0133 0.0107 *

Moon -93032-11-08 14:23 J -32258202.93 -32258202.90 -32258202.84 0.0134 0.0131

Mars -93026-06-22 08:51 J -32256151.40 -32256151.13 -32256150.83 0.0136 0.0057

Mars -93024-05-25 00:42 J -32255448.61 -32255448.47 -32255448.28 0.0137 0.0117

Mercury -93016-01-14 23:59 J -32252656.56 -32252656.50 -32252656.44 0.0142 0.0127

Mercury -93016-04-13 04:03 J -32252568.41 -32252568.33 -32252568.22 0.0142 0.0109

Mercury -93016-07-10 08:51 J -32252480.24 -32252480.13 -32252480.02 0.0142 0.0089

Mercury -93016-10-06 13:11 J -32252392.07 -32252391.95 -32252391.82 0.0142 0.0070

Mercury -93015-01-02 17:44 J -32252303.90 -32252303.76 -32252303.62 0.0142 0.0051

Mercury -93015-03-31 22:03 J -32252215.72 -32252215.58 -32252215.43 0.0142 0.0032

Mercury -93015-06-28 02:51 J -32252127.53 -32252127.38 -32252127.23 0.0143 0.0011

Mercury -93015-09-24 07:25 J -32252039.34 -32252039.19 -32252039.04 0.0143 0.0009

Venus -93015-10-01 07:39 J -32252032.30 -32252032.18 -32252032.04 0.0143 0.0113

Mercury -93015-12-21 11:59 J -32251951.14 -32251951.00 -32251950.85 0.0143 0.0030

Mercury -93014-03-19 16:47 J -32251862.94 -32251862.80 -32251862.66 0.0143 0.0050

Venus -93014-05-15 17:01 J -32251805.99 -32251805.79 -32251805.58 0.0143 0.0042

Mercury -93014-06-15 21:35 J -32251774.73 -32251774.60 -32251774.47 0.0143 0.0071

Mercury -93014-09-12 02:23 J -32251686.51 -32251686.40 -32251686.29 0.0143 0.0091

Mercury -93014-12-09 07:11 J -32251598.29 -32251598.20 -32251598.11 0.0143 0.0113

Venus -93014-12-28 02:37 J -32251579.60 -32251579.39 -32251579.18 0.0143 0.0029

Mercury -93013-03-06 11:59 J -32251510.05 -32251510.00 -32251509.94 0.0144 0.0134

Venus -93013-08-10 12:13 J -32251353.14 -32251352.99 -32251352.83 0.0144 0.0101

93RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 93rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-92998-04-03 07:39 J	-32246004.26	-32246004.18	-32246004.08	0.0147	0.0138		
Earth	-92998-04-03 11:01 J	-32246004.16	-32246004.04	-32246003.92	0.0147	0.0130	*	
Earth	-92997-04-07 19:25 J	-32245633.89	-32245633.69	-32245633.47	0.0147	0.0085		
Moon	-92997-04-07 22:18 J	-32245633.78	-32245633.57	-32245633.35	0.0147	0.0078	*	
Moon	-92996-04-13 02:51 J	-32245263.62	-32245263.38	-32245263.11	0.0147	0.0042		
Earth	-92996-04-13 04:32 J	-32245263.55	-32245263.31	-32245263.05	0.0147	0.0040	*	

Earth	-92995-04-18 14:08 J	-32244893.17	-32244892.91	-32244892.65	0.0146	0.0006
Moon	-92995-04-18 15:20 J	-32244893.11	-32244892.86	-32244892.61	0.0146	0.0004 *
Earth	-92994-04-23 23:30 J	-32244522.76	-32244522.52	-32244522.28	0.0146	0.0052
Moon	-92994-04-23 23:30 J	-32244522.76	-32244522.52	-32244522.26	0.0146	0.0058 *
Moon	-92993-04-28 07:39 J	-32244152.36	-32244152.18	-32244151.97	0.0146	0.0090
Earth	-92993-04-28 08:37 J	-32244152.32	-32244152.14	-32244151.93	0.0146	0.0097 *
Earth	-92992-05-03 17:44 J	-32243781.81	-32243781.76	-32243781.68	0.0145	0.0141
Moon	-92992-05-03 19:25 J	-32243781.69	-32243781.69	-32243781.63	0.0145	0.0145 *
Mars	-92987-02-16 02:37 J	-32242032.57	-32242032.39	-32242032.17	0.0143	0.0108
Mars	-92985-01-19 18:42 J	-32241329.96	-32241329.72	-32241329.47	0.0142	0.0081
Mercury	-92977-03-15 23:15 J	-32238351.53	-32238351.53	-32238351.51	0.0137	0.0137
Mercury	-92977-06-12 05:01 J	-32238263.37	-32238263.29	-32238263.19	0.0137	0.0116
Mercury	-92977-09-08 11:01 J	-32238175.16	-32238175.04	-32238174.92	0.0137	0.0095
Mercury	-92977-12-05 16:32 J	-32238086.94	-32238086.81	-32238086.66	0.0137	0.0074
Mercury	-92976-03-03 22:03 J	-32237998.72	-32237998.58	-32237998.41	0.0136	0.0055
Mercury	-92976-05-31 03:49 J	-32237910.50	-32237910.34	-32237910.17	0.0136	0.0034
Mercury	-92976-08-27 09:20 J	-32237822.28	-32237822.11	-32237821.94	0.0136	0.0014
Venus	-92976-10-27 18:13 J	-32237760.81	-32237760.74	-32237760.63	0.0136	0.0124
Mercury	-92976-11-23 14:51 J	-32237734.05	-32237733.88	-32237733.71	0.0136	0.0006
Mercury	-92975-02-19 20:08 J	-32237645.82	-32237645.66	-32237645.49	0.0136	0.0026
Mercury	-92975-05-19 01:25 J	-32237557.59	-32237557.44	-32237557.28	0.0136	0.0045
Venus	-92975-06-11 02:51 J	-32237534.57	-32237534.38	-32237534.17	0.0136	0.0061
Mercury	-92975-08-15 06:42 J	-32237469.36	-32237469.22	-32237469.07	0.0136	0.0064
Mercury	-92975-11-11 11:59 J	-32237381.12	-32237381.00	-32237380.86	0.0135	0.0083
Venus	-92974-01-23 11:01 J	-32237308.26	-32237308.04	-32237307.82	0.0135	0.0002
Mercury	-92974-02-07 17:01 J	-32237292.89	-32237292.79	-32237292.67	0.0135	0.0102
Mercury	-92974-05-06 22:32 J	-32237204.64	-32237204.56	-32237204.49	0.0135	0.0120
Venus	-92974-09-06 18:27 J	-32237081.91	-32237081.73	-32237081.52	0.0135	0.0064
Venus	-92973-04-20 02:08 J	-32236855.49	-32236855.41	-32236855.33	0.0135	0.0125
Moon	-92956-10-09 17:01 J	-32230473.89	-32230473.79	-32230473.67	0.0131	0.0118

Earth	-92956-10-09 20:37 J	-32230473.75	-32230473.64	-32230473.51	0.0131	0.0115	*
Earth	-92955-10-13 21:20 J	-32230104.79	-32230104.61	-32230104.41	0.0132	0.0085	
Moon	-92955-10-14 00:56 J	-32230104.63	-32230104.46	-32230104.26	0.0132	0.0086	*
Moon	-92954-10-17 18:42 J	-32229735.94	-32229735.72	-32229735.48	0.0132	0.0052	
Earth	-92954-10-17 22:03 J	-32229735.79	-32229735.58	-32229735.34	0.0132	0.0054	*
Earth	-92953-10-20 23:01 J	-32229366.78	-32229366.54	-32229366.29	0.0132	0.0022	
Moon	-92953-10-21 02:23 J	-32229366.64	-32229366.40	-32229366.15	0.0132	0.0028	*
Moon	-92952-10-24 20:08 J	-32228997.90	-32228997.66	-32228997.41	0.0132	0.0016	
Earth	-92952-10-24 23:44 J	-32228997.75	-32228997.51	-32228997.26	0.0132	0.0010	*
Earth	-92951-10-29 00:13 J	-32228628.72	-32228628.49	-32228628.25	0.0132	0.0041	
Moon	-92951-10-29 03:49 J	-32228628.58	-32228628.34	-32228628.10	0.0132	0.0034	*
Moon	-92950-11-01 21:20 J	-32228259.79	-32228259.61	-32228259.39	0.0133	0.0079	
Earth	-92950-11-02 01:11 J	-32228259.65	-32228259.45	-32228259.23	0.0133	0.0072	*
Earth	-92949-11-05 01:54 J	-32227890.55	-32227890.42	-32227890.24	0.0133	0.0104	
Moon	-92949-11-05 05:44 J	-32227890.42	-32227890.26	-32227890.08	0.0133	0.0098	*
Mars	-92941-02-15 08:37 J	-32225232.45	-32225232.14	-32225231.82	0.0137	0.0007	
Mercury	-92932-02-04 06:56 J	-32221955.27	-32221955.21	-32221955.14	0.0142	0.0124	
Mercury	-92932-05-03 11:15 J	-32221867.12	-32221867.03	-32221866.93	0.0142	0.0105	
Mercury	-92932-07-30 15:35 J	-32221778.95	-32221778.85	-32221778.72	0.0142	0.0086	
Mercury	-92932-10-26 20:23 J	-32221690.78	-32221690.65	-32221690.53	0.0142	0.0067	
Mercury	-92931-01-23 00:42 J	-32221602.61	-32221602.47	-32221602.33	0.0142	0.0047	
Mercury	-92931-04-21 05:15 J	-32221514.42	-32221514.28	-32221514.13	0.0142	0.0027	
Mercury	-92931-07-18 09:49 J	-32221426.24	-32221426.09	-32221425.94	0.0143	0.0007	
Mercury	-92931-10-14 14:23 J	-32221338.04	-32221337.90	-32221337.75	0.0143	0.0013	
Mercury	-92930-01-10 19:11 J	-32221249.85	-32221249.70	-32221249.56	0.0143	0.0033	
Venus	-92930-01-12 23:59 J	-32221247.66	-32221247.50	-32221247.31	0.0143	0.0078	
Mercury	-92930-04-08 23:44 J	-32221161.64	-32221161.51	-32221161.37	0.0143	0.0054	
Mercury	-92930-07-06 04:32 J	-32221073.44	-32221073.31	-32221073.18	0.0143	0.0074	
Venus	-92930-08-27 09:35 J	-32221021.31	-32221021.10	-32221020.89	0.0143	0.0007	
Mercury	-92930-10-02 09:06 J	-32220985.22	-32220985.12	-32220985.00	0.0143	0.0096	

Mercury -92930-12-29 14:08 J -32220896.99 -32220896.91 -32220896.82 0.0143 0.0116

Mercury -92929-03-26 18:56 J -32220808.74 -32220808.71 -32220808.66 0.0144 0.0138

Venus -92929-04-09 18:56 J -32220794.89 -32220794.71 -32220794.51 0.0144 0.0065

Venus -92929-11-22 04:47 J -32220568.35 -32220568.30 -32220568.23 0.0144 0.0137

Moon -92914-04-03 16:18 J -32215322.95 -32215322.82 -32215322.65 0.0147 0.0119

Earth -92914-04-03 19:54 J -32215322.78 -32215322.67 -32215322.52 0.0147 0.0127 *

Earth -92913-04-08 04:47 J -32214952.50 -32214952.30 -32214952.07 0.0147 0.0082

Moon -92913-04-08 07:39 J -32214952.37 -32214952.18 -32214951.96 0.0147 0.0089 *

Moon -92912-04-13 11:15 J -32214582.29 -32214582.03 -32214581.77 0.0147 0.0033

Earth -92912-04-13 14:08 J -32214582.16 -32214581.91 -32214581.66 0.0147 0.0037 *

Earth -92911-04-18 23:30 J -32214211.78 -32214211.52 -32214211.26 0.0146 0.0009

Moon -92911-04-19 00:56 J -32214211.71 -32214211.46 -32214211.21 0.0146 0.0011 *

Moon -92910-04-24 07:54 J -32213841.42 -32213841.17 -32213840.91 0.0146 0.0047

Earth -92910-04-24 08:51 J -32213841.37 -32213841.13 -32213840.88 0.0146 0.0054 *

Earth -92909-04-28 17:59 J -32213470.93 -32213470.75 -32213470.54 0.0146 0.0099

Moon -92909-04-28 17:30 J -32213470.92 -32213470.77 -32213470.57 0.0146 0.0106 *

Earth -92908-05-04 03:06 J -32213100.40 -32213100.37 -32213100.29 0.0145 0.0143

Moon -92908-05-04 05:01 J -32213100.37 -32213100.29 -32213100.20 0.0145 0.0137 *

Mars -92903-10-12 11:15 J -32211113.32 -32211113.03 -32211112.73 0.0142 0.0036

Mercury -92893-04-05 06:27 J -32207650.26 -32207650.23 -32207650.17 0.0137 0.0132

Mercury -92893-07-02 12:27 J -32207562.07 -32207561.98 -32207561.88 0.0137 0.0111

Mercury -92893-09-28 18:13 J -32207473.86 -32207473.74 -32207473.61 0.0137 0.0090

Mercury -92893-12-25 23:44 J -32207385.64 -32207385.51 -32207385.35 0.0136 0.0070

Mercury -92892-03-24 05:30 J -32207297.42 -32207297.27 -32207297.11 0.0136 0.0049

Mercury -92892-06-20 11:01 J -32207209.20 -32207209.04 -32207208.87 0.0136 0.0029

Mercury -92892-09-16 16:32 J -32207120.97 -32207120.81 -32207120.64 0.0136 0.0010

Mercury -92892-12-13 22:03 J -32207032.74 -32207032.58 -32207032.41 0.0136 0.0011

Venus -92891-02-08 11:15 J -32206976.18 -32206976.03 -32206975.85 0.0136 0.0091

Mercury -92891-03-12 03:35 J -32206944.52 -32206944.35 -32206944.19 0.0136 0.0030

Mercury -92891-06-08 08:37 J -32206856.29 -32206856.14 -32206855.98 0.0136 0.0050

Mercury -92891-09-04 13:54 J -32206768.05 -32206767.92 -32206767.77 0.0136 0.0069

Venus -92891-09-22 19:39 J -32206749.89 -32206749.68 -32206749.46 0.0136 0.0027

Mercury -92891-12-01 19:11 J -32206679.82 -32206679.70 -32206679.57 0.0135 0.0087

Mercury -92890-02-28 00:13 J -32206591.58 -32206591.49 -32206591.38 0.0135 0.0106

Venus -92890-05-07 03:35 J -32206523.56 -32206523.35 -32206523.13 0.0135 0.0035

Mercury -92890-05-27 05:30 J -32206503.32 -32206503.27 -32206503.20 0.0135 0.0124

Venus -92890-12-19 11:15 J -32206297.18 -32206297.03 -32206296.87 0.0135 0.0096

Moon -92872-10-10 02:51 J -32199792.50 -32199792.38 -32199792.22 0.0132 0.0110

Earth -92872-10-10 06:42 J -32199792.33 -32199792.22 -32199792.07 0.0132 0.0112 *

Earth -92871-10-14 07:25 J -32199423.37 -32199423.19 -32199422.98 0.0132 0.0082

Moon -92871-10-14 11:01 J -32199423.22 -32199423.04 -32199422.83 0.0132 0.0082 *

Moon -92870-10-18 05:15 J -32199054.50 -32199054.28 -32199054.05 0.0132 0.0054

Earth -92870-10-18 08:37 J -32199054.36 -32199054.14 -32199053.90 0.0132 0.0051 *

Earth -92869-10-21 09:20 J -32198685.35 -32198685.11 -32198684.86 0.0132 0.0020

Moon -92869-10-21 12:56 J -32198685.20 -32198684.96 -32198684.70 0.0132 0.0015 *

Moon -92868-10-25 06:56 J -32198316.45 -32198316.21 -32198315.96 0.0132 0.0006

Earth -92868-10-25 10:18 J -32198316.32 -32198316.07 -32198315.82 0.0132 0.0012 *

Earth -92867-10-29 11:01 J -32197947.28 -32197947.04 -32197946.81 0.0132 0.0043

Moon -92867-10-29 14:23 J -32197947.12 -32197946.90 -32197946.66 0.0132 0.0050 *

Moon -92866-11-02 08:23 J -32197578.34 -32197578.15 -32197577.92 0.0133 0.0068

Earth -92866-11-02 11:59 J -32197578.20 -32197578.00 -32197577.79 0.0133 0.0074 *

Earth -92865-11-05 12:56 J -32197209.10 -32197208.96 -32197208.80 0.0133 0.0105

Moon -92865-11-05 16:18 J -32197208.95 -32197208.82 -32197208.67 0.0133 0.0110 *

Moon -92864-11-09 11:01 J -32196840.05 -32196840.04 -32196840.01 0.0133 0.0133

Mars -92859-11-08 01:25 J -32195015.63 -32195015.44 -32195015.21 0.0136 0.0099

Mars -92857-10-10 10:32 J -32194313.31 -32194313.06 -32194312.78 0.0137 0.0071

Mercury -92849-11-28 09:49 J -32191342.11 -32191342.09 -32191342.05 0.0142 0.0138

Mercury -92848-02-24 14:08 J -32191253.98 -32191253.91 -32191253.83 0.0142 0.0120

Mercury -92848-05-23 18:27 J -32191165.82 -32191165.73 -32191165.62 0.0142 0.0101

Mercury -92848-08-19 23:01 J -32191077.66 -32191077.54 -32191077.42 0.0142 0.0082

Mercury -92848-11-16 03:20 J -32190989.48 -32190989.36 -32190989.22 0.0142 0.0063

Mercury -92847-02-12 07:54 J -32190901.31 -32190901.17 -32190901.03 0.0142 0.0043

Mercury -92847-05-11 12:27 J -32190813.12 -32190812.98 -32190812.83 0.0143 0.0023

Mercury -92847-08-07 17:01 J -32190724.94 -32190724.79 -32190724.64 0.0143 0.0004

Venus -92847-09-12 07:54 J -32190689.29 -32190689.17 -32190689.03 0.0143 0.0112

Mercury -92847-11-03 21:35 J -32190636.74 -32190636.60 -32190636.45 0.0143 0.0017

Mercury -92846-01-31 02:23 J -32190548.55 -32190548.40 -32190548.26 0.0143 0.0037

Venus -92846-04-26 17:01 J -32190462.99 -32190462.79 -32190462.58 0.0143 0.0042

Mercury -92846-04-29 06:56 J -32190460.34 -32190460.21 -32190460.07 0.0143 0.0058

Mercury -92846-07-26 11:44 J -32190372.13 -32190372.01 -32190371.88 0.0143 0.0079

Mercury -92846-10-22 16:32 J -32190283.91 -32190283.81 -32190283.70 0.0143 0.0100

Venus -92846-12-09 02:37 J -32190236.60 -32190236.39 -32190236.18 0.0143 0.0029

Mercury -92845-01-18 21:20 J -32190195.69 -32190195.61 -32190195.53 0.0144 0.0121

Mercury -92845-04-16 02:23 J -32190107.42 -32190107.40 -32190107.38 0.0144 0.0142

Venus -92845-07-22 12:13 J -32190010.14 -32190009.99 -32190009.84 0.0144 0.0101

Moon -92830-04-04 01:54 J -32184641.52 -32184641.42 -32184641.28 0.0147 0.0131

Earth -92830-04-04 05:44 J -32184641.39 -32184641.26 -32184641.11 0.0147 0.0123 *

Earth -92829-04-08 14:37 J -32184271.11 -32184270.89 -32184270.68 0.0147 0.0079

Moon -92829-04-08 17:59 J -32184270.97 -32184270.75 -32184270.52 0.0147 0.0071 *

Moon -92828-04-13 20:37 J -32183900.88 -32183900.64 -32183900.37 0.0147 0.0037

Earth -92828-04-13 23:30 J -32183900.76 -32183900.52 -32183900.26 0.0147 0.0034 *

Earth -92827-04-19 09:06 J -32183530.38 -32183530.12 -32183529.86 0.0147 0.0012

Moon -92827-04-19 11:44 J -32183530.27 -32183530.01 -32183529.76 0.0147 0.0010 *

Moon -92826-04-24 16:47 J -32183160.03 -32183159.80 -32183159.54 0.0146 0.0062

Earth -92826-04-24 18:27 J -32183159.96 -32183159.73 -32183159.48 0.0146 0.0056 *

Earth -92825-04-29 03:49 J -32182789.51 -32182789.34 -32182789.14 0.0146 0.0101

Moon -92825-04-29 04:18 J -32182789.50 -32182789.32 -32182789.11 0.0146 0.0093 *

Earth -92824-05-04 13:25 J -32182418.97 -32182418.94 -32182418.89 0.0145 0.0144

Mars -92818-06-07 17:44 J -32180194.05 -32180193.76 -32180193.47 0.0142 0.0034

Mercury -92809-04-25 13:54 J -32176948.97 -32176948.92 -32176948.85 0.0137 0.0127

Mercury -92809-07-22 19:39 J -32176860.78 -32176860.68 -32176860.56 0.0137 0.0106

Mercury -92809-10-19 01:39 J -32176772.56 -32176772.43 -32176772.30 0.0137 0.0085

Mercury -92808-01-15 07:11 J -32176684.34 -32176684.20 -32176684.05 0.0136 0.0065

Mercury -92808-04-13 12:42 J -32176596.12 -32176595.97 -32176595.80 0.0136 0.0045

Mercury -92808-07-10 18:27 J -32176507.90 -32176507.73 -32176507.56 0.0136 0.0024

Mercury -92808-10-06 23:59 J -32176419.67 -32176419.50 -32176419.33 0.0136 0.0004

Venus -92808-10-08 20:08 J -32176417.76 -32176417.66 -32176417.56 0.0136 0.0121

Mercury -92807-01-03 05:15 J -32176331.44 -32176331.28 -32176331.11 0.0136 0.0016

Mercury -92807-04-01 10:47 J -32176243.21 -32176243.05 -32176242.89 0.0136 0.0035

Venus -92807-05-23 04:32 J -32176191.51 -32176191.31 -32176191.11 0.0136 0.0057

Mercury -92807-06-28 15:49 J -32176154.98 -32176154.84 -32176154.67 0.0136 0.0055

Mercury -92807-09-24 21:06 J -32176066.75 -32176066.62 -32176066.47 0.0136 0.0074

Mercury -92807-12-22 02:37 J -32175978.51 -32175978.39 -32175978.27 0.0135 0.0092

Venus -92806-01-04 12:27 J -32175965.20 -32175964.98 -32175964.76 0.0135 0.0006

Mercury -92806-03-20 07:39 J -32175890.27 -32175890.18 -32175890.08 0.0135 0.0111

Mercury -92806-06-16 12:42 J -32175802.01 -32175801.97 -32175801.91 0.0135 0.0129

Venus -92806-08-18 20:08 J -32175738.85 -32175738.66 -32175738.47 0.0135 0.0067

Venus -92805-04-01 03:06 J -32175512.42 -32175512.37 -32175512.29 0.0135 0.0129

Jupiter -92796-10-11 23:15 J -32172031.69 -32172031.53 -32172031.30 0.0132 0.0121

Moon -92788-10-10 13:11 J -32169111.06 -32169110.95 -32169110.80 0.0131 0.0113

Earth -92788-10-10 16:32 J -32169110.94 -32169110.81 -32169110.66 0.0131 0.0109 *

Earth -92787-10-14 17:30 J -32168741.96 -32168741.77 -32168741.56 0.0132 0.0079

Moon -92787-10-14 20:51 J -32168741.82 -32168741.63 -32168741.42 0.0132 0.0080 *

Moon -92786-10-18 15:06 J -32168373.08 -32168372.87 -32168372.63 0.0132 0.0047

Earth -92786-10-18 18:42 J -32168372.95 -32168372.72 -32168372.49 0.0132 0.0048 *

Earth -92785-10-21 19:25 J -32168003.94 -32168003.69 -32168003.45 0.0132 0.0017

Moon -92785-10-21 22:32 J -32168003.81 -32168003.56 -32168003.31 0.0132 0.0022 *

Moon -92784-10-25 16:47 J -32167635.04 -32167634.80 -32167634.56 0.0132 0.0020

Earth -92784-10-25 20:08 J -32167634.91 -32167634.66 -32167634.41 0.0132 0.0014 *

Earth -92783-10-29 20:51 J -32167265.86 -32167265.63 -32167265.40 0.0132 0.0045

Moon -92783-10-29 23:44 J -32167265.75 -32167265.51 -32167265.26 0.0132 0.0038 *
 Moon -92782-11-02 18:27 J -32166896.91 -32166896.73 -32166896.53 0.0133 0.0082
 Earth -92782-11-02 21:35 J -32166896.79 -32166896.60 -32166896.38 0.0133 0.0076 *
 Earth -92781-11-05 22:47 J -32166527.69 -32166527.55 -32166527.39 0.0133 0.0106
 Moon -92781-11-06 01:54 J -32166527.57 -32166527.42 -32166527.25 0.0133 0.0100 *
 Mars -92774-07-03 23:01 J -32164096.84 -32164096.54 -32164096.24 0.0136 0.0038
 Mars -92772-06-05 11:59 J -32163394.02 -32163394.00 -32163393.93 0.0137 0.0136
 Mercury -92765-12-18 16:47 J -32160640.83 -32160640.80 -32160640.75 0.0142 0.0135
 Mercury -92764-03-16 21:20 J -32160552.69 -32160552.61 -32160552.53 0.0142 0.0116
 Mercury -92764-06-13 01:39 J -32160464.53 -32160464.43 -32160464.32 0.0142 0.0097
 Mercury -92764-09-09 05:59 J -32160376.37 -32160376.25 -32160376.12 0.0142 0.0078
 Mercury -92764-12-06 10:18 J -32160288.19 -32160288.07 -32160287.93 0.0142 0.0059
 Mercury -92763-03-04 14:51 J -32160200.01 -32160199.88 -32160199.73 0.0142 0.0040
 Mercury -92763-05-31 19:39 J -32160111.83 -32160111.68 -32160111.54 0.0143 0.0020
 Mercury -92763-08-27 23:59 J -32160023.64 -32160023.50 -32160023.35 0.0143 0.0005
 Mercury -92763-11-24 04:47 J -32159935.45 -32159935.30 -32159935.16 0.0143 0.0021
 Venus -92763-12-25 00:27 J -32159904.66 -32159904.48 -32159904.30 0.0143 0.0077
 Mercury -92762-02-20 09:20 J -32159847.25 -32159847.11 -32159846.97 0.0143 0.0041
 Mercury -92762-05-19 14:08 J -32159759.05 -32159758.91 -32159758.78 0.0143 0.0062
 Venus -92762-08-08 09:35 J -32159678.31 -32159678.10 -32159677.88 0.0143 0.0008
 Mercury -92762-08-15 18:42 J -32159670.84 -32159670.72 -32159670.59 0.0143 0.0083
 Mercury -92762-11-11 23:30 J -32159582.62 -32159582.52 -32159582.41 0.0143 0.0104
 Mercury -92761-02-08 04:18 J -32159494.39 -32159494.32 -32159494.24 0.0144 0.0125
 Venus -92761-03-21 19:11 J -32159451.89 -32159451.70 -32159451.51 0.0144 0.0065
 Venus -92761-11-03 05:01 J -32159225.35 -32159225.29 -32159225.22 0.0144 0.0137
 Moon -92746-04-04 12:13 J -32153960.15 -32153959.99 -32153959.81 0.0147 0.0112
 Earth -92746-04-04 15:35 J -32153959.98 -32153959.85 -32153959.68 0.0147 0.0120 *
 Earth -92745-04-09 00:27 J -32153589.68 -32153589.48 -32153589.24 0.0147 0.0076
 Moon -92745-04-09 04:03 J -32153589.53 -32153589.33 -32153589.11 0.0147 0.0082 *
 Moon -92744-04-14 06:27 J -32153219.48 -32153219.23 -32153218.97 0.0147 0.0026

Earth -92744-04-14 10:03 J -32153219.33 -32153219.08 -32153218.82 0.0147 0.0031 *
 Earth -92743-04-19 19:25 J -32152848.94 -32152848.69 -32152848.42 0.0147 0.0015
 Moon -92743-04-19 22:18 J -32152848.82 -32152848.57 -32152848.32 0.0147 0.0016 *
 Moon -92742-04-25 02:51 J -32152478.62 -32152478.38 -32152478.12 0.0146 0.0053
 Earth -92742-04-25 05:15 J -32152478.52 -32152478.28 -32152478.04 0.0146 0.0059 *
 Earth -92741-04-29 14:37 J -32152108.06 -32152107.89 -32152107.69 0.0146 0.0102
 Moon -92741-04-29 15:49 J -32152107.99 -32152107.84 -32152107.66 0.0146 0.0110 *
 Moon -92740-05-04 23:59 J -32151737.55 -32151737.50 -32151737.40 0.0145 0.0140
 Earth -92740-05-05 00:13 J -32151737.50 -32151737.49 -32151737.46 0.0145 0.0145 *
 Mars -92735-02-28 07:39 J -32149977.41 -32149977.18 -32149976.91 0.0143 0.0084
 Mars -92733-02-01 00:27 J -32149274.66 -32149274.48 -32149274.25 0.0142 0.0103
 Mercury -92725-05-15 21:35 J -32146247.68 -32146247.60 -32146247.52 0.0137 0.0121
 Mercury -92725-08-12 03:20 J -32146159.47 -32146159.36 -32146159.24 0.0137 0.0100
 Mercury -92725-11-08 08:51 J -32146071.26 -32146071.13 -32146070.98 0.0137 0.0080
 Mercury -92724-02-04 14:37 J -32145983.04 -32145982.89 -32145982.73 0.0136 0.0059
 Mercury -92724-05-03 20:08 J -32145894.81 -32145894.66 -32145894.49 0.0136 0.0040
 Mercury -92724-07-31 01:54 J -32145806.59 -32145806.42 -32145806.25 0.0136 0.0019
 Mercury -92724-10-27 07:25 J -32145718.36 -32145718.19 -32145718.02 0.0136 0.0001
 Venus -92723-01-20 13:11 J -32145633.11 -32145632.95 -32145632.77 0.0136 0.0087
 Mercury -92723-01-23 12:42 J -32145630.13 -32145629.97 -32145629.80 0.0136 0.0021
 Mercury -92723-04-21 18:13 J -32145541.90 -32145541.74 -32145541.58 0.0136 0.0040
 Mercury -92723-07-18 23:15 J -32145453.67 -32145453.53 -32145453.37 0.0136 0.0060
 Venus -92723-09-03 21:35 J -32145406.82 -32145406.60 -32145406.38 0.0136 0.0024
 Mercury -92723-10-15 04:32 J -32145365.43 -32145365.31 -32145365.16 0.0136 0.0079
 Mercury -92722-01-11 10:03 J -32145277.19 -32145277.08 -32145276.97 0.0135 0.0097
 Mercury -92722-04-09 15:06 J -32145188.95 -32145188.87 -32145188.78 0.0135 0.0115
 Venus -92722-04-18 05:30 J -32145180.49 -32145180.27 -32145180.06 0.0135 0.0039
 Mercury -92722-07-06 20:23 J -32145100.67 -32145100.65 -32145100.63 0.0135 0.0134
 Venus -92722-11-30 12:42 J -32144954.11 -32144953.97 -32144953.81 0.0135 0.0100
 Moon -92704-10-11 00:13 J -32138429.63 -32138429.49 -32138429.32 0.0131 0.0103

Earth -92704-10-11 03:35 J -32138429.49 -32138429.35 -32138429.19 0.0131 0.0105 *
 Earth -92703-10-15 04:32 J -32138060.51 -32138060.31 -32138060.10 0.0132 0.0075
 Moon -92703-10-15 07:25 J -32138060.39 -32138060.19 -32138059.97 0.0132 0.0076 *
 Moon -92702-10-19 02:23 J -32137691.62 -32137691.40 -32137691.16 0.0132 0.0048
 Earth -92702-10-19 05:30 J -32137691.50 -32137691.27 -32137691.03 0.0132 0.0045 *
 Earth -92701-10-22 06:13 J -32137322.48 -32137322.24 -32137321.98 0.0132 0.0015
 Moon -92701-10-22 09:35 J -32137322.35 -32137322.10 -32137321.85 0.0132 0.0009 *
 Moon -92700-10-26 04:32 J -32136953.55 -32136953.31 -32136953.07 0.0132 0.0011
 Earth -92700-10-26 07:11 J -32136953.45 -32136953.20 -32136952.95 0.0132 0.0016 *
 Earth -92699-10-30 07:54 J -32136584.40 -32136584.17 -32136583.93 0.0132 0.0047
 Moon -92699-10-30 11:01 J -32136584.27 -32136584.04 -32136583.80 0.0132 0.0054 *
 Moon -92698-11-03 06:13 J -32136215.43 -32136215.24 -32136215.02 0.0133 0.0071
 Earth -92698-11-03 08:37 J -32136215.32 -32136215.14 -32136214.92 0.0133 0.0078 *
 Earth -92697-11-06 09:20 J -32135846.23 -32135846.11 -32135845.94 0.0133 0.0108
 Moon -92697-11-06 12:27 J -32135846.10 -32135845.98 -32135845.84 0.0133 0.0112 *
 Mars -92689-02-26 23:30 J -32133177.82 -32133177.52 -32133177.21 0.0136 0.0026
 Mercury -92680-01-07 23:59 J -32129939.54 -32129939.50 -32129939.44 0.0142 0.0131
 Mercury -92680-04-06 04:32 J -32129851.40 -32129851.31 -32129851.22 0.0142 0.0112
 Mercury -92680-07-03 08:51 J -32129763.24 -32129763.13 -32129763.02 0.0142 0.0093
 Mercury -92680-09-29 13:11 J -32129675.07 -32129674.95 -32129674.82 0.0142 0.0074
 Mercury -92680-12-26 17:44 J -32129586.90 -32129586.76 -32129586.63 0.0142 0.0055
 Mercury -92679-03-24 22:03 J -32129498.72 -32129498.58 -32129498.43 0.0142 0.0036
 Mercury -92679-06-21 02:37 J -32129410.53 -32129410.39 -32129410.24 0.0143 0.0016
 Venus -92679-08-24 08:08 J -32129346.28 -32129346.16 -32129346.02 0.0143 0.0112
 Mercury -92679-09-17 07:11 J -32129322.34 -32129322.20 -32129322.05 0.0143 0.0007
 Mercury -92679-12-14 11:59 J -32129234.15 -32129234.00 -32129233.86 0.0143 0.0025
 Mercury -92678-03-12 16:32 J -32129145.95 -32129145.81 -32129145.67 0.0143 0.0045
 Venus -92678-04-07 17:15 J -32129119.98 -32129119.78 -32129119.57 0.0143 0.0042
 Mercury -92678-06-08 21:06 J -32129057.75 -32129057.62 -32129057.48 0.0143 0.0066
 Mercury -92678-09-05 01:54 J -32128969.53 -32128969.42 -32128969.30 0.0143 0.0087

Venus -92678-11-20 02:37 J -32128893.59 -32128893.39 -32128893.17 0.0143 0.0030
 Mercury -92678-12-02 06:42 J -32128881.31 -32128881.22 -32128881.12 0.0143 0.0108
 Mercury -92677-02-28 11:30 J -32128793.08 -32128793.02 -32128792.95 0.0144 0.0129
 Venus -92677-07-03 12:27 J -32128667.13 -32128666.98 -32128666.83 0.0144 0.0101
 Moon -92662-04-04 23:01 J -32123278.68 -32123278.54 -32123278.40 0.0147 0.0122
 Earth -92662-04-05 02:08 J -32123278.55 -32123278.41 -32123278.23 0.0147 0.0115 *
 Earth -92661-04-09 11:01 J -32122908.25 -32122908.04 -32122907.80 0.0147 0.0071
 Moon -92661-04-09 14:51 J -32122908.10 -32122907.88 -32122907.63 0.0147 0.0063 *
 Moon -92660-04-14 17:15 J -32122538.03 -32122537.78 -32122537.52 0.0147 0.0031
 Earth -92660-04-14 20:37 J -32122537.89 -32122537.64 -32122537.38 0.0147 0.0027 *
 Earth -92659-04-20 06:13 J -32122167.50 -32122167.24 -32122166.98 0.0147 0.0017
 Moon -92659-04-20 09:35 J -32122167.35 -32122167.10 -32122166.85 0.0147 0.0016 *
 Moon -92658-04-25 12:42 J -32121797.19 -32121796.97 -32121796.72 0.0146 0.0066
 Earth -92658-04-25 15:35 J -32121797.07 -32121796.85 -32121796.60 0.0146 0.0062 *
 Earth -92657-04-30 00:56 J -32121426.62 -32121426.46 -32121426.25 0.0146 0.0105
 Moon -92657-04-30 02:51 J -32121426.56 -32121426.38 -32121426.18 0.0146 0.0097 *
 Mars -92651-10-24 17:30 J -32119058.07 -32119057.77 -32119057.46 0.0143 0.0013
 Mercury -92641-03-08 23:15 J -32115634.54 -32115634.53 -32115634.52 0.0137 0.0136
 Mercury -92641-06-05 04:47 J -32115546.38 -32115546.30 -32115546.20 0.0137 0.0116
 Mercury -92641-09-01 10:47 J -32115458.17 -32115458.05 -32115457.92 0.0137 0.0095
 Mercury -92641-11-28 16:18 J -32115369.95 -32115369.82 -32115369.67 0.0137 0.0075
 Mercury -92640-02-24 22:18 J -32115281.73 -32115281.57 -32115281.42 0.0136 0.0054
 Mercury -92640-05-24 03:49 J -32115193.50 -32115193.34 -32115193.18 0.0136 0.0033
 Mercury -92640-08-20 09:20 J -32115105.28 -32115105.11 -32115104.94 0.0136 0.0014
 Venus -92640-09-19 22:03 J -32115074.68 -32115074.58 -32115074.46 0.0136 0.0116
 Mercury -92640-11-16 14:51 J -32115017.05 -32115016.88 -32115016.71 0.0136 0.0006
 Mercury -92639-02-12 20:08 J -32114928.82 -32114928.66 -32114928.49 0.0136 0.0026
 Venus -92639-05-04 06:27 J -32114848.43 -32114848.23 -32114848.02 0.0136 0.0053
 Mercury -92639-05-12 01:39 J -32114840.59 -32114840.43 -32114840.27 0.0136 0.0045
 Mercury -92639-08-08 06:42 J -32114752.35 -32114752.22 -32114752.06 0.0136 0.0065

Mercury -92639-11-04 11:59 J -32114664.12 -32114664.00 -32114663.86 0.0136 0.0084

Venus -92639-12-16 14:37 J -32114622.11 -32114621.89 -32114621.67 0.0135 0.0010

Mercury -92638-01-31 17:30 J -32114575.88 -32114575.77 -32114575.67 0.0135 0.0102

Mercury -92638-04-29 22:18 J -32114487.63 -32114487.57 -32114487.49 0.0135 0.0121

Venus -92638-07-30 21:49 J -32114395.76 -32114395.59 -32114395.39 0.0135 0.0072

Venus -92637-03-13 05:15 J -32114169.30 -32114169.28 -32114169.23 0.0135 0.0133

Earth -92621-10-07 12:56 J -32108116.97 -32108116.96 -32108116.92 0.0131 0.0131

Moon -92621-10-07 15:49 J -32108116.89 -32108116.84 -32108116.74 0.0131 0.0126

Moon -92620-10-11 11:44 J -32107748.14 -32107748.01 -32107747.85 0.0131 0.0106

Earth -92620-10-11 13:54 J -32107748.05 -32107747.92 -32107747.74 0.0131 0.0102 *

Earth -92619-10-15 15:06 J -32107379.06 -32107378.87 -32107378.65 0.0132 0.0072

Moon -92619-10-15 17:59 J -32107378.95 -32107378.75 -32107378.52 0.0132 0.0072 *

Moon -92618-10-19 13:39 J -32107010.15 -32107009.93 -32107009.69 0.0132 0.0041

Earth -92618-10-19 16:18 J -32107010.05 -32107009.82 -32107009.58 0.0132 0.0042 *

Earth -92617-10-22 17:01 J -32106641.03 -32106640.79 -32106640.54 0.0132 0.0012

Moon -92617-10-22 19:25 J -32106640.94 -32106640.69 -32106640.43 0.0132 0.0016 *

Moon -92616-10-26 15:06 J -32106272.10 -32106271.87 -32106271.62 0.0132 0.0026

Earth -92616-10-26 17:59 J -32106271.99 -32106271.75 -32106271.50 0.0132 0.0018 *

Earth -92615-10-30 18:27 J -32105902.95 -32105902.73 -32105902.49 0.0132 0.0049

Moon -92615-10-30 20:37 J -32105902.87 -32105902.64 -32105902.38 0.0132 0.0043 *

Moon -92614-11-03 17:15 J -32105533.96 -32105533.78 -32105533.60 0.0133 0.0085

Earth -92614-11-03 19:25 J -32105533.88 -32105533.69 -32105533.48 0.0133 0.0079 *

Earth -92613-11-06 19:54 J -32105164.79 -32105164.67 -32105164.51 0.0133 0.0109

Moon -92613-11-06 22:18 J -32105164.71 -32105164.57 -32105164.39 0.0133 0.0103 *

Mars -92607-11-19 17:15 J -32102961.03 -32102960.78 -32102960.52 0.0136 0.0078

Mars -92605-10-22 00:27 J -32102258.70 -32102258.48 -32102258.23 0.0137 0.0090

Mercury -92596-01-28 06:56 J -32099238.26 -32099238.21 -32099238.14 0.0142 0.0128

Mercury -92596-04-26 11:15 J -32099150.11 -32099150.03 -32099149.93 0.0142 0.0109

Mercury -92596-07-23 15:49 J -32099061.95 -32099061.84 -32099061.73 0.0142 0.0090

Mercury -92596-10-19 20:08 J -32098973.78 -32098973.66 -32098973.53 0.0142 0.0071

Mercury -92595-01-16 00:42 J -32098885.61 -32098885.47 -32098885.33 0.0142 0.0051

Mercury -92595-04-14 05:15 J -32098797.43 -32098797.28 -32098797.14 0.0142 0.0032

Mercury -92595-07-11 09:49 J -32098709.24 -32098709.09 -32098708.95 0.0143 0.0013

Mercury -92595-10-07 14:23 J -32098621.05 -32098620.90 -32098620.76 0.0143 0.0009

Venus -92595-12-06 00:27 J -32098561.65 -32098561.48 -32098561.29 0.0143 0.0078

Mercury -92594-01-03 18:56 J -32098532.86 -32098532.71 -32098532.57 0.0143 0.0028

Mercury -92594-04-01 23:30 J -32098444.66 -32098444.52 -32098444.38 0.0143 0.0049

Mercury -92594-06-29 04:18 J -32098356.45 -32098356.32 -32098356.19 0.0143 0.0069

Venus -92594-07-20 09:49 J -32098335.30 -32098335.09 -32098334.88 0.0143 0.0007

Mercury -92594-09-25 08:51 J -32098268.24 -32098268.13 -32098268.01 0.0143 0.0090

Mercury -92594-12-22 13:39 J -32098180.02 -32098179.93 -32098179.83 0.0143 0.0112

Venus -92593-03-02 19:11 J -32098108.89 -32098108.70 -32098108.51 0.0144 0.0065

Mercury -92593-03-19 18:27 J -32098091.77 -32098091.73 -32098091.66 0.0144 0.0133

Venus -92593-10-15 05:01 J -32097882.35 -32097882.29 -32097882.23 0.0144 0.0137

Moon -92578-04-05 09:20 J -32092597.27 -32092597.11 -32092596.91 0.0147 0.0103

Earth -92578-04-05 12:27 J -32092597.13 -32092596.98 -32092596.79 0.0147 0.0111 *

Earth -92577-04-09 21:35 J -32092226.81 -32092226.60 -32092226.35 0.0147 0.0068

Moon -92577-04-10 01:11 J -32092226.66 -32092226.45 -32092226.21 0.0147 0.0074 *

Moon -92576-04-15 03:35 J -32091856.60 -32091856.35 -32091856.08 0.0147 0.0019

Earth -92576-04-15 07:39 J -32091856.44 -32091856.18 -32091855.92 0.0147 0.0023 *

Earth -92575-04-20 17:01 J -32091486.04 -32091485.79 -32091485.53 0.0147 0.0021

Moon -92575-04-20 20:37 J -32091485.89 -32091485.64 -32091485.38 0.0147 0.0021 *

Moon -92574-04-25 23:44 J -32091115.74 -32091115.51 -32091115.25 0.0146 0.0058

Earth -92574-04-26 02:51 J -32091115.60 -32091115.38 -32091115.14 0.0146 0.0064 *

Earth -92573-04-30 12:27 J -32090745.14 -32090744.98 -32090744.79 0.0146 0.0107

Moon -92573-04-30 14:51 J -32090745.01 -32090744.88 -32090744.70 0.0146 0.0115 *

Moon -92572-05-05 20:37 J -32090374.67 -32090374.64 -32090374.57 0.0146 0.0143

Mars -92568-07-17 02:51 J -32088841.48 -32088841.38 -32088841.24 0.0143 0.0131

Mars -92566-06-20 04:03 J -32088138.60 -32088138.33 -32088138.05 0.0142 0.0059

Mercury -92557-03-29 06:56 J -32084933.26 -32084933.21 -32084933.16 0.0137 0.0130

Mercury -92557-06-25 12:27 J -32084845.07 -32084844.98 -32084844.87 0.0137 0.0110

Mercury -92557-09-21 18:27 J -32084756.86 -32084756.73 -32084756.60 0.0137 0.0089

Mercury -92557-12-18 23:59 J -32084668.64 -32084668.50 -32084668.34 0.0137 0.0069

Mercury -92556-03-17 05:59 J -32084580.41 -32084580.25 -32084580.10 0.0136 0.0048

Mercury -92556-06-13 11:30 J -32084492.19 -32084492.02 -32084491.86 0.0136 0.0028

Mercury -92556-09-09 17:01 J -32084403.96 -32084403.79 -32084403.62 0.0136 0.0008

Mercury -92556-12-06 22:32 J -32084315.73 -32084315.56 -32084315.40 0.0136 0.0012

Venus -92555-01-01 15:35 J -32084290.01 -32084289.85 -32084289.66 0.0136 0.0082

Mercury -92555-03-05 03:49 J -32084227.50 -32084227.34 -32084227.18 0.0136 0.0032

Mercury -92555-06-01 09:06 J -32084139.27 -32084139.12 -32084138.96 0.0136 0.0051

Venus -92555-08-15 23:59 J -32084063.72 -32084063.50 -32084063.28 0.0136 0.0019

Mercury -92555-08-28 14:23 J -32084051.04 -32084050.90 -32084050.75 0.0136 0.0070

Mercury -92555-11-24 19:39 J -32083962.80 -32083962.68 -32083962.55 0.0136 0.0089

Mercury -92554-02-21 00:42 J -32083874.56 -32083874.47 -32083874.36 0.0135 0.0108

Venus -92554-03-30 07:39 J -32083837.38 -32083837.18 -32083836.96 0.0135 0.0044

Mercury -92554-05-20 06:13 J -32083786.30 -32083786.24 -32083786.19 0.0135 0.0126

Venus -92554-11-11 15:06 J -32083611.00 -32083610.87 -32083610.72 0.0135 0.0105

Earth -92537-10-08 00:56 J -32077435.52 -32077435.46 -32077435.38 0.0131 0.0126

Moon -92537-10-08 02:51 J -32077435.38 -32077435.38 -32077435.35 0.0131 0.0131 *

Moon -92536-10-11 23:30 J -32077066.67 -32077066.52 -32077066.33 0.0131 0.0095

Earth -92536-10-12 02:23 J -32077066.56 -32077066.40 -32077066.23 0.0131 0.0097 *

Earth -92535-10-16 03:20 J -32076697.57 -32076697.36 -32076697.14 0.0131 0.0067

Moon -92535-10-16 05:30 J -32076697.48 -32076697.27 -32076697.04 0.0131 0.0069 *

Moon -92534-10-20 02:23 J -32076328.62 -32076328.40 -32076328.16 0.0132 0.0040

Earth -92534-10-20 04:32 J -32076328.55 -32076328.31 -32076328.07 0.0132 0.0038 *

Earth -92533-10-23 05:15 J -32075959.52 -32075959.28 -32075959.03 0.0132 0.0009

Moon -92533-10-23 07:39 J -32075959.43 -32075959.18 -32075958.92 0.0132 0.0004 *

Moon -92532-10-27 04:18 J -32075590.55 -32075590.32 -32075590.07 0.0132 0.0017

Earth -92532-10-27 05:59 J -32075590.49 -32075590.25 -32075590.00 0.0132 0.0022 *

Earth -92531-10-31 06:42 J -32075221.44 -32075221.22 -32075220.99 0.0132 0.0051

Moon -92531-10-31 08:37 J -32075221.36 -32075221.14 -32075220.90 0.0132 0.0058 *
 Moon -92530-11-04 05:30 J -32074852.46 -32074852.27 -32074852.06 0.0133 0.0075
 Earth -92530-11-04 07:11 J -32074852.38 -32074852.20 -32074851.99 0.0133 0.0082 *
 Earth -92529-11-07 07:39 J -32074483.30 -32074483.18 -32074483.02 0.0133 0.0111
 Moon -92529-11-07 09:20 J -32074483.22 -32074483.11 -32074482.97 0.0133 0.0116 *
 Mars -92522-07-15 18:13 J -32072042.04 -32072041.74 -32072041.42 0.0136 0.0015
 Mercury -92513-11-21 10:03 J -32068625.08 -32068625.08 -32068625.07 0.0142 0.0142
 Mercury -92512-02-17 14:23 J -32068536.96 -32068536.90 -32068536.82 0.0142 0.0123
 Mercury -92512-05-16 18:42 J -32068448.81 -32068448.72 -32068448.62 0.0142 0.0104
 Mercury -92512-08-12 23:01 J -32068360.65 -32068360.54 -32068360.42 0.0142 0.0086
 Mercury -92512-11-09 03:35 J -32068272.48 -32068272.35 -32068272.22 0.0142 0.0066
 Mercury -92511-02-05 07:54 J -32068184.30 -32068184.17 -32068184.03 0.0142 0.0047
 Mercury -92511-05-04 12:27 J -32068096.12 -32068095.98 -32068095.83 0.0143 0.0027
 Mercury -92511-07-31 17:01 J -32068007.94 -32068007.79 -32068007.64 0.0143 0.0007
 Venus -92511-08-05 08:23 J -32068003.26 -32068003.15 -32068003.00 0.0143 0.0112
 Mercury -92511-10-27 21:35 J -32067919.75 -32067919.60 -32067919.45 0.0143 0.0013
 Mercury -92510-01-24 02:08 J -32067831.55 -32067831.41 -32067831.26 0.0143 0.0033
 Venus -92510-03-19 17:44 J -32067776.96 -32067776.76 -32067776.55 0.0143 0.0041
 Mercury -92510-04-22 06:42 J -32067743.35 -32067743.22 -32067743.07 0.0143 0.0054
 Mercury -92510-07-19 11:30 J -32067655.14 -32067655.02 -32067654.89 0.0143 0.0074
 Mercury -92510-10-15 16:18 J -32067566.93 -32067566.82 -32067566.70 0.0143 0.0095
 Venus -92510-11-01 03:06 J -32067550.57 -32067550.37 -32067550.15 0.0143 0.0031
 Mercury -92509-01-11 21:06 J -32067478.70 -32067478.62 -32067478.53 0.0143 0.0116
 Mercury -92509-04-09 01:54 J -32067390.45 -32067390.42 -32067390.37 0.0144 0.0138
 Venus -92509-06-14 12:27 J -32067324.11 -32067323.98 -32067323.81 0.0144 0.0103
 Earth -92495-03-31 14:37 J -32062285.89 -32062285.89 -32062285.87 0.0148 0.0147
 Moon -92495-03-31 16:47 J -32062285.84 -32062285.80 -32062285.73 0.0148 0.0144
 Moon -92494-04-05 20:37 J -32061915.79 -32061915.64 -32061915.46 0.0147 0.0113
 Earth -92494-04-05 23:15 J -32061915.69 -32061915.53 -32061915.33 0.0147 0.0106 *
 Earth -92493-04-10 08:51 J -32061545.36 -32061545.13 -32061544.90 0.0147 0.0063

Moon -92493-04-10 12:27 J -32061545.22 -32061544.98 -32061544.74 0.0147 0.0055 *
 Moon -92492-04-15 15:06 J -32061175.13 -32061174.87 -32061174.62 0.0147 0.0024
 Earth -92492-04-15 18:27 J -32061174.99 -32061174.73 -32061174.47 0.0147 0.0019 *
 Earth -92491-04-21 04:03 J -32060804.58 -32060804.33 -32060804.07 0.0147 0.0024
 Moon -92491-04-21 07:54 J -32060804.42 -32060804.17 -32060803.91 0.0147 0.0023 *
 Moon -92490-04-26 10:18 J -32060434.29 -32060434.07 -32060433.83 0.0146 0.0072
 Earth -92490-04-26 13:39 J -32060434.14 -32060433.93 -32060433.68 0.0146 0.0068 *
 Earth -92489-04-30 23:44 J -32060063.68 -32060063.51 -32060063.34 0.0146 0.0109
 Moon -92489-05-01 02:08 J -32060063.58 -32060063.41 -32060063.22 0.0146 0.0102 *
 Mars -92483-03-12 17:59 J -32057922.01 -32057921.75 -32057921.45 0.0143 0.0057
 Mars -92481-02-13 12:56 J -32057219.07 -32057218.96 -32057218.81 0.0142 0.0128
 Mercury -92473-04-18 14:23 J -32054231.96 -32054231.90 -32054231.82 0.0137 0.0124
 Mercury -92473-07-15 20:23 J -32054143.76 -32054143.65 -32054143.54 0.0137 0.0103
 Mercury -92473-10-12 01:54 J -32054055.54 -32054055.42 -32054055.27 0.0137 0.0083
 Mercury -92472-01-08 07:54 J -32053967.32 -32053967.17 -32053967.02 0.0137 0.0062
 Mercury -92472-04-06 13:25 J -32053879.10 -32053878.94 -32053878.78 0.0136 0.0042
 Mercury -92472-07-03 19:11 J -32053790.87 -32053790.70 -32053790.54 0.0136 0.0022
 Venus -92472-09-01 01:11 J -32053731.57 -32053731.45 -32053731.32 0.0136 0.0111
 Mercury -92472-09-30 00:42 J -32053702.64 -32053702.47 -32053702.31 0.0136 0.0004
 Mercury -92472-12-27 05:59 J -32053614.41 -32053614.25 -32053614.08 0.0136 0.0018
 Mercury -92471-03-25 11:15 J -32053526.18 -32053526.03 -32053525.86 0.0136 0.0038
 Venus -92471-04-15 09:35 J -32053505.31 -32053505.10 -32053504.89 0.0136 0.0047
 Mercury -92471-06-21 16:47 J -32053437.95 -32053437.80 -32053437.65 0.0136 0.0057
 Mercury -92471-09-17 22:03 J -32053349.71 -32053349.58 -32053349.44 0.0136 0.0076
 Venus -92471-11-27 17:30 J -32053278.99 -32053278.77 -32053278.54 0.0136 0.0016
 Mercury -92471-12-15 03:20 J -32053261.48 -32053261.36 -32053261.24 0.0136 0.0095
 Mercury -92470-03-13 08:23 J -32053173.23 -32053173.15 -32053173.05 0.0135 0.0113
 Mercury -92470-06-09 13:39 J -32053084.96 -32053084.93 -32053084.89 0.0135 0.0132
 Venus -92470-07-12 00:56 J -32053052.63 -32053052.46 -32053052.27 0.0135 0.0078
 Earth -92453-10-08 12:27 J -32046754.05 -32046753.98 -32046753.87 0.0131 0.0122

Moon	-92453-10-08 14:37 J	-32046753.99	-32046753.89	-32046753.75	0.0131	0.0116	*
Moon	-92452-10-12 12:27 J	-32046385.13	-32046384.98	-32046384.81	0.0131	0.0097	
Earth	-92452-10-12 13:54 J	-32046385.08	-32046384.92	-32046384.73	0.0131	0.0093	*
Earth	-92451-10-16 15:06 J	-32046016.08	-32046015.87	-32046015.64	0.0131	0.0064	
Moon	-92451-10-16 16:47 J	-32046016.02	-32046015.80	-32046015.56	0.0131	0.0063	*
Moon	-92450-10-20 14:37 J	-32045647.12	-32045646.89	-32045646.65	0.0132	0.0033	
Earth	-92450-10-20 16:18 J	-32045647.06	-32045646.82	-32045646.57	0.0132	0.0034	*
Earth	-92449-10-23 17:01 J	-32045278.04	-32045277.79	-32045277.54	0.0132	0.0005	
Moon	-92449-10-23 18:13 J	-32045278.00	-32045277.74	-32045277.48	0.0132	0.0008	*
Moon	-92448-10-27 16:03 J	-32044909.06	-32044908.83	-32044908.59	0.0132	0.0030	
Earth	-92448-10-27 17:44 J	-32044909.01	-32044908.76	-32044908.52	0.0132	0.0024	*
Earth	-92447-10-31 17:59 J	-32044539.96	-32044539.75	-32044539.51	0.0132	0.0054	
Moon	-92447-10-31 19:11 J	-32044539.93	-32044539.70	-32044539.45	0.0132	0.0047	*
Moon	-92446-11-04 17:30 J	-32044170.93	-32044170.77	-32044170.58	0.0133	0.0090	
Earth	-92446-11-04 18:42 J	-32044170.91	-32044170.72	-32044170.52	0.0133	0.0083	*
Earth	-92445-11-07 19:25 J	-32043801.81	-32043801.69	-32043801.55	0.0133	0.0112	
Moon	-92445-11-07 20:37 J	-32043801.78	-32043801.64	-32043801.48	0.0133	0.0106	*
Mars	-92439-04-07 17:59 J	-32041824.89	-32041824.75	-32041824.56	0.0135	0.0114	
Mars	-92437-03-09 19:54 J	-32041122.94	-32041122.67	-32041122.36	0.0136	0.0050	
Mercury	-92429-12-11 17:15 J	-32037923.80	-32037923.78	-32037923.74	0.0142	0.0138	
Mercury	-92428-03-09 21:35 J	-32037835.67	-32037835.60	-32037835.52	0.0142	0.0119	
Mercury	-92428-06-06 01:54 J	-32037747.52	-32037747.42	-32037747.31	0.0142	0.0100	
Mercury	-92428-09-02 06:13 J	-32037659.35	-32037659.24	-32037659.11	0.0142	0.0081	
Mercury	-92428-11-29 10:32 J	-32037571.18	-32037571.06	-32037570.92	0.0142	0.0063	
Mercury	-92427-02-25 15:06 J	-32037483.00	-32037482.87	-32037482.73	0.0142	0.0043	
Mercury	-92427-05-24 19:39 J	-32037394.82	-32037394.68	-32037394.53	0.0143	0.0023	
Mercury	-92427-08-21 00:13 J	-32037306.64	-32037306.49	-32037306.34	0.0143	0.0003	
Venus	-92427-11-17 01:25 J	-32037218.61	-32037218.44	-32037218.25	0.0143	0.0076	
Mercury	-92427-11-17 04:47 J	-32037218.44	-32037218.30	-32037218.15	0.0143	0.0017	*
Mercury	-92426-02-13 09:20 J	-32037130.25	-32037130.11	-32037129.96	0.0143	0.0038	

Mercury -92426-05-12 14:08 J -32037042.05 -32037041.91 -32037041.78 0.0143 0.0058

Venus -92426-07-01 11:01 J -32036992.26 -32036992.04 -32036991.83 0.0143 0.0006

Mercury -92426-08-08 18:42 J -32036953.84 -32036953.72 -32036953.59 0.0143 0.0079

Mercury -92426-11-04 23:30 J -32036865.62 -32036865.52 -32036865.41 0.0143 0.0100

Mercury -92425-02-01 04:18 J -32036777.39 -32036777.32 -32036777.23 0.0144 0.0121

Venus -92425-02-12 20:23 J -32036765.84 -32036765.65 -32036765.46 0.0144 0.0067

Mercury -92425-04-29 09:06 J -32036689.13 -32036689.12 -32036689.09 0.0144 0.0142

Venus -92425-09-26 06:13 J -32036539.29 -32036539.24 -32036539.19 0.0144 0.0139

Earth -92411-04-01 01:25 J -32031604.48 -32031604.44 -32031604.36 0.0148 0.0143

Moon -92411-04-01 02:51 J -32031604.40 -32031604.38 -32031604.31 0.0148 0.0146 *

Moon -92410-04-06 07:54 J -32031234.35 -32031234.17 -32031233.96 0.0147 0.0094

Earth -92410-04-06 10:18 J -32031234.24 -32031234.07 -32031233.87 0.0147 0.0102 *

Earth -92409-04-10 19:54 J -32030863.90 -32030863.67 -32030863.43 0.0147 0.0059

Moon -92409-04-10 22:32 J -32030863.78 -32030863.56 -32030863.31 0.0147 0.0066 *

Moon -92408-04-16 02:08 J -32030493.67 -32030493.41 -32030493.16 0.0147 0.0012

Earth -92408-04-16 05:30 J -32030493.52 -32030493.27 -32030493.00 0.0147 0.0016 *

Earth -92407-04-21 15:06 J -32030123.12 -32030122.87 -32030122.61 0.0147 0.0028

Moon -92407-04-21 18:56 J -32030122.97 -32030122.71 -32030122.45 0.0147 0.0027 *

Moon -92406-04-26 21:20 J -32029752.83 -32029752.61 -32029752.36 0.0146 0.0065

Earth -92406-04-27 01:11 J -32029752.68 -32029752.45 -32029752.22 0.0146 0.0070 *

Earth -92405-05-01 11:01 J -32029382.21 -32029382.04 -32029381.88 0.0146 0.0112

Moon -92405-05-01 14:23 J -32029382.04 -32029381.90 -32029381.75 0.0146 0.0119 *

Mars -92399-11-06 06:27 J -32027002.53 -32027002.23 -32027001.92 0.0143 0.0016

Mercury -92389-05-08 22:32 J -32023530.65 -32023530.56 -32023530.47 0.0137 0.0117

Mercury -92389-08-05 04:03 J -32023442.44 -32023442.33 -32023442.20 0.0137 0.0097

Mercury -92389-11-01 09:49 J -32023354.22 -32023354.09 -32023353.94 0.0137 0.0076

Mercury -92388-01-28 15:35 J -32023266.00 -32023265.85 -32023265.69 0.0137 0.0055

Mercury -92388-04-26 21:06 J -32023177.77 -32023177.62 -32023177.45 0.0136 0.0036

Mercury -92388-07-24 02:51 J -32023089.55 -32023089.38 -32023089.21 0.0136 0.0015

Mercury -92388-10-20 08:23 J -32023001.32 -32023001.15 -32023000.98 0.0136 0.0005

Venus -92388-12-13 19:25 J -32022946.87 -32022946.69 -32022946.50 0.0136 0.0075
 Mercury -92387-01-16 13:54 J -32022913.09 -32022912.92 -32022912.76 0.0136 0.0025
 Mercury -92387-04-14 19:11 J -32022824.85 -32022824.70 -32022824.54 0.0136 0.0044
 Mercury -92387-07-12 00:27 J -32022736.62 -32022736.48 -32022736.33 0.0136 0.0063
 Venus -92387-07-28 03:35 J -32022720.57 -32022720.35 -32022720.12 0.0136 0.0012
 Mercury -92387-10-08 05:44 J -32022648.38 -32022648.26 -32022648.12 0.0136 0.0082
 Mercury -92386-01-04 11:15 J -32022560.14 -32022560.03 -32022559.92 0.0136 0.0101
 Venus -92386-03-11 11:15 J -32022494.23 -32022494.03 -32022493.81 0.0135 0.0051
 Mercury -92386-04-02 16:18 J -32022471.89 -32022471.82 -32022471.74 0.0135 0.0120
 Venus -92386-10-23 18:42 J -32022267.82 -32022267.72 -32022267.58 0.0135 0.0113
 Earth -92369-10-09 01:39 J -32016072.54 -32016072.43 -32016072.31 0.0131 0.0116
 Moon -92369-10-09 02:23 J -32016072.47 -32016072.40 -32016072.29 0.0131 0.0123 *
 Moon -92368-10-13 01:39 J -32015703.60 -32015703.43 -32015703.23 0.0131 0.0085
 Earth -92368-10-13 02:51 J -32015703.55 -32015703.38 -32015703.18 0.0131 0.0089 *
 Earth -92367-10-17 04:18 J -32015334.53 -32015334.32 -32015334.09 0.0131 0.0060
 Moon -92367-10-17 05:44 J -32015334.49 -32015334.26 -32015334.03 0.0131 0.0061 *
 Moon -92366-10-21 04:32 J -32014965.54 -32014965.31 -32014965.07 0.0132 0.0031
 Earth -92366-10-21 05:15 J -32014965.52 -32014965.28 -32014965.03 0.0132 0.0030 *
 Earth -92365-10-24 05:59 J -32014596.50 -32014596.25 -32014596.00 0.0132 0.0002
 Moon -92365-10-24 07:11 J -32014596.46 -32014596.20 -32014595.94 0.0132 0.0003 *
 Moon -92364-10-28 05:59 J -32014227.48 -32014227.25 -32014227.01 0.0132 0.0023
 Earth -92364-10-28 06:27 J -32014227.47 -32014227.23 -32014226.98 0.0132 0.0028 *
 Earth -92363-11-01 06:56 J -32013858.43 -32013858.21 -32013857.98 0.0132 0.0057
 Moon -92363-11-01 07:39 J -32013858.40 -32013858.18 -32013857.94 0.0132 0.0063 *
 Moon -92362-11-05 06:56 J -32013489.40 -32013489.21 -32013489.02 0.0133 0.0079
 Earth -92362-11-05 07:25 J -32013489.36 -32013489.19 -32013488.99 0.0133 0.0086 *
 Earth -92361-11-08 08:08 J -32013120.27 -32013120.16 -32013120.03 0.0133 0.0114
 Moon -92361-11-08 08:08 J -32013120.25 -32013120.16 -32013120.03 0.0133 0.0120 *
 Mars -92355-12-01 21:35 J -32010905.88 -32010905.60 -32010905.30 0.0136 0.0051
 Mars -92353-11-03 02:51 J -32010203.53 -32010203.38 -32010203.19 0.0137 0.0115

Mercury -92344-01-01 00:56 J -32007222.50 -32007222.46 -32007222.40 0.0142 0.0132

Mercury -92344-03-30 05:15 J -32007134.36 -32007134.28 -32007134.19 0.0142 0.0113

Mercury -92344-06-26 09:35 J -32007046.20 -32007046.10 -32007045.99 0.0142 0.0094

Mercury -92344-09-22 13:54 J -32006958.04 -32006957.92 -32006957.79 0.0142 0.0075

Mercury -92344-12-19 18:27 J -32006869.86 -32006869.73 -32006869.59 0.0142 0.0056

Mercury -92343-03-17 22:47 J -32006781.68 -32006781.55 -32006781.40 0.0142 0.0037

Mercury -92343-06-14 03:20 J -32006693.50 -32006693.36 -32006693.21 0.0143 0.0017

Venus -92343-07-17 10:47 J -32006660.18 -32006660.05 -32006659.90 0.0143 0.0107

Mercury -92343-09-10 07:54 J -32006605.31 -32006605.17 -32006605.02 0.0143 0.0004

Mercury -92343-12-07 12:27 J -32006517.12 -32006516.98 -32006516.83 0.0143 0.0024

Venus -92342-02-28 19:54 J -32006433.87 -32006433.67 -32006433.46 0.0143 0.0037

Mercury -92342-03-05 17:15 J -32006428.92 -32006428.78 -32006428.64 0.0143 0.0044

Mercury -92342-06-01 21:49 J -32006340.72 -32006340.59 -32006340.45 0.0143 0.0065

Mercury -92342-08-29 02:23 J -32006252.51 -32006252.40 -32006252.27 0.0143 0.0086

Venus -92342-10-13 05:30 J -32006207.48 -32006207.27 -32006207.06 0.0143 0.0034

Mercury -92342-11-25 07:11 J -32006164.29 -32006164.20 -32006164.09 0.0143 0.0107

Mercury -92341-02-21 11:59 J -32006076.06 -32006076.00 -32006075.92 0.0144 0.0128

Venus -92341-05-26 14:51 J -32005981.01 -32005980.88 -32005980.73 0.0144 0.0107

Earth -92327-04-01 13:39 J -32000923.00 -32000922.93 -32000922.82 0.0148 0.0138

Moon -92327-04-01 14:37 J -32000922.97 -32000922.89 -32000922.76 0.0148 0.0135 *

Moon -92326-04-06 21:20 J -32000552.78 -32000552.61 -32000552.43 0.0147 0.0103

Earth -92326-04-06 22:32 J -32000552.73 -32000552.56 -32000552.34 0.0147 0.0097 *

Earth -92325-04-11 08:08 J -32000182.39 -32000182.16 -32000181.91 0.0147 0.0054

Moon -92325-04-11 11:15 J -32000182.28 -32000182.03 -32000181.78 0.0147 0.0047 *

Moon -92324-04-16 14:51 J -31999812.13 -31999811.88 -31999811.63 0.0147 0.0017

Earth -92324-04-16 17:44 J -31999812.01 -31999811.76 -31999811.50 0.0147 0.0012 *

Earth -92323-04-22 03:20 J -31999441.61 -31999441.36 -31999441.10 0.0147 0.0031

Moon -92323-04-22 07:11 J -31999441.45 -31999441.20 -31999440.94 0.0147 0.0030 *

Moon -92322-04-27 09:20 J -31999071.32 -31999071.11 -31999070.88 0.0146 0.0078

Earth -92322-04-27 13:25 J -31999071.16 -31999070.94 -31999070.71 0.0146 0.0073 *

Earth -92321-05-01 22:47 J -31998700.70 -31998700.55 -31998700.38 0.0146 0.0114
 Moon -92321-05-02 01:54 J -31998700.57 -31998700.42 -31998700.22 0.0146 0.0107 *
 Mars -92316-07-29 15:49 J -31996786.05 -31996785.84 -31996785.61 0.0143 0.0101
 Mars -92314-07-02 17:44 J -31996082.99 -31996082.76 -31996082.51 0.0142 0.0087
 Mercury -92305-03-02 00:13 J -31992917.52 -31992917.49 -31992917.43 0.0137 0.0132
 Mercury -92305-05-29 05:59 J -31992829.33 -31992829.25 -31992829.14 0.0137 0.0111
 Mercury -92305-08-25 11:59 J -31992741.12 -31992741.00 -31992740.87 0.0137 0.0090
 Mercury -92305-11-21 17:59 J -31992652.90 -31992652.75 -31992652.61 0.0137 0.0069
 Mercury -92304-02-17 23:30 J -31992564.68 -31992564.52 -31992564.36 0.0137 0.0049
 Mercury -92304-05-17 05:01 J -31992476.45 -31992476.29 -31992476.12 0.0136 0.0029
 Venus -92304-08-13 05:01 J -31992388.42 -31992388.29 -31992388.13 0.0136 0.0103
 Mercury -92304-08-13 10:47 J -31992388.22 -31992388.05 -31992387.88 0.0136 0.0009 *
 Mercury -92304-11-09 16:18 J -31992299.99 -31992299.82 -31992299.65 0.0136 0.0012
 Mercury -92303-02-05 21:35 J -31992211.76 -31992211.60 -31992211.43 0.0136 0.0031
 Venus -92303-03-27 13:39 J -31992162.14 -31992161.93 -31992161.72 0.0136 0.0039
 Mercury -92303-05-05 02:51 J -31992123.52 -31992123.38 -31992123.21 0.0136 0.0051
 Mercury -92303-08-01 08:23 J -31992035.29 -31992035.15 -31992035.00 0.0136 0.0070
 Mercury -92303-10-28 13:39 J -31991947.05 -31991946.93 -31991946.80 0.0136 0.0089
 Venus -92303-11-08 21:35 J -31991935.81 -31991935.60 -31991935.38 0.0136 0.0024
 Mercury -92302-01-24 18:42 J -31991858.81 -31991858.72 -31991858.61 0.0135 0.0108
 Mercury -92302-04-22 23:59 J -31991770.55 -31991770.50 -31991770.43 0.0135 0.0126
 Venus -92302-06-23 05:15 J -31991709.44 -31991709.28 -31991709.10 0.0135 0.0086
 Earth -92285-10-09 14:23 J -31985391.02 -31985390.90 -31985390.76 0.0131 0.0112
 Moon -92285-10-09 14:51 J -31985391.00 -31985390.88 -31985390.71 0.0131 0.0108 *
 Moon -92284-10-13 15:06 J -31985022.03 -31985021.87 -31985021.67 0.0131 0.0089
 Earth -92284-10-13 15:49 J -31985022.02 -31985021.84 -31985021.64 0.0131 0.0084 *
 Earth -92283-10-17 17:01 J -31984653.01 -31984652.79 -31984652.56 0.0131 0.0056
 Moon -92283-10-17 17:15 J -31984653.01 -31984652.78 -31984652.54 0.0131 0.0054 *
 Moon -92282-10-21 17:15 J -31984284.02 -31984283.78 -31984283.54 0.0132 0.0026
 Earth -92282-10-21 17:44 J -31984284.00 -31984283.76 -31984283.51 0.0132 0.0027 *

Moon	-92281-10-24 18:27 J	-31983914.99	-31983914.73	-31983914.47	0.0132	0.0002
Earth	-92281-10-24 18:27 J	-31983914.98	-31983914.73	-31983914.48	0.0132	0.0002 *
Moon	-92280-10-28 18:27 J	-31983545.96	-31983545.73	-31983545.49	0.0132	0.0035
Earth	-92280-10-28 18:42 J	-31983545.95	-31983545.72	-31983545.47	0.0132	0.0030 *
Moon	-92279-11-01 19:11 J	-31983176.92	-31983176.70	-31983176.45	0.0132	0.0052
Earth	-92279-11-01 18:56 J	-31983176.91	-31983176.71	-31983176.47	0.0132	0.0060 *
Earth	-92278-11-05 19:25 J	-31982807.86	-31982807.69	-31982807.49	0.0133	0.0088
Moon	-92278-11-05 19:54 J	-31982807.83	-31982807.67	-31982807.50	0.0133	0.0094 *
Moon	-92277-11-08 20:08 J	-31982438.78	-31982438.66	-31982438.49	0.0133	0.0110
Earth	-92277-11-08 20:08 J	-31982438.76	-31982438.66	-31982438.53	0.0133	0.0116 *
Mars	-92270-07-27 22:03 J	-31979986.88	-31979986.58	-31979986.26	0.0136	0.0012
Mercury	-92260-01-21 08:23 J	-31976521.21	-31976521.15	-31976521.08	0.0142	0.0127
Mercury	-92260-04-19 12:42 J	-31976433.06	-31976432.97	-31976432.87	0.0142	0.0108
Mercury	-92260-07-16 17:01 J	-31976344.90	-31976344.79	-31976344.67	0.0142	0.0089
Mercury	-92260-10-12 21:20 J	-31976256.73	-31976256.61	-31976256.48	0.0142	0.0070
Mercury	-92259-01-09 01:54 J	-31976168.55	-31976168.42	-31976168.28	0.0142	0.0051
Venus	-92259-03-16 19:39 J	-31976101.71	-31976101.68	-31976101.64	0.0142	0.0140
Mercury	-92259-04-07 06:27 J	-31976080.37	-31976080.23	-31976080.09	0.0142	0.0031
Mercury	-92259-07-04 11:01 J	-31975992.19	-31975992.04	-31975991.90	0.0143	0.0012
Mercury	-92259-09-30 15:20 J	-31975904.00	-31975903.86	-31975903.71	0.0143	0.0010
Venus	-92259-10-29 04:47 J	-31975875.48	-31975875.30	-31975875.11	0.0143	0.0070
Mercury	-92259-12-27 20:08 J	-31975815.81	-31975815.66	-31975815.52	0.0143	0.0029
Mercury	-92258-03-26 00:42 J	-31975727.61	-31975727.47	-31975727.33	0.0143	0.0049
Venus	-92258-06-12 13:54 J	-31975649.13	-31975648.92	-31975648.70	0.0143	0.0003
Mercury	-92258-06-22 05:15 J	-31975639.40	-31975639.28	-31975639.14	0.0143	0.0070
Mercury	-92258-09-18 10:03 J	-31975551.19	-31975551.08	-31975550.96	0.0143	0.0091
Mercury	-92258-12-15 14:51 J	-31975462.97	-31975462.88	-31975462.79	0.0143	0.0112
Venus	-92257-01-24 23:15 J	-31975422.71	-31975422.53	-31975422.34	0.0143	0.0073
Mercury	-92257-03-12 19:39 J	-31975374.73	-31975374.68	-31975374.62	0.0144	0.0133
Moon	-92243-04-02 01:39 J	-31970241.52	-31970241.43	-31970241.30	0.0148	0.0135

Earth -92243-04-02 01:54 J -31970241.52 -31970241.42 -31970241.30 0.0148 0.0133 *
 Moon -92242-04-07 09:20 J -31969871.30 -31969871.11 -31969870.90 0.0148 0.0086
 Earth -92242-04-07 10:32 J -31969871.24 -31969871.06 -31969870.84 0.0148 0.0093 *
 Earth -92241-04-11 19:54 J -31969500.90 -31969500.67 -31969500.41 0.0147 0.0051
 Moon -92241-04-11 22:03 J -31969500.82 -31969500.58 -31969500.33 0.0147 0.0058 *
 Moon -92240-04-17 02:51 J -31969130.63 -31969130.38 -31969130.12 0.0147 0.0004
 Earth -92240-04-17 05:59 J -31969130.51 -31969130.25 -31969129.99 0.0147 0.0008 *
 Earth -92239-04-22 15:35 J -31968760.10 -31968759.85 -31968759.60 0.0147 0.0034
 Moon -92239-04-22 18:56 J -31968759.96 -31968759.71 -31968759.45 0.0147 0.0033 *
 Moon -92238-04-27 21:49 J -31968389.81 -31968389.59 -31968389.36 0.0147 0.0071
 Earth -92238-04-28 01:25 J -31968389.66 -31968389.44 -31968389.21 0.0147 0.0076 *
 Earth -92237-05-02 10:47 J -31968019.19 -31968019.05 -31968018.87 0.0146 0.0117
 Moon -92237-05-02 14:51 J -31968019.00 -31968018.88 -31968018.73 0.0146 0.0124 *
 Mars -92231-03-25 08:37 J -31965866.43 -31965866.14 -31965865.83 0.0143 0.0027
 Mercury -92221-03-22 08:23 J -31962216.21 -31962216.15 -31962216.07 0.0137 0.0124
 Mercury -92221-06-18 14:23 J -31962128.01 -31962127.90 -31962127.79 0.0137 0.0103
 Mercury -92221-09-14 19:54 J -31962039.79 -31962039.67 -31962039.52 0.0137 0.0083
 Mercury -92221-12-12 01:54 J -31961951.57 -31961951.42 -31961951.27 0.0137 0.0062
 Mercury -92220-03-10 07:25 J -31961863.34 -31961863.19 -31961863.02 0.0136 0.0042
 Venus -92220-04-12 15:20 J -31961829.91 -31961829.86 -31961829.79 0.0136 0.0131
 Mercury -92220-06-06 13:11 J -31961775.12 -31961774.95 -31961774.78 0.0136 0.0021
 Mercury -92220-09-02 18:42 J -31961686.89 -31961686.72 -31961686.55 0.0136 0.0002
 Venus -92220-11-24 23:59 J -31961603.69 -31961603.50 -31961603.30 0.0136 0.0067
 Mercury -92220-11-30 00:13 J -31961598.65 -31961598.49 -31961598.32 0.0136 0.0019
 Mercury -92219-02-26 05:44 J -31961510.42 -31961510.26 -31961510.10 0.0136 0.0038
 Mercury -92219-05-25 11:01 J -31961422.19 -31961422.04 -31961421.88 0.0136 0.0058
 Venus -92219-07-09 08:23 J -31961377.37 -31961377.15 -31961376.93 0.0136 0.0003
 Mercury -92219-08-21 16:18 J -31961333.95 -31961333.82 -31961333.68 0.0136 0.0077
 Mercury -92219-11-17 21:35 J -31961245.71 -31961245.60 -31961245.48 0.0136 0.0096
 Mercury -92218-02-14 02:51 J -31961157.46 -31961157.38 -31961157.29 0.0135 0.0114

Venus -92218-02-20 16:18 J -31961151.02 -31961150.82 -31961150.62 0.0135 0.0060
 Mercury -92218-05-13 08:08 J -31961069.18 -31961069.16 -31961069.13 0.0135 0.0133
 Venus -92218-10-04 23:30 J -31960924.59 -31960924.52 -31960924.41 0.0135 0.0122
 Moon -92202-10-07 01:54 J -31955078.44 -31955078.42 -31955078.37 0.0131 0.0129
 Earth -92201-10-10 04:03 J -31954709.46 -31954709.33 -31954709.18 0.0131 0.0108
 Moon -92201-10-10 04:03 J -31954709.45 -31954709.33 -31954709.20 0.0131 0.0113 *
 Earth -92200-10-14 05:01 J -31954340.47 -31954340.29 -31954340.07 0.0131 0.0081
 Moon -92200-10-14 05:15 J -31954340.46 -31954340.28 -31954340.07 0.0131 0.0076 *
 Moon -92199-10-18 06:13 J -31953971.46 -31953971.24 -31953970.99 0.0131 0.0054
 Earth -92199-10-18 06:27 J -31953971.46 -31953971.23 -31953971.00 0.0131 0.0052 *
 Earth -92198-10-22 06:56 J -31953602.45 -31953602.21 -31953601.96 0.0132 0.0024
 Moon -92198-10-22 07:25 J -31953602.42 -31953602.19 -31953601.95 0.0132 0.0023 *
 Moon -92197-10-25 07:25 J -31953233.45 -31953233.19 -31953232.93 0.0132 0.0008
 Earth -92197-10-25 07:25 J -31953233.43 -31953233.19 -31953232.94 0.0132 0.0005 *
 Earth -92196-10-29 07:54 J -31952864.41 -31952864.17 -31952863.93 0.0132 0.0033
 Moon -92196-10-29 08:23 J -31952864.38 -31952864.15 -31952863.91 0.0132 0.0028 *
 Moon -92195-11-02 07:11 J -31952495.40 -31952495.20 -31952494.96 0.0132 0.0068
 Earth -92195-11-02 08:08 J -31952495.37 -31952495.16 -31952494.93 0.0132 0.0062 *
 Earth -92194-11-06 08:37 J -31952126.31 -31952126.14 -31952125.95 0.0133 0.0090
 Moon -92194-11-06 08:51 J -31952126.30 -31952126.13 -31952125.93 0.0133 0.0084 *
 Moon -92193-11-09 08:23 J -31951757.23 -31951757.15 -31951757.05 0.0133 0.0124
 Earth -92193-11-09 09:20 J -31951757.21 -31951757.11 -31951756.98 0.0133 0.0118 *
 Mars -92187-04-20 03:35 J -31949769.57 -31949769.35 -31949769.09 0.0135 0.0086
 Mars -92185-03-22 02:51 J -31949067.63 -31949067.38 -31949067.11 0.0136 0.0076
 Mercury -92177-11-14 11:59 J -31945908.02 -31945908.00 -31945907.97 0.0142 0.0139
 Mercury -92176-02-10 16:03 J -31945819.89 -31945819.83 -31945819.75 0.0142 0.0121
 Mercury -92176-05-09 20:23 J -31945731.74 -31945731.65 -31945731.54 0.0142 0.0102
 Mercury -92176-08-06 00:56 J -31945643.58 -31945643.46 -31945643.34 0.0142 0.0083
 Mercury -92176-11-02 05:15 J -31945555.41 -31945555.28 -31945555.15 0.0142 0.0064
 Mercury -92175-01-29 09:49 J -31945467.23 -31945467.09 -31945466.95 0.0142 0.0044

Mercury -92175-04-27 14:08 J -31945379.05 -31945378.91 -31945378.76 0.0142 0.0025

Venus -92175-06-28 14:23 J -31945317.04 -31945316.90 -31945316.74 0.0143 0.0102

Mercury -92175-07-24 18:42 J -31945290.86 -31945290.72 -31945290.57 0.0143 0.0005

Mercury -92175-10-20 23:15 J -31945202.67 -31945202.53 -31945202.38 0.0143 0.0015

Mercury -92174-01-17 03:49 J -31945114.48 -31945114.34 -31945114.19 0.0143 0.0036

Venus -92174-02-09 23:30 J -31945090.73 -31945090.52 -31945090.31 0.0143 0.0031

Mercury -92174-04-15 08:23 J -31945026.28 -31945026.15 -31945026.01 0.0143 0.0056

Mercury -92174-07-12 13:11 J -31944938.07 -31944937.95 -31944937.82 0.0143 0.0077

Venus -92174-09-24 08:37 J -31944864.34 -31944864.14 -31944863.93 0.0143 0.0040

Mercury -92174-10-08 17:59 J -31944849.86 -31944849.75 -31944849.64 0.0143 0.0097

Mercury -92173-01-04 22:32 J -31944761.63 -31944761.56 -31944761.47 0.0143 0.0119

Mercury -92173-04-02 03:35 J -31944673.38 -31944673.35 -31944673.32 0.0144 0.0140

Venus -92173-05-07 18:27 J -31944637.86 -31944637.73 -31944637.60 0.0144 0.0112

Moon -92159-04-02 15:06 J -31939559.99 -31939559.87 -31939559.71 0.0148 0.0125

Earth -92159-04-02 15:06 J -31939559.98 -31939559.87 -31939559.72 0.0148 0.0128 *

Moon -92158-04-07 23:59 J -31939189.69 -31939189.50 -31939189.30 0.0148 0.0093

Earth -92158-04-08 00:13 J -31939189.69 -31939189.49 -31939189.27 0.0148 0.0087 *

Earth -92157-04-12 09:35 J -31938819.34 -31938819.10 -31938818.85 0.0147 0.0046

Moon -92157-04-12 11:15 J -31938819.28 -31938819.03 -31938818.76 0.0147 0.0039 *

Moon -92156-04-17 16:47 J -31938449.05 -31938448.80 -31938448.55 0.0147 0.0010

Earth -92156-04-17 18:56 J -31938448.97 -31938448.71 -31938448.45 0.0147 0.0005 *

Earth -92155-04-23 04:47 J -31938078.55 -31938078.30 -31938078.05 0.0147 0.0037

Moon -92155-04-23 07:39 J -31938078.43 -31938078.18 -31938077.91 0.0147 0.0037 *

Moon -92154-04-28 10:47 J -31937708.26 -31937708.05 -31937707.83 0.0147 0.0083

Earth -92154-04-28 14:08 J -31937708.11 -31937707.91 -31937707.67 0.0147 0.0079 *

Earth -92153-05-02 23:59 J -31937337.65 -31937337.50 -31937337.35 0.0146 0.0119

Moon -92153-05-03 03:20 J -31937337.52 -31937337.36 -31937337.18 0.0146 0.0112 *

Mars -92149-12-15 14:23 J -31935649.90 -31935649.90 -31935649.87 0.0144 0.0144

Mars -92147-11-18 23:44 J -31934946.78 -31934946.51 -31934946.21 0.0143 0.0046

Mercury -92137-04-11 16:18 J -31931514.89 -31931514.82 -31931514.72 0.0137 0.0117

Mercury -92137-07-08 22:18 J -31931426.69 -31931426.57 -31931426.44 0.0137 0.0096

Mercury -92137-10-05 04:18 J -31931338.47 -31931338.32 -31931338.18 0.0137 0.0075

Mercury -92136-01-01 09:49 J -31931250.24 -31931250.09 -31931249.93 0.0137 0.0055

Mercury -92136-03-30 15:35 J -31931162.01 -31931161.85 -31931161.68 0.0136 0.0034

Mercury -92136-06-26 21:06 J -31931073.78 -31931073.62 -31931073.45 0.0136 0.0015

Venus -92136-07-25 10:03 J -31931045.23 -31931045.08 -31931044.91 0.0136 0.0094

Mercury -92136-09-23 02:51 J -31930985.55 -31930985.38 -31930985.21 0.0136 0.0006

Mercury -92136-12-20 08:08 J -31930897.32 -31930897.16 -31930896.99 0.0136 0.0026

Venus -92135-03-08 18:42 J -31930818.94 -31930818.72 -31930818.50 0.0136 0.0030

Mercury -92135-03-18 13:39 J -31930809.08 -31930808.93 -31930808.77 0.0136 0.0045

Mercury -92135-06-14 18:56 J -31930720.85 -31930720.71 -31930720.56 0.0136 0.0065

Mercury -92135-09-11 00:27 J -31930632.61 -31930632.48 -31930632.35 0.0136 0.0084

Venus -92135-10-21 02:37 J -31930592.60 -31930592.39 -31930592.16 0.0136 0.0034

Mercury -92135-12-08 05:30 J -31930544.36 -31930544.27 -31930544.15 0.0135 0.0103

Mercury -92134-03-06 10:47 J -31930456.11 -31930456.05 -31930455.97 0.0135 0.0121

Venus -92134-06-04 10:47 J -31930366.20 -31930366.05 -31930365.89 0.0135 0.0095

Earth -92118-10-07 15:49 J -31924396.85 -31924396.84 -31924396.80 0.0131 0.0130

Moon -92117-10-10 16:47 J -31924027.96 -31924027.80 -31924027.61 0.0131 0.0097

Earth -92117-10-10 17:15 J -31924027.91 -31924027.78 -31924027.61 0.0131 0.0104 *

Earth -92116-10-14 18:42 J -31923658.92 -31923658.72 -31923658.51 0.0131 0.0076

Moon -92116-10-14 18:56 J -31923658.88 -31923658.71 -31923658.50 0.0131 0.0081 *

Moon -92115-10-18 18:27 J -31923289.97 -31923289.73 -31923289.48 0.0131 0.0045

Earth -92115-10-18 19:39 J -31923289.91 -31923289.68 -31923289.45 0.0131 0.0048 *

Earth -92114-10-22 20:08 J -31922920.91 -31922920.66 -31922920.41 0.0132 0.0020

Moon -92114-10-22 20:37 J -31922920.88 -31922920.64 -31922920.40 0.0132 0.0019 *

Moon -92113-10-25 19:25 J -31922551.94 -31922551.69 -31922551.43 0.0132 0.0006

Earth -92113-10-25 20:37 J -31922551.89 -31922551.64 -31922551.39 0.0132 0.0008 *

Earth -92112-10-29 20:51 J -31922182.87 -31922182.63 -31922182.39 0.0132 0.0036

Moon -92112-10-29 22:03 J -31922182.81 -31922182.58 -31922182.35 0.0132 0.0040 *

Moon -92111-11-02 20:08 J -31921813.88 -31921813.66 -31921813.42 0.0132 0.0058

Earth -92111-11-02 21:06 J -31921813.82 -31921813.62 -31921813.39 0.0132 0.0064 *
 Earth -92110-11-06 21:35 J -31921444.77 -31921444.60 -31921444.42 0.0132 0.0092
 Moon -92110-11-06 23:01 J -31921444.69 -31921444.54 -31921444.37 0.0132 0.0099 *
 Moon -92109-11-09 21:20 J -31921075.74 -31921075.61 -31921075.48 0.0133 0.0113
 Earth -92109-11-09 22:03 J -31921075.67 -31921075.58 -31921075.46 0.0133 0.0120 *
 Mars -92103-12-14 03:20 J -31918850.66 -31918850.36 -31918850.05 0.0136 0.0024
 Mercury -92093-12-04 19:11 J -31915206.73 -31915206.70 -31915206.64 0.0141 0.0135
 Mercury -92092-03-02 23:30 J -31915118.59 -31915118.52 -31915118.43 0.0142 0.0116
 Mercury -92092-05-30 03:49 J -31915030.44 -31915030.34 -31915030.23 0.0142 0.0097
 Mercury -92092-08-26 08:23 J -31914942.27 -31914942.15 -31914942.03 0.0142 0.0078
 Mercury -92092-11-22 12:42 J -31914854.10 -31914853.97 -31914853.83 0.0142 0.0059
 Mercury -92091-02-18 17:15 J -31914765.92 -31914765.78 -31914765.64 0.0142 0.0039
 Venus -92091-02-25 23:01 J -31914758.60 -31914758.54 -31914758.47 0.0142 0.0135
 Mercury -92091-05-17 21:35 J -31914677.74 -31914677.60 -31914677.45 0.0142 0.0020
 Mercury -92091-08-14 02:08 J -31914589.56 -31914589.41 -31914589.26 0.0143 0.0001
 Venus -92091-10-10 07:54 J -31914532.36 -31914532.17 -31914531.98 0.0143 0.0065
 Mercury -92091-11-10 06:42 J -31914501.36 -31914501.22 -31914501.07 0.0143 0.0020
 Mercury -92090-02-06 11:15 J -31914413.17 -31914413.03 -31914412.88 0.0143 0.0041
 Mercury -92090-05-05 15:49 J -31914324.97 -31914324.84 -31914324.70 0.0143 0.0061
 Venus -92090-05-24 17:01 J -31914306.00 -31914305.79 -31914305.57 0.0143 0.0006
 Mercury -92090-08-01 20:37 J -31914236.76 -31914236.64 -31914236.52 0.0143 0.0082
 Mercury -92090-10-29 01:25 J -31914148.54 -31914148.44 -31914148.34 0.0143 0.0102
 Venus -92089-01-06 02:23 J -31914079.57 -31914079.40 -31914079.21 0.0143 0.0077
 Mercury -92089-01-25 05:59 J -31914060.31 -31914060.25 -31914060.17 0.0143 0.0124
 Moon -92075-04-03 01:54 J -31908878.56 -31908878.42 -31908878.27 0.0148 0.0123
 Earth -92075-04-03 03:06 J -31908878.49 -31908878.37 -31908878.21 0.0148 0.0123 *
 Moon -92074-04-08 11:44 J -31908508.21 -31908508.01 -31908507.78 0.0148 0.0077
 Earth -92074-04-08 11:59 J -31908508.20 -31908508.00 -31908507.77 0.0148 0.0083 *
 Earth -92073-04-12 21:20 J -31908137.85 -31908137.61 -31908137.36 0.0148 0.0041
 Moon -92073-04-12 21:49 J -31908137.83 -31908137.59 -31908137.32 0.0148 0.0050 *

Moon -92072-04-18 05:01 J -31907767.54 -31907767.29 -31907767.03 0.0147 0.0005
 Earth -92072-04-18 07:11 J -31907767.46 -31907767.20 -31907766.94 0.0147 0.0002 *
 Earth -92071-04-23 16:32 J -31907397.05 -31907396.81 -31907396.55 0.0147 0.0041
 Moon -92071-04-23 19:25 J -31907396.94 -31907396.69 -31907396.42 0.0147 0.0040 *
 Moon -92070-04-28 23:15 J -31907026.73 -31907026.53 -31907026.30 0.0147 0.0078
 Earth -92070-04-29 02:23 J -31907026.60 -31907026.40 -31907026.17 0.0147 0.0082 *
 Earth -92069-05-03 11:59 J -31906656.12 -31906656.00 -31906655.84 0.0146 0.0121
 Moon -92069-05-03 15:49 J -31906655.94 -31906655.84 -31906655.70 0.0146 0.0130 *
 Mars -92064-08-11 09:20 J -31904730.37 -31904730.11 -31904729.83 0.0144 0.0069
 Mars -92062-07-15 14:08 J -31904027.07 -31904026.91 -31904026.73 0.0142 0.0116
 Mercury -92053-02-03 18:42 J -31900901.76 -31900901.72 -31900901.66 0.0137 0.0130
 Mercury -92053-05-02 00:42 J -31900813.57 -31900813.47 -31900813.36 0.0137 0.0109
 Mercury -92053-07-29 06:27 J -31900725.35 -31900725.23 -31900725.09 0.0137 0.0088
 Mercury -92053-10-25 12:13 J -31900637.13 -31900636.99 -31900636.83 0.0137 0.0068
 Mercury -92052-01-21 17:59 J -31900548.90 -31900548.75 -31900548.58 0.0137 0.0047
 Venus -92052-03-24 20:23 J -31900486.73 -31900486.65 -31900486.53 0.0136 0.0122
 Mercury -92052-04-19 23:44 J -31900460.67 -31900460.51 -31900460.34 0.0136 0.0027
 Mercury -92052-07-17 05:15 J -31900372.44 -31900372.28 -31900372.11 0.0136 0.0008
 Mercury -92052-10-13 11:01 J -31900284.21 -31900284.04 -31900283.87 0.0136 0.0014
 Venus -92052-11-06 05:15 J -31900260.47 -31900260.28 -31900260.07 0.0136 0.0057
 Mercury -92051-01-09 16:32 J -31900195.98 -31900195.81 -31900195.65 0.0136 0.0033
 Mercury -92051-04-07 21:49 J -31900107.74 -31900107.59 -31900107.43 0.0136 0.0053
 Venus -92051-06-20 13:39 J -31900034.15 -31900033.93 -31900033.70 0.0136 0.0008
 Mercury -92051-07-05 03:20 J -31900019.50 -31900019.36 -31900019.22 0.0136 0.0072
 Mercury -92051-10-01 08:37 J -31899931.26 -31899931.14 -31899931.02 0.0136 0.0091
 Mercury -92051-12-28 13:54 J -31899843.01 -31899842.92 -31899842.82 0.0135 0.0110
 Venus -92050-02-01 21:35 J -31899807.78 -31899807.60 -31899807.40 0.0135 0.0070
 Mercury -92050-03-26 18:56 J -31899754.75 -31899754.71 -31899754.65 0.0135 0.0129
 Venus -92050-09-16 05:30 J -31899581.31 -31899581.27 -31899581.22 0.0135 0.0132
 Earth -92034-10-08 05:59 J -31893715.31 -31893715.25 -31893715.16 0.0131 0.0125

Moon	-92034-10-08 06:56 J	-31893715.29	-31893715.21	-31893715.10	0.0131	0.0119	*
Moon	-92033-10-11 06:13 J	-31893346.37	-31893346.24	-31893346.06	0.0131	0.0105	
Earth	-92033-10-11 07:25 J	-31893346.34	-31893346.19	-31893346.01	0.0131	0.0098	*
Earth	-92032-10-15 08:23 J	-31892977.34	-31892977.15	-31892976.92	0.0131	0.0072	
Moon	-92032-10-15 10:03 J	-31892977.28	-31892977.08	-31892976.86	0.0131	0.0066	*
Moon	-92031-10-19 08:23 J	-31892608.38	-31892608.15	-31892607.90	0.0131	0.0046	
Earth	-92031-10-19 09:35 J	-31892608.33	-31892608.10	-31892607.86	0.0131	0.0043	*
Earth	-92030-10-23 10:03 J	-31892239.33	-31892239.08	-31892238.83	0.0131	0.0016	
Moon	-92030-10-23 11:30 J	-31892239.25	-31892239.02	-31892238.77	0.0131	0.0016	*
Moon	-92029-10-26 09:06 J	-31891870.38	-31891870.12	-31891869.86	0.0132	0.0014	
Earth	-92029-10-26 10:32 J	-31891870.31	-31891870.06	-31891869.81	0.0132	0.0012	*
Earth	-92028-10-30 10:32 J	-31891501.28	-31891501.06	-31891500.81	0.0132	0.0040	
Moon	-92028-10-30 12:13 J	-31891501.22	-31891500.99	-31891500.75	0.0132	0.0034	*
Moon	-92027-11-03 09:06 J	-31891132.33	-31891132.12	-31891131.90	0.0132	0.0072	
Earth	-92027-11-03 10:47 J	-31891132.25	-31891132.05	-31891131.82	0.0132	0.0067	*
Earth	-92026-11-07 11:15 J	-31890763.19	-31890763.03	-31890762.84	0.0132	0.0095	
Moon	-92026-11-07 12:42 J	-31890763.13	-31890762.97	-31890762.78	0.0132	0.0088	*
Moon	-92025-11-10 09:49 J	-31890394.13	-31890394.09	-31890394.01	0.0133	0.0129	
Earth	-92025-11-10 11:59 J	-31890394.08	-31890394.00	-31890393.89	0.0133	0.0122	*
Mars	-92020-09-06 13:39 J	-31888633.06	-31888632.93	-31888632.76	0.0135	0.0117	
Mars	-92018-08-09 07:11 J	-31887931.50	-31887931.20	-31887930.90	0.0136	0.0039	
Mercury	-92009-12-25 03:20 J	-31884505.42	-31884505.36	-31884505.30	0.0142	0.0128	
Mercury	-92008-03-23 07:25 J	-31884417.27	-31884417.19	-31884417.09	0.0142	0.0109	
Mercury	-92008-06-19 11:44 J	-31884329.12	-31884329.01	-31884328.89	0.0142	0.0091	
Mercury	-92008-09-15 16:03 J	-31884240.95	-31884240.83	-31884240.70	0.0142	0.0072	
Mercury	-92008-12-12 20:37 J	-31884152.78	-31884152.64	-31884152.51	0.0142	0.0052	
Mercury	-92007-03-11 00:56 J	-31884064.60	-31884064.46	-31884064.31	0.0142	0.0033	
Mercury	-92007-06-07 05:30 J	-31883976.42	-31883976.27	-31883976.12	0.0142	0.0013	
Venus	-92007-06-09 17:30 J	-31883973.91	-31883973.77	-31883973.60	0.0142	0.0097	
Mercury	-92007-09-03 10:03 J	-31883888.23	-31883888.08	-31883887.94	0.0143	0.0007	

Mercury -92007-11-30 14:37 J -31883800.04 -31883799.89 -31883799.75 0.0143 0.0027

Venus -92006-01-22 02:37 J -31883747.60 -31883747.39 -31883747.18 0.0143 0.0026

Mercury -92006-02-26 19:11 J -31883711.84 -31883711.70 -31883711.56 0.0143 0.0047

Mercury -92006-05-25 23:44 J -31883623.64 -31883623.51 -31883623.38 0.0143 0.0068

Mercury -92006-08-22 04:18 J -31883535.43 -31883535.32 -31883535.19 0.0143 0.0089

Venus -92006-09-05 11:44 J -31883521.21 -31883521.01 -31883520.80 0.0143 0.0045

Mercury -92006-11-18 09:06 J -31883447.21 -31883447.12 -31883447.02 0.0143 0.0109

Mercury -92005-02-14 13:54 J -31883358.97 -31883358.92 -31883358.85 0.0143 0.0130

Venus -92005-04-18 21:20 J -31883294.73 -31883294.61 -31883294.49 0.0144 0.0117

92ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 92nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-91991-04-03 14:51 J	-31878197.03	-31878196.88	-31878196.70	0.0148	0.0115		
Earth	-91991-04-03 16:18 J	-31878196.96	-31878196.82	-31878196.65	0.0148	0.0117	*	
Earth	-91990-04-09 01:11 J	-31877826.66	-31877826.45	-31877826.22	0.0148	0.0077		
Moon	-91990-04-09 02:08 J	-31877826.61	-31877826.41	-31877826.20	0.0148	0.0083	*	
Earth	-91989-04-13 10:32 J	-31877456.31	-31877456.06	-31877455.81	0.0148	0.0037		
Moon	-91989-04-13 11:01 J	-31877456.30	-31877456.04	-31877455.77	0.0148	0.0030	*	
Moon	-91988-04-18 18:56 J	-31877085.96	-31877085.71	-31877085.46	0.0147	0.0002		
Earth	-91988-04-18 20:08 J	-31877085.92	-31877085.66	-31877085.40	0.0147	0.0004	*	
Earth	-91987-04-24 05:59 J	-31876715.50	-31876715.25	-31876715.00	0.0147	0.0044		

Moon -91987-04-24 07:54 J -31876715.41 -31876715.17 -31876714.90 0.0147 0.0045 *
 Moon -91986-04-29 12:27 J -31876345.17 -31876344.98 -31876344.76 0.0147 0.0090
 Earth -91986-04-29 15:35 J -31876345.05 -31876344.85 -31876344.62 0.0147 0.0085 *
 Earth -91985-05-04 01:11 J -31875974.57 -31875974.45 -31875974.30 0.0146 0.0125
 Moon -91985-05-04 04:47 J -31875974.45 -31875974.30 -31875974.14 0.0146 0.0117 *
 Mars -91979-04-07 05:15 J -31873810.59 -31873810.28 -31873809.98 0.0143 0.0006
 Mercury -91969-02-24 03:06 J -31870200.44 -31870200.37 -31870200.29 0.0137 0.0122
 Mercury -91969-05-22 08:51 J -31870112.24 -31870112.13 -31870112.01 0.0137 0.0101
 Mercury -91969-08-18 14:51 J -31870024.02 -31870023.88 -31870023.74 0.0137 0.0080
 Mercury -91969-11-14 20:23 J -31869935.79 -31869935.65 -31869935.49 0.0137 0.0060
 Mercury -91968-02-11 02:08 J -31869847.57 -31869847.41 -31869847.24 0.0137 0.0039
 Mercury -91968-05-10 07:54 J -31869759.33 -31869759.17 -31869759.00 0.0136 0.0019
 Venus -91968-07-06 16:03 J -31869702.00 -31869701.83 -31869701.65 0.0136 0.0084
 Mercury -91968-08-06 13:39 J -31869671.10 -31869670.93 -31869670.76 0.0136 0.0003
 Mercury -91968-11-02 19:11 J -31869582.87 -31869582.70 -31869582.54 0.0136 0.0021
 Mercury -91967-01-30 00:27 J -31869494.63 -31869494.48 -31869494.31 0.0136 0.0041
 Venus -91967-02-18 00:27 J -31869475.70 -31869475.48 -31869475.26 0.0136 0.0020
 Mercury -91967-04-28 05:59 J -31869406.39 -31869406.25 -31869406.10 0.0136 0.0060
 Mercury -91967-07-25 11:15 J -31869318.16 -31869318.03 -31869317.89 0.0136 0.0080
 Venus -91967-10-02 08:37 J -31869249.34 -31869249.14 -31869248.92 0.0136 0.0044
 Mercury -91967-10-21 16:32 J -31869229.91 -31869229.81 -31869229.69 0.0136 0.0099
 Mercury -91966-01-17 21:49 J -31869141.66 -31869141.59 -31869141.50 0.0135 0.0118
 Venus -91966-05-16 16:32 J -31869022.93 -31869022.81 -31869022.66 0.0135 0.0106
 Earth -91950-10-08 20:08 J -31863033.75 -31863033.66 -31863033.55 0.0131 0.0119
 Moon -91950-10-08 21:35 J -31863033.64 -31863033.60 -31863033.52 0.0131 0.0127 *
 Moon -91949-10-11 19:25 J -31862664.86 -31862664.69 -31862664.47 0.0131 0.0087
 Earth -91949-10-11 21:35 J -31862664.76 -31862664.60 -31862664.41 0.0131 0.0093 *
 Earth -91948-10-15 22:32 J -31862295.76 -31862295.56 -31862295.33 0.0131 0.0066
 Moon -91948-10-16 00:13 J -31862295.69 -31862295.49 -31862295.28 0.0131 0.0071 *
 Moon -91947-10-19 21:06 J -31861926.86 -31861926.62 -31861926.37 0.0131 0.0036

Earth -91947-10-19 23:15 J -31861926.76 -31861926.53 -31861926.28 0.0131 0.0039 *
 Earth -91946-10-23 23:44 J -31861557.75 -31861557.51 -31861557.25 0.0131 0.0012
 Moon -91946-10-24 01:25 J -31861557.67 -31861557.44 -31861557.19 0.0131 0.0013 *
 Moon -91945-10-26 22:18 J -31861188.82 -31861188.57 -31861188.31 0.0132 0.0013
 Earth -91945-10-27 00:13 J -31861188.73 -31861188.49 -31861188.24 0.0132 0.0016 *
 Earth -91944-10-31 00:27 J -31860819.71 -31860819.48 -31860819.24 0.0132 0.0043
 Moon -91944-10-31 02:37 J -31860819.61 -31860819.39 -31860819.16 0.0132 0.0047 *
 Moon -91943-11-03 22:47 J -31860450.76 -31860450.55 -31860450.31 0.0132 0.0064
 Earth -91943-11-04 00:56 J -31860450.67 -31860450.46 -31860450.25 0.0132 0.0070 *
 Earth -91942-11-08 01:11 J -31860081.60 -31860081.45 -31860081.27 0.0132 0.0098
 Moon -91942-11-08 03:35 J -31860081.48 -31860081.35 -31860081.19 0.0132 0.0105 *
 Moon -91941-11-10 23:44 J -31859712.61 -31859712.51 -31859712.38 0.0133 0.0118
 Earth -91941-11-11 01:39 J -31859712.49 -31859712.43 -31859712.32 0.0133 0.0125 *
 Mars -91935-05-02 13:39 J -31857714.20 -31857713.93 -31857713.64 0.0135 0.0056
 Mars -91933-04-03 10:32 J -31857012.24 -31857012.06 -31857011.83 0.0136 0.0103
 Mercury -91925-10-18 06:27 J -31853892.23 -31853892.23 -31853892.22 0.0141 0.0141
 Mercury -91924-01-14 10:47 J -31853804.12 -31853804.05 -31853803.98 0.0142 0.0123
 Mercury -91924-04-12 15:06 J -31853715.97 -31853715.87 -31853715.77 0.0142 0.0104
 Mercury -91924-07-09 19:25 J -31853627.81 -31853627.69 -31853627.58 0.0142 0.0085
 Mercury -91924-10-05 23:44 J -31853539.64 -31853539.51 -31853539.38 0.0142 0.0066
 Mercury -91923-01-02 04:03 J -31853451.47 -31853451.33 -31853451.19 0.0142 0.0047
 Venus -91923-02-07 02:37 J -31853415.48 -31853415.39 -31853415.30 0.0142 0.0129
 Mercury -91923-03-31 08:23 J -31853363.29 -31853363.15 -31853363.00 0.0142 0.0028
 Mercury -91923-06-27 12:56 J -31853275.10 -31853274.96 -31853274.81 0.0142 0.0008
 Venus -91923-09-21 11:01 J -31853189.22 -31853189.04 -31853188.83 0.0143 0.0060
 Mercury -91923-09-23 17:30 J -31853186.92 -31853186.77 -31853186.62 0.0143 0.0012
 Mercury -91923-12-20 22:03 J -31853098.72 -31853098.58 -31853098.44 0.0143 0.0032
 Mercury -91922-03-19 02:37 J -31853010.53 -31853010.39 -31853010.25 0.0143 0.0052
 Venus -91922-05-05 20:23 J -31852962.86 -31852962.65 -31852962.44 0.0143 0.0011
 Mercury -91922-06-15 07:11 J -31852922.32 -31852922.20 -31852922.07 0.0143 0.0073

Mercury -91922-09-11 11:59 J -31852834.11 -31852834.00 -31852833.89 0.0143 0.0094

Mercury -91922-12-08 16:32 J -31852745.89 -31852745.81 -31852745.71 0.0143 0.0115

Venus -91922-12-18 05:30 J -31852736.43 -31852736.27 -31852736.09 0.0143 0.0083

Mercury -91921-03-05 21:20 J -31852657.65 -31852657.61 -31852657.56 0.0143 0.0136

Moon -91907-04-04 00:56 J -31847515.62 -31847515.46 -31847515.28 0.0148 0.0112

Earth -91907-04-04 03:35 J -31847515.51 -31847515.35 -31847515.18 0.0148 0.0112 *

Earth -91906-04-09 12:13 J -31847145.20 -31847144.99 -31847144.75 0.0148 0.0073

Moon -91906-04-09 13:25 J -31847145.15 -31847144.94 -31847144.71 0.0148 0.0068 *

Moon -91905-04-13 21:06 J -31846774.87 -31846774.62 -31846774.36 0.0148 0.0041

Earth -91905-04-13 21:35 J -31846774.85 -31846774.60 -31846774.34 0.0148 0.0033 *

Moon -91904-04-19 06:42 J -31846404.46 -31846404.22 -31846403.97 0.0147 0.0013

Earth -91904-04-19 07:25 J -31846404.45 -31846404.19 -31846403.93 0.0147 0.0007 *

Earth -91903-04-24 17:01 J -31846034.02 -31846033.79 -31846033.53 0.0147 0.0048

Moon -91903-04-24 18:56 J -31846033.95 -31846033.71 -31846033.45 0.0147 0.0047 *

Moon -91902-04-30 00:42 J -31845663.66 -31845663.47 -31845663.25 0.0147 0.0085

Earth -91902-04-30 02:51 J -31845663.57 -31845663.38 -31845663.15 0.0147 0.0088 *

Earth -91901-05-04 13:11 J -31845293.07 -31845292.95 -31845292.82 0.0146 0.0127

Moon -91901-05-04 16:18 J -31845292.90 -31845292.82 -31845292.70 0.0146 0.0135 *

Mars -91897-12-28 08:23 J -31843594.33 -31843594.15 -31843593.93 0.0144 0.0110

Mars -91895-12-01 20:37 J -31842890.89 -31842890.64 -31842890.37 0.0143 0.0077

Mercury -91886-12-18 05:15 J -31839587.30 -31839587.28 -31839587.25 0.0137 0.0136

Mercury -91885-03-15 11:15 J -31839499.12 -31839499.03 -31839498.93 0.0137 0.0114

Mercury -91885-06-11 17:01 J -31839410.90 -31839410.79 -31839410.65 0.0137 0.0093

Mercury -91885-09-07 23:01 J -31839322.68 -31839322.54 -31839322.39 0.0137 0.0072

Mercury -91885-12-05 04:47 J -31839234.45 -31839234.30 -31839234.14 0.0137 0.0051

Mercury -91884-03-03 10:32 J -31839146.22 -31839146.06 -31839145.89 0.0137 0.0031

Venus -91884-03-06 02:23 J -31839143.51 -31839143.40 -31839143.25 0.0137 0.0111

Mercury -91884-05-30 16:18 J -31839057.99 -31839057.82 -31839057.65 0.0136 0.0011

Mercury -91884-08-26 21:49 J -31838969.76 -31838969.59 -31838969.42 0.0136 0.0010

Venus -91884-10-18 11:15 J -31838917.23 -31838917.03 -31838916.81 0.0136 0.0046

Mercury -91884-11-23 03:20 J -31838881.52 -31838881.36 -31838881.19 0.0136 0.0029

Mercury -91883-02-19 08:51 J -31838793.28 -31838793.13 -31838792.97 0.0136 0.0049

Mercury -91883-05-18 14:23 J -31838705.05 -31838704.90 -31838704.76 0.0136 0.0068

Venus -91883-06-01 19:54 J -31838690.89 -31838690.67 -31838690.45 0.0136 0.0018

Mercury -91883-08-14 19:25 J -31838616.80 -31838616.69 -31838616.55 0.0136 0.0088

Mercury -91883-11-11 00:56 J -31838528.56 -31838528.46 -31838528.35 0.0136 0.0107

Venus -91882-01-14 04:03 J -31838464.51 -31838464.33 -31838464.15 0.0136 0.0081

Mercury -91882-02-07 05:59 J -31838440.30 -31838440.25 -31838440.17 0.0136 0.0126

Earth -91866-10-09 11:01 J -31832352.16 -31832352.04 -31832351.92 0.0131 0.0114

Moon -91866-10-09 12:56 J -31832352.09 -31832351.96 -31832351.82 0.0131 0.0108 *

Moon -91865-10-12 10:18 J -31831983.24 -31831983.07 -31831982.88 0.0131 0.0094

Earth -91865-10-12 12:13 J -31831983.16 -31831982.99 -31831982.79 0.0131 0.0088 *

Earth -91864-10-16 13:11 J -31831614.17 -31831613.95 -31831613.72 0.0131 0.0062

Moon -91864-10-16 15:35 J -31831614.06 -31831613.85 -31831613.62 0.0131 0.0056 *

Moon -91863-10-20 11:44 J -31831245.25 -31831245.01 -31831244.75 0.0131 0.0038

Earth -91863-10-20 14:08 J -31831245.15 -31831244.91 -31831244.67 0.0131 0.0035 *

Earth -91862-10-24 14:37 J -31830876.14 -31830875.89 -31830875.64 0.0131 0.0008

Moon -91862-10-24 17:01 J -31830876.03 -31830875.79 -31830875.55 0.0131 0.0007 *

Moon -91861-10-27 12:27 J -31830507.23 -31830506.98 -31830506.72 0.0132 0.0021

Earth -91861-10-27 15:06 J -31830507.12 -31830506.87 -31830506.62 0.0132 0.0019 *

Earth -91860-10-31 15:06 J -31830138.09 -31830137.87 -31830137.62 0.0132 0.0047

Moon -91860-10-31 17:30 J -31830137.99 -31830137.77 -31830137.53 0.0132 0.0042 *

Moon -91859-11-04 12:42 J -31829769.16 -31829768.97 -31829768.75 0.0132 0.0079

Earth -91859-11-04 15:49 J -31829769.04 -31829768.84 -31829768.63 0.0132 0.0073 *

Earth -91858-11-08 16:03 J -31829399.97 -31829399.83 -31829399.65 0.0132 0.0101

Moon -91858-11-08 18:13 J -31829399.88 -31829399.74 -31829399.55 0.0132 0.0095 *

Earth -91857-11-11 17:01 J -31829030.85 -31829030.79 -31829030.71 0.0133 0.0127

Mars -91851-12-26 18:42 J -31826795.03 -31826794.72 -31826794.41 0.0135 0.0007

Mercury -91841-11-07 14:37 J -31823190.93 -31823190.89 -31823190.85 0.0141 0.0134

Mercury -91840-02-03 18:42 J -31823102.80 -31823102.72 -31823102.63 0.0142 0.0116

Mercury -91840-05-02 23:01 J -31823014.64 -31823014.54 -31823014.43 0.0142 0.0097

Mercury -91840-07-30 03:20 J -31822926.48 -31822926.36 -31822926.24 0.0142 0.0078

Mercury -91840-10-26 07:39 J -31822838.31 -31822838.18 -31822838.04 0.0142 0.0059

Mercury -91839-01-22 11:59 J -31822750.13 -31822750.00 -31822749.85 0.0142 0.0040

Mercury -91839-04-20 16:32 J -31822661.95 -31822661.81 -31822661.67 0.0142 0.0020

Venus -91839-05-21 21:35 J -31822630.75 -31822630.60 -31822630.42 0.0142 0.0089

Mercury -91839-07-17 21:06 J -31822573.77 -31822573.62 -31822573.48 0.0142 0.0004

Mercury -91839-10-14 01:25 J -31822485.58 -31822485.44 -31822485.29 0.0143 0.0020

Venus -91838-01-03 06:42 J -31822404.43 -31822404.22 -31822404.01 0.0143 0.0019

Mercury -91838-01-10 05:59 J -31822397.39 -31822397.25 -31822397.10 0.0143 0.0040

Mercury -91838-04-08 10:32 J -31822309.19 -31822309.06 -31822308.92 0.0143 0.0060

Mercury -91838-07-05 15:20 J -31822220.98 -31822220.86 -31822220.74 0.0143 0.0080

Venus -91838-08-17 15:35 J -31822178.04 -31822177.85 -31822177.65 0.0143 0.0052

Mercury -91838-10-01 19:54 J -31822132.77 -31822132.67 -31822132.56 0.0143 0.0101

Mercury -91838-12-29 00:27 J -31822044.54 -31822044.48 -31822044.39 0.0143 0.0123

Mercury -91837-03-26 05:30 J -31821956.27 -31821956.27 -31821956.26 0.0144 0.0143

Venus -91837-03-31 00:56 J -31821951.56 -31821951.46 -31821951.35 0.0144 0.0124

Jupiter -91829-01-19 07:25 J -31819101.72 -31819101.19 -31819100.66 0.0147 0.0019

Earth -91824-03-30 08:51 J -31817204.16 -31817204.13 -31817204.07 0.0148 0.0145

Moon -91824-03-30 12:27 J -31817204.05 -31817203.98 -31817203.90 0.0148 0.0140

Moon -91823-04-04 14:37 J -31816834.06 -31816833.89 -31816833.69 0.0148 0.0106

Earth -91823-04-04 17:15 J -31816833.95 -31816833.78 -31816833.59 0.0148 0.0107 *

Earth -91822-04-10 01:54 J -31816463.64 -31816463.42 -31816463.19 0.0148 0.0068

Moon -91822-04-10 03:49 J -31816463.55 -31816463.34 -31816463.12 0.0148 0.0074 *

Moon -91821-04-14 10:03 J -31816093.34 -31816093.08 -31816092.81 0.0148 0.0022

Earth -91821-04-14 11:01 J -31816093.28 -31816093.04 -31816092.77 0.0148 0.0029 *

Moon -91820-04-19 20:51 J -31815722.88 -31815722.63 -31815722.38 0.0147 0.0006

Earth -91820-04-19 20:51 J -31815722.88 -31815722.63 -31815722.37 0.0147 0.0012 *

Earth -91819-04-25 06:27 J -31815352.46 -31815352.23 -31815351.97 0.0147 0.0052

Moon -91819-04-25 07:39 J -31815352.43 -31815352.18 -31815351.93 0.0147 0.0053 *

Moon -91818-04-30 14:23 J -31814982.07 -31814981.90 -31814981.69 0.0147 0.0096
 Earth -91818-04-30 16:47 J -31814981.99 -31814981.80 -31814981.59 0.0147 0.0091 *
 Earth -91817-05-05 02:51 J -31814611.49 -31814611.38 -31814611.25 0.0146 0.0130
 Moon -91817-05-05 05:15 J -31814611.41 -31814611.28 -31814611.12 0.0146 0.0123 *
 Mars -91812-08-24 05:44 J -31812674.56 -31812674.26 -31812673.96 0.0144 0.0035
 Mercury -91801-01-07 13:25 J -31808885.99 -31808885.94 -31808885.86 0.0137 0.0128
 Mercury -91801-04-04 19:25 J -31808797.78 -31808797.69 -31808797.57 0.0137 0.0106
 Mercury -91801-07-02 01:25 J -31808709.56 -31808709.44 -31808709.30 0.0137 0.0085
 Mercury -91801-09-28 07:25 J -31808621.34 -31808621.19 -31808621.04 0.0137 0.0064
 Mercury -91801-12-25 13:11 J -31808533.11 -31808532.95 -31808532.79 0.0137 0.0043
 Mercury -91800-03-23 18:56 J -31808444.88 -31808444.71 -31808444.54 0.0137 0.0023
 Venus -91800-06-17 22:03 J -31808358.76 -31808358.58 -31808358.38 0.0136 0.0073
 Mercury -91800-06-20 00:27 J -31808356.64 -31808356.48 -31808356.31 0.0136 0.0005
 Mercury -91800-09-16 06:13 J -31808268.41 -31808268.24 -31808268.07 0.0136 0.0018
 Mercury -91800-12-13 11:44 J -31808180.17 -31808180.01 -31808179.85 0.0136 0.0037
 Venus -91799-01-30 06:56 J -31808132.43 -31808132.21 -31808131.99 0.0136 0.0008
 Mercury -91799-03-11 17:01 J -31808091.93 -31808091.79 -31808091.63 0.0136 0.0057
 Mercury -91799-06-07 22:32 J -31808003.69 -31808003.56 -31808003.42 0.0136 0.0076
 Mercury -91799-09-04 03:49 J -31807915.45 -31807915.34 -31807915.22 0.0136 0.0096
 Venus -91799-09-13 15:06 J -31807906.07 -31807905.87 -31807905.67 0.0136 0.0055
 Mercury -91799-12-01 09:06 J -31807827.20 -31807827.12 -31807827.02 0.0136 0.0114
 Mercury -91798-02-27 14:23 J -31807738.92 -31807738.90 -31807738.86 0.0136 0.0133
 Venus -91798-04-27 23:01 J -31807679.64 -31807679.54 -31807679.43 0.0135 0.0118
 Moon -91783-10-05 21:20 J -31802039.64 -31802039.61 -31802039.57 0.0131 0.0129
 Earth -91782-10-10 01:25 J -31801670.57 -31801670.44 -31801670.29 0.0131 0.0109
 Moon -91782-10-10 03:35 J -31801670.44 -31801670.35 -31801670.22 0.0131 0.0117 *
 Moon -91781-10-12 23:44 J -31801301.70 -31801301.51 -31801301.28 0.0131 0.0077
 Earth -91781-10-13 02:51 J -31801301.56 -31801301.38 -31801301.18 0.0131 0.0083 *
 Earth -91780-10-17 03:49 J -31800932.56 -31800932.34 -31800932.11 0.0131 0.0057
 Moon -91780-10-17 06:13 J -31800932.45 -31800932.24 -31800932.02 0.0131 0.0062 *

Moon -91779-10-21 01:39 J -31800563.67 -31800563.43 -31800563.17 0.0131 0.0027
 Earth -91779-10-21 04:47 J -31800563.54 -31800563.30 -31800563.06 0.0131 0.0030 *
 Earth -91778-10-25 05:15 J -31800194.53 -31800194.28 -31800194.03 0.0131 0.0004
 Moon -91778-10-25 07:54 J -31800194.41 -31800194.17 -31800193.92 0.0131 0.0005 *
 Moon -91777-10-28 03:06 J -31799825.62 -31799825.37 -31799825.12 0.0132 0.0021
 Earth -91777-10-28 05:44 J -31799825.50 -31799825.26 -31799825.01 0.0132 0.0023 *
 Earth -91776-11-01 05:59 J -31799456.47 -31799456.25 -31799456.01 0.0132 0.0050
 Moon -91776-11-01 09:06 J -31799456.34 -31799456.12 -31799455.90 0.0132 0.0054 *
 Moon -91775-11-05 04:03 J -31799087.55 -31799087.33 -31799087.12 0.0132 0.0070
 Earth -91775-11-05 06:13 J -31799087.42 -31799087.24 -31799087.02 0.0132 0.0077 *
 Earth -91774-11-09 06:56 J -31798718.35 -31798718.21 -31798718.04 0.0132 0.0103
 Moon -91774-11-09 10:03 J -31798718.20 -31798718.08 -31798717.94 0.0132 0.0111 *
 Moon -91773-11-12 04:32 J -31798349.38 -31798349.31 -31798349.20 0.0133 0.0123
 Earth -91773-11-12 07:25 J -31798349.21 -31798349.19 -31798349.11 0.0133 0.0130 *
 Mars -91768-09-19 07:39 J -31796577.40 -31796577.18 -31796576.92 0.0135 0.0084
 Mars -91766-08-21 22:18 J -31795875.82 -31795875.57 -31795875.29 0.0136 0.0070
 Mercury -91757-11-27 22:18 J -31792489.62 -31792489.57 -31792489.50 0.0141 0.0127
 Mercury -91756-02-24 02:37 J -31792401.48 -31792401.39 -31792401.30 0.0142 0.0109
 Mercury -91756-05-23 06:42 J -31792313.32 -31792313.22 -31792313.10 0.0142 0.0091
 Mercury -91756-08-19 11:01 J -31792225.16 -31792225.04 -31792224.91 0.0142 0.0072
 Mercury -91756-11-15 15:35 J -31792136.99 -31792136.85 -31792136.72 0.0142 0.0052
 Venus -91755-01-19 07:39 J -31792072.29 -31792072.18 -31792072.06 0.0142 0.0119
 Mercury -91755-02-11 19:54 J -31792048.81 -31792048.67 -31792048.53 0.0142 0.0033
 Mercury -91755-05-11 00:27 J -31791960.63 -31791960.48 -31791960.34 0.0142 0.0014
 Mercury -91755-08-07 04:47 J -31791872.44 -31791872.30 -31791872.15 0.0142 0.0007
 Venus -91755-09-02 16:03 J -31791846.02 -31791845.83 -31791845.62 0.0143 0.0051
 Mercury -91755-11-03 09:20 J -31791784.25 -31791784.11 -31791783.96 0.0143 0.0026
 Mercury -91754-01-30 13:54 J -31791696.06 -31791695.92 -31791695.78 0.0143 0.0046
 Venus -91754-04-17 01:11 J -31791619.66 -31791619.45 -31791619.24 0.0143 0.0020
 Mercury -91754-04-28 18:27 J -31791607.86 -31791607.73 -31791607.60 0.0143 0.0067

Mercury -91754-07-25 23:01 J -31791519.65 -31791519.54 -31791519.42 0.0143 0.0087
 Mercury -91754-10-22 03:35 J -31791431.44 -31791431.35 -31791431.24 0.0143 0.0108
 Venus -91754-11-29 10:18 J -31791393.22 -31791393.07 -31791392.90 0.0143 0.0092
 Mercury -91753-01-18 08:37 J -31791343.20 -31791343.14 -31791343.08 0.0143 0.0129
 Earth -91740-03-30 20:51 J -31786522.70 -31786522.63 -31786522.54 0.0148 0.0140
 Moon -91740-03-31 00:13 J -31786522.53 -31786522.49 -31786522.43 0.0148 0.0144
 Moon -91739-04-05 01:54 J -31786152.60 -31786152.42 -31786152.23 0.0148 0.0102
 Earth -91739-04-05 05:15 J -31786152.46 -31786152.28 -31786152.09 0.0148 0.0102 *
 Earth -91738-04-10 13:54 J -31785782.15 -31785781.92 -31785781.68 0.0148 0.0064
 Moon -91738-04-10 16:18 J -31785782.05 -31785781.82 -31785781.59 0.0148 0.0059 *
 Moon -91737-04-14 21:35 J -31785411.85 -31785411.60 -31785411.33 0.0148 0.0032
 Earth -91737-04-14 23:01 J -31785411.78 -31785411.54 -31785411.27 0.0148 0.0025 *
 Earth -91736-04-20 09:06 J -31785041.38 -31785041.12 -31785040.86 0.0147 0.0015
 Moon -91736-04-20 09:49 J -31785041.33 -31785041.09 -31785040.84 0.0147 0.0022 *
 Earth -91735-04-25 18:56 J -31784670.94 -31784670.71 -31784670.46 0.0147 0.0055
 Moon -91735-04-25 19:54 J -31784670.92 -31784670.67 -31784670.42 0.0147 0.0054 *
 Moon -91734-05-01 03:49 J -31784300.52 -31784300.34 -31784300.13 0.0147 0.0092
 Earth -91734-05-01 05:01 J -31784300.48 -31784300.29 -31784300.08 0.0147 0.0094 *
 Earth -91733-05-05 15:06 J -31783929.96 -31783929.87 -31783929.74 0.0146 0.0132
 Moon -91733-05-05 17:44 J -31783929.82 -31783929.76 -31783929.66 0.0146 0.0140 *
 Mars -91727-04-19 23:44 J -31781754.80 -31781754.51 -31781754.21 0.0143 0.0037
 Mercury -91717-01-27 21:49 J -31778184.66 -31778184.59 -31778184.49 0.0137 0.0119
 Mercury -91717-04-25 04:03 J -31778096.45 -31778096.33 -31778096.21 0.0137 0.0098
 Mercury -91717-07-22 09:35 J -31778008.23 -31778008.10 -31778007.94 0.0137 0.0077
 Mercury -91717-10-18 15:35 J -31777920.00 -31777919.85 -31777919.69 0.0137 0.0056
 Mercury -91716-01-14 21:35 J -31777831.77 -31777831.60 -31777831.44 0.0137 0.0035
 Venus -91716-02-15 08:51 J -31777800.28 -31777800.13 -31777799.97 0.0137 0.0099
 Mercury -91716-04-13 03:20 J -31777743.53 -31777743.36 -31777743.20 0.0137 0.0015
 Mercury -91716-07-10 08:51 J -31777655.30 -31777655.13 -31777654.96 0.0136 0.0006
 Venus -91716-09-29 17:44 J -31777573.98 -31777573.76 -31777573.55 0.0136 0.0035

Mercury -91716-10-06 14:23 J -31777567.06 -31777566.90 -31777566.73 0.0136 0.0026

Mercury -91715-01-02 19:54 J -31777478.82 -31777478.67 -31777478.51 0.0136 0.0045

Mercury -91715-04-01 01:11 J -31777390.58 -31777390.45 -31777390.29 0.0136 0.0066

Venus -91715-05-14 02:23 J -31777347.62 -31777347.40 -31777347.19 0.0136 0.0029

Mercury -91715-06-28 06:42 J -31777302.34 -31777302.22 -31777302.08 0.0136 0.0084

Mercury -91715-09-24 12:13 J -31777214.10 -31777213.99 -31777213.88 0.0136 0.0103

Mercury -91715-12-21 17:30 J -31777125.84 -31777125.77 -31777125.70 0.0136 0.0122

Venus -91715-12-26 10:03 J -31777121.23 -31777121.08 -31777120.90 0.0136 0.0093

Jupiter -91704-01-05 23:01 J -31773457.84 -31773457.54 -31773457.15 0.0132 0.0096

Earth -91699-10-06 14:23 J -31771357.91 -31771357.90 -31771357.86 0.0131 0.0130

Earth -91698-10-10 15:49 J -31770988.96 -31770988.84 -31770988.67 0.0131 0.0105

Moon -91698-10-10 19:11 J -31770988.85 -31770988.70 -31770988.53 0.0131 0.0098 *

Moon -91697-10-13 14:37 J -31770620.06 -31770619.89 -31770619.67 0.0131 0.0086

Earth -91697-10-13 17:30 J -31770619.96 -31770619.77 -31770619.55 0.0131 0.0079 *

Earth -91696-10-17 18:13 J -31770250.95 -31770250.74 -31770250.49 0.0131 0.0054

Moon -91696-10-17 21:35 J -31770250.82 -31770250.60 -31770250.36 0.0131 0.0047 *

Moon -91695-10-21 16:32 J -31769882.06 -31769881.81 -31769881.56 0.0131 0.0029

Earth -91695-10-21 19:25 J -31769881.93 -31769881.69 -31769881.44 0.0131 0.0026 *

Earth -91694-10-25 20:08 J -31769512.91 -31769512.66 -31769512.41 0.0131 0.0000

Moon -91694-10-25 23:01 J -31769512.78 -31769512.54 -31769512.29 0.0131 0.0002 *

Moon -91693-10-28 17:15 J -31769144.02 -31769143.78 -31769143.53 0.0132 0.0028

Earth -91693-10-28 20:37 J -31769143.88 -31769143.64 -31769143.40 0.0132 0.0027 *

Earth -91692-11-01 20:51 J -31768774.85 -31768774.63 -31768774.39 0.0132 0.0054

Moon -91692-11-01 23:44 J -31768774.73 -31768774.51 -31768774.27 0.0132 0.0049 *

Moon -91691-11-05 17:59 J -31768405.92 -31768405.75 -31768405.54 0.0132 0.0086

Earth -91691-11-05 21:20 J -31768405.79 -31768405.61 -31768405.39 0.0132 0.0080 *

Earth -91690-11-09 21:49 J -31768036.72 -31768036.59 -31768036.42 0.0132 0.0106

Moon -91690-11-10 00:56 J -31768036.60 -31768036.46 -31768036.28 0.0132 0.0100 *

Earth -91689-11-12 22:32 J -31767667.57 -31767667.56 -31767667.51 0.0133 0.0132

Mars -91683-05-15 10:18 J -31765658.37 -31765658.07 -31765657.76 0.0135 0.0023

Mars -91681-04-16 05:01 J -31764956.34 -31764956.29 -31764956.22 0.0136 0.0133
 Mercury -91673-09-21 02:08 J -31761876.43 -31761876.41 -31761876.37 0.0141 0.0139
 Mercury -91673-12-18 06:13 J -31761788.30 -31761788.24 -31761788.15 0.0141 0.0121
 Mercury -91672-03-16 10:32 J -31761700.15 -31761700.06 -31761699.95 0.0142 0.0102
 Mercury -91672-06-12 15:06 J -31761611.99 -31761611.87 -31761611.75 0.0142 0.0083
 Mercury -91672-09-08 19:25 J -31761523.82 -31761523.69 -31761523.56 0.0142 0.0064
 Mercury -91672-12-05 23:44 J -31761435.65 -31761435.51 -31761435.37 0.0142 0.0045
 Mercury -91671-03-04 04:03 J -31761347.47 -31761347.33 -31761347.18 0.0142 0.0026
 Venus -91671-05-03 03:06 J -31761287.54 -31761287.37 -31761287.18 0.0142 0.0080
 Mercury -91671-05-31 08:37 J -31761259.29 -31761259.14 -31761259.00 0.0142 0.0007
 Mercury -91671-08-27 12:56 J -31761171.10 -31761170.96 -31761170.81 0.0142 0.0014
 Mercury -91671-11-23 17:30 J -31761082.91 -31761082.77 -31761082.63 0.0143 0.0034
 Venus -91671-12-15 12:13 J -31761061.21 -31761060.99 -31761060.78 0.0143 0.0010
 Mercury -91670-02-19 22:03 J -31760994.72 -31760994.58 -31760994.44 0.0143 0.0054
 Mercury -91670-05-19 02:37 J -31760906.51 -31760906.39 -31760906.26 0.0143 0.0075
 Venus -91670-07-29 21:06 J -31760834.81 -31760834.62 -31760834.43 0.0143 0.0061
 Mercury -91670-08-15 07:11 J -31760818.30 -31760818.20 -31760818.08 0.0143 0.0095
 Mercury -91670-11-11 11:44 J -31760730.08 -31760730.01 -31760729.91 0.0143 0.0117
 Mercury -91669-02-07 16:32 J -31760641.84 -31760641.81 -31760641.76 0.0143 0.0137
 Venus -91669-03-12 05:59 J -31760608.31 -31760608.25 -31760608.16 0.0143 0.0133
 Earth -91656-03-31 11:30 J -31755841.10 -31755841.02 -31755840.89 0.0148 0.0135
 Moon -91656-03-31 15:20 J -31755840.96 -31755840.86 -31755840.72 0.0148 0.0130 *
 Moon -91655-04-05 16:32 J -31755470.99 -31755470.81 -31755470.60 0.0148 0.0097
 Earth -91655-04-05 19:54 J -31755470.85 -31755470.67 -31755470.47 0.0148 0.0097 *
 Earth -91654-04-11 04:18 J -31755100.54 -31755100.32 -31755100.07 0.0148 0.0059
 Moon -91654-04-11 07:11 J -31755100.42 -31755100.20 -31755099.96 0.0148 0.0065 *
 Moon -91653-04-15 11:44 J -31754730.28 -31754730.01 -31754729.75 0.0148 0.0013
 Earth -91653-04-15 13:54 J -31754730.17 -31754729.92 -31754729.66 0.0148 0.0020 *
 Earth -91652-04-20 23:44 J -31754359.76 -31754359.51 -31754359.25 0.0147 0.0020
 Moon -91652-04-21 00:42 J -31754359.72 -31754359.47 -31754359.22 0.0147 0.0014 *

Moon -91651-04-26 09:06 J -31753989.36 -31753989.12 -31753988.87 0.0147 0.0062
 Earth -91651-04-26 09:35 J -31753989.33 -31753989.10 -31753988.85 0.0147 0.0059 *
 Moon -91650-05-01 18:27 J -31753618.89 -31753618.73 -31753618.53 0.0147 0.0102
 Earth -91650-05-01 20:08 J -31753618.85 -31753618.66 -31753618.47 0.0147 0.0097 *
 Earth -91649-05-06 05:44 J -31753248.33 -31753248.26 -31753248.13 0.0146 0.0136
 Moon -91649-05-06 07:54 J -31753248.29 -31753248.17 -31753248.03 0.0146 0.0128 *
 Mars -91644-01-10 05:30 J -31751538.53 -31751538.27 -31751538.00 0.0144 0.0076
 Mars -91643-12-14 17:44 J -31750834.94 -31750834.76 -31750834.55 0.0143 0.0108
 Mercury -91634-11-21 00:27 J -31747571.52 -31747571.48 -31747571.43 0.0137 0.0132
 Mercury -91633-02-17 06:27 J -31747483.33 -31747483.23 -31747483.13 0.0137 0.0110
 Mercury -91633-05-15 12:13 J -31747395.11 -31747394.99 -31747394.85 0.0137 0.0089
 Mercury -91633-08-11 18:13 J -31747306.88 -31747306.74 -31747306.59 0.0137 0.0068
 Venus -91633-10-15 19:25 J -31747241.76 -31747241.69 -31747241.60 0.0137 0.0126
 Mercury -91633-11-07 23:59 J -31747218.65 -31747218.50 -31747218.33 0.0137 0.0048
 Mercury -91632-02-04 05:44 J -31747130.42 -31747130.26 -31747130.09 0.0137 0.0027
 Mercury -91632-05-03 11:30 J -31747042.19 -31747042.02 -31747041.85 0.0137 0.0007
 Venus -91632-05-30 04:18 J -31747015.50 -31747015.32 -31747015.10 0.0137 0.0062
 Mercury -91632-07-30 17:15 J -31746953.95 -31746953.78 -31746953.61 0.0136 0.0014
 Mercury -91632-10-26 22:47 J -31746865.71 -31746865.55 -31746865.39 0.0136 0.0034
 Venus -91631-01-11 13:11 J -31746789.17 -31746788.95 -31746788.72 0.0136 0.0004
 Mercury -91631-01-23 04:18 J -31746777.47 -31746777.32 -31746777.17 0.0136 0.0053
 Mercury -91631-04-21 09:35 J -31746689.23 -31746689.10 -31746688.95 0.0136 0.0073
 Mercury -91631-07-18 15:06 J -31746600.99 -31746600.87 -31746600.75 0.0136 0.0092
 Venus -91631-08-25 21:06 J -31746562.80 -31746562.62 -31746562.41 0.0136 0.0067
 Mercury -91631-10-14 20:23 J -31746512.74 -31746512.65 -31746512.55 0.0136 0.0111
 Mercury -91630-01-11 01:39 J -31746424.47 -31746424.43 -31746424.38 0.0136 0.0130
 Venus -91630-04-09 05:01 J -31746336.34 -31746336.29 -31746336.21 0.0136 0.0130
 Moon -91615-10-07 02:08 J -31740676.51 -31740676.41 -31740676.30 0.0131 0.0119
 Earth -91615-10-07 05:01 J -31740676.34 -31740676.29 -31740676.20 0.0131 0.0126 *
 Earth -91614-10-11 06:42 J -31740307.36 -31740307.22 -31740307.04 0.0131 0.0100

Moon -91614-10-11 09:49 J -31740307.22 -31740307.09 -31740306.93 0.0131 0.0107 *
 Moon -91613-10-14 04:47 J -31739938.50 -31739938.30 -31739938.07 0.0131 0.0067
 Earth -91613-10-14 08:23 J -31739938.35 -31739938.15 -31739937.94 0.0131 0.0074 *
 Earth -91612-10-18 09:20 J -31739569.34 -31739569.11 -31739568.87 0.0131 0.0048
 Moon -91612-10-18 12:13 J -31739569.20 -31739568.99 -31739568.75 0.0131 0.0053 *
 Moon -91611-10-22 06:56 J -31739200.46 -31739200.21 -31739199.95 0.0131 0.0019
 Earth -91611-10-22 10:18 J -31739200.31 -31739200.07 -31739199.82 0.0131 0.0022 *
 Earth -91610-10-26 11:01 J -31738831.29 -31738831.04 -31738830.79 0.0131 0.0004
 Moon -91610-10-26 14:23 J -31738831.15 -31738830.90 -31738830.66 0.0131 0.0004 *
 Moon -91609-10-29 08:23 J -31738462.39 -31738462.15 -31738461.90 0.0132 0.0028
 Earth -91609-10-29 11:30 J -31738462.25 -31738462.02 -31738461.77 0.0132 0.0031 *
 Earth -91608-11-02 11:44 J -31738093.22 -31738093.01 -31738092.77 0.0132 0.0057
 Moon -91608-11-02 15:20 J -31738093.07 -31738092.86 -31738092.63 0.0132 0.0061 *
 Moon -91607-11-06 09:06 J -31737724.31 -31737724.12 -31737723.90 0.0132 0.0077
 Earth -91607-11-06 12:13 J -31737724.16 -31737723.99 -31737723.78 0.0132 0.0083 *
 Earth -91606-11-10 12:42 J -31737355.09 -31737354.97 -31737354.81 0.0132 0.0109
 Moon -91606-11-10 16:32 J -31737354.92 -31737354.81 -31737354.69 0.0132 0.0116 *
 Moon -91605-11-13 09:49 J -31736986.14 -31736986.09 -31736986.00 0.0133 0.0127
 Mars -91600-02-06 03:35 J -31735440.49 -31735440.35 -31735440.15 0.0134 0.0112
 Mars -91598-01-08 13:25 J -31734739.24 -31734738.94 -31734738.64 0.0135 0.0039
 Mercury -91589-10-11 09:49 J -31731175.12 -31731175.09 -31731175.03 0.0141 0.0133
 Mercury -91588-01-07 14:23 J -31731086.98 -31731086.90 -31731086.82 0.0141 0.0114
 Mercury -91588-04-05 18:27 J -31730998.83 -31730998.73 -31730998.62 0.0142 0.0095
 Mercury -91588-07-02 22:47 J -31730910.67 -31730910.55 -31730910.43 0.0142 0.0077
 Mercury -91588-09-29 03:06 J -31730822.50 -31730822.37 -31730822.24 0.0142 0.0058
 Mercury -91588-12-26 07:25 J -31730734.33 -31730734.19 -31730734.05 0.0142 0.0039
 Venus -91588-12-31 12:56 J -31730729.08 -31730728.96 -31730728.81 0.0142 0.0110
 Mercury -91587-03-24 11:59 J -31730646.15 -31730646.00 -31730645.86 0.0142 0.0019
 Mercury -91587-06-20 16:18 J -31730557.97 -31730557.82 -31730557.67 0.0142 0.0001
 Venus -91587-08-14 21:49 J -31730502.80 -31730502.59 -31730502.39 0.0142 0.0041

Mercury -91587-09-16 20:51 J -31730469.78 -31730469.63 -31730469.49 0.0142 0.0021

Mercury -91587-12-14 01:11 J -31730381.59 -31730381.45 -31730381.30 0.0143 0.0041

Mercury -91586-03-12 05:44 J -31730293.39 -31730293.26 -31730293.12 0.0143 0.0061

Venus -91586-03-29 06:27 J -31730276.44 -31730276.23 -31730276.02 0.0143 0.0030

Mercury -91586-06-08 10:18 J -31730205.18 -31730205.07 -31730204.94 0.0143 0.0081

Mercury -91586-09-04 14:51 J -31730116.97 -31730116.88 -31730116.76 0.0143 0.0102

Venus -91586-11-10 15:20 J -31730049.99 -31730049.86 -31730049.69 0.0143 0.0102

Mercury -91586-12-01 19:54 J -31730028.75 -31730028.67 -31730028.60 0.0143 0.0122

Earth -91572-04-01 00:13 J -31725159.60 -31725159.49 -31725159.36 0.0148 0.0129

Moon -91572-04-01 03:35 J -31725159.44 -31725159.35 -31725159.23 0.0148 0.0134 *

Moon -91571-04-06 04:18 J -31724789.51 -31724789.32 -31724789.10 0.0148 0.0093

Earth -91571-04-06 08:08 J -31724789.35 -31724789.16 -31724788.95 0.0148 0.0092 *

Earth -91570-04-11 17:01 J -31724419.03 -31724418.79 -31724418.55 0.0148 0.0054

Moon -91570-04-11 20:08 J -31724418.89 -31724418.66 -31724418.42 0.0148 0.0050 *

Moon -91569-04-15 23:44 J -31724048.76 -31724048.51 -31724048.24 0.0148 0.0024

Earth -91569-04-16 02:23 J -31724048.65 -31724048.40 -31724048.14 0.0148 0.0015 *

Earth -91568-04-21 12:13 J -31723678.24 -31723677.99 -31723677.73 0.0147 0.0023

Moon -91568-04-21 14:08 J -31723678.15 -31723677.91 -31723677.66 0.0147 0.0031 *

Moon -91567-04-26 21:49 J -31723307.83 -31723307.59 -31723307.34 0.0147 0.0060

Earth -91567-04-26 22:18 J -31723307.80 -31723307.57 -31723307.33 0.0147 0.0062 *

Earth -91566-05-02 08:23 J -31722937.33 -31722937.15 -31722936.95 0.0147 0.0100

Moon -91566-05-02 08:23 J -31722937.32 -31722937.15 -31722936.95 0.0147 0.0098 *

Earth -91565-05-06 18:27 J -31722566.80 -31722566.73 -31722566.62 0.0147 0.0138

Moon -91565-05-06 19:54 J -31722566.70 -31722566.67 -31722566.60 0.0147 0.0144 *

Mars -91560-09-06 00:42 J -31720618.78 -31720618.47 -31720618.16 0.0144 0.0003

Mercury -91550-12-11 08:37 J -31716870.21 -31716870.14 -31716870.06 0.0137 0.0124

Mercury -91549-03-08 14:37 J -31716782.00 -31716781.89 -31716781.77 0.0137 0.0102

Mercury -91549-06-04 20:37 J -31716693.78 -31716693.64 -31716693.50 0.0137 0.0081

Mercury -91549-09-01 02:23 J -31716605.55 -31716605.40 -31716605.24 0.0137 0.0060

Mercury -91549-11-28 08:08 J -31716517.32 -31716517.16 -31716516.99 0.0137 0.0040

Venus -91548-01-27 14:37 J -31716457.04 -31716456.89 -31716456.70 0.0137 0.0089
 Mercury -91548-02-24 14:08 J -31716429.08 -31716428.91 -31716428.74 0.0137 0.0019
 Mercury -91548-05-23 19:39 J -31716340.85 -31716340.68 -31716340.51 0.0137 0.0003
 Mercury -91548-08-20 01:25 J -31716252.61 -31716252.44 -31716252.28 0.0136 0.0022
 Venus -91548-09-10 23:44 J -31716230.73 -31716230.51 -31716230.29 0.0136 0.0024
 Mercury -91548-11-16 06:56 J -31716164.37 -31716164.21 -31716164.05 0.0136 0.0041
 Mercury -91547-02-12 12:13 J -31716076.13 -31716075.99 -31716075.83 0.0136 0.0061
 Venus -91547-04-25 08:08 J -31716004.37 -31716004.16 -31716003.94 0.0136 0.0040
 Mercury -91547-05-11 17:44 J -31715987.89 -31715987.76 -31715987.62 0.0136 0.0080
 Mercury -91547-08-07 23:15 J -31715899.64 -31715899.53 -31715899.42 0.0136 0.0099
 Mercury -91547-11-04 04:18 J -31715811.39 -31715811.32 -31715811.23 0.0136 0.0119
 Venus -91547-12-07 16:03 J -31715777.96 -31715777.83 -31715777.67 0.0136 0.0104
 Moon -91531-10-07 16:47 J -31709994.86 -31709994.80 -31709994.73 0.0131 0.0126
 Earth -91531-10-07 19:54 J -31709994.75 -31709994.67 -31709994.55 0.0131 0.0120 *
 Earth -91530-10-11 21:35 J -31709625.75 -31709625.60 -31709625.41 0.0131 0.0095
 Moon -91530-10-12 01:11 J -31709625.62 -31709625.45 -31709625.25 0.0131 0.0088 *
 Moon -91529-10-14 20:08 J -31709256.86 -31709256.66 -31709256.45 0.0131 0.0075
 Earth -91529-10-14 23:15 J -31709256.73 -31709256.53 -31709256.31 0.0131 0.0069 *
 Earth -91528-10-19 00:27 J -31708887.72 -31708887.48 -31708887.24 0.0131 0.0044
 Moon -91528-10-19 03:49 J -31708887.57 -31708887.34 -31708887.10 0.0131 0.0038 *
 Moon -91527-10-22 22:03 J -31708518.83 -31708518.58 -31708518.33 0.0131 0.0021
 Earth -91527-10-23 01:25 J -31708518.69 -31708518.44 -31708518.19 0.0131 0.0018 *
 Earth -91526-10-27 02:08 J -31708149.66 -31708149.41 -31708149.16 0.0131 0.0008
 Moon -91526-10-27 05:30 J -31708149.52 -31708149.27 -31708149.02 0.0131 0.0008 *
 Moon -91525-10-29 22:47 J -31707780.78 -31707780.55 -31707780.30 0.0132 0.0036
 Earth -91525-10-30 02:23 J -31707780.63 -31707780.40 -31707780.15 0.0132 0.0035 *
 Earth -91524-11-03 02:51 J -31707411.59 -31707411.38 -31707411.15 0.0132 0.0060
 Moon -91524-11-03 06:27 J -31707411.46 -31707411.23 -31707411.01 0.0132 0.0055 *
 Moon -91523-11-06 23:30 J -31707042.68 -31707042.52 -31707042.32 0.0132 0.0092
 Earth -91523-11-07 03:35 J -31707042.54 -31707042.35 -31707042.16 0.0132 0.0085 *

Earth -91522-11-11 03:20 J -31706673.47 -31706673.36 -31706673.21 0.0132 0.0111
 Moon -91522-11-11 06:42 J -31706673.35 -31706673.22 -31706673.05 0.0132 0.0105 *
 Mars -91516-10-02 03:49 J -31704521.61 -31704521.34 -31704521.04 0.0135 0.0052
 Mars -91514-09-03 17:15 J -31703819.97 -31703819.78 -31703819.56 0.0136 0.0101
 Mercury -91505-10-31 17:59 J -31700473.81 -31700473.75 -31700473.68 0.0141 0.0125
 Mercury -91504-01-27 22:03 J -31700385.66 -31700385.58 -31700385.48 0.0141 0.0107
 Mercury -91504-04-26 02:23 J -31700297.51 -31700297.40 -31700297.28 0.0142 0.0089
 Mercury -91504-07-23 06:42 J -31700209.34 -31700209.22 -31700209.09 0.0142 0.0070
 Venus -91504-08-30 23:30 J -31700170.54 -31700170.52 -31700170.47 0.0142 0.0140
 Mercury -91504-10-19 11:01 J -31700121.17 -31700121.04 -31700120.90 0.0142 0.0051
 Mercury -91503-01-15 15:20 J -31700033.00 -31700032.86 -31700032.71 0.0142 0.0032
 Mercury -91503-04-13 19:54 J -31699944.82 -31699944.67 -31699944.53 0.0142 0.0012
 Venus -91503-04-14 07:54 J -31699944.34 -31699944.17 -31699943.97 0.0142 0.0071
 Mercury -91503-07-11 00:13 J -31699856.63 -31699856.49 -31699856.34 0.0142 0.0008
 Mercury -91503-10-07 04:47 J -31699768.45 -31699768.30 -31699768.16 0.0142 0.0027
 Venus -91503-11-26 17:01 J -31699718.01 -31699717.79 -31699717.58 0.0143 0.0003
 Mercury -91502-01-03 09:20 J -31699680.25 -31699680.11 -31699679.97 0.0143 0.0048
 Mercury -91502-04-01 13:54 J -31699592.05 -31699591.92 -31699591.79 0.0143 0.0068
 Mercury -91502-06-28 18:27 J -31699503.84 -31699503.73 -31699503.61 0.0143 0.0088
 Venus -91502-07-11 01:39 J -31699491.61 -31699491.43 -31699491.24 0.0143 0.0070
 Mercury -91502-09-24 23:01 J -31699415.63 -31699415.54 -31699415.44 0.0143 0.0109
 Mercury -91502-12-22 03:35 J -31699327.40 -31699327.35 -31699327.28 0.0143 0.0130
 Venus -91501-02-22 10:47 J -31699265.07 -31699265.05 -31699265.01 0.0143 0.0142
 Earth -91488-04-01 14:23 J -31694478.04 -31694477.90 -31694477.76 0.0148 0.0123
 Moon -91488-04-01 17:44 J -31694477.89 -31694477.76 -31694477.59 0.0148 0.0119 *
 Moon -91487-04-06 19:11 J -31694107.91 -31694107.70 -31694107.50 0.0148 0.0087
 Earth -91487-04-06 22:18 J -31694107.76 -31694107.57 -31694107.35 0.0148 0.0087 *
 Earth -91486-04-12 07:11 J -31693737.43 -31693737.20 -31693736.95 0.0148 0.0049
 Moon -91486-04-12 10:32 J -31693737.29 -31693737.06 -31693736.82 0.0148 0.0055 *
 Moon -91485-04-16 13:54 J -31693367.19 -31693366.92 -31693366.66 0.0148 0.0004

Earth -91485-04-16 17:01 J -31693367.05 -31693366.79 -31693366.53 0.0148 0.0011 *
 Earth -91484-04-22 02:37 J -31692996.63 -31692996.39 -31692996.13 0.0147 0.0029
 Moon -91484-04-22 04:47 J -31692996.55 -31692996.30 -31692996.05 0.0147 0.0022 *
 Moon -91483-04-27 11:01 J -31692626.27 -31692626.04 -31692625.79 0.0147 0.0069
 Earth -91483-04-27 12:42 J -31692626.19 -31692625.97 -31692625.73 0.0147 0.0066 *
 Earth -91482-05-02 22:47 J -31692255.71 -31692255.55 -31692255.35 0.0147 0.0104
 Moon -91482-05-02 23:01 J -31692255.70 -31692255.54 -31692255.35 0.0147 0.0107 *
 Moon -91481-05-07 09:49 J -31691885.19 -31691885.09 -31691884.96 0.0147 0.0133
 Earth -91481-05-07 08:51 J -31691885.18 -31691885.13 -31691885.03 0.0147 0.0141 *
 Mars -91477-05-29 01:11 J -31690402.63 -31690402.45 -31690402.26 0.0145 0.0117
 Mars -91475-05-02 22:18 J -31689698.82 -31689698.57 -31689698.29 0.0144 0.0070
 Mercury -91466-10-04 11:01 J -31686257.05 -31686257.04 -31686257.02 0.0138 0.0137
 Mercury -91466-12-31 17:01 J -31686168.88 -31686168.79 -31686168.69 0.0137 0.0116
 Mercury -91465-03-28 22:47 J -31686080.66 -31686080.55 -31686080.41 0.0137 0.0095
 Mercury -91465-06-25 04:47 J -31685992.44 -31685992.30 -31685992.15 0.0137 0.0073
 Mercury -91465-09-21 10:47 J -31685904.21 -31685904.05 -31685903.89 0.0137 0.0052
 Venus -91465-09-27 00:56 J -31685898.55 -31685898.46 -31685898.32 0.0137 0.0117
 Mercury -91465-12-18 16:32 J -31685815.97 -31685815.81 -31685815.64 0.0137 0.0032
 Mercury -91464-03-16 22:18 J -31685727.74 -31685727.57 -31685727.40 0.0137 0.0011
 Venus -91464-05-11 10:18 J -31685672.27 -31685672.07 -31685671.85 0.0137 0.0051
 Mercury -91464-06-13 04:03 J -31685639.50 -31685639.33 -31685639.16 0.0137 0.0010
 Mercury -91464-09-09 09:35 J -31685551.26 -31685551.10 -31685550.93 0.0137 0.0029
 Mercury -91464-12-06 14:51 J -31685463.03 -31685462.88 -31685462.71 0.0136 0.0050
 Venus -91464-12-23 19:11 J -31685445.92 -31685445.70 -31685445.48 0.0136 0.0014
 Mercury -91463-03-04 20:37 J -31685374.78 -31685374.64 -31685374.49 0.0136 0.0069
 Mercury -91463-06-01 01:54 J -31685286.54 -31685286.42 -31685286.29 0.0136 0.0088
 Venus -91463-08-07 03:20 J -31685219.54 -31685219.36 -31685219.18 0.0136 0.0077
 Mercury -91463-08-28 07:11 J -31685198.29 -31685198.20 -31685198.09 0.0136 0.0107
 Mercury -91463-11-24 12:27 J -31685110.03 -31685109.98 -31685109.91 0.0136 0.0126
 Moon -91447-10-08 06:56 J -31679313.33 -31679313.21 -31679313.05 0.0131 0.0109

Earth	-91447-10-08 11:01 J	-31679313.16	-31679313.04	-31679312.92	0.0131	0.0114	*
Earth	-91446-10-12 12:42 J	-31678944.15	-31678943.97	-31678943.78	0.0131	0.0089	
Moon	-91446-10-12 16:03 J	-31678943.99	-31678943.83	-31678943.66	0.0131	0.0096	*
Moon	-91445-10-15 10:18 J	-31678575.29	-31678575.07	-31678574.83	0.0131	0.0057	
Earth	-91445-10-15 14:08 J	-31678575.12	-31678574.91	-31678574.69	0.0131	0.0064	*
Earth	-91444-10-19 15:06 J	-31678206.10	-31678205.87	-31678205.62	0.0131	0.0039	
Moon	-91444-10-19 18:27 J	-31678205.95	-31678205.73	-31678205.48	0.0131	0.0044	*
Moon	-91443-10-23 12:42 J	-31677837.22	-31677836.97	-31677836.71	0.0131	0.0010	
Earth	-91443-10-23 16:18 J	-31677837.06	-31677836.82	-31677836.56	0.0131	0.0014	*
Earth	-91442-10-27 17:01 J	-31677468.04	-31677467.79	-31677467.54	0.0131	0.0013	
Moon	-91442-10-27 20:37 J	-31677467.89	-31677467.64	-31677467.39	0.0131	0.0011	*
Moon	-91441-10-30 14:08 J	-31677099.15	-31677098.91	-31677098.66	0.0131	0.0036	
Earth	-91441-10-30 17:30 J	-31677099.00	-31677098.77	-31677098.52	0.0131	0.0038	*
Earth	-91440-11-03 17:44 J	-31676729.97	-31676729.76	-31676729.53	0.0132	0.0064	
Moon	-91440-11-03 21:35 J	-31676729.81	-31676729.60	-31676729.38	0.0132	0.0068	*
Moon	-91439-11-07 14:37 J	-31676361.06	-31676360.89	-31676360.68	0.0132	0.0083	
Earth	-91439-11-07 17:59 J	-31676360.91	-31676360.75	-31676360.55	0.0132	0.0089	*
Earth	-91438-11-11 18:13 J	-31675991.85	-31675991.74	-31675991.60	0.0132	0.0114	
Moon	-91438-11-11 22:03 J	-31675991.67	-31675991.58	-31675991.47	0.0132	0.0121	*
Moon	-91437-11-14 15:06 J	-31675622.89	-31675622.87	-31675622.82	0.0133	0.0131	
Mars	-91431-05-28 05:44 J	-31673602.56	-31673602.26	-31673601.95	0.0135	0.0010	
Mercury	-91421-08-24 21:35 J	-31669860.62	-31669860.60	-31669860.57	0.0141	0.0137	
Mercury	-91421-11-21 01:39 J	-31669772.50	-31669772.43	-31669772.35	0.0141	0.0119	
Mercury	-91420-02-17 05:59 J	-31669684.35	-31669684.25	-31669684.15	0.0141	0.0101	
Mercury	-91420-05-16 10:03 J	-31669596.19	-31669596.08	-31669595.95	0.0141	0.0083	
Mercury	-91420-08-12 14:23 J	-31669508.02	-31669507.90	-31669507.76	0.0142	0.0064	
Mercury	-91420-11-08 18:42 J	-31669419.85	-31669419.72	-31669419.58	0.0142	0.0045	
Venus	-91420-12-12 18:13 J	-31669385.89	-31669385.74	-31669385.59	0.0142	0.0101	
Mercury	-91419-02-04 23:15 J	-31669331.68	-31669331.53	-31669331.39	0.0142	0.0025	
Mercury	-91419-05-04 03:35 J	-31669243.50	-31669243.35	-31669243.20	0.0142	0.0006	

Venus -91419-07-27 02:23 J -31669159.60 -31669159.40 -31669159.18 0.0142 0.0033
 Mercury -91419-07-31 08:08 J -31669155.31 -31669155.16 -31669155.02 0.0142 0.0015
 Mercury -91419-10-27 12:27 J -31669067.12 -31669066.98 -31669066.83 0.0142 0.0034
 Mercury -91418-01-23 17:01 J -31668978.93 -31668978.79 -31668978.65 0.0143 0.0054
 Venus -91418-03-10 11:01 J -31668933.23 -31668933.04 -31668932.82 0.0143 0.0039
 Mercury -91418-04-21 21:35 J -31668890.72 -31668890.60 -31668890.47 0.0143 0.0074
 Mercury -91418-07-19 02:08 J -31668802.51 -31668802.41 -31668802.29 0.0143 0.0095
 Mercury -91418-10-15 06:42 J -31668714.30 -31668714.22 -31668714.12 0.0143 0.0116
 Venus -91418-10-22 20:23 J -31668706.78 -31668706.65 -31668706.51 0.0143 0.0109
 Mercury -91417-01-11 11:30 J -31668626.05 -31668626.02 -31668625.97 0.0143 0.0137
 Moon -91405-03-27 15:20 J -31664166.89 -31664166.86 -31664166.82 0.0148 0.0146
 Earth -91404-04-02 01:54 J -31663796.57 -31663796.42 -31663796.27 0.0148 0.0118
 Moon -91404-04-02 05:15 J -31663796.42 -31663796.28 -31663796.14 0.0148 0.0123 *
 Moon -91403-04-07 06:13 J -31663426.45 -31663426.24 -31663426.03 0.0148 0.0082
 Earth -91403-04-07 09:49 J -31663426.29 -31663426.09 -31663425.87 0.0148 0.0082 *
 Earth -91402-04-12 18:42 J -31663055.96 -31663055.72 -31663055.47 0.0148 0.0045
 Moon -91402-04-12 22:32 J -31663055.81 -31663055.56 -31663055.31 0.0148 0.0040 *
 Moon -91401-04-17 01:11 J -31662685.70 -31662685.45 -31662685.18 0.0148 0.0015
 Earth -91401-04-17 04:32 J -31662685.57 -31662685.31 -31662685.05 0.0148 0.0006 *
 Earth -91400-04-22 14:08 J -31662315.16 -31662314.91 -31662314.65 0.0147 0.0031
 Moon -91400-04-22 17:15 J -31662315.03 -31662314.78 -31662314.54 0.0147 0.0039 *
 Moon -91399-04-27 22:32 J -31661944.80 -31661944.56 -31661944.32 0.0147 0.0066
 Earth -91399-04-28 00:13 J -31661944.71 -31661944.49 -31661944.25 0.0147 0.0069 *
 Earth -91398-05-03 10:32 J -31661574.23 -31661574.06 -31661573.87 0.0147 0.0106
 Moon -91398-05-03 11:30 J -31661574.18 -31661574.02 -31661573.83 0.0147 0.0104 *
 Earth -91397-05-07 20:51 J -31661203.69 -31661203.63 -31661203.57 0.0147 0.0142
 Mars -91392-01-22 22:47 J -31659482.83 -31659482.55 -31659482.24 0.0144 0.0044
 Mars -91391-12-27 13:39 J -31658778.97 -31658778.93 -31658778.83 0.0143 0.0140
 Mercury -91382-10-24 18:56 J -31655555.76 -31655555.71 -31655555.65 0.0138 0.0130
 Mercury -91381-01-21 00:42 J -31655467.56 -31655467.47 -31655467.35 0.0138 0.0109

Mercury -91381-04-18 07:11 J -31655379.34 -31655379.20 -31655379.07 0.0137 0.0087

Mercury -91381-07-15 12:56 J -31655291.11 -31655290.96 -31655290.81 0.0137 0.0066

Mercury -91381-10-11 18:42 J -31655202.88 -31655202.72 -31655202.55 0.0137 0.0045

Mercury -91380-01-08 00:27 J -31655114.64 -31655114.48 -31655114.31 0.0137 0.0024

Venus -91380-01-08 20:23 J -31655113.83 -31655113.65 -31655113.47 0.0137 0.0078

Mercury -91380-04-06 06:13 J -31655026.41 -31655026.24 -31655026.07 0.0137 0.0004

Mercury -91380-07-03 11:59 J -31654938.17 -31654938.00 -31654937.83 0.0137 0.0016

Venus -91380-08-23 05:01 J -31654887.51 -31654887.29 -31654887.06 0.0137 0.0014

Mercury -91380-09-29 17:30 J -31654849.93 -31654849.77 -31654849.61 0.0137 0.0037

Mercury -91380-12-26 23:01 J -31654761.69 -31654761.54 -31654761.38 0.0136 0.0056

Mercury -91379-03-25 04:32 J -31654673.45 -31654673.31 -31654673.17 0.0136 0.0076

Venus -91379-04-06 13:39 J -31654661.14 -31654660.93 -31654660.73 0.0136 0.0051

Mercury -91379-06-21 09:49 J -31654585.20 -31654585.09 -31654584.96 0.0136 0.0095

Mercury -91379-09-17 15:20 J -31654496.94 -31654496.86 -31654496.77 0.0136 0.0114

Venus -91379-11-18 21:35 J -31654434.71 -31654434.60 -31654434.47 0.0136 0.0114

Mercury -91379-12-14 20:37 J -31654408.66 -31654408.64 -31654408.60 0.0136 0.0133

Moon -91364-10-05 02:08 J -31649000.42 -31649000.41 -31649000.36 0.0131 0.0130

Moon -91363-10-08 21:35 J -31648631.70 -31648631.60 -31648631.46 0.0131 0.0116

Earth -91363-10-09 01:25 J -31648631.57 -31648631.44 -31648631.29 0.0131 0.0109 *

Earth -91362-10-13 02:51 J -31648262.55 -31648262.38 -31648262.17 0.0131 0.0085

Moon -91362-10-13 06:56 J -31648262.41 -31648262.21 -31648262.00 0.0131 0.0077 *

Moon -91361-10-16 01:11 J -31647893.65 -31647893.45 -31647893.22 0.0131 0.0066

Earth -91361-10-16 05:01 J -31647893.51 -31647893.29 -31647893.07 0.0131 0.0059 *

Earth -91360-10-20 06:13 J -31647524.48 -31647524.24 -31647524.00 0.0131 0.0034

Moon -91360-10-20 09:49 J -31647524.33 -31647524.09 -31647523.84 0.0131 0.0029 *

Moon -91359-10-24 03:49 J -31647155.58 -31647155.34 -31647155.09 0.0131 0.0013

Earth -91359-10-24 07:25 J -31647155.44 -31647155.19 -31647154.94 0.0131 0.0009 *

Earth -91358-10-28 08:08 J -31646786.41 -31646786.16 -31646785.91 0.0131 0.0016

Moon -91358-10-28 11:30 J -31646786.26 -31646786.02 -31646785.77 0.0131 0.0016 *

Moon -91357-10-31 04:47 J -31646417.53 -31646417.30 -31646417.06 0.0131 0.0043

Earth -91357-10-31 08:23 J -31646417.38 -31646417.15 -31646416.90 0.0131 0.0042 *
 Earth -91356-11-04 08:37 J -31646048.34 -31646048.14 -31646047.91 0.0132 0.0067
 Moon -91356-11-04 12:13 J -31646048.21 -31646047.99 -31646047.77 0.0132 0.0062 *
 Moon -91355-11-08 05:15 J -31645679.43 -31645679.28 -31645679.10 0.0132 0.0098
 Earth -91355-11-08 09:06 J -31645679.29 -31645679.12 -31645678.93 0.0132 0.0091 *
 Earth -91354-11-12 08:51 J -31645310.23 -31645310.13 -31645309.99 0.0132 0.0116
 Moon -91354-11-12 12:42 J -31645310.11 -31645309.97 -31645309.83 0.0132 0.0109 *
 Mars -91348-02-19 00:42 J -31643384.70 -31643384.47 -31643384.21 0.0134 0.0078
 Mars -91346-01-21 09:49 J -31642683.33 -31642683.09 -31642682.81 0.0135 0.0071
 Mercury -91337-09-14 05:15 J -31639159.32 -31639159.28 -31639159.21 0.0141 0.0131
 Mercury -91337-12-11 09:35 J -31639071.18 -31639071.10 -31639071.01 0.0141 0.0113
 Mercury -91336-03-09 13:39 J -31638983.02 -31638982.93 -31638982.81 0.0141 0.0095
 Mercury -91336-06-05 17:59 J -31638894.86 -31638894.75 -31638894.62 0.0142 0.0076
 Venus -91336-08-12 04:18 J -31638827.38 -31638827.32 -31638827.23 0.0142 0.0131
 Mercury -91336-09-01 22:18 J -31638806.69 -31638806.57 -31638806.43 0.0142 0.0057
 Mercury -91336-11-29 02:37 J -31638718.52 -31638718.39 -31638718.24 0.0142 0.0038
 Mercury -91335-02-25 07:11 J -31638630.35 -31638630.20 -31638630.06 0.0142 0.0018
 Venus -91335-03-26 12:42 J -31638601.15 -31638600.97 -31638600.77 0.0142 0.0062
 Mercury -91335-05-24 11:30 J -31638542.16 -31638542.02 -31638541.87 0.0142 0.0003
 Mercury -91335-08-20 16:03 J -31638453.98 -31638453.83 -31638453.69 0.0142 0.0021
 Venus -91335-11-07 21:35 J -31638374.81 -31638374.60 -31638374.39 0.0142 0.0008
 Mercury -91335-11-16 20:23 J -31638365.79 -31638365.65 -31638365.50 0.0142 0.0042
 Mercury -91334-02-13 00:56 J -31638277.59 -31638277.46 -31638277.32 0.0143 0.0062
 Mercury -91334-05-12 05:30 J -31638189.39 -31638189.27 -31638189.14 0.0143 0.0082
 Venus -91334-06-22 06:13 J -31638148.40 -31638148.24 -31638148.05 0.0143 0.0079
 Mercury -91334-08-08 10:18 J -31638101.17 -31638101.07 -31638100.97 0.0143 0.0102
 Mercury -91334-11-04 14:51 J -31638012.95 -31638012.88 -31638012.80 0.0143 0.0123
 Earth -91321-03-28 08:08 J -31633485.16 -31633485.16 -31633485.15 0.0148 0.0148
 Earth -91320-04-02 14:51 J -31633115.02 -31633114.88 -31633114.70 0.0148 0.0113
 Moon -91320-04-02 18:42 J -31633114.89 -31633114.72 -31633114.54 0.0148 0.0108 *

Moon -91319-04-07 19:54 J -31632744.87 -31632744.67 -31632744.44 0.0148 0.0078
 Earth -91319-04-07 23:15 J -31632744.73 -31632744.53 -31632744.30 0.0148 0.0077 *
 Earth -91318-04-13 08:08 J -31632374.40 -31632374.16 -31632373.90 0.0148 0.0040
 Moon -91318-04-13 11:59 J -31632374.24 -31632374.00 -31632373.75 0.0148 0.0045 *
 Moon -91317-04-17 14:08 J -31632004.17 -31632003.91 -31632003.65 0.0148 0.0006
 Earth -91317-04-17 17:59 J -31632004.01 -31632003.75 -31632003.49 0.0148 0.0002 *
 Earth -91316-04-23 03:35 J -31631633.60 -31631633.35 -31631633.09 0.0147 0.0036
 Moon -91316-04-23 06:27 J -31631633.47 -31631633.23 -31631632.98 0.0147 0.0029 *
 Moon -91315-04-28 10:47 J -31631263.26 -31631263.05 -31631262.81 0.0147 0.0076
 Earth -91315-04-28 13:39 J -31631263.15 -31631262.93 -31631262.70 0.0147 0.0073 *
 Earth -91314-05-03 23:44 J -31630892.67 -31630892.51 -31630892.33 0.0147 0.0109
 Moon -91314-05-04 01:25 J -31630892.60 -31630892.44 -31630892.27 0.0147 0.0111 *
 Moon -91313-05-08 09:06 J -31630522.19 -31630522.12 -31630522.00 0.0147 0.0138
 Earth -91313-05-08 09:49 J -31630522.11 -31630522.09 -31630522.03 0.0147 0.0145 *
 Mars -91308-09-18 21:06 J -31628562.92 -31628562.62 -31628562.31 0.0144 0.0030
 Mercury -91298-11-14 03:06 J -31624854.44 -31624854.37 -31624854.28 0.0138 0.0122
 Mercury -91297-02-10 09:06 J -31624766.23 -31624766.12 -31624765.99 0.0138 0.0101
 Mercury -91297-05-08 15:06 J -31624678.00 -31624677.87 -31624677.72 0.0137 0.0079
 Mercury -91297-08-04 20:51 J -31624589.77 -31624589.63 -31624589.46 0.0137 0.0059
 Venus -91297-09-08 06:13 J -31624555.37 -31624555.24 -31624555.09 0.0137 0.0106
 Mercury -91297-11-01 02:51 J -31624501.54 -31624501.38 -31624501.21 0.0137 0.0037
 Mercury -91296-01-28 08:37 J -31624413.30 -31624413.14 -31624412.97 0.0137 0.0017
 Venus -91296-04-22 15:20 J -31624329.06 -31624328.86 -31624328.64 0.0137 0.0041
 Mercury -91296-04-26 14:23 J -31624325.07 -31624324.90 -31624324.73 0.0137 0.0005
 Mercury -91296-07-23 20:08 J -31624236.83 -31624236.66 -31624236.49 0.0137 0.0024
 Mercury -91296-10-20 01:39 J -31624148.59 -31624148.43 -31624148.27 0.0137 0.0044
 Venus -91296-12-05 00:13 J -31624102.71 -31624102.49 -31624102.27 0.0137 0.0024
 Mercury -91295-01-16 07:11 J -31624060.34 -31624060.20 -31624060.05 0.0136 0.0064
 Mercury -91295-04-14 12:42 J -31623972.10 -31623971.97 -31623971.84 0.0136 0.0083
 Mercury -91295-07-11 18:13 J -31623883.85 -31623883.74 -31623883.63 0.0136 0.0103

Venus -91295-07-19 08:08 J -31623876.31 -31623876.16 -31623875.97 0.0136 0.0089
 Mercury -91295-10-07 23:15 J -31623795.59 -31623795.53 -31623795.44 0.0136 0.0122
 Earth -91280-10-05 13:25 J -31618318.97 -31618318.94 -31618318.88 0.0131 0.0128
 Moon -91279-10-09 12:27 J -31617950.13 -31617949.98 -31617949.80 0.0131 0.0098
 Earth -91279-10-09 16:03 J -31617949.97 -31617949.83 -31617949.67 0.0131 0.0104 *
 Earth -91278-10-13 17:59 J -31617580.94 -31617580.75 -31617580.54 0.0131 0.0079
 Moon -91278-10-13 21:20 J -31617580.78 -31617580.61 -31617580.41 0.0131 0.0086 *
 Moon -91277-10-16 16:03 J -31617212.05 -31617211.83 -31617211.59 0.0131 0.0048
 Earth -91277-10-16 19:39 J -31617211.90 -31617211.68 -31617211.44 0.0131 0.0055 *
 Earth -91276-10-20 21:20 J -31616842.86 -31616842.61 -31616842.37 0.0131 0.0029
 Moon -91276-10-21 00:27 J -31616842.71 -31616842.48 -31616842.23 0.0131 0.0035 *
 Moon -91275-10-24 18:56 J -31616473.96 -31616473.71 -31616473.46 0.0131 0.0002
 Earth -91275-10-24 22:18 J -31616473.81 -31616473.57 -31616473.31 0.0131 0.0006 *
 Earth -91274-10-28 22:47 J -31616104.79 -31616104.55 -31616104.30 0.0131 0.0021
 Moon -91274-10-29 02:23 J -31616104.65 -31616104.40 -31616104.15 0.0131 0.0019 *
 Moon -91273-10-31 19:54 J -31615735.89 -31615735.67 -31615735.42 0.0131 0.0044
 Earth -91273-10-31 23:15 J -31615735.75 -31615735.53 -31615735.29 0.0131 0.0045 *
 Earth -91272-11-04 23:30 J -31615366.72 -31615366.52 -31615366.30 0.0132 0.0070
 Moon -91272-11-05 03:06 J -31615366.56 -31615366.37 -31615366.15 0.0132 0.0075 *
 Moon -91271-11-08 20:37 J -31614997.81 -31614997.64 -31614997.45 0.0132 0.0089
 Earth -91271-11-08 23:59 J -31614997.67 -31614997.50 -31614997.32 0.0132 0.0094 *
 Earth -91270-11-12 23:59 J -31614628.60 -31614628.50 -31614628.38 0.0132 0.0118
 Moon -91270-11-13 03:20 J -31614628.42 -31614628.36 -31614628.27 0.0132 0.0125 *
 Mars -91264-10-15 03:35 J -31612465.64 -31612465.35 -31612465.04 0.0135 0.0018
 Mars -91262-09-16 16:03 J -31611763.88 -31611763.83 -31611763.77 0.0135 0.0133
 Mercury -91253-10-04 13:25 J -31608458.00 -31608457.94 -31608457.87 0.0141 0.0123
 Mercury -91253-12-31 17:30 J -31608369.85 -31608369.77 -31608369.67 0.0141 0.0106
 Mercury -91252-03-29 21:49 J -31608281.70 -31608281.59 -31608281.47 0.0141 0.0087
 Mercury -91252-06-26 01:54 J -31608193.53 -31608193.42 -31608193.28 0.0141 0.0069
 Mercury -91252-09-22 06:27 J -31608105.37 -31608105.23 -31608105.09 0.0142 0.0049

Venus -91252-11-23 23:44 J -31608042.67 -31608042.51 -31608042.35 0.0142 0.0091
 Mercury -91252-12-19 10:47 J -31608017.19 -31608017.05 -31608016.91 0.0142 0.0030
 Mercury -91251-03-17 15:06 J -31607929.01 -31607928.87 -31607928.72 0.0142 0.0011
 Mercury -91251-06-13 19:25 J -31607840.83 -31607840.69 -31607840.54 0.0142 0.0010
 Venus -91251-07-08 07:54 J -31607816.37 -31607816.17 -31607815.95 0.0142 0.0022
 Mercury -91251-09-09 23:59 J -31607752.64 -31607752.50 -31607752.36 0.0142 0.0029
 Mercury -91251-12-07 04:32 J -31607664.45 -31607664.31 -31607664.17 0.0142 0.0049
 Venus -91250-02-19 16:32 J -31607590.00 -31607589.81 -31607589.60 0.0142 0.0048
 Mercury -91250-03-05 09:06 J -31607576.25 -31607576.12 -31607575.99 0.0142 0.0069
 Mercury -91250-06-01 13:25 J -31607488.05 -31607487.94 -31607487.82 0.0143 0.0090
 Mercury -91250-08-28 18:13 J -31607399.83 -31607399.74 -31607399.64 0.0143 0.0110
 Venus -91250-10-04 01:39 J -31607363.54 -31607363.43 -31607363.31 0.0143 0.0119
 Mercury -91250-11-24 22:47 J -31607311.60 -31607311.55 -31607311.48 0.0143 0.0131
 Moon -91237-03-28 17:15 J -31602803.86 -31602803.78 -31602803.67 0.0148 0.0136
 Earth -91237-03-28 19:39 J -31602803.73 -31602803.68 -31602803.60 0.0148 0.0143 *
 Earth -91236-04-03 03:06 J -31602433.54 -31602433.37 -31602433.19 0.0148 0.0108
 Moon -91236-04-03 05:30 J -31602433.42 -31602433.27 -31602433.09 0.0148 0.0114 *
 Moon -91235-04-08 07:39 J -31602063.39 -31602063.18 -31602062.95 0.0148 0.0073
 Earth -91235-04-08 11:15 J -31602063.25 -31602063.03 -31602062.80 0.0148 0.0072 *
 Earth -91234-04-13 19:54 J -31601692.91 -31601692.67 -31601692.41 0.0148 0.0036
 Moon -91234-04-13 23:30 J -31601692.76 -31601692.52 -31601692.25 0.0148 0.0032 *
 Moon -91233-04-18 01:54 J -31601322.68 -31601322.42 -31601322.16 0.0148 0.0006
 Earth -91233-04-18 05:30 J -31601322.53 -31601322.27 -31601322.01 0.0148 0.0002 *
 Earth -91232-04-23 14:51 J -31600952.12 -31600951.88 -31600951.63 0.0147 0.0039
 Moon -91232-04-23 18:13 J -31600951.97 -31600951.74 -31600951.48 0.0147 0.0047 *
 Moon -91231-04-28 21:49 J -31600581.81 -31600581.59 -31600581.35 0.0147 0.0072
 Earth -91231-04-29 00:42 J -31600581.68 -31600581.47 -31600581.23 0.0147 0.0076 *
 Earth -91230-05-04 10:47 J -31600211.21 -31600211.05 -31600210.87 0.0147 0.0111
 Moon -91230-05-04 12:56 J -31600211.12 -31600210.96 -31600210.78 0.0147 0.0109 *
 Earth -91229-05-08 20:51 J -31599840.64 -31599840.63 -31599840.60 0.0147 0.0146

Mars -91225-06-10 14:23 J -31598347.15 -31598346.90 -31598346.64 0.0145 0.0085
 Mars -91223-05-15 12:42 J -31597643.17 -31597642.97 -31597642.73 0.0144 0.0100
 Mercury -91214-09-07 04:47 J -31594241.31 -31594241.30 -31594241.27 0.0138 0.0137
 Mercury -91214-12-04 11:01 J -31594153.13 -31594153.04 -31594152.94 0.0138 0.0115
 Mercury -91213-03-01 16:47 J -31594064.91 -31594064.80 -31594064.66 0.0138 0.0094
 Venus -91213-05-08 15:20 J -31593996.88 -31593996.86 -31593996.80 0.0138 0.0136
 Mercury -91213-05-28 22:47 J -31593976.69 -31593976.55 -31593976.39 0.0137 0.0073
 Mercury -91213-08-25 04:47 J -31593888.45 -31593888.30 -31593888.14 0.0137 0.0051
 Mercury -91213-11-21 10:47 J -31593800.22 -31593800.05 -31593799.88 0.0137 0.0030
 Venus -91213-12-21 00:56 J -31593770.65 -31593770.46 -31593770.27 0.0137 0.0069
 Mercury -91212-02-17 16:32 J -31593711.98 -31593711.81 -31593711.64 0.0137 0.0010
 Mercury -91212-05-16 22:18 J -31593623.74 -31593623.57 -31593623.40 0.0137 0.0011
 Venus -91212-08-04 09:49 J -31593544.31 -31593544.09 -31593543.87 0.0137 0.0004
 Mercury -91212-08-13 03:49 J -31593535.50 -31593535.34 -31593535.17 0.0137 0.0031
 Mercury -91212-11-09 09:35 J -31593447.26 -31593447.10 -31593446.95 0.0137 0.0051
 Mercury -91211-02-05 14:51 J -31593359.01 -31593358.88 -31593358.73 0.0136 0.0071
 Venus -91211-03-18 18:13 J -31593317.93 -31593317.74 -31593317.53 0.0136 0.0060
 Mercury -91211-05-04 20:23 J -31593270.77 -31593270.65 -31593270.52 0.0136 0.0090
 Mercury -91211-08-01 01:54 J -31593182.51 -31593182.42 -31593182.32 0.0136 0.0109
 Mercury -91211-10-28 07:11 J -31593094.24 -31593094.20 -31593094.14 0.0136 0.0128
 Venus -91211-10-31 02:23 J -31593091.47 -31593091.40 -31593091.30 0.0136 0.0124
 Earth -91196-10-06 03:20 J -31587637.42 -31587637.36 -31587637.26 0.0131 0.0124
 Moon -91196-10-06 06:42 J -31587637.30 -31587637.22 -31587637.09 0.0131 0.0120 *
 Moon -91195-10-10 02:37 J -31587268.51 -31587268.39 -31587268.22 0.0131 0.0106
 Earth -91195-10-10 06:27 J -31587268.39 -31587268.23 -31587268.06 0.0131 0.0099 *
 Earth -91194-10-14 08:23 J -31586899.35 -31586899.15 -31586898.94 0.0131 0.0075
 Moon -91194-10-14 11:44 J -31586899.21 -31586899.01 -31586898.78 0.0131 0.0068 *
 Moon -91193-10-17 06:56 J -31586530.42 -31586530.21 -31586529.97 0.0131 0.0057
 Earth -91193-10-17 10:18 J -31586530.30 -31586530.07 -31586529.83 0.0131 0.0050 *
 Earth -91192-10-21 11:30 J -31586161.25 -31586161.02 -31586160.76 0.0131 0.0027

Moon	-91192-10-21 15:20 J	-31586161.11	-31586160.86	-31586160.61	0.0131	0.0021	*
Moon	-91191-10-25 09:35 J	-31585792.35	-31585792.10	-31585791.85	0.0131	0.0005	
Earth	-91191-10-25 12:42 J	-31585792.22	-31585791.97	-31585791.72	0.0131	0.0002	*
Earth	-91190-10-29 13:25 J	-31585423.19	-31585422.94	-31585422.70	0.0131	0.0024	
Moon	-91190-10-29 16:32 J	-31585423.05	-31585422.81	-31585422.56	0.0131	0.0024	*
Moon	-91189-11-01 10:03 J	-31585054.29	-31585054.08	-31585053.83	0.0132	0.0051	
Earth	-91189-11-01 13:39 J	-31585054.15	-31585053.93	-31585053.69	0.0132	0.0048	*
Earth	-91188-11-05 13:54 J	-31584685.12	-31584684.92	-31584684.70	0.0132	0.0073	
Moon	-91188-11-05 16:47 J	-31584685.00	-31584684.80	-31584684.57	0.0132	0.0069	*
Moon	-91187-11-09 10:47 J	-31584316.18	-31584316.05	-31584315.88	0.0132	0.0103	
Earth	-91187-11-09 14:37 J	-31584316.06	-31584315.89	-31584315.73	0.0132	0.0096	*
Earth	-91186-11-13 14:23 J	-31583946.99	-31583946.90	-31583946.79	0.0132	0.0121	
Moon	-91186-11-13 17:15 J	-31583946.89	-31583946.78	-31583946.63	0.0132	0.0114	*
Mars	-91181-07-09 02:08 J	-31582247.58	-31582247.41	-31582247.19	0.0134	0.0102	
Mars	-91179-06-10 05:44 J	-31581546.54	-31581546.26	-31581545.96	0.0135	0.0043	
Mercury	-91169-07-28 17:30 J	-31577844.81	-31577844.77	-31577844.73	0.0141	0.0134	
Mercury	-91169-10-24 21:35 J	-31577756.68	-31577756.60	-31577756.52	0.0141	0.0116	
Mercury	-91168-01-21 01:39 J	-31577668.53	-31577668.43	-31577668.32	0.0141	0.0098	
Mercury	-91168-04-19 05:59 J	-31577580.37	-31577580.25	-31577580.13	0.0141	0.0079	
Mercury	-91168-07-16 10:18 J	-31577492.20	-31577492.07	-31577491.94	0.0141	0.0060	
Venus	-91168-07-24 10:32 J	-31577484.16	-31577484.06	-31577483.94	0.0141	0.0120	
Mercury	-91168-10-12 14:37 J	-31577404.03	-31577403.89	-31577403.75	0.0142	0.0041	
Mercury	-91167-01-08 18:56 J	-31577315.85	-31577315.71	-31577315.57	0.0142	0.0022	
Venus	-91167-03-07 18:56 J	-31577257.91	-31577257.71	-31577257.51	0.0142	0.0051	
Mercury	-91167-04-06 23:15 J	-31577227.67	-31577227.53	-31577227.38	0.0142	0.0004	
Mercury	-91167-07-04 03:49 J	-31577139.49	-31577139.34	-31577139.20	0.0142	0.0017	
Mercury	-91167-09-30 08:08 J	-31577051.30	-31577051.16	-31577051.02	0.0142	0.0037	
Venus	-91167-10-20 03:35 J	-31577031.56	-31577031.35	-31577031.14	0.0142	0.0019	
Mercury	-91167-12-27 12:42 J	-31576963.10	-31576962.97	-31576962.84	0.0142	0.0057	
Mercury	-91166-03-25 17:15 J	-31576874.90	-31576874.78	-31576874.66	0.0142	0.0077	

Venus -91166-06-03 12:13 J -31576805.14 -31576804.99 -31576804.81 0.0143 0.0090

Mercury -91166-06-21 21:35 J -31576786.70 -31576786.60 -31576786.48 0.0143 0.0098

Mercury -91166-09-18 02:23 J -31576698.48 -31576698.40 -31576698.31 0.0143 0.0118

Mercury -91166-12-15 06:56 J -31576610.23 -31576610.21 -31576610.17 0.0143 0.0139

Moon -91153-03-29 08:51 J -31572122.17 -31572122.13 -31572122.08 0.0148 0.0145

Earth -91153-03-29 10:03 J -31572122.16 -31572122.08 -31572121.97 0.0148 0.0137 *

Earth -91152-04-03 17:01 J -31571751.96 -31571751.79 -31571751.59 0.0148 0.0103

Moon -91152-04-03 19:54 J -31571751.85 -31571751.67 -31571751.46 0.0148 0.0098 *

Moon -91151-04-08 22:32 J -31571381.78 -31571381.56 -31571381.33 0.0148 0.0069

Earth -91151-04-09 01:25 J -31571381.66 -31571381.44 -31571381.21 0.0148 0.0067 *

Earth -91150-04-14 10:03 J -31571011.33 -31571011.08 -31571010.82 0.0148 0.0031

Moon -91150-04-14 13:39 J -31571011.18 -31571010.93 -31571010.68 0.0148 0.0036 *

Moon -91149-04-18 15:20 J -31570641.11 -31570640.86 -31570640.60 0.0148 0.0014

Earth -91149-04-18 19:11 J -31570640.95 -31570640.70 -31570640.44 0.0148 0.0007 *

Earth -91148-04-24 04:32 J -31570270.55 -31570270.31 -31570270.05 0.0147 0.0043

Moon -91148-04-24 08:08 J -31570270.40 -31570270.16 -31570269.91 0.0147 0.0035 *

Moon -91147-04-29 11:01 J -31569900.24 -31569900.04 -31569899.81 0.0147 0.0082

Earth -91147-04-29 14:37 J -31569900.10 -31569899.89 -31569899.66 0.0147 0.0078 *

Earth -91146-05-05 00:13 J -31569529.63 -31569529.49 -31569529.31 0.0147 0.0114

Moon -91146-05-05 03:06 J -31569529.51 -31569529.37 -31569529.20 0.0147 0.0115 *

Moon -91145-05-09 08:23 J -31569159.19 -31569159.15 -31569159.05 0.0147 0.0142

Mars -91140-02-04 15:35 J -31567427.15 -31567426.85 -31567426.53 0.0144 0.0011

Mercury -91130-09-27 12:56 J -31563540.01 -31563539.96 -31563539.89 0.0138 0.0129

Mercury -91130-12-24 18:56 J -31563451.81 -31563451.71 -31563451.59 0.0138 0.0108

Mercury -91129-03-22 01:11 J -31563363.58 -31563363.45 -31563363.32 0.0138 0.0086

Mercury -91129-06-18 07:11 J -31563275.35 -31563275.20 -31563275.05 0.0137 0.0065

Venus -91129-08-20 10:47 J -31563212.20 -31563212.05 -31563211.89 0.0137 0.0098

Mercury -91129-09-14 12:56 J -31563187.12 -31563186.96 -31563186.79 0.0137 0.0044

Mercury -91129-12-11 18:42 J -31563098.88 -31563098.72 -31563098.55 0.0137 0.0023

Mercury -91128-03-10 00:42 J -31563010.64 -31563010.47 -31563010.30 0.0137 0.0004

Venus -91128-04-03 19:39 J -31562985.89 -31562985.68 -31562985.45 0.0137 0.0032
 Mercury -91128-06-06 06:13 J -31562922.40 -31562922.24 -31562922.07 0.0137 0.0018
 Mercury -91128-09-02 11:44 J -31562834.16 -31562834.01 -31562833.84 0.0137 0.0039
 Venus -91128-11-16 04:47 J -31562759.52 -31562759.30 -31562759.09 0.0137 0.0033
 Mercury -91128-11-29 17:30 J -31562745.92 -31562745.77 -31562745.61 0.0137 0.0058
 Mercury -91127-02-25 23:01 J -31562657.67 -31562657.54 -31562657.40 0.0136 0.0078
 Mercury -91127-05-25 04:32 J -31562569.42 -31562569.31 -31562569.19 0.0136 0.0097
 Venus -91127-06-30 12:56 J -31562533.10 -31562532.96 -31562532.79 0.0136 0.0097
 Mercury -91127-08-21 10:03 J -31562481.16 -31562481.08 -31562480.99 0.0136 0.0116
 Mercury -91127-11-17 15:20 J -31562392.87 -31562392.86 -31562392.84 0.0136 0.0135
 Earth -91112-10-06 17:59 J -31556955.85 -31556955.75 -31556955.64 0.0131 0.0119
 Moon -91112-10-06 21:20 J -31556955.69 -31556955.61 -31556955.52 0.0131 0.0123 *
 Moon -91111-10-10 17:01 J -31556586.95 -31556586.79 -31556586.59 0.0131 0.0089
 Earth -91111-10-10 20:08 J -31556586.81 -31556586.66 -31556586.46 0.0131 0.0095 *
 Earth -91110-10-14 22:47 J -31556217.76 -31556217.55 -31556217.33 0.0131 0.0070
 Moon -91110-10-15 01:39 J -31556217.62 -31556217.43 -31556217.21 0.0131 0.0077 *
 Moon -91109-10-17 21:20 J -31555848.84 -31555848.61 -31555848.37 0.0131 0.0039
 Earth -91109-10-18 00:27 J -31555848.70 -31555848.48 -31555848.23 0.0131 0.0047 *
 Earth -91108-10-22 01:54 J -31555479.66 -31555479.42 -31555479.17 0.0131 0.0022
 Moon -91108-10-22 05:01 J -31555479.54 -31555479.29 -31555479.04 0.0131 0.0027 *
 Moon -91107-10-25 23:44 J -31555110.75 -31555110.51 -31555110.26 0.0131 0.0006
 Earth -91107-10-26 03:06 J -31555110.63 -31555110.37 -31555110.12 0.0131 0.0004 *
 Earth -91106-10-30 03:20 J -31554741.60 -31554741.36 -31554741.11 0.0131 0.0027
 Moon -91106-10-30 06:27 J -31554741.47 -31554741.23 -31554740.97 0.0131 0.0026 *
 Moon -91105-11-02 01:11 J -31554372.67 -31554372.45 -31554372.22 0.0132 0.0050
 Earth -91105-11-02 03:49 J -31554372.56 -31554372.34 -31554372.10 0.0132 0.0051 *
 Earth -91104-11-06 04:18 J -31554003.52 -31554003.32 -31554003.11 0.0132 0.0075
 Moon -91104-11-06 07:25 J -31554003.38 -31554003.19 -31554002.98 0.0132 0.0080 *
 Moon -91103-11-10 01:39 J -31553634.58 -31553634.43 -31553634.24 0.0132 0.0094
 Earth -91103-11-10 04:18 J -31553634.47 -31553634.32 -31553634.14 0.0132 0.0099 *

Earth -91102-11-14 04:32 J -31553265.38 -31553265.31 -31553265.20 0.0132 0.0123
 Moon -91102-11-14 07:25 J -31553265.22 -31553265.19 -31553265.11 0.0132 0.0129 *
 Mars -91096-03-04 01:39 J -31551328.70 -31551328.43 -31551328.13 0.0134 0.0044
 Mars -91094-02-03 08:37 J -31550627.33 -31550627.14 -31550626.94 0.0135 0.0103
 Mercury -91085-08-18 01:25 J -31547143.49 -31547143.44 -31547143.38 0.0141 0.0127
 Mercury -91085-11-14 05:30 J -31547055.35 -31547055.27 -31547055.17 0.0141 0.0109
 Mercury -91084-02-10 09:49 J -31546967.20 -31546967.09 -31546966.98 0.0141 0.0091
 Mercury -91084-05-09 13:54 J -31546879.04 -31546878.92 -31546878.79 0.0141 0.0072
 Mercury -91084-08-05 18:13 J -31546790.87 -31546790.74 -31546790.60 0.0141 0.0053
 Mercury -91084-11-01 22:32 J -31546702.70 -31546702.56 -31546702.42 0.0142 0.0034
 Venus -91084-11-05 05:30 J -31546699.43 -31546699.27 -31546699.08 0.0142 0.0081
 Mercury -91083-01-29 02:51 J -31546614.52 -31546614.38 -31546614.23 0.0142 0.0015
 Mercury -91083-04-27 07:25 J -31546526.34 -31546526.19 -31546526.05 0.0142 0.0006
 Venus -91083-06-19 14:08 J -31546473.12 -31546472.91 -31546472.69 0.0142 0.0011
 Mercury -91083-07-24 11:44 J -31546438.15 -31546438.01 -31546437.86 0.0142 0.0024
 Mercury -91083-10-20 16:03 J -31546349.96 -31546349.83 -31546349.68 0.0142 0.0045
 Mercury -91082-01-16 20:37 J -31546261.77 -31546261.64 -31546261.50 0.0142 0.0064
 Venus -91082-01-31 22:32 J -31546246.74 -31546246.56 -31546246.35 0.0142 0.0060
 Mercury -91082-04-15 01:11 J -31546173.56 -31546173.45 -31546173.33 0.0142 0.0084
 Mercury -91082-07-12 05:44 J -31546085.35 -31546085.26 -31546085.15 0.0143 0.0105
 Venus -91082-09-15 07:25 J -31546020.26 -31546020.19 -31546020.09 0.0143 0.0130
 Mercury -91082-10-08 10:18 J -31545997.13 -31545997.07 -31545996.99 0.0143 0.0126
 Moon -91069-03-29 21:35 J -31541440.72 -31541440.60 -31541440.47 0.0148 0.0125
 Earth -91069-03-29 22:32 J -31541440.65 -31541440.56 -31541440.43 0.0148 0.0133 *
 Earth -91068-04-04 05:44 J -31541070.44 -31541070.26 -31541070.06 0.0148 0.0098
 Moon -91068-04-04 07:25 J -31541070.36 -31541070.19 -31541069.99 0.0148 0.0104 *
 Moon -91067-04-09 11:01 J -31540700.26 -31540700.04 -31540699.81 0.0148 0.0063
 Earth -91067-04-09 13:39 J -31540700.15 -31540699.93 -31540699.69 0.0148 0.0063 *
 Earth -91066-04-14 22:03 J -31540329.83 -31540329.58 -31540329.32 0.0148 0.0027
 Moon -91066-04-15 01:39 J -31540329.69 -31540329.43 -31540329.17 0.0148 0.0023 *

Moon -91065-04-19 03:49 J -31539959.59 -31539959.34 -31539959.08 0.0148 0.0002
 Earth -91065-04-19 07:11 J -31539959.45 -31539959.20 -31539958.94 0.0148 0.0009 *
 Earth -91064-04-24 16:32 J -31539589.06 -31539588.81 -31539588.57 0.0147 0.0045
 Moon -91064-04-24 20:08 J -31539588.89 -31539588.66 -31539588.41 0.0147 0.0053 *
 Moon -91063-04-29 22:32 J -31539218.78 -31539218.56 -31539218.33 0.0147 0.0076
 Earth -91063-04-30 02:08 J -31539218.62 -31539218.41 -31539218.19 0.0147 0.0080 *
 Earth -91062-05-05 11:59 J -31538848.16 -31538848.00 -31538847.84 0.0147 0.0115
 Moon -91062-05-05 14:51 J -31538848.04 -31538847.88 -31538847.71 0.0147 0.0113 *
 Mars -91058-10-28 03:49 J -31537211.48 -31537211.34 -31537211.18 0.0145 0.0127
 Mars -91056-10-01 09:35 J -31536507.37 -31536507.10 -31536506.81 0.0144 0.0059
 Mercury -91046-10-17 20:37 J -31532838.71 -31532838.64 -31532838.56 0.0138 0.0123
 Mercury -91045-01-14 02:51 J -31532750.50 -31532750.38 -31532750.27 0.0138 0.0101
 Mercury -91045-04-11 08:37 J -31532662.27 -31532662.14 -31532661.99 0.0138 0.0080
 Venus -91045-04-19 19:11 J -31532653.76 -31532653.70 -31532653.60 0.0138 0.0128
 Mercury -91045-07-08 14:37 J -31532574.04 -31532573.89 -31532573.73 0.0137 0.0059
 Mercury -91045-10-04 20:37 J -31532485.80 -31532485.64 -31532485.47 0.0137 0.0037
 Venus -91045-12-02 04:47 J -31532427.49 -31532427.30 -31532427.10 0.0137 0.0061
 Mercury -91044-01-01 02:23 J -31532397.57 -31532397.40 -31532397.23 0.0137 0.0017
 Mercury -91044-03-30 08:08 J -31532309.33 -31532309.16 -31532308.98 0.0137 0.0006
 Mercury -91044-06-26 13:54 J -31532221.08 -31532220.92 -31532220.75 0.0137 0.0024
 Venus -91044-07-16 13:54 J -31532201.14 -31532200.92 -31532200.70 0.0137 0.0004
 Mercury -91044-09-22 19:25 J -31532132.84 -31532132.69 -31532132.52 0.0137 0.0045
 Mercury -91044-12-20 01:11 J -31532044.59 -31532044.45 -31532044.30 0.0137 0.0064
 Venus -91043-02-27 22:32 J -31531974.75 -31531974.56 -31531974.37 0.0136 0.0069
 Mercury -91043-03-18 06:27 J -31531956.35 -31531956.23 -31531956.08 0.0136 0.0085
 Mercury -91043-06-14 12:13 J -31531868.09 -31531867.99 -31531867.88 0.0136 0.0103
 Mercury -91043-09-10 17:44 J -31531779.83 -31531779.76 -31531779.69 0.0136 0.0123
 Venus -91043-10-12 06:56 J -31531748.25 -31531748.21 -31531748.16 0.0136 0.0132
 Earth -91028-10-07 06:56 J -31526274.31 -31526274.21 -31526274.07 0.0131 0.0115
 Moon -91028-10-07 09:49 J -31526274.20 -31526274.09 -31526273.93 0.0131 0.0111 *

Moon	-91027-10-11 07:11 J	-31525905.35	-31525905.20	-31525905.02	0.0131	0.0096
Earth	-91027-10-11 10:03 J	-31525905.25	-31525905.08	-31525904.89	0.0131	0.0090 *
Earth	-91026-10-15 12:13 J	-31525536.20	-31525535.99	-31525535.76	0.0131	0.0067
Moon	-91026-10-15 15:20 J	-31525536.08	-31525535.86	-31525535.62	0.0131	0.0059 *
Moon	-91025-10-18 11:30 J	-31525167.24	-31525167.02	-31525166.79	0.0131	0.0049
Earth	-91025-10-18 14:08 J	-31525167.14	-31525166.91	-31525166.67	0.0131	0.0042 *
Earth	-91024-10-22 15:20 J	-31524798.10	-31524797.86	-31524797.61	0.0131	0.0019
Moon	-91024-10-22 18:27 J	-31524797.98	-31524797.73	-31524797.47	0.0131	0.0014 *
Moon	-91023-10-26 13:39 J	-31524429.18	-31524428.93	-31524428.69	0.0131	0.0002
Earth	-91023-10-26 16:18 J	-31524429.07	-31524428.82	-31524428.57	0.0131	0.0006 *
Earth	-91022-10-30 16:47 J	-31524060.04	-31524059.80	-31524059.55	0.0131	0.0030
Moon	-91022-10-30 19:25 J	-31524059.93	-31524059.69	-31524059.43	0.0131	0.0031 *
Moon	-91021-11-02 14:23 J	-31523691.11	-31523690.90	-31523690.67	0.0132	0.0056
Earth	-91021-11-02 17:15 J	-31523691.00	-31523690.78	-31523690.54	0.0132	0.0054 *
Earth	-91020-11-06 17:15 J	-31523321.96	-31523321.78	-31523321.56	0.0132	0.0078
Moon	-91020-11-06 19:54 J	-31523321.87	-31523321.67	-31523321.45	0.0132	0.0074 *
Moon	-91019-11-10 15:06 J	-31522952.99	-31522952.87	-31522952.71	0.0132	0.0108
Earth	-91019-11-10 17:44 J	-31522952.90	-31522952.76	-31522952.58	0.0132	0.0101 *
Earth	-91018-11-14 18:13 J	-31522583.80	-31522583.74	-31522583.64	0.0132	0.0125
Moon	-91018-11-14 20:37 J	-31522583.74	-31522583.64	-31522583.50	0.0132	0.0117 *
Mars	-91014-11-27 02:51 J	-31521110.46	-31521110.38	-31521110.28	0.0134	0.0127
Mars	-91012-10-27 23:59 J	-31520409.80	-31520409.50	-31520409.19	0.0135	0.0014
Mercury	-91001-06-11 05:01 J	-31516530.30	-31516530.29	-31516530.26	0.0141	0.0139
Mercury	-91001-09-07 09:06 J	-31516442.18	-31516442.12	-31516442.04	0.0141	0.0121
Mercury	-91001-12-04 13:11 J	-31516354.03	-31516353.95	-31516353.84	0.0141	0.0103

91ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 91st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-91000-03-02 17:30 J	-31516265.88	-31516265.77	-31516265.65	0.0141	0.0085		
Mercury	-91000-05-29 21:49 J	-31516177.71	-31516177.59	-31516177.46	0.0141	0.0066		
Venus	-91000-07-05 16:03 J	-31516140.95	-31516140.83	-31516140.69	0.0141	0.0110		
Mercury	-91000-08-26 02:08 J	-31516089.55	-31516089.41	-31516089.27	0.0141	0.0047		
Mercury	-91000-11-22 06:27 J	-31516001.37	-31516001.23	-31516001.09	0.0142	0.0028		
Venus	-90999-02-17 00:13 J	-31515914.69	-31515914.49	-31515914.28	0.0142	0.0042		
Mercury	-90999-02-18 10:47 J	-31515913.19	-31515913.05	-31515912.90	0.0142	0.0009		
Mercury	-90999-05-17 15:06 J	-31515825.01	-31515824.87	-31515824.72	0.0142	0.0012		
Mercury	-90999-08-13 19:39 J	-31515736.82	-31515736.68	-31515736.54	0.0142	0.0031		
Venus	-90999-10-01 08:37 J	-31515688.34	-31515688.14	-31515687.92	0.0142	0.0028		
Mercury	-90999-11-09 23:59 J	-31515648.63	-31515648.50	-31515648.36	0.0142	0.0051		
Mercury	-90998-02-06 04:32 J	-31515560.43	-31515560.31	-31515560.18	0.0142	0.0071		
Mercury	-90998-05-05 09:06 J	-31515472.23	-31515472.12	-31515472.00	0.0142	0.0091		
Venus	-90998-05-15 17:15 J	-31515461.92	-31515461.78	-31515461.61	0.0142	0.0099		
Mercury	-90998-08-01 13:39 J	-31515384.02	-31515383.93	-31515383.83	0.0143	0.0111		
Mercury	-90998-10-28 18:13 J	-31515295.79	-31515295.74	-31515295.68	0.0143	0.0132		
Earth	-90985-03-30 11:59 J	-31510759.11	-31510759.00	-31510758.85	0.0148	0.0127		
Moon	-90985-03-30 11:44 J	-31510759.09	-31510759.01	-31510758.89	0.0148	0.0135	*	
Earth	-90984-04-04 18:56 J	-31510388.89	-31510388.71	-31510388.49	0.0148	0.0093		
Moon	-90984-04-04 20:37 J	-31510388.84	-31510388.64	-31510388.41	0.0148	0.0088	*	
Moon	-90983-04-10 00:56 J	-31510018.68	-31510018.46	-31510018.23	0.0148	0.0060		

Earth	-90983-04-10 03:06 J	-31510018.60	-31510018.37	-31510018.13	0.0148	0.0058	*
Earth	-90982-04-15 11:30 J	-31509648.27	-31509648.02	-31509647.77	0.0148	0.0023	
Moon	-90982-04-15 14:08 J	-31509648.16	-31509647.91	-31509647.64	0.0148	0.0027	*
Moon	-90981-04-19 16:47 J	-31509278.05	-31509277.80	-31509277.55	0.0148	0.0020	
Earth	-90981-04-19 20:23 J	-31509277.91	-31509277.65	-31509277.40	0.0148	0.0013	*
Earth	-90980-04-25 05:15 J	-31508907.51	-31508907.28	-31508907.02	0.0147	0.0049	
Moon	-90980-04-25 09:06 J	-31508907.37	-31508907.12	-31508906.87	0.0147	0.0041	*
Moon	-90979-04-30 11:15 J	-31508537.23	-31508537.03	-31508536.81	0.0147	0.0087	
Earth	-90979-04-30 14:51 J	-31508537.08	-31508536.88	-31508536.65	0.0147	0.0084	*
Earth	-90978-05-06 00:27 J	-31508166.62	-31508166.48	-31508166.31	0.0147	0.0118	
Moon	-90978-05-06 04:03 J	-31508166.47	-31508166.33	-31508166.17	0.0147	0.0118	*
Moon	-90977-05-10 07:54 J	-31507796.20	-31507796.17	-31507796.13	0.0147	0.0145	
Mars	-90973-06-23 05:15 J	-31506291.55	-31506291.28	-31506290.97	0.0145	0.0054	
Mars	-90971-05-28 05:59 J	-31505587.37	-31505587.25	-31505587.10	0.0144	0.0128	
Mercury	-90962-08-10 22:18 J	-31502225.57	-31502225.57	-31502225.55	0.0138	0.0138	
Mercury	-90962-11-07 04:32 J	-31502137.39	-31502137.31	-31502137.21	0.0138	0.0116	
Mercury	-90961-02-03 10:47 J	-31502049.17	-31502049.05	-31502048.92	0.0138	0.0094	
Mercury	-90961-05-01 16:47 J	-31501960.95	-31501960.80	-31501960.65	0.0137	0.0073	
Mercury	-90961-07-28 22:32 J	-31501872.71	-31501872.56	-31501872.39	0.0137	0.0052	
Venus	-90961-08-01 14:08 J	-31501869.07	-31501868.91	-31501868.73	0.0137	0.0091	
Mercury	-90961-10-25 04:32 J	-31501784.47	-31501784.31	-31501784.14	0.0137	0.0031	
Mercury	-90960-01-21 10:32 J	-31501696.23	-31501696.06	-31501695.89	0.0137	0.0010	
Venus	-90960-03-15 23:30 J	-31501642.74	-31501642.52	-31501642.30	0.0137	0.0025	
Mercury	-90960-04-19 16:18 J	-31501607.99	-31501607.82	-31501607.65	0.0137	0.0011	
Mercury	-90960-07-16 21:49 J	-31501519.75	-31501519.59	-31501519.42	0.0137	0.0031	
Mercury	-90960-10-13 03:20 J	-31501431.51	-31501431.36	-31501431.19	0.0137	0.0052	
Venus	-90960-10-28 08:23 J	-31501416.36	-31501416.15	-31501415.93	0.0137	0.0041	
Mercury	-90959-01-09 08:51 J	-31501343.26	-31501343.13	-31501342.97	0.0136	0.0072	
Mercury	-90959-04-07 14:37 J	-31501255.01	-31501254.89	-31501254.76	0.0136	0.0091	
Venus	-90959-06-11 17:15 J	-31501189.92	-31501189.78	-31501189.64	0.0136	0.0105	

Mercury -90959-07-04 19:54 J -31501166.75 -31501166.67 -31501166.56 0.0136 0.0111

Mercury -90959-10-01 01:25 J -31501078.48 -31501078.44 -31501078.38 0.0136 0.0129

Earth -90944-10-07 20:37 J -31495592.76 -31495592.64 -31495592.48 0.0131 0.0109

Moon -90944-10-07 23:15 J -31495592.64 -31495592.53 -31495592.38 0.0131 0.0113 *

Moon -90943-10-11 20:37 J -31495223.81 -31495223.64 -31495223.42 0.0131 0.0080

Earth -90943-10-11 23:44 J -31495223.70 -31495223.51 -31495223.32 0.0131 0.0086 *

Earth -90942-10-16 01:39 J -31494854.64 -31494854.43 -31494854.20 0.0131 0.0062

Moon -90942-10-16 04:03 J -31494854.54 -31494854.33 -31494854.10 0.0131 0.0068 *

Moon -90941-10-19 00:42 J -31494485.70 -31494485.47 -31494485.22 0.0131 0.0032

Earth -90941-10-19 03:35 J -31494485.59 -31494485.35 -31494485.11 0.0131 0.0038 *

Earth -90940-10-23 04:47 J -31494116.55 -31494116.30 -31494116.05 0.0131 0.0014

Moon -90940-10-23 06:56 J -31494116.46 -31494116.21 -31494115.95 0.0131 0.0021 *

Moon -90939-10-27 03:20 J -31493747.60 -31493747.36 -31493747.11 0.0131 0.0012

Earth -90939-10-27 05:44 J -31493747.51 -31493747.26 -31493747.01 0.0131 0.0009 *

Earth -90938-10-31 05:59 J -31493378.48 -31493378.25 -31493377.99 0.0131 0.0034

Moon -90938-10-31 08:37 J -31493378.38 -31493378.14 -31493377.88 0.0131 0.0032 *

Moon -90937-11-03 05:01 J -31493009.51 -31493009.29 -31493009.07 0.0132 0.0056

Earth -90937-11-03 06:42 J -31493009.44 -31493009.22 -31493008.99 0.0132 0.0057 *

Earth -90936-11-07 06:56 J -31492640.39 -31492640.21 -31492640.00 0.0132 0.0080

Moon -90936-11-07 09:49 J -31492640.29 -31492640.09 -31492639.90 0.0132 0.0084 *

Moon -90935-11-11 05:30 J -31492271.42 -31492271.27 -31492271.10 0.0132 0.0098

Earth -90935-11-11 07:25 J -31492271.33 -31492271.19 -31492271.03 0.0132 0.0103 *

Earth -90934-11-15 07:39 J -31491902.23 -31491902.18 -31491902.09 0.0132 0.0126

Moon -90934-11-15 09:49 J -31491902.09 -31491902.09 -31491902.06 0.0132 0.0132 *

Mars -90929-07-21 21:20 J -31490191.86 -31490191.61 -31490191.35 0.0134 0.0071

Mars -90927-06-22 22:47 J -31489490.80 -31489490.55 -31489490.28 0.0135 0.0071

Mercury -90917-07-01 12:56 J -31485829.00 -31485828.96 -31485828.91 0.0141 0.0133

Mercury -90917-09-27 17:01 J -31485740.87 -31485740.79 -31485740.71 0.0141 0.0115

Mercury -90917-12-24 21:06 J -31485652.72 -31485652.62 -31485652.51 0.0141 0.0097

Venus -90916-03-05 02:08 J -31485582.42 -31485582.41 -31485582.39 0.0141 0.0140

Mercury -90916-03-23 01:25 J -31485564.56 -31485564.44 -31485564.32 0.0141 0.0078

Mercury -90916-06-19 05:30 J -31485476.39 -31485476.27 -31485476.13 0.0141 0.0060

Mercury -90916-09-15 09:49 J -31485388.23 -31485388.09 -31485387.95 0.0141 0.0041

Venus -90916-10-17 10:03 J -31485356.25 -31485356.08 -31485355.89 0.0141 0.0073

Mercury -90916-12-12 14:08 J -31485300.05 -31485299.91 -31485299.76 0.0142 0.0022

Mercury -90915-03-10 18:27 J -31485211.87 -31485211.73 -31485211.58 0.0142 0.0004

Venus -90915-05-31 18:42 J -31485129.94 -31485129.72 -31485129.51 0.0142 0.0004

Mercury -90915-06-06 22:47 J -31485123.69 -31485123.55 -31485123.40 0.0142 0.0018

Mercury -90915-09-03 03:20 J -31485035.50 -31485035.36 -31485035.22 0.0142 0.0037

Mercury -90915-11-30 07:39 J -31484947.31 -31484947.18 -31484947.04 0.0142 0.0057

Venus -90914-01-13 03:06 J -31484903.56 -31484903.37 -31484903.18 0.0142 0.0066

Mercury -90914-02-26 12:13 J -31484859.11 -31484858.99 -31484858.86 0.0142 0.0077

Mercury -90914-05-25 16:47 J -31484770.90 -31484770.80 -31484770.69 0.0142 0.0097

Mercury -90914-08-21 21:20 J -31484682.69 -31484682.61 -31484682.52 0.0143 0.0118

Venus -90914-08-27 11:44 J -31484677.06 -31484677.01 -31484676.95 0.0143 0.0137

Mercury -90914-11-18 01:54 J -31484594.44 -31484594.42 -31484594.38 0.0143 0.0139

Moon -90901-03-30 23:30 J -31480077.66 -31480077.52 -31480077.35 0.0148 0.0115

Earth -90901-03-30 23:30 J -31480077.65 -31480077.52 -31480077.36 0.0148 0.0122 *

Earth -90900-04-05 06:42 J -31479707.43 -31479707.22 -31479707.02 0.0148 0.0088

Moon -90900-04-05 06:56 J -31479707.40 -31479707.21 -31479706.99 0.0148 0.0095 *

Moon -90899-04-10 12:27 J -31479337.20 -31479336.98 -31479336.74 0.0148 0.0053

Earth -90899-04-10 14:08 J -31479337.14 -31479336.91 -31479336.67 0.0148 0.0054 *

Earth -90898-04-15 22:03 J -31478966.83 -31478966.58 -31478966.32 0.0148 0.0020

Moon -90898-04-16 00:56 J -31478966.72 -31478966.46 -31478966.20 0.0148 0.0015 *

Moon -90897-04-20 04:18 J -31478596.57 -31478596.32 -31478596.07 0.0148 0.0009

Earth -90897-04-20 07:11 J -31478596.46 -31478596.20 -31478595.95 0.0148 0.0016 *

Earth -90896-04-25 16:03 J -31478226.07 -31478225.83 -31478225.58 0.0147 0.0051

Moon -90896-04-25 19:39 J -31478225.91 -31478225.68 -31478225.43 0.0147 0.0058 *

Moon -90895-04-30 21:49 J -31477855.79 -31477855.59 -31477855.36 0.0147 0.0080

Earth -90895-05-01 01:39 J -31477855.64 -31477855.43 -31477855.21 0.0147 0.0085 *

Earth -90894-05-06 11:15 J -31477485.17 -31477485.03 -31477484.87 0.0147 0.0119
 Moon -90894-05-06 14:23 J -31477485.03 -31477484.90 -31477484.73 0.0147 0.0118 *
 Mars -90888-02-17 01:25 J -31475371.74 -31475371.44 -31475371.12 0.0144 0.0018
 Mercury -90878-08-31 05:44 J -31471524.30 -31471524.26 -31471524.20 0.0138 0.0132
 Mercury -90878-11-27 11:59 J -31471436.10 -31471436.00 -31471435.89 0.0138 0.0110
 Mercury -90877-02-23 17:59 J -31471347.87 -31471347.75 -31471347.61 0.0138 0.0089
 Venus -90877-03-31 22:03 J -31471310.67 -31471310.58 -31471310.46 0.0138 0.0122
 Mercury -90877-05-21 23:59 J -31471259.64 -31471259.50 -31471259.34 0.0138 0.0068
 Mercury -90877-08-18 05:59 J -31471171.40 -31471171.25 -31471171.08 0.0137 0.0046
 Venus -90877-11-13 07:39 J -31471084.37 -31471084.18 -31471083.97 0.0137 0.0055
 Mercury -90877-11-14 11:59 J -31471083.17 -31471083.00 -31471082.83 0.0137 0.0025
 Mercury -90876-02-10 17:44 J -31470994.93 -31470994.76 -31470994.58 0.0137 0.0006
 Mercury -90876-05-09 23:30 J -31470906.68 -31470906.52 -31470906.34 0.0137 0.0017
 Venus -90876-06-27 17:01 J -31470858.01 -31470857.79 -31470857.57 0.0137 0.0011
 Mercury -90876-08-06 05:15 J -31470818.44 -31470818.28 -31470818.11 0.0137 0.0037
 Mercury -90876-11-02 11:01 J -31470730.19 -31470730.04 -31470729.89 0.0137 0.0057
 Mercury -90875-01-29 16:32 J -31470641.95 -31470641.81 -31470641.67 0.0137 0.0077
 Venus -90875-02-09 01:39 J -31470631.61 -31470631.43 -31470631.24 0.0137 0.0075
 Mercury -90875-04-27 21:49 J -31470553.69 -31470553.59 -31470553.46 0.0136 0.0097
 Mercury -90875-07-25 03:35 J -31470465.43 -31470465.35 -31470465.26 0.0136 0.0115
 Mercury -90875-10-21 09:06 J -31470377.14 -31470377.12 -31470377.10 0.0136 0.0135
 Moon -90861-10-04 03:35 J -31465280.37 -31465280.35 -31465280.30 0.0131 0.0130
 Earth -90861-10-04 05:59 J -31465280.30 -31465280.25 -31465280.19 0.0131 0.0128 *
 Earth -90860-10-08 09:20 J -31464911.26 -31464911.11 -31464910.96 0.0131 0.0105
 Moon -90860-10-08 11:30 J -31464911.18 -31464911.02 -31464910.85 0.0131 0.0101 *
 Moon -90859-10-12 10:18 J -31464542.25 -31464542.07 -31464541.89 0.0131 0.0087
 Earth -90859-10-12 11:59 J -31464542.19 -31464542.00 -31464541.79 0.0131 0.0081 *
 Earth -90858-10-16 14:08 J -31464173.13 -31464172.91 -31464172.68 0.0131 0.0058
 Moon -90858-10-16 16:32 J -31464173.04 -31464172.81 -31464172.56 0.0131 0.0051 *
 Moon -90857-10-19 14:23 J -31463804.13 -31463803.90 -31463803.67 0.0131 0.0041

Earth -90857-10-19 16:03 J -31463804.07 -31463803.83 -31463803.59 0.0131 0.0034 *
 Earth -90856-10-23 17:15 J -31463435.03 -31463434.78 -31463434.53 0.0131 0.0011
 Moon -90856-10-23 19:25 J -31463434.95 -31463434.69 -31463434.43 0.0131 0.0006 *
 Moon -90855-10-27 16:18 J -31463066.06 -31463065.82 -31463065.57 0.0131 0.0008
 Earth -90855-10-27 18:13 J -31463065.99 -31463065.74 -31463065.49 0.0131 0.0012 *
 Earth -90854-10-31 18:56 J -31462696.95 -31462696.71 -31462696.47 0.0131 0.0036
 Moon -90854-10-31 20:23 J -31462696.89 -31462696.65 -31462696.39 0.0131 0.0038 *
 Moon -90853-11-03 17:44 J -31462327.97 -31462327.76 -31462327.54 0.0132 0.0061
 Earth -90853-11-03 19:39 J -31462327.90 -31462327.68 -31462327.45 0.0132 0.0059 *
 Earth -90852-11-07 19:54 J -31461958.86 -31461958.67 -31461958.47 0.0132 0.0082
 Moon -90852-11-07 21:06 J -31461958.81 -31461958.62 -31461958.40 0.0132 0.0079 *
 Moon -90851-11-11 18:56 J -31461589.83 -31461589.71 -31461589.57 0.0132 0.0110
 Earth -90851-11-11 20:23 J -31461589.79 -31461589.65 -31461589.49 0.0132 0.0105 *
 Earth -90850-11-15 21:06 J -31461220.67 -31461220.62 -31461220.55 0.0132 0.0128
 Moon -90850-11-15 22:32 J -31461220.65 -31461220.56 -31461220.44 0.0132 0.0121 *
 Mars -90844-03-16 16:32 J -31459273.10 -31459272.81 -31459272.50 0.0134 0.0016
 Mars -90842-02-15 22:03 J -31458571.65 -31458571.58 -31458571.46 0.0135 0.0129
 Mercury -90833-07-21 20:23 J -31455127.70 -31455127.65 -31455127.58 0.0141 0.0128
 Mercury -90833-10-18 00:27 J -31455039.56 -31455039.48 -31455039.38 0.0141 0.0110
 Mercury -90832-01-14 04:47 J -31454951.41 -31454951.30 -31454951.19 0.0141 0.0091
 Mercury -90832-04-12 08:51 J -31454863.25 -31454863.13 -31454863.00 0.0141 0.0073
 Venus -90832-06-16 19:39 J -31454797.81 -31454797.68 -31454797.53 0.0141 0.0104
 Mercury -90832-07-09 13:11 J -31454775.08 -31454774.95 -31454774.81 0.0141 0.0054
 Mercury -90832-10-05 17:30 J -31454686.91 -31454686.77 -31454686.63 0.0141 0.0035
 Mercury -90831-01-01 21:49 J -31454598.74 -31454598.59 -31454598.45 0.0142 0.0016
 Venus -90831-01-29 03:49 J -31454571.54 -31454571.34 -31454571.13 0.0142 0.0036
 Mercury -90831-03-31 02:08 J -31454510.56 -31454510.41 -31454510.27 0.0142 0.0003
 Mercury -90831-06-27 06:27 J -31454422.37 -31454422.23 -31454422.08 0.0142 0.0023
 Venus -90831-09-12 12:13 J -31454345.20 -31454344.99 -31454344.78 0.0142 0.0034
 Mercury -90831-09-23 10:47 J -31454334.18 -31454334.05 -31454333.90 0.0142 0.0043

Mercury -90831-12-20 15:20 J -31454245.99 -31454245.86 -31454245.73 0.0142 0.0062

Mercury -90830-03-18 19:54 J -31454157.79 -31454157.67 -31454157.55 0.0142 0.0082

Venus -90830-04-26 20:37 J -31454118.77 -31454118.64 -31454118.48 0.0142 0.0104

Mercury -90830-06-15 00:27 J -31454069.58 -31454069.48 -31454069.38 0.0142 0.0103

Mercury -90830-09-11 04:47 J -31453981.36 -31453981.30 -31453981.22 0.0143 0.0124

Moon -90818-03-27 03:20 J -31449766.40 -31449766.36 -31449766.27 0.0147 0.0143

Earth -90817-03-31 10:32 J -31449396.19 -31449396.06 -31449395.88 0.0148 0.0117

Moon -90817-03-31 11:44 J -31449396.13 -31449396.01 -31449395.86 0.0148 0.0125 *

Moon -90816-04-05 17:30 J -31449025.98 -31449025.77 -31449025.53 0.0148 0.0078

Earth -90816-04-05 17:30 J -31449025.97 -31449025.77 -31449025.55 0.0148 0.0084 *

Moon -90815-04-10 23:59 J -31448655.72 -31448655.50 -31448655.26 0.0148 0.0052

Earth -90815-04-11 01:11 J -31448655.69 -31448655.45 -31448655.20 0.0148 0.0050 *

Earth -90814-04-16 09:20 J -31448285.36 -31448285.11 -31448284.85 0.0148 0.0015

Moon -90814-04-16 11:01 J -31448285.30 -31448285.04 -31448284.78 0.0148 0.0018 *

Moon -90813-04-20 15:06 J -31447915.11 -31447914.87 -31447914.62 0.0148 0.0027

Earth -90813-04-20 17:59 J -31447915.00 -31447914.75 -31447914.49 0.0148 0.0019 *

Earth -90812-04-26 03:06 J -31447544.61 -31447544.37 -31447544.13 0.0147 0.0054

Moon -90812-04-26 05:59 J -31447544.49 -31447544.25 -31447543.99 0.0147 0.0046 *

Moon -90811-05-01 08:51 J -31447174.32 -31447174.13 -31447173.92 0.0147 0.0092

Earth -90811-05-01 12:27 J -31447174.17 -31447173.98 -31447173.76 0.0147 0.0088 *

Earth -90810-05-06 21:49 J -31446803.71 -31446803.59 -31446803.42 0.0147 0.0122

Moon -90810-05-07 01:39 J -31446803.55 -31446803.43 -31446803.26 0.0147 0.0122 *

Mars -90806-11-09 13:11 J -31445156.18 -31445155.95 -31445155.72 0.0145 0.0098

Mars -90804-10-13 20:51 J -31444451.87 -31444451.63 -31444451.37 0.0144 0.0086

Mercury -90794-09-20 13:25 J -31440823.00 -31440822.94 -31440822.86 0.0138 0.0126

Mercury -90794-12-17 19:39 J -31440734.78 -31440734.68 -31440734.56 0.0138 0.0104

Mercury -90793-03-15 01:54 J -31440646.56 -31440646.42 -31440646.28 0.0138 0.0082

Mercury -90793-06-11 07:54 J -31440558.32 -31440558.17 -31440558.01 0.0138 0.0061

Venus -90793-07-13 16:47 J -31440525.97 -31440525.80 -31440525.62 0.0137 0.0085

Mercury -90793-09-07 13:54 J -31440470.09 -31440469.92 -31440469.76 0.0137 0.0040

Mercury -90793-12-04 19:39 J -31440381.85 -31440381.68 -31440381.51 0.0137 0.0019

Venus -90792-02-25 01:54 J -31440299.63 -31440299.42 -31440299.19 0.0137 0.0019

Mercury -90792-03-03 01:39 J -31440293.60 -31440293.43 -31440293.26 0.0137 0.0003

Mercury -90792-05-30 07:11 J -31440205.36 -31440205.20 -31440205.02 0.0137 0.0023

Mercury -90792-08-26 12:56 J -31440117.12 -31440116.96 -31440116.79 0.0137 0.0043

Venus -90792-10-09 10:47 J -31440073.25 -31440073.05 -31440072.83 0.0137 0.0047

Mercury -90792-11-22 18:42 J -31440028.87 -31440028.72 -31440028.57 0.0137 0.0063

Mercury -90791-02-19 00:13 J -31439940.62 -31439940.49 -31439940.35 0.0137 0.0083

Mercury -90791-05-18 05:30 J -31439852.36 -31439852.27 -31439852.15 0.0136 0.0103

Venus -90791-05-23 19:54 J -31439846.79 -31439846.67 -31439846.54 0.0136 0.0111

Mercury -90791-08-14 11:15 J -31439764.10 -31439764.03 -31439763.95 0.0136 0.0122

Moon -90777-10-04 16:47 J -31434598.87 -31434598.80 -31434598.70 0.0131 0.0123

Earth -90777-10-04 18:13 J -31434598.81 -31434598.74 -31434598.64 0.0131 0.0123 *

Earth -90776-10-08 21:20 J -31434229.75 -31434229.61 -31434229.42 0.0131 0.0100

Moon -90776-10-08 22:47 J -31434229.68 -31434229.55 -31434229.36 0.0131 0.0104 *

Moon -90775-10-12 22:47 J -31433860.75 -31433860.55 -31433860.34 0.0131 0.0071

Earth -90775-10-13 00:13 J -31433860.68 -31433860.49 -31433860.27 0.0131 0.0077 *

Earth -90774-10-17 02:23 J -31433491.61 -31433491.40 -31433491.15 0.0131 0.0055

Moon -90774-10-17 03:49 J -31433491.56 -31433491.34 -31433491.10 0.0131 0.0060 *

Moon -90773-10-20 02:51 J -31433122.61 -31433122.38 -31433122.13 0.0131 0.0025

Earth -90773-10-20 04:18 J -31433122.55 -31433122.32 -31433122.06 0.0131 0.0032 *

Earth -90772-10-24 05:44 J -31432753.51 -31432753.26 -31432753.01 0.0131 0.0008

Moon -90772-10-24 07:11 J -31432753.46 -31432753.20 -31432752.94 0.0131 0.0014 *

Moon -90771-10-28 05:44 J -31432384.50 -31432384.26 -31432384.02 0.0131 0.0020

Earth -90771-10-28 06:56 J -31432384.46 -31432384.21 -31432383.96 0.0131 0.0016 *

Earth -90770-11-01 07:54 J -31432015.41 -31432015.17 -31432014.93 0.0131 0.0039

Moon -90770-11-01 09:20 J -31432015.36 -31432015.11 -31432014.86 0.0131 0.0038 *

Moon -90769-11-04 07:25 J -31431646.39 -31431646.19 -31431645.97 0.0132 0.0062

Earth -90769-11-04 08:23 J -31431646.37 -31431646.15 -31431645.93 0.0132 0.0062 *

Earth -90768-11-08 08:51 J -31431277.31 -31431277.13 -31431276.93 0.0132 0.0085

Moon -90768-11-08 10:18 J -31431277.26 -31431277.07 -31431276.88 0.0132 0.0088 *
 Moon -90767-11-12 08:37 J -31430908.28 -31430908.14 -31430907.98 0.0132 0.0102
 Earth -90767-11-12 09:35 J -31430908.24 -31430908.10 -31430907.95 0.0132 0.0107 *
 Earth -90766-11-16 10:03 J -31430539.11 -31430539.08 -31430539.01 0.0132 0.0130
 Mars -90762-12-09 17:15 J -31429054.97 -31429054.78 -31429054.56 0.0134 0.0098
 Mars -90760-11-09 13:39 J -31428354.21 -31428353.93 -31428353.63 0.0135 0.0041
 Mercury -90749-05-14 23:59 J -31424514.51 -31424514.50 -31424514.48 0.0140 0.0140
 Mercury -90749-08-11 04:03 J -31424426.39 -31424426.33 -31424426.26 0.0141 0.0122
 Mercury -90749-11-07 08:08 J -31424338.25 -31424338.16 -31424338.06 0.0141 0.0104
 Mercury -90748-02-03 12:27 J -31424250.09 -31424249.98 -31424249.87 0.0141 0.0085
 Venus -90748-02-14 05:44 J -31424239.32 -31424239.26 -31424239.20 0.0141 0.0134
 Mercury -90748-05-02 16:32 J -31424161.93 -31424161.81 -31424161.68 0.0141 0.0067
 Mercury -90748-07-29 20:51 J -31424073.77 -31424073.63 -31424073.50 0.0141 0.0048
 Venus -90748-09-28 13:25 J -31424013.12 -31424012.94 -31424012.74 0.0141 0.0067
 Mercury -90748-10-26 01:11 J -31423985.59 -31423985.45 -31423985.31 0.0141 0.0029
 Mercury -90747-01-22 05:30 J -31423897.42 -31423897.27 -31423897.13 0.0142 0.0011
 Mercury -90747-04-20 09:49 J -31423809.24 -31423809.09 -31423808.95 0.0142 0.0010
 Venus -90747-05-12 21:49 J -31423786.81 -31423786.59 -31423786.38 0.0142 0.0003
 Mercury -90747-07-17 14:08 J -31423721.05 -31423720.91 -31423720.77 0.0142 0.0029
 Mercury -90747-10-13 18:27 J -31423632.86 -31423632.73 -31423632.59 0.0142 0.0048
 Venus -90747-12-25 05:59 J -31423560.42 -31423560.25 -31423560.06 0.0142 0.0072
 Mercury -90746-01-09 23:01 J -31423544.67 -31423544.54 -31423544.41 0.0142 0.0068
 Mercury -90746-04-08 03:20 J -31423456.47 -31423456.36 -31423456.24 0.0142 0.0089
 Mercury -90746-07-05 07:54 J -31423368.26 -31423368.17 -31423368.07 0.0142 0.0109
 Venus -90746-08-08 14:37 J -31423333.89 -31423333.89 -31423333.87 0.0143 0.0142
 Mercury -90746-10-01 12:42 J -31423280.03 -31423279.97 -31423279.91 0.0143 0.0129
 Jupiter -90738-03-20 01:11 J -31420553.47 -31420553.45 -31420553.37 0.0146 0.0146
 Earth -90734-03-27 15:35 J -31419084.88 -31419084.85 -31419084.77 0.0147 0.0144
 Earth -90733-03-31 21:06 J -31418714.77 -31418714.62 -31418714.44 0.0147 0.0113
 Moon -90733-03-31 22:32 J -31418714.71 -31418714.56 -31418714.37 0.0147 0.0106 *

Moon -90732-04-06 03:20 J -31418344.57 -31418344.36 -31418344.14 0.0148 0.0086
 Earth -90732-04-06 03:49 J -31418344.55 -31418344.34 -31418344.12 0.0148 0.0080 *
 Moon -90731-04-11 11:01 J -31417974.27 -31417974.04 -31417973.79 0.0148 0.0044
 Earth -90731-04-11 11:01 J -31417974.27 -31417974.04 -31417973.79 0.0148 0.0047 *
 Earth -90730-04-16 18:56 J -31417603.96 -31417603.71 -31417603.45 0.0148 0.0013
 Moon -90730-04-16 20:23 J -31417603.91 -31417603.65 -31417603.38 0.0148 0.0010 *
 Moon -90729-04-21 01:54 J -31417233.67 -31417233.42 -31417233.17 0.0147 0.0016
 Earth -90729-04-21 03:35 J -31417233.60 -31417233.35 -31417233.09 0.0147 0.0022 *
 Earth -90728-04-26 12:13 J -31416863.21 -31416862.99 -31416862.73 0.0147 0.0057
 Moon -90728-04-26 15:20 J -31416863.08 -31416862.86 -31416862.61 0.0147 0.0063 *
 Moon -90727-05-01 18:27 J -31416492.92 -31416492.73 -31416492.51 0.0147 0.0084
 Earth -90727-05-01 21:35 J -31416492.78 -31416492.60 -31416492.38 0.0147 0.0090 *
 Earth -90726-05-07 07:25 J -31416122.32 -31416122.19 -31416122.04 0.0147 0.0123
 Moon -90726-05-07 11:01 J -31416122.17 -31416122.04 -31416121.88 0.0147 0.0122 *
 Mars -90721-07-05 07:54 J -31414236.47 -31414236.17 -31414235.85 0.0145 0.0028
 Mercury -90710-10-10 20:37 J -31410121.71 -31410121.64 -31410121.55 0.0138 0.0121
 Mercury -90709-01-07 02:51 J -31410033.49 -31410033.38 -31410033.25 0.0138 0.0099
 Venus -90709-03-12 23:59 J -31409967.60 -31409967.50 -31409967.37 0.0138 0.0117
 Mercury -90709-04-04 08:51 J -31409945.26 -31409945.13 -31409944.98 0.0138 0.0078
 Mercury -90709-07-01 15:06 J -31409857.03 -31409856.87 -31409856.71 0.0138 0.0056
 Mercury -90709-09-27 21:06 J -31409768.79 -31409768.62 -31409768.46 0.0137 0.0035
 Venus -90709-10-25 09:35 J -31409741.30 -31409741.10 -31409740.89 0.0137 0.0051
 Mercury -90709-12-25 02:51 J -31409680.55 -31409680.38 -31409680.21 0.0137 0.0014
 Mercury -90708-03-23 08:51 J -31409592.30 -31409592.13 -31409591.96 0.0137 0.0007
 Venus -90708-06-08 19:11 J -31409514.92 -31409514.70 -31409514.48 0.0137 0.0015
 Mercury -90708-06-19 14:37 J -31409504.06 -31409503.89 -31409503.73 0.0137 0.0027
 Mercury -90708-09-15 20:08 J -31409415.81 -31409415.66 -31409415.50 0.0137 0.0048
 Mercury -90708-12-13 01:39 J -31409327.57 -31409327.43 -31409327.27 0.0137 0.0068
 Venus -90707-01-21 03:35 J -31409288.51 -31409288.35 -31409288.15 0.0137 0.0081
 Mercury -90707-03-11 07:11 J -31409239.31 -31409239.20 -31409239.06 0.0137 0.0088

Mercury -90707-06-07 12:56 J -31409151.06 -31409150.96 -31409150.85 0.0136 0.0107

Mercury -90707-09-03 18:13 J -31409062.79 -31409062.74 -31409062.67 0.0136 0.0127

Moon -90693-10-05 04:47 J -31403917.38 -31403917.30 -31403917.18 0.0131 0.0120

Earth -90693-10-05 05:44 J -31403917.35 -31403917.26 -31403917.14 0.0131 0.0119 *

Earth -90692-10-09 08:51 J -31403548.28 -31403548.13 -31403547.94 0.0131 0.0097

Moon -90692-10-09 10:03 J -31403548.25 -31403548.08 -31403547.88 0.0131 0.0093 *

Moon -90691-10-13 11:15 J -31403179.21 -31403179.03 -31403178.82 0.0131 0.0078

Earth -90691-10-13 11:59 J -31403179.20 -31403179.00 -31403178.78 0.0131 0.0073 *

Earth -90690-10-17 14:37 J -31402810.13 -31402809.89 -31402809.66 0.0131 0.0051

Moon -90690-10-17 15:35 J -31402810.09 -31402809.85 -31402809.60 0.0131 0.0044 *

Moon -90689-10-20 15:35 J -31402441.08 -31402440.85 -31402440.61 0.0131 0.0035

Earth -90689-10-20 16:18 J -31402441.07 -31402440.82 -31402440.57 0.0131 0.0028 *

Earth -90688-10-24 17:44 J -31402072.01 -31402071.76 -31402071.51 0.0131 0.0005

Moon -90688-10-24 18:27 J -31402071.99 -31402071.73 -31402071.47 0.0131 0.0001 *

Moon -90687-10-28 17:59 J -31401702.99 -31401702.75 -31401702.50 0.0131 0.0015

Earth -90687-10-28 18:56 J -31401702.96 -31401702.71 -31401702.46 0.0131 0.0019 *

Earth -90686-11-01 19:39 J -31401333.90 -31401333.68 -31401333.43 0.0131 0.0042

Moon -90686-11-01 20:08 J -31401333.90 -31401333.66 -31401333.41 0.0131 0.0044 *

Moon -90685-11-04 19:39 J -31400964.87 -31400964.68 -31400964.45 0.0132 0.0066

Earth -90685-11-04 20:23 J -31400964.85 -31400964.65 -31400964.41 0.0132 0.0065 *

Earth -90684-11-08 21:06 J -31400595.79 -31400595.62 -31400595.42 0.0132 0.0087

Moon -90684-11-08 21:20 J -31400595.79 -31400595.61 -31400595.39 0.0132 0.0084 *

Earth -90683-11-12 21:49 J -31400226.71 -31400226.59 -31400226.43 0.0132 0.0109

Moon -90683-11-12 21:35 J -31400226.70 -31400226.60 -31400226.46 0.0132 0.0114 *

Moon -90682-11-16 23:30 J -31399857.60 -31399857.52 -31399857.42 0.0132 0.0124

Earth -90682-11-16 23:01 J -31399857.57 -31399857.54 -31399857.50 0.0132 0.0131 *

Mars -90677-08-03 10:47 J -31398136.33 -31398136.05 -31398135.76 0.0134 0.0044

Mars -90675-07-05 10:47 J -31397435.26 -31397435.05 -31397434.83 0.0135 0.0096

Mercury -90665-06-04 07:25 J -31393813.22 -31393813.19 -31393813.14 0.0141 0.0135

Mercury -90665-08-31 11:30 J -31393725.09 -31393725.02 -31393724.93 0.0141 0.0117

Mercury -90665-11-27 15:49 J -31393636.94 -31393636.84 -31393636.73 0.0141 0.0098

Mercury -90664-02-23 19:54 J -31393548.78 -31393548.67 -31393548.55 0.0141 0.0080

Mercury -90664-05-23 00:13 J -31393460.62 -31393460.49 -31393460.36 0.0141 0.0061

Venus -90664-05-28 23:30 J -31393454.67 -31393454.52 -31393454.37 0.0141 0.0098

Mercury -90664-08-19 04:32 J -31393372.45 -31393372.31 -31393372.18 0.0141 0.0043

Mercury -90664-11-15 08:37 J -31393284.28 -31393284.14 -31393283.99 0.0141 0.0024

Venus -90663-01-10 07:11 J -31393228.40 -31393228.20 -31393227.98 0.0142 0.0030

Mercury -90663-02-11 12:56 J -31393196.10 -31393195.96 -31393195.81 0.0142 0.0005

Mercury -90663-05-10 17:15 J -31393107.92 -31393107.78 -31393107.63 0.0142 0.0015

Mercury -90663-08-06 21:35 J -31393019.74 -31393019.60 -31393019.45 0.0142 0.0035

Venus -90663-08-24 15:20 J -31393002.06 -31393001.86 -31393001.65 0.0142 0.0040

Mercury -90663-11-03 02:08 J -31392931.55 -31392931.41 -31392931.27 0.0142 0.0054

Mercury -90662-01-30 06:27 J -31392843.35 -31392843.23 -31392843.10 0.0142 0.0074

Venus -90662-04-07 23:59 J -31392775.63 -31392775.50 -31392775.37 0.0142 0.0110

Mercury -90662-04-28 11:01 J -31392755.15 -31392755.04 -31392754.93 0.0142 0.0094

Mercury -90662-07-25 15:35 J -31392666.93 -31392666.85 -31392666.76 0.0142 0.0114

Mercury -90662-10-21 20:08 J -31392578.70 -31392578.66 -31392578.61 0.0143 0.0135

Moon -90650-03-28 00:27 J -31388403.58 -31388403.48 -31388403.37 0.0147 0.0134

Earth -90650-03-28 02:51 J -31388403.45 -31388403.38 -31388403.28 0.0147 0.0139 *

Earth -90649-04-01 08:08 J -31388033.31 -31388033.16 -31388032.97 0.0148 0.0108

Moon -90649-04-01 10:18 J -31388033.21 -31388033.07 -31388032.90 0.0148 0.0116 *

Moon -90648-04-06 13:11 J -31387663.17 -31387662.95 -31387662.70 0.0148 0.0069

Earth -90648-04-06 14:51 J -31387663.09 -31387662.88 -31387662.65 0.0148 0.0076 *

Earth -90647-04-11 21:49 J -31387292.83 -31387292.59 -31387292.34 0.0148 0.0043

Moon -90647-04-11 22:18 J -31387292.81 -31387292.57 -31387292.34 0.0148 0.0045 *

Earth -90646-04-17 05:44 J -31386922.51 -31386922.26 -31386922.00 0.0148 0.0010

Moon -90646-04-17 05:59 J -31386922.51 -31386922.25 -31386921.98 0.0148 0.0010 *

Moon -90645-04-21 12:42 J -31386552.21 -31386551.97 -31386551.72 0.0147 0.0032

Earth -90645-04-21 14:23 J -31386552.15 -31386551.90 -31386551.64 0.0147 0.0025 *

Earth -90644-04-26 23:30 J -31386181.76 -31386181.52 -31386181.29 0.0147 0.0059

Moon -90644-04-27 01:39 J -31386181.68 -31386181.43 -31386181.18 0.0147 0.0051 *
 Moon -90643-05-02 05:44 J -31385811.44 -31385811.26 -31385811.06 0.0147 0.0097
 Earth -90643-05-02 08:37 J -31385811.33 -31385811.14 -31385810.92 0.0147 0.0092 *
 Earth -90642-05-07 17:59 J -31385440.86 -31385440.75 -31385440.59 0.0147 0.0125
 Moon -90642-05-07 21:49 J -31385440.71 -31385440.59 -31385440.44 0.0147 0.0124 *
 Mars -90638-03-27 12:27 J -31384020.99 -31384020.98 -31384020.91 0.0145 0.0144
 Mars -90636-03-01 04:03 J -31383316.62 -31383316.33 -31383316.03 0.0144 0.0042
 Mercury -90626-08-03 22:03 J -31379508.59 -31379508.58 -31379508.56 0.0138 0.0137
 Mercury -90626-10-31 04:18 J -31379420.41 -31379420.32 -31379420.22 0.0138 0.0115
 Mercury -90625-01-27 10:18 J -31379332.19 -31379332.07 -31379331.94 0.0138 0.0094
 Mercury -90625-04-24 16:32 J -31379243.96 -31379243.81 -31379243.66 0.0138 0.0072
 Venus -90625-06-24 17:44 J -31379182.93 -31379182.76 -31379182.57 0.0138 0.0082
 Mercury -90625-07-21 22:32 J -31379155.72 -31379155.56 -31379155.40 0.0138 0.0050
 Mercury -90625-10-18 04:32 J -31379067.48 -31379067.31 -31379067.14 0.0137 0.0029
 Mercury -90624-01-14 10:18 J -31378979.24 -31378979.07 -31378978.89 0.0137 0.0009
 Venus -90624-02-06 03:20 J -31378956.58 -31378956.36 -31378956.14 0.0137 0.0015
 Mercury -90624-04-12 16:18 J -31378890.99 -31378890.82 -31378890.65 0.0137 0.0012
 Mercury -90624-07-09 21:49 J -31378802.75 -31378802.59 -31378802.42 0.0137 0.0033
 Venus -90624-09-20 12:27 J -31378730.19 -31378729.98 -31378729.77 0.0137 0.0050
 Mercury -90624-10-06 03:35 J -31378714.50 -31378714.35 -31378714.19 0.0137 0.0053
 Mercury -90623-01-02 09:20 J -31378626.25 -31378626.11 -31378625.97 0.0137 0.0073
 Mercury -90623-03-31 14:51 J -31378538.00 -31378537.88 -31378537.75 0.0137 0.0093
 Venus -90623-05-04 21:06 J -31378503.73 -31378503.62 -31378503.49 0.0137 0.0115
 Mercury -90623-06-27 20:08 J -31378449.74 -31378449.66 -31378449.55 0.0136 0.0113
 Mercury -90623-09-24 01:39 J -31378361.46 -31378361.43 -31378361.38 0.0136 0.0132
 Jupiter -90613-03-31 15:49 J -31374885.19 -31374884.84 -31374884.44 0.0132 0.0088
 Moon -90609-10-05 16:47 J -31373235.90 -31373235.80 -31373235.66 0.0131 0.0115
 Earth -90609-10-05 17:01 J -31373235.89 -31373235.79 -31373235.64 0.0131 0.0115 *
 Moon -90608-10-09 20:23 J -31372866.81 -31372866.65 -31372866.44 0.0131 0.0095
 Earth -90608-10-09 20:23 J -31372866.81 -31372866.65 -31372866.45 0.0131 0.0093 *

Moon	-90607-10-13 23:15 J	-31372497.74	-31372497.53	-31372497.32	0.0131	0.0065
Earth	-90607-10-13 23:44 J	-31372497.72	-31372497.51	-31372497.29	0.0131	0.0070 *
Moon	-90606-10-18 01:54 J	-31372128.65	-31372128.42	-31372128.17	0.0131	0.0053
Earth	-90606-10-18 01:54 J	-31372128.64	-31372128.42	-31372128.17	0.0131	0.0047 *
Moon	-90605-10-21 03:49 J	-31371759.58	-31371759.34	-31371759.10	0.0131	0.0018
Earth	-90605-10-21 04:03 J	-31371759.58	-31371759.33	-31371759.08	0.0131	0.0024 *
Earth	-90604-10-25 05:30 J	-31371390.52	-31371390.27	-31371390.01	0.0131	0.0003
Moon	-90604-10-25 05:59 J	-31371390.51	-31371390.25	-31371389.99	0.0131	0.0008 *
Earth	-90603-10-29 06:56 J	-31371021.46	-31371021.21	-31371020.96	0.0131	0.0021
Moon	-90603-10-29 06:56 J	-31371021.44	-31371021.21	-31371020.96	0.0131	0.0027 *
Earth	-90602-11-02 07:54 J	-31370652.40	-31370652.17	-31370651.93	0.0131	0.0044
Moon	-90602-11-02 08:08 J	-31370652.40	-31370652.16	-31370651.90	0.0131	0.0043 *
Earth	-90601-11-05 08:37 J	-31370283.34	-31370283.14	-31370282.91	0.0132	0.0067
Moon	-90601-11-05 09:06 J	-31370283.32	-31370283.12	-31370282.91	0.0132	0.0067 *
Moon	-90600-11-09 09:20 J	-31369914.28	-31369914.11	-31369913.91	0.0132	0.0091
Earth	-90600-11-09 09:35 J	-31369914.27	-31369914.10	-31369913.90	0.0132	0.0089 *
Moon	-90599-11-13 10:18 J	-31369545.19	-31369545.07	-31369544.90	0.0132	0.0106
Earth	-90599-11-13 10:18 J	-31369545.18	-31369545.07	-31369544.91	0.0132	0.0111 *
Earth	-90598-11-17 11:15 J	-31369176.03	-31369176.03	-31369176.00	0.0132	0.0132
Mars	-90594-04-28 12:42 J	-31367918.06	-31367917.97	-31367917.85	0.0133	0.0125
Mars	-90592-03-29 04:18 J	-31367217.62	-31367217.32	-31367217.01	0.0134	0.0010
Mercury	-90581-06-24 15:06 J	-31363111.91	-31363111.87	-31363111.80	0.0141	0.0129
Mercury	-90581-09-20 19:11 J	-31363023.77	-31363023.70	-31363023.60	0.0141	0.0111
Mercury	-90581-12-17 23:15 J	-31362935.62	-31362935.53	-31362935.41	0.0141	0.0093
Venus	-90580-01-26 09:06 J	-31362896.19	-31362896.12	-31362896.02	0.0141	0.0128
Mercury	-90580-03-16 03:35 J	-31362847.47	-31362847.35	-31362847.22	0.0141	0.0074
Mercury	-90580-06-12 07:54 J	-31362759.30	-31362759.17	-31362759.04	0.0141	0.0055
Mercury	-90580-09-08 11:59 J	-31362671.13	-31362671.00	-31362670.85	0.0141	0.0037
Venus	-90580-09-09 17:01 J	-31362669.97	-31362669.79	-31362669.59	0.0141	0.0060
Mercury	-90580-12-05 16:18 J	-31362582.96	-31362582.82	-31362582.67	0.0141	0.0018

Mercury -90579-03-03 20:37 J -31362494.78 -31362494.64 -31362494.49 0.0142 0.0003
 Venus -90579-04-24 01:11 J -31362443.66 -31362443.45 -31362443.24 0.0142 0.0009
 Mercury -90579-05-31 00:56 J -31362406.60 -31362406.46 -31362406.31 0.0142 0.0021
 Mercury -90579-08-27 05:15 J -31362318.41 -31362318.28 -31362318.13 0.0142 0.0041
 Mercury -90579-11-23 09:49 J -31362230.22 -31362230.09 -31362229.96 0.0142 0.0060
 Venus -90579-12-06 09:20 J -31362217.27 -31362217.11 -31362216.92 0.0142 0.0078
 Mercury -90578-02-19 14:08 J -31362142.02 -31362141.91 -31362141.78 0.0142 0.0080
 Mercury -90578-05-18 18:42 J -31362053.82 -31362053.72 -31362053.61 0.0142 0.0100
 Mercury -90578-08-14 23:15 J -31361965.60 -31361965.53 -31361965.45 0.0142 0.0121
 Mercury -90578-11-11 04:03 J -31361877.35 -31361877.33 -31361877.32 0.0143 0.0141
 Moon -90566-03-28 11:15 J -31357722.11 -31357722.03 -31357721.95 0.0147 0.0139
 Earth -90566-03-28 13:54 J -31357722.00 -31357721.92 -31357721.79 0.0147 0.0135 *
 Earth -90565-04-01 19:25 J -31357351.86 -31357351.69 -31357351.50 0.0147 0.0104
 Moon -90565-04-01 22:03 J -31357351.75 -31357351.58 -31357351.38 0.0147 0.0097 *
 Moon -90564-04-06 23:44 J -31356981.72 -31356981.51 -31356981.27 0.0148 0.0079
 Earth -90564-04-07 01:39 J -31356981.65 -31356981.43 -31356981.20 0.0148 0.0072 *
 Earth -90563-04-12 08:23 J -31356611.38 -31356611.15 -31356610.89 0.0148 0.0040
 Moon -90563-04-12 10:03 J -31356611.32 -31356611.08 -31356610.84 0.0148 0.0035 *
 Moon -90562-04-17 16:18 J -31356241.08 -31356240.82 -31356240.55 0.0147 0.0005
 Earth -90562-04-17 16:18 J -31356241.07 -31356240.82 -31356240.56 0.0147 0.0006 *
 Moon -90561-04-22 00:27 J -31355870.73 -31355870.48 -31355870.24 0.0147 0.0022
 Earth -90561-04-22 00:42 J -31355870.72 -31355870.47 -31355870.21 0.0147 0.0028 *
 Earth -90560-04-27 09:49 J -31355500.33 -31355500.09 -31355499.86 0.0147 0.0061
 Moon -90560-04-27 11:30 J -31355500.25 -31355500.02 -31355499.78 0.0147 0.0068 *
 Moon -90559-05-02 16:03 J -31355130.01 -31355129.83 -31355129.61 0.0147 0.0088
 Earth -90559-05-02 18:42 J -31355129.90 -31355129.72 -31355129.51 0.0147 0.0094 *
 Earth -90558-05-08 04:03 J -31354759.44 -31354759.33 -31354759.17 0.0147 0.0126
 Moon -90558-05-08 07:25 J -31354759.31 -31354759.19 -31354759.04 0.0147 0.0126 *
 Mars -90554-11-21 10:32 J -31353101.33 -31353101.06 -31353100.79 0.0145 0.0073
 Mars -90552-10-25 18:13 J -31352396.92 -31352396.74 -31352396.51 0.0144 0.0107

Mercury -90542-08-24 05:01 J -31348807.32 -31348807.29 -31348807.24 0.0138 0.0133

Mercury -90542-11-20 11:15 J -31348719.13 -31348719.03 -31348718.92 0.0138 0.0111

Mercury -90541-02-16 17:30 J -31348630.90 -31348630.77 -31348630.64 0.0138 0.0089

Venus -90541-02-23 00:42 J -31348624.58 -31348624.47 -31348624.33 0.0138 0.0115

Mercury -90541-05-14 23:30 J -31348542.67 -31348542.52 -31348542.37 0.0138 0.0068

Mercury -90541-08-11 05:30 J -31348454.43 -31348454.27 -31348454.10 0.0138 0.0046

Venus -90541-10-06 10:32 J -31348398.27 -31348398.06 -31348397.85 0.0137 0.0048

Mercury -90541-11-07 11:30 J -31348366.19 -31348366.02 -31348365.85 0.0137 0.0025

Mercury -90540-02-03 17:30 J -31348277.95 -31348277.77 -31348277.60 0.0137 0.0006

Mercury -90540-05-02 23:15 J -31348189.70 -31348189.53 -31348189.36 0.0137 0.0016

Venus -90540-05-20 19:54 J -31348171.89 -31348171.67 -31348171.44 0.0137 0.0018

Mercury -90540-07-30 04:47 J -31348101.46 -31348101.30 -31348101.13 0.0137 0.0037

Mercury -90540-10-26 10:32 J -31348013.21 -31348013.06 -31348012.90 0.0137 0.0057

Venus -90539-01-02 04:47 J -31347945.47 -31347945.30 -31347945.12 0.0137 0.0083

Mercury -90539-01-22 16:03 J -31347924.96 -31347924.83 -31347924.68 0.0137 0.0077

Mercury -90539-04-20 21:35 J -31347836.70 -31347836.60 -31347836.47 0.0137 0.0097

Mercury -90539-07-18 03:20 J -31347748.44 -31347748.36 -31347748.27 0.0136 0.0116

Mercury -90539-10-14 08:37 J -31347660.15 -31347660.14 -31347660.11 0.0136 0.0135

Earth -90525-10-06 03:20 J -31342554.48 -31342554.36 -31342554.20 0.0132 0.0111

Moon -90525-10-06 03:49 J -31342554.45 -31342554.34 -31342554.18 0.0132 0.0111 *

Moon -90524-10-10 06:56 J -31342185.40 -31342185.21 -31342185.00 0.0131 0.0086

Earth -90524-10-10 06:56 J -31342185.38 -31342185.21 -31342185.01 0.0131 0.0089 *

Earth -90523-10-14 10:03 J -31341816.29 -31341816.08 -31341815.85 0.0131 0.0066

Moon -90523-10-14 10:47 J -31341816.25 -31341816.05 -31341815.84 0.0131 0.0071 *

Moon -90522-10-18 12:13 J -31341447.23 -31341446.99 -31341446.73 0.0131 0.0038

Earth -90522-10-18 12:27 J -31341447.20 -31341446.98 -31341446.73 0.0131 0.0045 *

Earth -90521-10-21 14:37 J -31341078.13 -31341077.89 -31341077.64 0.0131 0.0021

Moon -90521-10-21 15:06 J -31341078.11 -31341077.87 -31341077.63 0.0131 0.0028 *

Moon -90520-10-25 15:35 J -31340709.11 -31340708.85 -31340708.59 0.0131 0.0007

Earth -90520-10-25 16:32 J -31340709.06 -31340708.81 -31340708.56 0.0131 0.0002 *

Earth	-90519-10-29 17:59 J	-31340340.00	-31340339.75	-31340339.50	0.0131	0.0024
Moon	-90519-10-29 18:13 J	-31340339.98	-31340339.74	-31340339.50	0.0131	0.0019 *
Moon	-90518-11-02 17:59 J	-31339970.98	-31339970.75	-31339970.50	0.0131	0.0049
Earth	-90518-11-02 18:56 J	-31339970.94	-31339970.71	-31339970.47	0.0131	0.0046 *
Earth	-90517-11-05 19:54 J	-31339601.87	-31339601.67	-31339601.44	0.0132	0.0069
Moon	-90517-11-05 20:37 J	-31339601.83	-31339601.64	-31339601.42	0.0132	0.0069 *
Moon	-90516-11-09 20:23 J	-31339232.84	-31339232.65	-31339232.45	0.0132	0.0087
Earth	-90516-11-09 21:06 J	-31339232.79	-31339232.62	-31339232.43	0.0132	0.0090 *
Earth	-90515-11-13 22:03 J	-31338863.71	-31338863.58	-31338863.45	0.0132	0.0112
Moon	-90515-11-13 22:47 J	-31338863.64	-31338863.55	-31338863.42	0.0132	0.0116 *
Moon	-90514-11-17 21:49 J	-31338494.65	-31338494.59	-31338494.50	0.0132	0.0126
Mars	-90510-12-22 03:06 J	-31336999.62	-31336999.37	-31336999.11	0.0134	0.0073
Mars	-90508-11-21 21:35 J	-31336298.86	-31336298.60	-31336298.33	0.0135	0.0064
Mercury	-90497-07-14 22:47 J	-31332410.61	-31332410.55	-31332410.48	0.0141	0.0124
Mercury	-90497-10-11 02:51 J	-31332322.47	-31332322.38	-31332322.29	0.0141	0.0106
Mercury	-90496-01-07 06:56 J	-31332234.32	-31332234.21	-31332234.10	0.0141	0.0088
Mercury	-90496-04-05 11:01 J	-31332146.16	-31332146.04	-31332145.91	0.0141	0.0069
Venus	-90496-05-10 02:23 J	-31332111.55	-31332111.40	-31332111.23	0.0141	0.0092
Mercury	-90496-07-02 15:06 J	-31332057.99	-31332057.87	-31332057.73	0.0141	0.0051
Mercury	-90496-09-28 19:25 J	-31331969.83	-31331969.69	-31331969.54	0.0141	0.0032
Venus	-90496-12-22 10:18 J	-31331885.27	-31331885.07	-31331884.85	0.0141	0.0025
Mercury	-90496-12-25 23:44 J	-31331881.65	-31331881.51	-31331881.36	0.0141	0.0013
Mercury	-90495-03-24 04:03 J	-31331793.47	-31331793.33	-31331793.18	0.0142	0.0007
Mercury	-90495-06-20 08:23 J	-31331705.29	-31331705.15	-31331705.00	0.0142	0.0026
Venus	-90495-08-05 18:27 J	-31331658.93	-31331658.73	-31331658.52	0.0142	0.0045
Mercury	-90495-09-16 12:42 J	-31331617.10	-31331616.97	-31331616.83	0.0142	0.0046
Mercury	-90495-12-13 17:15 J	-31331528.91	-31331528.78	-31331528.65	0.0142	0.0065
Mercury	-90494-03-11 21:35 J	-31331440.71	-31331440.60	-31331440.48	0.0142	0.0085
Venus	-90494-03-20 02:37 J	-31331432.50	-31331432.39	-31331432.25	0.0142	0.0115
Mercury	-90494-06-08 02:08 J	-31331352.50	-31331352.41	-31331352.31	0.0142	0.0105

Mercury -90494-09-04 06:42 J -31331264.28 -31331264.22 -31331264.15 0.0142 0.0126

Moon -90482-03-28 21:49 J -31327040.71 -31327040.59 -31327040.44 0.0147 0.0126

Earth -90482-03-29 01:11 J -31327040.55 -31327040.45 -31327040.31 0.0147 0.0129 *

Earth -90481-04-02 06:27 J -31326670.41 -31326670.23 -31326670.03 0.0147 0.0099

Moon -90481-04-02 09:20 J -31326670.27 -31326670.11 -31326669.93 0.0147 0.0107 *

Moon -90480-04-07 09:49 J -31326300.32 -31326300.09 -31326299.85 0.0147 0.0060

Earth -90480-04-07 12:27 J -31326300.19 -31326299.98 -31326299.74 0.0147 0.0068 *

Earth -90479-04-12 19:11 J -31325929.94 -31325929.70 -31325929.44 0.0147 0.0036

Moon -90479-04-12 20:51 J -31325929.87 -31325929.63 -31325929.39 0.0147 0.0038 *

Moon -90478-04-18 01:54 J -31325559.68 -31325559.42 -31325559.15 0.0147 0.0004

Earth -90478-04-18 03:20 J -31325559.62 -31325559.36 -31325559.11 0.0147 0.0003 *

Moon -90477-04-22 11:15 J -31325189.26 -31325189.03 -31325188.78 0.0147 0.0037

Earth -90477-04-22 11:30 J -31325189.26 -31325189.02 -31325188.76 0.0147 0.0031 *

Earth -90476-04-27 20:23 J -31324818.88 -31324818.65 -31324818.41 0.0147 0.0063

Moon -90476-04-27 21:20 J -31324818.85 -31324818.61 -31324818.36 0.0147 0.0055 *

Moon -90475-05-03 03:49 J -31324448.51 -31324448.34 -31324448.15 0.0147 0.0101

Earth -90475-05-03 05:44 J -31324448.45 -31324448.26 -31324448.06 0.0147 0.0095 *

Earth -90474-05-08 15:06 J -31324077.99 -31324077.87 -31324077.73 0.0147 0.0127

Moon -90474-05-08 18:13 J -31324077.87 -31324077.74 -31324077.60 0.0147 0.0126 *

Mars -90469-07-17 06:27 J -31322181.54 -31322181.23 -31322180.91 0.0145 0.0004

Mercury -90458-09-13 12:13 J -31318106.04 -31318105.99 -31318105.91 0.0138 0.0128

Mercury -90458-12-10 18:27 J -31318017.83 -31318017.73 -31318017.61 0.0138 0.0106

Mercury -90457-03-08 00:27 J -31317929.60 -31317929.48 -31317929.33 0.0138 0.0085

Mercury -90457-06-04 06:42 J -31317841.37 -31317841.22 -31317841.06 0.0138 0.0063

Venus -90457-06-05 18:13 J -31317839.91 -31317839.74 -31317839.55 0.0138 0.0080

Mercury -90457-08-31 12:42 J -31317753.13 -31317752.97 -31317752.80 0.0138 0.0042

Mercury -90457-11-27 18:42 J -31317664.89 -31317664.72 -31317664.55 0.0137 0.0021

Venus -90456-01-18 03:49 J -31317613.56 -31317613.34 -31317613.12 0.0137 0.0014

Mercury -90456-02-24 00:42 J -31317576.64 -31317576.47 -31317576.30 0.0137 0.0002

Mercury -90456-05-23 06:27 J -31317488.40 -31317488.23 -31317488.06 0.0137 0.0021

Mercury -90456-08-19 12:13 J -31317400.15 -31317399.99 -31317399.83 0.0137 0.0041

Venus -90456-09-01 12:42 J -31317387.17 -31317386.97 -31317386.76 0.0137 0.0052

Mercury -90456-11-15 17:44 J -31317311.90 -31317311.76 -31317311.60 0.0137 0.0062

Mercury -90455-02-11 23:15 J -31317223.65 -31317223.53 -31317223.38 0.0137 0.0082

Venus -90455-04-15 21:20 J -31317160.71 -31317160.61 -31317160.48 0.0137 0.0117

Mercury -90455-05-11 05:01 J -31317135.40 -31317135.29 -31317135.17 0.0137 0.0101

Mercury -90455-08-07 10:18 J -31317047.13 -31317047.07 -31317046.98 0.0136 0.0121

Moon -90442-10-03 08:51 J -31312242.20 -31312242.13 -31312242.03 0.0132 0.0124

Earth -90442-10-03 10:03 J -31312242.12 -31312242.08 -31312242.00 0.0132 0.0128 *

Earth -90441-10-06 14:08 J -31311873.04 -31311872.91 -31311872.74 0.0132 0.0107

Moon -90441-10-06 15:06 J -31311873.00 -31311872.87 -31311872.72 0.0132 0.0107 *

Moon -90440-10-10 16:18 J -31311504.00 -31311503.82 -31311503.60 0.0131 0.0086

Earth -90440-10-10 17:59 J -31311503.93 -31311503.75 -31311503.55 0.0131 0.0085 *

Earth -90439-10-14 21:06 J -31311134.84 -31311134.62 -31311134.39 0.0131 0.0063

Moon -90439-10-14 21:49 J -31311134.80 -31311134.59 -31311134.36 0.0131 0.0059 *

Moon -90438-10-18 22:18 J -31310765.81 -31310765.57 -31310765.32 0.0131 0.0046

Earth -90438-10-18 23:30 J -31310765.75 -31310765.52 -31310765.27 0.0131 0.0041 *

Earth -90437-10-22 01:39 J -31310396.67 -31310396.43 -31310396.17 0.0131 0.0018

Moon -90437-10-22 03:06 J -31310396.61 -31310396.37 -31310396.13 0.0131 0.0012 *

Moon -90436-10-26 02:37 J -31310027.65 -31310027.39 -31310027.13 0.0131 0.0003

Earth -90436-10-26 03:35 J -31310027.60 -31310027.35 -31310027.10 0.0131 0.0005 *

Earth -90435-10-30 05:01 J -31309658.53 -31309658.29 -31309658.04 0.0131 0.0027

Moon -90435-10-30 06:27 J -31309658.46 -31309658.23 -31309657.98 0.0131 0.0032 *

Moon -90434-11-03 05:15 J -31309289.52 -31309289.28 -31309289.03 0.0132 0.0046

Earth -90434-11-03 06:27 J -31309289.46 -31309289.23 -31309288.99 0.0132 0.0049 *

Earth -90433-11-06 07:11 J -31308920.39 -31308920.20 -31308919.97 0.0132 0.0071

Moon -90433-11-06 08:51 J -31308920.33 -31308920.13 -31308919.92 0.0132 0.0071 *

Moon -90432-11-10 06:27 J -31308551.40 -31308551.23 -31308551.03 0.0132 0.0093

Earth -90432-11-10 08:08 J -31308551.32 -31308551.16 -31308550.96 0.0132 0.0092 *

Earth -90431-11-14 08:51 J -31308182.24 -31308182.13 -31308181.98 0.0132 0.0113

Moon -90431-11-14 10:18 J -31308182.20 -31308182.07 -31308181.92 0.0132 0.0108 *
 Mars -90425-08-15 15:49 J -31306081.13 -31306080.84 -31306080.54 0.0134 0.0021
 Mars -90423-07-17 14:23 J -31305380.04 -31305379.90 -31305379.75 0.0135 0.0118
 Mercury -90413-05-08 01:54 J -31301797.44 -31301797.42 -31301797.39 0.0140 0.0137
 Mercury -90413-08-04 05:59 J -31301709.32 -31301709.25 -31301709.17 0.0141 0.0120
 Mercury -90413-10-31 10:03 J -31301621.17 -31301621.08 -31301620.98 0.0141 0.0102
 Venus -90412-01-07 11:15 J -31301553.11 -31301553.03 -31301552.92 0.0141 0.0125
 Mercury -90412-01-27 14:08 J -31301533.02 -31301532.91 -31301532.79 0.0141 0.0084
 Mercury -90412-04-25 18:27 J -31301444.86 -31301444.73 -31301444.60 0.0141 0.0065
 Mercury -90412-07-22 22:32 J -31301356.69 -31301356.56 -31301356.42 0.0141 0.0046
 Venus -90412-08-21 18:56 J -31301326.89 -31301326.71 -31301326.51 0.0141 0.0057
 Mercury -90412-10-19 02:51 J -31301268.52 -31301268.38 -31301268.24 0.0141 0.0027
 Mercury -90411-01-15 07:11 J -31301180.35 -31301180.20 -31301180.06 0.0141 0.0009
 Venus -90411-04-05 03:06 J -31301100.58 -31301100.37 -31301100.16 0.0142 0.0012
 Mercury -90411-04-13 11:30 J -31301092.17 -31301092.02 -31301091.88 0.0142 0.0011
 Mercury -90411-07-10 15:35 J -31301003.98 -31301003.85 -31301003.70 0.0142 0.0031
 Mercury -90411-10-06 20:08 J -31300915.80 -31300915.66 -31300915.52 0.0142 0.0050
 Venus -90411-11-17 11:30 J -31300874.19 -31300874.02 -31300873.84 0.0142 0.0081
 Mercury -90410-01-03 00:27 J -31300827.60 -31300827.48 -31300827.35 0.0142 0.0070
 Mercury -90410-04-01 04:47 J -31300739.40 -31300739.30 -31300739.17 0.0142 0.0090
 Mercury -90410-06-28 09:20 J -31300651.19 -31300651.11 -31300651.01 0.0142 0.0110
 Mercury -90410-09-24 13:54 J -31300562.97 -31300562.92 -31300562.85 0.0142 0.0131
 Moon -90398-03-29 07:54 J -31296359.27 -31296359.17 -31296359.03 0.0147 0.0130
 Earth -90398-03-29 11:44 J -31296359.13 -31296359.01 -31296358.86 0.0147 0.0124 *
 Earth -90397-04-02 16:47 J -31295988.99 -31295988.80 -31295988.60 0.0147 0.0095
 Moon -90397-04-02 20:08 J -31295988.85 -31295988.66 -31295988.45 0.0147 0.0088 *
 Moon -90396-04-07 19:54 J -31295618.89 -31295618.67 -31295618.43 0.0147 0.0070
 Earth -90396-04-07 22:32 J -31295618.77 -31295618.56 -31295618.31 0.0147 0.0064 *
 Earth -90395-04-13 05:44 J -31295248.51 -31295248.26 -31295248.01 0.0147 0.0031
 Moon -90395-04-13 08:23 J -31295248.40 -31295248.15 -31295247.91 0.0147 0.0027 *

Moon -90394-04-18 11:59 J -31294878.26 -31294878.00 -31294877.73 0.0147 0.0002
 Earth -90394-04-18 13:25 J -31294878.19 -31294877.94 -31294877.68 0.0147 0.0002 *
 Earth -90393-04-22 21:35 J -31294507.84 -31294507.60 -31294507.34 0.0147 0.0034
 Moon -90393-04-22 22:32 J -31294507.80 -31294507.56 -31294507.31 0.0147 0.0028 *
 Moon -90392-04-28 06:27 J -31294137.45 -31294137.23 -31294136.98 0.0147 0.0073
 Earth -90392-04-28 06:27 J -31294137.45 -31294137.23 -31294136.99 0.0147 0.0065 *
 Moon -90391-05-03 14:08 J -31293767.10 -31293766.91 -31293766.71 0.0147 0.0091
 Earth -90391-05-03 15:20 J -31293767.04 -31293766.86 -31293766.65 0.0147 0.0097 *
 Earth -90390-05-09 00:42 J -31293396.58 -31293396.47 -31293396.33 0.0147 0.0128
 Moon -90390-05-09 02:37 J -31293396.50 -31293396.39 -31293396.25 0.0147 0.0130 *
 Mars -90386-04-08 07:11 J -31291966.35 -31291966.20 -31291966.00 0.0145 0.0121
 Mars -90384-03-13 00:13 J -31291261.76 -31291261.49 -31291261.19 0.0144 0.0062
 Mercury -90374-10-03 19:11 J -31287404.77 -31287404.70 -31287404.62 0.0138 0.0125
 Mercury -90374-12-31 01:11 J -31287316.55 -31287316.45 -31287316.32 0.0138 0.0103
 Venus -90373-02-04 00:42 J -31287281.58 -31287281.47 -31287281.33 0.0138 0.0114
 Mercury -90373-03-28 07:25 J -31287228.32 -31287228.19 -31287228.04 0.0138 0.0081
 Mercury -90373-06-24 13:25 J -31287140.09 -31287139.94 -31287139.77 0.0138 0.0060
 Venus -90373-09-17 10:18 J -31287055.27 -31287055.07 -31287054.85 0.0138 0.0047
 Mercury -90373-09-20 19:25 J -31287051.85 -31287051.69 -31287051.52 0.0138 0.0039
 Mercury -90373-12-18 01:25 J -31286963.60 -31286963.44 -31286963.26 0.0137 0.0018
 Mercury -90372-03-16 07:25 J -31286875.36 -31286875.19 -31286875.02 0.0137 0.0004
 Venus -90372-05-01 19:39 J -31286828.89 -31286828.68 -31286828.45 0.0137 0.0019
 Mercury -90372-06-12 13:11 J -31286787.12 -31286786.95 -31286786.78 0.0137 0.0024
 Mercury -90372-09-08 18:56 J -31286698.87 -31286698.71 -31286698.55 0.0137 0.0045
 Mercury -90372-12-06 00:27 J -31286610.62 -31286610.48 -31286610.32 0.0137 0.0065
 Venus -90372-12-14 04:32 J -31286602.48 -31286602.31 -31286602.13 0.0137 0.0084
 Mercury -90371-03-04 06:13 J -31286522.37 -31286522.24 -31286522.10 0.0137 0.0085
 Mercury -90371-05-31 11:44 J -31286434.11 -31286434.01 -31286433.90 0.0137 0.0104
 Mercury -90371-08-27 17:15 J -31286345.84 -31286345.78 -31286345.70 0.0136 0.0124
 Moon -90358-10-03 17:59 J -31281560.81 -31281560.75 -31281560.68 0.0132 0.0127

Earth	-90358-10-03 19:25 J	-31281560.76	-31281560.69	-31281560.59	0.0132	0.0124	*
Earth	-90357-10-06 23:30 J	-31281191.66	-31281191.52	-31281191.34	0.0132	0.0103	
Moon	-90357-10-07 01:39 J	-31281191.57	-31281191.43	-31281191.26	0.0132	0.0101	*
Moon	-90356-10-11 02:08 J	-31280822.61	-31280822.41	-31280822.19	0.0131	0.0079	
Earth	-90356-10-11 03:49 J	-31280822.54	-31280822.34	-31280822.14	0.0131	0.0081	*
Earth	-90355-10-15 06:27 J	-31280453.44	-31280453.23	-31280452.98	0.0131	0.0060	
Moon	-90355-10-15 08:23 J	-31280453.35	-31280453.15	-31280452.92	0.0131	0.0064	*
Moon	-90354-10-19 07:25 J	-31280084.43	-31280084.19	-31280083.92	0.0131	0.0033	
Earth	-90354-10-19 09:20 J	-31280084.34	-31280084.11	-31280083.85	0.0131	0.0038	*
Earth	-90353-10-22 11:44 J	-31279715.26	-31279715.01	-31279714.76	0.0131	0.0015	
Moon	-90353-10-22 13:11 J	-31279715.18	-31279714.95	-31279714.70	0.0131	0.0022	*
Moon	-90352-10-26 11:44 J	-31279346.27	-31279346.01	-31279345.76	0.0131	0.0014	
Earth	-90352-10-26 13:39 J	-31279346.17	-31279345.93	-31279345.67	0.0131	0.0008	*
Earth	-90351-10-30 15:20 J	-31278977.10	-31278976.86	-31278976.61	0.0131	0.0029	
Moon	-90351-10-30 16:47 J	-31278977.03	-31278976.80	-31278976.55	0.0131	0.0025	*
Moon	-90350-11-03 14:23 J	-31278608.12	-31278607.90	-31278607.65	0.0132	0.0055	
Earth	-90350-11-03 16:32 J	-31278608.03	-31278607.81	-31278607.57	0.0132	0.0051	*
Earth	-90349-11-06 17:44 J	-31278238.96	-31278238.76	-31278238.55	0.0132	0.0072	
Moon	-90349-11-06 19:39 J	-31278238.87	-31278238.68	-31278238.47	0.0132	0.0071	*
Moon	-90348-11-10 16:32 J	-31277869.98	-31277869.81	-31277869.61	0.0132	0.0091	
Earth	-90348-11-10 18:42 J	-31277869.89	-31277869.72	-31277869.54	0.0132	0.0093	*
Earth	-90347-11-14 18:56 J	-31277500.81	-31277500.71	-31277500.56	0.0132	0.0114	
Moon	-90347-11-14 21:49 J	-31277500.70	-31277500.59	-31277500.48	0.0132	0.0117	*
Moon	-90346-11-18 17:44 J	-31277131.80	-31277131.76	-31277131.68	0.0132	0.0129	
Mars	-90342-05-10 15:06 J	-31275863.05	-31275862.87	-31275862.67	0.0134	0.0103	
Mars	-90340-04-10 04:32 J	-31275162.59	-31275162.31	-31275162.01	0.0134	0.0032	
Mercury	-90329-05-28 09:06 J	-31271096.16	-31271096.12	-31271096.08	0.0140	0.0134	
Mercury	-90329-08-24 13:11 J	-31271008.03	-31271007.95	-31271007.87	0.0141	0.0116	
Mercury	-90329-11-20 17:15 J	-31270919.88	-31270919.78	-31270919.68	0.0141	0.0098	
Mercury	-90328-02-16 21:20 J	-31270831.72	-31270831.61	-31270831.49	0.0141	0.0080	

Venus -90328-04-21 03:20 J -31270768.51 -31270768.36 -31270768.19 0.0141 0.0091
 Mercury -90328-05-16 01:39 J -31270743.56 -31270743.43 -31270743.31 0.0141 0.0061
 Mercury -90328-08-12 05:44 J -31270655.40 -31270655.26 -31270655.12 0.0141 0.0043
 Mercury -90328-11-08 09:49 J -31270567.23 -31270567.09 -31270566.94 0.0141 0.0024
 Venus -90328-12-03 11:30 J -31270542.23 -31270542.02 -31270541.81 0.0141 0.0023
 Mercury -90327-02-04 14:08 J -31270479.05 -31270478.91 -31270478.76 0.0141 0.0006
 Mercury -90327-05-03 18:27 J -31270390.87 -31270390.73 -31270390.58 0.0142 0.0015
 Venus -90327-07-17 19:25 J -31270315.89 -31270315.69 -31270315.48 0.0142 0.0047
 Mercury -90327-07-30 22:47 J -31270302.69 -31270302.55 -31270302.40 0.0142 0.0034
 Mercury -90327-10-27 03:06 J -31270214.50 -31270214.37 -31270214.23 0.0142 0.0054
 Mercury -90326-01-23 07:25 J -31270126.30 -31270126.19 -31270126.05 0.0142 0.0074
 Venus -90326-03-01 03:49 J -31270089.46 -31270089.34 -31270089.21 0.0142 0.0116
 Mercury -90326-04-21 11:59 J -31270038.10 -31270038.00 -31270037.88 0.0142 0.0094
 Mercury -90326-07-18 16:32 J -31269949.89 -31269949.81 -31269949.72 0.0142 0.0114
 Mercury -90326-10-14 21:06 J -31269861.66 -31269861.62 -31269861.57 0.0142 0.0134
 Moon -90314-03-29 17:01 J -31265677.93 -31265677.79 -31265677.62 0.0147 0.0117
 Earth -90314-03-29 20:51 J -31265677.77 -31265677.63 -31265677.48 0.0147 0.0119 *
 Earth -90313-04-03 01:54 J -31265307.62 -31265307.42 -31265307.22 0.0147 0.0090
 Moon -90313-04-03 05:01 J -31265307.46 -31265307.29 -31265307.09 0.0147 0.0098 *
 Moon -90312-04-08 04:03 J -31264937.56 -31264937.33 -31264937.07 0.0147 0.0052
 Earth -90312-04-08 07:39 J -31264937.40 -31264937.18 -31264936.93 0.0147 0.0060 *
 Earth -90311-04-13 14:51 J -31264567.13 -31264566.88 -31264566.63 0.0147 0.0028
 Moon -90311-04-13 17:30 J -31264567.01 -31264566.77 -31264566.53 0.0147 0.0032 *
 Moon -90310-04-18 20:08 J -31264196.92 -31264196.66 -31264196.39 0.0147 0.0005
 Earth -90310-04-18 22:32 J -31264196.81 -31264196.56 -31264196.30 0.0147 0.0005 *
 Earth -90309-04-23 06:42 J -31263826.46 -31263826.22 -31263825.96 0.0147 0.0036
 Moon -90309-04-23 08:23 J -31263826.39 -31263826.15 -31263825.91 0.0147 0.0041 *
 Moon -90308-04-28 14:51 J -31263456.11 -31263455.88 -31263455.62 0.0147 0.0060
 Earth -90308-04-28 15:06 J -31263456.08 -31263455.87 -31263455.62 0.0147 0.0069 *
 Moon -90307-05-03 23:59 J -31263085.66 -31263085.50 -31263085.31 0.0147 0.0106

Earth -90307-05-04 00:13 J -31263085.66 -31263085.49 -31263085.28 0.0147 0.0099 *
 Earth -90306-05-09 09:20 J -31262715.21 -31262715.11 -31262714.97 0.0147 0.0130
 Moon -90306-05-09 11:15 J -31262715.14 -31262715.03 -31262714.88 0.0147 0.0128 *
 Mars -90302-12-03 04:03 J -31261046.62 -31261046.33 -31261046.02 0.0145 0.0051
 Mars -90300-11-06 15:20 J -31260341.99 -31260341.86 -31260341.71 0.0144 0.0127
 Mercury -90290-10-24 02:08 J -31256703.49 -31256703.41 -31256703.32 0.0138 0.0121
 Mercury -90289-01-20 08:08 J -31256615.27 -31256615.16 -31256615.03 0.0138 0.0099
 Mercury -90289-04-17 14:23 J -31256527.03 -31256526.90 -31256526.75 0.0138 0.0077
 Venus -90289-05-17 17:30 J -31256496.94 -31256496.77 -31256496.58 0.0138 0.0080
 Mercury -90289-07-14 20:23 J -31256438.80 -31256438.65 -31256438.48 0.0138 0.0056
 Mercury -90289-10-11 02:23 J -31256350.56 -31256350.40 -31256350.22 0.0138 0.0035
 Venus -90289-12-30 03:06 J -31256270.59 -31256270.37 -31256270.15 0.0137 0.0014
 Mercury -90288-01-07 08:37 J -31256262.32 -31256262.14 -31256261.97 0.0137 0.0014
 Mercury -90288-04-05 14:23 J -31256174.07 -31256173.90 -31256173.73 0.0137 0.0008
 Mercury -90288-07-02 20:08 J -31256085.82 -31256085.66 -31256085.49 0.0137 0.0028
 Venus -90288-08-13 11:59 J -31256044.20 -31256044.00 -31256043.79 0.0137 0.0052
 Mercury -90288-09-29 01:54 J -31255997.58 -31255997.42 -31255997.26 0.0137 0.0049
 Mercury -90288-12-26 07:25 J -31255909.33 -31255909.19 -31255909.03 0.0137 0.0069
 Mercury -90287-03-24 13:11 J -31255821.07 -31255820.95 -31255820.82 0.0137 0.0089
 Venus -90287-03-27 20:37 J -31255817.74 -31255817.64 -31255817.51 0.0137 0.0117
 Mercury -90287-06-20 18:27 J -31255732.81 -31255732.73 -31255732.61 0.0137 0.0109
 Mercury -90287-09-17 00:13 J -31255644.54 -31255644.49 -31255644.42 0.0136 0.0128
 Moon -90274-10-04 02:51 J -31250879.51 -31250879.38 -31250879.25 0.0132 0.0114
 Earth -90274-10-04 05:01 J -31250879.37 -31250879.29 -31250879.16 0.0132 0.0120 *
 Earth -90273-10-07 09:49 J -31250510.26 -31250510.09 -31250509.92 0.0131 0.0098
 Moon -90273-10-07 11:30 J -31250510.16 -31250510.02 -31250509.84 0.0131 0.0100 *
 Moon -90272-10-11 10:32 J -31250141.25 -31250141.06 -31250140.83 0.0131 0.0078
 Earth -90272-10-11 13:39 J -31250141.13 -31250140.93 -31250140.72 0.0131 0.0077 *
 Earth -90271-10-15 16:47 J -31249772.02 -31249771.80 -31249771.56 0.0131 0.0055
 Moon -90271-10-15 19:11 J -31249771.92 -31249771.70 -31249771.47 0.0131 0.0052 *

Moon -90270-10-19 17:15 J -31249403.02 -31249402.78 -31249402.53 0.0131 0.0039
 Earth -90270-10-19 19:39 J -31249402.92 -31249402.68 -31249402.43 0.0131 0.0033 *
 Earth -90269-10-22 22:03 J -31249033.83 -31249033.58 -31249033.33 0.0131 0.0012
 Moon -90269-10-23 00:42 J -31249033.72 -31249033.47 -31249033.23 0.0131 0.0006 *
 Moon -90268-10-26 22:03 J -31248664.84 -31248664.58 -31248664.32 0.0131 0.0004
 Earth -90268-10-27 00:13 J -31248664.74 -31248664.49 -31248664.24 0.0131 0.0010 *
 Earth -90267-10-31 01:39 J -31248295.67 -31248295.43 -31248295.18 0.0131 0.0032
 Moon -90267-10-31 04:18 J -31248295.55 -31248295.32 -31248295.08 0.0131 0.0038 *
 Moon -90266-11-04 00:42 J -31247926.71 -31247926.47 -31247926.23 0.0132 0.0049
 Earth -90266-11-04 03:20 J -31247926.59 -31247926.36 -31247926.13 0.0132 0.0053 *
 Earth -90265-11-07 04:03 J -31247557.53 -31247557.33 -31247557.11 0.0132 0.0074
 Moon -90265-11-07 06:27 J -31247557.42 -31247557.23 -31247557.02 0.0132 0.0075 *
 Moon -90264-11-11 01:54 J -31247188.58 -31247188.42 -31247188.23 0.0132 0.0095
 Earth -90264-11-11 04:47 J -31247188.45 -31247188.30 -31247188.11 0.0132 0.0095 *
 Earth -90263-11-15 05:30 J -31246819.37 -31246819.27 -31246819.13 0.0132 0.0115
 Moon -90263-11-15 07:54 J -31246819.28 -31246819.17 -31246819.02 0.0132 0.0111 *
 Mars -90257-01-03 01:54 J -31244944.68 -31244944.42 -31244944.13 0.0134 0.0052
 Mars -90256-12-03 19:54 J -31244243.88 -31244243.67 -31244243.41 0.0135 0.0085
 Mercury -90245-06-17 16:03 J -31240394.87 -31240394.83 -31240394.77 0.0140 0.0131
 Mercury -90245-09-13 20:08 J -31240306.74 -31240306.66 -31240306.57 0.0141 0.0113
 Mercury -90245-12-11 00:13 J -31240218.59 -31240218.49 -31240218.38 0.0141 0.0095
 Venus -90245-12-19 11:44 J -31240210.10 -31240210.01 -31240209.90 0.0141 0.0124
 Mercury -90244-03-09 04:32 J -31240130.43 -31240130.31 -31240130.19 0.0141 0.0076
 Mercury -90244-06-05 08:37 J -31240042.27 -31240042.14 -31240042.01 0.0141 0.0058
 Venus -90244-08-02 19:39 J -31239983.88 -31239983.68 -31239983.49 0.0141 0.0056
 Mercury -90244-09-01 12:42 J -31239954.10 -31239953.97 -31239953.83 0.0141 0.0039
 Mercury -90244-11-28 17:01 J -31239865.93 -31239865.79 -31239865.64 0.0141 0.0020
 Mercury -90243-02-24 21:20 J -31239777.75 -31239777.61 -31239777.46 0.0141 0.0001
 Venus -90243-03-17 03:35 J -31239757.56 -31239757.35 -31239757.14 0.0141 0.0012
 Mercury -90243-05-24 01:39 J -31239689.57 -31239689.43 -31239689.29 0.0142 0.0018

Mercury -90243-08-20 05:59 J -31239601.39 -31239601.25 -31239601.11 0.0142 0.0038

Venus -90243-10-29 11:44 J -31239531.18 -31239531.01 -31239530.83 0.0142 0.0082

Mercury -90243-11-16 10:18 J -31239513.20 -31239513.07 -31239512.93 0.0142 0.0058

Mercury -90242-02-12 14:51 J -31239425.00 -31239424.88 -31239424.76 0.0142 0.0077

Mercury -90242-05-11 19:25 J -31239336.80 -31239336.69 -31239336.59 0.0142 0.0098

Mercury -90242-08-07 23:30 J -31239248.59 -31239248.52 -31239248.42 0.0142 0.0119

Mercury -90242-11-04 04:18 J -31239160.35 -31239160.32 -31239160.28 0.0142 0.0138

Earth -90231-03-25 01:25 J -31235366.48 -31235366.44 -31235366.37 0.0147 0.0143

Moon -90231-03-25 04:32 J -31235366.34 -31235366.31 -31235366.26 0.0147 0.0145

Moon -90230-03-30 01:54 J -31234996.55 -31234996.42 -31234996.26 0.0147 0.0119

Earth -90230-03-30 05:15 J -31234996.42 -31234996.28 -31234996.10 0.0147 0.0116 *

Earth -90229-04-03 10:47 J -31234626.26 -31234626.05 -31234625.85 0.0147 0.0086

Moon -90229-04-03 14:23 J -31234626.11 -31234625.90 -31234625.68 0.0147 0.0079 *

Moon -90228-04-08 13:11 J -31234256.18 -31234255.95 -31234255.72 0.0147 0.0063

Earth -90228-04-08 16:18 J -31234256.04 -31234255.82 -31234255.57 0.0147 0.0056 *

Earth -90227-04-13 23:15 J -31233885.78 -31233885.53 -31233885.27 0.0147 0.0025

Moon -90227-04-14 02:37 J -31233885.63 -31233885.39 -31233885.13 0.0147 0.0020 *

Moon -90226-04-19 04:18 J -31233515.59 -31233515.32 -31233515.06 0.0147 0.0006

Earth -90226-04-19 06:56 J -31233515.46 -31233515.21 -31233514.95 0.0147 0.0008 *

Earth -90225-04-23 15:06 J -31233145.12 -31233144.87 -31233144.62 0.0147 0.0039

Moon -90225-04-23 17:01 J -31233145.03 -31233144.79 -31233144.55 0.0147 0.0033 *

Moon -90224-04-28 22:03 J -31232774.80 -31232774.58 -31232774.35 0.0147 0.0076

Earth -90224-04-28 23:15 J -31232774.74 -31232774.53 -31232774.28 0.0147 0.0070 *

Moon -90223-05-04 08:23 J -31232404.33 -31232404.15 -31232403.95 0.0147 0.0094

Earth -90223-05-04 08:37 J -31232404.33 -31232404.14 -31232403.95 0.0147 0.0100 *

Earth -90222-05-09 17:30 J -31232033.88 -31232033.77 -31232033.64 0.0147 0.0130

Moon -90222-05-09 17:59 J -31232033.85 -31232033.75 -31232033.63 0.0147 0.0133 *

Mars -90217-07-28 21:20 J -31230126.91 -31230126.61 -31230126.29 0.0145 0.0017

Mercury -90206-11-13 08:51 J -31226002.22 -31226002.13 -31226002.04 0.0138 0.0118

Venus -90205-01-15 23:15 J -31225938.63 -31225938.53 -31225938.39 0.0138 0.0115

Mercury -90205-02-09 14:51 J -31225914.00 -31225913.88 -31225913.75 0.0138 0.0096

Mercury -90205-05-07 21:06 J -31225825.76 -31225825.62 -31225825.47 0.0138 0.0074

Mercury -90205-08-04 03:06 J -31225737.53 -31225737.37 -31225737.21 0.0138 0.0053

Venus -90205-08-29 09:06 J -31225712.32 -31225712.12 -31225711.90 0.0138 0.0048

Mercury -90205-10-31 09:06 J -31225649.28 -31225649.12 -31225648.95 0.0138 0.0032

Mercury -90204-01-27 15:06 J -31225561.04 -31225560.87 -31225560.70 0.0137 0.0010

Venus -90204-04-12 18:27 J -31225485.95 -31225485.73 -31225485.50 0.0137 0.0019

Mercury -90204-04-25 20:51 J -31225472.80 -31225472.63 -31225472.45 0.0137 0.0011

Mercury -90204-07-23 02:51 J -31225384.55 -31225384.38 -31225384.22 0.0137 0.0031

Mercury -90204-10-19 08:37 J -31225296.30 -31225296.14 -31225295.98 0.0137 0.0051

Venus -90204-11-25 03:20 J -31225259.52 -31225259.36 -31225259.17 0.0137 0.0084

Mercury -90203-01-15 14:08 J -31225208.05 -31225207.91 -31225207.76 0.0137 0.0072

Mercury -90203-04-13 19:39 J -31225119.79 -31225119.68 -31225119.54 0.0137 0.0092

Mercury -90203-07-11 01:11 J -31225031.53 -31225031.45 -31225031.34 0.0137 0.0112

Mercury -90203-10-07 06:56 J -31224943.25 -31224943.21 -31224943.16 0.0136 0.0131

Moon -90191-09-30 11:44 J -31220567.03 -31220567.01 -31220566.95 0.0132 0.0130

Moon -90190-10-04 11:01 J -31220198.12 -31220198.04 -31220197.91 0.0132 0.0120

Earth -90190-10-04 14:23 J -31220198.02 -31220197.90 -31220197.78 0.0132 0.0115 *

Earth -90189-10-07 18:27 J -31219828.89 -31219828.73 -31219828.54 0.0132 0.0095

Moon -90189-10-07 21:35 J -31219828.76 -31219828.60 -31219828.41 0.0132 0.0092 *

Moon -90188-10-11 19:54 J -31219459.87 -31219459.67 -31219459.44 0.0131 0.0073

Earth -90188-10-11 22:32 J -31219459.75 -31219459.56 -31219459.33 0.0131 0.0073 *

Earth -90187-10-16 02:08 J -31219090.64 -31219090.41 -31219090.18 0.0131 0.0052

Moon -90187-10-16 04:47 J -31219090.51 -31219090.30 -31219090.07 0.0131 0.0056 *

Moon -90186-10-20 02:08 J -31218721.66 -31218721.41 -31218721.16 0.0131 0.0026

Earth -90186-10-20 05:01 J -31218721.53 -31218721.29 -31218721.04 0.0131 0.0031 *

Earth -90185-10-23 07:39 J -31218352.43 -31218352.18 -31218351.93 0.0131 0.0009

Moon -90185-10-23 10:18 J -31218352.31 -31218352.07 -31218351.83 0.0131 0.0015 *

Moon -90184-10-27 06:42 J -31217983.47 -31217983.22 -31217982.96 0.0131 0.0020

Earth -90184-10-27 10:03 J -31217983.33 -31217983.08 -31217982.83 0.0131 0.0013 *

Earth	-90183-10-31 11:15 J	-31217614.26	-31217614.03	-31217613.77	0.0131	0.0035
Moon	-90183-10-31 14:08 J	-31217614.14	-31217613.91	-31217613.66	0.0131	0.0029 *
Moon	-90182-11-04 09:49 J	-31217245.31	-31217245.09	-31217244.86	0.0132	0.0059
Earth	-90182-11-04 12:42 J	-31217245.19	-31217244.97	-31217244.73	0.0132	0.0055 *
Earth	-90181-11-07 13:39 J	-31216876.12	-31216875.93	-31216875.71	0.0132	0.0076
Moon	-90181-11-07 17:01 J	-31216875.99	-31216875.79	-31216875.59	0.0132	0.0073 *
Moon	-90180-11-11 11:59 J	-31216507.17	-31216507.00	-31216506.82	0.0132	0.0094
Earth	-90180-11-11 14:37 J	-31216507.04	-31216506.89	-31216506.70	0.0132	0.0096 *
Earth	-90179-11-15 15:06 J	-31216137.97	-31216137.87	-31216137.73	0.0132	0.0116
Moon	-90179-11-15 18:27 J	-31216137.82	-31216137.73	-31216137.61	0.0132	0.0119 *
Moon	-90178-11-19 12:56 J	-31215768.98	-31215768.96	-31215768.89	0.0132	0.0131
Mars	-90175-09-27 04:03 J	-31214726.37	-31214726.33	-31214726.25	0.0133	0.0130
Mars	-90173-08-27 13:54 J	-31214026.22	-31214025.92	-31214025.62	0.0134	0.0001
Mercury	-90161-07-07 23:15 J	-31209693.58	-31209693.53	-31209693.47	0.0140	0.0127
Mercury	-90161-10-04 03:20 J	-31209605.45	-31209605.36	-31209605.27	0.0141	0.0109
Mercury	-90161-12-31 07:25 J	-31209517.29	-31209517.19	-31209517.08	0.0141	0.0091
Mercury	-90160-03-29 11:30 J	-31209429.14	-31209429.02	-31209428.89	0.0141	0.0073
Venus	-90160-04-02 03:35 J	-31209425.50	-31209425.35	-31209425.18	0.0141	0.0090
Mercury	-90160-06-25 15:35 J	-31209340.97	-31209340.85	-31209340.71	0.0141	0.0054
Mercury	-90160-09-21 19:54 J	-31209252.81	-31209252.67	-31209252.53	0.0141	0.0035
Venus	-90160-11-14 11:44 J	-31209199.22	-31209199.01	-31209198.80	0.0141	0.0022
Mercury	-90160-12-19 00:13 J	-31209164.63	-31209164.49	-31209164.35	0.0141	0.0016
Mercury	-90159-03-17 04:32 J	-31209076.46	-31209076.31	-31209076.17	0.0141	0.0004
Mercury	-90159-06-13 08:51 J	-31208988.28	-31208988.13	-31208987.99	0.0142	0.0022
Venus	-90159-06-28 19:54 J	-31208972.87	-31208972.67	-31208972.47	0.0142	0.0047
Mercury	-90159-09-09 13:11 J	-31208900.09	-31208899.95	-31208899.81	0.0142	0.0042
Mercury	-90159-12-06 17:15 J	-31208811.90	-31208811.78	-31208811.64	0.0142	0.0062
Venus	-90158-02-10 03:49 J	-31208746.44	-31208746.34	-31208746.20	0.0142	0.0117
Mercury	-90158-03-04 22:03 J	-31208723.70	-31208723.58	-31208723.46	0.0142	0.0081
Mercury	-90158-06-01 02:23 J	-31208635.50	-31208635.40	-31208635.30	0.0142	0.0101

Mercury -90158-08-28 06:56 J -31208547.28 -31208547.21 -31208547.13 0.0142 0.0122

Mercury -90158-11-24 11:15 J -31208459.03 -31208459.03 -31208459.01 0.0142 0.0142

Earth -90147-03-25 09:49 J -31204685.15 -31204685.09 -31204684.99 0.0147 0.0139

Moon -90147-03-25 12:56 J -31204685.03 -31204684.96 -31204684.85 0.0147 0.0138 *

Moon -90146-03-30 10:47 J -31204315.20 -31204315.05 -31204314.86 0.0147 0.0109

Earth -90146-03-30 14:23 J -31204315.06 -31204314.90 -31204314.73 0.0147 0.0111 *

Earth -90145-04-03 18:56 J -31203944.91 -31203944.71 -31203944.49 0.0147 0.0082

Moon -90145-04-03 22:32 J -31203944.76 -31203944.56 -31203944.35 0.0147 0.0088 *

Moon -90144-04-08 21:20 J -31203574.85 -31203574.61 -31203574.36 0.0147 0.0043

Earth -90144-04-09 01:11 J -31203574.69 -31203574.45 -31203574.21 0.0147 0.0052 *

Earth -90143-04-14 07:39 J -31203204.43 -31203204.18 -31203203.92 0.0147 0.0021

Moon -90143-04-14 11:15 J -31203204.28 -31203204.03 -31203203.78 0.0147 0.0026 *

Moon -90142-04-19 11:59 J -31202834.26 -31202834.00 -31202833.74 0.0147 0.0011

Earth -90142-04-19 15:20 J -31202834.12 -31202833.86 -31202833.60 0.0147 0.0010 *

Earth -90141-04-23 23:01 J -31202463.78 -31202463.54 -31202463.28 0.0147 0.0041

Moon -90141-04-24 01:54 J -31202463.65 -31202463.42 -31202463.17 0.0147 0.0044 *

Moon -90140-04-29 05:30 J -31202093.49 -31202093.27 -31202093.01 0.0147 0.0064

Earth -90140-04-29 07:39 J -31202093.41 -31202093.18 -31202092.96 0.0147 0.0072 *

Earth -90139-05-04 16:18 J -31201723.00 -31201722.82 -31201722.63 0.0147 0.0101

Moon -90139-05-04 17:30 J -31201722.93 -31201722.77 -31201722.59 0.0147 0.0109 *

Earth -90138-05-10 00:56 J -31201352.56 -31201352.46 -31201352.33 0.0147 0.0131

Moon -90138-05-10 01:11 J -31201352.56 -31201352.45 -31201352.30 0.0147 0.0128 *

Mars -90134-04-19 17:01 J -31199912.00 -31199911.79 -31199911.53 0.0145 0.0099

Mars -90132-03-24 12:42 J -31199207.22 -31199206.97 -31199206.70 0.0144 0.0082

Mercury -90122-09-06 09:06 J -31195389.13 -31195389.12 -31195389.08 0.0138 0.0137

Mercury -90122-12-03 15:20 J -31195300.94 -31195300.86 -31195300.75 0.0138 0.0115

Mercury -90121-02-29 21:49 J -31195212.72 -31195212.59 -31195212.46 0.0138 0.0092

Venus -90121-04-28 15:35 J -31195154.02 -31195153.85 -31195153.66 0.0138 0.0082

Mercury -90121-05-28 03:49 J -31195124.48 -31195124.34 -31195124.19 0.0138 0.0071

Mercury -90121-08-24 09:49 J -31195036.25 -31195036.09 -31195035.92 0.0138 0.0049

Mercury -90121-11-20 15:49 J -31194948.00 -31194947.84 -31194947.66 0.0138 0.0028

Venus -90121-12-11 01:11 J -31194927.67 -31194927.45 -31194927.22 0.0137 0.0015

Mercury -90120-02-16 21:49 J -31194859.76 -31194859.59 -31194859.41 0.0137 0.0008

Mercury -90120-05-16 03:49 J -31194771.51 -31194771.34 -31194771.17 0.0137 0.0014

Venus -90120-07-25 10:18 J -31194701.27 -31194701.07 -31194700.85 0.0137 0.0051

Mercury -90120-08-12 09:35 J -31194683.26 -31194683.10 -31194682.93 0.0137 0.0035

Mercury -90120-11-08 15:20 J -31194595.01 -31194594.86 -31194594.70 0.0137 0.0055

Mercury -90119-02-04 21:06 J -31194506.76 -31194506.62 -31194506.48 0.0137 0.0075

Venus -90119-03-08 19:11 J -31194474.81 -31194474.70 -31194474.57 0.0137 0.0116

Mercury -90119-05-04 02:37 J -31194418.50 -31194418.39 -31194418.26 0.0137 0.0095

Mercury -90119-07-31 08:08 J -31194330.24 -31194330.16 -31194330.06 0.0137 0.0115

Mercury -90119-10-27 13:54 J -31194241.95 -31194241.92 -31194241.89 0.0136 0.0134

Earth -90107-09-30 17:59 J -31189885.75 -31189885.75 -31189885.72 0.0132 0.0132

Moon -90106-10-04 19:39 J -31189516.81 -31189516.68 -31189516.50 0.0132 0.0106

Earth -90106-10-04 23:44 J -31189516.65 -31189516.51 -31189516.38 0.0132 0.0111 *

Earth -90105-10-08 03:49 J -31189147.50 -31189147.34 -31189147.13 0.0132 0.0091

Moon -90105-10-08 06:56 J -31189147.37 -31189147.21 -31189147.01 0.0132 0.0093 *

Moon -90104-10-12 04:47 J -31188778.50 -31188778.30 -31188778.07 0.0131 0.0070

Earth -90104-10-12 08:08 J -31188778.36 -31188778.16 -31188777.93 0.0131 0.0070 *

Earth -90103-10-16 11:44 J -31188409.23 -31188409.01 -31188408.76 0.0131 0.0049

Moon -90103-10-16 15:06 J -31188409.10 -31188408.87 -31188408.63 0.0131 0.0046 *

Moon -90102-10-20 11:59 J -31188040.25 -31188040.00 -31188039.75 0.0131 0.0032

Earth -90102-10-20 14:51 J -31188040.12 -31188039.88 -31188039.62 0.0131 0.0027 *

Earth -90101-10-23 17:44 J -31187671.01 -31187670.76 -31187670.51 0.0131 0.0006

Moon -90101-10-23 21:06 J -31187670.87 -31187670.62 -31187670.37 0.0131 0.0001 *

Moon -90100-10-27 16:47 J -31187302.05 -31187301.80 -31187301.54 0.0131 0.0009

Earth -90100-10-27 19:54 J -31187301.92 -31187301.67 -31187301.42 0.0131 0.0015 *

Earth -90099-10-31 21:06 J -31186932.85 -31186932.62 -31186932.37 0.0131 0.0036

Moon -90099-11-01 00:27 J -31186932.70 -31186932.48 -31186932.24 0.0131 0.0043 *

Moon -90098-11-04 19:11 J -31186563.92 -31186563.70 -31186563.46 0.0132 0.0052

Earth -90098-11-04 22:32 J -31186563.77 -31186563.56 -31186563.32 0.0132 0.0057 *
 Earth -90097-11-07 23:44 J -31186194.70 -31186194.51 -31186194.30 0.0132 0.0077
 Moon -90097-11-08 02:37 J -31186194.57 -31186194.39 -31186194.18 0.0132 0.0079 *
 Moon -90096-11-11 20:51 J -31185825.78 -31185825.63 -31185825.44 0.0132 0.0097
 Earth -90096-11-12 00:42 J -31185825.63 -31185825.47 -31185825.29 0.0132 0.0097 *
 Earth -90095-11-16 01:11 J -31185456.54 -31185456.45 -31185456.31 0.0132 0.0117
 Moon -90095-11-16 04:18 J -31185456.42 -31185456.32 -31185456.17 0.0132 0.0115 *
 Mars -90090-05-22 14:08 J -31183808.13 -31183807.91 -31183807.66 0.0133 0.0081
 Mars -90088-04-22 03:49 J -31183107.61 -31183107.34 -31183107.05 0.0134 0.0051
 Mercury -90077-05-01 02:37 J -31179080.39 -31179080.39 -31179080.39 0.0140 0.0140
 Mercury -90077-07-28 06:27 J -31178992.29 -31178992.23 -31178992.16 0.0140 0.0123
 Mercury -90077-10-24 10:32 J -31178904.15 -31178904.06 -31178903.96 0.0141 0.0105
 Venus -90077-11-30 12:27 J -31178867.06 -31178866.98 -31178866.86 0.0141 0.0123
 Mercury -90076-01-20 14:37 J -31178816.00 -31178815.89 -31178815.77 0.0141 0.0087
 Mercury -90076-04-18 18:56 J -31178727.84 -31178727.71 -31178727.59 0.0141 0.0068
 Venus -90076-07-14 20:23 J -31178640.84 -31178640.65 -31178640.45 0.0141 0.0055
 Mercury -90076-07-15 23:01 J -31178639.67 -31178639.54 -31178639.40 0.0141 0.0050
 Mercury -90076-10-12 03:06 J -31178551.50 -31178551.37 -31178551.22 0.0141 0.0031
 Mercury -90075-01-08 07:25 J -31178463.33 -31178463.19 -31178463.04 0.0141 0.0012
 Venus -90075-02-26 04:18 J -31178414.53 -31178414.32 -31178414.10 0.0141 0.0014
 Mercury -90075-04-06 11:44 J -31178375.15 -31178375.01 -31178374.87 0.0141 0.0007
 Mercury -90075-07-03 16:03 J -31178286.97 -31178286.83 -31178286.69 0.0142 0.0027
 Mercury -90075-09-29 20:23 J -31178198.79 -31178198.65 -31178198.51 0.0142 0.0046
 Venus -90075-10-10 12:27 J -31178188.14 -31178187.98 -31178187.80 0.0142 0.0083
 Mercury -90075-12-27 00:42 J -31178110.59 -31178110.47 -31178110.34 0.0142 0.0066
 Mercury -90074-03-25 05:01 J -31178022.40 -31178022.29 -31178022.16 0.0142 0.0086
 Mercury -90074-06-21 09:35 J -31177934.19 -31177934.10 -31177934.00 0.0142 0.0106
 Mercury -90074-09-17 14:08 J -31177845.97 -31177845.91 -31177845.84 0.0142 0.0126
 Earth -90063-03-25 19:25 J -31174003.77 -31174003.69 -31174003.57 0.0147 0.0134
 Moon -90063-03-25 22:03 J -31174003.67 -31174003.58 -31174003.48 0.0147 0.0136 *

Moon -90062-03-30 20:37 J -31173633.79 -31173633.64 -31173633.46 0.0147 0.0109
 Earth -90062-03-30 23:30 J -31173633.68 -31173633.52 -31173633.33 0.0147 0.0106 *
 Earth -90061-04-04 04:32 J -31173263.52 -31173263.31 -31173263.09 0.0147 0.0077
 Moon -90061-04-04 08:08 J -31173263.39 -31173263.16 -31173262.94 0.0147 0.0070 *
 Moon -90060-04-09 06:56 J -31172893.44 -31172893.21 -31172892.97 0.0147 0.0055
 Earth -90060-04-09 10:03 J -31172893.31 -31172893.08 -31172892.82 0.0147 0.0048 *
 Earth -90059-04-14 16:47 J -31172523.05 -31172522.80 -31172522.54 0.0147 0.0018
 Moon -90059-04-14 20:37 J -31172522.89 -31172522.64 -31172522.38 0.0147 0.0012 *
 Moon -90058-04-19 20:37 J -31172152.89 -31172152.64 -31172152.38 0.0147 0.0010
 Earth -90058-04-20 00:13 J -31172152.74 -31172152.49 -31172152.23 0.0147 0.0013 *
 Earth -90057-04-24 07:39 J -31171782.42 -31171782.18 -31171781.93 0.0147 0.0043
 Moon -90057-04-24 10:47 J -31171782.29 -31171782.05 -31171781.81 0.0147 0.0039 *
 Moon -90056-04-29 12:56 J -31171412.17 -31171411.96 -31171411.73 0.0147 0.0080
 Earth -90056-04-29 15:49 J -31171412.05 -31171411.84 -31171411.60 0.0147 0.0073 *
 Earth -90055-05-05 00:27 J -31171041.65 -31171041.48 -31171041.28 0.0147 0.0103
 Moon -90055-05-05 02:08 J -31171041.60 -31171041.41 -31171041.22 0.0147 0.0096 *
 Moon -90054-05-10 07:54 J -31170671.25 -31170671.17 -31170671.05 0.0147 0.0136
 Earth -90054-05-10 08:51 J -31170671.22 -31170671.13 -31170670.99 0.0147 0.0132 *
 Mars -90050-12-14 13:11 J -31168992.26 -31168991.95 -31168991.64 0.0145 0.0031
 Mercury -90038-09-26 15:49 J -31164687.88 -31164687.84 -31164687.79 0.0138 0.0134
 Mercury -90038-12-23 21:49 J -31164599.68 -31164599.59 -31164599.47 0.0138 0.0112
 Venus -90038-12-27 21:49 J -31164595.71 -31164595.59 -31164595.48 0.0138 0.0117
 Mercury -90037-03-21 04:03 J -31164511.45 -31164511.33 -31164511.19 0.0138 0.0090
 Mercury -90037-06-17 10:18 J -31164423.21 -31164423.07 -31164422.91 0.0138 0.0068
 Venus -90037-08-10 07:11 J -31164369.40 -31164369.20 -31164368.98 0.0138 0.0050
 Mercury -90037-09-13 16:18 J -31164334.97 -31164334.82 -31164334.65 0.0138 0.0047
 Mercury -90037-12-10 22:32 J -31164246.73 -31164246.56 -31164246.39 0.0137 0.0025
 Mercury -90036-03-09 04:32 J -31164158.49 -31164158.31 -31164158.14 0.0137 0.0005
 Venus -90036-03-24 16:47 J -31164143.02 -31164142.80 -31164142.58 0.0137 0.0017
 Mercury -90036-06-05 10:18 J -31164070.24 -31164070.07 -31164069.90 0.0137 0.0017

Mercury -90036-09-01 16:03 J -31163981.99 -31163981.83 -31163981.66 0.0137 0.0037

Venus -90036-11-06 01:25 J -31163916.60 -31163916.44 -31163916.24 0.0137 0.0083

Mercury -90036-11-28 21:49 J -31163893.74 -31163893.59 -31163893.43 0.0137 0.0058

Mercury -90035-02-25 03:35 J -31163805.48 -31163805.35 -31163805.21 0.0137 0.0078

Mercury -90035-05-24 09:06 J -31163717.23 -31163717.12 -31163716.99 0.0137 0.0098

Mercury -90035-08-20 14:37 J -31163628.96 -31163628.89 -31163628.79 0.0137 0.0118

Earth -90023-10-01 01:54 J -31159204.46 -31159204.42 -31159204.34 0.0132 0.0128

Moon -90023-10-01 05:30 J -31159204.35 -31159204.27 -31159204.15 0.0132 0.0121 *

Moon -90022-10-05 04:32 J -31158835.44 -31158835.31 -31158835.18 0.0132 0.0112

Earth -90022-10-05 07:54 J -31158835.31 -31158835.17 -31158835.02 0.0132 0.0107 *

Earth -90021-10-08 12:27 J -31158466.16 -31158465.98 -31158465.78 0.0132 0.0087

Moon -90021-10-08 16:03 J -31158466.01 -31158465.83 -31158465.62 0.0132 0.0084 *

Moon -90020-10-12 13:39 J -31158097.15 -31158096.93 -31158096.71 0.0131 0.0067

Earth -90020-10-12 17:01 J -31158097.01 -31158096.79 -31158096.57 0.0131 0.0066 *

Earth -90019-10-16 20:08 J -31157727.88 -31157727.66 -31157727.40 0.0131 0.0046

Moon -90019-10-16 23:44 J -31157727.73 -31157727.51 -31157727.27 0.0131 0.0049 *

Moon -90018-10-20 20:08 J -31157358.91 -31157358.66 -31157358.41 0.0131 0.0020

Earth -90018-10-20 23:44 J -31157358.75 -31157358.51 -31157358.26 0.0131 0.0024 *

Earth -90017-10-24 02:23 J -31156989.65 -31156989.40 -31156989.15 0.0131 0.0003

Moon -90017-10-24 05:44 J -31156989.51 -31156989.26 -31156989.01 0.0131 0.0010 *

Moon -90016-10-28 00:56 J -31156620.71 -31156620.46 -31156620.21 0.0131 0.0025

Earth -90016-10-28 04:32 J -31156620.56 -31156620.31 -31156620.06 0.0131 0.0017 *

Earth -90015-11-01 06:13 J -31156251.48 -31156251.24 -31156251.00 0.0132 0.0038

Moon -90015-11-01 09:35 J -31156251.34 -31156251.10 -31156250.86 0.0132 0.0032 *

Moon -90014-11-05 04:03 J -31155882.54 -31155882.33 -31155882.10 0.0132 0.0063

Earth -90014-11-05 07:25 J -31155882.40 -31155882.19 -31155881.95 0.0132 0.0059 *

Earth -90013-11-08 08:23 J -31155513.33 -31155513.15 -31155512.93 0.0132 0.0079

Moon -90013-11-08 12:27 J -31155513.18 -31155512.98 -31155512.78 0.0132 0.0075 *

Moon -90012-11-12 06:13 J -31155144.39 -31155144.24 -31155144.05 0.0132 0.0098

Earth -90012-11-12 09:49 J -31155144.24 -31155144.09 -31155143.91 0.0132 0.0098 *

Earth	-90011-11-16 10:32 J	-31154775.16	-31154775.06	-31154774.93	0.0132	0.0118
Moon	-90011-11-16 14:23 J	-31154774.99	-31154774.90	-31154774.79	0.0132	0.0121 *
Moon	-90010-11-20 08:23 J	-31154406.15	-31154406.15	-31154406.13	0.0132	0.0132
Mars	-90005-01-15 00:42 J	-31152889.76	-31152889.47	-31152889.18	0.0134	0.0031
Mars	-90004-12-15 16:18 J	-31152188.99	-31152188.82	-31152188.61	0.0135	0.0103

90TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 90th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-89993-05-21 09:35 J	-31148379.12	-31148379.10	-31148379.06	0.0140	0.0137		
Mercury	-89993-08-17 13:39 J	-31148291.00	-31148290.93	-31148290.85	0.0140	0.0119		
Mercury	-89993-11-13 17:44 J	-31148202.85	-31148202.76	-31148202.66	0.0141	0.0101		
Mercury	-89992-02-09 21:49 J	-31148114.70	-31148114.59	-31148114.47	0.0141	0.0083		
Venus	-89992-03-14 05:01 J	-31148082.45	-31148082.29	-31148082.12	0.0141	0.0088		
Mercury	-89992-05-09 02:08 J	-31148026.54	-31148026.41	-31148026.28	0.0141	0.0064		
Mercury	-89992-08-05 06:13 J	-31147938.37	-31147938.24	-31147938.10	0.0141	0.0046		
Venus	-89992-10-26 12:56 J	-31147856.17	-31147855.96	-31147855.75	0.0141	0.0020		
Mercury	-89992-11-01 10:18 J	-31147850.20	-31147850.07	-31147849.92	0.0141	0.0028		
Mercury	-89991-01-28 14:37 J	-31147762.03	-31147761.89	-31147761.74	0.0141	0.0008		
Mercury	-89991-04-26 18:56 J	-31147673.85	-31147673.71	-31147673.56	0.0141	0.0011		
Venus	-89991-06-09 21:06 J	-31147629.82	-31147629.62	-31147629.42	0.0141	0.0049		
Mercury	-89991-07-23 23:15 J	-31147585.67	-31147585.53	-31147585.39	0.0142	0.0031		

Mercury -89991-10-20 03:35 J -31147497.48 -31147497.35 -31147497.21 0.0142 0.0050

Mercury -89990-01-16 07:54 J -31147409.29 -31147409.17 -31147409.04 0.0142 0.0070

Venus -89990-01-22 05:01 J -31147403.39 -31147403.29 -31147403.16 0.0142 0.0119

Mercury -89990-04-14 12:13 J -31147321.09 -31147320.99 -31147320.87 0.0142 0.0090

Mercury -89990-07-11 16:47 J -31147232.88 -31147232.80 -31147232.70 0.0142 0.0110

Mercury -89990-10-07 21:20 J -31147144.66 -31147144.61 -31147144.55 0.0142 0.0130

Earth -89979-03-26 05:30 J -31143322.38 -31143322.27 -31143322.14 0.0147 0.0129

Moon -89979-03-26 07:11 J -31143322.31 -31143322.20 -31143322.05 0.0147 0.0127 *

Moon -89978-03-31 06:56 J -31142952.38 -31142952.21 -31142952.02 0.0147 0.0100

Earth -89978-03-31 09:06 J -31142952.28 -31142952.12 -31142951.92 0.0147 0.0102 *

Earth -89977-04-04 13:54 J -31142582.13 -31142581.92 -31142581.69 0.0147 0.0073

Moon -89977-04-04 16:32 J -31142582.01 -31142581.81 -31142581.58 0.0147 0.0080 *

Moon -89976-04-09 16:03 J -31142212.07 -31142211.83 -31142211.58 0.0147 0.0036

Earth -89976-04-09 19:39 J -31142211.92 -31142211.68 -31142211.43 0.0147 0.0044 *

Earth -89975-04-15 02:08 J -31141841.67 -31141841.41 -31141841.16 0.0147 0.0015

Moon -89975-04-15 05:30 J -31141841.52 -31141841.27 -31141841.01 0.0147 0.0021 *

Moon -89974-04-20 05:15 J -31141471.53 -31141471.28 -31141471.02 0.0147 0.0017

Earth -89974-04-20 09:06 J -31141471.38 -31141471.12 -31141470.87 0.0147 0.0015 *

Earth -89973-04-24 16:32 J -31141101.05 -31141100.81 -31141100.56 0.0147 0.0045

Moon -89973-04-24 19:54 J -31141100.90 -31141100.67 -31141100.42 0.0147 0.0048 *

Moon -89972-04-29 21:35 J -31140730.82 -31140730.60 -31140730.35 0.0147 0.0068

Earth -89972-04-30 00:27 J -31140730.69 -31140730.48 -31140730.24 0.0147 0.0075 *

Earth -89971-05-05 08:51 J -31140360.30 -31140360.13 -31140359.93 0.0147 0.0104

Moon -89971-05-05 11:30 J -31140360.17 -31140360.02 -31140359.85 0.0147 0.0112 *

Moon -89970-05-10 15:49 J -31139989.95 -31139989.84 -31139989.69 0.0147 0.0128

Earth -89970-05-10 17:44 J -31139989.86 -31139989.76 -31139989.64 0.0147 0.0132 *

Mars -89965-08-09 07:11 J -31138072.49 -31138072.20 -31138071.88 0.0144 0.0036

Mercury -89954-10-16 22:32 J -31133986.61 -31133986.56 -31133986.50 0.0138 0.0130

Mercury -89953-01-13 04:47 J -31133898.40 -31133898.30 -31133898.19 0.0138 0.0108

Venus -89953-04-09 13:25 J -31133811.10 -31133810.94 -31133810.75 0.0138 0.0084

Mercury -89953-04-10 11:01 J -31133810.17 -31133810.04 -31133809.90 0.0138 0.0086

Mercury -89953-07-07 17:01 J -31133721.93 -31133721.79 -31133721.63 0.0138 0.0065

Mercury -89953-10-03 23:15 J -31133633.69 -31133633.53 -31133633.36 0.0138 0.0043

Venus -89953-11-21 23:30 J -31133584.74 -31133584.52 -31133584.30 0.0137 0.0017

Mercury -89953-12-31 05:15 J -31133545.45 -31133545.28 -31133545.11 0.0137 0.0022

Mercury -89952-03-29 11:15 J -31133457.20 -31133457.03 -31133456.86 0.0137 0.0001

Mercury -89952-06-25 17:01 J -31133368.95 -31133368.79 -31133368.61 0.0137 0.0020

Venus -89952-07-06 08:51 J -31133358.34 -31133358.13 -31133357.93 0.0137 0.0050

Mercury -89952-09-21 22:47 J -31133280.70 -31133280.55 -31133280.38 0.0137 0.0041

Mercury -89952-12-19 04:47 J -31133192.45 -31133192.30 -31133192.15 0.0137 0.0061

Venus -89951-02-17 17:30 J -31133131.88 -31133131.77 -31133131.64 0.0137 0.0115

Mercury -89951-03-17 10:18 J -31133104.20 -31133104.07 -31133103.93 0.0137 0.0081

Mercury -89951-06-13 16:03 J -31133015.94 -31133015.83 -31133015.71 0.0137 0.0101

Mercury -89951-09-09 21:35 J -31132927.67 -31132927.60 -31132927.51 0.0136 0.0121

Earth -89939-10-01 11:01 J -31128523.11 -31128523.04 -31128522.94 0.0132 0.0123

Moon -89939-10-01 14:23 J -31128522.92 -31128522.90 -31128522.84 0.0132 0.0130

Moon -89938-10-05 12:56 J -31128154.12 -31128153.96 -31128153.78 0.0132 0.0097

Earth -89938-10-05 17:01 J -31128153.94 -31128153.79 -31128153.63 0.0132 0.0103 *

Earth -89937-10-08 21:49 J -31127784.78 -31127784.59 -31127784.39 0.0132 0.0083

Moon -89937-10-09 01:25 J -31127784.63 -31127784.44 -31127784.25 0.0132 0.0086 *

Moon -89936-10-12 22:32 J -31127415.78 -31127415.56 -31127415.34 0.0132 0.0062

Earth -89936-10-13 01:54 J -31127415.63 -31127415.42 -31127415.18 0.0132 0.0063 *

Earth -89935-10-17 05:44 J -31127046.49 -31127046.26 -31127046.01 0.0131 0.0042

Moon -89935-10-17 09:20 J -31127046.34 -31127046.11 -31127045.86 0.0131 0.0040 *

Moon -89934-10-21 05:30 J -31126677.51 -31126677.27 -31126677.02 0.0131 0.0026

Earth -89934-10-21 08:51 J -31126677.37 -31126677.13 -31126676.87 0.0131 0.0022 *

Earth -89933-10-24 11:30 J -31126308.27 -31126308.02 -31126307.76 0.0131 0.0002

Moon -89933-10-24 15:20 J -31126308.11 -31126307.86 -31126307.61 0.0131 0.0006 *

Moon -89932-10-28 10:18 J -31125939.32 -31125939.07 -31125938.82 0.0131 0.0013

Earth -89932-10-28 13:39 J -31125939.17 -31125938.93 -31125938.68 0.0131 0.0020 *

Earth	-89931-11-01 15:06 J	-31125570.10	-31125569.87	-31125569.62	0.0132	0.0040
Moon	-89931-11-01 18:42 J	-31125569.94	-31125569.72	-31125569.47	0.0132	0.0047 *
Moon	-89930-11-05 13:11 J	-31125201.17	-31125200.95	-31125200.72	0.0132	0.0054
Earth	-89930-11-05 16:47 J	-31125201.02	-31125200.80	-31125200.57	0.0132	0.0060 *
Earth	-89929-11-08 17:44 J	-31124831.94	-31124831.76	-31124831.55	0.0132	0.0080
Moon	-89929-11-08 21:20 J	-31124831.79	-31124831.61	-31124831.40	0.0132	0.0082 *
Moon	-89928-11-12 15:20 J	-31124463.02	-31124462.86	-31124462.69	0.0132	0.0098
Earth	-89928-11-12 18:56 J	-31124462.86	-31124462.71	-31124462.53	0.0132	0.0099 *
Earth	-89927-11-16 19:54 J	-31124093.76	-31124093.67	-31124093.55	0.0132	0.0118
Moon	-89927-11-16 23:15 J	-31124093.63	-31124093.53	-31124093.40	0.0132	0.0116 *
Mars	-89923-10-09 02:37 J	-31122671.54	-31122671.39	-31122671.21	0.0133	0.0110
Mars	-89921-09-08 10:03 J	-31121971.37	-31121971.08	-31121970.77	0.0134	0.0019
Mercury	-89909-06-10 16:47 J	-31117677.84	-31117677.80	-31117677.75	0.0140	0.0133
Mercury	-89909-09-06 20:51 J	-31117589.71	-31117589.63	-31117589.55	0.0140	0.0115
Venus	-89909-11-11 13:25 J	-31117524.04	-31117523.94	-31117523.83	0.0141	0.0122
Mercury	-89909-12-04 00:42 J	-31117501.56	-31117501.47	-31117501.36	0.0141	0.0098
Mercury	-89908-03-02 05:01 J	-31117413.40	-31117413.29	-31117413.17	0.0141	0.0079
Mercury	-89908-05-29 09:06 J	-31117325.25	-31117325.12	-31117324.99	0.0141	0.0061
Venus	-89908-06-25 21:06 J	-31117297.81	-31117297.62	-31117297.42	0.0141	0.0054
Mercury	-89908-08-25 13:25 J	-31117237.08	-31117236.94	-31117236.81	0.0141	0.0042
Mercury	-89908-11-21 17:30 J	-31117148.91	-31117148.77	-31117148.63	0.0141	0.0023
Venus	-89907-02-07 05:01 J	-31117071.50	-31117071.29	-31117071.08	0.0141	0.0014
Mercury	-89907-02-17 21:49 J	-31117060.74	-31117060.59	-31117060.45	0.0141	0.0005
Mercury	-89907-05-17 01:54 J	-31116972.56	-31116972.42	-31116972.27	0.0141	0.0016
Mercury	-89907-08-13 06:13 J	-31116884.38	-31116884.24	-31116884.09	0.0142	0.0035
Venus	-89907-09-21 12:56 J	-31116845.12	-31116844.96	-31116844.78	0.0142	0.0084
Mercury	-89907-11-09 10:32 J	-31116796.19	-31116796.06	-31116795.92	0.0142	0.0054
Mercury	-89906-02-05 14:51 J	-31116707.99	-31116707.88	-31116707.75	0.0142	0.0074
Mercury	-89906-05-04 19:25 J	-31116619.79	-31116619.69	-31116619.58	0.0142	0.0094
Mercury	-89906-07-31 23:59 J	-31116531.58	-31116531.50	-31116531.41	0.0142	0.0114

Mercury -89906-10-28 04:18 J -31116443.36 -31116443.32 -31116443.26 0.0142 0.0134

Moon -89896-03-21 12:27 J -31113011.02 -31113010.98 -31113010.93 0.0147 0.0144

Earth -89895-03-26 15:20 J -31112640.98 -31112640.86 -31112640.71 0.0147 0.0124

Moon -89895-03-26 16:32 J -31112640.93 -31112640.81 -31112640.67 0.0147 0.0127 *

Moon -89894-03-31 17:15 J -31112270.95 -31112270.78 -31112270.58 0.0147 0.0099

Earth -89894-03-31 18:56 J -31112270.89 -31112270.71 -31112270.51 0.0147 0.0097 *

Earth -89893-04-04 23:30 J -31111900.73 -31111900.52 -31111900.28 0.0147 0.0069

Moon -89893-04-05 02:23 J -31111900.63 -31111900.40 -31111900.16 0.0147 0.0063 *

Moon -89892-04-10 02:23 J -31111530.63 -31111530.40 -31111530.16 0.0147 0.0048

Earth -89892-04-10 05:15 J -31111530.52 -31111530.28 -31111530.03 0.0147 0.0040 *

Earth -89891-04-15 11:30 J -31111160.28 -31111160.02 -31111159.77 0.0147 0.0011

Moon -89891-04-15 15:06 J -31111160.13 -31111159.87 -31111159.61 0.0147 0.0005 *

Moon -89890-04-20 14:51 J -31110790.14 -31110789.88 -31110789.63 0.0147 0.0015

Earth -89890-04-20 18:27 J -31110789.99 -31110789.73 -31110789.48 0.0147 0.0018 *

Earth -89889-04-25 01:39 J -31110419.67 -31110419.43 -31110419.18 0.0147 0.0047

Moon -89889-04-25 05:01 J -31110419.53 -31110419.29 -31110419.04 0.0147 0.0044 *

Moon -89888-04-30 05:44 J -31110049.46 -31110049.26 -31110049.03 0.0147 0.0083

Earth -89888-04-30 09:35 J -31110049.31 -31110049.10 -31110048.87 0.0147 0.0076 *

Earth -89887-05-05 17:44 J -31109678.93 -31109678.76 -31109678.57 0.0147 0.0105

Moon -89887-05-05 20:23 J -31109678.82 -31109678.65 -31109678.45 0.0147 0.0098 *

Moon -89886-05-10 23:44 J -31109308.58 -31109308.51 -31109308.41 0.0147 0.0138

Earth -89886-05-11 02:08 J -31109308.50 -31109308.41 -31109308.29 0.0147 0.0133 *

Mars -89882-05-01 03:20 J -31107857.61 -31107857.36 -31107857.07 0.0145 0.0078

Mars -89880-04-05 01:11 J -31107152.67 -31107152.45 -31107152.22 0.0144 0.0099

Mercury -89870-11-06 05:15 J -31103285.34 -31103285.28 -31103285.21 0.0138 0.0127

Venus -89870-12-08 19:39 J -31103252.78 -31103252.68 -31103252.56 0.0138 0.0118

Mercury -89869-02-02 11:30 J -31103197.13 -31103197.02 -31103196.91 0.0138 0.0105

Mercury -89869-04-30 17:30 J -31103108.90 -31103108.77 -31103108.62 0.0138 0.0084

Venus -89869-07-22 05:30 J -31103026.47 -31103026.27 -31103026.06 0.0138 0.0051

Mercury -89869-07-27 23:44 J -31103020.66 -31103020.51 -31103020.35 0.0138 0.0062

Mercury -89869-10-24 05:44 J -31102932.42 -31102932.26 -31102932.09 0.0137 0.0041

Mercury -89868-01-20 11:59 J -31102844.17 -31102844.00 -31102843.83 0.0137 0.0019

Venus -89868-03-05 15:06 J -31102800.09 -31102799.87 -31102799.65 0.0137 0.0016

Mercury -89868-04-18 17:59 J -31102755.93 -31102755.75 -31102755.58 0.0137 0.0003

Mercury -89868-07-15 23:44 J -31102667.68 -31102667.51 -31102667.34 0.0137 0.0023

Mercury -89868-10-12 05:30 J -31102579.43 -31102579.27 -31102579.10 0.0137 0.0044

Venus -89868-10-18 00:13 J -31102573.66 -31102573.49 -31102573.31 0.0137 0.0081

Mercury -89867-01-08 11:15 J -31102491.17 -31102491.03 -31102490.87 0.0137 0.0064

Mercury -89867-04-06 17:01 J -31102402.92 -31102402.79 -31102402.65 0.0137 0.0084

Mercury -89867-07-03 22:32 J -31102314.66 -31102314.56 -31102314.44 0.0137 0.0104

Mercury -89867-09-30 04:03 J -31102226.38 -31102226.33 -31102226.24 0.0136 0.0124

Earth -89855-10-01 18:56 J -31097841.80 -31097841.71 -31097841.58 0.0132 0.0119

Moon -89855-10-01 22:32 J -31097841.67 -31097841.56 -31097841.40 0.0132 0.0112 *

Moon -89854-10-05 21:35 J -31097472.74 -31097472.60 -31097472.44 0.0132 0.0105

Earth -89854-10-06 00:56 J -31097472.62 -31097472.46 -31097472.28 0.0132 0.0099 *

Earth -89853-10-09 05:59 J -31097103.44 -31097103.25 -31097103.04 0.0132 0.0079

Moon -89853-10-09 09:35 J -31097103.29 -31097103.10 -31097102.88 0.0132 0.0076 *

Moon -89852-10-13 07:11 J -31096734.42 -31096734.20 -31096733.98 0.0132 0.0061

Earth -89852-10-13 10:32 J -31096734.28 -31096734.06 -31096733.83 0.0132 0.0059 *

Earth -89851-10-17 13:54 J -31096365.15 -31096364.92 -31096364.67 0.0131 0.0039

Moon -89851-10-17 17:30 J -31096365.00 -31096364.77 -31096364.52 0.0131 0.0041 *

Moon -89850-10-21 13:39 J -31095996.18 -31095995.93 -31095995.68 0.0131 0.0015

Earth -89850-10-21 17:15 J -31095996.03 -31095995.78 -31095995.53 0.0131 0.0018 *

Earth -89849-10-24 19:39 J -31095626.93 -31095626.68 -31095626.42 0.0131 0.0003

Moon -89849-10-24 23:15 J -31095626.79 -31095626.53 -31095626.28 0.0131 0.0005 *

Moon -89848-10-28 17:59 J -31095257.99 -31095257.75 -31095257.50 0.0132 0.0029

Earth -89848-10-28 21:49 J -31095257.84 -31095257.59 -31095257.34 0.0132 0.0022 *

Earth -89847-11-01 23:15 J -31094888.76 -31094888.53 -31094888.28 0.0132 0.0042

Moon -89847-11-02 02:51 J -31094888.62 -31094888.38 -31094888.13 0.0132 0.0035 *

Moon -89846-11-05 21:20 J -31094519.81 -31094519.61 -31094519.38 0.0132 0.0067

Earth -89846-11-06 00:42 J -31094519.67 -31094519.47 -31094519.23 0.0132 0.0062 *
 Earth -89845-11-09 02:08 J -31094150.60 -31094150.41 -31094150.20 0.0132 0.0081
 Moon -89845-11-09 05:44 J -31094150.45 -31094150.26 -31094150.05 0.0132 0.0077 *
 Moon -89844-11-13 00:13 J -31093781.64 -31093781.49 -31093781.32 0.0132 0.0101
 Earth -89844-11-13 03:20 J -31093781.51 -31093781.36 -31093781.18 0.0132 0.0100 *
 Earth -89843-11-17 04:18 J -31093412.41 -31093412.32 -31093412.19 0.0132 0.0119
 Moon -89843-11-17 08:08 J -31093412.25 -31093412.16 -31093412.05 0.0132 0.0122 *
 Mars -89838-06-03 08:23 J -31091753.42 -31091753.15 -31091752.89 0.0134 0.0062
 Mars -89836-05-03 18:56 J -31091052.95 -31091052.71 -31091052.43 0.0134 0.0068
 Mercury -89825-06-30 23:44 J -31086976.56 -31086976.51 -31086976.46 0.0140 0.0130
 Mercury -89825-09-27 03:49 J -31086888.42 -31086888.34 -31086888.26 0.0140 0.0113
 Mercury -89825-12-24 07:39 J -31086800.27 -31086800.18 -31086800.07 0.0141 0.0095
 Venus -89824-02-23 04:47 J -31086739.46 -31086739.30 -31086739.13 0.0141 0.0089
 Mercury -89824-03-22 11:44 J -31086712.12 -31086712.01 -31086711.88 0.0141 0.0077
 Mercury -89824-06-18 16:03 J -31086623.96 -31086623.83 -31086623.70 0.0141 0.0058
 Mercury -89824-09-14 20:08 J -31086535.79 -31086535.66 -31086535.52 0.0141 0.0040
 Venus -89824-10-07 12:27 J -31086513.19 -31086512.98 -31086512.76 0.0141 0.0021
 Mercury -89824-12-12 00:27 J -31086447.62 -31086447.48 -31086447.34 0.0141 0.0021
 Mercury -89823-03-10 04:47 J -31086359.45 -31086359.30 -31086359.16 0.0141 0.0005
 Venus -89823-05-21 20:23 J -31086286.84 -31086286.65 -31086286.44 0.0141 0.0048
 Mercury -89823-06-06 08:51 J -31086271.27 -31086271.13 -31086270.98 0.0141 0.0018
 Mercury -89823-09-02 13:11 J -31086183.09 -31086182.95 -31086182.81 0.0142 0.0037
 Mercury -89823-11-29 17:30 J -31086094.90 -31086094.77 -31086094.63 0.0142 0.0057
 Venus -89822-01-03 04:47 J -31086060.42 -31086060.30 -31086060.18 0.0142 0.0117
 Mercury -89822-02-25 21:49 J -31086006.71 -31086006.59 -31086006.46 0.0142 0.0077
 Mercury -89822-05-25 02:23 J -31085918.51 -31085918.40 -31085918.29 0.0142 0.0096
 Mercury -89822-08-21 06:42 J -31085830.29 -31085830.22 -31085830.13 0.0142 0.0117
 Mercury -89822-11-17 11:15 J -31085742.06 -31085742.03 -31085741.99 0.0142 0.0137
 Earth -89812-03-21 21:06 J -31082329.63 -31082329.62 -31082329.55 0.0146 0.0145
 Moon -89811-03-27 00:13 J -31081959.64 -31081959.49 -31081959.32 0.0147 0.0115

Earth	-89811-03-26 23:59 J	-31081959.63	-31081959.50	-31081959.34	0.0147	0.0119	*
Moon	-89810-04-01 02:08 J	-31081589.58	-31081589.41	-31081589.20	0.0147	0.0092	
Earth	-89810-04-01 03:49 J	-31081589.54	-31081589.34	-31081589.14	0.0147	0.0092	*
Earth	-89809-04-05 07:54 J	-31081219.38	-31081219.17	-31081218.93	0.0147	0.0065	
Moon	-89809-04-05 09:49 J	-31081219.32	-31081219.09	-31081218.86	0.0147	0.0070	*
Moon	-89808-04-10 10:47 J	-31080849.29	-31080849.05	-31080848.80	0.0147	0.0029	
Earth	-89808-04-10 13:25 J	-31080849.18	-31080848.94	-31080848.68	0.0147	0.0037	*
Earth	-89807-04-15 19:39 J	-31080478.93	-31080478.68	-31080478.42	0.0147	0.0008	
Moon	-89807-04-15 22:32 J	-31080478.82	-31080478.56	-31080478.30	0.0147	0.0015	*
Moon	-89806-04-20 22:47 J	-31080108.79	-31080108.55	-31080108.29	0.0147	0.0023	
Earth	-89806-04-21 02:23 J	-31080108.65	-31080108.40	-31080108.14	0.0147	0.0021	*
Earth	-89805-04-25 09:49 J	-31079738.33	-31079738.09	-31079737.85	0.0147	0.0050	
Moon	-89805-04-25 13:11 J	-31079738.18	-31079737.95	-31079737.69	0.0147	0.0052	*
Moon	-89804-04-30 13:54 J	-31079368.13	-31079367.92	-31079367.68	0.0147	0.0072	
Earth	-89804-04-30 17:30 J	-31079367.98	-31079367.77	-31079367.54	0.0147	0.0078	*
Earth	-89803-05-06 01:39 J	-31078997.60	-31078997.43	-31078997.25	0.0147	0.0106	
Moon	-89803-05-06 04:47 J	-31078997.44	-31078997.30	-31078997.12	0.0147	0.0115	*
Moon	-89802-05-11 07:11 J	-31078627.31	-31078627.20	-31078627.06	0.0147	0.0128	
Earth	-89802-05-11 10:03 J	-31078627.16	-31078627.08	-31078626.96	0.0147	0.0134	*
Mars	-89798-12-26 00:42 J	-31076937.79	-31076937.47	-31076937.15	0.0145	0.0011	
Mercury	-89786-11-26 11:44 J	-31072584.07	-31072584.01	-31072583.92	0.0138	0.0124	
Mercury	-89785-02-22 17:59 J	-31072495.85	-31072495.75	-31072495.62	0.0138	0.0102	
Venus	-89785-03-21 11:30 J	-31072468.18	-31072468.02	-31072467.83	0.0138	0.0086	
Mercury	-89785-05-21 00:27 J	-31072407.62	-31072407.48	-31072407.34	0.0138	0.0080	
Mercury	-89785-08-17 06:27 J	-31072319.38	-31072319.23	-31072319.07	0.0138	0.0059	
Venus	-89785-11-02 21:35 J	-31072241.82	-31072241.60	-31072241.38	0.0137	0.0018	
Mercury	-89785-11-13 12:27 J	-31072231.14	-31072230.98	-31072230.81	0.0137	0.0038	
Mercury	-89784-02-09 18:42 J	-31072142.89	-31072142.72	-31072142.55	0.0137	0.0016	
Mercury	-89784-05-09 00:42 J	-31072054.64	-31072054.47	-31072054.30	0.0137	0.0006	
Venus	-89784-06-17 06:56 J	-31072015.41	-31072015.21	-31072014.99	0.0137	0.0048	

Mercury -89784-08-05 06:27 J -31071966.40 -31071966.23 -31071966.06 0.0137 0.0026

Mercury -89784-11-01 12:13 J -31071878.14 -31071877.99 -31071877.82 0.0137 0.0047

Mercury -89783-01-28 17:59 J -31071789.89 -31071789.75 -31071789.59 0.0137 0.0067

Venus -89783-01-29 16:03 J -31071788.95 -31071788.83 -31071788.70 0.0137 0.0113

Mercury -89783-04-26 23:44 J -31071701.63 -31071701.51 -31071701.37 0.0137 0.0087

Mercury -89783-07-24 05:15 J -31071613.37 -31071613.28 -31071613.16 0.0137 0.0107

Mercury -89783-10-20 10:47 J -31071525.09 -31071525.05 -31071524.97 0.0136 0.0127

Moon -89772-09-27 18:13 J -31067529.80 -31067529.74 -31067529.67 0.0132 0.0128

Earth -89771-10-02 03:49 J -31067160.46 -31067160.34 -31067160.21 0.0132 0.0114

Moon -89771-10-02 06:42 J -31067160.30 -31067160.22 -31067160.10 0.0132 0.0121 *

Moon -89770-10-06 05:59 J -31066791.42 -31066791.25 -31066791.05 0.0132 0.0089

Earth -89770-10-06 09:35 J -31066791.27 -31066791.10 -31066790.91 0.0132 0.0095 *

Earth -89769-10-09 14:37 J -31066422.09 -31066421.89 -31066421.67 0.0132 0.0075

Moon -89769-10-09 17:30 J -31066421.95 -31066421.77 -31066421.54 0.0132 0.0080 *

Moon -89768-10-13 15:06 J -31066053.08 -31066052.87 -31066052.62 0.0132 0.0055

Earth -89768-10-13 18:42 J -31066052.94 -31066052.72 -31066052.48 0.0132 0.0056 *

Earth -89767-10-17 22:18 J -31065683.80 -31065683.57 -31065683.31 0.0131 0.0036

Moon -89767-10-18 01:39 J -31065683.67 -31065683.43 -31065683.17 0.0131 0.0035 *

Moon -89766-10-21 22:18 J -31065314.81 -31065314.57 -31065314.31 0.0131 0.0020

Earth -89766-10-22 01:39 J -31065314.68 -31065314.43 -31065314.17 0.0131 0.0015 *

Earth -89765-10-25 04:03 J -31064945.58 -31064945.33 -31064945.07 0.0131 0.0005

Moon -89765-10-25 07:39 J -31064945.43 -31064945.18 -31064944.92 0.0131 0.0011 *

Moon -89764-10-29 03:20 J -31064576.61 -31064576.36 -31064576.11 0.0131 0.0018

Earth -89764-10-29 06:13 J -31064576.48 -31064576.24 -31064575.98 0.0131 0.0025 *

Earth -89763-11-02 07:54 J -31064207.40 -31064207.17 -31064206.92 0.0132 0.0044

Moon -89763-11-02 11:15 J -31064207.25 -31064207.03 -31064206.78 0.0132 0.0051 *

Moon -89762-11-06 06:27 J -31063838.44 -31063838.23 -31063838.00 0.0132 0.0057

Earth -89762-11-06 09:35 J -31063838.31 -31063838.10 -31063837.87 0.0132 0.0064 *

Earth -89761-11-09 11:15 J -31063469.23 -31063469.03 -31063468.84 0.0132 0.0082

Moon -89761-11-09 13:54 J -31063469.09 -31063468.92 -31063468.71 0.0132 0.0086 *

Moon -89760-11-13 08:51 J -31063100.28 -31063100.13 -31063099.96 0.0132 0.0100
 Earth -89760-11-13 12:13 J -31063100.14 -31063099.99 -31063099.82 0.0132 0.0101 *
 Earth -89759-11-17 13:39 J -31062731.03 -31062730.93 -31062730.83 0.0132 0.0120
 Moon -89759-11-17 16:32 J -31062730.91 -31062730.81 -31062730.69 0.0132 0.0118 *
 Mars -89753-01-26 15:35 J -31060835.14 -31060834.85 -31060834.55 0.0134 0.0014
 Mars -89752-12-27 06:27 J -31060134.36 -31060134.23 -31060134.07 0.0135 0.0117
 Mercury -89741-07-21 06:27 J -31056275.28 -31056275.23 -31056275.17 0.0140 0.0128
 Mercury -89741-10-17 10:32 J -31056187.14 -31056187.06 -31056186.97 0.0140 0.0110
 Venus -89741-10-23 11:59 J -31056181.08 -31056181.00 -31056180.88 0.0140 0.0125
 Mercury -89740-01-13 14:23 J -31056098.99 -31056098.90 -31056098.78 0.0141 0.0093
 Mercury -89740-04-11 18:42 J -31056010.84 -31056010.72 -31056010.60 0.0141 0.0074
 Venus -89740-06-06 19:39 J -31055954.86 -31055954.68 -31055954.47 0.0141 0.0057
 Mercury -89740-07-08 22:47 J -31055922.68 -31055922.55 -31055922.42 0.0141 0.0056
 Mercury -89740-10-05 03:06 J -31055834.51 -31055834.37 -31055834.23 0.0141 0.0037
 Mercury -89739-01-01 07:11 J -31055746.34 -31055746.20 -31055746.06 0.0141 0.0018
 Venus -89739-01-19 03:35 J -31055728.56 -31055728.35 -31055728.13 0.0141 0.0012
 Mercury -89739-03-30 11:30 J -31055658.17 -31055658.02 -31055657.88 0.0141 0.0003
 Mercury -89739-06-26 15:35 J -31055569.99 -31055569.85 -31055569.70 0.0142 0.0021
 Venus -89739-09-02 11:30 J -31055502.19 -31055502.02 -31055501.84 0.0142 0.0081
 Mercury -89739-09-22 19:54 J -31055481.80 -31055481.67 -31055481.53 0.0142 0.0040
 Mercury -89739-12-20 00:13 J -31055393.62 -31055393.49 -31055393.35 0.0142 0.0059
 Mercury -89738-03-18 04:32 J -31055305.42 -31055305.31 -31055305.18 0.0142 0.0079
 Mercury -89738-06-14 08:51 J -31055217.22 -31055217.13 -31055217.01 0.0142 0.0099
 Mercury -89738-09-10 13:25 J -31055129.01 -31055128.94 -31055128.85 0.0142 0.0119
 Mercury -89738-12-07 17:59 J -31055040.77 -31055040.75 -31055040.71 0.0142 0.0139
 Jupiter -89730-06-22 17:44 J -31052287.28 -31052286.76 -31052286.23 0.0146 0.0007
 Earth -89728-03-22 05:15 J -31051648.34 -31051648.28 -31051648.19 0.0146 0.0140
 Moon -89728-03-22 06:56 J -31051648.31 -31051648.21 -31051648.11 0.0146 0.0133 *
 Moon -89727-03-27 07:11 J -31051278.33 -31051278.20 -31051278.02 0.0147 0.0119
 Earth -89727-03-27 08:08 J -31051278.32 -31051278.16 -31051278.00 0.0147 0.0114 *

Moon	-89726-04-01 11:15 J	-31050908.22	-31050908.03	-31050907.83	0.0147	0.0088
Earth	-89726-04-01 11:15 J	-31050908.22	-31050908.03	-31050907.82	0.0147	0.0088 *
Earth	-89725-04-05 15:35 J	-31050538.07	-31050537.85	-31050537.61	0.0147	0.0061
Moon	-89725-04-05 17:15 J	-31050538.02	-31050537.78	-31050537.53	0.0147	0.0056 *
Moon	-89724-04-10 19:39 J	-31050167.92	-31050167.68	-31050167.44	0.0147	0.0040
Earth	-89724-04-10 21:06 J	-31050167.86	-31050167.62	-31050167.37	0.0147	0.0033 *
Earth	-89723-04-16 03:06 J	-31049797.63	-31049797.37	-31049797.11	0.0147	0.0005
Moon	-89723-04-16 05:59 J	-31049797.51	-31049797.25	-31049796.99	0.0147	0.0002 *
Moon	-89722-04-21 06:42 J	-31049427.46	-31049427.22	-31049426.96	0.0147	0.0020
Earth	-89722-04-21 09:49 J	-31049427.34	-31049427.09	-31049426.83	0.0147	0.0024 *
Earth	-89721-04-25 17:01 J	-31049057.02	-31049056.79	-31049056.54	0.0147	0.0052
Moon	-89721-04-25 20:23 J	-31049056.88	-31049056.65	-31049056.39	0.0147	0.0050 *
Moon	-89720-04-30 21:20 J	-31048686.82	-31048686.61	-31048686.40	0.0147	0.0086
Earth	-89720-05-01 00:56 J	-31048686.66	-31048686.46	-31048686.23	0.0147	0.0080 *
Earth	-89719-05-06 09:06 J	-31048316.28	-31048316.12	-31048315.93	0.0147	0.0108
Moon	-89719-05-06 12:56 J	-31048316.15	-31048315.96	-31048315.77	0.0147	0.0100 *
Moon	-89718-05-11 14:23 J	-31047945.95	-31047945.90	-31047945.81	0.0147	0.0141
Earth	-89718-05-11 17:44 J	-31047945.84	-31047945.76	-31047945.64	0.0147	0.0135 *
Mars	-89715-09-15 13:25 J	-31046723.09	-31046722.94	-31046722.77	0.0145	0.0125
Mars	-89713-08-20 18:13 J	-31046018.01	-31046017.74	-31046017.43	0.0144	0.0055
Venus	-89702-11-19 17:30 J	-31041909.87	-31041909.77	-31041909.65	0.0138	0.0120
Mercury	-89702-12-16 18:27 J	-31041882.81	-31041882.73	-31041882.64	0.0138	0.0121
Mercury	-89701-03-14 00:42 J	-31041794.59	-31041794.47	-31041794.35	0.0138	0.0099
Mercury	-89701-06-10 06:42 J	-31041706.35	-31041706.22	-31041706.06	0.0138	0.0078
Venus	-89701-07-03 03:35 J	-31041683.55	-31041683.35	-31041683.14	0.0138	0.0053
Mercury	-89701-09-06 13:11 J	-31041618.11	-31041617.95	-31041617.79	0.0138	0.0056
Mercury	-89701-12-03 19:11 J	-31041529.87	-31041529.70	-31041529.53	0.0137	0.0034
Venus	-89700-02-14 13:11 J	-31041457.17	-31041456.95	-31041456.73	0.0137	0.0014
Mercury	-89700-03-02 01:11 J	-31041441.62	-31041441.45	-31041441.28	0.0137	0.0013
Mercury	-89700-05-29 07:11 J	-31041353.37	-31041353.20	-31041353.03	0.0137	0.0008

Mercury -89700-08-25 12:56 J -31041265.12 -31041264.96 -31041264.79 0.0137 0.0029
 Venus -89700-09-28 22:18 J -31041230.75 -31041230.57 -31041230.38 0.0137 0.0079
 Mercury -89700-11-21 18:56 J -31041176.87 -31041176.71 -31041176.55 0.0137 0.0049
 Mercury -89699-02-18 00:27 J -31041088.62 -31041088.48 -31041088.32 0.0137 0.0070
 Mercury -89699-05-17 06:13 J -31041000.36 -31041000.24 -31041000.10 0.0137 0.0090
 Mercury -89699-08-13 11:44 J -31040912.09 -31040912.01 -31040911.89 0.0137 0.0110
 Mercury -89699-11-09 17:30 J -31040823.81 -31040823.77 -31040823.71 0.0136 0.0129
 Earth -89688-09-28 04:32 J -31036848.34 -31036848.31 -31036848.24 0.0132 0.0130
 Earth -89687-10-02 11:30 J -31036479.15 -31036479.02 -31036478.88 0.0132 0.0110
 Moon -89687-10-02 14:23 J -31036479.05 -31036478.90 -31036478.72 0.0132 0.0103 *
 Moon -89686-10-06 14:51 J -31036110.05 -31036109.88 -31036109.71 0.0132 0.0097
 Earth -89686-10-06 17:15 J -31036109.95 -31036109.78 -31036109.58 0.0132 0.0091 *
 Earth -89685-10-09 22:03 J -31035740.78 -31035740.58 -31035740.35 0.0132 0.0072
 Moon -89685-10-10 01:11 J -31035740.65 -31035740.45 -31035740.21 0.0132 0.0068 *
 Moon -89684-10-13 23:44 J -31035371.73 -31035371.51 -31035371.28 0.0132 0.0055
 Earth -89684-10-14 02:37 J -31035371.62 -31035371.39 -31035371.15 0.0132 0.0052 *
 Earth -89683-10-18 05:59 J -31035002.48 -31035002.25 -31035001.99 0.0131 0.0033
 Moon -89683-10-18 09:20 J -31035002.36 -31035002.11 -31035001.86 0.0131 0.0034 *
 Moon -89682-10-22 06:27 J -31034633.48 -31034633.23 -31034632.98 0.0131 0.0009
 Earth -89682-10-22 09:20 J -31034633.36 -31034633.11 -31034632.85 0.0131 0.0013 *
 Earth -89681-10-25 11:59 J -31034264.25 -31034264.00 -31034263.74 0.0131 0.0007
 Moon -89681-10-25 14:51 J -31034264.14 -31034263.88 -31034263.62 0.0131 0.0002 *
 Moon -89680-10-29 11:01 J -31033895.27 -31033895.04 -31033894.79 0.0131 0.0033
 Earth -89680-10-29 14:08 J -31033895.15 -31033894.91 -31033894.66 0.0131 0.0026 *
 Earth -89679-11-02 16:03 J -31033526.06 -31033525.83 -31033525.59 0.0132 0.0046
 Moon -89679-11-02 18:56 J -31033525.95 -31033525.71 -31033525.46 0.0132 0.0039 *
 Moon -89678-11-06 14:51 J -31033157.07 -31033156.88 -31033156.66 0.0132 0.0071
 Earth -89678-11-06 17:44 J -31033156.97 -31033156.76 -31033156.53 0.0132 0.0065 *
 Earth -89677-11-09 18:56 J -31032787.89 -31032787.71 -31032787.50 0.0132 0.0084
 Moon -89677-11-09 22:03 J -31032787.77 -31032787.58 -31032787.36 0.0132 0.0080 *

Moon -89676-11-13 17:44 J -31032418.88 -31032418.76 -31032418.59 0.0132 0.0105
 Earth -89676-11-13 20:37 J -31032418.79 -31032418.64 -31032418.48 0.0132 0.0102 *
 Earth -89675-11-17 21:49 J -31032049.68 -31032049.59 -31032049.47 0.0132 0.0121
 Moon -89675-11-18 00:42 J -31032049.54 -31032049.47 -31032049.36 0.0132 0.0123 *
 Mars -89671-10-20 17:15 J -31030616.99 -31030616.78 -31030616.56 0.0133 0.0092
 Mars -89669-09-19 23:30 J -31029916.80 -31029916.52 -31029916.22 0.0134 0.0034
 Mercury -89657-08-10 13:11 J -31025574.00 -31025573.95 -31025573.88 0.0140 0.0126
 Mercury -89657-11-06 17:01 J -31025485.86 -31025485.79 -31025485.69 0.0141 0.0109
 Mercury -89656-02-02 21:20 J -31025397.72 -31025397.61 -31025397.50 0.0141 0.0090
 Venus -89656-02-04 02:37 J -31025396.53 -31025396.39 -31025396.21 0.0141 0.0093
 Mercury -89656-05-02 01:25 J -31025309.56 -31025309.44 -31025309.32 0.0141 0.0072
 Mercury -89656-07-29 05:30 J -31025221.40 -31025221.27 -31025221.13 0.0141 0.0054
 Venus -89656-09-18 10:32 J -31025170.26 -31025170.06 -31025169.85 0.0141 0.0025
 Mercury -89656-10-25 09:35 J -31025133.23 -31025133.10 -31025132.95 0.0141 0.0035
 Mercury -89655-01-21 13:54 J -31025045.06 -31025044.92 -31025044.78 0.0141 0.0016
 Mercury -89655-04-19 18:13 J -31024956.89 -31024956.74 -31024956.60 0.0141 0.0004
 Venus -89655-05-02 18:13 J -31024943.93 -31024943.74 -31024943.53 0.0141 0.0045
 Mercury -89655-07-16 22:18 J -31024868.71 -31024868.57 -31024868.42 0.0142 0.0023
 Mercury -89655-10-13 02:37 J -31024780.52 -31024780.39 -31024780.25 0.0142 0.0042
 Venus -89655-12-15 02:23 J -31024717.51 -31024717.40 -31024717.26 0.0142 0.0114
 Mercury -89654-01-09 06:56 J -31024692.34 -31024692.21 -31024692.07 0.0142 0.0061
 Mercury -89654-04-07 11:15 J -31024604.14 -31024604.03 -31024603.90 0.0142 0.0081
 Mercury -89654-07-04 15:35 J -31024515.94 -31024515.85 -31024515.74 0.0142 0.0101
 Mercury -89654-09-30 20:08 J -31024427.73 -31024427.66 -31024427.58 0.0142 0.0121
 Mercury -89654-12-28 00:42 J -31024339.48 -31024339.47 -31024339.45 0.0142 0.0141
 Earth -89644-03-22 12:56 J -31020967.05 -31020966.96 -31020966.85 0.0146 0.0135
 Moon -89644-03-22 14:37 J -31020966.93 -31020966.89 -31020966.82 0.0146 0.0143 *
 Moon -89643-03-27 13:54 J -31020597.10 -31020596.92 -31020596.74 0.0147 0.0104
 Earth -89643-03-27 15:06 J -31020597.02 -31020596.87 -31020596.69 0.0147 0.0110 *
 Earth -89642-04-01 18:27 J -31020226.93 -31020226.73 -31020226.51 0.0147 0.0084

Moon -89642-04-01 18:42 J -31020226.91 -31020226.72 -31020226.51 0.0147 0.0084 *
 Moon -89641-04-05 22:32 J -31019856.79 -31019856.56 -31019856.31 0.0147 0.0061
 Earth -89641-04-05 22:47 J -31019856.78 -31019856.55 -31019856.31 0.0147 0.0057 *
 Moon -89640-04-11 02:37 J -31019486.63 -31019486.39 -31019486.14 0.0147 0.0023
 Earth -89640-04-11 03:49 J -31019486.58 -31019486.34 -31019486.08 0.0147 0.0031 *
 Earth -89639-04-16 10:03 J -31019116.34 -31019116.08 -31019115.83 0.0147 0.0003
 Moon -89639-04-16 11:44 J -31019116.27 -31019116.01 -31019115.75 0.0147 0.0010 *
 Moon -89638-04-21 13:54 J -31018746.16 -31018745.92 -31018745.67 0.0147 0.0029
 Earth -89638-04-21 16:18 J -31018746.06 -31018745.82 -31018745.56 0.0147 0.0026 *
 Earth -89637-04-25 23:30 J -31018375.74 -31018375.52 -31018375.27 0.0147 0.0054
 Moon -89637-04-26 03:06 J -31018375.61 -31018375.37 -31018375.12 0.0147 0.0055 *
 Moon -89636-05-01 04:18 J -31018005.53 -31018005.32 -31018005.09 0.0147 0.0077
 Earth -89636-05-01 07:25 J -31018005.38 -31018005.19 -31018004.96 0.0147 0.0082 *
 Earth -89635-05-06 15:35 J -31017635.00 -31017634.85 -31017634.66 0.0147 0.0109
 Moon -89635-05-06 19:39 J -31017634.83 -31017634.68 -31017634.52 0.0147 0.0117 *
 Moon -89634-05-11 20:37 J -31017264.74 -31017264.64 -31017264.49 0.0146 0.0129
 Earth -89634-05-12 00:27 J -31017264.56 -31017264.48 -31017264.37 0.0146 0.0136 *
 Mars -89630-05-12 10:03 J -31015803.36 -31015803.08 -31015802.77 0.0145 0.0058
 Mars -89628-04-16 09:49 J -31015098.26 -31015098.09 -31015097.89 0.0144 0.0116
 Mercury -89617-01-06 01:11 J -31011181.54 -31011181.45 -31011181.36 0.0138 0.0118
 Venus -89617-03-02 09:06 J -31011125.27 -31011125.12 -31011124.93 0.0138 0.0088
 Mercury -89617-04-03 07:25 J -31011093.32 -31011093.19 -31011093.07 0.0138 0.0096
 Mercury -89617-06-30 13:25 J -31011005.08 -31011004.94 -31011004.79 0.0138 0.0075
 Mercury -89617-09-26 19:39 J -31010916.84 -31010916.68 -31010916.52 0.0138 0.0053
 Venus -89617-10-14 19:11 J -31010898.92 -31010898.70 -31010898.48 0.0138 0.0021
 Mercury -89617-12-24 01:39 J -31010828.59 -31010828.43 -31010828.26 0.0137 0.0032
 Mercury -89616-03-22 07:54 J -31010740.35 -31010740.17 -31010740.00 0.0137 0.0011
 Venus -89616-05-29 04:47 J -31010672.51 -31010672.30 -31010672.09 0.0137 0.0046
 Mercury -89616-06-18 13:39 J -31010652.10 -31010651.93 -31010651.75 0.0137 0.0011
 Mercury -89616-09-14 19:39 J -31010563.85 -31010563.68 -31010563.51 0.0137 0.0031

Mercury -89616-12-12 01:25 J -31010475.59 -31010475.44 -31010475.28 0.0137 0.0052

Venus -89615-01-10 13:39 J -31010446.04 -31010445.93 -31010445.79 0.0137 0.0111

Mercury -89615-03-10 07:11 J -31010387.34 -31010387.20 -31010387.05 0.0137 0.0072

Mercury -89615-06-06 12:56 J -31010299.08 -31010298.96 -31010298.83 0.0137 0.0092

Mercury -89615-09-02 18:42 J -31010210.82 -31010210.72 -31010210.62 0.0137 0.0112

Mercury -89615-11-29 23:59 J -31010122.53 -31010122.50 -31010122.44 0.0136 0.0132

Moon -89604-09-28 10:47 J -31006167.14 -31006167.05 -31006166.93 0.0132 0.0119

Earth -89604-09-28 12:56 J -31006167.02 -31006166.96 -31006166.86 0.0132 0.0125 *

Earth -89603-10-02 19:39 J -31005797.81 -31005797.68 -31005797.51 0.0132 0.0106

Moon -89603-10-02 22:03 J -31005797.70 -31005797.58 -31005797.43 0.0132 0.0112 *

Moon -89602-10-06 22:47 J -31005428.73 -31005428.55 -31005428.34 0.0132 0.0081

Earth -89602-10-07 01:39 J -31005428.61 -31005428.43 -31005428.23 0.0132 0.0087 *

Earth -89601-10-10 06:27 J -31005059.43 -31005059.23 -31005059.00 0.0132 0.0068

Moon -89601-10-10 08:51 J -31005059.34 -31005059.13 -31005058.90 0.0132 0.0073 *

Moon -89600-10-14 08:08 J -31004690.38 -31004690.16 -31004689.92 0.0132 0.0047

Earth -89600-10-14 10:47 J -31004690.28 -31004690.05 -31004689.80 0.0132 0.0049 *

Earth -89599-10-18 14:23 J -31004321.13 -31004320.90 -31004320.64 0.0131 0.0030

Moon -89599-10-18 17:15 J -31004321.03 -31004320.78 -31004320.52 0.0131 0.0029 *

Moon -89598-10-22 15:35 J -31003952.09 -31003951.85 -31003951.60 0.0131 0.0012

Earth -89598-10-22 17:59 J -31003952.00 -31003951.75 -31003951.50 0.0131 0.0010 *

Earth -89597-10-25 20:23 J -31003582.90 -31003582.65 -31003582.40 0.0131 0.0010

Moon -89597-10-25 23:15 J -31003582.79 -31003582.53 -31003582.27 0.0131 0.0015 *

Moon -89596-10-29 20:37 J -31003213.88 -31003213.64 -31003213.40 0.0131 0.0023

Earth -89596-10-29 22:47 J -31003213.79 -31003213.55 -31003213.30 0.0131 0.0029 *

Earth -89595-11-03 00:42 J -31002844.70 -31002844.47 -31002844.23 0.0132 0.0048

Moon -89595-11-03 03:06 J -31002844.59 -31002844.37 -31002844.12 0.0132 0.0055 *

Moon -89594-11-06 23:59 J -31002475.71 -31002475.50 -31002475.27 0.0132 0.0061

Earth -89594-11-07 02:23 J -31002475.60 -31002475.40 -31002475.17 0.0132 0.0067 *

Earth -89593-11-10 04:18 J -31002106.51 -31002106.32 -31002106.13 0.0132 0.0085

Moon -89593-11-10 05:59 J -31002106.42 -31002106.25 -31002106.04 0.0132 0.0090 *

Moon -89592-11-14 03:06 J -31001737.51 -31001737.37 -31001737.21 0.0132 0.0102
 Earth -89592-11-14 05:15 J -31001737.41 -31001737.28 -31001737.10 0.0132 0.0104 *
 Earth -89591-11-18 06:56 J -31001368.29 -31001368.21 -31001368.10 0.0132 0.0121
 Moon -89591-11-18 08:51 J -31001368.21 -31001368.13 -31001368.01 0.0132 0.0121 *
 Mars -89586-06-14 23:59 J -30999698.77 -30999698.50 -30999698.21 0.0134 0.0045
 Mars -89584-05-15 09:06 J -30998998.34 -30998998.12 -30998997.87 0.0134 0.0083
 Mercury -89573-08-30 20:08 J -30994872.72 -30994872.66 -30994872.59 0.0140 0.0123
 Venus -89573-10-04 10:47 J -30994838.14 -30994838.05 -30994837.96 0.0140 0.0127
 Mercury -89573-11-26 23:59 J -30994784.58 -30994784.50 -30994784.40 0.0141 0.0106
 Mercury -89572-02-23 04:03 J -30994696.43 -30994696.33 -30994696.21 0.0141 0.0088
 Venus -89572-05-18 17:59 J -30994611.93 -30994611.75 -30994611.55 0.0141 0.0060
 Mercury -89572-05-22 08:08 J -30994608.28 -30994608.16 -30994608.03 0.0141 0.0070
 Mercury -89572-08-18 12:13 J -30994520.12 -30994519.99 -30994519.85 0.0141 0.0051
 Mercury -89572-11-14 16:32 J -30994431.95 -30994431.81 -30994431.67 0.0141 0.0032
 Venus -89572-12-31 01:54 J -30994385.63 -30994385.42 -30994385.20 0.0141 0.0009
 Mercury -89571-02-10 20:37 J -30994343.78 -30994343.64 -30994343.49 0.0141 0.0014
 Mercury -89571-05-10 00:56 J -30994255.60 -30994255.46 -30994255.32 0.0141 0.0006
 Mercury -89571-08-06 05:15 J -30994167.42 -30994167.28 -30994167.14 0.0142 0.0025
 Venus -89571-08-14 09:35 J -30994159.27 -30994159.10 -30994158.91 0.0142 0.0078
 Mercury -89571-11-02 09:20 J -30994079.24 -30994079.11 -30994078.97 0.0142 0.0045
 Mercury -89570-01-29 13:39 J -30993991.05 -30993990.93 -30993990.79 0.0142 0.0064
 Mercury -89570-04-27 18:13 J -30993902.86 -30993902.74 -30993902.62 0.0142 0.0083
 Mercury -89570-07-24 22:32 J -30993814.65 -30993814.56 -30993814.46 0.0142 0.0104
 Mercury -89570-10-21 03:06 J -30993726.44 -30993726.37 -30993726.30 0.0142 0.0124
 Earth -89560-03-22 20:23 J -30990285.74 -30990285.65 -30990285.51 0.0146 0.0131
 Moon -89560-03-22 23:30 J -30990285.65 -30990285.52 -30990285.39 0.0146 0.0123 *
 Moon -89559-03-27 20:51 J -30989915.78 -30989915.63 -30989915.44 0.0147 0.0111
 Earth -89559-03-27 22:47 J -30989915.71 -30989915.55 -30989915.36 0.0147 0.0106 *
 Earth -89558-04-02 02:08 J -30989545.62 -30989545.41 -30989545.20 0.0147 0.0080
 Moon -89558-04-02 03:49 J -30989545.55 -30989545.34 -30989545.14 0.0147 0.0078 *

Moon	-89557-04-06 05:59 J	-30989175.49	-30989175.25	-30989174.99	0.0147	0.0050
Earth	-89557-04-06 06:13 J	-30989175.47	-30989175.24	-30989174.99	0.0147	0.0054 *
Moon	-89556-04-11 11:15 J	-30988805.27	-30988805.03	-30988804.79	0.0147	0.0034
Earth	-89556-04-11 11:15 J	-30988805.27	-30988805.03	-30988804.77	0.0147	0.0027 *
Earth	-89555-04-16 17:15 J	-30988435.04	-30988434.78	-30988434.53	0.0147	0.0002
Moon	-89555-04-16 18:27 J	-30988435.00	-30988434.73	-30988434.47	0.0147	0.0007 *
Moon	-89554-04-21 21:49 J	-30988064.84	-30988064.59	-30988064.34	0.0147	0.0024
Earth	-89554-04-21 23:44 J	-30988064.76	-30988064.51	-30988064.25	0.0147	0.0028 *
Earth	-89553-04-26 06:56 J	-30987694.44	-30987694.21	-30987693.96	0.0147	0.0056
Moon	-89553-04-26 09:20 J	-30987694.34	-30987694.11	-30987693.85	0.0147	0.0056 *
Moon	-89552-05-01 11:30 J	-30987324.22	-30987324.02	-30987323.81	0.0147	0.0089
Earth	-89552-05-01 15:06 J	-30987324.08	-30987323.87	-30987323.66	0.0147	0.0083 *
Earth	-89551-05-06 23:15 J	-30986953.70	-30986953.53	-30986953.36	0.0147	0.0110
Moon	-89551-05-07 02:23 J	-30986953.57	-30986953.40	-30986953.19	0.0147	0.0103 *
Moon	-89550-05-12 03:49 J	-30986583.37	-30986583.34	-30986583.26	0.0146	0.0143
Earth	-89550-05-12 07:54 J	-30986583.26	-30986583.17	-30986583.07	0.0146	0.0136 *
Mars	-89545-01-06 05:44 J	-30984883.58	-30984883.26	-30984882.94	0.0145	0.0007
Mercury	-89534-10-30 01:11 J	-30980568.45	-30980568.45	-30980568.44	0.0138	0.0138
Venus	-89534-10-31 14:51 J	-30980566.96	-30980566.88	-30980566.77	0.0138	0.0123
Mercury	-89533-01-26 07:25 J	-30980480.27	-30980480.19	-30980480.09	0.0138	0.0116
Mercury	-89533-04-23 13:39 J	-30980392.05	-30980391.93	-30980391.79	0.0138	0.0094
Venus	-89533-06-14 00:56 J	-30980340.65	-30980340.46	-30980340.24	0.0138	0.0056
Mercury	-89533-07-20 19:54 J	-30980303.81	-30980303.67	-30980303.51	0.0138	0.0072
Mercury	-89533-10-17 02:08 J	-30980215.57	-30980215.41	-30980215.25	0.0138	0.0050
Mercury	-89532-01-13 08:08 J	-30980127.32	-30980127.16	-30980126.98	0.0137	0.0029
Venus	-89532-01-26 10:47 J	-30980114.27	-30980114.05	-30980113.83	0.0137	0.0011
Mercury	-89532-04-11 14:23 J	-30980039.08	-30980038.90	-30980038.73	0.0137	0.0008
Mercury	-89532-07-08 20:08 J	-30979950.83	-30979950.66	-30979950.48	0.0137	0.0014
Venus	-89532-09-09 19:39 J	-30979887.85	-30979887.68	-30979887.48	0.0137	0.0077
Mercury	-89532-10-05 02:08 J	-30979862.58	-30979862.41	-30979862.24	0.0137	0.0034

Mercury -89531-01-01 07:54 J -30979774.32 -30979774.17 -30979774.01 0.0137 0.0054

Mercury -89531-03-30 13:25 J -30979686.07 -30979685.94 -30979685.78 0.0137 0.0075

Mercury -89531-06-26 19:11 J -30979597.81 -30979597.70 -30979597.57 0.0137 0.0095

Mercury -89531-09-23 00:56 J -30979509.54 -30979509.46 -30979509.36 0.0137 0.0114

Mercury -89531-12-20 06:42 J -30979421.25 -30979421.22 -30979421.19 0.0136 0.0134

Jupiter -89522-05-20 19:39 J -30976347.87 -30976347.68 -30976347.39 0.0133 0.0117

Moon -89520-09-28 18:56 J -30975485.76 -30975485.71 -30975485.62 0.0132 0.0126

Earth -89520-09-28 20:51 J -30975485.73 -30975485.63 -30975485.52 0.0132 0.0121 *

Earth -89519-10-03 03:20 J -30975116.51 -30975116.36 -30975116.19 0.0132 0.0102

Moon -89519-10-03 05:15 J -30975116.45 -30975116.28 -30975116.08 0.0132 0.0095 *

Moon -89518-10-07 07:39 J -30974747.35 -30974747.18 -30974746.99 0.0132 0.0090

Earth -89518-10-07 09:06 J -30974747.31 -30974747.12 -30974746.91 0.0132 0.0083 *

Earth -89517-10-10 13:39 J -30974378.13 -30974377.93 -30974377.69 0.0132 0.0065

Moon -89517-10-10 16:03 J -30974378.05 -30974377.83 -30974377.59 0.0132 0.0060 *

Moon -89516-10-14 16:47 J -30974009.03 -30974008.80 -30974008.57 0.0132 0.0049

Earth -89516-10-14 18:13 J -30974008.97 -30974008.74 -30974008.49 0.0132 0.0046 *

Earth -89515-10-18 22:03 J -30973639.82 -30973639.58 -30973639.32 0.0132 0.0027

Moon -89515-10-18 23:59 J -30973639.75 -30973639.50 -30973639.24 0.0132 0.0026 *

Moon -89514-10-22 23:30 J -30973270.77 -30973270.52 -30973270.28 0.0131 0.0005

Earth -89514-10-23 01:25 J -30973270.69 -30973270.44 -30973270.18 0.0131 0.0007 *

Earth -89513-10-26 04:03 J -30972901.57 -30972901.33 -30972901.07 0.0131 0.0013

Moon -89513-10-26 05:59 J -30972901.51 -30972901.25 -30972900.99 0.0131 0.0008 *

Moon -89512-10-30 04:32 J -30972532.53 -30972532.31 -30972532.06 0.0131 0.0038

Earth -89512-10-30 06:27 J -30972532.46 -30972532.23 -30972531.97 0.0131 0.0032 *

Earth -89511-11-03 08:51 J -30972163.36 -30972163.13 -30972162.89 0.0132 0.0050

Moon -89511-11-03 10:32 J -30972163.29 -30972163.06 -30972162.81 0.0132 0.0043 *

Moon -89510-11-07 09:06 J -30971794.31 -30971794.12 -30971793.91 0.0132 0.0075

Earth -89510-11-07 10:32 J -30971794.26 -30971794.06 -30971793.83 0.0132 0.0069 *

Earth -89509-11-10 12:13 J -30971425.16 -30971424.99 -30971424.79 0.0132 0.0087

Moon -89509-11-10 14:23 J -30971425.09 -30971424.90 -30971424.69 0.0132 0.0082 *

Moon -89508-11-14 12:27 J -30971056.10 -30971055.98 -30971055.82 0.0132 0.0108
 Earth -89508-11-14 14:08 J -30971056.05 -30971055.91 -30971055.75 0.0132 0.0104 *
 Earth -89507-11-18 15:06 J -30970686.93 -30970686.87 -30970686.75 0.0132 0.0123
 Moon -89507-11-18 17:15 J -30970686.86 -30970686.78 -30970686.67 0.0132 0.0122 *
 Mars -89503-03-09 05:01 J -30969480.39 -30969480.29 -30969480.14 0.0133 0.0120
 Mars -89501-02-07 07:25 J -30968780.49 -30968780.19 -30968779.90 0.0134 0.0003
 Mars -89499-01-07 19:25 J -30968079.73 -30968079.69 -30968079.60 0.0135 0.0132
 Mercury -89489-06-23 23:01 J -30964259.55 -30964259.54 -30964259.51 0.0140 0.0138
 Mercury -89489-09-20 03:06 J -30964171.44 -30964171.37 -30964171.30 0.0140 0.0120
 Mercury -89489-12-17 06:56 J -30964083.30 -30964083.21 -30964083.11 0.0141 0.0103
 Venus -89488-01-16 02:08 J -30964053.56 -30964053.41 -30964053.25 0.0141 0.0094
 Mercury -89488-03-15 11:01 J -30963995.15 -30963995.04 -30963994.92 0.0141 0.0085
 Mercury -89488-06-11 15:20 J -30963906.99 -30963906.86 -30963906.74 0.0141 0.0066
 Venus -89488-08-30 09:35 J -30963827.30 -30963827.10 -30963826.89 0.0141 0.0027
 Mercury -89488-09-07 19:11 J -30963818.83 -30963818.70 -30963818.56 0.0141 0.0048
 Mercury -89488-12-04 23:30 J -30963730.66 -30963730.52 -30963730.38 0.0141 0.0029
 Mercury -89487-03-03 03:35 J -30963642.49 -30963642.35 -30963642.20 0.0141 0.0011
 Venus -89487-04-13 17:15 J -30963600.97 -30963600.78 -30963600.57 0.0141 0.0043
 Mercury -89487-05-30 07:54 J -30963554.31 -30963554.17 -30963554.03 0.0141 0.0009
 Mercury -89487-08-26 12:13 J -30963466.13 -30963465.99 -30963465.85 0.0142 0.0028
 Mercury -89487-11-22 16:18 J -30963377.95 -30963377.82 -30963377.68 0.0142 0.0048
 Venus -89487-11-26 01:11 J -30963374.56 -30963374.45 -30963374.30 0.0142 0.0112
 Mercury -89486-02-18 20:37 J -30963289.76 -30963289.64 -30963289.51 0.0142 0.0067
 Mercury -89486-05-18 00:56 J -30963201.57 -30963201.46 -30963201.34 0.0142 0.0087
 Mercury -89486-08-14 05:15 J -30963113.36 -30963113.28 -30963113.17 0.0142 0.0107
 Mercury -89486-11-10 09:49 J -30963025.14 -30963025.09 -30963025.02 0.0142 0.0127
 Moon -89477-03-18 01:11 J -30959974.49 -30959974.45 -30959974.39 0.0146 0.0143
 Earth -89476-03-23 05:15 J -30959604.39 -30959604.28 -30959604.14 0.0146 0.0126
 Moon -89476-03-23 08:08 J -30959604.25 -30959604.16 -30959604.05 0.0146 0.0134 *
 Moon -89475-03-28 04:18 J -30959234.50 -30959234.32 -30959234.11 0.0147 0.0095

Earth	-89475-03-28 07:11 J	-30959234.36	-30959234.20	-30959234.00	0.0147	0.0102	*
Earth	-89474-04-02 10:32 J	-30958864.27	-30958864.06	-30958863.84	0.0147	0.0076	
Moon	-89474-04-02 11:59 J	-30958864.20	-30958864.00	-30958863.78	0.0147	0.0078	*
Moon	-89473-04-06 12:56 J	-30958494.20	-30958493.96	-30958493.71	0.0147	0.0053	
Earth	-89473-04-06 14:37 J	-30958494.13	-30958493.89	-30958493.65	0.0147	0.0050	*
Earth	-89472-04-11 19:25 J	-30958123.94	-30958123.69	-30958123.44	0.0147	0.0024	
Moon	-89472-04-11 19:54 J	-30958123.92	-30958123.67	-30958123.43	0.0147	0.0018	*
Earth	-89471-04-17 01:11 J	-30957753.70	-30957753.45	-30957753.19	0.0147	0.0004	
Moon	-89471-04-17 01:39 J	-30957753.69	-30957753.43	-30957753.16	0.0147	0.0005	*
Moon	-89470-04-22 06:42 J	-30957383.45	-30957383.22	-30957382.97	0.0147	0.0036	
Earth	-89470-04-22 07:39 J	-30957383.42	-30957383.18	-30957382.92	0.0147	0.0031	*
Earth	-89469-04-26 15:06 J	-30957013.10	-30957012.87	-30957012.63	0.0147	0.0058	
Moon	-89469-04-26 17:44 J	-30957013.00	-30957012.76	-30957012.52	0.0147	0.0058	*
Moon	-89468-05-01 20:37 J	-30956642.84	-30956642.64	-30956642.43	0.0147	0.0081	
Earth	-89468-05-01 23:01 J	-30956642.74	-30956642.54	-30956642.32	0.0147	0.0085	*
Earth	-89467-05-07 07:11 J	-30956272.36	-30956272.20	-30956272.03	0.0147	0.0111	
Moon	-89467-05-07 10:32 J	-30956272.20	-30956272.06	-30956271.89	0.0147	0.0119	*
Moon	-89466-05-12 12:13 J	-30955902.10	-30955901.99	-30955901.86	0.0146	0.0129	
Earth	-89466-05-12 15:35 J	-30955901.92	-30955901.85	-30955901.74	0.0146	0.0137	*
Mars	-89463-09-26 16:47 J	-30954668.99	-30954668.80	-30954668.55	0.0145	0.0106	
Mars	-89461-08-31 23:15 J	-30953963.79	-30953963.53	-30953963.24	0.0144	0.0071	
Mercury	-89450-11-19 07:39 J	-30949867.20	-30949867.18	-30949867.14	0.0138	0.0135	
Venus	-89449-02-12 06:42 J	-30949782.37	-30949782.22	-30949782.04	0.0138	0.0091	
Mercury	-89449-02-15 13:54 J	-30949779.01	-30949778.92	-30949778.81	0.0138	0.0113	
Mercury	-89449-05-13 20:23 J	-30949690.78	-30949690.65	-30949690.52	0.0138	0.0091	
Mercury	-89449-08-10 02:23 J	-30949602.54	-30949602.40	-30949602.24	0.0138	0.0070	
Venus	-89449-09-25 16:47 J	-30949556.02	-30949555.80	-30949555.58	0.0138	0.0023	
Mercury	-89449-11-06 08:37 J	-30949514.30	-30949514.14	-30949513.97	0.0138	0.0048	
Mercury	-89448-02-02 14:51 J	-30949426.05	-30949425.88	-30949425.71	0.0137	0.0026	
Mercury	-89448-05-01 20:51 J	-30949337.80	-30949337.63	-30949337.46	0.0137	0.0005	

Venus -89448-05-10 02:08 J -30949329.61 -30949329.41 -30949329.19 0.0137 0.0043
 Mercury -89448-07-29 02:51 J -30949249.55 -30949249.38 -30949249.21 0.0137 0.0016
 Mercury -89448-10-25 08:37 J -30949161.30 -30949161.14 -30949160.97 0.0137 0.0036
 Venus -89448-12-22 11:15 J -30949103.16 -30949103.03 -30949102.89 0.0137 0.0108
 Mercury -89447-01-21 14:23 J -30949073.05 -30949072.90 -30949072.74 0.0137 0.0057
 Mercury -89447-04-19 20:08 J -30948984.79 -30948984.66 -30948984.51 0.0137 0.0077
 Mercury -89447-07-17 01:54 J -30948896.53 -30948896.42 -30948896.30 0.0137 0.0097
 Mercury -89447-10-13 07:39 J -30948808.26 -30948808.18 -30948808.09 0.0137 0.0117
 Mercury -89446-01-09 13:11 J -30948719.95 -30948719.95 -30948719.94 0.0136 0.0136
 Moon -89436-09-29 03:35 J -30944804.46 -30944804.35 -30944804.20 0.0132 0.0112
 Earth -89436-09-29 04:47 J -30944804.41 -30944804.30 -30944804.17 0.0132 0.0117 *
 Earth -89435-10-03 11:15 J -30944435.18 -30944435.03 -30944434.84 0.0132 0.0098
 Moon -89435-10-03 11:59 J -30944435.14 -30944435.00 -30944434.82 0.0132 0.0104 *
 Moon -89434-10-07 15:35 J -30944066.04 -30944065.85 -30944065.63 0.0132 0.0074
 Earth -89434-10-07 17:01 J -30944065.98 -30944065.79 -30944065.57 0.0132 0.0080 *
 Earth -89433-10-10 22:03 J -30943696.80 -30943696.58 -30943696.35 0.0132 0.0061
 Moon -89433-10-10 23:01 J -30943696.75 -30943696.54 -30943696.30 0.0132 0.0067 *
 Moon -89432-10-15 01:11 J -30943327.67 -30943327.45 -30943327.20 0.0132 0.0040
 Earth -89432-10-15 02:23 J -30943327.63 -30943327.40 -30943327.14 0.0132 0.0043 *
 Earth -89431-10-19 06:27 J -30942958.48 -30942958.23 -30942957.98 0.0132 0.0023
 Moon -89431-10-19 07:54 J -30942958.42 -30942958.17 -30942957.91 0.0132 0.0024 *
 Moon -89430-10-23 09:06 J -30942589.37 -30942589.12 -30942588.88 0.0131 0.0006
 Earth -89430-10-23 09:49 J -30942589.34 -30942589.09 -30942588.83 0.0131 0.0005 *
 Earth -89429-10-26 12:42 J -30942220.22 -30942219.97 -30942219.72 0.0131 0.0014
 Moon -89429-10-26 14:08 J -30942220.16 -30942219.91 -30942219.65 0.0131 0.0019 *
 Moon -89428-10-30 14:08 J -30941851.14 -30941850.91 -30941850.66 0.0131 0.0028
 Earth -89428-10-30 15:06 J -30941851.10 -30941850.87 -30941850.62 0.0131 0.0034 *
 Earth -89427-11-03 17:30 J -30941481.99 -30941481.77 -30941481.53 0.0132 0.0052
 Moon -89427-11-03 18:42 J -30941481.95 -30941481.72 -30941481.48 0.0132 0.0058 *
 Moon -89426-11-07 17:59 J -30941112.95 -30941112.75 -30941112.52 0.0132 0.0064

Earth -89426-11-07 19:25 J -30941112.89 -30941112.69 -30941112.47 0.0132 0.0070 *
 Earth -89425-11-10 21:06 J -30940743.79 -30940743.62 -30940743.42 0.0132 0.0088
 Moon -89425-11-10 21:49 J -30940743.75 -30940743.59 -30940743.39 0.0132 0.0093 *
 Moon -89424-11-14 21:35 J -30940374.73 -30940374.60 -30940374.44 0.0132 0.0103
 Earth -89424-11-14 23:01 J -30940374.68 -30940374.54 -30940374.38 0.0132 0.0105 *
 Earth -89423-11-19 00:13 J -30940005.57 -30940005.49 -30940005.38 0.0132 0.0122
 Moon -89423-11-19 00:56 J -30940005.53 -30940005.46 -30940005.35 0.0132 0.0123 *
 Mars -89419-11-01 11:01 J -30938562.26 -30938562.04 -30938561.78 0.0133 0.0075
 Mars -89417-10-01 15:06 J -30937862.14 -30937861.87 -30937861.58 0.0134 0.0050
 Mercury -89405-07-14 05:59 J -30933558.28 -30933558.25 -30933558.21 0.0140 0.0135
 Venus -89405-09-15 09:49 J -30933495.16 -30933495.09 -30933494.99 0.0140 0.0128
 Mercury -89405-10-10 10:03 J -30933470.15 -30933470.08 -30933470.00 0.0140 0.0118
 Mercury -89404-01-06 13:54 J -30933382.01 -30933381.92 -30933381.81 0.0141 0.0100
 Mercury -89404-04-04 17:59 J -30933293.86 -30933293.75 -30933293.63 0.0141 0.0082
 Venus -89404-04-29 17:30 J -30933268.96 -30933268.77 -30933268.58 0.0141 0.0061
 Mercury -89404-07-01 22:03 J -30933205.70 -30933205.58 -30933205.45 0.0141 0.0064
 Mercury -89404-09-28 02:08 J -30933117.54 -30933117.41 -30933117.27 0.0141 0.0045
 Venus -89404-12-12 01:25 J -30933042.66 -30933042.44 -30933042.23 0.0141 0.0008
 Mercury -89404-12-25 06:27 J -30933029.37 -30933029.23 -30933029.09 0.0141 0.0026
 Mercury -89403-03-23 10:32 J -30932941.20 -30932941.06 -30932940.91 0.0141 0.0008
 Mercury -89403-06-19 14:51 J -30932853.02 -30932852.88 -30932852.74 0.0141 0.0012
 Venus -89403-07-26 08:51 J -30932816.29 -30932816.13 -30932815.94 0.0142 0.0077
 Mercury -89403-09-15 18:56 J -30932764.84 -30932764.71 -30932764.56 0.0142 0.0032
 Mercury -89403-12-12 23:15 J -30932676.66 -30932676.53 -30932676.39 0.0142 0.0051
 Mercury -89402-03-11 03:49 J -30932588.47 -30932588.34 -30932588.22 0.0142 0.0070
 Mercury -89402-06-07 07:54 J -30932500.27 -30932500.17 -30932500.05 0.0142 0.0090
 Mercury -89402-09-03 12:27 J -30932412.07 -30932411.98 -30932411.89 0.0142 0.0110
 Mercury -89402-11-30 16:47 J -30932323.85 -30932323.80 -30932323.73 0.0142 0.0131
 Earth -89393-03-18 13:39 J -30929292.97 -30929292.93 -30929292.87 0.0146 0.0143
 Earth -89392-03-23 14:23 J -30928923.03 -30928922.90 -30928922.75 0.0147 0.0121

Moon	-89392-03-23 17:30 J	-30928922.91	-30928922.77	-30928922.59	0.0147	0.0114	*
Moon	-89391-03-28 13:25 J	-30928553.11	-30928552.94	-30928552.75	0.0147	0.0103	
Earth	-89391-03-28 16:18 J	-30928553.00	-30928552.82	-30928552.62	0.0147	0.0097	*
Earth	-89390-04-02 19:25 J	-30928182.91	-30928182.69	-30928182.47	0.0147	0.0072	
Moon	-89390-04-02 21:49 J	-30928182.79	-30928182.59	-30928182.36	0.0147	0.0070	*
Moon	-89389-04-06 21:35 J	-30927812.85	-30927812.60	-30927812.35	0.0147	0.0044	
Earth	-89389-04-06 23:30 J	-30927812.76	-30927812.52	-30927812.28	0.0147	0.0047	*
Earth	-89388-04-12 04:18 J	-30927442.57	-30927442.32	-30927442.07	0.0147	0.0020	
Moon	-89388-04-12 05:15 J	-30927442.51	-30927442.28	-30927442.03	0.0147	0.0027	*
Moon	-89387-04-17 09:35 J	-30927072.37	-30927072.10	-30927071.84	0.0147	0.0014	
Earth	-89387-04-17 10:03 J	-30927072.33	-30927072.08	-30927071.82	0.0147	0.0007	*
Moon	-89386-04-22 16:03 J	-30926702.08	-30926701.83	-30926701.59	0.0147	0.0028	
Earth	-89386-04-22 16:47 J	-30926702.05	-30926701.80	-30926701.55	0.0147	0.0034	*
Earth	-89385-04-26 23:59 J	-30926331.73	-30926331.50	-30926331.26	0.0147	0.0060	
Moon	-89385-04-27 01:11 J	-30926331.69	-30926331.45	-30926331.20	0.0147	0.0062	*
Moon	-89384-05-02 05:01 J	-30925961.47	-30925961.29	-30925961.08	0.0147	0.0092	
Earth	-89384-05-02 07:25 J	-30925961.38	-30925961.19	-30925960.97	0.0147	0.0087	*
Earth	-89383-05-07 15:35 J	-30925591.00	-30925590.85	-30925590.67	0.0147	0.0113	
Moon	-89383-05-07 18:27 J	-30925590.90	-30925590.73	-30925590.53	0.0147	0.0105	*
Moon	-89382-05-12 20:37 J	-30925220.66	-30925220.64	-30925220.57	0.0146	0.0145	
Earth	-89382-05-12 23:59 J	-30925220.56	-30925220.50	-30925220.39	0.0146	0.0138	
Mars	-89378-05-23 16:03 J	-30923749.12	-30923748.83	-30923748.51	0.0145	0.0039	
Mars	-89376-04-27 17:59 J	-30923043.86	-30923043.75	-30923043.62	0.0144	0.0132	
Venus	-89366-10-12 12:42 J	-30919224.05	-30919223.97	-30919223.87	0.0138	0.0125	
Mercury	-89366-12-09 14:23 J	-30919165.94	-30919165.90	-30919165.85	0.0138	0.0132	
Mercury	-89365-03-06 20:37 J	-30919077.74	-30919077.64	-30919077.53	0.0138	0.0110	
Venus	-89365-05-25 22:47 J	-30918997.74	-30918997.55	-30918997.34	0.0138	0.0058	
Mercury	-89365-06-03 03:06 J	-30918989.51	-30918989.37	-30918989.24	0.0138	0.0088	
Mercury	-89365-08-30 09:06 J	-30918901.27	-30918901.12	-30918900.96	0.0138	0.0067	
Mercury	-89365-11-26 15:20 J	-30918813.02	-30918812.86	-30918812.69	0.0138	0.0045	

Venus -89364-01-07 08:37 J -30918771.36 -30918771.14 -30918770.92 0.0137 0.0009
 Mercury -89364-02-22 21:20 J -30918724.78 -30918724.61 -30918724.43 0.0137 0.0024
 Mercury -89364-05-22 03:20 J -30918636.53 -30918636.36 -30918636.18 0.0137 0.0004
 Mercury -89364-08-18 09:20 J -30918548.28 -30918548.11 -30918547.94 0.0137 0.0019
 Venus -89364-08-21 17:44 J -30918544.94 -30918544.76 -30918544.57 0.0137 0.0075
 Mercury -89364-11-14 15:20 J -30918460.03 -30918459.86 -30918459.70 0.0137 0.0039
 Mercury -89363-02-10 20:51 J -30918371.77 -30918371.63 -30918371.47 0.0137 0.0060
 Mercury -89363-05-10 02:37 J -30918283.52 -30918283.39 -30918283.24 0.0137 0.0080
 Mercury -89363-08-06 08:23 J -30918195.26 -30918195.15 -30918195.03 0.0137 0.0100
 Mercury -89363-11-02 14:08 J -30918106.98 -30918106.91 -30918106.82 0.0136 0.0119
 Moon -89353-09-25 05:01 J -30914492.34 -30914492.29 -30914492.20 0.0132 0.0128
 Earth -89353-09-25 04:47 J -30914492.32 -30914492.30 -30914492.23 0.0132 0.0131 *
 Earth -89352-09-29 12:13 J -30914123.10 -30914122.99 -30914122.84 0.0132 0.0113
 Moon -89352-09-29 12:42 J -30914123.08 -30914122.97 -30914122.85 0.0132 0.0117 *
 Earth -89351-10-03 18:56 J -30913753.88 -30913753.71 -30913753.52 0.0132 0.0094
 Moon -89351-10-03 19:54 J -30913753.87 -30913753.67 -30913753.48 0.0132 0.0088 *
 Earth -89350-10-08 00:42 J -30913384.67 -30913384.47 -30913384.25 0.0132 0.0076
 Moon -89350-10-08 00:27 J -30913384.66 -30913384.48 -30913384.27 0.0132 0.0083 *
 Earth -89349-10-11 05:30 J -30913015.48 -30913015.27 -30913015.03 0.0132 0.0058
 Moon -89349-10-11 06:27 J -30913015.48 -30913015.23 -30913014.99 0.0132 0.0052 *
 Moon -89348-10-15 09:35 J -30912646.32 -30912646.10 -30912645.86 0.0132 0.0044
 Earth -89348-10-15 10:18 J -30912646.31 -30912646.07 -30912645.82 0.0132 0.0039 *
 Moon -89347-10-19 14:23 J -30912277.16 -30912276.90 -30912276.63 0.0132 0.0019
 Earth -89347-10-19 14:08 J -30912277.15 -30912276.91 -30912276.65 0.0132 0.0021 *
 Moon -89346-10-23 16:47 J -30911908.04 -30911907.80 -30911907.55 0.0131 0.0001
 Earth -89346-10-23 17:30 J -30911908.02 -30911907.77 -30911907.51 0.0131 0.0002 *
 Earth -89345-10-26 20:37 J -30911538.89 -30911538.64 -30911538.39 0.0131 0.0017
 Moon -89345-10-26 20:37 J -30911538.89 -30911538.64 -30911538.37 0.0131 0.0014 *
 Moon -89344-10-30 22:32 J -30911169.78 -30911169.56 -30911169.32 0.0131 0.0041
 Earth -89344-10-30 23:01 J -30911169.77 -30911169.54 -30911169.29 0.0131 0.0035 *

Earth	-89343-11-04 01:11 J	-30910800.67	-30910800.45	-30910800.21	0.0132	0.0054
Moon	-89343-11-04 01:54 J	-30910800.66	-30910800.42	-30910800.17	0.0132	0.0046 *
Earth	-89342-11-08 03:35 J	-30910431.56	-30910431.35	-30910431.14	0.0132	0.0071
Moon	-89342-11-08 03:20 J	-30910431.55	-30910431.36	-30910431.16	0.0132	0.0078 *
Earth	-89341-11-11 05:01 J	-30910062.46	-30910062.29	-30910062.09	0.0132	0.0089
Moon	-89341-11-11 05:30 J	-30910062.45	-30910062.27	-30910062.05	0.0132	0.0084 *
Earth	-89340-11-15 06:27 J	-30909693.36	-30909693.23	-30909693.06	0.0132	0.0106
Moon	-89340-11-15 06:42 J	-30909693.34	-30909693.22	-30909693.08	0.0132	0.0110 *
Earth	-89339-11-19 08:08 J	-30909324.24	-30909324.16	-30909324.06	0.0132	0.0123
Moon	-89339-11-19 08:08 J	-30909324.24	-30909324.16	-30909324.04	0.0132	0.0121 *
Mars	-89334-06-26 15:20 J	-30907644.14	-30907643.86	-30907643.56	0.0134	0.0029
Mars	-89332-05-26 22:18 J	-30906943.76	-30906943.57	-30906943.35	0.0134	0.0098
Mercury	-89321-08-03 12:42 J	-30902857.00	-30902856.97	-30902856.92	0.0140	0.0133
Mercury	-89321-10-30 16:47 J	-30902768.87	-30902768.80	-30902768.72	0.0141	0.0115
Venus	-89321-12-28 01:11 J	-30902710.60	-30902710.45	-30902710.29	0.0141	0.0096
Mercury	-89320-01-26 20:37 J	-30902680.73	-30902680.64	-30902680.53	0.0141	0.0098
Mercury	-89320-04-25 00:56 J	-30902592.58	-30902592.46	-30902592.34	0.0141	0.0079
Mercury	-89320-07-22 05:01 J	-30902504.42	-30902504.29	-30902504.16	0.0141	0.0061
Venus	-89320-08-11 08:37 J	-30902484.34	-30902484.14	-30902483.93	0.0141	0.0028
Mercury	-89320-10-18 09:06 J	-30902416.26	-30902416.12	-30902415.98	0.0141	0.0042
Mercury	-89319-01-14 13:11 J	-30902328.09	-30902327.95	-30902327.81	0.0141	0.0024
Venus	-89319-03-25 16:18 J	-30902258.02	-30902257.82	-30902257.61	0.0141	0.0041
Mercury	-89319-04-12 17:30 J	-30902239.92	-30902239.77	-30902239.63	0.0141	0.0005
Mercury	-89319-07-09 21:35 J	-30902151.74	-30902151.60	-30902151.45	0.0141	0.0015
Mercury	-89319-10-06 01:54 J	-30902063.56	-30902063.42	-30902063.28	0.0142	0.0034
Venus	-89319-11-07 00:27 J	-30902031.60	-30902031.48	-30902031.34	0.0142	0.0110
Mercury	-89318-01-02 06:13 J	-30901975.37	-30901975.24	-30901975.11	0.0142	0.0053
Mercury	-89318-03-31 10:32 J	-30901887.18	-30901887.06	-30901886.93	0.0142	0.0073
Mercury	-89318-06-27 14:51 J	-30901798.98	-30901798.88	-30901798.77	0.0142	0.0093
Mercury	-89318-09-23 19:11 J	-30901710.78	-30901710.70	-30901710.60	0.0142	0.0113

Mercury -89318-12-20 23:44 J -30901622.55 -30901622.51 -30901622.45 0.0142 0.0133
 Moon -89309-03-18 18:42 J -30898611.80 -30898611.72 -30898611.60 0.0146 0.0134
 Earth -89309-03-18 22:32 J -30898611.63 -30898611.56 -30898611.47 0.0146 0.0138 *
 Earth -89308-03-23 23:30 J -30898241.67 -30898241.52 -30898241.37 0.0147 0.0116
 Moon -89308-03-24 02:51 J -30898241.51 -30898241.38 -30898241.25 0.0147 0.0124 *
 Moon -89307-03-28 21:49 J -30897871.80 -30897871.59 -30897871.39 0.0147 0.0085
 Earth -89307-03-29 00:56 J -30897871.64 -30897871.46 -30897871.25 0.0147 0.0093 *
 Earth -89306-04-03 04:03 J -30897501.54 -30897501.33 -30897501.10 0.0147 0.0068
 Moon -89306-04-03 06:56 J -30897501.42 -30897501.21 -30897500.99 0.0147 0.0071 *
 Moon -89305-04-07 05:44 J -30897131.51 -30897131.26 -30897131.01 0.0147 0.0045
 Earth -89305-04-07 08:08 J -30897131.39 -30897131.16 -30897130.91 0.0147 0.0043 *
 Earth -89304-04-12 12:56 J -30896761.21 -30896760.96 -30896760.70 0.0147 0.0017
 Moon -89304-04-12 15:06 J -30896761.12 -30896760.87 -30896760.63 0.0147 0.0011 *
 Moon -89303-04-17 18:13 J -30896391.01 -30896390.74 -30896390.48 0.0147 0.0002
 Earth -89303-04-17 18:56 J -30896390.96 -30896390.71 -30896390.45 0.0147 0.0010 *
 Earth -89302-04-23 01:39 J -30896020.68 -30896020.43 -30896020.18 0.0147 0.0036
 Moon -89302-04-23 02:08 J -30896020.64 -30896020.41 -30896020.17 0.0147 0.0042 *
 Earth -89301-04-27 08:37 J -30895650.36 -30895650.14 -30895649.90 0.0147 0.0063
 Moon -89301-04-27 09:35 J -30895650.33 -30895650.10 -30895649.84 0.0147 0.0062 *
 Moon -89300-05-02 14:51 J -30895280.06 -30895279.88 -30895279.66 0.0147 0.0086
 Earth -89300-05-02 16:18 J -30895280.01 -30895279.82 -30895279.60 0.0147 0.0089 *
 Earth -89299-05-08 00:13 J -30894909.63 -30894909.49 -30894909.31 0.0147 0.0114
 Moon -89299-05-08 02:51 J -30894909.51 -30894909.38 -30894909.21 0.0147 0.0121 *
 Moon -89298-05-13 05:30 J -30894539.36 -30894539.27 -30894539.13 0.0147 0.0131
 Earth -89298-05-13 08:51 J -30894539.20 -30894539.13 -30894539.03 0.0147 0.0138 *
 Mars -89293-01-17 15:06 J -30892829.18 -30892828.87 -30892828.55 0.0145 0.0026
 Mercury -89282-12-29 20:51 J -30888464.68 -30888464.63 -30888464.56 0.0138 0.0130
 Venus -89281-01-24 05:15 J -30888439.45 -30888439.28 -30888439.12 0.0138 0.0092
 Mercury -89281-03-27 03:20 J -30888376.46 -30888376.36 -30888376.24 0.0138 0.0107
 Mercury -89281-06-23 09:35 J -30888288.23 -30888288.10 -30888287.96 0.0138 0.0085

Venus -89281-09-06 14:51 J -30888213.10 -30888212.88 -30888212.66 0.0138 0.0025
 Mercury -89281-09-19 15:49 J -30888199.99 -30888199.84 -30888199.68 0.0138 0.0063
 Mercury -89281-12-16 22:03 J -30888111.75 -30888111.58 -30888111.41 0.0137 0.0042
 Mercury -89280-03-15 04:03 J -30888023.50 -30888023.33 -30888023.16 0.0137 0.0021
 Venus -89280-04-21 00:13 J -30887986.70 -30887986.49 -30887986.27 0.0137 0.0041
 Mercury -89280-06-11 10:03 J -30887935.25 -30887935.08 -30887934.90 0.0137 0.0002
 Mercury -89280-09-07 16:03 J -30887847.00 -30887846.83 -30887846.66 0.0137 0.0021
 Venus -89280-12-03 09:20 J -30887760.24 -30887760.11 -30887759.96 0.0137 0.0106
 Mercury -89280-12-04 21:49 J -30887758.75 -30887758.59 -30887758.42 0.0137 0.0042
 Mercury -89279-03-03 03:35 J -30887670.49 -30887670.35 -30887670.19 0.0137 0.0063
 Mercury -89279-05-30 09:20 J -30887582.24 -30887582.11 -30887581.96 0.0137 0.0083
 Mercury -89279-08-26 15:06 J -30887493.97 -30887493.87 -30887493.75 0.0137 0.0103
 Mercury -89279-11-22 20:37 J -30887405.70 -30887405.64 -30887405.55 0.0136 0.0123
 Moon -89269-09-25 12:27 J -30883811.06 -30883810.98 -30883810.90 0.0132 0.0126
 Earth -89269-09-25 12:56 J -30883811.02 -30883810.96 -30883810.86 0.0132 0.0126 *
 Earth -89268-09-29 20:23 J -30883441.78 -30883441.65 -30883441.48 0.0132 0.0108
 Moon -89268-09-29 20:51 J -30883441.77 -30883441.63 -30883441.46 0.0132 0.0104 *
 Moon -89267-10-04 02:08 J -30883072.57 -30883072.41 -30883072.21 0.0132 0.0096
 Earth -89267-10-04 03:06 J -30883072.54 -30883072.37 -30883072.17 0.0132 0.0090 *
 Earth -89266-10-08 08:51 J -30882703.34 -30882703.13 -30882702.91 0.0132 0.0072
 Moon -89266-10-08 09:06 J -30882703.33 -30882703.12 -30882702.90 0.0132 0.0066 *
 Moon -89265-10-11 13:39 J -30882334.16 -30882333.93 -30882333.69 0.0132 0.0060
 Earth -89265-10-11 13:54 J -30882334.14 -30882333.92 -30882333.68 0.0132 0.0054 *
 Earth -89264-10-15 18:27 J -30881964.96 -30881964.73 -30881964.47 0.0132 0.0036
 Moon -89264-10-15 18:56 J -30881964.94 -30881964.71 -30881964.46 0.0132 0.0032 *
 Moon -89263-10-19 22:32 J -30881595.82 -30881595.56 -30881595.30 0.0131 0.0019
 Earth -89263-10-19 22:32 J -30881595.81 -30881595.56 -30881595.31 0.0131 0.0017 *
 Earth -89262-10-24 02:08 J -30881226.67 -30881226.41 -30881226.16 0.0131 0.0002
 Moon -89262-10-24 02:37 J -30881226.64 -30881226.39 -30881226.15 0.0131 0.0001 *
 Moon -89261-10-27 05:01 J -30880857.55 -30880857.29 -30880857.03 0.0131 0.0023

Earth -89261-10-27 05:01 J -30880857.54 -30880857.29 -30880857.04 0.0131 0.0020 *
 Earth -89260-10-31 07:39 J -30880488.41 -30880488.18 -30880487.93 0.0131 0.0038
 Moon -89260-10-31 07:54 J -30880488.40 -30880488.17 -30880487.92 0.0131 0.0033 *
 Moon -89259-11-04 09:20 J -30880119.33 -30880119.11 -30880118.86 0.0132 0.0062
 Earth -89259-11-04 10:03 J -30880119.30 -30880119.08 -30880118.84 0.0132 0.0055 *
 Moon -89258-11-08 11:59 J -30879750.20 -30879750.00 -30879749.78 0.0132 0.0067
 Earth -89258-11-08 11:59 J -30879750.20 -30879750.00 -30879749.78 0.0132 0.0073 *
 Moon -89257-11-11 12:56 J -30879381.13 -30879380.96 -30879380.77 0.0132 0.0096
 Earth -89257-11-11 13:39 J -30879381.10 -30879380.93 -30879380.74 0.0132 0.0090 *
 Earth -89256-11-15 14:51 J -30879012.00 -30879011.88 -30879011.71 0.0132 0.0107
 Moon -89256-11-15 15:35 J -30879011.99 -30879011.85 -30879011.69 0.0132 0.0103 *
 Moon -89255-11-19 15:49 J -30878642.91 -30878642.84 -30878642.74 0.0132 0.0124
 Earth -89255-11-19 16:03 J -30878642.89 -30878642.83 -30878642.72 0.0132 0.0124 *
 Mars -89251-03-20 21:20 J -30877425.79 -30877425.61 -30877425.42 0.0133 0.0103
 Mars -89249-02-18 20:37 J -30876725.93 -30876725.64 -30876725.35 0.0134 0.0018
 Mercury -89237-08-23 19:25 J -30872155.73 -30872155.69 -30872155.63 0.0140 0.0131
 Venus -89237-08-27 08:08 J -30872152.22 -30872152.16 -30872152.08 0.0140 0.0131
 Mercury -89237-11-19 23:30 J -30872067.60 -30872067.52 -30872067.43 0.0141 0.0113
 Mercury -89236-02-16 03:20 J -30871979.45 -30871979.36 -30871979.25 0.0141 0.0096
 Venus -89236-04-10 15:49 J -30871926.03 -30871925.84 -30871925.65 0.0141 0.0064
 Mercury -89236-05-15 07:39 J -30871891.30 -30871891.18 -30871891.06 0.0141 0.0077
 Mercury -89236-08-11 11:44 J -30871803.14 -30871803.01 -30871802.88 0.0141 0.0059
 Mercury -89236-11-07 15:49 J -30871714.98 -30871714.84 -30871714.70 0.0141 0.0040
 Venus -89236-11-22 23:30 J -30871699.73 -30871699.52 -30871699.31 0.0141 0.0004
 Mercury -89235-02-03 19:54 J -30871626.81 -30871626.67 -30871626.53 0.0141 0.0022
 Mercury -89235-05-03 00:13 J -30871538.64 -30871538.49 -30871538.35 0.0141 0.0003
 Venus -89235-07-07 07:25 J -30871473.37 -30871473.19 -30871473.01 0.0141 0.0073
 Mercury -89235-07-30 04:18 J -30871450.46 -30871450.32 -30871450.17 0.0141 0.0017
 Mercury -89235-10-26 08:37 J -30871362.28 -30871362.14 -30871362.00 0.0142 0.0036
 Mercury -89234-01-22 12:56 J -30871274.09 -30871273.96 -30871273.83 0.0142 0.0055

Mercury -89234-04-20 17:15 J -30871185.90 -30871185.78 -30871185.65 0.0142 0.0075

Mercury -89234-07-17 21:35 J -30871097.70 -30871097.60 -30871097.49 0.0142 0.0095

Mercury -89234-10-14 01:54 J -30871009.49 -30871009.42 -30871009.32 0.0142 0.0116

Mercury -89233-01-10 06:27 J -30870921.26 -30870921.23 -30870921.18 0.0142 0.0135

Moon -89225-03-19 02:51 J -30867930.44 -30867930.38 -30867930.30 0.0146 0.0140

Earth -89225-03-19 06:13 J -30867930.33 -30867930.24 -30867930.13 0.0146 0.0134 *

Earth -89224-03-24 06:42 J -30867560.36 -30867560.22 -30867560.04 0.0147 0.0112

Moon -89224-03-24 10:32 J -30867560.22 -30867560.06 -30867559.87 0.0147 0.0104 *

Moon -89223-03-29 05:30 J -30867190.45 -30867190.27 -30867190.07 0.0147 0.0095

Earth -89223-03-29 09:06 J -30867190.32 -30867190.12 -30867189.92 0.0147 0.0088 *

Earth -89222-04-03 11:59 J -30866820.22 -30866820.00 -30866819.77 0.0147 0.0064

Moon -89222-04-03 15:35 J -30866820.08 -30866819.85 -30866819.62 0.0147 0.0060 *

Moon -89221-04-07 12:56 J -30866450.20 -30866449.96 -30866449.70 0.0147 0.0038

Earth -89221-04-07 16:18 J -30866450.07 -30866449.82 -30866449.58 0.0147 0.0039 *

Earth -89220-04-12 21:06 J -30866079.87 -30866079.62 -30866079.36 0.0147 0.0013

Moon -89220-04-12 23:30 J -30866079.76 -30866079.52 -30866079.27 0.0147 0.0019 *

Moon -89219-04-18 01:11 J -30865709.71 -30865709.45 -30865709.19 0.0147 0.0020

Earth -89219-04-18 03:06 J -30865709.62 -30865709.37 -30865709.11 0.0147 0.0013 *

Earth -89218-04-23 09:49 J -30865339.33 -30865339.09 -30865338.84 0.0147 0.0039

Moon -89218-04-23 10:32 J -30865339.30 -30865339.06 -30865338.82 0.0147 0.0033 *

Moon -89217-04-27 16:47 J -30864969.03 -30864968.80 -30864968.56 0.0147 0.0067

Earth -89217-04-27 16:47 J -30864969.01 -30864968.80 -30864968.55 0.0147 0.0065 *

Moon -89216-05-02 23:15 J -30864598.70 -30864598.53 -30864598.32 0.0147 0.0094

Earth -89216-05-03 00:27 J -30864598.67 -30864598.48 -30864598.26 0.0147 0.0090 *

Earth -89215-05-08 08:37 J -30864228.29 -30864228.14 -30864227.97 0.0147 0.0115

Moon -89215-05-08 10:18 J -30864228.23 -30864228.07 -30864227.88 0.0147 0.0108 *

Moon -89214-05-13 14:37 J -30863857.90 -30863857.89 -30863857.86 0.0147 0.0146

Earth -89214-05-13 16:47 J -30863857.86 -30863857.80 -30863857.70 0.0147 0.0139 *

Mars -89211-10-08 01:39 J -30862614.67 -30862614.43 -30862614.15 0.0145 0.0085

Mars -89209-09-12 11:44 J -30861909.25 -30861909.01 -30861908.75 0.0145 0.0090

Venus -89198-09-23 10:47 J -30857881.12 -30857881.05 -30857880.95 0.0138 0.0127
 Mercury -89197-01-19 03:35 J -30857763.41 -30857763.35 -30857763.27 0.0138 0.0126
 Mercury -89197-04-16 09:49 J -30857675.19 -30857675.09 -30857674.96 0.0138 0.0104
 Venus -89197-05-06 20:51 J -30857654.82 -30857654.63 -30857654.42 0.0138 0.0060
 Mercury -89197-07-13 16:18 J -30857586.96 -30857586.82 -30857586.68 0.0138 0.0082
 Mercury -89197-10-09 22:18 J -30857498.72 -30857498.57 -30857498.40 0.0138 0.0061
 Venus -89197-12-19 06:42 J -30857428.44 -30857428.22 -30857428.00 0.0137 0.0007
 Mercury -89196-01-06 04:32 J -30857410.47 -30857410.31 -30857410.14 0.0137 0.0039
 Mercury -89196-04-04 10:47 J -30857322.22 -30857322.05 -30857321.88 0.0137 0.0018
 Mercury -89196-07-01 16:47 J -30857233.97 -30857233.80 -30857233.63 0.0137 0.0004
 Venus -89196-08-02 15:49 J -30857202.02 -30857201.84 -30857201.65 0.0137 0.0073
 Mercury -89196-09-27 22:32 J -30857145.72 -30857145.56 -30857145.38 0.0137 0.0025
 Mercury -89196-12-25 04:32 J -30857057.47 -30857057.31 -30857057.15 0.0137 0.0045
 Mercury -89195-03-23 10:18 J -30856969.21 -30856969.07 -30856968.91 0.0137 0.0066
 Mercury -89195-06-19 16:03 J -30856880.96 -30856880.83 -30856880.69 0.0137 0.0086
 Mercury -89195-09-15 21:49 J -30856792.69 -30856792.59 -30856792.48 0.0137 0.0106
 Mercury -89195-12-13 03:20 J -30856704.41 -30856704.36 -30856704.28 0.0136 0.0126
 Moon -89185-09-25 19:11 J -30853129.79 -30853129.70 -30853129.56 0.0132 0.0120
 Earth -89185-09-25 20:23 J -30853129.72 -30853129.65 -30853129.52 0.0132 0.0122 *
 Earth -89184-09-30 04:18 J -30852760.47 -30852760.32 -30852760.16 0.0132 0.0104
 Moon -89184-09-30 05:30 J -30852760.39 -30852760.27 -30852760.10 0.0132 0.0108 *
 Moon -89183-10-04 09:35 J -30852391.30 -30852391.10 -30852390.88 0.0132 0.0080
 Earth -89183-10-04 10:32 J -30852391.24 -30852391.06 -30852390.85 0.0132 0.0086 *
 Earth -89182-10-08 16:32 J -30852022.02 -30852021.81 -30852021.59 0.0132 0.0068
 Moon -89182-10-08 17:30 J -30852021.96 -30852021.77 -30852021.55 0.0132 0.0076 *
 Moon -89181-10-11 20:37 J -30851652.89 -30851652.64 -30851652.39 0.0132 0.0044
 Earth -89181-10-11 21:35 J -30851652.82 -30851652.60 -30851652.35 0.0132 0.0051 *
 Earth -89180-10-16 02:08 J -30851283.64 -30851283.41 -30851283.15 0.0131 0.0033
 Moon -89180-10-16 03:06 J -30851283.60 -30851283.37 -30851283.13 0.0131 0.0037 *
 Moon -89179-10-20 05:01 J -30850914.55 -30850914.29 -30850914.02 0.0131 0.0011

Earth	-89179-10-20 06:27 J	-30850914.48	-30850914.23	-30850913.97	0.0131	0.0014	*
Earth	-89178-10-24 10:03 J	-30850545.34	-30850545.08	-30850544.83	0.0131	0.0005	
Moon	-89178-10-24 10:47 J	-30850545.30	-30850545.05	-30850544.81	0.0131	0.0005	*
Moon	-89177-10-27 11:59 J	-30850176.26	-30850176.00	-30850175.74	0.0131	0.0019	
Earth	-89177-10-27 12:56 J	-30850176.20	-30850175.96	-30850175.70	0.0131	0.0023	*
Earth	-89176-10-31 15:49 J	-30849807.08	-30849806.84	-30849806.60	0.0131	0.0040	
Moon	-89176-10-31 16:47 J	-30849807.02	-30849806.80	-30849806.56	0.0131	0.0044	*
Moon	-89175-11-04 17:01 J	-30849438.02	-30849437.79	-30849437.54	0.0132	0.0051	
Earth	-89175-11-04 17:44 J	-30849437.97	-30849437.76	-30849437.52	0.0132	0.0058	*
Earth	-89174-11-08 19:39 J	-30849068.87	-30849068.68	-30849068.46	0.0132	0.0075	
Moon	-89174-11-08 21:20 J	-30849068.80	-30849068.61	-30849068.42	0.0132	0.0081	*
Moon	-89173-11-11 20:37 J	-30848699.83	-30848699.64	-30848699.44	0.0132	0.0085	
Earth	-89173-11-11 21:35 J	-30848699.77	-30848699.60	-30848699.41	0.0132	0.0091	*
Earth	-89172-11-15 22:47 J	-30848330.68	-30848330.55	-30848330.39	0.0132	0.0107	
Moon	-89172-11-16 00:13 J	-30848330.61	-30848330.49	-30848330.36	0.0132	0.0112	*
Moon	-89171-11-19 22:32 J	-30847961.65	-30847961.56	-30847961.44	0.0132	0.0120	
Earth	-89171-11-19 23:59 J	-30847961.57	-30847961.50	-30847961.39	0.0132	0.0124	*
Mars	-89167-11-13 00:27 J	-30846507.73	-30846507.48	-30846507.21	0.0133	0.0058	
Mars	-89165-10-13 03:06 J	-30845807.62	-30845807.37	-30845807.09	0.0134	0.0064	
Mercury	-89153-09-13 02:08 J	-30841454.46	-30841454.41	-30841454.35	0.0140	0.0129	
Venus	-89153-12-08 22:47 J	-30841367.69	-30841367.55	-30841367.40	0.0141	0.0100	
Mercury	-89153-12-10 05:59 J	-30841366.32	-30841366.25	-30841366.16	0.0141	0.0112	
Mercury	-89152-03-08 10:03 J	-30841278.18	-30841278.08	-30841277.97	0.0141	0.0094	
Mercury	-89152-06-04 14:08 J	-30841190.02	-30841189.91	-30841189.79	0.0141	0.0076	
Venus	-89152-07-23 06:13 J	-30841141.44	-30841141.24	-30841141.03	0.0141	0.0033	
Mercury	-89152-08-31 18:13 J	-30841101.86	-30841101.74	-30841101.60	0.0141	0.0057	
Mercury	-89152-11-27 22:32 J	-30841013.70	-30841013.56	-30841013.43	0.0141	0.0038	
Mercury	-89151-02-24 02:37 J	-30840925.53	-30840925.39	-30840925.25	0.0141	0.0020	
Venus	-89151-03-06 13:54 J	-30840915.12	-30840914.92	-30840914.70	0.0141	0.0037	
Mercury	-89151-05-23 06:42 J	-30840837.36	-30840837.22	-30840837.07	0.0141	0.0005	

Mercury -89151-08-19 11:01 J -30840749.18 -30840749.04 -30840748.90 0.0142 0.0019

Venus -89151-10-18 22:03 J -30840688.71 -30840688.58 -30840688.43 0.0142 0.0106

Mercury -89151-11-15 15:20 J -30840661.00 -30840660.86 -30840660.72 0.0142 0.0038

Mercury -89150-02-11 19:25 J -30840572.81 -30840572.69 -30840572.55 0.0142 0.0058

Mercury -89150-05-10 23:59 J -30840484.62 -30840484.50 -30840484.38 0.0142 0.0077

Mercury -89150-08-07 04:18 J -30840396.42 -30840396.32 -30840396.21 0.0142 0.0097

Mercury -89150-11-03 08:37 J -30840308.21 -30840308.14 -30840308.05 0.0142 0.0117

Mercury -89149-01-30 13:11 J -30840219.98 -30840219.95 -30840219.91 0.0142 0.0137

Moon -89141-03-19 10:18 J -30837249.19 -30837249.07 -30837248.93 0.0146 0.0124

Earth -89141-03-19 13:11 J -30837249.05 -30837248.95 -30837248.81 0.0146 0.0129 *

Earth -89140-03-24 14:08 J -30836879.07 -30836878.91 -30836878.73 0.0147 0.0107

Moon -89140-03-24 17:30 J -30836878.91 -30836878.77 -30836878.60 0.0147 0.0115 *

Moon -89139-03-29 12:27 J -30836509.19 -30836508.98 -30836508.76 0.0147 0.0076

Earth -89139-03-29 16:03 J -30836509.02 -30836508.83 -30836508.61 0.0147 0.0084 *

Earth -89138-04-03 19:11 J -30836138.92 -30836138.70 -30836138.46 0.0147 0.0060

Moon -89138-04-03 22:47 J -30836138.77 -30836138.55 -30836138.32 0.0147 0.0064 *

Moon -89137-04-07 20:08 J -30835768.90 -30835768.66 -30835768.40 0.0147 0.0036

Earth -89137-04-07 23:30 J -30835768.76 -30835768.52 -30835768.26 0.0147 0.0035 *

Earth -89136-04-13 04:32 J -30835398.56 -30835398.31 -30835398.05 0.0147 0.0010

Moon -89136-04-13 07:54 J -30835398.42 -30835398.17 -30835397.92 0.0147 0.0006 *

Moon -89135-04-18 08:37 J -30835028.41 -30835028.14 -30835027.88 0.0147 0.0009

Earth -89135-04-18 10:47 J -30835028.31 -30835028.05 -30835027.80 0.0147 0.0016 *

Earth -89134-04-23 17:15 J -30834658.02 -30834657.78 -30834657.53 0.0147 0.0041

Moon -89134-04-23 19:11 J -30834657.93 -30834657.70 -30834657.46 0.0147 0.0049 *

Moon -89133-04-27 23:44 J -30834287.75 -30834287.51 -30834287.27 0.0147 0.0064

Earth -89133-04-28 00:13 J -30834287.71 -30834287.49 -30834287.25 0.0147 0.0067 *

Earth -89132-05-03 07:54 J -30833917.36 -30833917.17 -30833916.96 0.0147 0.0092

Moon -89132-05-03 07:54 J -30833917.35 -30833917.17 -30833916.96 0.0147 0.0090 *

Earth -89131-05-08 15:49 J -30833546.98 -30833546.84 -30833546.67 0.0147 0.0116

Moon -89131-05-08 16:47 J -30833546.93 -30833546.80 -30833546.63 0.0147 0.0122 *

Moon -89130-05-13 22:03 J -30833176.67 -30833176.58 -30833176.46 0.0147 0.0132
 Earth -89130-05-13 23:59 J -30833176.56 -30833176.50 -30833176.40 0.0147 0.0140 *
 Mars -89126-06-04 01:39 J -30831694.74 -30831694.43 -30831694.11 0.0145 0.0019
 Venus -89113-01-05 03:06 J -30827096.52 -30827096.37 -30827096.20 0.0138 0.0094
 Mercury -89113-02-08 10:18 J -30827062.14 -30827062.07 -30827061.98 0.0138 0.0123
 Mercury -89113-05-06 16:32 J -30826973.92 -30826973.81 -30826973.68 0.0138 0.0101
 Mercury -89113-08-02 22:47 J -30826885.68 -30826885.55 -30826885.40 0.0138 0.0079
 Venus -89113-08-18 12:56 J -30826870.18 -30826869.96 -30826869.74 0.0138 0.0027
 Mercury -89113-10-30 05:01 J -30826797.44 -30826797.29 -30826797.12 0.0138 0.0057
 Mercury -89112-01-26 11:15 J -30826709.19 -30826709.03 -30826708.86 0.0137 0.0036
 Venus -89112-04-01 22:18 J -30826643.78 -30826643.57 -30826643.35 0.0137 0.0040
 Mercury -89112-04-24 17:30 J -30826620.95 -30826620.77 -30826620.60 0.0137 0.0015
 Mercury -89112-07-21 23:30 J -30826532.70 -30826532.52 -30826532.35 0.0137 0.0007
 Mercury -89112-10-18 05:15 J -30826444.44 -30826444.28 -30826444.10 0.0137 0.0028
 Venus -89112-11-14 07:25 J -30826417.32 -30826417.19 -30826417.04 0.0137 0.0105
 Mercury -89111-01-14 11:15 J -30826356.19 -30826356.03 -30826355.87 0.0137 0.0048
 Mercury -89111-04-12 17:01 J -30826267.93 -30826267.79 -30826267.64 0.0137 0.0069
 Mercury -89111-07-09 22:47 J -30826179.67 -30826179.55 -30826179.41 0.0137 0.0089
 Mercury -89111-10-06 04:32 J -30826091.40 -30826091.31 -30826091.20 0.0137 0.0109
 Mercury -89110-01-02 10:03 J -30826003.12 -30826003.08 -30826003.01 0.0136 0.0129
 Moon -89101-09-26 02:23 J -30822448.51 -30822448.40 -30822448.26 0.0132 0.0116
 Earth -89101-09-26 04:47 J -30822448.40 -30822448.30 -30822448.16 0.0132 0.0117 *
 Earth -89100-09-30 12:13 J -30822079.14 -30822078.99 -30822078.80 0.0132 0.0100
 Moon -89100-09-30 14:23 J -30822079.07 -30822078.90 -30822078.73 0.0132 0.0096 *
 Moon -89099-10-04 16:47 J -30821709.98 -30821709.80 -30821709.59 0.0132 0.0087
 Earth -89099-10-04 18:56 J -30821709.90 -30821709.71 -30821709.49 0.0132 0.0082 *
 Earth -89098-10-09 00:56 J -30821340.68 -30821340.46 -30821340.23 0.0132 0.0064
 Moon -89098-10-09 02:51 J -30821340.60 -30821340.38 -30821340.16 0.0132 0.0058 *
 Moon -89097-10-12 04:32 J -30820971.54 -30820971.31 -30820971.06 0.0132 0.0053
 Earth -89097-10-12 06:13 J -30820971.47 -30820971.24 -30820970.99 0.0132 0.0046 *

Earth	-89096-10-16 11:01 J	-30820602.29	-30820602.04	-30820601.79	0.0131	0.0029
Moon	-89096-10-16 12:56 J	-30820602.20	-30820601.96	-30820601.71	0.0131	0.0023 *
Moon	-89095-10-20 13:25 J	-30820233.19	-30820232.94	-30820232.67	0.0131	0.0014
Earth	-89095-10-20 15:06 J	-30820233.12	-30820232.87	-30820232.62	0.0131	0.0011 *
Earth	-89094-10-24 18:42 J	-30819863.97	-30819863.72	-30819863.47	0.0131	0.0007
Moon	-89094-10-24 20:23 J	-30819863.89	-30819863.65	-30819863.40	0.0131	0.0009 *
Moon	-89093-10-27 19:54 J	-30819494.91	-30819494.67	-30819494.40	0.0131	0.0027
Earth	-89093-10-27 22:03 J	-30819494.83	-30819494.58	-30819494.33	0.0131	0.0025 *
Earth	-89092-11-01 00:13 J	-30819125.71	-30819125.49	-30819125.24	0.0131	0.0043
Moon	-89092-11-01 01:54 J	-30819125.65	-30819125.42	-30819125.18	0.0131	0.0037 *
Moon	-89091-11-05 00:27 J	-30818756.70	-30818756.48	-30818756.25	0.0131	0.0065
Earth	-89091-11-05 02:23 J	-30818756.61	-30818756.40	-30818756.16	0.0131	0.0060 *
Earth	-89090-11-09 04:32 J	-30818387.51	-30818387.31	-30818387.10	0.0132	0.0076
Moon	-89090-11-09 05:44 J	-30818387.45	-30818387.26	-30818387.04	0.0132	0.0070 *
Moon	-89089-11-12 03:49 J	-30818018.49	-30818018.34	-30818018.15	0.0132	0.0099
Earth	-89089-11-12 06:13 J	-30818018.41	-30818018.24	-30818018.06	0.0132	0.0092 *
Earth	-89088-11-16 07:25 J	-30817649.32	-30817649.19	-30817649.04	0.0132	0.0108
Moon	-89088-11-16 09:06 J	-30817649.25	-30817649.12	-30817648.95	0.0132	0.0104 *
Moon	-89087-11-20 06:42 J	-30817280.27	-30817280.22	-30817280.12	0.0132	0.0126
Earth	-89087-11-20 08:23 J	-30817280.21	-30817280.15	-30817280.04	0.0132	0.0124 *
Mars	-89084-08-07 10:03 J	-30816289.12	-30816289.08	-30816289.00	0.0133	0.0130
Mars	-89082-07-08 05:44 J	-30815589.55	-30815589.26	-30815588.97	0.0133	0.0012
Mars	-89080-06-07 11:44 J	-30814889.15	-30814889.01	-30814888.82	0.0134	0.0112
Venus	-89069-08-08 05:44 J	-30810809.30	-30810809.26	-30810809.19	0.0140	0.0136
Mercury	-89069-10-03 08:51 J	-30810753.18	-30810753.13	-30810753.07	0.0140	0.0127
Mercury	-89069-12-30 12:42 J	-30810665.05	-30810664.97	-30810664.87	0.0141	0.0110
Venus	-89068-03-22 13:11 J	-30810583.12	-30810582.95	-30810582.75	0.0141	0.0069
Mercury	-89068-03-28 16:47 J	-30810576.90	-30810576.80	-30810576.69	0.0141	0.0092
Mercury	-89068-06-24 20:51 J	-30810488.74	-30810488.63	-30810488.50	0.0141	0.0073
Mercury	-89068-09-21 00:56 J	-30810400.59	-30810400.46	-30810400.32	0.0141	0.0055

Venus -89068-11-03 21:20 J -30810356.83 -30810356.61 -30810356.40 0.0141 0.0002
 Mercury -89068-12-18 05:15 J -30810312.42 -30810312.28 -30810312.15 0.0141 0.0036
 Mercury -89067-03-16 09:20 J -30810224.25 -30810224.11 -30810223.97 0.0141 0.0017
 Mercury -89067-06-12 13:25 J -30810136.08 -30810135.94 -30810135.79 0.0141 0.0005
 Venus -89067-06-18 05:01 J -30810130.47 -30810130.29 -30810130.10 0.0141 0.0069
 Mercury -89067-09-08 17:44 J -30810047.90 -30810047.76 -30810047.62 0.0142 0.0021
 Mercury -89067-12-05 22:03 J -30809959.72 -30809959.58 -30809959.44 0.0142 0.0040
 Venus -89066-01-30 13:11 J -30809903.99 -30809903.95 -30809903.90 0.0142 0.0138
 Mercury -89066-03-04 02:08 J -30809871.53 -30809871.41 -30809871.27 0.0142 0.0060
 Mercury -89066-05-31 06:42 J -30809783.34 -30809783.22 -30809783.10 0.0142 0.0079
 Mercury -89066-08-27 11:01 J -30809695.14 -30809695.04 -30809694.93 0.0142 0.0099
 Mercury -89066-11-23 15:20 J -30809606.93 -30809606.86 -30809606.78 0.0142 0.0119
 Mercury -89065-02-19 19:54 J -30809518.69 -30809518.67 -30809518.64 0.0142 0.0140
 Earth -89058-03-15 20:37 J -30806937.65 -30806937.64 -30806937.59 0.0146 0.0145
 Moon -89058-03-15 22:47 J -30806937.55 -30806937.55 -30806937.49 0.0146 0.0145
 Moon -89057-03-19 17:30 J -30806567.86 -30806567.77 -30806567.64 0.0146 0.0130
 Earth -89057-03-19 20:23 J -30806567.76 -30806567.65 -30806567.50 0.0146 0.0124 *
 Earth -89056-03-24 21:06 J -30806197.78 -30806197.62 -30806197.43 0.0146 0.0103
 Moon -89056-03-25 00:27 J -30806197.66 -30806197.48 -30806197.27 0.0146 0.0095 *
 Moon -89055-03-29 20:08 J -30805827.85 -30805827.66 -30805827.45 0.0147 0.0087
 Earth -89055-03-29 23:15 J -30805827.73 -30805827.53 -30805827.30 0.0147 0.0080 *
 Earth -89054-04-04 02:23 J -30805457.62 -30805457.40 -30805457.15 0.0147 0.0056
 Moon -89054-04-04 06:13 J -30805457.47 -30805457.24 -30805456.99 0.0147 0.0052 *
 Moon -89053-04-08 03:06 J -30805087.61 -30805087.37 -30805087.12 0.0147 0.0032
 Earth -89053-04-08 06:42 J -30805087.46 -30805087.22 -30805086.97 0.0147 0.0031 *
 Earth -89052-04-13 11:44 J -30804717.26 -30804717.01 -30804716.75 0.0147 0.0006
 Moon -89052-04-13 14:51 J -30804717.13 -30804716.88 -30804716.63 0.0147 0.0012 *
 Moon -89051-04-18 14:23 J -30804347.15 -30804346.90 -30804346.64 0.0147 0.0026
 Earth -89051-04-18 17:30 J -30804347.01 -30804346.77 -30804346.51 0.0147 0.0020 *
 Earth -89050-04-23 23:59 J -30803976.74 -30803976.50 -30803976.25 0.0147 0.0044

Moon	-89050-04-24 02:08 J	-30803976.65	-30803976.41	-30803976.17	0.0147	0.0038 *
Moon	-89049-04-28 05:30 J	-30803606.50	-30803606.27	-30803606.04	0.0147	0.0073
Earth	-89049-04-28 06:56 J	-30803606.42	-30803606.21	-30803605.97	0.0147	0.0069 *
Earth	-89048-05-03 14:37 J	-30803236.08	-30803235.89	-30803235.68	0.0147	0.0093
Moon	-89048-05-03 15:20 J	-30803236.04	-30803235.86	-30803235.66	0.0147	0.0095 *
Earth	-89047-05-08 22:32 J	-30802865.70	-30802865.56	-30802865.39	0.0147	0.0117
Moon	-89047-05-08 23:01 J	-30802865.70	-30802865.54	-30802865.35	0.0147	0.0110 *
Earth	-89046-05-14 06:42 J	-30802495.28	-30802495.22	-30802495.12	0.0147	0.0140
Mars	-89043-02-22 05:15 J	-30801480.42	-30801480.28	-30801480.13	0.0146	0.0130
Mars	-89041-01-28 23:01 J	-30800774.83	-30800774.54	-30800774.22	0.0145	0.0046
Venus	-89030-09-04 09:06 J	-30796538.19	-30796538.12	-30796538.04	0.0138	0.0129
Mercury	-89029-02-28 16:47 J	-30796360.87	-30796360.80	-30796360.70	0.0138	0.0120
Venus	-89029-04-17 18:56 J	-30796311.90	-30796311.71	-30796311.50	0.0138	0.0061
Mercury	-89029-05-26 23:15 J	-30796272.65	-30796272.53	-30796272.40	0.0138	0.0098
Mercury	-89029-08-23 05:30 J	-30796184.41	-30796184.27	-30796184.12	0.0138	0.0076
Mercury	-89029-11-19 11:44 J	-30796096.16	-30796096.01	-30796095.84	0.0138	0.0054
Venus	-89029-11-30 04:47 J	-30796085.52	-30796085.30	-30796085.07	0.0138	0.0007
Mercury	-89028-02-15 17:59 J	-30796007.92	-30796007.75	-30796007.58	0.0137	0.0032
Mercury	-89028-05-15 00:13 J	-30795919.67	-30795919.49	-30795919.32	0.0137	0.0012
Venus	-89028-07-14 14:08 J	-30795859.09	-30795858.91	-30795858.71	0.0137	0.0072
Mercury	-89028-08-11 06:13 J	-30795831.42	-30795831.24	-30795831.07	0.0137	0.0010
Mercury	-89028-11-07 11:59 J	-30795743.16	-30795743.00	-30795742.83	0.0137	0.0031
Mercury	-89027-02-03 17:44 J	-30795654.91	-30795654.76	-30795654.59	0.0137	0.0052
Mercury	-89027-05-02 23:44 J	-30795566.65	-30795566.51	-30795566.36	0.0137	0.0072
Mercury	-89027-07-30 05:44 J	-30795478.39	-30795478.26	-30795478.14	0.0137	0.0092
Mercury	-89027-10-26 11:30 J	-30795390.12	-30795390.02	-30795389.93	0.0136	0.0112
Mercury	-89026-01-22 17:01 J	-30795301.83	-30795301.79	-30795301.75	0.0136	0.0132
Earth	-89018-09-23 04:32 J	-30792136.35	-30792136.31	-30792136.24	0.0133	0.0129
Moon	-89018-09-23 07:11 J	-30792136.25	-30792136.20	-30792136.09	0.0133	0.0126 *
Moon	-89017-09-26 10:32 J	-30791767.19	-30791767.06	-30791766.91	0.0132	0.0112

Earth	-89017-09-26 12:56 J	-30791767.08	-30791766.96	-30791766.81	0.0132	0.0112	*
Earth	-89016-09-30 20:23 J	-30791397.81	-30791397.65	-30791397.46	0.0132	0.0095	
Moon	-89016-09-30 23:15 J	-30791397.68	-30791397.53	-30791397.35	0.0132	0.0098	*
Moon	-89015-10-05 00:42 J	-30791028.68	-30791028.47	-30791028.24	0.0132	0.0073	
Earth	-89015-10-05 03:06 J	-30791028.56	-30791028.37	-30791028.15	0.0132	0.0078	*
Earth	-89014-10-09 08:51 J	-30790659.34	-30790659.13	-30790658.88	0.0132	0.0061	
Moon	-89014-10-09 11:15 J	-30790659.23	-30790659.03	-30790658.80	0.0132	0.0068	*
Moon	-89013-10-12 11:44 J	-30790290.25	-30790290.01	-30790289.74	0.0132	0.0037	
Earth	-89013-10-12 14:37 J	-30790290.12	-30790289.89	-30790289.64	0.0132	0.0043	*
Earth	-89012-10-16 19:11 J	-30789920.94	-30789920.70	-30789920.44	0.0131	0.0025	
Moon	-89012-10-16 21:20 J	-30789920.85	-30789920.61	-30789920.37	0.0131	0.0030	*
Moon	-89011-10-20 20:51 J	-30789551.89	-30789551.63	-30789551.37	0.0131	0.0004	
Earth	-89011-10-20 23:30 J	-30789551.77	-30789551.52	-30789551.26	0.0131	0.0008	*
Earth	-89010-10-25 03:06 J	-30789182.62	-30789182.37	-30789182.11	0.0131	0.0010	
Moon	-89010-10-25 05:15 J	-30789182.52	-30789182.28	-30789182.03	0.0131	0.0009	*
Moon	-89009-10-28 03:49 J	-30788813.58	-30788813.34	-30788813.07	0.0131	0.0026	
Earth	-89009-10-28 06:13 J	-30788813.48	-30788813.24	-30788812.99	0.0131	0.0027	*
Earth	-89008-11-01 08:37 J	-30788444.36	-30788444.14	-30788443.89	0.0131	0.0045	
Moon	-89008-11-01 11:30 J	-30788444.25	-30788444.02	-30788443.79	0.0131	0.0048	*
Moon	-89007-11-05 08:37 J	-30788075.36	-30788075.14	-30788074.89	0.0131	0.0055	
Earth	-89007-11-05 11:01 J	-30788075.26	-30788075.04	-30788074.82	0.0131	0.0061	*
Earth	-89006-11-09 12:56 J	-30787706.16	-30787705.96	-30787705.76	0.0132	0.0077	
Moon	-89006-11-09 15:06 J	-30787706.04	-30787705.87	-30787705.67	0.0132	0.0085	*
Moon	-89005-11-12 11:44 J	-30787337.18	-30787337.01	-30787336.80	0.0132	0.0087	
Earth	-89005-11-12 14:37 J	-30787337.06	-30787336.89	-30787336.71	0.0132	0.0093	*
Earth	-89004-11-16 15:35 J	-30786967.97	-30786967.85	-30786967.69	0.0132	0.0109	
Moon	-89004-11-16 17:59 J	-30786967.86	-30786967.75	-30786967.62	0.0132	0.0114	*
Moon	-89003-11-20 13:54 J	-30786599.00	-30786598.92	-30786598.79	0.0132	0.0121	
Earth	-89003-11-20 17:01 J	-30786598.85	-30786598.79	-30786598.69	0.0132	0.0124	*

89TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 89th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-88999-04-01 13:39 J	-30785371.15	-30785370.93	-30785370.70	0.0133	0.0085		
Mars	-88997-03-01 12:13 J	-30784671.26	-30784670.99	-30784670.69	0.0134	0.0034		
Mercury	-88985-10-23 15:49 J	-30780051.90	-30780051.84	-30780051.78	0.0140	0.0125		
Venus	-88985-11-19 21:06 J	-30780024.75	-30780024.62	-30780024.47	0.0140	0.0103		
Mercury	-88984-01-19 19:39 J	-30779963.76	-30779963.68	-30779963.58	0.0141	0.0107		
Mercury	-88984-04-17 23:44 J	-30779875.62	-30779875.51	-30779875.40	0.0141	0.0089		
Venus	-88984-07-04 04:47 J	-30779798.50	-30779798.30	-30779798.09	0.0141	0.0035		
Mercury	-88984-07-15 03:49 J	-30779787.46	-30779787.34	-30779787.22	0.0141	0.0071		
Mercury	-88984-10-11 07:54 J	-30779699.30	-30779699.17	-30779699.04	0.0141	0.0052		
Mercury	-88983-01-07 11:59 J	-30779611.14	-30779611.00	-30779610.86	0.0141	0.0034		
Venus	-88983-02-15 12:27 J	-30779572.18	-30779571.98	-30779571.77	0.0141	0.0033		
Mercury	-88983-04-05 16:03 J	-30779522.97	-30779522.83	-30779522.68	0.0141	0.0016		
Mercury	-88983-07-02 20:23 J	-30779434.79	-30779434.65	-30779434.51	0.0141	0.0004		
Mercury	-88983-09-29 00:42 J	-30779346.62	-30779346.47	-30779346.33	0.0142	0.0024		
Venus	-88983-09-29 20:08 J	-30779345.79	-30779345.66	-30779345.50	0.0142	0.0103		
Mercury	-88983-12-26 04:47 J	-30779258.43	-30779258.30	-30779258.16	0.0142	0.0043		
Mercury	-88982-03-24 09:06 J	-30779170.25	-30779170.12	-30779169.99	0.0142	0.0062		
Mercury	-88982-06-20 13:25 J	-30779082.05	-30779081.94	-30779081.82	0.0142	0.0082		
Mercury	-88982-09-16 17:44 J	-30778993.85	-30778993.76	-30778993.65	0.0142	0.0102		

Mercury -88982-12-13 22:03 J -30778905.64 -30778905.58 -30778905.50 0.0142 0.0123

Mercury -88981-03-11 02:51 J -30778817.38 -30778817.38 -30778817.38 0.0142 0.0142

Earth -88974-03-16 05:01 J -30776256.34 -30776256.29 -30776256.21 0.0146 0.0140

Moon -88974-03-16 07:11 J -30776256.26 -30776256.20 -30776256.13 0.0146 0.0140 *

Moon -88973-03-20 02:08 J -30775886.54 -30775886.41 -30775886.24 0.0146 0.0117

Earth -88973-03-20 04:18 J -30775886.44 -30775886.32 -30775886.15 0.0146 0.0121 *

Earth -88972-03-25 05:44 J -30775516.44 -30775516.26 -30775516.07 0.0147 0.0098

Moon -88972-03-25 08:23 J -30775516.32 -30775516.15 -30775515.97 0.0147 0.0105 *

Moon -88971-03-30 04:18 J -30775146.53 -30775146.32 -30775146.09 0.0147 0.0068

Earth -88971-03-30 07:39 J -30775146.38 -30775146.18 -30775145.95 0.0147 0.0076 *

Earth -88970-04-04 10:47 J -30774776.28 -30774776.05 -30774775.81 0.0147 0.0052

Moon -88970-04-04 14:08 J -30774776.14 -30774775.91 -30774775.67 0.0147 0.0057 *

Moon -88969-04-08 11:15 J -30774406.27 -30774406.03 -30774405.77 0.0147 0.0028

Earth -88969-04-08 14:51 J -30774406.12 -30774405.88 -30774405.62 0.0147 0.0028 *

Earth -88968-04-13 19:54 J -30774035.92 -30774035.67 -30774035.41 0.0147 0.0004

Moon -88968-04-13 23:44 J -30774035.77 -30774035.51 -30774035.26 0.0147 0.0001 *

Moon -88967-04-18 22:32 J -30773665.81 -30773665.56 -30773665.30 0.0147 0.0015

Earth -88967-04-19 01:54 J -30773665.67 -30773665.42 -30773665.17 0.0147 0.0022 *

Earth -88966-04-24 08:08 J -30773295.40 -30773295.16 -30773294.91 0.0147 0.0046

Moon -88966-04-24 11:01 J -30773295.26 -30773295.04 -30773294.80 0.0147 0.0054 *

Moon -88965-04-28 12:42 J -30772925.19 -30772924.97 -30772924.72 0.0147 0.0066

Earth -88965-04-28 15:20 J -30772925.09 -30772924.86 -30772924.64 0.0147 0.0071 *

Earth -88964-05-03 22:32 J -30772554.75 -30772554.56 -30772554.35 0.0147 0.0095

Moon -88964-05-03 23:59 J -30772554.69 -30772554.50 -30772554.30 0.0147 0.0093 *

Moon -88963-05-09 05:30 J -30772184.40 -30772184.27 -30772184.11 0.0147 0.0122

Earth -88963-05-09 06:13 J -30772184.37 -30772184.24 -30772184.07 0.0147 0.0118 *

Moon -88962-05-14 13:39 J -30771814.02 -30771813.93 -30771813.81 0.0147 0.0133

Earth -88962-05-14 14:23 J -30771813.96 -30771813.90 -30771813.81 0.0147 0.0140 *

Mars -88959-10-19 06:42 J -30770560.51 -30770560.22 -30770559.93 0.0145 0.0064

Mars -88957-09-23 18:42 J -30769854.91 -30769854.72 -30769854.49 0.0145 0.0108

Venus -88946-12-17 01:11 J -30765753.60 -30765753.45 -30765753.28 0.0138 0.0095
 Mercury -88945-03-19 23:44 J -30765659.60 -30765659.51 -30765659.41 0.0138 0.0116
 Mercury -88945-06-16 06:13 J -30765571.37 -30765571.24 -30765571.11 0.0138 0.0094
 Venus -88945-07-30 11:15 J -30765527.25 -30765527.03 -30765526.81 0.0138 0.0028
 Mercury -88945-09-12 12:27 J -30765483.13 -30765482.98 -30765482.83 0.0138 0.0072
 Mercury -88945-12-09 18:27 J -30765394.88 -30765394.73 -30765394.56 0.0138 0.0051
 Mercury -88944-03-08 00:42 J -30765306.64 -30765306.47 -30765306.29 0.0137 0.0029
 Venus -88944-03-13 20:37 J -30765300.84 -30765300.64 -30765300.41 0.0137 0.0040
 Mercury -88944-06-04 06:56 J -30765218.39 -30765218.21 -30765218.04 0.0137 0.0008
 Mercury -88944-08-31 12:56 J -30765130.13 -30765129.96 -30765129.79 0.0137 0.0014
 Venus -88944-10-26 05:44 J -30765074.38 -30765074.26 -30765074.10 0.0137 0.0105
 Mercury -88944-11-27 18:56 J -30765041.88 -30765041.71 -30765041.54 0.0137 0.0034
 Mercury -88943-02-24 00:42 J -30764953.62 -30764953.47 -30764953.31 0.0137 0.0055
 Mercury -88943-05-23 06:27 J -30764865.36 -30764865.23 -30764865.08 0.0137 0.0076
 Mercury -88943-08-19 12:13 J -30764777.10 -30764776.99 -30764776.86 0.0137 0.0096
 Mercury -88943-11-15 17:59 J -30764688.83 -30764688.75 -30764688.65 0.0136 0.0116
 Mercury -88942-02-11 23:30 J -30764600.52 -30764600.52 -30764600.48 0.0136 0.0136
 Earth -88934-09-23 12:56 J -30761455.02 -30761454.96 -30761454.85 0.0133 0.0125
 Moon -88934-09-23 16:03 J -30761454.88 -30761454.83 -30761454.74 0.0133 0.0128 *
 Moon -88933-09-26 17:59 J -30761085.88 -30761085.75 -30761085.57 0.0132 0.0107
 Earth -88933-09-26 21:49 J -30761085.73 -30761085.59 -30761085.43 0.0132 0.0108 *
 Earth -88932-10-01 05:01 J -30760716.46 -30760716.29 -30760716.09 0.0132 0.0091
 Moon -88932-10-01 08:08 J -30760716.34 -30760716.16 -30760715.97 0.0132 0.0088 *
 Moon -88931-10-05 08:37 J -30760347.33 -30760347.14 -30760346.91 0.0132 0.0079
 Earth -88931-10-05 11:44 J -30760347.20 -30760347.01 -30760346.78 0.0132 0.0074 *
 Earth -88930-10-09 17:59 J -30759977.97 -30759977.75 -30759977.51 0.0132 0.0057
 Moon -88930-10-09 21:06 J -30759977.84 -30759977.62 -30759977.38 0.0132 0.0051 *
 Moon -88929-10-12 20:51 J -30759608.86 -30759608.63 -30759608.38 0.0132 0.0046
 Earth -88929-10-12 23:44 J -30759608.75 -30759608.51 -30759608.26 0.0132 0.0039 *
 Earth -88928-10-17 04:32 J -30759239.56 -30759239.31 -30759239.06 0.0131 0.0022

Moon	-88928-10-17 07:39 J	-30759239.43	-30759239.18	-30759238.93	0.0131	0.0015	*
Moon	-88927-10-21 05:59 J	-30758870.50	-30758870.25	-30758869.99	0.0131	0.0009	
Earth	-88927-10-21 08:51 J	-30758870.38	-30758870.13	-30758869.88	0.0131	0.0004	*
Earth	-88926-10-25 12:27 J	-30758501.23	-30758500.98	-30758500.73	0.0131	0.0013	
Moon	-88926-10-25 15:20 J	-30758501.11	-30758500.86	-30758500.62	0.0131	0.0014	*
Moon	-88925-10-28 12:27 J	-30758132.23	-30758131.98	-30758131.72	0.0131	0.0030	
Earth	-88925-10-28 15:35 J	-30758132.09	-30758131.85	-30758131.60	0.0131	0.0030	*
Earth	-88924-11-01 17:44 J	-30757762.98	-30757762.76	-30757762.51	0.0131	0.0047	
Moon	-88924-11-01 20:37 J	-30757762.87	-30757762.64	-30757762.41	0.0131	0.0042	*
Moon	-88923-11-05 17:01 J	-30757394.00	-30757393.79	-30757393.57	0.0131	0.0068	
Earth	-88923-11-05 20:08 J	-30757393.87	-30757393.66	-30757393.43	0.0131	0.0063	*
Earth	-88922-11-09 21:49 J	-30757024.78	-30757024.59	-30757024.37	0.0132	0.0079	
Moon	-88922-11-10 00:27 J	-30757024.67	-30757024.48	-30757024.26	0.0132	0.0073	*
Moon	-88921-11-12 20:23 J	-30756655.79	-30756655.65	-30756655.46	0.0132	0.0102	
Earth	-88921-11-12 23:30 J	-30756655.68	-30756655.52	-30756655.33	0.0132	0.0095	*
Earth	-88920-11-17 00:56 J	-30756286.58	-30756286.46	-30756286.30	0.0132	0.0110	
Moon	-88920-11-17 04:03 J	-30756286.46	-30756286.33	-30756286.17	0.0132	0.0104	*
Moon	-88919-11-20 23:44 J	-30755917.55	-30755917.51	-30755917.43	0.0132	0.0128	
Earth	-88919-11-21 02:23 J	-30755917.46	-30755917.40	-30755917.30	0.0132	0.0125	*
Mars	-88915-11-24 20:37 J	-30754452.91	-30754452.64	-30754452.35	0.0133	0.0040	
Mars	-88913-10-24 21:06 J	-30753752.84	-30753752.62	-30753752.37	0.0134	0.0080	
Venus	-88901-07-20 05:44 J	-30749466.30	-30749466.26	-30749466.20	0.0140	0.0136	
Mercury	-88901-08-16 18:56 J	-30749438.72	-30749438.71	-30749438.69	0.0140	0.0139	
Mercury	-88901-11-12 22:47 J	-30749350.61	-30749350.55	-30749350.47	0.0140	0.0121	
Mercury	-88900-02-09 02:37 J	-30749262.47	-30749262.39	-30749262.28	0.0141	0.0104	
Venus	-88900-03-03 13:11 J	-30749240.13	-30749239.95	-30749239.77	0.0141	0.0069	
Mercury	-88900-05-08 06:42 J	-30749174.32	-30749174.22	-30749174.10	0.0141	0.0086	
Mercury	-88900-08-04 11:01 J	-30749086.17	-30749086.04	-30749085.92	0.0141	0.0067	
Venus	-88900-10-15 20:51 J	-30749013.84	-30749013.63	-30749013.42	0.0141	0.0002	
Mercury	-88900-10-31 14:51 J	-30748998.01	-30748997.88	-30748997.74	0.0141	0.0049	

Mercury -88899-01-27 19:11 J -30748909.84 -30748909.70 -30748909.56 0.0141 0.0030

Mercury -88899-04-25 23:15 J -30748821.67 -30748821.53 -30748821.39 0.0141 0.0011

Venus -88899-05-30 04:32 J -30748787.49 -30748787.31 -30748787.12 0.0141 0.0068

Mercury -88899-07-23 03:35 J -30748733.50 -30748733.35 -30748733.21 0.0141 0.0009

Mercury -88899-10-19 07:39 J -30748645.32 -30748645.18 -30748645.04 0.0142 0.0027

Venus -88898-01-11 12:42 J -30748561.02 -30748560.97 -30748560.91 0.0142 0.0137

Mercury -88898-01-15 11:59 J -30748557.14 -30748557.00 -30748556.86 0.0142 0.0046

Mercury -88898-04-13 16:18 J -30748468.95 -30748468.82 -30748468.69 0.0142 0.0066

Mercury -88898-07-10 20:23 J -30748380.76 -30748380.65 -30748380.53 0.0142 0.0086

Mercury -88898-10-07 00:42 J -30748292.55 -30748292.47 -30748292.36 0.0142 0.0106

Mercury -88897-01-03 05:30 J -30748204.34 -30748204.27 -30748204.21 0.0142 0.0126

Earth -88890-03-16 14:08 J -30745574.99 -30745574.91 -30745574.80 0.0146 0.0135

Moon -88890-03-16 15:35 J -30745574.94 -30745574.85 -30745574.75 0.0146 0.0135 *

Moon -88889-03-20 12:13 J -30745205.11 -30745204.99 -30745204.83 0.0146 0.0119

Earth -88889-03-20 14:08 J -30745205.06 -30745204.91 -30745204.75 0.0146 0.0115 *

Earth -88888-03-25 14:37 J -30744835.07 -30744834.89 -30744834.68 0.0147 0.0094

Moon -88888-03-25 17:15 J -30744834.97 -30744834.78 -30744834.56 0.0147 0.0086 *

Moon -88887-03-30 14:23 J -30744465.10 -30744464.90 -30744464.68 0.0147 0.0079

Earth -88887-03-30 16:47 J -30744465.01 -30744464.80 -30744464.57 0.0147 0.0071 *

Earth -88886-04-04 19:54 J -30744094.90 -30744094.67 -30744094.42 0.0147 0.0048

Moon -88886-04-04 23:30 J -30744094.76 -30744094.52 -30744094.27 0.0147 0.0043 *

Moon -88885-04-08 20:37 J -30743724.89 -30743724.64 -30743724.39 0.0147 0.0026

Earth -88885-04-08 23:59 J -30743724.75 -30743724.50 -30743724.25 0.0147 0.0024 *

Earth -88884-04-14 05:01 J -30743354.55 -30743354.29 -30743354.04 0.0147 0.0002

Moon -88884-04-14 08:23 J -30743354.40 -30743354.15 -30743353.89 0.0147 0.0005 *

Moon -88883-04-19 06:56 J -30742984.46 -30742984.21 -30742983.96 0.0147 0.0032

Earth -88883-04-19 10:32 J -30742984.31 -30742984.06 -30742983.80 0.0147 0.0025 *

Earth -88882-04-24 16:47 J -30742614.04 -30742613.80 -30742613.56 0.0147 0.0049

Moon -88882-04-24 19:54 J -30742613.91 -30742613.67 -30742613.43 0.0147 0.0042 *

Moon -88881-04-28 20:37 J -30742243.85 -30742243.64 -30742243.40 0.0147 0.0077

Earth -88881-04-28 23:44 J -30742243.73 -30742243.51 -30742243.28 0.0147 0.0073 *
 Earth -88880-05-04 06:56 J -30741873.39 -30741873.21 -30741873.00 0.0147 0.0096
 Moon -88880-05-04 09:06 J -30741873.29 -30741873.12 -30741872.91 0.0147 0.0096 *
 Moon -88879-05-09 13:39 J -30741503.08 -30741502.93 -30741502.74 0.0147 0.0113
 Earth -88879-05-09 14:37 J -30741503.02 -30741502.89 -30741502.72 0.0147 0.0119 *
 Earth -88878-05-14 22:47 J -30741132.60 -30741132.55 -30741132.46 0.0147 0.0141
 Mars -88874-06-15 09:06 J -30739640.45 -30739640.12 -30739639.80 0.0145 0.0003
 Venus -88862-08-16 07:39 J -30735195.24 -30735195.18 -30735195.09 0.0138 0.0129
 Mercury -88861-01-12 00:27 J -30735046.52 -30735046.48 -30735046.45 0.0138 0.0135
 Venus -88861-03-29 17:59 J -30734968.95 -30734968.75 -30734968.55 0.0138 0.0061
 Mercury -88861-04-09 06:42 J -30734958.32 -30734958.22 -30734958.11 0.0138 0.0112
 Mercury -88861-07-06 12:56 J -30734870.08 -30734869.96 -30734869.82 0.0138 0.0090
 Mercury -88861-10-02 19:25 J -30734781.84 -30734781.69 -30734781.54 0.0138 0.0068
 Venus -88861-11-11 03:49 J -30734742.56 -30734742.34 -30734742.11 0.0138 0.0006
 Mercury -88861-12-30 01:25 J -30734693.60 -30734693.44 -30734693.27 0.0137 0.0047
 Mercury -88860-03-28 07:39 J -30734605.35 -30734605.18 -30734605.00 0.0137 0.0025
 Mercury -88860-06-24 13:54 J -30734517.10 -30734516.92 -30734516.75 0.0137 0.0004
 Venus -88860-06-25 13:25 J -30734516.13 -30734515.94 -30734515.75 0.0137 0.0072
 Mercury -88860-09-20 19:54 J -30734428.84 -30734428.67 -30734428.50 0.0137 0.0017
 Mercury -88860-12-18 01:54 J -30734340.59 -30734340.42 -30734340.26 0.0137 0.0038
 Mercury -88859-03-16 07:39 J -30734252.33 -30734252.18 -30734252.02 0.0137 0.0059
 Mercury -88859-06-12 13:25 J -30734164.07 -30734163.94 -30734163.79 0.0137 0.0079
 Mercury -88859-09-08 19:11 J -30734075.81 -30734075.70 -30734075.57 0.0137 0.0100
 Mercury -88859-12-06 00:56 J -30733987.53 -30733987.46 -30733987.37 0.0136 0.0119
 Earth -88850-09-23 21:49 J -30730773.68 -30730773.59 -30730773.47 0.0133 0.0120
 Moon -88850-09-24 01:54 J -30730773.55 -30730773.42 -30730773.30 0.0133 0.0115 *
 Moon -88849-09-27 02:51 J -30730404.52 -30730404.38 -30730404.20 0.0132 0.0105
 Earth -88849-09-27 06:13 J -30730404.38 -30730404.24 -30730404.06 0.0132 0.0104 *
 Earth -88848-10-01 14:08 J -30730035.10 -30730034.91 -30730034.71 0.0132 0.0087
 Moon -88848-10-01 17:15 J -30730034.95 -30730034.78 -30730034.57 0.0132 0.0090 *

Moon	-88847-10-05 17:15 J	-30729665.99	-30729665.78	-30729665.54	0.0132	0.0066
Earth	-88847-10-05 20:37 J	-30729665.84	-30729665.64	-30729665.41	0.0132	0.0070 *
Earth	-88846-10-10 02:51 J	-30729296.60	-30729296.38	-30729296.13	0.0132	0.0053
Moon	-88846-10-10 05:59 J	-30729296.46	-30729296.25	-30729296.01	0.0132	0.0060 *
Moon	-88845-10-13 05:01 J	-30728927.53	-30728927.29	-30728927.03	0.0132	0.0029
Earth	-88845-10-13 08:37 J	-30728927.38	-30728927.14	-30728926.89	0.0132	0.0036 *
Earth	-88844-10-17 13:25 J	-30728558.19	-30728557.94	-30728557.69	0.0131	0.0019
Moon	-88844-10-17 16:18 J	-30728558.06	-30728557.82	-30728557.57	0.0131	0.0025 *
Moon	-88843-10-21 14:08 J	-30728189.17	-30728188.91	-30728188.65	0.0131	0.0003
Earth	-88843-10-21 17:30 J	-30728189.02	-30728188.77	-30728188.51	0.0131	0.0003 *
Earth	-88842-10-25 21:06 J	-30727819.87	-30727819.62	-30727819.37	0.0131	0.0015
Moon	-88842-10-26 00:13 J	-30727819.73	-30727819.49	-30727819.24	0.0131	0.0013 *
Moon	-88841-10-28 20:51 J	-30727450.88	-30727450.63	-30727450.38	0.0131	0.0030
Earth	-88841-10-28 23:59 J	-30727450.74	-30727450.50	-30727450.25	0.0131	0.0032 *
Earth	-88840-11-02 02:37 J	-30727081.63	-30727081.39	-30727081.16	0.0131	0.0048
Moon	-88840-11-02 05:44 J	-30727081.48	-30727081.26	-30727081.02	0.0131	0.0051 *
Moon	-88839-11-06 01:25 J	-30726712.66	-30726712.44	-30726712.20	0.0132	0.0059
Earth	-88839-11-06 04:18 J	-30726712.52	-30726712.32	-30726712.08	0.0132	0.0065 *
Earth	-88838-11-10 06:27 J	-30726343.42	-30726343.23	-30726343.02	0.0132	0.0080
Moon	-88838-11-10 09:49 J	-30726343.27	-30726343.09	-30726342.90	0.0132	0.0087 *
Moon	-88837-11-13 04:47 J	-30725974.47	-30725974.30	-30725974.10	0.0132	0.0089
Earth	-88837-11-13 07:54 J	-30725974.32	-30725974.17	-30725973.97	0.0132	0.0096 *
Earth	-88836-11-17 09:49 J	-30725605.22	-30725605.09	-30725604.95	0.0132	0.0110
Moon	-88836-11-17 12:42 J	-30725605.07	-30725604.97	-30725604.84	0.0132	0.0116 *
Moon	-88835-11-21 07:25 J	-30725236.27	-30725236.19	-30725236.06	0.0132	0.0121
Earth	-88835-11-21 11:01 J	-30725236.09	-30725236.04	-30725235.94	0.0132	0.0126 *
Mars	-88832-08-19 07:39 J	-30724234.33	-30724234.18	-30724234.02	0.0133	0.0111
Mars	-88830-07-20 01:11 J	-30723534.74	-30723534.45	-30723534.15	0.0133	0.0005
Mars	-88828-06-19 04:47 J	-30722834.40	-30722834.30	-30722834.19	0.0134	0.0126
Mercury	-88817-09-06 01:54 J	-30718737.45	-30718737.42	-30718737.38	0.0140	0.0136

Venus -88817-10-31 21:20 J -30718681.75 -30718681.61 -30718681.46 0.0140 0.0103
 Mercury -88817-12-03 05:44 J -30718649.32 -30718649.26 -30718649.18 0.0141 0.0118
 Mercury -88816-03-01 09:49 J -30718561.18 -30718561.09 -30718560.99 0.0141 0.0100
 Mercury -88816-05-28 13:54 J -30718473.03 -30718472.92 -30718472.80 0.0141 0.0082
 Venus -88816-06-15 05:01 J -30718455.50 -30718455.29 -30718455.09 0.0141 0.0035
 Mercury -88816-08-24 17:59 J -30718384.88 -30718384.75 -30718384.62 0.0141 0.0064
 Mercury -88816-11-20 22:03 J -30718296.71 -30718296.58 -30718296.44 0.0141 0.0045
 Venus -88815-01-27 12:27 J -30718229.18 -30718228.98 -30718228.76 0.0141 0.0034
 Mercury -88815-02-17 02:08 J -30718208.55 -30718208.41 -30718208.27 0.0141 0.0027
 Mercury -88815-05-16 06:13 J -30718120.38 -30718120.24 -30718120.09 0.0141 0.0009
 Mercury -88815-08-12 10:32 J -30718032.20 -30718032.06 -30718031.92 0.0142 0.0011
 Venus -88815-09-10 20:08 J -30718002.79 -30718002.66 -30718002.50 0.0142 0.0103
 Mercury -88815-11-08 14:37 J -30717944.03 -30717943.89 -30717943.74 0.0142 0.0031
 Mercury -88814-02-04 18:56 J -30717855.84 -30717855.71 -30717855.57 0.0142 0.0050
 Mercury -88814-05-03 23:01 J -30717767.65 -30717767.54 -30717767.40 0.0142 0.0070
 Mercury -88814-07-31 03:35 J -30717679.46 -30717679.35 -30717679.24 0.0142 0.0089
 Mercury -88814-10-27 07:54 J -30717591.26 -30717591.17 -30717591.07 0.0142 0.0109
 Mercury -88813-01-23 12:13 J -30717503.04 -30717502.99 -30717502.92 0.0142 0.0130
 Earth -88806-03-17 00:13 J -30714893.58 -30714893.49 -30714893.36 0.0146 0.0130
 Moon -88806-03-17 00:56 J -30714893.57 -30714893.46 -30714893.33 0.0146 0.0128 *
 Moon -88805-03-20 23:01 J -30714523.70 -30714523.54 -30714523.37 0.0146 0.0106
 Earth -88805-03-21 00:13 J -30714523.65 -30714523.49 -30714523.32 0.0146 0.0110 *
 Earth -88804-03-26 00:56 J -30714153.64 -30714153.46 -30714153.24 0.0147 0.0089
 Moon -88804-03-26 02:23 J -30714153.58 -30714153.40 -30714153.18 0.0147 0.0095 *
 Moon -88803-03-31 00:42 J -30713783.69 -30713783.47 -30713783.24 0.0147 0.0059
 Earth -88803-03-31 03:06 J -30713783.58 -30713783.37 -30713783.13 0.0147 0.0067 *
 Earth -88802-04-05 05:59 J -30713413.48 -30713413.25 -30713413.00 0.0147 0.0044
 Moon -88802-04-05 08:37 J -30713413.37 -30713413.14 -30713412.88 0.0147 0.0050 *
 Moon -88801-04-09 06:56 J -30713043.46 -30713043.21 -30713042.96 0.0147 0.0020
 Earth -88801-04-09 10:03 J -30713043.32 -30713043.08 -30713042.82 0.0147 0.0021 *

Earth -88800-04-14 14:51 J -30712673.13 -30712672.88 -30712672.62 0.0147 0.0004
 Moon -88800-04-14 18:42 J -30712672.98 -30712672.72 -30712672.47 0.0147 0.0007 *
 Moon -88799-04-19 17:01 J -30712303.04 -30712302.79 -30712302.54 0.0147 0.0021
 Earth -88799-04-19 20:23 J -30712302.89 -30712302.65 -30712302.39 0.0147 0.0028 *
 Earth -88798-04-25 02:23 J -30711932.62 -30711932.40 -30711932.14 0.0147 0.0052
 Moon -88798-04-25 05:59 J -30711932.46 -30711932.25 -30711932.00 0.0147 0.0060 *
 Moon -88797-04-29 06:27 J -30711562.46 -30711562.23 -30711562.00 0.0147 0.0069
 Earth -88797-04-29 09:35 J -30711562.31 -30711562.10 -30711561.87 0.0147 0.0075 *
 Earth -88796-05-04 16:47 J -30711191.98 -30711191.80 -30711191.59 0.0147 0.0098
 Moon -88796-05-04 19:11 J -30711191.87 -30711191.70 -30711191.50 0.0147 0.0097 *
 Moon -88795-05-09 22:32 J -30710821.70 -30710821.56 -30710821.41 0.0147 0.0123
 Earth -88795-05-10 00:27 J -30710821.61 -30710821.48 -30710821.31 0.0147 0.0120 *
 Earth -88794-05-15 08:51 J -30710451.19 -30710451.13 -30710451.06 0.0147 0.0141
 Moon -88794-05-15 09:49 J -30710451.19 -30710451.09 -30710450.99 0.0147 0.0134 *
 Mars -88791-03-05 15:20 J -30709426.06 -30709425.86 -30709425.63 0.0146 0.0107
 Mars -88789-02-09 12:13 J -30708720.26 -30708719.99 -30708719.69 0.0145 0.0066
 Venus -88778-11-28 00:56 J -30704410.61 -30704410.46 -30704410.28 0.0138 0.0094
 Mercury -88777-02-01 07:11 J -30704345.24 -30704345.20 -30704345.13 0.0138 0.0130
 Mercury -88777-04-29 13:39 J -30704257.03 -30704256.93 -30704256.81 0.0138 0.0108
 Venus -88777-07-11 11:01 J -30704184.25 -30704184.04 -30704183.81 0.0138 0.0027
 Mercury -88777-07-26 20:08 J -30704168.79 -30704168.66 -30704168.52 0.0138 0.0086
 Mercury -88777-10-23 02:23 J -30704080.55 -30704080.40 -30704080.24 0.0138 0.0064
 Mercury -88776-01-19 08:37 J -30703992.30 -30703992.14 -30703991.97 0.0137 0.0042
 Venus -88776-02-22 20:37 J -30703957.84 -30703957.64 -30703957.42 0.0137 0.0041
 Mercury -88776-04-17 14:51 J -30703904.05 -30703903.88 -30703903.71 0.0137 0.0020
 Mercury -88776-07-14 21:06 J -30703815.80 -30703815.62 -30703815.45 0.0137 0.0004
 Venus -88776-10-07 05:59 J -30703731.38 -30703731.25 -30703731.10 0.0137 0.0106
 Mercury -88776-10-11 02:51 J -30703727.54 -30703727.38 -30703727.20 0.0137 0.0022
 Mercury -88775-01-07 08:51 J -30703639.29 -30703639.13 -30703638.96 0.0137 0.0043
 Mercury -88775-04-05 14:51 J -30703551.03 -30703550.88 -30703550.73 0.0137 0.0063

Mercury -88775-07-02 20:37 J -30703462.77 -30703462.64 -30703462.50 0.0137 0.0084

Mercury -88775-09-29 02:23 J -30703374.50 -30703374.40 -30703374.28 0.0137 0.0104

Mercury -88775-12-26 08:08 J -30703286.22 -30703286.16 -30703286.08 0.0136 0.0123

Moon -88767-09-19 18:13 J -30700461.81 -30700461.74 -30700461.62 0.0133 0.0124

Earth -88767-09-19 22:32 J -30700461.61 -30700461.56 -30700461.51 0.0133 0.0131

Earth -88766-09-24 07:25 J -30700092.30 -30700092.19 -30700092.04 0.0133 0.0115

Moon -88766-09-24 11:15 J -30700092.14 -30700092.03 -30700091.91 0.0133 0.0118 *

Moon -88765-09-27 12:13 J -30699723.15 -30699722.99 -30699722.80 0.0132 0.0097

Earth -88765-09-27 16:03 J -30699722.98 -30699722.83 -30699722.64 0.0132 0.0099 *

Earth -88764-10-01 23:30 J -30699353.70 -30699353.52 -30699353.30 0.0132 0.0082

Moon -88764-10-02 03:20 J -30699353.56 -30699353.36 -30699353.16 0.0132 0.0080 *

Moon -88763-10-06 03:06 J -30698984.58 -30698984.37 -30698984.14 0.0132 0.0070

Earth -88763-10-06 06:42 J -30698984.43 -30698984.22 -30698983.99 0.0132 0.0065 *

Earth -88762-10-10 12:56 J -30698615.19 -30698614.96 -30698614.72 0.0132 0.0049

Moon -88762-10-10 16:32 J -30698615.04 -30698614.81 -30698614.56 0.0132 0.0043 *

Moon -88761-10-13 15:06 J -30698246.11 -30698245.87 -30698245.62 0.0132 0.0039

Earth -88761-10-13 18:27 J -30698245.97 -30698245.73 -30698245.48 0.0132 0.0032 *

Earth -88760-10-17 23:01 J -30697876.79 -30697876.54 -30697876.28 0.0131 0.0015

Moon -88760-10-18 02:51 J -30697876.63 -30697876.38 -30697876.13 0.0131 0.0008 *

Moon -88759-10-21 23:44 J -30697507.76 -30697507.51 -30697507.25 0.0131 0.0004

Earth -88759-10-22 03:20 J -30697507.62 -30697507.36 -30697507.11 0.0131 0.0002 *

Earth -88758-10-26 06:27 J -30697138.47 -30697138.23 -30697137.97 0.0131 0.0019

Moon -88758-10-26 10:03 J -30697138.32 -30697138.08 -30697137.83 0.0131 0.0020 *

Moon -88757-10-29 05:59 J -30696769.49 -30696769.25 -30696769.00 0.0131 0.0034

Earth -88757-10-29 09:35 J -30696769.34 -30696769.10 -30696768.85 0.0131 0.0034 *

Earth -88756-11-02 11:44 J -30696400.23 -30696400.01 -30696399.76 0.0131 0.0051

Moon -88756-11-02 15:06 J -30696400.09 -30696399.87 -30696399.63 0.0131 0.0047 *

Moon -88755-11-06 10:18 J -30696031.27 -30696031.07 -30696030.84 0.0131 0.0072

Earth -88755-11-06 14:08 J -30696031.12 -30696030.91 -30696030.68 0.0131 0.0066 *

Earth -88754-11-10 15:49 J -30695662.02 -30695661.84 -30695661.62 0.0132 0.0082

Moon	-88754-11-10 19:39 J	-30695661.88	-30695661.68	-30695661.47	0.0132	0.0075 *
Moon	-88753-11-13 14:08 J	-30695293.05	-30695292.91	-30695292.74	0.0132	0.0104
Earth	-88753-11-13 17:30 J	-30695292.92	-30695292.77	-30695292.58	0.0132	0.0097 *
Earth	-88752-11-17 19:39 J	-30694923.81	-30694923.68	-30694923.55	0.0132	0.0111
Moon	-88752-11-17 22:47 J	-30694923.68	-30694923.55	-30694923.38	0.0132	0.0105 *
Moon	-88751-11-21 17:30 J	-30694554.79	-30694554.77	-30694554.71	0.0132	0.0130
Earth	-88751-11-21 20:37 J	-30694554.68	-30694554.64	-30694554.54	0.0132	0.0127
Mars	-88747-04-13 11:44 J	-30693316.25	-30693316.01	-30693315.74	0.0133	0.0067
Mars	-88745-03-13 07:39 J	-30692616.45	-30692616.18	-30692615.90	0.0134	0.0050
Venus	-88733-07-01 05:30 J	-30688123.30	-30688123.27	-30688123.21	0.0140	0.0136
Mercury	-88733-09-26 08:51 J	-30688036.16	-30688036.13	-30688036.08	0.0140	0.0133
Mercury	-88733-12-23 12:56 J	-30687948.04	-30687947.96	-30687947.88	0.0141	0.0115
Venus	-88732-02-12 12:42 J	-30687897.14	-30687896.97	-30687896.77	0.0141	0.0070
Mercury	-88732-03-21 17:01 J	-30687859.89	-30687859.79	-30687859.69	0.0141	0.0097
Mercury	-88732-06-17 20:51 J	-30687771.74	-30687771.63	-30687771.51	0.0141	0.0079
Mercury	-88732-09-14 00:56 J	-30687683.58	-30687683.46	-30687683.33	0.0141	0.0061
Venus	-88732-09-26 20:37 J	-30687670.86	-30687670.64	-30687670.43	0.0141	0.0002
Mercury	-88732-12-11 05:01 J	-30687595.42	-30687595.29	-30687595.15	0.0141	0.0042
Mercury	-88731-03-09 09:06 J	-30687507.26	-30687507.12	-30687506.98	0.0141	0.0024
Venus	-88731-05-11 04:03 J	-30687444.50	-30687444.33	-30687444.13	0.0141	0.0067
Mercury	-88731-06-05 13:25 J	-30687419.09	-30687418.94	-30687418.80	0.0141	0.0005
Mercury	-88731-09-01 17:30 J	-30687330.91	-30687330.77	-30687330.63	0.0142	0.0014
Mercury	-88731-11-28 21:49 J	-30687242.73	-30687242.59	-30687242.45	0.0142	0.0034
Venus	-88731-12-23 11:59 J	-30687218.03	-30687218.00	-30687217.92	0.0142	0.0137
Mercury	-88730-02-25 01:54 J	-30687154.55	-30687154.42	-30687154.28	0.0142	0.0053
Mercury	-88730-05-24 06:13 J	-30687066.36	-30687066.24	-30687066.11	0.0142	0.0073
Mercury	-88730-08-20 10:32 J	-30686978.16	-30686978.06	-30686977.95	0.0142	0.0093
Mercury	-88730-11-16 14:51 J	-30686889.96	-30686889.88	-30686889.79	0.0142	0.0113
Mercury	-88729-02-12 19:25 J	-30686801.74	-30686801.69	-30686801.64	0.0142	0.0133
Earth	-88723-03-12 11:44 J	-30684582.04	-30684582.01	-30684581.95	0.0146	0.0143

Moon	-88723-03-12 12:42 J	-30684582.04	-30684581.97	-30684581.89	0.0146	0.0138	*
Moon	-88722-03-17 10:18 J	-30684212.19	-30684212.07	-30684211.93	0.0146	0.0125	
Earth	-88722-03-17 10:18 J	-30684212.19	-30684212.07	-30684211.93	0.0146	0.0124	*
Jupiter	-88722-09-11 09:49 J	-30684034.44	-30684034.09	-30684033.69	0.0146	0.0102	
Moon	-88721-03-21 10:03 J	-30683842.24	-30683842.08	-30683841.91	0.0146	0.0107	
Earth	-88721-03-21 10:03 J	-30683842.24	-30683842.08	-30683841.89	0.0146	0.0105	*
Earth	-88720-03-26 11:01 J	-30683472.24	-30683472.04	-30683471.82	0.0147	0.0084	
Moon	-88720-03-26 12:27 J	-30683472.19	-30683471.98	-30683471.75	0.0147	0.0077	*
Moon	-88719-03-31 11:44 J	-30683102.23	-30683102.01	-30683101.80	0.0147	0.0069	
Earth	-88719-03-31 12:56 J	-30683102.18	-30683101.96	-30683101.72	0.0147	0.0062	*
Earth	-88718-04-05 16:03 J	-30682732.07	-30682731.83	-30682731.59	0.0147	0.0039	
Moon	-88718-04-05 18:27 J	-30682731.97	-30682731.73	-30682731.47	0.0147	0.0035	*
Moon	-88717-04-09 17:01 J	-30682362.03	-30682361.79	-30682361.54	0.0147	0.0019	
Earth	-88717-04-09 19:54 J	-30682361.92	-30682361.67	-30682361.41	0.0147	0.0016	*
Earth	-88716-04-15 00:42 J	-30681991.72	-30681991.47	-30681991.22	0.0147	0.0007	
Moon	-88716-04-15 04:03 J	-30681991.59	-30681991.33	-30681991.08	0.0147	0.0004	*
Moon	-88715-04-20 02:37 J	-30681621.64	-30681621.39	-30681621.15	0.0147	0.0038	
Earth	-88715-04-20 06:13 J	-30681621.48	-30681621.24	-30681620.98	0.0147	0.0030	*
Earth	-88714-04-25 12:13 J	-30681251.22	-30681250.99	-30681250.74	0.0147	0.0054	
Moon	-88714-04-25 15:35 J	-30681251.08	-30681250.85	-30681250.59	0.0147	0.0047	*
Moon	-88713-04-29 15:49 J	-30680881.05	-30680880.84	-30680880.62	0.0147	0.0082	
Earth	-88713-04-29 19:11 J	-30680880.91	-30680880.70	-30680880.47	0.0147	0.0077	*
Earth	-88712-05-05 02:23 J	-30680510.57	-30680510.40	-30680510.20	0.0147	0.0100	
Moon	-88712-05-05 05:44 J	-30680510.44	-30680510.26	-30680510.06	0.0147	0.0098	*
Moon	-88711-05-10 07:54 J	-30680140.31	-30680140.17	-30680139.99	0.0147	0.0116	
Earth	-88711-05-10 10:18 J	-30680140.20	-30680140.07	-30680139.91	0.0147	0.0121	*
Earth	-88710-05-15 18:27 J	-30679769.78	-30679769.73	-30679769.65	0.0147	0.0142	
Mars	-88707-10-30 21:49 J	-30678505.88	-30678505.59	-30678505.26	0.0145	0.0041	
Mars	-88705-10-05 12:56 J	-30677800.07	-30677799.96	-30677799.78	0.0145	0.0129	
Venus	-88694-07-28 08:23 J	-30673852.23	-30673852.15	-30673852.06	0.0138	0.0127	

Mercury -88693-02-21 14:37 J -30673643.95 -30673643.89 -30673643.81 0.0138 0.0125

Venus -88693-03-10 18:13 J -30673625.93 -30673625.74 -30673625.53 0.0138 0.0059

Mercury -88693-05-19 20:51 J -30673555.73 -30673555.63 -30673555.50 0.0138 0.0103

Mercury -88693-08-16 03:20 J -30673467.50 -30673467.36 -30673467.21 0.0138 0.0081

Venus -88693-10-23 04:18 J -30673399.54 -30673399.32 -30673399.09 0.0138 0.0008

Mercury -88693-11-12 09:35 J -30673379.25 -30673379.10 -30673378.93 0.0138 0.0059

Mercury -88692-02-08 15:49 J -30673291.00 -30673290.84 -30673290.67 0.0137 0.0037

Mercury -88692-05-07 22:03 J -30673202.75 -30673202.58 -30673202.40 0.0137 0.0016

Venus -88692-06-06 13:54 J -30673173.10 -30673172.92 -30673172.72 0.0137 0.0075

Mercury -88692-08-04 04:18 J -30673114.50 -30673114.32 -30673114.15 0.0137 0.0006

Mercury -88692-10-31 10:03 J -30673026.24 -30673026.08 -30673025.90 0.0137 0.0027

Mercury -88691-01-27 16:03 J -30672937.99 -30672937.83 -30672937.66 0.0137 0.0047

Mercury -88691-04-25 22:03 J -30672849.73 -30672849.58 -30672849.43 0.0137 0.0068

Mercury -88691-07-23 03:35 J -30672761.46 -30672761.35 -30672761.20 0.0137 0.0089

Mercury -88691-10-19 09:20 J -30672673.20 -30672673.11 -30672672.99 0.0136 0.0109

Mercury -88690-01-15 15:35 J -30672584.91 -30672584.85 -30672584.80 0.0136 0.0128

Moon -88683-09-20 03:49 J -30669780.34 -30669780.34 -30669780.28 0.0133 0.0132

Earth -88683-09-20 07:54 J -30669780.25 -30669780.17 -30669780.08 0.0133 0.0125

Earth -88682-09-24 17:01 J -30669410.92 -30669410.79 -30669410.63 0.0133 0.0110

Moon -88682-09-24 20:51 J -30669410.77 -30669410.63 -30669410.46 0.0133 0.0105 *

Moon -88681-09-27 22:18 J -30669041.74 -30669041.57 -30669041.39 0.0132 0.0096

Earth -88681-09-28 01:39 J -30669041.60 -30669041.43 -30669041.24 0.0132 0.0094 *

Earth -88680-10-02 09:20 J -30668672.31 -30668672.11 -30668671.90 0.0132 0.0077

Moon -88680-10-02 13:11 J -30668672.15 -30668671.95 -30668671.74 0.0132 0.0079 *

Moon -88679-10-06 12:42 J -30668303.19 -30668302.97 -30668302.73 0.0132 0.0058

Earth -88679-10-06 16:18 J -30668303.04 -30668302.82 -30668302.58 0.0132 0.0061 *

Earth -88678-10-10 22:18 J -30667933.80 -30667933.57 -30667933.32 0.0132 0.0045

Moon -88678-10-11 02:08 J -30667933.64 -30667933.41 -30667933.17 0.0132 0.0051 *

Moon -88677-10-14 00:13 J -30667564.74 -30667564.49 -30667564.24 0.0132 0.0021

Earth -88677-10-14 03:49 J -30667564.58 -30667564.34 -30667564.08 0.0132 0.0029 *

Earth	-88676-10-18 08:23 J	-30667195.40	-30667195.15	-30667194.89	0.0131	0.0012
Moon	-88676-10-18 11:44 J	-30667195.25	-30667195.01	-30667194.75	0.0131	0.0018 *
Moon	-88675-10-22 08:51 J	-30666826.39	-30666826.13	-30666825.88	0.0131	0.0010
Earth	-88675-10-22 12:27 J	-30666826.23	-30666825.98	-30666825.72	0.0131	0.0005 *
Earth	-88674-10-26 15:49 J	-30666457.09	-30666456.84	-30666456.59	0.0131	0.0021
Moon	-88674-10-26 19:25 J	-30666456.94	-30666456.69	-30666456.44	0.0131	0.0017 *
Moon	-88673-10-29 15:20 J	-30666088.11	-30666087.86	-30666087.62	0.0131	0.0036
Earth	-88673-10-29 18:42 J	-30666087.96	-30666087.72	-30666087.47	0.0131	0.0036 *
Earth	-88672-11-02 20:51 J	-30665718.85	-30665718.63	-30665718.38	0.0131	0.0052
Moon	-88672-11-03 00:56 J	-30665718.69	-30665718.46	-30665718.23	0.0131	0.0055 *
Moon	-88671-11-06 19:39 J	-30665349.88	-30665349.68	-30665349.44	0.0131	0.0064
Earth	-88671-11-06 23:15 J	-30665349.73	-30665349.53	-30665349.30	0.0131	0.0068 *
Earth	-88670-11-11 01:11 J	-30664980.64	-30664980.45	-30664980.25	0.0132	0.0083
Moon	-88670-11-11 04:47 J	-30664980.47	-30664980.30	-30664980.11	0.0132	0.0090 *
Moon	-88669-11-13 23:15 J	-30664611.69	-30664611.53	-30664611.33	0.0132	0.0091
Earth	-88669-11-14 02:51 J	-30664611.53	-30664611.38	-30664611.20	0.0132	0.0098 *
Earth	-88668-11-18 04:18 J	-30664242.43	-30664242.32	-30664242.17	0.0132	0.0112
Moon	-88668-11-18 07:54 J	-30664242.27	-30664242.17	-30664242.05	0.0132	0.0118 *
Moon	-88667-11-22 02:08 J	-30663873.48	-30663873.41	-30663873.28	0.0132	0.0121
Earth	-88667-11-22 05:59 J	-30663873.30	-30663873.25	-30663873.16	0.0132	0.0126 *
Mars	-88663-12-06 15:20 J	-30662398.15	-30662397.86	-30662397.57	0.0133	0.0023
Mars	-88661-11-05 14:23 J	-30661698.10	-30661697.90	-30661697.68	0.0134	0.0094
Venus	-88649-10-12 20:23 J	-30657338.78	-30657338.65	-30657338.50	0.0140	0.0105
Mercury	-88649-10-16 15:35 J	-30657334.89	-30657334.85	-30657334.79	0.0140	0.0131
Mercury	-88648-01-12 19:39 J	-30657246.76	-30657246.68	-30657246.59	0.0141	0.0113
Mercury	-88648-04-10 23:44 J	-30657158.61	-30657158.51	-30657158.41	0.0141	0.0095
Venus	-88648-05-27 04:03 J	-30657112.54	-30657112.33	-30657112.13	0.0141	0.0037
Mercury	-88648-07-08 03:35 J	-30657070.46	-30657070.35	-30657070.22	0.0141	0.0077
Mercury	-88648-10-04 07:54 J	-30656982.30	-30656982.17	-30656982.04	0.0141	0.0058
Mercury	-88648-12-31 11:44 J	-30656894.14	-30656894.01	-30656893.87	0.0141	0.0040

Venus -88647-01-08 11:30 J -30656886.22 -30656886.02 -30656885.80 0.0141 0.0032
 Mercury -88647-03-29 16:03 J -30656805.97 -30656805.83 -30656805.69 0.0141 0.0021
 Mercury -88647-06-25 20:08 J -30656717.80 -30656717.66 -30656717.52 0.0141 0.0002
 Venus -88647-08-22 19:11 J -30656659.83 -30656659.70 -30656659.54 0.0142 0.0101
 Mercury -88647-09-22 00:13 J -30656629.63 -30656629.49 -30656629.34 0.0142 0.0017
 Mercury -88647-12-19 04:32 J -30656541.45 -30656541.31 -30656541.17 0.0142 0.0036
 Mercury -88646-03-17 08:37 J -30656453.27 -30656453.14 -30656453.00 0.0142 0.0056
 Mercury -88646-06-13 12:56 J -30656365.08 -30656364.96 -30656364.83 0.0142 0.0075
 Mercury -88646-09-09 17:15 J -30656276.88 -30656276.78 -30656276.67 0.0142 0.0095
 Mercury -88646-12-06 21:35 J -30656188.67 -30656188.60 -30656188.51 0.0142 0.0115
 Mercury -88645-03-04 01:54 J -30656100.45 -30656100.42 -30656100.36 0.0142 0.0136
 Earth -88639-03-12 20:23 J -30653900.71 -30653900.65 -30653900.55 0.0146 0.0138
 Moon -88639-03-12 22:03 J -30653900.61 -30653900.58 -30653900.54 0.0146 0.0144 *
 Moon -88638-03-17 17:44 J -30653530.89 -30653530.76 -30653530.58 0.0146 0.0116
 Earth -88638-03-17 19:11 J -30653530.83 -30653530.70 -30653530.54 0.0146 0.0119 *
 Moon -88637-03-21 18:56 J -30653160.88 -30653160.71 -30653160.51 0.0146 0.0097
 Earth -88637-03-21 18:56 J -30653160.88 -30653160.71 -30653160.51 0.0146 0.0100 *
 Moon -88636-03-26 20:08 J -30652790.87 -30652790.66 -30652790.44 0.0147 0.0084
 Earth -88636-03-26 19:54 J -30652790.87 -30652790.67 -30652790.45 0.0147 0.0079 *
 Moon -88635-03-31 20:51 J -30652420.86 -30652420.63 -30652420.40 0.0147 0.0050
 Earth -88635-03-31 22:03 J -30652420.81 -30652420.58 -30652420.34 0.0147 0.0057 *
 Earth -88634-04-06 00:56 J -30652050.70 -30652050.46 -30652050.21 0.0147 0.0035
 Moon -88634-04-06 02:23 J -30652050.63 -30652050.40 -30652050.13 0.0147 0.0043 *
 Moon -88633-04-10 02:37 J -30651680.63 -30651680.39 -30651680.14 0.0147 0.0011
 Earth -88633-04-10 05:01 J -30651680.54 -30651680.29 -30651680.04 0.0147 0.0013 *
 Earth -88632-04-15 09:49 J -30651310.34 -30651310.09 -30651309.83 0.0147 0.0010
 Moon -88632-04-15 12:56 J -30651310.21 -30651309.96 -30651309.70 0.0147 0.0014 *
 Moon -88631-04-20 12:13 J -30650940.23 -30650939.99 -30650939.74 0.0147 0.0027
 Earth -88631-04-20 15:20 J -30650940.10 -30650939.86 -30650939.61 0.0147 0.0033 *
 Earth -88630-04-25 21:20 J -30650569.83 -30650569.61 -30650569.36 0.0147 0.0057

Moon -88630-04-26 01:11 J -30650569.67 -30650569.45 -30650569.21 0.0147 0.0064 *
 Moon -88629-04-30 00:56 J -30650199.67 -30650199.46 -30650199.23 0.0147 0.0072
 Earth -88629-04-30 04:47 J -30650199.51 -30650199.30 -30650199.08 0.0147 0.0079 *
 Earth -88628-05-05 11:44 J -30649829.17 -30649829.01 -30649828.80 0.0147 0.0102
 Moon -88628-05-05 15:06 J -30649829.03 -30649828.87 -30649828.67 0.0147 0.0102 *
 Moon -88627-05-10 17:01 J -30649458.92 -30649458.79 -30649458.65 0.0147 0.0125
 Earth -88627-05-10 20:08 J -30649458.79 -30649458.66 -30649458.51 0.0147 0.0122 *
 Earth -88626-05-16 04:32 J -30649088.36 -30649088.31 -30649088.24 0.0147 0.0143
 Moon -88626-05-16 06:42 J -30649088.30 -30649088.22 -30649088.12 0.0147 0.0136 *
 Mars -88622-06-27 03:49 J -30647585.65 -30647585.34 -30647585.02 0.0145 0.0025
 Venus -88610-11-09 01:54 J -30643067.58 -30643067.42 -30643067.24 0.0138 0.0091
 Mercury -88609-03-12 21:49 J -30642942.66 -30642942.59 -30642942.49 0.0138 0.0120
 Mercury -88609-06-09 04:18 J -30642854.43 -30642854.32 -30642854.19 0.0138 0.0098
 Venus -88609-06-22 12:13 J -30642841.21 -30642840.99 -30642840.77 0.0138 0.0024
 Mercury -88609-09-05 10:32 J -30642766.19 -30642766.06 -30642765.90 0.0138 0.0076
 Mercury -88609-12-02 17:01 J -30642677.95 -30642677.79 -30642677.63 0.0138 0.0054
 Venus -88608-02-03 21:35 J -30642614.80 -30642614.60 -30642614.37 0.0137 0.0044
 Mercury -88608-02-28 23:15 J -30642589.70 -30642589.53 -30642589.36 0.0137 0.0032
 Mercury -88608-05-28 05:30 J -30642501.45 -30642501.27 -30642501.10 0.0137 0.0011
 Mercury -88608-08-24 11:30 J -30642413.19 -30642413.02 -30642412.85 0.0137 0.0011
 Venus -88608-09-18 06:56 J -30642388.33 -30642388.21 -30642388.06 0.0137 0.0109
 Mercury -88608-11-20 17:30 J -30642324.94 -30642324.77 -30642324.60 0.0137 0.0031
 Mercury -88607-02-16 23:30 J -30642236.68 -30642236.52 -30642236.36 0.0137 0.0052
 Mercury -88607-05-16 05:15 J -30642148.42 -30642148.28 -30642148.13 0.0137 0.0073
 Mercury -88607-08-12 11:01 J -30642060.16 -30642060.04 -30642059.91 0.0137 0.0093
 Mercury -88607-11-08 17:01 J -30641971.88 -30641971.79 -30641971.70 0.0136 0.0113
 Mercury -88606-02-04 22:32 J -30641883.59 -30641883.56 -30641883.52 0.0136 0.0133
 Moon -88599-09-20 14:23 J -30639099.02 -30639098.90 -30639098.75 0.0133 0.0113
 Earth -88599-09-20 17:44 J -30639098.85 -30639098.76 -30639098.63 0.0133 0.0120 *
 Earth -88598-09-25 03:06 J -30638729.51 -30638729.37 -30638729.19 0.0133 0.0105

Moon	-88598-09-25 06:27 J	-30638729.36	-30638729.23	-30638729.06	0.0133	0.0109	*
Moon	-88597-09-28 08:08 J	-30638360.34	-30638360.16	-30638359.95	0.0132	0.0087	
Earth	-88597-09-28 11:59 J	-30638360.18	-30638360.00	-30638359.80	0.0132	0.0089	*
Earth	-88596-10-02 19:39 J	-30637990.89	-30637990.68	-30637990.46	0.0132	0.0072	
Moon	-88596-10-02 22:47 J	-30637990.75	-30637990.55	-30637990.31	0.0132	0.0072	*
Moon	-88595-10-06 22:47 J	-30637621.76	-30637621.55	-30637621.31	0.0132	0.0061	
Earth	-88595-10-07 02:51 J	-30637621.61	-30637621.38	-30637621.15	0.0132	0.0056	*
Earth	-88594-10-11 08:37 J	-30637252.38	-30637252.14	-30637251.89	0.0132	0.0040	
Moon	-88594-10-11 12:13 J	-30637252.23	-30637251.99	-30637251.73	0.0132	0.0035	*
Moon	-88593-10-14 10:32 J	-30636883.31	-30636883.06	-30636882.81	0.0132	0.0031	
Earth	-88593-10-14 13:54 J	-30636883.17	-30636882.92	-30636882.66	0.0132	0.0024	*
Earth	-88592-10-18 18:27 J	-30636513.98	-30636513.73	-30636513.47	0.0131	0.0008	
Moon	-88592-10-18 22:18 J	-30636513.83	-30636513.57	-30636513.32	0.0131	0.0001	*
Moon	-88591-10-22 19:11 J	-30636144.95	-30636144.70	-30636144.45	0.0131	0.0002	
Earth	-88591-10-22 22:32 J	-30636144.81	-30636144.56	-30636144.30	0.0131	0.0008	*
Earth	-88590-10-27 01:54 J	-30635775.67	-30635775.42	-30635775.17	0.0131	0.0024	
Moon	-88590-10-27 05:30 J	-30635775.52	-30635775.27	-30635775.02	0.0131	0.0026	*
Moon	-88589-10-30 00:56 J	-30635406.69	-30635406.46	-30635406.21	0.0131	0.0038	
Earth	-88589-10-30 04:32 J	-30635406.54	-30635406.31	-30635406.06	0.0131	0.0040	*
Earth	-88588-11-03 07:11 J	-30635037.42	-30635037.20	-30635036.97	0.0131	0.0055	
Moon	-88588-11-03 10:18 J	-30635037.28	-30635037.07	-30635036.82	0.0131	0.0053	*
Moon	-88587-11-07 05:59 J	-30634668.46	-30634668.25	-30634668.05	0.0131	0.0075	
Earth	-88587-11-07 09:35 J	-30634668.31	-30634668.10	-30634667.88	0.0131	0.0070	*
Earth	-88586-11-11 11:15 J	-30634299.21	-30634299.03	-30634298.83	0.0131	0.0085	
Moon	-88586-11-11 14:37 J	-30634299.08	-30634298.89	-30634298.67	0.0131	0.0079	*
Moon	-88585-11-14 09:35 J	-30633930.24	-30633930.10	-30633929.94	0.0132	0.0106	
Earth	-88585-11-14 13:11 J	-30633930.11	-30633929.95	-30633929.78	0.0132	0.0099	*
Earth	-88584-11-18 14:51 J	-30633561.00	-30633560.88	-30633560.75	0.0132	0.0113	
Moon	-88584-11-18 18:27 J	-30633560.87	-30633560.73	-30633560.58	0.0132	0.0106	*
Moon	-88583-11-22 13:11 J	-30633191.95	-30633191.95	-30633191.92	0.0132	0.0132	

Earth	-88583-11-22 16:03 J	-30633191.87	-30633191.83	-30633191.73	0.0132	0.0127
Mars	-88580-08-31 05:44 J	-30632179.46	-30632179.26	-30632179.04	0.0133	0.0092
Mars	-88578-07-31 21:49 J	-30631479.88	-30631479.59	-30631479.30	0.0133	0.0021
Venus	-88565-06-12 04:32 J	-30626780.33	-30626780.31	-30626780.27	0.0140	0.0138
Mercury	-88565-11-05 22:47 J	-30626633.61	-30626633.55	-30626633.49	0.0140	0.0128
Venus	-88564-01-24 11:44 J	-30626554.18	-30626554.01	-30626553.82	0.0141	0.0072
Mercury	-88564-02-02 02:37 J	-30626545.47	-30626545.39	-30626545.30	0.0141	0.0110
Mercury	-88564-05-01 06:42 J	-30626457.33	-30626457.22	-30626457.12	0.0141	0.0092
Mercury	-88564-07-28 10:32 J	-30626369.17	-30626369.06	-30626368.93	0.0141	0.0074
Venus	-88564-09-07 19:25 J	-30626327.90	-30626327.69	-30626327.48	0.0141	0.0004
Mercury	-88564-10-24 14:37 J	-30626281.02	-30626280.89	-30626280.76	0.0141	0.0056
Mercury	-88563-01-20 18:42 J	-30626192.85	-30626192.72	-30626192.58	0.0141	0.0037
Mercury	-88563-04-18 22:47 J	-30626104.69	-30626104.55	-30626104.40	0.0141	0.0019
Venus	-88563-04-22 02:51 J	-30626101.56	-30626101.38	-30626101.18	0.0141	0.0065
Mercury	-88563-07-16 03:06 J	-30626016.52	-30626016.37	-30626016.23	0.0142	0.0003
Mercury	-88563-10-12 07:11 J	-30625928.34	-30625928.20	-30625928.06	0.0142	0.0020
Venus	-88563-12-04 10:47 J	-30625875.10	-30625875.05	-30625874.97	0.0142	0.0134
Mercury	-88562-01-08 11:30 J	-30625840.16	-30625840.02	-30625839.88	0.0142	0.0039
Mercury	-88562-04-06 15:35 J	-30625751.98	-30625751.85	-30625751.71	0.0142	0.0059
Mercury	-88562-07-03 19:54 J	-30625663.79	-30625663.67	-30625663.55	0.0142	0.0078
Mercury	-88562-09-30 00:13 J	-30625575.59	-30625575.49	-30625575.38	0.0142	0.0098
Mercury	-88562-12-27 04:32 J	-30625487.38	-30625487.31	-30625487.22	0.0142	0.0118
Mercury	-88561-03-24 08:51 J	-30625399.15	-30625399.13	-30625399.09	0.0143	0.0138
Earth	-88555-03-13 05:44 J	-30623219.36	-30623219.26	-30623219.16	0.0146	0.0132
Moon	-88555-03-13 07:39 J	-30623219.29	-30623219.18	-30623219.05	0.0146	0.0126 *
Moon	-88554-03-18 02:23 J	-30622849.54	-30622849.40	-30622849.23	0.0146	0.0116
Earth	-88554-03-18 03:49 J	-30622849.48	-30622849.34	-30622849.17	0.0146	0.0114 *
Earth	-88553-03-22 03:35 J	-30622479.53	-30622479.35	-30622479.14	0.0146	0.0095
Moon	-88553-03-22 05:01 J	-30622479.46	-30622479.29	-30622479.10	0.0146	0.0095 *
Moon	-88552-03-27 04:32 J	-30622109.53	-30622109.31	-30622109.07	0.0147	0.0068

Earth -88552-03-27 04:47 J -30622109.52 -30622109.30 -30622109.08 0.0147 0.0074 *
 Earth -88551-04-01 06:13 J -30621739.46 -30621739.24 -30621738.99 0.0147 0.0053
 Moon -88551-04-01 05:59 J -30621739.45 -30621739.25 -30621739.01 0.0147 0.0061 *
 Earth -88550-04-06 09:20 J -30621369.35 -30621369.11 -30621368.86 0.0147 0.0031
 Moon -88550-04-06 10:32 J -30621369.31 -30621369.06 -30621368.80 0.0147 0.0025 *
 Moon -88549-04-10 11:30 J -30620999.26 -30620999.02 -30620998.77 0.0147 0.0012
 Earth -88549-04-10 13:25 J -30620999.19 -30620998.94 -30620998.69 0.0147 0.0009 *
 Earth -88548-04-15 17:59 J -30620629.00 -30620628.75 -30620628.49 0.0147 0.0014
 Moon -88548-04-15 20:23 J -30620628.91 -30620628.65 -30620628.39 0.0147 0.0012 *
 Moon -88547-04-20 20:23 J -30620258.88 -30620258.65 -30620258.40 0.0147 0.0043
 Earth -88547-04-20 23:30 J -30620258.75 -30620258.52 -30620258.26 0.0147 0.0037 *
 Earth -88546-04-26 05:44 J -30619888.48 -30619888.26 -30619888.01 0.0147 0.0060
 Moon -88546-04-26 09:06 J -30619888.35 -30619888.12 -30619887.86 0.0147 0.0052 *
 Moon -88545-04-30 09:35 J -30619518.30 -30619518.10 -30619517.89 0.0147 0.0087
 Earth -88545-04-30 12:56 J -30619518.16 -30619517.96 -30619517.73 0.0147 0.0082 *
 Earth -88544-05-05 20:37 J -30619147.81 -30619147.64 -30619147.44 0.0147 0.0103
 Moon -88544-05-06 00:42 J -30619147.65 -30619147.47 -30619147.28 0.0147 0.0101 *
 Moon -88543-05-11 01:39 J -30618777.57 -30618777.43 -30618777.27 0.0147 0.0120
 Earth -88543-05-11 04:47 J -30618777.42 -30618777.30 -30618777.15 0.0147 0.0124 *
 Earth -88542-05-16 13:11 J -30618406.98 -30618406.95 -30618406.88 0.0147 0.0144
 Mars -88539-03-17 06:42 J -30617371.47 -30617371.22 -30617370.94 0.0146 0.0082
 Mars -88537-02-21 06:27 J -30616665.47 -30616665.23 -30616664.96 0.0145 0.0088
 Venus -88526-07-09 09:20 J -30612509.20 -30612509.11 -30612509.01 0.0138 0.0124
 Mercury -88525-01-04 22:47 J -30612329.56 -30612329.55 -30612329.52 0.0138 0.0137
 Venus -88525-02-20 19:25 J -30612282.89 -30612282.69 -30612282.48 0.0138 0.0056
 Mercury -88525-04-02 05:01 J -30612241.37 -30612241.29 -30612241.18 0.0138 0.0115
 Mercury -88525-06-29 11:30 J -30612153.14 -30612153.02 -30612152.88 0.0138 0.0093
 Mercury -88525-09-25 17:59 J -30612064.90 -30612064.75 -30612064.59 0.0138 0.0071
 Venus -88525-10-04 05:30 J -30612056.49 -30612056.27 -30612056.05 0.0138 0.0011
 Mercury -88525-12-23 00:13 J -30611976.65 -30611976.49 -30611976.32 0.0138 0.0049

Mercury -88524-03-21 06:27 J -30611888.40 -30611888.23 -30611888.05 0.0137 0.0027

Venus -88524-05-18 15:06 J -30611830.05 -30611829.87 -30611829.68 0.0137 0.0078

Mercury -88524-06-17 12:42 J -30611800.15 -30611799.97 -30611799.80 0.0137 0.0006

Mercury -88524-09-13 18:42 J -30611711.89 -30611711.72 -30611711.54 0.0137 0.0016

Mercury -88524-12-11 00:42 J -30611623.63 -30611623.47 -30611623.30 0.0137 0.0036

Mercury -88523-03-09 06:42 J -30611535.38 -30611535.22 -30611535.06 0.0137 0.0057

Mercury -88523-06-05 12:27 J -30611447.11 -30611446.98 -30611446.83 0.0137 0.0078

Mercury -88523-09-01 18:13 J -30611358.85 -30611358.74 -30611358.61 0.0137 0.0098

Mercury -88523-11-28 23:59 J -30611270.57 -30611270.50 -30611270.41 0.0137 0.0118

Earth -88516-09-16 17:30 J -30608786.80 -30608786.77 -30608786.70 0.0133 0.0130

Moon -88516-09-16 20:51 J -30608786.73 -30608786.63 -30608786.53 0.0133 0.0123 *

Moon -88515-09-21 01:25 J -30608417.54 -30608417.44 -30608417.33 0.0133 0.0121

Earth -88515-09-21 04:03 J -30608417.44 -30608417.33 -30608417.18 0.0133 0.0115 *

Jupiter -88514-08-15 09:35 J -30608089.60 -30608089.10 -30608088.58 0.0133 0.0011

Earth -88514-09-25 13:39 J -30608048.08 -30608047.93 -30608047.75 0.0133 0.0100

Moon -88514-09-25 17:01 J -30608047.96 -30608047.79 -30608047.59 0.0133 0.0095 *

Moon -88513-09-28 18:56 J -30607678.88 -30607678.71 -30607678.50 0.0132 0.0088

Earth -88513-09-28 22:32 J -30607678.76 -30607678.56 -30607678.36 0.0132 0.0084 *

Earth -88512-10-03 05:59 J -30607309.46 -30607309.25 -30607309.02 0.0132 0.0068

Moon -88512-10-03 09:20 J -30607309.31 -30607309.11 -30607308.87 0.0132 0.0070 *

Moon -88511-10-07 09:35 J -30606940.32 -30606940.10 -30606939.85 0.0132 0.0050

Earth -88511-10-07 12:56 J -30606940.19 -30606939.96 -30606939.72 0.0132 0.0052 *

Earth -88510-10-11 18:42 J -30606570.96 -30606570.72 -30606570.47 0.0132 0.0036

Moon -88510-10-11 22:18 J -30606570.82 -30606570.57 -30606570.33 0.0132 0.0042 *

Moon -88509-10-14 20:37 J -30606201.89 -30606201.64 -30606201.39 0.0131 0.0013

Earth -88509-10-14 23:59 J -30606201.75 -30606201.50 -30606201.24 0.0131 0.0021 *

Earth -88508-10-19 04:32 J -30605832.57 -30605832.31 -30605832.06 0.0131 0.0005

Moon -88508-10-19 07:39 J -30605832.43 -30605832.18 -30605831.92 0.0131 0.0012 *

Moon -88507-10-23 04:47 J -30605463.54 -30605463.30 -30605463.04 0.0131 0.0017

Earth -88507-10-23 08:23 J -30605463.40 -30605463.15 -30605462.89 0.0131 0.0011 *

Earth	-88506-10-27 11:44 J	-30605094.25	-30605094.01	-30605093.76	0.0131	0.0026
Moon	-88506-10-27 15:06 J	-30605094.12	-30605093.87	-30605093.61	0.0131	0.0023 *
Moon	-88505-10-30 11:15 J	-30604725.26	-30604725.03	-30604724.79	0.0131	0.0042
Earth	-88505-10-30 14:37 J	-30604725.12	-30604724.89	-30604724.64	0.0131	0.0042 *
Earth	-88504-11-03 17:15 J	-30604356.01	-30604355.78	-30604355.55	0.0131	0.0057
Moon	-88504-11-03 20:37 J	-30604355.86	-30604355.64	-30604355.40	0.0131	0.0059 *
Moon	-88503-11-07 16:03 J	-30603987.02	-30603986.83	-30603986.60	0.0131	0.0069
Earth	-88503-11-07 19:25 J	-30603986.89	-30603986.69	-30603986.47	0.0131	0.0072 *
Earth	-88502-11-11 21:06 J	-30603617.79	-30603617.62	-30603617.41	0.0131	0.0086
Moon	-88502-11-12 00:56 J	-30603617.64	-30603617.46	-30603617.28	0.0131	0.0093 *
Moon	-88501-11-14 19:39 J	-30603248.83	-30603248.68	-30603248.48	0.0132	0.0094
Earth	-88501-11-14 23:01 J	-30603248.68	-30603248.54	-30603248.36	0.0132	0.0101 *
Earth	-88500-11-19 00:42 J	-30602879.57	-30602879.47	-30602879.33	0.0132	0.0114
Moon	-88500-11-19 04:03 J	-30602879.42	-30602879.33	-30602879.21	0.0132	0.0120 *
Moon	-88499-11-22 23:01 J	-30602510.62	-30602510.54	-30602510.43	0.0132	0.0122
Earth	-88499-11-23 02:37 J	-30602510.45	-30602510.39	-30602510.32	0.0132	0.0127 *
Mars	-88495-04-25 09:20 J	-30601261.37	-30601261.11	-30601260.82	0.0133	0.0049
Mars	-88493-03-25 03:35 J	-30600561.59	-30600561.35	-30600561.08	0.0134	0.0066
Venus	-88481-09-23 19:11 J	-30595995.82	-30595995.70	-30595995.54	0.0140	0.0107
Mercury	-88481-11-26 05:15 J	-30595932.33	-30595932.28	-30595932.20	0.0141	0.0126
Mercury	-88480-02-22 09:20 J	-30595844.19	-30595844.11	-30595844.01	0.0141	0.0108
Venus	-88480-05-08 02:51 J	-30595769.58	-30595769.38	-30595769.17	0.0141	0.0039
Mercury	-88480-05-21 13:25 J	-30595756.04	-30595755.94	-30595755.83	0.0141	0.0090
Mercury	-88480-08-17 17:30 J	-30595667.89	-30595667.77	-30595667.65	0.0141	0.0071
Mercury	-88480-11-13 21:20 J	-30595579.73	-30595579.61	-30595579.47	0.0141	0.0054
Venus	-88480-12-20 10:18 J	-30595543.27	-30595543.07	-30595542.85	0.0141	0.0030
Mercury	-88479-02-10 01:39 J	-30595491.57	-30595491.43	-30595491.29	0.0141	0.0035
Mercury	-88479-05-09 05:44 J	-30595403.40	-30595403.26	-30595403.12	0.0141	0.0016
Venus	-88479-08-03 18:13 J	-30595316.89	-30595316.74	-30595316.58	0.0142	0.0098
Mercury	-88479-08-05 09:49 J	-30595315.23	-30595315.09	-30595314.95	0.0142	0.0003

Mercury -88479-11-01 13:54 J -30595227.06 -30595226.92 -30595226.77 0.0142 0.0023

Mercury -88478-01-28 18:13 J -30595138.88 -30595138.74 -30595138.60 0.0142 0.0042

Mercury -88478-04-26 22:32 J -30595050.69 -30595050.56 -30595050.43 0.0142 0.0061

Mercury -88478-07-24 02:37 J -30594962.50 -30594962.39 -30594962.26 0.0142 0.0081

Mercury -88478-10-20 07:11 J -30594874.30 -30594874.20 -30594874.10 0.0142 0.0101

Mercury -88477-01-16 11:30 J -30594786.09 -30594786.02 -30594785.94 0.0142 0.0121

Mercury -88477-04-13 15:49 J -30594697.85 -30594697.84 -30594697.82 0.0143 0.0141

Moon -88472-03-08 14:08 J -30592907.99 -30592907.91 -30592907.82 0.0145 0.0136

Earth -88472-03-08 16:47 J -30592907.81 -30592907.80 -30592907.75 0.0145 0.0144

Earth -88471-03-13 14:08 J -30592538.02 -30592537.91 -30592537.78 0.0146 0.0127

Moon -88471-03-13 16:32 J -30592537.89 -30592537.81 -30592537.70 0.0146 0.0134 *

Moon -88470-03-18 10:18 J -30592168.24 -30592168.07 -30592167.88 0.0146 0.0104

Earth -88470-03-18 12:42 J -30592168.12 -30592167.97 -30592167.79 0.0146 0.0109 *

Earth -88469-03-22 12:27 J -30591798.17 -30591797.98 -30591797.77 0.0146 0.0090

Moon -88469-03-22 13:54 J -30591798.10 -30591797.92 -30591797.72 0.0146 0.0088 *

Moon -88468-03-27 11:59 J -30591428.22 -30591428.00 -30591427.78 0.0147 0.0074

Earth -88468-03-27 13:11 J -30591428.16 -30591427.95 -30591427.72 0.0147 0.0070 *

Earth -88467-04-01 15:06 J -30591058.10 -30591057.87 -30591057.63 0.0147 0.0049

Moon -88467-04-01 15:20 J -30591058.08 -30591057.86 -30591057.62 0.0147 0.0042 *

Earth -88466-04-06 17:59 J -30590687.99 -30590687.75 -30590687.49 0.0147 0.0028

Moon -88466-04-06 18:27 J -30590687.98 -30590687.73 -30590687.47 0.0147 0.0034 *

Moon -88465-04-10 21:06 J -30590317.86 -30590317.62 -30590317.37 0.0147 0.0003

Earth -88465-04-10 22:03 J -30590317.83 -30590317.58 -30590317.33 0.0147 0.0006 *

Earth -88464-04-16 02:51 J -30589947.63 -30589947.38 -30589947.13 0.0147 0.0017

Moon -88464-04-16 05:01 J -30589947.55 -30589947.29 -30589947.03 0.0147 0.0019 *

Moon -88463-04-21 06:13 J -30589577.48 -30589577.24 -30589577.00 0.0148 0.0034

Earth -88463-04-21 08:08 J -30589577.39 -30589577.16 -30589576.90 0.0148 0.0040 *

Earth -88462-04-26 14:37 J -30589207.11 -30589206.89 -30589206.64 0.0147 0.0062

Moon -88462-04-26 18:13 J -30589206.97 -30589206.74 -30589206.51 0.0147 0.0069 *

Moon -88461-04-30 18:27 J -30588836.93 -30588836.73 -30588836.50 0.0147 0.0077

Earth -88461-04-30 21:49 J -30588836.78 -30588836.59 -30588836.36 0.0147 0.0084 *
 Earth -88460-05-06 05:30 J -30588466.43 -30588466.27 -30588466.07 0.0147 0.0105
 Moon -88460-05-06 09:20 J -30588466.28 -30588466.11 -30588465.92 0.0147 0.0105 *
 Moon -88459-05-11 10:32 J -30588096.19 -30588096.06 -30588095.93 0.0147 0.0127
 Earth -88459-05-11 13:54 J -30588096.04 -30588095.92 -30588095.77 0.0147 0.0125 *
 Earth -88458-05-16 22:47 J -30587725.59 -30587725.55 -30587725.50 0.0147 0.0144
 Moon -88458-05-17 01:39 J -30587725.50 -30587725.43 -30587725.33 0.0147 0.0138 *
 Mars -88455-11-11 13:11 J -30586451.27 -30586450.95 -30586450.62 0.0146 0.0017
 Venus -88442-10-21 02:51 J -30581724.54 -30581724.38 -30581724.19 0.0138 0.0088
 Mercury -88441-01-25 05:59 J -30581628.28 -30581628.25 -30581628.18 0.0138 0.0132
 Mercury -88441-04-22 12:42 J -30581540.07 -30581539.97 -30581539.86 0.0138 0.0109
 Venus -88441-06-03 13:25 J -30581498.16 -30581497.94 -30581497.72 0.0138 0.0020
 Mercury -88441-07-19 19:11 J -30581451.84 -30581451.70 -30581451.56 0.0138 0.0087
 Mercury -88441-10-16 01:25 J -30581363.59 -30581363.44 -30581363.28 0.0138 0.0065
 Mercury -88440-01-12 07:39 J -30581275.34 -30581275.18 -30581275.01 0.0138 0.0043
 Venus -88440-01-15 23:01 J -30581271.75 -30581271.54 -30581271.33 0.0138 0.0047
 Mercury -88440-04-10 13:54 J -30581187.09 -30581186.92 -30581186.75 0.0137 0.0022
 Mercury -88440-07-07 20:08 J -30581098.84 -30581098.66 -30581098.49 0.0137 0.0003
 Venus -88440-08-30 08:23 J -30581045.27 -30581045.15 -30581045.02 0.0137 0.0112
 Mercury -88440-10-04 01:54 J -30581010.58 -30581010.42 -30581010.24 0.0137 0.0022
 Mercury -88440-12-31 08:08 J -30580922.33 -30580922.16 -30580922.00 0.0137 0.0042
 Mercury -88439-03-29 13:54 J -30580834.07 -30580833.92 -30580833.76 0.0137 0.0062
 Mercury -88439-06-25 19:39 J -30580745.81 -30580745.68 -30580745.53 0.0137 0.0083
 Mercury -88439-09-22 01:39 J -30580657.54 -30580657.43 -30580657.31 0.0137 0.0103
 Mercury -88439-12-19 07:25 J -30580569.26 -30580569.19 -30580569.11 0.0137 0.0123
 Earth -88432-09-17 04:47 J -30578105.38 -30578105.30 -30578105.20 0.0133 0.0125
 Moon -88432-09-17 07:11 J -30578105.22 -30578105.20 -30578105.13 0.0133 0.0131 *
 Moon -88431-09-21 12:27 J -30577736.12 -30577735.98 -30577735.80 0.0133 0.0103
 Earth -88431-09-21 15:06 J -30577735.99 -30577735.87 -30577735.70 0.0133 0.0110 *
 Earth -88430-09-26 00:27 J -30577366.64 -30577366.48 -30577366.28 0.0133 0.0095

Moon	-88430-09-26 03:06 J	-30577366.52	-30577366.37	-30577366.17	0.0133	0.0100	*
Moon	-88429-09-29 06:27 J	-30576997.43	-30576997.23	-30576997.02	0.0132	0.0077	
Earth	-88429-09-29 09:06 J	-30576997.30	-30576997.12	-30576996.89	0.0132	0.0080	*
Earth	-88428-10-03 17:01 J	-30576628.01	-30576627.79	-30576627.56	0.0132	0.0063	
Moon	-88428-10-03 19:54 J	-30576627.89	-30576627.67	-30576627.43	0.0132	0.0063	*
Moon	-88427-10-07 20:51 J	-30576258.86	-30576258.63	-30576258.40	0.0132	0.0051	
Earth	-88427-10-07 23:44 J	-30576258.74	-30576258.51	-30576258.26	0.0132	0.0048	*
Earth	-88426-10-12 05:30 J	-30575889.50	-30575889.27	-30575889.01	0.0132	0.0033	
Moon	-88426-10-12 08:51 J	-30575889.37	-30575889.13	-30575888.86	0.0132	0.0027	*
Moon	-88425-10-15 08:08 J	-30575520.41	-30575520.16	-30575519.91	0.0131	0.0023	
Earth	-88425-10-15 11:01 J	-30575520.29	-30575520.04	-30575519.79	0.0131	0.0016	*
Earth	-88424-10-19 15:35 J	-30575151.11	-30575150.85	-30575150.60	0.0131	0.0002	
Moon	-88424-10-19 18:56 J	-30575150.97	-30575150.71	-30575150.45	0.0131	0.0006	*
Moon	-88423-10-23 16:32 J	-30574782.05	-30574781.81	-30574781.55	0.0131	0.0009	
Earth	-88423-10-23 19:39 J	-30574781.93	-30574781.68	-30574781.43	0.0131	0.0014	*
Earth	-88422-10-27 22:47 J	-30574412.79	-30574412.55	-30574412.30	0.0131	0.0029	
Moon	-88422-10-28 01:54 J	-30574412.66	-30574412.42	-30574412.16	0.0131	0.0032	*
Moon	-88421-10-30 22:32 J	-30574043.78	-30574043.56	-30574043.31	0.0131	0.0044	
Earth	-88421-10-31 01:54 J	-30574043.65	-30574043.42	-30574043.18	0.0131	0.0045	*
Earth	-88420-11-04 04:32 J	-30573674.53	-30573674.31	-30573674.08	0.0131	0.0059	
Moon	-88420-11-04 07:39 J	-30573674.41	-30573674.18	-30573673.95	0.0131	0.0058	*
Moon	-88419-11-08 03:35 J	-30573305.54	-30573305.35	-30573305.14	0.0131	0.0079	
Earth	-88419-11-08 06:42 J	-30573305.41	-30573305.22	-30573305.00	0.0131	0.0074	*
Earth	-88418-11-12 08:37 J	-30572936.31	-30572936.14	-30572935.93	0.0131	0.0089	
Moon	-88418-11-12 11:44 J	-30572936.19	-30572936.01	-30572935.80	0.0131	0.0082	*
Moon	-88417-11-15 07:39 J	-30572567.30	-30572567.18	-30572567.03	0.0131	0.0109	
Earth	-88417-11-15 10:47 J	-30572567.20	-30572567.05	-30572566.88	0.0131	0.0102	*
Earth	-88416-11-19 12:42 J	-30572198.09	-30572197.97	-30572197.85	0.0132	0.0115	
Moon	-88416-11-19 15:35 J	-30572197.98	-30572197.85	-30572197.69	0.0132	0.0108	*
Earth	-88415-11-23 13:54 J	-30571828.96	-30571828.92	-30571828.84	0.0132	0.0128	

Mars -88412-01-18 05:30 J -30571042.39 -30571042.27 -30571042.11 0.0132 0.0115
 Mars -88411-12-18 18:13 J -30570343.03 -30570342.74 -30570342.45 0.0133 0.0004
 Mars -88409-11-17 14:23 J -30569643.05 -30569642.90 -30569642.72 0.0134 0.0111
 Venus -88397-05-24 05:01 J -30565437.32 -30565437.29 -30565437.25 0.0140 0.0138
 Mercury -88397-09-19 08:51 J -30565319.14 -30565319.13 -30565319.10 0.0140 0.0139
 Mercury -88397-12-16 12:56 J -30565231.03 -30565230.96 -30565230.89 0.0141 0.0121
 Venus -88396-01-05 11:59 J -30565211.17 -30565211.00 -30565210.80 0.0141 0.0072
 Mercury -88396-03-14 16:32 J -30565142.89 -30565142.81 -30565142.70 0.0141 0.0104
 Mercury -88396-06-10 20:51 J -30565054.74 -30565054.63 -30565054.52 0.0141 0.0085
 Venus -88396-08-19 19:39 J -30564984.90 -30564984.68 -30564984.47 0.0141 0.0004
 Mercury -88396-09-07 00:42 J -30564966.59 -30564966.47 -30564966.34 0.0141 0.0067
 Mercury -88396-12-04 04:47 J -30564878.43 -30564878.30 -30564878.16 0.0141 0.0049
 Mercury -88395-03-02 08:51 J -30564790.27 -30564790.13 -30564789.99 0.0141 0.0030
 Venus -88395-04-03 03:06 J -30564758.55 -30564758.37 -30564758.18 0.0141 0.0065
 Mercury -88395-05-29 12:56 J -30564702.10 -30564701.96 -30564701.82 0.0141 0.0012
 Mercury -88395-08-25 17:15 J -30564613.93 -30564613.78 -30564613.64 0.0142 0.0009
 Venus -88395-11-15 11:01 J -30564532.10 -30564532.04 -30564531.97 0.0142 0.0134
 Mercury -88395-11-21 21:20 J -30564525.75 -30564525.61 -30564525.47 0.0142 0.0027
 Mercury -88394-02-18 01:25 J -30564437.57 -30564437.44 -30564437.30 0.0142 0.0046
 Mercury -88394-05-17 05:44 J -30564349.39 -30564349.26 -30564349.13 0.0142 0.0066
 Mercury -88394-08-13 10:03 J -30564261.19 -30564261.08 -30564260.96 0.0142 0.0085
 Mercury -88394-11-09 14:23 J -30564172.99 -30564172.90 -30564172.80 0.0142 0.0105
 Mercury -88393-02-05 18:42 J -30564084.78 -30564084.72 -30564084.65 0.0142 0.0125
 Earth -88388-03-09 03:35 J -30562226.41 -30562226.35 -30562226.26 0.0145 0.0138
 Earth -88387-03-14 00:42 J -30561856.59 -30561856.47 -30561856.32 0.0146 0.0122
 Moon -88387-03-14 03:49 J -30561856.47 -30561856.34 -30561856.17 0.0146 0.0115 *
 Moon -88386-03-18 20:23 J -30561486.80 -30561486.65 -30561486.46 0.0146 0.0107
 Earth -88386-03-18 23:15 J -30561486.70 -30561486.53 -30561486.35 0.0146 0.0103 *
 Earth -88385-03-22 22:47 J -30561116.75 -30561116.55 -30561116.34 0.0146 0.0085
 Moon -88385-03-23 01:25 J -30561116.64 -30561116.44 -30561116.24 0.0146 0.0085 *

Moon	-88384-03-27 22:03 J	-30560746.82	-30560746.58	-30560746.35	0.0147	0.0060
Earth	-88384-03-27 23:30 J	-30560746.74	-30560746.52	-30560746.29	0.0147	0.0065 *
Earth	-88383-04-02 01:11 J	-30560376.68	-30560376.45	-30560376.20	0.0147	0.0044
Moon	-88383-04-02 02:08 J	-30560376.63	-30560376.41	-30560376.17	0.0147	0.0052 *
Moon	-88382-04-07 03:35 J	-30560006.61	-30560006.35	-30560006.08	0.0147	0.0017
Earth	-88382-04-07 04:03 J	-30560006.57	-30560006.33	-30560006.07	0.0147	0.0024 *
Moon	-88381-04-11 07:25 J	-30559636.44	-30559636.19	-30559635.95	0.0147	0.0005
Earth	-88381-04-11 08:08 J	-30559636.42	-30559636.16	-30559635.91	0.0147	0.0002 *
Earth	-88380-04-16 12:42 J	-30559266.22	-30559265.97	-30559265.72	0.0147	0.0020
Moon	-88380-04-16 13:39 J	-30559266.19	-30559265.93	-30559265.67	0.0147	0.0020 *
Moon	-88379-04-21 16:03 J	-30558896.05	-30558895.83	-30558895.59	0.0148	0.0048
Earth	-88379-04-21 18:13 J	-30558895.97	-30558895.74	-30558895.48	0.0148	0.0043 *
Earth	-88378-04-27 00:42 J	-30558525.68	-30558525.47	-30558525.22	0.0147	0.0065
Moon	-88378-04-27 03:20 J	-30558525.59	-30558525.36	-30558525.10	0.0147	0.0057 *
Moon	-88377-05-01 05:01 J	-30558155.48	-30558155.29	-30558155.08	0.0147	0.0091
Earth	-88377-05-01 08:08 J	-30558155.36	-30558155.16	-30558154.94	0.0147	0.0085 *
Earth	-88376-05-06 15:49 J	-30557785.00	-30557784.84	-30557784.65	0.0147	0.0106
Moon	-88376-05-06 19:39 J	-30557784.85	-30557784.68	-30557784.48	0.0147	0.0104 *
Moon	-88375-05-11 20:23 J	-30557414.76	-30557414.65	-30557414.49	0.0147	0.0124
Earth	-88375-05-12 00:13 J	-30557414.61	-30557414.49	-30557414.35	0.0147	0.0126 *
Earth	-88374-05-17 08:37 J	-30557044.16	-30557044.14	-30557044.08	0.0147	0.0145
Mars	-88372-08-01 10:47 J	-30556237.19	-30556237.05	-30556236.85	0.0146	0.0125
Mars	-88370-07-08 17:59 J	-30555531.04	-30555530.75	-30555530.43	0.0145	0.0048
Venus	-88358-06-20 10:32 J	-30551166.15	-30551166.06	-30551165.93	0.0139	0.0121
Venus	-88357-02-01 20:51 J	-30550939.83	-30550939.63	-30550939.41	0.0138	0.0053
Mercury	-88357-02-14 13:39 J	-30550926.99	-30550926.93	-30550926.85	0.0138	0.0126
Mercury	-88357-05-12 19:54 J	-30550838.77	-30550838.67	-30550838.54	0.0138	0.0104
Mercury	-88357-08-09 02:23 J	-30550750.53	-30550750.40	-30550750.25	0.0138	0.0082
Venus	-88357-09-15 06:56 J	-30550713.43	-30550713.21	-30550712.99	0.0138	0.0015
Mercury	-88357-11-05 08:51 J	-30550662.29	-30550662.13	-30550661.97	0.0138	0.0060

Mercury -88356-02-01 15:06 J -30550574.04 -30550573.87 -30550573.70 0.0138 0.0038

Venus -88356-04-29 16:32 J -30550486.99 -30550486.81 -30550486.63 0.0137 0.0082

Mercury -88356-04-30 21:20 J -30550485.79 -30550485.61 -30550485.44 0.0137 0.0017

Mercury -88356-07-28 03:20 J -30550397.53 -30550397.36 -30550397.18 0.0137 0.0005

Mercury -88356-10-24 09:20 J -30550309.28 -30550309.11 -30550308.93 0.0137 0.0026

Mercury -88355-01-20 15:20 J -30550221.02 -30550220.86 -30550220.69 0.0137 0.0047

Mercury -88355-04-18 21:20 J -30550132.76 -30550132.61 -30550132.46 0.0137 0.0067

Mercury -88355-07-16 03:06 J -30550044.49 -30550044.37 -30550044.23 0.0137 0.0088

Mercury -88355-10-12 08:51 J -30549956.22 -30549956.13 -30549956.02 0.0137 0.0108

Mercury -88354-01-08 14:37 J -30549867.94 -30549867.89 -30549867.82 0.0137 0.0128

Earth -88348-09-17 15:49 J -30547423.94 -30547423.84 -30547423.71 0.0133 0.0120

Moon -88348-09-17 17:44 J -30547423.88 -30547423.76 -30547423.60 0.0133 0.0113 *

Moon -88347-09-22 00:13 J -30547054.61 -30547054.49 -30547054.33 0.0133 0.0111

Earth -88347-09-22 02:37 J -30547054.55 -30547054.39 -30547054.23 0.0133 0.0104 *

Earth -88346-09-26 11:44 J -30546685.18 -30546685.01 -30546684.80 0.0133 0.0090

Moon -88346-09-26 14:51 J -30546685.09 -30546684.88 -30546684.68 0.0133 0.0084 *

Moon -88345-09-29 17:59 J -30546315.93 -30546315.75 -30546315.53 0.0132 0.0079

Earth -88345-09-29 20:08 J -30546315.85 -30546315.66 -30546315.43 0.0132 0.0075 *

Earth -88344-10-04 03:49 J -30545946.56 -30545946.34 -30545946.10 0.0132 0.0059

Moon -88344-10-04 06:42 J -30545946.44 -30545946.22 -30545945.97 0.0132 0.0060 *

Moon -88343-10-08 08:23 J -30545577.39 -30545577.15 -30545576.91 0.0132 0.0041

Earth -88343-10-08 10:47 J -30545577.29 -30545577.05 -30545576.80 0.0132 0.0044 *

Earth -88342-10-12 16:18 J -30545208.06 -30545207.82 -30545207.56 0.0132 0.0029

Moon -88342-10-12 18:56 J -30545207.95 -30545207.71 -30545207.44 0.0132 0.0034 *

Moon -88341-10-15 18:56 J -30544838.96 -30544838.71 -30544838.46 0.0132 0.0006

Earth -88341-10-15 21:49 J -30544838.84 -30544838.59 -30544838.33 0.0132 0.0013 *

Earth -88340-10-20 02:23 J -30544469.65 -30544469.40 -30544469.14 0.0131 0.0003

Moon -88340-10-20 05:01 J -30544469.55 -30544469.29 -30544469.03 0.0131 0.0005 *

Moon -88339-10-24 03:35 J -30544100.59 -30544100.35 -30544100.10 0.0131 0.0022

Earth -88339-10-24 06:27 J -30544100.48 -30544100.23 -30544099.98 0.0131 0.0017 *

Earth	-88338-10-28 09:49 J	-30543731.33	-30543731.09	-30543730.84	0.0131	0.0032
Moon	-88338-10-28 12:42 J	-30543731.22	-30543730.97	-30543730.71	0.0131	0.0028 *
Moon	-88337-10-31 10:18 J	-30543362.29	-30543362.07	-30543361.83	0.0131	0.0049
Earth	-88337-10-31 12:42 J	-30543362.19	-30543361.97	-30543361.72	0.0131	0.0048 *
Earth	-88336-11-04 15:35 J	-30542993.07	-30542992.85	-30542992.62	0.0131	0.0062
Moon	-88336-11-04 18:42 J	-30542992.94	-30542992.72	-30542992.49	0.0131	0.0064 *
Moon	-88335-11-08 15:35 J	-30542624.04	-30542623.85	-30542623.64	0.0131	0.0073
Earth	-88335-11-08 18:13 J	-30542623.94	-30542623.74	-30542623.53	0.0131	0.0076 *
Earth	-88334-11-12 19:54 J	-30542254.84	-30542254.67	-30542254.47	0.0131	0.0089
Moon	-88334-11-12 22:47 J	-30542254.71	-30542254.55	-30542254.36	0.0131	0.0096 *
Moon	-88333-11-15 19:25 J	-30541885.85	-30541885.69	-30541885.52	0.0131	0.0096
Earth	-88333-11-15 22:03 J	-30541885.73	-30541885.58	-30541885.42	0.0131	0.0103 *
Earth	-88332-11-19 23:15 J	-30541516.63	-30541516.53	-30541516.39	0.0132	0.0116
Moon	-88332-11-20 01:54 J	-30541516.50	-30541516.42	-30541516.31	0.0132	0.0122 *
Moon	-88331-11-23 21:49 J	-30541147.65	-30541147.59	-30541147.48	0.0132	0.0123
Earth	-88331-11-24 00:42 J	-30541147.51	-30541147.47	-30541147.40	0.0132	0.0128 *
Mars	-88328-09-12 11:01 J	-30540124.27	-30540124.04	-30540123.79	0.0133	0.0072
Mars	-88326-08-13 00:42 J	-30539424.75	-30539424.47	-30539424.19	0.0133	0.0040
Venus	-88313-09-04 21:06 J	-30534652.75	-30534652.62	-30534652.46	0.0140	0.0104
Mercury	-88313-10-09 16:03 J	-30534617.86	-30534617.83	-30534617.78	0.0140	0.0135
Mercury	-88312-01-05 20:08 J	-30534529.73	-30534529.66	-30534529.58	0.0141	0.0117
Mercury	-88312-04-04 00:13 J	-30534441.59	-30534441.49	-30534441.39	0.0141	0.0099
Venus	-88312-04-19 04:32 J	-30534426.51	-30534426.31	-30534426.10	0.0141	0.0036
Mercury	-88312-07-01 04:03 J	-30534353.44	-30534353.33	-30534353.21	0.0141	0.0081
Mercury	-88312-09-27 07:54 J	-30534265.29	-30534265.17	-30534265.03	0.0141	0.0063
Venus	-88312-12-01 11:59 J	-30534200.20	-30534200.00	-30534199.78	0.0141	0.0032
Mercury	-88312-12-24 12:13 J	-30534177.13	-30534176.99	-30534176.86	0.0141	0.0044
Mercury	-88311-03-22 16:03 J	-30534088.96	-30534088.83	-30534088.68	0.0141	0.0026
Mercury	-88311-06-18 20:23 J	-30534000.80	-30534000.65	-30534000.51	0.0141	0.0007
Venus	-88311-07-15 19:54 J	-30533973.81	-30533973.67	-30533973.52	0.0141	0.0101

Mercury -88311-09-15 00:27 J -30533912.62 -30533912.48 -30533912.34 0.0142 0.0012

Mercury -88311-12-12 04:32 J -30533824.44 -30533824.31 -30533824.17 0.0142 0.0032

Mercury -88310-03-10 08:51 J -30533736.26 -30533736.13 -30533735.99 0.0142 0.0051

Mercury -88310-06-06 13:11 J -30533648.08 -30533647.95 -30533647.83 0.0142 0.0070

Mercury -88310-09-02 17:15 J -30533559.88 -30533559.78 -30533559.66 0.0142 0.0090

Mercury -88310-11-29 21:35 J -30533471.68 -30533471.60 -30533471.50 0.0142 0.0110

Mercury -88309-02-26 01:54 J -30533383.46 -30533383.42 -30533383.35 0.0142 0.0131

Moon -88304-03-09 11:30 J -30531545.13 -30531545.02 -30531544.89 0.0145 0.0125

Earth -88304-03-09 15:20 J -30531544.96 -30531544.86 -30531544.77 0.0145 0.0133 *

Earth -88303-03-14 11:59 J -30531175.14 -30531175.00 -30531174.84 0.0146 0.0116

Moon -88303-03-14 15:06 J -30531174.99 -30531174.87 -30531174.73 0.0146 0.0123 *

Moon -88302-03-19 06:56 J -30530805.39 -30530805.21 -30530805.00 0.0146 0.0093

Earth -88302-03-19 10:32 J -30530805.24 -30530805.06 -30530804.87 0.0146 0.0098 *

Earth -88301-03-23 10:03 J -30530435.29 -30530435.08 -30530434.87 0.0146 0.0080

Moon -88301-03-23 12:27 J -30530435.18 -30530434.98 -30530434.77 0.0146 0.0080 *

Moon -88300-03-28 07:54 J -30530065.39 -30530065.17 -30530064.93 0.0147 0.0065

Earth -88300-03-28 10:32 J -30530065.28 -30530065.06 -30530064.83 0.0147 0.0060 *

Earth -88299-04-02 12:13 J -30529695.22 -30529694.99 -30529694.74 0.0147 0.0040

Moon -88299-04-02 13:54 J -30529695.15 -30529694.92 -30529694.67 0.0147 0.0034 *

Moon -88298-04-07 14:23 J -30529325.15 -30529324.90 -30529324.64 0.0147 0.0027

Earth -88298-04-07 15:20 J -30529325.11 -30529324.86 -30529324.61 0.0147 0.0019 *

Earth -88297-04-11 19:11 J -30528954.96 -30528954.70 -30528954.45 0.0147 0.0002

Moon -88297-04-11 19:39 J -30528954.93 -30528954.68 -30528954.44 0.0147 0.0007 *

Earth -88296-04-16 23:59 J -30528584.75 -30528584.50 -30528584.25 0.0148 0.0024

Moon -88296-04-17 00:56 J -30528584.72 -30528584.46 -30528584.20 0.0148 0.0025 *

Moon -88295-04-22 04:32 J -30528214.54 -30528214.31 -30528214.06 0.0148 0.0041

Earth -88295-04-22 05:44 J -30528214.49 -30528214.26 -30528214.01 0.0148 0.0046 *

Earth -88294-04-27 12:27 J -30527844.20 -30527843.98 -30527843.74 0.0148 0.0067

Moon -88294-04-27 14:51 J -30527844.10 -30527843.88 -30527843.64 0.0148 0.0074 *

Moon -88293-05-01 17:01 J -30527473.99 -30527473.79 -30527473.57 0.0147 0.0080

Earth -88293-05-01 19:54 J -30527473.87 -30527473.67 -30527473.46 0.0147 0.0088 *
 Earth -88292-05-07 03:35 J -30527103.52 -30527103.35 -30527103.17 0.0147 0.0108
 Moon -88292-05-07 06:56 J -30527103.38 -30527103.21 -30527103.03 0.0147 0.0110 *
 Moon -88291-05-12 07:54 J -30526733.27 -30526733.17 -30526733.03 0.0147 0.0130
 Earth -88291-05-12 11:44 J -30526733.12 -30526733.01 -30526732.86 0.0147 0.0127 *
 Earth -88290-05-17 20:08 J -30526362.67 -30526362.66 -30526362.61 0.0147 0.0146
 Moon -88290-05-17 23:59 J -30526362.57 -30526362.50 -30526362.41 0.0147 0.0139
 Mars -88287-03-29 00:27 J -30525316.77 -30525316.48 -30525316.16 0.0146 0.0057
 Mars -88285-03-04 02:37 J -30524610.58 -30524610.39 -30524610.17 0.0145 0.0110
 Venus -88274-10-02 05:01 J -30520381.45 -30520381.29 -30520381.09 0.0138 0.0084
 Mercury -88273-03-05 21:06 J -30520225.69 -30520225.62 -30520225.52 0.0138 0.0121
 Venus -88273-05-15 15:35 J -30520155.07 -30520154.85 -30520154.63 0.0138 0.0015
 Mercury -88273-06-02 03:35 J -30520137.46 -30520137.35 -30520137.21 0.0138 0.0098
 Mercury -88273-08-29 10:03 J -30520049.22 -30520049.08 -30520048.92 0.0138 0.0076
 Mercury -88273-11-25 16:18 J -30519960.97 -30519960.82 -30519960.65 0.0138 0.0054
 Venus -88273-12-28 01:11 J -30519928.65 -30519928.45 -30519928.24 0.0138 0.0052
 Mercury -88272-02-21 22:47 J -30519872.72 -30519872.55 -30519872.38 0.0138 0.0032
 Mercury -88272-05-21 05:01 J -30519784.47 -30519784.29 -30519784.12 0.0137 0.0010
 Venus -88272-08-11 10:32 J -30519702.17 -30519702.06 -30519701.94 0.0137 0.0118
 Mercury -88272-08-17 11:01 J -30519696.21 -30519696.04 -30519695.86 0.0137 0.0011
 Mercury -88272-11-13 17:01 J -30519607.95 -30519607.79 -30519607.62 0.0137 0.0032
 Mercury -88271-02-09 23:01 J -30519519.69 -30519519.54 -30519519.38 0.0137 0.0053
 Mercury -88271-05-09 04:47 J -30519431.43 -30519431.30 -30519431.14 0.0137 0.0074
 Mercury -88271-08-05 10:47 J -30519343.17 -30519343.05 -30519342.92 0.0137 0.0094
 Mercury -88271-11-01 16:32 J -30519254.89 -30519254.81 -30519254.71 0.0137 0.0114
 Mercury -88270-01-28 22:18 J -30519166.59 -30519166.57 -30519166.53 0.0136 0.0134
 Moon -88265-09-13 15:35 J -30517111.93 -30517111.85 -30517111.74 0.0134 0.0124
 Earth -88265-09-13 16:32 J -30517111.87 -30517111.81 -30517111.72 0.0134 0.0128 *
 Earth -88264-09-18 04:03 J -30516742.45 -30516742.33 -30516742.18 0.0133 0.0114
 Moon -88264-09-18 05:30 J -30516742.37 -30516742.27 -30516742.14 0.0133 0.0120 *

Moon	-88263-09-22 12:56 J	-30516373.13	-30516372.96	-30516372.77	0.0133	0.0092
Earth	-88263-09-22 14:37 J	-30516373.05	-30516372.89	-30516372.70	0.0133	0.0099 *
Earth	-88262-09-27 00:13 J	-30516003.69	-30516003.49	-30516003.29	0.0133	0.0084
Moon	-88262-09-27 01:25 J	-30516003.62	-30516003.44	-30516003.23	0.0133	0.0090 *
Moon	-88261-09-30 06:27 J	-30515634.44	-30515634.23	-30515634.01	0.0132	0.0067
Earth	-88261-09-30 08:23 J	-30515634.36	-30515634.15	-30515633.92	0.0132	0.0070 *
Earth	-88260-10-04 16:03 J	-30515265.06	-30515264.83	-30515264.59	0.0132	0.0054
Moon	-88260-10-04 17:44 J	-30515264.98	-30515264.76	-30515264.50	0.0132	0.0056 *
Moon	-88259-10-08 20:23 J	-30514895.87	-30514895.65	-30514895.40	0.0132	0.0042
Earth	-88259-10-08 22:47 J	-30514895.79	-30514895.55	-30514895.30	0.0132	0.0039 *
Earth	-88258-10-13 04:32 J	-30514526.56	-30514526.31	-30514526.05	0.0132	0.0024
Moon	-88258-10-13 06:56 J	-30514526.46	-30514526.21	-30514525.94	0.0132	0.0019 *
Moon	-88257-10-16 07:54 J	-30514157.41	-30514157.17	-30514156.92	0.0132	0.0015
Earth	-88257-10-16 09:49 J	-30514157.34	-30514157.09	-30514156.83	0.0132	0.0009 *
Earth	-88256-10-20 14:23 J	-30513788.15	-30513787.90	-30513787.64	0.0131	0.0006
Moon	-88256-10-20 17:01 J	-30513788.05	-30513787.79	-30513787.53	0.0131	0.0013 *
Moon	-88255-10-24 16:18 J	-30513419.06	-30513418.82	-30513418.57	0.0131	0.0015
Earth	-88255-10-24 18:27 J	-30513418.98	-30513418.73	-30513418.47	0.0131	0.0021 *
Earth	-88254-10-28 21:49 J	-30513049.83	-30513049.59	-30513049.34	0.0131	0.0035
Moon	-88254-10-28 23:59 J	-30513049.73	-30513049.50	-30513049.24	0.0131	0.0039 *
Moon	-88253-10-31 22:32 J	-30512680.78	-30512680.56	-30512680.33	0.0131	0.0049
Earth	-88253-11-01 00:56 J	-30512680.68	-30512680.46	-30512680.22	0.0131	0.0050 *
Earth	-88252-11-05 03:35 J	-30512311.56	-30512311.35	-30512311.12	0.0131	0.0064
Moon	-88252-11-05 05:44 J	-30512311.47	-30512311.26	-30512311.02	0.0131	0.0063 *
Moon	-88251-11-09 03:20 J	-30511942.53	-30511942.36	-30511942.15	0.0131	0.0083
Earth	-88251-11-09 06:13 J	-30511942.44	-30511942.24	-30511942.03	0.0131	0.0078 *
Earth	-88250-11-13 07:54 J	-30511573.33	-30511573.17	-30511572.97	0.0131	0.0092
Moon	-88250-11-13 10:18 J	-30511573.25	-30511573.07	-30511572.86	0.0131	0.0085 *
Moon	-88249-11-16 07:54 J	-30511204.29	-30511204.17	-30511204.03	0.0132	0.0111
Earth	-88249-11-16 09:49 J	-30511204.22	-30511204.09	-30511203.92	0.0132	0.0104 *

Earth	-88248-11-20 11:15 J	-30510835.13	-30510835.03	-30510834.90	0.0132	0.0117
Moon	-88248-11-20 13:39 J	-30510835.05	-30510834.93	-30510834.77	0.0132	0.0110 *
Earth	-88247-11-24 12:27 J	-30510466.01	-30510465.98	-30510465.90	0.0132	0.0129
Mars	-88243-05-07 18:13 J	-30509206.02	-30509205.74	-30509205.45	0.0133	0.0028
Mars	-88241-04-06 09:49 J	-30508506.29	-30508506.09	-30508505.84	0.0134	0.0086
Venus	-88229-05-05 06:56 J	-30504094.25	-30504094.21	-30504094.13	0.0140	0.0135
Mercury	-88229-10-29 23:44 J	-30503916.56	-30503916.51	-30503916.45	0.0140	0.0129
Venus	-88229-12-17 14:23 J	-30503868.07	-30503867.90	-30503867.70	0.0140	0.0068
Mercury	-88228-01-26 03:35 J	-30503828.43	-30503828.35	-30503828.26	0.0141	0.0112
Mercury	-88228-04-24 07:39 J	-30503740.28	-30503740.18	-30503740.07	0.0141	0.0094
Mercury	-88228-07-21 11:30 J	-30503652.13	-30503652.02	-30503651.89	0.0141	0.0076
Venus	-88228-07-31 22:03 J	-30503641.79	-30503641.58	-30503641.37	0.0141	0.0001
Mercury	-88228-10-17 15:35 J	-30503563.97	-30503563.85	-30503563.72	0.0141	0.0058
Mercury	-88227-01-13 19:39 J	-30503475.81	-30503475.68	-30503475.54	0.0141	0.0039
Venus	-88227-03-15 05:30 J	-30503415.45	-30503415.27	-30503415.08	0.0141	0.0069
Mercury	-88227-04-11 23:44 J	-30503387.65	-30503387.51	-30503387.37	0.0141	0.0020
Mercury	-88227-07-09 03:49 J	-30503299.48	-30503299.34	-30503299.19	0.0141	0.0005
Mercury	-88227-10-05 08:08 J	-30503211.30	-30503211.16	-30503211.02	0.0142	0.0018
Venus	-88227-10-27 13:11 J	-30503188.97	-30503188.95	-30503188.89	0.0142	0.0139
Mercury	-88226-01-01 12:13 J	-30503123.13	-30503122.99	-30503122.85	0.0142	0.0037
Mercury	-88226-03-30 16:18 J	-30503034.94	-30503034.82	-30503034.68	0.0142	0.0057
Mercury	-88226-06-26 20:37 J	-30502946.75	-30502946.64	-30502946.51	0.0142	0.0076
Mercury	-88226-09-23 00:56 J	-30502858.56	-30502858.46	-30502858.35	0.0142	0.0096
Mercury	-88226-12-20 05:15 J	-30502770.35	-30502770.28	-30502770.19	0.0142	0.0116
Mercury	-88225-03-17 09:35 J	-30502682.13	-30502682.10	-30502682.05	0.0142	0.0136
Earth	-88221-03-05 07:39 J	-30501233.21	-30501233.18	-30501233.12	0.0145	0.0142
Moon	-88221-03-05 11:01 J	-30501233.10	-30501233.04	-30501232.94	0.0145	0.0137
Moon	-88220-03-09 23:59 J	-30500863.58	-30500863.50	-30500863.39	0.0145	0.0134
Earth	-88220-03-10 03:35 J	-30500863.46	-30500863.35	-30500863.22	0.0145	0.0127 *
Earth	-88219-03-15 00:27 J	-30500493.62	-30500493.48	-30500493.30	0.0146	0.0111

Moon	-88219-03-15 04:03 J	-30500493.49	-30500493.33	-30500493.14	0.0146	0.0103	*
Moon	-88218-03-19 19:39 J	-30500123.85	-30500123.68	-30500123.47	0.0146	0.0097	
Earth	-88218-03-19 23:15 J	-30500123.72	-30500123.53	-30500123.34	0.0146	0.0093	*
Earth	-88217-03-23 22:18 J	-30499753.77	-30499753.57	-30499753.34	0.0146	0.0075	
Moon	-88217-03-24 01:25 J	-30499753.63	-30499753.44	-30499753.21	0.0146	0.0075	*
Moon	-88216-03-28 20:23 J	-30499383.88	-30499383.65	-30499383.40	0.0147	0.0052	
Earth	-88216-03-28 23:15 J	-30499383.76	-30499383.53	-30499383.29	0.0147	0.0055	*
Earth	-88215-04-03 00:56 J	-30499013.70	-30499013.46	-30499013.21	0.0147	0.0035	
Moon	-88215-04-03 02:51 J	-30499013.61	-30499013.38	-30499013.14	0.0147	0.0043	*
Moon	-88214-04-08 02:08 J	-30498643.67	-30498643.41	-30498643.15	0.0147	0.0007	
Earth	-88214-04-08 04:03 J	-30498643.59	-30498643.33	-30498643.08	0.0147	0.0015	*
Earth	-88213-04-12 07:54 J	-30498273.42	-30498273.17	-30498272.92	0.0147	0.0007	
Moon	-88213-04-12 08:23 J	-30498273.39	-30498273.15	-30498272.90	0.0147	0.0003	*
Moon	-88212-04-17 12:27 J	-30497903.24	-30497902.98	-30497902.72	0.0148	0.0028	
Earth	-88212-04-17 12:42 J	-30497903.21	-30497902.97	-30497902.71	0.0148	0.0028	*
Moon	-88211-04-22 17:44 J	-30497532.99	-30497532.76	-30497532.53	0.0148	0.0054	
Earth	-88211-04-22 18:42 J	-30497532.96	-30497532.72	-30497532.48	0.0148	0.0049	*
Earth	-88210-04-28 01:11 J	-30497162.66	-30497162.45	-30497162.21	0.0148	0.0070	
Moon	-88210-04-28 02:51 J	-30497162.61	-30497162.38	-30497162.13	0.0148	0.0062	*
Moon	-88209-05-02 05:59 J	-30496792.42	-30496792.25	-30496792.05	0.0147	0.0097	
Earth	-88209-05-02 08:37 J	-30496792.34	-30496792.14	-30496791.94	0.0147	0.0090	*
Earth	-88208-05-07 16:18 J	-30496421.99	-30496421.82	-30496421.65	0.0147	0.0110	
Moon	-88208-05-07 19:11 J	-30496421.86	-30496421.70	-30496421.50	0.0147	0.0108	*
Moon	-88207-05-12 21:06 J	-30496051.73	-30496051.62	-30496051.48	0.0147	0.0127	
Earth	-88207-05-13 00:27 J	-30496051.60	-30496051.48	-30496051.35	0.0147	0.0129	*
Earth	-88206-05-18 08:37 J	-30495681.15	-30495681.14	-30495681.10	0.0147	0.0146	
Mars	-88203-11-23 13:11 J	-30494396.27	-30494395.95	-30494395.62	0.0146	0.0009	
Venus	-88190-06-01 13:54 J	-30489823.04	-30489822.92	-30489822.79	0.0139	0.0114	
Mercury	-88190-12-28 22:47 J	-30489612.58	-30489612.55	-30489612.52	0.0138	0.0136	
Venus	-88189-01-13 23:59 J	-30489596.70	-30489596.50	-30489596.28	0.0138	0.0046	

Mercury -88189-03-26 05:01 J -30489524.38 -30489524.29 -30489524.18 0.0138 0.0114

Mercury -88189-06-22 11:30 J -30489436.14 -30489436.02 -30489435.88 0.0138 0.0091

Venus -88189-08-27 10:03 J -30489370.30 -30489370.08 -30489369.86 0.0138 0.0022

Mercury -88189-09-18 17:59 J -30489347.90 -30489347.75 -30489347.59 0.0138 0.0069

Mercury -88189-12-16 00:13 J -30489259.65 -30489259.49 -30489259.32 0.0138 0.0047

Mercury -88188-03-14 06:27 J -30489171.40 -30489171.23 -30489171.05 0.0138 0.0026

Venus -88188-04-10 19:25 J -30489143.85 -30489143.69 -30489143.51 0.0137 0.0088

Mercury -88188-06-10 12:42 J -30489083.14 -30489082.97 -30489082.79 0.0137 0.0004

Mercury -88188-09-06 18:56 J -30488994.89 -30488994.71 -30488994.54 0.0137 0.0018

Mercury -88188-12-04 00:56 J -30488906.63 -30488906.46 -30488906.29 0.0137 0.0039

Mercury -88187-03-02 06:56 J -30488818.37 -30488818.21 -30488818.06 0.0137 0.0059

Mercury -88187-05-29 12:42 J -30488730.10 -30488729.97 -30488729.82 0.0137 0.0080

Mercury -88187-08-25 18:42 J -30488641.83 -30488641.72 -30488641.60 0.0137 0.0100

Mercury -88187-11-22 00:13 J -30488553.55 -30488553.49 -30488553.40 0.0137 0.0121

Moon -88181-09-14 04:18 J -30486430.38 -30486430.32 -30486430.22 0.0134 0.0127

Earth -88181-09-14 05:15 J -30486430.38 -30486430.28 -30486430.17 0.0134 0.0122 *

Earth -88180-09-18 16:18 J -30486060.95 -30486060.82 -30486060.65 0.0133 0.0109

Moon -88180-09-18 17:15 J -30486060.93 -30486060.78 -30486060.58 0.0133 0.0102 *

Moon -88179-09-23 02:08 J -30485691.56 -30485691.41 -30485691.24 0.0133 0.0100

Earth -88179-09-23 03:06 J -30485691.55 -30485691.37 -30485691.18 0.0133 0.0093 *

Earth -88178-09-27 12:13 J -30485322.19 -30485321.99 -30485321.77 0.0133 0.0079

Moon -88178-09-27 13:39 J -30485322.14 -30485321.93 -30485321.69 0.0133 0.0074 *

Moon -88177-09-30 19:25 J -30484952.89 -30484952.69 -30484952.47 0.0132 0.0069

Earth -88177-09-30 20:23 J -30484952.86 -30484952.65 -30484952.41 0.0132 0.0065 *

Earth -88176-10-05 04:03 J -30484583.56 -30484583.33 -30484583.09 0.0132 0.0050

Moon -88176-10-05 05:44 J -30484583.50 -30484583.26 -30484583.01 0.0132 0.0049 *

Moon -88175-10-09 08:51 J -30484214.36 -30484214.13 -30484213.88 0.0132 0.0033

Earth -88175-10-09 10:47 J -30484214.29 -30484214.05 -30484213.80 0.0132 0.0035 *

Earth -88174-10-13 16:32 J -30483845.06 -30483844.81 -30483844.55 0.0132 0.0020

Moon -88174-10-13 17:59 J -30483845.01 -30483844.75 -30483844.49 0.0132 0.0024 *

Moon	-88173-10-16 19:54 J	-30483475.92	-30483475.67	-30483475.42	0.0131	0.0001
Earth	-88173-10-16 21:49 J	-30483475.84	-30483475.59	-30483475.33	0.0131	0.0006 *
Earth	-88172-10-21 02:23 J	-30483106.65	-30483106.40	-30483106.14	0.0131	0.0010
Moon	-88172-10-21 04:03 J	-30483106.59	-30483106.33	-30483106.06	0.0131	0.0003 *
Moon	-88171-10-25 04:32 J	-30482737.55	-30482737.31	-30482737.07	0.0131	0.0030
Earth	-88171-10-25 06:13 J	-30482737.48	-30482737.24	-30482736.98	0.0131	0.0024 *
Earth	-88170-10-29 09:49 J	-30482368.33	-30482368.09	-30482367.84	0.0131	0.0039
Moon	-88170-10-29 11:44 J	-30482368.25	-30482368.01	-30482367.75	0.0131	0.0034 *
Moon	-88169-11-01 11:15 J	-30481999.23	-30481999.03	-30481998.79	0.0131	0.0056
Earth	-88169-11-01 13:11 J	-30481999.18	-30481998.95	-30481998.72	0.0131	0.0052 *
Earth	-88168-11-05 15:35 J	-30481630.05	-30481629.85	-30481629.62	0.0131	0.0067
Moon	-88168-11-05 17:44 J	-30481629.97	-30481629.76	-30481629.53	0.0131	0.0068 *
Moon	-88167-11-09 16:18 J	-30481261.00	-30481260.82	-30481260.60	0.0131	0.0077
Earth	-88167-11-09 18:13 J	-30481260.94	-30481260.74	-30481260.54	0.0131	0.0080 *
Earth	-88166-11-13 19:54 J	-30480891.84	-30480891.67	-30480891.49	0.0131	0.0093
Moon	-88166-11-13 21:49 J	-30480891.76	-30480891.59	-30480891.42	0.0131	0.0098 *
Moon	-88165-11-16 19:39 J	-30480522.83	-30480522.68	-30480522.51	0.0131	0.0099
Earth	-88165-11-16 21:20 J	-30480522.74	-30480522.61	-30480522.44	0.0131	0.0106 *
Earth	-88164-11-20 23:01 J	-30480153.65	-30480153.54	-30480153.42	0.0132	0.0117
Moon	-88164-11-20 23:59 J	-30480153.56	-30480153.50	-30480153.39	0.0132	0.0124 *
Moon	-88163-11-24 22:03 J	-30479784.64	-30479784.58	-30479784.48	0.0132	0.0124
Earth	-88163-11-24 23:59 J	-30479784.53	-30479784.50	-30479784.44	0.0132	0.0129 *
Mars	-88160-01-30 14:37 J	-30478987.08	-30478986.89	-30478986.67	0.0132	0.0093
Mars	-88159-12-31 00:42 J	-30478287.76	-30478287.47	-30478287.18	0.0133	0.0016
Mars	-88157-11-29 19:54 J	-30477587.71	-30477587.67	-30477587.57	0.0134	0.0130
Venus	-88145-08-16 23:30 J	-30473309.66	-30473309.52	-30473309.37	0.0140	0.0100
Mercury	-88145-11-19 06:56 J	-30473215.27	-30473215.21	-30473215.15	0.0140	0.0126
Mercury	-88144-02-15 10:47 J	-30473127.13	-30473127.05	-30473126.95	0.0141	0.0108
Venus	-88144-03-31 06:42 J	-30473083.42	-30473083.22	-30473083.01	0.0141	0.0033
Mercury	-88144-05-14 14:51 J	-30473038.99	-30473038.88	-30473038.77	0.0141	0.0090

Mercury -88144-08-10 18:42 J -30472950.83 -30472950.72 -30472950.59 0.0141 0.0072

Mercury -88144-11-06 22:47 J -30472862.67 -30472862.55 -30472862.41 0.0141 0.0054

Venus -88144-11-12 14:23 J -30472857.10 -30472856.90 -30472856.69 0.0141 0.0036

Mercury -88143-02-03 02:51 J -30472774.51 -30472774.38 -30472774.24 0.0141 0.0035

Mercury -88143-05-02 06:56 J -30472686.35 -30472686.21 -30472686.06 0.0141 0.0017

Venus -88143-06-26 22:03 J -30472630.71 -30472630.58 -30472630.43 0.0141 0.0105

Mercury -88143-07-29 11:15 J -30472598.18 -30472598.03 -30472597.89 0.0141 0.0004

Mercury -88143-10-25 15:20 J -30472510.00 -30472509.86 -30472509.72 0.0142 0.0022

Mercury -88142-01-21 19:25 J -30472421.82 -30472421.69 -30472421.55 0.0142 0.0042

Mercury -88142-04-19 23:44 J -30472333.64 -30472333.51 -30472333.38 0.0142 0.0061

Mercury -88142-07-17 04:03 J -30472245.45 -30472245.33 -30472245.21 0.0142 0.0080

Mercury -88142-10-13 08:23 J -30472157.25 -30472157.15 -30472157.05 0.0142 0.0100

Mercury -88141-01-09 12:27 J -30472069.04 -30472068.98 -30472068.89 0.0142 0.0121

Mercury -88141-04-06 17:01 J -30471980.80 -30471980.79 -30471980.76 0.0142 0.0140

Earth -88137-03-05 18:27 J -30470551.80 -30470551.73 -30470551.64 0.0145 0.0136

Moon -88137-03-05 22:03 J -30470551.62 -30470551.58 -30470551.53 0.0145 0.0142

Moon -88136-03-10 11:01 J -30470182.18 -30470182.04 -30470181.88 0.0145 0.0114

Earth -88136-03-10 14:08 J -30470182.02 -30470181.91 -30470181.75 0.0145 0.0122 *

Earth -88135-03-15 11:15 J -30469812.18 -30469812.03 -30469811.84 0.0146 0.0105

Moon -88135-03-15 14:37 J -30469812.03 -30469811.89 -30469811.71 0.0146 0.0112 *

Moon -88134-03-20 05:59 J -30469442.44 -30469442.25 -30469442.02 0.0146 0.0083

Earth -88134-03-20 10:03 J -30469442.28 -30469442.08 -30469441.88 0.0146 0.0087 *

Earth -88133-03-24 09:20 J -30469072.32 -30469072.11 -30469071.88 0.0147 0.0070

Moon -88133-03-24 12:42 J -30469072.18 -30469071.97 -30469071.74 0.0147 0.0070 *

Moon -88132-03-29 06:56 J -30468702.43 -30468702.21 -30468701.96 0.0147 0.0055

Earth -88132-03-29 10:18 J -30468702.30 -30468702.07 -30468701.83 0.0147 0.0050 *

Earth -88131-04-03 12:13 J -30468332.23 -30468331.99 -30468331.74 0.0147 0.0031

Moon -88131-04-03 14:51 J -30468332.11 -30468331.88 -30468331.63 0.0147 0.0025 *

Moon -88130-04-08 13:25 J -30467962.19 -30467961.94 -30467961.68 0.0147 0.0018

Earth -88130-04-08 15:20 J -30467962.11 -30467961.86 -30467961.60 0.0147 0.0010 *

Earth	-88129-04-12 19:25 J	-30467591.94	-30467591.69	-30467591.43	0.0148	0.0011
Moon	-88129-04-12 21:06 J	-30467591.86	-30467591.62	-30467591.37	0.0148	0.0016 *
Moon	-88128-04-18 00:13 J	-30467221.74	-30467221.49	-30467221.23	0.0148	0.0032
Earth	-88128-04-18 00:27 J	-30467221.72	-30467221.48	-30467221.22	0.0148	0.0032 *
Moon	-88127-04-23 06:27 J	-30466851.46	-30466851.23	-30466850.99	0.0148	0.0048
Earth	-88127-04-23 06:42 J	-30466851.46	-30466851.22	-30466850.98	0.0148	0.0052 *
Earth	-88126-04-28 13:11 J	-30466481.16	-30466480.95	-30466480.72	0.0148	0.0073
Moon	-88126-04-28 14:08 J	-30466481.12	-30466480.91	-30466480.67	0.0148	0.0080 *
Moon	-88125-05-02 18:27 J	-30466110.92	-30466110.73	-30466110.52	0.0148	0.0086
Earth	-88125-05-02 20:23 J	-30466110.83	-30466110.65	-30466110.43	0.0148	0.0093 *
Earth	-88124-05-08 04:18 J	-30465740.48	-30465740.32	-30465740.14	0.0147	0.0112
Moon	-88124-05-08 06:42 J	-30465740.37	-30465740.22	-30465740.04	0.0147	0.0115 *
Moon	-88123-05-13 09:20 J	-30465370.21	-30465370.11	-30465370.00	0.0147	0.0133
Earth	-88123-05-13 12:42 J	-30465370.08	-30465369.97	-30465369.84	0.0147	0.0130 *
Earth	-88122-05-18 21:20 J	-30464999.61	-30464999.61	-30464999.61	0.0147	0.0147
Moon	-88122-05-19 00:13 J	-30464999.54	-30464999.49	-30464999.39	0.0147	0.0142
Mars	-88120-08-13 15:35 J	-30464182.10	-30464181.85	-30464181.60	0.0146	0.0095
Mars	-88118-07-21 01:39 J	-30463475.70	-30463475.43	-30463475.14	0.0146	0.0075
Venus	-88106-09-13 09:06 J	-30459038.30	-30459038.12	-30459037.93	0.0138	0.0076
Mercury	-88105-01-18 06:42 J	-30458911.27	-30458911.22	-30458911.15	0.0138	0.0128
Mercury	-88105-04-15 13:11 J	-30458823.05	-30458822.95	-30458822.83	0.0138	0.0106
Venus	-88105-04-26 19:25 J	-30458811.91	-30458811.69	-30458811.47	0.0138	0.0008
Mercury	-88105-07-12 19:25 J	-30458734.82	-30458734.69	-30458734.54	0.0138	0.0084
Mercury	-88105-10-09 01:54 J	-30458646.57	-30458646.42	-30458646.25	0.0138	0.0062
Venus	-88105-12-09 05:01 J	-30458585.48	-30458585.29	-30458585.08	0.0138	0.0059
Mercury	-88104-01-05 08:23 J	-30458558.32	-30458558.15	-30458557.98	0.0138	0.0040
Mercury	-88104-04-03 14:37 J	-30458470.06	-30458469.89	-30458469.72	0.0137	0.0018
Mercury	-88104-06-30 20:51 J	-30458381.81	-30458381.63	-30458381.46	0.0137	0.0005
Venus	-88104-07-23 14:23 J	-30458358.98	-30458358.90	-30458358.80	0.0137	0.0126
Mercury	-88104-09-27 02:51 J	-30458293.55	-30458293.38	-30458293.21	0.0137	0.0025

Mercury -88104-12-24 08:51 J -30458205.29 -30458205.13 -30458204.96 0.0137 0.0046

Mercury -88103-03-22 14:37 J -30458117.03 -30458116.89 -30458116.73 0.0137 0.0067

Mercury -88103-06-18 20:37 J -30458028.76 -30458028.64 -30458028.50 0.0137 0.0087

Mercury -88103-09-15 02:23 J -30457940.49 -30457940.40 -30457940.28 0.0137 0.0108

Mercury -88103-12-12 08:08 J -30457852.20 -30457852.16 -30457852.08 0.0136 0.0128

Moon -88098-09-11 05:30 J -30456118.32 -30456118.27 -30456118.21 0.0134 0.0131

Earth -88098-09-11 05:15 J -30456118.32 -30456118.28 -30456118.19 0.0134 0.0130 *

Moon -88097-09-14 18:13 J -30455748.87 -30455748.74 -30455748.60 0.0134 0.0112

Earth -88097-09-14 18:13 J -30455748.86 -30455748.74 -30455748.61 0.0134 0.0116 *

Earth -88096-09-19 05:01 J -30455379.43 -30455379.29 -30455379.10 0.0133 0.0103

Moon -88096-09-19 05:15 J -30455379.42 -30455379.28 -30455379.11 0.0133 0.0107 *

Moon -88095-09-23 15:06 J -30455010.06 -30455009.87 -30455009.67 0.0133 0.0081

Earth -88095-09-23 15:35 J -30455010.03 -30455009.85 -30455009.64 0.0133 0.0088 *

Earth -88094-09-28 00:42 J -30454640.67 -30454640.47 -30454640.24 0.0133 0.0074

Moon -88094-09-28 00:56 J -30454640.66 -30454640.46 -30454640.23 0.0133 0.0080 *

Moon -88093-10-01 08:08 J -30454271.37 -30454271.16 -30454270.92 0.0132 0.0056

Earth -88093-10-01 09:06 J -30454271.34 -30454271.12 -30454270.88 0.0132 0.0059 *

Earth -88092-10-05 16:32 J -30453902.04 -30453901.81 -30453901.55 0.0132 0.0045

Moon -88092-10-05 17:44 J -30453902.00 -30453901.76 -30453901.51 0.0132 0.0045 *

Moon -88091-10-09 22:18 J -30453532.80 -30453532.57 -30453532.32 0.0132 0.0032

Earth -88091-10-09 23:15 J -30453532.77 -30453532.53 -30453532.27 0.0132 0.0030 *

Earth -88090-10-14 05:15 J -30453163.53 -30453163.28 -30453163.02 0.0132 0.0016

Moon -88090-10-14 06:42 J -30453163.48 -30453163.22 -30453162.95 0.0132 0.0011 *

Moon -88089-10-17 09:49 J -30452794.34 -30452794.09 -30452793.84 0.0131 0.0007

Earth -88089-10-17 10:47 J -30452794.31 -30452794.05 -30452793.80 0.0131 0.0002 *

Earth -88088-10-21 15:20 J -30452425.12 -30452424.86 -30452424.61 0.0131 0.0014

Moon -88088-10-21 16:32 J -30452425.06 -30452424.81 -30452424.54 0.0131 0.0020 *

Moon -88087-10-25 17:59 J -30452055.99 -30452055.75 -30452055.50 0.0131 0.0022

Earth -88087-10-25 19:11 J -30452055.94 -30452055.70 -30452055.44 0.0131 0.0028 *

Earth -88086-10-29 22:32 J -30451686.78 -30451686.56 -30451686.30 0.0131 0.0042

Moon -88086-10-29 23:44 J -30451686.74 -30451686.51 -30451686.25 0.0131 0.0046 *
 Moon -88085-11-02 00:27 J -30451317.70 -30451317.48 -30451317.25 0.0131 0.0054
 Earth -88085-11-02 02:08 J -30451317.64 -30451317.41 -30451317.18 0.0131 0.0056 *
 Earth -88084-11-06 04:18 J -30450948.51 -30450948.32 -30450948.09 0.0131 0.0070
 Moon -88084-11-06 05:44 J -30450948.48 -30450948.26 -30450948.04 0.0131 0.0069 *
 Moon -88083-11-10 05:15 J -30450579.45 -30450579.28 -30450579.09 0.0131 0.0086
 Earth -88083-11-10 06:27 J -30450579.41 -30450579.23 -30450579.02 0.0131 0.0082 *
 Earth -88082-11-14 08:23 J -30450210.31 -30450210.15 -30450209.97 0.0131 0.0095
 Moon -88082-11-14 09:49 J -30450210.28 -30450210.09 -30450209.90 0.0131 0.0089 *
 Moon -88081-11-17 09:06 J -30449841.23 -30449841.12 -30449840.99 0.0131 0.0113
 Earth -88081-11-17 09:49 J -30449841.22 -30449841.09 -30449840.93 0.0131 0.0107 *
 Earth -88080-11-21 10:47 J -30449472.13 -30449472.05 -30449471.92 0.0132 0.0119
 Moon -88080-11-21 12:13 J -30449472.10 -30449471.99 -30449471.83 0.0132 0.0112 *
 Earth -88079-11-25 12:42 J -30449103.02 -30449102.97 -30449102.93 0.0132 0.0129
 Mars -88076-09-24 21:20 J -30448068.86 -30448068.61 -30448068.32 0.0133 0.0050
 Mars -88074-08-25 09:49 J -30447369.34 -30447369.09 -30447368.82 0.0133 0.0061
 Venus -88061-04-16 09:20 J -30442751.18 -30442751.11 -30442751.03 0.0140 0.0130
 Mercury -88061-09-12 10:32 J -30442602.08 -30442602.06 -30442602.04 0.0140 0.0138
 Venus -88061-11-28 16:18 J -30442524.99 -30442524.82 -30442524.62 0.0140 0.0065
 Mercury -88061-12-09 14:23 J -30442513.96 -30442513.90 -30442513.82 0.0140 0.0121
 Mercury -88060-03-07 18:27 J -30442425.82 -30442425.73 -30442425.64 0.0141 0.0103
 Mercury -88060-06-03 22:18 J -30442337.68 -30442337.57 -30442337.46 0.0141 0.0085
 Venus -88060-07-12 23:59 J -30442298.71 -30442298.50 -30442298.28 0.0141 0.0004
 Mercury -88060-08-31 02:23 J -30442249.52 -30442249.40 -30442249.28 0.0141 0.0067
 Mercury -88060-11-27 06:27 J -30442161.36 -30442161.23 -30442161.10 0.0141 0.0048
 Mercury -88059-02-23 10:18 J -30442073.20 -30442073.07 -30442072.92 0.0141 0.0031
 Venus -88059-02-24 07:25 J -30442072.36 -30442072.19 -30442072.00 0.0141 0.0072
 Mercury -88059-05-22 14:37 J -30441985.03 -30441984.89 -30441984.75 0.0141 0.0011
 Mercury -88059-08-18 18:42 J -30441896.86 -30441896.72 -30441896.58 0.0141 0.0008
 Venus -88059-10-08 15:20 J -30441845.86 -30441845.86 -30441845.83 0.0142 0.0141

Mercury -88059-11-14 22:47 J -30441808.69 -30441808.55 -30441808.41 0.0142 0.0027

Mercury -88058-02-11 02:51 J -30441720.51 -30441720.38 -30441720.24 0.0142 0.0047

Mercury -88058-05-10 07:11 J -30441632.32 -30441632.20 -30441632.07 0.0142 0.0066

Mercury -88058-08-06 11:15 J -30441544.13 -30441544.03 -30441543.90 0.0142 0.0086

Mercury -88058-11-02 15:49 J -30441455.93 -30441455.84 -30441455.74 0.0142 0.0105

Mercury -88057-01-29 20:08 J -30441367.72 -30441367.66 -30441367.59 0.0142 0.0125

Earth -88054-03-02 11:15 J -30440240.03 -30440240.03 -30440240.00 0.0144 0.0144

Earth -88053-03-06 05:59 J -30439870.34 -30439870.25 -30439870.13 0.0145 0.0130

Moon -88053-03-06 09:06 J -30439870.23 -30439870.12 -30439869.98 0.0145 0.0125 *

Moon -88052-03-10 22:32 J -30439500.68 -30439500.56 -30439500.42 0.0145 0.0122

Earth -88052-03-11 01:39 J -30439500.56 -30439500.43 -30439500.26 0.0145 0.0115 *

Earth -88051-03-15 23:01 J -30439130.71 -30439130.54 -30439130.35 0.0146 0.0099

Moon -88051-03-16 02:37 J -30439130.57 -30439130.39 -30439130.18 0.0146 0.0091 *

Moon -88050-03-20 17:59 J -30438760.94 -30438760.75 -30438760.54 0.0146 0.0087

Earth -88050-03-20 21:20 J -30438760.80 -30438760.61 -30438760.39 0.0146 0.0082 *

Earth -88049-03-24 20:51 J -30438390.84 -30438390.63 -30438390.39 0.0147 0.0064

Moon -88049-03-25 00:27 J -30438390.69 -30438390.48 -30438390.25 0.0147 0.0064 *

Moon -88048-03-29 18:27 J -30438020.97 -30438020.73 -30438020.48 0.0147 0.0042

Earth -88048-03-29 21:49 J -30438020.82 -30438020.59 -30438020.34 0.0147 0.0045 *

Earth -88047-04-03 23:59 J -30437650.75 -30437650.50 -30437650.25 0.0147 0.0025

Moon -88047-04-04 02:37 J -30437650.62 -30437650.39 -30437650.14 0.0147 0.0033 *

Moon -88046-04-09 00:13 J -30437280.74 -30437280.49 -30437280.23 0.0147 0.0003

Earth -88046-04-09 03:20 J -30437280.62 -30437280.36 -30437280.11 0.0147 0.0006 *

Earth -88045-04-13 07:25 J -30436910.44 -30436910.19 -30436909.93 0.0148 0.0015

Moon -88045-04-13 09:06 J -30436910.36 -30436910.12 -30436909.87 0.0148 0.0011 *

Moon -88044-04-18 11:01 J -30436540.28 -30436540.04 -30436539.78 0.0148 0.0037

Earth -88044-04-18 12:27 J -30436540.22 -30436539.98 -30436539.72 0.0148 0.0036 *

Earth -88043-04-23 18:27 J -30436169.95 -30436169.73 -30436169.48 0.0148 0.0056

Moon -88043-04-23 18:56 J -30436169.93 -30436169.71 -30436169.48 0.0148 0.0060 *

Earth -88042-04-29 01:11 J -30435799.65 -30435799.45 -30435799.22 0.0148 0.0076

Moon -88042-04-29 01:54 J -30435799.64 -30435799.42 -30435799.18 0.0148 0.0068 *
 Moon -88041-05-03 07:25 J -30435429.36 -30435429.19 -30435429.00 0.0148 0.0102
 Earth -88041-05-03 08:37 J -30435429.33 -30435429.14 -30435428.94 0.0148 0.0095 *
 Earth -88040-05-08 16:18 J -30435058.97 -30435058.82 -30435058.64 0.0148 0.0114
 Moon -88040-05-08 18:56 J -30435058.87 -30435058.71 -30435058.53 0.0148 0.0111 *
 Moon -88039-05-13 22:03 J -30434688.68 -30434688.58 -30434688.45 0.0147 0.0131
 Earth -88039-05-14 00:27 J -30434688.57 -30434688.48 -30434688.34 0.0147 0.0132 *
 Mars -88035-04-10 07:25 J -30433261.51 -30433261.19 -30433260.87 0.0146 0.0027
 Mars -88033-03-16 11:59 J -30432555.07 -30432555.00 -30432554.88 0.0145 0.0138
 Venus -88022-05-13 17:44 J -30428479.89 -30428479.76 -30428479.60 0.0139 0.0106
 Venus -88022-12-26 04:18 J -30428253.53 -30428253.32 -30428253.10 0.0138 0.0038
 Mercury -88021-02-07 14:37 J -30428209.96 -30428209.89 -30428209.80 0.0138 0.0121
 Mercury -88021-05-05 21:20 J -30428121.73 -30428121.61 -30428121.49 0.0138 0.0098
 Mercury -88021-08-02 03:35 J -30428033.49 -30428033.35 -30428033.20 0.0138 0.0076
 Venus -88021-08-08 14:08 J -30428027.12 -30428026.91 -30428026.69 0.0138 0.0030
 Mercury -88021-10-29 10:03 J -30427945.24 -30427945.08 -30427944.92 0.0138 0.0054
 Mercury -88020-01-25 16:18 J -30427856.99 -30427856.82 -30427856.65 0.0138 0.0032
 Venus -88020-03-22 23:44 J -30427800.66 -30427800.51 -30427800.35 0.0138 0.0097
 Mercury -88020-04-23 22:32 J -30427768.73 -30427768.56 -30427768.38 0.0137 0.0011
 Mercury -88020-07-21 04:47 J -30427680.48 -30427680.30 -30427680.13 0.0137 0.0011
 Mercury -88020-10-17 10:47 J -30427592.22 -30427592.05 -30427591.88 0.0137 0.0032
 Mercury -88019-01-13 16:47 J -30427503.96 -30427503.80 -30427503.64 0.0137 0.0053
 Mercury -88019-04-11 22:32 J -30427415.69 -30427415.56 -30427415.40 0.0137 0.0074
 Mercury -88019-07-09 04:32 J -30427327.42 -30427327.31 -30427327.18 0.0137 0.0094
 Mercury -88019-10-05 10:32 J -30427239.15 -30427239.06 -30427238.96 0.0137 0.0114
 Mercury -88018-01-01 16:32 J -30427150.84 -30427150.81 -30427150.78 0.0136 0.0134
 Moon -88014-09-11 17:01 J -30425436.87 -30425436.79 -30425436.66 0.0134 0.0123
 Earth -88014-09-11 18:13 J -30425436.81 -30425436.74 -30425436.62 0.0134 0.0124 *
 Earth -88013-09-15 06:56 J -30425067.34 -30425067.21 -30425067.05 0.0134 0.0110
 Moon -88013-09-15 07:39 J -30425067.29 -30425067.18 -30425067.04 0.0134 0.0114 *

Moon	-88012-09-19 18:13 J	-30424697.93	-30424697.74	-30424697.54	0.0133	0.0090
Earth	-88012-09-19 18:13 J	-30424697.90	-30424697.74	-30424697.55	0.0133	0.0096 *
Earth	-88011-09-24 04:18 J	-30424328.51	-30424328.32	-30424328.11	0.0133	0.0082
Moon	-88011-09-24 04:47 J	-30424328.47	-30424328.30	-30424328.10	0.0133	0.0089 *
Earth	-88010-09-28 13:25 J	-30423959.15	-30423958.94	-30423958.70	0.0133	0.0069
Moon	-88010-09-28 13:54 J	-30423959.15	-30423958.92	-30423958.68	0.0133	0.0063 *
Earth	-88009-10-01 21:49 J	-30423589.81	-30423589.59	-30423589.34	0.0132	0.0054
Moon	-88009-10-01 21:49 J	-30423589.80	-30423589.59	-30423589.36	0.0132	0.0059 *
Earth	-88008-10-06 05:15 J	-30423220.51	-30423220.28	-30423220.02	0.0132	0.0040
Moon	-88008-10-06 05:44 J	-30423220.51	-30423220.26	-30423220.00	0.0132	0.0038 *
Moon	-88007-10-10 11:30 J	-30422851.26	-30422851.02	-30422850.77	0.0132	0.0023
Earth	-88007-10-10 11:59 J	-30422851.24	-30422851.00	-30422850.74	0.0132	0.0026 *
Earth	-88006-10-14 18:13 J	-30422482.00	-30422481.74	-30422481.49	0.0131	0.0011
Moon	-88006-10-14 18:13 J	-30422482.00	-30422481.74	-30422481.47	0.0131	0.0015 *
Moon	-88005-10-17 22:32 J	-30422112.80	-30422112.56	-30422112.31	0.0131	0.0010
Earth	-88005-10-17 23:30 J	-30422112.78	-30422112.52	-30422112.27	0.0131	0.0003 *
Earth	-88004-10-22 04:03 J	-30421743.58	-30421743.33	-30421743.08	0.0131	0.0018
Moon	-88004-10-22 04:32 J	-30421743.57	-30421743.31	-30421743.04	0.0131	0.0011 *
Moon	-88003-10-26 07:25 J	-30421374.42	-30421374.19	-30421373.95	0.0131	0.0037
Earth	-88003-10-26 07:54 J	-30421374.41	-30421374.17	-30421373.91	0.0131	0.0032 *
Earth	-88002-10-30 11:30 J	-30421005.25	-30421005.02	-30421004.77	0.0131	0.0045
Moon	-88002-10-30 12:42 J	-30421005.22	-30421004.97	-30421004.72	0.0131	0.0041 *
Moon	-88001-11-02 14:08 J	-30420636.12	-30420635.91	-30420635.68	0.0131	0.0061
Earth	-88001-11-02 14:37 J	-30420636.11	-30420635.89	-30420635.66	0.0131	0.0058 *

88TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 88th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-88000-11-06 17:01 J		-30420267.00	-30420266.79	-30420266.58	0.0131	0.0071	
Moon	-88000-11-06 17:44 J		-30420266.97	-30420266.76	-30420266.53	0.0131	0.0072	*
Moon	-87999-11-10 18:27 J		-30419897.91	-30419897.73	-30419897.53	0.0131	0.0081	
Earth	-87999-11-10 18:42 J		-30419897.89	-30419897.72	-30419897.51	0.0131	0.0084	*
Earth	-87998-11-14 20:23 J		-30419528.80	-30419528.65	-30419528.46	0.0131	0.0097	
Moon	-87998-11-14 20:51 J		-30419528.78	-30419528.63	-30419528.44	0.0131	0.0101	*
Moon	-87997-11-17 21:20 J		-30419159.75	-30419159.61	-30419159.45	0.0131	0.0102	
Earth	-87997-11-17 22:18 J		-30419159.71	-30419159.57	-30419159.43	0.0131	0.0108	*
Earth	-87996-11-21 23:30 J		-30418790.62	-30418790.52	-30418790.41	0.0132	0.0119	
Moon	-87996-11-21 23:15 J		-30418790.59	-30418790.53	-30418790.43	0.0132	0.0126	*
Moon	-87995-11-25 23:44 J		-30418421.57	-30418421.51	-30418421.42	0.0132	0.0125	
Earth	-87995-11-26 00:27 J		-30418421.51	-30418421.48	-30418421.43	0.0132	0.0130	*
Mars	-87993-06-19 22:03 J		-30417849.71	-30417849.58	-30417849.41	0.0132	0.0112	
Mars	-87991-05-20 04:18 J		-30417150.61	-30417150.32	-30417150.03	0.0133	0.0006	
Mars	-87989-04-18 19:54 J		-30416450.84	-30416450.67	-30416450.48	0.0133	0.0105	
Venus	-87977-07-29 01:25 J		-30411966.59	-30411966.44	-30411966.29	0.0140	0.0097	
Mercury	-87977-10-02 17:44 J		-30411900.79	-30411900.76	-30411900.72	0.0140	0.0135	
Mercury	-87977-12-29 21:20 J		-30411812.67	-30411812.61	-30411812.52	0.0140	0.0118	
Venus	-87976-03-12 08:37 J		-30411740.35	-30411740.14	-30411739.93	0.0141	0.0030	
Mercury	-87976-03-28 01:25 J		-30411724.53	-30411724.44	-30411724.33	0.0141	0.0100	
Mercury	-87976-06-24 05:15 J		-30411636.38	-30411636.28	-30411636.15	0.0141	0.0082	
Mercury	-87976-09-20 09:35 J		-30411548.23	-30411548.10	-30411547.98	0.0141	0.0063	
Venus	-87976-10-24 16:18 J		-30411514.03	-30411513.82	-30411513.62	0.0141	0.0038	
Mercury	-87976-12-17 13:25 J		-30411460.07	-30411459.94	-30411459.80	0.0141	0.0045	

Mercury -87975-03-15 17:30 J -30411371.90 -30411371.77 -30411371.63 0.0141 0.0027
 Venus -87975-06-07 23:30 J -30411287.64 -30411287.52 -30411287.36 0.0141 0.0108
 Mercury -87975-06-11 21:49 J -30411283.74 -30411283.59 -30411283.45 0.0141 0.0009
 Mercury -87975-09-08 01:54 J -30411195.57 -30411195.42 -30411195.28 0.0141 0.0012
 Mercury -87975-12-05 05:59 J -30411107.39 -30411107.25 -30411107.11 0.0142 0.0031
 Mercury -87974-03-03 10:03 J -30411019.21 -30411019.08 -30411018.94 0.0142 0.0050
 Mercury -87974-05-30 14:23 J -30410931.02 -30410930.90 -30410930.77 0.0142 0.0070
 Mercury -87974-08-26 18:42 J -30410842.83 -30410842.72 -30410842.61 0.0142 0.0089
 Mercury -87974-11-22 22:47 J -30410754.63 -30410754.55 -30410754.45 0.0142 0.0110
 Mercury -87973-02-19 03:06 J -30410666.42 -30410666.37 -30410666.30 0.0142 0.0130
 Moon -87970-03-02 19:25 J -30409558.75 -30409558.69 -30409558.63 0.0144 0.0139
 Earth -87970-03-02 21:20 J -30409558.67 -30409558.61 -30409558.53 0.0144 0.0138 *
 Earth -87969-03-06 15:35 J -30409188.96 -30409188.85 -30409188.71 0.0145 0.0125
 Moon -87969-03-06 18:42 J -30409188.82 -30409188.72 -30409188.60 0.0145 0.0130 *
 Moon -87968-03-11 08:37 J -30408819.30 -30408819.14 -30408818.96 0.0145 0.0103
 Earth -87968-03-11 11:59 J -30408819.16 -30408819.00 -30408818.84 0.0145 0.0110 *
 Earth -87967-03-16 08:37 J -30408449.32 -30408449.14 -30408448.94 0.0146 0.0094
 Moon -87967-03-16 11:44 J -30408449.17 -30408449.01 -30408448.81 0.0146 0.0101 *
 Moon -87966-03-21 03:20 J -30408079.56 -30408079.36 -30408079.13 0.0146 0.0071
 Earth -87966-03-21 06:56 J -30408079.41 -30408079.21 -30408078.98 0.0146 0.0077 *
 Earth -87965-03-25 06:42 J -30407709.44 -30407709.22 -30407708.98 0.0147 0.0059
 Moon -87965-03-25 10:03 J -30407709.30 -30407709.08 -30407708.84 0.0147 0.0061 *
 Moon -87964-03-30 04:03 J -30407339.56 -30407339.33 -30407339.08 0.0147 0.0044
 Earth -87964-03-30 07:39 J -30407339.41 -30407339.18 -30407338.93 0.0147 0.0040 *
 Earth -87963-04-04 09:49 J -30406969.33 -30406969.09 -30406968.84 0.0147 0.0021
 Moon -87963-04-04 13:25 J -30406969.19 -30406968.94 -30406968.69 0.0147 0.0014 *
 Moon -87962-04-09 10:32 J -30406599.32 -30406599.06 -30406598.81 0.0147 0.0009
 Earth -87962-04-09 13:25 J -30406599.20 -30406598.94 -30406598.69 0.0147 0.0002 *
 Earth -87961-04-13 17:30 J -30406229.02 -30406228.77 -30406228.52 0.0148 0.0019
 Moon -87961-04-13 20:08 J -30406228.90 -30406228.66 -30406228.41 0.0148 0.0025 *

Moon	-87960-04-18 20:51 J	-30405858.88	-30405858.63	-30405858.37	0.0148	0.0038
Earth	-87960-04-18 22:47 J	-30405858.79	-30405858.55	-30405858.30	0.0148	0.0039 *
Earth	-87959-04-24 04:32 J	-30405488.53	-30405488.31	-30405488.06	0.0148	0.0059
Moon	-87959-04-24 05:44 J	-30405488.48	-30405488.26	-30405488.02	0.0148	0.0055 *
Moon	-87958-04-29 10:47 J	-30405118.25	-30405118.05	-30405117.82	0.0148	0.0085
Earth	-87958-04-29 11:30 J	-30405118.23	-30405118.02	-30405117.80	0.0148	0.0078 *
Moon	-87957-05-03 17:30 J	-30404747.94	-30404747.77	-30404747.55	0.0148	0.0091
Earth	-87957-05-03 18:56 J	-30404747.90	-30404747.71	-30404747.52	0.0148	0.0097 *
Earth	-87956-05-09 02:51 J	-30404377.54	-30404377.38	-30404377.22	0.0148	0.0115
Moon	-87956-05-09 04:03 J	-30404377.48	-30404377.33	-30404377.17	0.0148	0.0119 *
Moon	-87955-05-14 08:23 J	-30404007.24	-30404007.15	-30404007.04	0.0147	0.0135
Earth	-87955-05-14 10:47 J	-30404007.14	-30404007.05	-30404006.92	0.0147	0.0133 *
Moon	-87954-05-19 22:32 J	-30403636.61	-30403636.56	-30403636.49	0.0147	0.0143
Mars	-87953-12-29 00:56 J	-30403047.57	-30403047.46	-30403047.29	0.0147	0.0133
Mars	-87951-12-05 19:54 J	-30402340.98	-30402340.67	-30402340.35	0.0146	0.0038
Venus	-87938-01-11 02:37 J	-30397921.42	-30397921.39	-30397921.33	0.0139	0.0136
Venus	-87938-08-25 13:11 J	-30397695.13	-30397694.95	-30397694.74	0.0139	0.0067
Mercury	-87938-12-01 16:03 J	-30397596.84	-30397596.83	-30397596.78	0.0138	0.0137
Mercury	-87937-02-27 22:47 J	-30397508.64	-30397508.55	-30397508.44	0.0138	0.0114
Venus	-87937-04-07 23:30 J	-30397468.74	-30397468.52	-30397468.29	0.0138	0.0002
Mercury	-87937-05-26 05:15 J	-30397420.40	-30397420.28	-30397420.14	0.0138	0.0091
Mercury	-87937-08-22 11:30 J	-30397332.16	-30397332.02	-30397331.85	0.0138	0.0069
Mercury	-87937-11-18 17:59 J	-30397243.91	-30397243.75	-30397243.58	0.0138	0.0047
Venus	-87937-11-20 09:20 J	-30397242.30	-30397242.11	-30397241.91	0.0138	0.0068
Mercury	-87936-02-15 00:27 J	-30397155.65	-30397155.48	-30397155.31	0.0138	0.0025
Mercury	-87936-05-14 06:42 J	-30397067.40	-30397067.22	-30397067.05	0.0137	0.0003
Venus	-87936-07-04 18:42 J	-30397015.74	-30397015.72	-30397015.66	0.0137	0.0135
Mercury	-87936-08-10 12:42 J	-30396979.14	-30396978.97	-30396978.79	0.0137	0.0019
Mercury	-87936-11-06 18:56 J	-30396890.88	-30396890.71	-30396890.54	0.0137	0.0039
Mercury	-87935-02-03 00:56 J	-30396802.61	-30396802.46	-30396802.30	0.0137	0.0060

Mercury -87935-05-02 06:42 J -30396714.35 -30396714.22 -30396714.07 0.0137 0.0081

Mercury -87935-07-29 12:27 J -30396626.08 -30396625.98 -30396625.85 0.0137 0.0102

Mercury -87935-10-25 18:27 J -30396537.79 -30396537.73 -30396537.64 0.0137 0.0122

Earth -87931-09-07 18:27 J -30395124.78 -30395124.73 -30395124.66 0.0135 0.0131

Moon -87931-09-07 20:23 J -30395124.65 -30395124.65 -30395124.62 0.0135 0.0134

Moon -87930-09-12 06:42 J -30394755.35 -30394755.22 -30394755.10 0.0134 0.0118

Earth -87930-09-12 07:39 J -30394755.28 -30394755.18 -30394755.03 0.0134 0.0118 *

Earth -87929-09-15 20:08 J -30394385.80 -30394385.66 -30394385.48 0.0134 0.0105

Moon -87929-09-15 21:06 J -30394385.76 -30394385.62 -30394385.43 0.0134 0.0101 *

Moon -87928-09-20 06:13 J -30394016.42 -30394016.24 -30394016.05 0.0133 0.0096

Earth -87928-09-20 07:39 J -30394016.37 -30394016.18 -30394015.99 0.0133 0.0091 *

Earth -87927-09-24 17:30 J -30393646.96 -30393646.77 -30393646.54 0.0133 0.0077

Moon -87927-09-24 17:59 J -30393646.95 -30393646.75 -30393646.52 0.0133 0.0071 *

Moon -87926-09-29 01:54 J -30393277.63 -30393277.42 -30393277.17 0.0133 0.0070

Earth -87926-09-29 03:06 J -30393277.59 -30393277.37 -30393277.14 0.0133 0.0063 *

Earth -87925-10-02 11:15 J -30392908.26 -30392908.03 -30392907.78 0.0132 0.0049

Moon -87925-10-02 11:30 J -30392908.24 -30392908.02 -30392907.77 0.0132 0.0046 *

Moon -87924-10-06 18:42 J -30392538.97 -30392538.72 -30392538.45 0.0132 0.0036

Earth -87924-10-06 18:42 J -30392538.96 -30392538.72 -30392538.46 0.0132 0.0035 *

Earth -87923-10-11 01:25 J -30392169.69 -30392169.44 -30392169.18 0.0132 0.0021

Moon -87923-10-11 01:54 J -30392169.66 -30392169.42 -30392169.17 0.0132 0.0021 *

Earth -87922-10-15 07:39 J -30391800.44 -30391800.18 -30391799.92 0.0131 0.0006

Moon -87922-10-15 07:54 J -30391800.44 -30391800.17 -30391799.90 0.0131 0.0002 *

Earth -87921-10-18 12:56 J -30391431.21 -30391430.96 -30391430.70 0.0131 0.0008

Moon -87921-10-18 13:11 J -30391431.20 -30391430.95 -30391430.70 0.0131 0.0002 *

Earth -87920-10-22 17:30 J -30391062.02 -30391061.77 -30391061.52 0.0131 0.0021

Moon -87920-10-22 17:44 J -30391062.02 -30391061.76 -30391061.50 0.0131 0.0028 *

Moon -87919-10-26 21:20 J -30390692.85 -30390692.61 -30390692.37 0.0131 0.0029

Earth -87919-10-26 21:35 J -30390692.84 -30390692.60 -30390692.35 0.0131 0.0035 *

Moon -87918-10-31 00:56 J -30390323.69 -30390323.46 -30390323.21 0.0131 0.0053

Earth	-87918-10-31 01:11 J	-30390323.68	-30390323.45	-30390323.21	0.0131	0.0048	*
Moon	-87917-11-03 03:20 J	-30389954.56	-30389954.36	-30389954.13	0.0131	0.0060	
Earth	-87917-11-03 04:03 J	-30389954.55	-30389954.33	-30389954.10	0.0131	0.0061	*
Moon	-87916-11-07 05:59 J	-30389585.45	-30389585.25	-30389585.02	0.0131	0.0074	
Earth	-87916-11-07 06:13 J	-30389585.44	-30389585.24	-30389585.02	0.0131	0.0074	*
Earth	-87915-11-11 08:08 J	-30389216.34	-30389216.16	-30389215.96	0.0131	0.0086	
Moon	-87915-11-11 07:54 J	-30389216.33	-30389216.17	-30389215.97	0.0131	0.0090	*
Moon	-87914-11-15 10:03 J	-30388847.25	-30388847.08	-30388846.88	0.0131	0.0093	
Earth	-87914-11-15 09:49 J	-30388847.24	-30388847.09	-30388846.91	0.0131	0.0098	*
Earth	-87913-11-18 11:15 J	-30388478.15	-30388478.03	-30388477.88	0.0131	0.0109	
Moon	-87913-11-18 11:44 J	-30388478.11	-30388478.01	-30388477.88	0.0131	0.0115	*
Moon	-87912-11-22 12:27 J	-30388109.09	-30388108.98	-30388108.83	0.0132	0.0114	
Earth	-87912-11-22 12:13 J	-30388109.06	-30388108.99	-30388108.87	0.0132	0.0121	*
Earth	-87911-11-26 13:39 J	-30387739.94	-30387739.93	-30387739.88	0.0132	0.0131	
Mars	-87908-02-12 05:30 J	-30386931.50	-30386931.27	-30386931.01	0.0132	0.0068	
Mars	-87906-01-12 15:20 J	-30386232.13	-30386231.86	-30386231.57	0.0133	0.0039	
Venus	-87893-03-28 11:44 J	-30381408.09	-30381408.01	-30381407.91	0.0140	0.0126	
Mercury	-87893-10-23 01:11 J	-30381199.49	-30381199.45	-30381199.39	0.0140	0.0130	
Venus	-87893-11-09 18:56 J	-30381181.89	-30381181.71	-30381181.51	0.0140	0.0060	
Mercury	-87892-01-19 05:15 J	-30381111.36	-30381111.28	-30381111.19	0.0140	0.0112	
Mercury	-87892-04-17 09:06 J	-30381023.22	-30381023.12	-30381023.01	0.0141	0.0094	
Venus	-87892-06-24 02:23 J	-30380955.61	-30380955.40	-30380955.19	0.0141	0.0007	
Mercury	-87892-07-14 13:11 J	-30380935.07	-30380934.95	-30380934.83	0.0141	0.0076	
Mercury	-87892-10-10 17:01 J	-30380846.91	-30380846.79	-30380846.65	0.0141	0.0058	
Mercury	-87891-01-06 21:06 J	-30380758.75	-30380758.62	-30380758.48	0.0141	0.0039	
Venus	-87891-02-05 09:35 J	-30380729.26	-30380729.10	-30380728.91	0.0141	0.0076	
Mercury	-87891-04-05 01:11 J	-30380670.59	-30380670.45	-30380670.31	0.0141	0.0021	
Mercury	-87891-07-02 05:15 J	-30380582.42	-30380582.28	-30380582.13	0.0141	0.0003	
Mercury	-87891-09-28 09:20 J	-30380494.25	-30380494.11	-30380493.96	0.0141	0.0018	
Mercury	-87891-12-25 13:39 J	-30380406.07	-30380405.93	-30380405.79	0.0142	0.0036	

Mercury -87890-03-23 17:44 J -30380317.89 -30380317.76 -30380317.63 0.0142 0.0056

Mercury -87890-06-19 22:03 J -30380229.70 -30380229.58 -30380229.46 0.0142 0.0075

Mercury -87890-09-16 02:08 J -30380141.51 -30380141.41 -30380141.30 0.0142 0.0095

Mercury -87890-12-13 06:27 J -30380053.30 -30380053.23 -30380053.14 0.0142 0.0115

Mercury -87889-03-10 10:47 J -30379965.08 -30379965.05 -30379965.00 0.0142 0.0135

Moon -87886-03-03 06:56 J -30378877.28 -30378877.21 -30378877.11 0.0144 0.0134

Earth -87886-03-03 09:20 J -30378877.20 -30378877.11 -30378877.01 0.0144 0.0132 *

Earth -87885-03-07 03:35 J -30378507.47 -30378507.35 -30378507.19 0.0145 0.0119

Moon -87885-03-07 06:13 J -30378507.39 -30378507.24 -30378507.08 0.0145 0.0114 *

Moon -87884-03-11 20:37 J -30378137.77 -30378137.64 -30378137.46 0.0145 0.0111

Earth -87884-03-11 23:15 J -30378137.68 -30378137.53 -30378137.34 0.0145 0.0104 *

Earth -87883-03-16 20:37 J -30377767.83 -30377767.64 -30377767.44 0.0146 0.0088

Moon -87883-03-16 23:59 J -30377767.71 -30377767.50 -30377767.29 0.0146 0.0080 *

Moon -87882-03-21 15:49 J -30377398.03 -30377397.84 -30377397.62 0.0146 0.0077

Earth -87882-03-21 18:56 J -30377397.92 -30377397.71 -30377397.48 0.0146 0.0071 *

Earth -87881-03-25 18:27 J -30377027.95 -30377027.73 -30377027.48 0.0147 0.0054

Moon -87881-03-25 22:32 J -30377027.80 -30377027.56 -30377027.33 0.0147 0.0053 *

Moon -87880-03-30 16:03 J -30376658.06 -30376657.83 -30376657.58 0.0147 0.0033

Earth -87880-03-30 19:54 J -30376657.91 -30376657.67 -30376657.43 0.0147 0.0035 *

Earth -87879-04-04 21:49 J -30376287.83 -30376287.59 -30376287.33 0.0147 0.0016

Moon -87879-04-05 01:11 J -30376287.69 -30376287.45 -30376287.20 0.0147 0.0024 *

Moon -87878-04-09 21:35 J -30375917.85 -30375917.60 -30375917.34 0.0147 0.0012

Earth -87878-04-10 01:11 J -30375917.70 -30375917.45 -30375917.20 0.0147 0.0004 *

Earth -87877-04-14 05:15 J -30375547.52 -30375547.28 -30375547.02 0.0148 0.0023

Moon -87877-04-14 08:08 J -30375547.41 -30375547.16 -30375546.91 0.0148 0.0018 *

Moon -87876-04-19 07:54 J -30375177.41 -30375177.17 -30375176.91 0.0148 0.0044

Earth -87876-04-19 10:32 J -30375177.30 -30375177.06 -30375176.81 0.0148 0.0043 *

Earth -87875-04-24 16:18 J -30374807.04 -30374806.82 -30374806.58 0.0148 0.0062

Moon -87875-04-24 18:13 J -30374806.96 -30374806.74 -30374806.52 0.0148 0.0065 *

Moon -87874-04-29 22:32 J -30374436.79 -30374436.56 -30374436.33 0.0148 0.0073

Earth -87874-04-29 23:01 J -30374436.74 -30374436.54 -30374436.32 0.0148 0.0081 *
 Earth -87873-05-04 06:27 J -30374066.42 -30374066.23 -30374066.04 0.0148 0.0099
 Moon -87873-05-04 06:27 J -30374066.39 -30374066.23 -30374066.05 0.0148 0.0107 *
 Earth -87872-05-09 14:08 J -30373696.05 -30373695.91 -30373695.74 0.0148 0.0117
 Moon -87872-05-09 15:06 J -30373696.01 -30373695.87 -30373695.67 0.0148 0.0114 *
 Moon -87871-05-14 20:51 J -30373325.72 -30373325.63 -30373325.51 0.0147 0.0134
 Earth -87871-05-14 22:18 J -30373325.66 -30373325.57 -30373325.45 0.0147 0.0134 *
 Mars -87868-08-25 17:44 J -30372127.04 -30372126.76 -30372126.45 0.0146 0.0065
 Mars -87866-08-02 06:56 J -30371420.44 -30371420.21 -30371419.98 0.0146 0.0102
 Venus -87854-04-24 21:49 J -30367136.73 -30367136.59 -30367136.42 0.0139 0.0098
 Venus -87854-12-07 08:37 J -30366910.36 -30366910.14 -30366909.92 0.0138 0.0029
 Mercury -87854-12-22 00:13 J -30366895.54 -30366895.49 -30366895.42 0.0138 0.0129
 Mercury -87853-03-19 06:42 J -30366807.32 -30366807.22 -30366807.09 0.0138 0.0106
 Mercury -87853-06-15 13:25 J -30366719.08 -30366718.94 -30366718.80 0.0138 0.0083
 Venus -87853-07-20 18:42 J -30366683.93 -30366683.72 -30366683.50 0.0138 0.0039
 Mercury -87853-09-11 19:54 J -30366630.83 -30366630.67 -30366630.51 0.0138 0.0061
 Mercury -87853-12-09 02:08 J -30366542.58 -30366542.41 -30366542.24 0.0138 0.0039
 Venus -87852-03-04 04:18 J -30366457.45 -30366457.32 -30366457.17 0.0138 0.0106
 Mercury -87852-03-07 08:23 J -30366454.32 -30366454.15 -30366453.97 0.0138 0.0018
 Mercury -87852-06-03 14:37 J -30366366.06 -30366365.89 -30366365.71 0.0137 0.0005
 Mercury -87852-08-30 20:51 J -30366277.80 -30366277.63 -30366277.46 0.0137 0.0026
 Mercury -87852-11-27 02:51 J -30366189.54 -30366189.38 -30366189.21 0.0137 0.0047
 Mercury -87851-02-23 08:37 J -30366101.28 -30366101.14 -30366100.97 0.0137 0.0068
 Mercury -87851-05-22 14:51 J -30366013.01 -30366012.88 -30366012.74 0.0137 0.0088
 Mercury -87851-08-18 20:37 J -30365924.73 -30365924.64 -30365924.53 0.0137 0.0109
 Mercury -87851-11-15 02:23 J -30365836.44 -30365836.40 -30365836.33 0.0137 0.0129
 Earth -87847-09-08 07:39 J -30364443.27 -30364443.18 -30364443.08 0.0135 0.0125
 Moon -87847-09-08 09:35 J -30364443.18 -30364443.10 -30364442.98 0.0135 0.0123 *
 Moon -87846-09-12 18:56 J -30364073.84 -30364073.71 -30364073.55 0.0134 0.0111
 Earth -87846-09-12 20:51 J -30364073.75 -30364073.63 -30364073.47 0.0134 0.0113 *

Earth	-87845-09-16 09:20 J	-30363704.27	-30363704.11	-30363703.92	0.0134	0.0099
Moon	-87845-09-16 11:15 J	-30363704.18	-30363704.03	-30363703.85	0.0134	0.0102 *
Moon	-87844-09-20 19:11 J	-30363334.90	-30363334.70	-30363334.47	0.0133	0.0079
Earth	-87844-09-20 20:37 J	-30363334.83	-30363334.64	-30363334.43	0.0133	0.0085 *
Earth	-87843-09-25 06:56 J	-30362965.42	-30362965.21	-30362964.99	0.0133	0.0071
Moon	-87843-09-25 08:08 J	-30362965.34	-30362965.16	-30362964.94	0.0133	0.0079 *
Moon	-87842-09-29 15:20 J	-30362596.10	-30362595.86	-30362595.61	0.0133	0.0052
Earth	-87842-09-29 16:18 J	-30362596.05	-30362595.82	-30362595.58	0.0133	0.0058 *
Earth	-87841-10-03 00:56 J	-30362226.71	-30362226.46	-30362226.22	0.0132	0.0044
Moon	-87841-10-03 01:39 J	-30362226.66	-30362226.43	-30362226.19	0.0132	0.0048 *
Moon	-87840-10-07 06:56 J	-30361857.46	-30361857.21	-30361856.94	0.0132	0.0028
Earth	-87840-10-07 08:08 J	-30361857.40	-30361857.16	-30361856.90	0.0132	0.0030 *
Earth	-87839-10-11 15:06 J	-30361488.12	-30361487.87	-30361487.61	0.0132	0.0016
Moon	-87839-10-11 15:35 J	-30361488.10	-30361487.85	-30361487.60	0.0132	0.0014 *
Moon	-87838-10-15 20:23 J	-30361118.91	-30361118.65	-30361118.38	0.0131	0.0005
Earth	-87838-10-15 21:20 J	-30361118.87	-30361118.61	-30361118.35	0.0131	0.0002 *
Earth	-87837-10-19 02:37 J	-30360749.64	-30360749.39	-30360749.13	0.0131	0.0012
Moon	-87837-10-19 03:06 J	-30360749.62	-30360749.37	-30360749.13	0.0131	0.0017 *
Moon	-87836-10-23 06:56 J	-30360380.47	-30360380.21	-30360379.95	0.0131	0.0018
Earth	-87836-10-23 07:25 J	-30360380.44	-30360380.19	-30360379.94	0.0131	0.0025 *
Earth	-87835-10-27 11:30 J	-30360011.27	-30360011.02	-30360010.78	0.0131	0.0039
Moon	-87835-10-27 11:44 J	-30360011.23	-30360011.01	-30360010.76	0.0131	0.0045 *
Moon	-87834-10-31 14:23 J	-30359642.13	-30359641.90	-30359641.64	0.0131	0.0047
Earth	-87834-10-31 14:37 J	-30359642.11	-30359641.89	-30359641.65	0.0131	0.0052 *
Earth	-87833-11-03 17:30 J	-30359272.98	-30359272.77	-30359272.54	0.0131	0.0064
Moon	-87833-11-03 18:27 J	-30359272.94	-30359272.73	-30359272.52	0.0131	0.0067 *
Moon	-87832-11-07 19:11 J	-30358903.90	-30358903.70	-30358903.47	0.0131	0.0076
Earth	-87832-11-07 19:39 J	-30358903.87	-30358903.68	-30358903.46	0.0131	0.0077 *
Earth	-87831-11-11 21:35 J	-30358534.77	-30358534.60	-30358534.40	0.0131	0.0088
Moon	-87831-11-11 22:18 J	-30358534.75	-30358534.57	-30358534.38	0.0131	0.0086 *

Moon -87830-11-15 22:18 J -30358165.71 -30358165.57 -30358165.39 0.0131 0.0104
 Earth -87830-11-15 23:30 J -30358165.67 -30358165.52 -30358165.35 0.0131 0.0100 *
 Earth -87829-11-19 00:56 J -30357796.59 -30357796.46 -30357796.32 0.0131 0.0111
 Moon -87829-11-19 01:11 J -30357796.59 -30357796.45 -30357796.30 0.0131 0.0105 *
 Moon -87828-11-23 01:11 J -30357427.50 -30357427.45 -30357427.39 0.0131 0.0128
 Earth -87828-11-23 01:54 J -30357427.50 -30357427.42 -30357427.31 0.0131 0.0122 *
 Moon -87827-11-27 04:18 J -30357058.39 -30357058.32 -30357058.25 0.0132 0.0126
 Earth -87827-11-27 03:20 J -30357058.36 -30357058.36 -30357058.34 0.0132 0.0132 *
 Mars -87826-11-08 12:13 J -30356712.03 -30356711.99 -30356711.89 0.0132 0.0128
 Mars -87824-10-07 16:03 J -30356013.11 -30356012.83 -30356012.54 0.0132 0.0025
 Mars -87822-09-07 02:23 J -30355313.61 -30355313.40 -30355313.16 0.0133 0.0083
 Venus -87809-07-10 05:15 J -30350623.43 -30350623.28 -30350623.11 0.0140 0.0090
 Mercury -87809-11-12 08:51 J -30350498.18 -30350498.13 -30350498.06 0.0140 0.0124
 Mercury -87808-02-08 12:42 J -30350410.05 -30350409.97 -30350409.87 0.0140 0.0107
 Venus -87808-02-21 12:27 J -30350397.19 -30350396.98 -30350396.77 0.0140 0.0023
 Mercury -87808-05-07 16:47 J -30350321.91 -30350321.80 -30350321.69 0.0141 0.0088
 Mercury -87808-08-03 20:37 J -30350233.75 -30350233.64 -30350233.51 0.0141 0.0071
 Venus -87808-10-05 19:39 J -30350170.87 -30350170.68 -30350170.47 0.0141 0.0045
 Mercury -87808-10-31 00:42 J -30350145.60 -30350145.47 -30350145.34 0.0141 0.0052
 Mercury -87807-01-27 04:47 J -30350057.44 -30350057.30 -30350057.16 0.0141 0.0034
 Mercury -87807-04-25 08:51 J -30349969.27 -30349969.13 -30349968.99 0.0141 0.0015
 Venus -87807-05-20 03:06 J -30349944.48 -30349944.37 -30349944.23 0.0141 0.0113
 Mercury -87807-07-22 12:56 J -30349881.10 -30349880.96 -30349880.82 0.0141 0.0004
 Mercury -87807-10-18 17:01 J -30349792.93 -30349792.79 -30349792.65 0.0141 0.0023
 Mercury -87806-01-14 21:06 J -30349704.75 -30349704.62 -30349704.48 0.0142 0.0042
 Mercury -87806-04-13 01:11 J -30349616.57 -30349616.45 -30349616.31 0.0142 0.0062
 Mercury -87806-07-10 05:30 J -30349528.38 -30349528.27 -30349528.15 0.0142 0.0081
 Mercury -87806-10-06 09:49 J -30349440.19 -30349440.09 -30349439.99 0.0142 0.0101
 Mercury -87805-01-02 14:08 J -30349351.98 -30349351.91 -30349351.83 0.0142 0.0120
 Mercury -87805-03-30 18:27 J -30349263.74 -30349263.73 -30349263.71 0.0142 0.0141

Earth	-87803-02-27 03:35 J	-30348565.38	-30348565.35	-30348565.27	0.0144	0.0140
Moon	-87803-02-27 05:01 J	-30348565.35	-30348565.29	-30348565.19	0.0144	0.0137 *
Moon	-87802-03-03 20:08 J	-30348195.77	-30348195.66	-30348195.55	0.0144	0.0128
Earth	-87802-03-03 20:51 J	-30348195.73	-30348195.63	-30348195.49	0.0144	0.0127 *
Earth	-87801-03-07 15:35 J	-30347826.00	-30347825.85	-30347825.69	0.0145	0.0113
Moon	-87801-03-07 17:01 J	-30347825.91	-30347825.79	-30347825.62	0.0145	0.0118 *
Moon	-87800-03-12 09:06 J	-30347456.31	-30347456.12	-30347455.93	0.0145	0.0092
Earth	-87800-03-12 11:15 J	-30347456.20	-30347456.03	-30347455.84	0.0145	0.0099 *
Earth	-87799-03-17 08:08 J	-30347086.35	-30347086.16	-30347085.94	0.0146	0.0083
Moon	-87799-03-17 10:47 J	-30347086.24	-30347086.05	-30347085.84	0.0146	0.0090 *
Moon	-87798-03-22 03:35 J	-30346716.57	-30346716.35	-30346716.13	0.0146	0.0060
Earth	-87798-03-22 06:27 J	-30346716.44	-30346716.23	-30346715.99	0.0146	0.0066 *
Earth	-87797-03-26 06:13 J	-30346346.46	-30346346.24	-30346345.99	0.0147	0.0049
Moon	-87797-03-26 09:35 J	-30346346.33	-30346346.10	-30346345.86	0.0147	0.0051 *
Moon	-87796-03-31 03:49 J	-30345976.57	-30345976.34	-30345976.09	0.0147	0.0034
Earth	-87796-03-31 07:25 J	-30345976.43	-30345976.19	-30345975.94	0.0147	0.0030 *
Earth	-87795-04-05 09:35 J	-30345606.35	-30345606.10	-30345605.85	0.0147	0.0011
Moon	-87795-04-05 13:11 J	-30345606.20	-30345605.95	-30345605.70	0.0147	0.0005 *
Moon	-87794-04-10 09:20 J	-30345236.36	-30345236.11	-30345235.85	0.0147	0.0002
Earth	-87794-04-10 12:42 J	-30345236.22	-30345235.97	-30345235.71	0.0147	0.0008 *
Earth	-87793-04-14 16:47 J	-30344866.04	-30344865.80	-30344865.55	0.0148	0.0027
Moon	-87793-04-14 20:08 J	-30344865.90	-30344865.66	-30344865.41	0.0148	0.0033 *
Moon	-87792-04-19 18:56 J	-30344495.95	-30344495.71	-30344495.45	0.0148	0.0044
Earth	-87792-04-19 22:03 J	-30344495.82	-30344495.58	-30344495.34	0.0148	0.0046 *
Earth	-87791-04-25 03:49 J	-30344125.56	-30344125.34	-30344125.10	0.0148	0.0065
Moon	-87791-04-25 05:59 J	-30344125.47	-30344125.25	-30344125.02	0.0148	0.0061 *
Moon	-87790-04-30 08:51 J	-30343755.34	-30343755.13	-30343754.92	0.0148	0.0089
Earth	-87790-04-30 10:32 J	-30343755.27	-30343755.06	-30343754.84	0.0148	0.0083 *
Moon	-87789-05-04 17:59 J	-30343384.93	-30343384.75	-30343384.55	0.0148	0.0095
Earth	-87789-05-04 17:59 J	-30343384.93	-30343384.75	-30343384.56	0.0148	0.0101 *

Earth -87788-05-10 01:54 J -30343014.57 -30343014.42 -30343014.27 0.0148 0.0118
 Moon -87788-05-10 01:39 J -30343014.56 -30343014.43 -30343014.27 0.0148 0.0123 *
 Moon -87787-05-15 08:51 J -30342644.23 -30342644.13 -30342644.04 0.0148 0.0136
 Earth -87787-05-15 09:49 J -30342644.18 -30342644.09 -30342643.97 0.0148 0.0135 *
 Moon -87786-05-20 20:37 J -30342273.67 -30342273.64 -30342273.57 0.0147 0.0145
 Mars -87783-04-22 10:03 J -30341206.41 -30341206.08 -30341205.75 0.0146 0.0002
 Venus -87771-12-23 06:56 J -30336578.28 -30336578.21 -30336578.11 0.0139 0.0127
 Venus -87770-08-06 17:30 J -30336351.96 -30336351.77 -30336351.55 0.0139 0.0059
 Mercury -87769-01-11 08:37 J -30336194.22 -30336194.14 -30336194.05 0.0138 0.0121
 Venus -87769-03-20 04:03 J -30336125.55 -30336125.33 -30336125.10 0.0138 0.0010
 Mercury -87769-04-08 14:51 J -30336105.99 -30336105.88 -30336105.74 0.0138 0.0099
 Mercury -87769-07-05 21:35 J -30336017.74 -30336017.60 -30336017.45 0.0138 0.0076
 Mercury -87769-10-02 04:03 J -30335929.49 -30335929.33 -30335929.17 0.0138 0.0053
 Venus -87769-11-01 13:54 J -30335899.09 -30335898.92 -30335898.73 0.0138 0.0078
 Mercury -87769-12-29 10:18 J -30335841.24 -30335841.07 -30335840.89 0.0138 0.0031
 Mercury -87768-03-27 16:47 J -30335752.98 -30335752.80 -30335752.63 0.0138 0.0010
 Mercury -87768-06-23 22:47 J -30335664.72 -30335664.55 -30335664.37 0.0138 0.0013
 Mercury -87768-09-20 05:01 J -30335576.46 -30335576.29 -30335576.12 0.0137 0.0033
 Mercury -87768-12-17 11:01 J -30335488.19 -30335488.04 -30335487.87 0.0137 0.0055
 Mercury -87767-03-15 17:01 J -30335399.93 -30335399.79 -30335399.64 0.0137 0.0075
 Mercury -87767-06-11 23:01 J -30335311.66 -30335311.54 -30335311.41 0.0137 0.0096
 Mercury -87767-09-08 05:01 J -30335223.38 -30335223.29 -30335223.20 0.0137 0.0116
 Mercury -87767-12-05 10:47 J -30335135.05 -30335135.05 -30335135.03 0.0137 0.0136
 Moon -87764-09-04 04:03 J -30334131.42 -30334131.33 -30334131.23 0.0135 0.0126
 Earth -87764-09-04 07:11 J -30334131.26 -30334131.20 -30334131.15 0.0135 0.0132 *
 Earth -87763-09-08 21:20 J -30333761.72 -30333761.61 -30333761.48 0.0135 0.0119
 Moon -87763-09-08 23:59 J -30333761.58 -30333761.50 -30333761.38 0.0135 0.0123 *
 Moon -87762-09-13 08:08 J -30333392.31 -30333392.16 -30333391.98 0.0134 0.0105
 Earth -87762-09-13 10:47 J -30333392.19 -30333392.05 -30333391.87 0.0134 0.0107 *
 Earth -87761-09-16 23:15 J -30333022.70 -30333022.53 -30333022.33 0.0134 0.0093

Moon	-87761-09-17 01:25 J	-30333022.62	-30333022.44	-30333022.25	0.0134	0.0089	*
Moon	-87760-09-21 07:39 J	-30332653.36	-30332653.18	-30332652.95	0.0133	0.0086	
Earth	-87760-09-21 10:32 J	-30332653.26	-30332653.06	-30332652.84	0.0133	0.0080	*
Earth	-87759-09-25 20:51 J	-30332283.84	-30332283.63	-30332283.40	0.0133	0.0066	
Moon	-87759-09-25 22:18 J	-30332283.78	-30332283.57	-30332283.33	0.0133	0.0060	*
Moon	-87758-09-30 04:47 J	-30331914.54	-30331914.30	-30331914.06	0.0133	0.0059	
Earth	-87758-09-30 06:13 J	-30331914.46	-30331914.24	-30331913.99	0.0133	0.0053	*
Earth	-87757-10-03 14:51 J	-30331545.12	-30331544.88	-30331544.63	0.0132	0.0039	
Moon	-87757-10-03 16:18 J	-30331545.05	-30331544.82	-30331544.57	0.0132	0.0035	*
Moon	-87756-10-07 21:20 J	-30331175.87	-30331175.61	-30331175.34	0.0132	0.0026	
Earth	-87756-10-07 22:32 J	-30331175.81	-30331175.56	-30331175.30	0.0132	0.0025	*
Earth	-87755-10-12 05:30 J	-30330806.53	-30330806.27	-30330806.01	0.0132	0.0011	
Moon	-87755-10-12 06:56 J	-30330806.45	-30330806.21	-30330805.96	0.0132	0.0012	*
Moon	-87754-10-16 10:47 J	-30330437.32	-30330437.05	-30330436.79	0.0132	0.0006	
Earth	-87754-10-16 11:44 J	-30330437.27	-30330437.01	-30330436.76	0.0132	0.0003	*
Earth	-87753-10-19 17:01 J	-30330068.04	-30330067.79	-30330067.53	0.0131	0.0016	
Moon	-87753-10-19 18:13 J	-30330067.99	-30330067.74	-30330067.49	0.0131	0.0010	*
Moon	-87752-10-23 20:08 J	-30329698.90	-30329698.66	-30329698.39	0.0131	0.0036	
Earth	-87752-10-23 21:35 J	-30329698.85	-30329698.60	-30329698.35	0.0131	0.0029	*
Earth	-87751-10-28 01:25 J	-30329329.67	-30329329.44	-30329329.19	0.0131	0.0042	
Moon	-87751-10-28 02:08 J	-30329329.64	-30329329.41	-30329329.16	0.0131	0.0036	*
Moon	-87750-11-01 03:20 J	-30328960.58	-30328960.36	-30328960.11	0.0131	0.0060	
Earth	-87750-11-01 05:01 J	-30328960.52	-30328960.29	-30328960.06	0.0131	0.0054	*
Earth	-87749-11-04 07:11 J	-30328591.40	-30328591.20	-30328590.96	0.0131	0.0068	
Moon	-87749-11-04 08:23 J	-30328591.36	-30328591.15	-30328590.93	0.0131	0.0065	*
Moon	-87748-11-08 08:23 J	-30328222.34	-30328222.15	-30328221.92	0.0131	0.0080	
Earth	-87748-11-08 10:03 J	-30328222.28	-30328222.08	-30328221.88	0.0131	0.0079	*
Earth	-87747-11-12 11:44 J	-30327853.18	-30327853.01	-30327852.81	0.0131	0.0090	
Moon	-87747-11-12 12:56 J	-30327853.12	-30327852.96	-30327852.77	0.0131	0.0092	*
Moon	-87746-11-16 12:27 J	-30327484.14	-30327483.98	-30327483.78	0.0131	0.0097	

Earth -87746-11-16 13:39 J -30327484.08 -30327483.93 -30327483.76 0.0131 0.0101 *
 Earth -87745-11-19 14:51 J -30327114.99 -30327114.88 -30327114.73 0.0131 0.0112
 Moon -87745-11-19 16:18 J -30327114.90 -30327114.82 -30327114.70 0.0131 0.0119 *
 Moon -87744-11-23 15:20 J -30326745.97 -30326745.86 -30326745.73 0.0131 0.0116
 Earth -87744-11-23 16:18 J -30326745.89 -30326745.82 -30326745.72 0.0131 0.0123 *
 Mars -87741-07-02 21:06 J -30325793.82 -30325793.62 -30325793.38 0.0132 0.0085
 Mars -87739-06-02 02:51 J -30325094.67 -30325094.38 -30325094.09 0.0133 0.0020
 Mars -87737-05-01 15:06 J -30324394.92 -30324394.87 -30324394.76 0.0133 0.0129
 Venus -87725-03-09 17:15 J -30320064.89 -30320064.78 -30320064.67 0.0140 0.0117
 Mercury -87725-09-05 13:11 J -30319884.98 -30319884.95 -30319884.91 0.0140 0.0134
 Venus -87725-10-21 23:59 J -30319838.69 -30319838.50 -30319838.29 0.0140 0.0052
 Mercury -87725-12-02 17:01 J -30319796.86 -30319796.79 -30319796.71 0.0140 0.0117
 Mercury -87724-02-28 20:51 J -30319708.72 -30319708.63 -30319708.53 0.0140 0.0099
 Mercury -87724-05-28 00:42 J -30319620.57 -30319620.47 -30319620.35 0.0141 0.0082
 Venus -87724-06-05 07:25 J -30319612.40 -30319612.19 -30319611.98 0.0141 0.0016
 Mercury -87724-08-24 04:47 J -30319532.42 -30319532.30 -30319532.17 0.0141 0.0063
 Mercury -87724-11-20 08:51 J -30319444.26 -30319444.13 -30319444.00 0.0141 0.0045
 Venus -87723-01-17 14:51 J -30319386.04 -30319385.88 -30319385.71 0.0141 0.0084
 Mercury -87723-02-16 12:56 J -30319356.10 -30319355.96 -30319355.82 0.0141 0.0026
 Mercury -87723-05-15 17:01 J -30319267.94 -30319267.79 -30319267.65 0.0141 0.0008
 Mercury -87723-08-11 21:06 J -30319179.77 -30319179.62 -30319179.48 0.0141 0.0012
 Mercury -87723-11-08 01:11 J -30319091.59 -30319091.45 -30319091.31 0.0142 0.0030
 Mercury -87722-02-04 05:15 J -30319003.41 -30319003.28 -30319003.14 0.0142 0.0050
 Mercury -87722-05-03 09:20 J -30318915.23 -30318915.11 -30318914.98 0.0142 0.0069
 Mercury -87722-07-30 13:25 J -30318827.04 -30318826.94 -30318826.81 0.0142 0.0089
 Mercury -87722-10-26 17:59 J -30318738.84 -30318738.75 -30318738.66 0.0142 0.0108
 Mercury -87721-01-22 22:03 J -30318650.63 -30318650.58 -30318650.51 0.0142 0.0129
 Moon -87720-02-23 02:23 J -30318253.43 -30318253.40 -30318253.33 0.0143 0.0139
 Earth -87719-02-27 18:42 J -30317883.79 -30317883.72 -30317883.61 0.0144 0.0134
 Moon -87719-02-27 18:56 J -30317883.76 -30317883.71 -30317883.62 0.0144 0.0138 *

Moon -87718-03-04 11:01 J -30317514.16 -30317514.04 -30317513.91 0.0144 0.0121
 Earth -87718-03-04 12:13 J -30317514.12 -30317513.99 -30317513.85 0.0144 0.0121 *
 Earth -87717-03-08 06:27 J -30317144.39 -30317144.23 -30317144.06 0.0145 0.0107
 Moon -87717-03-08 07:39 J -30317144.34 -30317144.18 -30317143.98 0.0145 0.0103 *
 Moon -87716-03-13 00:42 J -30316774.64 -30316774.47 -30316774.29 0.0145 0.0099
 Earth -87716-03-13 02:08 J -30316774.59 -30316774.41 -30316774.21 0.0145 0.0092 *
 Earth -87715-03-17 23:01 J -30316404.73 -30316404.54 -30316404.31 0.0146 0.0077
 Moon -87715-03-18 01:54 J -30316404.64 -30316404.42 -30316404.19 0.0146 0.0069 *
 Moon -87714-03-22 19:25 J -30316034.90 -30316034.69 -30316034.47 0.0146 0.0066
 Earth -87714-03-22 21:35 J -30316034.81 -30316034.60 -30316034.36 0.0146 0.0060 *
 Earth -87713-03-26 21:20 J -30315664.84 -30315664.61 -30315664.36 0.0147 0.0043
 Moon -87713-03-27 00:56 J -30315664.70 -30315664.46 -30315664.22 0.0147 0.0042 *
 Moon -87712-03-31 19:11 J -30315294.94 -30315294.70 -30315294.45 0.0147 0.0022
 Earth -87712-03-31 22:32 J -30315294.80 -30315294.56 -30315294.31 0.0147 0.0025 *
 Earth -87711-04-06 00:27 J -30314924.73 -30314924.48 -30314924.22 0.0147 0.0006
 Moon -87711-04-06 04:03 J -30314924.58 -30314924.33 -30314924.08 0.0147 0.0013 *
 Moon -87710-04-10 23:44 J -30314554.76 -30314554.51 -30314554.26 0.0147 0.0021
 Earth -87710-04-11 03:35 J -30314554.60 -30314554.35 -30314554.10 0.0147 0.0012 *
 Earth -87709-04-15 07:25 J -30314184.43 -30314184.19 -30314183.93 0.0148 0.0032
 Moon -87709-04-15 10:47 J -30314184.29 -30314184.05 -30314183.79 0.0148 0.0026 *
 Moon -87708-04-20 09:35 J -30313814.34 -30313814.10 -30313813.86 0.0148 0.0051
 Earth -87708-04-20 12:42 J -30313814.21 -30313813.97 -30313813.73 0.0148 0.0050 *
 Earth -87707-04-25 18:13 J -30313443.96 -30313443.74 -30313443.51 0.0148 0.0068
 Moon -87707-04-25 20:51 J -30313443.83 -30313443.63 -30313443.40 0.0148 0.0071 *
 Moon -87706-04-30 23:01 J -30313073.75 -30313073.54 -30313073.30 0.0148 0.0079
 Earth -87706-05-01 00:56 J -30313073.66 -30313073.46 -30313073.25 0.0148 0.0086 *
 Earth -87705-05-05 07:54 J -30312703.33 -30312703.17 -30312702.97 0.0148 0.0104
 Moon -87705-05-05 09:20 J -30312703.25 -30312703.11 -30312702.93 0.0148 0.0112 *
 Moon -87704-05-10 16:03 J -30312332.99 -30312332.83 -30312332.66 0.0148 0.0116
 Earth -87704-05-10 15:35 J -30312332.97 -30312332.85 -30312332.68 0.0148 0.0121 *

Moon -87703-05-15 23:30 J -30311962.59 -30311962.52 -30311962.41 0.0148 0.0137
 Earth -87703-05-15 23:59 J -30311962.57 -30311962.50 -30311962.38 0.0148 0.0137 *
 Mars -87700-01-10 08:51 J -30310992.35 -30310992.13 -30310991.87 0.0147 0.0100
 Mars -87699-12-18 05:44 J -30310285.53 -30310285.26 -30310284.96 0.0146 0.0068
 Venus -87686-04-06 03:20 J -30305793.53 -30305793.36 -30305793.18 0.0139 0.0087
 Mercury -87686-11-04 10:32 J -30305581.10 -30305581.06 -30305581.02 0.0138 0.0135
 Venus -87686-11-18 13:54 J -30305567.14 -30305566.92 -30305566.70 0.0138 0.0019
 Mercury -87685-01-31 16:47 J -30305492.89 -30305492.80 -30305492.68 0.0138 0.0112
 Mercury -87685-04-28 23:30 J -30305404.65 -30305404.52 -30305404.38 0.0138 0.0089
 Venus -87685-07-02 00:13 J -30305340.70 -30305340.49 -30305340.28 0.0138 0.0049
 Mercury -87685-07-26 05:59 J -30305316.40 -30305316.25 -30305316.09 0.0138 0.0067
 Mercury -87685-10-22 12:27 J -30305228.15 -30305227.98 -30305227.81 0.0138 0.0045
 Mercury -87684-01-18 18:42 J -30305139.89 -30305139.72 -30305139.54 0.0138 0.0023
 Venus -87684-02-13 09:35 J -30305114.19 -30305114.10 -30305113.96 0.0138 0.0117
 Mercury -87684-04-17 00:56 J -30305051.63 -30305051.46 -30305051.28 0.0138 0.0004
 Mercury -87684-07-14 07:11 J -30304963.37 -30304963.20 -30304963.02 0.0137 0.0020
 Mercury -87684-10-10 13:25 J -30304875.11 -30304874.94 -30304874.77 0.0137 0.0042
 Mercury -87683-01-06 19:25 J -30304786.84 -30304786.69 -30304786.53 0.0137 0.0063
 Mercury -87683-04-05 01:25 J -30304698.57 -30304698.44 -30304698.30 0.0137 0.0083
 Mercury -87683-07-02 07:11 J -30304610.30 -30304610.20 -30304610.08 0.0137 0.0104
 Mercury -87683-09-28 13:11 J -30304522.01 -30304521.95 -30304521.87 0.0137 0.0124
 Moon -87681-08-31 08:08 J -30303819.20 -30303819.16 -30303819.07 0.0136 0.0131
 Moon -87680-09-04 17:30 J -30303449.82 -30303449.77 -30303449.71 0.0135 0.0132
 Earth -87680-09-04 20:37 J -30303449.71 -30303449.64 -30303449.52 0.0135 0.0126 *
 Earth -87679-09-09 11:30 J -30303080.15 -30303080.02 -30303079.87 0.0135 0.0113
 Moon -87679-09-09 14:23 J -30303080.03 -30303079.90 -30303079.73 0.0135 0.0110 *
 Moon -87678-09-13 22:18 J -30302710.74 -30302710.57 -30302710.39 0.0134 0.0100
 Earth -87678-09-14 00:56 J -30302710.61 -30302710.46 -30302710.27 0.0134 0.0101 *
 Earth -87677-09-17 13:25 J -30302341.13 -30302340.94 -30302340.74 0.0134 0.0087
 Moon -87677-09-17 16:18 J -30302341.00 -30302340.82 -30302340.63 0.0134 0.0090 *

Moon	-87676-09-21 22:18 J	-30301971.78	-30301971.57	-30301971.33	0.0133	0.0068
Earth	-87676-09-22 00:27 J	-30301971.67	-30301971.48	-30301971.24	0.0133	0.0075 *
Earth	-87675-09-26 11:15 J	-30301602.26	-30301602.03	-30301601.80	0.0133	0.0060
Moon	-87675-09-26 13:25 J	-30301602.14	-30301601.94	-30301601.71	0.0133	0.0068 *
Moon	-87674-09-30 18:27 J	-30301232.98	-30301232.73	-30301232.47	0.0133	0.0041
Earth	-87674-09-30 20:51 J	-30301232.87	-30301232.63	-30301232.39	0.0133	0.0047 *
Earth	-87673-10-04 05:15 J	-30300863.52	-30300863.28	-30300863.02	0.0132	0.0033
Moon	-87673-10-04 07:11 J	-30300863.44	-30300863.20	-30300862.96	0.0132	0.0038 *
Moon	-87672-10-08 10:47 J	-30300494.31	-30300494.05	-30300493.79	0.0132	0.0017
Earth	-87672-10-08 12:56 J	-30300494.21	-30300493.96	-30300493.70	0.0132	0.0020 *
Earth	-87671-10-12 19:54 J	-30300124.92	-30300124.67	-30300124.41	0.0132	0.0007
Moon	-87671-10-12 21:20 J	-30300124.85	-30300124.61	-30300124.36	0.0132	0.0005 *
Moon	-87670-10-17 00:13 J	-30299755.75	-30299755.49	-30299755.23	0.0132	0.0003
Earth	-87670-10-17 02:08 J	-30299755.66	-30299755.41	-30299755.15	0.0132	0.0007 *
Earth	-87669-10-20 07:11 J	-30299386.45	-30299386.20	-30299385.94	0.0131	0.0020
Moon	-87669-10-20 08:51 J	-30299386.37	-30299386.13	-30299385.89	0.0131	0.0025 *
Moon	-87668-10-24 10:18 J	-30299017.32	-30299017.07	-30299016.81	0.0131	0.0026
Earth	-87668-10-24 11:44 J	-30299017.25	-30299017.01	-30299016.76	0.0131	0.0033 *
Earth	-87667-10-28 15:35 J	-30298648.08	-30298647.85	-30298647.60	0.0131	0.0045
Moon	-87667-10-28 17:15 J	-30298647.99	-30298647.78	-30298647.54	0.0131	0.0052 *
Moon	-87666-11-01 17:15 J	-30298279.00	-30298278.78	-30298278.52	0.0131	0.0054
Earth	-87666-11-01 18:42 J	-30298278.93	-30298278.72	-30298278.48	0.0131	0.0058 *
Earth	-87665-11-04 21:35 J	-30297909.81	-30297909.60	-30297909.38	0.0131	0.0070
Moon	-87665-11-04 23:01 J	-30297909.73	-30297909.54	-30297909.32	0.0131	0.0073 *
Moon	-87664-11-08 22:03 J	-30297540.77	-30297540.58	-30297540.36	0.0131	0.0080
Earth	-87664-11-08 23:44 J	-30297540.69	-30297540.51	-30297540.30	0.0131	0.0081 *
Earth	-87663-11-13 01:54 J	-30297171.59	-30297171.42	-30297171.23	0.0131	0.0092
Moon	-87663-11-13 03:06 J	-30297171.53	-30297171.37	-30297171.17	0.0131	0.0090 *
Moon	-87662-11-17 01:39 J	-30296802.57	-30296802.43	-30296802.27	0.0131	0.0107
Earth	-87662-11-17 03:35 J	-30296802.49	-30296802.35	-30296802.18	0.0131	0.0103 *

Earth -87661-11-20 05:01 J -30296433.40 -30296433.29 -30296433.15 0.0131 0.0114
 Moon -87661-11-20 06:42 J -30296433.36 -30296433.22 -30296433.08 0.0131 0.0108 *
 Moon -87660-11-24 04:18 J -30296064.33 -30296064.32 -30296064.26 0.0131 0.0130
 Earth -87660-11-24 06:13 J -30296064.30 -30296064.24 -30296064.13 0.0131 0.0124 *
 Moon -87659-11-28 09:49 J -30295695.14 -30295695.09 -30295695.02 0.0132 0.0127
 Mars -87656-02-25 06:42 J -30294875.49 -30294875.22 -30294874.95 0.0132 0.0042
 Mars -87654-01-25 12:56 J -30294176.20 -30294175.96 -30294175.69 0.0133 0.0064
 Venus -87641-06-21 11:01 J -30289280.21 -30289280.04 -30289279.86 0.0140 0.0080
 Mercury -87641-09-25 20:51 J -30289183.68 -30289183.63 -30289183.57 0.0140 0.0129
 Mercury -87641-12-23 00:42 J -30289095.55 -30289095.47 -30289095.38 0.0140 0.0111
 Venus -87640-02-02 17:59 J -30289053.96 -30289053.75 -30289053.53 0.0140 0.0014
 Mercury -87640-03-21 04:32 J -30289007.41 -30289007.31 -30289007.20 0.0140 0.0093
 Mercury -87640-06-17 08:23 J -30288919.26 -30288919.15 -30288919.02 0.0141 0.0076
 Mercury -87640-09-13 12:27 J -30288831.10 -30288830.98 -30288830.85 0.0141 0.0057
 Venus -87640-09-17 01:11 J -30288827.64 -30288827.45 -30288827.25 0.0141 0.0054
 Mercury -87640-12-10 16:32 J -30288742.94 -30288742.81 -30288742.67 0.0141 0.0039
 Mercury -87639-03-08 20:37 J -30288654.78 -30288654.64 -30288654.50 0.0141 0.0020
 Venus -87639-05-01 08:37 J -30288601.23 -30288601.14 -30288601.03 0.0141 0.0122
 Mercury -87639-06-05 00:42 J -30288566.61 -30288566.47 -30288566.33 0.0141 0.0003
 Mercury -87639-09-01 04:47 J -30288478.44 -30288478.30 -30288478.16 0.0141 0.0017
 Mercury -87639-11-28 08:51 J -30288390.27 -30288390.13 -30288389.99 0.0142 0.0036
 Mercury -87638-02-24 12:56 J -30288302.09 -30288301.96 -30288301.83 0.0142 0.0056
 Mercury -87638-05-23 17:15 J -30288213.90 -30288213.78 -30288213.66 0.0142 0.0075
 Mercury -87638-08-19 21:20 J -30288125.71 -30288125.61 -30288125.50 0.0142 0.0095
 Mercury -87638-11-16 01:39 J -30288037.51 -30288037.43 -30288037.34 0.0142 0.0114
 Mercury -87637-02-12 05:59 J -30287949.29 -30287949.25 -30287949.20 0.0142 0.0134
 Moon -87637-02-20 00:42 J -30287941.48 -30287941.47 -30287941.43 0.0142 0.0142
 Earth -87636-02-23 15:49 J -30287571.88 -30287571.84 -30287571.77 0.0143 0.0139
 Moon -87635-02-28 07:54 J -30287202.28 -30287202.17 -30287202.03 0.0144 0.0124
 Earth -87635-02-28 07:39 J -30287202.27 -30287202.18 -30287202.05 0.0144 0.0128 *

Moon	-87634-03-05 00:56 J	-30286832.60	-30286832.46	-30286832.32	0.0144	0.0116
Earth	-87634-03-05 00:42 J	-30286832.60	-30286832.47	-30286832.30	0.0144	0.0115 *
Earth	-87633-03-08 19:25 J	-30286462.86	-30286462.69	-30286462.50	0.0145	0.0101
Moon	-87633-03-08 20:23 J	-30286462.82	-30286462.65	-30286462.47	0.0145	0.0104 *
Moon	-87632-03-13 13:54 J	-30286093.11	-30286092.92	-30286092.71	0.0145	0.0080
Earth	-87632-03-13 15:20 J	-30286093.05	-30286092.86	-30286092.65	0.0145	0.0086 *
Earth	-87631-03-18 12:27 J	-30285723.18	-30285722.98	-30285722.75	0.0146	0.0071
Moon	-87631-03-18 14:08 J	-30285723.12	-30285722.91	-30285722.68	0.0146	0.0078 *
Jupiter	-87631-10-25 10:03 J	-30285502.35	-30285502.08	-30285501.71	0.0146	0.0116
Moon	-87630-03-23 08:37 J	-30285353.36	-30285353.14	-30285352.91	0.0146	0.0049
Earth	-87630-03-23 11:01 J	-30285353.26	-30285353.04	-30285352.80	0.0146	0.0054 *
Earth	-87629-03-27 11:01 J	-30284983.29	-30284983.04	-30284982.80	0.0147	0.0037
Moon	-87629-03-27 13:25 J	-30284983.18	-30284982.94	-30284982.69	0.0147	0.0040 *
Moon	-87628-04-01 08:37 J	-30284613.38	-30284613.14	-30284612.89	0.0147	0.0023
Earth	-87628-04-01 11:44 J	-30284613.25	-30284613.01	-30284612.76	0.0147	0.0019 *
Earth	-87627-04-06 13:39 J	-30284243.18	-30284242.93	-30284242.68	0.0147	0.0001
Moon	-87627-04-06 17:15 J	-30284243.04	-30284242.78	-30284242.53	0.0147	0.0006 *
Moon	-87626-04-11 13:25 J	-30283873.19	-30283872.94	-30283872.69	0.0147	0.0010
Earth	-87626-04-11 16:32 J	-30283873.05	-30283872.81	-30283872.55	0.0147	0.0018 *
Earth	-87625-04-15 20:23 J	-30283502.88	-30283502.65	-30283502.39	0.0148	0.0036
Moon	-87625-04-16 00:13 J	-30283502.72	-30283502.49	-30283502.24	0.0148	0.0041 *
Moon	-87624-04-20 21:49 J	-30283132.81	-30283132.59	-30283132.33	0.0148	0.0051
Earth	-87624-04-21 01:25 J	-30283132.66	-30283132.44	-30283132.19	0.0148	0.0054 *
Earth	-87623-04-26 07:25 J	-30282762.41	-30282762.19	-30282761.97	0.0148	0.0071
Moon	-87623-04-26 09:49 J	-30282762.29	-30282762.09	-30282761.85	0.0148	0.0068 *
Moon	-87622-05-01 11:01 J	-30282392.23	-30282392.04	-30282391.83	0.0148	0.0095
Earth	-87622-05-01 13:54 J	-30282392.11	-30282391.92	-30282391.71	0.0148	0.0089 *
Earth	-87621-05-05 21:06 J	-30282021.78	-30282021.62	-30282021.43	0.0148	0.0106
Moon	-87621-05-05 22:32 J	-30282021.73	-30282021.56	-30282021.36	0.0148	0.0099 *
Moon	-87620-05-11 04:03 J	-30281651.45	-30281651.33	-30281651.18	0.0148	0.0127

Earth -87620-05-11 05:15 J -30281651.41 -30281651.28 -30281651.13 0.0148 0.0122 *
 Moon -87619-05-16 13:25 J -30281281.01 -30281280.94 -30281280.85 0.0148 0.0138
 Earth -87619-05-16 13:25 J -30281281.01 -30281280.94 -30281280.83 0.0148 0.0138 *
 Moon -87618-05-21 23:30 J -30280910.53 -30280910.52 -30280910.46 0.0147 0.0146
 Mars -87616-09-07 06:27 J -30280071.55 -30280071.23 -30280070.90 0.0147 0.0032
 Mars -87614-08-14 21:49 J -30279364.70 -30279364.59 -30279364.43 0.0146 0.0132
 Venus -87603-12-04 12:56 J -30275235.07 -30275234.96 -30275234.82 0.0139 0.0116
 Venus -87602-07-18 23:44 J -30275008.71 -30275008.51 -30275008.29 0.0139 0.0047
 Mercury -87602-11-24 18:56 J -30274879.78 -30274879.71 -30274879.63 0.0138 0.0126
 Mercury -87601-02-21 01:25 J -30274791.55 -30274791.44 -30274791.31 0.0138 0.0103
 Venus -87601-03-01 10:18 J -30274782.29 -30274782.07 -30274781.85 0.0138 0.0022
 Mercury -87601-05-19 08:08 J -30274703.30 -30274703.16 -30274703.02 0.0138 0.0080
 Mercury -87601-08-15 14:23 J -30274615.05 -30274614.90 -30274614.73 0.0138 0.0058
 Venus -87601-10-13 20:08 J -30274555.82 -30274555.66 -30274555.48 0.0138 0.0089
 Mercury -87601-11-11 20:51 J -30274526.80 -30274526.63 -30274526.46 0.0138 0.0036
 Mercury -87600-02-08 03:20 J -30274438.54 -30274438.36 -30274438.19 0.0138 0.0014
 Mercury -87600-05-07 09:35 J -30274350.28 -30274350.10 -30274349.93 0.0138 0.0008
 Mercury -87600-08-03 15:35 J -30274262.01 -30274261.85 -30274261.67 0.0137 0.0029
 Mercury -87600-10-30 21:49 J -30274173.75 -30274173.59 -30274173.43 0.0137 0.0050
 Mercury -87599-01-27 03:49 J -30274085.48 -30274085.34 -30274085.19 0.0137 0.0071
 Mercury -87599-04-25 09:49 J -30273997.21 -30273997.09 -30273996.96 0.0137 0.0092
 Mercury -87599-07-22 15:49 J -30273908.93 -30273908.84 -30273908.74 0.0137 0.0112
 Mercury -87599-10-18 21:35 J -30273820.63 -30273820.60 -30273820.55 0.0137 0.0133
 Earth -87597-08-31 19:39 J -30273137.74 -30273137.68 -30273137.61 0.0136 0.0131
 Moon -87596-09-05 07:39 J -30272768.30 -30272768.18 -30272768.01 0.0135 0.0114
 Earth -87596-09-05 11:30 J -30272768.13 -30272768.02 -30272767.89 0.0135 0.0119 *
 Earth -87595-09-10 01:54 J -30272398.56 -30272398.42 -30272398.25 0.0135 0.0107
 Moon -87595-09-10 05:30 J -30272398.41 -30272398.27 -30272398.12 0.0135 0.0110 *
 Moon -87594-09-14 11:59 J -30272029.17 -30272029.00 -30272028.79 0.0134 0.0093
 Earth -87594-09-14 15:35 J -30272029.02 -30272028.85 -30272028.65 0.0134 0.0094 *

Earth	-87593-09-18 04:18 J	-30271659.53	-30271659.32	-30271659.11	0.0134	0.0081
Moon	-87593-09-18 06:42 J	-30271659.41	-30271659.22	-30271659.00	0.0134	0.0078 *
Moon	-87592-09-22 12:13 J	-30271290.20	-30271289.99	-30271289.76	0.0133	0.0074
Earth	-87592-09-22 15:20 J	-30271290.07	-30271289.86	-30271289.62	0.0133	0.0068 *
Earth	-87591-09-27 01:54 J	-30270920.64	-30270920.42	-30270920.17	0.0133	0.0055
Moon	-87591-09-27 04:47 J	-30270920.54	-30270920.30	-30270920.07	0.0133	0.0048 *
Moon	-87590-10-01 09:06 J	-30270551.36	-30270551.12	-30270550.87	0.0133	0.0048
Earth	-87590-10-01 11:30 J	-30270551.25	-30270551.02	-30270550.76	0.0133	0.0042 *
Earth	-87589-10-04 19:54 J	-30270181.91	-30270181.67	-30270181.41	0.0132	0.0029
Moon	-87589-10-04 22:32 J	-30270181.80	-30270181.56	-30270181.30	0.0132	0.0024 *
Moon	-87588-10-09 01:54 J	-30269812.68	-30269812.42	-30269812.16	0.0132	0.0016
Earth	-87588-10-09 03:49 J	-30269812.59	-30269812.34	-30269812.08	0.0132	0.0015 *
Earth	-87587-10-13 11:01 J	-30269443.30	-30269443.04	-30269442.79	0.0132	0.0002
Moon	-87587-10-13 13:25 J	-30269443.19	-30269442.94	-30269442.69	0.0132	0.0002 *
Moon	-87586-10-17 14:51 J	-30269074.14	-30269073.88	-30269073.62	0.0132	0.0015
Earth	-87586-10-17 17:01 J	-30269074.05	-30269073.79	-30269073.54	0.0132	0.0012 *
Earth	-87585-10-20 22:03 J	-30268704.83	-30268704.58	-30268704.33	0.0131	0.0024
Moon	-87585-10-20 23:59 J	-30268704.74	-30268704.50	-30268704.25	0.0131	0.0018 *
Moon	-87584-10-24 23:59 J	-30268335.74	-30268335.50	-30268335.24	0.0131	0.0043
Earth	-87584-10-25 02:37 J	-30268335.64	-30268335.39	-30268335.15	0.0131	0.0037 *
Earth	-87583-10-29 06:13 J	-30267966.47	-30267966.24	-30267966.00	0.0131	0.0049
Moon	-87583-10-29 07:54 J	-30267966.40	-30267966.17	-30267965.93	0.0131	0.0043 *
Moon	-87582-11-02 07:11 J	-30267597.42	-30267597.20	-30267596.97	0.0131	0.0066
Earth	-87582-11-02 09:20 J	-30267597.32	-30267597.11	-30267596.87	0.0131	0.0061 *
Earth	-87581-11-05 11:59 J	-30267228.20	-30267228.00	-30267227.78	0.0131	0.0073
Moon	-87581-11-05 14:08 J	-30267228.12	-30267227.91	-30267227.70	0.0131	0.0069 *
Moon	-87580-11-09 12:13 J	-30266859.17	-30266858.99	-30266858.77	0.0131	0.0084
Earth	-87580-11-09 14:37 J	-30266859.08	-30266858.89	-30266858.69	0.0131	0.0083 *
Earth	-87579-11-13 16:32 J	-30266489.98	-30266489.81	-30266489.63	0.0131	0.0094
Moon	-87579-11-13 18:27 J	-30266489.87	-30266489.73	-30266489.54	0.0131	0.0097 *

Moon -87578-11-17 16:03 J -30266120.98 -30266120.83 -30266120.64 0.0131 0.0101
 Earth -87578-11-17 17:59 J -30266120.88 -30266120.75 -30266120.58 0.0131 0.0105 *
 Earth -87577-11-20 19:54 J -30265751.79 -30265751.67 -30265751.55 0.0131 0.0115
 Moon -87577-11-20 21:49 J -30265751.66 -30265751.59 -30265751.48 0.0131 0.0121 *
 Moon -87576-11-24 19:11 J -30265382.81 -30265382.70 -30265382.59 0.0131 0.0118
 Earth -87576-11-24 21:06 J -30265382.68 -30265382.62 -30265382.53 0.0131 0.0125 *
 Mars -87574-11-21 15:35 J -30264656.02 -30264655.85 -30264655.65 0.0132 0.0100
 Mars -87572-10-20 16:32 J -30263957.10 -30263956.81 -30263956.52 0.0132 0.0002
 Mars -87570-09-20 01:39 J -30263257.58 -30263257.43 -30263257.24 0.0133 0.0107
 Venus -87557-02-19 22:03 J -30258721.70 -30258721.58 -30258721.43 0.0140 0.0109
 Mercury -87557-07-20 00:56 J -30258570.46 -30258570.46 -30258570.45 0.0140 0.0140
 Venus -87557-10-03 05:15 J -30258495.48 -30258495.28 -30258495.08 0.0140 0.0042
 Mercury -87557-10-16 04:47 J -30258482.36 -30258482.30 -30258482.23 0.0140 0.0122
 Mercury -87556-01-12 08:37 J -30258394.23 -30258394.14 -30258394.04 0.0140 0.0105
 Mercury -87556-04-10 12:27 J -30258306.08 -30258305.98 -30258305.87 0.0140 0.0087
 Venus -87556-05-17 12:13 J -30258269.19 -30258268.99 -30258268.77 0.0141 0.0025
 Mercury -87556-07-07 16:32 J -30258217.93 -30258217.81 -30258217.69 0.0141 0.0069
 Mercury -87556-10-03 20:23 J -30258129.78 -30258129.65 -30258129.52 0.0141 0.0051
 Venus -87556-12-29 19:54 J -30258042.83 -30258042.67 -30258042.51 0.0141 0.0092
 Mercury -87556-12-31 00:27 J -30258041.62 -30258041.48 -30258041.34 0.0141 0.0032
 Mercury -87555-03-29 04:32 J -30257953.45 -30257953.31 -30257953.17 0.0141 0.0014
 Mercury -87555-06-25 08:37 J -30257865.29 -30257865.14 -30257865.00 0.0141 0.0006
 Mercury -87555-09-21 12:27 J -30257777.11 -30257776.98 -30257776.83 0.0141 0.0025
 Mercury -87555-12-18 16:47 J -30257688.94 -30257688.80 -30257688.66 0.0142 0.0043
 Mercury -87554-03-16 20:51 J -30257600.75 -30257600.63 -30257600.50 0.0142 0.0062
 Mercury -87554-06-13 00:56 J -30257512.57 -30257512.46 -30257512.33 0.0142 0.0082
 Mercury -87554-09-09 05:30 J -30257424.37 -30257424.27 -30257424.17 0.0142 0.0101
 Mercury -87554-12-06 09:35 J -30257336.17 -30257336.10 -30257336.02 0.0142 0.0121
 Mercury -87553-03-03 13:54 J -30257247.93 -30257247.92 -30257247.90 0.0142 0.0141
 Earth -87552-02-24 05:44 J -30256890.32 -30256890.26 -30256890.15 0.0143 0.0133

Moon	-87552-02-24 06:27 J	-30256890.32	-30256890.23	-30256890.10	0.0143	0.0127	*
Moon	-87551-02-28 21:06 J	-30256520.72	-30256520.62	-30256520.48	0.0144	0.0126	
Earth	-87551-02-28 22:03 J	-30256520.70	-30256520.58	-30256520.44	0.0144	0.0121	*
Earth	-87550-03-05 15:20 J	-30256151.02	-30256150.86	-30256150.69	0.0144	0.0108	
Moon	-87550-03-05 15:20 J	-30256151.00	-30256150.86	-30256150.69	0.0144	0.0108	*
Earth	-87549-03-09 09:49 J	-30255781.26	-30255781.09	-30255780.89	0.0145	0.0095	
Moon	-87549-03-09 10:18 J	-30255781.26	-30255781.07	-30255780.86	0.0145	0.0091	*
Moon	-87548-03-14 05:15 J	-30255411.45	-30255411.28	-30255411.07	0.0145	0.0087	
Earth	-87548-03-14 05:44 J	-30255411.45	-30255411.26	-30255411.03	0.0145	0.0080	*
Earth	-87547-03-19 03:06 J	-30255041.58	-30255041.37	-30255041.14	0.0146	0.0065	
Moon	-87547-03-19 04:47 J	-30255041.53	-30255041.30	-30255041.05	0.0146	0.0057	*
Moon	-87546-03-24 00:13 J	-30254671.71	-30254671.49	-30254671.26	0.0146	0.0055	
Earth	-87546-03-24 01:39 J	-30254671.66	-30254671.43	-30254671.18	0.0146	0.0048	*
Earth	-87545-03-28 01:25 J	-30254301.68	-30254301.44	-30254301.19	0.0147	0.0031	
Moon	-87545-03-28 03:49 J	-30254301.58	-30254301.34	-30254301.08	0.0147	0.0031	*
Moon	-87544-04-01 23:30 J	-30253931.76	-30253931.52	-30253931.27	0.0147	0.0011	
Earth	-87544-04-02 02:23 J	-30253931.65	-30253931.40	-30253931.15	0.0147	0.0014	*
Earth	-87543-04-07 04:18 J	-30253561.57	-30253561.32	-30253561.07	0.0147	0.0004	
Moon	-87543-04-07 07:25 J	-30253561.45	-30253561.19	-30253560.93	0.0147	0.0002	*
Moon	-87542-04-12 03:35 J	-30253191.59	-30253191.35	-30253191.10	0.0148	0.0030	
Earth	-87542-04-12 07:25 J	-30253191.44	-30253191.19	-30253190.94	0.0148	0.0022	*
Earth	-87541-04-16 11:15 J	-30252821.27	-30252821.03	-30252820.78	0.0148	0.0040	
Moon	-87541-04-16 14:37 J	-30252821.13	-30252820.89	-30252820.63	0.0148	0.0034	*
Moon	-87540-04-21 12:42 J	-30252451.19	-30252450.97	-30252450.73	0.0148	0.0059	
Earth	-87540-04-21 16:03 J	-30252451.05	-30252450.83	-30252450.58	0.0148	0.0058	*
Earth	-87539-04-26 21:49 J	-30252080.80	-30252080.59	-30252080.36	0.0148	0.0075	
Moon	-87539-04-27 01:25 J	-30252080.65	-30252080.44	-30252080.22	0.0148	0.0077	*
Moon	-87538-05-02 01:54 J	-30251710.62	-30251710.42	-30251710.19	0.0148	0.0085	
Earth	-87538-05-02 04:32 J	-30251710.49	-30251710.31	-30251710.09	0.0148	0.0092	*
Earth	-87537-05-06 12:13 J	-30251340.16	-30251339.99	-30251339.81	0.0148	0.0108	

Moon	-87537-05-06 14:08 J	-30251340.04	-30251339.91	-30251339.74	0.0148	0.0117	*
Moon	-87536-05-11 18:27 J	-30250969.86	-30250969.73	-30250969.55	0.0148	0.0120	
Earth	-87536-05-11 19:54 J	-30250969.79	-30250969.67	-30250969.52	0.0148	0.0125	*
Earth	-87535-05-17 04:47 J	-30250599.38	-30250599.30	-30250599.21	0.0148	0.0139	
Moon	-87535-05-17 04:47 J	-30250599.36	-30250599.30	-30250599.20	0.0148	0.0140	*
Mars	-87533-05-28 01:54 J	-30249857.55	-30249857.42	-30249857.27	0.0147	0.0132	
Mars	-87531-05-05 05:59 J	-30249150.56	-30249150.25	-30249149.92	0.0146	0.0036	
Venus	-87518-03-18 09:35 J	-30244450.28	-30244450.10	-30244449.90	0.0139	0.0075	
Venus	-87518-10-30 20:23 J	-30244223.87	-30244223.65	-30244223.43	0.0139	0.0006	
Mercury	-87518-12-15 03:35 J	-30244178.44	-30244178.35	-30244178.25	0.0138	0.0117	
Mercury	-87517-03-12 09:49 J	-30244090.20	-30244090.09	-30244089.94	0.0138	0.0095	
Mercury	-87517-06-08 16:32 J	-30244001.95	-30244001.81	-30244001.65	0.0138	0.0072	
Venus	-87517-06-13 06:42 J	-30243997.41	-30243997.22	-30243997.02	0.0138	0.0062	
Mercury	-87517-09-04 23:01 J	-30243913.70	-30243913.54	-30243913.37	0.0138	0.0049	
Mercury	-87517-12-02 05:30 J	-30243825.44	-30243825.27	-30243825.10	0.0138	0.0027	
Venus	-87516-01-25 16:47 J	-30243770.88	-30243770.80	-30243770.72	0.0138	0.0128	
Mercury	-87516-02-28 11:44 J	-30243737.18	-30243737.01	-30243736.83	0.0138	0.0006	
Mercury	-87516-05-27 17:59 J	-30243648.92	-30243648.75	-30243648.57	0.0138	0.0016	
Mercury	-87516-08-24 00:13 J	-30243560.66	-30243560.49	-30243560.32	0.0137	0.0038	
Mercury	-87516-11-20 05:59 J	-30243472.39	-30243472.25	-30243472.08	0.0137	0.0060	
Mercury	-87515-02-16 12:27 J	-30243384.12	-30243383.98	-30243383.84	0.0137	0.0080	
Mercury	-87515-05-15 18:13 J	-30243295.85	-30243295.74	-30243295.62	0.0137	0.0100	
Mercury	-87515-08-11 23:59 J	-30243207.57	-30243207.50	-30243207.41	0.0137	0.0121	
Earth	-87513-09-01 10:03 J	-30242456.17	-30242456.08	-30242455.97	0.0136	0.0125	
Moon	-87513-09-01 13:39 J	-30242456.05	-30242455.93	-30242455.79	0.0136	0.0118	*
Moon	-87512-09-05 22:03 J	-30242086.69	-30242086.58	-30242086.45	0.0135	0.0119	
Earth	-87512-09-06 01:39 J	-30242086.55	-30242086.43	-30242086.27	0.0135	0.0113	*
Earth	-87511-09-10 16:32 J	-30241716.97	-30241716.81	-30241716.63	0.0135	0.0101	
Moon	-87511-09-10 19:54 J	-30241716.83	-30241716.67	-30241716.47	0.0135	0.0097	*
Moon	-87510-09-15 02:51 J	-30241347.57	-30241347.38	-30241347.17	0.0134	0.0088	

Earth	-87510-09-15 05:59 J	-30241347.43	-30241347.25	-30241347.03	0.0134	0.0089	*
Earth	-87509-09-18 18:42 J	-30240977.93	-30240977.72	-30240977.50	0.0134	0.0075	
Moon	-87509-09-18 22:03 J	-30240977.78	-30240977.58	-30240977.36	0.0134	0.0078	*
Moon	-87508-09-23 03:06 J	-30240608.60	-30240608.37	-30240608.12	0.0133	0.0057	
Earth	-87508-09-23 05:59 J	-30240608.46	-30240608.25	-30240608.00	0.0133	0.0063	*
Earth	-87507-09-27 16:32 J	-30240239.04	-30240238.81	-30240238.56	0.0133	0.0049	
Moon	-87507-09-27 19:54 J	-30240238.90	-30240238.67	-30240238.44	0.0133	0.0056	*
Moon	-87506-10-01 23:01 J	-30239869.78	-30239869.54	-30239869.27	0.0133	0.0030	
Earth	-87506-10-02 02:23 J	-30239869.65	-30239869.40	-30239869.15	0.0133	0.0036	*
Earth	-87505-10-05 11:01 J	-30239500.29	-30239500.04	-30239499.79	0.0132	0.0023	
Moon	-87505-10-05 13:25 J	-30239500.18	-30239499.94	-30239499.69	0.0132	0.0027	*
Moon	-87504-10-09 15:35 J	-30239131.10	-30239130.85	-30239130.58	0.0132	0.0007	
Earth	-87504-10-09 18:42 J	-30239130.97	-30239130.72	-30239130.46	0.0132	0.0010	*
Earth	-87503-10-14 01:39 J	-30238761.69	-30238761.43	-30238761.17	0.0132	0.0003	
Moon	-87503-10-14 04:03 J	-30238761.58	-30238761.33	-30238761.08	0.0132	0.0005	*
Moon	-87502-10-18 04:47 J	-30238392.56	-30238392.30	-30238392.03	0.0131	0.0013	
Earth	-87502-10-18 07:25 J	-30238392.44	-30238392.19	-30238391.93	0.0131	0.0017	*
Earth	-87501-10-21 12:27 J	-30238023.23	-30238022.98	-30238022.73	0.0131	0.0028	
Moon	-87501-10-21 15:06 J	-30238023.11	-30238022.87	-30238022.63	0.0131	0.0034	*
Moon	-87500-10-25 14:51 J	-30237654.14	-30237653.88	-30237653.63	0.0131	0.0034	
Earth	-87500-10-25 17:01 J	-30237654.03	-30237653.79	-30237653.54	0.0131	0.0041	*
Earth	-87499-10-29 20:37 J	-30237284.86	-30237284.64	-30237284.40	0.0131	0.0052	
Moon	-87499-10-29 23:15 J	-30237284.74	-30237284.53	-30237284.30	0.0131	0.0059	*
Moon	-87498-11-02 21:20 J	-30236915.83	-30236915.61	-30236915.36	0.0131	0.0059	
Earth	-87498-11-02 23:44 J	-30236915.72	-30236915.51	-30236915.28	0.0131	0.0064	*
Earth	-87497-11-06 02:23 J	-30236546.59	-30236546.40	-30236546.18	0.0131	0.0075	
Moon	-87497-11-06 05:15 J	-30236546.48	-30236546.28	-30236546.09	0.0131	0.0078	*
Moon	-87496-11-10 02:23 J	-30236177.59	-30236177.40	-30236177.20	0.0131	0.0084	
Earth	-87496-11-10 05:01 J	-30236177.47	-30236177.29	-30236177.09	0.0131	0.0086	*
Earth	-87495-11-14 06:42 J	-30235808.37	-30235808.22	-30235808.03	0.0131	0.0097	

Moon -87495-11-14 09:06 J -30235808.28 -30235808.12 -30235807.94 0.0131 0.0094 *
 Moon -87494-11-18 05:44 J -30235439.38 -30235439.26 -30235439.11 0.0131 0.0110
 Earth -87494-11-18 08:23 J -30235439.27 -30235439.15 -30235438.98 0.0131 0.0107 *
 Earth -87493-11-21 10:03 J -30235070.18 -30235070.08 -30235069.95 0.0131 0.0117
 Moon -87493-11-21 12:13 J -30235070.10 -30235069.99 -30235069.84 0.0131 0.0111 *
 Earth -87492-11-25 11:30 J -30234701.07 -30234701.02 -30234700.93 0.0131 0.0126
 Moon -87491-11-29 15:35 J -30234331.89 -30234331.85 -30234331.78 0.0132 0.0128
 Mars -87489-07-15 23:01 J -30233737.80 -30233737.54 -30233737.29 0.0132 0.0057
 Mars -87487-06-15 02:08 J -30233038.67 -30233038.41 -30233038.13 0.0133 0.0045
 Venus -87474-10-20 08:51 J -30228163.16 -30228163.13 -30228163.10 0.0139 0.0138
 Venus -87473-06-02 15:20 J -30227937.03 -30227936.86 -30227936.67 0.0140 0.0073
 Mercury -87473-08-09 08:37 J -30227869.18 -30227869.14 -30227869.11 0.0140 0.0134
 Mercury -87473-11-05 12:13 J -30227781.06 -30227780.99 -30227780.91 0.0140 0.0117
 Venus -87472-01-14 22:32 J -30227710.78 -30227710.56 -30227710.35 0.0140 0.0007
 Mercury -87472-02-01 16:03 J -30227692.92 -30227692.83 -30227692.73 0.0140 0.0100
 Mercury -87472-04-30 20:08 J -30227604.77 -30227604.66 -30227604.55 0.0140 0.0082
 Mercury -87472-07-27 23:59 J -30227516.62 -30227516.50 -30227516.37 0.0141 0.0064
 Venus -87472-08-29 05:30 J -30227484.46 -30227484.27 -30227484.08 0.0141 0.0061
 Mercury -87472-10-24 03:49 J -30227428.47 -30227428.34 -30227428.20 0.0141 0.0046
 Mercury -87471-01-20 07:54 J -30227340.31 -30227340.17 -30227340.03 0.0141 0.0027
 Venus -87471-04-12 12:42 J -30227258.04 -30227257.97 -30227257.87 0.0141 0.0129
 Mercury -87471-04-18 11:59 J -30227252.14 -30227252.00 -30227251.86 0.0141 0.0009
 Mercury -87471-07-15 16:03 J -30227163.97 -30227163.83 -30227163.69 0.0141 0.0010
 Mercury -87471-10-11 20:08 J -30227075.80 -30227075.66 -30227075.52 0.0141 0.0029
 Mercury -87470-01-08 00:13 J -30226987.62 -30226987.49 -30226987.35 0.0142 0.0048
 Mercury -87470-04-06 04:18 J -30226899.44 -30226899.32 -30226899.19 0.0142 0.0068
 Mercury -87470-07-03 08:37 J -30226811.25 -30226811.14 -30226811.03 0.0142 0.0087
 Mercury -87470-09-29 12:42 J -30226723.06 -30226722.97 -30226722.87 0.0142 0.0107
 Mercury -87470-12-26 17:15 J -30226634.85 -30226634.78 -30226634.72 0.0142 0.0127
 Moon -87469-02-21 01:25 J -30226578.52 -30226578.44 -30226578.32 0.0142 0.0131

Earth	-87469-02-21 03:20 J	-30226578.41	-30226578.36	-30226578.29	0.0142	0.0138	*
Earth	-87468-02-24 17:44 J	-30226208.85	-30226208.76	-30226208.63	0.0143	0.0127	
Moon	-87468-02-24 19:25 J	-30226208.75	-30226208.69	-30226208.59	0.0143	0.0135	*
Moon	-87467-03-01 08:37 J	-30225839.29	-30225839.14	-30225838.97	0.0143	0.0111	
Earth	-87467-03-01 09:35 J	-30225839.23	-30225839.10	-30225838.94	0.0143	0.0116	*
Earth	-87466-03-06 02:51 J	-30225469.53	-30225469.38	-30225469.19	0.0144	0.0103	
Moon	-87466-03-06 04:03 J	-30225469.50	-30225469.33	-30225469.17	0.0144	0.0103	*
Moon	-87465-03-09 21:20 J	-30225099.81	-30225099.61	-30225099.41	0.0145	0.0091	
Earth	-87465-03-09 21:49 J	-30225099.78	-30225099.59	-30225099.39	0.0145	0.0089	*
Moon	-87464-03-14 17:01 J	-30224729.99	-30224729.79	-30224729.57	0.0145	0.0068	
Earth	-87464-03-14 17:30 J	-30224729.97	-30224729.77	-30224729.55	0.0145	0.0074	*
Earth	-87463-03-19 14:37 J	-30224360.11	-30224359.89	-30224359.65	0.0146	0.0059	
Moon	-87463-03-19 15:20 J	-30224360.09	-30224359.86	-30224359.63	0.0146	0.0066	*
Moon	-87462-03-24 11:44 J	-30223990.24	-30223990.01	-30223989.78	0.0146	0.0037	
Earth	-87462-03-24 12:56 J	-30223990.19	-30223989.96	-30223989.71	0.0146	0.0043	*
Earth	-87461-03-28 12:42 J	-30223620.21	-30223619.97	-30223619.72	0.0147	0.0026	
Moon	-87461-03-28 14:37 J	-30223620.14	-30223619.89	-30223619.64	0.0147	0.0029	*
Moon	-87460-04-02 11:15 J	-30223250.27	-30223250.03	-30223249.79	0.0147	0.0011	
Earth	-87460-04-02 13:39 J	-30223250.18	-30223249.93	-30223249.68	0.0147	0.0009	*
Earth	-87459-04-07 15:20 J	-30222880.11	-30222879.86	-30222879.61	0.0147	0.0008	
Moon	-87459-04-07 18:27 J	-30222879.98	-30222879.73	-30222879.47	0.0147	0.0015	*
Moon	-87458-04-12 15:20 J	-30222510.10	-30222509.86	-30222509.61	0.0148	0.0018	
Earth	-87458-04-12 18:27 J	-30222509.98	-30222509.73	-30222509.48	0.0148	0.0026	*
Earth	-87457-04-16 22:03 J	-30222139.81	-30222139.58	-30222139.32	0.0148	0.0044	
Moon	-87457-04-17 02:08 J	-30222139.65	-30222139.41	-30222139.17	0.0148	0.0049	*
Moon	-87456-04-21 23:44 J	-30221769.74	-30221769.51	-30221769.28	0.0148	0.0057	
Earth	-87456-04-22 03:06 J	-30221769.59	-30221769.37	-30221769.13	0.0148	0.0061	*
Earth	-87455-04-27 09:06 J	-30221399.33	-30221399.12	-30221398.90	0.0148	0.0078	
Moon	-87455-04-27 12:42 J	-30221399.19	-30221398.97	-30221398.76	0.0148	0.0074	*
Moon	-87454-05-02 12:27 J	-30221029.16	-30221028.98	-30221028.78	0.0148	0.0101	

Earth -87454-05-02 15:49 J -30221029.02 -30221028.84 -30221028.63 0.0148 0.0095 *
 Earth -87453-05-06 23:15 J -30220658.68 -30220658.53 -30220658.34 0.0148 0.0111
 Moon -87453-05-07 01:54 J -30220658.59 -30220658.42 -30220658.23 0.0148 0.0104 *
 Moon -87452-05-12 05:59 J -30220288.37 -30220288.25 -30220288.13 0.0148 0.0131
 Earth -87452-05-12 07:39 J -30220288.30 -30220288.18 -30220288.03 0.0148 0.0126 *
 Earth -87451-05-17 16:03 J -30219917.88 -30219917.83 -30219917.73 0.0148 0.0141
 Moon -87451-05-17 17:30 J -30219917.83 -30219917.77 -30219917.68 0.0148 0.0140 *
 Mars -87448-01-22 23:01 J -30218936.83 -30218936.54 -30218936.23 0.0147 0.0065
 Mars -87447-12-30 22:03 J -30218229.81 -30218229.58 -30218229.33 0.0146 0.0100
 Venus -87435-11-15 18:56 J -30213891.84 -30213891.71 -30213891.55 0.0139 0.0105
 Venus -87434-06-30 05:59 J -30213665.46 -30213665.25 -30213665.03 0.0139 0.0035
 Mercury -87434-10-08 05:30 J -30213565.33 -30213565.27 -30213565.22 0.0139 0.0131
 Mercury -87433-01-04 11:44 J -30213477.11 -30213477.01 -30213476.89 0.0139 0.0109
 Venus -87433-02-11 16:18 J -30213439.03 -30213438.82 -30213438.60 0.0138 0.0034
 Mercury -87433-04-01 18:27 J -30213388.86 -30213388.73 -30213388.59 0.0138 0.0086
 Mercury -87433-06-29 00:56 J -30213300.61 -30213300.46 -30213300.30 0.0138 0.0063
 Venus -87433-09-25 02:08 J -30213212.54 -30213212.41 -30213212.24 0.0138 0.0101
 Mercury -87433-09-25 07:25 J -30213212.36 -30213212.19 -30213212.02 0.0138 0.0041 *
 Mercury -87433-12-22 13:39 J -30213124.10 -30213123.93 -30213123.75 0.0138 0.0019
 Mercury -87432-03-20 20:08 J -30213035.84 -30213035.66 -30213035.49 0.0138 0.0003
 Mercury -87432-06-17 02:23 J -30212947.57 -30212947.40 -30212947.23 0.0138 0.0025
 Mercury -87432-09-13 08:23 J -30212859.31 -30212859.15 -30212858.98 0.0138 0.0046
 Mercury -87432-12-10 14:23 J -30212771.04 -30212770.90 -30212770.74 0.0137 0.0067
 Mercury -87431-03-08 20:23 J -30212682.77 -30212682.65 -30212682.51 0.0137 0.0088
 Mercury -87431-06-05 02:23 J -30212594.49 -30212594.40 -30212594.29 0.0137 0.0109
 Mercury -87431-09-01 08:08 J -30212506.20 -30212506.16 -30212506.09 0.0137 0.0129
 Moon -87430-08-29 04:03 J -30212144.43 -30212144.33 -30212144.23 0.0136 0.0125
 Earth -87430-08-29 07:25 J -30212144.26 -30212144.19 -30212144.11 0.0136 0.0131 *
 Earth -87429-09-02 00:13 J -30211774.61 -30211774.49 -30211774.36 0.0136 0.0119
 Moon -87429-09-02 03:49 J -30211774.41 -30211774.34 -30211774.23 0.0136 0.0127 *

Moon	-87428-09-06 12:13 J	-30211405.14	-30211404.99	-30211404.79	0.0135	0.0102
Earth	-87428-09-06 16:03 J	-30211404.97	-30211404.83	-30211404.66	0.0135	0.0108 *
Earth	-87427-09-11 06:56 J	-30211035.38	-30211035.21	-30211035.02	0.0135	0.0095
Moon	-87427-09-11 10:32 J	-30211035.22	-30211035.06	-30211034.87	0.0135	0.0098 *
Moon	-87426-09-15 16:32 J	-30210666.00	-30210665.81	-30210665.58	0.0134	0.0082
Earth	-87426-09-15 20:37 J	-30210665.84	-30210665.64	-30210665.43	0.0134	0.0082 *
Earth	-87425-09-19 09:06 J	-30210296.33	-30210296.12	-30210295.89	0.0134	0.0070
Moon	-87425-09-19 12:27 J	-30210296.19	-30210295.98	-30210295.75	0.0134	0.0066 *
Moon	-87424-09-23 17:01 J	-30209927.01	-30209926.79	-30209926.54	0.0133	0.0063
Earth	-87424-09-23 20:51 J	-30209926.86	-30209926.63	-30209926.39	0.0133	0.0056 *
Earth	-87423-09-28 07:11 J	-30209557.43	-30209557.20	-30209556.94	0.0133	0.0044
Moon	-87423-09-28 10:47 J	-30209557.29	-30209557.05	-30209556.80	0.0133	0.0037 *
Jupiter	-87423-10-29 08:23 J	-30209526.64	-30209526.15	-30209525.63	0.0133	0.0022
Moon	-87422-10-02 14:08 J	-30209188.16	-30209187.91	-30209187.66	0.0133	0.0037
Earth	-87422-10-02 17:01 J	-30209188.03	-30209187.79	-30209187.53	0.0133	0.0031 *
Earth	-87421-10-06 01:39 J	-30208818.68	-30208818.43	-30208818.17	0.0132	0.0018
Moon	-87421-10-06 05:01 J	-30208818.54	-30208818.29	-30208818.04	0.0132	0.0012 *
Moon	-87420-10-10 06:42 J	-30208449.48	-30208449.22	-30208448.96	0.0132	0.0007
Earth	-87420-10-10 09:35 J	-30208449.36	-30208449.10	-30208448.84	0.0132	0.0005 *
Earth	-87419-10-14 16:18 J	-30208080.08	-30208079.82	-30208079.57	0.0132	0.0008
Moon	-87419-10-14 19:11 J	-30208079.94	-30208079.70	-30208079.44	0.0132	0.0008 *
Moon	-87418-10-18 18:56 J	-30207710.97	-30207710.71	-30207710.45	0.0131	0.0023
Earth	-87418-10-18 21:49 J	-30207710.84	-30207710.59	-30207710.33	0.0131	0.0021 *
Earth	-87417-10-22 02:51 J	-30207341.62	-30207341.38	-30207341.13	0.0131	0.0032
Moon	-87417-10-22 05:30 J	-30207341.51	-30207341.27	-30207341.02	0.0131	0.0027 *
Moon	-87416-10-26 04:18 J	-30206972.56	-30206972.32	-30206972.08	0.0131	0.0051
Earth	-87416-10-26 07:11 J	-30206972.43	-30206972.20	-30206971.95	0.0131	0.0045 *
Earth	-87415-10-30 11:01 J	-30206603.26	-30206603.04	-30206602.80	0.0131	0.0056
Moon	-87415-10-30 13:25 J	-30206603.16	-30206602.94	-30206602.70	0.0131	0.0050 *
Moon	-87414-11-03 11:15 J	-30206234.23	-30206234.03	-30206233.80	0.0131	0.0073

Earth	-87414-11-03 14:08 J	-30206234.11	-30206233.91	-30206233.67	0.0131	0.0067	*
Earth	-87413-11-06 17:01 J	-30205864.98	-30205864.79	-30205864.58	0.0131	0.0078	
Moon	-87413-11-06 20:08 J	-30205864.87	-30205864.66	-30205864.46	0.0131	0.0074	*
Moon	-87412-11-10 16:32 J	-30205495.98	-30205495.81	-30205495.60	0.0131	0.0089	
Earth	-87412-11-10 19:11 J	-30205495.86	-30205495.70	-30205495.49	0.0131	0.0089	*
Earth	-87411-11-14 21:20 J	-30205126.75	-30205126.61	-30205126.43	0.0131	0.0099	
Moon	-87411-11-15 00:27 J	-30205126.62	-30205126.48	-30205126.31	0.0131	0.0100	*
Moon	-87410-11-18 20:23 J	-30204757.79	-30204757.65	-30204757.48	0.0131	0.0104	
Earth	-87410-11-18 23:30 J	-30204757.66	-30204757.52	-30204757.38	0.0131	0.0108	*
Earth	-87409-11-22 00:56 J	-30204388.56	-30204388.46	-30204388.34	0.0131	0.0118	
Moon	-87409-11-22 03:35 J	-30204388.40	-30204388.35	-30204388.25	0.0131	0.0125	*
Moon	-87408-11-25 23:30 J	-30204019.62	-30204019.52	-30204019.41	0.0131	0.0120	
Earth	-87408-11-26 02:23 J	-30204019.45	-30204019.40	-30204019.32	0.0131	0.0126	*
Mars	-87406-04-11 09:35 J	-30203518.23	-30203518.10	-30203517.95	0.0132	0.0114	
Mars	-87404-03-10 07:54 J	-30202819.46	-30202819.17	-30202818.88	0.0132	0.0015	
Mars	-87402-02-07 13:39 J	-30202120.13	-30202119.93	-30202119.69	0.0133	0.0088	
Venus	-87389-02-01 02:08 J	-30197378.54	-30197378.41	-30197378.25	0.0140	0.0102	
Mercury	-87389-08-29 16:03 J	-30197167.87	-30197167.83	-30197167.77	0.0140	0.0129	
Venus	-87389-09-14 09:06 J	-30197152.32	-30197152.12	-30197151.91	0.0140	0.0036	
Mercury	-87389-11-25 19:54 J	-30197079.74	-30197079.67	-30197079.58	0.0140	0.0111	
Mercury	-87388-02-21 23:59 J	-30196991.60	-30196991.50	-30196991.40	0.0140	0.0094	
Venus	-87388-04-28 16:03 J	-30196926.03	-30196925.83	-30196925.62	0.0140	0.0031	
Mercury	-87388-05-21 03:49 J	-30196903.46	-30196903.34	-30196903.22	0.0140	0.0076	
Mercury	-87388-08-17 07:39 J	-30196815.30	-30196815.18	-30196815.05	0.0141	0.0058	
Mercury	-87388-11-13 11:44 J	-30196727.15	-30196727.01	-30196726.88	0.0141	0.0040	
Venus	-87388-12-10 23:15 J	-30196699.67	-30196699.53	-30196699.37	0.0141	0.0099	
Mercury	-87387-02-09 15:35 J	-30196638.99	-30196638.85	-30196638.71	0.0141	0.0021	
Mercury	-87387-05-08 19:39 J	-30196550.82	-30196550.68	-30196550.54	0.0141	0.0003	
Mercury	-87387-08-04 23:44 J	-30196462.65	-30196462.51	-30196462.37	0.0141	0.0016	
Mercury	-87387-11-01 03:49 J	-30196374.48	-30196374.34	-30196374.20	0.0141	0.0035	

Mercury -87386-01-28 07:54 J -30196286.30 -30196286.17 -30196286.03 0.0142 0.0055

Earth -87386-02-17 03:06 J -30196266.37 -30196266.37 -30196266.35 0.0142 0.0141

Moon -87386-02-17 05:15 J -30196266.33 -30196266.28 -30196266.20 0.0142 0.0136

Mercury -87386-04-26 11:59 J -30196198.11 -30196198.00 -30196197.87 0.0142 0.0074

Mercury -87386-07-23 16:03 J -30196109.92 -30196109.83 -30196109.71 0.0142 0.0094

Mercury -87386-10-19 20:37 J -30196021.72 -30196021.64 -30196021.55 0.0142 0.0113

Mercury -87385-01-16 00:42 J -30195933.51 -30195933.47 -30195933.41 0.0142 0.0133

Moon -87385-02-21 13:54 J -30195896.96 -30195896.92 -30195896.86 0.0142 0.0139

Earth -87385-02-21 16:32 J -30195896.89 -30195896.81 -30195896.71 0.0142 0.0132 *

Earth -87384-02-25 06:56 J -30195527.32 -30195527.21 -30195527.06 0.0143 0.0121

Moon -87384-02-25 08:51 J -30195527.26 -30195527.13 -30195526.98 0.0143 0.0115 *

Moon -87383-03-01 21:20 J -30195157.75 -30195157.61 -30195157.45 0.0143 0.0114

Earth -87383-03-01 22:47 J -30195157.69 -30195157.55 -30195157.37 0.0143 0.0110 *

Earth -87382-03-06 16:32 J -30194787.99 -30194787.81 -30194787.63 0.0144 0.0096

Moon -87382-03-06 17:44 J -30194787.93 -30194787.76 -30194787.57 0.0144 0.0095 *

Moon -87381-03-10 10:18 J -30194418.28 -30194418.07 -30194417.85 0.0145 0.0079

Earth -87381-03-10 11:01 J -30194418.24 -30194418.04 -30194417.83 0.0145 0.0083 *

Earth -87380-03-15 06:42 J -30194048.43 -30194048.22 -30194047.99 0.0145 0.0068

Moon -87380-03-15 07:25 J -30194048.38 -30194048.19 -30194047.97 0.0145 0.0074 *

Earth -87379-03-20 03:49 J -30193678.57 -30193678.34 -30193678.10 0.0146 0.0053

Moon -87379-03-20 04:18 J -30193678.56 -30193678.32 -30193678.07 0.0146 0.0046 *

Moon -87378-03-25 01:25 J -30193308.66 -30193308.44 -30193308.20 0.0146 0.0044

Earth -87378-03-25 02:08 J -30193308.65 -30193308.41 -30193308.16 0.0146 0.0037 *

Earth -87377-03-29 01:39 J -30192938.67 -30192938.43 -30192938.18 0.0147 0.0021

Moon -87377-03-29 03:06 J -30192938.63 -30192938.37 -30192938.11 0.0147 0.0019 *

Moon -87376-04-03 00:13 J -30192568.73 -30192568.49 -30192568.24 0.0147 0.0002

Earth -87376-04-03 02:23 J -30192568.65 -30192568.40 -30192568.15 0.0147 0.0004 *

Earth -87375-04-08 04:03 J -30192198.58 -30192198.33 -30192198.08 0.0147 0.0013

Moon -87375-04-08 06:27 J -30192198.49 -30192198.23 -30192197.97 0.0147 0.0008 *

Moon -87374-04-13 03:35 J -30191828.58 -30191828.35 -30191828.10 0.0148 0.0039

Earth -87374-04-13 06:56 J -30191828.45 -30191828.21 -30191827.96 0.0148 0.0030 *
 Earth -87373-04-17 10:47 J -30191458.28 -30191458.05 -30191457.80 0.0148 0.0048
 Moon -87373-04-17 13:54 J -30191458.15 -30191457.92 -30191457.66 0.0148 0.0041 *
 Moon -87372-04-22 12:27 J -30191088.21 -30191087.98 -30191087.75 0.0148 0.0066
 Earth -87372-04-22 15:35 J -30191088.06 -30191087.85 -30191087.60 0.0148 0.0065 *
 Earth -87371-04-27 21:49 J -30190717.80 -30190717.59 -30190717.38 0.0148 0.0081
 Moon -87371-04-28 01:11 J -30190717.64 -30190717.45 -30190717.22 0.0148 0.0084 *
 Moon -87370-05-03 01:25 J -30190347.63 -30190347.44 -30190347.23 0.0148 0.0091
 Earth -87370-05-03 04:32 J -30190347.48 -30190347.31 -30190347.10 0.0148 0.0098 *
 Earth -87369-05-07 12:13 J -30189977.14 -30189976.99 -30189976.81 0.0148 0.0113
 Moon -87369-05-07 15:35 J -30189976.99 -30189976.85 -30189976.71 0.0148 0.0121 *
 Moon -87368-05-12 17:44 J -30189606.89 -30189606.76 -30189606.59 0.0148 0.0122
 Earth -87368-05-12 20:23 J -30189606.76 -30189606.65 -30189606.51 0.0148 0.0128 *
 Earth -87367-05-18 05:01 J -30189236.34 -30189236.29 -30189236.20 0.0148 0.0142
 Moon -87367-05-18 06:42 J -30189236.27 -30189236.22 -30189236.14 0.0148 0.0142 *
 Mars -87364-09-19 20:23 J -30188015.98 -30188015.65 -30188015.32 0.0147 0.0002
 Venus -87351-07-16 04:18 J -30183333.37 -30183333.32 -30183333.25 0.0140 0.0134
 Venus -87350-02-27 15:20 J -30183107.05 -30183106.86 -30183106.66 0.0139 0.0064
 Venus -87350-10-12 01:54 J -30182880.64 -30182880.42 -30182880.19 0.0139 0.0006
 Mercury -87350-10-28 13:25 J -30182864.01 -30182863.94 -30182863.84 0.0139 0.0123
 Mercury -87349-01-24 20:23 J -30182775.77 -30182775.65 -30182775.53 0.0139 0.0100
 Mercury -87349-04-22 02:37 J -30182687.52 -30182687.39 -30182687.23 0.0138 0.0078
 Venus -87349-05-25 12:13 J -30182654.17 -30182653.99 -30182653.79 0.0138 0.0073
 Mercury -87349-07-19 09:20 J -30182599.27 -30182599.11 -30182598.95 0.0138 0.0055
 Mercury -87349-10-15 15:49 J -30182511.01 -30182510.84 -30182510.67 0.0138 0.0033
 Mercury -87348-01-11 22:03 J -30182422.75 -30182422.58 -30182422.40 0.0138 0.0011
 Mercury -87348-04-10 04:18 J -30182334.49 -30182334.32 -30182334.14 0.0138 0.0012
 Mercury -87348-07-07 10:32 J -30182246.23 -30182246.06 -30182245.89 0.0138 0.0033
 Mercury -87348-10-03 16:47 J -30182157.96 -30182157.80 -30182157.64 0.0138 0.0054
 Mercury -87348-12-30 22:32 J -30182069.69 -30182069.56 -30182069.40 0.0137 0.0076

Mercury -87347-03-29 04:32 J -30181981.42 -30181981.31 -30181981.17 0.0137 0.0096

Mercury -87347-06-25 10:47 J -30181893.14 -30181893.05 -30181892.96 0.0137 0.0116

Earth -87347-08-25 02:51 J -30181832.39 -30181832.38 -30181832.34 0.0137 0.0136

Moon -87347-08-25 05:59 J -30181832.30 -30181832.25 -30181832.16 0.0137 0.0132

Mercury -87347-09-21 16:47 J -30181804.81 -30181804.80 -30181804.79 0.0137 0.0136

Moon -87346-08-29 17:30 J -30181462.82 -30181462.77 -30181462.68 0.0136 0.0132

Earth -87346-08-29 21:20 J -30181462.71 -30181462.61 -30181462.50 0.0136 0.0125 *

Earth -87345-09-02 14:37 J -30181093.04 -30181092.89 -30181092.75 0.0136 0.0113

Moon -87345-09-02 17:44 J -30181092.91 -30181092.76 -30181092.59 0.0136 0.0106 *

Moon -87344-09-07 02:37 J -30180723.53 -30180723.39 -30180723.22 0.0135 0.0108

Earth -87344-09-07 06:13 J -30180723.39 -30180723.24 -30180723.05 0.0135 0.0102 *

Earth -87343-09-11 21:06 J -30180353.80 -30180353.62 -30180353.41 0.0135 0.0089

Moon -87343-09-12 00:42 J -30180353.65 -30180353.47 -30180353.25 0.0135 0.0085 *

Moon -87342-09-16 07:25 J -30179984.39 -30179984.19 -30179983.96 0.0134 0.0076

Earth -87342-09-16 11:01 J -30179984.24 -30179984.04 -30179983.81 0.0134 0.0077 *

Earth -87341-09-19 23:30 J -30179614.73 -30179614.52 -30179614.28 0.0134 0.0064

Moon -87341-09-20 03:20 J -30179614.57 -30179614.36 -30179614.12 0.0134 0.0067 *

Moon -87340-09-24 08:08 J -30179245.40 -30179245.16 -30179244.91 0.0133 0.0045

Earth -87340-09-24 11:44 J -30179245.25 -30179245.01 -30179244.77 0.0133 0.0051 *

Earth -87339-09-28 22:03 J -30178875.82 -30178875.58 -30178875.32 0.0133 0.0038

Moon -87339-09-29 01:39 J -30178875.66 -30178875.43 -30178875.18 0.0133 0.0045 *

Moon -87338-10-03 04:03 J -30178506.58 -30178506.33 -30178506.06 0.0133 0.0019

Earth -87338-10-03 07:39 J -30178506.43 -30178506.18 -30178505.92 0.0133 0.0025 *

Earth -87337-10-06 16:18 J -30178137.07 -30178136.82 -30178136.56 0.0132 0.0012

Moon -87337-10-06 19:25 J -30178136.94 -30178136.69 -30178136.43 0.0132 0.0017 *

Moon -87336-10-10 20:37 J -30177767.90 -30177767.64 -30177767.38 0.0132 0.0004

Earth -87336-10-11 00:13 J -30177767.75 -30177767.49 -30177767.24 0.0132 0.0001 *

Earth -87335-10-15 06:42 J -30177398.48 -30177398.22 -30177397.96 0.0132 0.0013

Moon -87335-10-15 09:49 J -30177398.34 -30177398.09 -30177397.84 0.0132 0.0013 *

Moon -87334-10-19 09:20 J -30177029.37 -30177029.11 -30177028.85 0.0131 0.0021

Earth	-87334-10-19 12:27 J	-30177029.22	-30177028.98	-30177028.72	0.0131	0.0025	*
Earth	-87333-10-22 17:30 J	-30176660.01	-30176659.77	-30176659.52	0.0131	0.0036	
Moon	-87333-10-22 20:51 J	-30176659.86	-30176659.63	-30176659.39	0.0131	0.0042	*
Moon	-87332-10-26 18:56 J	-30176290.94	-30176290.71	-30176290.45	0.0131	0.0042	
Earth	-87332-10-26 22:03 J	-30176290.81	-30176290.58	-30176290.33	0.0131	0.0048	*
Earth	-87331-10-31 01:54 J	-30175921.64	-30175921.42	-30175921.19	0.0131	0.0059	
Moon	-87331-10-31 05:15 J	-30175921.49	-30175921.28	-30175921.06	0.0131	0.0066	*
Moon	-87330-11-04 02:23 J	-30175552.63	-30175552.40	-30175552.18	0.0131	0.0064	
Earth	-87330-11-04 05:15 J	-30175552.49	-30175552.28	-30175552.06	0.0131	0.0070	*
Earth	-87329-11-07 07:54 J	-30175183.36	-30175183.17	-30175182.96	0.0131	0.0081	
Moon	-87329-11-07 11:01 J	-30175183.22	-30175183.04	-30175182.84	0.0131	0.0084	*
Moon	-87328-11-11 07:11 J	-30174814.38	-30174814.20	-30174814.00	0.0131	0.0089	
Earth	-87328-11-11 10:32 J	-30174814.23	-30174814.06	-30174813.87	0.0131	0.0091	*
Earth	-87327-11-15 12:27 J	-30174445.13	-30174444.98	-30174444.81	0.0131	0.0101	
Moon	-87327-11-15 15:06 J	-30174445.01	-30174444.87	-30174444.68	0.0131	0.0099	*
Moon	-87326-11-19 11:01 J	-30174076.15	-30174076.04	-30174075.90	0.0131	0.0114	
Earth	-87326-11-19 14:23 J	-30174076.02	-30174075.90	-30174075.75	0.0131	0.0110	*
Earth	-87325-11-22 15:49 J	-30173706.92	-30173706.84	-30173706.72	0.0131	0.0120	
Moon	-87325-11-22 19:25 J	-30173706.81	-30173706.69	-30173706.57	0.0131	0.0114	*
Earth	-87324-11-26 17:15 J	-30173337.82	-30173337.78	-30173337.71	0.0131	0.0128	
Moon	-87323-11-30 21:35 J	-30172968.63	-30172968.60	-30172968.53	0.0131	0.0129	
Mars	-87322-12-04 18:27 J	-30172599.96	-30172599.73	-30172599.48	0.0132	0.0072	
Mars	-87320-11-02 19:11 J	-30171900.98	-30171900.70	-30171900.41	0.0132	0.0028	
Mars	-87318-10-03 02:23 J	-30171201.43	-30171201.40	-30171201.33	0.0133	0.0131	
Venus	-87306-10-01 13:25 J	-30166820.01	-30166819.94	-30166819.86	0.0139	0.0130	
Venus	-87305-05-14 19:54 J	-30166593.85	-30166593.67	-30166593.48	0.0140	0.0065	
Mercury	-87305-09-18 23:44 J	-30166466.56	-30166466.51	-30166466.44	0.0140	0.0123	
Mercury	-87305-12-16 03:49 J	-30166378.43	-30166378.34	-30166378.25	0.0140	0.0105	
Venus	-87305-12-27 02:51 J	-30166367.59	-30166367.38	-30166367.17	0.0140	0.0002	
Mercury	-87304-03-14 07:39 J	-30166290.29	-30166290.18	-30166290.07	0.0140	0.0088	

Mercury -87304-06-10 11:30 J -30166202.14 -30166202.02 -30166201.90 0.0140 0.0070
 Venus -87304-08-10 09:49 J -30166141.27 -30166141.09 -30166140.90 0.0140 0.0069
 Mercury -87304-09-06 15:20 J -30166113.99 -30166113.86 -30166113.73 0.0141 0.0052
 Mercury -87304-12-03 19:25 J -30166025.83 -30166025.69 -30166025.55 0.0141 0.0034
 Mercury -87303-03-01 23:15 J -30165937.67 -30165937.53 -30165937.38 0.0141 0.0016
 Venus -87303-03-24 16:47 J -30165914.83 -30165914.80 -30165914.73 0.0141 0.0137
 Mercury -87303-05-29 03:20 J -30165849.50 -30165849.36 -30165849.22 0.0141 0.0004
 Mercury -87303-08-25 07:25 J -30165761.33 -30165761.19 -30165761.05 0.0141 0.0022
 Mercury -87303-11-21 11:30 J -30165673.15 -30165673.02 -30165672.88 0.0141 0.0041
 Mercury -87302-02-17 15:35 J -30165584.97 -30165584.85 -30165584.72 0.0141 0.0061
 Earth -87302-02-17 16:03 J -30165584.89 -30165584.83 -30165584.76 0.0141 0.0136 *
 Moon -87302-02-17 19:11 J -30165584.70 -30165584.70 -30165584.69 0.0141 0.0141
 Mercury -87302-05-16 19:54 J -30165496.79 -30165496.67 -30165496.55 0.0142 0.0080
 Mercury -87302-08-12 23:44 J -30165408.60 -30165408.51 -30165408.40 0.0142 0.0100
 Mercury -87302-11-09 04:18 J -30165320.39 -30165320.32 -30165320.24 0.0142 0.0119
 Mercury -87301-02-05 08:23 J -30165232.17 -30165232.15 -30165232.11 0.0142 0.0139
 Moon -87301-02-22 02:37 J -30165215.51 -30165215.39 -30165215.24 0.0142 0.0119
 Earth -87301-02-22 05:15 J -30165215.38 -30165215.28 -30165215.16 0.0142 0.0126 *
 Earth -87300-02-25 19:39 J -30164845.81 -30164845.68 -30164845.52 0.0143 0.0116
 Moon -87300-02-25 22:32 J -30164845.68 -30164845.56 -30164845.44 0.0143 0.0123 *
 Moon -87299-03-02 09:06 J -30164476.28 -30164476.12 -30164475.92 0.0143 0.0099
 Earth -87299-03-02 11:44 J -30164476.17 -30164476.01 -30164475.83 0.0143 0.0104 *
 Earth -87298-03-07 04:47 J -30164106.48 -30164106.30 -30164106.10 0.0144 0.0091
 Moon -87298-03-07 06:27 J -30164106.40 -30164106.23 -30164106.04 0.0144 0.0092 *
 Moon -87297-03-10 21:20 J -30163736.81 -30163736.61 -30163736.39 0.0144 0.0079
 Earth -87297-03-10 23:01 J -30163736.73 -30163736.54 -30163736.31 0.0144 0.0078 *
 Earth -87296-03-15 18:42 J -30163366.94 -30163366.72 -30163366.49 0.0145 0.0063
 Moon -87296-03-15 19:25 J -30163366.90 -30163366.69 -30163366.46 0.0145 0.0057 *
 Moon -87295-03-20 14:37 J -30162997.11 -30162996.89 -30162996.64 0.0146 0.0056
 Earth -87295-03-20 15:35 J -30162997.08 -30162996.85 -30162996.61 0.0146 0.0048 *

Moon	-87294-03-25 13:39 J	-30162627.17	-30162626.93	-30162626.70	0.0146	0.0027
Earth	-87294-03-25 13:39 J	-30162627.17	-30162626.93	-30162626.68	0.0146	0.0032 *
Earth	-87293-03-29 12:56 J	-30162257.21	-30162256.96	-30162256.71	0.0146	0.0016
Moon	-87293-03-29 13:39 J	-30162257.18	-30162256.93	-30162256.67	0.0146	0.0019 *
Moon	-87292-04-03 12:27 J	-30161887.22	-30161886.98	-30161886.74	0.0147	0.0002
Earth	-87292-04-03 13:25 J	-30161887.19	-30161886.94	-30161886.68	0.0147	0.0003 *
Earth	-87291-04-08 15:06 J	-30161517.12	-30161516.87	-30161516.62	0.0147	0.0017
Moon	-87291-04-08 17:30 J	-30161517.03	-30161516.77	-30161516.52	0.0147	0.0023 *
Moon	-87290-04-13 15:49 J	-30161147.08	-30161146.84	-30161146.60	0.0147	0.0026
Earth	-87290-04-13 17:44 J	-30161146.99	-30161146.76	-30161146.50	0.0147	0.0035 *
Earth	-87289-04-17 21:49 J	-30160776.82	-30160776.59	-30160776.35	0.0148	0.0051
Moon	-87289-04-18 00:56 J	-30160776.69	-30160776.46	-30160776.21	0.0148	0.0057 *
Moon	-87288-04-22 23:15 J	-30160406.75	-30160406.53	-30160406.29	0.0148	0.0064
Earth	-87288-04-23 02:37 J	-30160406.60	-30160406.39	-30160406.15	0.0148	0.0068 *
Earth	-87287-04-28 08:37 J	-30160036.34	-30160036.14	-30160035.92	0.0148	0.0084
Moon	-87287-04-28 12:13 J	-30160036.19	-30160035.99	-30160035.77	0.0148	0.0081 *
Moon	-87286-05-03 11:59 J	-30159666.17	-30159666.00	-30159665.82	0.0148	0.0106
Earth	-87286-05-03 15:35 J	-30159666.02	-30159665.85	-30159665.65	0.0148	0.0100 *
Earth	-87285-05-07 23:01 J	-30159295.69	-30159295.54	-30159295.37	0.0148	0.0115
Moon	-87285-05-08 02:08 J	-30159295.56	-30159295.41	-30159295.22	0.0148	0.0108 *
Moon	-87284-05-13 04:18 J	-30158925.40	-30158925.32	-30158925.19	0.0148	0.0135
Earth	-87284-05-13 07:25 J	-30158925.30	-30158925.19	-30158925.06	0.0148	0.0129 *
Earth	-87283-05-18 15:49 J	-30158554.88	-30158554.84	-30158554.75	0.0148	0.0143
Moon	-87283-05-18 18:27 J	-30158554.79	-30158554.73	-30158554.65	0.0148	0.0141 *
Mars	-87281-06-09 03:49 J	-30157802.55	-30157802.34	-30157802.07	0.0147	0.0101
Mars	-87279-05-17 10:03 J	-30157095.36	-30157095.08	-30157094.77	0.0147	0.0065
Venus	-87267-10-27 23:44 J	-30152548.67	-30152548.51	-30152548.35	0.0139	0.0095
Venus	-87266-06-11 10:47 J	-30152322.27	-30152322.05	-30152321.83	0.0139	0.0026
Mercury	-87266-08-21 15:06 J	-30152250.88	-30152250.87	-30152250.86	0.0139	0.0138
Mercury	-87266-11-17 21:49 J	-30152162.69	-30152162.59	-30152162.49	0.0139	0.0115

Venus -87265-01-23 21:06 J -30152095.83 -30152095.62 -30152095.40 0.0139 0.0043
 Mercury -87265-02-14 04:03 J -30152074.45 -30152074.33 -30152074.19 0.0139 0.0093
 Mercury -87265-05-12 10:47 J -30151986.20 -30151986.05 -30151985.89 0.0139 0.0070
 Mercury -87265-08-08 17:15 J -30151897.94 -30151897.78 -30151897.61 0.0138 0.0047
 Venus -87265-09-06 07:11 J -30151869.32 -30151869.20 -30151869.06 0.0138 0.0111
 Mercury -87265-11-04 23:44 J -30151809.68 -30151809.51 -30151809.34 0.0138 0.0025
 Mercury -87264-02-01 05:59 J -30151721.42 -30151721.25 -30151721.07 0.0138 0.0004
 Mercury -87264-04-30 12:13 J -30151633.16 -30151632.99 -30151632.81 0.0138 0.0019
 Mercury -87264-07-27 18:27 J -30151544.89 -30151544.73 -30151544.56 0.0138 0.0040
 Mercury -87264-10-24 00:27 J -30151456.62 -30151456.48 -30151456.31 0.0138 0.0062
 Mercury -87263-01-20 06:42 J -30151368.35 -30151368.22 -30151368.08 0.0137 0.0082
 Mercury -87263-04-18 12:42 J -30151280.08 -30151279.97 -30151279.85 0.0137 0.0103
 Mercury -87263-07-15 18:42 J -30151191.79 -30151191.72 -30151191.64 0.0137 0.0124
 Earth -87263-08-25 16:03 J -30151150.90 -30151150.83 -30151150.75 0.0137 0.0130
 Moon -87263-08-25 18:56 J -30151150.76 -30151150.71 -30151150.64 0.0137 0.0133 *
 Moon -87262-08-30 07:11 J -30150781.31 -30150781.20 -30150781.03 0.0137 0.0115
 Earth -87262-08-30 10:18 J -30150781.18 -30150781.07 -30150780.93 0.0137 0.0120 *
 Earth -87261-09-03 03:20 J -30150411.49 -30150411.36 -30150411.18 0.0136 0.0108
 Moon -87261-09-03 07:11 J -30150411.32 -30150411.20 -30150411.05 0.0136 0.0115 *
 Moon -87260-09-07 16:32 J -30150041.99 -30150041.81 -30150041.60 0.0135 0.0089
 Earth -87260-09-07 20:08 J -30150041.84 -30150041.66 -30150041.47 0.0135 0.0096 *
 Earth -87259-09-12 11:15 J -30149672.23 -30149672.03 -30149671.82 0.0135 0.0083
 Moon -87259-09-12 14:51 J -30149672.08 -30149671.88 -30149671.67 0.0135 0.0086 *
 Moon -87258-09-16 21:20 J -30149302.83 -30149302.61 -30149302.39 0.0134 0.0070
 Earth -87258-09-17 00:42 J -30149302.67 -30149302.47 -30149302.23 0.0134 0.0072 *
 Earth -87257-09-20 13:54 J -30148933.15 -30148932.92 -30148932.68 0.0134 0.0058
 Moon -87257-09-20 17:30 J -30148933.00 -30148932.77 -30148932.53 0.0134 0.0055 *
 Moon -87256-09-24 22:03 J -30148563.82 -30148563.58 -30148563.34 0.0133 0.0052
 Earth -87256-09-25 01:54 J -30148563.66 -30148563.42 -30148563.17 0.0133 0.0045 *
 Earth -87255-09-29 12:27 J -30148194.23 -30148193.98 -30148193.73 0.0133 0.0033

Moon -87255-09-29 16:03 J -30148194.08 -30148193.83 -30148193.57 0.0133 0.0026 *
 Moon -87254-10-03 18:42 J -30147824.97 -30147824.72 -30147824.46 0.0133 0.0027
 Earth -87254-10-03 22:18 J -30147824.83 -30147824.57 -30147824.32 0.0133 0.0020 *
 Earth -87253-10-07 06:42 J -30147455.47 -30147455.22 -30147454.96 0.0132 0.0008
 Moon -87253-10-07 10:32 J -30147455.32 -30147455.06 -30147454.80 0.0132 0.0002 *
 Moon -87252-10-11 11:01 J -30147086.29 -30147086.04 -30147085.77 0.0132 0.0003
 Earth -87252-10-11 14:37 J -30147086.15 -30147085.89 -30147085.64 0.0132 0.0005 *
 Earth -87251-10-15 21:06 J -30146716.87 -30146716.62 -30146716.36 0.0132 0.0017
 Moon -87251-10-16 00:42 J -30146716.72 -30146716.47 -30146716.21 0.0132 0.0016 *
 Moon -87250-10-19 23:30 J -30146347.77 -30146347.52 -30146347.26 0.0132 0.0031
 Earth -87250-10-20 02:51 J -30146347.62 -30146347.38 -30146347.12 0.0132 0.0029 *
 Earth -87249-10-23 08:08 J -30145978.39 -30145978.16 -30145977.91 0.0131 0.0040
 Moon -87249-10-23 11:30 J -30145978.26 -30145978.02 -30145977.77 0.0131 0.0034 *
 Moon -87248-10-27 09:06 J -30145609.34 -30145609.12 -30145608.88 0.0131 0.0058
 Earth -87248-10-27 12:42 J -30145609.19 -30145608.97 -30145608.72 0.0131 0.0052 *
 Earth -87247-10-31 16:47 J -30145240.02 -30145239.80 -30145239.57 0.0131 0.0062
 Moon -87247-10-31 19:39 J -30145239.89 -30145239.68 -30145239.44 0.0131 0.0056 *
 Moon -87246-11-04 16:32 J -30144871.00 -30144870.81 -30144870.59 0.0131 0.0079
 Earth -87246-11-04 19:54 J -30144870.86 -30144870.67 -30144870.44 0.0131 0.0073 *
 Earth -87245-11-07 23:15 J -30144501.72 -30144501.53 -30144501.33 0.0131 0.0083
 Moon -87245-11-08 02:37 J -30144501.59 -30144501.39 -30144501.19 0.0131 0.0079 *
 Moon -87244-11-11 22:18 J -30144132.73 -30144132.57 -30144132.38 0.0131 0.0094
 Earth -87244-11-12 01:39 J -30144132.59 -30144132.43 -30144132.24 0.0131 0.0093 *
 Earth -87243-11-16 03:35 J -30143763.48 -30143763.35 -30143763.17 0.0131 0.0103
 Moon -87243-11-16 07:25 J -30143763.33 -30143763.19 -30143763.03 0.0131 0.0104 *
 Moon -87242-11-20 02:08 J -30143394.53 -30143394.41 -30143394.24 0.0131 0.0108
 Earth -87242-11-20 05:30 J -30143394.38 -30143394.27 -30143394.12 0.0131 0.0112 *
 Earth -87241-11-23 06:56 J -30143025.29 -30143025.21 -30143025.09 0.0131 0.0121
 Moon -87241-11-23 10:18 J -30143025.11 -30143025.07 -30143024.99 0.0131 0.0127 *
 Moon -87240-11-27 05:01 J -30142656.37 -30142656.29 -30142656.18 0.0131 0.0121

Earth -87240-11-27 08:23 J -30142656.18 -30142656.15 -30142656.08 0.0131 0.0128 *
 Mars -87239-08-30 08:08 J -30142380.21 -30142380.16 -30142380.06 0.0131 0.0127
 Mars -87237-07-29 04:32 J -30141681.59 -30141681.31 -30141681.03 0.0132 0.0030
 Mars -87235-06-28 06:27 J -30140982.46 -30140982.23 -30140981.97 0.0132 0.0071
 Venus -87221-01-13 08:23 J -30136035.31 -30136035.15 -30136034.99 0.0139 0.0091
 Mercury -87221-07-13 04:03 J -30135853.36 -30135853.33 -30135853.28 0.0140 0.0133
 Venus -87221-08-26 15:06 J -30135809.08 -30135808.87 -30135808.66 0.0140 0.0025
 Mercury -87221-10-09 08:08 J -30135765.24 -30135765.16 -30135765.09 0.0140 0.0115
 Mercury -87220-01-05 11:44 J -30135677.10 -30135677.01 -30135676.90 0.0140 0.0098
 Mercury -87220-04-03 15:35 J -30135588.96 -30135588.85 -30135588.73 0.0140 0.0081
 Venus -87220-04-09 21:49 J -30135582.79 -30135582.59 -30135582.38 0.0140 0.0042
 Mercury -87220-06-30 19:39 J -30135500.81 -30135500.68 -30135500.55 0.0140 0.0062
 Mercury -87220-09-26 23:30 J -30135412.65 -30135412.52 -30135412.38 0.0141 0.0044
 Venus -87220-11-22 05:01 J -30135356.41 -30135356.29 -30135356.15 0.0141 0.0109
 Mercury -87220-12-24 03:35 J -30135324.49 -30135324.35 -30135324.21 0.0141 0.0026
 Moon -87219-02-13 16:03 J -30135272.84 -30135272.83 -30135272.80 0.0141 0.0140
 Earth -87219-02-13 19:11 J -30135272.72 -30135272.70 -30135272.64 0.0141 0.0139
 Mercury -87219-03-22 07:25 J -30135236.33 -30135236.19 -30135236.04 0.0141 0.0009
 Mercury -87219-06-18 11:30 J -30135148.16 -30135148.02 -30135147.88 0.0141 0.0012
 Mercury -87219-09-14 15:35 J -30135059.99 -30135059.85 -30135059.71 0.0141 0.0030
 Mercury -87219-12-11 19:39 J -30134971.81 -30134971.68 -30134971.54 0.0141 0.0049
 Earth -87218-02-18 07:39 J -30134903.27 -30134903.18 -30134903.08 0.0141 0.0130
 Moon -87218-02-18 10:03 J -30134903.17 -30134903.08 -30134902.94 0.0141 0.0125 *
 Mercury -87218-03-09 23:44 J -30134883.63 -30134883.51 -30134883.38 0.0141 0.0069
 Mercury -87218-06-06 04:03 J -30134795.44 -30134795.33 -30134795.22 0.0142 0.0088
 Mercury -87218-09-02 08:08 J -30134707.25 -30134707.16 -30134707.06 0.0142 0.0108
 Mercury -87218-11-29 12:27 J -30134619.04 -30134618.98 -30134618.91 0.0142 0.0127
 Moon -87217-02-22 17:44 J -30134533.86 -30134533.76 -30134533.64 0.0142 0.0127
 Earth -87217-02-22 20:37 J -30134533.75 -30134533.64 -30134533.49 0.0142 0.0121 *
 Earth -87216-02-26 11:30 J -30134164.17 -30134164.02 -30134163.86 0.0143 0.0109

Moon	-87216-02-26 13:54 J	-30134164.07	-30134163.92	-30134163.74	0.0143	0.0103	*
Moon	-87215-03-03 00:27 J	-30133794.64	-30133794.48	-30133794.29	0.0143	0.0103	
Earth	-87215-03-03 03:06 J	-30133794.54	-30133794.37	-30133794.18	0.0143	0.0098	*
Earth	-87214-03-07 19:54 J	-30133424.85	-30133424.67	-30133424.45	0.0144	0.0085	
Moon	-87214-03-07 22:32 J	-30133424.74	-30133424.56	-30133424.35	0.0144	0.0083	*
Moon	-87213-03-11 12:42 J	-30133055.19	-30133054.97	-30133054.74	0.0144	0.0068	
Earth	-87213-03-11 14:08 J	-30133055.11	-30133054.91	-30133054.68	0.0144	0.0072	*
Earth	-87212-03-16 09:35 J	-30132685.31	-30132685.10	-30132684.86	0.0145	0.0057	
Moon	-87212-03-16 11:30 J	-30132685.23	-30132685.02	-30132684.79	0.0145	0.0063	*
Moon	-87211-03-21 05:44 J	-30132315.51	-30132315.26	-30132315.01	0.0146	0.0035	
Earth	-87211-03-21 06:42 J	-30132315.46	-30132315.22	-30132314.98	0.0146	0.0042	*
Earth	-87210-03-26 04:32 J	-30131945.55	-30131945.31	-30131945.06	0.0146	0.0026	
Moon	-87210-03-26 05:01 J	-30131945.53	-30131945.29	-30131945.06	0.0146	0.0033	*
Moon	-87209-03-30 03:49 J	-30131575.60	-30131575.34	-30131575.08	0.0146	0.0008	
Earth	-87209-03-30 03:49 J	-30131575.59	-30131575.34	-30131575.09	0.0146	0.0011	*
Moon	-87208-04-04 03:06 J	-30131205.61	-30131205.37	-30131205.13	0.0147	0.0007	
Earth	-87208-04-04 04:03 J	-30131205.58	-30131205.33	-30131205.08	0.0147	0.0006	*
Earth	-87207-04-09 05:30 J	-30130835.51	-30130835.27	-30130835.01	0.0147	0.0023	
Moon	-87207-04-09 06:56 J	-30130835.47	-30130835.21	-30130834.95	0.0147	0.0017	*
Moon	-87206-04-14 06:13 J	-30130465.47	-30130465.24	-30130465.01	0.0147	0.0046	
Earth	-87206-04-14 08:23 J	-30130465.38	-30130465.15	-30130464.90	0.0147	0.0039	*
Earth	-87205-04-18 12:13 J	-30130095.22	-30130094.99	-30130094.75	0.0148	0.0055	
Moon	-87205-04-18 14:51 J	-30130095.12	-30130094.88	-30130094.63	0.0148	0.0048	*
Moon	-87204-04-23 14:08 J	-30129725.12	-30129724.91	-30129724.69	0.0148	0.0074	
Earth	-87204-04-23 17:30 J	-30129724.99	-30129724.77	-30129724.55	0.0148	0.0071	*
Earth	-87203-04-28 23:15 J	-30129354.73	-30129354.53	-30129354.32	0.0148	0.0087	
Moon	-87203-04-29 02:37 J	-30129354.57	-30129354.39	-30129354.16	0.0148	0.0090	*
Moon	-87202-05-04 02:23 J	-30128984.57	-30128984.40	-30128984.19	0.0148	0.0097	
Earth	-87202-05-04 05:59 J	-30128984.42	-30128984.25	-30128984.05	0.0148	0.0103	*
Earth	-87201-05-08 13:39 J	-30128614.08	-30128613.93	-30128613.77	0.0148	0.0117	

Moon -87201-05-08 17:15 J -30128613.90 -30128613.78 -30128613.64 0.0148 0.0125 *
 Moon -87200-05-13 18:27 J -30128243.86 -30128243.73 -30128243.58 0.0148 0.0124
 Earth -87200-05-13 21:35 J -30128243.70 -30128243.60 -30128243.46 0.0148 0.0131 *
 Earth -87199-05-19 06:13 J -30127873.28 -30127873.24 -30127873.16 0.0148 0.0144
 Moon -87199-05-19 08:51 J -30127873.17 -30127873.13 -30127873.07 0.0148 0.0144 *
 Mars -87196-02-04 06:27 J -30126881.54 -30126881.23 -30126880.90 0.0147 0.0034
 Mars -87194-01-12 06:13 J -30126174.38 -30126174.24 -30126174.06 0.0146 0.0127
 Venus -87183-06-27 08:51 J -30121990.22 -30121990.13 -30121990.02 0.0140 0.0125
 Venus -87182-02-08 19:39 J -30121763.87 -30121763.68 -30121763.46 0.0139 0.0056
 Mercury -87182-09-10 23:15 J -30121549.58 -30121549.53 -30121549.46 0.0139 0.0130
 Venus -87182-09-23 06:42 J -30121537.44 -30121537.22 -30121537.00 0.0139 0.0014
 Mercury -87182-12-08 05:59 J -30121461.36 -30121461.25 -30121461.13 0.0139 0.0107
 Mercury -87181-03-05 12:27 J -30121373.11 -30121372.98 -30121372.83 0.0139 0.0084
 Venus -87181-05-06 16:47 J -30121310.97 -30121310.80 -30121310.61 0.0139 0.0082
 Mercury -87181-06-01 18:56 J -30121284.86 -30121284.71 -30121284.54 0.0138 0.0062
 Mercury -87181-08-29 01:25 J -30121196.60 -30121196.44 -30121196.26 0.0138 0.0040
 Mercury -87181-11-25 07:54 J -30121108.34 -30121108.17 -30121107.99 0.0138 0.0017
 Mercury -87180-02-21 14:23 J -30121020.08 -30121019.90 -30121019.73 0.0138 0.0005
 Mercury -87180-05-20 20:37 J -30120931.81 -30120931.64 -30120931.47 0.0138 0.0027
 Mercury -87180-08-17 02:51 J -30120843.55 -30120843.38 -30120843.22 0.0138 0.0048
 Moon -87180-08-21 07:54 J -30120839.20 -30120839.17 -30120839.09 0.0138 0.0134
 Earth -87180-08-21 10:03 J -30120839.12 -30120839.08 -30120839.02 0.0138 0.0135 *
 Mercury -87180-11-13 08:51 J -30120755.28 -30120755.13 -30120754.98 0.0138 0.0069
 Mercury -87179-02-09 14:51 J -30120667.00 -30120666.88 -30120666.74 0.0137 0.0091
 Mercury -87179-05-08 20:51 J -30120578.72 -30120578.63 -30120578.52 0.0137 0.0111
 Mercury -87179-08-05 02:51 J -30120490.42 -30120490.38 -30120490.32 0.0137 0.0132
 Earth -87179-08-26 05:44 J -30120469.35 -30120469.26 -30120469.14 0.0137 0.0125
 Moon -87179-08-26 08:08 J -30120469.27 -30120469.16 -30120469.02 0.0137 0.0121 *
 Moon -87178-08-30 21:20 J -30120099.72 -30120099.61 -30120099.47 0.0137 0.0120
 Earth -87178-08-31 00:42 J -30120099.62 -30120099.47 -30120099.33 0.0137 0.0113 *

Earth	-87177-09-03 17:30 J	-30119729.92	-30119729.77	-30119729.57	0.0136	0.0102
Moon	-87177-09-03 20:51 J	-30119729.82	-30119729.63	-30119729.43	0.0136	0.0094 *
Moon	-87176-09-08 06:56 J	-30119360.38	-30119360.21	-30119360.02	0.0135	0.0096
Earth	-87176-09-08 10:18 J	-30119360.25	-30119360.07	-30119359.86	0.0135	0.0090 *
Earth	-87175-09-13 01:25 J	-30118990.65	-30118990.44	-30118990.22	0.0135	0.0077
Moon	-87175-09-13 04:47 J	-30118990.51	-30118990.30	-30118990.07	0.0135	0.0073 *
Moon	-87174-09-17 11:59 J	-30118621.21	-30118621.00	-30118620.76	0.0134	0.0065
Earth	-87174-09-17 15:35 J	-30118621.07	-30118620.85	-30118620.62	0.0134	0.0065 *
Earth	-87173-09-21 04:32 J	-30118251.55	-30118251.31	-30118251.07	0.0134	0.0052
Moon	-87173-09-21 08:08 J	-30118251.38	-30118251.16	-30118250.91	0.0134	0.0056 *
Moon	-87172-09-25 12:56 J	-30117882.21	-30117881.96	-30117881.71	0.0133	0.0035
Earth	-87172-09-25 16:32 J	-30117882.06	-30117881.81	-30117881.56	0.0133	0.0040 *
Earth	-87171-09-30 03:06 J	-30117512.62	-30117512.37	-30117512.12	0.0133	0.0027
Moon	-87171-09-30 06:42 J	-30117512.46	-30117512.22	-30117511.97	0.0133	0.0035 *
Moon	-87170-10-04 08:51 J	-30117143.38	-30117143.13	-30117142.87	0.0133	0.0008
Earth	-87170-10-04 12:42 J	-30117143.23	-30117142.97	-30117142.71	0.0133	0.0015 *
Earth	-87169-10-07 21:20 J	-30116773.87	-30116773.61	-30116773.36	0.0132	0.0003
Moon	-87169-10-08 00:42 J	-30116773.72	-30116773.47	-30116773.21	0.0132	0.0007 *
Moon	-87168-10-12 01:11 J	-30116404.71	-30116404.45	-30116404.19	0.0132	0.0012
Earth	-87168-10-12 05:01 J	-30116404.55	-30116404.29	-30116404.03	0.0132	0.0009 *
Earth	-87167-10-16 11:30 J	-30116035.27	-30116035.02	-30116034.76	0.0132	0.0021
Moon	-87167-10-16 15:06 J	-30116035.12	-30116034.87	-30116034.62	0.0132	0.0021 *
Moon	-87166-10-20 13:54 J	-30115666.16	-30115665.92	-30115665.66	0.0132	0.0029
Earth	-87166-10-20 17:30 J	-30115666.01	-30115665.77	-30115665.51	0.0132	0.0033 *
Earth	-87165-10-23 22:47 J	-30115296.78	-30115296.55	-30115296.30	0.0131	0.0044
Moon	-87165-10-24 02:23 J	-30115296.63	-30115296.40	-30115296.16	0.0131	0.0049 *
Moon	-87164-10-27 23:59 J	-30114927.73	-30114927.50	-30114927.25	0.0131	0.0048
Earth	-87164-10-28 03:20 J	-30114927.58	-30114927.36	-30114927.12	0.0131	0.0055 *
Earth	-87163-11-01 07:25 J	-30114558.40	-30114558.19	-30114557.96	0.0131	0.0066
Moon	-87163-11-01 10:47 J	-30114558.24	-30114558.05	-30114557.82	0.0131	0.0073 *

Moon	-87162-11-05 07:25 J	-30114189.39	-30114189.19	-30114188.96	0.0131	0.0070
Earth	-87162-11-05 11:01 J	-30114189.24	-30114189.04	-30114188.83	0.0131	0.0076 *
Earth	-87161-11-08 13:54 J	-30113820.09	-30113819.92	-30113819.71	0.0131	0.0086
Moon	-87161-11-08 17:15 J	-30113819.94	-30113819.78	-30113819.58	0.0131	0.0089 *
Moon	-87160-11-12 13:25 J	-30113451.12	-30113450.94	-30113450.77	0.0131	0.0093
Earth	-87160-11-12 16:32 J	-30113450.96	-30113450.81	-30113450.62	0.0131	0.0096 *
Earth	-87159-11-16 18:27 J	-30113081.85	-30113081.73	-30113081.55	0.0131	0.0105
Moon	-87159-11-16 22:32 J	-30113081.72	-30113081.56	-30113081.41	0.0131	0.0102 *
Moon	-87158-11-20 17:15 J	-30112712.89	-30112712.78	-30112712.67	0.0131	0.0117
Earth	-87158-11-20 20:37 J	-30112712.75	-30112712.64	-30112712.50	0.0131	0.0113 *
Earth	-87157-11-23 22:03 J	-30112343.65	-30112343.58	-30112343.47	0.0131	0.0122
Moon	-87157-11-24 01:54 J	-30112343.53	-30112343.42	-30112343.30	0.0131	0.0116 *
Earth	-87156-11-27 23:30 J	-30111974.56	-30111974.52	-30111974.46	0.0131	0.0129
Moon	-87155-12-02 04:03 J	-30111605.37	-30111605.33	-30111605.27	0.0132	0.0129
Mars	-87154-04-24 16:32 J	-30111462.01	-30111461.81	-30111461.58	0.0132	0.0086
Mars	-87152-03-23 14:08 J	-30110763.19	-30110762.91	-30110762.62	0.0132	0.0012
Mars	-87150-02-20 17:59 J	-30110063.88	-30110063.75	-30110063.58	0.0133	0.0114
Venus	-87138-09-12 20:23 J	-30105476.75	-30105476.65	-30105476.53	0.0139	0.0117
Venus	-87137-04-26 03:06 J	-30105250.56	-30105250.37	-30105250.17	0.0140	0.0052
Mercury	-87137-08-02 12:13 J	-30105152.04	-30105151.99	-30105151.93	0.0140	0.0125
Mercury	-87137-10-29 16:03 J	-30105063.91	-30105063.83	-30105063.74	0.0140	0.0108
Venus	-87137-12-08 10:03 J	-30105024.29	-30105024.08	-30105023.87	0.0140	0.0014
Mercury	-87136-01-25 19:54 J	-30104975.77	-30104975.67	-30104975.56	0.0140	0.0090
Moon	-87136-02-10 03:20 J	-30104960.37	-30104960.36	-30104960.34	0.0140	0.0139
Mercury	-87136-04-23 23:44 J	-30104887.62	-30104887.51	-30104887.39	0.0140	0.0073
Mercury	-87136-07-21 03:49 J	-30104799.47	-30104799.34	-30104799.21	0.0140	0.0055
Venus	-87136-07-22 16:47 J	-30104797.96	-30104797.80	-30104797.62	0.0140	0.0082
Mercury	-87136-10-17 07:39 J	-30104711.31	-30104711.18	-30104711.04	0.0140	0.0037
Mercury	-87135-01-13 11:44 J	-30104623.15	-30104623.01	-30104622.87	0.0141	0.0018
Moon	-87135-02-14 07:25 J	-30104591.27	-30104591.19	-30104591.09	0.0141	0.0130

Earth -87135-02-14 11:01 J -30104591.12 -30104591.04 -30104590.97 0.0141 0.0133 *
 Mercury -87135-04-11 15:35 J -30104534.99 -30104534.85 -30104534.70 0.0141 0.0003
 Mercury -87135-07-08 19:39 J -30104446.82 -30104446.68 -30104446.54 0.0141 0.0019
 Mercury -87135-10-04 23:44 J -30104358.64 -30104358.51 -30104358.37 0.0141 0.0038
 Mercury -87134-01-01 03:49 J -30104270.47 -30104270.34 -30104270.21 0.0141 0.0057
 Earth -87134-02-18 22:32 J -30104221.66 -30104221.56 -30104221.42 0.0141 0.0124
 Moon -87134-02-19 02:23 J -30104221.49 -30104221.40 -30104221.30 0.0141 0.0130 *
 Mercury -87134-03-30 07:54 J -30104182.28 -30104182.17 -30104182.04 0.0141 0.0077
 Mercury -87134-06-26 12:13 J -30104094.09 -30104093.99 -30104093.88 0.0142 0.0096
 Mercury -87134-09-22 16:18 J -30104005.89 -30104005.82 -30104005.73 0.0142 0.0116
 Mercury -87134-12-19 20:37 J -30103917.67 -30103917.64 -30103917.59 0.0142 0.0135
 Moon -87133-02-23 08:51 J -30103852.28 -30103852.13 -30103851.95 0.0142 0.0107
 Earth -87133-02-23 11:59 J -30103852.13 -30103852.00 -30103851.84 0.0142 0.0114 *
 Earth -87132-02-27 02:08 J -30103482.55 -30103482.41 -30103482.22 0.0143 0.0104
 Moon -87132-02-27 05:30 J -30103482.41 -30103482.27 -30103482.10 0.0143 0.0111 *
 Moon -87131-03-03 15:06 J -30103113.06 -30103112.87 -30103112.66 0.0143 0.0086
 Earth -87131-03-03 18:13 J -30103112.92 -30103112.74 -30103112.54 0.0143 0.0091 *
 Earth -87130-03-08 10:47 J -30102743.24 -30102743.05 -30102742.83 0.0144 0.0079
 Moon -87130-03-08 13:11 J -30102743.13 -30102742.95 -30102742.73 0.0144 0.0080 *
 Moon -87129-03-12 02:23 J -30102373.62 -30102373.40 -30102373.17 0.0144 0.0067
 Earth -87129-03-12 05:01 J -30102373.50 -30102373.29 -30102373.06 0.0144 0.0066 *
 Earth -87128-03-17 00:27 J -30102003.71 -30102003.48 -30102003.25 0.0145 0.0051
 Moon -87128-03-17 01:54 J -30102003.64 -30102003.42 -30102003.18 0.0145 0.0046 *
 Moon -87127-03-21 19:11 J -30101633.94 -30101633.70 -30101633.45 0.0146 0.0045
 Earth -87127-03-21 20:51 J -30101633.86 -30101633.63 -30101633.38 0.0146 0.0037 *
 Earth -87126-03-26 18:42 J -30101263.96 -30101263.72 -30101263.47 0.0146 0.0022
 Moon -87126-03-26 19:39 J -30101263.91 -30101263.68 -30101263.43 0.0146 0.0016 *
 Moon -87125-03-30 17:30 J -30100894.02 -30100893.77 -30100893.51 0.0146 0.0009
 Earth -87125-03-30 17:44 J -30100894.01 -30100893.76 -30100893.51 0.0146 0.0006 *
 Earth -87124-04-04 17:59 J -30100524.00 -30100523.75 -30100523.50 0.0147 0.0010

Moon	-87124-04-04 17:59 J	-30100523.99	-30100523.75	-30100523.50	0.0147	0.0010	*
Earth	-87123-04-09 19:25 J	-30100153.93	-30100153.69	-30100153.44	0.0147	0.0026	
Moon	-87123-04-09 20:37 J	-30100153.89	-30100153.64	-30100153.38	0.0147	0.0032	*
Moon	-87122-04-14 20:37 J	-30099783.87	-30099783.64	-30099783.39	0.0147	0.0035	
Earth	-87122-04-14 22:03 J	-30099783.81	-30099783.58	-30099783.33	0.0147	0.0043	*
Earth	-87121-04-19 01:54 J	-30099413.64	-30099413.42	-30099413.18	0.0148	0.0059	
Moon	-87121-04-19 04:18 J	-30099413.54	-30099413.32	-30099413.07	0.0148	0.0065	*
Moon	-87120-04-24 04:03 J	-30099043.54	-30099043.33	-30099043.11	0.0148	0.0071	
Earth	-87120-04-24 06:42 J	-30099043.42	-30099043.22	-30099042.99	0.0148	0.0075	*
Earth	-87119-04-29 12:42 J	-30098673.16	-30098672.97	-30098672.76	0.0148	0.0090	
Moon	-87119-04-29 15:49 J	-30098673.03	-30098672.84	-30098672.62	0.0148	0.0088	*
Moon	-87118-05-04 16:03 J	-30098303.00	-30098302.83	-30098302.67	0.0148	0.0111	
Earth	-87118-05-04 19:25 J	-30098302.85	-30098302.69	-30098302.50	0.0148	0.0105	*
Earth	-87117-05-09 02:37 J	-30097932.52	-30097932.39	-30097932.22	0.0148	0.0119	
Moon	-87117-05-09 06:13 J	-30097932.39	-30097932.24	-30097932.06	0.0148	0.0111	*
Moon	-87116-05-14 07:11 J	-30097562.27	-30097562.20	-30097562.08	0.0148	0.0138	
Earth	-87116-05-14 10:47 J	-30097562.15	-30097562.05	-30097561.92	0.0148	0.0132	*
Earth	-87115-05-19 19:25 J	-30097191.74	-30097191.69	-30097191.63	0.0148	0.0144	
Moon	-87115-05-19 22:32 J	-30097191.62	-30097191.56	-30097191.48	0.0148	0.0142	
Mars	-87114-10-25 14:08 J	-30096668.02	-30096667.91	-30096667.75	0.0147	0.0135	
Mars	-87112-10-02 02:23 J	-30095960.71	-30095960.40	-30095960.07	0.0147	0.0031	
Venus	-87099-10-09 04:18 J	-30091205.48	-30091205.32	-30091205.13	0.0140	0.0086	
Venus	-87098-05-23 15:35 J	-30090979.07	-30090978.85	-30090978.63	0.0139	0.0016	
Mercury	-87098-10-01 07:25 J	-30090848.27	-30090848.19	-30090848.10	0.0139	0.0122	
Mercury	-87098-12-28 14:08 J	-30090760.03	-30090759.91	-30090759.79	0.0139	0.0099	
Venus	-87097-01-05 01:54 J	-30090752.62	-30090752.42	-30090752.20	0.0139	0.0053	
Mercury	-87097-03-25 20:23 J	-30090671.78	-30090671.65	-30090671.49	0.0139	0.0077	
Mercury	-87097-06-22 03:06 J	-30090583.53	-30090583.37	-30090583.20	0.0138	0.0054	
Moon	-87097-08-17 02:23 J	-30090527.43	-30090527.40	-30090527.30	0.0138	0.0135	
Venus	-87097-08-18 12:13 J	-30090526.09	-30090525.99	-30090525.88	0.0138	0.0121	

Mercury -87097-09-18 09:35 J -30090495.27 -30090495.10 -30090494.92 0.0138 0.0032

Mercury -87097-12-15 16:03 J -30090407.01 -30090406.83 -30090406.65 0.0138 0.0009

Mercury -87096-03-13 22:18 J -30090318.74 -30090318.57 -30090318.39 0.0138 0.0013

Mercury -87096-06-10 04:32 J -30090230.47 -30090230.31 -30090230.13 0.0138 0.0035

Moon -87096-08-21 22:03 J -30090157.64 -30090157.58 -30090157.49 0.0138 0.0131

Earth -87096-08-21 23:01 J -30090157.60 -30090157.54 -30090157.43 0.0138 0.0130 *

Mercury -87096-09-06 10:47 J -30090142.20 -30090142.05 -30090141.88 0.0138 0.0056

Mercury -87096-12-03 17:01 J -30090053.93 -30090053.79 -30090053.64 0.0138 0.0077

Mercury -87095-03-01 22:47 J -30089965.65 -30089965.55 -30089965.41 0.0137 0.0099

Mercury -87095-05-29 05:15 J -30089877.37 -30089877.28 -30089877.20 0.0137 0.0119

Earth -87095-08-26 19:25 J -30089787.82 -30089787.69 -30089787.56 0.0137 0.0119

Moon -87095-08-26 21:20 J -30089787.72 -30089787.61 -30089787.48 0.0137 0.0122 *

Moon -87094-08-31 11:59 J -30089418.15 -30089418.00 -30089417.82 0.0137 0.0103

Earth -87094-08-31 13:54 J -30089418.06 -30089417.92 -30089417.74 0.0137 0.0108 *

Earth -87093-09-04 07:25 J -30089048.35 -30089048.19 -30089047.98 0.0136 0.0096

Moon -87093-09-04 10:32 J -30089048.22 -30089048.06 -30089047.87 0.0136 0.0103 *

Moon -87092-09-08 21:20 J -30088678.81 -30088678.61 -30088678.39 0.0135 0.0077

Earth -87092-09-09 00:13 J -30088678.68 -30088678.49 -30088678.28 0.0135 0.0084 *

Earth -87091-09-13 15:20 J -30088309.07 -30088308.86 -30088308.62 0.0135 0.0072

Moon -87091-09-13 18:42 J -30088308.93 -30088308.72 -30088308.49 0.0135 0.0075 *

Moon -87090-09-18 02:08 J -30087939.63 -30087939.41 -30087939.17 0.0134 0.0059

Earth -87090-09-18 05:30 J -30087939.49 -30087939.27 -30087939.02 0.0134 0.0060 *

Earth -87089-09-21 18:42 J -30087569.96 -30087569.72 -30087569.47 0.0134 0.0047

Moon -87089-09-21 22:03 J -30087569.82 -30087569.58 -30087569.32 0.0134 0.0044 *

Moon -87088-09-26 02:51 J -30087200.62 -30087200.38 -30087200.13 0.0134 0.0041

Earth -87088-09-26 06:42 J -30087200.47 -30087200.22 -30087199.97 0.0134 0.0035 *

Earth -87087-09-30 17:15 J -30086831.04 -30086830.78 -30086830.53 0.0133 0.0022

Moon -87087-09-30 20:51 J -30086830.89 -30086830.63 -30086830.37 0.0133 0.0015 *

Moon -87086-10-04 23:15 J -30086461.78 -30086461.53 -30086461.27 0.0133 0.0017

Earth -87086-10-05 02:51 J -30086461.64 -30086461.38 -30086461.12 0.0133 0.0010 *

Earth	-87085-10-08 11:30 J	-30086092.28	-30086092.02	-30086091.76	0.0132	0.0002
Moon	-87085-10-08 15:20 J	-30086092.12	-30086091.86	-30086091.60	0.0132	0.0007 *
Moon	-87084-10-12 15:49 J	-30085723.10	-30085722.84	-30085722.59	0.0132	0.0011
Earth	-87084-10-12 19:11 J	-30085722.95	-30085722.70	-30085722.44	0.0132	0.0013 *
Earth	-87083-10-17 01:54 J	-30085353.67	-30085353.42	-30085353.16	0.0132	0.0025
Moon	-87083-10-17 05:30 J	-30085353.51	-30085353.27	-30085353.01	0.0132	0.0024 *
Moon	-87082-10-21 04:18 J	-30084984.55	-30084984.32	-30084984.06	0.0132	0.0039
Earth	-87082-10-21 07:54 J	-30084984.40	-30084984.17	-30084983.91	0.0132	0.0037 *
Earth	-87081-10-24 13:25 J	-30084615.17	-30084614.94	-30084614.69	0.0131	0.0048
Moon	-87081-10-24 17:01 J	-30084615.03	-30084614.79	-30084614.55	0.0131	0.0041 *
Moon	-87080-10-28 14:23 J	-30084246.11	-30084245.90	-30084245.67	0.0131	0.0065
Earth	-87080-10-28 18:13 J	-30084245.96	-30084245.74	-30084245.50	0.0131	0.0058 *
Earth	-87079-11-01 22:18 J	-30083876.78	-30083876.57	-30083876.35	0.0131	0.0069
Moon	-87079-11-02 01:25 J	-30083876.65	-30083876.44	-30083876.20	0.0131	0.0063 *
Moon	-87078-11-05 22:18 J	-30083507.76	-30083507.57	-30083507.37	0.0131	0.0084
Earth	-87078-11-06 02:08 J	-30083507.61	-30083507.41	-30083507.21	0.0131	0.0078 *
Earth	-87077-11-09 05:01 J	-30083138.47	-30083138.29	-30083138.09	0.0131	0.0088
Moon	-87077-11-09 08:37 J	-30083138.32	-30083138.14	-30083137.93	0.0131	0.0084 *
Moon	-87076-11-13 04:03 J	-30082769.48	-30082769.33	-30082769.15	0.0131	0.0098
Earth	-87076-11-13 07:54 J	-30082769.34	-30082769.17	-30082769.00	0.0131	0.0097 *
Earth	-87075-11-17 09:35 J	-30082400.23	-30082400.10	-30082399.94	0.0131	0.0106
Moon	-87075-11-17 13:11 J	-30082400.07	-30082399.95	-30082399.79	0.0131	0.0109 *
Moon	-87074-11-21 07:54 J	-30082031.28	-30082031.17	-30082031.02	0.0131	0.0111
Earth	-87074-11-21 11:44 J	-30082031.12	-30082031.01	-30082030.88	0.0131	0.0114 *
Earth	-87073-11-24 12:42 J	-30081662.04	-30081661.97	-30081661.86	0.0131	0.0122
Moon	-87073-11-24 16:32 J	-30081661.84	-30081661.81	-30081661.75	0.0131	0.0129
Moon	-87072-11-28 10:32 J	-30081293.13	-30081293.06	-30081292.96	0.0131	0.0123
Earth	-87072-11-28 13:54 J	-30081292.94	-30081292.92	-30081292.85	0.0131	0.0130
Mars	-87070-12-18 01:11 J	-30080543.71	-30080543.45	-30080543.17	0.0132	0.0045
Mars	-87068-11-15 23:59 J	-30079844.74	-30079844.50	-30079844.22	0.0132	0.0055

Venus -87054-12-25 15:20 J -30074692.03 -30074691.86 -30074691.69 0.0139 0.0079
 Moon -87053-02-07 01:39 J -30074648.45 -30074648.43 -30074648.38 0.0139 0.0138
 Mercury -87053-05-26 16:32 J -30074538.84 -30074538.81 -30074538.78 0.0140 0.0136
 Venus -87053-08-07 21:49 J -30074465.80 -30074465.59 -30074465.37 0.0140 0.0013
 Mercury -87053-08-22 20:08 J -30074450.72 -30074450.66 -30074450.58 0.0140 0.0119
 Mercury -87053-11-18 23:59 J -30074362.58 -30074362.50 -30074362.39 0.0140 0.0101
 Earth -87052-02-10 14:51 J -30074278.93 -30074278.88 -30074278.80 0.0140 0.0135
 Moon -87052-02-10 18:27 J -30074278.78 -30074278.73 -30074278.66 0.0140 0.0135
 Mercury -87052-02-15 04:03 J -30074274.44 -30074274.33 -30074274.22 0.0140 0.0083
 Venus -87052-03-22 04:47 J -30074239.49 -30074239.30 -30074239.10 0.0140 0.0053
 Mercury -87052-05-14 07:54 J -30074186.29 -30074186.17 -30074186.04 0.0140 0.0065
 Mercury -87052-08-10 11:44 J -30074098.14 -30074098.01 -30074097.87 0.0140 0.0048
 Venus -87052-11-03 11:59 J -30074013.10 -30074013.00 -30074012.89 0.0140 0.0121
 Mercury -87052-11-06 15:49 J -30074009.98 -30074009.84 -30074009.70 0.0140 0.0029
 Mercury -87051-02-02 19:39 J -30073921.82 -30073921.68 -30073921.53 0.0141 0.0012
 Moon -87051-02-14 22:18 J -30073909.65 -30073909.57 -30073909.46 0.0141 0.0129
 Earth -87051-02-15 02:08 J -30073909.51 -30073909.41 -30073909.30 0.0141 0.0127 *
 Mercury -87051-05-01 23:44 J -30073833.65 -30073833.51 -30073833.37 0.0141 0.0008
 Mercury -87051-07-29 03:49 J -30073745.48 -30073745.34 -30073745.20 0.0141 0.0027
 Mercury -87051-10-25 07:54 J -30073657.30 -30073657.17 -30073657.03 0.0141 0.0046
 Mercury -87050-01-21 11:59 J -30073569.12 -30073569.00 -30073568.87 0.0141 0.0065
 Earth -87050-02-19 14:23 J -30073540.03 -30073539.90 -30073539.76 0.0141 0.0118
 Moon -87050-02-19 17:15 J -30073539.91 -30073539.78 -30073539.61 0.0141 0.0113 *
 Mercury -87050-04-19 16:03 J -30073480.94 -30073480.83 -30073480.71 0.0141 0.0084
 Mercury -87050-07-16 20:23 J -30073392.74 -30073392.65 -30073392.55 0.0142 0.0104
 Mercury -87050-10-13 00:42 J -30073304.54 -30073304.47 -30073304.40 0.0142 0.0123
 Moon -87049-02-23 23:59 J -30073170.63 -30073170.50 -30073170.34 0.0142 0.0115
 Earth -87049-02-24 03:20 J -30073170.50 -30073170.36 -30073170.18 0.0142 0.0108 *
 Earth -87048-02-27 17:59 J -30072800.92 -30072800.75 -30072800.56 0.0143 0.0097
 Moon -87048-02-27 21:06 J -30072800.80 -30072800.62 -30072800.42 0.0143 0.0090 *

Moon -87047-03-04 06:42 J -30072431.41 -30072431.22 -30072431.02 0.0143 0.0090
 Earth -87047-03-04 09:20 J -30072431.29 -30072431.11 -30072430.89 0.0143 0.0086 *
 Earth -87046-03-09 02:37 J -30072061.60 -30072061.39 -30072061.18 0.0144 0.0072
 Moon -87046-03-09 05:30 J -30072061.47 -30072061.27 -30072061.05 0.0144 0.0070 *
 Moon -87045-03-12 17:44 J -30071691.98 -30071691.76 -30071691.51 0.0144 0.0057
 Earth -87045-03-12 20:23 J -30071691.87 -30071691.65 -30071691.41 0.0144 0.0059 *
 Earth -87044-03-17 15:49 J -30071322.07 -30071321.84 -30071321.60 0.0145 0.0045
 Moon -87044-03-17 18:13 J -30071321.96 -30071321.74 -30071321.51 0.0145 0.0051 *
 Moon -87043-03-22 10:18 J -30070952.32 -30070952.07 -30070951.81 0.0146 0.0024
 Earth -87043-03-22 12:27 J -30070952.22 -30070951.98 -30070951.74 0.0146 0.0031 *
 Earth -87042-03-27 10:03 J -30070582.32 -30070582.08 -30070581.83 0.0146 0.0016
 Moon -87042-03-27 11:30 J -30070582.26 -30070582.02 -30070581.78 0.0146 0.0022 *
 Moon -87041-03-31 08:08 J -30070212.42 -30070212.16 -30070211.90 0.0146 0.0004
 Earth -87041-03-31 09:20 J -30070212.36 -30070212.11 -30070211.86 0.0146 0.0001 *
 Earth -87040-04-05 09:20 J -30069842.35 -30069842.11 -30069841.85 0.0147 0.0016
 Moon -87040-04-05 09:35 J -30069842.34 -30069842.10 -30069841.86 0.0147 0.0017 *
 Earth -87039-04-10 11:01 J -30069472.28 -30069472.04 -30069471.79 0.0147 0.0032
 Moon -87039-04-10 11:15 J -30069472.28 -30069472.03 -30069471.77 0.0147 0.0026 *
 Moon -87038-04-15 12:27 J -30069102.20 -30069101.98 -30069101.74 0.0147 0.0055
 Earth -87038-04-15 13:54 J -30069102.15 -30069101.92 -30069101.67 0.0147 0.0047 *
 Earth -87037-04-19 17:44 J -30068731.98 -30068731.76 -30068731.52 0.0148 0.0063
 Moon -87037-04-19 19:39 J -30068731.91 -30068731.68 -30068731.43 0.0148 0.0056 *
 Moon -87036-04-24 20:23 J -30068361.85 -30068361.65 -30068361.44 0.0148 0.0081
 Earth -87036-04-24 22:47 J -30068361.76 -30068361.55 -30068361.33 0.0148 0.0078 *
 Earth -87035-04-30 04:32 J -30067991.50 -30067991.31 -30067991.10 0.0148 0.0093
 Moon -87035-04-30 07:39 J -30067991.36 -30067991.18 -30067990.96 0.0148 0.0096 *
 Moon -87034-05-05 07:54 J -30067621.34 -30067621.17 -30067620.98 0.0148 0.0102
 Earth -87034-05-05 11:01 J -30067621.20 -30067621.04 -30067620.85 0.0148 0.0108 *
 Earth -87033-05-09 18:13 J -30067250.87 -30067250.74 -30067250.58 0.0148 0.0121
 Moon -87033-05-09 22:03 J -30067250.69 -30067250.58 -30067250.44 0.0148 0.0129 *

Moon -87032-05-14 22:32 J -30066880.67 -30066880.56 -30066880.41 0.0148 0.0127
 Earth -87032-05-15 02:08 J -30066880.49 -30066880.41 -30066880.28 0.0148 0.0134 *
 Earth -87031-05-20 10:47 J -30066510.09 -30066510.05 -30066510.00 0.0148 0.0145
 Moon -87031-05-20 13:39 J -30066509.95 -30066509.93 -30066509.88 0.0148 0.0146
 Mars -87029-06-21 19:11 J -30065746.97 -30065746.70 -30065746.38 0.0147 0.0068
 Mars -87027-05-30 02:51 J -30065039.61 -30065039.38 -30065039.11 0.0147 0.0096
 Venus -87015-06-08 13:54 J -30060647.03 -30060646.92 -30060646.78 0.0140 0.0115
 Venus -87014-01-21 01:11 J -30060420.66 -30060420.45 -30060420.24 0.0139 0.0045
 Mercury -87014-07-25 09:20 J -30060235.14 -30060235.11 -30060235.08 0.0139 0.0136
 Moon -87014-08-13 19:11 J -30060215.74 -30060215.70 -30060215.65 0.0139 0.0136
 Venus -87014-09-04 11:44 J -30060194.22 -30060194.01 -30060193.78 0.0139 0.0025
 Mercury -87014-10-21 16:03 J -30060146.93 -30060146.83 -30060146.73 0.0139 0.0113
 Mercury -87013-01-17 22:18 J -30060058.69 -30060058.57 -30060058.42 0.0139 0.0091
 Mercury -87013-04-15 05:01 J -30059970.44 -30059970.29 -30059970.13 0.0139 0.0068
 Venus -87013-04-17 22:03 J -30059967.73 -30059967.58 -30059967.40 0.0139 0.0093
 Mercury -87013-07-12 11:44 J -30059882.18 -30059882.01 -30059881.84 0.0138 0.0045
 Earth -87013-08-17 16:32 J -30059845.85 -30059845.81 -30059845.72 0.0138 0.0134
 Moon -87013-08-17 17:15 J -30059845.80 -30059845.78 -30059845.75 0.0138 0.0138 *
 Mercury -87013-10-08 18:13 J -30059793.92 -30059793.74 -30059793.57 0.0138 0.0023
 Mercury -87012-01-05 00:27 J -30059705.65 -30059705.48 -30059705.30 0.0138 0.0003
 Mercury -87012-04-03 06:42 J -30059617.39 -30059617.22 -30059617.04 0.0138 0.0022
 Mercury -87012-06-30 13:11 J -30059529.12 -30059528.95 -30059528.78 0.0138 0.0043
 Moon -87012-08-22 12:56 J -30059476.06 -30059475.96 -30059475.83 0.0138 0.0122
 Earth -87012-08-22 13:54 J -30059476.02 -30059475.92 -30059475.79 0.0138 0.0123 *
 Mercury -87012-09-26 19:11 J -30059440.85 -30059440.70 -30059440.54 0.0138 0.0065
 Mercury -87012-12-24 01:25 J -30059352.57 -30059352.44 -30059352.30 0.0138 0.0086
 Mercury -87011-03-22 07:25 J -30059264.29 -30059264.19 -30059264.07 0.0137 0.0106
 Mercury -87011-06-18 13:25 J -30059175.99 -30059175.94 -30059175.87 0.0137 0.0127
 Earth -87011-08-27 09:49 J -30059106.23 -30059106.09 -30059105.93 0.0137 0.0112
 Moon -87011-08-27 10:47 J -30059106.19 -30059106.05 -30059105.86 0.0137 0.0111 *

Moon	-87010-09-01 02:51 J	-30058736.54	-30058736.38	-30058736.23	0.0136	0.0107	
Earth	-87010-09-01 04:47 J	-30058736.47	-30058736.30	-30058736.12	0.0136	0.0101	*
Earth	-87009-09-04 22:32 J	-30058366.75	-30058366.56	-30058366.36	0.0136	0.0089	
Moon	-87009-09-05 00:27 J	-30058366.68	-30058366.48	-30058366.26	0.0136	0.0082	*
Moon	-87008-09-09 12:13 J	-30057997.18	-30057996.99	-30057996.78	0.0135	0.0083	
Earth	-87008-09-09 14:51 J	-30057997.08	-30057996.88	-30057996.65	0.0135	0.0077	*
Earth	-87007-09-14 06:13 J	-30057627.47	-30057627.24	-30057627.01	0.0135	0.0065	
Moon	-87007-09-14 08:51 J	-30057627.35	-30057627.13	-30057626.88	0.0135	0.0061	*
Moon	-87006-09-18 17:15 J	-30057258.00	-30057257.78	-30057257.53	0.0134	0.0054	
Earth	-87006-09-18 20:08 J	-30057257.89	-30057257.66	-30057257.41	0.0134	0.0054	*
Earth	-87005-09-22 09:06 J	-30056888.36	-30056888.12	-30056887.86	0.0134	0.0041	
Moon	-87005-09-22 12:56 J	-30056888.21	-30056887.96	-30056887.71	0.0134	0.0044	*
Moon	-87004-09-26 17:59 J	-30056519.00	-30056518.75	-30056518.50	0.0134	0.0024	
Earth	-87004-09-26 21:06 J	-30056518.87	-30056518.62	-30056518.37	0.0134	0.0029	*
Earth	-87003-10-01 07:25 J	-30056149.44	-30056149.19	-30056148.92	0.0133	0.0017	
Moon	-87003-10-01 11:01 J	-30056149.29	-30056149.04	-30056148.77	0.0133	0.0024	*
Moon	-87002-10-05 13:39 J	-30055780.18	-30055779.93	-30055779.67	0.0133	0.0003	
Earth	-87002-10-05 17:15 J	-30055780.03	-30055779.78	-30055779.52	0.0133	0.0005	*
Earth	-87001-10-09 01:54 J	-30055410.68	-30055410.42	-30055410.16	0.0132	0.0007	
Moon	-87001-10-09 05:30 J	-30055410.53	-30055410.27	-30055410.01	0.0132	0.0002	*

87TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 87th millennium BCE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Moon	-87000-10-13 05:59 J	-30055041.50	-30055041.25	-30055040.99	0.0132	0.0021
Earth	-87000-10-13 09:49 J	-30055041.35	-30055041.09	-30055040.83	0.0132	0.0018 *
Earth	-86999-10-17 16:18 J	-30054672.06	-30054671.82	-30054671.56	0.0132	0.0030
Moon	-86999-10-17 20:08 J	-30054671.91	-30054671.66	-30054671.41	0.0132	0.0029 *
Moon	-86998-10-21 19:11 J	-30054302.94	-30054302.70	-30054302.45	0.0132	0.0037
Earth	-86998-10-21 22:47 J	-30054302.79	-30054302.55	-30054302.30	0.0132	0.0041 *
Earth	-86997-10-25 04:03 J	-30053933.55	-30053933.33	-30053933.08	0.0131	0.0051
Moon	-86997-10-25 07:54 J	-30053933.39	-30053933.17	-30053932.93	0.0131	0.0057 *
Moon	-86996-10-29 05:30 J	-30053564.49	-30053564.27	-30053564.03	0.0131	0.0055
Earth	-86996-10-29 08:37 J	-30053564.34	-30053564.14	-30053563.90	0.0131	0.0063 *
Earth	-86995-11-02 12:42 J	-30053195.16	-30053194.97	-30053194.73	0.0131	0.0073
Moon	-86995-11-02 16:32 J	-30053194.99	-30053194.81	-30053194.59	0.0131	0.0079 *
Moon	-86994-11-06 13:25 J	-30052826.14	-30052825.94	-30052825.73	0.0131	0.0075
Earth	-86994-11-06 16:32 J	-30052825.99	-30052825.81	-30052825.59	0.0131	0.0082 *
Earth	-86993-11-09 19:39 J	-30052456.84	-30052456.68	-30052456.48	0.0131	0.0091
Moon	-86993-11-09 23:15 J	-30052456.69	-30052456.53	-30052456.34	0.0131	0.0094 *
Moon	-86992-11-13 18:27 J	-30052087.87	-30052087.73	-30052087.54	0.0131	0.0098
Earth	-86992-11-13 22:18 J	-30052087.72	-30052087.57	-30052087.39	0.0131	0.0100 *
Earth	-86991-11-18 00:13 J	-30051718.62	-30051718.49	-30051718.33	0.0131	0.0108
Moon	-86991-11-18 03:49 J	-30051718.48	-30051718.34	-30051718.18	0.0131	0.0106 *
Moon	-86990-11-21 22:18 J	-30051349.65	-30051349.57	-30051349.45	0.0131	0.0120
Earth	-86990-11-22 02:23 J	-30051349.51	-30051349.40	-30051349.28	0.0131	0.0116 *
Earth	-86989-11-25 03:06 J	-30050980.43	-30050980.37	-30050980.26	0.0131	0.0124
Moon	-86989-11-25 06:42 J	-30050980.31	-30050980.22	-30050980.09	0.0131	0.0118 *
Earth	-86988-11-29 04:32 J	-30050611.33	-30050611.31	-30050611.26	0.0131	0.0130
Mars	-86987-09-12 13:54 J	-30050324.08	-30050323.92	-30050323.71	0.0132	0.0100
Moon	-86987-12-03 09:06 J	-30050242.15	-30050242.12	-30050242.05	0.0132	0.0129
Mars	-86985-08-11 08:37 J	-30049625.43	-30049625.14	-30049624.85	0.0132	0.0003
Mars	-86983-07-11 09:49 J	-30048926.28	-30048926.09	-30048925.88	0.0132	0.0096

Moon -86970-02-03 13:54 J -30044335.95 -30044335.92 -30044335.89 0.0139 0.0137
 Venus -86970-08-25 02:37 J -30044133.52 -30044133.39 -30044133.24 0.0139 0.0106
 Earth -86969-02-07 18:56 J -30043966.73 -30043966.71 -30043966.65 0.0139 0.0138
 Venus -86969-04-07 09:20 J -30043907.31 -30043907.11 -30043906.91 0.0139 0.0041
 Mercury -86969-06-16 00:13 J -30043837.53 -30043837.49 -30043837.43 0.0140 0.0130
 Mercury -86969-09-12 04:03 J -30043749.40 -30043749.33 -30043749.24 0.0140 0.0112
 Venus -86969-11-19 16:18 J -30043681.03 -30043680.82 -30043680.61 0.0140 0.0025
 Mercury -86969-12-09 08:08 J -30043661.26 -30043661.16 -30043661.06 0.0140 0.0094
 Earth -86968-02-11 04:47 J -30043597.37 -30043597.30 -30043597.19 0.0140 0.0130
 Moon -86968-02-11 08:23 J -30043597.23 -30043597.15 -30043597.04 0.0140 0.0128 *
 Mercury -86968-03-07 11:44 J -30043573.12 -30043573.01 -30043572.88 0.0140 0.0077
 Mercury -86968-06-03 15:35 J -30043484.97 -30043484.85 -30043484.71 0.0140 0.0060
 Venus -86968-07-03 23:01 J -30043454.69 -30043454.54 -30043454.37 0.0140 0.0092
 Mercury -86968-08-30 19:39 J -30043396.81 -30043396.68 -30043396.54 0.0140 0.0041
 Mercury -86968-11-26 23:44 J -30043308.65 -30043308.51 -30043308.37 0.0140 0.0022
 Moon -86967-02-15 12:42 J -30043228.09 -30043227.97 -30043227.83 0.0141 0.0119
 Earth -86967-02-15 15:49 J -30043227.94 -30043227.84 -30043227.70 0.0141 0.0122 *
 Mercury -86967-02-23 03:35 J -30043220.49 -30043220.35 -30043220.20 0.0141 0.0006
 Mercury -86967-05-22 07:39 J -30043132.32 -30043132.18 -30043132.04 0.0141 0.0015
 Mercury -86967-08-18 11:44 J -30043044.15 -30043044.01 -30043043.87 0.0141 0.0033
 Mercury -86967-11-14 15:49 J -30042955.97 -30042955.84 -30042955.71 0.0141 0.0052
 Mercury -86966-02-10 19:54 J -30042867.79 -30042867.67 -30042867.54 0.0141 0.0072
 Earth -86966-02-20 04:03 J -30042858.46 -30042858.33 -30042858.17 0.0141 0.0112
 Moon -86966-02-20 07:39 J -30042858.30 -30042858.18 -30042858.03 0.0141 0.0118 *
 Mercury -86966-05-09 23:59 J -30042779.60 -30042779.50 -30042779.38 0.0141 0.0091
 Mercury -86966-08-06 04:03 J -30042691.41 -30042691.33 -30042691.23 0.0142 0.0111
 Mercury -86966-11-02 08:37 J -30042603.20 -30042603.14 -30042603.09 0.0142 0.0130
 Moon -86965-02-24 13:54 J -30042489.09 -30042488.92 -30042488.73 0.0142 0.0095
 Earth -86965-02-24 17:15 J -30042488.94 -30042488.78 -30042488.60 0.0142 0.0102 *
 Earth -86964-02-28 07:39 J -30042119.37 -30042119.18 -30042118.99 0.0143 0.0091

Moon	-86964-02-28 10:47 J	-30042119.21	-30042119.05	-30042118.86	0.0143	0.0099	*
Moon	-86963-03-04 19:25 J	-30041749.89	-30041749.69	-30041749.46	0.0143	0.0073	
Earth	-86963-03-04 23:01 J	-30041749.73	-30041749.54	-30041749.32	0.0143	0.0080	*
Earth	-86962-03-09 15:35 J	-30041380.06	-30041379.85	-30041379.62	0.0144	0.0067	
Moon	-86962-03-09 18:42 J	-30041379.93	-30041379.72	-30041379.50	0.0144	0.0068	*
Moon	-86961-03-13 06:13 J	-30041010.46	-30041010.24	-30041010.00	0.0144	0.0055	
Earth	-86961-03-13 09:35 J	-30041010.32	-30041010.10	-30041009.86	0.0144	0.0054	*
Earth	-86960-03-18 04:47 J	-30040640.54	-30040640.30	-30040640.06	0.0145	0.0040	
Moon	-86960-03-18 07:25 J	-30040640.42	-30040640.19	-30040639.95	0.0145	0.0035	*
Moon	-86959-03-22 22:47 J	-30040270.79	-30040270.55	-30040270.30	0.0145	0.0034	
Earth	-86959-03-23 01:25 J	-30040270.69	-30040270.44	-30040270.20	0.0145	0.0025	*
Earth	-86958-03-27 23:01 J	-30039900.79	-30039900.54	-30039900.29	0.0146	0.0011	
Moon	-86958-03-28 01:11 J	-30039900.69	-30039900.45	-30039900.21	0.0146	0.0004	*
Moon	-86957-03-31 20:51 J	-30039530.89	-30039530.63	-30039530.37	0.0146	0.0001	
Earth	-86957-03-31 22:03 J	-30039530.83	-30039530.58	-30039530.33	0.0146	0.0004	*
Earth	-86956-04-05 22:18 J	-30039160.81	-30039160.57	-30039160.32	0.0147	0.0020	
Moon	-86956-04-05 23:30 J	-30039160.76	-30039160.52	-30039160.28	0.0147	0.0020	*
Moon	-86955-04-11 00:13 J	-30038790.74	-30038790.49	-30038790.24	0.0147	0.0040	
Earth	-86955-04-10 23:59 J	-30038790.74	-30038790.50	-30038790.25	0.0147	0.0035	*
Moon	-86954-04-16 02:23 J	-30038420.63	-30038420.40	-30038420.17	0.0147	0.0043	
Earth	-86954-04-16 02:37 J	-30038420.62	-30038420.39	-30038420.14	0.0147	0.0051	*
Earth	-86953-04-20 06:27 J	-30038050.44	-30038050.23	-30038049.99	0.0148	0.0067	
Moon	-86953-04-20 07:54 J	-30038050.39	-30038050.17	-30038049.93	0.0148	0.0072	*
Moon	-86952-04-25 09:20 J	-30037680.31	-30037680.11	-30037679.90	0.0148	0.0078	
Earth	-86952-04-25 11:15 J	-30037680.22	-30037680.03	-30037679.80	0.0148	0.0082	*
Earth	-86951-04-30 17:01 J	-30037309.97	-30037309.79	-30037309.58	0.0148	0.0096	
Moon	-86951-04-30 19:54 J	-30037309.87	-30037309.67	-30037309.47	0.0148	0.0094	*
Moon	-86950-05-05 20:23 J	-30036939.80	-30036939.65	-30036939.49	0.0148	0.0116	
Earth	-86950-05-05 23:30 J	-30036939.67	-30036939.52	-30036939.33	0.0148	0.0110	*
Earth	-86949-05-10 06:27 J	-30036569.35	-30036569.23	-30036569.06	0.0148	0.0123	

Moon -86949-05-10 10:03 J -30036569.22 -30036569.08 -30036568.90 0.0148 0.0115 *
 Moon -86948-05-15 11:15 J -30036199.10 -30036199.03 -30036198.95 0.0148 0.0140
 Earth -86948-05-15 14:23 J -30036198.98 -30036198.90 -30036198.77 0.0148 0.0135 *
 Earth -86947-05-20 22:32 J -30035828.57 -30035828.56 -30035828.49 0.0148 0.0146
 Moon -86947-05-21 02:37 J -30035828.44 -30035828.39 -30035828.32 0.0148 0.0143
 Mars -86944-02-16 18:13 J -30034826.07 -30034825.74 -30034825.41 0.0147 0.0002
 Venus -86931-09-20 09:06 J -30029862.30 -30029862.12 -30029861.92 0.0140 0.0076
 Venus -86930-05-04 20:23 J -30029635.87 -30029635.65 -30029635.43 0.0139 0.0006
 Earth -86930-08-14 06:27 J -30029534.24 -30029534.23 -30029534.17 0.0139 0.0138
 Mercury -86930-08-14 17:01 J -30029533.84 -30029533.79 -30029533.72 0.0139 0.0129
 Mercury -86930-11-10 23:44 J -30029445.62 -30029445.51 -30029445.39 0.0139 0.0106
 Venus -86930-12-17 06:56 J -30029409.40 -30029409.21 -30029409.01 0.0139 0.0063
 Mercury -86929-02-07 06:27 J -30029357.37 -30029357.23 -30029357.08 0.0139 0.0083
 Mercury -86929-05-05 13:11 J -30029269.11 -30029268.95 -30029268.79 0.0139 0.0060
 Venus -86929-07-30 17:15 J -30029182.84 -30029182.78 -30029182.70 0.0138 0.0131
 Mercury -86929-08-01 19:39 J -30029180.85 -30029180.68 -30029180.51 0.0138 0.0037
 Moon -86929-08-18 04:32 J -30029164.41 -30029164.31 -30029164.16 0.0138 0.0123
 Earth -86929-08-18 05:01 J -30029164.36 -30029164.29 -30029164.17 0.0138 0.0129 *
 Mercury -86929-10-29 02:08 J -30029092.59 -30029092.41 -30029092.23 0.0138 0.0015
 Mercury -86928-01-25 08:23 J -30029004.32 -30029004.15 -30029003.97 0.0138 0.0008
 Mercury -86928-04-23 14:51 J -30028916.05 -30028915.88 -30028915.71 0.0138 0.0029
 Mercury -86928-07-20 20:51 J -30028827.78 -30028827.63 -30028827.46 0.0138 0.0051
 Earth -86928-08-23 02:23 J -30028794.52 -30028794.40 -30028794.25 0.0138 0.0118
 Moon -86928-08-23 02:23 J -30028794.51 -30028794.40 -30028794.26 0.0138 0.0120 *
 Mercury -86928-10-17 03:06 J -30028739.51 -30028739.37 -30028739.21 0.0138 0.0072
 Mercury -86927-01-13 09:20 J -30028651.23 -30028651.11 -30028650.98 0.0138 0.0093
 Mercury -86927-04-11 15:20 J -30028562.95 -30028562.86 -30028562.76 0.0137 0.0114
 Mercury -86927-07-08 21:20 J -30028474.63 -30028474.61 -30028474.57 0.0137 0.0134
 Earth -86927-08-27 22:47 J -30028424.71 -30028424.55 -30028424.39 0.0137 0.0107
 Moon -86927-08-27 23:30 J -30028424.66 -30028424.52 -30028424.34 0.0137 0.0109 *

Moon	-86926-09-01 16:32 J	-30028054.98	-30028054.81	-30028054.61	0.0137	0.0091
Earth	-86926-09-01 17:30 J	-30028054.94	-30028054.77	-30028054.57	0.0137	0.0096 *
Earth	-86925-09-05 11:15 J	-30027685.22	-30027685.03	-30027684.81	0.0136	0.0084
Moon	-86925-09-05 13:39 J	-30027685.13	-30027684.93	-30027684.72	0.0136	0.0090 *
Moon	-86924-09-10 01:39 J	-30027315.63	-30027315.43	-30027315.19	0.0135	0.0066
Earth	-86924-09-10 04:03 J	-30027315.55	-30027315.33	-30027315.10	0.0135	0.0072 *
Earth	-86923-09-14 19:11 J	-30026945.92	-30026945.70	-30026945.45	0.0135	0.0060
Moon	-86923-09-14 21:49 J	-30026945.82	-30026945.59	-30026945.35	0.0135	0.0063 *
Moon	-86922-09-19 06:27 J	-30026576.46	-30026576.23	-30026575.98	0.0134	0.0047
Earth	-86922-09-19 09:35 J	-30026576.34	-30026576.10	-30026575.85	0.0134	0.0048 *
Earth	-86921-09-22 22:18 J	-30026206.81	-30026206.57	-30026206.31	0.0134	0.0036
Moon	-86921-09-23 00:56 J	-30026206.70	-30026206.46	-30026206.19	0.0134	0.0034 *
Moon	-86920-09-27 06:56 J	-30025837.45	-30025837.21	-30025836.96	0.0134	0.0030
Earth	-86920-09-27 10:18 J	-30025837.32	-30025837.07	-30025836.81	0.0134	0.0024 *
Earth	-86919-10-01 20:51 J	-30025467.89	-30025467.63	-30025467.37	0.0133	0.0012
Moon	-86919-10-01 23:59 J	-30025467.76	-30025467.50	-30025467.23	0.0133	0.0005 *
Moon	-86918-10-06 03:20 J	-30025098.61	-30025098.36	-30025098.10	0.0133	0.0007
Earth	-86918-10-06 06:42 J	-30025098.48	-30025098.22	-30025097.96	0.0133	0.0001 *
Earth	-86917-10-09 15:20 J	-30024729.12	-30024728.86	-30024728.60	0.0132	0.0011
Moon	-86917-10-09 18:56 J	-30024728.97	-30024728.71	-30024728.45	0.0132	0.0016 *
Moon	-86916-10-13 19:54 J	-30024359.92	-30024359.67	-30024359.42	0.0132	0.0019
Earth	-86916-10-13 23:01 J	-30024359.79	-30024359.54	-30024359.28	0.0132	0.0023 *
Earth	-86915-10-18 06:13 J	-30023990.49	-30023990.24	-30023989.99	0.0132	0.0033
Moon	-86915-10-18 09:49 J	-30023990.34	-30023990.09	-30023989.84	0.0132	0.0032 *
Moon	-86914-10-22 08:51 J	-30023621.35	-30023621.13	-30023620.88	0.0132	0.0047
Earth	-86914-10-22 12:13 J	-30023621.21	-30023620.99	-30023620.73	0.0132	0.0045 *
Earth	-86913-10-25 17:59 J	-30023251.98	-30023251.75	-30023251.51	0.0131	0.0055
Moon	-86913-10-25 21:06 J	-30023251.84	-30023251.62	-30023251.36	0.0131	0.0050 *
Moon	-86912-10-29 18:56 J	-30022882.90	-30022882.71	-30022882.48	0.0131	0.0072
Earth	-86912-10-29 22:32 J	-30022882.76	-30022882.56	-30022882.32	0.0131	0.0066 *

Earth	-86911-11-03 02:51 J	-30022513.57	-30022513.38	-30022513.16	0.0131	0.0075
Moon	-86911-11-03 06:13 J	-30022513.44	-30022513.24	-30022513.00	0.0131	0.0068 *
Moon	-86910-11-07 03:20 J	-30022144.54	-30022144.36	-30022144.17	0.0131	0.0089
Earth	-86910-11-07 06:42 J	-30022144.40	-30022144.22	-30022144.01	0.0131	0.0084 *
Earth	-86909-11-10 09:35 J	-30021775.26	-30021775.10	-30021774.90	0.0131	0.0093
Moon	-86909-11-10 13:39 J	-30021775.12	-30021774.93	-30021774.74	0.0131	0.0088 *
Moon	-86908-11-14 09:06 J	-30021406.27	-30021406.12	-30021405.96	0.0131	0.0102
Earth	-86908-11-14 12:13 J	-30021406.14	-30021405.99	-30021405.82	0.0131	0.0101 *
Earth	-86907-11-18 14:08 J	-30021037.03	-30021036.91	-30021036.76	0.0131	0.0109
Moon	-86907-11-18 17:44 J	-30021036.87	-30021036.76	-30021036.61	0.0131	0.0111 *
Moon	-86906-11-22 12:56 J	-30020668.08	-30020667.96	-30020667.83	0.0131	0.0113
Earth	-86906-11-22 16:18 J	-30020667.93	-30020667.82	-30020667.71	0.0131	0.0116 *
Earth	-86905-11-25 17:15 J	-30020298.85	-30020298.78	-30020298.68	0.0131	0.0124
Moon	-86905-11-25 20:23 J	-30020298.65	-30020298.65	-30020298.59	0.0131	0.0131
Moon	-86904-11-29 14:51 J	-30019929.94	-30019929.88	-30019929.77	0.0131	0.0124
Earth	-86904-11-29 18:13 J	-30019929.75	-30019929.74	-30019929.68	0.0131	0.0131
Mars	-86902-05-07 19:11 J	-30019405.93	-30019405.70	-30019405.42	0.0132	0.0060
Mars	-86900-04-05 15:49 J	-30018707.11	-30018706.84	-30018706.56	0.0132	0.0037
Moon	-86887-01-30 13:11 J	-30014023.97	-30014023.95	-30014023.93	0.0138	0.0137
Earth	-86886-02-03 23:44 J	-30013654.51	-30013654.51	-30013654.48	0.0139	0.0138
Venus	-86886-04-24 14:08 J	-30013574.96	-30013574.91	-30013574.86	0.0139	0.0134
Venus	-86886-12-06 20:37 J	-30013348.82	-30013348.64	-30013348.46	0.0139	0.0070
Moon	-86885-02-08 05:30 J	-30013285.36	-30013285.27	-30013285.16	0.0139	0.0127
Earth	-86885-02-08 08:51 J	-30013285.20	-30013285.13	-30013285.05	0.0139	0.0132 *
Mercury	-86885-07-06 08:08 J	-30013136.22	-30013136.16	-30013136.09	0.0140	0.0123
Venus	-86885-07-20 03:06 J	-30013122.58	-30013122.37	-30013122.15	0.0140	0.0005
Mercury	-86885-10-02 11:59 J	-30013048.09	-30013048.00	-30013047.91	0.0140	0.0106
Mercury	-86885-12-29 15:35 J	-30012959.95	-30012959.85	-30012959.73	0.0140	0.0089
Earth	-86884-02-11 18:27 J	-30012915.83	-30012915.73	-30012915.61	0.0140	0.0124
Moon	-86884-02-11 22:03 J	-30012915.69	-30012915.58	-30012915.46	0.0140	0.0124 *

Venus -86884-03-03 10:03 J -30012896.27 -30012896.08 -30012895.89 0.0140 0.0062
 Mercury -86884-03-27 19:39 J -30012871.80 -30012871.68 -30012871.56 0.0140 0.0071
 Mercury -86884-06-23 23:30 J -30012783.65 -30012783.52 -30012783.39 0.0140 0.0053
 Mercury -86884-09-20 03:35 J -30012695.49 -30012695.35 -30012695.22 0.0140 0.0035
 Venus -86884-10-15 17:01 J -30012669.86 -30012669.79 -30012669.70 0.0140 0.0130
 Mercury -86884-12-17 07:25 J -30012607.33 -30012607.19 -30012607.05 0.0140 0.0016
 Moon -86883-02-16 01:54 J -30012546.54 -30012546.42 -30012546.27 0.0141 0.0118
 Earth -86883-02-16 05:30 J -30012546.40 -30012546.27 -30012546.12 0.0141 0.0116 *
 Mercury -86883-03-15 11:30 J -30012519.16 -30012519.02 -30012518.88 0.0141 0.0003
 Mercury -86883-06-11 15:20 J -30012431.00 -30012430.86 -30012430.71 0.0141 0.0021
 Mercury -86883-09-07 19:25 J -30012342.82 -30012342.69 -30012342.55 0.0141 0.0040
 Mercury -86883-12-04 23:30 J -30012254.65 -30012254.52 -30012254.39 0.0141 0.0059
 Earth -86882-02-20 17:15 J -30012176.93 -30012176.78 -30012176.60 0.0141 0.0106
 Moon -86882-02-20 20:37 J -30012176.80 -30012176.64 -30012176.45 0.0141 0.0101 *
 Mercury -86882-03-03 03:35 J -30012166.46 -30012166.35 -30012166.23 0.0141 0.0078
 Mercury -86882-05-30 07:39 J -30012078.27 -30012078.18 -30012078.07 0.0141 0.0097
 Mercury -86882-08-26 11:59 J -30011990.07 -30011990.00 -30011989.92 0.0142 0.0117
 Mercury -86882-11-22 16:03 J -30011901.85 -30011901.83 -30011901.78 0.0142 0.0137
 Moon -86881-02-25 02:37 J -30011807.54 -30011807.39 -30011807.20 0.0142 0.0104
 Earth -86881-02-25 06:27 J -30011807.40 -30011807.23 -30011807.04 0.0142 0.0096 *
 Earth -86880-02-28 20:51 J -30011437.83 -30011437.63 -30011437.44 0.0143 0.0085
 Moon -86880-02-28 23:59 J -30011437.69 -30011437.50 -30011437.28 0.0143 0.0078 *
 Moon -86879-03-05 08:37 J -30011068.34 -30011068.14 -30011067.92 0.0143 0.0078
 Earth -86879-03-05 11:59 J -30011068.20 -30011068.00 -30011067.78 0.0143 0.0073 *
 Earth -86878-03-10 04:32 J -30010698.52 -30010698.31 -30010698.08 0.0144 0.0061
 Moon -86878-03-10 08:23 J -30010698.37 -30010698.15 -30010697.93 0.0144 0.0058 *
 Moon -86877-03-13 19:11 J -30010328.93 -30010328.70 -30010328.45 0.0144 0.0046
 Earth -86877-03-13 22:18 J -30010328.79 -30010328.57 -30010328.32 0.0144 0.0048 *
 Earth -86876-03-18 17:44 J -30009959.00 -30009958.76 -30009958.52 0.0145 0.0034
 Moon -86876-03-18 20:37 J -30009958.86 -30009958.64 -30009958.40 0.0145 0.0041 *

Moon	-86875-03-23 11:15 J	-30009589.28	-30009589.03	-30009588.78	0.0145	0.0013
Earth	-86875-03-23 14:08 J	-30009589.15	-30009588.91	-30009588.66	0.0145	0.0020 *
Earth	-86874-03-28 11:44 J	-30009219.26	-30009219.01	-30009218.76	0.0146	0.0006
Moon	-86874-03-28 13:54 J	-30009219.16	-30009218.92	-30009218.67	0.0146	0.0012 *
Moon	-86873-04-01 08:37 J	-30008849.40	-30008849.14	-30008848.88	0.0146	0.0014
Earth	-86873-04-01 11:01 J	-30008849.29	-30008849.04	-30008848.79	0.0146	0.0010 *
Earth	-86872-04-06 11:15 J	-30008479.27	-30008479.03	-30008478.78	0.0147	0.0025
Moon	-86872-04-06 12:27 J	-30008479.22	-30008478.98	-30008478.74	0.0147	0.0026 *
Moon	-86871-04-11 11:59 J	-30008109.25	-30008109.00	-30008108.75	0.0147	0.0035
Earth	-86871-04-11 12:56 J	-30008109.20	-30008108.96	-30008108.72	0.0147	0.0040 *
Earth	-86870-04-16 15:35 J	-30007739.08	-30007738.85	-30007738.61	0.0147	0.0055
Moon	-86870-04-16 15:20 J	-30007739.07	-30007738.86	-30007738.63	0.0147	0.0063 *
Earth	-86869-04-20 19:11 J	-30007368.91	-30007368.70	-30007368.46	0.0147	0.0071
Moon	-86869-04-20 20:23 J	-30007368.88	-30007368.65	-30007368.41	0.0147	0.0063 *
Moon	-86868-04-25 22:47 J	-30006998.73	-30006998.55	-30006998.34	0.0148	0.0089
Earth	-86868-04-26 00:13 J	-30006998.69	-30006998.49	-30006998.27	0.0148	0.0085 *
Earth	-86867-05-01 05:44 J	-30006628.43	-30006628.26	-30006628.05	0.0148	0.0099
Moon	-86867-05-01 08:23 J	-30006628.32	-30006628.15	-30006627.94	0.0148	0.0101 *
Moon	-86866-05-06 09:35 J	-30006258.25	-30006258.10	-30006257.91	0.0148	0.0107
Earth	-86866-05-06 12:13 J	-30006258.14	-30006257.99	-30006257.81	0.0148	0.0112 *
Earth	-86865-05-10 19:25 J	-30005887.81	-30005887.69	-30005887.54	0.0148	0.0124
Moon	-86865-05-10 23:01 J	-30005887.64	-30005887.54	-30005887.41	0.0148	0.0132 *
Moon	-86864-05-15 23:30 J	-30005517.62	-30005517.52	-30005517.38	0.0148	0.0129
Earth	-86864-05-16 03:20 J	-30005517.44	-30005517.36	-30005517.25	0.0148	0.0136 *
Earth	-86863-05-21 11:44 J	-30005147.04	-30005147.01	-30005146.97	0.0148	0.0146
Moon	-86863-05-21 15:06 J	-30005146.87	-30005146.87	-30005146.86	0.0148	0.0148
Mars	-86862-11-07 00:56 J	-30004612.68	-30004612.46	-30004612.19	0.0147	0.0101
Mars	-86860-10-14 15:20 J	-30003905.14	-30003904.86	-30003904.54	0.0147	0.0063
Venus	-86847-05-20 17:59 J	-29999303.88	-29999303.75	-29999303.60	0.0140	0.0106
Venus	-86846-01-02 05:15 J	-29999077.49	-29999077.28	-29999077.06	0.0139	0.0036

Earth -86846-08-14 20:08 J -29998852.72 -29998852.66 -29998852.57 0.0139 0.0132
 Moon -86846-08-14 21:35 J -29998852.69 -29998852.60 -29998852.47 0.0139 0.0125 *
 Venus -86846-08-16 15:49 J -29998851.04 -29998850.84 -29998850.61 0.0139 0.0034
 Mercury -86846-09-04 01:11 J -29998832.52 -29998832.45 -29998832.35 0.0139 0.0121
 Mercury -86846-12-01 07:54 J -29998744.28 -29998744.17 -29998744.03 0.0139 0.0098
 Mercury -86845-02-27 14:37 J -29998656.03 -29998655.89 -29998655.73 0.0139 0.0075
 Venus -86845-03-30 02:23 J -29998624.54 -29998624.40 -29998624.24 0.0139 0.0102
 Mercury -86845-05-25 21:20 J -29998567.77 -29998567.61 -29998567.44 0.0139 0.0052
 Moon -86845-08-18 17:30 J -29998482.85 -29998482.77 -29998482.64 0.0138 0.0128
 Earth -86845-08-18 19:11 J -29998482.82 -29998482.70 -29998482.58 0.0138 0.0122 *
 Mercury -86845-08-22 03:49 J -29998479.51 -29998479.34 -29998479.16 0.0138 0.0030
 Mercury -86845-11-18 10:18 J -29998391.25 -29998391.07 -29998390.89 0.0138 0.0007
 Mercury -86844-02-14 16:47 J -29998302.98 -29998302.80 -29998302.63 0.0138 0.0015
 Mercury -86844-05-13 23:01 J -29998214.71 -29998214.54 -29998214.37 0.0138 0.0037
 Mercury -86844-08-10 05:15 J -29998126.44 -29998126.28 -29998126.12 0.0138 0.0058
 Earth -86844-08-23 15:49 J -29998112.97 -29998112.84 -29998112.66 0.0138 0.0112
 Moon -86844-08-23 16:18 J -29998112.96 -29998112.82 -29998112.66 0.0138 0.0110 *
 Mercury -86844-11-06 11:15 J -29998038.16 -29998038.03 -29998037.88 0.0138 0.0080
 Mercury -86843-02-02 17:30 J -29997949.88 -29997949.77 -29997949.65 0.0138 0.0101
 Mercury -86843-05-01 23:30 J -29997861.59 -29997861.52 -29997861.43 0.0137 0.0122
 Moon -86843-08-28 11:59 J -29997743.17 -29997743.00 -29997742.79 0.0137 0.0099
 Earth -86843-08-28 12:27 J -29997743.15 -29997742.98 -29997742.80 0.0137 0.0100 *
 Moon -86842-09-02 06:13 J -29997373.41 -29997373.24 -29997373.04 0.0137 0.0095
 Earth -86842-09-02 07:25 J -29997373.38 -29997373.19 -29997372.98 0.0137 0.0089 *
 Earth -86841-09-06 01:25 J -29997003.66 -29997003.44 -29997003.23 0.0136 0.0077
 Moon -86841-09-06 02:08 J -29997003.63 -29997003.41 -29997003.16 0.0136 0.0070 *
 Moon -86840-09-10 16:03 J -29996634.03 -29996633.83 -29996633.61 0.0135 0.0072
 Earth -86840-09-10 17:44 J -29996633.98 -29996633.76 -29996633.52 0.0135 0.0066 *
 Earth -86839-09-15 08:51 J -29996264.36 -29996264.13 -29996263.88 0.0135 0.0054
 Moon -86839-09-15 11:15 J -29996264.28 -29996264.03 -29996263.78 0.0135 0.0049 *

Moon	-86838-09-19 21:06 J	-29995894.85	-29995894.62	-29995894.37	0.0134	0.0044
Earth	-86838-09-19 23:15 J	-29995894.78	-29995894.53	-29995894.28	0.0134	0.0042 *
Earth	-86837-09-23 11:59 J	-29995525.25	-29995525.00	-29995524.74	0.0134	0.0030
Moon	-86837-09-23 15:06 J	-29995525.13	-29995524.87	-29995524.61	0.0134	0.0033 *
Moon	-86836-09-27 21:20 J	-29995155.86	-29995155.61	-29995155.36	0.0134	0.0014
Earth	-86836-09-27 23:44 J	-29995155.77	-29995155.51	-29995155.25	0.0134	0.0019 *
Earth	-86835-10-02 10:18 J	-29994786.32	-29994786.07	-29994785.80	0.0133	0.0008
Moon	-86835-10-02 13:25 J	-29994786.20	-29994785.94	-29994785.67	0.0133	0.0014 *
Moon	-86834-10-06 17:15 J	-29994417.03	-29994416.78	-29994416.53	0.0133	0.0012
Earth	-86834-10-06 20:23 J	-29994416.91	-29994416.65	-29994416.39	0.0133	0.0005 *
Earth	-86833-10-10 04:47 J	-29994047.55	-29994047.30	-29994047.04	0.0132	0.0016
Moon	-86833-10-10 07:54 J	-29994047.43	-29994047.17	-29994046.90	0.0132	0.0011 *
Moon	-86832-10-14 09:35 J	-29993678.35	-29993678.10	-29993677.85	0.0132	0.0029
Earth	-86832-10-14 12:42 J	-29993678.21	-29993677.97	-29993677.71	0.0132	0.0028 *
Earth	-86831-10-18 19:54 J	-29993308.91	-29993308.67	-29993308.42	0.0132	0.0038
Moon	-86831-10-18 23:15 J	-29993308.78	-29993308.53	-29993308.28	0.0132	0.0037 *
Moon	-86830-10-22 23:15 J	-29992939.77	-29992939.53	-29992939.29	0.0132	0.0045
Earth	-86830-10-23 02:23 J	-29992939.63	-29992939.40	-29992939.15	0.0132	0.0048 *
Earth	-86829-10-26 07:54 J	-29992570.39	-29992570.17	-29992569.93	0.0131	0.0059
Moon	-86829-10-26 11:15 J	-29992570.24	-29992570.03	-29992569.79	0.0131	0.0065 *
Moon	-86828-10-30 09:35 J	-29992201.30	-29992201.10	-29992200.86	0.0131	0.0063
Earth	-86828-10-30 12:56 J	-29992201.17	-29992200.96	-29992200.74	0.0131	0.0068 *
Earth	-86827-11-03 17:15 J	-29991831.98	-29991831.78	-29991831.57	0.0131	0.0078
Moon	-86827-11-03 20:51 J	-29991831.82	-29991831.63	-29991831.43	0.0131	0.0084 *
Moon	-86826-11-07 17:44 J	-29991462.95	-29991462.76	-29991462.56	0.0131	0.0080
Earth	-86826-11-07 20:37 J	-29991462.81	-29991462.64	-29991462.43	0.0131	0.0087 *
Earth	-86825-11-10 23:30 J	-29991093.68	-29991093.52	-29991093.33	0.0131	0.0095
Moon	-86825-11-11 02:51 J	-29991093.53	-29991093.38	-29991093.20	0.0131	0.0098 *
Moon	-86824-11-14 22:32 J	-29990724.70	-29990724.56	-29990724.39	0.0131	0.0102
Earth	-86824-11-15 02:08 J	-29990724.55	-29990724.41	-29990724.24	0.0131	0.0103 *

Earth	-86823-11-19 03:49 J	-29990355.45	-29990355.34	-29990355.18	0.0131	0.0111
Moon	-86823-11-19 07:25 J	-29990355.32	-29990355.19	-29990355.04	0.0131	0.0109 *
Moon	-86822-11-23 02:23 J	-29989986.47	-29989986.40	-29989986.29	0.0131	0.0123
Earth	-86822-11-23 05:44 J	-29989986.35	-29989986.26	-29989986.13	0.0131	0.0118 *
Earth	-86821-11-26 07:25 J	-29989617.26	-29989617.19	-29989617.10	0.0131	0.0124
Moon	-86821-11-26 10:32 J	-29989617.15	-29989617.06	-29989616.94	0.0131	0.0119 *
Earth	-86820-11-30 08:23 J	-29989248.16	-29989248.15	-29989248.10	0.0131	0.0131
Mars	-86819-01-31 08:51 J	-29989186.26	-29989186.13	-29989185.97	0.0131	0.0113
Moon	-86819-12-04 13:11 J	-29988878.99	-29988878.95	-29988878.89	0.0131	0.0129
Mars	-86818-12-31 01:25 J	-29988487.72	-29988487.44	-29988487.15	0.0132	0.0019
Mars	-86816-11-29 01:11 J	-29987788.67	-29987788.45	-29987788.21	0.0132	0.0078
Earth	-86802-02-04 13:11 J	-29982973.00	-29982972.95	-29982972.87	0.0139	0.0134
Moon	-86802-02-04 15:49 J	-29982972.92	-29982972.84	-29982972.72	0.0139	0.0127 *
Venus	-86802-08-06 07:11 J	-29982790.33	-29982790.20	-29982790.03	0.0139	0.0098
Moon	-86801-02-08 18:56 J	-29982603.78	-29982603.71	-29982603.62	0.0139	0.0131
Earth	-86801-02-08 22:03 J	-29982603.67	-29982603.58	-29982603.47	0.0139	0.0127 *
Venus	-86801-03-19 13:54 J	-29982564.12	-29982563.92	-29982563.71	0.0139	0.0033
Mercury	-86801-04-29 12:13 J	-29982523.02	-29982522.99	-29982522.96	0.0139	0.0135
Mercury	-86801-07-26 15:49 J	-29982434.91	-29982434.84	-29982434.76	0.0140	0.0118
Mercury	-86801-10-22 19:39 J	-29982346.77	-29982346.68	-29982346.58	0.0140	0.0100
Venus	-86801-10-31 20:37 J	-29982337.84	-29982337.64	-29982337.43	0.0140	0.0033
Mercury	-86800-01-18 23:30 J	-29982258.63	-29982258.52	-29982258.41	0.0140	0.0083
Earth	-86800-02-12 07:25 J	-29982234.30	-29982234.19	-29982234.04	0.0140	0.0119
Moon	-86800-02-12 10:47 J	-29982234.17	-29982234.05	-29982233.90	0.0140	0.0117 *
Mercury	-86800-04-17 03:20 J	-29982170.48	-29982170.36	-29982170.23	0.0140	0.0065
Venus	-86800-06-15 03:20 J	-29982111.49	-29982111.36	-29982111.20	0.0140	0.0100
Mercury	-86800-07-14 07:11 J	-29982082.33	-29982082.20	-29982082.06	0.0140	0.0047
Mercury	-86800-10-10 11:01 J	-29981994.17	-29981994.04	-29981993.90	0.0140	0.0030
Mercury	-86799-01-06 15:06 J	-29981906.01	-29981905.87	-29981905.73	0.0140	0.0011
Moon	-86799-02-16 15:06 J	-29981865.00	-29981864.87	-29981864.70	0.0141	0.0109

Earth -86799-02-16 18:13 J -29981864.87 -29981864.74 -29981864.57 0.0141 0.0111 *
 Mercury -86799-04-04 19:11 J -29981817.84 -29981817.70 -29981817.56 0.0141 0.0009
 Mercury -86799-07-01 23:01 J -29981729.68 -29981729.54 -29981729.40 0.0141 0.0027
 Mercury -86799-09-28 03:06 J -29981641.50 -29981641.37 -29981641.23 0.0141 0.0046
 Mercury -86799-12-25 07:11 J -29981553.32 -29981553.20 -29981553.07 0.0141 0.0064
 Earth -86798-02-21 05:59 J -29981495.41 -29981495.25 -29981495.06 0.0141 0.0101
 Moon -86798-02-21 09:49 J -29981495.25 -29981495.09 -29981494.92 0.0141 0.0107 *
 Mercury -86798-03-23 11:15 J -29981465.14 -29981465.03 -29981464.91 0.0141 0.0084
 Mercury -86798-06-19 15:20 J -29981376.95 -29981376.86 -29981376.76 0.0141 0.0103
 Mercury -86798-09-15 19:25 J -29981288.75 -29981288.69 -29981288.61 0.0142 0.0123
 Moon -86797-02-25 15:49 J -29981126.03 -29981125.84 -29981125.64 0.0142 0.0084
 Earth -86797-02-25 18:56 J -29981125.89 -29981125.71 -29981125.51 0.0142 0.0091 *
 Earth -86796-03-01 08:51 J -29980756.32 -29980756.13 -29980755.91 0.0142 0.0080
 Moon -86796-03-01 12:42 J -29980756.16 -29980755.97 -29980755.77 0.0142 0.0087 *
 Moon -86795-03-05 20:51 J -29980386.85 -29980386.63 -29980386.41 0.0143 0.0061
 Earth -86795-03-06 00:13 J -29980386.70 -29980386.49 -29980386.26 0.0143 0.0068 *
 Earth -86794-03-10 16:32 J -29980017.03 -29980016.81 -29980016.57 0.0144 0.0056
 Moon -86794-03-10 19:54 J -29980016.89 -29980016.67 -29980016.43 0.0144 0.0058 *
 Moon -86793-03-14 06:42 J -29979647.45 -29979647.22 -29979646.98 0.0144 0.0045
 Earth -86793-03-14 10:18 J -29979647.30 -29979647.07 -29979646.82 0.0144 0.0043 *
 Earth -86792-03-19 05:15 J -29979277.52 -29979277.28 -29979277.03 0.0145 0.0030
 Moon -86792-03-19 08:37 J -29979277.38 -29979277.14 -29979276.89 0.0145 0.0025 *
 Moon -86791-03-23 22:32 J -29978907.81 -29978907.56 -29978907.31 0.0145 0.0023
 Earth -86791-03-24 01:39 J -29978907.67 -29978907.43 -29978907.18 0.0145 0.0015 *
 Earth -86790-03-28 23:15 J -29978537.78 -29978537.53 -29978537.28 0.0146 0.0003
 Moon -86790-03-29 02:23 J -29978537.64 -29978537.40 -29978537.15 0.0146 0.0007 *
 Moon -86789-04-01 20:08 J -29978167.92 -29978167.66 -29978167.40 0.0146 0.0010
 Earth -86789-04-01 22:18 J -29978167.81 -29978167.57 -29978167.32 0.0146 0.0014 *
 Earth -86788-04-06 22:47 J -29977797.80 -29977797.55 -29977797.31 0.0147 0.0029
 Moon -86788-04-07 00:42 J -29977797.70 -29977797.47 -29977797.23 0.0147 0.0029 *

Moon -86787-04-11 22:47 J -29977427.79 -29977427.55 -29977427.30 0.0147 0.0048
 Earth -86787-04-11 23:59 J -29977427.73 -29977427.50 -29977427.25 0.0147 0.0044 *
 Earth -86786-04-17 02:37 J -29977057.62 -29977057.39 -29977057.16 0.0147 0.0059
 Moon -86786-04-17 03:06 J -29977057.59 -29977057.37 -29977057.14 0.0147 0.0051 *
 Moon -86785-04-21 05:59 J -29976687.46 -29976687.25 -29976687.02 0.0147 0.0080
 Earth -86785-04-21 05:59 J -29976687.46 -29976687.25 -29976687.02 0.0147 0.0073 *
 Moon -86784-04-26 09:35 J -29976317.30 -29976317.10 -29976316.89 0.0148 0.0084
 Earth -86784-04-26 10:32 J -29976317.25 -29976317.06 -29976316.84 0.0148 0.0088 *
 Earth -86783-05-01 15:49 J -29975947.01 -29975946.84 -29975946.64 0.0148 0.0101
 Moon -86783-05-01 17:30 J -29975946.95 -29975946.77 -29975946.57 0.0148 0.0100 *
 Moon -86782-05-06 19:25 J -29975576.81 -29975576.69 -29975576.52 0.0148 0.0120
 Earth -86782-05-06 22:32 J -29975576.72 -29975576.56 -29975576.39 0.0148 0.0113 *
 Earth -86781-05-11 05:30 J -29975206.40 -29975206.27 -29975206.13 0.0148 0.0125
 Moon -86781-05-11 08:23 J -29975206.30 -29975206.15 -29975205.98 0.0148 0.0117 *
 Moon -86780-05-16 09:20 J -29974836.15 -29974836.11 -29974836.02 0.0148 0.0143
 Earth -86780-05-16 13:11 J -29974836.04 -29974835.95 -29974835.85 0.0148 0.0136 *
 Earth -86779-05-21 20:51 J -29974465.64 -29974465.63 -29974465.58 0.0148 0.0147
 Moon -86779-05-22 00:56 J -29974465.50 -29974465.46 -29974465.39 0.0148 0.0144
 Mars -86777-07-03 19:11 J -29973692.02 -29973691.70 -29973691.37 0.0147 0.0037
 Mars -86775-06-11 04:03 J -29972984.48 -29972984.33 -29972984.12 0.0147 0.0123
 Venus -86763-01-18 00:42 J -29968745.48 -29968745.47 -29968745.43 0.0140 0.0140
 Moon -86763-08-10 04:03 J -29968541.41 -29968541.33 -29968541.21 0.0140 0.0130
 Earth -86763-08-10 06:56 J -29968541.24 -29968541.21 -29968541.13 0.0140 0.0137 *
 Venus -86763-09-01 12:13 J -29968519.18 -29968518.99 -29968518.79 0.0140 0.0069
 Venus -86762-04-15 23:30 J -29968292.75 -29968292.52 -29968292.30 0.0139 0.0002
 Mercury -86762-06-28 01:54 J -29968219.42 -29968219.42 -29968219.39 0.0139 0.0139
 Earth -86762-08-15 06:42 J -29968171.30 -29968171.22 -29968171.09 0.0139 0.0127
 Moon -86762-08-15 08:51 J -29968171.17 -29968171.13 -29968171.04 0.0139 0.0134 *
 Mercury -86762-09-24 08:37 J -29968131.22 -29968131.14 -29968131.03 0.0139 0.0115
 Venus -86762-11-28 09:49 J -29968066.26 -29968066.09 -29968065.88 0.0139 0.0071

Mercury -86762-12-21 15:20 J -29968042.98 -29968042.86 -29968042.71 0.0139 0.0092

Mercury -86761-03-18 22:03 J -29967954.72 -29967954.58 -29967954.41 0.0139 0.0069

Mercury -86761-06-15 04:47 J -29967866.46 -29967866.30 -29967866.13 0.0139 0.0046

Moon -86761-08-19 04:03 J -29967801.47 -29967801.33 -29967801.15 0.0139 0.0111

Earth -86761-08-19 05:44 J -29967801.39 -29967801.26 -29967801.11 0.0139 0.0117 *

Mercury -86761-09-11 11:15 J -29967778.20 -29967778.03 -29967777.85 0.0138 0.0024

Mercury -86761-12-08 17:44 J -29967689.93 -29967689.76 -29967689.58 0.0138 0.0004

Mercury -86760-03-07 00:13 J -29967601.66 -29967601.49 -29967601.31 0.0138 0.0021

Mercury -86760-06-03 06:27 J -29967513.39 -29967513.23 -29967513.06 0.0138 0.0043

Earth -86760-08-24 03:20 J -29967431.52 -29967431.36 -29967431.18 0.0138 0.0106

Moon -86760-08-24 04:47 J -29967431.45 -29967431.30 -29967431.14 0.0138 0.0109 *

Mercury -86760-08-30 12:42 J -29967425.12 -29967424.97 -29967424.81 0.0138 0.0065

Mercury -86760-11-26 18:56 J -29967336.84 -29967336.71 -29967336.57 0.0138 0.0086

Mercury -86759-02-23 00:56 J -29967248.56 -29967248.46 -29967248.34 0.0138 0.0107

Mercury -86759-05-22 06:56 J -29967160.26 -29967160.21 -29967160.13 0.0137 0.0128

Moon -86759-08-28 23:15 J -29967061.70 -29967061.53 -29967061.32 0.0137 0.0097

Earth -86759-08-28 23:30 J -29967061.69 -29967061.52 -29967061.32 0.0137 0.0095 *

Earth -86758-09-02 18:42 J -29966691.91 -29966691.72 -29966691.50 0.0137 0.0084

Moon -86758-09-02 19:11 J -29966691.90 -29966691.70 -29966691.49 0.0137 0.0079 *

Earth -86757-09-06 12:42 J -29966322.18 -29966321.97 -29966321.74 0.0136 0.0072

Moon -86757-09-06 13:25 J -29966322.15 -29966321.94 -29966321.71 0.0136 0.0079 *

Moon -86756-09-11 04:03 J -29965952.55 -29965952.33 -29965952.09 0.0136 0.0054

Earth -86756-09-11 05:01 J -29965952.51 -29965952.29 -29965952.04 0.0136 0.0061 *

Earth -86755-09-15 20:23 J -29965582.88 -29965582.65 -29965582.39 0.0135 0.0049

Moon -86755-09-15 21:49 J -29965582.83 -29965582.59 -29965582.33 0.0135 0.0053 *

Moon -86754-09-20 08:37 J -29965213.37 -29965213.14 -29965212.88 0.0135 0.0037

Earth -86754-09-20 10:32 J -29965213.29 -29965213.06 -29965212.79 0.0135 0.0038 *

Earth -86753-09-23 23:44 J -29964843.76 -29964843.51 -29964843.25 0.0134 0.0026

Moon -86753-09-24 01:25 J -29964843.70 -29964843.44 -29964843.17 0.0134 0.0024 *

Moon -86752-09-28 09:20 J -29964474.36 -29964474.11 -29964473.86 0.0134 0.0019

Earth	-86752-09-28 11:44 J	-29964474.27	-29964474.01	-29964473.75	0.0134	0.0014	*
Earth	-86751-10-02 22:32 J	-29964104.82	-29964104.56	-29964104.30	0.0133	0.0003	
Moon	-86751-10-03 01:11 J	-29964104.72	-29964104.45	-29964104.19	0.0133	0.0004	*
Moon	-86750-10-07 06:13 J	-29963735.49	-29963735.24	-29963734.99	0.0133	0.0002	
Earth	-86750-10-07 08:37 J	-29963735.40	-29963735.14	-29963734.88	0.0133	0.0009	*
Earth	-86749-10-10 17:30 J	-29963366.02	-29963365.77	-29963365.51	0.0133	0.0020	
Moon	-86749-10-10 20:23 J	-29963365.90	-29963365.65	-29963365.38	0.0133	0.0026	*
Moon	-86748-10-14 23:01 J	-29962996.78	-29962996.54	-29962996.29	0.0132	0.0027	
Earth	-86748-10-15 01:25 J	-29962996.68	-29962996.44	-29962996.18	0.0132	0.0031	*
Earth	-86747-10-19 09:06 J	-29962627.37	-29962627.12	-29962626.88	0.0132	0.0041	
Moon	-86747-10-19 11:44 J	-29962627.24	-29962627.01	-29962626.74	0.0132	0.0041	*
Moon	-86746-10-23 12:42 J	-29962258.20	-29962257.97	-29962257.74	0.0132	0.0054	
Earth	-86746-10-23 15:20 J	-29962258.08	-29962257.86	-29962257.61	0.0132	0.0052	*
Earth	-86745-10-26 21:06 J	-29961888.84	-29961888.62	-29961888.39	0.0131	0.0062	
Moon	-86745-10-26 23:59 J	-29961888.72	-29961888.50	-29961888.25	0.0131	0.0057	*
Moon	-86744-10-30 22:47 J	-29961519.74	-29961519.55	-29961519.33	0.0131	0.0078	
Earth	-86744-10-31 01:54 J	-29961519.61	-29961519.42	-29961519.19	0.0131	0.0072	*
Earth	-86743-11-04 06:27 J	-29961150.42	-29961150.23	-29961150.02	0.0131	0.0080	
Moon	-86743-11-04 09:20 J	-29961150.31	-29961150.11	-29961149.88	0.0131	0.0073	*
Moon	-86742-11-08 06:56 J	-29960781.37	-29960781.21	-29960781.03	0.0131	0.0094	
Earth	-86742-11-08 09:49 J	-29960781.25	-29960781.09	-29960780.88	0.0131	0.0089	*
Earth	-86741-11-11 12:56 J	-29960412.12	-29960411.96	-29960411.78	0.0131	0.0097	
Moon	-86741-11-11 16:18 J	-29960412.00	-29960411.82	-29960411.63	0.0131	0.0092	*
Moon	-86740-11-15 12:42 J	-29960043.10	-29960042.97	-29960042.82	0.0131	0.0106	
Earth	-86740-11-15 15:49 J	-29960042.99	-29960042.84	-29960042.69	0.0131	0.0104	*
Earth	-86739-11-19 17:15 J	-29959673.88	-29959673.78	-29959673.62	0.0131	0.0112	
Moon	-86739-11-19 20:37 J	-29959673.74	-29959673.64	-29959673.49	0.0131	0.0114	*
Moon	-86738-11-23 16:32 J	-29959304.90	-29959304.81	-29959304.67	0.0131	0.0116	
Earth	-86738-11-23 19:39 J	-29959304.78	-29959304.68	-29959304.57	0.0131	0.0118	*
Earth	-86737-11-26 21:06 J	-29958935.69	-29958935.62	-29958935.54	0.0131	0.0125	

Moon	-86737-11-26 23:59 J	-29958935.51	-29958935.50	-29958935.47	0.0131	0.0131
Moon	-86736-11-30 19:39 J	-29958566.76	-29958566.68	-29958566.60	0.0131	0.0124
Earth	-86736-11-30 22:18 J	-29958566.58	-29958566.57	-29958566.53	0.0131	0.0131
Mars	-86735-09-25 13:39 J	-29958268.14	-29958267.93	-29958267.67	0.0131	0.0074
Mars	-86733-08-24 08:37 J	-29957569.41	-29957569.14	-29957568.85	0.0132	0.0022
Mars	-86731-07-24 09:49 J	-29956870.20	-29956870.09	-29956869.95	0.0132	0.0119
Moon	-86719-01-31 16:47 J	-29952660.86	-29952660.80	-29952660.69	0.0138	0.0128
Earth	-86719-01-31 19:39 J	-29952660.73	-29952660.68	-29952660.63	0.0138	0.0134 *
Earth	-86718-02-05 03:20 J	-29952291.45	-29952291.36	-29952291.27	0.0139	0.0128
Moon	-86718-02-05 06:13 J	-29952291.29	-29952291.24	-29952291.17	0.0139	0.0134 *
Venus	-86718-04-05 18:42 J	-29952231.79	-29952231.72	-29952231.61	0.0139	0.0126
Venus	-86718-11-18 01:25 J	-29952005.62	-29952005.44	-29952005.24	0.0139	0.0061
Moon	-86717-02-09 08:51 J	-29951922.24	-29951922.13	-29951921.98	0.0139	0.0117
Earth	-86717-02-09 11:30 J	-29951922.12	-29951922.02	-29951921.88	0.0139	0.0122 *
Mercury	-86717-05-19 19:54 J	-29951821.72	-29951821.67	-29951821.62	0.0139	0.0129
Venus	-86717-07-01 07:54 J	-29951779.38	-29951779.17	-29951778.95	0.0139	0.0006
Mercury	-86717-08-15 23:30 J	-29951733.59	-29951733.52	-29951733.43	0.0140	0.0112
Mercury	-86717-11-12 03:35 J	-29951645.45	-29951645.35	-29951645.25	0.0140	0.0094
Mercury	-86716-02-08 07:11 J	-29951557.31	-29951557.20	-29951557.08	0.0140	0.0077
Venus	-86716-02-12 14:23 J	-29951553.07	-29951552.90	-29951552.70	0.0140	0.0071
Earth	-86716-02-12 21:20 J	-29951552.74	-29951552.61	-29951552.46	0.0140	0.0113 *
Moon	-86716-02-12 23:59 J	-29951552.62	-29951552.50	-29951552.33	0.0140	0.0114 *
Mercury	-86716-05-07 11:01 J	-29951469.16	-29951469.04	-29951468.91	0.0140	0.0059
Mercury	-86716-08-03 14:51 J	-29951381.01	-29951380.88	-29951380.74	0.0140	0.0042
Venus	-86716-09-26 21:20 J	-29951326.64	-29951326.61	-29951326.56	0.0140	0.0138
Mercury	-86716-10-30 18:56 J	-29951292.85	-29951292.71	-29951292.57	0.0140	0.0023
Mercury	-86715-01-26 23:01 J	-29951204.69	-29951204.54	-29951204.40	0.0140	0.0006
Moon	-86715-02-17 04:47 J	-29951183.44	-29951183.30	-29951183.13	0.0140	0.0107
Earth	-86715-02-17 07:54 J	-29951183.32	-29951183.17	-29951182.99	0.0140	0.0105 *
Mercury	-86715-04-25 02:51 J	-29951116.52	-29951116.38	-29951116.24	0.0141	0.0014

Mercury -86715-07-22 06:56 J -29951028.35 -29951028.21 -29951028.07 0.0141 0.0033

Mercury -86715-10-18 10:47 J -29950940.18 -29950940.05 -29950939.91 0.0141 0.0052

Mercury -86714-01-14 14:51 J -29950852.00 -29950851.88 -29950851.75 0.0141 0.0071

Earth -86714-02-21 19:11 J -29950813.86 -29950813.70 -29950813.50 0.0141 0.0096

Moon -86714-02-21 22:18 J -29950813.75 -29950813.57 -29950813.36 0.0141 0.0090 *

Mercury -86714-04-12 18:56 J -29950763.81 -29950763.71 -29950763.59 0.0141 0.0090

Mercury -86714-07-09 23:01 J -29950675.62 -29950675.54 -29950675.44 0.0141 0.0110

Mercury -86714-10-06 03:20 J -29950587.41 -29950587.36 -29950587.30 0.0142 0.0129

Moon -86713-02-26 05:01 J -29950444.47 -29950444.29 -29950444.10 0.0142 0.0092

Earth -86713-02-26 08:08 J -29950444.34 -29950444.16 -29950443.95 0.0142 0.0085 *

Earth -86712-03-01 22:03 J -29950074.78 -29950074.58 -29950074.36 0.0142 0.0074

Moon -86712-03-02 01:11 J -29950074.66 -29950074.45 -29950074.21 0.0142 0.0067 *

Moon -86711-03-06 09:49 J -29949705.30 -29949705.09 -29949704.87 0.0143 0.0068

Earth -86711-03-06 13:11 J -29949705.17 -29949704.95 -29949704.72 0.0143 0.0062 *

Earth -86710-03-11 05:30 J -29949335.50 -29949335.27 -29949335.03 0.0144 0.0050

Moon -86710-03-11 09:06 J -29949335.35 -29949335.12 -29949334.88 0.0144 0.0048 *

Moon -86709-03-14 19:39 J -29948965.91 -29948965.68 -29948965.43 0.0144 0.0036

Earth -86709-03-14 23:01 J -29948965.77 -29948965.54 -29948965.29 0.0144 0.0037 *

Earth -86708-03-19 17:59 J -29948595.99 -29948595.75 -29948595.50 0.0145 0.0024

Moon -86708-03-19 21:35 J -29948595.84 -29948595.60 -29948595.36 0.0145 0.0030 *

Moon -86707-03-24 11:01 J -29948226.29 -29948226.04 -29948225.79 0.0145 0.0003

Earth -86707-03-24 14:23 J -29948226.14 -29948225.90 -29948225.65 0.0145 0.0010 *

Earth -86706-03-29 11:59 J -29947856.25 -29947856.00 -29947855.75 0.0146 0.0005

Moon -86706-03-29 14:51 J -29947856.12 -29947855.88 -29947855.63 0.0146 0.0003 *

Moon -86705-04-02 07:54 J -29947486.42 -29947486.17 -29947485.92 0.0146 0.0024

Earth -86705-04-02 11:01 J -29947486.29 -29947486.04 -29947485.79 0.0146 0.0019 *

Earth -86704-04-07 11:01 J -29947116.28 -29947116.04 -29947115.79 0.0146 0.0034

Moon -86704-04-07 13:25 J -29947116.18 -29947115.94 -29947115.70 0.0146 0.0034 *

Moon -86703-04-12 10:18 J -29946746.31 -29946746.07 -29946745.81 0.0147 0.0044

Earth -86703-04-12 12:27 J -29946746.22 -29946745.98 -29946745.74 0.0147 0.0048 *

Earth	-86702-04-17 14:51 J	-29946376.11	-29946375.88	-29946375.65	0.0147	0.0062
Moon	-86702-04-17 16:03 J	-29946376.04	-29946375.83	-29946375.61	0.0147	0.0069 *
Moon	-86701-04-21 17:59 J	-29946005.97	-29946005.75	-29946005.51	0.0147	0.0069
Earth	-86701-04-21 18:13 J	-29946005.95	-29946005.74	-29946005.52	0.0147	0.0077 *
Earth	-86700-04-26 22:47 J	-29945635.75	-29945635.55	-29945635.35	0.0148	0.0090
Moon	-86700-04-26 22:47 J	-29945635.73	-29945635.55	-29945635.36	0.0148	0.0095 *
Earth	-86699-05-02 04:03 J	-29945265.50	-29945265.33	-29945265.14	0.0148	0.0103
Moon	-86699-05-02 05:44 J	-29945265.44	-29945265.26	-29945265.07	0.0148	0.0104 *
Moon	-86698-05-07 08:23 J	-29944895.30	-29944895.15	-29944894.97	0.0148	0.0111
Earth	-86698-05-07 10:18 J	-29944895.22	-29944895.07	-29944894.91	0.0148	0.0115 *
Earth	-86697-05-11 16:47 J	-29944524.91	-29944524.80	-29944524.65	0.0148	0.0127
Moon	-86697-05-11 19:39 J	-29944524.77	-29944524.68	-29944524.55	0.0148	0.0134 *
Moon	-86696-05-16 21:35 J	-29944154.71	-29944154.60	-29944154.48	0.0148	0.0130
Earth	-86696-05-17 00:56 J	-29944154.55	-29944154.46	-29944154.37	0.0148	0.0137 *
Earth	-86695-05-22 08:37 J	-29943784.15	-29943784.14	-29943784.10	0.0148	0.0147
Mars	-86694-03-23 18:56 J	-29943478.80	-29943478.71	-29943478.55	0.0147	0.0137
Mars	-86692-02-28 15:49 J	-29942771.16	-29942770.84	-29942770.50	0.0147	0.0027
Earth	-86680-08-05 17:44 J	-29938229.77	-29938229.76	-29938229.72	0.0140	0.0140
Moon	-86680-08-05 21:06 J	-29938229.64	-29938229.62	-29938229.54	0.0140	0.0138
Venus	-86679-05-01 19:39 J	-29937960.81	-29937960.68	-29937960.50	0.0140	0.0101
Moon	-86679-08-10 15:35 J	-29937859.89	-29937859.85	-29937859.76	0.0140	0.0136
Earth	-86679-08-10 19:11 J	-29937859.79	-29937859.70	-29937859.60	0.0140	0.0130 *
Venus	-86679-12-14 07:25 J	-29937734.41	-29937734.19	-29937733.97	0.0140	0.0030
Mercury	-86678-07-18 09:49 J	-29937518.14	-29937518.09	-29937518.02	0.0139	0.0132
Venus	-86678-07-28 18:27 J	-29937507.94	-29937507.73	-29937507.51	0.0139	0.0040
Earth	-86678-08-15 18:42 J	-29937489.83	-29937489.72	-29937489.57	0.0139	0.0121
Moon	-86678-08-15 21:35 J	-29937489.74	-29937489.60	-29937489.44	0.0139	0.0114 *
Mercury	-86678-10-14 16:32 J	-29937429.91	-29937429.81	-29937429.69	0.0139	0.0108
Mercury	-86677-01-10 23:15 J	-29937341.66	-29937341.53	-29937341.38	0.0139	0.0085
Venus	-86677-03-11 05:01 J	-29937281.42	-29937281.29	-29937281.15	0.0139	0.0108

Mercury -86677-04-08 05:59 J -29937253.40 -29937253.25 -29937253.08 0.0139 0.0062

Mercury -86677-07-05 12:42 J -29937165.14 -29937164.97 -29937164.80 0.0139 0.0039

Moon -86677-08-19 15:20 J -29937119.99 -29937119.86 -29937119.70 0.0139 0.0117

Earth -86677-08-19 17:44 J -29937119.90 -29937119.76 -29937119.59 0.0139 0.0111 *

Mercury -86677-10-01 19:11 J -29937076.87 -29937076.70 -29937076.52 0.0138 0.0017

Mercury -86677-12-29 01:39 J -29936988.61 -29936988.43 -29936988.25 0.0138 0.0006

Mercury -86676-03-27 07:54 J -29936900.34 -29936900.17 -29936899.99 0.0138 0.0028

Mercury -86676-06-23 14:23 J -29936812.06 -29936811.90 -29936811.74 0.0138 0.0049

Earth -86676-08-24 15:06 J -29936750.03 -29936749.87 -29936749.67 0.0138 0.0100

Moon -86676-08-24 16:32 J -29936749.97 -29936749.81 -29936749.62 0.0138 0.0098 *

Mercury -86676-09-19 20:37 J -29936723.79 -29936723.64 -29936723.49 0.0138 0.0071

Mercury -86676-12-17 02:37 J -29936635.51 -29936635.39 -29936635.25 0.0138 0.0093

Mercury -86675-03-15 08:37 J -29936547.22 -29936547.14 -29936547.03 0.0138 0.0114

Mercury -86675-06-11 14:37 J -29936458.90 -29936458.89 -29936458.83 0.0137 0.0135

Moon -86675-08-29 10:18 J -29936380.26 -29936380.07 -29936379.85 0.0137 0.0088

Earth -86675-08-29 11:30 J -29936380.19 -29936380.02 -29936379.80 0.0137 0.0090 *

Earth -86674-09-03 06:56 J -29936010.41 -29936010.21 -29936009.98 0.0137 0.0078

Moon -86674-09-03 07:11 J -29936010.38 -29936010.20 -29936009.98 0.0137 0.0083 *

Moon -86673-09-07 00:42 J -29935640.70 -29935640.47 -29935640.22 0.0136 0.0059

Earth -86673-09-07 00:42 J -29935640.68 -29935640.47 -29935640.23 0.0136 0.0067 *

Moon -86672-09-11 17:15 J -29935271.00 -29935270.78 -29935270.55 0.0136 0.0061

Earth -86672-09-11 17:15 J -29935271.00 -29935270.78 -29935270.53 0.0136 0.0055 *

Earth -86671-09-16 08:51 J -29934901.37 -29934901.13 -29934900.88 0.0135 0.0043

Moon -86671-09-16 10:03 J -29934901.34 -29934901.08 -29934900.82 0.0135 0.0038 *

Moon -86670-09-20 22:18 J -29934531.81 -29934531.57 -29934531.32 0.0135 0.0034

Earth -86670-09-20 23:01 J -29934531.78 -29934531.54 -29934531.28 0.0135 0.0032 *

Earth -86669-09-24 12:13 J -29934162.24 -29934161.99 -29934161.73 0.0134 0.0020

Moon -86669-09-24 14:08 J -29934162.18 -29934161.91 -29934161.65 0.0134 0.0023 *

Moon -86668-09-28 22:32 J -29933792.81 -29933792.56 -29933792.30 0.0134 0.0005

Earth -86668-09-29 00:13 J -29933792.75 -29933792.49 -29933792.23 0.0134 0.0009 *

Earth	-86667-10-03 11:15 J	-29933423.29	-29933423.03	-29933422.77	0.0133	0.0003
Moon	-86667-10-03 13:25 J	-29933423.21	-29933422.94	-29933422.68	0.0133	0.0004 *
Moon	-86666-10-07 18:56 J	-29933053.95	-29933053.71	-29933053.45	0.0133	0.0021
Earth	-86666-10-07 21:20 J	-29933053.86	-29933053.61	-29933053.35	0.0133	0.0014 *
Earth	-86665-10-11 06:13 J	-29932684.49	-29932684.24	-29932683.98	0.0133	0.0025
Moon	-86665-10-11 08:23 J	-29932684.41	-29932684.15	-29932683.88	0.0133	0.0019 *
Moon	-86664-10-15 11:44 J	-29932315.23	-29932315.01	-29932314.75	0.0132	0.0039
Earth	-86664-10-15 14:37 J	-29932315.13	-29932314.89	-29932314.64	0.0132	0.0035 *
Earth	-86663-10-19 21:49 J	-29931945.82	-29931945.59	-29931945.33	0.0132	0.0046
Moon	-86663-10-20 00:27 J	-29931945.72	-29931945.48	-29931945.22	0.0132	0.0045 *
Moon	-86662-10-24 02:08 J	-29931576.63	-29931576.41	-29931576.17	0.0132	0.0053
Earth	-86662-10-24 04:32 J	-29931576.53	-29931576.31	-29931576.06	0.0132	0.0056 *
Earth	-86661-10-27 10:32 J	-29931207.28	-29931207.06	-29931206.84	0.0132	0.0065
Moon	-86661-10-27 13:11 J	-29931207.16	-29931206.95	-29931206.72	0.0132	0.0071 *
Moon	-86660-10-31 12:56 J	-29930838.16	-29930837.96	-29930837.74	0.0131	0.0069
Earth	-86660-10-31 15:20 J	-29930838.06	-29930837.86	-29930837.64	0.0131	0.0075 *
Earth	-86659-11-04 19:25 J	-29930468.87	-29930468.69	-29930468.47	0.0131	0.0083
Moon	-86659-11-04 22:32 J	-29930468.73	-29930468.56	-29930468.36	0.0131	0.0090 *
Moon	-86658-11-08 20:37 J	-29930099.81	-29930099.64	-29930099.44	0.0131	0.0085
Earth	-86658-11-08 23:15 J	-29930099.70	-29930099.53	-29930099.33	0.0131	0.0091 *
Earth	-86657-11-12 01:54 J	-29929730.56	-29929730.42	-29929730.23	0.0131	0.0100
Moon	-86657-11-12 05:01 J	-29929730.44	-29929730.29	-29929730.12	0.0131	0.0102 *
Moon	-86656-11-16 01:54 J	-29929361.55	-29929361.42	-29929361.26	0.0131	0.0105
Earth	-86656-11-16 04:47 J	-29929361.43	-29929361.30	-29929361.13	0.0131	0.0107 *
Earth	-86655-11-20 07:11 J	-29928992.31	-29928992.20	-29928992.06	0.0131	0.0113
Moon	-86655-11-20 09:35 J	-29928992.21	-29928992.10	-29928991.95	0.0131	0.0113 *
Moon	-86654-11-24 05:59 J	-29928623.30	-29928623.25	-29928623.15	0.0131	0.0124
Earth	-86654-11-24 09:06 J	-29928623.21	-29928623.12	-29928623.01	0.0131	0.0120 *
Earth	-86653-11-27 10:47 J	-29928254.11	-29928254.05	-29928253.97	0.0131	0.0126
Moon	-86653-11-27 13:25 J	-29928254.03	-29928253.94	-29928253.83	0.0131	0.0120 *

Mars	-86652-06-21 04:32 J	-29928048.38	-29928048.31	-29928048.22	0.0131	0.0126
Earth	-86652-12-01 12:13 J	-29927884.99	-29927884.99	-29927884.96	0.0131	0.0131
Moon	-86651-12-05 16:32 J	-29927515.85	-29927515.81	-29927515.75	0.0131	0.0129
Mars	-86650-05-20 19:39 J	-29927349.95	-29927349.68	-29927349.39	0.0132	0.0034
Mars	-86648-04-18 16:47 J	-29926651.05	-29926650.80	-29926650.54	0.0132	0.0061
Earth	-86636-01-28 03:06 J	-29922348.38	-29922348.37	-29922348.30	0.0137	0.0136
Moon	-86636-01-28 05:30 J	-29922348.34	-29922348.27	-29922348.17	0.0137	0.0129 *
Moon	-86635-02-01 07:54 J	-29921979.18	-29921979.17	-29921979.13	0.0138	0.0137
Earth	-86635-02-01 10:32 J	-29921979.13	-29921979.06	-29921978.97	0.0138	0.0129 *
Earth	-86634-02-05 18:13 J	-29921609.85	-29921609.74	-29921609.63	0.0139	0.0123
Moon	-86634-02-05 20:08 J	-29921609.78	-29921609.66	-29921609.51	0.0139	0.0116 *
Venus	-86634-07-18 13:25 J	-29921447.09	-29921446.94	-29921446.77	0.0139	0.0088
Moon	-86633-02-09 23:59 J	-29921240.60	-29921240.50	-29921240.36	0.0139	0.0120
Earth	-86633-02-10 02:51 J	-29921240.51	-29921240.38	-29921240.24	0.0139	0.0116 *
Venus	-86633-02-29 19:54 J	-29921220.88	-29921220.67	-29921220.46	0.0139	0.0023
Mercury	-86633-03-13 00:13 J	-29921208.49	-29921208.49	-29921208.48	0.0139	0.0139
Mercury	-86633-06-09 04:03 J	-29921120.40	-29921120.33	-29921120.27	0.0139	0.0122
Mercury	-86633-09-05 07:39 J	-29921032.27	-29921032.18	-29921032.09	0.0140	0.0105
Venus	-86633-10-13 02:23 J	-29920994.60	-29920994.40	-29920994.19	0.0140	0.0043
Mercury	-86633-12-02 11:30 J	-29920944.13	-29920944.02	-29920943.91	0.0140	0.0087
Earth	-86632-02-13 11:59 J	-29920871.14	-29920871.00	-29920870.83	0.0140	0.0108
Moon	-86632-02-13 14:37 J	-29920871.04	-29920870.89	-29920870.71	0.0140	0.0106 *
Mercury	-86632-02-28 15:06 J	-29920855.98	-29920855.87	-29920855.74	0.0140	0.0070
Venus	-86632-05-27 09:06 J	-29920768.24	-29920768.12	-29920767.98	0.0140	0.0109
Mercury	-86632-05-27 19:11 J	-29920767.83	-29920767.70	-29920767.57	0.0140	0.0052
Mercury	-86632-08-23 23:01 J	-29920679.68	-29920679.54	-29920679.40	0.0140	0.0034
Mercury	-86632-11-20 02:51 J	-29920591.52	-29920591.38	-29920591.24	0.0140	0.0016
Mercury	-86631-02-16 06:56 J	-29920503.35	-29920503.21	-29920503.07	0.0140	0.0003
Moon	-86631-02-17 19:54 J	-29920501.82	-29920501.67	-29920501.48	0.0140	0.0098
Earth	-86631-02-17 22:32 J	-29920501.72	-29920501.56	-29920501.38	0.0140	0.0099 *

Mercury -86631-05-15 10:47 J -29920415.19 -29920415.05 -29920414.91 0.0141 0.0022

Mercury -86631-08-11 14:51 J -29920327.01 -29920326.88 -29920326.74 0.0141 0.0040

Mercury -86631-11-07 18:56 J -29920238.84 -29920238.71 -29920238.58 0.0141 0.0059

Mercury -86630-02-03 22:47 J -29920150.66 -29920150.55 -29920150.42 0.0141 0.0078

Earth -86630-02-22 09:49 J -29920132.26 -29920132.09 -29920131.88 0.0141 0.0090

Moon -86630-02-22 12:56 J -29920132.13 -29920131.96 -29920131.76 0.0141 0.0095 *

Mercury -86630-05-03 02:51 J -29920062.47 -29920062.38 -29920062.27 0.0141 0.0098

Mercury -86630-07-30 07:11 J -29919974.27 -29919974.20 -29919974.12 0.0141 0.0117

Mercury -86630-10-26 11:30 J -29919886.06 -29919886.02 -29919885.98 0.0142 0.0136

Moon -86629-02-26 19:39 J -29919762.87 -29919762.68 -29919762.46 0.0142 0.0073

Earth -86629-02-26 22:47 J -29919762.75 -29919762.55 -29919762.34 0.0142 0.0079 *

Earth -86628-03-02 12:13 J -29919393.19 -29919392.99 -29919392.76 0.0142 0.0068

Moon -86628-03-02 15:20 J -29919393.05 -29919392.86 -29919392.63 0.0142 0.0076 *

Moon -86627-03-07 00:13 J -29919023.72 -29919023.49 -29919023.26 0.0143 0.0050

Earth -86627-03-07 03:20 J -29919023.58 -29919023.36 -29919023.12 0.0143 0.0057 *

Earth -86626-03-11 19:25 J -29918653.92 -29918653.69 -29918653.45 0.0144 0.0045

Moon -86626-03-11 22:47 J -29918653.78 -29918653.55 -29918653.31 0.0144 0.0047 *

Moon -86625-03-15 09:20 J -29918284.34 -29918284.11 -29918283.86 0.0144 0.0034

Earth -86625-03-15 12:56 J -29918284.19 -29918283.96 -29918283.71 0.0144 0.0032 *

Earth -86624-03-20 07:54 J -29917914.41 -29917914.17 -29917913.92 0.0145 0.0019

Moon -86624-03-20 11:30 J -29917914.27 -29917914.02 -29917913.77 0.0145 0.0014 *

Moon -86623-03-25 00:42 J -29917544.72 -29917544.47 -29917544.22 0.0145 0.0013

Earth -86623-03-25 04:18 J -29917544.57 -29917544.32 -29917544.07 0.0145 0.0005 *

Earth -86622-03-30 01:39 J -29917174.68 -29917174.43 -29917174.18 0.0146 0.0009

Moon -86622-03-30 05:15 J -29917174.53 -29917174.28 -29917174.03 0.0146 0.0017 *

Moon -86621-04-02 21:20 J -29916804.86 -29916804.61 -29916804.35 0.0146 0.0019

Earth -86621-04-03 00:27 J -29916804.72 -29916804.48 -29916804.23 0.0146 0.0024 *

Earth -86620-04-08 00:13 J -29916434.73 -29916434.49 -29916434.24 0.0146 0.0038

Moon -86620-04-08 03:06 J -29916434.60 -29916434.37 -29916434.13 0.0146 0.0038 *

Moon -86619-04-12 22:47 J -29916064.78 -29916064.55 -29916064.30 0.0147 0.0055

Earth	-86619-04-13 01:25 J	-29916064.67	-29916064.44	-29916064.20	0.0147	0.0052	*
Earth	-86618-04-18 03:20 J	-29915694.58	-29915694.36	-29915694.13	0.0147	0.0066	
Moon	-86618-04-18 05:15 J	-29915694.51	-29915694.28	-29915694.06	0.0147	0.0059	*
Moon	-86617-04-22 05:15 J	-29915324.48	-29915324.28	-29915324.06	0.0147	0.0086	
Earth	-86617-04-22 06:42 J	-29915324.43	-29915324.22	-29915324.00	0.0147	0.0079	*
Moon	-86616-04-27 10:47 J	-29914954.23	-29914954.05	-29914953.84	0.0148	0.0089	
Earth	-86616-04-27 10:47 J	-29914954.23	-29914954.05	-29914953.84	0.0148	0.0093	*
Earth	-86615-05-02 15:49 J	-29914584.01	-29914583.84	-29914583.65	0.0148	0.0105	
Moon	-86615-05-02 16:03 J	-29914584.00	-29914583.83	-29914583.63	0.0148	0.0105	*
Moon	-86614-05-07 20:23 J	-29914213.78	-29914213.65	-29914213.50	0.0148	0.0122	
Earth	-86614-05-07 21:35 J	-29914213.73	-29914213.60	-29914213.42	0.0148	0.0117	*
Earth	-86613-05-12 04:32 J	-29913843.42	-29913843.31	-29913843.17	0.0148	0.0128	
Moon	-86613-05-12 06:27 J	-29913843.36	-29913843.23	-29913843.05	0.0148	0.0120	*
Moon	-86612-05-17 09:06 J	-29913473.15	-29913473.12	-29913473.05	0.0148	0.0145	
Earth	-86612-05-17 11:44 J	-29913473.08	-29913473.01	-29913472.90	0.0148	0.0138	*
Earth	-86611-05-22 19:54 J	-29913102.68	-29913102.67	-29913102.63	0.0147	0.0147	
Moon	-86611-05-22 23:44 J	-29913102.56	-29913102.51	-29913102.45	0.0147	0.0144	
Mars	-86610-11-18 18:13 J	-29912558.02	-29912557.74	-29912557.44	0.0147	0.0072	
Mars	-86608-10-26 09:49 J	-29911850.35	-29911850.09	-29911849.82	0.0147	0.0087	
Earth	-86596-08-06 03:35 J	-29907548.40	-29907548.35	-29907548.25	0.0140	0.0135	
Moon	-86596-08-06 07:11 J	-29907548.24	-29907548.20	-29907548.12	0.0140	0.0137	
Venus	-86596-12-30 02:37 J	-29907402.44	-29907402.39	-29907402.32	0.0140	0.0134	
Moon	-86595-08-11 01:25 J	-29907178.55	-29907178.44	-29907178.28	0.0140	0.0119	
Earth	-86595-08-11 05:15 J	-29907178.38	-29907178.28	-29907178.15	0.0140	0.0125	*
Venus	-86595-08-13 13:54 J	-29907176.10	-29907175.92	-29907175.70	0.0140	0.0064	
Venus	-86594-03-28 01:25 J	-29906949.66	-29906949.44	-29906949.21	0.0139	0.0007	
Mercury	-86594-08-07 17:01 J	-29906816.85	-29906816.79	-29906816.70	0.0139	0.0126	
Earth	-86594-08-16 05:15 J	-29906808.41	-29906808.28	-29906808.12	0.0139	0.0115	
Moon	-86594-08-16 08:23 J	-29906808.25	-29906808.15	-29906808.01	0.0139	0.0123	*
Mercury	-86594-11-04 00:13 J	-29906728.61	-29906728.49	-29906728.37	0.0139	0.0102	

Venus -86594-11-09 11:59 J -29906723.17 -29906723.00 -29906722.80 0.0139 0.0076

Mercury -86593-01-31 06:56 J -29906640.36 -29906640.21 -29906640.07 0.0139 0.0079

Mercury -86593-04-28 13:25 J -29906552.10 -29906551.94 -29906551.77 0.0139 0.0056

Mercury -86593-07-25 20:08 J -29906463.83 -29906463.66 -29906463.49 0.0139 0.0034

Moon -86593-08-20 01:39 J -29906438.60 -29906438.43 -29906438.23 0.0139 0.0099

Earth -86593-08-20 04:32 J -29906438.48 -29906438.31 -29906438.14 0.0139 0.0105 *

Mercury -86593-10-22 02:37 J -29906375.57 -29906375.39 -29906375.21 0.0138 0.0011

Mercury -86592-01-18 09:06 J -29906287.30 -29906287.12 -29906286.94 0.0138 0.0011

Mercury -86592-04-16 15:20 J -29906199.03 -29906198.86 -29906198.68 0.0138 0.0033

Mercury -86592-07-13 21:35 J -29906110.75 -29906110.60 -29906110.43 0.0138 0.0055

Earth -86592-08-25 01:54 J -29906068.60 -29906068.42 -29906068.22 0.0138 0.0094

Moon -86592-08-25 04:32 J -29906068.48 -29906068.31 -29906068.13 0.0138 0.0098 *

Mercury -86592-10-10 03:49 J -29906022.48 -29906022.34 -29906022.18 0.0138 0.0077

Mercury -86591-01-06 10:03 J -29905934.19 -29905934.08 -29905933.95 0.0138 0.0098

Mercury -86591-04-04 16:18 J -29905845.90 -29905845.82 -29905845.73 0.0138 0.0119

Moon -86591-08-29 20:51 J -29905698.83 -29905698.63 -29905698.40 0.0137 0.0084

Earth -86591-08-29 22:18 J -29905698.76 -29905698.57 -29905698.34 0.0137 0.0084 *

Earth -86590-09-03 17:44 J -29905328.98 -29905328.76 -29905328.53 0.0137 0.0072

Moon -86590-09-03 18:56 J -29905328.92 -29905328.71 -29905328.48 0.0137 0.0068 *

Moon -86589-09-07 10:47 J -29904959.28 -29904959.05 -29904958.80 0.0136 0.0067

Earth -86589-09-07 11:44 J -29904959.24 -29904959.01 -29904958.77 0.0136 0.0061 *

Earth -86588-09-12 04:03 J -29904589.56 -29904589.33 -29904589.07 0.0136 0.0050

Moon -86588-09-12 04:18 J -29904589.55 -29904589.32 -29904589.07 0.0136 0.0043 *

Moon -86587-09-16 19:39 J -29904219.93 -29904219.68 -29904219.42 0.0135 0.0043

Earth -86587-09-16 19:39 J -29904219.92 -29904219.68 -29904219.42 0.0135 0.0038 *

Moon -86586-09-21 09:20 J -29903850.35 -29903850.11 -29903849.86 0.0135 0.0025

Earth -86586-09-21 10:03 J -29903850.33 -29903850.08 -29903849.81 0.0135 0.0027 *

Earth -86585-09-24 23:15 J -29903480.78 -29903480.53 -29903480.27 0.0134 0.0016

Moon -86585-09-24 23:59 J -29903480.76 -29903480.50 -29903480.23 0.0134 0.0014 *

Moon -86584-09-29 10:18 J -29903111.31 -29903111.07 -29903110.81 0.0134 0.0009

Earth	-86584-09-29 11:30 J	-29903111.27	-29903111.02	-29903110.75	0.0134	0.0005	*
Earth	-86583-10-03 22:47 J	-29902741.80	-29902741.55	-29902741.29	0.0133	0.0007	
Moon	-86583-10-04 00:27 J	-29902741.75	-29902741.48	-29902741.21	0.0133	0.0014	*
Moon	-86582-10-08 07:39 J	-29902372.43	-29902372.18	-29902371.93	0.0133	0.0012	
Earth	-86582-10-08 08:51 J	-29902372.38	-29902372.13	-29902371.87	0.0133	0.0018	*
Earth	-86581-10-11 18:13 J	-29902002.99	-29902002.74	-29902002.49	0.0133	0.0028	
Moon	-86581-10-11 20:23 J	-29902002.90	-29902002.65	-29902002.39	0.0133	0.0034	*
Moon	-86580-10-16 00:42 J	-29901633.70	-29901633.47	-29901633.21	0.0132	0.0036	
Earth	-86580-10-16 02:23 J	-29901633.63	-29901633.40	-29901633.14	0.0132	0.0040	*
Earth	-86579-10-20 10:03 J	-29901264.31	-29901264.08	-29901263.83	0.0132	0.0049	
Moon	-86579-10-20 12:13 J	-29901264.22	-29901263.99	-29901263.73	0.0132	0.0049	*
Moon	-86578-10-24 14:37 J	-29900895.10	-29900894.89	-29900894.66	0.0132	0.0061	
Earth	-86578-10-24 16:47 J	-29900895.02	-29900894.80	-29900894.56	0.0132	0.0059	*
Earth	-86577-10-27 22:32 J	-29900525.77	-29900525.56	-29900525.33	0.0132	0.0068	
Moon	-86577-10-28 00:27 J	-29900525.70	-29900525.48	-29900525.24	0.0132	0.0064	*
Moon	-86576-11-01 00:56 J	-29900156.63	-29900156.46	-29900156.25	0.0131	0.0084	
Earth	-86576-11-01 03:35 J	-29900156.54	-29900156.35	-29900156.13	0.0131	0.0077	*
Earth	-86575-11-05 07:39 J	-29899787.35	-29899787.18	-29899786.96	0.0131	0.0086	
Moon	-86575-11-05 10:18 J	-29899787.28	-29899787.07	-29899786.86	0.0131	0.0078	*
Moon	-86574-11-09 09:20 J	-29899418.26	-29899418.11	-29899417.94	0.0131	0.0099	
Earth	-86574-11-09 11:15 J	-29899418.18	-29899418.03	-29899417.83	0.0131	0.0094	*
Earth	-86573-11-12 14:51 J	-29899049.03	-29899048.88	-29899048.71	0.0131	0.0100	
Moon	-86573-11-12 17:01 J	-29899048.95	-29899048.79	-29899048.59	0.0131	0.0096	*
Moon	-86572-11-16 15:35 J	-29898679.97	-29898679.85	-29898679.70	0.0131	0.0110	
Earth	-86572-11-16 17:44 J	-29898679.90	-29898679.76	-29898679.61	0.0131	0.0107	*
Earth	-86571-11-20 19:39 J	-29898310.78	-29898310.68	-29898310.53	0.0131	0.0115	
Moon	-86571-11-20 22:47 J	-29898310.67	-29898310.55	-29898310.43	0.0131	0.0116	*
Moon	-86570-11-24 20:23 J	-29897941.76	-29897941.65	-29897941.54	0.0131	0.0118	
Earth	-86570-11-24 22:03 J	-29897941.67	-29897941.58	-29897941.47	0.0131	0.0120	*
Earth	-86569-11-27 23:59 J	-29897572.57	-29897572.50	-29897572.43	0.0131	0.0126	

Moon	-86569-11-28 01:54 J	-29897572.42	-29897572.42	-29897572.39	0.0131	0.0131
Moon	-86568-12-01 23:01 J	-29897203.59	-29897203.54	-29897203.44	0.0131	0.0125
Earth	-86568-12-02 01:39 J	-29897203.44	-29897203.43	-29897203.40	0.0131	0.0131 *
Mars	-86567-02-13 07:25 J	-29897130.38	-29897130.19	-29897129.96	0.0131	0.0088
Mars	-86565-01-13 01:11 J	-29896431.73	-29896431.45	-29896431.16	0.0132	0.0006
Mars	-86564-12-11 23:15 J	-29895732.71	-29895732.53	-29895732.34	0.0132	0.0101
Saturn	-86559-05-18 08:08 J	-29894114.77	-29894114.16	-29894113.54	0.0134	0.0042
Moon	-86553-01-25 10:03 J	-29892036.12	-29892036.08	-29892036.00	0.0137	0.0132
Earth	-86553-01-25 11:44 J	-29892036.04	-29892036.01	-29892035.96	0.0137	0.0135 *
Earth	-86552-01-28 17:59 J	-29891666.82	-29891666.75	-29891666.67	0.0137	0.0130
Moon	-86552-01-28 19:39 J	-29891666.69	-29891666.68	-29891666.63	0.0137	0.0136 *
Moon	-86551-02-01 23:15 J	-29891297.64	-29891297.53	-29891297.40	0.0138	0.0117
Earth	-86551-02-02 00:27 J	-29891297.56	-29891297.48	-29891297.35	0.0138	0.0124 *
Earth	-86550-02-06 08:08 J	-29890928.27	-29890928.16	-29890928.01	0.0139	0.0118
Moon	-86550-02-06 10:32 J	-29890928.17	-29890928.06	-29890927.94	0.0139	0.0123 *
Venus	-86550-03-18 01:11 J	-29890888.56	-29890888.45	-29890888.33	0.0139	0.0115
Venus	-86550-10-30 07:25 J	-29890662.38	-29890662.19	-29890661.99	0.0139	0.0051
Moon	-86549-02-10 14:37 J	-29890559.03	-29890558.89	-29890558.71	0.0139	0.0105
Earth	-86549-02-10 16:32 J	-29890558.94	-29890558.81	-29890558.64	0.0139	0.0110 *
Mercury	-86549-04-02 08:08 J	-29890507.20	-29890507.16	-29890507.12	0.0139	0.0133
Venus	-86549-06-12 13:54 J	-29890436.13	-29890435.92	-29890435.70	0.0139	0.0015
Mercury	-86549-06-29 11:44 J	-29890419.08	-29890419.01	-29890418.93	0.0139	0.0116
Mercury	-86549-09-25 15:20 J	-29890330.95	-29890330.86	-29890330.75	0.0140	0.0099
Mercury	-86549-12-22 19:11 J	-29890242.80	-29890242.70	-29890242.58	0.0140	0.0081
Venus	-86548-01-24 20:23 J	-29890209.81	-29890209.65	-29890209.47	0.0140	0.0081
Earth	-86548-02-14 01:54 J	-29890189.57	-29890189.42	-29890189.23	0.0140	0.0102
Moon	-86548-02-14 04:03 J	-29890189.48	-29890189.33	-29890189.14	0.0140	0.0103 *
Mercury	-86548-03-20 23:15 J	-29890154.66	-29890154.53	-29890154.41	0.0140	0.0063
Mercury	-86548-06-17 03:06 J	-29890066.50	-29890066.37	-29890066.24	0.0140	0.0045
Mercury	-86548-09-13 06:56 J	-29889978.35	-29889978.21	-29889978.07	0.0140	0.0027

Mercury -86548-12-10 10:47 J -29889890.19 -29889890.05 -29889889.91 0.0140 0.0009

Moon -86547-02-18 10:18 J -29889820.24 -29889820.07 -29889819.89 0.0140 0.0095

Earth -86547-02-18 12:42 J -29889820.14 -29889819.97 -29889819.78 0.0140 0.0093 *

Mercury -86547-03-08 14:51 J -29889802.02 -29889801.88 -29889801.74 0.0140 0.0010

Mercury -86547-06-04 18:42 J -29889713.86 -29889713.72 -29889713.58 0.0141 0.0028

Mercury -86547-08-31 22:47 J -29889625.68 -29889625.55 -29889625.42 0.0141 0.0047

Mercury -86547-11-28 02:37 J -29889537.51 -29889537.39 -29889537.26 0.0141 0.0066

Earth -86546-02-22 23:59 J -29889450.69 -29889450.50 -29889450.29 0.0141 0.0083

Moon -86546-02-23 02:37 J -29889450.60 -29889450.39 -29889450.18 0.0141 0.0079 *

Mercury -86546-02-24 06:56 J -29889449.32 -29889449.21 -29889449.10 0.0141 0.0085

Mercury -86546-05-23 10:47 J -29889361.13 -29889361.05 -29889360.94 0.0141 0.0104

Mercury -86546-08-19 15:06 J -29889272.93 -29889272.87 -29889272.80 0.0141 0.0123

Moon -86545-02-27 10:03 J -29889081.27 -29889081.08 -29889080.88 0.0142 0.0080

Earth -86545-02-27 12:42 J -29889081.17 -29889080.97 -29889080.75 0.0142 0.0073 *

Earth -86544-03-03 02:37 J -29888711.61 -29888711.39 -29888711.16 0.0142 0.0062

Moon -86544-03-03 05:30 J -29888711.50 -29888711.27 -29888711.03 0.0142 0.0054 *

Moon -86543-03-07 14:37 J -29888342.11 -29888341.89 -29888341.66 0.0143 0.0056

Earth -86543-03-07 17:30 J -29888341.99 -29888341.77 -29888341.53 0.0143 0.0051 *

Earth -86542-03-12 09:49 J -29887972.32 -29887972.09 -29887971.85 0.0144 0.0039

Moon -86542-03-12 13:11 J -29887972.18 -29887971.95 -29887971.70 0.0144 0.0037 *

Moon -86541-03-16 00:27 J -29887602.72 -29887602.48 -29887602.24 0.0144 0.0025

Earth -86541-03-16 03:20 J -29887602.59 -29887602.36 -29887602.10 0.0144 0.0026 *

Earth -86540-03-20 22:18 J -29887232.81 -29887232.57 -29887232.32 0.0145 0.0013

Moon -86540-03-21 01:54 J -29887232.66 -29887232.42 -29887232.17 0.0145 0.0019 *

Moon -86539-03-25 15:06 J -29886863.12 -29886862.87 -29886862.62 0.0145 0.0008

Earth -86539-03-25 18:42 J -29886862.97 -29886862.72 -29886862.47 0.0145 0.0002 *

Earth -86538-03-30 16:03 J -29886493.08 -29886492.83 -29886492.58 0.0146 0.0015

Moon -86538-03-30 19:25 J -29886492.94 -29886492.69 -29886492.44 0.0146 0.0008 *

Moon -86537-04-03 11:15 J -29886123.28 -29886123.03 -29886122.79 0.0146 0.0034

Earth -86537-04-03 14:37 J -29886123.13 -29886122.89 -29886122.64 0.0146 0.0029 *

Earth	-86536-04-08 14:23 J	-29885753.13	-29885752.90	-29885752.65	0.0146	0.0043
Moon	-86536-04-08 17:15 J	-29885753.00	-29885752.78	-29885752.53	0.0146	0.0043 *
Moon	-86535-04-13 12:27 J	-29885383.21	-29885382.98	-29885382.73	0.0147	0.0052
Earth	-86535-04-13 15:06 J	-29885383.08	-29885382.87	-29885382.62	0.0147	0.0057 *
Earth	-86534-04-18 17:01 J	-29885012.99	-29885012.79	-29885012.55	0.0147	0.0071
Moon	-86534-04-18 19:39 J	-29885012.88	-29885012.68	-29885012.46	0.0147	0.0077 *
Moon	-86533-04-22 19:11 J	-29884642.92	-29884642.70	-29884642.47	0.0147	0.0075
Earth	-86533-04-22 20:23 J	-29884642.84	-29884642.65	-29884642.43	0.0147	0.0083 *
Earth	-86532-04-28 00:13 J	-29884272.66	-29884272.49	-29884272.28	0.0148	0.0096
Moon	-86532-04-28 01:39 J	-29884272.60	-29884272.43	-29884272.25	0.0148	0.0101 *
Earth	-86531-05-03 05:15 J	-29883902.43	-29883902.28	-29883902.09	0.0148	0.0108
Moon	-86531-05-03 05:30 J	-29883902.43	-29883902.27	-29883902.07	0.0148	0.0108 *
Moon	-86530-05-08 10:32 J	-29883532.20	-29883532.06	-29883531.89	0.0148	0.0115
Earth	-86530-05-08 11:15 J	-29883532.17	-29883532.03	-29883531.87	0.0148	0.0119 *
Earth	-86529-05-12 18:13 J	-29883161.86	-29883161.74	-29883161.62	0.0148	0.0129
Moon	-86529-05-12 19:39 J	-29883161.77	-29883161.68	-29883161.57	0.0148	0.0136 *
Moon	-86528-05-17 23:01 J	-29882791.64	-29882791.54	-29882791.42	0.0148	0.0132
Earth	-86528-05-18 01:25 J	-29882791.51	-29882791.44	-29882791.34	0.0148	0.0139 *
Earth	-86527-05-23 09:20 J	-29882421.11	-29882421.11	-29882421.08	0.0147	0.0147
Mars	-86525-07-15 19:39 J	-29881637.01	-29881636.68	-29881636.34	0.0147	0.0008
Moon	-86513-08-01 10:47 J	-29877237.11	-29877237.05	-29877236.96	0.0141	0.0134
Earth	-86513-08-01 14:08 J	-29877236.95	-29877236.91	-29877236.83	0.0141	0.0137
Earth	-86512-08-06 16:18 J	-29876866.90	-29876866.82	-29876866.69	0.0140	0.0129
Moon	-86512-08-06 20:37 J	-29876866.75	-29876866.64	-29876866.52	0.0140	0.0126 *
Venus	-86511-04-12 22:03 J	-29876617.73	-29876617.58	-29876617.40	0.0140	0.0095
Moon	-86511-08-11 14:08 J	-29876497.01	-29876496.91	-29876496.77	0.0140	0.0124
Earth	-86511-08-11 17:44 J	-29876496.88	-29876496.76	-29876496.61	0.0140	0.0119 *
Venus	-86511-11-25 09:35 J	-29876391.31	-29876391.10	-29876390.87	0.0140	0.0025
Venus	-86510-07-09 20:37 J	-29876164.84	-29876164.64	-29876164.42	0.0139	0.0046
Earth	-86510-08-16 17:44 J	-29876126.91	-29876126.76	-29876126.58	0.0139	0.0109

Moon -86510-08-16 21:20 J -29876126.78 -29876126.61 -29876126.43 0.0139 0.0101 *
 Mercury -86510-08-28 01:25 J -29876115.53 -29876115.44 -29876115.35 0.0139 0.0119
 Mercury -86510-11-24 08:08 J -29876027.29 -29876027.16 -29876027.03 0.0139 0.0095
 Mercury -86509-02-20 14:51 J -29875939.03 -29875938.88 -29875938.73 0.0139 0.0072
 Venus -86509-02-21 07:25 J -29875938.31 -29875938.19 -29875938.05 0.0139 0.0114
 Mercury -86509-05-18 21:20 J -29875850.77 -29875850.61 -29875850.44 0.0139 0.0049
 Mercury -86509-08-15 04:03 J -29875762.51 -29875762.33 -29875762.16 0.0139 0.0026
 Moon -86509-08-20 13:11 J -29875757.10 -29875756.95 -29875756.76 0.0139 0.0106
 Earth -86509-08-20 16:47 J -29875756.97 -29875756.80 -29875756.60 0.0139 0.0099 *
 Mercury -86509-11-11 10:32 J -29875674.24 -29875674.06 -29875673.88 0.0138 0.0004
 Mercury -86508-02-07 17:01 J -29875585.97 -29875585.79 -29875585.62 0.0138 0.0018
 Mercury -86508-05-06 23:15 J -29875497.69 -29875497.53 -29875497.36 0.0138 0.0040
 Mercury -86508-08-03 05:30 J -29875409.42 -29875409.27 -29875409.11 0.0138 0.0062
 Earth -86508-08-25 14:08 J -29875387.09 -29875386.91 -29875386.69 0.0138 0.0088
 Moon -86508-08-25 16:47 J -29875386.99 -29875386.80 -29875386.59 0.0138 0.0085 *
 Mercury -86508-10-30 11:59 J -29875321.14 -29875321.00 -29875320.86 0.0138 0.0083
 Mercury -86507-01-26 17:44 J -29875232.86 -29875232.76 -29875232.63 0.0138 0.0105
 Mercury -86507-04-24 23:59 J -29875144.56 -29875144.50 -29875144.42 0.0138 0.0126
 Moon -86507-08-30 08:23 J -29875017.37 -29875017.15 -29875016.92 0.0137 0.0077
 Earth -86507-08-30 10:32 J -29875017.25 -29875017.06 -29875016.82 0.0137 0.0078 *
 Earth -86506-09-04 05:59 J -29874647.47 -29874647.25 -29874647.01 0.0137 0.0066
 Moon -86506-09-04 07:39 J -29874647.39 -29874647.18 -29874646.95 0.0137 0.0070 *
 Moon -86505-09-07 22:32 J -29874277.81 -29874277.56 -29874277.30 0.0136 0.0048
 Earth -86505-09-07 23:59 J -29874277.74 -29874277.50 -29874277.26 0.0136 0.0055 *
 Earth -86504-09-12 16:18 J -29873908.06 -29873907.82 -29873907.56 0.0136 0.0044
 Moon -86504-09-12 17:44 J -29873908.00 -29873907.76 -29873907.53 0.0136 0.0050 *
 Moon -86503-09-17 07:54 J -29873538.43 -29873538.17 -29873537.90 0.0135 0.0027
 Earth -86503-09-17 07:54 J -29873538.41 -29873538.17 -29873537.91 0.0135 0.0033 *
 Earth -86502-09-21 22:18 J -29873168.82 -29873168.57 -29873168.31 0.0135 0.0021
 Moon -86502-09-21 22:47 J -29873168.80 -29873168.55 -29873168.30 0.0135 0.0024 *

Earth	-86501-09-25 11:44 J	-29872799.27	-29872799.01	-29872798.75	0.0134	0.0010
Moon	-86501-09-25 11:59 J	-29872799.26	-29872799.00	-29872798.72	0.0134	0.0012 *
Moon	-86500-09-29 23:30 J	-29872429.77	-29872429.52	-29872429.27	0.0134	0.0006
Earth	-86500-09-29 23:59 J	-29872429.76	-29872429.50	-29872429.24	0.0134	0.0002 *
Earth	-86499-10-04 11:15 J	-29872060.28	-29872060.03	-29872059.77	0.0133	0.0013
Moon	-86499-10-04 11:59 J	-29872060.27	-29872060.00	-29872059.73	0.0133	0.0007 *
Moon	-86498-10-08 20:08 J	-29871690.89	-29871690.66	-29871690.40	0.0133	0.0030
Earth	-86498-10-08 21:35 J	-29871690.85	-29871690.60	-29871690.34	0.0133	0.0023 *
Earth	-86497-10-12 06:42 J	-29871321.46	-29871321.22	-29871320.96	0.0133	0.0034
Moon	-86497-10-12 07:54 J	-29871321.43	-29871321.17	-29871320.90	0.0133	0.0027 *
Moon	-86496-10-16 13:54 J	-29870952.15	-29870951.92	-29870951.68	0.0132	0.0047
Earth	-86496-10-16 15:20 J	-29870952.09	-29870951.86	-29870951.61	0.0132	0.0044 *
Earth	-86495-10-20 22:47 J	-29870582.77	-29870582.55	-29870582.30	0.0132	0.0053
Moon	-86495-10-21 00:27 J	-29870582.71	-29870582.48	-29870582.23	0.0132	0.0052 *
Moon	-86494-10-25 03:49 J	-29870213.54	-29870213.34	-29870213.10	0.0132	0.0061
Earth	-86494-10-25 05:15 J	-29870213.49	-29870213.28	-29870213.04	0.0132	0.0063 *
Earth	-86493-10-28 11:15 J	-29869844.24	-29869844.03	-29869843.81	0.0132	0.0071
Moon	-86493-10-28 13:25 J	-29869844.15	-29869843.94	-29869843.73	0.0132	0.0076 *
Moon	-86492-11-01 14:51 J	-29869475.08	-29869474.88	-29869474.67	0.0132	0.0074
Earth	-86492-11-01 16:18 J	-29869475.02	-29869474.82	-29869474.61	0.0132	0.0080 *
Earth	-86491-11-05 20:37 J	-29869105.82	-29869105.64	-29869105.45	0.0131	0.0088
Moon	-86491-11-05 22:47 J	-29869105.73	-29869105.55	-29869105.37	0.0131	0.0094 *
Moon	-86490-11-09 22:18 J	-29868736.73	-29868736.57	-29868736.37	0.0131	0.0090
Earth	-86490-11-10 00:13 J	-29868736.65	-29868736.49	-29868736.30	0.0131	0.0096 *
Earth	-86489-11-13 03:20 J	-29868367.50	-29868367.36	-29868367.19	0.0131	0.0103
Moon	-86489-11-13 05:01 J	-29868367.42	-29868367.29	-29868367.12	0.0131	0.0107 *
Moon	-86488-11-17 04:32 J	-29867998.45	-29867998.31	-29867998.17	0.0131	0.0108
Earth	-86488-11-17 06:13 J	-29867998.36	-29867998.24	-29867998.08	0.0131	0.0109 *
Earth	-86487-11-21 08:51 J	-29867629.24	-29867629.13	-29867629.00	0.0131	0.0115
Moon	-86487-11-21 10:03 J	-29867629.18	-29867629.08	-29867628.93	0.0131	0.0116 *

Moon -86486-11-25 09:06 J -29867260.19 -29867260.12 -29867260.04 0.0131 0.0125
 Earth -86486-11-25 10:32 J -29867260.13 -29867260.06 -29867259.94 0.0131 0.0122 *
 Earth -86485-11-28 12:27 J -29866891.02 -29866890.98 -29866890.89 0.0131 0.0127
 Moon -86485-11-28 14:23 J -29866890.98 -29866890.90 -29866890.78 0.0131 0.0121 *
 Earth -86484-12-02 14:37 J -29866521.90 -29866521.89 -29866521.86 0.0131 0.0131
 Mars -86483-10-08 12:42 J -29866212.23 -29866211.97 -29866211.70 0.0132 0.0049
 Moon -86483-12-06 17:30 J -29866152.79 -29866152.77 -29866152.68 0.0132 0.0129
 Mars -86481-09-06 05:44 J -29865513.52 -29865513.26 -29865512.98 0.0132 0.0044
 Earth -86470-01-21 19:39 J -29861723.69 -29861723.68 -29861723.63 0.0136 0.0135
 Moon -86470-01-21 20:51 J -29861723.66 -29861723.63 -29861723.56 0.0136 0.0133 *
 Moon -86469-01-25 23:44 J -29861354.53 -29861354.51 -29861354.45 0.0137 0.0135
 Earth -86469-01-26 01:25 J -29861354.51 -29861354.44 -29861354.36 0.0137 0.0130 *
 Earth -86468-01-29 07:39 J -29860985.28 -29860985.18 -29860985.08 0.0137 0.0125
 Moon -86468-01-29 07:54 J -29860985.27 -29860985.17 -29860985.02 0.0137 0.0120 *
 Moon -86467-02-02 12:27 J -29860616.06 -29860615.98 -29860615.87 0.0138 0.0126
 Earth -86467-02-02 13:54 J -29860616.02 -29860615.92 -29860615.78 0.0138 0.0119 *
 Earth -86466-02-06 21:35 J -29860246.73 -29860246.60 -29860246.45 0.0139 0.0112
 Moon -86466-02-06 22:47 J -29860246.70 -29860246.55 -29860246.37 0.0139 0.0105 *
 Venus -86466-06-29 18:42 J -29860103.88 -29860103.72 -29860103.54 0.0139 0.0079
 Venus -86465-02-11 01:11 J -29859877.66 -29859877.45 -29859877.24 0.0139 0.0014
 Moon -86465-02-11 04:18 J -29859877.44 -29859877.32 -29859877.15 0.0139 0.0110 *
 Earth -86465-02-11 05:59 J -29859877.40 -29859877.25 -29859877.07 0.0139 0.0105 *
 Mercury -86465-04-22 15:35 J -29859805.89 -29859805.85 -29859805.79 0.0139 0.0127
 Mercury -86465-07-19 19:25 J -29859717.77 -29859717.69 -29859717.60 0.0139 0.0110
 Venus -86465-09-24 07:25 J -29859651.38 -29859651.19 -29859650.99 0.0140 0.0052
 Mercury -86465-10-15 23:15 J -29859629.63 -29859629.53 -29859629.42 0.0140 0.0092
 Mercury -86464-01-12 03:06 J -29859541.49 -29859541.37 -29859541.25 0.0140 0.0075
 Earth -86464-02-14 15:35 J -29859508.02 -29859507.85 -29859507.66 0.0140 0.0096
 Moon -86464-02-14 17:30 J -29859507.95 -29859507.77 -29859507.58 0.0140 0.0094 *
 Mercury -86464-04-10 06:56 J -29859453.34 -29859453.21 -29859453.08 0.0140 0.0057

Venus -86464-05-08 13:54 J -29859425.01 -29859424.92 -29859424.79 0.0140 0.0118

Mercury -86464-07-07 10:47 J -29859365.18 -29859365.05 -29859364.92 0.0140 0.0039

Mercury -86464-10-03 14:37 J -29859277.03 -29859276.89 -29859276.75 0.0140 0.0021

Mercury -86464-12-30 18:27 J -29859188.87 -29859188.73 -29859188.58 0.0140 0.0006

Moon -86463-02-19 00:27 J -29859138.66 -29859138.48 -29859138.29 0.0140 0.0087

Earth -86463-02-19 01:54 J -29859138.60 -29859138.42 -29859138.22 0.0140 0.0087 *

Mercury -86463-03-28 22:32 J -29859100.70 -29859100.56 -29859100.42 0.0140 0.0015

Mercury -86463-06-25 02:23 J -29859012.53 -29859012.40 -29859012.26 0.0141 0.0034

Mercury -86463-09-21 06:27 J -29858924.36 -29858924.23 -29858924.10 0.0141 0.0053

Mercury -86463-12-18 10:32 J -29858836.18 -29858836.06 -29858835.94 0.0141 0.0072

Earth -86462-02-23 13:39 J -29858769.14 -29858768.93 -29858768.72 0.0141 0.0077

Moon -86462-02-23 15:35 J -29858769.03 -29858768.85 -29858768.63 0.0141 0.0083 *

Mercury -86462-03-16 14:23 J -29858748.00 -29858747.90 -29858747.78 0.0141 0.0092

Mercury -86462-06-12 18:42 J -29858659.80 -29858659.72 -29858659.63 0.0141 0.0110

Mercury -86462-09-08 22:47 J -29858571.60 -29858571.55 -29858571.49 0.0141 0.0130

Moon -86461-02-27 23:59 J -29858399.70 -29858399.50 -29858399.27 0.0142 0.0061

Earth -86461-02-28 01:54 J -29858399.62 -29858399.42 -29858399.18 0.0142 0.0068 *

Earth -86460-03-03 15:49 J -29858030.06 -29858029.84 -29858029.60 0.0142 0.0056

Moon -86460-03-03 18:27 J -29858029.95 -29858029.73 -29858029.50 0.0142 0.0063 *

Moon -86459-03-08 04:03 J -29857660.55 -29857660.33 -29857660.09 0.0143 0.0039

Earth -86459-03-08 06:56 J -29857660.44 -29857660.21 -29857659.97 0.0143 0.0045 *

Earth -86458-03-12 23:15 J -29857290.77 -29857290.53 -29857290.28 0.0143 0.0033

Moon -86458-03-13 02:08 J -29857290.65 -29857290.41 -29857290.16 0.0143 0.0035 *

Moon -86457-03-16 13:39 J -29856921.17 -29856920.93 -29856920.68 0.0144 0.0022

Earth -86457-03-16 17:01 J -29856921.03 -29856920.79 -29856920.54 0.0144 0.0020 *

Earth -86456-03-21 11:59 J -29856551.25 -29856551.00 -29856550.75 0.0145 0.0007

Moon -86456-03-21 15:20 J -29856551.11 -29856550.86 -29856550.61 0.0145 0.0003 *

Moon -86455-03-26 04:47 J -29856181.55 -29856181.30 -29856181.05 0.0145 0.0002

Earth -86455-03-26 08:08 J -29856181.41 -29856181.16 -29856180.91 0.0145 0.0006 *

Earth -86454-03-31 05:30 J -29855811.52 -29855811.27 -29855811.02 0.0146 0.0020

Moon	-86454-03-31 09:06 J	-29855811.36	-29855811.12	-29855810.87	0.0146	0.0028	*
Moon	-86453-04-04 00:42 J	-29855441.72	-29855441.47	-29855441.22	0.0146	0.0028	
Earth	-86453-04-04 04:03 J	-29855441.57	-29855441.33	-29855441.08	0.0146	0.0033	*
Earth	-86452-04-09 03:20 J	-29855071.59	-29855071.36	-29855071.11	0.0146	0.0047	
Moon	-86452-04-09 06:42 J	-29855071.44	-29855071.22	-29855070.97	0.0146	0.0048	*
Moon	-86451-04-14 00:56 J	-29854701.68	-29854701.46	-29854701.22	0.0147	0.0063	
Earth	-86451-04-14 04:32 J	-29854701.54	-29854701.31	-29854701.08	0.0147	0.0060	*
Earth	-86450-04-19 06:13 J	-29854331.45	-29854331.24	-29854331.02	0.0147	0.0073	
Moon	-86450-04-19 08:37 J	-29854331.35	-29854331.14	-29854330.91	0.0147	0.0066	*
Moon	-86449-04-23 06:42 J	-29853961.41	-29853961.22	-29853961.01	0.0147	0.0093	
Earth	-86449-04-23 09:20 J	-29853961.31	-29853961.11	-29853960.90	0.0147	0.0086	*
Earth	-86448-04-28 13:11 J	-29853591.13	-29853590.95	-29853590.76	0.0147	0.0098	
Moon	-86448-04-28 14:23 J	-29853591.09	-29853590.90	-29853590.71	0.0147	0.0094	*
Moon	-86447-05-03 17:15 J	-29853220.95	-29853220.78	-29853220.60	0.0148	0.0110	
Earth	-86447-05-03 17:44 J	-29853220.91	-29853220.76	-29853220.57	0.0148	0.0110	*
Moon	-86446-05-08 23:30 J	-29852850.64	-29852850.52	-29852850.38	0.0148	0.0125	
Earth	-86446-05-08 23:30 J	-29852850.64	-29852850.52	-29852850.35	0.0148	0.0121	*
Earth	-86445-05-13 06:13 J	-29852480.34	-29852480.24	-29852480.10	0.0148	0.0131	
Moon	-86445-05-13 07:25 J	-29852480.32	-29852480.19	-29852480.02	0.0148	0.0123	*
Moon	-86444-05-18 11:44 J	-29852110.02	-29852110.01	-29852109.96	0.0148	0.0147	
Earth	-86444-05-18 13:25 J	-29852110.00	-29852109.94	-29852109.84	0.0148	0.0140	*
Earth	-86443-05-23 21:35 J	-29851739.60	-29851739.60	-29851739.58	0.0147	0.0147	
Moon	-86443-05-24 00:27 J	-29851739.51	-29851739.48	-29851739.41	0.0147	0.0145	
Mars	-86442-04-04 19:54 J	-29851423.88	-29851423.67	-29851423.41	0.0147	0.0106	
Mars	-86440-03-12 17:01 J	-29850716.09	-29850715.79	-29850715.46	0.0147	0.0054	
Earth	-86430-07-28 21:20 J	-29846925.63	-29846925.61	-29846925.54	0.0142	0.0140	
Moon	-86430-07-29 00:27 J	-29846925.54	-29846925.48	-29846925.37	0.0142	0.0134	*
Moon	-86429-08-01 21:06 J	-29846555.67	-29846555.62	-29846555.53	0.0141	0.0135	
Earth	-86429-08-02 00:56 J	-29846555.54	-29846555.46	-29846555.36	0.0141	0.0131	*
Earth	-86428-08-07 03:06 J	-29846185.49	-29846185.37	-29846185.23	0.0140	0.0123	

Moon -86428-08-07 06:42 J -29846185.33 -29846185.22 -29846185.09 0.0140 0.0124 *
 Venus -86428-12-11 05:15 J -29846059.36 -29846059.28 -29846059.19 0.0140 0.0129
 Venus -86427-07-25 16:32 J -29845833.00 -29845832.81 -29845832.60 0.0140 0.0058
 Moon -86427-08-12 00:42 J -29845815.63 -29845815.47 -29845815.30 0.0140 0.0107
 Earth -86427-08-12 04:32 J -29845815.46 -29845815.31 -29845815.15 0.0140 0.0113 *
 Venus -86426-03-09 04:03 J -29845606.56 -29845606.33 -29845606.11 0.0139 0.0012
 Mercury -86426-06-21 01:54 J -29845502.45 -29845502.42 -29845502.38 0.0139 0.0136
 Earth -86426-08-17 04:18 J -29845445.48 -29845445.32 -29845445.13 0.0139 0.0103
 Moon -86426-08-17 08:08 J -29845445.31 -29845445.16 -29845445.00 0.0139 0.0110 *
 Mercury -86426-09-17 08:37 J -29845414.23 -29845414.14 -29845414.03 0.0139 0.0113
 Venus -86426-10-21 14:51 J -29845380.06 -29845379.88 -29845379.70 0.0139 0.0081
 Mercury -86426-12-14 15:20 J -29845325.99 -29845325.86 -29845325.71 0.0139 0.0090
 Mercury -86425-03-11 22:03 J -29845237.73 -29845237.58 -29845237.41 0.0139 0.0067
 Mercury -86425-06-08 04:47 J -29845149.47 -29845149.30 -29845149.13 0.0139 0.0044
 Moon -86425-08-20 23:44 J -29845075.70 -29845075.51 -29845075.29 0.0139 0.0087
 Earth -86425-08-21 03:06 J -29845075.55 -29845075.37 -29845075.17 0.0139 0.0093 *
 Mercury -86425-09-04 11:15 J -29845061.20 -29845061.03 -29845060.85 0.0139 0.0022
 Mercury -86425-12-01 17:59 J -29844972.93 -29844972.75 -29844972.57 0.0138 0.0002
 Mercury -86424-02-28 00:27 J -29844884.66 -29844884.48 -29844884.31 0.0138 0.0024
 Mercury -86424-05-27 06:42 J -29844796.39 -29844796.22 -29844796.05 0.0138 0.0045
 Mercury -86424-08-23 12:56 J -29844708.11 -29844707.96 -29844707.80 0.0138 0.0067
 Earth -86424-08-26 00:42 J -29844705.67 -29844705.47 -29844705.25 0.0138 0.0082
 Moon -86424-08-26 04:18 J -29844705.52 -29844705.32 -29844705.12 0.0138 0.0086 *
 Mercury -86424-11-19 18:56 J -29844619.83 -29844619.71 -29844619.56 0.0138 0.0089
 Mercury -86423-02-16 01:11 J -29844531.54 -29844531.45 -29844531.33 0.0138 0.0110
 Mercury -86423-05-15 07:11 J -29844443.24 -29844443.20 -29844443.13 0.0138 0.0131
 Moon -86423-08-30 18:13 J -29844335.95 -29844335.74 -29844335.49 0.0137 0.0071
 Earth -86423-08-30 21:06 J -29844335.83 -29844335.62 -29844335.39 0.0137 0.0071 *
 Earth -86422-09-04 16:18 J -29843966.06 -29843965.82 -29843965.59 0.0137 0.0060
 Moon -86422-09-04 18:27 J -29843965.96 -29843965.73 -29843965.49 0.0137 0.0056 *

Moon	-86421-09-08 07:25 J	-29843596.42	-29843596.19	-29843595.92	0.0136	0.0056
Earth	-86421-09-08 09:49 J	-29843596.32	-29843596.09	-29843595.83	0.0136	0.0050 *
Earth	-86420-09-13 02:51 J	-29843226.63	-29843226.38	-29843226.13	0.0136	0.0038
Moon	-86420-09-13 03:49 J	-29843226.58	-29843226.34	-29843226.08	0.0136	0.0032 *
Moon	-86419-09-17 16:47 J	-29842857.05	-29842856.80	-29842856.53	0.0135	0.0033
Earth	-86419-09-17 18:13 J	-29842856.98	-29842856.74	-29842856.47	0.0135	0.0028 *
Earth	-86418-09-22 09:06 J	-29842487.38	-29842487.12	-29842486.86	0.0135	0.0016
Moon	-86418-09-22 09:35 J	-29842487.35	-29842487.10	-29842486.85	0.0135	0.0014 *
Moon	-86417-09-25 21:49 J	-29842117.86	-29842117.59	-29842117.32	0.0134	0.0004
Earth	-86417-09-25 22:18 J	-29842117.83	-29842117.57	-29842117.31	0.0134	0.0005 *
Earth	-86416-09-30 10:47 J	-29841748.30	-29841748.05	-29841747.78	0.0134	0.0007
Moon	-86416-09-30 11:01 J	-29841748.28	-29841748.04	-29841747.78	0.0134	0.0004 *
Earth	-86415-10-04 22:18 J	-29841378.82	-29841378.57	-29841378.31	0.0133	0.0017
Moon	-86415-10-04 22:32 J	-29841378.81	-29841378.56	-29841378.28	0.0133	0.0024 *
Moon	-86414-10-09 08:23 J	-29841009.39	-29841009.15	-29841008.89	0.0133	0.0021
Earth	-86414-10-09 08:37 J	-29841009.39	-29841009.14	-29841008.88	0.0133	0.0027 *
Earth	-86413-10-12 17:59 J	-29840639.99	-29840639.75	-29840639.49	0.0133	0.0037
Moon	-86413-10-12 18:56 J	-29840639.96	-29840639.71	-29840639.45	0.0133	0.0043 *
Moon	-86412-10-17 02:08 J	-29840270.65	-29840270.41	-29840270.18	0.0132	0.0043
Earth	-86412-10-17 02:23 J	-29840270.63	-29840270.40	-29840270.14	0.0132	0.0048 *
Earth	-86411-10-21 10:03 J	-29839901.31	-29839901.08	-29839900.84	0.0132	0.0057
Moon	-86411-10-21 11:01 J	-29839901.28	-29839901.04	-29839900.80	0.0132	0.0058 *
Moon	-86410-10-25 15:20 J	-29839532.06	-29839531.86	-29839531.64	0.0132	0.0068
Earth	-86410-10-25 16:18 J	-29839532.02	-29839531.82	-29839531.58	0.0132	0.0066 *
Earth	-86409-10-28 22:32 J	-29839162.77	-29839162.56	-29839162.35	0.0132	0.0074
Moon	-86409-10-28 23:15 J	-29839162.75	-29839162.53	-29839162.30	0.0132	0.0070 *
Moon	-86408-11-02 01:54 J	-29838793.58	-29838793.42	-29838793.22	0.0132	0.0089
Earth	-86408-11-02 03:35 J	-29838793.54	-29838793.35	-29838793.15	0.0132	0.0082 *
Earth	-86407-11-06 08:08 J	-29838424.34	-29838424.16	-29838423.98	0.0131	0.0090
Moon	-86407-11-06 09:06 J	-29838424.32	-29838424.12	-29838423.91	0.0131	0.0083 *

Moon	-86406-11-10 10:18 J	-29838055.20	-29838055.07	-29838054.90	0.0131	0.0103
Earth	-86406-11-10 11:15 J	-29838055.17	-29838055.03	-29838054.83	0.0131	0.0098 *
Earth	-86405-11-13 14:51 J	-29837686.02	-29837685.88	-29837685.71	0.0131	0.0104
Moon	-86405-11-13 16:18 J	-29837685.97	-29837685.82	-29837685.63	0.0131	0.0100 *
Moon	-86404-11-17 17:15 J	-29837316.89	-29837316.78	-29837316.65	0.0131	0.0114
Earth	-86404-11-17 17:59 J	-29837316.87	-29837316.75	-29837316.60	0.0131	0.0110 *
Earth	-86403-11-21 20:23 J	-29836947.75	-29836947.65	-29836947.52	0.0131	0.0116
Moon	-86403-11-21 21:35 J	-29836947.69	-29836947.60	-29836947.46	0.0131	0.0117 *
Moon	-86402-11-25 21:35 J	-29836578.68	-29836578.60	-29836578.48	0.0131	0.0120
Earth	-86402-11-25 22:47 J	-29836578.63	-29836578.55	-29836578.45	0.0131	0.0122 *
Earth	-86401-11-29 00:42 J	-29836209.52	-29836209.47	-29836209.39	0.0131	0.0127
Moon	-86401-11-29 01:54 J	-29836209.43	-29836209.42	-29836209.39	0.0131	0.0131 *
Mars	-86400-07-03 23:30 J	-29835992.67	-29835992.52	-29835992.32	0.0131	0.0103
Moon	-86400-12-03 01:11 J	-29835840.51	-29835840.45	-29835840.36	0.0131	0.0125
Earth	-86400-12-03 02:37 J	-29835840.40	-29835840.39	-29835840.36	0.0131	0.0131 *
Mars	-86398-06-02 13:39 J	-29835294.21	-29835293.93	-29835293.64	0.0132	0.0012
Mars	-86396-05-01 09:06 J	-29834595.34	-29834595.12	-29834594.89	0.0132	0.0082
Moon	-86388-01-13 23:30 J	-29831780.56	-29831780.52	-29831780.46	0.0135	0.0132
Earth	-86387-01-18 03:06 J	-29831411.38	-29831411.37	-29831411.32	0.0136	0.0135
Earth	-86386-01-22 07:54 J	-29831042.23	-29831042.17	-29831042.09	0.0136	0.0130
Moon	-86386-01-22 08:08 J	-29831042.20	-29831042.16	-29831042.06	0.0136	0.0132 *
Moon	-86385-01-26 12:56 J	-29830673.05	-29830672.96	-29830672.84	0.0137	0.0123
Earth	-86385-01-26 12:56 J	-29830673.03	-29830672.96	-29830672.84	0.0137	0.0126 *
Earth	-86384-01-29 19:25 J	-29830303.80	-29830303.69	-29830303.56	0.0137	0.0120
Moon	-86384-01-29 20:23 J	-29830303.74	-29830303.65	-29830303.54	0.0137	0.0126 *
Moon	-86383-02-03 01:25 J	-29829934.57	-29829934.44	-29829934.27	0.0138	0.0107
Earth	-86383-02-03 01:39 J	-29829934.54	-29829934.43	-29829934.27	0.0138	0.0114 *
Earth	-86382-02-07 09:20 J	-29829565.25	-29829565.11	-29829564.94	0.0139	0.0107
Moon	-86382-02-07 10:18 J	-29829565.20	-29829565.07	-29829564.90	0.0139	0.0113 *
Venus	-86382-02-27 05:01 J	-29829545.41	-29829545.29	-29829545.15	0.0139	0.0109

Venus -86382-10-11 11:15 J -29829319.23 -29829319.03 -29829318.83 0.0139 0.0044
 Moon -86381-02-11 16:47 J -29829195.96 -29829195.80 -29829195.61 0.0139 0.0094
 Earth -86381-02-11 17:44 J -29829195.91 -29829195.76 -29829195.57 0.0139 0.0099 *
 Mercury -86381-05-12 23:01 J -29829104.59 -29829104.54 -29829104.47 0.0139 0.0123
 Venus -86381-05-24 17:30 J -29829092.97 -29829092.77 -29829092.55 0.0139 0.0021
 Mercury -86381-08-09 02:51 J -29829016.46 -29829016.38 -29829016.29 0.0139 0.0105
 Mercury -86381-11-05 06:42 J -29828928.33 -29828928.22 -29828928.11 0.0140 0.0088
 Venus -86380-01-05 23:59 J -29828866.65 -29828866.50 -29828866.32 0.0140 0.0087
 Mercury -86380-02-01 10:18 J -29828840.18 -29828840.07 -29828839.94 0.0140 0.0071
 Earth -86380-02-15 03:06 J -29828826.54 -29828826.37 -29828826.17 0.0140 0.0091
 Moon -86380-02-15 04:03 J -29828826.50 -29828826.33 -29828826.12 0.0140 0.0093 *
 Mercury -86380-04-30 14:08 J -29828752.03 -29828751.91 -29828751.77 0.0140 0.0053
 Mercury -86380-07-27 18:13 J -29828663.88 -29828663.74 -29828663.61 0.0140 0.0035
 Mercury -86380-10-23 22:03 J -29828575.72 -29828575.58 -29828575.44 0.0140 0.0017
 Mercury -86379-01-20 01:54 J -29828487.56 -29828487.42 -29828487.28 0.0140 0.0004
 Moon -86379-02-19 11:59 J -29828457.17 -29828457.00 -29828456.79 0.0140 0.0084
 Earth -86379-02-19 13:39 J -29828457.12 -29828456.93 -29828456.72 0.0140 0.0082 *
 Mercury -86379-04-18 05:59 J -29828399.39 -29828399.25 -29828399.11 0.0140 0.0020
 Mercury -86379-07-15 09:49 J -29828311.22 -29828311.09 -29828310.95 0.0141 0.0039
 Mercury -86379-10-11 13:54 J -29828223.05 -29828222.92 -29828222.79 0.0141 0.0058
 Mercury -86378-01-07 17:44 J -29828134.87 -29828134.76 -29828134.63 0.0141 0.0077
 Earth -86378-02-24 00:56 J -29828087.66 -29828087.46 -29828087.23 0.0141 0.0072
 Moon -86378-02-24 02:23 J -29828087.61 -29828087.40 -29828087.17 0.0141 0.0068 *
 Mercury -86378-04-05 21:49 J -29828046.68 -29828046.59 -29828046.47 0.0141 0.0096
 Mercury -86378-07-03 01:54 J -29827958.49 -29827958.42 -29827958.32 0.0141 0.0116
 Mercury -86378-09-29 06:13 J -29827870.27 -29827870.24 -29827870.19 0.0141 0.0135
 Moon -86377-02-28 11:59 J -29827718.20 -29827718.00 -29827717.78 0.0142 0.0068
 Earth -86377-02-28 13:39 J -29827718.14 -29827717.93 -29827717.69 0.0142 0.0062 *
 Earth -86376-03-04 03:35 J -29827348.57 -29827348.35 -29827348.11 0.0142 0.0051
 Moon -86376-03-04 05:59 J -29827348.49 -29827348.25 -29827348.01 0.0142 0.0043 *

Moon	-86375-03-08 16:32 J	-29826979.03	-29826978.81	-29826978.57	0.0143	0.0045
Earth	-86375-03-08 18:42 J	-29826978.95	-29826978.72	-29826978.48	0.0143	0.0039 *
Earth	-86374-03-13 11:15 J	-29826609.27	-29826609.03	-29826608.79	0.0143	0.0027
Moon	-86374-03-13 14:08 J	-29826609.16	-29826608.91	-29826608.66	0.0143	0.0024 *
Moon	-86373-03-17 02:23 J	-29826239.64	-29826239.40	-29826239.16	0.0144	0.0014
Earth	-86373-03-17 05:01 J	-29826239.54	-29826239.29	-29826239.04	0.0144	0.0014 *
Earth	-86372-03-21 23:44 J	-29825869.76	-29825869.51	-29825869.26	0.0144	0.0002
Moon	-86372-03-22 02:51 J	-29825869.63	-29825869.38	-29825869.12	0.0144	0.0008 *
Moon	-86371-03-26 16:32 J	-29825500.06	-29825499.81	-29825499.57	0.0145	0.0019
Earth	-86371-03-26 19:39 J	-29825499.92	-29825499.68	-29825499.42	0.0145	0.0012 *
Earth	-86370-03-31 16:47 J	-29825130.04	-29825129.80	-29825129.54	0.0146	0.0026
Moon	-86370-03-31 20:23 J	-29825129.90	-29825129.65	-29825129.40	0.0146	0.0018 *
Moon	-86369-04-04 11:30 J	-29824760.25	-29824760.02	-29824759.77	0.0146	0.0044
Earth	-86369-04-04 15:35 J	-29824760.09	-29824759.85	-29824759.61	0.0146	0.0038 *
Earth	-86368-04-09 14:51 J	-29824390.11	-29824389.88	-29824389.64	0.0146	0.0052
Moon	-86368-04-09 18:13 J	-29824389.96	-29824389.74	-29824389.49	0.0146	0.0050 *
Moon	-86367-04-14 12:27 J	-29824020.21	-29824019.98	-29824019.74	0.0147	0.0060
Earth	-86367-04-14 15:35 J	-29824020.06	-29824019.85	-29824019.61	0.0147	0.0065 *
Earth	-86366-04-19 17:30 J	-29823649.97	-29823649.77	-29823649.55	0.0147	0.0077
Moon	-86366-04-19 20:51 J	-29823649.83	-29823649.63	-29823649.42	0.0147	0.0083 *
Moon	-86365-04-23 18:13 J	-29823279.95	-29823279.74	-29823279.52	0.0147	0.0082
Earth	-86365-04-23 20:23 J	-29823279.83	-29823279.65	-29823279.43	0.0147	0.0090 *
Earth	-86364-04-29 00:27 J	-29822909.66	-29822909.48	-29822909.29	0.0147	0.0101
Moon	-86364-04-29 02:37 J	-29822909.55	-29822909.39	-29822909.21	0.0147	0.0107 *
Moon	-86363-05-04 04:03 J	-29822539.49	-29822539.33	-29822539.14	0.0148	0.0111
Earth	-86363-05-04 05:30 J	-29822539.43	-29822539.27	-29822539.10	0.0148	0.0112 *
Earth	-86362-05-09 11:01 J	-29822169.16	-29822169.04	-29822168.88	0.0148	0.0123
Moon	-86362-05-09 11:30 J	-29822169.15	-29822169.02	-29822168.86	0.0148	0.0119 *
Earth	-86361-05-13 17:59 J	-29821798.85	-29821798.75	-29821798.63	0.0148	0.0132
Moon	-86361-05-13 18:27 J	-29821798.82	-29821798.73	-29821798.64	0.0148	0.0138 *

Moon	-86360-05-18 23:44 J	-29821428.60	-29821428.51	-29821428.39	0.0148	0.0134
Earth	-86360-05-19 01:11 J	-29821428.51	-29821428.45	-29821428.35	0.0148	0.0141 *
Mars	-86358-11-30 19:54 J	-29820502.98	-29820502.67	-29820502.33	0.0147	0.0042
Mars	-86356-11-07 12:13 J	-29819795.18	-29819794.99	-29819794.76	0.0147	0.0114
Moon	-86347-07-24 02:37 J	-29816614.44	-29816614.39	-29816614.29	0.0142	0.0136
Earth	-86347-07-24 05:01 J	-29816614.30	-29816614.29	-29816614.26	0.0142	0.0142 *
Earth	-86346-07-29 09:06 J	-29816244.19	-29816244.12	-29816244.03	0.0142	0.0134
Moon	-86346-07-29 11:44 J	-29816244.02	-29816244.01	-29816243.96	0.0142	0.0141
Moon	-86345-08-02 09:20 J	-29815874.23	-29815874.11	-29815873.97	0.0141	0.0122
Earth	-86345-08-02 11:59 J	-29815874.09	-29815874.00	-29815873.86	0.0141	0.0126 *
Earth	-86344-08-07 14:37 J	-29815504.03	-29815503.89	-29815503.74	0.0140	0.0117
Moon	-86344-08-07 18:13 J	-29815503.88	-29815503.74	-29815503.57	0.0140	0.0115 *
Venus	-86343-03-24 23:44 J	-29815274.66	-29815274.51	-29815274.33	0.0140	0.0091
Moon	-86343-08-12 11:59 J	-29815134.13	-29815134.00	-29815133.82	0.0140	0.0112
Earth	-86343-08-12 15:49 J	-29815134.00	-29815133.84	-29815133.66	0.0140	0.0107 *
Venus	-86343-11-06 11:30 J	-29815048.24	-29815048.02	-29815047.80	0.0140	0.0020
Venus	-86342-06-20 22:32 J	-29814821.76	-29814821.56	-29814821.34	0.0139	0.0050
Mercury	-86342-07-11 09:20 J	-29814801.16	-29814801.11	-29814801.03	0.0139	0.0131
Earth	-86342-08-17 15:20 J	-29814764.03	-29814763.86	-29814763.65	0.0139	0.0098
Moon	-86342-08-17 18:56 J	-29814763.89	-29814763.71	-29814763.49	0.0139	0.0090 *
Mercury	-86342-10-07 16:03 J	-29814712.93	-29814712.83	-29814712.70	0.0139	0.0107
Mercury	-86341-01-03 23:15 J	-29814624.67	-29814624.53	-29814624.39	0.0139	0.0083
Venus	-86341-02-02 09:20 J	-29814595.22	-29814595.11	-29814594.99	0.0139	0.0118
Mercury	-86341-04-01 05:44 J	-29814536.42	-29814536.26	-29814536.09	0.0139	0.0061
Mercury	-86341-06-28 12:27 J	-29814448.15	-29814447.98	-29814447.81	0.0139	0.0038
Moon	-86341-08-21 10:47 J	-29814394.24	-29814394.05	-29814393.86	0.0139	0.0094
Earth	-86341-08-21 14:23 J	-29814394.09	-29814393.90	-29814393.69	0.0139	0.0087 *
Mercury	-86341-09-24 18:56 J	-29814359.88	-29814359.71	-29814359.53	0.0139	0.0015
Mercury	-86341-12-22 01:25 J	-29814271.61	-29814271.44	-29814271.26	0.0138	0.0008
Mercury	-86340-03-20 07:54 J	-29814183.34	-29814183.17	-29814183.00	0.0138	0.0029

Mercury -86340-06-16 14:08 J -29814095.07 -29814094.91 -29814094.74 0.0138 0.0051

Earth -86340-08-26 11:44 J -29814024.21 -29814024.01 -29814023.78 0.0138 0.0076

Moon -86340-08-26 14:51 J -29814024.08 -29814023.88 -29814023.64 0.0138 0.0073 *

Mercury -86340-09-12 20:23 J -29814006.79 -29814006.65 -29814006.49 0.0138 0.0073

Mercury -86340-12-10 02:51 J -29813918.51 -29813918.38 -29813918.26 0.0138 0.0094

Mercury -86339-03-08 08:37 J -29813830.22 -29813830.14 -29813830.03 0.0138 0.0116

Mercury -86339-06-04 14:37 J -29813741.89 -29813741.89 -29813741.85 0.0138 0.0137

Moon -86339-08-31 04:47 J -29813654.52 -29813654.30 -29813654.05 0.0137 0.0066

Earth -86339-08-31 08:08 J -29813654.38 -29813654.16 -29813653.92 0.0137 0.0065 *

Earth -86338-09-05 03:20 J -29813284.60 -29813284.36 -29813284.12 0.0137 0.0054

Moon -86338-09-05 05:59 J -29813284.47 -29813284.25 -29813284.01 0.0137 0.0058 *

Moon -86337-09-08 18:56 J -29812914.97 -29812914.71 -29812914.45 0.0136 0.0037

Earth -86337-09-08 21:06 J -29812914.86 -29812914.62 -29812914.36 0.0136 0.0044 *

Earth -86336-09-13 14:08 J -29812545.16 -29812544.91 -29812544.66 0.0136 0.0032

Moon -86336-09-13 16:18 J -29812545.05 -29812544.82 -29812544.57 0.0136 0.0040 *

Moon -86335-09-18 04:18 J -29812175.58 -29812175.32 -29812175.05 0.0135 0.0016

Earth -86335-09-18 05:44 J -29812175.51 -29812175.26 -29812174.99 0.0135 0.0022 *

Earth -86334-09-22 20:08 J -29811805.91 -29811805.66 -29811805.39 0.0135 0.0011

Moon -86334-09-22 21:49 J -29811805.84 -29811805.59 -29811805.34 0.0135 0.0014 *

Moon -86333-09-26 08:51 J -29811436.40 -29811436.13 -29811435.86 0.0134 0.0002

Earth -86333-09-26 09:49 J -29811436.35 -29811436.09 -29811435.83 0.0134 0.0002 *

Earth -86332-09-30 22:18 J -29811066.82 -29811066.57 -29811066.30 0.0134 0.0012

Moon -86332-09-30 23:01 J -29811066.79 -29811066.54 -29811066.29 0.0134 0.0015 *

Jupiter -86331-01-12 19:54 J -29810963.16 -29810962.67 -29810962.15 0.0134 0.0029

Moon -86331-10-05 09:06 J -29810697.39 -29810697.12 -29810696.86 0.0133 0.0017

Earth -86331-10-05 09:35 J -29810697.34 -29810697.10 -29810696.83 0.0133 0.0023 *

Earth -86330-10-09 20:08 J -29810327.91 -29810327.66 -29810327.40 0.0133 0.0032

Moon -86330-10-09 19:54 J -29810327.90 -29810327.67 -29810327.42 0.0133 0.0039 *

Moon -86329-10-13 05:01 J -29809958.53 -29809958.29 -29809958.02 0.0133 0.0036

Earth -86329-10-13 05:30 J -29809958.51 -29809958.27 -29809958.02 0.0133 0.0042 *

Earth	-86328-10-17 13:54 J	-29809589.15	-29809588.92	-29809588.67	0.0132	0.0051
Moon	-86328-10-17 13:39 J	-29809589.14	-29809588.93	-29809588.69	0.0132	0.0056 *
Earth	-86327-10-21 21:20 J	-29809219.83	-29809219.61	-29809219.37	0.0132	0.0061
Moon	-86327-10-21 21:35 J	-29809219.82	-29809219.60	-29809219.34	0.0132	0.0059 *
Moon	-86326-10-26 03:35 J	-29808850.55	-29808850.35	-29808850.12	0.0132	0.0069
Earth	-86326-10-26 03:49 J	-29808850.55	-29808850.34	-29808850.11	0.0132	0.0069 *
Earth	-86325-10-29 09:49 J	-29808481.29	-29808481.09	-29808480.88	0.0132	0.0077
Moon	-86325-10-29 10:18 J	-29808481.26	-29808481.07	-29808480.85	0.0132	0.0082 *
Moon	-86324-11-02 14:23 J	-29808112.08	-29808111.90	-29808111.69	0.0131	0.0080
Earth	-86324-11-02 15:06 J	-29808112.06	-29808111.87	-29808111.68	0.0131	0.0085 *
Earth	-86323-11-06 19:11 J	-29807742.87	-29807742.70	-29807742.51	0.0131	0.0092
Moon	-86323-11-06 19:39 J	-29807742.83	-29807742.68	-29807742.49	0.0131	0.0099 *
Moon	-86322-11-10 22:18 J	-29807373.73	-29807373.57	-29807373.38	0.0131	0.0093
Earth	-86322-11-10 23:15 J	-29807373.69	-29807373.53	-29807373.36	0.0131	0.0099 *
Earth	-86321-11-14 02:23 J	-29807004.52	-29807004.40	-29807004.23	0.0131	0.0106
Moon	-86321-11-14 03:06 J	-29807004.50	-29807004.37	-29807004.22	0.0131	0.0111 *
Moon	-86320-11-18 04:47 J	-29806635.42	-29806635.30	-29806635.16	0.0131	0.0110
Earth	-86320-11-18 05:30 J	-29806635.38	-29806635.27	-29806635.12	0.0131	0.0112 *
Earth	-86319-11-22 08:23 J	-29806266.25	-29806266.15	-29806266.03	0.0131	0.0117
Moon	-86319-11-22 08:51 J	-29806266.23	-29806266.13	-29806266.01	0.0131	0.0118 *
Moon	-86318-11-26 09:49 J	-29805897.14	-29805897.09	-29805897.00	0.0131	0.0126
Earth	-86318-11-26 10:32 J	-29805897.13	-29805897.06	-29805896.96	0.0131	0.0123 *
Earth	-86317-11-29 12:27 J	-29805528.02	-29805527.98	-29805527.90	0.0131	0.0127
Moon	-86317-11-29 13:25 J	-29805528.02	-29805527.94	-29805527.83	0.0131	0.0122 *
Earth	-86316-12-03 14:23 J	-29805158.91	-29805158.90	-29805158.86	0.0131	0.0131
Mars	-86315-02-26 00:13 J	-29805074.73	-29805074.49	-29805074.24	0.0131	0.0065
Moon	-86315-12-07 16:03 J	-29804789.86	-29804789.83	-29804789.74	0.0132	0.0128
Mars	-86313-01-25 15:35 J	-29804376.13	-29804375.85	-29804375.57	0.0132	0.0026
Mars	-86312-12-24 13:25 J	-29803677.03	-29803676.94	-29803676.79	0.0132	0.0120
Moon	-86305-01-11 07:54 J	-29801468.21	-29801468.17	-29801468.11	0.0135	0.0131

Earth	-86304-01-14 10:47 J	-29801099.06	-29801099.05	-29801099.00	0.0135	0.0134
Earth	-86303-01-18 14:37 J	-29800729.93	-29800729.89	-29800729.80	0.0136	0.0131
Moon	-86303-01-18 15:20 J	-29800729.93	-29800729.86	-29800729.78	0.0136	0.0128 *
Moon	-86302-01-22 19:25 J	-29800360.78	-29800360.69	-29800360.59	0.0136	0.0125
Earth	-86302-01-22 19:25 J	-29800360.76	-29800360.69	-29800360.58	0.0136	0.0126 *
Earth	-86301-01-27 00:42 J	-29799991.57	-29799991.47	-29799991.34	0.0137	0.0121
Moon	-86301-01-27 00:42 J	-29799991.56	-29799991.47	-29799991.37	0.0137	0.0125 *
Moon	-86300-01-30 06:13 J	-29799622.38	-29799622.24	-29799622.07	0.0137	0.0110
Earth	-86300-01-30 06:27 J	-29799622.34	-29799622.23	-29799622.08	0.0137	0.0115 *
Earth	-86299-02-03 13:25 J	-29799253.09	-29799252.94	-29799252.78	0.0138	0.0108
Moon	-86299-02-03 13:11 J	-29799253.08	-29799252.95	-29799252.82	0.0138	0.0115 *
Moon	-86298-02-07 20:51 J	-29798883.81	-29798883.63	-29798883.43	0.0139	0.0094
Earth	-86298-02-07 20:37 J	-29798883.79	-29798883.64	-29798883.46	0.0139	0.0102 *
Venus	-86298-06-10 21:06 J	-29798760.79	-29798760.62	-29798760.44	0.0139	0.0075
Venus	-86297-01-23 03:20 J	-29798534.57	-29798534.36	-29798534.14	0.0139	0.0011
Earth	-86297-02-12 05:01 J	-29798514.46	-29798514.29	-29798514.10	0.0139	0.0094
Moon	-86297-02-12 04:32 J	-29798514.45	-29798514.31	-29798514.12	0.0139	0.0100 *
Mercury	-86297-03-06 02:37 J	-29798491.41	-29798491.39	-29798491.35	0.0139	0.0136
Mercury	-86297-06-02 06:27 J	-29798403.30	-29798403.23	-29798403.16	0.0139	0.0118
Mercury	-86297-08-29 10:03 J	-29798315.17	-29798315.08	-29798314.98	0.0139	0.0101
Venus	-86297-09-05 09:35 J	-29798308.28	-29798308.10	-29798307.90	0.0139	0.0055
Mercury	-86297-11-25 13:54 J	-29798227.03	-29798226.92	-29798226.80	0.0140	0.0084
Earth	-86296-02-15 14:23 J	-29798145.08	-29798144.90	-29798144.70	0.0140	0.0085
Moon	-86296-02-15 15:06 J	-29798145.06	-29798144.87	-29798144.65	0.0140	0.0083 *
Mercury	-86296-02-21 17:44 J	-29798138.88	-29798138.76	-29798138.64	0.0140	0.0066
Venus	-86296-04-19 16:18 J	-29798081.92	-29798081.82	-29798081.71	0.0140	0.0121
Mercury	-86296-05-20 21:35 J	-29798050.73	-29798050.60	-29798050.47	0.0140	0.0048
Mercury	-86296-08-17 01:25 J	-29797962.57	-29797962.44	-29797962.30	0.0140	0.0031
Mercury	-86296-11-13 05:15 J	-29797874.42	-29797874.28	-29797874.14	0.0140	0.0013
Mercury	-86295-02-09 09:20 J	-29797786.25	-29797786.11	-29797785.97	0.0140	0.0007

Moon -86295-02-20 00:13 J -29797775.68 -29797775.49 -29797775.28 0.0140 0.0076
 Earth -86295-02-20 00:27 J -29797775.67 -29797775.48 -29797775.25 0.0140 0.0077 *
 Mercury -86295-05-08 13:11 J -29797698.09 -29797697.95 -29797697.81 0.0140 0.0024
 Mercury -86295-08-04 17:15 J -29797609.92 -29797609.78 -29797609.65 0.0141 0.0043
 Mercury -86295-10-31 21:06 J -29797521.74 -29797521.62 -29797521.49 0.0141 0.0062
 Mercury -86294-01-28 01:11 J -29797433.56 -29797433.45 -29797433.33 0.0141 0.0081
 Earth -86294-02-24 12:13 J -29797406.20 -29797405.99 -29797405.77 0.0141 0.0066
 Moon -86294-02-24 13:39 J -29797406.16 -29797405.93 -29797405.71 0.0141 0.0070 *
 Mercury -86294-04-26 05:15 J -29797345.37 -29797345.28 -29797345.18 0.0141 0.0100
 Mercury -86294-07-23 09:20 J -29797257.18 -29797257.11 -29797257.03 0.0141 0.0120
 Mercury -86294-10-19 13:25 J -29797168.95 -29797168.94 -29797168.90 0.0141 0.0139
 Moon -86293-02-28 23:44 J -29797036.73 -29797036.51 -29797036.28 0.0142 0.0050
 Earth -86293-02-29 00:56 J -29797036.68 -29797036.46 -29797036.23 0.0142 0.0056 *
 Earth -86292-03-04 14:37 J -29796667.12 -29796666.89 -29796666.65 0.0142 0.0045
 Moon -86292-03-04 16:18 J -29796667.06 -29796666.82 -29796666.58 0.0142 0.0051 *
 Moon -86291-03-09 03:49 J -29796297.57 -29796297.34 -29796297.10 0.0143 0.0027
 Earth -86291-03-09 05:44 J -29796297.49 -29796297.26 -29796297.01 0.0143 0.0034 *
 Earth -86290-03-13 22:03 J -29795927.82 -29795927.58 -29795927.33 0.0143 0.0022
 Moon -86290-03-13 23:59 J -29795927.74 -29795927.50 -29795927.24 0.0143 0.0025 *
 Moon -86289-03-17 13:11 J -29795558.19 -29795557.95 -29795557.71 0.0144 0.0010
 Earth -86289-03-17 15:49 J -29795558.09 -29795557.84 -29795557.59 0.0144 0.0009 *
 Earth -86288-03-22 10:18 J -29795188.31 -29795188.07 -29795187.82 0.0144 0.0005
 Moon -86288-03-22 13:11 J -29795188.20 -29795187.95 -29795187.70 0.0144 0.0008 *
 Moon -86287-03-27 03:20 J -29794818.61 -29794818.36 -29794818.12 0.0145 0.0010
 Earth -86287-03-27 06:13 J -29794818.48 -29794818.24 -29794817.99 0.0145 0.0017 *
 Earth -86286-04-01 03:20 J -29794448.60 -29794448.36 -29794448.12 0.0145 0.0030
 Moon -86286-04-01 06:42 J -29794448.46 -29794448.22 -29794447.97 0.0145 0.0038 *
 Moon -86285-04-04 22:18 J -29794078.81 -29794078.57 -29794078.33 0.0146 0.0037
 Earth -86285-04-05 01:25 J -29794078.67 -29794078.44 -29794078.19 0.0146 0.0043 *
 Earth -86284-04-10 00:42 J -29793708.69 -29793708.47 -29793708.23 0.0146 0.0056

Moon	-86284-04-10 04:32 J	-29793708.54	-29793708.31	-29793708.07	0.0146	0.0056	*
Moon	-86283-04-14 21:49 J	-29793338.80	-29793338.59	-29793338.36	0.0147	0.0070	
Earth	-86283-04-15 01:25 J	-29793338.65	-29793338.44	-29793338.21	0.0147	0.0068	*
Earth	-86282-04-20 03:06 J	-29792968.57	-29792968.37	-29792968.15	0.0147	0.0080	
Moon	-86282-04-20 06:13 J	-29792968.44	-29792968.24	-29792968.01	0.0147	0.0073	*
Moon	-86281-04-24 02:23 J	-29792598.57	-29792598.40	-29792598.19	0.0147	0.0100	
Earth	-86281-04-24 05:44 J	-29792598.44	-29792598.26	-29792598.04	0.0147	0.0092	*
Earth	-86280-04-29 09:49 J	-29792228.26	-29792228.09	-29792227.90	0.0147	0.0103	
Moon	-86280-04-29 11:59 J	-29792228.16	-29792228.00	-29792227.80	0.0147	0.0099	*
Moon	-86279-05-04 12:42 J	-29791858.11	-29791857.97	-29791857.79	0.0147	0.0115	
Earth	-86279-05-04 15:06 J	-29791858.03	-29791857.87	-29791857.71	0.0147	0.0114	*
Earth	-86278-05-09 20:37 J	-29791487.76	-29791487.64	-29791487.49	0.0147	0.0124	
Moon	-86278-05-09 22:03 J	-29791487.70	-29791487.58	-29791487.45	0.0147	0.0127	*
Moon	-86277-05-14 03:06 J	-29791117.49	-29791117.37	-29791117.21	0.0148	0.0126	
Earth	-86277-05-14 03:20 J	-29791117.46	-29791117.36	-29791117.24	0.0148	0.0133	*
Earth	-86276-05-19 10:32 J	-29790747.12	-29790747.06	-29790746.97	0.0147	0.0141	
Moon	-86275-05-24 20:08 J	-29790376.69	-29790376.66	-29790376.58	0.0147	0.0145	
Mars	-86275-08-19 10:03 J	-29790290.15	-29790290.08	-29790289.95	0.0147	0.0141	
Mars	-86273-07-27 12:42 J	-29789582.29	-29789581.97	-29789581.63	0.0147	0.0018	
Moon	-86264-07-19 08:51 J	-29786303.17	-29786303.13	-29786303.04	0.0143	0.0139	
Earth	-86263-07-24 13:39 J	-29785932.99	-29785932.93	-29785932.84	0.0142	0.0137	
Earth	-86262-07-29 17:44 J	-29785562.85	-29785562.76	-29785562.64	0.0142	0.0129	
Moon	-86262-07-29 19:25 J	-29785562.80	-29785562.69	-29785562.53	0.0142	0.0123	*
Moon	-86261-08-02 18:13 J	-29785192.85	-29785192.74	-29785192.61	0.0141	0.0124	
Earth	-86261-08-02 21:20 J	-29785192.74	-29785192.61	-29785192.47	0.0141	0.0120	*
Earth	-86260-08-07 23:15 J	-29784822.67	-29784822.53	-29784822.35	0.0141	0.0112	
Moon	-86260-08-08 02:23 J	-29784822.55	-29784822.40	-29784822.22	0.0141	0.0112	*
Venus	-86260-11-22 05:30 J	-29784716.35	-29784716.27	-29784716.16	0.0140	0.0126	
Venus	-86259-07-06 17:15 J	-29784489.98	-29784489.78	-29784489.56	0.0140	0.0055	
Moon	-86259-08-12 21:06 J	-29784452.80	-29784452.62	-29784452.43	0.0140	0.0096	

Earth -86259-08-13 00:27 J -29784452.64 -29784452.48 -29784452.29 0.0140 0.0102 *
 Venus -86258-02-18 04:32 J -29784263.53 -29784263.31 -29784263.08 0.0140 0.0016
 Mercury -86258-07-31 16:18 J -29784099.88 -29784099.82 -29784099.73 0.0139 0.0126
 Earth -86258-08-18 00:27 J -29784082.67 -29784082.48 -29784082.28 0.0139 0.0091
 Moon -86258-08-18 04:18 J -29784082.50 -29784082.32 -29784082.13 0.0139 0.0099 *
 Venus -86258-10-02 15:20 J -29784037.03 -29784036.86 -29784036.67 0.0139 0.0085
 Mercury -86258-10-27 23:15 J -29784011.64 -29784011.53 -29784011.40 0.0139 0.0103
 Mercury -86257-01-24 05:59 J -29783923.39 -29783923.25 -29783923.10 0.0139 0.0079
 Mercury -86257-04-21 12:27 J -29783835.13 -29783834.98 -29783834.80 0.0139 0.0057
 Mercury -86257-07-18 19:11 J -29783746.86 -29783746.70 -29783746.52 0.0139 0.0034
 Moon -86257-08-21 19:25 J -29783712.90 -29783712.69 -29783712.46 0.0139 0.0075
 Earth -86257-08-21 22:47 J -29783712.74 -29783712.55 -29783712.31 0.0139 0.0082 *
 Mercury -86257-10-15 01:54 J -29783658.60 -29783658.42 -29783658.24 0.0139 0.0011
 Mercury -86256-01-11 08:23 J -29783570.33 -29783570.15 -29783569.97 0.0138 0.0011
 Mercury -86256-04-09 14:51 J -29783482.05 -29783481.88 -29783481.71 0.0138 0.0033
 Mercury -86256-07-06 21:06 J -29783393.78 -29783393.62 -29783393.46 0.0138 0.0055
 Earth -86256-08-26 20:51 J -29783342.86 -29783342.63 -29783342.41 0.0138 0.0070
 Moon -86256-08-27 00:27 J -29783342.69 -29783342.48 -29783342.25 0.0138 0.0075 *
 Mercury -86256-10-03 03:20 J -29783305.50 -29783305.36 -29783305.21 0.0138 0.0077
 Mercury -86256-12-30 09:35 J -29783217.22 -29783217.10 -29783216.97 0.0138 0.0098
 Mercury -86255-03-28 15:35 J -29783128.92 -29783128.85 -29783128.75 0.0138 0.0120
 Moon -86255-08-31 13:25 J -29782973.17 -29782972.94 -29782972.69 0.0137 0.0059
 Earth -86255-08-31 17:15 J -29782973.02 -29782972.78 -29782972.54 0.0137 0.0060 *
 Earth -86254-09-05 11:59 J -29782603.24 -29782603.00 -29782602.75 0.0137 0.0049
 Moon -86254-09-05 15:06 J -29782603.10 -29782602.87 -29782602.62 0.0137 0.0045 *
 Moon -86253-09-09 02:51 J -29782233.62 -29782233.38 -29782233.12 0.0136 0.0044
 Earth -86253-09-09 05:59 J -29782233.49 -29782233.25 -29782232.98 0.0136 0.0039 *
 Earth -86252-09-13 23:15 J -29781863.79 -29781863.53 -29781863.27 0.0136 0.0027
 Moon -86252-09-14 01:39 J -29781863.68 -29781863.43 -29781863.18 0.0136 0.0020 *
 Moon -86251-09-18 12:27 J -29781494.25 -29781493.98 -29781493.72 0.0135 0.0023

Earth	-86251-09-18 14:51 J	-29781494.13	-29781493.88	-29781493.61	0.0135	0.0016	*
Earth	-86250-09-23 05:44 J	-29781124.52	-29781124.26	-29781124.00	0.0135	0.0005	
Moon	-86250-09-23 07:39 J	-29781124.43	-29781124.18	-29781123.93	0.0135	0.0002	*
Moon	-86249-09-26 17:44 J	-29780755.03	-29780754.76	-29780754.49	0.0134	0.0006	
Earth	-86249-09-26 19:25 J	-29780754.95	-29780754.69	-29780754.43	0.0134	0.0006	*
Earth	-86248-10-01 07:54 J	-29780385.42	-29780385.17	-29780384.91	0.0134	0.0016	
Moon	-86248-10-01 09:35 J	-29780385.35	-29780385.10	-29780384.85	0.0134	0.0014	*
Moon	-86247-10-05 18:27 J	-29780015.98	-29780015.73	-29780015.46	0.0133	0.0032	
Earth	-86247-10-05 19:25 J	-29780015.94	-29780015.69	-29780015.43	0.0133	0.0026	*
Earth	-86246-10-10 05:44 J	-29779646.50	-29779646.26	-29779646.00	0.0133	0.0036	
Moon	-86246-10-10 06:56 J	-29779646.45	-29779646.21	-29779645.96	0.0133	0.0030	*
Moon	-86245-10-13 14:23 J	-29779277.13	-29779276.90	-29779276.64	0.0133	0.0052	
Earth	-86245-10-13 15:20 J	-29779277.10	-29779276.86	-29779276.61	0.0133	0.0046	*
Earth	-86244-10-17 23:30 J	-29778907.74	-29778907.52	-29778907.27	0.0132	0.0056	
Moon	-86244-10-18 00:13 J	-29778907.71	-29778907.49	-29778907.25	0.0132	0.0050	*
Moon	-86243-10-22 06:13 J	-29778538.45	-29778538.24	-29778537.99	0.0132	0.0066	
Earth	-86243-10-22 07:11 J	-29778538.42	-29778538.20	-29778537.97	0.0132	0.0064	*
Earth	-86242-10-26 13:39 J	-29778169.13	-29778168.93	-29778168.70	0.0132	0.0072	
Moon	-86242-10-26 13:25 J	-29778169.12	-29778168.94	-29778168.71	0.0132	0.0074	*
Moon	-86241-10-29 18:56 J	-29777799.90	-29777799.71	-29777799.47	0.0132	0.0077	
Earth	-86241-10-29 19:39 J	-29777799.87	-29777799.68	-29777799.46	0.0132	0.0080	*
Earth	-86240-11-03 00:42 J	-29777430.64	-29777430.47	-29777430.26	0.0131	0.0088	
Moon	-86240-11-03 01:11 J	-29777430.62	-29777430.45	-29777430.28	0.0131	0.0093	*
Moon	-86239-11-07 05:30 J	-29777061.45	-29777061.27	-29777061.06	0.0131	0.0088	
Earth	-86239-11-07 05:30 J	-29777061.43	-29777061.27	-29777061.08	0.0131	0.0095	*
Earth	-86238-11-11 09:20 J	-29776692.25	-29776692.11	-29776691.93	0.0131	0.0102	
Moon	-86238-11-11 10:03 J	-29776692.21	-29776692.08	-29776691.94	0.0131	0.0108	*
Moon	-86237-11-14 13:25 J	-29776323.09	-29776322.94	-29776322.76	0.0131	0.0103	
Earth	-86237-11-14 13:11 J	-29776323.08	-29776322.95	-29776322.79	0.0131	0.0108	*
Earth	-86236-11-18 16:18 J	-29775953.93	-29775953.82	-29775953.68	0.0131	0.0113	

Moon	-86236-11-18 16:32 J	-29775953.90	-29775953.81	-29775953.68	0.0131	0.0117	*
Moon	-86235-11-22 19:11 J	-29775584.81	-29775584.70	-29775584.58	0.0131	0.0118	
Earth	-86235-11-22 18:56 J	-29775584.80	-29775584.71	-29775584.59	0.0131	0.0118	*
Moon	-86234-11-26 21:20 J	-29775215.68	-29775215.61	-29775215.50	0.0131	0.0121	
Earth	-86234-11-26 21:06 J	-29775215.68	-29775215.62	-29775215.51	0.0131	0.0124	*
Mars	-86233-11-21 11:59 J	-29774855.10	-29774855.00	-29774854.85	0.0131	0.0118	
Earth	-86233-11-29 23:15 J	-29774846.57	-29774846.53	-29774846.44	0.0131	0.0127	
Moon	-86233-11-29 23:01 J	-29774846.55	-29774846.54	-29774846.49	0.0131	0.0130	*
Moon	-86232-12-04 01:11 J	-29774477.51	-29774477.45	-29774477.37	0.0131	0.0125	
Earth	-86232-12-04 01:11 J	-29774477.46	-29774477.45	-29774477.41	0.0131	0.0131	*
Mars	-86231-10-20 23:59 J	-29774156.77	-29774156.50	-29774156.21	0.0132	0.0029	
Moon	-86230-12-12 04:18 J	-29773739.35	-29773739.32	-29773739.28	0.0132	0.0130	
Mars	-86229-09-18 17:30 J	-29773458.01	-29773457.77	-29773457.51	0.0132	0.0062	
Moon	-86222-01-07 14:23 J	-29771155.94	-29771155.90	-29771155.81	0.0134	0.0129	
Earth	-86221-01-11 19:11 J	-29770786.74	-29770786.70	-29770786.67	0.0135	0.0133	
Moon	-86220-01-14 21:06 J	-29770417.70	-29770417.62	-29770417.50	0.0135	0.0125	
Earth	-86220-01-14 22:03 J	-29770417.62	-29770417.58	-29770417.50	0.0135	0.0130	*
Earth	-86219-01-19 02:23 J	-29770048.48	-29770048.40	-29770048.31	0.0136	0.0126	
Moon	-86219-01-19 03:06 J	-29770048.43	-29770048.37	-29770048.29	0.0136	0.0129	*
Moon	-86218-01-23 05:59 J	-29769679.35	-29769679.25	-29769679.12	0.0136	0.0122	
Earth	-86218-01-23 06:27 J	-29769679.32	-29769679.23	-29769679.10	0.0136	0.0122	*
Earth	-86217-01-27 11:44 J	-29769310.13	-29769310.01	-29769309.88	0.0137	0.0116	
Moon	-86217-01-27 12:42 J	-29769310.09	-29769309.97	-29769309.83	0.0137	0.0114	*
Moon	-86216-01-30 16:47 J	-29768940.92	-29768940.80	-29768940.64	0.0137	0.0115	
Earth	-86216-01-30 17:15 J	-29768940.91	-29768940.78	-29768940.62	0.0137	0.0110	*
Earth	-86215-02-03 23:30 J	-29768571.66	-29768571.52	-29768571.34	0.0138	0.0104	
Moon	-86215-02-04 00:13 J	-29768571.64	-29768571.49	-29768571.30	0.0138	0.0097	*
Moon	-86214-02-08 06:27 J	-29768202.38	-29768202.23	-29768202.04	0.0138	0.0103	
Earth	-86214-02-08 06:56 J	-29768202.37	-29768202.21	-29768202.01	0.0138	0.0097	*
Venus	-86214-02-08 06:42 J	-29768202.35	-29768202.22	-29768202.08	0.0138	0.0106	*

Venus -86214-09-22 12:42 J -29767976.17 -29767975.97 -29767975.76 0.0139 0.0042
 Moon -86213-02-12 15:35 J -29767833.03 -29767832.85 -29767832.65 0.0139 0.0083
 Earth -86213-02-12 15:35 J -29767833.03 -29767832.85 -29767832.65 0.0139 0.0088 *
 Mercury -86213-03-26 09:49 J -29767790.12 -29767790.09 -29767790.04 0.0139 0.0132
 Venus -86213-05-05 18:56 J -29767749.91 -29767749.71 -29767749.50 0.0139 0.0023
 Mercury -86213-06-22 13:39 J -29767702.01 -29767701.93 -29767701.85 0.0139 0.0115
 Mercury -86213-09-18 17:15 J -29767613.87 -29767613.78 -29767613.68 0.0139 0.0098
 Mercury -86213-12-15 20:51 J -29767525.73 -29767525.63 -29767525.50 0.0140 0.0081
 Venus -86213-12-18 01:25 J -29767523.59 -29767523.44 -29767523.27 0.0140 0.0089
 Moon -86212-02-16 00:27 J -29767463.68 -29767463.48 -29767463.28 0.0140 0.0083
 Earth -86212-02-16 00:42 J -29767463.66 -29767463.47 -29767463.26 0.0140 0.0080 *
 Mercury -86212-03-14 00:56 J -29767437.58 -29767437.46 -29767437.34 0.0140 0.0063
 Mercury -86212-06-10 04:47 J -29767349.43 -29767349.30 -29767349.17 0.0140 0.0045
 Mercury -86212-09-06 08:37 J -29767261.28 -29767261.14 -29767261.00 0.0140 0.0027
 Mercury -86212-12-03 12:27 J -29767173.12 -29767172.98 -29767172.84 0.0140 0.0009
 Moon -86211-02-20 10:47 J -29767094.25 -29767094.05 -29767093.84 0.0140 0.0072
 Earth -86211-02-20 11:01 J -29767094.24 -29767094.04 -29767093.82 0.0140 0.0071 *
 Mercury -86211-03-01 16:32 J -29767084.96 -29767084.81 -29767084.67 0.0140 0.0011
 Mercury -86211-05-28 20:23 J -29766996.79 -29766996.65 -29766996.51 0.0140 0.0028
 Mercury -86211-08-25 00:27 J -29766908.62 -29766908.48 -29766908.35 0.0141 0.0047
 Mercury -86211-11-21 04:18 J -29766820.44 -29766820.32 -29766820.19 0.0141 0.0066
 Mercury -86210-02-17 08:23 J -29766732.26 -29766732.15 -29766732.03 0.0141 0.0085
 Earth -86210-02-24 22:18 J -29766724.78 -29766724.57 -29766724.34 0.0141 0.0061
 Moon -86210-02-24 22:32 J -29766724.78 -29766724.56 -29766724.32 0.0141 0.0057 *
 Mercury -86210-05-16 12:27 J -29766644.07 -29766643.98 -29766643.88 0.0141 0.0104
 Mercury -86210-08-12 16:32 J -29766555.87 -29766555.81 -29766555.74 0.0141 0.0123
 Moon -86209-02-29 10:32 J -29766355.27 -29766355.06 -29766354.84 0.0142 0.0056
 Earth -86209-02-29 10:47 J -29766355.26 -29766355.05 -29766354.80 0.0142 0.0051 *
 Earth -86208-03-05 00:56 J -29765985.69 -29765985.46 -29765985.22 0.0142 0.0039
 Moon -86208-03-05 02:08 J -29765985.66 -29765985.41 -29765985.16 0.0142 0.0032 *

Moon	-86207-03-09 15:06 J	-29765616.10	-29765615.87	-29765615.64	0.0143	0.0034
Earth	-86207-03-09 15:49 J	-29765616.08	-29765615.84	-29765615.59	0.0143	0.0028 *
Earth	-86206-03-14 08:08 J	-29765246.41	-29765246.16	-29765245.91	0.0143	0.0016
Moon	-86206-03-14 10:03 J	-29765246.33	-29765246.08	-29765245.83	0.0143	0.0013 *
Moon	-86205-03-17 23:44 J	-29764876.75	-29764876.51	-29764876.26	0.0144	0.0005
Earth	-86205-03-18 01:39 J	-29764876.68	-29764876.43	-29764876.19	0.0144	0.0004 *
Earth	-86204-03-22 19:54 J	-29764506.92	-29764506.67	-29764506.42	0.0144	0.0009
Moon	-86204-03-22 22:18 J	-29764506.82	-29764506.57	-29764506.31	0.0144	0.0005 *
Moon	-86203-03-27 12:56 J	-29764137.20	-29764136.96	-29764136.72	0.0145	0.0029
Earth	-86203-03-27 15:35 J	-29764137.09	-29764136.85	-29764136.60	0.0145	0.0022 *
Earth	-86202-04-01 12:27 J	-29763767.21	-29763766.98	-29763766.73	0.0145	0.0035
Moon	-86202-04-01 15:20 J	-29763767.10	-29763766.86	-29763766.60	0.0145	0.0027 *
Moon	-86201-04-05 06:56 J	-29763397.42	-29763397.21	-29763396.96	0.0146	0.0053
Earth	-86201-04-05 10:32 J	-29763397.29	-29763397.06	-29763396.81	0.0146	0.0047 *
Earth	-86200-04-10 09:49 J	-29763027.31	-29763027.09	-29763026.85	0.0146	0.0059
Moon	-86200-04-10 13:25 J	-29763027.17	-29763026.94	-29763026.71	0.0146	0.0057 *
Moon	-86199-04-15 06:42 J	-29762657.43	-29762657.22	-29762656.98	0.0147	0.0069
Earth	-86199-04-15 10:18 J	-29762657.27	-29762657.07	-29762656.84	0.0147	0.0072 *
Earth	-86198-04-20 12:13 J	-29762287.20	-29762286.99	-29762286.79	0.0147	0.0083
Moon	-86198-04-20 15:35 J	-29762287.04	-29762286.85	-29762286.64	0.0147	0.0090 *
Moon	-86197-04-24 11:44 J	-29761917.21	-29761917.01	-29761916.80	0.0147	0.0087
Earth	-86197-04-24 14:37 J	-29761917.06	-29761916.89	-29761916.68	0.0147	0.0096 *
Earth	-86196-04-29 18:42 J	-29761546.89	-29761546.72	-29761546.54	0.0147	0.0106
Moon	-86196-04-29 21:35 J	-29761546.74	-29761546.60	-29761546.43	0.0147	0.0113 *
Moon	-86195-05-04 20:51 J	-29761176.78	-29761176.63	-29761176.45	0.0147	0.0113
Earth	-86195-05-04 23:30 J	-29761176.66	-29761176.52	-29761176.35	0.0147	0.0116 *
Earth	-86194-05-10 05:15 J	-29760806.39	-29760806.28	-29760806.13	0.0147	0.0126
Moon	-86194-05-10 06:42 J	-29760806.33	-29760806.22	-29760806.06	0.0147	0.0123 *
Moon	-86193-05-14 10:32 J	-29760436.13	-29760436.06	-29760435.97	0.0147	0.0140
Earth	-86193-05-14 11:59 J	-29760436.10	-29760436.00	-29760435.89	0.0147	0.0134 *

Moon	-86192-05-19 18:56 J	-29760065.80	-29760065.71	-29760065.60	0.0147	0.0135
Earth	-86192-05-19 18:56 J	-29760065.76	-29760065.71	-29760065.62	0.0147	0.0142 *
Mars	-86190-04-16 04:18 J	-29759369.59	-29759369.32	-29759369.02	0.0147	0.0080
Mars	-86188-03-24 02:37 J	-29758661.66	-29758661.39	-29758661.09	0.0147	0.0076
Earth	-86180-07-19 17:01 J	-29755621.83	-29755621.79	-29755621.71	0.0143	0.0139
Moon	-86180-07-19 16:47 J	-29755621.80	-29755621.80	-29755621.77	0.0143	0.0143 *
Moon	-86179-07-24 22:03 J	-29755251.69	-29755251.58	-29755251.46	0.0142	0.0126
Earth	-86179-07-24 22:32 J	-29755251.65	-29755251.56	-29755251.46	0.0142	0.0132 *
Earth	-86178-07-30 02:37 J	-29754881.50	-29754881.39	-29754881.25	0.0142	0.0124
Moon	-86178-07-30 04:03 J	-29754881.40	-29754881.33	-29754881.20	0.0142	0.0131 *
Moon	-86177-08-03 04:32 J	-29754511.47	-29754511.31	-29754511.16	0.0141	0.0111
Earth	-86177-08-03 05:59 J	-29754511.38	-29754511.25	-29754511.08	0.0141	0.0115 *
Earth	-86176-08-08 08:23 J	-29754141.31	-29754141.15	-29754140.97	0.0141	0.0106
Moon	-86176-08-08 11:15 J	-29754141.19	-29754141.03	-29754140.83	0.0141	0.0105 *
Venus	-86175-03-05 23:01 J	-29753931.70	-29753931.54	-29753931.35	0.0140	0.0091
Moon	-86175-08-13 06:27 J	-29753771.40	-29753771.23	-29753771.04	0.0140	0.0100
Earth	-86175-08-13 09:20 J	-29753771.28	-29753771.11	-29753770.90	0.0140	0.0096 *
Venus	-86175-10-18 10:47 J	-29753705.27	-29753705.05	-29753704.83	0.0140	0.0020
Venus	-86174-06-01 21:49 J	-29753478.79	-29753478.59	-29753478.37	0.0140	0.0050
Earth	-86174-08-18 09:06 J	-29753401.31	-29753401.12	-29753400.90	0.0139	0.0086
Moon	-86174-08-18 12:56 J	-29753401.17	-29753400.96	-29753400.74	0.0139	0.0079 *
Mercury	-86174-08-20 23:30 J	-29753398.60	-29753398.52	-29753398.43	0.0139	0.0122
Mercury	-86174-11-17 06:13 J	-29753310.36	-29753310.24	-29753310.11	0.0139	0.0098
Venus	-86173-01-14 08:23 J	-29753252.25	-29753252.15	-29753252.02	0.0139	0.0119
Mercury	-86173-02-13 12:56 J	-29753222.10	-29753221.96	-29753221.80	0.0139	0.0075
Mercury	-86173-05-11 19:39 J	-29753133.84	-29753133.68	-29753133.51	0.0139	0.0052
Mercury	-86173-08-08 02:23 J	-29753045.57	-29753045.40	-29753045.23	0.0139	0.0029
Moon	-86173-08-22 04:32 J	-29753031.52	-29753031.31	-29753031.10	0.0139	0.0083
Earth	-86173-08-22 07:54 J	-29753031.37	-29753031.17	-29753030.93	0.0139	0.0076 *
Mercury	-86173-11-04 08:51 J	-29752957.31	-29752957.13	-29752956.95	0.0139	0.0007

Mercury -86172-01-31 15:20 J -29752869.03 -29752868.86 -29752868.68 0.0139 0.0016

Mercury -86172-04-29 21:49 J -29752780.76 -29752780.59 -29752780.42 0.0138 0.0038

Mercury -86172-07-27 03:49 J -29752692.48 -29752692.34 -29752692.17 0.0138 0.0061

Earth -86172-08-27 05:44 J -29752661.48 -29752661.26 -29752661.02 0.0138 0.0065

Moon -86172-08-27 09:20 J -29752661.34 -29752661.11 -29752660.87 0.0138 0.0060 *

Mercury -86172-10-23 10:18 J -29752604.20 -29752604.07 -29752603.92 0.0138 0.0081

Mercury -86171-01-19 16:32 J -29752515.92 -29752515.81 -29752515.69 0.0138 0.0103

Mercury -86171-04-17 22:32 J -29752427.62 -29752427.56 -29752427.47 0.0138 0.0124

Moon -86171-08-31 22:32 J -29752291.80 -29752291.56 -29752291.32 0.0138 0.0055

Earth -86171-09-01 01:54 J -29752291.64 -29752291.42 -29752291.16 0.0138 0.0055 *

Earth -86170-09-05 21:35 J -29751921.85 -29751921.60 -29751921.35 0.0137 0.0043

Moon -86170-09-06 00:56 J -29751921.69 -29751921.46 -29751921.21 0.0137 0.0046 *

Moon -86169-09-09 12:27 J -29751552.23 -29751551.98 -29751551.71 0.0136 0.0026

Earth -86169-09-09 15:49 J -29751552.09 -29751551.84 -29751551.58 0.0136 0.0032 *

Earth -86168-09-14 08:51 J -29751182.39 -29751182.13 -29751181.87 0.0136 0.0021

Moon -86168-09-14 11:59 J -29751182.24 -29751182.00 -29751181.74 0.0136 0.0029 *

Moon -86167-09-18 22:03 J -29750812.84 -29750812.58 -29750812.31 0.0135 0.0005

Earth -86167-09-19 00:56 J -29750812.72 -29750812.46 -29750812.20 0.0135 0.0011 *

Earth -86166-09-23 15:35 J -29750443.11 -29750442.85 -29750442.59 0.0135 0.0001

Moon -86166-09-23 18:13 J -29750442.99 -29750442.74 -29750442.48 0.0135 0.0004 *

Moon -86165-09-27 02:51 J -29750073.64 -29750073.38 -29750073.11 0.0134 0.0013

Earth -86165-09-27 05:30 J -29750073.53 -29750073.27 -29750073.01 0.0134 0.0011 *

Earth -86164-10-01 18:13 J -29749704.00 -29749703.74 -29749703.48 0.0134 0.0021

Moon -86164-10-01 19:54 J -29749703.91 -29749703.67 -29749703.42 0.0134 0.0025 *

Moon -86163-10-06 03:20 J -29749334.62 -29749334.36 -29749334.09 0.0133 0.0026

Earth -86163-10-06 05:30 J -29749334.51 -29749334.27 -29749334.01 0.0133 0.0031 *

Earth -86162-10-10 16:03 J -29748965.07 -29748964.83 -29748964.58 0.0133 0.0041

Moon -86162-10-10 17:15 J -29748965.00 -29748964.78 -29748964.54 0.0133 0.0047 *

Moon -86161-10-13 23:59 J -29748595.75 -29748595.50 -29748595.24 0.0133 0.0043

Earth -86161-10-14 01:25 J -29748595.67 -29748595.44 -29748595.19 0.0133 0.0050 *

Earth	-86160-10-18 09:49 J	-29748226.31	-29748226.09	-29748225.85	0.0132	0.0059
Moon	-86160-10-18 11:15 J	-29748226.24	-29748226.03	-29748225.81	0.0132	0.0064 *
Moon	-86159-10-22 16:18 J	-29747857.03	-29747856.82	-29747856.57	0.0132	0.0066
Earth	-86159-10-22 17:15 J	-29747856.98	-29747856.78	-29747856.54	0.0132	0.0068 *
Earth	-86158-10-27 00:13 J	-29747487.69	-29747487.49	-29747487.27	0.0132	0.0075
Moon	-86158-10-27 01:11 J	-29747487.63	-29747487.45	-29747487.23	0.0132	0.0076 *
Moon	-86157-10-30 05:30 J	-29747118.46	-29747118.27	-29747118.06	0.0132	0.0086
Earth	-86157-10-30 06:13 J	-29747118.42	-29747118.24	-29747118.03	0.0132	0.0083 *
Earth	-86156-11-03 11:30 J	-29746749.19	-29746749.02	-29746748.82	0.0132	0.0091
Moon	-86156-11-03 12:27 J	-29746749.15	-29746748.98	-29746748.78	0.0132	0.0085 *
Moon	-86155-11-07 15:20 J	-29746380.01	-29746379.86	-29746379.69	0.0131	0.0103
Earth	-86155-11-07 16:32 J	-29746379.98	-29746379.81	-29746379.64	0.0131	0.0097 *
Earth	-86154-11-11 20:23 J	-29746010.79	-29746010.65	-29746010.48	0.0131	0.0104
Moon	-86154-11-11 20:51 J	-29746010.78	-29746010.63	-29746010.45	0.0131	0.0097 *
Moon	-86153-11-14 23:30 J	-29745641.64	-29745641.52	-29745641.39	0.0131	0.0115
Earth	-86153-11-15 00:13 J	-29745641.61	-29745641.49	-29745641.34	0.0131	0.0109 *
Earth	-86152-11-19 03:35 J	-29745272.46	-29745272.35	-29745272.22	0.0131	0.0114
Moon	-86152-11-19 03:35 J	-29745272.45	-29745272.35	-29745272.20	0.0131	0.0113 *
Moon	-86151-11-23 05:15 J	-29744903.36	-29744903.28	-29744903.15	0.0131	0.0121
Earth	-86151-11-23 06:13 J	-29744903.33	-29744903.24	-29744903.12	0.0131	0.0119 *
Earth	-86150-11-27 08:51 J	-29744534.20	-29744534.13	-29744534.04	0.0131	0.0124
Moon	-86150-11-27 09:20 J	-29744534.16	-29744534.11	-29744534.01	0.0131	0.0126 *
Moon	-86149-11-30 10:03 J	-29744165.15	-29744165.08	-29744164.97	0.0131	0.0123
Earth	-86149-11-30 10:32 J	-29744165.10	-29744165.06	-29744164.98	0.0131	0.0128 *
Mars	-86148-07-16 11:30 J	-29743937.24	-29743937.02	-29743936.79	0.0131	0.0081
Earth	-86148-12-04 12:13 J	-29743796.00	-29743795.99	-29743795.94	0.0131	0.0131
Moon	-86147-12-08 12:42 J	-29743427.01	-29743426.97	-29743426.87	0.0132	0.0127
Mars	-86146-06-15 01:39 J	-29743238.72	-29743238.43	-29743238.15	0.0132	0.0008
Moon	-86145-12-15 15:20 J	-29742688.88	-29742688.86	-29742688.81	0.0132	0.0130
Mars	-86144-05-13 20:08 J	-29742539.83	-29742539.66	-29742539.46	0.0132	0.0099

Moon -86139-01-04 02:37 J -29740843.43 -29740843.39 -29740843.32 0.0134 0.0130
 Earth -86138-01-08 03:49 J -29740474.37 -29740474.34 -29740474.30 0.0134 0.0132
 Earth -86137-01-12 06:42 J -29740105.27 -29740105.22 -29740105.14 0.0135 0.0130
 Moon -86137-01-12 08:23 J -29740105.24 -29740105.15 -29740105.05 0.0135 0.0123 *
 Moon -86136-01-15 08:37 J -29739736.18 -29739736.14 -29739736.06 0.0135 0.0131
 Earth -86136-01-15 10:03 J -29739736.15 -29739736.08 -29739735.98 0.0135 0.0126 *
 Earth -86135-01-19 13:54 J -29739367.02 -29739366.92 -29739366.80 0.0136 0.0122
 Moon -86135-01-19 14:51 J -29739366.97 -29739366.88 -29739366.75 0.0136 0.0120 *
 Moon -86134-01-23 17:01 J -29738997.92 -29738997.79 -29738997.67 0.0136 0.0118
 Earth -86134-01-23 17:59 J -29738997.85 -29738997.75 -29738997.60 0.0136 0.0118 *
 Earth -86133-01-27 23:01 J -29738628.66 -29738628.54 -29738628.37 0.0137 0.0112
 Moon -86133-01-28 00:13 J -29738628.60 -29738628.49 -29738628.35 0.0137 0.0115 *
 Moon -86132-01-31 03:20 J -29738259.51 -29738259.36 -29738259.17 0.0137 0.0100
 Earth -86132-01-31 04:47 J -29738259.44 -29738259.30 -29738259.12 0.0137 0.0106 *
 Earth -86131-02-04 11:44 J -29737890.18 -29737890.01 -29737889.84 0.0138 0.0098
 Moon -86131-02-04 12:27 J -29737890.12 -29737889.98 -29737889.81 0.0138 0.0105 *
 Venus -86131-10-08 17:01 J -29737643.82 -29737643.79 -29737643.74 0.0138 0.0135
 Moon -86130-02-08 17:59 J -29737520.95 -29737520.75 -29737520.54 0.0138 0.0084
 Earth -86130-02-08 18:42 J -29737520.89 -29737520.72 -29737520.52 0.0138 0.0091 *
 Venus -86130-05-22 23:01 J -29737417.72 -29737417.54 -29737417.36 0.0139 0.0072
 Venus -86129-01-04 05:15 J -29737191.49 -29737191.28 -29737191.07 0.0139 0.0007
 Earth -86129-02-13 02:51 J -29737151.56 -29737151.38 -29737151.17 0.0139 0.0083
 Moon -86129-02-13 04:03 J -29737151.50 -29737151.33 -29737151.13 0.0139 0.0089 *
 Mercury -86129-04-15 17:15 J -29737088.83 -29737088.78 -29737088.72 0.0139 0.0127
 Mercury -86129-07-12 20:51 J -29737000.70 -29737000.63 -29737000.54 0.0139 0.0111
 Venus -86129-08-17 11:15 J -29736965.21 -29736965.03 -29736964.83 0.0139 0.0058
 Mercury -86129-10-09 00:27 J -29736912.57 -29736912.48 -29736912.36 0.0139 0.0094
 Mercury -86128-01-05 04:32 J -29736824.43 -29736824.31 -29736824.19 0.0140 0.0076
 Moon -86128-02-16 11:30 J -29736782.22 -29736782.02 -29736781.78 0.0140 0.0072
 Earth -86128-02-16 12:13 J -29736782.19 -29736781.99 -29736781.77 0.0140 0.0075 *

Venus -86128-03-31 17:59 J -29736738.84 -29736738.75 -29736738.65 0.0140 0.0124
 Mercury -86128-04-03 08:23 J -29736736.28 -29736736.15 -29736736.03 0.0140 0.0058
 Mercury -86128-06-30 12:13 J -29736648.13 -29736647.99 -29736647.86 0.0140 0.0040
 Mercury -86128-09-26 16:03 J -29736559.97 -29736559.83 -29736559.69 0.0140 0.0022
 Mercury -86128-12-23 19:54 J -29736471.81 -29736471.67 -29736471.53 0.0140 0.0004
 Earth -86127-02-20 22:18 J -29736412.77 -29736412.57 -29736412.34 0.0140 0.0066
 Moon -86127-02-20 23:30 J -29736412.73 -29736412.52 -29736412.31 0.0140 0.0066 *
 Mercury -86127-03-21 23:44 J -29736383.65 -29736383.51 -29736383.37 0.0140 0.0015
 Mercury -86127-06-18 03:35 J -29736295.48 -29736295.35 -29736295.20 0.0140 0.0034
 Mercury -86127-09-14 07:39 J -29736207.31 -29736207.18 -29736207.04 0.0141 0.0052
 Mercury -86127-12-11 11:44 J -29736119.13 -29736119.01 -29736118.89 0.0141 0.0071
 Moon -86126-02-25 09:35 J -29736043.32 -29736043.10 -29736042.86 0.0141 0.0058
 Earth -86126-02-25 10:03 J -29736043.30 -29736043.08 -29736042.85 0.0141 0.0055 *
 Mercury -86126-03-09 15:35 J -29736030.95 -29736030.85 -29736030.73 0.0141 0.0090
 Mercury -86126-06-05 19:39 J -29735942.76 -29735942.68 -29735942.58 0.0141 0.0109
 Mercury -86126-09-01 23:59 J -29735854.55 -29735854.50 -29735854.44 0.0141 0.0128
 Moon -86125-02-29 22:32 J -29735673.78 -29735673.56 -29735673.32 0.0141 0.0039
 Earth -86125-02-29 22:32 J -29735673.78 -29735673.56 -29735673.32 0.0141 0.0045 *
 Moon -86124-03-05 12:13 J -29735304.23 -29735303.99 -29735303.74 0.0142 0.0040
 Earth -86124-03-05 12:27 J -29735304.22 -29735303.98 -29735303.74 0.0142 0.0033 *
 Moon -86123-03-10 02:23 J -29734934.64 -29734934.40 -29734934.16 0.0143 0.0016
 Earth -86123-03-10 03:06 J -29734934.61 -29734934.37 -29734934.12 0.0143 0.0023 *
 Earth -86122-03-14 19:11 J -29734564.94 -29734564.70 -29734564.45 0.0143 0.0010
 Moon -86122-03-14 19:54 J -29734564.92 -29734564.67 -29734564.41 0.0143 0.0015 *
 Moon -86121-03-18 10:47 J -29734195.29 -29734195.05 -29734194.81 0.0144 0.0002
 Earth -86121-03-18 12:27 J -29734195.23 -29734194.98 -29734194.74 0.0144 0.0003 *
 Earth -86120-03-23 06:27 J -29733825.47 -29733825.23 -29733824.98 0.0144 0.0015
 Moon -86120-03-23 08:23 J -29733825.40 -29733825.15 -29733824.89 0.0144 0.0018 *
 Moon -86119-03-28 00:13 J -29733455.73 -29733455.49 -29733455.25 0.0145 0.0020
 Earth -86119-03-28 02:08 J -29733455.65 -29733455.41 -29733455.16 0.0145 0.0027 *

Earth	-86118-04-01 22:47 J	-29733085.79	-29733085.55	-29733085.31	0.0145	0.0039
Moon	-86118-04-02 01:39 J	-29733085.67	-29733085.43	-29733085.18	0.0145	0.0046 *
Moon	-86117-04-05 17:59 J	-29732715.97	-29732715.75	-29732715.51	0.0146	0.0045
Earth	-86117-04-05 20:51 J	-29732715.86	-29732715.63	-29732715.39	0.0146	0.0051 *
Earth	-86116-04-10 19:39 J	-29732345.89	-29732345.68	-29732345.44	0.0146	0.0064
Moon	-86116-04-10 23:15 J	-29732345.75	-29732345.53	-29732345.29	0.0146	0.0064 *
Moon	-86115-04-15 16:47 J	-29731976.00	-29731975.80	-29731975.58	0.0147	0.0077
Earth	-86115-04-15 20:23 J	-29731975.86	-29731975.65	-29731975.43	0.0147	0.0075 *
Earth	-86114-04-20 21:35 J	-29731605.78	-29731605.60	-29731605.38	0.0147	0.0087
Moon	-86114-04-21 01:25 J	-29731605.65	-29731605.44	-29731605.23	0.0147	0.0080 *
Moon	-86113-04-24 20:37 J	-29731235.80	-29731235.64	-29731235.45	0.0147	0.0106
Earth	-86113-04-25 00:42 J	-29731235.66	-29731235.47	-29731235.28	0.0147	0.0097 *
Earth	-86112-04-30 04:03 J	-29730865.48	-29730865.33	-29730865.14	0.0147	0.0109
Moon	-86112-04-30 07:11 J	-29730865.36	-29730865.20	-29730865.00	0.0147	0.0103 *
Moon	-86111-05-05 06:27 J	-29730495.38	-29730495.23	-29730495.08	0.0147	0.0120
Earth	-86111-05-05 09:20 J	-29730495.26	-29730495.11	-29730494.96	0.0147	0.0118 *
Earth	-86110-05-10 14:37 J	-29730125.01	-29730124.89	-29730124.75	0.0147	0.0127
Moon	-86110-05-10 17:15 J	-29730124.89	-29730124.78	-29730124.65	0.0147	0.0129 *
Moon	-86109-05-14 19:39 J	-29729754.80	-29729754.68	-29729754.54	0.0147	0.0128
Earth	-86109-05-14 21:06 J	-29729754.71	-29729754.62	-29729754.51	0.0147	0.0135 *
Earth	-86108-05-20 04:03 J	-29729384.39	-29729384.33	-29729384.25	0.0147	0.0142
Moon	-86107-05-25 11:44 J	-29729014.06	-29729014.01	-29729013.93	0.0147	0.0143
Mars	-86106-12-11 21:35 J	-29728448.93	-29728448.60	-29728448.26	0.0147	0.0020
Mars	-86104-11-18 13:54 J	-29727741.04	-29727740.92	-29727740.75	0.0147	0.0132
Moon	-86099-07-05 07:54 J	-29726051.18	-29726051.17	-29726051.13	0.0145	0.0144
Earth	-86097-07-14 18:27 J	-29725310.76	-29725310.73	-29725310.66	0.0144	0.0141
Moon	-86097-07-14 20:23 J	-29725310.69	-29725310.65	-29725310.58	0.0144	0.0140 *
Moon	-86096-07-19 23:30 J	-29724940.61	-29724940.52	-29724940.40	0.0143	0.0131
Earth	-86096-07-20 00:42 J	-29724940.55	-29724940.47	-29724940.37	0.0143	0.0134 *
Earth	-86095-07-25 05:44 J	-29724570.36	-29724570.26	-29724570.12	0.0142	0.0127

Moon -86095-07-25 05:30 J -29724570.33 -29724570.27 -29724570.16 0.0142 0.0135 *
 Moon -86094-07-30 10:32 J -29724200.22 -29724200.06 -29724199.89 0.0142 0.0111
 Earth -86094-07-30 09:49 J -29724200.21 -29724200.09 -29724199.93 0.0142 0.0119 *
 Moon -86093-08-03 11:30 J -29723830.15 -29723830.02 -29723829.85 0.0141 0.0114
 Earth -86093-08-03 13:25 J -29723830.09 -29723829.94 -29723829.77 0.0141 0.0110 *
 Earth -86092-08-08 15:20 J -29723460.02 -29723459.86 -29723459.66 0.0141 0.0101
 Moon -86092-08-08 17:44 J -29723459.95 -29723459.76 -29723459.57 0.0141 0.0099 *
 Venus -86092-11-03 03:49 J -29723373.42 -29723373.34 -29723373.24 0.0140 0.0128
 Venus -86091-06-17 15:35 J -29723147.05 -29723146.85 -29723146.64 0.0140 0.0057
 Moon -86091-08-13 13:54 J -29723090.11 -29723089.92 -29723089.71 0.0140 0.0086
 Earth -86091-08-13 16:47 J -29723090.00 -29723089.80 -29723089.60 0.0140 0.0090 *
 Venus -86090-01-30 03:06 J -29722920.60 -29722920.37 -29722920.15 0.0140 0.0014
 Earth -86090-08-18 16:18 J -29722720.02 -29722719.82 -29722719.59 0.0139 0.0081
 Moon -86090-08-18 19:39 J -29722719.87 -29722719.68 -29722719.46 0.0139 0.0088 *
 Mercury -86090-09-10 05:44 J -29722697.34 -29722697.26 -29722697.15 0.0139 0.0119
 Venus -86090-09-13 13:39 J -29722694.10 -29722693.93 -29722693.74 0.0139 0.0084
 Mercury -86090-12-07 12:42 J -29722609.09 -29722608.97 -29722608.83 0.0139 0.0096
 Mercury -86089-03-04 19:25 J -29722520.83 -29722520.69 -29722520.53 0.0139 0.0073
 Mercury -86089-06-01 02:23 J -29722432.57 -29722432.40 -29722432.24 0.0139 0.0049
 Moon -86089-08-22 12:13 J -29722350.21 -29722349.99 -29722349.75 0.0139 0.0063
 Earth -86089-08-22 15:35 J -29722350.07 -29722349.85 -29722349.62 0.0139 0.0070 *
 Mercury -86089-08-28 08:51 J -29722344.30 -29722344.13 -29722343.95 0.0139 0.0026
 Mercury -86089-11-24 15:20 J -29722256.03 -29722255.86 -29722255.68 0.0139 0.0005
 Mercury -86088-02-20 21:49 J -29722167.76 -29722167.59 -29722167.41 0.0138 0.0019
 Mercury -86088-05-20 04:18 J -29722079.49 -29722079.32 -29722079.15 0.0138 0.0041
 Mercury -86088-08-16 10:47 J -29721991.21 -29721991.05 -29721990.89 0.0138 0.0063
 Earth -86088-08-27 13:11 J -29721980.18 -29721979.95 -29721979.71 0.0138 0.0059
 Moon -86088-08-27 17:01 J -29721980.02 -29721979.79 -29721979.55 0.0138 0.0064 *
 Mercury -86088-11-12 16:47 J -29721902.93 -29721902.80 -29721902.65 0.0138 0.0085
 Mercury -86087-02-08 23:01 J -29721814.64 -29721814.54 -29721814.42 0.0138 0.0106

Mercury -86087-05-08 05:15 J -29721726.34 -29721726.28 -29721726.20 0.0138 0.0127

Moon -86087-09-01 05:59 J -29721610.48 -29721610.25 -29721609.99 0.0138 0.0047

Earth -86087-09-01 09:49 J -29721610.33 -29721610.09 -29721609.84 0.0138 0.0049 *

Earth -86086-09-06 05:01 J -29721240.53 -29721240.29 -29721240.03 0.0137 0.0038

Moon -86086-09-06 08:37 J -29721240.38 -29721240.14 -29721239.87 0.0137 0.0035 *

Moon -86085-09-09 19:54 J -29720870.92 -29720870.67 -29720870.41 0.0136 0.0032

Earth -86085-09-09 23:44 J -29720870.76 -29720870.51 -29720870.25 0.0136 0.0027 *

Earth -86084-09-14 17:01 J -29720501.05 -29720500.79 -29720500.53 0.0136 0.0016

Moon -86084-09-14 20:23 J -29720500.91 -29720500.65 -29720500.40 0.0136 0.0009 *

Moon -86083-09-19 05:30 J -29720131.53 -29720131.27 -29720131.00 0.0135 0.0013

Earth -86083-09-19 09:06 J -29720131.38 -29720131.12 -29720130.86 0.0135 0.0005 *

Earth -86082-09-23 23:59 J -29719761.76 -29719761.50 -29719761.24 0.0135 0.0005

Moon -86082-09-24 03:06 J -29719761.63 -29719761.37 -29719761.12 0.0135 0.0010 *

Moon -86081-09-27 11:15 J -29719392.29 -29719392.03 -29719391.77 0.0134 0.0015

Earth -86081-09-27 13:54 J -29719392.17 -29719391.92 -29719391.66 0.0134 0.0016 *

Earth -86080-10-02 02:23 J -29719022.65 -29719022.40 -29719022.14 0.0134 0.0026

Moon -86080-10-02 05:30 J -29719022.52 -29719022.27 -29719022.02 0.0134 0.0024 *

Moon -86079-10-06 11:44 J -29718653.25 -29718653.01 -29718652.75 0.0134 0.0041

Earth -86079-10-06 13:54 J -29718653.16 -29718652.92 -29718652.66 0.0134 0.0036 *

Earth -86078-10-11 00:27 J -29718283.72 -29718283.48 -29718283.23 0.0133 0.0045

Moon -86078-10-11 02:51 J -29718283.62 -29718283.38 -29718283.13 0.0133 0.0038 *

Moon -86077-10-14 07:54 J -29717914.40 -29717914.17 -29717913.92 0.0133 0.0060

Earth -86077-10-14 09:49 J -29717914.31 -29717914.09 -29717913.84 0.0133 0.0054 *

Earth -86076-10-18 18:27 J -29717544.94 -29717544.73 -29717544.49 0.0133 0.0063

Moon -86076-10-18 20:08 J -29717544.87 -29717544.66 -29717544.42 0.0133 0.0058 *

Moon -86075-10-22 23:59 J -29717175.71 -29717175.50 -29717175.27 0.0132 0.0074

Earth -86075-10-23 02:08 J -29717175.61 -29717175.41 -29717175.18 0.0132 0.0071 *

Earth -86074-10-27 09:06 J -29716806.31 -29716806.12 -29716805.90 0.0132 0.0078

Moon -86074-10-27 10:18 J -29716806.25 -29716806.07 -29716805.85 0.0132 0.0079 *

Moon -86073-10-30 13:39 J -29716437.12 -29716436.93 -29716436.71 0.0132 0.0083

Earth	-86073-10-30 15:20 J	-29716437.04	-29716436.86	-29716436.65	0.0132	0.0086	*
Earth	-86072-11-03 20:51 J	-29716067.80	-29716067.63	-29716067.44	0.0132	0.0093	
Moon	-86072-11-03 22:03 J	-29716067.72	-29716067.58	-29716067.39	0.0132	0.0098	*
Moon	-86071-11-08 00:27 J	-29715698.65	-29715698.48	-29715698.28	0.0131	0.0092	
Earth	-86071-11-08 01:39 J	-29715698.57	-29715698.43	-29715698.24	0.0131	0.0100	*
Earth	-86070-11-12 05:59 J	-29715329.38	-29715329.25	-29715329.07	0.0131	0.0106	
Moon	-86070-11-12 07:39 J	-29715329.28	-29715329.18	-29715329.03	0.0131	0.0113	*
Moon	-86069-11-15 08:51 J	-29714960.26	-29714960.13	-29714959.95	0.0131	0.0106	
Earth	-86069-11-15 10:18 J	-29714960.19	-29714960.07	-29714959.92	0.0131	0.0111	*
Earth	-86068-11-19 13:39 J	-29714591.04	-29714590.93	-29714590.80	0.0131	0.0116	
Moon	-86068-11-19 14:51 J	-29714590.95	-29714590.88	-29714590.76	0.0131	0.0121	*
Moon	-86067-11-23 14:37 J	-29714221.97	-29714221.89	-29714221.75	0.0131	0.0119	
Earth	-86067-11-23 16:18 J	-29714221.90	-29714221.82	-29714221.70	0.0131	0.0120	*
Earth	-86066-11-27 19:11 J	-29713852.78	-29713852.70	-29713852.61	0.0131	0.0124	
Moon	-86066-11-27 19:54 J	-29713852.73	-29713852.67	-29713852.56	0.0131	0.0123	*
Moon	-86065-11-30 19:25 J	-29713483.72	-29713483.69	-29713483.64	0.0131	0.0130	
Earth	-86065-11-30 20:51 J	-29713483.67	-29713483.63	-29713483.55	0.0131	0.0128	*
Earth	-86064-12-04 22:47 J	-29713114.58	-29713114.55	-29713114.50	0.0132	0.0130	
Moon	-86064-12-04 23:44 J	-29713114.56	-29713114.51	-29713114.41	0.0132	0.0125	*
Mars	-86063-03-10 10:18 J	-29713019.33	-29713019.07	-29713018.79	0.0132	0.0046	
Moon	-86062-12-13 03:20 J	-29712376.40	-29712376.36	-29712376.28	0.0132	0.0128	
Mars	-86061-02-07 01:39 J	-29712320.68	-29712320.43	-29712320.15	0.0132	0.0044	
Moon	-86060-12-20 06:42 J	-29711638.23	-29711638.22	-29711638.18	0.0132	0.0132	
Moon	-86057-12-31 08:08 J	-29710531.19	-29710531.16	-29710531.09	0.0133	0.0130	
Earth	-86055-01-04 12:13 J	-29710162.01	-29710161.99	-29710161.92	0.0134	0.0132	
Moon	-86054-01-08 12:56 J	-29709793.04	-29709792.96	-29709792.84	0.0134	0.0122	
Earth	-86054-01-08 15:06 J	-29709792.91	-29709792.87	-29709792.78	0.0134	0.0129	*
Earth	-86053-01-12 18:13 J	-29709423.81	-29709423.74	-29709423.64	0.0135	0.0126	
Moon	-86053-01-12 19:39 J	-29709423.69	-29709423.68	-29709423.61	0.0135	0.0133	*
Moon	-86052-01-15 19:25 J	-29709054.79	-29709054.69	-29709054.54	0.0135	0.0116	

Earth -86052-01-15 21:35 J -29709054.69 -29709054.60 -29709054.48 0.0135 0.0122 *
 Earth -86051-01-20 01:11 J -29708685.55 -29708685.45 -29708685.30 0.0136 0.0118
 Moon -86051-01-20 03:20 J -29708685.44 -29708685.36 -29708685.23 0.0136 0.0122 *
 Moon -86050-01-24 04:03 J -29708316.45 -29708316.33 -29708316.16 0.0136 0.0112
 Earth -86050-01-24 05:59 J -29708316.37 -29708316.25 -29708316.10 0.0136 0.0112 *
 Earth -86049-01-28 10:47 J -29707947.18 -29707947.05 -29707946.88 0.0137 0.0107
 Moon -86049-01-28 12:56 J -29707947.10 -29707946.96 -29707946.79 0.0137 0.0105 *
 Moon -86048-01-31 15:06 J -29707578.02 -29707577.87 -29707577.70 0.0137 0.0104
 Earth -86048-01-31 16:32 J -29707577.96 -29707577.81 -29707577.62 0.0137 0.0101 *
 Earth -86047-02-04 23:15 J -29707208.70 -29707208.53 -29707208.34 0.0138 0.0093
 Moon -86047-02-05 00:42 J -29707208.64 -29707208.47 -29707208.27 0.0138 0.0087 *
 Venus -86046-01-20 09:20 J -29706859.24 -29706859.11 -29706858.96 0.0138 0.0101
 Moon -86046-02-09 04:32 J -29706839.48 -29706839.31 -29706839.10 0.0138 0.0093
 Earth -86046-02-09 06:42 J -29706839.40 -29706839.22 -29706839.02 0.0138 0.0086 *
 Venus -86046-09-03 15:20 J -29706633.06 -29706632.86 -29706632.65 0.0139 0.0038
 Earth -86045-02-13 15:06 J -29706470.07 -29706469.87 -29706469.66 0.0139 0.0077
 Moon -86045-02-13 16:03 J -29706470.02 -29706469.83 -29706469.61 0.0139 0.0072 *
 Venus -86045-04-16 21:35 J -29706406.80 -29706406.60 -29706406.39 0.0139 0.0028
 Mercury -86045-05-06 00:27 J -29706387.53 -29706387.48 -29706387.40 0.0139 0.0123
 Mercury -86045-08-02 04:32 J -29706299.40 -29706299.31 -29706299.22 0.0139 0.0106
 Mercury -86045-10-29 08:08 J -29706211.26 -29706211.16 -29706211.05 0.0139 0.0088
 Venus -86045-11-29 04:03 J -29706180.48 -29706180.33 -29706180.16 0.0139 0.0093
 Mercury -86044-01-25 11:59 J -29706123.12 -29706123.00 -29706122.88 0.0140 0.0071
 Moon -86044-02-16 22:32 J -29706100.77 -29706100.56 -29706100.34 0.0140 0.0073
 Earth -86044-02-17 00:13 J -29706100.70 -29706100.49 -29706100.27 0.0140 0.0069 *
 Mercury -86044-04-23 15:49 J -29706034.97 -29706034.84 -29706034.71 0.0140 0.0053
 Mercury -86044-07-20 19:39 J -29705946.82 -29705946.68 -29705946.55 0.0140 0.0035
 Mercury -86044-10-16 23:30 J -29705858.66 -29705858.52 -29705858.38 0.0140 0.0017
 Mercury -86043-01-13 03:20 J -29705770.50 -29705770.36 -29705770.22 0.0140 0.0002
 Earth -86043-02-21 10:32 J -29705731.27 -29705731.06 -29705730.83 0.0140 0.0059

Moon -86043-02-21 11:30 J -29705731.23 -29705731.02 -29705730.80 0.0140 0.0059 *
 Mercury -86043-04-11 07:11 J -29705682.33 -29705682.20 -29705682.06 0.0140 0.0020
 Mercury -86043-07-08 11:15 J -29705594.16 -29705594.03 -29705593.89 0.0140 0.0038
 Mercury -86043-10-04 15:20 J -29705505.99 -29705505.86 -29705505.73 0.0141 0.0057
 Mercury -86043-12-31 19:11 J -29705417.81 -29705417.70 -29705417.58 0.0141 0.0076
 Moon -86042-02-25 21:06 J -29705361.85 -29705361.62 -29705361.37 0.0141 0.0046
 Earth -86042-02-25 22:18 J -29705361.80 -29705361.57 -29705361.34 0.0141 0.0049 *
 Mercury -86042-03-29 23:15 J -29705329.63 -29705329.53 -29705329.42 0.0141 0.0095
 Mercury -86042-06-26 03:20 J -29705241.44 -29705241.36 -29705241.27 0.0141 0.0114
 Mercury -86042-09-22 07:25 J -29705153.22 -29705153.19 -29705153.14 0.0141 0.0133
 Earth -86041-03-01 10:32 J -29704992.29 -29704992.06 -29704991.81 0.0141 0.0039
 Moon -86041-03-01 11:30 J -29704992.24 -29704992.02 -29704991.79 0.0141 0.0044 *
 Moon -86040-03-06 00:13 J -29704622.74 -29704622.49 -29704622.23 0.0142 0.0020
 Earth -86040-03-06 00:13 J -29704622.73 -29704622.49 -29704622.24 0.0142 0.0028 *
 Earth -86039-03-10 14:51 J -29704253.12 -29704252.88 -29704252.63 0.0143 0.0017
 Moon -86039-03-10 15:06 J -29704253.10 -29704252.87 -29704252.62 0.0143 0.0024 *
 Earth -86038-03-15 06:42 J -29703883.46 -29703883.22 -29703882.97 0.0143 0.0005
 Moon -86038-03-15 07:25 J -29703883.45 -29703883.19 -29703882.93 0.0143 0.0001 *
 Moon -86037-03-18 23:15 J -29703513.77 -29703513.53 -29703513.29 0.0144 0.0007
 Earth -86037-03-18 23:44 J -29703513.75 -29703513.51 -29703513.26 0.0144 0.0008 *
 Earth -86036-03-23 17:59 J -29703144.00 -29703143.75 -29703143.50 0.0144 0.0019
 Moon -86036-03-23 19:11 J -29703143.96 -29703143.70 -29703143.45 0.0144 0.0016 *
 Moon -86035-03-28 11:30 J -29702774.25 -29702774.02 -29702773.78 0.0145 0.0038
 Earth -86035-03-28 13:25 J -29702774.18 -29702773.94 -29702773.70 0.0145 0.0031 *
 Earth -86034-04-02 09:49 J -29702404.32 -29702404.09 -29702403.84 0.0145 0.0044
 Moon -86034-04-02 11:44 J -29702404.25 -29702404.01 -29702403.75 0.0145 0.0036 *
 Moon -86033-04-06 05:01 J -29702034.51 -29702034.29 -29702034.07 0.0146 0.0061
 Earth -86033-04-06 07:54 J -29702034.40 -29702034.17 -29702033.94 0.0146 0.0055 *
 Earth -86032-04-11 06:42 J -29701664.44 -29701664.22 -29701663.99 0.0146 0.0067
 Moon -86032-04-11 09:20 J -29701664.32 -29701664.11 -29701663.86 0.0146 0.0065 *

Moon	-86031-04-16 03:49 J	-29701294.54	-29701294.34	-29701294.12	0.0146	0.0077
Earth	-86031-04-16 07:11 J	-29701294.41	-29701294.20	-29701293.98	0.0146	0.0079 *
Earth	-86030-04-21 08:23 J	-29700924.34	-29700924.15	-29700923.94	0.0147	0.0090
Moon	-86030-04-21 11:44 J	-29700924.18	-29700924.01	-29700923.80	0.0147	0.0097 *
Moon	-86029-04-25 07:39 J	-29700554.36	-29700554.18	-29700553.97	0.0147	0.0093
Earth	-86029-04-25 11:01 J	-29700554.21	-29700554.04	-29700553.84	0.0147	0.0101 *
Earth	-86028-04-30 15:06 J	-29700184.04	-29700183.87	-29700183.71	0.0147	0.0111
Moon	-86028-04-30 18:27 J	-29700183.87	-29700183.73	-29700183.57	0.0147	0.0117 *
Moon	-86027-05-05 15:49 J	-29699813.98	-29699813.84	-29699813.66	0.0147	0.0116
Earth	-86027-05-05 19:11 J	-29699813.82	-29699813.70	-29699813.53	0.0147	0.0121 *
Earth	-86026-05-11 00:42 J	-29699443.57	-29699443.47	-29699443.33	0.0147	0.0129
Moon	-86026-05-11 03:35 J	-29699443.47	-29699443.35	-29699443.21	0.0147	0.0126 *
Moon	-86025-05-15 04:18 J	-29699073.37	-29699073.32	-29699073.23	0.0147	0.0141
Earth	-86025-05-15 07:11 J	-29699073.29	-29699073.20	-29699073.10	0.0147	0.0136 *
Earth	-86024-05-20 13:39 J	-29698702.97	-29698702.93	-29698702.84	0.0147	0.0143
Moon	-86024-05-20 14:51 J	-29698702.95	-29698702.88	-29698702.76	0.0147	0.0136 *
Earth	-86023-05-25 21:20 J	-29698332.61	-29698332.61	-29698332.59	0.0147	0.0147
Mars	-86023-08-30 13:11 J	-29698236.14	-29698235.95	-29698235.72	0.0147	0.0116
Mars	-86021-08-07 15:20 J	-29697528.17	-29697527.86	-29697527.53	0.0147	0.0039
Moon	-86014-07-10 17:44 J	-29694999.83	-29694999.76	-29694999.66	0.0144	0.0135
Earth	-86014-07-10 21:06 J	-29694999.64	-29694999.62	-29694999.57	0.0144	0.0142
Earth	-86013-07-15 03:20 J	-29694629.41	-29694629.36	-29694629.25	0.0143	0.0137
Moon	-86013-07-15 05:59 J	-29694629.29	-29694629.25	-29694629.17	0.0143	0.0139 *
Moon	-86012-07-20 08:08 J	-29694259.25	-29694259.16	-29694259.05	0.0143	0.0132
Earth	-86012-07-20 09:49 J	-29694259.19	-29694259.09	-29694258.97	0.0143	0.0129 *
Earth	-86011-07-25 14:37 J	-29693889.01	-29693888.89	-29693888.74	0.0142	0.0122
Moon	-86011-07-25 15:35 J	-29693888.97	-29693888.85	-29693888.68	0.0142	0.0117 *
Earth	-86010-07-30 18:56 J	-29693518.86	-29693518.71	-29693518.54	0.0142	0.0113
Moon	-86010-07-30 19:11 J	-29693518.83	-29693518.70	-29693518.54	0.0142	0.0120 *
Moon	-86009-08-03 21:35 J	-29693148.76	-29693148.60	-29693148.40	0.0141	0.0099

Earth -86009-08-03 22:03 J -29693148.74 -29693148.58 -29693148.39 0.0141 0.0104 *
 Earth -86008-08-09 00:13 J -29692778.67 -29692778.49 -29692778.28 0.0141 0.0095
 Moon -86008-08-09 01:54 J -29692778.60 -29692778.42 -29692778.20 0.0141 0.0095 *
 Venus -86007-02-14 21:35 J -29692588.77 -29692588.60 -29692588.43 0.0140 0.0092
 Moon -86007-08-13 23:15 J -29692408.71 -29692408.53 -29692408.32 0.0140 0.0088
 Earth -86007-08-14 01:11 J -29692408.64 -29692408.45 -29692408.22 0.0140 0.0085 *
 Venus -86007-09-29 08:51 J -29692362.35 -29692362.13 -29692361.91 0.0140 0.0021
 Venus -86006-05-13 20:08 J -29692135.87 -29692135.66 -29692135.45 0.0140 0.0049
 Mercury -86006-07-04 05:59 J -29692084.26 -29692084.25 -29692084.22 0.0139 0.0139
 Earth -86006-08-19 01:25 J -29692038.66 -29692038.44 -29692038.21 0.0139 0.0075
 Moon -86006-08-19 03:49 J -29692038.56 -29692038.34 -29692038.09 0.0139 0.0069 *
 Mercury -86006-09-30 12:42 J -29691996.06 -29691995.97 -29691995.86 0.0139 0.0115
 Venus -86006-12-26 06:27 J -29691909.32 -29691909.23 -29691909.09 0.0139 0.0119
 Mercury -86006-12-27 19:39 J -29691907.81 -29691907.68 -29691907.54 0.0139 0.0092
 Mercury -86005-03-25 02:23 J -29691819.55 -29691819.40 -29691819.24 0.0139 0.0068
 Mercury -86005-06-21 09:06 J -29691731.28 -29691731.12 -29691730.94 0.0139 0.0045
 Moon -86005-08-22 21:06 J -29691668.83 -29691668.62 -29691668.39 0.0139 0.0072
 Earth -86005-08-23 00:27 J -29691668.71 -29691668.48 -29691668.24 0.0139 0.0064 *
 Mercury -86005-09-17 15:49 J -29691643.02 -29691642.84 -29691642.66 0.0139 0.0022
 Mercury -86005-12-14 22:18 J -29691554.74 -29691554.57 -29691554.39 0.0139 0.0003
 Mercury -86004-03-13 04:47 J -29691466.47 -29691466.30 -29691466.12 0.0138 0.0023
 Mercury -86004-06-09 11:15 J -29691378.19 -29691378.03 -29691377.86 0.0138 0.0045
 Earth -86004-08-27 22:18 J -29691298.81 -29691298.57 -29691298.33 0.0138 0.0054
 Moon -86004-08-28 01:11 J -29691298.68 -29691298.45 -29691298.18 0.0138 0.0049 *
 Mercury -86004-09-05 17:44 J -29691289.92 -29691289.76 -29691289.61 0.0138 0.0067
 Mercury -86004-12-02 23:59 J -29691201.63 -29691201.50 -29691201.36 0.0138 0.0088
 Mercury -86003-03-01 05:59 J -29691113.34 -29691113.25 -29691113.13 0.0138 0.0110
 Mercury -86003-05-28 12:13 J -29691025.03 -29691024.99 -29691024.93 0.0138 0.0131
 Moon -86003-09-01 15:06 J -29690929.11 -29690928.87 -29690928.62 0.0138 0.0044
 Earth -86003-09-01 18:56 J -29690928.96 -29690928.71 -29690928.46 0.0138 0.0043 *

Earth	-86002-09-06 14:23 J	-29690559.15	-29690558.90	-29690558.64	0.0137	0.0032
Moon	-86002-09-06 18:13 J	-29690558.99	-29690558.74	-29690558.48	0.0137	0.0033 *
Moon	-86001-09-10 05:30 J	-29690189.53	-29690189.27	-29690189.01	0.0136	0.0016
Earth	-86001-09-10 09:06 J	-29690189.38	-29690189.12	-29690188.86	0.0136	0.0021 *

86TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 86th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-86000-09-15 02:08 J	-29689819.66	-29689819.41	-29689819.14	0.0136	0.0011		
Moon	-86000-09-15 05:59 J	-29689819.50	-29689819.25	-29689818.99	0.0136	0.0018 *		
Moon	-85999-09-19 15:06 J	-29689450.13	-29689449.87	-29689449.61	0.0135	0.0007		
Earth	-85999-09-19 18:27 J	-29689449.99	-29689449.73	-29689449.46	0.0135	0.0002 *		
Earth	-85998-09-24 09:20 J	-29689080.36	-29689080.11	-29689079.84	0.0135	0.0011		
Moon	-85998-09-24 12:42 J	-29689080.22	-29689079.97	-29689079.71	0.0135	0.0007 *		
Moon	-85997-09-27 19:54 J	-29688710.93	-29688710.67	-29688710.41	0.0134	0.0024		
Earth	-85997-09-27 23:30 J	-29688710.78	-29688710.52	-29688710.26	0.0134	0.0021 *		
Earth	-85996-10-02 11:44 J	-29688341.25	-29688341.01	-29688340.74	0.0134	0.0031		
Moon	-85996-10-02 14:51 J	-29688341.13	-29688340.88	-29688340.63	0.0134	0.0033 *		
Moon	-85995-10-06 20:08 J	-29687971.91	-29687971.66	-29687971.40	0.0134	0.0036		
Earth	-85995-10-06 23:30 J	-29687971.76	-29687971.52	-29687971.27	0.0134	0.0040 *		
Earth	-85994-10-11 09:49 J	-29687602.32	-29687602.09	-29687601.84	0.0133	0.0049		
Moon	-85994-10-11 12:27 J	-29687602.20	-29687601.98	-29687601.74	0.0133	0.0056 *		

Moon	-85993-10-14 17:15 J	-29687233.03	-29687232.78	-29687232.54	0.0133	0.0050
Earth	-85993-10-14 19:25 J	-29687232.91	-29687232.69	-29687232.44	0.0133	0.0058 *
Earth	-85992-10-19 04:03 J	-29686863.54	-29686863.33	-29686863.10	0.0133	0.0066
Moon	-85992-10-19 06:42 J	-29686863.42	-29686863.22	-29686863.00	0.0133	0.0072 *
Moon	-85991-10-23 10:03 J	-29686494.30	-29686494.08	-29686493.86	0.0132	0.0071
Earth	-85991-10-23 11:44 J	-29686494.20	-29686494.01	-29686493.78	0.0132	0.0075 *
Earth	-85990-10-27 19:11 J	-29686124.90	-29686124.70	-29686124.49	0.0132	0.0081
Moon	-85990-10-27 21:35 J	-29686124.79	-29686124.60	-29686124.40	0.0132	0.0083 *
Moon	-85989-10-30 23:30 J	-29685755.71	-29685755.52	-29685755.33	0.0132	0.0090
Earth	-85989-10-31 01:11 J	-29685755.62	-29685755.45	-29685755.24	0.0132	0.0089 *
Earth	-85988-11-04 06:42 J	-29685386.37	-29685386.22	-29685386.02	0.0132	0.0096
Moon	-85988-11-04 09:06 J	-29685386.29	-29685386.12	-29685385.93	0.0132	0.0090 *
Moon	-85987-11-08 10:03 J	-29685017.23	-29685017.08	-29685016.93	0.0132	0.0107
Earth	-85987-11-08 11:59 J	-29685017.14	-29685017.00	-29685016.82	0.0132	0.0102 *
Earth	-85986-11-12 16:18 J	-29684647.94	-29684647.82	-29684647.65	0.0131	0.0108
Moon	-85986-11-12 18:27 J	-29684647.88	-29684647.73	-29684647.57	0.0131	0.0101 *
Moon	-85985-11-15 18:13 J	-29684278.83	-29684278.74	-29684278.61	0.0131	0.0119
Earth	-85985-11-15 20:23 J	-29684278.76	-29684278.65	-29684278.50	0.0131	0.0113 *
Earth	-85984-11-19 23:59 J	-29683909.61	-29683909.50	-29683909.38	0.0131	0.0117
Moon	-85984-11-20 01:25 J	-29683909.54	-29683909.44	-29683909.29	0.0131	0.0114 *
Moon	-85983-11-24 00:42 J	-29683540.54	-29683540.47	-29683540.36	0.0131	0.0122
Earth	-85983-11-24 02:51 J	-29683540.47	-29683540.38	-29683540.27	0.0131	0.0121 *
Earth	-85982-11-28 05:01 J	-29683171.35	-29683171.29	-29683171.19	0.0131	0.0125
Moon	-85982-11-28 07:25 J	-29683171.25	-29683171.19	-29683171.11	0.0131	0.0125 *
Moon	-85981-12-01 05:15 J	-29682802.35	-29682802.28	-29682802.17	0.0131	0.0124
Earth	-85981-12-01 06:56 J	-29682802.25	-29682802.21	-29682802.12	0.0131	0.0128 *
Mars	-85981-12-03 21:49 J	-29682799.75	-29682799.59	-29682799.38	0.0131	0.0098
Earth	-85980-12-05 08:51 J	-29682433.15	-29682433.13	-29682433.07	0.0132	0.0130
Mars	-85979-11-02 10:47 J	-29682101.33	-29682101.05	-29682100.76	0.0132	0.0010
Moon	-85979-12-09 08:37 J	-29682064.21	-29682064.14	-29682064.05	0.0132	0.0125

Earth	-85979-12-09 10:47 J	-29682064.05	-29682064.05	-29682064.02	0.0132	0.0132	*
Mars	-85977-10-01 02:23 J	-29681402.61	-29681402.40	-29681402.15	0.0132	0.0080	
Moon	-85977-12-16 11:15 J	-29681326.08	-29681326.03	-29681325.94	0.0132	0.0127	
Moon	-85975-12-24 14:37 J	-29680587.91	-29680587.89	-29680587.83	0.0133	0.0131	
Earth	-85974-12-28 19:11 J	-29680218.71	-29680218.70	-29680218.67	0.0133	0.0132	
Moon	-85974-12-28 21:20 J	-29680218.62	-29680218.61	-29680218.56	0.0133	0.0132	
Earth	-85973-12-31 21:20 J	-29679849.64	-29679849.61	-29679849.55	0.0133	0.0131	
Earth	-85971-01-04 23:30 J	-29679480.56	-29679480.52	-29679480.43	0.0134	0.0129	
Moon	-85971-01-05 02:08 J	-29679480.48	-29679480.41	-29679480.30	0.0134	0.0124	*
Moon	-85970-01-08 23:59 J	-29679111.52	-29679111.50	-29679111.43	0.0134	0.0133	
Earth	-85970-01-09 02:37 J	-29679111.47	-29679111.39	-29679111.30	0.0134	0.0126	*
Earth	-85969-01-13 05:44 J	-29678742.36	-29678742.26	-29678742.16	0.0135	0.0122	
Moon	-85969-01-13 08:08 J	-29678742.28	-29678742.16	-29678742.03	0.0135	0.0115	*
Moon	-85968-01-16 06:27 J	-29678373.32	-29678373.23	-29678373.12	0.0135	0.0124	
Earth	-85968-01-16 08:37 J	-29678373.23	-29678373.14	-29678373.00	0.0135	0.0118	*
Earth	-85967-01-20 12:56 J	-29678004.09	-29678003.96	-29678003.82	0.0136	0.0113	
Moon	-85967-01-20 15:06 J	-29678004.01	-29678003.87	-29678003.73	0.0136	0.0110	*
Moon	-85966-01-24 14:37 J	-29677635.03	-29677634.89	-29677634.74	0.0136	0.0109	
Earth	-85966-01-24 17:15 J	-29677634.92	-29677634.78	-29677634.62	0.0136	0.0108	*
Earth	-85965-01-28 22:03 J	-29677265.72	-29677265.58	-29677265.40	0.0137	0.0102	
Moon	-85965-01-29 00:27 J	-29677265.63	-29677265.48	-29677265.32	0.0137	0.0104	*
Moon	-85964-02-01 01:25 J	-29676896.61	-29676896.44	-29676896.23	0.0137	0.0091	
Earth	-85964-02-01 04:03 J	-29676896.50	-29676896.33	-29676896.14	0.0137	0.0095	*
Earth	-85963-02-05 10:32 J	-29676527.23	-29676527.06	-29676526.86	0.0138	0.0088	
Moon	-85963-02-05 12:56 J	-29676527.13	-29676526.96	-29676526.78	0.0138	0.0094	*
Venus	-85963-09-19 19:25 J	-29676300.73	-29676300.69	-29676300.61	0.0138	0.0131	
Moon	-85962-02-09 16:18 J	-29676158.03	-29676157.82	-29676157.60	0.0138	0.0073	
Earth	-85962-02-09 18:13 J	-29676157.93	-29676157.74	-29676157.53	0.0138	0.0080	*
Venus	-85962-05-04 01:25 J	-29676074.61	-29676074.44	-29676074.24	0.0139	0.0068	
Venus	-85962-12-16 07:54 J	-29675848.38	-29675848.17	-29675847.95	0.0139	0.0004	

Earth -85961-02-14 02:23 J -29675788.60 -29675788.40 -29675788.18 0.0139 0.0072
 Moon -85961-02-14 04:32 J -29675788.49 -29675788.31 -29675788.09 0.0139 0.0079 *
 Mercury -85961-02-28 04:18 J -29675774.34 -29675774.32 -29675774.28 0.0139 0.0135
 Mercury -85961-05-26 08:08 J -29675686.23 -29675686.16 -29675686.09 0.0139 0.0118
 Venus -85961-07-29 14:08 J -29675622.09 -29675621.91 -29675621.71 0.0139 0.0063
 Mercury -85961-08-22 11:44 J -29675598.10 -29675598.01 -29675597.91 0.0139 0.0101
 Mercury -85961-11-18 15:35 J -29675509.96 -29675509.85 -29675509.74 0.0139 0.0084
 Mercury -85960-02-14 19:11 J -29675421.81 -29675421.70 -29675421.57 0.0140 0.0067
 Moon -85960-02-17 10:32 J -29675419.29 -29675419.06 -29675418.83 0.0140 0.0059
 Earth -85960-02-17 12:13 J -29675419.21 -29675418.99 -29675418.77 0.0140 0.0063 *
 Venus -85960-03-12 20:37 J -29675395.70 -29675395.64 -29675395.54 0.0140 0.0129
 Mercury -85960-05-13 23:01 J -29675333.66 -29675333.54 -29675333.40 0.0140 0.0049
 Mercury -85960-08-10 03:06 J -29675245.51 -29675245.37 -29675245.23 0.0140 0.0030
 Mercury -85960-11-06 06:56 J -29675157.35 -29675157.21 -29675157.07 0.0140 0.0012
 Mercury -85959-02-02 10:47 J -29675069.19 -29675069.05 -29675068.91 0.0140 0.0007
 Earth -85959-02-21 22:32 J -29675049.78 -29675049.56 -29675049.33 0.0140 0.0053
 Moon -85959-02-22 00:27 J -29675049.70 -29675049.48 -29675049.26 0.0140 0.0054 *
 Mercury -85959-05-01 14:51 J -29674981.02 -29674980.88 -29674980.74 0.0140 0.0025
 Mercury -85959-07-28 18:42 J -29674892.85 -29674892.72 -29674892.58 0.0140 0.0043
 Mercury -85959-10-24 22:47 J -29674804.68 -29674804.55 -29674804.42 0.0141 0.0062
 Mercury -85958-01-21 02:37 J -29674716.50 -29674716.39 -29674716.27 0.0141 0.0081
 Moon -85958-02-26 08:23 J -29674680.38 -29674680.15 -29674679.90 0.0141 0.0045
 Earth -85958-02-26 10:03 J -29674680.31 -29674680.08 -29674679.84 0.0141 0.0043 *
 Mercury -85958-04-19 06:42 J -29674628.31 -29674628.22 -29674628.11 0.0141 0.0100
 Mercury -85958-07-16 10:47 J -29674540.12 -29674540.05 -29674539.97 0.0141 0.0119
 Mercury -85958-10-12 15:06 J -29674451.89 -29674451.87 -29674451.84 0.0141 0.0138
 Earth -85957-03-01 22:47 J -29674310.79 -29674310.55 -29674310.31 0.0141 0.0033
 Moon -85957-03-01 23:44 J -29674310.75 -29674310.51 -29674310.28 0.0141 0.0027 *
 Moon -85956-03-06 11:01 J -29673941.29 -29673941.04 -29673940.79 0.0142 0.0028
 Earth -85956-03-06 11:59 J -29673941.23 -29673941.00 -29673940.75 0.0142 0.0022 *

Earth	-85955-03-11 02:51 J	-29673571.62	-29673571.38	-29673571.13	0.0143	0.0010
Moon	-85955-03-11 03:20 J	-29673571.60	-29673571.36	-29673571.13	0.0143	0.0005 *
Moon	-85954-03-15 18:13 J	-29673201.99	-29673201.74	-29673201.48	0.0143	0.0005
Earth	-85954-03-15 18:42 J	-29673201.97	-29673201.72	-29673201.47	0.0143	0.0002 *
Moon	-85953-03-19 11:30 J	-29672832.26	-29672832.02	-29672831.78	0.0144	0.0014
Earth	-85953-03-19 11:30 J	-29672832.26	-29672832.02	-29672831.77	0.0144	0.0013 *
Earth	-85952-03-24 05:44 J	-29672462.50	-29672462.26	-29672462.01	0.0144	0.0025
Moon	-85952-03-24 06:42 J	-29672462.48	-29672462.22	-29672461.97	0.0144	0.0028 *
Moon	-85951-03-29 00:13 J	-29672092.72	-29672092.49	-29672092.25	0.0145	0.0031
Earth	-85951-03-29 00:56 J	-29672092.69	-29672092.46	-29672092.21	0.0145	0.0037 *
Earth	-85950-04-02 21:35 J	-29671722.83	-29671722.60	-29671722.36	0.0145	0.0048
Moon	-85950-04-02 23:30 J	-29671722.75	-29671722.52	-29671722.28	0.0145	0.0056 *
Moon	-85949-04-06 17:44 J	-29671352.99	-29671352.76	-29671352.53	0.0146	0.0053
Earth	-85949-04-06 19:25 J	-29671352.91	-29671352.69	-29671352.46	0.0146	0.0060 *
Earth	-85948-04-11 18:27 J	-29670982.94	-29670982.73	-29670982.51	0.0146	0.0072
Moon	-85948-04-11 21:06 J	-29670982.83	-29670982.62	-29670982.39	0.0146	0.0074 *
Moon	-85947-04-16 15:35 J	-29670613.04	-29670612.85	-29670612.63	0.0146	0.0084
Earth	-85947-04-16 18:56 J	-29670612.92	-29670612.71	-29670612.50	0.0146	0.0083 *
Earth	-85946-04-21 20:08 J	-29670242.84	-29670242.66	-29670242.46	0.0147	0.0094
Moon	-85946-04-21 23:30 J	-29670242.72	-29670242.52	-29670242.31	0.0147	0.0088 *
Moon	-85945-04-25 18:56 J	-29669872.85	-29669872.71	-29669872.53	0.0147	0.0112
Earth	-85945-04-25 22:32 J	-29669872.72	-29669872.56	-29669872.36	0.0147	0.0104 *
Earth	-85944-05-01 02:23 J	-29669502.55	-29669502.40	-29669502.23	0.0147	0.0113
Moon	-85944-05-01 05:44 J	-29669502.42	-29669502.26	-29669502.07	0.0147	0.0106 *
Moon	-85943-05-06 03:20 J	-29669132.48	-29669132.36	-29669132.21	0.0147	0.0125
Earth	-85943-05-06 06:42 J	-29669132.34	-29669132.22	-29669132.06	0.0147	0.0122 *
Earth	-85942-05-11 11:59 J	-29668762.11	-29668762.00	-29668761.87	0.0147	0.0130
Moon	-85942-05-11 15:06 J	-29668761.96	-29668761.87	-29668761.74	0.0147	0.0131 *
Moon	-85941-05-15 15:20 J	-29668391.97	-29668391.86	-29668391.73	0.0147	0.0130
Earth	-85941-05-15 17:59 J	-29668391.83	-29668391.75	-29668391.65	0.0147	0.0137 *

Earth	-85940-05-21 00:27 J	-29668021.53	-29668021.48	-29668021.40	0.0147	0.0142
Moon	-85939-05-26 06:13 J	-29667651.30	-29667651.24	-29667651.15	0.0147	0.0141
Earth	-85939-05-26 07:39 J	-29667651.18	-29667651.18	-29667651.16	0.0147	0.0147 *
Mars	-85938-04-27 11:01 J	-29667315.35	-29667315.04	-29667314.72	0.0147	0.0055
Mars	-85936-04-04 09:06 J	-29666607.34	-29666607.12	-29666606.84	0.0147	0.0097
Earth	-85931-07-05 23:01 J	-29664688.55	-29664688.54	-29664688.49	0.0145	0.0144
Moon	-85931-07-06 02:51 J	-29664688.45	-29664688.38	-29664688.27	0.0145	0.0136
Earth	-85930-07-11 06:13 J	-29664318.29	-29664318.24	-29664318.15	0.0144	0.0138
Earth	-85929-07-15 12:42 J	-29663948.05	-29663947.97	-29663947.85	0.0143	0.0132
Moon	-85929-07-15 15:49 J	-29663947.94	-29663947.84	-29663947.72	0.0143	0.0130 *
Moon	-85928-07-20 15:49 J	-29663577.95	-29663577.84	-29663577.68	0.0143	0.0123
Earth	-85928-07-20 18:42 J	-29663577.83	-29663577.72	-29663577.58	0.0143	0.0124 *
Earth	-85927-07-25 23:30 J	-29663207.65	-29663207.52	-29663207.35	0.0142	0.0116
Moon	-85927-07-26 00:42 J	-29663207.58	-29663207.47	-29663207.33	0.0142	0.0123 *
Moon	-85926-07-31 02:23 J	-29662837.58	-29662837.40	-29662837.20	0.0142	0.0100
Earth	-85926-07-31 03:20 J	-29662837.51	-29662837.36	-29662837.17	0.0142	0.0108 *
Earth	-85925-08-04 06:42 J	-29662467.40	-29662467.22	-29662467.02	0.0141	0.0098
Moon	-85925-08-04 06:27 J	-29662467.39	-29662467.23	-29662467.05	0.0141	0.0104 *
Earth	-85924-08-09 08:51 J	-29662097.33	-29662097.13	-29662096.92	0.0141	0.0089
Moon	-85924-08-09 09:20 J	-29662097.31	-29662097.11	-29662096.89	0.0141	0.0087 *
Venus	-85924-10-15 02:37 J	-29662030.47	-29662030.39	-29662030.29	0.0140	0.0128
Venus	-85923-05-29 14:23 J	-29661804.10	-29661803.90	-29661803.69	0.0140	0.0057
Moon	-85923-08-14 08:23 J	-29661727.36	-29661727.15	-29661726.94	0.0140	0.0076
Earth	-85923-08-14 09:35 J	-29661727.31	-29661727.10	-29661726.87	0.0140	0.0079 *
Venus	-85922-01-11 01:54 J	-29661577.64	-29661577.42	-29661577.20	0.0140	0.0014
Mercury	-85922-07-24 12:56 J	-29661383.00	-29661382.96	-29661382.91	0.0139	0.0135
Earth	-85922-08-19 09:49 J	-29661357.32	-29661357.09	-29661356.86	0.0139	0.0069
Moon	-85922-08-19 11:44 J	-29661357.22	-29661357.01	-29661356.77	0.0139	0.0076 *
Venus	-85922-08-25 12:27 J	-29661351.14	-29661350.98	-29661350.78	0.0139	0.0084
Mercury	-85922-10-20 19:39 J	-29661294.78	-29661294.68	-29661294.56	0.0139	0.0111

Mercury -85921-01-17 02:23 J -29661206.53 -29661206.40 -29661206.25 0.0139 0.0088

Mercury -85921-04-14 09:20 J -29661118.27 -29661118.11 -29661117.95 0.0139 0.0064

Mercury -85921-07-11 15:49 J -29661030.00 -29661029.84 -29661029.66 0.0139 0.0042

Moon -85921-08-23 06:13 J -29660987.46 -29660987.24 -29660986.99 0.0139 0.0052

Earth -85921-08-23 08:37 J -29660987.37 -29660987.14 -29660986.89 0.0139 0.0059 *

Mercury -85921-10-07 22:32 J -29660941.73 -29660941.56 -29660941.38 0.0139 0.0019

Mercury -85920-01-04 05:15 J -29660853.46 -29660853.28 -29660853.10 0.0138 0.0004

Mercury -85920-04-02 11:44 J -29660765.19 -29660765.01 -29660764.84 0.0138 0.0026

Mercury -85920-06-29 17:59 J -29660676.91 -29660676.75 -29660676.58 0.0138 0.0049

Earth -85920-08-28 06:13 J -29660617.47 -29660617.24 -29660616.98 0.0138 0.0048

Moon -85920-08-28 09:35 J -29660617.34 -29660617.10 -29660616.84 0.0138 0.0053 *

Mercury -85920-09-26 00:27 J -29660588.63 -29660588.48 -29660588.33 0.0138 0.0070

Mercury -85920-12-23 06:42 J -29660500.34 -29660500.22 -29660500.08 0.0138 0.0092

Mercury -85919-03-21 12:56 J -29660412.05 -29660411.96 -29660411.85 0.0138 0.0113

Mercury -85919-06-17 18:56 J -29660323.73 -29660323.71 -29660323.66 0.0138 0.0135

Moon -85919-09-01 23:59 J -29660247.74 -29660247.50 -29660247.24 0.0137 0.0034

Earth -85919-09-02 03:06 J -29660247.61 -29660247.37 -29660247.11 0.0137 0.0037 *

Earth -85918-09-06 22:47 J -29659877.80 -29659877.55 -29659877.29 0.0137 0.0026

Moon -85918-09-07 02:23 J -29659877.66 -29659877.40 -29659877.14 0.0137 0.0024 *

Moon -85917-09-10 13:25 J -29659508.19 -29659507.94 -29659507.67 0.0136 0.0021

Earth -85917-09-10 17:30 J -29659508.03 -29659507.77 -29659507.51 0.0136 0.0015 *

Earth -85916-09-15 10:47 J -29659138.31 -29659138.05 -29659137.79 0.0136 0.0005

Moon -85916-09-15 14:23 J -29659138.17 -29659137.90 -29659137.64 0.0136 0.0003 *

Moon -85915-09-19 23:01 J -29658768.80 -29658768.54 -29658768.28 0.0135 0.0002

Earth -85915-09-20 02:51 J -29658768.64 -29658768.38 -29658768.12 0.0135 0.0006 *

Earth -85914-09-24 17:44 J -29658399.01 -29658398.76 -29658398.49 0.0135 0.0016

Moon -85914-09-24 21:20 J -29658398.86 -29658398.61 -29658398.35 0.0135 0.0022 *

Moon -85913-09-28 04:18 J -29658029.58 -29658029.32 -29658029.06 0.0134 0.0024

Earth -85913-09-28 07:54 J -29658029.43 -29658029.17 -29658028.92 0.0134 0.0026 *

Earth -85912-10-02 20:08 J -29657659.91 -29657659.66 -29657659.40 0.0134 0.0035

Moon	-85912-10-02 23:44 J	-29657659.75	-29657659.51	-29657659.26	0.0134	0.0034	*
Moon	-85911-10-07 04:32 J	-29657290.55	-29657290.31	-29657290.06	0.0134	0.0049	
Earth	-85911-10-07 07:39 J	-29657290.41	-29657290.18	-29657289.92	0.0134	0.0045	*
Earth	-85910-10-11 18:13 J	-29656920.96	-29656920.74	-29656920.49	0.0133	0.0054	
Moon	-85910-10-11 21:35 J	-29656920.83	-29656920.60	-29656920.35	0.0133	0.0047	*
Moon	-85909-10-15 00:56 J	-29656551.68	-29656551.46	-29656551.23	0.0133	0.0068	
Earth	-85909-10-15 03:49 J	-29656551.55	-29656551.34	-29656551.09	0.0133	0.0062	*
Earth	-85908-10-19 12:42 J	-29656182.18	-29656181.97	-29656181.74	0.0133	0.0070	
Moon	-85908-10-19 15:20 J	-29656182.07	-29656181.86	-29656181.63	0.0133	0.0065	*
Moon	-85907-10-23 17:15 J	-29655812.96	-29655812.78	-29655812.55	0.0132	0.0083	
Earth	-85907-10-23 20:37 J	-29655812.83	-29655812.64	-29655812.42	0.0132	0.0078	*
Earth	-85906-10-28 03:35 J	-29655443.52	-29655443.35	-29655443.13	0.0132	0.0086	
Moon	-85906-10-28 06:27 J	-29655443.41	-29655443.23	-29655443.03	0.0132	0.0084	*
Moon	-85905-10-31 07:39 J	-29655074.36	-29655074.18	-29655073.98	0.0132	0.0089	
Earth	-85905-10-31 10:18 J	-29655074.23	-29655074.07	-29655073.87	0.0132	0.0092	*
Earth	-85904-11-04 16:03 J	-29654704.99	-29654704.83	-29654704.65	0.0132	0.0098	
Moon	-85904-11-04 18:42 J	-29654704.86	-29654704.72	-29654704.55	0.0132	0.0102	*
Moon	-85903-11-08 18:56 J	-29654335.87	-29654335.71	-29654335.52	0.0132	0.0097	
Earth	-85903-11-08 21:20 J	-29654335.75	-29654335.61	-29654335.44	0.0132	0.0104	*
Earth	-85902-11-13 01:54 J	-29653966.55	-29653966.42	-29653966.27	0.0131	0.0109	
Moon	-85902-11-13 04:47 J	-29653966.41	-29653966.30	-29653966.18	0.0131	0.0116	*
Moon	-85901-11-16 03:06 J	-29653597.50	-29653597.37	-29653597.20	0.0131	0.0108	
Earth	-85901-11-16 05:44 J	-29653597.37	-29653597.26	-29653597.12	0.0131	0.0114	*
Earth	-85900-11-20 09:06 J	-29653228.22	-29653228.12	-29653228.00	0.0131	0.0118	
Moon	-85900-11-20 11:30 J	-29653228.09	-29653228.02	-29653227.92	0.0131	0.0123	*
Moon	-85899-11-24 08:51 J	-29652859.21	-29652859.13	-29652858.99	0.0131	0.0119	
Earth	-85899-11-24 11:59 J	-29652859.08	-29652859.00	-29652858.89	0.0131	0.0122	*
Earth	-85898-11-28 14:23 J	-29652489.96	-29652489.90	-29652489.81	0.0131	0.0125	
Moon	-85898-11-28 16:32 J	-29652489.87	-29652489.81	-29652489.71	0.0131	0.0124	*
Moon	-85897-12-01 13:25 J	-29652120.96	-29652120.94	-29652120.87	0.0132	0.0130	

Earth	-85897-12-01 16:47 J	-29652120.86	-29652120.80	-29652120.73	0.0132	0.0127
Mars	-85896-07-28 19:11 J	-29651881.93	-29651881.70	-29651881.44	0.0132	0.0063
Earth	-85896-12-05 18:42 J	-29651751.77	-29651751.72	-29651751.68	0.0132	0.0129
Moon	-85896-12-05 20:37 J	-29651751.70	-29651751.64	-29651751.54	0.0132	0.0125 *
Earth	-85895-12-09 19:54 J	-29651382.67	-29651382.67	-29651382.61	0.0132	0.0131
Mars	-85894-06-27 08:23 J	-29651183.43	-29651183.15	-29651182.87	0.0132	0.0025
Earth	-85894-12-13 22:03 J	-29651013.58	-29651013.58	-29651013.56	0.0132	0.0132
Moon	-85894-12-14 00:42 J	-29651013.53	-29651013.47	-29651013.38	0.0132	0.0125
Earth	-85893-12-16 23:44 J	-29650644.51	-29650644.51	-29650644.50	0.0132	0.0132
Mars	-85892-05-26 01:39 J	-29650484.54	-29650484.43	-29650484.27	0.0132	0.0116
Earth	-85892-12-21 01:11 J	-29650275.45	-29650275.45	-29650275.42	0.0132	0.0132
Moon	-85892-12-21 03:49 J	-29650275.38	-29650275.34	-29650275.25	0.0132	0.0128
Earth	-85891-12-25 02:51 J	-29649906.39	-29649906.38	-29649906.32	0.0133	0.0132
Earth	-85890-12-29 05:01 J	-29649537.32	-29649537.29	-29649537.22	0.0133	0.0130
Moon	-85890-12-29 07:54 J	-29649537.19	-29649537.17	-29649537.12	0.0133	0.0131
Moon	-85888-01-01 04:32 J	-29649168.38	-29649168.31	-29649168.22	0.0133	0.0126
Earth	-85888-01-01 07:11 J	-29649168.24	-29649168.20	-29649168.11	0.0133	0.0129 *
Earth	-85887-01-05 10:03 J	-29648799.16	-29648799.08	-29648798.99	0.0134	0.0125
Moon	-85887-01-05 12:42 J	-29648799.02	-29648798.97	-29648798.93	0.0134	0.0131 *
Moon	-85886-01-09 09:20 J	-29648430.22	-29648430.11	-29648429.96	0.0134	0.0115
Earth	-85886-01-09 12:27 J	-29648430.06	-29648429.98	-29648429.86	0.0134	0.0122 *
Earth	-85885-01-13 15:35 J	-29648060.96	-29648060.85	-29648060.73	0.0135	0.0118
Moon	-85885-01-13 18:13 J	-29648060.82	-29648060.74	-29648060.64	0.0135	0.0125 *
Moon	-85884-01-16 16:03 J	-29647691.97	-29647691.83	-29647691.67	0.0135	0.0107
Earth	-85884-01-16 18:42 J	-29647691.83	-29647691.72	-29647691.57	0.0135	0.0114 *
Earth	-85883-01-20 22:32 J	-29647322.69	-29647322.56	-29647322.40	0.0136	0.0109
Moon	-85883-01-21 01:39 J	-29647322.55	-29647322.43	-29647322.29	0.0136	0.0114 *
Moon	-85882-01-25 00:27 J	-29646953.62	-29646953.48	-29646953.29	0.0136	0.0102
Earth	-85882-01-25 03:20 J	-29646953.51	-29646953.36	-29646953.19	0.0136	0.0103 *
Earth	-85881-01-29 08:37 J	-29646584.31	-29646584.14	-29646583.97	0.0137	0.0097

Moon -85881-01-29 11:15 J -29646584.19 -29646584.03 -29646583.84 0.0137 0.0096 *
 Moon -85880-02-01 11:15 J -29646215.19 -29646215.03 -29646214.83 0.0137 0.0095
 Earth -85880-02-01 14:23 J -29646215.08 -29646214.90 -29646214.71 0.0137 0.0090 *
 Earth -85879-02-05 21:06 J -29645845.81 -29645845.62 -29645845.42 0.0138 0.0083
 Moon -85879-02-05 23:44 J -29645845.71 -29645845.51 -29645845.31 0.0138 0.0076 *
 Venus -85878-01-01 11:15 J -29645516.17 -29645516.03 -29645515.88 0.0138 0.0098
 Moon -85878-02-10 01:54 J -29645476.62 -29645476.42 -29645476.22 0.0138 0.0082
 Earth -85878-02-10 04:47 J -29645476.51 -29645476.30 -29645476.09 0.0138 0.0075 *
 Venus -85878-08-15 17:15 J -29645289.98 -29645289.78 -29645289.57 0.0139 0.0035
 Earth -85877-02-14 13:11 J -29645107.16 -29645106.95 -29645106.73 0.0139 0.0066
 Moon -85877-02-14 15:35 J -29645107.07 -29645106.85 -29645106.64 0.0139 0.0060 *
 Mercury -85877-03-19 11:30 J -29645073.05 -29645073.02 -29645072.97 0.0139 0.0132
 Venus -85877-03-28 23:44 J -29645063.72 -29645063.51 -29645063.31 0.0139 0.0030
 Mercury -85877-06-15 15:20 J -29644984.93 -29644984.86 -29644984.78 0.0139 0.0115
 Mercury -85877-09-11 18:56 J -29644896.80 -29644896.71 -29644896.60 0.0139 0.0098
 Venus -85877-11-10 05:59 J -29644837.39 -29644837.25 -29644837.08 0.0139 0.0096
 Mercury -85877-12-08 22:47 J -29644808.66 -29644808.55 -29644808.43 0.0139 0.0080
 Moon -85876-02-17 20:08 J -29644737.88 -29644737.66 -29644737.43 0.0140 0.0062
 Earth -85876-02-17 22:32 J -29644737.77 -29644737.56 -29644737.33 0.0140 0.0057 *
 Mercury -85876-03-07 02:37 J -29644720.51 -29644720.39 -29644720.26 0.0140 0.0062
 Mercury -85876-06-03 06:27 J -29644632.36 -29644632.23 -29644632.10 0.0140 0.0045
 Mercury -85876-08-30 10:18 J -29644544.21 -29644544.07 -29644543.93 0.0140 0.0027
 Mercury -85876-11-26 14:08 J -29644456.05 -29644455.91 -29644455.77 0.0140 0.0009
 Earth -85875-02-22 09:06 J -29644368.35 -29644368.12 -29644367.88 0.0140 0.0048
 Moon -85875-02-22 11:15 J -29644368.25 -29644368.03 -29644367.80 0.0140 0.0046 *
 Mercury -85875-02-22 17:59 J -29644367.89 -29644367.75 -29644367.61 0.0140 0.0010 *
 Mercury -85875-05-21 22:03 J -29644279.72 -29644279.58 -29644279.44 0.0140 0.0028
 Mercury -85875-08-18 01:54 J -29644191.55 -29644191.42 -29644191.28 0.0140 0.0047
 Mercury -85875-11-14 05:59 J -29644103.38 -29644103.25 -29644103.13 0.0141 0.0066
 Mercury -85874-02-10 09:49 J -29644015.19 -29644015.09 -29644014.97 0.0141 0.0085

Moon -85874-02-26 18:42 J -29643998.96 -29643998.72 -29643998.47 0.0141 0.0035
 Earth -85874-02-26 20:37 J -29643998.87 -29643998.64 -29643998.40 0.0141 0.0038 *
 Mercury -85874-05-09 13:54 J -29643927.01 -29643926.92 -29643926.82 0.0141 0.0104
 Mercury -85874-08-05 17:59 J -29643838.81 -29643838.75 -29643838.67 0.0141 0.0123
 Earth -85873-03-02 09:06 J -29643629.36 -29643629.12 -29643628.88 0.0141 0.0027
 Moon -85873-03-02 11:01 J -29643629.27 -29643629.04 -29643628.80 0.0141 0.0032 *
 Moon -85872-03-06 21:20 J -29643259.86 -29643259.61 -29643259.36 0.0142 0.0009
 Earth -85872-03-06 22:32 J -29643259.80 -29643259.56 -29643259.31 0.0142 0.0016 *
 Earth -85871-03-11 13:11 J -29642890.19 -29642889.95 -29642889.70 0.0143 0.0006
 Moon -85871-03-11 14:37 J -29642890.12 -29642889.89 -29642889.64 0.0143 0.0013 *
 Moon -85870-03-16 04:03 J -29642520.58 -29642520.33 -29642520.07 0.0143 0.0012
 Earth -85870-03-16 05:01 J -29642520.54 -29642520.29 -29642520.04 0.0143 0.0007 *
 Earth -85869-03-19 22:03 J -29642150.83 -29642150.58 -29642150.34 0.0144 0.0018
 Moon -85869-03-19 22:18 J -29642150.81 -29642150.57 -29642150.33 0.0144 0.0017 *
 Moon -85868-03-24 15:35 J -29641781.09 -29641780.85 -29641780.59 0.0144 0.0029
 Earth -85868-03-24 15:49 J -29641781.07 -29641780.84 -29641780.58 0.0144 0.0031 *
 Moon -85867-03-29 10:32 J -29641411.28 -29641411.06 -29641410.82 0.0145 0.0048
 Earth -85867-03-29 11:15 J -29641411.26 -29641411.03 -29641410.78 0.0145 0.0042 *
 Earth -85866-04-03 07:54 J -29641041.39 -29641041.17 -29641040.93 0.0145 0.0053
 Moon -85866-04-03 08:51 J -29641041.38 -29641041.13 -29641040.89 0.0145 0.0046 *
 Moon -85865-04-07 04:03 J -29640671.53 -29640671.33 -29640671.11 0.0146 0.0071
 Earth -85865-04-07 05:44 J -29640671.47 -29640671.26 -29640671.03 0.0146 0.0065 *
 Earth -85864-04-12 04:47 J -29640301.50 -29640301.30 -29640301.07 0.0146 0.0076
 Moon -85864-04-12 06:56 J -29640301.42 -29640301.21 -29640300.98 0.0146 0.0072 *
 Moon -85863-04-17 02:52 J -29639931.57 -29639931.38 -29639931.17 0.0146 0.0086
 Earth -85863-04-17 05:30 J -29639931.47 -29639931.27 -29639931.06 0.0146 0.0087 *
 Earth -85862-04-22 06:42 J -29639561.40 -29639561.22 -29639561.02 0.0147 0.0097
 Moon -85862-04-22 10:04 J -29639561.26 -29639561.08 -29639560.89 0.0147 0.0103 *
 Moon -85861-04-26 05:59 J -29639191.41 -29639191.25 -29639191.05 0.0147 0.0100
 Earth -85861-04-26 09:06 J -29639191.27 -29639191.12 -29639190.93 0.0147 0.0107 *

Earth	-85860-05-01 12:28 J	-29638821.11	-29638820.98	-29638820.80	0.0147	0.0116
Moon	-85860-05-01 16:32 J	-29638820.94	-29638820.81	-29638820.67	0.0147	0.0122 *
Moon	-85859-05-06 13:25 J	-29638451.08	-29638450.94	-29638450.79	0.0147	0.0120
Earth	-85859-05-06 17:01 J	-29638450.91	-29638450.79	-29638450.64	0.0147	0.0124 *
Earth	-85858-05-11 22:04 J	-29638080.68	-29638080.58	-29638080.45	0.0147	0.0132
Moon	-85858-05-12 01:11 J	-29638080.55	-29638080.45	-29638080.31	0.0147	0.0130 *
Moon	-85857-05-16 00:13 J	-29637710.52	-29637710.49	-29637710.40	0.0147	0.0144
Earth	-85857-05-16 04:04 J	-29637710.41	-29637710.33	-29637710.23	0.0147	0.0138 *
Earth	-85856-05-21 10:47 J	-29637340.11	-29637340.05	-29637339.99	0.0147	0.0143
Moon	-85856-05-21 13:11 J	-29637340.04	-29637339.95	-29637339.86	0.0147	0.0136 *
Earth	-85855-05-26 17:30 J	-29636969.77	-29636969.77	-29636969.74	0.0147	0.0147
Mars	-85854-12-23 07:54 J	-29636394.50	-29636394.17	-29636393.83	0.0147	0.0004
Moon	-85851-06-16 02:52 J	-29635488.39	-29635488.38	-29635488.33	0.0146	0.0145
Moon	-85848-06-30 21:49 J	-29634377.65	-29634377.59	-29634377.51	0.0145	0.0139
Earth	-85848-07-01 01:25 J	-29634377.45	-29634377.44	-29634377.41	0.0145	0.0144
Earth	-85847-07-06 08:37 J	-29634007.19	-29634007.14	-29634007.05	0.0145	0.0140
Moon	-85846-07-11 12:28 J	-29633637.11	-29633636.98	-29633636.86	0.0144	0.0126
Earth	-85846-07-11 15:35 J	-29633636.92	-29633636.85	-29633636.73	0.0144	0.0134 *
Earth	-85845-07-15 22:18 J	-29633266.68	-29633266.57	-29633266.44	0.0143	0.0127
Moon	-85845-07-16 01:25 J	-29633266.52	-29633266.44	-29633266.31	0.0143	0.0131 *
Moon	-85844-07-21 01:25 J	-29632896.58	-29632896.44	-29632896.30	0.0143	0.0121
Earth	-85844-07-21 04:04 J	-29632896.46	-29632896.33	-29632896.18	0.0143	0.0119 *
Earth	-85843-07-26 08:23 J	-29632526.29	-29632526.15	-29632525.97	0.0142	0.0112
Moon	-85843-07-26 10:47 J	-29632526.19	-29632526.05	-29632525.86	0.0142	0.0107 *
Moon	-85842-07-31 11:16 J	-29632156.19	-29632156.03	-29632155.84	0.0142	0.0109
Earth	-85842-07-31 12:42 J	-29632156.14	-29632155.97	-29632155.78	0.0142	0.0102 *
Earth	-85841-08-04 15:35 J	-29631786.03	-29631785.85	-29631785.64	0.0141	0.0093
Moon	-85841-08-04 16:32 J	-29631786.00	-29631785.81	-29631785.60	0.0141	0.0087 *
Moon	-85840-08-09 17:44 J	-29631415.97	-29631415.76	-29631415.54	0.0141	0.0085
Earth	-85840-08-09 17:16 J	-29631415.97	-29631415.78	-29631415.55	0.0141	0.0084 *

Venus -85839-01-26 20:08 J -29631245.82 -29631245.66 -29631245.48 0.0140 0.0092
 Moon -85839-08-14 17:44 J -29631045.96 -29631045.76 -29631045.54 0.0140 0.0076
 Earth -85839-08-14 18:42 J -29631045.94 -29631045.72 -29631045.49 0.0140 0.0073 *
 Venus -85839-09-10 07:54 J -29631019.39 -29631019.17 -29631018.95 0.0140 0.0021
 Venus -85838-04-24 18:56 J -29630792.91 -29630792.71 -29630792.50 0.0140 0.0049
 Mercury -85838-08-13 19:40 J -29630681.73 -29630681.68 -29630681.60 0.0139 0.0131
 Earth -85838-08-19 18:28 J -29630675.95 -29630675.73 -29630675.48 0.0139 0.0064
 Moon -85838-08-19 19:54 J -29630675.91 -29630675.67 -29630675.41 0.0139 0.0058 *
 Mercury -85838-11-10 02:52 J -29630593.49 -29630593.38 -29630593.27 0.0139 0.0107
 Venus -85838-12-07 05:30 J -29630566.37 -29630566.27 -29630566.13 0.0139 0.0118
 Mercury -85837-02-06 09:35 J -29630505.24 -29630505.10 -29630504.95 0.0139 0.0083
 Mercury -85837-05-04 16:18 J -29630416.98 -29630416.82 -29630416.65 0.0139 0.0060
 Mercury -85837-07-31 23:01 J -29630328.71 -29630328.54 -29630328.37 0.0139 0.0037
 Moon -85837-08-23 15:20 J -29630306.08 -29630305.86 -29630305.62 0.0139 0.0060
 Earth -85837-08-23 17:30 J -29630306.00 -29630305.77 -29630305.51 0.0139 0.0053 *
 Mercury -85837-10-28 05:44 J -29630240.44 -29630240.26 -29630240.08 0.0139 0.0014
 Mercury -85836-01-24 12:13 J -29630152.17 -29630151.99 -29630151.81 0.0138 0.0008
 Mercury -85836-04-22 18:42 J -29630063.89 -29630063.72 -29630063.54 0.0138 0.0031
 Mercury -85836-07-20 00:56 J -29629975.61 -29629975.46 -29629975.29 0.0138 0.0053
 Earth -85836-08-28 15:20 J -29629936.10 -29629935.86 -29629935.60 0.0138 0.0042
 Moon -85836-08-28 17:59 J -29629936.01 -29629935.75 -29629935.49 0.0138 0.0035 *
 Mercury -85836-10-16 07:11 J -29629887.33 -29629887.20 -29629887.04 0.0138 0.0075
 Mercury -85835-01-12 13:40 J -29629799.05 -29629798.93 -29629798.80 0.0138 0.0096
 Mercury -85835-04-10 19:54 J -29629710.75 -29629710.67 -29629710.57 0.0138 0.0118
 Moon -85835-09-02 09:20 J -29629566.35 -29629566.11 -29629565.86 0.0137 0.0033
 Earth -85835-09-02 12:28 J -29629566.23 -29629565.98 -29629565.72 0.0137 0.0031 *
 Earth -85834-09-07 08:08 J -29629196.42 -29629196.16 -29629195.90 0.0137 0.0020
 Moon -85834-09-07 11:30 J -29629196.28 -29629196.02 -29629195.76 0.0137 0.0021 *
 Moon -85833-09-10 23:30 J -29628826.78 -29628826.52 -29628826.26 0.0136 0.0005
 Earth -85833-09-11 02:52 J -29628826.64 -29628826.38 -29628826.12 0.0136 0.0010 *

Earth	-85832-09-15 19:54 J	-29628456.93	-29628456.67	-29628456.41	0.0136	0.0001
Moon	-85832-09-15 23:44 J	-29628456.78	-29628456.51	-29628456.25	0.0136	0.0006 *
Moon	-85831-09-20 08:23 J	-29628087.40	-29628087.15	-29628086.89	0.0135	0.0019
Earth	-85831-09-20 11:59 J	-29628087.26	-29628087.00	-29628086.73	0.0135	0.0011 *
Earth	-85830-09-25 02:52 J	-29627717.63	-29627717.38	-29627717.12	0.0135	0.0021
Moon	-85830-09-25 06:28 J	-29627717.48	-29627717.23	-29627716.96	0.0135	0.0017 *
Moon	-85829-09-28 12:42 J	-29627348.21	-29627347.97	-29627347.71	0.0134	0.0035
Earth	-85829-09-28 16:47 J	-29627348.06	-29627347.80	-29627347.55	0.0134	0.0031 *
Earth	-85828-10-03 05:01 J	-29626978.53	-29626978.29	-29626978.03	0.0134	0.0040
Moon	-85828-10-03 08:23 J	-29626978.38	-29626978.15	-29626977.89	0.0134	0.0042 *
Moon	-85827-10-07 13:11 J	-29626609.19	-29626608.95	-29626608.70	0.0134	0.0045
Earth	-85827-10-07 17:01 J	-29626609.03	-29626608.79	-29626608.55	0.0134	0.0049 *
Earth	-85826-10-12 03:35 J	-29626239.58	-29626239.35	-29626239.12	0.0133	0.0057
Moon	-85826-10-12 06:56 J	-29626239.43	-29626239.21	-29626238.98	0.0133	0.0063 *
Moon	-85825-10-15 09:35 J	-29625870.31	-29625870.10	-29625869.84	0.0133	0.0059
Earth	-85825-10-15 13:11 J	-29625870.16	-29625869.95	-29625869.72	0.0133	0.0066 *
Earth	-85824-10-19 21:49 J	-29625500.79	-29625500.59	-29625500.37	0.0133	0.0074
Moon	-85824-10-20 01:11 J	-29625500.64	-29625500.45	-29625500.23	0.0133	0.0081 *
Moon	-85823-10-24 03:06 J	-29625131.58	-29625131.37	-29625131.16	0.0132	0.0077
Earth	-85823-10-24 05:44 J	-29625131.44	-29625131.26	-29625131.04	0.0132	0.0082 *
Earth	-85822-10-28 13:11 J	-29624762.13	-29624761.95	-29624761.74	0.0132	0.0088
Moon	-85822-10-28 16:47 J	-29624761.98	-29624761.80	-29624761.61	0.0132	0.0089 *
Moon	-85821-10-31 16:32 J	-29624392.98	-29624392.81	-29624392.62	0.0132	0.0095
Earth	-85821-10-31 19:25 J	-29624392.84	-29624392.69	-29624392.49	0.0132	0.0095 *
Earth	-85820-11-05 01:25 J	-29624023.59	-29624023.44	-29624023.26	0.0132	0.0101
Moon	-85820-11-05 04:18 J	-29624023.47	-29624023.32	-29624023.13	0.0132	0.0096 *
Moon	-85819-11-09 03:20 J	-29623654.47	-29623654.36	-29623654.20	0.0132	0.0112
Earth	-85819-11-09 06:56 J	-29623654.35	-29623654.21	-29623654.05	0.0132	0.0106 *
Earth	-85818-11-13 11:30 J	-29623285.15	-29623285.02	-29623284.88	0.0131	0.0111
Moon	-85818-11-13 13:54 J	-29623285.05	-29623284.92	-29623284.75	0.0131	0.0105 *

Moon	-85817-11-16 12:13 J	-29622916.08	-29622915.99	-29622915.89	0.0131	0.0122
Earth	-85817-11-16 15:06 J	-29622915.97	-29622915.87	-29622915.73	0.0131	0.0115 *
Earth	-85816-11-20 17:59 J	-29622546.82	-29622546.75	-29622546.61	0.0131	0.0120
Moon	-85816-11-20 21:06 J	-29622546.72	-29622546.62	-29622546.48	0.0131	0.0114 *
Moon	-85815-11-24 18:13 J	-29622177.80	-29622177.74	-29622177.63	0.0131	0.0125
Earth	-85815-11-24 21:06 J	-29622177.69	-29622177.62	-29622177.50	0.0131	0.0123 *
Earth	-85814-11-28 23:59 J	-29621808.57	-29621808.50	-29621808.42	0.0131	0.0125
Moon	-85814-11-29 02:52 J	-29621808.44	-29621808.38	-29621808.29	0.0131	0.0125 *
Mars	-85813-04-23 05:59 J	-29621662.37	-29621662.25	-29621662.08	0.0131	0.0114
Moon	-85813-12-01 22:47 J	-29621439.61	-29621439.55	-29621439.44	0.0132	0.0125
Earth	-85813-12-02 01:40 J	-29621439.47	-29621439.43	-29621439.34	0.0132	0.0128 *
Earth	-85812-12-06 03:49 J	-29621070.38	-29621070.34	-29621070.28	0.0132	0.0129
Mars	-85811-03-22 16:04 J	-29620964.09	-29620963.83	-29620963.54	0.0132	0.0028
Moon	-85811-12-10 02:52 J	-29620701.46	-29620701.38	-29620701.29	0.0132	0.0124
Earth	-85811-12-10 05:59 J	-29620701.28	-29620701.25	-29620701.21	0.0132	0.0130
Earth	-85810-12-14 07:11 J	-29620332.21	-29620332.20	-29620332.15	0.0132	0.0131
Mars	-85809-02-19 06:13 J	-29620265.50	-29620265.24	-29620264.99	0.0132	0.0060
Moon	-85809-12-17 05:30 J	-29619963.33	-29619963.27	-29619963.16	0.0132	0.0125
Earth	-85809-12-17 08:52 J	-29619963.13	-29619963.13	-29619963.07	0.0132	0.0132
Earth	-85808-12-21 10:47 J	-29619594.07	-29619594.05	-29619593.99	0.0132	0.0131
Moon	-85807-12-25 09:20 J	-29619225.16	-29619225.11	-29619225.01	0.0133	0.0127
Earth	-85807-12-25 13:11 J	-29619225.00	-29619224.95	-29619224.90	0.0133	0.0129
Earth	-85806-12-29 15:06 J	-29618855.94	-29618855.87	-29618855.80	0.0133	0.0127
Moon	-85806-12-29 17:59 J	-29618855.80	-29618855.75	-29618855.67	0.0133	0.0128 *
Moon	-85804-01-01 13:40 J	-29618486.97	-29618486.93	-29618486.84	0.0133	0.0129
Earth	-85804-01-01 16:47 J	-29618486.86	-29618486.80	-29618486.70	0.0133	0.0125 *
Earth	-85803-01-05 19:25 J	-29618117.78	-29618117.69	-29618117.59	0.0134	0.0122
Moon	-85803-01-05 22:47 J	-29618117.66	-29618117.55	-29618117.43	0.0134	0.0117 *
Moon	-85802-01-09 18:28 J	-29617748.79	-29617748.73	-29617748.61	0.0134	0.0126
Earth	-85802-01-09 22:04 J	-29617748.69	-29617748.58	-29617748.46	0.0134	0.0119 *

Earth -85801-01-14 00:28 J -29617379.59 -29617379.48 -29617379.33 0.0135 0.0115
 Moon -85801-01-14 03:35 J -29617379.47 -29617379.35 -29617379.18 0.0135 0.0108 *
 Moon -85800-01-17 00:56 J -29617010.58 -29617010.46 -29617010.33 0.0135 0.0117
 Earth -85800-01-17 04:04 J -29617010.46 -29617010.33 -29617010.17 0.0135 0.0110 *
 Earth -85799-01-21 07:54 J -29616641.31 -29616641.17 -29616641.00 0.0136 0.0105
 Moon -85799-01-21 11:16 J -29616641.19 -29616641.03 -29616640.87 0.0136 0.0101 *
 Moon -85798-01-25 09:20 J -29616272.27 -29616272.11 -29616271.94 0.0136 0.0101
 Earth -85798-01-25 12:28 J -29616272.13 -29616271.98 -29616271.79 0.0136 0.0099 *
 Earth -85797-01-29 17:30 J -29615902.93 -29615902.77 -29615902.57 0.0137 0.0093
 Moon -85797-01-29 20:37 J -29615902.80 -29615902.64 -29615902.45 0.0137 0.0094 *
 Moon -85796-02-01 20:23 J -29615533.84 -29615533.65 -29615533.43 0.0137 0.0081
 Earth -85796-02-01 23:44 J -29615533.69 -29615533.51 -29615533.31 0.0137 0.0086 *
 Earth -85795-02-06 06:13 J -29615164.43 -29615164.24 -29615164.02 0.0138 0.0078
 Moon -85795-02-06 09:20 J -29615164.28 -29615164.11 -29615163.90 0.0138 0.0084 *
 Venus -85795-08-31 20:08 J -29614957.71 -29614957.66 -29614957.58 0.0138 0.0130
 Moon -85794-02-10 11:16 J -29614795.24 -29614795.03 -29614794.80 0.0138 0.0063
 Earth -85794-02-10 14:23 J -29614795.11 -29614794.90 -29614794.69 0.0138 0.0070 *
 Venus -85794-04-15 02:08 J -29614731.59 -29614731.41 -29614731.22 0.0138 0.0067
 Venus -85794-11-27 08:37 J -29614505.35 -29614505.14 -29614504.93 0.0139 0.0002
 Earth -85793-02-14 22:32 J -29614425.77 -29614425.56 -29614425.33 0.0139 0.0061
 Moon -85793-02-15 01:40 J -29614425.63 -29614425.43 -29614425.21 0.0139 0.0068 *
 Mercury -85793-04-08 18:28 J -29614371.77 -29614371.73 -29614371.67 0.0139 0.0129
 Mercury -85793-07-05 22:04 J -29614283.65 -29614283.58 -29614283.48 0.0139 0.0113
 Venus -85793-07-10 14:52 J -29614279.06 -29614278.88 -29614278.69 0.0139 0.0063
 Mercury -85793-10-02 02:08 J -29614195.51 -29614195.41 -29614195.31 0.0139 0.0094
 Mercury -85793-12-29 05:44 J -29614107.37 -29614107.26 -29614107.14 0.0139 0.0077
 Moon -85792-02-18 05:30 J -29614056.50 -29614056.27 -29614056.03 0.0140 0.0047
 Earth -85792-02-18 08:08 J -29614056.38 -29614056.16 -29614055.92 0.0140 0.0052 *
 Venus -85792-02-21 21:20 J -29614052.68 -29614052.61 -29614052.52 0.0140 0.0129
 Mercury -85792-03-27 09:35 J -29614019.22 -29614019.10 -29614018.97 0.0140 0.0059

Mercury -85792-06-23 13:25 J -29613931.07 -29613930.94 -29613930.81 0.0140 0.0042

Mercury -85792-09-19 17:16 J -29613842.92 -29613842.78 -29613842.64 0.0140 0.0024

Mercury -85792-12-16 21:06 J -29613754.76 -29613754.62 -29613754.48 0.0140 0.0006

Earth -85791-02-22 18:28 J -29613686.95 -29613686.73 -29613686.48 0.0140 0.0042

Moon -85791-02-22 21:20 J -29613686.84 -29613686.61 -29613686.38 0.0140 0.0043 *

Mercury -85791-03-15 00:56 J -29613666.59 -29613666.46 -29613666.32 0.0140 0.0014

Mercury -85791-06-11 05:01 J -29613578.43 -29613578.29 -29613578.15 0.0140 0.0031

Mercury -85791-09-07 08:52 J -29613490.26 -29613490.13 -29613489.99 0.0141 0.0050

Mercury -85791-12-04 12:56 J -29613402.08 -29613401.96 -29613401.84 0.0141 0.0069

Moon -85790-02-27 03:06 J -29613317.61 -29613317.37 -29613317.12 0.0141 0.0033

Earth -85790-02-27 05:59 J -29613317.49 -29613317.25 -29613317.01 0.0141 0.0032 *

Mercury -85790-03-02 16:47 J -29613313.90 -29613313.80 -29613313.68 0.0141 0.0088

Mercury -85790-05-29 20:52 J -29613225.71 -29613225.63 -29613225.53 0.0141 0.0107

Mercury -85790-08-26 00:56 J -29613137.51 -29613137.46 -29613137.39 0.0141 0.0126

Earth -85789-03-02 18:13 J -29612947.98 -29612947.74 -29612947.49 0.0141 0.0022

Moon -85789-03-02 20:23 J -29612947.88 -29612947.65 -29612947.41 0.0141 0.0016 *

Moon -85788-03-07 05:16 J -29612578.53 -29612578.28 -29612578.02 0.0142 0.0017

Earth -85788-03-07 07:54 J -29612578.42 -29612578.17 -29612577.92 0.0142 0.0010 *

Earth -85787-03-11 22:18 J -29612208.82 -29612208.57 -29612208.32 0.0143 0.0001

Moon -85787-03-11 23:59 J -29612208.74 -29612208.50 -29612208.26 0.0143 0.0008 *

Moon -85786-03-16 12:28 J -29611839.23 -29611838.98 -29611838.72 0.0143 0.0006

Earth -85786-03-16 14:08 J -29611839.16 -29611838.91 -29611838.66 0.0143 0.0012 *

Earth -85785-03-20 06:42 J -29611469.45 -29611469.22 -29611468.97 0.0144 0.0024

Moon -85785-03-20 08:08 J -29611469.39 -29611469.16 -29611468.92 0.0144 0.0026 *

Moon -85784-03-25 00:28 J -29611099.72 -29611099.48 -29611099.23 0.0144 0.0037

Earth -85784-03-25 01:11 J -29611099.69 -29611099.45 -29611099.21 0.0144 0.0035 *

Earth -85783-03-29 20:08 J -29610729.88 -29610729.66 -29610729.41 0.0145 0.0047

Moon -85783-03-29 20:52 J -29610729.85 -29610729.63 -29610729.39 0.0145 0.0042 *

Earth -85782-04-03 17:01 J -29610360.01 -29610359.79 -29610359.56 0.0145 0.0058

Moon -85782-04-03 17:30 J -29610359.99 -29610359.77 -29610359.53 0.0145 0.0065 *

Moon	-85781-04-07 14:23 J	-29609990.12	-29609989.90	-29609989.68	0.0146	0.0062
Earth	-85781-04-07 15:06 J	-29609990.09	-29609989.87	-29609989.65	0.0146	0.0069 *
Earth	-85780-04-12 14:08 J	-29609620.11	-29609619.91	-29609619.69	0.0146	0.0080
Moon	-85780-04-12 15:35 J	-29609620.05	-29609619.85	-29609619.62	0.0146	0.0083 *
Moon	-85779-04-17 12:13 J	-29609250.17	-29609249.99	-29609249.79	0.0146	0.0092
Earth	-85779-04-17 14:23 J	-29609250.08	-29609249.90	-29609249.69	0.0146	0.0091 *
Earth	-85778-04-22 15:49 J	-29608880.01	-29608879.84	-29608879.65	0.0147	0.0101
Moon	-85778-04-22 18:13 J	-29608879.92	-29608879.74	-29608879.53	0.0147	0.0096 *
Moon	-85777-04-26 14:52 J	-29608510.01	-29608509.88	-29608509.71	0.0147	0.0118
Earth	-85777-04-26 18:13 J	-29608509.89	-29608509.74	-29608509.56	0.0147	0.0110 *
Earth	-85776-05-01 21:49 J	-29608139.74	-29608139.59	-29608139.44	0.0147	0.0118
Moon	-85776-05-02 00:42 J	-29608139.62	-29608139.47	-29608139.28	0.0147	0.0111 *
Moon	-85775-05-06 22:18 J	-29607769.67	-29607769.57	-29607769.43	0.0147	0.0130
Earth	-85775-05-07 01:54 J	-29607769.53	-29607769.42	-29607769.28	0.0147	0.0126 *
Earth	-85774-05-12 06:56 J	-29607399.31	-29607399.21	-29607399.09	0.0147	0.0133
Moon	-85774-05-12 10:32 J	-29607399.15	-29607399.06	-29607398.94	0.0147	0.0134 *
Moon	-85773-05-16 09:20 J	-29607029.20	-29607029.11	-29607028.98	0.0147	0.0134
Earth	-85773-05-16 12:42 J	-29607029.04	-29607028.97	-29607028.87	0.0147	0.0139 *
Earth	-85772-05-21 18:56 J	-29606658.74	-29606658.71	-29606658.63	0.0147	0.0144
Moon	-85771-05-26 23:16 J	-29606288.59	-29606288.53	-29606288.43	0.0147	0.0140
Earth	-85771-05-27 02:08 J	-29606288.41	-29606288.41	-29606288.39	0.0147	0.0147
Mars	-85771-09-10 20:23 J	-29606181.90	-29606181.65	-29606181.36	0.0147	0.0090
Mars	-85769-08-19 00:42 J	-29605473.76	-29605473.47	-29605473.15	0.0147	0.0062
Moon	-85768-06-11 01:11 J	-29605177.48	-29605177.45	-29605177.41	0.0147	0.0145
Moon	-85766-06-21 15:35 J	-29604436.86	-29604436.85	-29604436.79	0.0146	0.0145
Earth	-85765-06-26 01:54 J	-29604066.42	-29604066.42	-29604066.39	0.0145	0.0145
Moon	-85765-06-26 04:47 J	-29604066.30	-29604066.30	-29604066.27	0.0145	0.0145
Earth	-85764-07-01 09:49 J	-29603696.13	-29603696.09	-29603696.01	0.0145	0.0141
Earth	-85763-07-06 17:01 J	-29603325.86	-29603325.79	-29603325.68	0.0145	0.0136
Moon	-85763-07-06 20:52 J	-29603325.73	-29603325.63	-29603325.49	0.0145	0.0128 *

Moon -85762-07-11 20:52 J -29602955.71 -29602955.63 -29602955.55 0.0144 0.0137
 Earth -85762-07-12 00:13 J -29602955.59 -29602955.49 -29602955.37 0.0144 0.0129 *
 Earth -85761-07-16 06:13 J -29602585.36 -29602585.24 -29602585.09 0.0144 0.0123
 Moon -85761-07-16 10:04 J -29602585.21 -29602585.08 -29602584.93 0.0144 0.0120 *
 Moon -85760-07-21 08:23 J -29602215.30 -29602215.15 -29602214.98 0.0143 0.0114
 Earth -85760-07-21 11:30 J -29602215.15 -29602215.02 -29602214.84 0.0143 0.0115 *
 Earth -85759-07-26 16:18 J -29601844.98 -29601844.82 -29601844.63 0.0142 0.0106
 Moon -85759-07-26 18:42 J -29601844.85 -29601844.72 -29601844.54 0.0142 0.0113 *
 Moon -85758-07-31 17:44 J -29601474.95 -29601474.76 -29601474.53 0.0142 0.0090
 Earth -85758-07-31 20:37 J -29601474.83 -29601474.64 -29601474.45 0.0142 0.0097 *
 Earth -85757-08-04 23:30 J -29601104.72 -29601104.52 -29601104.31 0.0141 0.0088
 Moon -85757-08-05 00:42 J -29601104.65 -29601104.47 -29601104.27 0.0141 0.0094 *
 Moon -85756-08-10 00:42 J -29600734.70 -29600734.47 -29600734.24 0.0141 0.0075
 Earth -85756-08-10 01:25 J -29600734.65 -29600734.44 -29600734.22 0.0141 0.0078 *
 Venus -85756-09-26 00:56 J -29600687.53 -29600687.46 -29600687.35 0.0140 0.0129
 Venus -85755-05-10 12:56 J -29600461.16 -29600460.96 -29600460.75 0.0140 0.0057
 Earth -85755-08-15 02:08 J -29600364.62 -29600364.41 -29600364.16 0.0140 0.0068
 Moon -85755-08-15 02:23 J -29600364.61 -29600364.40 -29600364.16 0.0140 0.0067 *
 Venus -85755-12-23 00:28 J -29600234.70 -29600234.48 -29600234.25 0.0140 0.0013
 Venus -85754-08-06 11:30 J -29600008.20 -29600008.02 -29600007.84 0.0139 0.0083
 Earth -85754-08-20 02:23 J -29599994.63 -29599994.40 -29599994.15 0.0139 0.0058
 Moon -85754-08-20 03:20 J -29599994.59 -29599994.36 -29599994.10 0.0139 0.0063 *
 Mercury -85754-09-03 02:23 J -29599980.46 -29599980.40 -29599980.32 0.0139 0.0127
 Mercury -85754-11-30 09:20 J -29599892.22 -29599892.11 -29599891.98 0.0139 0.0103
 Mercury -85753-02-26 16:04 J -29599803.97 -29599803.83 -29599803.67 0.0139 0.0080
 Mercury -85753-05-24 23:01 J -29599715.70 -29599715.54 -29599715.37 0.0139 0.0057
 Mercury -85753-08-21 05:44 J -29599627.43 -29599627.26 -29599627.09 0.0139 0.0034
 Moon -85753-08-24 00:42 J -29599624.71 -29599624.47 -29599624.23 0.0139 0.0040
 Earth -85753-08-24 01:40 J -29599624.67 -29599624.43 -29599624.18 0.0139 0.0047 *
 Mercury -85753-11-17 12:13 J -29599539.16 -29599538.99 -29599538.81 0.0139 0.0012

Mercury -85752-02-13 18:56 J -29599450.89 -29599450.71 -29599450.53 0.0138 0.0012

Mercury -85752-05-13 01:25 J -29599362.61 -29599362.44 -29599362.27 0.0138 0.0034

Mercury -85752-08-09 07:40 J -29599274.33 -29599274.18 -29599274.01 0.0138 0.0056

Earth -85752-08-28 23:16 J -29599254.78 -29599254.53 -29599254.27 0.0138 0.0036

Moon -85752-08-29 01:40 J -29599254.69 -29599254.43 -29599254.17 0.0138 0.0042 *

Mercury -85752-11-05 14:08 J -29599186.05 -29599185.91 -29599185.76 0.0138 0.0078

Mercury -85751-02-01 20:37 J -29599097.76 -29599097.64 -29599097.52 0.0138 0.0099

Mercury -85751-05-01 02:37 J -29599009.46 -29599009.39 -29599009.30 0.0138 0.0121

Moon -85751-09-02 17:59 J -29598885.00 -29598884.75 -29598884.49 0.0137 0.0021

Earth -85751-09-02 20:08 J -29598884.91 -29598884.66 -29598884.39 0.0137 0.0026 *

Earth -85750-09-07 15:49 J -29598515.09 -29598514.84 -29598514.57 0.0137 0.0015

Moon -85750-09-07 18:42 J -29598514.98 -29598514.72 -29598514.45 0.0137 0.0014 *

Moon -85749-09-11 07:11 J -29598145.46 -29598145.20 -29598144.94 0.0136 0.0008

Earth -85749-09-11 10:18 J -29598145.33 -29598145.07 -29598144.80 0.0136 0.0005 *

Earth -85748-09-16 03:35 J -29597775.61 -29597775.35 -29597775.09 0.0136 0.0006

Moon -85748-09-16 06:42 J -29597775.48 -29597775.22 -29597774.95 0.0136 0.0013 *

Moon -85747-09-20 16:04 J -29597406.09 -29597405.83 -29597405.57 0.0135 0.0009

Earth -85747-09-20 19:40 J -29597405.94 -29597405.68 -29597405.42 0.0135 0.0017 *

Earth -85746-09-25 10:32 J -29597036.32 -29597036.06 -29597035.81 0.0135 0.0026

Moon -85746-09-25 13:54 J -29597036.17 -29597035.92 -29597035.66 0.0135 0.0033 *

Moon -85745-09-28 20:23 J -29596666.89 -29596666.65 -29596666.39 0.0134 0.0034

Earth -85745-09-29 00:13 J -29596666.74 -29596666.49 -29596666.24 0.0134 0.0036 *

Earth -85744-10-03 12:28 J -29596297.21 -29596296.98 -29596296.72 0.0134 0.0045

Moon -85744-10-03 16:32 J -29596297.05 -29596296.81 -29596296.56 0.0134 0.0044 *

Moon -85743-10-07 20:37 J -29595927.86 -29595927.64 -29595927.39 0.0134 0.0057

Earth -85743-10-08 00:13 J -29595927.71 -29595927.49 -29595927.24 0.0134 0.0054 *

Earth -85742-10-12 10:47 J -29595558.26 -29595558.05 -29595557.80 0.0133 0.0063

Moon -85742-10-12 14:37 J -29595558.11 -29595557.89 -29595557.64 0.0133 0.0055 *

Moon -85741-10-15 17:01 J -29595188.99 -29595188.79 -29595188.57 0.0133 0.0077

Earth -85741-10-15 20:37 J -29595188.84 -29595188.64 -29595188.40 0.0133 0.0070 *

Earth	-85740-10-20 05:30 J	-29594819.46	-29594819.27	-29594819.04	0.0133	0.0078
Moon	-85740-10-20 08:52 J	-29594819.33	-29594819.13	-29594818.90	0.0133	0.0072 *
Moon	-85739-10-24 10:18 J	-29594450.25	-29594450.07	-29594449.87	0.0132	0.0090
Earth	-85739-10-24 13:54 J	-29594450.10	-29594449.92	-29594449.71	0.0132	0.0085 *
Earth	-85738-10-28 21:20 J	-29594080.79	-29594080.61	-29594080.42	0.0132	0.0091
Moon	-85738-10-29 00:42 J	-29594080.65	-29594080.47	-29594080.28	0.0132	0.0089 *
Moon	-85737-11-01 00:28 J	-29593711.64	-29593711.48	-29593711.29	0.0132	0.0096
Earth	-85737-11-01 04:04 J	-29593711.49	-29593711.33	-29593711.15	0.0132	0.0097 *
Earth	-85736-11-05 09:49 J	-29593342.24	-29593342.09	-29593341.92	0.0132	0.0103
Moon	-85736-11-05 12:56 J	-29593342.08	-29593341.96	-29593341.79	0.0132	0.0107 *
Moon	-85735-11-09 11:59 J	-29592973.16	-29592973.00	-29592972.83	0.0132	0.0102
Earth	-85735-11-09 15:20 J	-29592973.00	-29592972.86	-29592972.72	0.0132	0.0108 *
Earth	-85734-11-13 19:25 J	-29592603.81	-29592603.69	-29592603.55	0.0131	0.0113
Moon	-85734-11-13 23:01 J	-29592603.63	-29592603.54	-29592603.43	0.0131	0.0120 *
Moon	-85733-11-16 20:08 J	-29592234.79	-29592234.66	-29592234.52	0.0131	0.0110
Earth	-85733-11-16 23:16 J	-29592234.63	-29592234.53	-29592234.40	0.0131	0.0117 *
Earth	-85732-11-21 02:37 J	-29591865.48	-29591865.39	-29591865.28	0.0131	0.0120
Moon	-85732-11-21 05:30 J	-29591865.32	-29591865.27	-29591865.17	0.0131	0.0126 *
Moon	-85731-11-25 01:54 J	-29591496.51	-29591496.42	-29591496.29	0.0131	0.0119
Earth	-85731-11-25 05:44 J	-29591496.34	-29591496.26	-29591496.17	0.0131	0.0123 *
Earth	-85730-11-29 07:40 J	-29591127.23	-29591127.18	-29591127.08	0.0131	0.0126
Moon	-85730-11-29 10:47 J	-29591127.10	-29591127.05	-29591126.95	0.0131	0.0126 *
Moon	-85729-12-02 06:56 J	-29590758.25	-29590758.21	-29590758.16	0.0131	0.0129
Earth	-85729-12-02 10:04 J	-29590758.12	-29590758.08	-29590758.00	0.0131	0.0128
Mars	-85729-12-16 01:11 J	-29590744.65	-29590744.45	-29590744.20	0.0131	0.0080
Earth	-85728-12-06 12:13 J	-29590389.03	-29590388.99	-29590388.93	0.0132	0.0129
Moon	-85728-12-06 15:20 J	-29590388.92	-29590388.86	-29590388.76	0.0132	0.0125
Mars	-85727-11-14 12:42 J	-29590046.25	-29590045.97	-29590045.69	0.0132	0.0007
Earth	-85727-12-10 13:54 J	-29590019.94	-29590019.92	-29590019.85	0.0132	0.0130
Earth	-85726-12-14 15:49 J	-29589650.86	-29589650.84	-29589650.78	0.0132	0.0130

Moon	-85726-12-14 19:25 J	-29589650.76	-29589650.69	-29589650.59	0.0132	0.0123
Mars	-85725-10-13 04:32 J	-29589347.49	-29589347.31	-29589347.09	0.0132	0.0095
Earth	-85725-12-17 17:44 J	-29589281.79	-29589281.76	-29589281.70	0.0132	0.0130
Earth	-85724-12-21 19:40 J	-29588912.72	-29588912.68	-29588912.61	0.0132	0.0129
Moon	-85724-12-21 23:01 J	-29588912.61	-29588912.54	-29588912.44	0.0132	0.0124 *
Moon	-85723-12-25 18:13 J	-29588543.76	-29588543.74	-29588543.68	0.0133	0.0131
Earth	-85723-12-25 21:49 J	-29588543.65	-29588543.59	-29588543.51	0.0133	0.0127
Earth	-85722-12-29 23:16 J	-29588174.59	-29588174.53	-29588174.43	0.0133	0.0125
Moon	-85722-12-30 02:37 J	-29588174.45	-29588174.39	-29588174.30	0.0133	0.0126 *
Moon	-85720-01-01 22:18 J	-29587805.67	-29587805.57	-29587805.47	0.0133	0.0121
Earth	-85720-01-02 01:25 J	-29587805.52	-29587805.44	-29587805.33	0.0133	0.0123 *
Earth	-85719-01-06 03:49 J	-29587436.44	-29587436.34	-29587436.22	0.0134	0.0119
Moon	-85719-01-06 06:42 J	-29587436.28	-29587436.22	-29587436.11	0.0134	0.0125 *
Moon	-85718-01-10 02:52 J	-29587067.51	-29587067.38	-29587067.22	0.0134	0.0109
Earth	-85718-01-10 06:28 J	-29587067.34	-29587067.23	-29587067.10	0.0134	0.0116 *
Earth	-85717-01-14 09:20 J	-29586698.24	-29586698.11	-29586697.96	0.0135	0.0111
Moon	-85717-01-14 12:42 J	-29586698.08	-29586697.97	-29586697.85	0.0135	0.0118 *
Moon	-85716-01-17 09:20 J	-29586329.27	-29586329.11	-29586328.93	0.0135	0.0100
Earth	-85716-01-17 12:42 J	-29586329.11	-29586328.97	-29586328.81	0.0135	0.0106 *
Earth	-85715-01-21 16:18 J	-29585959.96	-29585959.82	-29585959.64	0.0136	0.0101
Moon	-85715-01-21 20:23 J	-29585959.80	-29585959.65	-29585959.50	0.0136	0.0106 *
Moon	-85714-01-25 17:44 J	-29585590.93	-29585590.76	-29585590.56	0.0136	0.0093
Earth	-85714-01-25 21:20 J	-29585590.78	-29585590.61	-29585590.43	0.0136	0.0095 *
Earth	-85713-01-30 02:08 J	-29585221.59	-29585221.41	-29585221.21	0.0137	0.0088
Moon	-85713-01-30 05:44 J	-29585221.44	-29585221.26	-29585221.07	0.0137	0.0087 *
Moon	-85712-02-02 04:47 J	-29584852.49	-29584852.30	-29584852.09	0.0137	0.0084
Earth	-85712-02-02 07:54 J	-29584852.35	-29584852.17	-29584851.95	0.0137	0.0082 *
Earth	-85711-02-06 15:06 J	-29584483.07	-29584482.87	-29584482.66	0.0138	0.0073
Moon	-85711-02-06 17:59 J	-29584482.94	-29584482.75	-29584482.52	0.0138	0.0067 *
Venus	-85711-12-13 10:47 J	-29584173.19	-29584173.05	-29584172.90	0.0138	0.0100

Moon -85710-02-10 18:56 J -29584113.90 -29584113.71 -29584113.48 0.0138 0.0072
 Earth -85710-02-10 22:47 J -29584113.76 -29584113.55 -29584113.33 0.0138 0.0065 *
 Venus -85710-07-27 16:47 J -29583947.00 -29583946.80 -29583946.59 0.0139 0.0036
 Earth -85709-02-15 06:56 J -29583744.42 -29583744.21 -29583743.97 0.0139 0.0056
 Moon -85709-02-15 10:18 J -29583744.29 -29583744.07 -29583743.84 0.0139 0.0049 *
 Venus -85709-03-09 23:01 J -29583720.74 -29583720.54 -29583720.33 0.0139 0.0029
 Mercury -85709-04-29 01:11 J -29583670.49 -29583670.45 -29583670.38 0.0139 0.0127
 Mercury -85709-07-26 05:16 J -29583582.36 -29583582.28 -29583582.20 0.0139 0.0110
 Venus -85709-10-22 05:16 J -29583494.42 -29583494.28 -29583494.11 0.0139 0.0095
 Mercury -85709-10-22 08:52 J -29583494.23 -29583494.13 -29583494.02 0.0139 0.0092 *
 Mercury -85708-01-18 12:42 J -29583406.09 -29583405.97 -29583405.86 0.0140 0.0075
 Moon -85708-02-18 13:11 J -29583375.17 -29583374.95 -29583374.71 0.0140 0.0052
 Earth -85708-02-18 16:32 J -29583375.03 -29583374.81 -29583374.57 0.0140 0.0046 *
 Mercury -85708-04-16 16:18 J -29583317.94 -29583317.82 -29583317.69 0.0140 0.0058
 Mercury -85708-07-13 20:08 J -29583229.79 -29583229.66 -29583229.52 0.0140 0.0040
 Mercury -85708-10-09 23:59 J -29583141.63 -29583141.50 -29583141.36 0.0140 0.0022
 Mercury -85707-01-06 03:49 J -29583053.48 -29583053.34 -29583053.20 0.0140 0.0006
 Earth -85707-02-23 02:52 J -29583005.62 -29583005.38 -29583005.14 0.0140 0.0036
 Moon -85707-02-23 05:59 J -29583005.48 -29583005.25 -29583005.01 0.0140 0.0034 *
 Mercury -85707-04-04 07:54 J -29582965.31 -29582965.17 -29582965.03 0.0140 0.0015
 Mercury -85707-07-01 11:44 J -29582877.15 -29582877.01 -29582876.87 0.0140 0.0033
 Mercury -85707-09-27 15:35 J -29582788.98 -29582788.85 -29582788.71 0.0141 0.0052
 Mercury -85707-12-24 19:40 J -29582700.80 -29582700.68 -29582700.56 0.0141 0.0071
 Moon -85706-02-27 11:01 J -29582636.28 -29582636.04 -29582635.78 0.0141 0.0025
 Earth -85706-02-27 13:54 J -29582636.15 -29582635.92 -29582635.67 0.0141 0.0027 *
 Mercury -85706-03-22 23:30 J -29582612.62 -29582612.52 -29582612.40 0.0141 0.0090
 Mercury -85706-06-19 03:35 J -29582524.43 -29582524.35 -29582524.25 0.0141 0.0109
 Mercury -85706-09-15 07:40 J -29582436.23 -29582436.18 -29582436.11 0.0141 0.0129
 Earth -85705-03-03 02:23 J -29582266.65 -29582266.40 -29582266.16 0.0141 0.0016
 Moon -85705-03-03 05:16 J -29582266.51 -29582266.28 -29582266.04 0.0141 0.0020 *

Moon	-85704-03-07 13:11 J	-29581897.20	-29581896.95	-29581896.69	0.0142	0.0002
Earth	-85704-03-07 15:49 J	-29581897.09	-29581896.84	-29581896.60	0.0142	0.0005 *
Earth	-85703-03-12 06:13 J	-29581527.49	-29581527.24	-29581526.99	0.0143	0.0006
Moon	-85703-03-12 08:52 J	-29581527.38	-29581527.13	-29581526.89	0.0143	0.0003 *
Moon	-85702-03-16 19:25 J	-29581157.93	-29581157.69	-29581157.43	0.0143	0.0023
Earth	-85702-03-16 21:49 J	-29581157.83	-29581157.59	-29581157.34	0.0143	0.0017 *
Earth	-85701-03-20 14:37 J	-29580788.13	-29580787.89	-29580787.64	0.0144	0.0028
Moon	-85701-03-20 16:18 J	-29580788.06	-29580787.82	-29580787.58	0.0144	0.0026 *
Moon	-85700-03-25 06:56 J	-29580418.45	-29580418.21	-29580417.96	0.0144	0.0039
Earth	-85700-03-25 08:52 J	-29580418.37	-29580418.13	-29580417.89	0.0144	0.0040 *
Earth	-85699-03-30 04:04 J	-29580048.56	-29580048.33	-29580048.09	0.0145	0.0051
Moon	-85699-03-30 04:32 J	-29580048.52	-29580048.31	-29580048.08	0.0145	0.0057 *
Moon	-85698-04-03 23:44 J	-29579678.73	-29579678.51	-29579678.25	0.0145	0.0056
Earth	-85698-04-04 00:42 J	-29579678.69	-29579678.47	-29579678.24	0.0145	0.0062 *
Earth	-85697-04-07 22:18 J	-29579308.77	-29579308.57	-29579308.34	0.0146	0.0074
Moon	-85697-04-07 22:18 J	-29579308.76	-29579308.57	-29579308.36	0.0146	0.0080 *
Earth	-85696-04-12 21:35 J	-29578938.79	-29578938.60	-29578938.39	0.0146	0.0084
Moon	-85696-04-12 22:32 J	-29578938.77	-29578938.56	-29578938.34	0.0146	0.0079 *
Moon	-85695-04-17 20:52 J	-29578568.81	-29578568.63	-29578568.44	0.0146	0.0095
Earth	-85695-04-17 21:35 J	-29578568.77	-29578568.60	-29578568.39	0.0146	0.0095 *
Earth	-85694-04-22 22:47 J	-29578198.71	-29578198.55	-29578198.35	0.0147	0.0104
Moon	-85694-04-23 01:11 J	-29578198.61	-29578198.45	-29578198.26	0.0147	0.0109 *
Moon	-85693-04-26 23:01 J	-29577828.69	-29577828.54	-29577828.36	0.0147	0.0106
Earth	-85693-04-27 01:11 J	-29577828.59	-29577828.45	-29577828.27	0.0147	0.0113 *
Earth	-85692-05-02 04:47 J	-29577458.44	-29577458.30	-29577458.15	0.0147	0.0121
Moon	-85692-05-02 07:54 J	-29577458.29	-29577458.17	-29577458.03	0.0147	0.0127 *
Moon	-85691-05-07 05:30 J	-29577088.40	-29577088.27	-29577088.13	0.0147	0.0123
Earth	-85691-05-07 08:23 J	-29577088.25	-29577088.15	-29577088.00	0.0147	0.0129 *
Earth	-85690-05-12 13:25 J	-29576718.02	-29576717.94	-29576717.82	0.0147	0.0134
Moon	-85690-05-12 17:01 J	-29576717.88	-29576717.79	-29576717.67	0.0147	0.0133 *

Moon	-85689-05-16 15:35 J	-29576347.88	-29576347.85	-29576347.79	0.0147	0.0145
Earth	-85689-05-16 19:25 J	-29576347.76	-29576347.69	-29576347.60	0.0147	0.0139
Earth	-85688-05-22 01:54 J	-29575977.47	-29575977.42	-29575977.37	0.0147	0.0144
Moon	-85688-05-22 05:01 J	-29575977.37	-29575977.29	-29575977.19	0.0147	0.0137 *
Earth	-85687-05-27 08:37 J	-29575607.14	-29575607.14	-29575607.11	0.0147	0.0147
Mars	-85686-05-08 11:44 J	-29575261.33	-29575261.01	-29575260.67	0.0147	0.0032
Moon	-85686-06-01 18:56 J	-29575236.74	-29575236.71	-29575236.68	0.0147	0.0145
Mars	-85684-04-15 12:28 J	-29574553.17	-29574552.98	-29574552.77	0.0147	0.0117
Moon	-85683-06-16 16:47 J	-29574125.85	-29574125.80	-29574125.71	0.0146	0.0142
Earth	-85682-06-22 00:56 J	-29573755.46	-29573755.46	-29573755.44	0.0146	0.0146
Earth	-85681-06-26 08:52 J	-29573385.16	-29573385.13	-29573385.06	0.0145	0.0143
Moon	-85681-06-26 11:01 J	-29573385.08	-29573385.04	-29573384.97	0.0145	0.0142 *
Moon	-85680-07-01 14:08 J	-29573015.01	-29573014.91	-29573014.81	0.0145	0.0133
Earth	-85680-07-01 16:32 J	-29573014.87	-29573014.81	-29573014.71	0.0145	0.0138 *
Earth	-85679-07-07 00:13 J	-29572644.58	-29572644.49	-29572644.37	0.0145	0.0132
Moon	-85679-07-07 03:20 J	-29572644.42	-29572644.36	-29572644.28	0.0145	0.0139 *
Moon	-85678-07-12 03:20 J	-29572274.49	-29572274.36	-29572274.20	0.0144	0.0119
Earth	-85678-07-12 07:25 J	-29572274.31	-29572274.19	-29572274.06	0.0144	0.0125 *
Earth	-85677-07-16 13:25 J	-29571904.08	-29571903.94	-29571903.78	0.0144	0.0118
Moon	-85677-07-16 17:01 J	-29571903.91	-29571903.79	-29571903.64	0.0144	0.0123 *
Moon	-85676-07-21 15:20 J	-29571534.01	-29571533.86	-29571533.68	0.0143	0.0111
Earth	-85676-07-21 18:42 J	-29571533.86	-29571533.72	-29571533.53	0.0143	0.0110 *
Earth	-85675-07-26 23:30 J	-29571163.69	-29571163.52	-29571163.32	0.0142	0.0101
Moon	-85675-07-27 02:52 J	-29571163.55	-29571163.38	-29571163.17	0.0142	0.0097 *
Moon	-85674-08-01 00:42 J	-29570793.64	-29570793.47	-29570793.26	0.0142	0.0099
Earth	-85674-08-01 03:35 J	-29570793.54	-29570793.35	-29570793.14	0.0142	0.0092 *
Earth	-85673-08-05 06:42 J	-29570423.43	-29570423.22	-29570423.00	0.0141	0.0083
Moon	-85673-08-05 08:37 J	-29570423.34	-29570423.14	-29570422.91	0.0141	0.0077 *
Moon	-85672-08-10 06:42 J	-29570053.43	-29570053.22	-29570052.97	0.0141	0.0077
Earth	-85672-08-10 08:37 J	-29570053.35	-29570053.14	-29570052.90	0.0141	0.0073 *

Venus -85671-01-07 17:44 J -29569902.91 -29569902.76 -29569902.58 0.0140 0.0094
 Earth -85671-08-15 10:04 J -29569683.31 -29569683.08 -29569682.84 0.0140 0.0062
 Moon -85671-08-15 10:32 J -29569683.28 -29569683.06 -29569682.83 0.0140 0.0064 *
 Venus -85671-08-22 05:30 J -29569676.49 -29569676.27 -29569676.04 0.0140 0.0023
 Venus -85670-04-05 16:32 J -29569450.01 -29569449.81 -29569449.58 0.0140 0.0048
 Moon -85670-08-20 09:49 J -29569313.34 -29569313.09 -29569312.83 0.0139 0.0047
 Earth -85670-08-20 10:18 J -29569313.31 -29569313.07 -29569312.82 0.0139 0.0052 *
 Mercury -85670-09-23 09:20 J -29569279.19 -29569279.11 -29569279.03 0.0139 0.0124
 Venus -85670-11-18 03:35 J -29569223.46 -29569223.35 -29569223.21 0.0139 0.0116
 Mercury -85670-12-20 16:04 J -29569190.95 -29569190.83 -29569190.70 0.0139 0.0100
 Mercury -85669-03-17 22:47 J -29569102.69 -29569102.55 -29569102.39 0.0139 0.0077
 Mercury -85669-06-14 05:30 J -29569014.43 -29569014.27 -29569014.09 0.0139 0.0054
 Moon -85669-08-24 08:23 J -29568943.38 -29568943.15 -29568942.91 0.0139 0.0048
 Earth -85669-08-24 09:20 J -29568943.36 -29568943.11 -29568942.86 0.0139 0.0041 *
 Mercury -85669-09-10 12:13 J -29568926.16 -29568925.99 -29568925.81 0.0139 0.0031
 Mercury -85669-12-07 18:56 J -29568837.88 -29568837.71 -29568837.53 0.0139 0.0008
 Mercury -85668-03-06 01:40 J -29568749.61 -29568749.43 -29568749.25 0.0138 0.0015
 Mercury -85668-06-02 07:54 J -29568661.33 -29568661.17 -29568660.99 0.0138 0.0038
 Earth -85668-08-29 07:11 J -29568573.45 -29568573.20 -29568572.94 0.0138 0.0031
 Moon -85668-08-29 08:23 J -29568573.42 -29568573.15 -29568572.88 0.0138 0.0023 *
 Mercury -85668-08-29 14:23 J -29568573.05 -29568572.90 -29568572.73 0.0138 0.0059 *
 Mercury -85668-11-25 20:52 J -29568484.77 -29568484.63 -29568484.48 0.0138 0.0081
 Mercury -85667-02-22 02:52 J -29568396.48 -29568396.38 -29568396.25 0.0138 0.0103
 Mercury -85667-05-21 09:20 J -29568308.18 -29568308.11 -29568308.03 0.0138 0.0124
 Moon -85667-09-03 02:23 J -29568203.65 -29568203.40 -29568203.15 0.0138 0.0023
 Earth -85667-09-03 04:04 J -29568203.58 -29568203.33 -29568203.06 0.0138 0.0020 *
 Earth -85666-09-07 23:44 J -29567833.77 -29567833.51 -29567833.24 0.0137 0.0009
 Moon -85666-09-08 02:08 J -29567833.67 -29567833.41 -29567833.14 0.0137 0.0009 *
 Moon -85665-09-11 15:49 J -29567464.09 -29567463.84 -29567463.58 0.0136 0.0006
 Earth -85665-09-11 18:13 J -29567464.00 -29567463.74 -29567463.47 0.0136 0.0003 *

Earth	-85664-09-16 11:16 J	-29567094.29	-29567094.03	-29567093.76	0.0136	0.0012
Moon	-85664-09-16 14:37 J	-29567094.16	-29567093.89	-29567093.62	0.0136	0.0005 *
Moon	-85663-09-21 00:42 J	-29566724.72	-29566724.47	-29566724.22	0.0135	0.0029
Earth	-85663-09-21 03:35 J	-29566724.61	-29566724.35	-29566724.09	0.0135	0.0022 *
Earth	-85662-09-25 18:28 J	-29566354.99	-29566354.73	-29566354.48	0.0135	0.0031
Moon	-85662-09-25 21:49 J	-29566354.85	-29566354.59	-29566354.33	0.0135	0.0026 *
Moon	-85661-09-29 04:18 J	-29565985.55	-29565985.32	-29565985.06	0.0134	0.0045
Earth	-85661-09-29 07:54 J	-29565985.41	-29565985.17	-29565984.91	0.0134	0.0041 *
Earth	-85660-10-03 20:52 J	-29565615.87	-29565615.63	-29565615.39	0.0134	0.0049
Moon	-85660-10-04 00:13 J	-29565615.73	-29565615.49	-29565615.24	0.0134	0.0049 *
Moon	-85659-10-08 04:47 J	-29565246.52	-29565246.30	-29565246.05	0.0134	0.0054
Earth	-85659-10-08 08:37 J	-29565246.36	-29565246.14	-29565245.90	0.0134	0.0058 *
Earth	-85658-10-12 19:11 J	-29564876.91	-29564876.70	-29564876.46	0.0133	0.0066
Moon	-85658-10-12 23:01 J	-29564876.75	-29564876.54	-29564876.31	0.0133	0.0071 *
Moon	-85657-10-16 01:40 J	-29564507.64	-29564507.43	-29564507.19	0.0133	0.0067
Earth	-85657-10-16 05:16 J	-29564507.48	-29564507.28	-29564507.05	0.0133	0.0074 *
Earth	-85656-10-20 14:37 J	-29564138.09	-29564137.89	-29564137.69	0.0133	0.0081
Moon	-85656-10-20 17:59 J	-29564137.92	-29564137.75	-29564137.54	0.0133	0.0089 *
Moon	-85655-10-24 18:56 J	-29563768.89	-29563768.71	-29563768.49	0.0132	0.0084
Earth	-85655-10-24 22:32 J	-29563768.73	-29563768.56	-29563768.35	0.0132	0.0089 *
Earth	-85654-10-29 06:13 J	-29563399.41	-29563399.24	-29563399.05	0.0132	0.0094
Moon	-85654-10-29 09:49 J	-29563399.25	-29563399.09	-29563398.90	0.0132	0.0096 *
Moon	-85653-11-01 08:52 J	-29563030.27	-29563030.13	-29563029.94	0.0132	0.0100
Earth	-85653-11-01 12:42 J	-29563030.12	-29563029.97	-29563029.79	0.0132	0.0100 *
Earth	-85652-11-05 18:13 J	-29562660.86	-29562660.74	-29562660.56	0.0132	0.0106
Moon	-85652-11-05 22:18 J	-29562660.73	-29562660.57	-29562660.41	0.0132	0.0101 *
Moon	-85651-11-09 19:54 J	-29562291.77	-29562291.67	-29562291.53	0.0132	0.0116
Earth	-85651-11-09 23:59 J	-29562291.63	-29562291.50	-29562291.36	0.0132	0.0110 *
Earth	-85650-11-14 03:49 J	-29561922.44	-29561922.34	-29561922.20	0.0131	0.0115
Moon	-85650-11-14 07:25 J	-29561922.32	-29561922.19	-29561922.04	0.0131	0.0108 *

Moon	-85649-11-17 04:18 J	-29561553.38	-29561553.32	-29561553.23	0.0131	0.0125
Earth	-85649-11-17 07:54 J	-29561553.27	-29561553.17	-29561553.05	0.0131	0.0118 *
Earth	-85648-11-21 11:01 J	-29561184.11	-29561184.04	-29561183.92	0.0131	0.0121
Moon	-85648-11-21 14:37 J	-29561183.99	-29561183.89	-29561183.75	0.0131	0.0115 *
Moon	-85647-11-25 11:01 J	-29560815.10	-29560815.04	-29560814.97	0.0131	0.0127
Earth	-85647-11-25 14:23 J	-29560814.97	-29560814.90	-29560814.81	0.0131	0.0124 *
Mars	-85646-09-11 13:11 J	-29560524.99	-29560524.95	-29560524.89	0.0131	0.0129
Earth	-85646-11-29 17:01 J	-29560445.85	-29560445.79	-29560445.71	0.0131	0.0126
Moon	-85646-11-29 20:23 J	-29560445.71	-29560445.65	-29560445.55	0.0131	0.0125 *
Moon	-85645-12-02 16:04 J	-29560076.90	-29560076.83	-29560076.76	0.0131	0.0126
Earth	-85645-12-02 18:56 J	-29560076.74	-29560076.71	-29560076.63	0.0131	0.0128
Mars	-85644-08-09 21:06 J	-29559826.88	-29559826.62	-29559826.35	0.0131	0.0045
Earth	-85644-12-06 21:06 J	-29559707.65	-29559707.62	-29559707.54	0.0132	0.0129
Moon	-85643-12-10 19:40 J	-29559338.74	-29559338.68	-29559338.57	0.0132	0.0124
Earth	-85643-12-10 23:30 J	-29559338.56	-29559338.52	-29559338.46	0.0132	0.0129
Mars	-85642-07-09 09:35 J	-29559128.35	-29559128.10	-29559127.82	0.0132	0.0042
Earth	-85642-12-15 00:56 J	-29558969.49	-29558969.46	-29558969.39	0.0132	0.0129
Moon	-85641-12-17 23:16 J	-29558600.61	-29558600.53	-29558600.41	0.0132	0.0121
Earth	-85641-12-18 03:06 J	-29558600.41	-29558600.37	-29558600.30	0.0132	0.0128 *
Mars	-85640-06-07 03:35 J	-29558429.38	-29558429.35	-29558429.26	0.0132	0.0129
Earth	-85640-12-22 05:16 J	-29558231.35	-29558231.28	-29558231.21	0.0132	0.0127
Moon	-85640-12-22 08:37 J	-29558231.14	-29558231.14	-29558231.13	0.0132	0.0132
Moon	-85639-12-26 03:20 J	-29557862.45	-29557862.36	-29557862.25	0.0133	0.0122
Earth	-85639-12-26 07:11 J	-29557862.28	-29557862.20	-29557862.12	0.0133	0.0125 *
Earth	-85638-12-30 08:23 J	-29557493.22	-29557493.15	-29557493.03	0.0133	0.0123
Moon	-85638-12-30 12:13 J	-29557493.06	-29557492.99	-29557492.89	0.0133	0.0124 *
Moon	-85636-01-02 06:56 J	-29557124.28	-29557124.21	-29557124.09	0.0133	0.0123
Earth	-85636-01-02 10:47 J	-29557124.15	-29557124.05	-29557123.93	0.0133	0.0120 *
Earth	-85635-01-06 12:56 J	-29556755.07	-29556754.96	-29556754.83	0.0134	0.0116
Moon	-85635-01-06 16:47 J	-29556754.93	-29556754.80	-29556754.66	0.0134	0.0111 *

Moon	-85634-01-10 11:44 J	-29556386.10	-29556386.01	-29556385.87	0.0134	0.0119
Earth	-85634-01-10 15:20 J	-29556385.98	-29556385.86	-29556385.71	0.0134	0.0112 *
Earth	-85633-01-14 17:59 J	-29556016.88	-29556016.75	-29556016.58	0.0135	0.0108
Moon	-85633-01-14 21:49 J	-29556016.75	-29556016.59	-29556016.42	0.0135	0.0100 *
Moon	-85632-01-17 18:13 J	-29555647.88	-29555647.74	-29555647.59	0.0135	0.0109
Earth	-85632-01-17 21:35 J	-29555647.75	-29555647.60	-29555647.43	0.0135	0.0102 *
Earth	-85631-01-22 01:25 J	-29555278.60	-29555278.44	-29555278.25	0.0136	0.0097
Moon	-85631-01-22 04:32 J	-29555278.46	-29555278.31	-29555278.11	0.0136	0.0093 *
Moon	-85630-01-26 02:37 J	-29554909.57	-29554909.39	-29554909.21	0.0136	0.0093
Earth	-85630-01-26 05:59 J	-29554909.42	-29554909.25	-29554909.05	0.0136	0.0090 *
Earth	-85629-01-30 11:01 J	-29554540.22	-29554540.04	-29554539.83	0.0137	0.0084
Moon	-85629-01-30 14:23 J	-29554540.08	-29554539.90	-29554539.69	0.0137	0.0084 *
Moon	-85628-02-02 13:40 J	-29554171.13	-29554170.93	-29554170.71	0.0137	0.0072
Earth	-85628-02-02 17:16 J	-29554170.98	-29554170.78	-29554170.57	0.0137	0.0076 *
Earth	-85627-02-06 23:59 J	-29553801.71	-29553801.50	-29553801.28	0.0138	0.0068
Moon	-85627-02-07 03:20 J	-29553801.55	-29553801.36	-29553801.14	0.0138	0.0074 *
Venus	-85627-08-12 19:11 J	-29553614.74	-29553614.70	-29553614.62	0.0138	0.0132
Moon	-85626-02-11 04:18 J	-29553432.54	-29553432.32	-29553432.09	0.0138	0.0052
Earth	-85626-02-11 07:40 J	-29553432.40	-29553432.18	-29553431.95	0.0138	0.0060 *
Venus	-85626-03-27 01:11 J	-29553388.63	-29553388.45	-29553388.26	0.0138	0.0069
Venus	-85626-11-08 07:25 J	-29553162.40	-29553162.19	-29553161.98	0.0139	0.0005
Earth	-85625-02-15 15:49 J	-29553063.06	-29553062.84	-29553062.61	0.0139	0.0050
Moon	-85625-02-15 19:25 J	-29553062.91	-29553062.69	-29553062.46	0.0139	0.0058 *
Mercury	-85625-05-19 08:23 J	-29552969.21	-29552969.15	-29552969.09	0.0139	0.0124
Venus	-85625-06-21 13:40 J	-29552936.12	-29552935.93	-29552935.74	0.0139	0.0060
Mercury	-85625-08-15 11:59 J	-29552881.08	-29552881.00	-29552880.91	0.0139	0.0107
Mercury	-85625-11-11 15:35 J	-29552792.95	-29552792.85	-29552792.74	0.0139	0.0090
Venus	-85624-02-02 20:08 J	-29552709.74	-29552709.66	-29552709.57	0.0140	0.0126
Mercury	-85624-02-07 19:25 J	-29552704.80	-29552704.69	-29552704.57	0.0140	0.0073
Moon	-85624-02-18 21:49 J	-29552693.83	-29552693.59	-29552693.35	0.0140	0.0035

Earth -85624-02-19 01:11 J -29552693.68 -29552693.45 -29552693.21 0.0140 0.0041 *
 Mercury -85624-05-06 23:16 J -29552616.66 -29552616.53 -29552616.40 0.0140 0.0055
 Mercury -85624-08-03 03:06 J -29552528.51 -29552528.37 -29552528.24 0.0140 0.0037
 Mercury -85624-10-30 06:42 J -29552440.35 -29552440.22 -29552440.07 0.0140 0.0020
 Mercury -85623-01-26 10:47 J -29552352.19 -29552352.05 -29552351.91 0.0140 0.0002
 Earth -85623-02-23 11:16 J -29552324.27 -29552324.03 -29552323.79 0.0140 0.0031
 Moon -85623-02-23 14:23 J -29552324.13 -29552323.90 -29552323.65 0.0140 0.0034 *
 Mercury -85623-04-24 14:37 J -29552264.03 -29552263.89 -29552263.75 0.0140 0.0017
 Mercury -85623-07-21 18:28 J -29552175.86 -29552175.73 -29552175.59 0.0140 0.0036
 Mercury -85623-10-17 22:18 J -29552087.69 -29552087.57 -29552087.43 0.0141 0.0055
 Mercury -85622-01-14 02:23 J -29551999.52 -29551999.40 -29551999.28 0.0141 0.0073
 Moon -85622-02-27 18:42 J -29551954.96 -29551954.72 -29551954.47 0.0141 0.0021
 Earth -85622-02-27 22:18 J -29551954.81 -29551954.57 -29551954.32 0.0141 0.0021 *
 Mercury -85622-04-12 06:28 J -29551911.33 -29551911.23 -29551911.12 0.0141 0.0092
 Mercury -85622-07-09 10:32 J -29551823.15 -29551823.06 -29551822.97 0.0141 0.0111
 Mercury -85622-10-05 14:37 J -29551734.94 -29551734.89 -29551734.84 0.0141 0.0130
 Earth -85621-03-03 10:32 J -29551585.31 -29551585.06 -29551584.82 0.0141 0.0011
 Moon -85621-03-03 13:25 J -29551585.18 -29551584.94 -29551584.69 0.0141 0.0006 *
 Moon -85620-03-07 20:23 J -29551215.89 -29551215.65 -29551215.39 0.0142 0.0007
 Earth -85620-03-07 23:44 J -29551215.75 -29551215.51 -29551215.26 0.0142 0.0003 *
 Earth -85619-03-12 14:08 J -29550846.16 -29550845.91 -29550845.66 0.0143 0.0011
 Moon -85619-03-12 16:47 J -29550846.03 -29550845.80 -29550845.55 0.0143 0.0019 *
 Moon -85618-03-17 03:06 J -29550476.62 -29550476.37 -29550476.12 0.0143 0.0016
 Earth -85618-03-17 05:44 J -29550476.50 -29550476.26 -29550476.02 0.0143 0.0022 *
 Earth -85617-03-20 22:18 J -29550106.80 -29550106.57 -29550106.32 0.0144 0.0033
 Moon -85617-03-21 00:56 J -29550106.69 -29550106.46 -29550106.22 0.0144 0.0038 *
 Moon -85616-03-25 14:37 J -29549737.13 -29549736.89 -29549736.64 0.0144 0.0046
 Earth -85616-03-25 16:32 J -29549737.04 -29549736.81 -29549736.57 0.0144 0.0045 *
 Earth -85615-03-30 11:44 J -29549367.23 -29549367.01 -29549366.77 0.0145 0.0056
 Moon -85615-03-30 13:40 J -29549367.15 -29549366.93 -29549366.70 0.0145 0.0052 *

Moon	-85614-04-04 07:11 J	-29548997.41	-29548997.20	-29548996.96	0.0145	0.0073
Earth	-85614-04-04 08:08 J	-29548997.36	-29548997.16	-29548996.92	0.0145	0.0067 *
Earth	-85613-04-08 06:13 J	-29548627.44	-29548627.24	-29548627.02	0.0146	0.0078
Moon	-85613-04-08 06:42 J	-29548627.42	-29548627.22	-29548626.99	0.0146	0.0071 *
Moon	-85612-04-13 05:16 J	-29548257.48	-29548257.28	-29548257.08	0.0146	0.0092
Earth	-85612-04-13 05:01 J	-29548257.47	-29548257.29	-29548257.07	0.0146	0.0088 *
Moon	-85611-04-18 04:18 J	-29547887.49	-29547887.32	-29547887.13	0.0146	0.0098
Earth	-85611-04-18 05:16 J	-29547887.46	-29547887.28	-29547887.09	0.0146	0.0098 *
Earth	-85610-04-23 06:13 J	-29547517.40	-29547517.24	-29547517.05	0.0147	0.0107
Moon	-85610-04-23 07:11 J	-29547517.36	-29547517.20	-29547517.00	0.0147	0.0104 *
Moon	-85609-04-27 06:13 J	-29547147.36	-29547147.24	-29547147.09	0.0147	0.0123
Earth	-85609-04-27 08:37 J	-29547147.29	-29547147.14	-29547146.98	0.0147	0.0115 *
Earth	-85608-05-02 11:16 J	-29546777.15	-29546777.03	-29546776.87	0.0147	0.0123
Moon	-85608-05-02 13:40 J	-29546777.07	-29546776.93	-29546776.75	0.0147	0.0115 *
Moon	-85607-05-07 12:28 J	-29546407.06	-29546406.98	-29546406.86	0.0147	0.0134
Earth	-85607-05-07 15:35 J	-29546406.96	-29546406.85	-29546406.72	0.0147	0.0130 *
Earth	-85606-05-12 20:08 J	-29546036.74	-29546036.66	-29546036.54	0.0147	0.0136
Moon	-85606-05-12 23:44 J	-29546036.59	-29546036.51	-29546036.39	0.0147	0.0135 *
Moon	-85605-05-16 22:32 J	-29545666.64	-29545666.56	-29545666.46	0.0147	0.0136
Earth	-85605-05-17 01:40 J	-29545666.48	-29545666.43	-29545666.33	0.0147	0.0141 *
Earth	-85604-05-22 07:54 J	-29545296.20	-29545296.17	-29545296.10	0.0147	0.0144
Mars	-85603-01-24 16:18 J	-29545048.97	-29545048.82	-29545048.63	0.0147	0.0127
Moon	-85603-05-27 11:30 J	-29544926.09	-29544926.02	-29544925.92	0.0147	0.0139
Earth	-85603-05-27 15:06 J	-29544925.87	-29544925.87	-29544925.85	0.0147	0.0147
Mars	-85601-01-03 01:11 J	-29544340.77	-29544340.45	-29544340.10	0.0147	0.0025
Moon	-85600-06-11 16:04 J	-29543814.88	-29543814.83	-29543814.78	0.0146	0.0143
Moon	-85598-06-22 06:28 J	-29543074.28	-29543074.23	-29543074.13	0.0146	0.0139
Earth	-85598-06-22 06:56 J	-29543074.23	-29543074.21	-29543074.15	0.0146	0.0144 *
Earth	-85597-06-26 14:52 J	-29542703.93	-29542703.88	-29542703.79	0.0145	0.0140
Moon	-85597-06-26 16:32 J	-29542703.86	-29542703.81	-29542703.73	0.0145	0.0141 *

Moon	-85596-07-01 21:06 J	-29542333.69	-29542333.62	-29542333.53	0.0145	0.0137
Earth	-85596-07-01 22:47 J	-29542333.63	-29542333.55	-29542333.44	0.0145	0.0135 *
Earth	-85595-07-07 05:59 J	-29541963.35	-29541963.25	-29541963.11	0.0145	0.0129
Moon	-85595-07-07 09:20 J	-29541963.24	-29541963.11	-29541962.95	0.0145	0.0121 *
Moon	-85594-07-12 09:49 J	-29541593.18	-29541593.09	-29541592.96	0.0144	0.0129
Earth	-85594-07-12 12:56 J	-29541593.08	-29541592.96	-29541592.80	0.0144	0.0121 *
Earth	-85593-07-16 19:11 J	-29541222.84	-29541222.70	-29541222.53	0.0144	0.0114
Moon	-85593-07-16 23:01 J	-29541222.70	-29541222.54	-29541222.36	0.0144	0.0110 *
Moon	-85592-07-21 20:52 J	-29540852.79	-29540852.63	-29540852.45	0.0143	0.0106
Earth	-85592-07-22 00:42 J	-29540852.63	-29540852.47	-29540852.28	0.0143	0.0105 *
Earth	-85591-07-27 05:30 J	-29540482.45	-29540482.27	-29540482.07	0.0142	0.0097
Moon	-85591-07-27 08:52 J	-29540482.30	-29540482.13	-29540481.94	0.0142	0.0102 *
Moon	-85590-08-01 05:59 J	-29540112.45	-29540112.25	-29540112.01	0.0142	0.0080
Earth	-85590-08-01 09:20 J	-29540112.29	-29540112.11	-29540111.88	0.0142	0.0088 *
Earth	-85589-08-05 12:42 J	-29539742.18	-29539741.97	-29539741.75	0.0141	0.0077
Moon	-85589-08-05 15:20 J	-29539742.05	-29539741.86	-29539741.64	0.0141	0.0084 *
Moon	-85588-08-10 12:42 J	-29539372.20	-29539371.97	-29539371.72	0.0141	0.0064
Earth	-85588-08-10 14:52 J	-29539372.10	-29539371.88	-29539371.64	0.0141	0.0068 *
Venus	-85588-09-06 22:04 J	-29539344.65	-29539344.58	-29539344.50	0.0141	0.0132
Venus	-85587-04-21 09:49 J	-29539118.29	-29539118.09	-29539117.89	0.0140	0.0061
Earth	-85587-08-15 16:04 J	-29539002.05	-29539001.83	-29539001.57	0.0140	0.0057
Moon	-85587-08-15 18:13 J	-29539001.97	-29539001.74	-29539001.51	0.0140	0.0057 *
Venus	-85587-12-03 21:20 J	-29538891.83	-29538891.61	-29538891.38	0.0140	0.0010
Venus	-85586-07-18 08:37 J	-29538665.32	-29538665.14	-29538664.96	0.0139	0.0080
Moon	-85586-08-20 16:04 J	-29538632.08	-29538631.83	-29538631.58	0.0139	0.0051
Earth	-85586-08-20 16:18 J	-29538632.05	-29538631.82	-29538631.56	0.0139	0.0047 *
Mercury	-85586-10-13 15:20 J	-29538577.94	-29538577.86	-29538577.76	0.0139	0.0122
Mercury	-85585-01-09 22:18 J	-29538489.69	-29538489.57	-29538489.44	0.0139	0.0098
Mercury	-85585-04-07 05:16 J	-29538401.43	-29538401.28	-29538401.13	0.0139	0.0074
Mercury	-85585-07-04 11:59 J	-29538313.16	-29538313.00	-29538312.83	0.0139	0.0051

Earth -85585-08-24 15:35 J -29538262.09 -29538261.85 -29538261.58 0.0139 0.0036
 Moon -85585-08-24 16:18 J -29538262.07 -29538261.82 -29538261.57 0.0139 0.0029 *
 Mercury -85585-09-30 18:42 J -29538224.89 -29538224.72 -29538224.54 0.0139 0.0028
 Mercury -85585-12-28 01:25 J -29538136.62 -29538136.44 -29538136.26 0.0139 0.0006
 Mercury -85584-03-26 07:54 J -29538048.35 -29538048.17 -29538047.99 0.0138 0.0017
 Mercury -85584-06-22 14:23 J -29537960.07 -29537959.90 -29537959.73 0.0138 0.0039
 Earth -85584-08-29 13:54 J -29537892.18 -29537891.92 -29537891.66 0.0138 0.0025
 Moon -85584-08-29 14:08 J -29537892.16 -29537891.91 -29537891.63 0.0138 0.0031 *
 Mercury -85584-09-18 20:52 J -29537871.79 -29537871.63 -29537871.47 0.0138 0.0061
 Mercury -85584-12-16 03:06 J -29537783.50 -29537783.37 -29537783.22 0.0138 0.0083
 Mercury -85583-03-14 09:20 J -29537695.21 -29537695.11 -29537694.99 0.0138 0.0105
 Mercury -85583-06-10 15:49 J -29537606.91 -29537606.84 -29537606.77 0.0138 0.0126
 Moon -85583-09-03 09:49 J -29537522.34 -29537522.09 -29537521.84 0.0138 0.0009
 Earth -85583-09-03 10:47 J -29537522.31 -29537522.05 -29537521.79 0.0138 0.0014 *
 Earth -85582-09-08 06:28 J -29537152.49 -29537152.23 -29537151.97 0.0137 0.0003
 Moon -85582-09-08 07:54 J -29537152.44 -29537152.17 -29537151.90 0.0137 0.0004 *
 Moon -85581-09-11 22:32 J -29536782.81 -29536782.56 -29536782.30 0.0137 0.0004
 Earth -85581-09-12 00:42 J -29536782.73 -29536782.47 -29536782.21 0.0137 0.0007 *
 Earth -85580-09-16 17:59 J -29536413.01 -29536412.75 -29536412.49 0.0136 0.0017
 Moon -85580-09-16 20:08 J -29536412.93 -29536412.66 -29536412.39 0.0136 0.0022 *
 Moon -85579-09-21 07:25 J -29536043.44 -29536043.19 -29536042.94 0.0136 0.0020
 Earth -85579-09-21 10:04 J -29536043.33 -29536043.08 -29536042.82 0.0136 0.0027 *
 Earth -85578-09-26 00:56 J -29535673.71 -29535673.46 -29535673.21 0.0135 0.0036
 Moon -85578-09-26 03:49 J -29535673.58 -29535673.34 -29535673.08 0.0135 0.0043 *
 Moon -85577-09-29 11:44 J -29535304.24 -29535304.01 -29535303.76 0.0135 0.0042
 Earth -85577-09-29 14:37 J -29535304.12 -29535303.89 -29535303.63 0.0135 0.0046 *
 Earth -85576-10-04 03:35 J -29534934.58 -29534934.35 -29534934.10 0.0134 0.0054
 Moon -85576-10-04 07:11 J -29534934.43 -29534934.20 -29534933.95 0.0134 0.0054 *
 Moon -85575-10-08 12:42 J -29534565.19 -29534564.97 -29534564.74 0.0134 0.0064
 Earth -85575-10-08 16:04 J -29534565.06 -29534564.83 -29534564.60 0.0134 0.0062 *

Earth	-85574-10-13 02:37 J	-29534195.60	-29534195.39	-29534195.16	0.0133	0.0070
Moon	-85574-10-13 06:13 J	-29534195.46	-29534195.24	-29534195.00	0.0133	0.0064 *
Moon	-85573-10-16 08:52 J	-29533826.30	-29533826.13	-29533825.91	0.0133	0.0085
Earth	-85573-10-16 12:28 J	-29533826.17	-29533825.98	-29533825.75	0.0133	0.0078 *
Earth	-85572-10-20 21:49 J	-29533456.77	-29533456.59	-29533456.38	0.0133	0.0085
Moon	-85572-10-21 01:11 J	-29533456.64	-29533456.45	-29533456.22	0.0133	0.0079 *
Moon	-85571-10-25 02:52 J	-29533087.55	-29533087.38	-29533087.21	0.0132	0.0097
Earth	-85571-10-25 06:13 J	-29533087.41	-29533087.24	-29533087.04	0.0132	0.0091 *
Earth	-85570-10-29 13:40 J	-29532718.09	-29532717.93	-29532717.75	0.0132	0.0097
Moon	-85570-10-29 17:01 J	-29532717.95	-29532717.79	-29532717.59	0.0132	0.0094 *
Moon	-85569-11-01 16:47 J	-29532348.95	-29532348.80	-29532348.63	0.0132	0.0102
Earth	-85569-11-01 20:08 J	-29532348.80	-29532348.66	-29532348.48	0.0132	0.0103 *
Earth	-85568-11-06 02:08 J	-29531979.54	-29531979.41	-29531979.25	0.0132	0.0108
Moon	-85568-11-06 05:44 J	-29531979.38	-29531979.26	-29531979.10	0.0132	0.0111 *
Moon	-85567-11-10 04:04 J	-29531610.47	-29531610.33	-29531610.17	0.0132	0.0107
Earth	-85567-11-10 07:40 J	-29531610.31	-29531610.18	-29531610.04	0.0132	0.0112 *
Earth	-85566-11-14 11:59 J	-29531241.11	-29531241.00	-29531240.87	0.0131	0.0116
Moon	-85566-11-14 15:49 J	-29531240.92	-29531240.84	-29531240.75	0.0131	0.0123 *
Moon	-85565-11-17 12:13 J	-29530872.10	-29530871.99	-29530871.84	0.0131	0.0113
Earth	-85565-11-17 15:35 J	-29530871.93	-29530871.85	-29530871.72	0.0131	0.0120 *
Earth	-85564-11-21 19:40 J	-29530502.77	-29530502.68	-29530502.59	0.0131	0.0122
Moon	-85564-11-21 22:47 J	-29530502.59	-29530502.55	-29530502.47	0.0131	0.0128 *
Moon	-85563-11-25 18:56 J	-29530133.80	-29530133.71	-29530133.60	0.0131	0.0120
Earth	-85563-11-25 22:32 J	-29530133.62	-29530133.56	-29530133.46	0.0131	0.0125 *
Earth	-85562-11-30 00:56 J	-29529764.51	-29529764.46	-29529764.37	0.0131	0.0126
Moon	-85562-11-30 04:18 J	-29529764.35	-29529764.32	-29529764.23	0.0131	0.0128
Mars	-85561-05-05 06:56 J	-29529607.37	-29529607.21	-29529606.99	0.0131	0.0096
Moon	-85561-12-03 00:13 J	-29529395.53	-29529395.49	-29529395.44	0.0131	0.0129
Earth	-85561-12-03 03:35 J	-29529395.39	-29529395.35	-29529395.27	0.0131	0.0128
Earth	-85560-12-07 06:28 J	-29529026.29	-29529026.23	-29529026.18	0.0132	0.0128

Moon	-85560-12-07 09:35 J	-29529026.17	-29529026.10	-29529026.01	0.0132	0.0125
Mars	-85559-04-03 17:30 J	-29528909.05	-29528908.77	-29528908.49	0.0132	0.0011
Earth	-85559-12-11 08:23 J	-29528657.20	-29528657.15	-29528657.09	0.0132	0.0128
Earth	-85558-12-15 10:04 J	-29528288.12	-29528288.08	-29528288.00	0.0132	0.0128
Moon	-85558-12-15 13:40 J	-29528288.01	-29528287.93	-29528287.81	0.0132	0.0121 *
Mars	-85557-03-02 08:08 J	-29528210.39	-29528210.16	-29528209.92	0.0132	0.0075
Earth	-85557-12-18 11:59 J	-29527919.04	-29527919.00	-29527918.91	0.0132	0.0127
Earth	-85556-12-22 13:54 J	-29527549.98	-29527549.92	-29527549.82	0.0132	0.0125
Moon	-85556-12-22 17:44 J	-29527549.85	-29527549.76	-29527549.64	0.0132	0.0120 *
Moon	-85555-12-26 12:28 J	-29527181.03	-29527180.98	-29527180.90	0.0133	0.0128
Earth	-85555-12-26 15:49 J	-29527180.91	-29527180.84	-29527180.73	0.0133	0.0123 *
Earth	-85554-12-30 17:30 J	-29526811.86	-29526811.77	-29526811.65	0.0133	0.0120
Moon	-85554-12-30 21:06 J	-29526811.71	-29526811.62	-29526811.50	0.0133	0.0120 *
Moon	-85552-01-02 16:18 J	-29526442.93	-29526442.82	-29526442.69	0.0133	0.0116
Earth	-85552-01-02 19:54 J	-29526442.78	-29526442.67	-29526442.55	0.0133	0.0117 *
Earth	-85551-01-06 22:04 J	-29526073.70	-29526073.58	-29526073.44	0.0134	0.0113
Moon	-85551-01-07 01:25 J	-29526073.55	-29526073.44	-29526073.31	0.0134	0.0117 *
Moon	-85550-01-10 20:52 J	-29525704.77	-29525704.63	-29525704.45	0.0134	0.0103
Earth	-85550-01-11 00:28 J	-29525704.60	-29525704.48	-29525704.32	0.0134	0.0109 *
Earth	-85549-01-15 03:35 J	-29525335.50	-29525335.35	-29525335.18	0.0135	0.0104
Moon	-85549-01-15 06:56 J	-29525335.34	-29525335.21	-29525335.06	0.0135	0.0111 *
Moon	-85548-01-18 03:35 J	-29524966.51	-29524966.35	-29524966.16	0.0135	0.0092
Earth	-85548-01-18 07:25 J	-29524966.36	-29524966.19	-29524966.02	0.0135	0.0099 *
Earth	-85547-01-22 10:47 J	-29524597.21	-29524597.05	-29524596.85	0.0136	0.0093
Moon	-85547-01-22 14:23 J	-29524597.05	-29524596.90	-29524596.71	0.0136	0.0099 *
Moon	-85546-01-26 12:13 J	-29524228.17	-29524227.99	-29524227.78	0.0136	0.0083
Earth	-85546-01-26 15:35 J	-29524228.02	-29524227.85	-29524227.64	0.0136	0.0086 *
Earth	-85545-01-30 20:52 J	-29523858.82	-29523858.63	-29523858.42	0.0137	0.0079
Moon	-85545-01-31 00:42 J	-29523858.67	-29523858.47	-29523858.27	0.0137	0.0078 *
Moon	-85544-02-02 23:30 J	-29523489.71	-29523489.52	-29523489.30	0.0137	0.0073

Earth -85544-02-03 02:52 J -29523489.57 -29523489.38 -29523489.15 0.0137 0.0072 *
 Earth -85543-02-07 09:49 J -29523120.30 -29523120.09 -29523119.87 0.0138 0.0063
 Moon -85543-02-07 13:11 J -29523120.17 -29523119.95 -29523119.72 0.0138 0.0057 *
 Venus -85543-11-24 10:32 J -29522830.20 -29522830.06 -29522829.91 0.0138 0.0100
 Moon -85542-02-11 13:40 J -29522751.15 -29522750.93 -29522750.71 0.0138 0.0062
 Earth -85542-02-11 17:01 J -29522751.00 -29522750.79 -29522750.55 0.0138 0.0055 *
 Venus -85542-07-08 16:32 J -29522604.01 -29522603.81 -29522603.60 0.0139 0.0037
 Earth -85541-02-16 01:25 J -29522381.67 -29522381.44 -29522381.20 0.0139 0.0045
 Moon -85541-02-16 04:47 J -29522381.53 -29522381.30 -29522381.06 0.0139 0.0038 *
 Venus -85541-02-19 22:32 J -29522377.76 -29522377.56 -29522377.35 0.0139 0.0028
 Mercury -85541-03-12 11:44 J -29522356.02 -29522356.01 -29522356.00 0.0139 0.0138
 Mercury -85541-06-08 15:20 J -29522267.92 -29522267.86 -29522267.79 0.0139 0.0121
 Mercury -85541-09-04 18:56 J -29522179.80 -29522179.71 -29522179.62 0.0139 0.0104
 Venus -85541-10-03 04:32 J -29522151.45 -29522151.31 -29522151.14 0.0139 0.0094
 Mercury -85541-12-01 22:32 J -29522091.66 -29522091.56 -29522091.44 0.0139 0.0087
 Moon -85540-02-19 06:56 J -29522012.44 -29522012.21 -29522011.96 0.0140 0.0042
 Earth -85540-02-19 10:32 J -29522012.29 -29522012.06 -29522011.81 0.0140 0.0036 *
 Mercury -85540-02-28 02:23 J -29522003.52 -29522003.40 -29522003.28 0.0140 0.0070
 Mercury -85540-05-27 06:13 J -29521915.37 -29521915.24 -29521915.11 0.0140 0.0052
 Mercury -85540-08-23 10:04 J -29521827.22 -29521827.08 -29521826.95 0.0140 0.0034
 Mercury -85540-11-19 13:54 J -29521739.06 -29521738.92 -29521738.78 0.0140 0.0016
 Mercury -85539-02-15 17:44 J -29521650.90 -29521650.76 -29521650.62 0.0140 0.0002
 Earth -85539-02-23 20:23 J -29521642.88 -29521642.65 -29521642.40 0.0140 0.0027
 Moon -85539-02-23 23:59 J -29521642.74 -29521642.50 -29521642.25 0.0140 0.0022 *
 Mercury -85539-05-14 21:35 J -29521562.74 -29521562.60 -29521562.46 0.0140 0.0020
 Mercury -85539-08-11 01:25 J -29521474.57 -29521474.44 -29521474.30 0.0140 0.0039
 Mercury -85539-11-07 05:16 J -29521386.40 -29521386.28 -29521386.14 0.0141 0.0058
 Mercury -85538-02-03 09:20 J -29521298.22 -29521298.11 -29521297.99 0.0141 0.0076
 Moon -85538-02-28 04:18 J -29521273.56 -29521273.32 -29521273.07 0.0141 0.0015
 Earth -85538-02-28 07:40 J -29521273.42 -29521273.18 -29521272.93 0.0141 0.0016 *

Mercury -85538-05-02 13:25 J -29521210.04 -29521209.94 -29521209.83 0.0141 0.0095

Mercury -85538-07-29 17:30 J -29521121.85 -29521121.77 -29521121.69 0.0141 0.0114

Mercury -85538-10-25 21:35 J -29521033.64 -29521033.60 -29521033.56 0.0141 0.0133

Earth -85537-03-03 19:40 J -29520903.92 -29520903.68 -29520903.43 0.0141 0.0005

Moon -85537-03-03 23:16 J -29520903.77 -29520903.53 -29520903.28 0.0141 0.0009 *

Moon -85536-03-08 05:30 J -29520534.51 -29520534.27 -29520534.01 0.0142 0.0012

Earth -85536-03-08 08:52 J -29520534.37 -29520534.13 -29520533.88 0.0142 0.0006 *

Earth -85535-03-12 23:01 J -29520164.78 -29520164.54 -29520164.29 0.0143 0.0017

Moon -85535-03-13 02:23 J -29520164.64 -29520164.40 -29520164.15 0.0143 0.0009 *

Moon -85534-03-17 11:16 J -29519795.27 -29519795.03 -29519794.78 0.0143 0.0035

Earth -85534-03-17 14:37 J -29519795.13 -29519794.89 -29519794.64 0.0143 0.0027 *

Earth -85533-03-21 07:11 J -29519425.43 -29519425.20 -29519424.95 0.0144 0.0039

Moon -85533-03-21 09:49 J -29519425.32 -29519425.09 -29519424.85 0.0144 0.0036 *

Moon -85532-03-25 22:32 J -29519055.79 -29519055.56 -29519055.32 0.0144 0.0050

Earth -85532-03-26 01:25 J -29519055.67 -29519055.44 -29519055.20 0.0144 0.0050 *

Earth -85531-03-30 20:23 J -29518685.86 -29518685.65 -29518685.41 0.0145 0.0061

Moon -85531-03-30 22:32 J -29518685.77 -29518685.56 -29518685.33 0.0145 0.0065 *

Jupiter -85531-04-04 02:08 J -29518681.93 -29518681.41 -29518680.89 0.0145 0.0003

Moon -85530-04-04 15:06 J -29518316.09 -29518315.87 -29518315.63 0.0145 0.0064

Earth -85530-04-04 17:01 J -29518315.99 -29518315.79 -29518315.56 0.0145 0.0072 *

Earth -85529-04-08 14:37 J -29517946.08 -29517945.89 -29517945.67 0.0146 0.0082

Moon -85529-04-08 16:04 J -29517946.01 -29517945.83 -29517945.63 0.0146 0.0089 *

Moon -85528-04-13 12:56 J -29517576.16 -29517575.96 -29517575.74 0.0146 0.0086

Earth -85528-04-13 13:11 J -29517576.12 -29517575.95 -29517575.74 0.0146 0.0092 *

Earth -85527-04-18 13:11 J -29517206.12 -29517205.95 -29517205.76 0.0146 0.0101

Moon -85527-04-18 13:40 J -29517206.09 -29517205.93 -29517205.75 0.0146 0.0103 *

Earth -85526-04-23 14:08 J -29516836.06 -29516835.91 -29516835.73 0.0147 0.0110

Moon -85526-04-23 14:52 J -29516836.02 -29516835.88 -29516835.70 0.0147 0.0114 *

Moon -85525-04-27 15:06 J -29516466.01 -29516465.87 -29516465.70 0.0147 0.0112

Earth -85525-04-27 16:04 J -29516465.96 -29516465.83 -29516465.67 0.0147 0.0118 *

Earth	-85524-05-02 18:56 J	-29516095.82	-29516095.71	-29516095.56	0.0147	0.0125
Moon	-85524-05-02 21:35 J	-29516095.72	-29516095.60	-29516095.49	0.0147	0.0132 *
Moon	-85523-05-07 20:23 J	-29515725.77	-29515725.65	-29515725.51	0.0147	0.0126
Earth	-85523-05-07 22:47 J	-29515725.64	-29515725.55	-29515725.42	0.0147	0.0132 *
Earth	-85522-05-13 03:35 J	-29515355.43	-29515355.35	-29515355.24	0.0147	0.0137
Moon	-85522-05-13 06:28 J	-29515355.30	-29515355.23	-29515355.12	0.0147	0.0138 *
Moon	-85521-05-17 05:30 J	-29514985.29	-29514985.27	-29514985.22	0.0147	0.0146
Earth	-85521-05-17 09:06 J	-29514985.17	-29514985.12	-29514985.03	0.0147	0.0141
Earth	-85520-05-22 15:20 J	-29514614.89	-29514614.86	-29514614.80	0.0147	0.0145
Moon	-85520-05-22 18:56 J	-29514614.79	-29514614.71	-29514614.61	0.0147	0.0137
Earth	-85519-05-27 22:32 J	-29514244.57	-29514244.56	-29514244.54	0.0147	0.0147
Mars	-85519-09-21 09:06 J	-29514128.40	-29514128.12	-29514127.80	0.0147	0.0069
Moon	-85518-06-02 09:06 J	-29513874.16	-29513874.12	-29513874.04	0.0147	0.0143
Mars	-85517-08-29 14:52 J	-29513420.15	-29513419.88	-29513419.58	0.0147	0.0080
Moon	-85515-06-17 04:18 J	-29512763.39	-29512763.32	-29512763.21	0.0146	0.0137
Earth	-85515-06-17 05:44 J	-29512763.28	-29512763.26	-29512763.21	0.0146	0.0144 *
Earth	-85514-06-22 13:40 J	-29512392.98	-29512392.93	-29512392.84	0.0146	0.0141
Earth	-85513-06-26 21:35 J	-29512022.67	-29512022.60	-29512022.49	0.0145	0.0137
Moon	-85513-06-26 22:04 J	-29512022.67	-29512022.58	-29512022.46	0.0145	0.0134 *
Moon	-85512-07-02 03:20 J	-29511652.45	-29511652.36	-29511652.22	0.0145	0.0128
Earth	-85512-07-02 05:01 J	-29511652.38	-29511652.29	-29511652.16	0.0145	0.0131 *
Earth	-85511-07-07 12:13 J	-29511282.10	-29511281.99	-29511281.83	0.0145	0.0125
Moon	-85511-07-07 14:23 J	-29511281.99	-29511281.90	-29511281.77	0.0145	0.0131 *
Moon	-85510-07-12 16:18 J	-29510911.97	-29510911.82	-29510911.65	0.0144	0.0110
Earth	-85510-07-12 19:25 J	-29510911.83	-29510911.69	-29510911.53	0.0144	0.0117 *
Earth	-85509-07-17 00:56 J	-29510541.60	-29510541.46	-29510541.27	0.0144	0.0110
Moon	-85509-07-17 04:47 J	-29510541.45	-29510541.30	-29510541.13	0.0144	0.0115 *
Moon	-85508-07-22 03:35 J	-29510171.53	-29510171.35	-29510171.17	0.0143	0.0100
Earth	-85508-07-22 06:42 J	-29510171.38	-29510171.22	-29510171.01	0.0143	0.0101 *
Earth	-85507-07-27 11:59 J	-29509801.20	-29509801.00	-29509800.80	0.0142	0.0092

Moon	-85507-07-27 15:35 J	-29509801.04	-29509800.85	-29509800.63	0.0142	0.0088	*
Moon	-85506-08-01 12:13 J	-29509431.18	-29509430.99	-29509430.77	0.0142	0.0089	
Earth	-85506-08-01 16:04 J	-29509431.04	-29509430.83	-29509430.61	0.0142	0.0082	*
Earth	-85505-08-05 19:11 J	-29509060.92	-29509060.70	-29509060.47	0.0141	0.0072	
Moon	-85505-08-05 22:18 J	-29509060.79	-29509060.57	-29509060.33	0.0141	0.0065	*
Moon	-85504-08-10 18:42 J	-29508690.96	-29508690.72	-29508690.48	0.0141	0.0067	
Earth	-85504-08-10 21:35 J	-29508690.83	-29508690.60	-29508690.36	0.0141	0.0062	*
Venus	-85504-12-19 14:08 J	-29508560.06	-29508559.91	-29508559.74	0.0140	0.0098	
Venus	-85503-08-03 01:54 J	-29508333.63	-29508333.42	-29508333.19	0.0140	0.0027	
Earth	-85503-08-15 23:01 J	-29508320.78	-29508320.54	-29508320.29	0.0140	0.0051	
Moon	-85503-08-16 00:56 J	-29508320.69	-29508320.46	-29508320.21	0.0140	0.0052	*
Venus	-85502-03-17 13:25 J	-29508107.15	-29508106.94	-29508106.73	0.0140	0.0043	
Moon	-85502-08-20 21:20 J	-29507950.86	-29507950.61	-29507950.34	0.0139	0.0038	
Earth	-85502-08-20 23:30 J	-29507950.77	-29507950.52	-29507950.26	0.0139	0.0041	*
Venus	-85502-10-30 00:13 J	-29507880.61	-29507880.49	-29507880.34	0.0139	0.0113	
Mercury	-85502-11-02 21:35 J	-29507876.67	-29507876.60	-29507876.49	0.0139	0.0120	
Mercury	-85501-01-30 04:47 J	-29507788.43	-29507788.30	-29507788.16	0.0139	0.0095	
Mercury	-85501-04-27 11:30 J	-29507700.16	-29507700.02	-29507699.86	0.0139	0.0072	
Mercury	-85501-07-24 18:28 J	-29507611.90	-29507611.73	-29507611.56	0.0139	0.0049	
Earth	-85501-08-24 22:32 J	-29507580.81	-29507580.56	-29507580.30	0.0139	0.0030	
Moon	-85501-08-24 23:30 J	-29507580.76	-29507580.52	-29507580.28	0.0139	0.0036	*
Mercury	-85501-10-21 01:11 J	-29507523.63	-29507523.45	-29507523.27	0.0139	0.0026	
Mercury	-85500-01-17 07:54 J	-29507435.35	-29507435.17	-29507434.99	0.0139	0.0004	
Mercury	-85500-04-15 14:23 J	-29507347.08	-29507346.90	-29507346.72	0.0138	0.0020	
Mercury	-85500-07-12 20:37 J	-29507258.80	-29507258.64	-29507258.46	0.0138	0.0043	
Moon	-85500-08-29 20:23 J	-29507210.92	-29507210.65	-29507210.38	0.0138	0.0012	
Earth	-85500-08-29 20:37 J	-29507210.89	-29507210.64	-29507210.37	0.0138	0.0020	*
Mercury	-85500-10-09 03:06 J	-29507170.52	-29507170.37	-29507170.20	0.0138	0.0064	
Mercury	-85499-01-05 09:20 J	-29507082.23	-29507082.11	-29507081.96	0.0138	0.0087	
Mercury	-85499-04-03 16:04 J	-29506993.94	-29506993.83	-29506993.72	0.0138	0.0107	

Mercury -85499-06-30 22:04 J -29506905.63 -29506905.58 -29506905.51 0.0138 0.0129

Earth -85499-09-03 17:44 J -29506841.02 -29506840.76 -29506840.50 0.0138 0.0008

Moon -85499-09-03 17:44 J -29506841.01 -29506840.76 -29506840.51 0.0138 0.0013 *

Earth -85498-09-08 13:11 J -29506471.21 -29506470.95 -29506470.68 0.0137 0.0004

Moon -85498-09-08 14:23 J -29506471.17 -29506470.90 -29506470.63 0.0137 0.0003 *

Moon -85497-09-12 06:42 J -29506101.47 -29506101.22 -29506100.96 0.0137 0.0014

Earth -85497-09-12 07:40 J -29506101.44 -29506101.18 -29506100.91 0.0137 0.0013 *

Earth -85496-09-17 00:56 J -29505731.71 -29505731.46 -29505731.20 0.0136 0.0022

Moon -85496-09-17 03:06 J -29505731.64 -29505731.37 -29505731.10 0.0136 0.0016 *

Moon -85495-09-21 15:20 J -29505362.10 -29505361.86 -29505361.61 0.0136 0.0039

Earth -85495-09-21 17:16 J -29505362.03 -29505361.78 -29505361.52 0.0136 0.0032 *

Earth -85494-09-26 08:08 J -29504992.40 -29504992.16 -29504991.90 0.0135 0.0041

Moon -85494-09-26 10:47 J -29504992.31 -29504992.05 -29504991.79 0.0135 0.0035 *

Moon -85493-09-29 19:25 J -29504622.91 -29504622.69 -29504622.45 0.0135 0.0055

Earth -85493-09-29 22:18 J -29504622.81 -29504622.57 -29504622.32 0.0135 0.0050 *

Earth -85492-10-04 11:16 J -29504253.25 -29504253.03 -29504252.79 0.0134 0.0059

Moon -85492-10-04 13:54 J -29504253.15 -29504252.92 -29504252.67 0.0134 0.0057 *

Moon -85491-10-08 20:08 J -29503883.87 -29503883.66 -29503883.42 0.0134 0.0064

Earth -85491-10-08 23:16 J -29503883.74 -29503883.53 -29503883.29 0.0134 0.0067 *

Earth -85490-10-13 10:18 J -29503514.27 -29503514.07 -29503513.84 0.0133 0.0074

Moon -85490-10-13 13:11 J -29503514.14 -29503513.95 -29503513.72 0.0133 0.0080 *

Moon -85489-10-16 17:30 J -29503144.97 -29503144.77 -29503144.55 0.0133 0.0075

Earth -85489-10-16 20:23 J -29503144.83 -29503144.65 -29503144.42 0.0133 0.0082 *

Earth -85488-10-21 05:44 J -29502775.43 -29502775.26 -29502775.05 0.0133 0.0089

Moon -85488-10-21 09:20 J -29502775.27 -29502775.11 -29502774.91 0.0133 0.0096 *

Moon -85487-10-25 11:30 J -29502406.21 -29502406.02 -29502405.83 0.0132 0.0089

Earth -85487-10-25 14:37 J -29502406.06 -29502405.89 -29502405.71 0.0132 0.0095 *

Earth -85486-10-29 21:49 J -29502036.74 -29502036.59 -29502036.41 0.0132 0.0101

Moon -85486-10-30 01:25 J -29502036.58 -29502036.44 -29502036.26 0.0132 0.0103 *

Moon -85485-11-02 01:11 J -29501667.59 -29501667.45 -29501667.28 0.0132 0.0104

Earth	-85485-11-02 04:47 J	-29501667.45	-29501667.30	-29501667.14	0.0132	0.0105	*
Earth	-85484-11-06 10:32 J	-29501298.19	-29501298.06	-29501297.91	0.0132	0.0110	
Moon	-85484-11-06 13:54 J	-29501298.05	-29501297.92	-29501297.75	0.0132	0.0107	*
Moon	-85483-11-10 12:28 J	-29500929.09	-29500928.98	-29500928.88	0.0132	0.0119	
Earth	-85483-11-10 15:49 J	-29500928.95	-29500928.84	-29500928.70	0.0132	0.0114	*
Earth	-85482-11-14 20:08 J	-29500559.76	-29500559.66	-29500559.53	0.0132	0.0118	
Moon	-85482-11-14 23:59 J	-29500559.64	-29500559.50	-29500559.37	0.0132	0.0111	*
Moon	-85481-11-17 20:37 J	-29500190.68	-29500190.64	-29500190.56	0.0131	0.0128	
Earth	-85481-11-18 00:13 J	-29500190.57	-29500190.49	-29500190.37	0.0131	0.0121	*
Earth	-85480-11-22 03:49 J	-29499821.40	-29499821.34	-29499821.23	0.0131	0.0123	
Moon	-85480-11-22 07:25 J	-29499821.29	-29499821.19	-29499821.06	0.0131	0.0117	*
Moon	-85479-11-26 03:35 J	-29499452.37	-29499452.35	-29499452.28	0.0131	0.0130	
Earth	-85479-11-26 07:40 J	-29499452.26	-29499452.18	-29499452.11	0.0131	0.0125	
Earth	-85478-11-30 10:04 J	-29499083.13	-29499083.08	-29499083.00	0.0131	0.0127	
Moon	-85478-11-30 13:54 J	-29499082.99	-29499082.92	-29499082.83	0.0131	0.0125	
Moon	-85477-12-03 09:20 J	-29498714.15	-29498714.11	-29498714.03	0.0131	0.0128	
Earth	-85477-12-03 12:42 J	-29498714.01	-29498713.97	-29498713.89	0.0131	0.0128	
Mars	-85477-12-28 03:06 J	-29498689.60	-29498689.37	-29498689.10	0.0131	0.0062	
Earth	-85476-12-07 15:06 J	-29498344.91	-29498344.87	-29498344.79	0.0132	0.0128	
Mars	-85475-11-26 15:49 J	-29497991.11	-29497990.84	-29497990.56	0.0132	0.0023	
Moon	-85475-12-11 13:54 J	-29497975.98	-29497975.92	-29497975.81	0.0132	0.0123	
Earth	-85475-12-11 17:16 J	-29497975.81	-29497975.78	-29497975.69	0.0132	0.0128	*
Earth	-85474-12-15 19:11 J	-29497606.74	-29497606.70	-29497606.61	0.0132	0.0127	
Mars	-85473-10-25 06:13 J	-29497292.38	-29497292.24	-29497292.06	0.0132	0.0110	
Moon	-85473-12-18 17:44 J	-29497237.85	-29497237.76	-29497237.63	0.0132	0.0119	
Earth	-85473-12-18 21:35 J	-29497237.67	-29497237.60	-29497237.51	0.0132	0.0125	*
Earth	-85472-12-22 23:01 J	-29496868.60	-29496868.54	-29496868.42	0.0132	0.0124	
Moon	-85472-12-23 02:23 J	-29496868.43	-29496868.40	-29496868.32	0.0132	0.0130	*
Moon	-85471-12-26 22:04 J	-29496499.70	-29496499.58	-29496499.47	0.0133	0.0117	
Earth	-85471-12-27 00:56 J	-29496499.54	-29496499.46	-29496499.34	0.0133	0.0121	*

Earth	-85470-12-31 03:20 J	-29496130.47	-29496130.36	-29496130.25	0.0133	0.0118
Moon	-85470-12-31 06:42 J	-29496130.33	-29496130.22	-29496130.11	0.0133	0.0119 *
Moon	-85468-01-03 01:54 J	-29495761.52	-29495761.42	-29495761.28	0.0133	0.0116
Earth	-85468-01-03 05:01 J	-29495761.39	-29495761.29	-29495761.14	0.0133	0.0115 *
Earth	-85467-01-07 07:40 J	-29495392.31	-29495392.18	-29495392.03	0.0134	0.0110
Moon	-85467-01-07 10:47 J	-29495392.18	-29495392.05	-29495391.87	0.0134	0.0106 *
Moon	-85466-01-11 06:56 J	-29495023.32	-29495023.21	-29495023.05	0.0134	0.0111
Earth	-85466-01-11 10:18 J	-29495023.21	-29495023.07	-29495022.91	0.0134	0.0105 *
Earth	-85465-01-15 13:11 J	-29494654.10	-29494653.95	-29494653.77	0.0135	0.0101
Moon	-85465-01-15 16:47 J	-29494653.97	-29494653.80	-29494653.61	0.0135	0.0093 *
Moon	-85464-01-18 13:25 J	-29494285.08	-29494284.94	-29494284.76	0.0135	0.0103
Earth	-85464-01-18 17:01 J	-29494284.96	-29494284.79	-29494284.61	0.0135	0.0094 *
Earth	-85463-01-22 20:52 J	-29493915.80	-29493915.63	-29493915.43	0.0136	0.0089
Moon	-85463-01-23 00:28 J	-29493915.67	-29493915.48	-29493915.28	0.0136	0.0083 *
Moon	-85462-01-26 22:04 J	-29493546.75	-29493546.58	-29493546.37	0.0136	0.0086
Earth	-85462-01-27 01:54 J	-29493546.61	-29493546.42	-29493546.22	0.0136	0.0081 *
Earth	-85461-01-31 07:25 J	-29493177.40	-29493177.19	-29493176.98	0.0137	0.0074
Moon	-85461-01-31 10:32 J	-29493177.27	-29493177.06	-29493176.85	0.0137	0.0073 *
Moon	-85460-02-03 09:49 J	-29492808.29	-29492808.09	-29492807.86	0.0137	0.0063
Earth	-85460-02-03 13:25 J	-29492808.15	-29492807.94	-29492807.72	0.0137	0.0066 *
Earth	-85459-02-07 19:54 J	-29492438.88	-29492438.67	-29492438.44	0.0138	0.0058
Moon	-85459-02-07 23:16 J	-29492438.74	-29492438.53	-29492438.30	0.0138	0.0063 *
Venus	-85459-07-24 20:08 J	-29492271.71	-29492271.66	-29492271.59	0.0138	0.0131
Moon	-85458-02-12 00:13 J	-29492069.72	-29492069.49	-29492069.25	0.0138	0.0042
Earth	-85458-02-12 03:20 J	-29492069.58	-29492069.36	-29492069.12	0.0138	0.0049 *
Venus	-85458-03-08 01:40 J	-29492045.60	-29492045.43	-29492045.23	0.0138	0.0069
Venus	-85458-10-20 07:54 J	-29491819.38	-29491819.17	-29491818.95	0.0139	0.0005
Earth	-85457-02-16 11:30 J	-29491700.25	-29491700.02	-29491699.77	0.0139	0.0040
Moon	-85457-02-16 15:20 J	-29491700.09	-29491699.86	-29491699.63	0.0139	0.0047 *
Mercury	-85457-04-01 18:42 J	-29491654.74	-29491654.72	-29491654.68	0.0139	0.0135

Venus -85457-06-02 13:54 J -29491593.10 -29491592.92 -29491592.72 0.0139 0.0061

Mercury -85457-06-28 22:18 J -29491566.63 -29491566.57 -29491566.49 0.0139 0.0118

Mercury -85457-09-25 01:54 J -29491478.50 -29491478.42 -29491478.31 0.0139 0.0102

Mercury -85457-12-22 05:44 J -29491390.36 -29491390.26 -29491390.14 0.0139 0.0084

Venus -85456-01-14 20:23 J -29491366.73 -29491366.65 -29491366.55 0.0139 0.0126

Moon -85456-02-19 17:30 J -29491331.01 -29491330.77 -29491330.53 0.0140 0.0023

Earth -85456-02-19 20:52 J -29491330.87 -29491330.63 -29491330.39 0.0140 0.0030 *

Mercury -85456-03-20 09:20 J -29491302.22 -29491302.11 -29491301.98 0.0140 0.0067

Mercury -85456-06-16 13:11 J -29491214.07 -29491213.95 -29491213.81 0.0140 0.0049

Mercury -85456-09-12 17:01 J -29491125.92 -29491125.79 -29491125.65 0.0140 0.0031

Mercury -85456-12-09 21:06 J -29491037.76 -29491037.62 -29491037.49 0.0140 0.0013

Earth -85455-02-24 06:42 J -29490961.46 -29490961.22 -29490960.97 0.0140 0.0020

Moon -85455-02-24 10:18 J -29490961.31 -29490961.07 -29490960.82 0.0140 0.0023 *

Mercury -85455-03-08 00:42 J -29490949.60 -29490949.47 -29490949.32 0.0140 0.0008

Mercury -85455-06-04 04:32 J -29490861.44 -29490861.31 -29490861.16 0.0140 0.0025

Mercury -85455-08-31 08:37 J -29490773.27 -29490773.14 -29490773.00 0.0140 0.0042

Mercury -85455-11-27 12:42 J -29490685.10 -29490684.97 -29490684.85 0.0141 0.0061

Mercury -85454-02-23 16:32 J -29490596.92 -29490596.81 -29490596.69 0.0141 0.0080

Moon -85454-02-28 14:23 J -29490592.15 -29490591.90 -29490591.66 0.0141 0.0009

Earth -85454-02-28 17:59 J -29490592.00 -29490591.75 -29490591.51 0.0141 0.0010 *

Mercury -85454-05-22 20:23 J -29490508.74 -29490508.65 -29490508.54 0.0141 0.0099

Mercury -85454-08-19 00:28 J -29490420.55 -29490420.48 -29490420.40 0.0141 0.0118

Mercury -85454-11-15 04:32 J -29490332.33 -29490332.31 -29490332.27 0.0141 0.0137

Earth -85453-03-04 05:59 J -29490222.50 -29490222.25 -29490222.01 0.0141 0.0002

Moon -85453-03-04 09:20 J -29490222.36 -29490222.11 -29490221.87 0.0141 0.0004 *

Moon -85452-03-08 15:35 J -29489853.10 -29489852.85 -29489852.60 0.0142 0.0005

Earth -85452-03-08 19:11 J -29489852.95 -29489852.70 -29489852.45 0.0142 0.0011 *

Earth -85451-03-13 09:20 J -29489483.35 -29489483.11 -29489482.86 0.0143 0.0022

Moon -85451-03-13 12:42 J -29489483.21 -29489482.97 -29489482.73 0.0143 0.0029 *

Moon -85450-03-17 21:35 J -29489113.84 -29489113.60 -29489113.35 0.0143 0.0026

Earth	-85450-03-18 00:56 J	-29489113.70	-29489113.46	-29489113.21	0.0143	0.0033	*
Earth	-85449-03-21 17:44 J	-29488743.99	-29488743.76	-29488743.52	0.0144	0.0044	
Moon	-85449-03-21 21:06 J	-29488743.84	-29488743.62	-29488743.38	0.0144	0.0049	*
Moon	-85448-03-26 08:52 J	-29488374.36	-29488374.13	-29488373.89	0.0144	0.0054	
Earth	-85448-03-26 11:30 J	-29488374.23	-29488374.02	-29488373.77	0.0144	0.0056	*
Earth	-85447-03-31 06:42 J	-29488004.43	-29488004.22	-29488003.98	0.0145	0.0066	
Moon	-85447-03-31 09:49 J	-29488004.31	-29488004.09	-29488003.87	0.0145	0.0062	*
Moon	-85446-04-05 00:42 J	-29487634.67	-29487634.47	-29487634.24	0.0145	0.0082	
Earth	-85446-04-05 03:06 J	-29487634.56	-29487634.37	-29487634.14	0.0145	0.0076	*
Earth	-85445-04-09 00:28 J	-29487264.66	-29487264.48	-29487264.26	0.0146	0.0087	
Moon	-85445-04-09 02:23 J	-29487264.59	-29487264.40	-29487264.19	0.0146	0.0079	*
Moon	-85444-04-13 21:20 J	-29486894.77	-29486894.61	-29486894.40	0.0146	0.0102	
Earth	-85444-04-13 23:16 J	-29486894.70	-29486894.53	-29486894.33	0.0146	0.0096	*
Earth	-85443-04-18 23:01 J	-29486524.70	-29486524.54	-29486524.36	0.0146	0.0105	
Moon	-85443-04-18 23:30 J	-29486524.68	-29486524.52	-29486524.34	0.0146	0.0104	*
Moon	-85442-04-23 23:16 J	-29486154.68	-29486154.53	-29486154.34	0.0147	0.0111	
Earth	-85442-04-23 23:59 J	-29486154.65	-29486154.50	-29486154.34	0.0147	0.0113	*
Moon	-85441-04-28 00:42 J	-29485784.57	-29485784.47	-29485784.33	0.0147	0.0127	
Earth	-85441-04-28 01:54 J	-29485784.56	-29485784.42	-29485784.27	0.0147	0.0120	*
Earth	-85440-05-03 04:18 J	-29485414.43	-29485414.32	-29485414.18	0.0147	0.0127	
Moon	-85440-05-03 05:30 J	-29485414.40	-29485414.27	-29485414.10	0.0147	0.0119	*
Moon	-85439-05-08 06:28 J	-29485044.30	-29485044.23	-29485044.14	0.0147	0.0139	
Earth	-85439-05-08 07:54 J	-29485044.25	-29485044.17	-29485044.04	0.0147	0.0133	*
Earth	-85438-05-13 12:42 J	-29484674.04	-29484673.97	-29484673.87	0.0147	0.0138	
Moon	-85438-05-13 15:35 J	-29484673.92	-29484673.85	-29484673.74	0.0147	0.0137	*
Moon	-85437-05-17 15:35 J	-29484303.92	-29484303.85	-29484303.77	0.0147	0.0140	
Earth	-85437-05-17 17:59 J	-29484303.79	-29484303.75	-29484303.66	0.0147	0.0143	*
Earth	-85436-05-23 00:13 J	-29483933.51	-29483933.49	-29483933.43	0.0147	0.0145	
Moon	-85435-05-28 03:35 J	-29483563.41	-29483563.35	-29483563.25	0.0147	0.0139	
Earth	-85435-05-28 07:25 J	-29483563.19	-29483563.19	-29483563.16	0.0147	0.0147	

Mars	-85434-05-19 05:30 J	-29483207.61	-29483207.27	-29483206.93	0.0147	0.0011
Moon	-85433-06-06 18:56 J	-29482822.72	-29482822.71	-29482822.67	0.0147	0.0146
Earth	-85433-06-06 22:47 J	-29482822.55	-29482822.55	-29482822.54	0.0147	0.0147
Mars	-85432-04-26 07:25 J	-29482499.29	-29482499.19	-29482499.03	0.0146	0.0135
Earth	-85432-06-12 06:28 J	-29482452.26	-29482452.23	-29482452.19	0.0146	0.0145
Moon	-85432-06-12 08:52 J	-29482452.19	-29482452.13	-29482452.05	0.0146	0.0141 *
Earth	-85431-06-17 14:08 J	-29482081.95	-29482081.91	-29482081.83	0.0146	0.0142
Earth	-85430-06-22 22:18 J	-29481711.64	-29481711.57	-29481711.48	0.0146	0.0138
Moon	-85430-06-22 23:30 J	-29481711.61	-29481711.52	-29481711.40	0.0146	0.0132 *
Moon	-85429-06-27 05:44 J	-29481341.34	-29481341.26	-29481341.14	0.0145	0.0136
Earth	-85429-06-27 05:30 J	-29481341.34	-29481341.27	-29481341.14	0.0145	0.0134 *
Moon	-85428-07-02 12:56 J	-29480971.06	-29480970.96	-29480970.84	0.0145	0.0129
Earth	-85428-07-02 13:25 J	-29480971.05	-29480970.94	-29480970.81	0.0145	0.0127 *
Earth	-85427-07-07 20:23 J	-29480600.78	-29480600.65	-29480600.49	0.0145	0.0121
Moon	-85427-07-07 22:32 J	-29480600.72	-29480600.56	-29480600.39	0.0145	0.0114 *
Moon	-85426-07-13 00:42 J	-29480230.58	-29480230.47	-29480230.31	0.0144	0.0121
Earth	-85426-07-13 02:52 J	-29480230.52	-29480230.38	-29480230.20	0.0144	0.0113 *
Earth	-85425-07-17 09:20 J	-29479860.28	-29479860.11	-29479859.93	0.0144	0.0105
Moon	-85425-07-17 11:59 J	-29479860.17	-29479860.00	-29479859.79	0.0144	0.0101 *
Moon	-85424-07-22 11:01 J	-29479490.21	-29479490.04	-29479489.84	0.0143	0.0098
Earth	-85424-07-22 14:37 J	-29479490.07	-29479489.89	-29479489.68	0.0143	0.0096 *
Earth	-85423-07-27 19:40 J	-29479119.88	-29479119.68	-29479119.47	0.0142	0.0087
Moon	-85423-07-27 23:01 J	-29479119.73	-29479119.54	-29479119.32	0.0142	0.0090 *
Moon	-85422-08-01 19:54 J	-29478749.89	-29478749.67	-29478749.43	0.0142	0.0070
Earth	-85422-08-01 23:44 J	-29478749.72	-29478749.51	-29478749.28	0.0142	0.0077 *
Earth	-85421-08-06 02:52 J	-29478379.61	-29478379.38	-29478379.14	0.0141	0.0067
Moon	-85421-08-06 06:13 J	-29478379.45	-29478379.24	-29478379.01	0.0141	0.0074 *
Moon	-85420-08-11 01:54 J	-29478009.65	-29478009.42	-29478009.16	0.0141	0.0052
Earth	-85420-08-11 05:16 J	-29478009.51	-29478009.28	-29478009.03	0.0141	0.0056 *
Venus	-85420-08-18 19:11 J	-29478001.76	-29478001.70	-29478001.64	0.0141	0.0135

Venus -85419-04-02 06:42 J -29477775.41 -29477775.22 -29477775.01 0.0140 0.0064
 Earth -85419-08-16 06:28 J -29477639.47 -29477639.23 -29477638.97 0.0140 0.0046
 Moon -85419-08-16 09:49 J -29477639.33 -29477639.09 -29477638.85 0.0140 0.0047 *
 Venus -85419-11-14 18:28 J -29477548.95 -29477548.73 -29477548.50 0.0140 0.0007
 Venus -85418-06-29 05:44 J -29477322.44 -29477322.26 -29477322.06 0.0139 0.0077
 Moon -85418-08-21 04:32 J -29477269.56 -29477269.31 -29477269.04 0.0139 0.0038
 Earth -85418-08-21 06:56 J -29477269.46 -29477269.21 -29477268.95 0.0139 0.0035 *
 Mercury -85418-11-23 04:18 J -29477175.41 -29477175.32 -29477175.21 0.0139 0.0116
 Mercury -85417-02-19 11:30 J -29477087.16 -29477087.02 -29477086.89 0.0139 0.0092
 Mercury -85417-05-17 18:13 J -29476998.89 -29476998.74 -29476998.58 0.0139 0.0069
 Mercury -85417-08-14 00:56 J -29476910.63 -29476910.46 -29476910.29 0.0139 0.0046
 Earth -85417-08-25 05:59 J -29476899.50 -29476899.25 -29476898.99 0.0139 0.0024
 Moon -85417-08-25 07:54 J -29476899.42 -29476899.17 -29476898.91 0.0139 0.0018 *
 Mercury -85417-11-10 07:40 J -29476822.35 -29476822.18 -29476822.00 0.0139 0.0023
 Mercury -85416-02-06 14:23 J -29476734.08 -29476733.90 -29476733.72 0.0139 0.0001
 Mercury -85416-05-05 20:52 J -29476645.80 -29476645.63 -29476645.45 0.0138 0.0022
 Mercury -85416-08-02 03:20 J -29476557.52 -29476557.36 -29476557.19 0.0138 0.0045
 Moon -85416-08-30 02:52 J -29476529.65 -29476529.38 -29476529.11 0.0138 0.0020
 Earth -85416-08-30 04:04 J -29476529.59 -29476529.33 -29476529.07 0.0138 0.0013 *
 Mercury -85416-10-29 09:49 J -29476469.24 -29476469.09 -29476468.93 0.0138 0.0067
 Mercury -85415-01-25 16:18 J -29476380.96 -29476380.82 -29476380.69 0.0138 0.0088
 Mercury -85415-04-23 22:18 J -29476292.66 -29476292.57 -29476292.45 0.0138 0.0110
 Mercury -85415-07-21 04:47 J -29476204.35 -29476204.30 -29476204.25 0.0138 0.0131
 Earth -85415-09-04 00:56 J -29476159.72 -29476159.46 -29476159.20 0.0138 0.0003
 Moon -85415-09-04 01:11 J -29476159.70 -29476159.45 -29476159.19 0.0138 0.0004 *
 Moon -85414-09-08 20:08 J -29475789.93 -29475789.66 -29475789.39 0.0137 0.0005
 Earth -85414-09-08 20:23 J -29475789.91 -29475789.65 -29475789.39 0.0137 0.0008 *
 Moon -85413-09-12 13:54 J -29475420.17 -29475419.92 -29475419.66 0.0137 0.0016
 Earth -85413-09-12 14:52 J -29475420.14 -29475419.88 -29475419.62 0.0137 0.0018 *
 Earth -85412-09-17 08:08 J -29475050.41 -29475050.16 -29475049.90 0.0136 0.0027

Moon	-85412-09-17 08:52 J	-29475050.39	-29475050.13	-29475049.86	0.0136	0.0032	*
Moon	-85411-09-21 23:01 J	-29474680.78	-29474680.54	-29474680.29	0.0136	0.0031	
Earth	-85411-09-22 00:28 J	-29474680.73	-29474680.48	-29474680.23	0.0136	0.0037	*
Earth	-85410-09-26 15:20 J	-29474311.10	-29474310.86	-29474310.61	0.0135	0.0046	
Moon	-85410-09-26 17:01 J	-29474311.02	-29474310.79	-29474310.53	0.0135	0.0053	*
Moon	-85409-09-30 04:04 J	-29473941.57	-29473941.33	-29473941.10	0.0135	0.0050	
Earth	-85409-09-30 05:44 J	-29473941.50	-29473941.26	-29473941.02	0.0135	0.0055	*
Earth	-85408-10-04 18:42 J	-29473571.94	-29473571.72	-29473571.48	0.0134	0.0063	
Moon	-85408-10-04 21:20 J	-29473571.83	-29473571.61	-29473571.36	0.0134	0.0064	*
Moon	-85407-10-09 04:47 J	-29473202.51	-29473202.30	-29473202.08	0.0134	0.0072	
Earth	-85407-10-09 07:11 J	-29473202.42	-29473202.20	-29473201.98	0.0134	0.0071	*
Earth	-85406-10-13 18:13 J	-29472832.94	-29472832.74	-29472832.53	0.0133	0.0079	
Moon	-85406-10-13 20:52 J	-29472832.83	-29472832.63	-29472832.39	0.0133	0.0074	*
Moon	-85405-10-17 01:40 J	-29472463.61	-29472463.43	-29472463.24	0.0133	0.0092	
Earth	-85405-10-17 04:32 J	-29472463.50	-29472463.31	-29472463.11	0.0133	0.0085	*
Earth	-85404-10-21 13:54 J	-29472094.10	-29472093.92	-29472093.73	0.0133	0.0092	
Moon	-85404-10-21 16:18 J	-29472094.00	-29472093.82	-29472093.59	0.0133	0.0086	*
Moon	-85403-10-25 19:11 J	-29471724.85	-29471724.70	-29471724.54	0.0132	0.0104	
Earth	-85403-10-25 22:18 J	-29471724.73	-29471724.57	-29471724.39	0.0132	0.0098	*
Earth	-85402-10-30 05:30 J	-29471355.42	-29471355.27	-29471355.10	0.0132	0.0103	
Moon	-85402-10-30 08:08 J	-29471355.31	-29471355.16	-29471354.96	0.0132	0.0100	*
Moon	-85401-11-02 09:06 J	-29470986.25	-29470986.12	-29470985.97	0.0132	0.0108	
Earth	-85401-11-02 11:59 J	-29470986.12	-29470986.00	-29470985.83	0.0132	0.0108	*
Earth	-85400-11-06 18:13 J	-29470616.86	-29470616.74	-29470616.60	0.0132	0.0112	
Moon	-85400-11-06 21:35 J	-29470616.72	-29470616.60	-29470616.46	0.0132	0.0114	*
Moon	-85399-11-10 20:23 J	-29470247.77	-29470247.65	-29470247.51	0.0132	0.0112	
Earth	-85399-11-10 23:30 J	-29470247.63	-29470247.52	-29470247.39	0.0132	0.0116	*
Earth	-85398-11-15 04:04 J	-29469878.43	-29469878.33	-29469878.21	0.0132	0.0119	
Moon	-85398-11-15 07:25 J	-29469878.25	-29469878.19	-29469878.10	0.0132	0.0126	*
Moon	-85397-11-18 05:01 J	-29469509.39	-29469509.29	-29469509.15	0.0132	0.0116	

Earth	-85397-11-18 08:23 J	-29469509.23	-29469509.15	-29469509.05	0.0132	0.0122	*
Earth	-85396-11-22 11:30 J	-29469140.07	-29469140.02	-29469139.91	0.0131	0.0125	
Moon	-85396-11-22 15:20 J	-29469139.89	-29469139.86	-29469139.81	0.0131	0.0130	
Moon	-85395-11-26 11:59 J	-29468771.08	-29468771.00	-29468770.89	0.0131	0.0121	
Earth	-85395-11-26 15:35 J	-29468770.92	-29468770.85	-29468770.78	0.0131	0.0126	*
Mars	-85394-09-23 13:54 J	-29468470.05	-29468469.92	-29468469.75	0.0131	0.0111	
Earth	-85394-11-30 18:13 J	-29468401.79	-29468401.74	-29468401.66	0.0131	0.0127	
Moon	-85394-11-30 21:35 J	-29468401.64	-29468401.60	-29468401.55	0.0131	0.0129	
Moon	-85393-12-03 17:30 J	-29468032.80	-29468032.77	-29468032.70	0.0132	0.0129	
Earth	-85393-12-03 20:52 J	-29468032.66	-29468032.63	-29468032.54	0.0132	0.0128	
Mars	-85392-08-21 23:44 J	-29467771.78	-29467771.51	-29467771.23	0.0132	0.0028	
Earth	-85392-12-07 23:30 J	-29467663.56	-29467663.52	-29467663.44	0.0132	0.0128	
Moon	-85392-12-08 02:37 J	-29467663.45	-29467663.39	-29467663.29	0.0132	0.0125	*
Earth	-85391-12-12 01:40 J	-29467294.47	-29467294.43	-29467294.34	0.0132	0.0127	
Mars	-85390-07-21 11:01 J	-29467073.28	-29467073.04	-29467072.77	0.0132	0.0057	
Earth	-85390-12-16 03:35 J	-29466925.40	-29466925.35	-29466925.25	0.0132	0.0126	
Moon	-85390-12-16 07:25 J	-29466925.29	-29466925.19	-29466925.07	0.0132	0.0118	*
Moon	-85389-12-19 03:20 J	-29466556.39	-29466556.36	-29466556.32	0.0132	0.0131	
Earth	-85389-12-19 06:13 J	-29466556.32	-29466556.24	-29466556.15	0.0132	0.0124	*
Earth	-85388-12-23 07:40 J	-29466187.26	-29466187.18	-29466187.07	0.0132	0.0122	
Moon	-85388-12-23 11:01 J	-29466187.14	-29466187.04	-29466186.90	0.0132	0.0116	*
Moon	-85387-12-27 06:56 J	-29465818.29	-29465818.21	-29465818.12	0.0133	0.0124	
Earth	-85387-12-27 09:35 J	-29465818.19	-29465818.10	-29465817.97	0.0133	0.0119	*
Earth	-85386-12-31 11:44 J	-29465449.12	-29465449.01	-29465448.88	0.0133	0.0115	
Moon	-85386-12-31 14:37 J	-29465449.00	-29465448.89	-29465448.74	0.0133	0.0114	*
Moon	-85384-01-03 11:01 J	-29465080.17	-29465080.04	-29465079.90	0.0133	0.0111	
Earth	-85384-01-03 13:54 J	-29465080.04	-29465079.92	-29465079.77	0.0133	0.0112	*
Earth	-85383-01-07 16:32 J	-29464710.95	-29464710.81	-29464710.65	0.0134	0.0107	
Moon	-85383-01-07 19:25 J	-29464710.82	-29464710.69	-29464710.54	0.0134	0.0110	*
Moon	-85382-01-11 16:04 J	-29464341.99	-29464341.83	-29464341.65	0.0134	0.0096	

Earth -85382-01-11 19:11 J -29464341.84 -29464341.70 -29464341.53 0.0134 0.0102 *
 Earth -85381-01-15 22:18 J -29463972.73 -29463972.57 -29463972.38 0.0135 0.0097
 Moon -85381-01-16 01:11 J -29463972.59 -29463972.45 -29463972.27 0.0135 0.0104 *
 Moon -85380-01-18 23:16 J -29463603.71 -29463603.53 -29463603.33 0.0135 0.0084
 Earth -85380-01-19 02:08 J -29463603.58 -29463603.41 -29463603.21 0.0135 0.0091 *
 Earth -85379-01-23 06:42 J -29463234.41 -29463234.22 -29463234.03 0.0136 0.0084
 Moon -85379-01-23 09:49 J -29463234.27 -29463234.09 -29463233.90 0.0136 0.0090 *
 Moon -85378-01-27 08:23 J -29462865.33 -29462865.15 -29462864.93 0.0136 0.0074
 Earth -85378-01-27 11:16 J -29462865.22 -29462865.03 -29462864.81 0.0136 0.0077 *
 Earth -85377-01-31 16:32 J -29462496.00 -29462495.81 -29462495.58 0.0137 0.0070
 Moon -85377-01-31 20:23 J -29462495.87 -29462495.65 -29462495.44 0.0137 0.0069 *
 Moon -85376-02-03 20:08 J -29462126.88 -29462126.66 -29462126.45 0.0137 0.0063
 Earth -85376-02-03 22:47 J -29462126.76 -29462126.55 -29462126.32 0.0137 0.0062 *
 Earth -85375-02-08 05:30 J -29461757.49 -29461757.27 -29461757.03 0.0138 0.0053
 Moon -85375-02-08 08:37 J -29461757.36 -29461757.14 -29461756.90 0.0138 0.0048 *
 Venus -85375-11-05 11:01 J -29461487.18 -29461487.04 -29461486.88 0.0138 0.0100
 Moon -85374-02-12 09:49 J -29461388.31 -29461388.09 -29461387.86 0.0138 0.0051
 Earth -85374-02-12 12:56 J -29461388.18 -29461387.96 -29461387.72 0.0138 0.0044 *
 Venus -85374-06-19 17:01 J -29461260.99 -29461260.79 -29461260.58 0.0139 0.0036
 Venus -85373-01-31 23:01 J -29461034.74 -29461034.54 -29461034.33 0.0139 0.0029
 Earth -85373-02-16 21:20 J -29461018.85 -29461018.61 -29461018.37 0.0139 0.0034
 Moon -85373-02-17 00:28 J -29461018.73 -29461018.48 -29461018.24 0.0139 0.0027 *
 Mercury -85373-04-22 01:40 J -29460953.46 -29460953.43 -29460953.38 0.0139 0.0132
 Mercury -85373-07-19 05:16 J -29460865.34 -29460865.28 -29460865.19 0.0139 0.0116
 Venus -85373-09-14 05:16 J -29460808.43 -29460808.28 -29460808.12 0.0139 0.0093
 Mercury -85373-10-15 09:06 J -29460777.21 -29460777.12 -29460777.02 0.0139 0.0098
 Mercury -85372-01-11 12:56 J -29460689.07 -29460688.96 -29460688.85 0.0139 0.0081
 Moon -85372-02-20 03:06 J -29460649.60 -29460649.37 -29460649.13 0.0140 0.0031
 Earth -85372-02-20 06:28 J -29460649.47 -29460649.23 -29460648.98 0.0140 0.0025 *
 Mercury -85372-04-09 16:32 J -29460600.93 -29460600.81 -29460600.68 0.0140 0.0063

Mercury -85372-07-06 20:23 J -29460512.78 -29460512.65 -29460512.52 0.0140 0.0045

Mercury -85372-10-03 00:13 J -29460424.63 -29460424.49 -29460424.35 0.0140 0.0028

Mercury -85372-12-30 04:04 J -29460336.47 -29460336.33 -29460336.19 0.0140 0.0010

Earth -85371-02-24 16:32 J -29460280.05 -29460279.81 -29460279.56 0.0140 0.0015

Moon -85371-02-24 19:54 J -29460279.92 -29460279.67 -29460279.42 0.0140 0.0010 *

Mercury -85371-03-28 07:54 J -29460248.31 -29460248.17 -29460248.03 0.0140 0.0009

Mercury -85371-06-24 11:44 J -29460160.15 -29460160.01 -29460159.87 0.0140 0.0027

Mercury -85371-09-20 15:35 J -29460071.98 -29460071.85 -29460071.71 0.0141 0.0046

Mercury -85371-12-17 19:25 J -29459983.81 -29459983.69 -29459983.56 0.0141 0.0065

Moon -85370-03-01 00:28 J -29459910.72 -29459910.48 -29459910.24 0.0141 0.0005

Earth -85370-03-01 03:49 J -29459910.59 -29459910.34 -29459910.09 0.0141 0.0005 *

Mercury -85370-03-15 23:44 J -29459895.63 -29459895.51 -29459895.40 0.0141 0.0083

Mercury -85370-06-12 03:35 J -29459807.44 -29459807.35 -29459807.25 0.0141 0.0102

Mercury -85370-09-08 07:40 J -29459719.25 -29459719.18 -29459719.11 0.0141 0.0121

Mercury -85370-12-05 11:44 J -29459631.01 -29459631.01 -29459631.00 0.0141 0.0141

Earth -85369-03-04 15:49 J -29459541.08 -29459540.84 -29459540.59 0.0141 0.0006

Moon -85369-03-04 19:40 J -29459540.93 -29459540.68 -29459540.44 0.0141 0.0003 *

Moon -85368-03-09 01:40 J -29459171.66 -29459171.43 -29459171.18 0.0142 0.0022

Earth -85368-03-09 05:01 J -29459171.53 -29459171.29 -29459171.04 0.0142 0.0017 *

Earth -85367-03-13 19:25 J -29458801.92 -29458801.69 -29458801.44 0.0142 0.0028

Moon -85367-03-13 23:16 J -29458801.78 -29458801.53 -29458801.29 0.0142 0.0020 *

Moon -85366-03-18 07:40 J -29458432.41 -29458432.18 -29458431.94 0.0143 0.0046

Earth -85366-03-18 11:16 J -29458432.26 -29458432.03 -29458431.78 0.0143 0.0038 *

Earth -85365-03-22 04:04 J -29458062.56 -29458062.33 -29458062.09 0.0144 0.0049

Moon -85365-03-22 07:11 J -29458062.42 -29458062.20 -29458061.96 0.0144 0.0046 *

Moon -85364-03-26 18:42 J -29457692.94 -29457692.72 -29457692.49 0.0144 0.0061

Earth -85364-03-26 22:04 J -29457692.79 -29457692.58 -29457692.34 0.0144 0.0060 *

Earth -85363-03-31 17:01 J -29457322.99 -29457322.79 -29457322.56 0.0145 0.0071

Moon -85363-03-31 20:08 J -29457322.86 -29457322.66 -29457322.44 0.0145 0.0074 *

Moon -85362-04-05 11:01 J -29456953.26 -29456953.04 -29456952.82 0.0145 0.0073

Earth	-85362-04-05 13:25 J	-29456953.13	-29456952.94	-29456952.72	0.0145	0.0081	*
Earth	-85361-04-09 10:47 J	-29456583.23	-29456583.05	-29456582.84	0.0146	0.0091	
Moon	-85361-04-09 13:40 J	-29456583.10	-29456582.93	-29456582.74	0.0146	0.0098	*
Moon	-85360-04-14 07:25 J	-29456213.36	-29456213.19	-29456212.97	0.0146	0.0094	
Earth	-85360-04-14 09:20 J	-29456213.27	-29456213.11	-29456212.91	0.0146	0.0100	*
Earth	-85359-04-19 08:52 J	-29455843.28	-29455843.13	-29455842.94	0.0146	0.0109	
Moon	-85359-04-19 10:47 J	-29455843.19	-29455843.05	-29455842.88	0.0146	0.0111	*
Moon	-85358-04-24 09:20 J	-29455473.25	-29455473.11	-29455472.95	0.0147	0.0118	
Earth	-85358-04-24 10:04 J	-29455473.23	-29455473.08	-29455472.92	0.0147	0.0116	*
Earth	-85357-04-28 11:44 J	-29455103.14	-29455103.01	-29455102.87	0.0147	0.0123	
Moon	-85357-04-28 11:59 J	-29455103.14	-29455103.00	-29455102.85	0.0147	0.0117	*
Earth	-85356-05-03 14:23 J	-29454733.01	-29454732.90	-29454732.77	0.0147	0.0129	
Moon	-85356-05-03 14:52 J	-29454732.96	-29454732.88	-29454732.77	0.0147	0.0136	*
Moon	-85355-05-08 16:18 J	-29454362.92	-29454362.82	-29454362.69	0.0147	0.0130	
Earth	-85355-05-08 17:44 J	-29454362.84	-29454362.76	-29454362.64	0.0147	0.0136	*
Earth	-85354-05-13 22:32 J	-29453992.62	-29453992.56	-29453992.47	0.0147	0.0140	
Moon	-85354-05-14 00:28 J	-29453992.53	-29453992.48	-29453992.39	0.0147	0.0142	*
Moon	-85353-05-18 01:11 J	-29453622.45	-29453622.45	-29453622.42	0.0147	0.0147	
Earth	-85353-05-18 03:49 J	-29453622.37	-29453622.34	-29453622.26	0.0147	0.0144	
Earth	-85352-05-23 10:04 J	-29453252.10	-29453252.08	-29453252.03	0.0147	0.0146	
Moon	-85352-05-23 13:25 J	-29453252.01	-29453251.94	-29453251.84	0.0147	0.0138	
Mars	-85351-02-04 15:49 J	-29452995.07	-29452994.84	-29452994.58	0.0147	0.0102	
Earth	-85351-05-28 17:01 J	-29452881.80	-29452881.79	-29452881.75	0.0147	0.0147	
Earth	-85350-06-03 00:13 J	-29452511.49	-29452511.49	-29452511.46	0.0147	0.0147	
Moon	-85350-06-03 03:49 J	-29452511.39	-29452511.34	-29452511.25	0.0147	0.0141	
Mars	-85349-01-14 01:54 J	-29452286.73	-29452286.42	-29452286.09	0.0147	0.0046	
Moon	-85349-06-07 04:32 J	-29452141.33	-29452141.31	-29452141.29	0.0147	0.0146	
Earth	-85349-06-07 07:25 J	-29452141.19	-29452141.19	-29452141.13	0.0147	0.0146	
Earth	-85348-06-12 15:06 J	-29451770.89	-29451770.87	-29451770.79	0.0146	0.0144	
Moon	-85347-06-17 20:23 J	-29451400.73	-29451400.65	-29451400.52	0.0146	0.0134	

Earth	-85347-06-17 23:16 J	-29451400.58	-29451400.53	-29451400.44	0.0146	0.0140	*
Earth	-85346-06-23 07:11 J	-29451030.29	-29451030.20	-29451030.10	0.0146	0.0135	
Moon	-85346-06-23 08:23 J	-29451030.18	-29451030.15	-29451030.08	0.0146	0.0143	*
Moon	-85345-06-27 13:11 J	-29450660.06	-29450659.95	-29450659.80	0.0145	0.0126	
Earth	-85345-06-27 14:23 J	-29450659.99	-29450659.90	-29450659.76	0.0145	0.0131	*
Moon	-85344-07-02 21:35 J	-29450289.72	-29450289.60	-29450289.45	0.0145	0.0122	
Earth	-85344-07-02 21:49 J	-29450289.71	-29450289.59	-29450289.44	0.0145	0.0124	*
Earth	-85343-07-08 04:47 J	-29449919.43	-29449919.30	-29449919.13	0.0145	0.0117	
Moon	-85343-07-08 05:44 J	-29449919.40	-29449919.26	-29449919.11	0.0145	0.0122	*
Moon	-85342-07-13 09:49 J	-29449549.26	-29449549.09	-29449548.90	0.0144	0.0102	
Earth	-85342-07-13 11:30 J	-29449549.17	-29449549.02	-29449548.83	0.0144	0.0109	*
Earth	-85341-07-17 17:16 J	-29449178.94	-29449178.78	-29449178.57	0.0143	0.0101	
Moon	-85341-07-17 19:54 J	-29449178.83	-29449178.67	-29449178.47	0.0143	0.0107	*
Moon	-85340-07-22 20:08 J	-29448808.84	-29448808.66	-29448808.44	0.0143	0.0090	
Earth	-85340-07-22 23:16 J	-29448808.72	-29448808.53	-29448808.32	0.0143	0.0091	*
Earth	-85339-07-28 04:18 J	-29448438.53	-29448438.32	-29448438.11	0.0142	0.0082	
Moon	-85339-07-28 08:08 J	-29448438.38	-29448438.16	-29448437.94	0.0142	0.0078	*
Moon	-85338-08-02 04:32 J	-29448068.52	-29448068.31	-29448068.08	0.0142	0.0078	
Earth	-85338-08-02 07:54 J	-29448068.38	-29448068.17	-29448067.93	0.0142	0.0072	*
Earth	-85337-08-06 11:16 J	-29447698.26	-29447698.03	-29447697.78	0.0141	0.0061	
Moon	-85337-08-06 14:52 J	-29447698.11	-29447697.88	-29447697.62	0.0141	0.0054	*
Moon	-85336-08-11 10:04 J	-29447328.32	-29447328.08	-29447327.83	0.0141	0.0057	
Earth	-85336-08-11 13:40 J	-29447328.16	-29447327.93	-29447327.67	0.0141	0.0051	*
Venus	-85336-11-30 12:13 J	-29447217.14	-29447216.99	-29447216.83	0.0140	0.0100	
Venus	-85335-07-14 23:59 J	-29446990.71	-29446990.50	-29446990.27	0.0140	0.0029	
Earth	-85335-08-16 14:52 J	-29446958.12	-29446957.88	-29446957.62	0.0140	0.0040	
Moon	-85335-08-16 17:59 J	-29446957.99	-29446957.75	-29446957.50	0.0140	0.0039	*
Venus	-85334-02-26 11:16 J	-29446764.23	-29446764.03	-29446763.80	0.0140	0.0042	
Moon	-85334-08-21 11:59 J	-29446588.26	-29446588.00	-29446587.73	0.0139	0.0026	
Earth	-85334-08-21 15:20 J	-29446588.12	-29446587.86	-29446587.61	0.0139	0.0029	*

Mercury -85334-09-16 04:04 J -29446562.35 -29446562.33 -29446562.28 0.0139 0.0137

Venus -85334-10-10 22:32 J -29446537.69 -29446537.56 -29446537.42 0.0139 0.0111

Mercury -85334-12-13 11:16 J -29446474.13 -29446474.03 -29446473.92 0.0139 0.0112

Mercury -85333-03-10 17:59 J -29446385.88 -29446385.75 -29446385.60 0.0139 0.0089

Mercury -85333-06-07 00:42 J -29446297.61 -29446297.47 -29446297.30 0.0139 0.0066

Earth -85333-08-25 14:08 J -29446218.17 -29446217.91 -29446217.65 0.0139 0.0018

Moon -85333-08-25 16:18 J -29446218.06 -29446217.82 -29446217.56 0.0139 0.0024 *

Mercury -85333-09-03 07:40 J -29446209.35 -29446209.18 -29446209.00 0.0139 0.0042

Mercury -85333-11-30 14:23 J -29446121.07 -29446120.90 -29446120.72 0.0139 0.0020

Mercury -85332-02-26 21:06 J -29446032.80 -29446032.62 -29446032.44 0.0138 0.0003

Mercury -85332-05-26 03:35 J -29445944.52 -29445944.35 -29445944.17 0.0138 0.0026

Mercury -85332-08-22 10:04 J -29445856.24 -29445856.08 -29445855.91 0.0138 0.0048

Moon -85332-08-30 10:18 J -29445848.34 -29445848.07 -29445847.80 0.0138 0.0001

Earth -85332-08-30 12:13 J -29445848.25 -29445847.99 -29445847.73 0.0138 0.0007 *

Mercury -85332-11-18 16:18 J -29445767.96 -29445767.82 -29445767.66 0.0138 0.0071

Mercury -85331-02-14 22:47 J -29445679.67 -29445679.55 -29445679.41 0.0138 0.0092

Mercury -85331-05-14 05:16 J -29445591.38 -29445591.28 -29445591.18 0.0138 0.0113

Mercury -85331-08-10 11:16 J -29445503.05 -29445503.03 -29445502.98 0.0138 0.0134

Earth -85331-09-04 08:52 J -29445478.39 -29445478.13 -29445477.87 0.0138 0.0003

Moon -85331-09-04 10:32 J -29445478.32 -29445478.06 -29445477.81 0.0138 0.0003 *

Moon -85330-09-09 03:49 J -29445108.61 -29445108.34 -29445108.07 0.0137 0.0015

Earth -85330-09-09 04:18 J -29445108.58 -29445108.32 -29445108.06 0.0137 0.0013 *

Earth -85329-09-12 22:32 J -29444738.81 -29444738.56 -29444738.29 0.0137 0.0024

Moon -85329-09-12 23:16 J -29444738.77 -29444738.53 -29444738.27 0.0137 0.0024 *

Earth -85328-09-17 16:04 J -29444369.07 -29444368.83 -29444368.57 0.0136 0.0033

Moon -85328-09-17 16:32 J -29444369.07 -29444368.81 -29444368.54 0.0136 0.0028 *

Moon -85327-09-22 07:40 J -29443999.40 -29443999.18 -29443998.93 0.0135 0.0050

Earth -85327-09-22 08:23 J -29443999.39 -29443999.15 -29443998.89 0.0135 0.0042 *

Earth -85326-09-26 23:44 J -29443629.75 -29443629.51 -29443629.27 0.0135 0.0051

Moon -85326-09-27 00:28 J -29443629.72 -29443629.48 -29443629.21 0.0135 0.0045 *

Moon	-85325-09-30 12:28 J	-29443260.20	-29443259.98	-29443259.76	0.0134	0.0065
Earth	-85325-09-30 13:54 J	-29443260.14	-29443259.92	-29443259.68	0.0134	0.0060 *
Earth	-85324-10-05 03:06 J	-29442890.58	-29442890.37	-29442890.13	0.0134	0.0068
Moon	-85324-10-05 04:32 J	-29442890.53	-29442890.31	-29442890.06	0.0134	0.0065 *
Jupiter	-85323-04-10 20:52 J	-29442703.03	-29442702.63	-29442702.20	0.0134	0.0080
Moon	-85323-10-09 13:40 J	-29442521.14	-29442520.93	-29442520.72	0.0134	0.0074
Earth	-85323-10-09 15:20 J	-29442521.06	-29442520.86	-29442520.63	0.0134	0.0076 *
Earth	-85322-10-14 02:52 J	-29442151.59	-29442151.38	-29442151.18	0.0133	0.0083
Moon	-85322-10-14 05:01 J	-29442151.49	-29442151.29	-29442151.09	0.0133	0.0087 *
Moon	-85321-10-17 10:32 J	-29441782.24	-29441782.06	-29441781.85	0.0133	0.0084
Earth	-85321-10-17 12:42 J	-29441782.14	-29441781.97	-29441781.76	0.0133	0.0090 *
Earth	-85320-10-21 22:04 J	-29441412.74	-29441412.58	-29441412.39	0.0133	0.0096
Moon	-85320-10-22 00:42 J	-29441412.61	-29441412.47	-29441412.28	0.0133	0.0103 *
Moon	-85319-10-26 03:49 J	-29441043.49	-29441043.34	-29441043.15	0.0132	0.0096
Earth	-85319-10-26 06:13 J	-29441043.39	-29441043.24	-29441043.06	0.0132	0.0102 *
Earth	-85318-10-30 13:40 J	-29440674.07	-29440673.93	-29440673.76	0.0132	0.0106
Moon	-85318-10-30 16:32 J	-29440673.94	-29440673.81	-29440673.64	0.0132	0.0110 *
Moon	-85317-11-02 17:30 J	-29440304.89	-29440304.77	-29440304.61	0.0132	0.0109
Earth	-85317-11-02 20:08 J	-29440304.77	-29440304.66	-29440304.49	0.0132	0.0111 *
Earth	-85316-11-07 02:08 J	-29439935.51	-29439935.41	-29439935.26	0.0132	0.0115
Moon	-85316-11-07 05:01 J	-29439935.40	-29439935.29	-29439935.13	0.0132	0.0113 *
Moon	-85315-11-11 04:32 J	-29439566.38	-29439566.31	-29439566.20	0.0132	0.0123
Earth	-85315-11-11 07:54 J	-29439566.27	-29439566.17	-29439566.05	0.0132	0.0118 *
Earth	-85314-11-15 12:28 J	-29439197.07	-29439196.98	-29439196.87	0.0132	0.0121
Moon	-85314-11-15 15:20 J	-29439196.98	-29439196.86	-29439196.73	0.0132	0.0115 *
Moon	-85313-11-18 13:25 J	-29438827.94	-29438827.94	-29438827.88	0.0131	0.0131
Earth	-85313-11-18 16:32 J	-29438827.87	-29438827.81	-29438827.70	0.0131	0.0124
Earth	-85312-11-22 20:23 J	-29438458.70	-29438458.65	-29438458.55	0.0131	0.0126
Moon	-85312-11-22 23:16 J	-29438458.61	-29438458.53	-29438458.39	0.0131	0.0119 *
Moon	-85311-11-26 21:20 J	-29438089.61	-29438089.61	-29438089.59	0.0131	0.0131

Earth	-85311-11-26 23:44 J	-29438089.55	-29438089.51	-29438089.42	0.0131	0.0127
Earth	-85310-12-01 02:52 J	-29437720.42	-29437720.38	-29437720.30	0.0131	0.0128
Moon	-85310-12-01 06:13 J	-29437720.30	-29437720.24	-29437720.15	0.0131	0.0125 *
Mars	-85309-05-17 09:35 J	-29437552.31	-29437552.10	-29437551.85	0.0132	0.0078
Moon	-85309-12-04 03:20 J	-29437351.39	-29437351.36	-29437351.29	0.0132	0.0129
Earth	-85309-12-04 05:44 J	-29437351.30	-29437351.26	-29437351.18	0.0132	0.0128 *
Earth	-85308-12-08 08:23 J	-29436982.20	-29436982.15	-29436982.07	0.0132	0.0127
Moon	-85308-12-08 11:16 J	-29436982.04	-29436982.03	-29436981.98	0.0132	0.0131
Mars	-85307-04-15 19:11 J	-29436853.98	-29436853.70	-29436853.41	0.0132	0.0006
Moon	-85307-12-12 07:40 J	-29436613.25	-29436613.18	-29436613.07	0.0132	0.0122
Earth	-85307-12-12 10:47 J	-29436613.11	-29436613.05	-29436612.97	0.0132	0.0126 *
Earth	-85306-12-16 12:42 J	-29436244.04	-29436243.97	-29436243.88	0.0132	0.0124
Moon	-85306-12-16 15:20 J	-29436243.88	-29436243.86	-29436243.81	0.0132	0.0130 *
Mars	-85305-03-14 07:40 J	-29436155.38	-29436155.18	-29436154.97	0.0132	0.0090
Moon	-85305-12-19 11:30 J	-29435875.12	-29435875.02	-29435874.88	0.0132	0.0116
Earth	-85305-12-19 14:23 J	-29435874.97	-29435874.90	-29435874.79	0.0132	0.0123 *
Earth	-85304-12-23 16:18 J	-29435505.91	-29435505.82	-29435505.70	0.0133	0.0120
Moon	-85304-12-23 19:11 J	-29435505.77	-29435505.70	-29435505.62	0.0133	0.0126 *
Moon	-85303-12-27 15:20 J	-29435136.97	-29435136.86	-29435136.72	0.0133	0.0113
Earth	-85303-12-27 17:59 J	-29435136.84	-29435136.75	-29435136.61	0.0133	0.0117 *
Earth	-85302-12-31 19:54 J	-29434767.77	-29434767.67	-29434767.51	0.0133	0.0114
Moon	-85302-12-31 23:01 J	-29434767.65	-29434767.54	-29434767.40	0.0133	0.0115 *
Moon	-85300-01-03 20:23 J	-29434398.79	-29434398.65	-29434398.51	0.0133	0.0109
Earth	-85300-01-03 22:32 J	-29434398.69	-29434398.56	-29434398.40	0.0133	0.0109 *
Earth	-85299-01-08 00:56 J	-29434029.60	-29434029.46	-29434029.29	0.0134	0.0104
Moon	-85299-01-08 04:04 J	-29434029.49	-29434029.33	-29434029.16	0.0134	0.0100 *
Moon	-85298-01-12 01:54 J	-29433660.57	-29433660.42	-29433660.27	0.0134	0.0104
Earth	-85298-01-12 03:35 J	-29433660.49	-29433660.35	-29433660.16	0.0134	0.0100 *
Earth	-85297-01-16 07:25 J	-29433291.36	-29433291.19	-29433291.01	0.0135	0.0093
Moon	-85297-01-16 09:49 J	-29433291.26	-29433291.09	-29433290.88	0.0135	0.0087 *

Moon	-85296-01-19 08:23 J	-29432922.30	-29432922.15	-29432921.96	0.0135	0.0095
Earth	-85296-01-19 11:16 J	-29432922.21	-29432922.03	-29432921.84	0.0135	0.0087 *
Earth	-85295-01-23 15:35 J	-29432553.04	-29432552.85	-29432552.65	0.0136	0.0080
Moon	-85295-01-23 17:59 J	-29432552.95	-29432552.75	-29432552.53	0.0136	0.0074 *
Moon	-85294-01-27 17:30 J	-29432183.96	-29432183.77	-29432183.56	0.0136	0.0076
Earth	-85294-01-27 20:23 J	-29432183.85	-29432183.65	-29432183.44	0.0136	0.0072 *
Earth	-85293-02-01 01:40 J	-29431814.64	-29431814.43	-29431814.21	0.0137	0.0065
Moon	-85293-02-01 04:04 J	-29431814.54	-29431814.33	-29431814.09	0.0137	0.0063 *
Moon	-85292-02-04 05:01 J	-29431445.50	-29431445.29	-29431445.06	0.0137	0.0054
Earth	-85292-02-04 07:40 J	-29431445.39	-29431445.18	-29431444.94	0.0137	0.0056 *
Earth	-85291-02-08 14:08 J	-29431076.13	-29431075.91	-29431075.67	0.0138	0.0048
Moon	-85291-02-08 17:16 J	-29431076.01	-29431075.78	-29431075.55	0.0138	0.0052 *
Venus	-85291-07-05 19:40 J	-29430928.72	-29430928.68	-29430928.60	0.0138	0.0132
Moon	-85290-02-12 19:11 J	-29430706.93	-29430706.70	-29430706.46	0.0138	0.0033
Earth	-85290-02-12 21:49 J	-29430706.82	-29430706.59	-29430706.35	0.0138	0.0039 *
Venus	-85290-02-17 01:25 J	-29430702.61	-29430702.44	-29430702.24	0.0138	0.0069
Venus	-85290-10-01 07:40 J	-29430476.39	-29430476.18	-29430475.97	0.0139	0.0005
Earth	-85289-02-17 05:59 J	-29430337.48	-29430337.25	-29430337.00	0.0139	0.0029
Moon	-85289-02-17 09:20 J	-29430337.35	-29430337.11	-29430336.87	0.0139	0.0036 *
Mercury	-85289-05-12 08:37 J	-29430252.18	-29430252.14	-29430252.09	0.0139	0.0130
Venus	-85289-05-14 13:25 J	-29430250.12	-29430249.94	-29430249.74	0.0139	0.0060
Mercury	-85289-08-08 12:13 J	-29430164.06	-29430163.99	-29430163.90	0.0139	0.0113
Mercury	-85289-11-04 16:04 J	-29430075.93	-29430075.83	-29430075.73	0.0139	0.0096
Venus	-85289-12-26 19:40 J	-29430023.75	-29430023.68	-29430023.56	0.0139	0.0126
Mercury	-85288-01-31 19:40 J	-29429987.79	-29429987.68	-29429987.56	0.0140	0.0078
Moon	-85288-02-20 12:28 J	-29429968.22	-29429967.98	-29429967.73	0.0140	0.0013
Earth	-85288-02-20 15:20 J	-29429968.10	-29429967.86	-29429967.62	0.0140	0.0019 *
Mercury	-85288-04-29 23:30 J	-29429899.64	-29429899.52	-29429899.39	0.0140	0.0061
Mercury	-85288-07-27 03:20 J	-29429811.49	-29429811.36	-29429811.23	0.0140	0.0043
Mercury	-85288-10-23 06:56 J	-29429723.34	-29429723.21	-29429723.07	0.0140	0.0026

Mercury -85287-01-19 10:47 J -29429635.18 -29429635.05 -29429634.91 0.0140 0.0008

Earth -85287-02-25 01:25 J -29429598.69 -29429598.44 -29429598.20 0.0140 0.0009

Moon -85287-02-25 04:32 J -29429598.56 -29429598.31 -29429598.06 0.0140 0.0013 *

Mercury -85287-04-17 14:37 J -29429547.02 -29429546.89 -29429546.74 0.0140 0.0013

Mercury -85287-07-14 18:42 J -29429458.86 -29429458.72 -29429458.59 0.0140 0.0030

Mercury -85287-10-10 22:32 J -29429370.69 -29429370.56 -29429370.43 0.0141 0.0048

Mercury -85286-01-07 02:23 J -29429282.52 -29429282.40 -29429282.27 0.0141 0.0067

Moon -85286-03-01 09:20 J -29429229.35 -29429229.11 -29429228.87 0.0141 0.0002

Earth -85286-03-01 12:42 J -29429229.22 -29429228.97 -29429228.73 0.0141 0.0002 *

Mercury -85286-04-05 06:28 J -29429194.34 -29429194.23 -29429194.12 0.0141 0.0086

Mercury -85286-07-02 10:18 J -29429106.15 -29429106.07 -29429105.97 0.0141 0.0105

Mercury -85286-09-28 14:23 J -29429017.96 -29429017.90 -29429017.83 0.0141 0.0124

Earth -85285-03-05 00:42 J -29428859.72 -29428859.47 -29428859.22 0.0141 0.0011

Moon -85285-03-05 03:49 J -29428859.59 -29428859.34 -29428859.09 0.0141 0.0014 *

Moon -85284-03-09 10:32 J -29428490.30 -29428490.06 -29428489.81 0.0142 0.0016

Earth -85284-03-09 14:08 J -29428490.15 -29428489.91 -29428489.66 0.0142 0.0022 *

Earth -85283-03-14 04:47 J -29428120.55 -29428120.30 -29428120.06 0.0142 0.0033

Moon -85283-03-14 07:54 J -29428120.40 -29428120.17 -29428119.92 0.0142 0.0040 *

Moon -85282-03-18 16:47 J -29427751.03 -29427750.80 -29427750.55 0.0143 0.0037

Earth -85282-03-18 20:23 J -29427750.88 -29427750.65 -29427750.41 0.0143 0.0044 *

Earth -85281-03-22 13:11 J -29427381.17 -29427380.95 -29427380.71 0.0144 0.0055

Moon -85281-03-22 17:01 J -29427381.01 -29427380.79 -29427380.56 0.0144 0.0060 *

Moon -85280-03-27 04:04 J -29427011.55 -29427011.33 -29427011.11 0.0144 0.0063

Earth -85280-03-27 07:11 J -29427011.41 -29427011.20 -29427010.97 0.0144 0.0065 *

Earth -85279-04-01 02:08 J -29426641.60 -29426641.41 -29426641.18 0.0145 0.0076

Moon -85279-04-01 05:44 J -29426641.46 -29426641.26 -29426641.04 0.0145 0.0072 *

Moon -85278-04-05 19:40 J -29426271.88 -29426271.68 -29426271.48 0.0145 0.0091

Earth -85278-04-05 22:47 J -29426271.74 -29426271.55 -29426271.34 0.0145 0.0085 *

Earth -85277-04-09 19:54 J -29425901.85 -29425901.67 -29425901.47 0.0146 0.0095

Moon -85277-04-09 22:32 J -29425901.74 -29425901.56 -29425901.35 0.0146 0.0088 *

Moon	-85276-04-14 15:49 J	-29425532.00	-29425531.84	-29425531.67	0.0146	0.0110
Earth	-85276-04-14 18:42 J	-29425531.89	-29425531.72	-29425531.54	0.0146	0.0103 *
Earth	-85275-04-19 18:28 J	-29425161.89	-29425161.73	-29425161.57	0.0146	0.0112
Moon	-85275-04-19 19:54 J	-29425161.82	-29425161.67	-29425161.50	0.0146	0.0110 *
Moon	-85274-04-24 17:16 J	-29424791.92	-29424791.78	-29424791.61	0.0147	0.0118
Earth	-85274-04-24 18:42 J	-29424791.84	-29424791.72	-29424791.55	0.0147	0.0120 *
Earth	-85273-04-28 20:37 J	-29424421.75	-29424421.64	-29424421.50	0.0147	0.0126
Moon	-85273-04-28 21:49 J	-29424421.70	-29424421.59	-29424421.49	0.0147	0.0131 *
Moon	-85272-05-03 23:16 J	-29424051.65	-29424051.53	-29424051.37	0.0147	0.0124
Earth	-85272-05-03 23:16 J	-29424051.62	-29424051.53	-29424051.40	0.0147	0.0132 *
Earth	-85271-05-09 03:06 J	-29423681.44	-29423681.37	-29423681.26	0.0147	0.0137
Moon	-85271-05-09 02:52 J	-29423681.42	-29423681.38	-29423681.32	0.0147	0.0144 *
Earth	-85270-05-14 07:54 J	-29423311.22	-29423311.17	-29423311.08	0.0147	0.0141
Moon	-85270-05-14 09:49 J	-29423311.16	-29423311.09	-29423310.99	0.0147	0.0139 *
Moon	-85269-05-18 11:44 J	-29422941.06	-29422941.01	-29422940.95	0.0147	0.0142
Earth	-85269-05-18 13:11 J	-29422940.97	-29422940.95	-29422940.87	0.0147	0.0145 *
Earth	-85268-05-23 19:54 J	-29422570.70	-29422570.67	-29422570.63	0.0147	0.0146
Moon	-85267-05-28 23:30 J	-29422200.60	-29422200.52	-29422200.44	0.0147	0.0138
Earth	-85267-05-29 02:52 J	-29422200.40	-29422200.38	-29422200.36	0.0147	0.0147
Mars	-85267-10-02 14:23 J	-29422074.22	-29422073.90	-29422073.57	0.0147	0.0043
Earth	-85266-06-03 09:20 J	-29421830.12	-29421830.11	-29421830.06	0.0147	0.0146
Moon	-85265-06-07 13:25 J	-29421459.99	-29421459.94	-29421459.88	0.0147	0.0143
Earth	-85265-06-07 16:47 J	-29421459.82	-29421459.80	-29421459.73	0.0147	0.0145
Mars	-85265-09-09 20:52 J	-29421365.85	-29421365.63	-29421365.37	0.0147	0.0102
Earth	-85264-06-13 00:28 J	-29421089.53	-29421089.48	-29421089.40	0.0147	0.0142
Moon	-85264-06-13 03:49 J	-29421089.40	-29421089.34	-29421089.24	0.0147	0.0139 *
Moon	-85263-06-18 05:01 J	-29420719.29	-29420719.29	-29420719.23	0.0146	0.0146
Earth	-85263-06-18 08:23 J	-29420719.22	-29420719.15	-29420719.05	0.0146	0.0138
Earth	-85262-06-23 15:49 J	-29420348.93	-29420348.84	-29420348.72	0.0146	0.0133
Moon	-85262-06-23 18:28 J	-29420348.84	-29420348.73	-29420348.59	0.0146	0.0126 *

Moon	-85261-06-27 21:49 J	-29419978.69	-29419978.59	-29419978.45	0.0145	0.0130
Earth	-85261-06-27 23:30 J	-29419978.64	-29419978.52	-29419978.39	0.0145	0.0127 *
Earth	-85260-07-03 06:42 J	-29419608.35	-29419608.22	-29419608.07	0.0145	0.0120
Moon	-85260-07-03 07:40 J	-29419608.30	-29419608.18	-29419608.03	0.0145	0.0121 *
Earth	-85259-07-08 13:54 J	-29419238.08	-29419237.92	-29419237.76	0.0145	0.0113
Moon	-85259-07-08 13:54 J	-29419238.08	-29419237.92	-29419237.72	0.0145	0.0108 *
Moon	-85258-07-13 18:56 J	-29418867.85	-29418867.71	-29418867.54	0.0144	0.0113
Earth	-85258-07-13 19:54 J	-29418867.83	-29418867.67	-29418867.47	0.0144	0.0105 *
Earth	-85257-07-18 01:54 J	-29418497.59	-29418497.42	-29418497.20	0.0143	0.0097
Moon	-85257-07-18 04:04 J	-29418497.53	-29418497.33	-29418497.11	0.0143	0.0091 *
Moon	-85256-07-23 05:01 J	-29418127.48	-29418127.29	-29418127.08	0.0143	0.0089
Earth	-85256-07-23 07:40 J	-29418127.37	-29418127.18	-29418126.96	0.0143	0.0087 *
Earth	-85255-07-28 12:42 J	-29417757.19	-29417756.97	-29417756.75	0.0142	0.0077
Moon	-85255-07-28 15:35 J	-29417757.07	-29417756.85	-29417756.62	0.0142	0.0079 *
Moon	-85254-08-02 12:56 J	-29417387.18	-29417386.96	-29417386.71	0.0142	0.0060
Earth	-85254-08-02 16:32 J	-29417387.03	-29417386.81	-29417386.57	0.0142	0.0067 *
Earth	-85253-08-06 19:54 J	-29417016.91	-29417016.67	-29417016.43	0.0141	0.0056
Moon	-85253-08-06 23:16 J	-29417016.75	-29417016.53	-29417016.28	0.0141	0.0064 *
Venus	-85252-07-30 17:30 J	-29416658.82	-29416658.77	-29416658.71	0.0141	0.0136
Moon	-85252-08-11 18:28 J	-29416646.98	-29416646.73	-29416646.47	0.0141	0.0039
Earth	-85252-08-11 22:18 J	-29416646.82	-29416646.57	-29416646.33	0.0141	0.0045 *
Venus	-85251-03-14 05:30 J	-29416432.47	-29416432.27	-29416432.07	0.0140	0.0064
Earth	-85251-08-16 23:01 J	-29416276.78	-29416276.54	-29416276.27	0.0140	0.0034
Moon	-85251-08-17 02:52 J	-29416276.62	-29416276.38	-29416276.12	0.0140	0.0037 *
Venus	-85251-10-26 17:01 J	-29416206.01	-29416205.79	-29416205.57	0.0140	0.0006
Venus	-85250-06-10 04:18 J	-29415979.50	-29415979.32	-29415979.13	0.0139	0.0076
Moon	-85250-08-21 19:40 J	-29415906.93	-29415906.68	-29415906.40	0.0139	0.0026
Earth	-85250-08-21 23:01 J	-29415906.79	-29415906.54	-29415906.27	0.0139	0.0024 *
Mercury	-85250-10-06 11:01 J	-29415861.09	-29415861.04	-29415860.98	0.0139	0.0133
Mercury	-85249-01-02 17:44 J	-29415772.86	-29415772.76	-29415772.63	0.0139	0.0109

Mercury -85249-03-31 00:56 J -29415684.60 -29415684.46 -29415684.32 0.0139 0.0085
 Mercury -85249-06-27 07:40 J -29415596.34 -29415596.18 -29415596.01 0.0139 0.0062
 Earth -85249-08-25 22:04 J -29415536.84 -29415536.58 -29415536.32 0.0139 0.0013
 Moon -85249-08-26 00:56 J -29415536.71 -29415536.46 -29415536.20 0.0139 0.0007 *
 Mercury -85249-09-23 14:23 J -29415508.07 -29415507.90 -29415507.72 0.0139 0.0039
 Mercury -85249-12-20 21:06 J -29415419.80 -29415419.62 -29415419.44 0.0139 0.0016
 Mercury -85248-03-19 03:49 J -29415331.52 -29415331.34 -29415331.16 0.0138 0.0007
 Mercury -85248-06-15 10:18 J -29415243.24 -29415243.07 -29415242.89 0.0138 0.0029
 Moon -85248-08-30 17:16 J -29415167.05 -29415166.78 -29415166.51 0.0138 0.0009
 Earth -85248-08-30 19:54 J -29415166.93 -29415166.67 -29415166.40 0.0138 0.0003 *
 Mercury -85248-09-11 16:47 J -29415154.96 -29415154.80 -29415154.63 0.0138 0.0051
 Mercury -85248-12-08 23:01 J -29415066.68 -29415066.54 -29415066.38 0.0138 0.0073
 Mercury -85247-03-07 05:30 J -29414978.39 -29414978.27 -29414978.14 0.0138 0.0095
 Mercury -85247-06-03 11:59 J -29414890.09 -29414890.00 -29414889.91 0.0138 0.0116
 Mercury -85247-08-30 17:59 J -29414801.75 -29414801.75 -29414801.73 0.0138 0.0137
 Earth -85247-09-04 16:32 J -29414797.07 -29414796.81 -29414796.55 0.0138 0.0009
 Moon -85247-09-04 18:13 J -29414796.99 -29414796.74 -29414796.49 0.0138 0.0015 *
 Moon -85246-09-09 10:04 J -29414427.35 -29414427.08 -29414426.81 0.0137 0.0015
 Earth -85246-09-09 11:59 J -29414427.26 -29414427.00 -29414426.74 0.0137 0.0019 *
 Earth -85245-09-13 06:28 J -29414057.48 -29414057.23 -29414056.97 0.0136 0.0029
 Moon -85245-09-13 07:25 J -29414057.44 -29414057.19 -29414056.95 0.0136 0.0028 *
 Moon -85244-09-17 23:01 J -29413687.79 -29413687.54 -29413687.27 0.0136 0.0042
 Earth -85244-09-17 23:59 J -29413687.75 -29413687.50 -29413687.25 0.0136 0.0038 *
 Earth -85243-09-22 16:04 J -29413318.06 -29413317.83 -29413317.57 0.0135 0.0048
 Moon -85243-09-22 16:32 J -29413318.05 -29413317.81 -29413317.57 0.0135 0.0042 *
 Earth -85242-09-27 07:25 J -29412948.42 -29412948.19 -29412947.95 0.0135 0.0056
 Moon -85242-09-27 07:54 J -29412948.40 -29412948.17 -29412947.93 0.0135 0.0063 *
 Moon -85241-09-30 21:06 J -29412578.83 -29412578.62 -29412578.38 0.0134 0.0060
 Earth -85241-09-30 21:35 J -29412578.82 -29412578.60 -29412578.36 0.0134 0.0065 *
 Earth -85240-10-05 11:01 J -29412209.25 -29412209.04 -29412208.82 0.0134 0.0072

Moon	-85240-10-05 12:13 J	-29412209.20	-29412208.99	-29412208.76	0.0134	0.0075 *
Moon	-85239-10-09 21:35 J	-29411839.78	-29411839.60	-29411839.38	0.0134	0.0081
Earth	-85239-10-09 23:01 J	-29411839.74	-29411839.54	-29411839.32	0.0134	0.0080 *
Earth	-85238-10-14 09:49 J	-29411470.26	-29411470.09	-29411469.87	0.0133	0.0088
Moon	-85238-10-14 11:30 J	-29411470.21	-29411470.02	-29411469.79	0.0133	0.0084 *
Moon	-85237-10-17 18:13 J	-29411100.88	-29411100.74	-29411100.55	0.0133	0.0100
Earth	-85237-10-17 20:23 J	-29411100.82	-29411100.65	-29411100.46	0.0133	0.0093 *
Earth	-85236-10-22 05:16 J	-29410731.43	-29410731.28	-29410731.09	0.0133	0.0100
Moon	-85236-10-22 06:56 J	-29410731.38	-29410731.21	-29410731.00	0.0133	0.0093 *
Moon	-85235-10-26 11:30 J	-29410362.14	-29410362.02	-29410361.87	0.0132	0.0111
Earth	-85235-10-26 13:40 J	-29410362.07	-29410361.93	-29410361.76	0.0132	0.0105 *
Earth	-85234-10-30 21:06 J	-29409992.75	-29409992.62	-29409992.46	0.0132	0.0109
Moon	-85234-10-30 23:01 J	-29409992.68	-29409992.54	-29409992.36	0.0132	0.0104 *
Moon	-85233-11-03 01:40 J	-29409623.53	-29409623.43	-29409623.29	0.0132	0.0115
Earth	-85233-11-03 03:49 J	-29409623.45	-29409623.34	-29409623.19	0.0132	0.0113 *
Earth	-85232-11-07 09:49 J	-29409254.19	-29409254.09	-29409253.96	0.0132	0.0117
Moon	-85232-11-07 12:28 J	-29409254.08	-29409253.98	-29409253.85	0.0132	0.0118 *
Moon	-85231-11-11 13:25 J	-29408885.05	-29408884.94	-29408884.82	0.0132	0.0117
Earth	-85231-11-11 15:20 J	-29408884.95	-29408884.86	-29408884.75	0.0132	0.0120 *
Earth	-85230-11-15 19:54 J	-29408515.74	-29408515.67	-29408515.56	0.0131	0.0123
Moon	-85230-11-15 22:32 J	-29408515.59	-29408515.56	-29408515.48	0.0131	0.0129 *
Moon	-85229-11-18 22:04 J	-29408146.66	-29408146.58	-29408146.45	0.0131	0.0119
Earth	-85229-11-19 00:28 J	-29408146.54	-29408146.48	-29408146.39	0.0131	0.0125 *
Earth	-85228-11-23 04:04 J	-29407777.38	-29407777.33	-29407777.24	0.0131	0.0127
Moon	-85227-11-27 05:30 J	-29407408.36	-29407408.27	-29407408.18	0.0131	0.0122
Earth	-85227-11-27 07:40 J	-29407408.22	-29407408.18	-29407408.10	0.0131	0.0128 *
Mars	-85226-02-10 19:40 J	-29407332.74	-29407332.68	-29407332.57	0.0131	0.0126
Earth	-85226-12-01 10:47 J	-29407039.09	-29407039.05	-29407038.97	0.0131	0.0128
Moon	-85226-12-01 13:11 J	-29407038.96	-29407038.95	-29407038.91	0.0131	0.0131
Moon	-85225-12-04 11:16 J	-29406670.08	-29406670.03	-29406669.96	0.0132	0.0128

Earth	-85225-12-04 13:40 J	-29406669.97	-29406669.93	-29406669.85	0.0132	0.0128	*
Mars	-85224-01-09 03:35 J	-29406634.61	-29406634.35	-29406634.08	0.0132	0.0045	
Earth	-85224-12-08 16:04 J	-29406300.88	-29406300.83	-29406300.75	0.0132	0.0127	
Moon	-85224-12-08 18:13 J	-29406300.80	-29406300.74	-29406300.63	0.0132	0.0125	*
Mars	-85223-12-08 13:40 J	-29405936.20	-29405935.93	-29405935.66	0.0132	0.0038	
Moon	-85223-12-12 15:49 J	-29405931.86	-29405931.84	-29405931.78	0.0132	0.0130	
Earth	-85223-12-12 18:13 J	-29405931.80	-29405931.74	-29405931.65	0.0132	0.0125	*
Earth	-85222-12-16 20:08 J	-29405562.73	-29405562.66	-29405562.56	0.0132	0.0123	
Moon	-85222-12-16 22:47 J	-29405562.66	-29405562.55	-29405562.42	0.0132	0.0116	*
Mars	-85221-11-06 04:18 J	-29405237.42	-29405237.32	-29405237.20	0.0132	0.0121	
Moon	-85221-12-19 20:23 J	-29405193.71	-29405193.65	-29405193.59	0.0132	0.0128	
Earth	-85221-12-19 22:18 J	-29405193.66	-29405193.57	-29405193.46	0.0132	0.0121	*
Earth	-85220-12-23 23:59 J	-29404824.60	-29404824.50	-29404824.38	0.0133	0.0118	
Moon	-85220-12-24 02:23 J	-29404824.53	-29404824.40	-29404824.25	0.0133	0.0112	*
Moon	-85219-12-27 23:30 J	-29404455.59	-29404455.52	-29404455.40	0.0133	0.0121	
Earth	-85219-12-28 01:40 J	-29404455.53	-29404455.43	-29404455.29	0.0133	0.0115	*
Earth	-85217-01-01 04:18 J	-29404086.46	-29404086.32	-29404086.19	0.0133	0.0111	
Moon	-85217-01-01 05:44 J	-29404086.38	-29404086.26	-29404086.09	0.0133	0.0109	*
Moon	-85216-01-04 03:49 J	-29403717.46	-29403717.34	-29403717.18	0.0133	0.0107	
Earth	-85216-01-04 05:59 J	-29403717.37	-29403717.25	-29403717.08	0.0133	0.0107	*
Earth	-85215-01-08 08:52 J	-29403348.28	-29403348.13	-29403347.96	0.0134	0.0101	
Moon	-85215-01-08 10:32 J	-29403348.21	-29403348.06	-29403347.88	0.0134	0.0103	*
Moon	-85214-01-12 09:20 J	-29402979.26	-29402979.11	-29402978.91	0.0134	0.0091	
Earth	-85214-01-12 11:59 J	-29402979.17	-29402979.00	-29402978.83	0.0134	0.0096	*
Earth	-85213-01-16 15:06 J	-29402610.04	-29402609.87	-29402609.67	0.0135	0.0090	
Moon	-85213-01-16 17:16 J	-29402609.95	-29402609.78	-29402609.59	0.0135	0.0096	*
Moon	-85212-01-19 17:30 J	-29402240.97	-29402240.77	-29402240.57	0.0135	0.0077	
Earth	-85212-01-19 18:56 J	-29402240.89	-29402240.71	-29402240.50	0.0135	0.0083	*
Earth	-85211-01-23 23:16 J	-29401871.73	-29401871.53	-29401871.32	0.0136	0.0076	
Moon	-85211-01-24 01:40 J	-29401871.62	-29401871.43	-29401871.22	0.0136	0.0082	*

Moon -85210-01-28 02:23 J -29401502.61 -29401502.40 -29401502.18 0.0136 0.0063
 Earth -85210-01-28 04:04 J -29401502.53 -29401502.33 -29401502.11 0.0136 0.0068 *
 Earth -85209-02-01 09:35 J -29401133.32 -29401133.10 -29401132.88 0.0137 0.0060
 Moon -85209-02-01 11:59 J -29401133.23 -29401133.00 -29401132.77 0.0137 0.0061 *
 Moon -85208-02-04 13:25 J -29400764.16 -29400763.94 -29400763.72 0.0137 0.0052
 Earth -85208-02-04 15:35 J -29400764.08 -29400763.85 -29400763.62 0.0137 0.0052 *
 Earth -85207-02-08 22:04 J -29400394.81 -29400394.58 -29400394.34 0.0138 0.0043
 Moon -85207-02-09 00:13 J -29400394.73 -29400394.49 -29400394.24 0.0138 0.0039 *
 Venus -85207-10-17 09:35 J -29400144.23 -29400144.10 -29400143.95 0.0138 0.0102
 Moon -85206-02-13 02:52 J -29400025.60 -29400025.38 -29400025.14 0.0138 0.0041
 Earth -85206-02-13 05:30 J -29400025.50 -29400025.27 -29400025.03 0.0138 0.0034 *
 Venus -85206-05-31 15:35 J -29399918.06 -29399917.85 -29399917.65 0.0139 0.0039
 Venus -85205-01-12 21:35 J -29399691.81 -29399691.60 -29399691.39 0.0139 0.0025
 Earth -85205-02-17 13:40 J -29399656.17 -29399655.93 -29399655.68 0.0139 0.0024
 Moon -85205-02-17 16:04 J -29399656.08 -29399655.83 -29399655.58 0.0139 0.0017 *
 Mercury -85205-06-01 15:20 J -29399550.91 -29399550.86 -29399550.81 0.0139 0.0128
 Venus -85205-08-26 03:35 J -29399465.50 -29399465.35 -29399465.18 0.0139 0.0090
 Mercury -85205-08-28 18:56 J -29399462.79 -29399462.71 -29399462.62 0.0139 0.0111
 Mercury -85205-11-24 22:32 J -29399374.65 -29399374.56 -29399374.45 0.0139 0.0094
 Moon -85204-02-20 20:23 J -29399286.89 -29399286.65 -29399286.41 0.0140 0.0021
 Earth -85204-02-20 23:01 J -29399286.78 -29399286.54 -29399286.29 0.0140 0.0014 *
 Mercury -85204-02-21 02:23 J -29399286.51 -29399286.40 -29399286.28 0.0140 0.0077 *
 Mercury -85204-05-20 06:13 J -29399198.37 -29399198.24 -29399198.12 0.0140 0.0059
 Mercury -85204-08-16 09:49 J -29399110.22 -29399110.09 -29399109.95 0.0140 0.0042
 Mercury -85204-11-12 13:40 J -29399022.06 -29399021.93 -29399021.79 0.0140 0.0023
 Mercury -85203-02-08 17:30 J -29398933.91 -29398933.77 -29398933.63 0.0140 0.0006
 Earth -85203-02-25 09:06 J -29398917.37 -29398917.12 -29398916.87 0.0140 0.0004
 Moon -85203-02-25 11:44 J -29398917.26 -29398917.01 -29398916.76 0.0140 0.0002 *
 Mercury -85203-05-07 21:20 J -29398845.75 -29398845.61 -29398845.47 0.0140 0.0014
 Mercury -85203-08-04 01:25 J -29398757.58 -29398757.44 -29398757.31 0.0140 0.0032

Mercury -85203-10-31 05:16 J -29398669.41 -29398669.28 -29398669.15 0.0141 0.0050

Mercury -85202-01-27 09:06 J -29398581.24 -29398581.12 -29398580.99 0.0141 0.0069

Moon -85202-03-01 17:44 J -29398548.00 -29398547.76 -29398547.52 0.0141 0.0005

Earth -85202-03-01 20:23 J -29398547.90 -29398547.65 -29398547.40 0.0141 0.0006 *

Mercury -85202-04-25 13:11 J -29398493.06 -29398492.95 -29398492.84 0.0141 0.0088

Mercury -85202-07-22 17:01 J -29398404.87 -29398404.79 -29398404.69 0.0141 0.0107

Mercury -85202-10-18 21:06 J -29398316.67 -29398316.62 -29398316.55 0.0141 0.0126

Earth -85201-03-05 08:37 J -29398178.38 -29398178.14 -29398177.89 0.0141 0.0017

Moon -85201-03-05 11:44 J -29398178.25 -29398178.01 -29398177.75 0.0141 0.0015 *

Moon -85200-03-09 19:11 J -29397808.93 -29397808.70 -29397808.46 0.0142 0.0032

Earth -85200-03-09 22:04 J -29397808.82 -29397808.58 -29397808.33 0.0142 0.0027 *

Earth -85199-03-14 12:28 J -29397439.21 -29397438.98 -29397438.73 0.0142 0.0039

Moon -85199-03-14 16:04 J -29397439.07 -29397438.83 -29397438.58 0.0142 0.0031 *

Moon -85198-03-19 00:56 J -29397069.67 -29397069.46 -29397069.23 0.0143 0.0057

Earth -85198-03-19 04:18 J -29397069.54 -29397069.32 -29397069.08 0.0143 0.0049 *

Earth -85197-03-22 21:06 J -29396699.84 -29396699.62 -29396699.39 0.0144 0.0060

Moon -85197-03-23 00:28 J -29396699.70 -29396699.48 -29396699.24 0.0144 0.0055 *

Moon -85196-03-27 11:16 J -29396330.23 -29396330.03 -29396329.80 0.0144 0.0072

Earth -85196-03-27 14:52 J -29396330.08 -29396329.88 -29396329.65 0.0144 0.0070 *

Earth -85195-04-01 10:04 J -29395960.28 -29395960.08 -29395959.87 0.0145 0.0080

Moon -85195-04-01 13:25 J -29395960.13 -29395959.94 -29395959.73 0.0145 0.0082 *

Moon -85194-04-06 02:52 J -29395590.58 -29395590.38 -29395590.17 0.0145 0.0083

Earth -85194-04-06 06:28 J -29395590.42 -29395590.23 -29395590.03 0.0145 0.0090 *

Earth -85193-04-10 03:35 J -29395220.52 -29395220.35 -29395220.16 0.0146 0.0099

Moon -85193-04-10 06:42 J -29395220.37 -29395220.22 -29395220.03 0.0146 0.0107 *

Moon -85192-04-14 23:30 J -29394850.70 -29394850.52 -29394850.33 0.0146 0.0100

Earth -85192-04-15 02:08 J -29394850.57 -29394850.41 -29394850.23 0.0146 0.0107 *

Earth -85191-04-20 01:25 J -29394480.57 -29394480.44 -29394480.26 0.0146 0.0116

Moon -85191-04-20 04:18 J -29394480.44 -29394480.32 -29394480.16 0.0146 0.0120 *

Moon -85190-04-25 00:13 J -29394110.61 -29394110.49 -29394110.33 0.0147 0.0123

Earth	-85190-04-25 02:23 J	-29394110.52	-29394110.40	-29394110.24	0.0147	0.0123	*
Earth	-85189-04-29 04:04 J	-29393740.43	-29393740.33	-29393740.19	0.0147	0.0129	
Moon	-85189-04-29 05:44 J	-29393740.38	-29393740.26	-29393740.12	0.0147	0.0123	*
Moon	-85188-05-04 05:59 J	-29393370.30	-29393370.25	-29393370.16	0.0147	0.0141	
Earth	-85188-05-04 07:11 J	-29393370.29	-29393370.20	-29393370.09	0.0147	0.0134	*
Moon	-85187-05-09 10:32 J	-29393000.14	-29393000.06	-29392999.93	0.0147	0.0134	
Earth	-85187-05-09 11:01 J	-29393000.10	-29393000.04	-29392999.94	0.0147	0.0139	*
Earth	-85186-05-14 15:49 J	-29392629.89	-29392629.84	-29392629.76	0.0147	0.0143	
Moon	-85186-05-14 16:32 J	-29392629.84	-29392629.81	-29392629.77	0.0147	0.0146	*
Earth	-85185-05-18 21:06 J	-29392259.63	-29392259.62	-29392259.55	0.0147	0.0146	
Earth	-85184-05-24 03:35 J	-29391889.36	-29391889.35	-29391889.31	0.0147	0.0146	
Moon	-85184-05-24 05:30 J	-29391889.32	-29391889.27	-29391889.16	0.0147	0.0141	*
Mars	-85184-06-20 17:30 J	-29391861.89	-29391861.77	-29391861.60	0.0147	0.0134	
Earth	-85183-05-29 10:18 J	-29391519.08	-29391519.07	-29391519.03	0.0147	0.0146	
Mars	-85182-05-30 07:54 J	-29391153.51	-29391153.17	-29391152.83	0.0147	0.0013	
Earth	-85182-06-03 17:30 J	-29391148.80	-29391148.77	-29391148.73	0.0147	0.0145	
Moon	-85182-06-03 20:52 J	-29391148.69	-29391148.63	-29391148.53	0.0147	0.0139	
Moon	-85181-06-07 21:06 J	-29390778.63	-29390778.62	-29390778.57	0.0147	0.0146	
Earth	-85181-06-08 00:56 J	-29390778.51	-29390778.46	-29390778.40	0.0147	0.0143	
Earth	-85180-06-13 08:23 J	-29390408.21	-29390408.15	-29390408.06	0.0147	0.0140	
Moon	-85180-06-13 11:44 J	-29390408.03	-29390408.01	-29390407.94	0.0147	0.0145	
Moon	-85179-06-18 12:13 J	-29390038.08	-29390037.99	-29390037.84	0.0146	0.0130	
Earth	-85179-06-18 16:04 J	-29390037.91	-29390037.83	-29390037.72	0.0146	0.0136	*
Earth	-85178-06-23 23:30 J	-29389667.62	-29389667.52	-29389667.39	0.0146	0.0130	
Moon	-85178-06-24 01:54 J	-29389667.48	-29389667.42	-29389667.32	0.0146	0.0138	*
Moon	-85177-06-28 04:18 J	-29389297.46	-29389297.32	-29389297.15	0.0145	0.0119	
Earth	-85177-06-28 06:56 J	-29389297.33	-29389297.21	-29389297.06	0.0145	0.0124	*
Earth	-85176-07-03 14:23 J	-29388927.04	-29388926.90	-29388926.74	0.0145	0.0117	
Moon	-85176-07-03 15:20 J	-29388926.98	-29388926.86	-29388926.69	0.0145	0.0117	*
Moon	-85175-07-08 20:37 J	-29388556.80	-29388556.64	-29388556.47	0.0145	0.0114	

Earth	-85175-07-08 21:06 J	-29388556.77	-29388556.62	-29388556.43	0.0145	0.0110	*
Moon	-85174-07-14 03:49 J	-29388186.52	-29388186.34	-29388186.14	0.0144	0.0094	
Earth	-85174-07-14 03:49 J	-29388186.51	-29388186.34	-29388186.14	0.0144	0.0101	*
Earth	-85173-07-18 10:04 J	-29387816.27	-29387816.08	-29387815.87	0.0143	0.0092	
Moon	-85173-07-18 11:30 J	-29387816.20	-29387816.02	-29387815.81	0.0143	0.0098	*
Moon	-85172-07-23 13:54 J	-29387446.11	-29387445.92	-29387445.69	0.0143	0.0079	
Earth	-85172-07-23 15:35 J	-29387446.04	-29387445.85	-29387445.62	0.0143	0.0082	*
Earth	-85171-07-28 20:37 J	-29387075.86	-29387075.64	-29387075.41	0.0142	0.0072	
Moon	-85171-07-28 23:44 J	-29387075.74	-29387075.51	-29387075.27	0.0142	0.0069	*
Moon	-85170-08-02 21:35 J	-29386705.82	-29386705.60	-29386705.36	0.0142	0.0067	
Earth	-85170-08-03 00:42 J	-29386705.70	-29386705.47	-29386705.23	0.0142	0.0061	*
Earth	-85169-08-07 03:49 J	-29386335.58	-29386335.34	-29386335.09	0.0141	0.0050	
Moon	-85169-08-07 07:11 J	-29386335.44	-29386335.20	-29386334.94	0.0141	0.0043	*
Moon	-85168-08-12 02:08 J	-29385965.65	-29385965.41	-29385965.16	0.0141	0.0046	
Earth	-85168-08-12 05:59 J	-29385965.50	-29385965.25	-29385964.99	0.0141	0.0039	*
Venus	-85168-11-11 10:04 J	-29385874.21	-29385874.08	-29385873.91	0.0140	0.0102	
Venus	-85167-06-25 22:18 J	-29385647.79	-29385647.57	-29385647.35	0.0140	0.0030	
Earth	-85167-08-17 06:56 J	-29385595.47	-29385595.21	-29385594.95	0.0140	0.0028	
Moon	-85167-08-17 10:32 J	-29385595.32	-29385595.06	-29385594.80	0.0140	0.0026	*
Venus	-85166-02-07 09:35 J	-29385421.31	-29385421.10	-29385420.88	0.0140	0.0040	
Moon	-85166-08-22 03:20 J	-29385225.63	-29385225.36	-29385225.10	0.0139	0.0016	
Earth	-85166-08-22 06:56 J	-29385225.47	-29385225.21	-29385224.95	0.0139	0.0018	*
Venus	-85166-09-21 20:23 J	-29385194.77	-29385194.65	-29385194.50	0.0139	0.0109	
Mercury	-85166-10-26 17:30 J	-29385159.82	-29385159.77	-29385159.69	0.0139	0.0130	
Mercury	-85165-01-23 00:42 J	-29385071.59	-29385071.47	-29385071.35	0.0139	0.0106	
Mercury	-85165-04-20 07:25 J	-29384983.33	-29384983.19	-29384983.04	0.0139	0.0082	
Mercury	-85165-07-17 14:08 J	-29384895.06	-29384894.91	-29384894.74	0.0139	0.0059	
Earth	-85165-08-26 05:44 J	-29384855.52	-29384855.26	-29384854.99	0.0139	0.0007	
Moon	-85165-08-26 09:06 J	-29384855.38	-29384855.12	-29384854.86	0.0139	0.0012	*
Mercury	-85165-10-13 21:06 J	-29384806.79	-29384806.62	-29384806.45	0.0139	0.0036	

Mercury -85164-01-10 03:49 J -29384718.52 -29384718.34 -29384718.16 0.0139 0.0013

Mercury -85164-04-08 10:18 J -29384630.25 -29384630.07 -29384629.89 0.0138 0.0010

Mercury -85164-07-05 16:47 J -29384541.97 -29384541.80 -29384541.62 0.0138 0.0032

Moon -85164-08-31 00:42 J -29384485.74 -29384485.47 -29384485.20 0.0138 0.0011

Earth -85164-08-31 03:35 J -29384485.61 -29384485.35 -29384485.08 0.0138 0.0004 *

Mercury -85164-10-01 23:16 J -29384453.69 -29384453.53 -29384453.36 0.0138 0.0055

Mercury -85164-12-29 05:44 J -29384365.40 -29384365.26 -29384365.11 0.0138 0.0076

Mercury -85163-03-27 11:59 J -29384277.11 -29384277.00 -29384276.87 0.0138 0.0098

Mercury -85163-06-23 18:13 J -29384188.81 -29384188.74 -29384188.64 0.0138 0.0120

Earth -85163-09-05 00:13 J -29384115.75 -29384115.49 -29384115.23 0.0138 0.0014

Moon -85163-09-05 03:06 J -29384115.63 -29384115.37 -29384115.11 0.0138 0.0007 *

Moon -85162-09-09 17:30 J -29383746.02 -29383745.77 -29383745.49 0.0137 0.0028

Earth -85162-09-09 19:40 J -29383745.93 -29383745.68 -29383745.42 0.0137 0.0024 *

Earth -85161-09-13 14:08 J -29383376.15 -29383375.91 -29383375.65 0.0136 0.0034

Moon -85161-09-13 16:18 J -29383376.07 -29383375.82 -29383375.57 0.0136 0.0034 *

Moon -85160-09-18 06:13 J -29383006.48 -29383006.24 -29383005.97 0.0136 0.0041

Earth -85160-09-18 07:40 J -29383006.42 -29383006.18 -29383005.92 0.0136 0.0044 *

Earth -85159-09-22 23:59 J -29382636.73 -29382636.50 -29382636.25 0.0135 0.0053

Moon -85159-09-23 00:42 J -29382636.69 -29382636.47 -29382636.23 0.0135 0.0059 *

Moon -85158-09-27 14:23 J -29382267.13 -29382266.90 -29382266.64 0.0135 0.0055

Earth -85158-09-27 15:35 J -29382267.08 -29382266.85 -29382266.62 0.0135 0.0061 *

Moon -85157-10-01 05:16 J -29381897.47 -29381897.28 -29381897.05 0.0134 0.0076

Earth -85157-10-01 05:44 J -29381897.47 -29381897.26 -29381897.03 0.0134 0.0070 *

Moon -85156-10-05 18:56 J -29381527.93 -29381527.71 -29381527.48 0.0134 0.0073

Earth -85156-10-05 19:11 J -29381527.91 -29381527.70 -29381527.49 0.0134 0.0077 *

Moon -85155-10-10 06:28 J -29381158.41 -29381158.23 -29381158.02 0.0134 0.0085

Earth -85155-10-10 06:56 J -29381158.39 -29381158.21 -29381157.99 0.0134 0.0085 *

Earth -85154-10-14 17:59 J -29380788.92 -29380788.75 -29380788.54 0.0133 0.0092

Moon -85154-10-14 18:56 J -29380788.88 -29380788.71 -29380788.50 0.0133 0.0095 *

Moon -85153-10-18 03:20 J -29380419.51 -29380419.36 -29380419.16 0.0133 0.0093

Earth	-85153-10-18 04:32 J	-29380419.48	-29380419.31	-29380419.13	0.0133	0.0097	*
Earth	-85152-10-22 13:25 J	-29380050.09	-29380049.94	-29380049.76	0.0133	0.0103	
Moon	-85152-10-22 14:52 J	-29380050.01	-29380049.88	-29380049.71	0.0133	0.0110	*
Moon	-85151-10-26 20:23 J	-29379680.79	-29379680.65	-29379680.47	0.0132	0.0102	
Earth	-85151-10-26 21:35 J	-29379680.73	-29379680.60	-29379680.44	0.0132	0.0108	*
Earth	-85150-10-31 05:01 J	-29379311.41	-29379311.29	-29379311.14	0.0132	0.0112	
Moon	-85150-10-31 06:42 J	-29379311.33	-29379311.22	-29379311.08	0.0132	0.0116	*
Moon	-85149-11-03 10:32 J	-29378942.18	-29378942.06	-29378941.93	0.0132	0.0113	
Earth	-85149-11-03 11:44 J	-29378942.11	-29378942.01	-29378941.87	0.0132	0.0116	*
Earth	-85148-11-07 18:13 J	-29378572.85	-29378572.74	-29378572.63	0.0132	0.0119	
Moon	-85148-11-07 19:25 J	-29378572.79	-29378572.69	-29378572.56	0.0132	0.0119	*
Moon	-85147-11-11 21:35 J	-29378203.66	-29378203.60	-29378203.53	0.0132	0.0126	
Earth	-85147-11-11 23:30 J	-29378203.60	-29378203.52	-29378203.42	0.0132	0.0122	*
Earth	-85146-11-16 04:04 J	-29377834.39	-29377834.33	-29377834.23	0.0131	0.0125	
Moon	-85146-11-16 05:59 J	-29377834.35	-29377834.25	-29377834.13	0.0131	0.0119	*
Earth	-85145-11-19 08:23 J	-29377465.19	-29377465.15	-29377465.05	0.0131	0.0127	
Earth	-85144-11-23 12:28 J	-29377096.02	-29377095.98	-29377095.90	0.0131	0.0128	
Moon	-85144-11-23 14:23 J	-29377095.98	-29377095.90	-29377095.77	0.0131	0.0121	*
Earth	-85143-11-27 16:18 J	-29376726.87	-29376726.82	-29376726.76	0.0131	0.0128	
Mars	-85142-10-05 15:06 J	-29376415.06	-29376414.87	-29376414.66	0.0131	0.0093	
Earth	-85142-12-01 19:25 J	-29376357.74	-29376357.69	-29376357.63	0.0131	0.0128	
Moon	-85142-12-01 21:20 J	-29376357.67	-29376357.61	-29376357.51	0.0131	0.0125	*
Moon	-85141-12-04 20:08 J	-29375988.68	-29375988.66	-29375988.59	0.0131	0.0130	
Earth	-85141-12-04 21:35 J	-29375988.63	-29375988.60	-29375988.51	0.0131	0.0128	*
Mars	-85140-09-02 22:04 J	-29375716.86	-29375716.58	-29375716.30	0.0132	0.0012	
Earth	-85140-12-09 00:13 J	-29375619.55	-29375619.49	-29375619.41	0.0132	0.0126	
Moon	-85140-12-09 01:54 J	-29375619.46	-29375619.42	-29375619.34	0.0132	0.0128	*
Moon	-85139-12-13 00:13 J	-29375250.56	-29375250.49	-29375250.37	0.0132	0.0121	
Earth	-85139-12-13 02:37 J	-29375250.47	-29375250.39	-29375250.31	0.0132	0.0124	*
Mars	-85138-08-02 09:06 J	-29375018.35	-29375018.12	-29375017.87	0.0132	0.0070	

Earth	-85138-12-17 04:04 J	-29374881.40	-29374881.33	-29374881.22	0.0132	0.0122
Moon	-85138-12-17 05:44 J	-29374881.31	-29374881.26	-29374881.18	0.0132	0.0127 *
Moon	-85137-12-20 04:04 J	-29374512.43	-29374512.33	-29374512.18	0.0132	0.0113
Earth	-85137-12-20 06:13 J	-29374512.33	-29374512.24	-29374512.12	0.0132	0.0119 *
Earth	-85136-12-24 07:40 J	-29374143.27	-29374143.18	-29374143.04	0.0132	0.0117
Moon	-85136-12-24 09:20 J	-29374143.19	-29374143.11	-29374143.00	0.0132	0.0123 *
Moon	-85135-12-28 08:23 J	-29373774.28	-29373774.15	-29373774.00	0.0133	0.0108
Earth	-85135-12-28 09:49 J	-29373774.20	-29373774.09	-29373773.94	0.0133	0.0113 *
Earth	-85133-01-01 11:59 J	-29373405.13	-29373405.00	-29373404.84	0.0133	0.0108
Moon	-85133-01-01 13:40 J	-29373405.05	-29373404.93	-29373404.77	0.0133	0.0111 *
Moon	-85132-01-04 13:11 J	-29373036.09	-29373035.95	-29373035.78	0.0133	0.0102
Earth	-85132-01-04 14:23 J	-29373036.04	-29373035.90	-29373035.73	0.0133	0.0104 *
Earth	-85131-01-08 17:01 J	-29372666.95	-29372666.79	-29372666.62	0.0134	0.0098
Moon	-85131-01-08 18:56 J	-29372666.89	-29372666.71	-29372666.53	0.0134	0.0095 *
Moon	-85130-01-12 18:42 J	-29372297.87	-29372297.72	-29372297.54	0.0134	0.0097
Earth	-85130-01-12 19:54 J	-29372297.84	-29372297.67	-29372297.48	0.0134	0.0092 *
Earth	-85129-01-16 23:30 J	-29371928.71	-29371928.52	-29371928.33	0.0135	0.0086
Moon	-85129-01-17 00:56 J	-29371928.66	-29371928.46	-29371928.25	0.0135	0.0080 *
Moon	-85128-01-20 01:25 J	-29371559.61	-29371559.44	-29371559.24	0.0135	0.0086
Earth	-85128-01-20 02:52 J	-29371559.56	-29371559.38	-29371559.16	0.0135	0.0079 *
Earth	-85127-01-24 07:11 J	-29371190.40	-29371190.20	-29371189.98	0.0136	0.0072
Moon	-85127-01-24 08:23 J	-29371190.37	-29371190.15	-29371189.92	0.0136	0.0065 *
Moon	-85126-01-28 10:04 J	-29370821.28	-29370821.08	-29370820.86	0.0136	0.0069
Earth	-85126-01-28 11:44 J	-29370821.22	-29370821.01	-29370820.78	0.0136	0.0064 *
Earth	-85125-02-01 16:47 J	-29370452.01	-29370451.80	-29370451.56	0.0137	0.0056
Moon	-85125-02-01 18:13 J	-29370451.96	-29370451.74	-29370451.49	0.0137	0.0053 *
Moon	-85124-02-04 21:20 J	-29370082.83	-29370082.61	-29370082.38	0.0137	0.0047
Earth	-85124-02-04 22:47 J	-29370082.77	-29370082.55	-29370082.31	0.0137	0.0047 *
Earth	-85123-02-09 05:16 J	-29369713.51	-29369713.28	-29369713.04	0.0138	0.0038
Moon	-85123-02-09 07:11 J	-29369713.44	-29369713.20	-29369712.95	0.0138	0.0042 *

Venus -85123-06-16 17:16 J -29369585.80 -29369585.78 -29369585.73 0.0138 0.0136

Venus -85122-01-28 23:01 J -29369359.71 -29369359.54 -29369359.35 0.0138 0.0073

Moon -85122-02-13 11:30 J -29369344.26 -29369344.02 -29369343.79 0.0138 0.0023

Earth -85122-02-13 12:56 J -29369344.20 -29369343.96 -29369343.72 0.0138 0.0029 *

Venus -85122-09-12 05:01 J -29369133.50 -29369133.29 -29369133.08 0.0139 0.0010

Earth -85121-02-17 21:06 J -29368974.87 -29368974.62 -29368974.38 0.0139 0.0019

Moon -85121-02-17 23:01 J -29368974.78 -29368974.54 -29368974.28 0.0139 0.0026 *

Venus -85121-04-25 11:01 J -29368907.23 -29368907.04 -29368906.84 0.0139 0.0055

Mercury -85121-06-21 21:49 J -29368849.64 -29368849.59 -29368849.53 0.0139 0.0127

Mercury -85121-09-18 01:25 J -29368761.51 -29368761.44 -29368761.35 0.0139 0.0110

Venus -85121-12-07 17:16 J -29368680.87 -29368680.78 -29368680.66 0.0139 0.0121

Mercury -85121-12-15 05:16 J -29368673.38 -29368673.28 -29368673.18 0.0139 0.0093

Moon -85120-02-21 04:18 J -29368605.56 -29368605.32 -29368605.08 0.0140 0.0003

Earth -85120-02-21 06:13 J -29368605.49 -29368605.24 -29368605.00 0.0140 0.0009 *

Mercury -85120-03-13 08:52 J -29368585.24 -29368585.13 -29368585.01 0.0140 0.0075

Mercury -85120-06-09 12:42 J -29368497.09 -29368496.97 -29368496.84 0.0140 0.0058

Mercury -85120-09-05 16:32 J -29368408.94 -29368408.81 -29368408.68 0.0140 0.0040

Mercury -85120-12-02 20:23 J -29368320.79 -29368320.65 -29368320.52 0.0140 0.0022

Earth -85119-02-25 16:18 J -29368236.07 -29368235.82 -29368235.57 0.0140 0.0001

Moon -85119-02-25 18:28 J -29368235.98 -29368235.73 -29368235.48 0.0140 0.0004 *

Mercury -85119-03-01 00:13 J -29368232.63 -29368232.49 -29368232.35 0.0140 0.0005

Mercury -85119-05-28 04:04 J -29368144.47 -29368144.33 -29368144.19 0.0140 0.0015

Mercury -85119-08-24 07:54 J -29368056.31 -29368056.17 -29368056.03 0.0140 0.0033

Mercury -85119-11-20 11:44 J -29367968.14 -29367968.01 -29367967.88 0.0141 0.0052

Mercury -85118-02-16 15:35 J -29367879.96 -29367879.85 -29367879.72 0.0141 0.0071

Moon -85118-03-02 01:11 J -29367866.69 -29367866.45 -29367866.21 0.0141 0.0014

Earth -85118-03-02 03:35 J -29367866.59 -29367866.35 -29367866.10 0.0141 0.0011 *

Mercury -85118-05-15 19:40 J -29367791.78 -29367791.68 -29367791.57 0.0141 0.0089

Mercury -85118-08-11 23:44 J -29367703.60 -29367703.51 -29367703.42 0.0141 0.0108

Mercury -85118-11-08 03:49 J -29367615.40 -29367615.34 -29367615.28 0.0141 0.0128

Earth	-85117-03-05 15:49 J	-29367497.08	-29367496.84	-29367496.59	0.0141	0.0022
Moon	-85117-03-05 17:59 J	-29367496.99	-29367496.75	-29367496.49	0.0141	0.0024 *
Moon	-85116-03-10 02:23 J	-29367127.63	-29367127.40	-29367127.16	0.0142	0.0028
Earth	-85116-03-10 05:16 J	-29367127.51	-29367127.28	-29367127.03	0.0142	0.0033 *
Earth	-85115-03-14 19:40 J	-29366757.91	-29366757.68	-29366757.44	0.0142	0.0044
Moon	-85115-03-14 22:32 J	-29366757.79	-29366757.56	-29366757.32	0.0142	0.0051 *
Moon	-85114-03-19 08:23 J	-29366388.38	-29366388.15	-29366387.92	0.0143	0.0047
Earth	-85114-03-19 11:16 J	-29366388.25	-29366388.03	-29366387.79	0.0143	0.0054 *
Earth	-85113-03-23 03:49 J	-29366018.55	-29366018.34	-29366018.11	0.0144	0.0065
Moon	-85113-03-23 07:25 J	-29366018.40	-29366018.19	-29366017.96	0.0144	0.0071 *
Moon	-85112-03-27 18:28 J	-29365648.93	-29365648.73	-29365648.51	0.0144	0.0072
Earth	-85112-03-27 21:35 J	-29365648.80	-29365648.60	-29365648.37	0.0144	0.0075 *
Earth	-85111-04-01 16:32 J	-29365279.00	-29365278.81	-29365278.59	0.0145	0.0085
Moon	-85111-04-01 20:23 J	-29365278.85	-29365278.65	-29365278.44	0.0145	0.0082 *
Moon	-85110-04-06 09:20 J	-29364909.28	-29364909.11	-29364908.92	0.0145	0.0099
Earth	-85110-04-06 12:42 J	-29364909.14	-29364908.97	-29364908.76	0.0145	0.0094 *
Earth	-85109-04-10 10:04 J	-29364539.25	-29364539.08	-29364538.90	0.0146	0.0103
Moon	-85109-04-10 13:25 J	-29364539.12	-29364538.94	-29364538.75	0.0146	0.0095 *
Moon	-85108-04-15 05:01 J	-29364169.43	-29364169.29	-29364169.13	0.0146	0.0118
Earth	-85108-04-15 08:23 J	-29364169.29	-29364169.15	-29364168.97	0.0146	0.0111 *
Earth	-85107-04-20 08:08 J	-29363799.30	-29363799.16	-29363799.00	0.0146	0.0118
Moon	-85107-04-20 11:01 J	-29363799.18	-29363799.04	-29363798.88	0.0146	0.0115 *
Moon	-85106-04-25 05:59 J	-29363429.37	-29363429.25	-29363429.10	0.0147	0.0125
Earth	-85106-04-25 08:37 J	-29363429.25	-29363429.14	-29363428.99	0.0147	0.0126 *
Earth	-85105-04-29 11:01 J	-29363059.15	-29363059.04	-29363058.93	0.0147	0.0131
Moon	-85105-04-29 12:42 J	-29363059.04	-29363058.97	-29363058.86	0.0147	0.0136 *
Moon	-85104-05-04 11:59 J	-29362689.10	-29362689.00	-29362688.85	0.0147	0.0129
Earth	-85104-05-04 13:25 J	-29362689.01	-29362688.94	-29362688.83	0.0147	0.0137 *
Earth	-85103-05-09 17:44 J	-29362318.83	-29362318.76	-29362318.68	0.0147	0.0141
Moon	-85102-05-14 22:32 J	-29361948.62	-29361948.56	-29361948.47	0.0147	0.0141

Earth	-85102-05-14 22:04 J	-29361948.61	-29361948.58	-29361948.51	0.0147	0.0144	*
Moon	-85101-05-19 03:06 J	-29361578.39	-29361578.37	-29361578.32	0.0147	0.0146	
Earth	-85101-05-19 04:04 J	-29361578.36	-29361578.33	-29361578.30	0.0147	0.0146	*
Earth	-85100-05-24 10:04 J	-29361208.10	-29361208.08	-29361208.05	0.0147	0.0146	
Mars	-85099-02-15 09:35 J	-29360941.36	-29360941.10	-29360940.79	0.0147	0.0078	
Moon	-85099-05-29 14:23 J	-29360837.98	-29360837.90	-29360837.81	0.0147	0.0139	
Earth	-85099-05-29 16:32 J	-29360837.82	-29360837.81	-29360837.77	0.0147	0.0147	*
Earth	-85098-06-03 23:16 J	-29360467.55	-29360467.53	-29360467.46	0.0147	0.0145	
Mars	-85097-01-24 21:20 J	-29360232.89	-29360232.61	-29360232.28	0.0147	0.0067	
Moon	-85097-06-08 03:35 J	-29360097.42	-29360097.35	-29360097.27	0.0147	0.0140	
Earth	-85097-06-08 06:56 J	-29360097.26	-29360097.21	-29360097.13	0.0147	0.0142	
Earth	-85096-06-13 14:23 J	-29359726.96	-29359726.90	-29359726.80	0.0147	0.0139	
Moon	-85096-06-13 18:13 J	-29359726.82	-29359726.74	-29359726.63	0.0147	0.0136	*
Moon	-85095-06-18 18:42 J	-29359356.78	-29359356.72	-29359356.64	0.0146	0.0141	
Earth	-85095-06-18 22:18 J	-29359356.66	-29359356.57	-29359356.46	0.0146	0.0134	*
Earth	-85094-06-24 05:44 J	-29358986.37	-29358986.26	-29358986.12	0.0146	0.0128	
Moon	-85094-06-24 09:20 J	-29358986.24	-29358986.11	-29358985.95	0.0146	0.0120	*
Moon	-85093-06-28 11:01 J	-29358616.17	-29358616.04	-29358615.91	0.0146	0.0126	
Earth	-85093-06-28 13:25 J	-29358616.07	-29358615.94	-29358615.78	0.0146	0.0122	*
Earth	-85092-07-03 20:52 J	-29358245.77	-29358245.63	-29358245.45	0.0145	0.0114	
Moon	-85092-07-03 23:30 J	-29358245.67	-29358245.52	-29358245.36	0.0145	0.0113	*
Moon	-85091-07-09 02:52 J	-29357875.56	-29357875.38	-29357875.18	0.0145	0.0102	
Earth	-85091-07-09 04:18 J	-29357875.49	-29357875.32	-29357875.14	0.0145	0.0106	*
Earth	-85090-07-14 10:32 J	-29357505.23	-29357505.06	-29357504.84	0.0144	0.0097	
Moon	-85090-07-14 11:30 J	-29357505.19	-29357505.02	-29357504.85	0.0144	0.0104	*
Moon	-85089-07-18 17:16 J	-29357134.99	-29357134.78	-29357134.54	0.0144	0.0081	
Earth	-85089-07-18 17:01 J	-29357134.98	-29357134.79	-29357134.57	0.0144	0.0088	*
Moon	-85088-07-23 21:35 J	-29356764.81	-29356764.60	-29356764.39	0.0143	0.0080	
Earth	-85088-07-23 23:01 J	-29356764.76	-29356764.54	-29356764.32	0.0143	0.0077	*
Earth	-85087-07-29 03:49 J	-29356394.57	-29356394.34	-29356394.11	0.0142	0.0067	

Moon	-85087-07-29 05:16 J	-29356394.50	-29356394.28	-29356394.03	0.0142	0.0068	*
Moon	-85086-08-03 04:47 J	-29356024.53	-29356024.30	-29356024.05	0.0142	0.0051	
Earth	-85086-08-03 07:54 J	-29356024.41	-29356024.17	-29356023.93	0.0142	0.0056	*
Earth	-85085-08-07 10:32 J	-29355654.29	-29355654.06	-29355653.80	0.0141	0.0046	
Moon	-85085-08-07 14:08 J	-29355654.16	-29355653.91	-29355653.66	0.0141	0.0053	*
Venus	-85084-07-11 15:06 J	-29355315.91	-29355315.87	-29355315.83	0.0141	0.0138	
Moon	-85084-08-12 09:35 J	-29355284.35	-29355284.10	-29355283.84	0.0141	0.0028	
Earth	-85084-08-12 12:56 J	-29355284.21	-29355283.96	-29355283.70	0.0141	0.0034	*
Venus	-85083-02-23 02:37 J	-29355089.58	-29355089.39	-29355089.18	0.0140	0.0067	
Earth	-85083-08-17 13:54 J	-29354914.18	-29354913.92	-29354913.66	0.0140	0.0023	
Moon	-85083-08-17 17:44 J	-29354914.01	-29354913.76	-29354913.50	0.0140	0.0026	*
Venus	-85083-10-07 14:23 J	-29354863.12	-29354862.90	-29354862.68	0.0140	0.0003	
Venus	-85082-05-22 01:25 J	-29354636.62	-29354636.44	-29354636.24	0.0140	0.0074	
Moon	-85082-08-22 10:18 J	-29354544.33	-29354544.07	-29354543.81	0.0139	0.0012	
Earth	-85082-08-22 13:54 J	-29354544.18	-29354543.92	-29354543.66	0.0139	0.0012	*
Mercury	-85082-11-16 00:13 J	-29354458.56	-29354458.49	-29354458.42	0.0139	0.0127	
Mercury	-85081-02-12 06:56 J	-29354370.32	-29354370.21	-29354370.08	0.0139	0.0103	
Mercury	-85081-05-10 13:54 J	-29354282.07	-29354281.92	-29354281.77	0.0139	0.0080	
Mercury	-85081-08-06 20:37 J	-29354193.80	-29354193.64	-29354193.47	0.0139	0.0056	
Earth	-85081-08-26 12:42 J	-29354174.23	-29354173.97	-29354173.70	0.0139	0.0002	
Moon	-85081-08-26 16:18 J	-29354174.08	-29354173.82	-29354173.56	0.0139	0.0005	*
Mercury	-85081-11-03 03:35 J	-29354105.53	-29354105.35	-29354105.18	0.0139	0.0033	
Mercury	-85080-01-30 10:04 J	-29354017.25	-29354017.08	-29354016.90	0.0139	0.0011	
Mercury	-85080-04-28 16:47 J	-29353928.98	-29353928.80	-29353928.62	0.0138	0.0012	
Mercury	-85080-07-25 23:16 J	-29353840.70	-29353840.53	-29353840.35	0.0138	0.0035	
Moon	-85080-08-31 06:56 J	-29353804.47	-29353804.21	-29353803.94	0.0138	0.0003	
Earth	-85080-08-31 10:47 J	-29353804.32	-29353804.05	-29353803.79	0.0138	0.0009	*
Mercury	-85080-10-22 05:44 J	-29353752.42	-29353752.26	-29353752.09	0.0138	0.0057	
Mercury	-85079-01-18 12:13 J	-29353664.13	-29353663.99	-29353663.84	0.0138	0.0079	
Mercury	-85079-04-16 18:28 J	-29353575.84	-29353575.73	-29353575.60	0.0138	0.0101	

Mercury -85079-07-14 00:56 J -29353487.54 -29353487.46 -29353487.38 0.0138 0.0122
 Earth -85079-09-05 07:11 J -29353434.46 -29353434.20 -29353433.94 0.0138 0.0019
 Moon -85079-09-05 10:04 J -29353434.33 -29353434.08 -29353433.83 0.0138 0.0026 *
 Moon -85078-09-09 23:44 J -29353064.77 -29353064.51 -29353064.24 0.0137 0.0025
 Earth -85078-09-10 02:52 J -29353064.63 -29353064.38 -29353064.12 0.0137 0.0030 *
 Earth -85077-09-13 21:20 J -29352694.85 -29352694.61 -29352694.34 0.0136 0.0040
 Moon -85077-09-13 23:44 J -29352694.74 -29352694.51 -29352694.26 0.0136 0.0040 *
 Moon -85076-09-18 12:56 J -29352325.20 -29352324.96 -29352324.70 0.0136 0.0052
 Earth -85076-09-18 14:52 J -29352325.11 -29352324.88 -29352324.62 0.0136 0.0049 *
 Earth -85075-09-23 07:25 J -29351955.42 -29351955.19 -29351954.94 0.0135 0.0058
 Moon -85075-09-23 09:20 J -29351955.34 -29351955.11 -29351954.87 0.0135 0.0053 *
 Moon -85074-09-27 21:49 J -29351585.80 -29351585.59 -29351585.35 0.0135 0.0073
 Earth -85074-09-27 23:01 J -29351585.76 -29351585.54 -29351585.31 0.0135 0.0066 *
 Earth -85073-10-01 13:11 J -29351216.15 -29351215.95 -29351215.72 0.0134 0.0075
 Moon -85073-10-01 14:37 J -29351216.11 -29351215.89 -29351215.67 0.0134 0.0068 *
 Moon -85072-10-06 01:54 J -29350846.61 -29350846.42 -29350846.19 0.0134 0.0085
 Earth -85072-10-06 02:23 J -29350846.59 -29350846.40 -29350846.18 0.0134 0.0082 *
 Earth -85071-10-10 14:23 J -29350477.08 -29350476.90 -29350476.69 0.0134 0.0089
 Moon -85071-10-10 14:52 J -29350477.06 -29350476.88 -29350476.69 0.0134 0.0088 *
 Moon -85070-10-15 01:40 J -29350107.62 -29350107.43 -29350107.24 0.0133 0.0093
 Earth -85070-10-15 01:25 J -29350107.60 -29350107.44 -29350107.24 0.0133 0.0095 *
 Moon -85069-10-18 11:16 J -29349738.17 -29349738.03 -29349737.88 0.0133 0.0106
 Earth -85069-10-18 11:30 J -29349738.17 -29349738.02 -29349737.83 0.0133 0.0101 *
 Moon -85068-10-22 20:37 J -29349368.80 -29349368.64 -29349368.44 0.0133 0.0100
 Earth -85068-10-22 20:52 J -29349368.78 -29349368.63 -29349368.47 0.0133 0.0106 *
 Moon -85067-10-27 04:32 J -29348999.43 -29348999.31 -29348999.20 0.0132 0.0117
 Earth -85067-10-27 05:01 J -29348999.42 -29348999.29 -29348999.14 0.0132 0.0111 *
 Earth -85066-10-31 12:13 J -29348630.09 -29348629.99 -29348629.84 0.0132 0.0116
 Moon -85066-10-31 12:56 J -29348630.08 -29348629.96 -29348629.78 0.0132 0.0110 *
 Moon -85065-11-03 18:28 J -29348260.80 -29348260.73 -29348260.62 0.0132 0.0122

Earth	-85065-11-03 19:40 J	-29348260.79	-29348260.68	-29348260.57	0.0132	0.0118	*
Earth	-85064-11-08 01:11 J	-29347891.52	-29347891.45	-29347891.33	0.0132	0.0122	
Moon	-85064-11-08 02:37 J	-29347891.47	-29347891.39	-29347891.27	0.0132	0.0122	*
Moon	-85063-11-12 05:59 J	-29347522.31	-29347522.25	-29347522.14	0.0132	0.0123	
Earth	-85063-11-12 07:11 J	-29347522.28	-29347522.20	-29347522.11	0.0132	0.0124	*
Earth	-85062-11-16 12:13 J	-29347153.06	-29347152.99	-29347152.91	0.0131	0.0126	
Moon	-85062-11-16 13:25 J	-29347152.95	-29347152.94	-29347152.90	0.0131	0.0131	*
Moon	-85061-11-19 15:20 J	-29346783.93	-29346783.86	-29346783.75	0.0131	0.0121	
Earth	-85061-11-19 16:32 J	-29346783.85	-29346783.81	-29346783.73	0.0131	0.0127	*
Earth	-85060-11-23 20:08 J	-29346414.69	-29346414.66	-29346414.58	0.0131	0.0129	
Moon	-85059-11-27 22:18 J	-29346045.63	-29346045.57	-29346045.46	0.0131	0.0123	
Earth	-85059-11-27 23:44 J	-29346045.54	-29346045.51	-29346045.44	0.0131	0.0129	*
Earth	-85058-12-02 03:20 J	-29345676.41	-29345676.36	-29345676.30	0.0131	0.0128	
Mars	-85057-05-29 07:11 J	-29345497.44	-29345497.20	-29345496.94	0.0131	0.0061	
Moon	-85057-12-05 04:04 J	-29345307.37	-29345307.33	-29345307.24	0.0131	0.0127	
Earth	-85057-12-05 05:59 J	-29345307.31	-29345307.25	-29345307.19	0.0131	0.0127	*
Earth	-85056-12-09 07:40 J	-29344938.23	-29344938.18	-29344938.08	0.0132	0.0126	
Moon	-85056-12-09 09:20 J	-29344938.19	-29344938.11	-29344938.02	0.0132	0.0124	*
Mars	-85055-04-27 16:04 J	-29344799.10	-29344798.83	-29344798.55	0.0132	0.0020	
Moon	-85055-12-13 09:06 J	-29344569.17	-29344569.12	-29344569.04	0.0132	0.0127	
Earth	-85055-12-13 09:49 J	-29344569.15	-29344569.09	-29344568.98	0.0132	0.0124	*
Earth	-85054-12-17 11:59 J	-29344200.08	-29344200.00	-29344199.89	0.0132	0.0121	
Moon	-85054-12-17 13:11 J	-29344200.05	-29344199.95	-29344199.80	0.0132	0.0115	*
Mars	-85053-03-26 03:49 J	-29344100.50	-29344100.34	-29344100.14	0.0132	0.0102	
Earth	-85053-12-20 13:40 J	-29343831.02	-29343830.93	-29343830.79	0.0132	0.0118	
Moon	-85053-12-20 13:25 J	-29343831.01	-29343830.94	-29343830.85	0.0132	0.0125	*
Earth	-85052-12-24 15:35 J	-29343461.95	-29343461.85	-29343461.71	0.0132	0.0115	
Moon	-85052-12-24 16:32 J	-29343461.93	-29343461.81	-29343461.64	0.0132	0.0109	*
Moon	-85051-12-28 16:47 J	-29343092.89	-29343092.80	-29343092.67	0.0133	0.0117	
Earth	-85051-12-28 17:30 J	-29343092.88	-29343092.77	-29343092.61	0.0133	0.0111	*

Earth	-85049-01-01 19:54 J	-29342723.80	-29342723.67	-29342723.50	0.0133	0.0106
Moon	-85049-01-01 20:23 J	-29342723.79	-29342723.65	-29342723.46	0.0133	0.0102 *
Moon	-85048-01-04 21:35 J	-29342354.75	-29342354.60	-29342354.45	0.0133	0.0102
Earth	-85048-01-04 22:32 J	-29342354.72	-29342354.56	-29342354.40	0.0133	0.0101 *
Earth	-85047-01-09 01:11 J	-29341985.62	-29341985.45	-29341985.27	0.0134	0.0095
Moon	-85047-01-09 01:25 J	-29341985.60	-29341985.44	-29341985.25	0.0134	0.0096 *
Moon	-85046-01-13 03:20 J	-29341616.53	-29341616.36	-29341616.17	0.0134	0.0086
Earth	-85046-01-13 04:04 J	-29341616.50	-29341616.33	-29341616.13	0.0134	0.0089 *
Earth	-85045-01-17 07:11 J	-29341247.38	-29341247.20	-29341246.99	0.0135	0.0083
Moon	-85045-01-17 07:54 J	-29341247.34	-29341247.17	-29341246.96	0.0135	0.0089 *
Moon	-85044-01-20 10:32 J	-29340878.25	-29340878.06	-29340877.84	0.0135	0.0069
Earth	-85044-01-20 11:01 J	-29340878.23	-29340878.04	-29340877.83	0.0135	0.0075 *
Earth	-85043-01-24 14:52 J	-29340509.08	-29340508.88	-29340508.65	0.0136	0.0068
Moon	-85043-01-24 16:04 J	-29340509.04	-29340508.83	-29340508.61	0.0136	0.0074 *
Moon	-85042-01-28 18:56 J	-29340139.92	-29340139.71	-29340139.48	0.0136	0.0054
Earth	-85042-01-28 19:40 J	-29340139.90	-29340139.68	-29340139.45	0.0136	0.0060 *
Earth	-85041-02-02 00:56 J	-29339770.69	-29339770.46	-29339770.23	0.0137	0.0051
Moon	-85041-02-02 01:40 J	-29339770.66	-29339770.43	-29339770.19	0.0137	0.0054 *
Moon	-85040-02-05 05:30 J	-29339401.49	-29339401.27	-29339401.04	0.0137	0.0043
Earth	-85040-02-05 06:28 J	-29339401.46	-29339401.23	-29339400.99	0.0137	0.0043 *
Earth	-85039-02-09 12:56 J	-29339032.19	-29339031.96	-29339031.71	0.0138	0.0034
Moon	-85039-02-09 13:54 J	-29339032.17	-29339031.92	-29339031.67	0.0138	0.0031 *
Venus	-85039-09-28 07:11 J	-29338801.33	-29338801.20	-29338801.06	0.0138	0.0107
Moon	-85038-02-13 19:11 J	-29338662.93	-29338662.70	-29338662.46	0.0138	0.0030
Earth	-85038-02-13 20:23 J	-29338662.88	-29338662.65	-29338662.40	0.0138	0.0024 *
Venus	-85038-05-12 12:42 J	-29338575.16	-29338574.97	-29338574.76	0.0138	0.0044
Venus	-85038-12-24 18:56 J	-29338348.92	-29338348.71	-29338348.50	0.0139	0.0021
Earth	-85037-02-18 04:32 J	-29338293.55	-29338293.31	-29338293.06	0.0139	0.0015
Moon	-85037-02-18 05:30 J	-29338293.52	-29338293.27	-29338293.01	0.0139	0.0008 *
Mercury	-85037-07-12 04:32 J	-29338148.36	-29338148.31	-29338148.25	0.0139	0.0125

Venus -85037-08-07 01:11 J -29338122.61 -29338122.45 -29338122.28 0.0139 0.0086

Mercury -85037-10-08 08:08 J -29338060.24 -29338060.16 -29338060.07 0.0139 0.0108

Mercury -85036-01-04 11:44 J -29337972.10 -29337972.01 -29337971.90 0.0139 0.0091

Moon -85036-02-21 12:28 J -29337924.22 -29337923.98 -29337923.74 0.0139 0.0011

Earth -85036-02-21 13:54 J -29337924.17 -29337923.92 -29337923.67 0.0139 0.0004 *

Mercury -85036-04-02 15:35 J -29337883.96 -29337883.85 -29337883.73 0.0140 0.0074

Mercury -85036-06-29 19:25 J -29337795.82 -29337795.69 -29337795.56 0.0140 0.0056

Mercury -85036-09-25 23:01 J -29337707.67 -29337707.54 -29337707.40 0.0140 0.0038

Mercury -85036-12-23 02:52 J -29337619.51 -29337619.38 -29337619.24 0.0140 0.0020

Earth -85035-02-25 23:59 J -29337554.75 -29337554.50 -29337554.25 0.0140 0.0006

Moon -85035-02-26 01:40 J -29337554.68 -29337554.43 -29337554.18 0.0140 0.0012 *

Mercury -85035-03-21 06:42 J -29337531.36 -29337531.22 -29337531.08 0.0140 0.0004

Mercury -85035-06-17 10:32 J -29337443.19 -29337443.06 -29337442.92 0.0140 0.0017

Mercury -85035-09-13 14:37 J -29337355.03 -29337354.89 -29337354.76 0.0140 0.0035

Mercury -85035-12-10 18:28 J -29337266.86 -29337266.73 -29337266.60 0.0141 0.0053

Moon -85034-03-02 09:49 J -29337185.33 -29337185.09 -29337184.85 0.0141 0.0014

Earth -85034-03-02 11:16 J -29337185.27 -29337185.03 -29337184.78 0.0141 0.0017 *

Mercury -85034-03-08 22:18 J -29337178.68 -29337178.57 -29337178.44 0.0141 0.0072

Mercury -85034-06-05 02:23 J -29337090.50 -29337090.40 -29337090.29 0.0141 0.0091

Mercury -85034-09-01 06:28 J -29337002.32 -29337002.23 -29337002.14 0.0141 0.0110

Mercury -85034-11-28 10:32 J -29336914.11 -29336914.06 -29336914.01 0.0141 0.0129

Earth -85033-03-05 23:30 J -29336815.76 -29336815.52 -29336815.28 0.0141 0.0027

Moon -85033-03-06 01:40 J -29336815.67 -29336815.43 -29336815.17 0.0141 0.0026 *

Moon -85032-03-10 10:47 J -29336446.27 -29336446.05 -29336445.81 0.0142 0.0042

Earth -85032-03-10 12:42 J -29336446.20 -29336445.97 -29336445.73 0.0142 0.0038 *

Earth -85031-03-15 03:06 J -29336076.60 -29336076.37 -29336076.13 0.0142 0.0049

Moon -85031-03-15 05:44 J -29336076.50 -29336076.26 -29336076.02 0.0142 0.0042 *

Moon -85030-03-19 15:49 J -29335707.05 -29335706.84 -29335706.62 0.0143 0.0067

Earth -85030-03-19 18:28 J -29335706.94 -29335706.73 -29335706.49 0.0143 0.0059 *

Earth -85029-03-23 10:47 J -29335337.25 -29335337.05 -29335336.82 0.0144 0.0070

Moon	-85029-03-23 13:40 J	-29335337.14	-29335336.93	-29335336.69	0.0144	0.0064	*
Moon	-85028-03-28 01:11 J	-29334967.63	-29334967.45	-29334967.23	0.0144	0.0082	
Earth	-85028-03-28 04:32 J	-29334967.50	-29334967.31	-29334967.09	0.0144	0.0080	*
Earth	-85027-04-01 23:30 J	-29334597.70	-29334597.52	-29334597.31	0.0145	0.0089	
Moon	-85027-04-02 03:06 J	-29334597.57	-29334597.37	-29334597.17	0.0145	0.0089	*
Moon	-85026-04-06 16:04 J	-29334228.01	-29334227.83	-29334227.63	0.0145	0.0092	
Earth	-85026-04-06 19:25 J	-29334227.85	-29334227.69	-29334227.49	0.0145	0.0098	*
Earth	-85025-04-10 16:32 J	-29333857.96	-29333857.81	-29333857.62	0.0146	0.0107	
Moon	-85025-04-10 20:37 J	-29333857.79	-29333857.64	-29333857.48	0.0146	0.0114	*
Moon	-85024-04-15 11:44 J	-29333488.16	-29333488.01	-29333487.83	0.0146	0.0107	
Earth	-85024-04-15 15:20 J	-29333488.01	-29333487.86	-29333487.70	0.0146	0.0114	*
Earth	-85023-04-20 14:52 J	-29333118.01	-29333117.88	-29333117.74	0.0146	0.0122	
Moon	-85023-04-20 18:13 J	-29333117.85	-29333117.74	-29333117.61	0.0146	0.0127	*
Moon	-85022-04-25 12:13 J	-29332748.10	-29332747.99	-29332747.85	0.0147	0.0127	
Earth	-85022-04-25 15:20 J	-29332747.96	-29332747.86	-29332747.72	0.0147	0.0129	*
Earth	-85021-04-29 17:16 J	-29332377.86	-29332377.78	-29332377.66	0.0147	0.0134	
Moon	-85021-04-29 20:08 J	-29332377.77	-29332377.66	-29332377.54	0.0147	0.0129	*
Moon	-85020-05-04 17:44 J	-29332007.78	-29332007.76	-29332007.70	0.0147	0.0145	
Earth	-85020-05-04 20:37 J	-29332007.72	-29332007.64	-29332007.55	0.0147	0.0138	*
Earth	-85019-05-10 00:13 J	-29331637.54	-29331637.49	-29331637.42	0.0147	0.0142	
Moon	-85019-05-10 01:11 J	-29331637.52	-29331637.45	-29331637.33	0.0147	0.0136	*
Earth	-85018-05-15 04:32 J	-29331267.33	-29331267.31	-29331267.25	0.0147	0.0145	
Earth	-85017-05-19 10:04 J	-29330897.09	-29330897.08	-29330897.04	0.0147	0.0147	
Moon	-85016-05-24 17:01 J	-29330526.84	-29330526.79	-29330526.70	0.0147	0.0141	
Earth	-85016-05-24 16:04 J	-29330526.83	-29330526.83	-29330526.80	0.0147	0.0147	*
Earth	-85015-05-29 22:18 J	-29330156.57	-29330156.57	-29330156.51	0.0147	0.0147	
Mars	-85015-10-13 00:42 J	-29330020.80	-29330020.47	-29330020.13	0.0147	0.0023	
Earth	-85014-06-04 05:30 J	-29329786.30	-29329786.27	-29329786.21	0.0147	0.0144	
Moon	-85014-06-04 08:23 J	-29329786.23	-29329786.15	-29329786.05	0.0147	0.0137	*
Moon	-85013-06-08 09:49 J	-29329416.11	-29329416.09	-29329416.03	0.0147	0.0145	

Earth	-85013-06-08 12:42 J	-29329416.02	-29329415.97	-29329415.88	0.0147	0.0141
Mars	-85013-09-20 08:23 J	-29329312.33	-29329312.15	-29329311.93	0.0147	0.0118
Earth	-85012-06-13 20:08 J	-29329045.73	-29329045.66	-29329045.55	0.0147	0.0137
Moon	-85012-06-13 23:59 J	-29329045.56	-29329045.50	-29329045.41	0.0147	0.0140 *
Moon	-85011-06-19 00:28 J	-29328675.60	-29328675.48	-29328675.34	0.0146	0.0126
Earth	-85011-06-19 04:04 J	-29328675.43	-29328675.33	-29328675.21	0.0146	0.0132 *
Earth	-85010-06-24 11:44 J	-29328305.14	-29328305.01	-29328304.88	0.0146	0.0125
Moon	-85010-06-24 14:52 J	-29328304.97	-29328304.88	-29328304.76	0.0146	0.0133 *
Moon	-85009-06-28 15:49 J	-29327935.00	-29327934.84	-29327934.66	0.0145	0.0112
Earth	-85009-06-28 19:11 J	-29327934.83	-29327934.70	-29327934.53	0.0145	0.0119 *
Earth	-85008-07-04 02:37 J	-29327564.53	-29327564.39	-29327564.20	0.0145	0.0111
Moon	-85008-07-04 05:30 J	-29327564.42	-29327564.27	-29327564.10	0.0145	0.0112 *
Moon	-85007-07-09 07:54 J	-29327194.34	-29327194.17	-29327193.98	0.0145	0.0106
Earth	-85007-07-09 10:18 J	-29327194.25	-29327194.07	-29327193.88	0.0145	0.0102 *
Earth	-85006-07-14 16:47 J	-29326823.98	-29326823.80	-29326823.59	0.0144	0.0093
Moon	-85006-07-14 18:13 J	-29326823.92	-29326823.74	-29326823.52	0.0144	0.0087 *
Moon	-85005-07-18 23:01 J	-29326453.74	-29326453.54	-29326453.31	0.0144	0.0090
Earth	-85005-07-18 23:16 J	-29326453.73	-29326453.53	-29326453.31	0.0144	0.0083 *
Moon	-85004-07-24 04:47 J	-29326083.51	-29326083.30	-29326083.07	0.0143	0.0068
Earth	-85004-07-24 04:47 J	-29326083.51	-29326083.30	-29326083.06	0.0143	0.0073 *
Earth	-85003-07-29 09:49 J	-29325713.32	-29325713.09	-29325712.85	0.0142	0.0062
Moon	-85003-07-29 11:16 J	-29325713.26	-29325713.03	-29325712.77	0.0142	0.0061 *
Moon	-85002-08-03 11:44 J	-29325343.23	-29325343.01	-29325342.76	0.0142	0.0056
Earth	-85002-08-03 13:40 J	-29325343.16	-29325342.93	-29325342.67	0.0142	0.0051 *
Earth	-85001-08-07 17:01 J	-29324973.04	-29324972.79	-29324972.53	0.0141	0.0040
Moon	-85001-08-07 19:54 J	-29324972.93	-29324972.67	-29324972.41	0.0141	0.0033 *

85TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 85th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-85000-08-12 15:49 J		-29324603.08	-29324602.84	-29324602.58	0.0141	0.0036	
Earth	-85000-08-12 19:11 J		-29324602.95	-29324602.70	-29324602.44	0.0141	0.0029	*
Venus	-85000-10-23 06:56 J		-29324531.36	-29324531.21	-29324531.06	0.0141	0.0105	
Venus	-84999-06-06 18:42 J		-29324304.93	-29324304.72	-29324304.50	0.0140	0.0034	
Earth	-84999-08-17 20:08 J		-29324232.92	-29324232.66	-29324232.40	0.0140	0.0018	
Moon	-84999-08-17 23:30 J		-29324232.78	-29324232.52	-29324232.25	0.0140	0.0014	*
Venus	-84998-01-19 06:13 J		-29324078.46	-29324078.24	-29324078.02	0.0140	0.0036	
Moon	-84998-08-22 16:32 J		-29323863.07	-29323862.81	-29323862.55	0.0140	0.0006	
Earth	-84998-08-22 20:23 J		-29323862.91	-29323862.65	-29323862.39	0.0140	0.0007	*
Venus	-84998-09-02 17:01 J		-29323851.92	-29323851.79	-29323851.63	0.0139	0.0106	
Mercury	-84998-12-06 06:28 J		-29323757.31	-29323757.23	-29323757.15	0.0139	0.0125	
Mercury	-84997-03-03 13:11 J		-29323669.07	-29323668.95	-29323668.82	0.0139	0.0101	
Mercury	-84997-05-30 20:08 J		-29323580.81	-29323580.66	-29323580.50	0.0139	0.0077	
Earth	-84997-08-26 19:25 J		-29323492.96	-29323492.69	-29323492.43	0.0139	0.0004	
Moon	-84997-08-26 23:01 J		-29323492.80	-29323492.54	-29323492.28	0.0139	0.0001	*
Mercury	-84997-08-27 02:52 J		-29323492.54	-29323492.38	-29323492.21	0.0139	0.0054	*
Mercury	-84997-11-23 09:49 J		-29323404.27	-29323404.09	-29323403.91	0.0139	0.0031	
Mercury	-84996-02-19 16:32 J		-29323315.99	-29323315.81	-29323315.63	0.0139	0.0008	
Mercury	-84996-05-18 23:01 J		-29323227.71	-29323227.54	-29323227.36	0.0138	0.0015	
Mercury	-84996-08-15 05:30 J		-29323139.43	-29323139.27	-29323139.09	0.0138	0.0038	
Moon	-84996-08-31 13:25 J		-29323123.19	-29323122.94	-29323122.67	0.0138	0.0023	

Earth -84996-08-31 17:16 J -29323123.04 -29323122.78 -29323122.52 0.0138 0.0015 *
 Mercury -84996-11-11 12:13 J -29323051.15 -29323050.99 -29323050.83 0.0138 0.0059
 Mercury -84995-02-07 18:42 J -29322962.86 -29322962.72 -29322962.58 0.0138 0.0081
 Mercury -84995-05-07 00:56 J -29322874.57 -29322874.46 -29322874.34 0.0138 0.0103
 Mercury -84995-08-03 07:11 J -29322786.26 -29322786.20 -29322786.12 0.0138 0.0125
 Earth -84995-09-05 14:08 J -29322753.17 -29322752.91 -29322752.65 0.0138 0.0025
 Moon -84995-09-05 17:44 J -29322753.01 -29322752.76 -29322752.50 0.0138 0.0018 *
 Moon -84994-09-10 06:42 J -29322383.46 -29322383.22 -29322382.95 0.0137 0.0040
 Earth -84994-09-10 10:04 J -29322383.33 -29322383.08 -29322382.82 0.0137 0.0035 *
 Earth -84993-09-14 04:47 J -29322013.54 -29322013.30 -29322013.05 0.0137 0.0045
 Moon -84993-09-14 07:40 J -29322013.41 -29322013.18 -29322012.93 0.0137 0.0044 *
 Moon -84992-09-18 19:25 J -29321643.92 -29321643.69 -29321643.43 0.0136 0.0053
 Earth -84992-09-18 22:32 J -29321643.80 -29321643.56 -29321643.32 0.0136 0.0054 *
 Earth -84991-09-23 14:52 J -29321274.10 -29321273.88 -29321273.64 0.0135 0.0063
 Moon -84991-09-23 17:01 J -29321274.01 -29321273.79 -29321273.57 0.0135 0.0069 *
 Moon -84990-09-28 04:18 J -29320904.55 -29320904.32 -29320904.08 0.0135 0.0064
 Earth -84990-09-28 06:28 J -29320904.44 -29320904.23 -29320904.00 0.0135 0.0071 *
 Earth -84989-10-01 20:52 J -29320534.83 -29320534.63 -29320534.41 0.0135 0.0079
 Moon -84989-10-01 21:49 J -29320534.76 -29320534.59 -29320534.37 0.0135 0.0086 *
 Moon -84988-10-06 08:23 J -29320165.35 -29320165.15 -29320164.93 0.0134 0.0081
 Earth -84988-10-06 09:49 J -29320165.28 -29320165.09 -29320164.88 0.0134 0.0087 *
 Earth -84987-10-10 21:49 J -29319795.76 -29319795.59 -29319795.39 0.0134 0.0093
 Moon -84987-10-10 23:01 J -29319795.71 -29319795.54 -29319795.35 0.0134 0.0095 *
 Moon -84986-10-15 08:08 J -29319426.31 -29319426.16 -29319425.96 0.0133 0.0102
 Earth -84986-10-15 08:52 J -29319426.28 -29319426.13 -29319425.94 0.0133 0.0099 *
 Earth -84985-10-18 18:56 J -29319056.85 -29319056.71 -29319056.53 0.0133 0.0105
 Moon -84985-10-18 19:54 J -29319056.82 -29319056.67 -29319056.49 0.0133 0.0101 *
 Earth -84984-10-23 04:04 J -29318687.45 -29318687.33 -29318687.16 0.0133 0.0110
 Moon -84984-10-23 04:04 J -29318687.43 -29318687.33 -29318687.17 0.0133 0.0116 *
 Earth -84983-10-27 13:11 J -29318318.08 -29318317.95 -29318317.82 0.0132 0.0114

Moon	-84983-10-27 12:56 J	-29318318.08	-29318317.96	-29318317.80	0.0132	0.0108	*
Earth	-84982-10-31 20:52 J	-29317948.74	-29317948.63	-29317948.51	0.0132	0.0118	
Moon	-84982-10-31 20:52 J	-29317948.73	-29317948.63	-29317948.53	0.0132	0.0123	*
Moon	-84981-11-04 03:06 J	-29317579.46	-29317579.37	-29317579.24	0.0132	0.0118	
Earth	-84981-11-04 03:35 J	-29317579.44	-29317579.35	-29317579.24	0.0132	0.0121	*
Moon	-84980-11-08 09:35 J	-29317210.16	-29317210.10	-29317210.00	0.0132	0.0125	
Earth	-84980-11-08 09:35 J	-29317210.16	-29317210.10	-29317210.00	0.0132	0.0124	*
Moon	-84979-11-12 14:52 J	-29316840.91	-29316840.88	-29316840.82	0.0132	0.0129	
Earth	-84979-11-12 15:35 J	-29316840.91	-29316840.85	-29316840.77	0.0132	0.0126	*
Moon	-84978-11-16 20:52 J	-29316471.71	-29316471.63	-29316471.52	0.0131	0.0123	
Earth	-84978-11-16 20:37 J	-29316471.68	-29316471.64	-29316471.57	0.0131	0.0128	*
Earth	-84977-11-20 01:11 J	-29316102.49	-29316102.45	-29316102.39	0.0131	0.0129	
Moon	-84976-11-24 05:59 J	-29315733.34	-29315733.25	-29315733.15	0.0131	0.0122	
Earth	-84976-11-24 05:01 J	-29315733.31	-29315733.29	-29315733.23	0.0131	0.0129	*
Earth	-84975-11-28 08:52 J	-29315364.17	-29315364.13	-29315364.08	0.0131	0.0129	
Mars	-84974-02-22 19:25 J	-29315277.83	-29315277.69	-29315277.51	0.0131	0.0108	
Earth	-84974-12-02 11:30 J	-29314995.05	-29314995.02	-29314994.95	0.0131	0.0128	
Moon	-84974-12-02 12:42 J	-29314995.05	-29314994.97	-29314994.88	0.0131	0.0124	*
Earth	-84973-12-05 14:23 J	-29314625.95	-29314625.90	-29314625.82	0.0132	0.0127	
Moon	-84973-12-05 13:54 J	-29314625.94	-29314625.92	-29314625.86	0.0132	0.0130	*
Mars	-84972-01-21 02:37 J	-29314579.66	-29314579.39	-29314579.11	0.0132	0.0028	
Earth	-84972-12-09 16:32 J	-29314256.87	-29314256.81	-29314256.72	0.0132	0.0125	
Moon	-84972-12-09 16:47 J	-29314256.86	-29314256.80	-29314256.70	0.0132	0.0125	*
Moon	-84971-12-13 17:59 J	-29313887.83	-29313887.75	-29313887.63	0.0132	0.0120	
Earth	-84971-12-13 18:28 J	-29313887.79	-29313887.73	-29313887.61	0.0132	0.0123	*
Mars	-84971-12-20 12:56 J	-29313881.21	-29313880.96	-29313880.70	0.0132	0.0052	
Earth	-84970-12-17 20:37 J	-29313518.72	-29313518.64	-29313518.51	0.0132	0.0120	
Moon	-84970-12-17 20:37 J	-29313518.70	-29313518.64	-29313518.53	0.0132	0.0124	*
Moon	-84969-12-20 22:32 J	-29313149.69	-29313149.56	-29313149.43	0.0132	0.0110	
Earth	-84969-12-20 22:47 J	-29313149.65	-29313149.55	-29313149.42	0.0132	0.0117	*

Earth	-84968-12-25 00:42 J	-29312780.58	-29312780.47	-29312780.32	0.0132	0.0113
Moon	-84968-12-25 00:42 J	-29312780.56	-29312780.47	-29312780.34	0.0132	0.0120 *
Moon	-84967-12-29 02:52 J	-29312411.52	-29312411.38	-29312411.22	0.0133	0.0103
Earth	-84967-12-29 02:37 J	-29312411.51	-29312411.39	-29312411.22	0.0133	0.0109 *
Earth	-84965-01-02 05:16 J	-29312042.42	-29312042.28	-29312042.11	0.0133	0.0103
Moon	-84965-01-02 05:30 J	-29312042.40	-29312042.27	-29312042.10	0.0133	0.0107 *
Earth	-84964-01-05 07:25 J	-29311673.33	-29311673.19	-29311673.00	0.0133	0.0099
Moon	-84964-01-05 08:08 J	-29311673.32	-29311673.16	-29311672.99	0.0133	0.0096 *
Earth	-84963-01-09 10:32 J	-29311304.23	-29311304.06	-29311303.87	0.0134	0.0092
Moon	-84963-01-09 10:32 J	-29311304.23	-29311304.06	-29311303.85	0.0134	0.0091 *
Earth	-84962-01-13 13:25 J	-29310935.12	-29310934.94	-29310934.74	0.0134	0.0086
Moon	-84962-01-13 13:25 J	-29310935.11	-29310934.94	-29310934.75	0.0134	0.0089 *
Moon	-84961-01-17 16:32 J	-29310566.01	-29310565.81	-29310565.58	0.0135	0.0074
Earth	-84961-01-17 16:32 J	-29310565.99	-29310565.81	-29310565.59	0.0135	0.0079 *
Earth	-84960-01-20 20:08 J	-29310196.86	-29310196.66	-29310196.44	0.0135	0.0071
Moon	-84960-01-20 19:54 J	-29310196.85	-29310196.67	-29310196.47	0.0135	0.0078 *
Moon	-84959-01-24 23:44 J	-29309827.72	-29309827.51	-29309827.26	0.0136	0.0057
Earth	-84959-01-25 00:13 J	-29309827.70	-29309827.49	-29309827.26	0.0136	0.0063 *
Moon	-84958-01-29 04:32 J	-29309458.51	-29309458.31	-29309458.08	0.0136	0.0061
Earth	-84958-01-29 04:47 J	-29309458.51	-29309458.30	-29309458.06	0.0136	0.0055 *
Earth	-84957-02-02 09:49 J	-29309089.31	-29309089.09	-29309088.85	0.0137	0.0047
Moon	-84957-02-02 10:04 J	-29309089.31	-29309089.08	-29309088.83	0.0137	0.0043 *
Earth	-84956-02-05 15:35 J	-29308720.07	-29308719.85	-29308719.60	0.0137	0.0038
Moon	-84956-02-05 15:49 J	-29308720.06	-29308719.84	-29308719.61	0.0137	0.0039 *
Earth	-84955-02-09 22:18 J	-29308350.80	-29308350.57	-29308350.32	0.0138	0.0029
Moon	-84955-02-09 23:01 J	-29308350.79	-29308350.54	-29308350.29	0.0138	0.0031 *
Venus	-84954-01-09 21:49 J	-29308016.76	-29308016.59	-29308016.40	0.0138	0.0075
Moon	-84954-02-14 05:44 J	-29307981.50	-29307981.26	-29307981.02	0.0138	0.0014
Earth	-84954-02-14 05:44 J	-29307981.50	-29307981.26	-29307981.01	0.0138	0.0019 *
Venus	-84954-08-24 03:49 J	-29307790.55	-29307790.34	-29307790.13	0.0139	0.0012

Earth -84953-02-18 13:54 J -29307612.16 -29307611.92 -29307611.67 0.0139 0.0009
 Moon -84953-02-18 14:37 J -29307612.14 -29307611.89 -29307611.63 0.0139 0.0015 *
 Venus -84953-04-06 09:49 J -29307564.28 -29307564.09 -29307563.89 0.0139 0.0053
 Mercury -84953-08-01 11:30 J -29307447.08 -29307447.02 -29307446.95 0.0139 0.0122
 Mercury -84953-10-28 15:06 J -29307358.95 -29307358.87 -29307358.78 0.0139 0.0105
 Venus -84953-11-18 15:49 J -29307337.93 -29307337.84 -29307337.71 0.0139 0.0119
 Mercury -84952-01-24 18:42 J -29307270.82 -29307270.72 -29307270.60 0.0139 0.0089
 Moon -84952-02-21 22:32 J -29307242.80 -29307242.56 -29307242.32 0.0139 0.0009
 Earth -84952-02-21 23:01 J -29307242.78 -29307242.54 -29307242.29 0.0139 0.0003 *
 Mercury -84952-04-22 22:32 J -29307182.67 -29307182.56 -29307182.44 0.0140 0.0071
 Mercury -84952-07-20 02:23 J -29307094.53 -29307094.40 -29307094.27 0.0140 0.0053
 Mercury -84952-10-16 06:13 J -29307006.38 -29307006.24 -29307006.11 0.0140 0.0035
 Mercury -84951-01-12 09:49 J -29306918.22 -29306918.09 -29306917.95 0.0140 0.0018
 Earth -84951-02-26 09:20 J -29306873.36 -29306873.11 -29306872.86 0.0140 0.0012
 Moon -84951-02-26 10:04 J -29306873.33 -29306873.08 -29306872.82 0.0140 0.0006 *
 Mercury -84951-04-10 13:40 J -29306830.07 -29306829.93 -29306829.79 0.0140 0.0004
 Mercury -84951-07-07 17:44 J -29306741.90 -29306741.76 -29306741.63 0.0140 0.0020
 Mercury -84951-10-03 21:35 J -29306653.74 -29306653.60 -29306653.47 0.0140 0.0038
 Mercury -84951-12-31 01:25 J -29306565.57 -29306565.44 -29306565.31 0.0141 0.0056
 Moon -84950-03-02 19:11 J -29306503.93 -29306503.70 -29306503.46 0.0141 0.0025
 Earth -84950-03-02 20:37 J -29306503.88 -29306503.64 -29306503.40 0.0141 0.0022 *
 Mercury -84950-03-29 05:30 J -29306477.39 -29306477.27 -29306477.16 0.0141 0.0075
 Mercury -84950-06-25 09:20 J -29306389.21 -29306389.11 -29306389.00 0.0141 0.0094
 Mercury -84950-09-21 13:25 J -29306301.02 -29306300.94 -29306300.86 0.0141 0.0113
 Mercury -84950-12-18 17:30 J -29306212.82 -29306212.77 -29306212.72 0.0141 0.0132
 Earth -84949-03-06 08:37 J -29306134.38 -29306134.14 -29306133.90 0.0141 0.0033
 Moon -84949-03-06 09:35 J -29306134.34 -29306134.10 -29306133.84 0.0141 0.0033 *
 Moon -84948-03-10 20:08 J -29305764.89 -29305764.66 -29305764.43 0.0142 0.0039
 Earth -84948-03-10 21:49 J -29305764.82 -29305764.59 -29305764.35 0.0142 0.0043 *
 Earth -84947-03-15 11:59 J -29305395.22 -29305395.00 -29305394.77 0.0142 0.0054

Moon	-84947-03-15 13:40 J	-29305395.15	-29305394.93	-29305394.69	0.0142	0.0061	*
Moon	-84946-03-20 01:11 J	-29305025.66	-29305025.45	-29305025.22	0.0143	0.0058	
Earth	-84946-03-20 03:20 J	-29305025.58	-29305025.36	-29305025.14	0.0143	0.0064	*
Earth	-84945-03-23 19:25 J	-29304655.89	-29304655.69	-29304655.46	0.0144	0.0075	
Moon	-84945-03-23 22:04 J	-29304655.77	-29304655.58	-29304655.35	0.0144	0.0081	*
Moon	-84944-03-28 10:32 J	-29304286.25	-29304286.06	-29304285.84	0.0144	0.0080	
Earth	-84944-03-28 12:56 J	-29304286.14	-29304285.96	-29304285.74	0.0144	0.0085	*
Earth	-84943-04-02 07:40 J	-29303916.35	-29303916.18	-29303915.97	0.0145	0.0094	
Moon	-84943-04-02 11:01 J	-29303916.22	-29303916.04	-29303915.83	0.0145	0.0092	*
Moon	-84942-04-07 00:42 J	-29303546.63	-29303546.47	-29303546.30	0.0145	0.0106	
Earth	-84942-04-07 03:49 J	-29303546.50	-29303546.34	-29303546.15	0.0145	0.0102	*
Earth	-84941-04-11 00:42 J	-29303176.61	-29303176.47	-29303176.29	0.0146	0.0111	
Moon	-84941-04-11 04:32 J	-29303176.49	-29303176.31	-29303176.13	0.0146	0.0103	*
Moon	-84940-04-15 19:40 J	-29302806.79	-29302806.68	-29302806.55	0.0146	0.0126	
Earth	-84940-04-15 23:16 J	-29302806.66	-29302806.53	-29302806.37	0.0146	0.0118	*
Earth	-84939-04-20 22:47 J	-29302436.66	-29302436.55	-29302436.41	0.0146	0.0125	
Moon	-84939-04-21 02:37 J	-29302436.53	-29302436.39	-29302436.25	0.0146	0.0120	*
Moon	-84938-04-25 20:08 J	-29302066.75	-29302066.66	-29302066.54	0.0147	0.0132	
Earth	-84938-04-25 23:30 J	-29302066.61	-29302066.52	-29302066.39	0.0147	0.0132	*
Earth	-84937-04-30 01:11 J	-29301696.52	-29301696.45	-29301696.34	0.0147	0.0137	
Moon	-84937-04-30 04:32 J	-29301696.36	-29301696.31	-29301696.22	0.0147	0.0140	*
Moon	-84936-05-05 02:08 J	-29301326.52	-29301326.41	-29301326.31	0.0147	0.0133	
Earth	-84936-05-05 04:18 J	-29301326.37	-29301326.32	-29301326.24	0.0147	0.0141	*
Earth	-84935-05-10 07:54 J	-29300956.20	-29300956.17	-29300956.11	0.0147	0.0144	
Moon	-84934-05-15 11:01 J	-29300586.09	-29300586.04	-29300585.95	0.0147	0.0142	
Earth	-84934-05-15 12:28 J	-29300585.99	-29300585.98	-29300585.94	0.0147	0.0147	*
Earth	-84933-05-19 17:59 J	-29300215.75	-29300215.75	-29300215.74	0.0147	0.0147	
Earth	-84932-05-24 23:44 J	-29299845.51	-29299845.51	-29299845.48	0.0147	0.0147	
Mars	-84932-07-01 02:52 J	-29299808.60	-29299808.38	-29299808.16	0.0147	0.0112	
Moon	-84931-05-30 05:01 J	-29299475.36	-29299475.29	-29299475.20	0.0147	0.0138	

Earth	-84931-05-30 06:28 J	-29299475.26	-29299475.23	-29299475.20	0.0147	0.0146	*
Earth	-84930-06-04 12:42 J	-29299105.01	-29299104.97	-29299104.89	0.0147	0.0143	
Mars	-84930-06-09 17:01 J	-29299100.11	-29299099.79	-29299099.45	0.0147	0.0031	
Moon	-84929-06-08 17:16 J	-29298734.85	-29298734.78	-29298734.68	0.0147	0.0137	
Earth	-84929-06-08 19:54 J	-29298734.72	-29298734.67	-29298734.57	0.0147	0.0140	*
Earth	-84928-06-14 03:49 J	-29298364.43	-29298364.34	-29298364.24	0.0147	0.0135	
Moon	-84928-06-14 06:42 J	-29298364.31	-29298364.22	-29298364.10	0.0147	0.0134	*
Moon	-84927-06-19 07:54 J	-29297994.26	-29297994.17	-29297994.08	0.0146	0.0136	
Earth	-84927-06-19 11:01 J	-29297994.14	-29297994.04	-29297993.90	0.0146	0.0130	*
Earth	-84926-06-24 18:56 J	-29297623.84	-29297623.71	-29297623.56	0.0146	0.0123	
Moon	-84926-06-24 22:32 J	-29297623.70	-29297623.56	-29297623.38	0.0146	0.0115	*
Moon	-84925-06-28 23:16 J	-29297253.66	-29297253.53	-29297253.38	0.0145	0.0122	
Earth	-84925-06-29 02:37 J	-29297253.53	-29297253.39	-29297253.22	0.0145	0.0116	*
Saturn	-84924-03-20 02:37 J	-29296990.02	-29296989.39	-29296988.75	0.0145	0.0014	
Earth	-84924-07-04 10:04 J	-29296883.24	-29296883.08	-29296882.89	0.0145	0.0107	
Moon	-84924-07-04 13:11 J	-29296883.10	-29296882.95	-29296882.76	0.0145	0.0106	*
Moon	-84923-07-09 14:52 J	-29296513.08	-29296512.88	-29296512.68	0.0145	0.0096	
Earth	-84923-07-09 17:16 J	-29296512.95	-29296512.78	-29296512.57	0.0145	0.0099	*
Earth	-84922-07-15 00:13 J	-29296142.69	-29296142.49	-29296142.28	0.0144	0.0089	
Moon	-84922-07-15 01:40 J	-29296142.60	-29296142.43	-29296142.22	0.0144	0.0097	*
Moon	-84921-07-19 05:16 J	-29295772.52	-29295772.28	-29295772.05	0.0144	0.0071	
Earth	-84921-07-19 06:28 J	-29295772.44	-29295772.23	-29295772.00	0.0144	0.0079	*
Earth	-84920-07-24 11:59 J	-29295402.22	-29295402.00	-29295401.75	0.0143	0.0068	
Moon	-84920-07-24 11:59 J	-29295402.20	-29295402.00	-29295401.77	0.0143	0.0072	*
Earth	-84919-07-29 17:01 J	-29295032.03	-29295031.79	-29295031.55	0.0142	0.0057	
Moon	-84919-07-29 17:01 J	-29295032.03	-29295031.79	-29295031.53	0.0142	0.0056	*
Moon	-84918-08-03 19:25 J	-29294661.92	-29294661.69	-29294661.44	0.0142	0.0042	
Earth	-84918-08-03 20:52 J	-29294661.87	-29294661.63	-29294661.37	0.0142	0.0046	*
Earth	-84917-08-07 23:59 J	-29294291.75	-29294291.50	-29294291.24	0.0141	0.0035	
Moon	-84917-08-08 02:23 J	-29294291.66	-29294291.40	-29294291.14	0.0141	0.0042	*

Moon -84916-08-12 23:44 J -29293921.77 -29293921.51 -29293921.26 0.0141 0.0017
 Earth -84916-08-13 01:54 J -29293921.67 -29293921.42 -29293921.15 0.0141 0.0024 *
 Venus -84915-02-03 23:01 J -29293746.72 -29293746.54 -29293746.34 0.0140 0.0071
 Earth -84915-08-18 03:06 J -29293551.63 -29293551.37 -29293551.11 0.0140 0.0012
 Moon -84915-08-18 06:28 J -29293551.49 -29293551.23 -29293550.96 0.0140 0.0016 *
 Venus -84915-09-18 10:47 J -29293520.27 -29293520.05 -29293519.82 0.0140 0.0001
 Venus -84914-05-02 21:49 J -29293293.77 -29293293.59 -29293293.38 0.0140 0.0070
 Moon -84914-08-23 00:13 J -29293181.75 -29293181.49 -29293181.23 0.0139 0.0002
 Earth -84914-08-23 03:20 J -29293181.62 -29293181.36 -29293181.10 0.0139 0.0002 *
 Venus -84914-12-15 08:52 J -29293067.14 -29293067.13 -29293067.09 0.0139 0.0139
 Mercury -84914-12-26 12:28 J -29293056.05 -29293055.98 -29293055.88 0.0139 0.0123
 Mercury -84913-03-23 19:40 J -29292967.80 -29292967.68 -29292967.55 0.0139 0.0098
 Mercury -84913-06-20 02:23 J -29292879.54 -29292879.40 -29292879.23 0.0139 0.0075
 Earth -84913-08-27 02:23 J -29292811.66 -29292811.40 -29292811.14 0.0139 0.0010
 Moon -84913-08-27 05:59 J -29292811.50 -29292811.25 -29292810.98 0.0139 0.0015 *
 Mercury -84913-09-16 09:35 J -29292791.27 -29292791.10 -29292790.93 0.0139 0.0051
 Mercury -84913-12-13 16:18 J -29292703.00 -29292702.82 -29292702.64 0.0139 0.0028
 Mercury -84912-03-11 23:01 J -29292614.72 -29292614.54 -29292614.36 0.0139 0.0005
 Mercury -84912-06-08 05:30 J -29292526.44 -29292526.27 -29292526.09 0.0138 0.0018
 Moon -84912-08-31 20:37 J -29292441.89 -29292441.64 -29292441.37 0.0138 0.0014
 Earth -84912-09-01 00:28 J -29292441.73 -29292441.48 -29292441.21 0.0138 0.0020 *
 Mercury -84912-09-04 11:59 J -29292438.16 -29292438.00 -29292437.82 0.0138 0.0041
 Mercury -84912-12-01 18:42 J -29292349.88 -29292349.72 -29292349.56 0.0138 0.0062
 Mercury -84911-02-28 01:11 J -29292261.59 -29292261.45 -29292261.31 0.0138 0.0084
 Mercury -84911-05-27 07:25 J -29292173.29 -29292173.19 -29292173.07 0.0138 0.0106
 Mercury -84911-08-23 13:40 J -29292084.98 -29292084.93 -29292084.85 0.0138 0.0128
 Earth -84911-09-05 21:20 J -29292071.86 -29292071.61 -29292071.35 0.0138 0.0031
 Moon -84911-09-06 00:42 J -29292071.71 -29292071.47 -29292071.21 0.0138 0.0038 *
 Moon -84910-09-10 13:25 J -29291702.18 -29291701.94 -29291701.67 0.0137 0.0035
 Earth -84910-09-10 17:16 J -29291702.02 -29291701.78 -29291701.52 0.0137 0.0041 *

Earth	-84909-09-14 11:59 J	-29291332.23	-29291332.00	-29291331.74	0.0137	0.0051
Moon	-84909-09-14 15:20 J	-29291332.08	-29291331.86	-29291331.61	0.0137	0.0053 *
Moon	-84908-09-19 02:52 J	-29290962.62	-29290962.38	-29290962.14	0.0136	0.0061
Earth	-84908-09-19 05:44 J	-29290962.48	-29290962.26	-29290962.01	0.0136	0.0059 *
Earth	-84907-09-23 22:32 J	-29290592.79	-29290592.56	-29290592.33	0.0136	0.0068
Moon	-84907-09-24 01:25 J	-29290592.66	-29290592.44	-29290592.21	0.0136	0.0064 *
Moon	-84906-09-28 11:16 J	-29290223.22	-29290223.03	-29290222.80	0.0135	0.0083
Earth	-84906-09-28 13:54 J	-29290223.12	-29290222.92	-29290222.70	0.0135	0.0076 *
Earth	-84905-10-02 04:04 J	-29289853.52	-29289853.33	-29289853.12	0.0135	0.0084
Moon	-84905-10-02 06:42 J	-29289853.43	-29289853.22	-29289853.01	0.0135	0.0077 *
Moon	-84904-10-06 15:20 J	-29289484.04	-29289483.86	-29289483.67	0.0134	0.0095
Earth	-84904-10-06 17:30 J	-29289483.96	-29289483.77	-29289483.58	0.0134	0.0091 *
Earth	-84903-10-11 05:30 J	-29289114.44	-29289114.27	-29289114.09	0.0134	0.0097
Moon	-84903-10-11 06:42 J	-29289114.38	-29289114.22	-29289114.03	0.0134	0.0096 *
Moon	-84902-10-15 14:37 J	-29288745.04	-29288744.89	-29288744.70	0.0133	0.0103
Earth	-84902-10-15 16:47 J	-29288744.96	-29288744.80	-29288744.63	0.0133	0.0103 *
Earth	-84901-10-19 02:37 J	-29288375.52	-29288375.39	-29288375.22	0.0133	0.0108
Moon	-84901-10-19 03:35 J	-29288375.46	-29288375.35	-29288375.20	0.0133	0.0113 *
Moon	-84900-10-23 10:18 J	-29288006.20	-29288006.07	-29288005.89	0.0133	0.0107
Earth	-84900-10-23 11:59 J	-29288006.12	-29288006.00	-29288005.85	0.0133	0.0113 *
Earth	-84899-10-27 20:37 J	-29287636.75	-29287636.64	-29287636.51	0.0132	0.0117
Moon	-84899-10-27 21:06 J	-29287636.68	-29287636.62	-29287636.51	0.0132	0.0124 *
Moon	-84898-11-01 03:35 J	-29287267.46	-29287267.35	-29287267.20	0.0132	0.0114
Earth	-84898-11-01 04:32 J	-29287267.41	-29287267.31	-29287267.20	0.0132	0.0120 *
Earth	-84897-11-04 11:30 J	-29286898.10	-29286898.02	-29286897.93	0.0132	0.0123
Moon	-84897-11-04 12:13 J	-29286898.03	-29286897.99	-29286897.92	0.0132	0.0128 *
Moon	-84896-11-08 17:16 J	-29286528.84	-29286528.78	-29286528.67	0.0132	0.0125
Earth	-84896-11-08 17:44 J	-29286528.82	-29286528.76	-29286528.67	0.0132	0.0126 *
Earth	-84895-11-12 23:30 J	-29286159.56	-29286159.52	-29286159.45	0.0132	0.0128
Moon	-84895-11-13 00:28 J	-29286159.54	-29286159.48	-29286159.42	0.0132	0.0127 *

Earth	-84894-11-17 05:01 J	-29285790.33	-29285790.29	-29285790.24	0.0132	0.0129
Moon	-84893-11-20 09:35 J	-29285421.17	-29285421.10	-29285421.01	0.0131	0.0124
Earth	-84893-11-20 09:20 J	-29285421.14	-29285421.11	-29285421.06	0.0131	0.0130 *
Earth	-84892-11-24 13:11 J	-29285051.98	-29285051.95	-29285051.90	0.0131	0.0130
Moon	-84891-11-28 16:32 J	-29284682.88	-29284682.81	-29284682.72	0.0131	0.0124
Earth	-84891-11-28 16:18 J	-29284682.84	-29284682.82	-29284682.75	0.0131	0.0130 *
Mars	-84890-10-17 13:54 J	-29284360.14	-29284359.92	-29284359.68	0.0131	0.0076
Earth	-84890-12-02 19:54 J	-29284313.72	-29284313.67	-29284313.61	0.0131	0.0128
Earth	-84889-12-05 22:04 J	-29283944.63	-29283944.58	-29283944.49	0.0132	0.0127
Moon	-84889-12-05 22:18 J	-29283944.63	-29283944.57	-29283944.47	0.0132	0.0125 *
Mars	-84888-09-14 21:35 J	-29283661.88	-29283661.60	-29283661.31	0.0132	0.0004
Moon	-84888-12-10 00:28 J	-29283575.55	-29283575.48	-29283575.38	0.0132	0.0124
Earth	-84888-12-10 00:28 J	-29283575.54	-29283575.48	-29283575.38	0.0132	0.0125 *
Earth	-84887-12-14 02:52 J	-29283206.45	-29283206.38	-29283206.27	0.0132	0.0122
Moon	-84887-12-14 03:35 J	-29283206.41	-29283206.35	-29283206.25	0.0132	0.0124 *
Mars	-84886-08-14 06:56 J	-29282963.41	-29282963.21	-29282962.97	0.0132	0.0084
Moon	-84886-12-18 05:16 J	-29282837.41	-29282837.28	-29282837.15	0.0132	0.0113
Earth	-84886-12-18 05:01 J	-29282837.38	-29282837.29	-29282837.16	0.0132	0.0119 *
Earth	-84885-12-21 07:11 J	-29282468.30	-29282468.20	-29282468.06	0.0132	0.0115
Moon	-84885-12-21 07:54 J	-29282468.25	-29282468.17	-29282468.06	0.0132	0.0122 *
Moon	-84884-12-25 08:37 J	-29282099.27	-29282099.14	-29282098.96	0.0132	0.0105
Earth	-84884-12-25 09:35 J	-29282099.23	-29282099.10	-29282098.96	0.0132	0.0111 *
Earth	-84883-12-29 11:44 J	-29281730.15	-29281730.01	-29281729.85	0.0133	0.0106
Moon	-84883-12-29 11:59 J	-29281730.11	-29281730.00	-29281729.86	0.0133	0.0113 *
Moon	-84881-01-02 13:25 J	-29281361.11	-29281360.94	-29281360.76	0.0133	0.0095
Earth	-84881-01-02 14:08 J	-29281361.06	-29281360.91	-29281360.73	0.0133	0.0101 *
Saturn	-84881-06-06 22:47 J	-29281204.89	-29281204.55	-29281204.09	0.0133	0.0104
Earth	-84880-01-05 16:32 J	-29280991.97	-29280991.81	-29280991.62	0.0133	0.0095
Moon	-84880-01-05 16:47 J	-29280991.94	-29280991.80	-29280991.62	0.0133	0.0098 *
Moon	-84879-01-09 18:28 J	-29280622.90	-29280622.73	-29280622.52	0.0134	0.0089

Earth	-84879-01-09 19:25 J	-29280622.86	-29280622.69	-29280622.49	0.0134	0.0089	*
Earth	-84878-01-13 22:18 J	-29280253.75	-29280253.57	-29280253.36	0.0134	0.0082	
Moon	-84878-01-13 23:01 J	-29280253.71	-29280253.54	-29280253.33	0.0134	0.0080	*
Moon	-84877-01-18 01:11 J	-29279884.65	-29279884.45	-29279884.24	0.0135	0.0080	
Earth	-84877-01-18 01:40 J	-29279884.63	-29279884.43	-29279884.22	0.0135	0.0075	*
Earth	-84876-01-21 05:16 J	-29279515.49	-29279515.28	-29279515.06	0.0135	0.0067	
Moon	-84876-01-21 06:13 J	-29279515.45	-29279515.24	-29279515.02	0.0135	0.0061	*
Moon	-84875-01-25 08:52 J	-29279146.34	-29279146.13	-29279145.89	0.0136	0.0066	
Earth	-84875-01-25 09:35 J	-29279146.32	-29279146.10	-29279145.88	0.0136	0.0059	*
Earth	-84874-01-29 13:54 J	-29278777.14	-29278776.92	-29278776.68	0.0136	0.0051	
Moon	-84874-01-29 14:52 J	-29278777.11	-29278776.88	-29278776.66	0.0136	0.0044	*
Moon	-84873-02-02 18:28 J	-29278407.96	-29278407.73	-29278407.48	0.0137	0.0046	
Earth	-84873-02-02 19:25 J	-29278407.93	-29278407.69	-29278407.46	0.0137	0.0042	*
Earth	-84872-02-06 00:56 J	-29278038.69	-29278038.46	-29278038.21	0.0137	0.0033	
Moon	-84872-02-06 01:25 J	-29278038.67	-29278038.44	-29278038.21	0.0137	0.0032	*
Moon	-84871-02-10 06:56 J	-29277669.45	-29277669.21	-29277668.95	0.0138	0.0023	
Earth	-84871-02-10 07:40 J	-29277669.41	-29277669.18	-29277668.93	0.0138	0.0024	*
Venus	-84871-09-09 06:42 J	-29277458.33	-29277458.22	-29277458.07	0.0138	0.0107	
Earth	-84870-02-14 15:20 J	-29277300.10	-29277299.86	-29277299.61	0.0138	0.0014	
Moon	-84870-02-14 15:20 J	-29277300.09	-29277299.86	-29277299.62	0.0138	0.0019	*
Venus	-84870-04-23 12:42 J	-29277232.16	-29277231.97	-29277231.76	0.0138	0.0044	
Venus	-84870-12-05 18:56 J	-29277005.91	-29277005.71	-29277005.50	0.0139	0.0021	
Moon	-84869-02-18 23:30 J	-29276930.78	-29276930.52	-29276930.27	0.0139	0.0003	
Earth	-84869-02-18 23:44 J	-29276930.76	-29276930.51	-29276930.26	0.0139	0.0004	*
Mercury	-84869-05-25 14:52 J	-29276833.90	-29276833.88	-29276833.85	0.0139	0.0136	
Venus	-84869-07-19 01:11 J	-29276779.61	-29276779.45	-29276779.28	0.0139	0.0085	
Mercury	-84869-08-21 18:28 J	-29276745.79	-29276745.73	-29276745.65	0.0139	0.0120	
Mercury	-84869-11-17 22:04 J	-29276657.66	-29276657.58	-29276657.48	0.0139	0.0103	
Mercury	-84868-02-14 01:54 J	-29276569.52	-29276569.42	-29276569.31	0.0139	0.0085	
Earth	-84868-02-22 09:06 J	-29276561.37	-29276561.12	-29276560.87	0.0139	0.0007	

Moon -84868-02-22 09:06 J -29276561.35 -29276561.12 -29276560.88 0.0139 0.0002 *
 Mercury -84868-05-13 05:30 J -29276481.38 -29276481.27 -29276481.14 0.0140 0.0068
 Mercury -84868-08-09 09:20 J -29276393.23 -29276393.11 -29276392.98 0.0140 0.0050
 Mercury -84868-11-05 13:11 J -29276305.08 -29276304.95 -29276304.81 0.0140 0.0032
 Mercury -84867-02-01 17:01 J -29276216.93 -29276216.79 -29276216.65 0.0140 0.0014
 Earth -84867-02-26 19:25 J -29276191.93 -29276191.69 -29276191.44 0.0140 0.0017
 Moon -84867-02-26 19:40 J -29276191.92 -29276191.68 -29276191.42 0.0140 0.0024 *
 Mercury -84867-04-30 20:52 J -29276128.77 -29276128.63 -29276128.49 0.0140 0.0004
 Mercury -84867-07-28 00:42 J -29276040.61 -29276040.47 -29276040.33 0.0140 0.0023
 Mercury -84867-10-24 04:32 J -29275952.44 -29275952.31 -29275952.17 0.0140 0.0041
 Mercury -84866-01-20 08:37 J -29275864.27 -29275864.14 -29275864.02 0.0141 0.0060
 Moon -84866-03-03 06:28 J -29275822.47 -29275822.23 -29275822.00 0.0141 0.0024
 Earth -84866-03-03 06:28 J -29275822.47 -29275822.23 -29275821.98 0.0141 0.0028 *
 Mercury -84866-04-18 12:28 J -29275776.09 -29275775.98 -29275775.86 0.0141 0.0079
 Mercury -84866-07-15 16:18 J -29275687.91 -29275687.82 -29275687.71 0.0141 0.0098
 Mercury -84866-10-11 20:23 J -29275599.72 -29275599.65 -29275599.57 0.0141 0.0117
 Mercury -84865-01-08 00:28 J -29275511.51 -29275511.48 -29275511.44 0.0141 0.0136
 Earth -84865-03-06 18:28 J -29275452.96 -29275452.73 -29275452.48 0.0141 0.0039
 Moon -84865-03-06 19:40 J -29275452.92 -29275452.68 -29275452.43 0.0141 0.0038 *
 Moon -84864-03-11 06:56 J -29275083.43 -29275083.21 -29275082.98 0.0142 0.0052
 Earth -84864-03-11 07:40 J -29275083.40 -29275083.18 -29275082.94 0.0142 0.0049 *
 Earth -84863-03-15 21:49 J -29274713.80 -29274713.59 -29274713.36 0.0143 0.0059
 Moon -84863-03-15 23:01 J -29274713.76 -29274713.54 -29274713.29 0.0143 0.0054 *
 Moon -84862-03-20 11:30 J -29274344.22 -29274344.02 -29274343.81 0.0143 0.0077
 Earth -84862-03-20 13:11 J -29274344.16 -29274343.95 -29274343.72 0.0143 0.0069 *
 Earth -84861-03-24 05:16 J -29273974.47 -29273974.28 -29273974.05 0.0144 0.0080
 Moon -84861-03-24 07:11 J -29273974.41 -29273974.20 -29273973.97 0.0144 0.0073 *
 Moon -84860-03-28 20:23 J -29273604.81 -29273604.65 -29273604.44 0.0144 0.0093
 Earth -84860-03-28 23:16 J -29273604.72 -29273604.53 -29273604.33 0.0144 0.0089 *
 Earth -84859-04-02 17:44 J -29273234.92 -29273234.76 -29273234.56 0.0145 0.0098

Moon	-84859-04-02 20:37 J	-29273234.82	-29273234.64	-29273234.45	0.0145	0.0097	*
Moon	-84858-04-07 10:47 J	-29272865.21	-29272865.05	-29272864.86	0.0145	0.0102	
Earth	-84858-04-07 13:54 J	-29272865.08	-29272864.92	-29272864.74	0.0145	0.0106	*
Earth	-84857-04-11 10:47 J	-29272495.18	-29272495.05	-29272494.88	0.0146	0.0115	
Moon	-84857-04-11 14:23 J	-29272495.03	-29272494.90	-29272494.75	0.0146	0.0122	*
Moon	-84856-04-16 06:28 J	-29272125.38	-29272125.23	-29272125.08	0.0146	0.0114	
Earth	-84856-04-16 09:20 J	-29272125.23	-29272125.11	-29272124.96	0.0146	0.0122	*
Earth	-84855-04-21 08:52 J	-29271755.23	-29271755.13	-29271755.00	0.0146	0.0129	
Moon	-84855-04-21 12:42 J	-29271755.06	-29271754.97	-29271754.86	0.0146	0.0134	*
Moon	-84854-04-26 06:13 J	-29271385.34	-29271385.24	-29271385.12	0.0147	0.0132	
Earth	-84854-04-26 09:35 J	-29271385.18	-29271385.10	-29271384.98	0.0147	0.0135	*
Earth	-84853-04-30 11:30 J	-29271015.09	-29271015.02	-29271014.93	0.0147	0.0139	
Moon	-84853-04-30 14:52 J	-29271014.97	-29271014.88	-29271014.78	0.0147	0.0135	*
Earth	-84852-05-05 14:08 J	-29270644.95	-29270644.91	-29270644.84	0.0147	0.0143	
Earth	-84851-05-10 17:30 J	-29270274.78	-29270274.77	-29270274.71	0.0147	0.0146	
Moon	-84851-05-10 19:54 J	-29270274.72	-29270274.67	-29270274.56	0.0147	0.0140	*
Earth	-84850-05-15 22:18 J	-29269904.57	-29269904.57	-29269904.56	0.0147	0.0147	
Moon	-84849-05-20 04:32 J	-29269534.31	-29269534.31	-29269534.28	0.0147	0.0147	
Moon	-84848-05-25 08:37 J	-29269164.19	-29269164.14	-29269164.06	0.0147	0.0142	
Earth	-84848-05-25 09:06 J	-29269164.12	-29269164.12	-29269164.10	0.0147	0.0147	*
Mars	-84847-02-26 00:56 J	-29268887.77	-29268887.46	-29268887.14	0.0147	0.0056	
Earth	-84847-05-30 15:06 J	-29268793.89	-29268793.87	-29268793.81	0.0147	0.0145	
Earth	-84846-06-04 22:04 J	-29268423.63	-29268423.58	-29268423.51	0.0147	0.0142	
Moon	-84846-06-04 23:30 J	-29268423.61	-29268423.52	-29268423.40	0.0147	0.0135	*
Mars	-84845-02-04 13:11 J	-29268179.20	-29268178.95	-29268178.65	0.0147	0.0085	
Moon	-84845-06-09 03:35 J	-29268053.39	-29268053.35	-29268053.29	0.0147	0.0143	
Earth	-84845-06-09 05:16 J	-29268053.35	-29268053.28	-29268053.19	0.0147	0.0138	*
Earth	-84844-06-14 12:13 J	-29267683.07	-29267682.99	-29267682.86	0.0147	0.0134	
Moon	-84844-06-14 15:49 J	-29267682.94	-29267682.84	-29267682.74	0.0147	0.0135	*
Moon	-84843-06-19 16:47 J	-29267312.92	-29267312.80	-29267312.64	0.0146	0.0123	

Earth	-84843-06-19 20:08 J	-29267312.77	-29267312.66	-29267312.52	0.0146	0.0128	*
Earth	-84842-06-25 03:49 J	-29266942.47	-29266942.34	-29266942.18	0.0146	0.0120	
Moon	-84842-06-25 07:11 J	-29266942.30	-29266942.20	-29266942.05	0.0146	0.0128	*
Moon	-84841-06-29 07:54 J	-29266572.34	-29266572.17	-29266571.98	0.0145	0.0106	
Earth	-84841-06-29 11:44 J	-29266572.16	-29266572.01	-29266571.83	0.0145	0.0112	*
Earth	-84840-07-04 19:25 J	-29266201.87	-29266201.69	-29266201.51	0.0145	0.0103	
Moon	-84840-07-04 22:47 J	-29266201.71	-29266201.55	-29266201.37	0.0145	0.0106	*
Moon	-84839-07-09 23:01 J	-29265831.72	-29265831.54	-29265831.33	0.0145	0.0098	
Earth	-84839-07-10 02:37 J	-29265831.59	-29265831.39	-29265831.19	0.0145	0.0094	*
Earth	-84838-07-15 09:06 J	-29265461.32	-29265461.12	-29265460.90	0.0144	0.0084	
Moon	-84838-07-15 11:59 J	-29265461.21	-29265461.00	-29265460.78	0.0144	0.0078	*
Moon	-84837-07-19 13:40 J	-29265091.14	-29265090.93	-29265090.69	0.0144	0.0081	
Earth	-84837-07-19 15:20 J	-29265091.07	-29265090.86	-29265090.63	0.0144	0.0074	*
Earth	-84836-07-24 20:37 J	-29264720.86	-29264720.64	-29264720.39	0.0143	0.0063	
Moon	-84836-07-24 22:04 J	-29264720.81	-29264720.58	-29264720.34	0.0143	0.0057	*
Moon	-84835-07-30 01:25 J	-29264350.69	-29264350.44	-29264350.18	0.0142	0.0052	
Earth	-84835-07-30 01:25 J	-29264350.68	-29264350.44	-29264350.19	0.0142	0.0052	*
Moon	-84834-08-04 04:47 J	-29263980.54	-29263980.30	-29263980.05	0.0142	0.0044	
Earth	-84834-08-04 05:30 J	-29263980.52	-29263980.27	-29263980.02	0.0142	0.0040	*
Earth	-84833-08-08 08:08 J	-29263610.41	-29263610.16	-29263609.89	0.0141	0.0029	
Moon	-84833-08-08 09:35 J	-29263610.36	-29263610.10	-29263609.83	0.0141	0.0023	*
Moon	-84832-08-13 08:08 J	-29263240.41	-29263240.16	-29263239.91	0.0141	0.0025	
Earth	-84832-08-13 10:18 J	-29263240.33	-29263240.07	-29263239.80	0.0141	0.0018	*
Venus	-84832-10-04 04:04 J	-29263188.46	-29263188.33	-29263188.17	0.0141	0.0108	
Venus	-84831-05-18 16:04 J	-29262962.04	-29262961.83	-29262961.60	0.0140	0.0037	
Earth	-84831-08-18 11:16 J	-29262870.29	-29262870.03	-29262869.76	0.0140	0.0007	
Moon	-84831-08-18 13:54 J	-29262870.19	-29262869.92	-29262869.65	0.0140	0.0002	*
Venus	-84831-12-31 03:49 J	-29262735.56	-29262735.34	-29262735.12	0.0140	0.0034	
Venus	-84830-08-14 14:52 J	-29262509.02	-29262508.88	-29262508.73	0.0139	0.0104	
Moon	-84830-08-23 08:23 J	-29262500.41	-29262500.15	-29262499.89	0.0139	0.0005	

Earth -84830-08-23 11:44 J -29262500.28 -29262500.01 -29262499.75 0.0139 0.0005 *
 Mercury -84829-01-15 19:25 J -29262354.77 -29262354.69 -29262354.58 0.0139 0.0118
 Mercury -84829-04-13 02:37 J -29262266.52 -29262266.39 -29262266.26 0.0139 0.0094
 Mercury -84829-07-10 09:20 J -29262178.26 -29262178.11 -29262177.95 0.0139 0.0071
 Earth -84829-08-27 10:47 J -29262130.31 -29262130.05 -29262129.79 0.0139 0.0015
 Moon -84829-08-27 14:08 J -29262130.17 -29262129.91 -29262129.64 0.0139 0.0012 *
 Mercury -84829-10-06 16:04 J -29262089.99 -29262089.83 -29262089.65 0.0139 0.0048
 Mercury -84828-01-02 23:01 J -29262001.71 -29262001.54 -29262001.36 0.0139 0.0024
 Mercury -84828-04-01 05:44 J -29261913.44 -29261913.26 -29261913.08 0.0138 0.0002
 Mercury -84828-06-28 12:28 J -29261825.16 -29261824.98 -29261824.80 0.0138 0.0021
 Moon -84828-09-01 05:16 J -29261760.53 -29261760.28 -29261760.03 0.0138 0.0033
 Earth -84828-09-01 08:37 J -29261760.39 -29261760.14 -29261759.87 0.0138 0.0026 *
 Mercury -84828-09-24 18:56 J -29261736.88 -29261736.71 -29261736.54 0.0138 0.0044
 Mercury -84828-12-22 01:25 J -29261648.59 -29261648.44 -29261648.28 0.0138 0.0066
 Mercury -84827-03-20 07:54 J -29261560.30 -29261560.17 -29261560.03 0.0138 0.0088
 Mercury -84827-06-16 14:08 J -29261472.00 -29261471.91 -29261471.79 0.0138 0.0110
 Earth -84827-09-06 05:44 J -29261390.51 -29261390.26 -29261390.00 0.0138 0.0037
 Moon -84827-09-06 09:35 J -29261390.35 -29261390.10 -29261389.83 0.0138 0.0029 *
 Mercury -84827-09-12 20:37 J -29261383.69 -29261383.64 -29261383.58 0.0138 0.0131
 Moon -84826-09-10 22:18 J -29261020.81 -29261020.57 -29261020.32 0.0137 0.0052
 Earth -84826-09-11 01:54 J -29261020.66 -29261020.42 -29261020.17 0.0137 0.0046 *
 Earth -84825-09-14 20:37 J -29260650.87 -29260650.64 -29260650.40 0.0137 0.0056
 Moon -84825-09-14 23:59 J -29260650.72 -29260650.50 -29260650.24 0.0137 0.0055 *
 Moon -84824-09-19 10:32 J -29260281.27 -29260281.06 -29260280.81 0.0136 0.0065
 Earth -84824-09-19 14:23 J -29260281.12 -29260280.90 -29260280.66 0.0136 0.0065 *
 Earth -84823-09-24 06:42 J -29259911.42 -29259911.22 -29259910.99 0.0136 0.0074
 Moon -84823-09-24 10:04 J -29259911.29 -29259911.08 -29259910.87 0.0136 0.0079 *
 Moon -84822-09-28 19:11 J -29259541.92 -29259541.70 -29259541.48 0.0135 0.0075
 Earth -84822-09-28 22:32 J -29259541.76 -29259541.56 -29259541.35 0.0135 0.0081 *
 Earth -84821-10-02 12:28 J -29259172.16 -29259171.98 -29259171.77 0.0135 0.0089

Moon	-84821-10-02 14:52 J	-29259172.03	-29259171.88	-29259171.68	0.0135	0.0096	*
Moon	-84820-10-06 23:01 J	-29258802.73	-29258802.54	-29258802.33	0.0134	0.0090	
Earth	-84820-10-07 01:40 J	-29258802.60	-29258802.43	-29258802.24	0.0134	0.0095	*
Earth	-84819-10-11 13:25 J	-29258433.08	-29258432.94	-29258432.75	0.0134	0.0102	
Moon	-84819-10-11 16:04 J	-29258432.97	-29258432.83	-29258432.65	0.0134	0.0105	*
Moon	-84818-10-15 23:16 J	-29258063.68	-29258063.53	-29258063.37	0.0133	0.0108	
Earth	-84818-10-16 01:11 J	-29258063.60	-29258063.45	-29258063.29	0.0133	0.0107	*
Earth	-84817-10-19 11:01 J	-29257694.16	-29257694.04	-29257693.88	0.0133	0.0112	
Moon	-84817-10-19 13:11 J	-29257694.07	-29257693.95	-29257693.79	0.0133	0.0109	*
Moon	-84816-10-23 18:42 J	-29257324.80	-29257324.72	-29257324.59	0.0133	0.0122	
Earth	-84816-10-23 20:52 J	-29257324.75	-29257324.63	-29257324.51	0.0133	0.0116	*
Earth	-84815-10-28 05:01 J	-29256955.37	-29256955.29	-29256955.16	0.0132	0.0121	
Moon	-84815-10-28 06:42 J	-29256955.33	-29256955.22	-29256955.08	0.0132	0.0114	*
Moon	-84814-11-01 11:30 J	-29256586.06	-29256586.02	-29256585.96	0.0132	0.0129	
Earth	-84814-11-01 13:11 J	-29256586.03	-29256585.95	-29256585.85	0.0132	0.0124	*
Earth	-84813-11-04 20:23 J	-29256216.72	-29256216.65	-29256216.57	0.0132	0.0126	
Moon	-84813-11-04 20:52 J	-29256216.69	-29256216.63	-29256216.51	0.0132	0.0123	*
Moon	-84812-11-09 00:56 J	-29255847.47	-29255847.46	-29255847.41	0.0132	0.0131	
Earth	-84812-11-09 02:52 J	-29255847.43	-29255847.38	-29255847.32	0.0132	0.0128	*
Earth	-84811-11-13 08:23 J	-29255478.17	-29255478.15	-29255478.09	0.0132	0.0130	
Moon	-84811-11-13 09:20 J	-29255478.11	-29255478.11	-29255478.08	0.0132	0.0131	*
Moon	-84810-11-17 12:28 J	-29255109.03	-29255108.98	-29255108.89	0.0132	0.0127	
Earth	-84810-11-17 13:40 J	-29255108.94	-29255108.93	-29255108.89	0.0132	0.0131	*
Earth	-84809-11-20 17:59 J	-29254739.76	-29254739.75	-29254739.72	0.0131	0.0131	
Moon	-84808-11-24 21:06 J	-29254370.69	-29254370.62	-29254370.52	0.0131	0.0124	
Earth	-84808-11-24 21:49 J	-29254370.60	-29254370.59	-29254370.55	0.0131	0.0131	*
Mars	-84807-07-13 02:37 J	-29254140.48	-29254140.39	-29254140.27	0.0131	0.0122	
Earth	-84807-11-29 01:11 J	-29254001.47	-29254001.45	-29254001.39	0.0131	0.0130	
Moon	-84806-12-03 03:49 J	-29253632.43	-29253632.34	-29253632.25	0.0132	0.0123	
Earth	-84806-12-03 04:04 J	-29253632.36	-29253632.33	-29253632.25	0.0132	0.0129	*

Mars	-84805-06-10 09:06 J	-29253442.37	-29253442.12	-29253441.84	0.0132	0.0044
Earth	-84805-12-06 06:42 J	-29253263.26	-29253263.22	-29253263.12	0.0132	0.0127
Moon	-84805-12-06 08:08 J	-29253263.19	-29253263.16	-29253263.12	0.0132	0.0130 *
Moon	-84804-12-10 08:23 J	-29252894.24	-29252894.15	-29252894.05	0.0132	0.0122
Earth	-84804-12-10 09:35 J	-29252894.17	-29252894.10	-29252894.00	0.0132	0.0124 *
Mars	-84803-05-09 17:01 J	-29252744.06	-29252743.79	-29252743.52	0.0132	0.0035
Earth	-84803-12-14 11:59 J	-29252525.09	-29252525.00	-29252524.89	0.0132	0.0121
Moon	-84803-12-14 12:28 J	-29252525.06	-29252524.98	-29252524.85	0.0132	0.0119 *
Moon	-84802-12-18 12:42 J	-29252156.05	-29252155.97	-29252155.85	0.0132	0.0121
Earth	-84802-12-18 14:23 J	-29252156.01	-29252155.90	-29252155.78	0.0132	0.0117 *
Mars	-84801-04-07 03:20 J	-29252045.49	-29252045.36	-29252045.22	0.0132	0.0115
Earth	-84801-12-21 16:18 J	-29251786.93	-29251786.82	-29251786.68	0.0132	0.0113
Moon	-84801-12-21 17:16 J	-29251786.90	-29251786.78	-29251786.63	0.0132	0.0108 *
Moon	-84800-12-25 17:30 J	-29251417.88	-29251417.77	-29251417.63	0.0132	0.0116
Earth	-84800-12-25 18:42 J	-29251417.85	-29251417.72	-29251417.57	0.0132	0.0109 *
Earth	-84799-12-29 20:52 J	-29251048.77	-29251048.63	-29251048.46	0.0133	0.0104
Moon	-84799-12-29 22:18 J	-29251048.71	-29251048.57	-29251048.39	0.0133	0.0098 *
Moon	-84797-01-02 22:47 J	-29250679.71	-29250679.55	-29250679.39	0.0133	0.0102
Earth	-84797-01-02 23:16 J	-29250679.68	-29250679.53	-29250679.35	0.0133	0.0098 *
Earth	-84796-01-06 01:40 J	-29250310.59	-29250310.43	-29250310.23	0.0133	0.0093
Moon	-84796-01-06 03:06 J	-29250310.53	-29250310.37	-29250310.17	0.0133	0.0090 *
Moon	-84795-01-10 03:20 J	-29249941.54	-29249941.36	-29249941.15	0.0134	0.0086
Earth	-84795-01-10 04:32 J	-29249941.48	-29249941.31	-29249941.10	0.0134	0.0086 *
Earth	-84794-01-14 07:40 J	-29249572.37	-29249572.18	-29249571.97	0.0134	0.0078
Moon	-84794-01-14 08:52 J	-29249572.32	-29249572.13	-29249571.93	0.0134	0.0081 *
Moon	-84793-01-18 09:06 J	-29249203.33	-29249203.12	-29249202.88	0.0135	0.0067
Earth	-84793-01-18 11:01 J	-29249203.25	-29249203.04	-29249202.83	0.0135	0.0071 *
Earth	-84792-01-21 14:23 J	-29248834.11	-29248833.90	-29248833.67	0.0135	0.0063
Moon	-84792-01-21 15:35 J	-29248834.05	-29248833.85	-29248833.64	0.0135	0.0069 *
Moon	-84791-01-25 17:01 J	-29248465.02	-29248464.79	-29248464.54	0.0136	0.0048

Earth -84791-01-25 18:42 J -29248464.94 -29248464.72 -29248464.49 0.0136 0.0055 *
 Earth -84790-01-29 23:16 J -29248095.75 -29248095.53 -29248095.29 0.0136 0.0046
 Moon -84790-01-30 00:28 J -29248095.69 -29248095.48 -29248095.25 0.0136 0.0052 *
 Moon -84789-02-03 03:20 J -29247726.60 -29247726.36 -29247726.11 0.0137 0.0033
 Earth -84789-02-03 04:18 J -29247726.54 -29247726.32 -29247726.07 0.0137 0.0038 *
 Earth -84788-02-06 10:32 J -29247357.30 -29247357.06 -29247356.82 0.0137 0.0028
 Moon -84788-02-06 11:59 J -29247357.23 -29247357.00 -29247356.77 0.0137 0.0030 *
 Moon -84787-02-10 16:32 J -29246988.06 -29246987.81 -29246987.56 0.0138 0.0020
 Earth -84787-02-10 17:16 J -29246988.02 -29246987.78 -29246987.53 0.0138 0.0019 *
 Venus -84787-12-21 22:04 J -29246673.75 -29246673.58 -29246673.39 0.0138 0.0075
 Earth -84786-02-15 00:56 J -29246618.70 -29246618.46 -29246618.21 0.0138 0.0009
 Moon -84786-02-15 02:08 J -29246618.65 -29246618.41 -29246618.17 0.0138 0.0004 *
 Venus -84786-08-05 04:04 J -29246447.54 -29246447.33 -29246447.11 0.0139 0.0012
 Moon -84785-02-19 08:37 J -29246249.39 -29246249.14 -29246248.88 0.0139 0.0004
 Earth -84785-02-19 09:35 J -29246249.35 -29246249.10 -29246248.86 0.0139 0.0002 *
 Venus -84785-03-18 10:04 J -29246221.27 -29246221.08 -29246220.88 0.0139 0.0053
 Mercury -84785-06-14 22:04 J -29246132.61 -29246132.58 -29246132.54 0.0139 0.0133
 Mercury -84785-09-11 01:40 J -29246044.50 -29246044.43 -29246044.35 0.0139 0.0116
 Venus -84785-10-30 16:18 J -29245994.91 -29245994.82 -29245994.69 0.0139 0.0118
 Mercury -84785-12-08 05:16 J -29245956.37 -29245956.28 -29245956.18 0.0139 0.0099
 Earth -84784-02-22 18:56 J -29245879.96 -29245879.71 -29245879.47 0.0139 0.0012
 Moon -84784-02-22 19:25 J -29245879.93 -29245879.69 -29245879.45 0.0139 0.0020 *
 Mercury -84784-03-06 09:06 J -29245868.23 -29245868.12 -29245868.01 0.0139 0.0082
 Mercury -84784-06-02 12:42 J -29245780.09 -29245779.97 -29245779.84 0.0140 0.0064
 Mercury -84784-08-29 16:32 J -29245691.94 -29245691.81 -29245691.68 0.0140 0.0047
 Mercury -84784-11-25 20:23 J -29245603.79 -29245603.65 -29245603.52 0.0140 0.0029
 Mercury -84783-02-22 00:13 J -29245515.63 -29245515.49 -29245515.36 0.0140 0.0011
 Moon -84783-02-27 04:18 J -29245510.57 -29245510.32 -29245510.06 0.0140 0.0017
 Earth -84783-02-27 05:01 J -29245510.53 -29245510.29 -29245510.04 0.0140 0.0023 *
 Mercury -84783-05-21 03:49 J -29245427.47 -29245427.34 -29245427.20 0.0140 0.0009

Mercury -84783-08-17 07:40 J -29245339.31 -29245339.18 -29245339.04 0.0140 0.0027

Mercury -84783-11-13 11:44 J -29245251.14 -29245251.01 -29245250.88 0.0140 0.0045

Mercury -84782-02-09 15:35 J -29245162.97 -29245162.85 -29245162.72 0.0141 0.0063

Earth -84782-03-03 16:04 J -29245141.06 -29245140.83 -29245140.58 0.0141 0.0034

Moon -84782-03-03 16:18 J -29245141.05 -29245140.82 -29245140.59 0.0141 0.0037 *

Mercury -84782-05-08 19:40 J -29245074.80 -29245074.68 -29245074.57 0.0141 0.0082

Mercury -84782-08-04 23:30 J -29244986.61 -29244986.52 -29244986.42 0.0141 0.0101

Mercury -84782-11-01 03:35 J -29244898.42 -29244898.35 -29244898.28 0.0141 0.0120

Mercury -84781-01-28 07:40 J -29244810.20 -29244810.18 -29244810.16 0.0141 0.0139

Moon -84781-03-07 04:04 J -29244771.57 -29244771.33 -29244771.08 0.0141 0.0043

Earth -84781-03-07 04:04 J -29244771.55 -29244771.33 -29244771.08 0.0141 0.0045 *

Moon -84780-03-11 17:01 J -29244402.00 -29244401.79 -29244401.56 0.0142 0.0052

Earth -84780-03-11 17:30 J -29244401.99 -29244401.77 -29244401.54 0.0142 0.0054 *

Earth -84779-03-16 07:40 J -29244032.39 -29244032.18 -29244031.95 0.0143 0.0065

Moon -84779-03-16 08:23 J -29244032.36 -29244032.15 -29244031.92 0.0143 0.0071 *

Moon -84778-03-20 22:04 J -29243662.78 -29243662.58 -29243662.36 0.0143 0.0068

Earth -84778-03-20 22:47 J -29243662.75 -29243662.55 -29243662.33 0.0143 0.0075 *

Earth -84777-03-24 15:35 J -29243293.05 -29243292.85 -29243292.65 0.0144 0.0084

Moon -84777-03-24 16:47 J -29243292.98 -29243292.80 -29243292.58 0.0144 0.0091 *

Moon -84776-03-29 07:25 J -29242923.36 -29242923.19 -29242922.99 0.0144 0.0089

Earth -84776-03-29 09:06 J -29242923.30 -29242923.12 -29242922.92 0.0144 0.0094 *

Earth -84775-04-03 03:35 J -29242553.51 -29242553.35 -29242553.16 0.0145 0.0103

Moon -84775-04-03 05:59 J -29242553.41 -29242553.25 -29242553.05 0.0145 0.0102 *

Moon -84774-04-07 21:06 J -29242183.75 -29242183.62 -29242183.45 0.0145 0.0115

Earth -84774-04-07 23:44 J -29242183.65 -29242183.51 -29242183.33 0.0145 0.0111 *

Earth -84773-04-11 21:06 J -29241813.75 -29241813.62 -29241813.47 0.0146 0.0119

Moon -84773-04-11 23:59 J -29241813.65 -29241813.50 -29241813.33 0.0146 0.0112 *

Moon -84772-04-16 16:04 J -29241443.90 -29241443.83 -29241443.71 0.0146 0.0134

Earth -84772-04-16 19:25 J -29241443.79 -29241443.69 -29241443.54 0.0146 0.0126 *

Earth -84771-04-21 19:11 J -29241073.79 -29241073.70 -29241073.58 0.0146 0.0132

Moon	-84771-04-21 22:18 J	-29241073.67	-29241073.57	-29241073.42	0.0146	0.0127	*
Moon	-84770-04-26 16:18 J	-29240703.88	-29240703.82	-29240703.72	0.0147	0.0139	
Earth	-84770-04-26 19:54 J	-29240703.74	-29240703.67	-29240703.57	0.0147	0.0138	*
Earth	-84769-04-30 21:35 J	-29240333.64	-29240333.60	-29240333.52	0.0147	0.0142	
Moon	-84769-05-01 01:40 J	-29240333.47	-29240333.43	-29240333.39	0.0147	0.0144	
Moon	-84768-05-05 21:20 J	-29239963.69	-29239963.61	-29239963.52	0.0147	0.0138	
Earth	-84768-05-06 00:28 J	-29239963.50	-29239963.48	-29239963.43	0.0147	0.0145	
Moon	-84766-05-16 05:30 J	-29239223.32	-29239223.27	-29239223.19	0.0147	0.0142	
Mars	-84765-11-14 06:42 J	-29238675.29	-29238675.22	-29238675.11	0.0147	0.0142	
Earth	-84764-05-25 18:56 J	-29238482.71	-29238482.71	-29238482.69	0.0147	0.0147	
Moon	-84763-05-31 00:56 J	-29238112.52	-29238112.46	-29238112.36	0.0147	0.0139	
Earth	-84763-05-31 00:56 J	-29238112.48	-29238112.46	-29238112.40	0.0147	0.0145	*
Mars	-84763-10-23 23:59 J	-29237966.84	-29237966.50	-29237966.16	0.0147	0.0002	
Earth	-84762-06-05 07:54 J	-29237742.23	-29237742.17	-29237742.09	0.0147	0.0141	
Moon	-84761-06-09 13:11 J	-29237372.03	-29237371.95	-29237371.83	0.0147	0.0134	
Earth	-84761-06-09 14:52 J	-29237371.95	-29237371.88	-29237371.77	0.0147	0.0137	*
Mars	-84761-10-01 09:49 J	-29237258.17	-29237258.09	-29237257.95	0.0147	0.0139	
Earth	-84760-06-14 22:18 J	-29237001.66	-29237001.57	-29237001.44	0.0147	0.0132	
Moon	-84760-06-15 00:42 J	-29237001.58	-29237001.47	-29237001.34	0.0147	0.0131	*
Moon	-84759-06-20 03:06 J	-29236631.46	-29236631.37	-29236631.24	0.0146	0.0131	
Earth	-84759-06-20 06:28 J	-29236631.37	-29236631.23	-29236631.10	0.0146	0.0125	*
Earth	-84758-06-25 13:40 J	-29236261.06	-29236260.93	-29236260.76	0.0146	0.0118	
Moon	-84758-06-25 17:30 J	-29236260.93	-29236260.77	-29236260.59	0.0146	0.0109	*
Moon	-84757-06-29 18:13 J	-29235890.88	-29235890.74	-29235890.58	0.0145	0.0116	
Earth	-84757-06-29 21:49 J	-29235890.76	-29235890.59	-29235890.42	0.0145	0.0109	*
Earth	-84756-07-05 04:47 J	-29235520.47	-29235520.30	-29235520.10	0.0145	0.0100	
Moon	-84756-07-05 08:37 J	-29235520.32	-29235520.14	-29235519.94	0.0145	0.0098	*
Moon	-84755-07-10 08:37 J	-29235150.34	-29235150.14	-29235149.93	0.0145	0.0089	
Earth	-84755-07-10 11:59 J	-29235150.19	-29235150.00	-29235149.78	0.0145	0.0091	*
Earth	-84754-07-15 18:28 J	-29234779.93	-29234779.73	-29234779.50	0.0144	0.0080	

Moon	-84754-07-15 21:20 J	-29234779.80	-29234779.61	-29234779.39	0.0144	0.0087	*
Moon	-84753-07-19 21:49 J	-29234409.82	-29234409.59	-29234409.33	0.0144	0.0061	
Earth	-84753-07-20 00:56 J	-29234409.69	-29234409.46	-29234409.23	0.0144	0.0069	*
Earth	-84752-07-25 05:59 J	-29234039.48	-29234039.25	-29234039.00	0.0143	0.0058	
Moon	-84752-07-25 07:25 J	-29234039.41	-29234039.19	-29234038.95	0.0143	0.0063	*
Moon	-84751-07-30 09:35 J	-29233669.35	-29233669.10	-29233668.84	0.0142	0.0045	
Earth	-84751-07-30 10:32 J	-29233669.30	-29233669.06	-29233668.80	0.0142	0.0047	*
Earth	-84750-08-04 14:23 J	-29233299.15	-29233298.90	-29233298.64	0.0142	0.0035	
Moon	-84750-08-04 14:37 J	-29233299.13	-29233298.89	-29233298.64	0.0142	0.0032	*
Earth	-84749-08-08 17:30 J	-29232929.03	-29232928.77	-29232928.51	0.0141	0.0023	
Moon	-84749-08-08 18:13 J	-29232929.00	-29232928.74	-29232928.47	0.0141	0.0031	*
Moon	-84748-08-13 18:13 J	-29232558.99	-29232558.74	-29232558.48	0.0141	0.0006	
Earth	-84748-08-13 19:25 J	-29232558.95	-29232558.69	-29232558.43	0.0141	0.0012	*
Venus	-84747-01-15 21:49 J	-29232403.77	-29232403.59	-29232403.38	0.0140	0.0072	
Earth	-84747-08-18 20:37 J	-29232188.91	-29232188.64	-29232188.38	0.0140	0.0002	
Moon	-84747-08-18 23:01 J	-29232188.81	-29232188.54	-29232188.27	0.0140	0.0005	*
Venus	-84747-08-30 09:49 J	-29232177.32	-29232177.09	-29232176.87	0.0140	0.0001	
Venus	-84746-04-13 20:52 J	-29231950.81	-29231950.63	-29231950.42	0.0140	0.0070	
Moon	-84746-08-23 18:28 J	-29231818.98	-29231818.73	-29231818.47	0.0139	0.0012	
Earth	-84746-08-23 20:52 J	-29231818.89	-29231818.63	-29231818.37	0.0139	0.0010	*
Mercury	-84746-11-08 19:25 J	-29231741.70	-29231741.69	-29231741.65	0.0139	0.0138	
Venus	-84746-11-26 08:08 J	-29231724.17	-29231724.16	-29231724.13	0.0139	0.0138	
Mercury	-84745-02-05 02:37 J	-29231653.49	-29231653.39	-29231653.28	0.0139	0.0113	
Mercury	-84745-05-03 09:20 J	-29231565.23	-29231565.11	-29231564.96	0.0139	0.0090	
Mercury	-84745-07-30 16:32 J	-29231476.97	-29231476.81	-29231476.65	0.0139	0.0066	
Earth	-84745-08-27 19:54 J	-29231448.93	-29231448.67	-29231448.41	0.0139	0.0021	
Moon	-84745-08-27 23:01 J	-29231448.80	-29231448.54	-29231448.27	0.0139	0.0025	*
Mercury	-84745-10-26 23:16 J	-29231388.70	-29231388.53	-29231388.35	0.0139	0.0043	
Mercury	-84744-01-23 06:13 J	-29231300.42	-29231300.24	-29231300.06	0.0139	0.0020	
Mercury	-84744-04-21 12:56 J	-29231212.14	-29231211.96	-29231211.78	0.0138	0.0004	

Mercury -84744-07-18 19:25 J -29231123.86 -29231123.69 -29231123.51 0.0138 0.0026

Moon -84744-09-01 14:37 J -29231079.14 -29231078.89 -29231078.64 0.0138 0.0026

Earth -84744-09-01 17:44 J -29231079.00 -29231078.76 -29231078.49 0.0138 0.0033 *

Mercury -84744-10-15 01:54 J -29231035.58 -29231035.42 -29231035.25 0.0138 0.0048

Mercury -84743-01-11 08:37 J -29230947.29 -29230947.14 -29230946.99 0.0138 0.0070

Mercury -84743-04-09 14:52 J -29230859.00 -29230858.88 -29230858.74 0.0138 0.0092

Mercury -84743-07-06 21:20 J -29230770.70 -29230770.61 -29230770.51 0.0138 0.0114

Earth -84743-09-06 15:06 J -29230709.12 -29230708.87 -29230708.62 0.0138 0.0042

Moon -84743-09-06 18:28 J -29230708.97 -29230708.73 -29230708.48 0.0138 0.0049 *

Mercury -84743-10-03 03:49 J -29230682.37 -29230682.34 -29230682.31 0.0138 0.0135

Moon -84742-09-11 06:56 J -29230339.44 -29230339.21 -29230338.95 0.0137 0.0046

Earth -84742-09-11 10:47 J -29230339.28 -29230339.05 -29230338.79 0.0137 0.0053 *

Earth -84741-09-15 05:30 J -29229969.49 -29229969.27 -29229969.02 0.0136 0.0062

Moon -84741-09-15 09:20 J -29229969.33 -29229969.11 -29229968.87 0.0136 0.0065 *

Moon -84740-09-19 19:25 J -29229599.90 -29229599.69 -29229599.45 0.0136 0.0072

Earth -84740-09-19 23:16 J -29229599.75 -29229599.53 -29229599.30 0.0136 0.0070 *

Earth -84739-09-24 15:35 J -29229230.05 -29229229.85 -29229229.63 0.0135 0.0079

Moon -84739-09-24 19:11 J -29229229.90 -29229229.70 -29229229.47 0.0135 0.0075 *

Moon -84738-09-29 03:49 J -29228860.53 -29228860.34 -29228860.14 0.0135 0.0092

Earth -84738-09-29 06:56 J -29228860.40 -29228860.21 -29228860.00 0.0135 0.0086 *

Earth -84737-10-02 20:37 J -29228490.80 -29228490.64 -29228490.43 0.0135 0.0094

Moon -84737-10-03 00:28 J -29228490.68 -29228490.48 -29228490.28 0.0135 0.0086 *

Moon -84736-10-07 06:56 J -29228121.36 -29228121.21 -29228121.04 0.0134 0.0106

Earth -84736-10-07 10:18 J -29228121.24 -29228121.07 -29228120.89 0.0134 0.0099 *

Earth -84735-10-11 22:04 J -29227751.72 -29227751.58 -29227751.40 0.0134 0.0106

Moon -84735-10-12 00:28 J -29227751.61 -29227751.48 -29227751.29 0.0134 0.0104 *

Moon -84734-10-16 06:13 J -29227382.36 -29227382.24 -29227382.08 0.0133 0.0112

Earth -84734-10-16 09:35 J -29227382.24 -29227382.10 -29227381.95 0.0133 0.0111 *

Earth -84733-10-19 19:54 J -29227012.79 -29227012.67 -29227012.54 0.0133 0.0115

Moon -84733-10-19 22:04 J -29227012.68 -29227012.58 -29227012.46 0.0133 0.0119 *

Moon	-84732-10-24 02:23 J	-29226643.51	-29226643.40	-29226643.24	0.0133	0.0114
Earth	-84732-10-24 05:01 J	-29226643.38	-29226643.29	-29226643.16	0.0133	0.0120 *
Earth	-84731-10-28 13:40 J	-29226274.00	-29226273.93	-29226273.82	0.0132	0.0124
Moon	-84731-10-28 16:18 J	-29226273.86	-29226273.82	-29226273.77	0.0132	0.0130 *
Moon	-84730-11-01 19:54 J	-29225904.77	-29225904.67	-29225904.55	0.0132	0.0120
Earth	-84730-11-01 21:49 J	-29225904.65	-29225904.59	-29225904.50	0.0132	0.0126 *
Earth	-84729-11-05 04:32 J	-29225535.34	-29225535.31	-29225535.23	0.0132	0.0129
Moon	-84728-11-09 09:35 J	-29225166.15	-29225166.10	-29225166.03	0.0132	0.0128
Earth	-84728-11-09 11:01 J	-29225166.05	-29225166.04	-29225165.98	0.0132	0.0131 *
Earth	-84727-11-13 17:01 J	-29224796.79	-29224796.79	-29224796.77	0.0132	0.0132
Moon	-84727-11-13 18:56 J	-29224796.71	-29224796.71	-29224796.68	0.0132	0.0131
Moon	-84725-11-21 03:35 J	-29224058.40	-29224058.35	-29224058.27	0.0131	0.0127
Earth	-84724-11-25 06:13 J	-29223689.24	-29223689.24	-29223689.21	0.0131	0.0131
Earth	-84723-11-29 09:49 J	-29223320.12	-29223320.09	-29223320.05	0.0131	0.0130
Moon	-84723-11-29 10:47 J	-29223320.11	-29223320.05	-29223319.95	0.0131	0.0124 *
Mars	-84722-03-06 20:37 J	-29223222.83	-29223222.64	-29223222.42	0.0131	0.0091
Earth	-84722-12-03 12:28 J	-29222951.01	-29222950.98	-29222950.91	0.0131	0.0129
Earth	-84721-12-06 15:20 J	-29222581.92	-29222581.86	-29222581.78	0.0132	0.0126
Moon	-84721-12-06 16:47 J	-29222581.86	-29222581.80	-29222581.69	0.0132	0.0123 *
Mars	-84720-02-02 02:52 J	-29222524.66	-29222524.38	-29222524.10	0.0132	0.0013
Moon	-84720-12-10 16:18 J	-29222212.89	-29222212.82	-29222212.72	0.0132	0.0124
Earth	-84720-12-10 17:59 J	-29222212.83	-29222212.75	-29222212.66	0.0132	0.0123 *
Earth	-84719-12-14 20:08 J	-29221843.75	-29221843.66	-29221843.54	0.0132	0.0120
Moon	-84719-12-14 22:04 J	-29221843.66	-29221843.58	-29221843.47	0.0132	0.0121 *
Mars	-84718-01-01 10:32 J	-29221826.28	-29221826.06	-29221825.80	0.0132	0.0067
Moon	-84718-12-18 20:37 J	-29221474.76	-29221474.64	-29221474.49	0.0132	0.0112
Earth	-84718-12-18 22:18 J	-29221474.67	-29221474.57	-29221474.44	0.0132	0.0116 *
Earth	-84717-12-22 00:42 J	-29221105.59	-29221105.47	-29221105.33	0.0132	0.0112
Moon	-84717-12-22 02:08 J	-29221105.49	-29221105.41	-29221105.28	0.0132	0.0119 *
Moon	-84716-12-26 00:56 J	-29220736.61	-29220736.46	-29220736.28	0.0132	0.0101

Earth	-84716-12-26 03:20 J	-29220736.51	-29220736.36	-29220736.22	0.0132	0.0107	*
Earth	-84715-12-30 05:01 J	-29220367.43	-29220367.29	-29220367.11	0.0133	0.0102	
Moon	-84715-12-30 06:56 J	-29220367.34	-29220367.21	-29220367.06	0.0133	0.0108	*
Moon	-84713-01-03 05:30 J	-29219998.45	-29219998.27	-29219998.07	0.0133	0.0089	
Earth	-84713-01-03 07:25 J	-29219998.34	-29219998.19	-29219997.99	0.0133	0.0096	*
Earth	-84712-01-06 09:49 J	-29219629.25	-29219629.09	-29219628.88	0.0133	0.0090	
Moon	-84712-01-06 11:44 J	-29219629.17	-29219629.01	-29219628.82	0.0133	0.0093	*
Moon	-84711-01-10 10:47 J	-29219260.24	-29219260.05	-29219259.84	0.0134	0.0081	
Earth	-84711-01-10 12:56 J	-29219260.15	-29219259.96	-29219259.76	0.0134	0.0082	*
Earth	-84710-01-14 15:35 J	-29218891.04	-29218890.85	-29218890.63	0.0134	0.0075	
Moon	-84710-01-14 17:30 J	-29218890.95	-29218890.77	-29218890.55	0.0134	0.0075	*
Moon	-84709-01-18 17:01 J	-29218521.99	-29218521.79	-29218521.56	0.0135	0.0072	
Earth	-84709-01-18 18:56 J	-29218521.92	-29218521.71	-29218521.49	0.0135	0.0067	*
Earth	-84708-01-21 22:32 J	-29218152.78	-29218152.56	-29218152.33	0.0135	0.0059	
Moon	-84708-01-22 00:42 J	-29218152.68	-29218152.47	-29218152.24	0.0135	0.0053	*
Moon	-84707-01-26 00:42 J	-29217783.69	-29217783.47	-29217783.22	0.0136	0.0058	
Earth	-84707-01-26 02:52 J	-29217783.60	-29217783.38	-29217783.15	0.0136	0.0051	*
Earth	-84706-01-30 07:25 J	-29217414.42	-29217414.19	-29217413.95	0.0136	0.0042	
Moon	-84706-01-30 09:20 J	-29217414.34	-29217414.11	-29217413.88	0.0136	0.0035	*
Moon	-84705-02-03 10:32 J	-29217045.29	-29217045.06	-29217044.80	0.0137	0.0039	
Earth	-84705-02-03 12:56 J	-29217045.20	-29217044.96	-29217044.72	0.0137	0.0033	*
Earth	-84704-02-06 18:56 J	-29216675.95	-29216675.71	-29216675.46	0.0137	0.0023	
Moon	-84704-02-06 20:23 J	-29216675.88	-29216675.65	-29216675.41	0.0137	0.0022	*
Moon	-84703-02-10 23:44 J	-29216306.76	-29216306.51	-29216306.25	0.0138	0.0014	
Earth	-84703-02-11 01:54 J	-29216306.66	-29216306.42	-29216306.17	0.0138	0.0013	*
Venus	-84703-08-21 06:28 J	-29216115.35	-29216115.23	-29216115.09	0.0138	0.0108	
Earth	-84702-02-15 09:35 J	-29215937.34	-29215937.10	-29215936.85	0.0138	0.0003	
Moon	-84702-02-15 11:01 J	-29215937.27	-29215937.04	-29215936.80	0.0138	0.0007	*
Venus	-84702-04-04 12:28 J	-29215889.18	-29215888.98	-29215888.78	0.0138	0.0045	
Venus	-84702-11-16 18:42 J	-29215662.93	-29215662.72	-29215662.51	0.0139	0.0020	

Moon -84701-02-19 16:32 J -29215568.06 -29215567.81 -29215567.55 0.0139 0.0013
 Earth -84701-02-19 17:59 J -29215567.99 -29215567.75 -29215567.50 0.0139 0.0008 *
 Venus -84701-06-30 00:42 J -29215436.63 -29215436.47 -29215436.29 0.0139 0.0085
 Mercury -84701-07-05 04:47 J -29215431.34 -29215431.30 -29215431.25 0.0139 0.0131
 Mercury -84701-10-01 08:23 J -29215343.22 -29215343.15 -29215343.07 0.0139 0.0114
 Mercury -84701-12-28 12:13 J -29215255.09 -29215254.99 -29215254.89 0.0139 0.0097
 Earth -84700-02-23 03:20 J -29215198.60 -29215198.36 -29215198.11 0.0139 0.0018
 Moon -84700-02-23 04:47 J -29215198.53 -29215198.30 -29215198.05 0.0139 0.0012 *
 Mercury -84700-03-26 15:49 J -29215166.95 -29215166.84 -29215166.72 0.0140 0.0080
 Mercury -84700-06-22 19:40 J -29215078.80 -29215078.68 -29215078.56 0.0140 0.0062
 Mercury -84700-09-18 23:16 J -29214990.66 -29214990.53 -29214990.39 0.0140 0.0044
 Mercury -84700-12-16 03:06 J -29214902.50 -29214902.37 -29214902.23 0.0140 0.0026
 Moon -84699-02-27 12:42 J -29214829.21 -29214828.97 -29214828.72 0.0140 0.0034
 Earth -84699-02-27 13:40 J -29214829.17 -29214828.93 -29214828.69 0.0140 0.0028 *
 Mercury -84699-03-14 06:56 J -29214814.35 -29214814.21 -29214814.07 0.0140 0.0008
 Mercury -84699-06-10 10:47 J -29214726.19 -29214726.05 -29214725.91 0.0140 0.0010
 Mercury -84699-09-06 14:37 J -29214638.03 -29214637.89 -29214637.75 0.0140 0.0028
 Mercury -84699-12-03 18:28 J -29214549.86 -29214549.73 -29214549.60 0.0141 0.0047
 Mercury -84698-03-01 22:18 J -29214461.69 -29214461.57 -29214461.44 0.0141 0.0066
 Earth -84698-03-04 00:42 J -29214459.70 -29214459.47 -29214459.23 0.0141 0.0039
 Moon -84698-03-04 01:54 J -29214459.65 -29214459.42 -29214459.19 0.0141 0.0034 *
 Mercury -84698-05-29 02:08 J -29214373.51 -29214373.41 -29214373.29 0.0141 0.0085
 Mercury -84698-08-25 06:13 J -29214285.33 -29214285.24 -29214285.14 0.0141 0.0104
 Mercury -84698-11-21 10:04 J -29214197.13 -29214197.08 -29214197.00 0.0141 0.0124
 Moon -84697-03-07 12:13 J -29214090.22 -29214089.99 -29214089.74 0.0141 0.0050
 Earth -84697-03-07 12:42 J -29214090.19 -29214089.97 -29214089.73 0.0141 0.0049 *
 Earth -84696-03-12 02:08 J -29213720.63 -29213720.41 -29213720.19 0.0142 0.0059
 Moon -84696-03-12 02:23 J -29213720.61 -29213720.40 -29213720.18 0.0142 0.0062 *
 Moon -84695-03-16 16:04 J -29213351.06 -29213350.83 -29213350.60 0.0143 0.0065
 Earth -84695-03-16 16:04 J -29213351.03 -29213350.83 -29213350.60 0.0143 0.0070 *

Moon	-84694-03-21 06:56 J	-29212981.39	-29212981.21	-29212981.01	0.0143	0.0087
Earth	-84694-03-21 07:40 J	-29212981.38	-29212981.18	-29212980.97	0.0143	0.0079 *
Earth	-84693-03-25 00:13 J	-29212611.68	-29212611.49	-29212611.29	0.0144	0.0089
Moon	-84693-03-25 00:28 J	-29212611.68	-29212611.48	-29212611.26	0.0144	0.0082 *
Moon	-84692-03-29 16:32 J	-29212241.97	-29212241.81	-29212241.64	0.0144	0.0102
Earth	-84692-03-29 17:44 J	-29212241.93	-29212241.76	-29212241.57	0.0144	0.0098 *
Earth	-84691-04-03 12:56 J	-29211872.12	-29211871.96	-29211871.79	0.0145	0.0107
Moon	-84691-04-03 14:08 J	-29211872.07	-29211871.91	-29211871.72	0.0145	0.0106 *
Moon	-84690-04-08 06:56 J	-29211502.35	-29211502.21	-29211502.04	0.0145	0.0113
Earth	-84690-04-08 08:52 J	-29211502.26	-29211502.13	-29211501.96	0.0145	0.0116 *
Earth	-84689-04-12 06:28 J	-29211132.35	-29211132.23	-29211132.09	0.0146	0.0123
Moon	-84689-04-12 09:06 J	-29211132.22	-29211132.12	-29211131.99	0.0146	0.0130 *
Moon	-84688-04-17 02:37 J	-29210762.51	-29210762.39	-29210762.25	0.0146	0.0122
Earth	-84688-04-17 05:01 J	-29210762.38	-29210762.29	-29210762.16	0.0146	0.0130 *
Earth	-84687-04-22 04:32 J	-29210392.38	-29210392.31	-29210392.20	0.0146	0.0136
Moon	-84687-04-22 08:23 J	-29210392.21	-29210392.15	-29210392.08	0.0146	0.0141 *
Moon	-84686-04-27 01:54 J	-29210022.48	-29210022.42	-29210022.31	0.0147	0.0138
Earth	-84686-04-27 05:30 J	-29210022.32	-29210022.27	-29210022.18	0.0147	0.0141 *
Earth	-84685-05-01 06:56 J	-29209652.23	-29209652.21	-29209652.14	0.0147	0.0145
Moon	-84685-05-01 10:47 J	-29209652.10	-29209652.05	-29209651.97	0.0147	0.0141
Moon	-84683-05-11 16:47 J	-29208911.86	-29208911.80	-29208911.73	0.0147	0.0142
Moon	-84681-05-21 01:25 J	-29208171.45	-29208171.44	-29208171.40	0.0147	0.0147
Moon	-84680-05-26 02:52 J	-29207801.42	-29207801.38	-29207801.30	0.0147	0.0144
Earth	-84680-05-26 04:47 J	-29207801.30	-29207801.30	-29207801.28	0.0147	0.0147 *
Mars	-84680-07-12 06:13 J	-29207754.50	-29207754.24	-29207753.95	0.0147	0.0087
Earth	-84679-05-31 10:47 J	-29207431.08	-29207431.05	-29207430.99	0.0147	0.0144
Moon	-84678-06-05 17:44 J	-29207060.85	-29207060.76	-29207060.63	0.0147	0.0133
Earth	-84678-06-05 17:59 J	-29207060.82	-29207060.75	-29207060.68	0.0147	0.0140 *
Mars	-84678-06-20 23:01 J	-29207045.85	-29207045.54	-29207045.22	0.0147	0.0055
Earth	-84677-06-10 00:42 J	-29206690.54	-29206690.47	-29206690.35	0.0147	0.0136

Moon	-84677-06-10 00:28 J	-29206690.53	-29206690.48	-29206690.40	0.0147	0.0141	*
Earth	-84676-06-15 08:08 J	-29206320.26	-29206320.16	-29206320.02	0.0147	0.0130	
Moon	-84676-06-15 10:18 J	-29206320.18	-29206320.07	-29206319.94	0.0147	0.0130	*
Moon	-84675-06-20 13:54 J	-29205950.06	-29205949.92	-29205949.77	0.0146	0.0118	
Earth	-84675-06-20 16:18 J	-29205949.95	-29205949.82	-29205949.67	0.0146	0.0123	*
Earth	-84674-06-26 00:13 J	-29205579.65	-29205579.49	-29205579.33	0.0146	0.0114	
Moon	-84674-06-26 02:37 J	-29205579.51	-29205579.39	-29205579.22	0.0146	0.0122	*
Moon	-84673-06-30 04:04 J	-29205209.51	-29205209.33	-29205209.14	0.0146	0.0099	
Earth	-84673-06-30 07:40 J	-29205209.35	-29205209.18	-29205208.99	0.0146	0.0106	*
Earth	-84672-07-05 14:52 J	-29204839.06	-29204838.88	-29204838.68	0.0145	0.0096	
Moon	-84672-07-05 18:13 J	-29204838.91	-29204838.74	-29204838.53	0.0145	0.0101	*
Moon	-84671-07-10 17:59 J	-29204468.94	-29204468.75	-29204468.52	0.0145	0.0089	
Earth	-84671-07-10 22:04 J	-29204468.79	-29204468.58	-29204468.37	0.0145	0.0086	*
Earth	-84670-07-16 04:18 J	-29204098.53	-29204098.32	-29204098.09	0.0144	0.0075	
Moon	-84670-07-16 08:08 J	-29204098.38	-29204098.16	-29204097.93	0.0144	0.0069	*
Moon	-84669-07-20 07:25 J	-29203728.41	-29203728.19	-29203727.94	0.0144	0.0072	
Earth	-84669-07-20 10:32 J	-29203728.29	-29203728.06	-29203727.82	0.0144	0.0064	*
Earth	-84668-07-25 15:20 J	-29203358.09	-29203357.86	-29203357.60	0.0143	0.0053	
Moon	-84668-07-25 17:44 J	-29203357.99	-29203357.76	-29203357.50	0.0143	0.0047	*
Moon	-84667-07-30 18:13 J	-29202987.98	-29202987.74	-29202987.47	0.0142	0.0044	
Earth	-84667-07-30 19:54 J	-29202987.91	-29202987.67	-29202987.40	0.0142	0.0042	*
Earth	-84666-08-04 23:44 J	-29202617.76	-29202617.51	-29202617.24	0.0142	0.0030	
Moon	-84666-08-05 00:42 J	-29202617.72	-29202617.47	-29202617.22	0.0142	0.0033	*
Moon	-84665-08-09 02:23 J	-29202247.67	-29202247.40	-29202247.12	0.0141	0.0013	
Earth	-84665-08-09 02:37 J	-29202247.64	-29202247.39	-29202247.12	0.0141	0.0019	*
Moon	-84664-08-14 03:49 J	-29201877.59	-29201877.34	-29201877.08	0.0141	0.0014	
Earth	-84664-08-14 04:47 J	-29201877.56	-29201877.30	-29201877.03	0.0141	0.0007	*
Venus	-84664-09-15 04:04 J	-29201845.48	-29201845.33	-29201845.19	0.0141	0.0106	
Venus	-84663-04-29 15:35 J	-29201619.06	-29201618.85	-29201618.62	0.0140	0.0036	
Earth	-84663-08-19 05:59 J	-29201507.51	-29201507.25	-29201506.98	0.0140	0.0005	

Moon -84663-08-19 07:11 J -29201507.47 -29201507.20 -29201506.93 0.0140 0.0011 *
 Venus -84663-12-12 03:20 J -29201392.57 -29201392.36 -29201392.14 0.0140 0.0036
 Venus -84662-07-26 14:23 J -29201166.03 -29201165.90 -29201165.74 0.0139 0.0105
 Moon -84662-08-24 04:04 J -29201137.58 -29201137.33 -29201137.08 0.0139 0.0015
 Earth -84662-08-24 06:13 J -29201137.50 -29201137.24 -29201136.97 0.0139 0.0016 *
 Mercury -84662-11-29 02:52 J -29201040.43 -29201040.38 -29201040.33 0.0139 0.0133
 Mercury -84661-02-25 09:35 J -29200952.20 -29200952.10 -29200951.98 0.0139 0.0109
 Mercury -84661-05-23 16:32 J -29200863.94 -29200863.81 -29200863.66 0.0139 0.0085
 Mercury -84661-08-19 23:30 J -29200775.68 -29200775.52 -29200775.35 0.0139 0.0062
 Earth -84661-08-28 05:16 J -29200767.53 -29200767.28 -29200767.02 0.0139 0.0027
 Moon -84661-08-28 07:54 J -29200767.43 -29200767.17 -29200766.90 0.0139 0.0025 *
 Mercury -84661-11-16 06:13 J -29200687.40 -29200687.24 -29200687.05 0.0139 0.0039
 Mercury -84660-02-12 13:11 J -29200599.13 -29200598.95 -29200598.77 0.0138 0.0015
 Mercury -84660-05-11 19:54 J -29200510.85 -29200510.67 -29200510.49 0.0138 0.0008
 Mercury -84660-08-08 02:37 J -29200422.57 -29200422.39 -29200422.22 0.0138 0.0030
 Moon -84660-09-02 00:42 J -29200397.72 -29200397.47 -29200397.23 0.0138 0.0044
 Earth -84660-09-02 03:20 J -29200397.61 -29200397.36 -29200397.10 0.0138 0.0038 *
 Mercury -84660-11-04 08:52 J -29200334.28 -29200334.13 -29200333.95 0.0138 0.0053
 Mercury -84659-01-31 15:35 J -29200246.00 -29200245.85 -29200245.70 0.0138 0.0075
 Mercury -84659-04-29 21:49 J -29200157.70 -29200157.59 -29200157.45 0.0138 0.0097
 Mercury -84659-07-27 04:32 J -29200069.40 -29200069.31 -29200069.22 0.0138 0.0118
 Earth -84659-09-07 00:13 J -29200027.72 -29200027.49 -29200027.23 0.0138 0.0049
 Moon -84659-09-07 03:49 J -29200027.58 -29200027.34 -29200027.07 0.0138 0.0041 *
 Moon -84658-09-11 17:01 J -29199658.01 -29199657.79 -29199657.56 0.0137 0.0064
 Earth -84658-09-11 20:08 J -29199657.88 -29199657.66 -29199657.41 0.0137 0.0058 *
 Earth -84657-09-15 14:37 J -29199288.10 -29199287.89 -29199287.65 0.0136 0.0067
 Moon -84657-09-15 18:28 J -29199287.95 -29199287.73 -29199287.49 0.0136 0.0065 *
 Moon -84656-09-20 04:32 J -29198918.51 -29198918.31 -29198918.09 0.0136 0.0076
 Earth -84656-09-20 08:08 J -29198918.36 -29198918.16 -29198917.93 0.0136 0.0076 *
 Earth -84655-09-25 00:42 J -29198548.67 -29198548.47 -29198548.26 0.0135 0.0084

Moon	-84655-09-25 04:04 J	-29198548.51	-29198548.33	-29198548.12	0.0135	0.0088	*
Moon	-84654-09-29 11:44 J	-29198179.19	-29198179.01	-29198178.79	0.0135	0.0085	
Earth	-84654-09-29 15:49 J	-29198179.02	-29198178.84	-29198178.64	0.0135	0.0091	*
Earth	-84653-10-03 05:59 J	-29197809.42	-29197809.25	-29197809.07	0.0134	0.0098	
Moon	-84653-10-03 09:20 J	-29197809.26	-29197809.11	-29197808.94	0.0134	0.0105	*
Moon	-84652-10-07 15:35 J	-29197440.01	-29197439.85	-29197439.66	0.0134	0.0098	
Earth	-84652-10-07 19:11 J	-29197439.86	-29197439.70	-29197439.53	0.0134	0.0104	*
Earth	-84651-10-12 07:11 J	-29197070.33	-29197070.20	-29197070.04	0.0134	0.0110	
Moon	-84651-10-12 10:47 J	-29197070.17	-29197070.05	-29197069.91	0.0134	0.0114	*
Moon	-84650-10-16 15:20 J	-29196700.97	-29196700.86	-29196700.71	0.0133	0.0115	
Earth	-84650-10-16 18:13 J	-29196700.84	-29196700.74	-29196700.58	0.0133	0.0116	*
Earth	-84649-10-20 05:01 J	-29196331.40	-29196331.29	-29196331.18	0.0133	0.0119	
Moon	-84649-10-20 07:40 J	-29196331.28	-29196331.18	-29196331.04	0.0133	0.0117	*
Moon	-84648-10-24 11:30 J	-29195962.08	-29195962.02	-29195961.94	0.0133	0.0128	
Earth	-84648-10-24 14:08 J	-29195961.98	-29195961.91	-29195961.80	0.0133	0.0124	*
Earth	-84647-10-28 23:01 J	-29195592.60	-29195592.54	-29195592.45	0.0132	0.0127	
Moon	-84647-10-29 01:40 J	-29195592.52	-29195592.43	-29195592.31	0.0132	0.0120	*
Earth	-84646-11-02 06:56 J	-29195223.25	-29195223.21	-29195223.15	0.0132	0.0129	
Earth	-84645-11-05 14:08 J	-29194853.92	-29194853.91	-29194853.88	0.0132	0.0131	
Moon	-84645-11-05 16:04 J	-29194853.88	-29194853.83	-29194853.75	0.0132	0.0127	*
Moon	-84642-11-18 04:18 J	-29193746.33	-29193746.32	-29193746.26	0.0131	0.0131	
Moon	-84640-11-25 12:42 J	-29193008.02	-29193007.97	-29193007.87	0.0131	0.0126	
Earth	-84639-11-29 18:13 J	-29192638.75	-29192638.74	-29192638.69	0.0131	0.0131	
Mars	-84638-10-29 16:04 J	-29192305.07	-29192304.83	-29192304.57	0.0131	0.0059	
Moon	-84638-12-03 18:42 J	-29192269.79	-29192269.72	-29192269.60	0.0131	0.0123	
Earth	-84638-12-03 21:06 J	-29192269.65	-29192269.62	-29192269.55	0.0131	0.0129	*
Earth	-84637-12-06 23:59 J	-29191900.55	-29191900.50	-29191900.41	0.0131	0.0126	
Moon	-84637-12-07 02:23 J	-29191900.43	-29191900.40	-29191900.36	0.0131	0.0130	*
Mars	-84636-09-26 21:35 J	-29191606.87	-29191606.60	-29191606.31	0.0132	0.0020	
Moon	-84636-12-10 23:59 J	-29191531.59	-29191531.50	-29191531.38	0.0132	0.0120	

Earth	-84636-12-11 02:37 J	-29191531.46	-29191531.39	-29191531.28	0.0132	0.0123	*
Earth	-84635-12-15 05:01 J	-29191162.38	-29191162.29	-29191162.17	0.0132	0.0119	
Moon	-84635-12-15 07:11 J	-29191162.30	-29191162.20	-29191162.08	0.0132	0.0118	*
Mars	-84634-08-26 06:42 J	-29190908.39	-29190908.22	-29190908.02	0.0132	0.0098	
Moon	-84634-12-19 04:47 J	-29190793.40	-29190793.30	-29190793.17	0.0132	0.0118	
Earth	-84634-12-19 07:11 J	-29190793.30	-29190793.20	-29190793.06	0.0132	0.0115	*
Earth	-84633-12-22 09:35 J	-29190424.22	-29190424.10	-29190423.95	0.0132	0.0110	
Moon	-84633-12-22 11:59 J	-29190424.13	-29190424.00	-29190423.84	0.0132	0.0106	*
Moon	-84632-12-26 09:35 J	-29190055.22	-29190055.10	-29190054.95	0.0132	0.0112	
Earth	-84632-12-26 11:59 J	-29190055.14	-29190055.00	-29190054.84	0.0132	0.0105	*
Earth	-84631-12-30 14:23 J	-29189686.06	-29189685.90	-29189685.73	0.0133	0.0099	
Moon	-84631-12-30 16:32 J	-29189685.96	-29189685.81	-29189685.62	0.0133	0.0093	*
Moon	-84629-01-03 13:54 J	-29189317.07	-29189316.92	-29189316.73	0.0133	0.0098	
Earth	-84629-01-03 16:04 J	-29189316.99	-29189316.83	-29189316.63	0.0133	0.0093	*
Earth	-84628-01-06 18:28 J	-29188947.90	-29188947.73	-29188947.52	0.0133	0.0087	
Moon	-84628-01-06 21:06 J	-29188947.80	-29188947.62	-29188947.42	0.0133	0.0082	*
Moon	-84627-01-10 18:42 J	-29188578.91	-29188578.72	-29188578.51	0.0134	0.0081	
Earth	-84627-01-10 21:20 J	-29188578.80	-29188578.61	-29188578.40	0.0134	0.0079	*
Earth	-84626-01-14 23:59 J	-29188209.70	-29188209.50	-29188209.28	0.0134	0.0071	
Moon	-84626-01-15 02:23 J	-29188209.60	-29188209.40	-29188209.19	0.0134	0.0074	*
Moon	-84625-01-19 00:13 J	-29187840.70	-29187840.49	-29187840.25	0.0135	0.0061	
Earth	-84625-01-19 03:06 J	-29187840.57	-29187840.37	-29187840.14	0.0135	0.0064	*
Earth	-84624-01-22 06:56 J	-29187471.43	-29187471.21	-29187470.98	0.0135	0.0055	
Moon	-84624-01-22 09:06 J	-29187471.33	-29187471.12	-29187470.90	0.0135	0.0061	*
Moon	-84623-01-26 08:23 J	-29187102.38	-29187102.15	-29187101.90	0.0136	0.0039	
Earth	-84623-01-26 11:01 J	-29187102.26	-29187102.04	-29187101.80	0.0136	0.0047	*
Earth	-84622-01-30 15:49 J	-29186733.08	-29186732.84	-29186732.60	0.0136	0.0037	
Moon	-84622-01-30 18:13 J	-29186732.96	-29186732.74	-29186732.51	0.0136	0.0044	*
Moon	-84621-02-03 18:56 J	-29186363.96	-29186363.71	-29186363.46	0.0137	0.0023	
Earth	-84621-02-03 20:52 J	-29186363.86	-29186363.63	-29186363.38	0.0137	0.0029	*

Earth -84620-02-07 03:06 J -29185994.61 -29185994.37 -29185994.12 0.0137 0.0019
 Moon -84620-02-07 05:44 J -29185994.49 -29185994.26 -29185994.02 0.0137 0.0022 *
 Moon -84619-02-11 08:08 J -29185625.42 -29185625.16 -29185624.91 0.0138 0.0009
 Earth -84619-02-11 10:18 J -29185625.32 -29185625.07 -29185624.83 0.0138 0.0008 *
 Venus -84619-12-02 20:37 J -29185330.80 -29185330.64 -29185330.45 0.0138 0.0078
 Earth -84618-02-15 17:44 J -29185256.00 -29185255.76 -29185255.51 0.0138 0.0002
 Moon -84618-02-15 19:54 J -29185255.90 -29185255.67 -29185255.42 0.0138 0.0006 *
 Venus -84618-07-17 02:52 J -29185104.59 -29185104.38 -29185104.17 0.0138 0.0014
 Moon -84617-02-19 23:59 J -29184886.75 -29184886.50 -29184886.25 0.0139 0.0007
 Earth -84617-02-20 02:08 J -29184886.65 -29184886.41 -29184886.16 0.0139 0.0013 *
 Venus -84617-02-28 08:52 J -29184878.33 -29184878.13 -29184877.93 0.0139 0.0050
 Mercury -84617-07-25 11:30 J -29184730.06 -29184730.02 -29184729.97 0.0139 0.0129
 Venus -84617-10-11 14:52 J -29184651.99 -29184651.88 -29184651.75 0.0139 0.0115
 Mercury -84617-10-21 15:06 J -29184641.94 -29184641.87 -29184641.78 0.0139 0.0113
 Mercury -84616-01-17 18:42 J -29184553.81 -29184553.72 -29184553.61 0.0139 0.0096
 Earth -84616-02-23 11:30 J -29184517.26 -29184517.02 -29184516.78 0.0139 0.0023
 Moon -84616-02-23 13:11 J -29184517.18 -29184516.95 -29184516.71 0.0139 0.0030 *
 Mercury -84616-04-15 22:32 J -29184465.67 -29184465.56 -29184465.44 0.0140 0.0078
 Mercury -84616-07-13 02:23 J -29184377.53 -29184377.40 -29184377.28 0.0140 0.0060
 Mercury -84616-10-09 05:59 J -29184289.38 -29184289.25 -29184289.11 0.0140 0.0043
 Mercury -84615-01-05 09:49 J -29184201.23 -29184201.09 -29184200.95 0.0140 0.0024
 Moon -84615-02-27 19:25 J -29184147.94 -29184147.69 -29184147.44 0.0140 0.0026
 Earth -84615-02-27 21:35 J -29184147.84 -29184147.60 -29184147.36 0.0140 0.0034 *
 Mercury -84615-04-03 13:40 J -29184113.07 -29184112.93 -29184112.79 0.0140 0.0006
 Mercury -84615-06-30 17:30 J -29184024.91 -29184024.77 -29184024.63 0.0140 0.0012
 Mercury -84615-09-26 21:20 J -29183936.75 -29183936.61 -29183936.47 0.0140 0.0030
 Mercury -84615-12-24 01:11 J -29183848.58 -29183848.45 -29183848.32 0.0141 0.0049
 Earth -84614-03-04 08:37 J -29183778.37 -29183778.14 -29183777.90 0.0141 0.0044
 Moon -84614-03-04 09:49 J -29183778.30 -29183778.09 -29183777.86 0.0141 0.0049 *
 Mercury -84614-03-22 05:01 J -29183760.41 -29183760.29 -29183760.16 0.0141 0.0068

Mercury -84614-06-18 09:06 J -29183672.23 -29183672.12 -29183672.01 0.0141 0.0086
 Mercury -84614-09-14 13:11 J -29183584.05 -29183583.95 -29183583.86 0.0141 0.0105
 Mercury -84614-12-11 17:01 J -29183495.85 -29183495.79 -29183495.72 0.0141 0.0125
 Moon -84613-03-07 18:56 J -29183408.93 -29183408.71 -29183408.46 0.0141 0.0052
 Earth -84613-03-07 20:37 J -29183408.86 -29183408.64 -29183408.41 0.0141 0.0055 *
 Earth -84612-03-12 09:35 J -29183039.31 -29183039.10 -29183038.87 0.0142 0.0065
 Moon -84612-03-12 10:47 J -29183039.25 -29183039.05 -29183038.83 0.0142 0.0064 *
 Moon -84611-03-16 23:30 J -29182669.73 -29182669.52 -29182669.31 0.0143 0.0080
 Earth -84611-03-16 23:59 J -29182669.70 -29182669.50 -29182669.28 0.0143 0.0075 *
 Earth -84610-03-21 14:52 J -29182300.06 -29182299.88 -29182299.66 0.0143 0.0086
 Moon -84610-03-21 15:49 J -29182300.03 -29182299.84 -29182299.63 0.0143 0.0079 *
 Earth -84609-03-25 07:54 J -29181930.35 -29181930.17 -29181929.98 0.0144 0.0094
 Moon -84609-03-25 07:54 J -29181930.34 -29181930.17 -29181929.97 0.0144 0.0101 *
 Moon -84608-03-30 01:11 J -29181560.61 -29181560.45 -29181560.26 0.0144 0.0098
 Earth -84608-03-30 01:25 J -29181560.60 -29181560.44 -29181560.25 0.0144 0.0103 *
 Earth -84607-04-03 20:23 J -29181190.79 -29181190.65 -29181190.48 0.0145 0.0112
 Moon -84607-04-03 21:20 J -29181190.75 -29181190.61 -29181190.43 0.0145 0.0113 *
 Moon -84606-04-08 15:06 J -29180820.98 -29180820.87 -29180820.72 0.0145 0.0123
 Earth -84606-04-08 17:01 J -29180820.93 -29180820.79 -29180820.65 0.0145 0.0119 *
 Earth -84605-04-12 14:23 J -29180451.01 -29180450.90 -29180450.77 0.0146 0.0127
 Moon -84605-04-12 16:04 J -29180450.96 -29180450.83 -29180450.68 0.0146 0.0121 *
 Moon -84604-04-17 10:18 J -29180081.12 -29180081.07 -29180081.00 0.0146 0.0141
 Earth -84604-04-17 12:56 J -29180081.05 -29180080.96 -29180080.85 0.0146 0.0133 *
 Earth -84603-04-22 12:13 J -29179711.04 -29179710.99 -29179710.89 0.0146 0.0140
 Moon -84603-04-22 14:52 J -29179710.97 -29179710.88 -29179710.75 0.0146 0.0132 *
 Moon -84602-04-27 09:49 J -29179341.09 -29179341.09 -29179341.05 0.0147 0.0146
 Earth -84602-04-27 12:56 J -29179340.99 -29179340.96 -29179340.89 0.0147 0.0144
 Moon -84600-05-06 13:54 J -29178600.95 -29178600.92 -29178600.85 0.0147 0.0144
 Moon -84598-05-16 22:04 J -29177860.62 -29177860.58 -29177860.52 0.0147 0.0144
 Mars -84595-03-09 02:08 J -29176833.74 -29176833.41 -29176833.07 0.0147 0.0031

Earth	-84595-05-31 18:42 J	-29176749.75	-29176749.72	-29176749.66	0.0147	0.0144
Moon	-84595-05-31 19:54 J	-29176749.73	-29176749.67	-29176749.56	0.0147	0.0139 *
Earth	-84594-06-06 01:40 J	-29176379.49	-29176379.43	-29176379.34	0.0147	0.0140
Mars	-84593-02-15 17:44 J	-29176124.99	-29176124.76	-29176124.53	0.0147	0.0107
Moon	-84593-06-10 09:06 J	-29176009.23	-29176009.12	-29176009.00	0.0147	0.0130
Earth	-84593-06-10 08:52 J	-29176009.21	-29176009.13	-29176009.01	0.0147	0.0135 *
Earth	-84592-06-15 16:47 J	-29175638.91	-29175638.80	-29175638.66	0.0147	0.0128
Moon	-84592-06-15 17:59 J	-29175638.87	-29175638.75	-29175638.61	0.0147	0.0128 *
Moon	-84591-06-20 23:01 J	-29175268.66	-29175268.54	-29175268.40	0.0146	0.0125
Earth	-84591-06-21 00:28 J	-29175268.61	-29175268.48	-29175268.31	0.0146	0.0121 *
Earth	-84590-06-26 08:23 J	-29174898.30	-29174898.15	-29174897.97	0.0146	0.0112
Moon	-84590-06-26 11:16 J	-29174898.20	-29174898.03	-29174897.83	0.0146	0.0104 *
Moon	-84589-06-30 13:25 J	-29174528.10	-29174527.94	-29174527.77	0.0146	0.0110
Earth	-84589-06-30 16:04 J	-29174528.00	-29174527.83	-29174527.63	0.0146	0.0103 *
Earth	-84588-07-05 23:30 J	-29174157.71	-29174157.52	-29174157.31	0.0145	0.0093
Moon	-84588-07-06 03:06 J	-29174157.56	-29174157.37	-29174157.15	0.0145	0.0090 *
Moon	-84587-07-11 02:52 J	-29173787.58	-29173787.38	-29173787.16	0.0145	0.0082
Earth	-84587-07-11 06:42 J	-29173787.43	-29173787.22	-29173787.00	0.0145	0.0082 *
Earth	-84586-07-16 12:56 J	-29173417.17	-29173416.96	-29173416.72	0.0144	0.0071
Moon	-84586-07-16 16:18 J	-29173417.02	-29173416.82	-29173416.58	0.0144	0.0078 *
Moon	-84585-07-20 15:20 J	-29173047.10	-29173046.86	-29173046.60	0.0144	0.0052
Earth	-84585-07-20 18:56 J	-29173046.94	-29173046.71	-29173046.46	0.0144	0.0060 *
Earth	-84584-07-25 23:59 J	-29172676.73	-29172676.50	-29172676.24	0.0143	0.0049
Moon	-84584-07-26 02:52 J	-29172676.61	-29172676.38	-29172676.13	0.0143	0.0054 *
Moon	-84583-07-31 02:37 J	-29172306.65	-29172306.39	-29172306.13	0.0143	0.0034
Earth	-84583-07-31 04:47 J	-29172306.54	-29172306.30	-29172306.04	0.0143	0.0037 *
Earth	-84582-08-05 08:37 J	-29171936.39	-29171936.14	-29171935.88	0.0142	0.0025
Moon	-84582-08-05 10:18 J	-29171936.31	-29171936.07	-29171935.81	0.0142	0.0023 *
Moon	-84581-08-09 11:01 J	-29171566.30	-29171566.04	-29171565.76	0.0141	0.0020
Earth	-84581-08-09 11:44 J	-29171566.27	-29171566.01	-29171565.75	0.0141	0.0013 *

Earth -84580-08-14 13:54 J -29171196.18 -29171195.92 -29171195.66 0.0141 0.0001
 Moon -84580-08-14 14:08 J -29171196.16 -29171195.91 -29171195.66 0.0141 0.0006 *
 Venus -84580-12-27 21:35 J -29171060.79 -29171060.60 -29171060.40 0.0140 0.0070
 Venus -84579-08-11 09:20 J -29170834.33 -29170834.11 -29170833.88 0.0140 0.0001
 Earth -84579-08-19 15:06 J -29170826.13 -29170825.87 -29170825.61 0.0140 0.0011
 Moon -84579-08-19 16:18 J -29170826.10 -29170825.82 -29170825.55 0.0140 0.0006 *
 Venus -84578-03-25 20:37 J -29170607.83 -29170607.64 -29170607.44 0.0140 0.0071
 Moon -84578-08-24 14:08 J -29170456.16 -29170455.91 -29170455.66 0.0139 0.0025
 Earth -84578-08-24 15:20 J -29170456.12 -29170455.86 -29170455.60 0.0139 0.0022 *
 Mercury -84578-12-19 09:35 J -29170339.16 -29170339.10 -29170339.02 0.0139 0.0128
 Mercury -84577-03-16 16:47 J -29170250.92 -29170250.80 -29170250.68 0.0139 0.0104
 Mercury -84577-06-12 23:30 J -29170162.65 -29170162.52 -29170162.36 0.0139 0.0081
 Earth -84577-08-28 14:23 J -29170086.15 -29170085.90 -29170085.64 0.0139 0.0033
 Moon -84577-08-28 16:18 J -29170086.07 -29170085.82 -29170085.55 0.0139 0.0036 *
 Mercury -84577-09-09 06:42 J -29170074.39 -29170074.22 -29170074.05 0.0139 0.0057
 Mercury -84577-12-06 13:25 J -29169986.11 -29169985.94 -29169985.76 0.0139 0.0034
 Mercury -84576-03-04 20:08 J -29169897.83 -29169897.66 -29169897.47 0.0138 0.0011
 Mercury -84576-06-01 02:52 J -29169809.56 -29169809.38 -29169809.20 0.0138 0.0013
 Mercury -84576-08-28 09:35 J -29169721.27 -29169721.10 -29169720.93 0.0138 0.0035
 Moon -84576-09-02 09:35 J -29169716.33 -29169716.10 -29169715.84 0.0138 0.0038
 Earth -84576-09-02 12:28 J -29169716.22 -29169715.98 -29169715.72 0.0138 0.0044 *
 Mercury -84576-11-24 16:04 J -29169632.99 -29169632.83 -29169632.66 0.0138 0.0057
 Mercury -84575-02-20 22:32 J -29169544.70 -29169544.56 -29169544.41 0.0138 0.0079
 Mercury -84575-05-20 05:01 J -29169456.40 -29169456.29 -29169456.17 0.0138 0.0101
 Mercury -84575-08-16 11:16 J -29169368.10 -29169368.03 -29169367.94 0.0138 0.0123
 Earth -84575-09-07 09:20 J -29169346.34 -29169346.11 -29169345.86 0.0138 0.0054
 Moon -84575-09-07 11:59 J -29169346.23 -29169346.00 -29169345.74 0.0138 0.0061 *
 Moon -84574-09-12 01:40 J -29168976.65 -29168976.43 -29168976.19 0.0137 0.0057
 Earth -84574-09-12 05:16 J -29168976.51 -29168976.28 -29168976.04 0.0137 0.0063 *
 Earth -84573-09-15 23:30 J -29168606.73 -29168606.52 -29168606.28 0.0137 0.0073

Moon	-84573-09-16 03:06 J	-29168606.58	-29168606.37	-29168606.14	0.0137	0.0077	*
Moon	-84572-09-20 13:40 J	-29168237.13	-29168236.93	-29168236.72	0.0136	0.0081	
Earth	-84572-09-20 17:01 J	-29168236.99	-29168236.79	-29168236.57	0.0136	0.0081	*
Earth	-84571-09-25 09:20 J	-29167867.30	-29167867.11	-29167866.90	0.0135	0.0089	
Moon	-84571-09-25 13:25 J	-29167867.14	-29167866.94	-29167866.73	0.0135	0.0085	*
Moon	-84570-09-29 20:52 J	-29167497.78	-29167497.63	-29167497.44	0.0135	0.0102	
Earth	-84570-09-30 00:28 J	-29167497.64	-29167497.48	-29167497.28	0.0135	0.0096	*
Earth	-84569-10-03 14:23 J	-29167128.05	-29167127.90	-29167127.71	0.0134	0.0103	
Moon	-84569-10-03 17:59 J	-29167127.91	-29167127.75	-29167127.54	0.0134	0.0096	*
Moon	-84568-10-08 00:13 J	-29166758.61	-29166758.49	-29166758.35	0.0134	0.0115	
Earth	-84568-10-08 04:04 J	-29166758.48	-29166758.33	-29166758.17	0.0134	0.0108	*
Earth	-84567-10-12 16:04 J	-29166388.95	-29166388.83	-29166388.68	0.0134	0.0114	
Moon	-84567-10-12 19:25 J	-29166388.82	-29166388.69	-29166388.54	0.0134	0.0111	*
Moon	-84566-10-16 23:30 J	-29166019.62	-29166019.52	-29166019.39	0.0133	0.0120	
Earth	-84566-10-17 03:35 J	-29166019.47	-29166019.35	-29166019.24	0.0133	0.0119	*
Earth	-84565-10-20 13:25 J	-29165650.02	-29165649.94	-29165649.83	0.0133	0.0123	
Moon	-84565-10-20 16:32 J	-29165649.87	-29165649.81	-29165649.71	0.0133	0.0126	*
Moon	-84564-10-24 19:54 J	-29165280.76	-29165280.67	-29165280.55	0.0133	0.0121	
Earth	-84564-10-24 23:16 J	-29165280.59	-29165280.53	-29165280.45	0.0133	0.0127	*
Earth	-84563-10-29 07:54 J	-29164911.21	-29164911.17	-29164911.11	0.0132	0.0129	
Moon	-84562-11-02 12:42 J	-29164542.04	-29164541.97	-29164541.87	0.0132	0.0125	
Earth	-84562-11-02 15:49 J	-29164541.84	-29164541.84	-29164541.83	0.0132	0.0132	
Moon	-84560-11-10 01:54 J	-29163803.43	-29163803.42	-29163803.38	0.0132	0.0131	
Moon	-84557-11-21 22:04 J	-29162695.62	-29162695.58	-29162695.53	0.0131	0.0129	
Mars	-84555-07-25 04:32 J	-29162085.47	-29162085.31	-29162085.13	0.0131	0.0104	
Earth	-84555-11-30 02:37 J	-29161957.40	-29161957.39	-29161957.36	0.0131	0.0131	
Moon	-84555-11-30 05:01 J	-29161957.35	-29161957.29	-29161957.19	0.0131	0.0125	
Earth	-84554-12-04 05:30 J	-29161588.30	-29161588.27	-29161588.20	0.0131	0.0128	
Mars	-84553-06-22 08:52 J	-29161387.40	-29161387.13	-29161386.85	0.0131	0.0027	
Earth	-84553-12-07 08:08 J	-29161219.21	-29161219.16	-29161219.07	0.0131	0.0126	

Moon	-84553-12-07 11:16 J	-29161219.11	-29161219.03	-29161218.92	0.0131	0.0121	*
Moon	-84552-12-11 08:23 J	-29160850.22	-29160850.15	-29160850.05	0.0131	0.0124	
Earth	-84552-12-11 11:01 J	-29160850.12	-29160850.04	-29160849.93	0.0131	0.0122	*
Mars	-84551-05-21 15:49 J	-29160689.10	-29160688.84	-29160688.58	0.0132	0.0050	
Earth	-84551-12-15 13:25 J	-29160481.04	-29160480.94	-29160480.82	0.0132	0.0118	
Moon	-84551-12-15 16:04 J	-29160480.91	-29160480.83	-29160480.70	0.0132	0.0119	*
Moon	-84550-12-19 12:42 J	-29160112.09	-29160111.97	-29160111.81	0.0132	0.0111	
Earth	-84550-12-19 16:04 J	-29160111.96	-29160111.83	-29160111.71	0.0132	0.0113	*
Mars	-84549-04-19 02:23 J	-29159990.45	-29159990.40	-29159990.31	0.0132	0.0128	
Earth	-84549-12-22 17:44 J	-29159742.88	-29159742.76	-29159742.60	0.0132	0.0109	
Moon	-84549-12-22 20:37 J	-29159742.75	-29159742.64	-29159742.51	0.0132	0.0114	*
Moon	-84548-12-26 17:01 J	-29159373.95	-29159373.79	-29159373.61	0.0132	0.0097	
Earth	-84548-12-26 20:23 J	-29159373.80	-29159373.65	-29159373.49	0.0132	0.0103	*
Earth	-84547-12-30 21:49 J	-29159004.74	-29159004.59	-29159004.40	0.0133	0.0097	
Moon	-84547-12-31 00:28 J	-29159004.61	-29159004.48	-29159004.31	0.0133	0.0104	*
Moon	-84545-01-03 21:06 J	-29158635.81	-29158635.62	-29158635.42	0.0133	0.0083	
Earth	-84545-01-04 00:13 J	-29158635.66	-29158635.49	-29158635.30	0.0133	0.0090	*
Earth	-84544-01-07 02:08 J	-29158266.58	-29158266.41	-29158266.20	0.0133	0.0084	
Moon	-84544-01-07 05:16 J	-29158266.45	-29158266.28	-29158266.09	0.0133	0.0088	*
Moon	-84543-01-11 01:54 J	-29157897.62	-29157897.42	-29157897.20	0.0134	0.0074	
Earth	-84543-01-11 04:47 J	-29157897.49	-29157897.30	-29157897.08	0.0134	0.0076	*
Earth	-84542-01-15 07:25 J	-29157528.39	-29157528.19	-29157527.96	0.0134	0.0069	
Moon	-84542-01-15 10:47 J	-29157528.25	-29157528.05	-29157527.83	0.0134	0.0068	*
Moon	-84541-01-19 07:54 J	-29157159.38	-29157159.17	-29157158.94	0.0135	0.0064	
Earth	-84541-01-19 10:47 J	-29157159.26	-29157159.05	-29157158.82	0.0135	0.0060	*
Earth	-84540-01-22 14:23 J	-29156790.12	-29156789.90	-29156789.67	0.0135	0.0051	
Moon	-84540-01-22 17:30 J	-29156789.99	-29156789.77	-29156789.54	0.0135	0.0045	*
Moon	-84539-01-26 15:35 J	-29156421.08	-29156420.85	-29156420.61	0.0135	0.0049	
Earth	-84539-01-26 18:28 J	-29156420.95	-29156420.73	-29156420.49	0.0135	0.0043	*
Earth	-84538-01-30 23:16 J	-29156051.77	-29156051.53	-29156051.29	0.0136	0.0033	

Moon -84538-01-31 01:54 J -29156051.65 -29156051.42 -29156051.18 0.0136 0.0026 *
 Moon -84537-02-04 01:25 J -29155682.68 -29155682.44 -29155682.19 0.0137 0.0030
 Earth -84537-02-04 04:32 J -29155682.55 -29155682.31 -29155682.06 0.0137 0.0024 *
 Earth -84536-02-07 10:47 J -29155313.29 -29155313.05 -29155312.80 0.0137 0.0014
 Moon -84536-02-07 13:25 J -29155313.18 -29155312.94 -29155312.70 0.0137 0.0011 *
 Moon -84535-02-11 14:37 J -29154944.14 -29154943.89 -29154943.64 0.0138 0.0004
 Earth -84535-02-11 17:44 J -29154944.01 -29154943.76 -29154943.52 0.0138 0.0004 *
 Venus -84535-08-02 04:47 J -29154772.42 -29154772.30 -29154772.17 0.0138 0.0111
 Earth -84534-02-16 01:11 J -29154574.70 -29154574.45 -29154574.21 0.0138 0.0007
 Moon -84534-02-16 03:49 J -29154574.58 -29154574.34 -29154574.10 0.0138 0.0005 *
 Venus -84534-03-16 10:18 J -29154546.26 -29154546.07 -29154545.86 0.0138 0.0049
 Venus -84534-10-28 16:18 J -29154320.02 -29154319.82 -29154319.60 0.0139 0.0016
 Moon -84533-02-20 06:56 J -29154205.46 -29154205.21 -29154204.97 0.0139 0.0023
 Earth -84533-02-20 09:20 J -29154205.35 -29154205.11 -29154204.86 0.0139 0.0017 *
 Venus -84533-06-10 22:18 J -29154093.73 -29154093.57 -29154093.39 0.0139 0.0080
 Mercury -84533-08-14 17:59 J -29154028.79 -29154028.75 -29154028.69 0.0139 0.0128
 Mercury -84533-11-10 21:35 J -29153940.67 -29153940.60 -29153940.51 0.0139 0.0112
 Mercury -84532-02-07 01:25 J -29153852.54 -29153852.44 -29153852.34 0.0139 0.0094
 Earth -84532-02-23 18:13 J -29153835.97 -29153835.74 -29153835.49 0.0139 0.0029
 Moon -84532-02-23 21:06 J -29153835.85 -29153835.62 -29153835.38 0.0139 0.0022 *
 Mercury -84532-05-06 05:01 J -29153764.40 -29153764.29 -29153764.17 0.0140 0.0077
 Mercury -84532-08-02 08:52 J -29153676.25 -29153676.13 -29153676.00 0.0140 0.0059
 Mercury -84532-10-29 12:42 J -29153588.11 -29153587.97 -29153587.84 0.0140 0.0041
 Mercury -84531-01-25 16:18 J -29153499.95 -29153499.82 -29153499.68 0.0140 0.0023
 Moon -84531-02-28 02:08 J -29153466.64 -29153466.41 -29153466.16 0.0140 0.0046
 Earth -84531-02-28 04:32 J -29153466.54 -29153466.31 -29153466.07 0.0140 0.0038 *
 Mercury -84531-04-23 20:08 J -29153411.80 -29153411.66 -29153411.52 0.0140 0.0005
 Mercury -84531-07-20 23:59 J -29153323.64 -29153323.50 -29153323.36 0.0140 0.0013
 Mercury -84531-10-17 03:49 J -29153235.48 -29153235.34 -29153235.20 0.0141 0.0031
 Mercury -84530-01-13 07:40 J -29153147.31 -29153147.18 -29153147.05 0.0141 0.0050

Earth -84530-03-04 15:20 J -29153097.09 -29153096.86 -29153096.62 0.0141 0.0049
 Moon -84530-03-04 17:30 J -29153096.99 -29153096.77 -29153096.53 0.0141 0.0044 *
 Mercury -84530-04-11 11:30 J -29153059.14 -29153059.02 -29153058.89 0.0141 0.0069
 Mercury -84530-07-08 15:20 J -29152970.96 -29152970.86 -29152970.74 0.0141 0.0088
 Mercury -84530-10-04 19:25 J -29152882.77 -29152882.69 -29152882.59 0.0141 0.0107
 Mercury -84530-12-31 23:16 J -29152794.58 -29152794.53 -29152794.45 0.0141 0.0127
 Moon -84529-03-08 01:11 J -29152727.67 -29152727.45 -29152727.21 0.0141 0.0063
 Earth -84529-03-08 03:20 J -29152727.57 -29152727.36 -29152727.13 0.0141 0.0060 *
 Earth -84528-03-12 16:18 J -29152358.02 -29152357.82 -29152357.59 0.0142 0.0070
 Moon -84528-03-12 18:13 J -29152357.94 -29152357.74 -29152357.53 0.0142 0.0071 *
 Moon -84527-03-17 05:01 J -29151988.51 -29151988.29 -29151988.08 0.0143 0.0076
 Earth -84527-03-17 06:42 J -29151988.42 -29151988.22 -29151988.01 0.0143 0.0080 *
 Earth -84526-03-21 21:49 J -29151618.77 -29151618.59 -29151618.38 0.0143 0.0090
 Moon -84526-03-21 22:47 J -29151618.71 -29151618.55 -29151618.36 0.0143 0.0096 *
 Moon -84525-03-25 13:40 J -29151249.12 -29151248.93 -29151248.73 0.0144 0.0091
 Earth -84525-03-25 14:37 J -29151249.06 -29151248.89 -29151248.70 0.0144 0.0099 *
 Earth -84524-03-30 08:37 J -29150879.30 -29150879.14 -29150878.97 0.0144 0.0108
 Moon -84524-03-30 08:37 J -29150879.27 -29150879.14 -29150878.98 0.0144 0.0113 *
 Earth -84523-04-04 03:35 J -29150509.49 -29150509.35 -29150509.19 0.0145 0.0116
 Moon -84523-04-04 03:35 J -29150509.49 -29150509.35 -29150509.17 0.0145 0.0114 *
 Jupiter -84523-06-25 22:04 J -29150426.91 -29150426.58 -29150426.16 0.0145 0.0100
 Moon -84522-04-08 23:30 J -29150139.64 -29150139.52 -29150139.39 0.0145 0.0123
 Earth -84522-04-08 23:30 J -29150139.62 -29150139.52 -29150139.37 0.0145 0.0125 *
 Earth -84521-04-12 21:06 J -29149769.71 -29149769.62 -29149769.50 0.0146 0.0131
 Moon -84521-04-12 22:32 J -29149769.63 -29149769.56 -29149769.45 0.0146 0.0137 *
 Moon -84520-04-17 18:13 J -29149399.83 -29149399.74 -29149399.61 0.0146 0.0130
 Earth -84520-04-17 19:40 J -29149399.75 -29149399.68 -29149399.58 0.0146 0.0137 *
 Earth -84519-04-22 18:56 J -29149029.74 -29149029.71 -29149029.63 0.0146 0.0143
 Moon -84518-04-27 17:01 J -29148659.82 -29148659.79 -29148659.71 0.0147 0.0143
 Earth -84518-04-27 20:08 J -29148659.67 -29148659.66 -29148659.64 0.0147 0.0146

Moon	-84515-05-12 06:56 J	-29147549.24	-29147549.21	-29147549.14	0.0147	0.0145
Moon	-84513-05-21 16:32 J	-29146808.82	-29146808.81	-29146808.77	0.0147	0.0147
Mars	-84513-11-24 23:30 J	-29146621.71	-29146621.52	-29146621.30	0.0147	0.0118
Moon	-84512-05-26 16:04 J	-29146438.85	-29146438.83	-29146438.76	0.0147	0.0146
Earth	-84511-06-01 01:54 J	-29146068.47	-29146068.42	-29146068.37	0.0147	0.0144
Mars	-84511-11-03 19:54 J	-29145913.00	-29145912.67	-29145912.32	0.0147	0.0022
Moon	-84510-06-06 07:25 J	-29145698.30	-29145698.19	-29145698.06	0.0147	0.0132
Earth	-84510-06-06 08:37 J	-29145698.20	-29145698.14	-29145698.03	0.0147	0.0140 *
Earth	-84509-06-10 16:18 J	-29145327.91	-29145327.82	-29145327.70	0.0147	0.0133
Moon	-84509-06-10 17:16 J	-29145327.85	-29145327.78	-29145327.69	0.0147	0.0139 *
Moon	-84508-06-16 00:28 J	-29144957.62	-29144957.48	-29144957.34	0.0147	0.0124
Earth	-84508-06-16 00:13 J	-29144957.61	-29144957.49	-29144957.35	0.0147	0.0126 *
Moon	-84507-06-21 06:28 J	-29144587.36	-29144587.23	-29144587.05	0.0146	0.0115
Earth	-84507-06-21 07:54 J	-29144587.30	-29144587.17	-29144587.00	0.0146	0.0118 *
Earth	-84506-06-26 15:49 J	-29144216.99	-29144216.84	-29144216.65	0.0146	0.0109
Moon	-84506-06-26 17:44 J	-29144216.91	-29144216.76	-29144216.59	0.0146	0.0116 *
Moon	-84505-06-30 20:37 J	-29143846.82	-29143846.64	-29143846.43	0.0146	0.0093
Earth	-84505-06-30 23:16 J	-29143846.70	-29143846.53	-29143846.32	0.0146	0.0100 *
Earth	-84504-07-06 06:42 J	-29143476.40	-29143476.22	-29143475.99	0.0145	0.0090
Moon	-84504-07-06 10:04 J	-29143476.27	-29143476.08	-29143475.86	0.0145	0.0094 *
Moon	-84503-07-11 10:47 J	-29143106.27	-29143106.05	-29143105.84	0.0145	0.0079
Earth	-84503-07-11 14:08 J	-29143106.12	-29143105.91	-29143105.68	0.0145	0.0078 *
Earth	-84502-07-16 20:37 J	-29142735.86	-29142735.64	-29142735.40	0.0144	0.0067
Moon	-84502-07-17 00:28 J	-29142735.71	-29142735.48	-29142735.23	0.0144	0.0061 *
Moon	-84501-07-20 23:16 J	-29142365.76	-29142365.53	-29142365.29	0.0144	0.0062
Earth	-84501-07-21 02:37 J	-29142365.62	-29142365.39	-29142365.14	0.0144	0.0055 *
Earth	-84500-07-26 07:54 J	-29141995.41	-29141995.17	-29141994.91	0.0143	0.0043
Moon	-84500-07-26 11:16 J	-29141995.27	-29141995.03	-29141994.77	0.0143	0.0037 *
Moon	-84499-07-31 09:49 J	-29141625.34	-29141625.09	-29141624.82	0.0143	0.0035
Earth	-84499-07-31 12:56 J	-29141625.22	-29141624.96	-29141624.70	0.0143	0.0031 *

Earth	-84498-08-05 16:47 J	-29141255.06	-29141254.80	-29141254.54	0.0142	0.0019
Moon	-84498-08-05 18:42 J	-29141254.97	-29141254.72	-29141254.46	0.0142	0.0022 *
Moon	-84497-08-09 17:59 J	-29140885.02	-29140884.75	-29140884.48	0.0141	0.0003
Earth	-84497-08-09 19:54 J	-29140884.93	-29140884.67	-29140884.41	0.0141	0.0007 *
Earth	-84496-08-14 22:18 J	-29140514.83	-29140514.57	-29140514.31	0.0141	0.0005
Moon	-84496-08-14 22:47 J	-29140514.81	-29140514.55	-29140514.30	0.0141	0.0003 *
Venus	-84496-08-27 02:37 J	-29140502.52	-29140502.39	-29140502.23	0.0141	0.0106
Venus	-84495-04-10 14:52 J	-29140276.10	-29140275.88	-29140275.66	0.0140	0.0035
Moon	-84495-08-19 23:16 J	-29140144.79	-29140144.53	-29140144.25	0.0140	0.0023
Earth	-84495-08-19 23:44 J	-29140144.77	-29140144.51	-29140144.25	0.0140	0.0016 *
Venus	-84495-11-23 02:23 J	-29140049.61	-29140049.40	-29140049.18	0.0140	0.0036
Venus	-84494-07-07 13:40 J	-29139823.06	-29139822.93	-29139822.77	0.0140	0.0106
Moon	-84494-08-24 23:01 J	-29139774.78	-29139774.54	-29139774.28	0.0139	0.0026
Earth	-84494-08-24 23:59 J	-29139774.76	-29139774.50	-29139774.24	0.0139	0.0028 *
Mercury	-84493-01-08 16:32 J	-29139637.88	-29139637.81	-29139637.72	0.0139	0.0124
Mercury	-84493-04-05 23:30 J	-29139549.63	-29139549.52	-29139549.38	0.0139	0.0101
Mercury	-84493-07-03 06:42 J	-29139461.37	-29139461.22	-29139461.07	0.0139	0.0076
Earth	-84493-08-28 23:01 J	-29139404.78	-29139404.54	-29139404.28	0.0139	0.0039
Moon	-84493-08-29 00:28 J	-29139404.73	-29139404.48	-29139404.21	0.0139	0.0037 *
Mercury	-84493-09-29 13:25 J	-29139373.10	-29139372.94	-29139372.76	0.0139	0.0053
Mercury	-84493-12-26 20:23 J	-29139284.83	-29139284.65	-29139284.47	0.0139	0.0030
Mercury	-84492-03-25 03:06 J	-29139196.55	-29139196.37	-29139196.19	0.0139	0.0007
Mercury	-84492-06-21 09:49 J	-29139108.27	-29139108.09	-29139107.91	0.0138	0.0016
Moon	-84492-09-02 19:25 J	-29139034.91	-29139034.69	-29139034.45	0.0138	0.0055
Earth	-84492-09-02 21:06 J	-29139034.85	-29139034.62	-29139034.36	0.0138	0.0050 *
Mercury	-84492-09-17 16:32 J	-29139019.98	-29139019.81	-29139019.64	0.0138	0.0039
Mercury	-84492-12-14 23:01 J	-29138931.70	-29138931.54	-29138931.38	0.0138	0.0061
Mercury	-84491-03-13 05:30 J	-29138843.41	-29138843.27	-29138843.12	0.0138	0.0083
Mercury	-84491-06-09 11:44 J	-29138755.11	-29138755.01	-29138754.88	0.0138	0.0105
Mercury	-84491-09-05 17:59 J	-29138666.80	-29138666.75	-29138666.66	0.0138	0.0127

Earth	-84491-09-07 17:59 J	-29138664.97	-29138664.75	-29138664.50	0.0138	0.0060
Moon	-84491-09-07 20:52 J	-29138664.87	-29138664.63	-29138664.37	0.0138	0.0053 *
Moon	-84490-09-12 11:16 J	-29138295.23	-29138295.03	-29138294.80	0.0137	0.0076
Earth	-84490-09-12 13:54 J	-29138295.14	-29138294.92	-29138294.68	0.0137	0.0069 *
Earth	-84489-09-16 08:37 J	-29137925.36	-29137925.14	-29137924.93	0.0137	0.0078
Moon	-84489-09-16 11:44 J	-29137925.23	-29137925.01	-29137924.78	0.0137	0.0075 *
Moon	-84488-09-20 22:47 J	-29137555.75	-29137555.55	-29137555.36	0.0136	0.0087
Earth	-84488-09-21 01:54 J	-29137555.61	-29137555.42	-29137555.21	0.0136	0.0086 *
Earth	-84487-09-25 18:13 J	-29137185.92	-29137185.74	-29137185.54	0.0136	0.0094
Moon	-84487-09-25 21:20 J	-29137185.77	-29137185.61	-29137185.41	0.0136	0.0098 *
Moon	-84486-09-30 05:16 J	-29136816.44	-29136816.28	-29136816.07	0.0135	0.0095
Earth	-84486-09-30 09:20 J	-29136816.27	-29136816.11	-29136815.92	0.0135	0.0101 *
Earth	-84485-10-03 23:16 J	-29136446.66	-29136446.53	-29136446.35	0.0135	0.0108
Moon	-84485-10-04 02:52 J	-29136446.49	-29136446.38	-29136446.22	0.0135	0.0115 *
Moon	-84484-10-08 09:06 J	-29136077.26	-29136077.12	-29136076.94	0.0134	0.0107
Earth	-84484-10-08 12:56 J	-29136077.08	-29136076.96	-29136076.81	0.0134	0.0113 *
Earth	-84483-10-13 00:56 J	-29135707.56	-29135707.46	-29135707.32	0.0134	0.0119
Moon	-84483-10-13 04:47 J	-29135707.38	-29135707.30	-29135707.18	0.0134	0.0124 *
Moon	-84482-10-17 09:20 J	-29135338.21	-29135338.11	-29135338.01	0.0133	0.0122
Earth	-84482-10-17 12:28 J	-29135338.06	-29135337.98	-29135337.87	0.0133	0.0123 *
Earth	-84481-10-20 22:47 J	-29134968.60	-29134968.55	-29134968.46	0.0133	0.0127
Moon	-84481-10-21 02:52 J	-29134968.46	-29134968.38	-29134968.29	0.0133	0.0124 *
Earth	-84480-10-25 08:23 J	-29134599.17	-29134599.15	-29134599.08	0.0133	0.0131
Moon	-84479-10-29 20:23 J	-29134229.70	-29134229.65	-29134229.55	0.0132	0.0126
Moon	-84477-11-06 10:47 J	-29133491.05	-29133491.05	-29133491.00	0.0132	0.0131
Moon	-84472-11-26 05:30 J	-29131645.31	-29131645.27	-29131645.19	0.0131	0.0128
Earth	-84471-11-30 12:13 J	-29131275.99	-29131275.99	-29131275.97	0.0131	0.0131
Mars	-84470-03-18 23:01 J	-29131167.75	-29131167.54	-29131167.28	0.0131	0.0073
Moon	-84470-12-04 11:59 J	-29130907.08	-29130907.00	-29130906.89	0.0131	0.0122
Earth	-84470-12-04 15:06 J	-29130906.90	-29130906.87	-29130906.80	0.0131	0.0129 *

Earth	-84469-12-07 17:44 J	-29130537.81	-29130537.76	-29130537.66	0.0131	0.0126
Moon	-84469-12-07 21:06 J	-29130537.65	-29130537.62	-29130537.57	0.0131	0.0130
Mars	-84468-02-14 04:32 J	-29130469.59	-29130469.31	-29130469.03	0.0131	0.0004
Moon	-84468-12-11 17:16 J	-29130168.87	-29130168.78	-29130168.65	0.0131	0.0118
Earth	-84468-12-11 20:37 J	-29130168.71	-29130168.64	-29130168.52	0.0131	0.0122 *
Earth	-84467-12-15 23:16 J	-29129799.64	-29129799.53	-29129799.41	0.0132	0.0117
Moon	-84467-12-16 02:08 J	-29129799.51	-29129799.41	-29129799.29	0.0132	0.0117 *
Mars	-84466-01-13 12:42 J	-29129771.17	-29129770.97	-29129770.72	0.0132	0.0082
Moon	-84466-12-19 22:04 J	-29129430.69	-29129430.58	-29129430.44	0.0132	0.0115
Earth	-84466-12-20 01:25 J	-29129430.55	-29129430.44	-29129430.29	0.0132	0.0112 *
Earth	-84465-12-23 03:20 J	-29129061.48	-29129061.36	-29129061.19	0.0132	0.0107
Moon	-84465-12-23 06:56 J	-29129061.36	-29129061.21	-29129061.05	0.0132	0.0102 *
Moon	-84464-12-27 02:23 J	-29128692.53	-29128692.40	-29128692.23	0.0132	0.0108
Earth	-84464-12-27 05:44 J	-29128692.41	-29128692.26	-29128692.09	0.0132	0.0101 *
Earth	-84463-12-31 07:25 J	-29128323.35	-29128323.19	-29128323.00	0.0133	0.0095
Moon	-84463-12-31 11:16 J	-29128323.21	-29128323.03	-29128322.85	0.0133	0.0087 *
Moon	-84461-01-04 06:13 J	-29127954.39	-29127954.24	-29127954.04	0.0133	0.0094
Earth	-84461-01-04 09:49 J	-29127954.27	-29127954.09	-29127953.90	0.0133	0.0087 *
Earth	-84460-01-07 11:44 J	-29127585.19	-29127585.01	-29127584.80	0.0133	0.0080
Moon	-84460-01-07 15:06 J	-29127585.06	-29127584.87	-29127584.66	0.0133	0.0076 *
Moon	-84459-01-11 11:01 J	-29127216.24	-29127216.04	-29127215.82	0.0134	0.0076
Earth	-84459-01-11 14:23 J	-29127216.10	-29127215.90	-29127215.68	0.0134	0.0073 *
Earth	-84458-01-15 17:01 J	-29126847.00	-29126846.79	-29126846.56	0.0134	0.0064
Moon	-84458-01-15 19:54 J	-29126846.87	-29126846.67	-29126846.44	0.0134	0.0066 *
Moon	-84457-01-19 16:47 J	-29126478.02	-29126477.80	-29126477.56	0.0134	0.0053
Earth	-84457-01-19 20:08 J	-29126477.87	-29126477.66	-29126477.42	0.0134	0.0056 *
Earth	-84456-01-22 23:59 J	-29126108.73	-29126108.50	-29126108.27	0.0135	0.0047
Moon	-84456-01-23 02:52 J	-29126108.59	-29126108.38	-29126108.14	0.0135	0.0053 *
Moon	-84455-01-27 00:28 J	-29125739.71	-29125739.48	-29125739.22	0.0135	0.0032
Earth	-84455-01-27 04:04 J	-29125739.56	-29125739.33	-29125739.09	0.0135	0.0038 *

Earth -84454-01-31 08:37 J -29125370.37 -29125370.14 -29125369.89 0.0136 0.0029
 Moon -84454-01-31 11:59 J -29125370.23 -29125370.00 -29125369.76 0.0136 0.0036 *
 Moon -84453-02-04 11:01 J -29125001.28 -29125001.04 -29125000.78 0.0136 0.0014
 Earth -84453-02-04 14:08 J -29125001.15 -29125000.91 -29125000.66 0.0136 0.0019 *
 Earth -84452-02-07 20:08 J -29124631.90 -29124631.66 -29124631.41 0.0137 0.0009
 Moon -84452-02-07 23:30 J -29124631.76 -29124631.52 -29124631.27 0.0137 0.0013 *
 Moon -84451-02-11 23:44 J -29124262.76 -29124262.51 -29124262.26 0.0138 0.0004
 Earth -84451-02-12 02:52 J -29124262.62 -29124262.38 -29124262.13 0.0138 0.0003 *
 Venus -84451-11-13 19:25 J -29123987.86 -29123987.69 -29123987.51 0.0138 0.0080
 Earth -84450-02-16 10:04 J -29123893.32 -29123893.08 -29123892.83 0.0138 0.0012
 Moon -84450-02-16 13:11 J -29123893.19 -29123892.95 -29123892.71 0.0138 0.0015 *
 Venus -84450-06-28 01:11 J -29123761.66 -29123761.45 -29123761.24 0.0138 0.0017
 Venus -84449-02-09 06:56 J -29123535.40 -29123535.21 -29123535.00 0.0139 0.0047
 Moon -84449-02-20 14:52 J -29123524.12 -29123523.88 -29123523.62 0.0139 0.0019
 Earth -84449-02-20 18:13 J -29123523.98 -29123523.74 -29123523.49 0.0139 0.0023 *
 Mercury -84449-09-04 00:56 J -29123327.51 -29123327.46 -29123327.40 0.0139 0.0126
 Venus -84449-09-22 12:56 J -29123309.07 -29123308.96 -29123308.82 0.0139 0.0112
 Mercury -84449-12-01 04:47 J -29123239.39 -29123239.30 -29123239.22 0.0139 0.0109
 Earth -84448-02-24 03:06 J -29123154.60 -29123154.37 -29123154.12 0.0139 0.0033
 Moon -84448-02-24 05:44 J -29123154.48 -29123154.26 -29123154.02 0.0139 0.0041 *
 Mercury -84448-02-27 08:08 J -29123151.25 -29123151.16 -29123151.05 0.0139 0.0092
 Mercury -84448-05-26 11:59 J -29123063.11 -29123063.00 -29123062.88 0.0140 0.0074
 Mercury -84448-08-22 15:35 J -29122974.97 -29122974.85 -29122974.72 0.0140 0.0057
 Mercury -84448-11-18 19:25 J -29122886.82 -29122886.69 -29122886.56 0.0140 0.0039
 Mercury -84447-02-14 23:16 J -29122798.67 -29122798.53 -29122798.40 0.0140 0.0021
 Moon -84447-02-28 09:49 J -29122785.32 -29122785.09 -29122784.84 0.0140 0.0036
 Earth -84447-02-28 12:56 J -29122785.19 -29122784.96 -29122784.72 0.0140 0.0044 *
 Mercury -84447-05-14 03:06 J -29122710.51 -29122710.37 -29122710.24 0.0140 0.0005
 Mercury -84447-08-10 06:42 J -29122622.35 -29122622.22 -29122622.08 0.0140 0.0016
 Mercury -84447-11-06 10:32 J -29122534.19 -29122534.06 -29122533.92 0.0140 0.0034

Mercury -84446-02-02 14:23 J -29122446.02 -29122445.90 -29122445.76 0.0141 0.0053

Earth -84446-03-04 23:59 J -29122415.73 -29122415.50 -29122415.27 0.0141 0.0054

Moon -84446-03-05 02:37 J -29122415.61 -29122415.39 -29122415.17 0.0141 0.0060 *

Mercury -84446-05-01 18:28 J -29122357.85 -29122357.73 -29122357.61 0.0141 0.0071

Mercury -84446-07-28 22:18 J -29122269.67 -29122269.57 -29122269.46 0.0141 0.0090

Mercury -84446-10-25 02:08 J -29122181.49 -29122181.41 -29122181.31 0.0141 0.0109

Mercury -84445-01-21 06:13 J -29122093.29 -29122093.24 -29122093.18 0.0141 0.0128

Moon -84445-03-08 09:06 J -29122046.34 -29122046.12 -29122045.88 0.0141 0.0062

Earth -84445-03-08 11:59 J -29122046.22 -29122046.00 -29122045.78 0.0141 0.0065 *

Earth -84444-03-13 00:42 J -29121676.67 -29121676.47 -29121676.25 0.0142 0.0075

Moon -84444-03-13 03:20 J -29121676.56 -29121676.36 -29121676.15 0.0142 0.0075 *

Moon -84443-03-17 12:56 J -29121307.15 -29121306.96 -29121306.75 0.0142 0.0089

Earth -84443-03-17 14:52 J -29121307.07 -29121306.88 -29121306.67 0.0142 0.0085 *

Earth -84442-03-22 06:13 J -29120937.42 -29120937.24 -29120937.05 0.0143 0.0095

Moon -84442-03-22 08:08 J -29120937.34 -29120937.16 -29120936.96 0.0143 0.0088 *

Moon -84441-03-25 21:06 J -29120567.76 -29120567.62 -29120567.44 0.0144 0.0111

Earth -84441-03-25 22:47 J -29120567.71 -29120567.55 -29120567.37 0.0144 0.0104 *

Earth -84440-03-30 16:47 J -29120197.95 -29120197.80 -29120197.65 0.0144 0.0112

Moon -84440-03-30 17:44 J -29120197.92 -29120197.76 -29120197.59 0.0144 0.0107 *

Moon -84439-04-04 10:32 J -29119828.17 -29119828.06 -29119827.91 0.0145 0.0124

Earth -84439-04-04 11:30 J -29119828.14 -29119828.02 -29119827.87 0.0145 0.0121 *

Moon -84438-04-09 07:25 J -29119458.28 -29119458.19 -29119458.07 0.0145 0.0131

Earth -84438-04-09 07:40 J -29119458.28 -29119458.18 -29119458.05 0.0145 0.0128 *

Moon -84437-04-13 05:16 J -29119088.39 -29119088.28 -29119088.16 0.0146 0.0130

Earth -84437-04-13 05:01 J -29119088.37 -29119088.29 -29119088.19 0.0146 0.0135 *

Earth -84436-04-18 03:20 J -29118718.42 -29118718.36 -29118718.29 0.0146 0.0140

Earth -84435-04-23 02:37 J -29118348.40 -29118348.39 -29118348.35 0.0146 0.0146

Moon -84435-04-23 04:18 J -29118348.39 -29118348.32 -29118348.22 0.0146 0.0138 *

Moon -84430-05-17 11:30 J -29116498.04 -29116498.02 -29116497.96 0.0147 0.0146

Mars -84428-07-22 17:59 J -29115701.04 -29115700.75 -29115700.43 0.0147 0.0064

Earth	-84427-06-01 09:06 J	-29115387.17	-29115387.12	-29115387.06	0.0147	0.0144
Moon	-84427-06-01 11:30 J	-29115387.08	-29115387.02	-29115386.92	0.0147	0.0139 *
Moon	-84426-06-06 13:25 J	-29115016.95	-29115016.94	-29115016.88	0.0147	0.0146
Earth	-84426-06-06 16:04 J	-29115016.90	-29115016.83	-29115016.73	0.0147	0.0138 *
Mars	-84426-07-01 12:56 J	-29114992.24	-29114991.96	-29114991.66	0.0147	0.0074
Earth	-84425-06-10 23:16 J	-29114646.62	-29114646.53	-29114646.40	0.0147	0.0132
Moon	-84425-06-11 00:56 J	-29114646.57	-29114646.46	-29114646.32	0.0147	0.0126 *
Moon	-84424-06-16 06:42 J	-29114276.34	-29114276.22	-29114276.07	0.0147	0.0126
Earth	-84424-06-16 07:25 J	-29114276.32	-29114276.19	-29114276.05	0.0147	0.0124 *
Earth	-84423-06-21 15:06 J	-29113906.01	-29113905.87	-29113905.70	0.0146	0.0116
Moon	-84423-06-21 15:06 J	-29113906.00	-29113905.87	-29113905.71	0.0146	0.0119 *
Earth	-84422-06-26 23:01 J	-29113535.71	-29113535.54	-29113535.36	0.0146	0.0106
Moon	-84422-06-27 00:28 J	-29113535.66	-29113535.48	-29113535.27	0.0146	0.0099 *
Moon	-84421-07-01 04:47 J	-29113165.46	-29113165.30	-29113165.11	0.0146	0.0104
Earth	-84421-07-01 06:42 J	-29113165.41	-29113165.22	-29113165.02	0.0146	0.0096 *
Earth	-84420-07-06 13:54 J	-29112795.12	-29112794.92	-29112794.70	0.0145	0.0085
Moon	-84420-07-06 17:01 J	-29112795.00	-29112794.79	-29112794.56	0.0145	0.0082 *
Moon	-84419-07-11 17:44 J	-29112424.97	-29112424.76	-29112424.53	0.0145	0.0075
Earth	-84419-07-11 21:06 J	-29112424.83	-29112424.62	-29112424.39	0.0145	0.0074 *
Earth	-84418-07-17 03:35 J	-29112054.57	-29112054.35	-29112054.10	0.0144	0.0063
Moon	-84418-07-17 07:11 J	-29112054.42	-29112054.20	-29112053.96	0.0144	0.0067 *
Moon	-84417-07-21 05:44 J	-29111684.50	-29111684.26	-29111684.00	0.0144	0.0043
Earth	-84417-07-21 09:35 J	-29111684.33	-29111684.10	-29111683.84	0.0144	0.0051 *
Earth	-84416-07-26 15:20 J	-29111314.11	-29111313.86	-29111313.60	0.0143	0.0038
Moon	-84416-07-26 18:42 J	-29111313.96	-29111313.72	-29111313.46	0.0143	0.0046 *
Moon	-84415-07-31 17:16 J	-29110944.04	-29110943.78	-29110943.52	0.0143	0.0023
Earth	-84415-07-31 20:23 J	-29110943.90	-29110943.65	-29110943.39	0.0143	0.0026 *
Earth	-84414-08-06 00:28 J	-29110573.74	-29110573.48	-29110573.22	0.0142	0.0014
Moon	-84414-08-06 03:20 J	-29110573.61	-29110573.36	-29110573.10	0.0142	0.0014 *
Moon	-84413-08-10 01:54 J	-29110203.69	-29110203.42	-29110203.15	0.0141	0.0007

Earth -84413-08-10 03:49 J -29110203.60 -29110203.34 -29110203.07 0.0141 0.0002 *
 Earth -84412-08-15 06:13 J -29109833.50 -29109833.24 -29109832.97 0.0141 0.0011
 Moon -84412-08-15 07:54 J -29109833.42 -29109833.17 -29109832.91 0.0141 0.0018 *
 Venus -84412-12-08 19:54 J -29109717.86 -29109717.67 -29109717.47 0.0141 0.0071
 Venus -84411-07-23 07:54 J -29109491.40 -29109491.17 -29109490.95 0.0140 0.0001
 Moon -84411-08-20 07:11 J -29109463.47 -29109463.20 -29109462.93 0.0140 0.0016
 Earth -84411-08-20 07:40 J -29109463.43 -29109463.18 -29109462.91 0.0140 0.0023 *
 Venus -84410-03-06 19:11 J -29109264.88 -29109264.70 -29109264.50 0.0140 0.0071
 Earth -84410-08-25 08:08 J -29109093.41 -29109093.16 -29109092.90 0.0140 0.0034
 Moon -84410-08-25 08:23 J -29109093.40 -29109093.15 -29109092.91 0.0140 0.0037 *
 Mercury -84409-01-28 23:16 J -29108936.61 -29108936.53 -29108936.43 0.0139 0.0121
 Mercury -84409-04-26 06:28 J -29108848.36 -29108848.23 -29108848.09 0.0139 0.0097
 Mercury -84409-07-23 13:11 J -29108760.09 -29108759.95 -29108759.78 0.0139 0.0073
 Earth -84409-08-29 07:11 J -29108723.44 -29108723.20 -29108722.94 0.0139 0.0045
 Moon -84409-08-29 07:54 J -29108723.43 -29108723.17 -29108722.91 0.0139 0.0045 *
 Mercury -84409-10-19 20:23 J -29108671.82 -29108671.65 -29108671.48 0.0139 0.0049
 Mercury -84408-01-16 03:06 J -29108583.54 -29108583.37 -29108583.19 0.0139 0.0026
 Mercury -84408-04-14 10:04 J -29108495.26 -29108495.08 -29108494.90 0.0139 0.0004
 Mercury -84408-07-11 16:32 J -29108406.98 -29108406.81 -29108406.63 0.0138 0.0020
 Moon -84408-09-03 04:04 J -29108353.56 -29108353.33 -29108353.09 0.0138 0.0050
 Earth -84408-09-03 05:30 J -29108353.50 -29108353.27 -29108353.02 0.0138 0.0056 *
 Mercury -84408-10-07 23:16 J -29108318.70 -29108318.53 -29108318.36 0.0138 0.0042
 Mercury -84407-01-04 05:44 J -29108230.41 -29108230.26 -29108230.10 0.0138 0.0065
 Mercury -84407-04-02 12:13 J -29108142.12 -29108141.99 -29108141.85 0.0138 0.0087
 Mercury -84407-06-29 18:28 J -29108053.82 -29108053.73 -29108053.61 0.0138 0.0109
 Earth -84407-09-08 02:37 J -29107983.62 -29107983.39 -29107983.16 0.0138 0.0065
 Moon -84407-09-08 04:04 J -29107983.55 -29107983.33 -29107983.09 0.0138 0.0072 *
 Mercury -84407-09-26 01:11 J -29107965.50 -29107965.45 -29107965.39 0.0138 0.0130
 Moon -84406-09-12 19:40 J -29107613.89 -29107613.68 -29107613.45 0.0137 0.0069
 Earth -84406-09-12 22:18 J -29107613.79 -29107613.57 -29107613.35 0.0137 0.0075 *

Earth	-84405-09-16 17:01 J	-29107244.00	-29107243.79	-29107243.58	0.0137	0.0083
Moon	-84405-09-16 19:25 J	-29107243.88	-29107243.69	-29107243.48	0.0137	0.0088 *
Moon	-84404-09-21 07:11 J	-29106874.37	-29106874.20	-29106873.99	0.0136	0.0091
Earth	-84404-09-21 10:18 J	-29106874.25	-29106874.07	-29106873.86	0.0136	0.0092 *
Earth	-84403-09-26 02:37 J	-29106504.55	-29106504.39	-29106504.20	0.0136	0.0099
Moon	-84403-09-26 05:59 J	-29106504.42	-29106504.25	-29106504.04	0.0136	0.0096 *
Moon	-84402-09-30 14:52 J	-29106135.01	-29106134.88	-29106134.72	0.0135	0.0111
Earth	-84402-09-30 17:44 J	-29106134.89	-29106134.76	-29106134.57	0.0135	0.0106 *
Earth	-84401-10-04 08:37 J	-29105765.28	-29105765.14	-29105765.00	0.0135	0.0112
Moon	-84401-10-04 11:59 J	-29105765.15	-29105765.00	-29105764.82	0.0135	0.0105 *
Moon	-84400-10-08 18:13 J	-29105395.81	-29105395.74	-29105395.63	0.0134	0.0125
Earth	-84400-10-08 22:04 J	-29105395.70	-29105395.58	-29105395.45	0.0134	0.0118 *
Earth	-84399-10-13 10:04 J	-29105026.16	-29105026.08	-29105025.96	0.0134	0.0123
Moon	-84399-10-13 13:40 J	-29105026.03	-29105025.93	-29105025.79	0.0134	0.0119 *
Moon	-84398-10-17 18:13 J	-29104656.81	-29104656.74	-29104656.68	0.0133	0.0129
Earth	-84398-10-17 22:04 J	-29104656.66	-29104656.58	-29104656.51	0.0133	0.0127
Earth	-84397-10-21 08:23 J	-29104287.19	-29104287.15	-29104287.10	0.0133	0.0130
Moon	-84397-10-21 11:30 J	-29104287.03	-29104287.02	-29104286.97	0.0133	0.0132
Moon	-84396-10-25 13:54 J	-29103917.96	-29103917.92	-29103917.83	0.0133	0.0129
Moon	-84394-11-03 06:56 J	-29103179.24	-29103179.21	-29103179.17	0.0132	0.0130
Moon	-84389-11-22 17:44 J	-29101332.76	-29101332.76	-29101332.76	0.0131	0.0131
Mars	-84388-12-12 14:37 J	-29100948.01	-29100947.89	-29100947.75	0.0131	0.0116
Moon	-84387-12-01 00:56 J	-29100594.53	-29100594.46	-29100594.38	0.0131	0.0125
Mars	-84386-11-10 19:25 J	-29100249.96	-29100249.69	-29100249.43	0.0131	0.0041
Earth	-84386-12-05 00:28 J	-29100225.51	-29100225.48	-29100225.40	0.0131	0.0129
Earth	-84385-12-08 03:35 J	-29099856.41	-29099856.35	-29099856.26	0.0131	0.0125
Moon	-84385-12-08 07:25 J	-29099856.29	-29099856.19	-29099856.08	0.0131	0.0119 *
Mars	-84384-10-09 01:54 J	-29099551.68	-29099551.42	-29099551.14	0.0131	0.0035
Moon	-84384-12-12 02:52 J	-29099487.44	-29099487.38	-29099487.27	0.0131	0.0124
Earth	-84384-12-12 06:13 J	-29099487.32	-29099487.24	-29099487.12	0.0131	0.0121 *

Earth	-84383-12-16 08:37 J	-29099118.24	-29099118.14	-29099118.00	0.0132	0.0116
Moon	-84383-12-16 12:13 J	-29099118.09	-29099117.99	-29099117.85	0.0132	0.0116 *
Mars	-84382-09-07 09:35 J	-29098853.23	-29098853.10	-29098852.93	0.0132	0.0112
Moon	-84382-12-20 07:40 J	-29098749.31	-29098749.18	-29098749.03	0.0132	0.0109
Earth	-84382-12-20 10:47 J	-29098749.16	-29098749.05	-29098748.89	0.0132	0.0111 *
Earth	-84381-12-23 13:11 J	-29098380.09	-29098379.95	-29098379.79	0.0132	0.0104
Moon	-84381-12-23 16:18 J	-29098379.94	-29098379.82	-29098379.67	0.0132	0.0110 *
Moon	-84380-12-27 11:30 J	-29098011.18	-29098011.02	-29098010.83	0.0132	0.0092
Earth	-84380-12-27 15:06 J	-29098011.02	-29098010.87	-29098010.69	0.0132	0.0099 *
Earth	-84379-12-31 16:47 J	-29097641.96	-29097641.80	-29097641.60	0.0133	0.0092
Moon	-84379-12-31 20:08 J	-29097641.81	-29097641.66	-29097641.48	0.0133	0.0099 *
Moon	-84377-01-04 15:49 J	-29097273.04	-29097272.84	-29097272.64	0.0133	0.0077
Earth	-84377-01-04 18:56 J	-29097272.88	-29097272.71	-29097272.50	0.0133	0.0085 *
Earth	-84376-01-07 21:06 J	-29096903.80	-29096903.62	-29096903.39	0.0133	0.0078
Moon	-84376-01-08 00:42 J	-29096903.65	-29096903.47	-29096903.26	0.0133	0.0083 *
Moon	-84375-01-11 20:23 J	-29096534.85	-29096534.65	-29096534.42	0.0134	0.0067
Earth	-84375-01-12 00:13 J	-29096534.70	-29096534.49	-29096534.28	0.0134	0.0069 *
Earth	-84374-01-16 02:37 J	-29096165.60	-29096165.39	-29096165.16	0.0134	0.0061
Moon	-84374-01-16 06:28 J	-29096165.45	-29096165.23	-29096165.01	0.0134	0.0061 *
Moon	-84373-01-20 02:52 J	-29095796.61	-29095796.38	-29095796.15	0.0134	0.0055
Earth	-84373-01-20 05:59 J	-29095796.47	-29095796.25	-29095796.01	0.0134	0.0052 *
Earth	-84372-01-23 09:35 J	-29095427.33	-29095427.10	-29095426.86	0.0135	0.0043
Moon	-84372-01-23 13:25 J	-29095427.18	-29095426.94	-29095426.71	0.0135	0.0037 *
Moon	-84371-01-27 10:18 J	-29095058.29	-29095058.07	-29095057.82	0.0135	0.0041
Earth	-84371-01-27 13:54 J	-29095058.15	-29095057.92	-29095057.67	0.0135	0.0034 *
Earth	-84370-01-31 18:42 J	-29094688.96	-29094688.72	-29094688.48	0.0136	0.0024
Moon	-84370-01-31 22:04 J	-29094688.82	-29094688.58	-29094688.34	0.0136	0.0017 *
Moon	-84369-02-04 20:37 J	-29094319.89	-29094319.64	-29094319.40	0.0136	0.0021
Earth	-84369-02-05 00:13 J	-29094319.74	-29094319.49	-29094319.25	0.0136	0.0014 *
Earth	-84368-02-08 05:59 J	-29093950.49	-29093950.25	-29093950.00	0.0137	0.0004

Moon -84368-02-08 09:20 J -29093950.36 -29093950.11 -29093949.87 0.0137 0.0001 *
 Moon -84367-02-12 09:06 J -29093581.37 -29093581.12 -29093580.87 0.0138 0.0006
 Earth -84367-02-12 12:42 J -29093581.22 -29093580.97 -29093580.73 0.0138 0.0007 *
 Venus -84367-07-14 05:01 J -29093429.41 -29093429.29 -29093429.17 0.0138 0.0111
 Earth -84366-02-16 19:54 J -29093211.92 -29093211.67 -29093211.43 0.0138 0.0017
 Moon -84366-02-16 23:16 J -29093211.77 -29093211.53 -29093211.29 0.0138 0.0016 *
 Venus -84366-02-25 10:18 J -29093203.26 -29093203.07 -29093202.86 0.0138 0.0049
 Venus -84366-10-09 16:18 J -29092977.03 -29092976.82 -29092976.61 0.0139 0.0015
 Moon -84365-02-21 00:42 J -29092842.71 -29092842.47 -29092842.22 0.0139 0.0033
 Earth -84365-02-21 04:04 J -29092842.57 -29092842.33 -29092842.09 0.0139 0.0028 *
 Venus -84365-05-22 22:04 J -29092750.75 -29092750.58 -29092750.40 0.0139 0.0079
 Mercury -84365-09-24 08:08 J -29092626.22 -29092626.16 -29092626.10 0.0139 0.0123
 Mercury -84365-12-21 11:44 J -29092538.10 -29092538.01 -29092537.92 0.0139 0.0106
 Earth -84364-02-24 12:56 J -29092473.20 -29092472.96 -29092472.73 0.0139 0.0039
 Moon -84364-02-24 16:18 J -29092473.06 -29092472.82 -29092472.58 0.0139 0.0032 *
 Mercury -84364-03-19 15:20 J -29092449.96 -29092449.86 -29092449.75 0.0139 0.0088
 Mercury -84364-06-15 19:11 J -29092361.82 -29092361.70 -29092361.59 0.0140 0.0071
 Mercury -84364-09-11 22:32 J -29092273.68 -29092273.56 -29092273.42 0.0140 0.0054
 Mercury -84364-12-09 02:23 J -29092185.53 -29092185.40 -29092185.26 0.0140 0.0036
 Moon -84363-02-28 19:40 J -29092103.90 -29092103.68 -29092103.45 0.0140 0.0056
 Earth -84363-02-28 22:47 J -29092103.78 -29092103.55 -29092103.32 0.0140 0.0049 *
 Mercury -84363-03-07 06:13 J -29092097.38 -29092097.24 -29092097.10 0.0140 0.0018
 Mercury -84363-06-03 10:04 J -29092009.22 -29092009.08 -29092008.94 0.0140 0.0002
 Mercury -84363-08-30 13:54 J -29091921.06 -29091920.92 -29091920.78 0.0140 0.0019
 Mercury -84363-11-26 17:30 J -29091832.90 -29091832.77 -29091832.63 0.0141 0.0038
 Mercury -84362-02-22 21:35 J -29091744.73 -29091744.60 -29091744.47 0.0141 0.0056
 Earth -84362-03-05 09:20 J -29091734.32 -29091734.11 -29091733.87 0.0141 0.0060
 Moon -84362-03-05 12:28 J -29091734.19 -29091733.98 -29091733.74 0.0141 0.0054 *
 Mercury -84362-05-22 01:11 J -29091656.56 -29091656.45 -29091656.32 0.0141 0.0075
 Mercury -84362-08-18 05:30 J -29091568.38 -29091568.27 -29091568.17 0.0141 0.0093

Mercury -84362-11-14 09:20 J -29091480.19 -29091480.11 -29091480.02 0.0141 0.0112

Mercury -84361-02-10 13:25 J -29091391.99 -29091391.94 -29091391.89 0.0141 0.0131

Moon -84361-03-08 18:13 J -29091364.94 -29091364.74 -29091364.51 0.0141 0.0075

Earth -84361-03-08 21:20 J -29091364.81 -29091364.61 -29091364.38 0.0141 0.0070 *

Earth -84360-03-13 10:18 J -29090995.26 -29090995.07 -29090994.86 0.0142 0.0080

Moon -84360-03-13 12:56 J -29090995.15 -29090994.96 -29090994.75 0.0142 0.0081 *

Moon -84359-03-17 21:20 J -29090625.79 -29090625.61 -29090625.39 0.0142 0.0088

Earth -84359-03-18 00:13 J -29090625.66 -29090625.49 -29090625.28 0.0142 0.0091 *

Earth -84358-03-22 16:04 J -29090256.00 -29090255.83 -29090255.65 0.0143 0.0099

Moon -84358-03-22 17:59 J -29090255.90 -29090255.75 -29090255.58 0.0143 0.0106 *

Moon -84357-03-26 06:13 J -29089886.40 -29089886.24 -29089886.04 0.0144 0.0101

Earth -84357-03-26 08:37 J -29089886.29 -29089886.14 -29089885.97 0.0144 0.0109 *

Earth -84356-03-31 02:08 J -29089516.54 -29089516.41 -29089516.25 0.0144 0.0117

Moon -84356-03-31 04:04 J -29089516.44 -29089516.33 -29089516.20 0.0144 0.0124 *

Moon -84355-04-04 20:08 J -29089146.78 -29089146.66 -29089146.51 0.0145 0.0122

Earth -84355-04-04 21:20 J -29089146.73 -29089146.61 -29089146.48 0.0145 0.0125 *

Earth -84354-04-09 17:16 J -29088776.87 -29088776.78 -29088776.67 0.0145 0.0132

Moon -84354-04-09 18:28 J -29088776.82 -29088776.73 -29088776.63 0.0145 0.0132 *

Earth -84353-04-13 14:08 J -29088406.96 -29088406.91 -29088406.82 0.0146 0.0139

Moon -84353-04-13 14:08 J -29088406.93 -29088406.91 -29088406.84 0.0146 0.0144 *

Moon -84352-04-18 12:28 J -29088037.05 -29088036.98 -29088036.89 0.0146 0.0137

Earth -84352-04-18 12:28 J -29088037.00 -29088036.98 -29088036.92 0.0146 0.0144 *

Moon -84347-05-12 23:16 J -29086186.53 -29086186.53 -29086186.52 0.0147 0.0147

Mars -84345-04-09 19:40 J -29085488.70 -29085488.68 -29085488.63 0.0147 0.0147

Moon -84345-05-22 09:20 J -29085446.12 -29085446.11 -29085446.07 0.0147 0.0147

Moon -84344-05-27 08:37 J -29085076.16 -29085076.14 -29085076.12 0.0147 0.0147

Mars -84343-03-19 18:13 J -29084780.08 -29084779.74 -29084779.39 0.0147 0.0010

Earth -84343-06-01 18:13 J -29084705.78 -29084705.74 -29084705.66 0.0147 0.0143

Moon -84342-06-06 22:32 J -29084335.66 -29084335.56 -29084335.42 0.0147 0.0130

Earth -84342-06-07 01:25 J -29084335.51 -29084335.44 -29084335.33 0.0147 0.0137 *

Mars	-84341-02-26 11:16 J	-29084071.18	-29084071.03	-29084070.83	0.0147	0.0127
Earth	-84341-06-11 08:52 J	-29083965.23	-29083965.13	-29083964.99	0.0147	0.0130
Moon	-84341-06-11 10:47 J	-29083965.12	-29083965.05	-29083964.94	0.0147	0.0137 *
Moon	-84340-06-16 14:52 J	-29083595.01	-29083594.88	-29083594.70	0.0147	0.0119
Earth	-84340-06-16 16:47 J	-29083594.93	-29083594.80	-29083594.65	0.0147	0.0122 *
Moon	-84339-06-22 00:13 J	-29083224.63	-29083224.49	-29083224.30	0.0146	0.0111
Earth	-84339-06-22 00:42 J	-29083224.63	-29083224.47	-29083224.30	0.0146	0.0113 *
Earth	-84338-06-27 08:08 J	-29082854.33	-29082854.16	-29082853.96	0.0146	0.0103
Moon	-84338-06-27 08:23 J	-29082854.31	-29082854.15	-29082853.96	0.0146	0.0109 *
Moon	-84337-07-01 13:54 J	-29082484.10	-29082483.92	-29082483.70	0.0146	0.0086
Earth	-84337-07-01 15:35 J	-29082484.03	-29082483.85	-29082483.63	0.0146	0.0093 *
Earth	-84336-07-06 23:01 J	-29082113.74	-29082113.54	-29082113.31	0.0145	0.0082
Moon	-84336-07-07 01:25 J	-29082113.65	-29082113.44	-29082113.22	0.0145	0.0087 *
Moon	-84335-07-12 03:20 J	-29081743.57	-29081743.36	-29081743.13	0.0145	0.0070
Earth	-84335-07-12 06:13 J	-29081743.46	-29081743.24	-29081743.00	0.0145	0.0070 *
Earth	-84334-07-17 12:28 J	-29081373.20	-29081372.98	-29081372.72	0.0144	0.0059
Moon	-84334-07-17 16:32 J	-29081373.06	-29081372.81	-29081372.56	0.0144	0.0053 *
Moon	-84333-07-21 15:20 J	-29081003.09	-29081002.86	-29081002.61	0.0144	0.0053
Earth	-84333-07-21 18:56 J	-29081002.95	-29081002.71	-29081002.45	0.0144	0.0046 *
Earth	-84332-07-27 00:42 J	-29080632.72	-29080632.47	-29080632.22	0.0143	0.0033
Moon	-84332-07-27 04:18 J	-29080632.57	-29080632.32	-29080632.06	0.0143	0.0027 *
Moon	-84331-08-01 01:54 J	-29080262.67	-29080262.42	-29080262.15	0.0143	0.0026
Earth	-84331-08-01 05:44 J	-29080262.52	-29080262.26	-29080262.00	0.0143	0.0021 *
Earth	-84330-08-06 09:49 J	-29079892.35	-29079892.09	-29079891.82	0.0142	0.0008
Moon	-84330-08-06 12:42 J	-29079892.22	-29079891.97	-29079891.71	0.0142	0.0010 *
Moon	-84329-08-10 10:18 J	-29079522.34	-29079522.07	-29079521.81	0.0141	0.0009
Earth	-84329-08-10 13:11 J	-29079522.21	-29079521.95	-29079521.68	0.0141	0.0005 *
Venus	-84328-08-08 01:40 J	-29079159.57	-29079159.43	-29079159.28	0.0141	0.0106
Earth	-84328-08-15 15:35 J	-29079152.10	-29079151.85	-29079151.58	0.0141	0.0017
Moon	-84328-08-15 17:30 J	-29079152.02	-29079151.77	-29079151.51	0.0141	0.0010 *

Venus -84327-03-22 13:40 J -29078933.14 -29078932.93 -29078932.71 0.0140 0.0035
 Moon -84327-08-20 15:35 J -29078782.11 -29078781.85 -29078781.58 0.0140 0.0035
 Earth -84327-08-20 17:16 J -29078782.03 -29078781.78 -29078781.52 0.0140 0.0028 *
 Venus -84327-11-04 01:25 J -29078706.65 -29078706.44 -29078706.22 0.0140 0.0036
 Venus -84326-06-18 12:56 J -29078480.10 -29078479.96 -29078479.81 0.0140 0.0106
 Earth -84326-08-25 17:30 J -29078412.02 -29078411.77 -29078411.52 0.0140 0.0040
 Moon -84326-08-25 18:13 J -29078411.98 -29078411.74 -29078411.49 0.0140 0.0036 *
 Mercury -84325-02-18 06:42 J -29078235.32 -29078235.22 -29078235.12 0.0139 0.0116
 Mercury -84325-05-16 13:25 J -29078147.07 -29078146.94 -29078146.79 0.0139 0.0092
 Mercury -84325-08-12 20:37 J -29078058.80 -29078058.64 -29078058.48 0.0139 0.0068
 Moon -84325-08-29 16:47 J -29078042.04 -29078041.80 -29078041.54 0.0139 0.0050
 Earth -84325-08-29 16:32 J -29078042.04 -29078041.81 -29078041.55 0.0139 0.0051 *
 Mercury -84325-11-09 03:20 J -29077970.53 -29077970.36 -29077970.18 0.0139 0.0045
 Mercury -84324-02-05 10:18 J -29077882.25 -29077882.07 -29077881.89 0.0139 0.0021
 Mercury -84324-05-04 17:01 J -29077793.97 -29077793.79 -29077793.61 0.0139 0.0002
 Mercury -84324-07-31 23:44 J -29077705.69 -29077705.51 -29077705.33 0.0138 0.0024
 Moon -84324-09-03 14:23 J -29077672.11 -29077671.90 -29077671.66 0.0138 0.0066
 Earth -84324-09-03 14:37 J -29077672.11 -29077671.89 -29077671.64 0.0138 0.0062 *
 Mercury -84324-10-28 06:13 J -29077617.40 -29077617.24 -29077617.06 0.0138 0.0047
 Mercury -84323-01-24 12:42 J -29077529.11 -29077528.97 -29077528.81 0.0138 0.0070
 Mercury -84323-04-22 19:11 J -29077440.82 -29077440.70 -29077440.56 0.0138 0.0091
 Mercury -84323-07-20 01:40 J -29077352.52 -29077352.43 -29077352.32 0.0138 0.0113
 Earth -84323-09-08 11:44 J -29077302.23 -29077302.01 -29077301.78 0.0138 0.0071
 Moon -84323-09-08 13:25 J -29077302.18 -29077301.94 -29077301.70 0.0138 0.0064 *
 Mercury -84323-10-16 07:54 J -29077264.19 -29077264.17 -29077264.12 0.0138 0.0135
 Moon -84322-09-13 06:13 J -29076932.43 -29076932.24 -29076932.04 0.0137 0.0088
 Earth -84322-09-13 07:25 J -29076932.39 -29076932.19 -29076931.97 0.0137 0.0080 *
 Earth -84321-09-17 02:08 J -29076562.60 -29076562.41 -29076562.20 0.0137 0.0089
 Moon -84321-09-17 04:18 J -29076562.52 -29076562.32 -29076562.10 0.0137 0.0085 *
 Moon -84320-09-21 17:01 J -29076192.94 -29076192.79 -29076192.60 0.0136 0.0099

Earth	-84320-09-21 19:40 J	-29076192.84	-29076192.68	-29076192.48	0.0136	0.0097	*
Earth	-84319-09-26 11:59 J	-29075823.14	-29075823.00	-29075822.81	0.0136	0.0105	
Moon	-84319-09-26 14:37 J	-29075823.03	-29075822.89	-29075822.70	0.0136	0.0107	*
Moon	-84318-10-01 00:28 J	-29075453.62	-29075453.48	-29075453.31	0.0135	0.0105	
Earth	-84318-10-01 03:35 J	-29075453.48	-29075453.35	-29075453.18	0.0135	0.0111	*
Earth	-84317-10-04 18:13 J	-29075083.85	-29075083.74	-29075083.60	0.0135	0.0117	
Moon	-84317-10-04 21:20 J	-29075083.69	-29075083.61	-29075083.49	0.0135	0.0124	*
Moon	-84316-10-09 04:18 J	-29074714.43	-29074714.32	-29074714.17	0.0134	0.0116	
Earth	-84316-10-09 07:54 J	-29074714.26	-29074714.17	-29074714.05	0.0134	0.0123	*
Earth	-84315-10-13 20:08 J	-29074344.72	-29074344.66	-29074344.57	0.0134	0.0127	
Moon	-84315-10-13 23:59 J	-29074344.53	-29074344.50	-29074344.45	0.0134	0.0132	
Moon	-84314-10-18 04:04 J	-29073975.37	-29073975.33	-29073975.24	0.0133	0.0130	
Earth	-84314-10-18 07:40 J	-29073975.20	-29073975.18	-29073975.12	0.0133	0.0131	
Moon	-84313-10-21 22:04 J	-29073605.59	-29073605.58	-29073605.54	0.0133	0.0132	
Moon	-84311-10-30 16:18 J	-29072866.82	-29072866.82	-29072866.81	0.0132	0.0132	
Moon	-84304-11-27 00:42 J	-29070282.49	-29070282.47	-29070282.41	0.0131	0.0130	
Mars	-84303-08-06 11:01 J	-29070030.23	-29070030.04	-29070029.81	0.0131	0.0084	
Moon	-84302-12-05 07:40 J	-29069544.26	-29069544.18	-29069544.07	0.0131	0.0121	
Earth	-84302-12-05 11:16 J	-29069544.07	-29069544.03	-29069543.96	0.0131	0.0128	*
Mars	-84301-07-04 16:47 J	-29069332.07	-29069331.80	-29069331.52	0.0131	0.0009	
Earth	-84301-12-08 14:08 J	-29069174.97	-29069174.91	-29069174.81	0.0131	0.0124	
Moon	-84301-12-08 17:30 J	-29069174.79	-29069174.77	-29069174.70	0.0131	0.0130	
Moon	-84300-12-12 13:25 J	-29068806.05	-29068805.94	-29068805.81	0.0131	0.0116	
Earth	-84300-12-12 17:01 J	-29068805.87	-29068805.79	-29068805.67	0.0131	0.0120	*
Mars	-84299-06-02 22:47 J	-29068633.77	-29068633.55	-29068633.29	0.0132	0.0067	
Earth	-84299-12-16 19:11 J	-29068436.80	-29068436.70	-29068436.56	0.0132	0.0115	
Moon	-84299-12-16 22:32 J	-29068436.66	-29068436.56	-29068436.42	0.0132	0.0116	*
Moon	-84298-12-20 18:13 J	-29068067.87	-29068067.74	-29068067.60	0.0132	0.0111	
Earth	-84298-12-20 21:35 J	-29068067.72	-29068067.60	-29068067.44	0.0132	0.0109	*
Earth	-84297-12-23 23:30 J	-29067698.66	-29067698.52	-29067698.34	0.0132	0.0103	

Moon	-84297-12-24 03:06 J	-29067698.52	-29067698.37	-29067698.19	0.0132	0.0099	*
Moon	-84296-12-27 22:04 J	-29067329.72	-29067329.58	-29067329.40	0.0132	0.0103	
Earth	-84296-12-28 01:25 J	-29067329.59	-29067329.44	-29067329.25	0.0132	0.0097	*
Earth	-84294-01-01 03:20 J	-29066960.52	-29066960.36	-29066960.15	0.0133	0.0090	
Moon	-84294-01-01 07:25 J	-29066960.38	-29066960.19	-29066959.99	0.0133	0.0082	*
Moon	-84293-01-05 02:37 J	-29066591.57	-29066591.39	-29066591.20	0.0133	0.0088	
Earth	-84293-01-05 05:44 J	-29066591.44	-29066591.26	-29066591.05	0.0133	0.0082	*
Earth	-84292-01-08 07:54 J	-29066222.36	-29066222.17	-29066221.94	0.0133	0.0075	
Moon	-84292-01-08 11:44 J	-29066222.21	-29066222.01	-29066221.79	0.0133	0.0069	*
Moon	-84291-01-12 07:11 J	-29065853.40	-29065853.20	-29065852.98	0.0134	0.0070	
Earth	-84291-01-12 10:47 J	-29065853.26	-29065853.05	-29065852.82	0.0134	0.0066	*
Earth	-84290-01-16 13:40 J	-29065484.15	-29065483.93	-29065483.70	0.0134	0.0057	
Moon	-84290-01-16 17:16 J	-29065484.01	-29065483.78	-29065483.56	0.0134	0.0057	*
Moon	-84289-01-20 13:25 J	-29065115.17	-29065114.94	-29065114.70	0.0134	0.0046	
Earth	-84289-01-20 16:47 J	-29065115.01	-29065114.80	-29065114.55	0.0134	0.0049	*
Earth	-84288-01-23 20:37 J	-29064745.86	-29064745.64	-29064745.39	0.0135	0.0039	
Moon	-84288-01-24 00:28 J	-29064745.72	-29064745.48	-29064745.25	0.0135	0.0043	*
Moon	-84287-01-27 21:35 J	-29064376.84	-29064376.60	-29064376.35	0.0135	0.0022	
Earth	-84287-01-28 01:11 J	-29064376.69	-29064376.45	-29064376.21	0.0135	0.0029	*
Earth	-84286-02-01 05:59 J	-29064007.49	-29064007.25	-29064007.00	0.0136	0.0019	
Moon	-84286-02-01 09:20 J	-29064007.34	-29064007.11	-29064006.86	0.0136	0.0027	*
Moon	-84285-02-05 08:08 J	-29063638.41	-29063638.16	-29063637.91	0.0136	0.0003	
Earth	-84285-02-05 11:30 J	-29063638.27	-29063638.02	-29063637.77	0.0136	0.0009	*
Earth	-84284-02-08 17:16 J	-29063269.03	-29063268.78	-29063268.53	0.0137	0.0002	
Moon	-84284-02-08 20:52 J	-29063268.87	-29063268.63	-29063268.38	0.0137	0.0003	*
Moon	-84283-02-12 20:23 J	-29062899.89	-29062899.65	-29062899.40	0.0138	0.0015	
Earth	-84283-02-12 23:44 J	-29062899.75	-29062899.51	-29062899.26	0.0138	0.0013	*
Venus	-84283-10-25 20:52 J	-29062644.80	-29062644.63	-29062644.46	0.0138	0.0078	
Earth	-84282-02-17 06:56 J	-29062530.45	-29062530.21	-29062529.96	0.0138	0.0023	
Moon	-84282-02-17 10:32 J	-29062530.30	-29062530.06	-29062529.82	0.0138	0.0026	*

Venus -84282-06-09 02:23 J -29062418.61 -29062418.40 -29062418.18 0.0138 0.0016

Venus -84281-01-21 08:08 J -29062192.35 -29062192.16 -29062191.95 0.0139 0.0049

Moon -84281-02-21 11:44 J -29062161.25 -29062161.01 -29062160.77 0.0139 0.0030

Earth -84281-02-21 15:06 J -29062161.10 -29062160.87 -29062160.62 0.0139 0.0034 *

Mercury -84281-07-18 11:59 J -29062013.03 -29062013.00 -29062012.98 0.0139 0.0135

Venus -84281-09-03 14:08 J -29061966.02 -29061965.91 -29061965.77 0.0139 0.0113

Mercury -84281-10-14 15:20 J -29061924.92 -29061924.86 -29061924.78 0.0139 0.0119

Mercury -84280-01-10 18:56 J -29061836.80 -29061836.71 -29061836.61 0.0139 0.0102

Earth -84280-02-24 23:59 J -29061791.72 -29061791.50 -29061791.26 0.0139 0.0045

Moon -84280-02-25 03:20 J -29061791.58 -29061791.36 -29061791.13 0.0139 0.0051 *

Mercury -84280-04-08 22:32 J -29061748.66 -29061748.56 -29061748.44 0.0140 0.0085

Mercury -84280-07-06 02:23 J -29061660.52 -29061660.40 -29061660.28 0.0140 0.0067

Mercury -84280-10-02 06:13 J -29061572.37 -29061572.24 -29061572.12 0.0140 0.0049

Mercury -84280-12-29 09:49 J -29061484.22 -29061484.09 -29061483.95 0.0140 0.0031

Moon -84279-03-01 06:28 J -29061422.46 -29061422.23 -29061421.99 0.0140 0.0047

Earth -84279-03-01 10:04 J -29061422.30 -29061422.08 -29061421.85 0.0140 0.0055 *

Mercury -84279-03-27 13:40 J -29061396.07 -29061395.93 -29061395.79 0.0140 0.0013

Mercury -84279-06-23 17:30 J -29061307.91 -29061307.77 -29061307.64 0.0140 0.0007

Mercury -84279-09-19 21:06 J -29061219.75 -29061219.62 -29061219.48 0.0140 0.0023

Mercury -84279-12-17 00:56 J -29061131.59 -29061131.46 -29061131.32 0.0141 0.0042

Earth -84278-03-05 20:37 J -29061052.84 -29061052.64 -29061052.40 0.0141 0.0066

Moon -84278-03-06 00:13 J -29061052.69 -29061052.49 -29061052.28 0.0141 0.0072 *

Mercury -84278-03-15 04:47 J -29061043.42 -29061043.30 -29061043.17 0.0141 0.0061

Mercury -84278-06-11 08:52 J -29060955.25 -29060955.13 -29060955.01 0.0141 0.0079

Mercury -84278-09-07 12:42 J -29060867.07 -29060866.97 -29060866.87 0.0141 0.0098

Mercury -84278-12-04 16:32 J -29060778.88 -29060778.81 -29060778.72 0.0141 0.0117

Mercury -84277-03-01 20:37 J -29060690.66 -29060690.64 -29060690.60 0.0141 0.0137

Moon -84277-03-09 05:30 J -29060683.47 -29060683.27 -29060683.04 0.0141 0.0072

Earth -84277-03-09 09:06 J -29060683.32 -29060683.12 -29060682.91 0.0141 0.0076 *

Earth -84276-03-13 21:49 J -29060313.77 -29060313.59 -29060313.38 0.0142 0.0086

Moon	-84276-03-14 01:11 J	-29060313.63	-29060313.45	-29060313.25	0.0142	0.0087	*
Moon	-84275-03-18 09:35 J	-29059944.27	-29059944.10	-29059943.91	0.0142	0.0099	
Earth	-84275-03-18 12:13 J	-29059944.16	-29059943.99	-29059943.79	0.0142	0.0096	*
Earth	-84274-03-23 03:49 J	-29059574.50	-29059574.34	-29059574.17	0.0143	0.0105	
Moon	-84274-03-23 06:28 J	-29059574.38	-29059574.23	-29059574.04	0.0143	0.0099	*
Moon	-84273-03-26 17:44 J	-29059204.88	-29059204.76	-29059204.61	0.0144	0.0121	
Earth	-84273-03-26 20:23 J	-29059204.79	-29059204.65	-29059204.49	0.0144	0.0114	*
Earth	-84272-03-31 14:08 J	-29058835.03	-29058834.91	-29058834.78	0.0144	0.0122	
Moon	-84272-03-31 16:04 J	-29058834.96	-29058834.83	-29058834.68	0.0144	0.0116	*
Moon	-84271-04-05 06:56 J	-29058465.30	-29058465.21	-29058465.11	0.0145	0.0134	
Earth	-84271-04-05 08:52 J	-29058465.23	-29058465.13	-29058465.01	0.0145	0.0130	*
Earth	-84270-04-10 04:32 J	-29058095.37	-29058095.31	-29058095.21	0.0145	0.0137	
Moon	-84270-04-10 05:44 J	-29058095.32	-29058095.26	-29058095.18	0.0145	0.0139	*
Moon	-84269-04-14 00:28 J	-29057725.53	-29057725.48	-29057725.38	0.0146	0.0139	
Earth	-84269-04-14 01:54 J	-29057725.45	-29057725.42	-29057725.36	0.0146	0.0143	*
Moon	-84267-04-23 23:44 J	-29056985.54	-29056985.51	-29056985.45	0.0146	0.0144	
Moon	-84262-05-18 08:37 J	-29055135.14	-29055135.14	-29055135.12	0.0147	0.0147	
Mars	-84261-12-05 23:59 J	-29054567.75	-29054567.50	-29054567.21	0.0147	0.0092	
Earth	-84259-06-02 05:30 J	-29054024.32	-29054024.27	-29054024.20	0.0147	0.0143	
Moon	-84259-06-02 09:06 J	-29054024.20	-29054024.12	-29054024.03	0.0147	0.0138	*
Mars	-84259-11-14 21:35 J	-29053858.91	-29053858.60	-29053858.26	0.0147	0.0046	
Moon	-84258-06-07 09:06 J	-29053654.15	-29053654.12	-29053654.04	0.0147	0.0144	
Earth	-84258-06-07 12:28 J	-29053654.06	-29053653.98	-29053653.86	0.0147	0.0136	*
Earth	-84257-06-11 20:08 J	-29053283.78	-29053283.66	-29053283.54	0.0147	0.0128	
Moon	-84257-06-11 22:18 J	-29053283.69	-29053283.57	-29053283.41	0.0147	0.0122	*
Moon	-84256-06-17 01:54 J	-29052913.56	-29052913.42	-29052913.26	0.0147	0.0122	
Earth	-84256-06-17 03:20 J	-29052913.49	-29052913.36	-29052913.19	0.0147	0.0120	*
Earth	-84255-06-22 11:01 J	-29052543.19	-29052543.04	-29052542.85	0.0147	0.0111	
Moon	-84255-06-22 12:42 J	-29052543.13	-29052542.97	-29052542.81	0.0147	0.0112	*
Moon	-84254-06-27 18:56 J	-29052172.90	-29052172.71	-29052172.49	0.0146	0.0094	

Earth	-84254-06-27 18:42 J	-29052172.89	-29052172.72	-29052172.52	0.0146	0.0100	*
Moon	-84253-07-02 01:40 J	-29051802.60	-29051802.43	-29051802.23	0.0146	0.0097	
Earth	-84253-07-02 02:23 J	-29051802.60	-29051802.40	-29051802.19	0.0146	0.0089	*
Earth	-84252-07-07 09:49 J	-29051432.31	-29051432.09	-29051431.87	0.0145	0.0078	
Moon	-84252-07-07 11:16 J	-29051432.24	-29051432.03	-29051431.78	0.0145	0.0074	*
Moon	-84251-07-12 14:08 J	-29051062.12	-29051061.91	-29051061.67	0.0145	0.0067	
Earth	-84251-07-12 16:32 J	-29051062.02	-29051061.81	-29051061.56	0.0145	0.0066	*
Earth	-84250-07-17 23:16 J	-29050691.76	-29050691.53	-29050691.27	0.0144	0.0054	
Moon	-84250-07-18 02:23 J	-29050691.64	-29050691.40	-29050691.15	0.0144	0.0057	*
Moon	-84249-07-22 02:08 J	-29050321.66	-29050321.41	-29050321.16	0.0144	0.0033	
Earth	-84249-07-22 05:44 J	-29050321.51	-29050321.26	-29050321.01	0.0144	0.0041	*
Earth	-84248-07-27 11:16 J	-29049951.28	-29049951.03	-29049950.76	0.0143	0.0028	
Moon	-84248-07-27 15:06 J	-29049951.12	-29049950.87	-29049950.62	0.0143	0.0035	*
Moon	-84247-08-01 12:56 J	-29049581.22	-29049580.96	-29049580.70	0.0143	0.0011	
Earth	-84247-08-01 16:32 J	-29049581.07	-29049580.81	-29049580.55	0.0143	0.0015	*
Earth	-84246-08-06 20:37 J	-29049210.91	-29049210.64	-29049210.38	0.0142	0.0003	
Moon	-84246-08-07 00:13 J	-29049210.75	-29049210.49	-29049210.23	0.0142	0.0003	*
Moon	-84245-08-10 21:06 J	-29048840.89	-29048840.62	-29048840.35	0.0141	0.0005	
Earth	-84245-08-10 23:59 J	-29048840.76	-29048840.50	-29048840.24	0.0141	0.0010	*
Venus	-84244-04-07 07:54 J	-29048601.18	-29048601.17	-29048601.13	0.0141	0.0140	
Earth	-84244-08-16 02:23 J	-29048470.66	-29048470.40	-29048470.14	0.0141	0.0022	
Moon	-84244-08-16 05:01 J	-29048470.53	-29048470.29	-29048470.03	0.0141	0.0030	*
Venus	-84244-11-19 20:08 J	-29048374.84	-29048374.66	-29048374.45	0.0141	0.0069	
Venus	-84243-07-04 08:23 J	-29048148.37	-29048148.15	-29048147.92	0.0140	0.0004	
Moon	-84243-08-21 01:40 J	-29048100.69	-29048100.43	-29048100.16	0.0140	0.0028	
Earth	-84243-08-21 03:49 J	-29048100.59	-29048100.34	-29048100.09	0.0140	0.0034	*
Venus	-84242-02-15 19:54 J	-29047921.85	-29047921.67	-29047921.47	0.0140	0.0073	
Earth	-84242-08-26 04:04 J	-29047730.58	-29047730.33	-29047730.08	0.0140	0.0046	
Moon	-84242-08-26 05:16 J	-29047730.51	-29047730.28	-29047730.04	0.0140	0.0050	*
Mercury	-84242-12-12 06:42 J	-29047622.25	-29047622.22	-29047622.16	0.0139	0.0134	

Mercury -84241-03-09 13:54 J -29047534.02 -29047533.92 -29047533.80 0.0139 0.0110

Mercury -84241-06-05 20:52 J -29047445.76 -29047445.63 -29047445.48 0.0139 0.0086

Moon -84241-08-30 01:54 J -29047360.66 -29047360.42 -29047360.16 0.0139 0.0056

Earth -84241-08-30 03:06 J -29047360.60 -29047360.37 -29047360.12 0.0139 0.0057 *

Mercury -84241-09-02 03:49 J -29047357.49 -29047357.34 -29047357.17 0.0139 0.0063

Mercury -84241-11-29 10:47 J -29047269.22 -29047269.05 -29047268.87 0.0139 0.0039

Mercury -84240-02-25 17:44 J -29047180.94 -29047180.76 -29047180.58 0.0139 0.0016

Mercury -84240-05-25 00:28 J -29047092.66 -29047092.48 -29047092.30 0.0139 0.0007

Mercury -84240-08-21 06:56 J -29047004.38 -29047004.21 -29047004.03 0.0138 0.0030

Moon -84240-09-04 00:56 J -29046990.67 -29046990.46 -29046990.22 0.0138 0.0063

Earth -84240-09-04 01:11 J -29046990.67 -29046990.45 -29046990.21 0.0138 0.0067 *

Mercury -84240-11-17 13:40 J -29046916.09 -29046915.93 -29046915.76 0.0138 0.0052

Mercury -84239-02-13 20:23 J -29046827.80 -29046827.65 -29046827.50 0.0138 0.0075

Mercury -84239-05-13 02:23 J -29046739.51 -29046739.40 -29046739.26 0.0138 0.0097

Mercury -84239-08-09 09:06 J -29046651.20 -29046651.12 -29046651.03 0.0138 0.0118

Earth -84239-09-08 22:04 J -29046620.79 -29046620.58 -29046620.35 0.0138 0.0077

Moon -84239-09-08 22:18 J -29046620.78 -29046620.57 -29046620.34 0.0138 0.0083 *

Moon -84238-09-13 16:32 J -29046251.00 -29046250.81 -29046250.59 0.0137 0.0080

Earth -84238-09-13 17:44 J -29046250.95 -29046250.76 -29046250.54 0.0137 0.0086 *

Earth -84237-09-17 12:28 J -29045881.15 -29045880.98 -29045880.77 0.0137 0.0095

Moon -84237-09-17 14:08 J -29045881.08 -29045880.91 -29045880.71 0.0137 0.0100 *

Moon -84236-09-22 04:47 J -29045511.47 -29045511.30 -29045511.13 0.0136 0.0100

Earth -84236-09-22 06:28 J -29045511.39 -29045511.23 -29045511.05 0.0136 0.0102 *

Earth -84235-09-26 22:32 J -29045141.69 -29045141.56 -29045141.38 0.0136 0.0110

Moon -84235-09-27 01:25 J -29045141.59 -29045141.44 -29045141.26 0.0136 0.0107 *

Moon -84234-10-01 12:28 J -29044772.09 -29044771.98 -29044771.87 0.0135 0.0120

Earth -84234-10-01 14:08 J -29044772.02 -29044771.91 -29044771.75 0.0135 0.0116 *

Earth -84233-10-05 05:01 J -29044402.39 -29044402.29 -29044402.17 0.0135 0.0122

Moon -84233-10-05 08:08 J -29044402.28 -29044402.16 -29044402.01 0.0135 0.0115 *

Jupiter -84232-05-25 19:11 J -29044169.76 -29044169.70 -29044169.54 0.0134 0.0132

Earth	-84232-10-09 18:13 J	-29044032.79	-29044032.74	-29044032.63	0.0134	0.0127
Earth	-84231-10-14 06:42 J	-29043663.24	-29043663.22	-29043663.15	0.0134	0.0132
Moon	-84231-10-14 09:49 J	-29043663.15	-29043663.09	-29043662.98	0.0134	0.0127 *
Mars	-84220-05-02 03:35 J	-29039810.40	-29039810.35	-29039810.25	0.0131	0.0127
Moon	-84219-12-01 21:35 J	-29039231.65	-29039231.60	-29039231.50	0.0131	0.0125
Mars	-84218-03-31 08:37 J	-29039112.38	-29039112.14	-29039111.87	0.0131	0.0053
Earth	-84218-12-05 22:04 J	-29038862.64	-29038862.58	-29038862.53	0.0131	0.0128
Earth	-84217-12-09 00:42 J	-29038493.54	-29038493.47	-29038493.38	0.0131	0.0124
Moon	-84217-12-09 04:04 J	-29038493.42	-29038493.33	-29038493.19	0.0131	0.0118 *
Mars	-84216-02-26 13:54 J	-29038414.19	-29038413.92	-29038413.64	0.0131	0.0022
Moon	-84216-12-12 23:30 J	-29038124.59	-29038124.52	-29038124.41	0.0131	0.0123
Earth	-84216-12-13 03:06 J	-29038124.46	-29038124.37	-29038124.25	0.0131	0.0119 *
Earth	-84215-12-17 05:30 J	-29037755.39	-29037755.27	-29037755.14	0.0132	0.0113
Moon	-84215-12-17 08:52 J	-29037755.24	-29037755.13	-29037754.98	0.0132	0.0113 *
Mars	-84214-01-25 19:25 J	-29037715.85	-29037715.69	-29037715.48	0.0132	0.0097
Moon	-84214-12-21 04:04 J	-29037386.46	-29037386.33	-29037386.17	0.0132	0.0107
Earth	-84214-12-21 07:40 J	-29037386.31	-29037386.18	-29037386.02	0.0132	0.0107 *
Earth	-84213-12-24 09:35 J	-29037017.25	-29037017.10	-29037016.93	0.0132	0.0101
Moon	-84213-12-24 13:11 J	-29037017.09	-29037016.95	-29037016.80	0.0132	0.0105 *
Moon	-84212-12-28 08:08 J	-29036648.34	-29036648.16	-29036647.97	0.0132	0.0088
Earth	-84212-12-28 11:44 J	-29036648.18	-29036648.01	-29036647.83	0.0132	0.0094 *
Earth	-84210-01-01 13:11 J	-29036279.12	-29036278.95	-29036278.74	0.0133	0.0087
Moon	-84210-01-01 17:01 J	-29036278.96	-29036278.79	-29036278.61	0.0133	0.0093 *
Moon	-84209-01-05 11:59 J	-29035910.19	-29035910.00	-29035909.78	0.0133	0.0072
Earth	-84209-01-05 15:35 J	-29035910.03	-29035909.85	-29035909.63	0.0133	0.0079 *
Earth	-84208-01-08 18:13 J	-29035540.95	-29035540.74	-29035540.53	0.0133	0.0070
Moon	-84208-01-08 21:35 J	-29035540.80	-29035540.60	-29035540.39	0.0133	0.0077 *
Moon	-84207-01-12 17:01 J	-29035171.99	-29035171.79	-29035171.55	0.0134	0.0060
Earth	-84207-01-12 20:37 J	-29035171.85	-29035171.64	-29035171.41	0.0134	0.0062 *
Earth	-84206-01-16 23:44 J	-29034802.73	-29034802.51	-29034802.28	0.0134	0.0053

Moon	-84206-01-17 03:20 J	-29034802.58	-29034802.36	-29034802.13	0.0134	0.0054	*
Moon	-84205-01-20 23:59 J	-29034433.73	-29034433.50	-29034433.26	0.0134	0.0046	
Earth	-84205-01-21 03:06 J	-29034433.59	-29034433.37	-29034433.12	0.0134	0.0044	*
Earth	-84204-01-24 06:56 J	-29034064.44	-29034064.21	-29034063.96	0.0135	0.0035	
Moon	-84204-01-24 10:32 J	-29034064.29	-29034064.06	-29034063.81	0.0135	0.0029	*
Moon	-84203-01-28 08:08 J	-29033695.40	-29033695.16	-29033694.92	0.0135	0.0031	
Earth	-84203-01-28 11:30 J	-29033695.26	-29033695.02	-29033694.78	0.0135	0.0024	*
Earth	-84202-02-01 16:04 J	-29033326.07	-29033325.83	-29033325.58	0.0136	0.0014	
Moon	-84202-02-01 19:40 J	-29033325.93	-29033325.68	-29033325.43	0.0136	0.0007	*
Moon	-84201-02-05 17:59 J	-29032957.00	-29032956.75	-29032956.51	0.0136	0.0011	
Earth	-84201-02-05 21:35 J	-29032956.85	-29032956.60	-29032956.36	0.0136	0.0004	*
Earth	-84200-02-09 03:20 J	-29032587.61	-29032587.36	-29032587.11	0.0137	0.0007	
Moon	-84200-02-09 06:28 J	-29032587.47	-29032587.23	-29032586.97	0.0137	0.0012	*
Moon	-84199-02-13 06:13 J	-29032218.48	-29032218.24	-29032217.99	0.0138	0.0016	
Earth	-84199-02-13 09:49 J	-29032218.33	-29032218.09	-29032217.84	0.0138	0.0018	*
Venus	-84199-06-25 06:28 J	-29032086.36	-29032086.23	-29032086.10	0.0138	0.0109	
Venus	-84198-02-06 11:59 J	-29031860.20	-29031860.00	-29031859.80	0.0138	0.0047	
Earth	-84198-02-17 17:01 J	-29031849.03	-29031848.79	-29031848.54	0.0138	0.0028	
Moon	-84198-02-17 20:23 J	-29031848.88	-29031848.65	-29031848.40	0.0138	0.0028	*
Venus	-84198-09-20 17:44 J	-29031633.97	-29031633.76	-29031633.55	0.0139	0.0017	
Moon	-84197-02-21 21:49 J	-29031479.82	-29031479.59	-29031479.35	0.0139	0.0044	
Earth	-84197-02-22 01:25 J	-29031479.68	-29031479.44	-29031479.20	0.0139	0.0039	*
Venus	-84197-05-03 23:30 J	-29031407.68	-29031407.52	-29031407.34	0.0139	0.0081	
Mercury	-84197-08-07 18:56 J	-29031311.75	-29031311.71	-29031311.67	0.0139	0.0132	
Mercury	-84197-11-03 22:32 J	-29031223.63	-29031223.56	-29031223.48	0.0139	0.0115	
Mercury	-84196-01-31 02:08 J	-29031135.50	-29031135.41	-29031135.31	0.0139	0.0098	
Earth	-84196-02-25 10:18 J	-29031110.30	-29031110.07	-29031109.84	0.0139	0.0050	
Moon	-84196-02-25 13:54 J	-29031110.15	-29031109.92	-29031109.68	0.0139	0.0043	*
Mercury	-84196-04-29 05:44 J	-29031047.37	-29031047.26	-29031047.14	0.0140	0.0081	
Mercury	-84196-07-26 09:20 J	-29030959.22	-29030959.11	-29030958.98	0.0140	0.0064	

Mercury -84196-10-22 13:11 J -29030871.08 -29030870.95 -29030870.82 0.0140 0.0046
 Mercury -84195-01-18 17:01 J -29030782.93 -29030782.79 -29030782.66 0.0140 0.0028
 Moon -84195-03-01 17:01 J -29030741.00 -29030740.79 -29030740.57 0.0140 0.0067
 Earth -84195-03-01 20:08 J -29030740.87 -29030740.66 -29030740.43 0.0140 0.0061 *
 Mercury -84195-04-16 20:37 J -29030694.77 -29030694.64 -29030694.50 0.0140 0.0011
 Mercury -84195-07-14 00:28 J -29030606.62 -29030606.48 -29030606.34 0.0140 0.0009
 Mercury -84195-10-10 04:18 J -29030518.45 -29030518.32 -29030518.18 0.0140 0.0027
 Mercury -84194-01-06 08:08 J -29030430.29 -29030430.16 -29030430.02 0.0141 0.0045
 Earth -84194-03-06 07:11 J -29030371.40 -29030371.20 -29030370.98 0.0141 0.0071
 Moon -84194-03-06 10:32 J -29030371.26 -29030371.06 -29030370.83 0.0141 0.0065 *
 Mercury -84194-04-04 12:13 J -29030342.12 -29030341.99 -29030341.87 0.0141 0.0064
 Mercury -84194-07-01 16:04 J -29030253.94 -29030253.83 -29030253.72 0.0141 0.0083
 Mercury -84194-09-27 19:54 J -29030165.76 -29030165.67 -29030165.57 0.0141 0.0102
 Mercury -84194-12-24 23:44 J -29030077.57 -29030077.51 -29030077.43 0.0141 0.0121
 Moon -84193-03-09 15:49 J -29030002.02 -29030001.84 -29030001.63 0.0141 0.0087
 Earth -84193-03-09 19:25 J -29030001.88 -29030001.69 -29030001.48 0.0141 0.0081 *
 Mercury -84193-03-22 03:49 J -29029989.34 -29029989.34 -29029989.32 0.0141 0.0141
 Earth -84192-03-14 08:52 J -29029632.32 -29029632.13 -29029631.94 0.0142 0.0091
 Moon -84192-03-14 11:44 J -29029632.18 -29029632.01 -29029631.81 0.0142 0.0092 *
 Moon -84191-03-18 19:40 J -29029262.85 -29029262.68 -29029262.49 0.0142 0.0099
 Earth -84191-03-18 23:01 J -29029262.70 -29029262.54 -29029262.35 0.0142 0.0101 *
 Earth -84190-03-23 14:37 J -29028893.04 -29028892.89 -29028892.73 0.0143 0.0110
 Moon -84190-03-23 17:30 J -29028892.90 -29028892.77 -29028892.62 0.0143 0.0117 *
 Moon -84189-03-27 04:32 J -29028523.47 -29028523.31 -29028523.15 0.0144 0.0111
 Earth -84189-03-27 07:11 J -29028523.32 -29028523.20 -29028523.05 0.0144 0.0120 *
 Earth -84188-04-01 00:42 J -29028153.56 -29028153.47 -29028153.33 0.0144 0.0128
 Moon -84188-04-01 03:35 J -29028153.42 -29028153.35 -29028153.25 0.0144 0.0135 *
 Moon -84187-04-05 17:30 J -29027783.85 -29027783.77 -29027783.64 0.0145 0.0131
 Earth -84187-04-05 19:40 J -29027783.75 -29027783.68 -29027783.57 0.0145 0.0135 *
 Earth -84186-04-10 15:49 J -29027413.88 -29027413.84 -29027413.77 0.0145 0.0141

Moon	-84186-04-10 17:59 J	-29027413.78	-29027413.75	-29027413.69	0.0145	0.0142	*
Moon	-84184-04-19 12:28 J	-29026674.01	-29026673.98	-29026673.94	0.0146	0.0144	
Moon	-84177-05-23 08:52 J	-29024083.15	-29024083.13	-29024083.11	0.0148	0.0147	
Earth	-84176-05-28 11:30 J	-29023713.02	-29023713.02	-29023713.02	0.0147	0.0147	
Mars	-84176-08-03 07:11 J	-29023646.53	-29023646.20	-29023645.87	0.0147	0.0036	
Earth	-84175-06-02 17:44 J	-29023342.81	-29023342.76	-29023342.68	0.0147	0.0142	
Moon	-84175-06-02 21:49 J	-29023342.59	-29023342.59	-29023342.59	0.0147	0.0147	
Moon	-84174-06-07 21:20 J	-29022972.73	-29022972.61	-29022972.47	0.0147	0.0127	
Earth	-84174-06-08 00:56 J	-29022972.56	-29022972.46	-29022972.36	0.0147	0.0135	*
Mars	-84174-07-13 03:20 J	-29022937.61	-29022937.36	-29022937.10	0.0147	0.0099	
Earth	-84173-06-12 08:08 J	-29022602.28	-29022602.16	-29022602.02	0.0147	0.0126	
Moon	-84173-06-12 11:01 J	-29022602.14	-29022602.04	-29022601.93	0.0147	0.0133	*
Moon	-84172-06-17 12:42 J	-29022232.12	-29022231.97	-29022231.78	0.0147	0.0113	
Earth	-84172-06-17 15:20 J	-29022231.99	-29022231.86	-29022231.68	0.0147	0.0118	*
Earth	-84171-06-22 23:01 J	-29021861.70	-29021861.54	-29021861.35	0.0147	0.0108	
Moon	-84171-06-23 00:13 J	-29021861.64	-29021861.49	-29021861.29	0.0147	0.0106	*
Moon	-84170-06-28 05:44 J	-29021491.44	-29021491.26	-29021491.05	0.0146	0.0102	
Earth	-84170-06-28 06:56 J	-29021491.40	-29021491.21	-29021491.01	0.0146	0.0097	*
Moon	-84169-07-02 13:54 J	-29021121.12	-29021120.92	-29021120.70	0.0146	0.0079	
Earth	-84169-07-02 14:23 J	-29021121.10	-29021120.90	-29021120.68	0.0146	0.0085	*
Earth	-84168-07-07 21:35 J	-29020750.81	-29020750.60	-29020750.36	0.0145	0.0074	
Moon	-84168-07-07 23:01 J	-29020750.76	-29020750.54	-29020750.31	0.0145	0.0079	*
Moon	-84167-07-13 03:06 J	-29020380.59	-29020380.37	-29020380.13	0.0145	0.0060	
Earth	-84167-07-13 05:01 J	-29020380.52	-29020380.29	-29020380.05	0.0145	0.0061	*
Earth	-84166-07-18 11:30 J	-29020010.26	-29020010.02	-29020009.77	0.0144	0.0048	
Moon	-84166-07-18 14:37 J	-29020010.14	-29020009.89	-29020009.63	0.0144	0.0044	*
Moon	-84165-07-22 15:06 J	-29019640.12	-29019639.87	-29019639.63	0.0144	0.0042	
Earth	-84165-07-22 17:44 J	-29019640.00	-29019639.76	-29019639.49	0.0144	0.0036	*
Earth	-84164-07-27 23:44 J	-29019269.77	-29019269.51	-29019269.25	0.0143	0.0023	
Moon	-84164-07-28 03:35 J	-29019269.62	-29019269.35	-29019269.09	0.0143	0.0016	*

Moon -84163-08-02 00:56 J -29018899.72 -29018899.46 -29018899.20 0.0143 0.0015
 Earth -84163-08-02 04:47 J -29018899.56 -29018899.30 -29018899.04 0.0143 0.0009 *
 Earth -84162-08-07 08:52 J -29018529.39 -29018529.13 -29018528.87 0.0142 0.0003
 Moon -84162-08-07 12:13 J -29018529.24 -29018528.99 -29018528.73 0.0142 0.0004 *
 Moon -84161-08-11 08:23 J -29018159.41 -29018159.15 -29018158.88 0.0141 0.0021
 Earth -84161-08-11 12:13 J -29018159.25 -29018158.99 -29018158.73 0.0141 0.0016 *
 Venus -84160-07-20 03:35 J -29017816.49 -29017816.35 -29017816.18 0.0141 0.0101
 Earth -84160-08-16 14:23 J -29017789.15 -29017788.90 -29017788.64 0.0141 0.0029
 Moon -84160-08-16 17:30 J -29017789.03 -29017788.77 -29017788.52 0.0141 0.0022 *
 Venus -84159-03-03 15:49 J -29017590.06 -29017589.84 -29017589.62 0.0140 0.0030
 Moon -84159-08-21 12:56 J -29017419.20 -29017418.96 -29017418.69 0.0140 0.0048
 Earth -84159-08-21 15:49 J -29017419.09 -29017418.84 -29017418.59 0.0140 0.0041 *
 Venus -84159-10-16 03:35 J -29017363.56 -29017363.35 -29017363.13 0.0140 0.0041
 Venus -84158-05-30 14:52 J -29017137.00 -29017136.88 -29017136.73 0.0140 0.0111
 Earth -84158-08-26 15:35 J -29017049.08 -29017048.85 -29017048.59 0.0140 0.0053
 Moon -84158-08-26 17:59 J -29017048.99 -29017048.75 -29017048.51 0.0140 0.0048 *
 Mercury -84157-01-01 14:37 J -29016920.95 -29016920.89 -29016920.81 0.0139 0.0127
 Mercury -84157-03-29 21:35 J -29016832.71 -29016832.60 -29016832.47 0.0139 0.0104
 Mercury -84157-06-26 04:47 J -29016744.45 -29016744.30 -29016744.15 0.0139 0.0079
 Moon -84157-08-30 13:40 J -29016679.16 -29016678.93 -29016678.67 0.0139 0.0063
 Earth -84157-08-30 14:52 J -29016679.10 -29016678.88 -29016678.63 0.0139 0.0063 *
 Mercury -84157-09-22 11:30 J -29016656.18 -29016656.02 -29016655.84 0.0139 0.0056
 Mercury -84157-12-19 18:28 J -29016567.90 -29016567.73 -29016567.55 0.0139 0.0033
 Mercury -84156-03-18 01:25 J -29016479.62 -29016479.44 -29016479.26 0.0139 0.0009
 Mercury -84156-06-14 08:08 J -29016391.34 -29016391.16 -29016390.98 0.0138 0.0014
 Earth -84156-09-04 12:42 J -29016309.17 -29016308.97 -29016308.73 0.0138 0.0074
 Moon -84156-09-04 13:54 J -29016309.12 -29016308.92 -29016308.70 0.0138 0.0077 *
 Mercury -84156-09-10 14:37 J -29016303.06 -29016302.89 -29016302.71 0.0138 0.0037
 Mercury -84156-12-07 21:20 J -29016214.77 -29016214.61 -29016214.45 0.0138 0.0059
 Mercury -84155-03-06 03:49 J -29016126.48 -29016126.34 -29016126.19 0.0138 0.0081

Mercury -84155-06-02 10:18 J -29016038.18 -29016038.07 -29016037.95 0.0138 0.0103

Mercury -84155-08-29 16:32 J -29015949.87 -29015949.81 -29015949.72 0.0138 0.0125

Moon -84155-09-09 09:35 J -29015939.31 -29015939.10 -29015938.86 0.0138 0.0077

Earth -84155-09-09 09:35 J -29015939.30 -29015939.10 -29015938.88 0.0138 0.0083 *

Moon -84154-09-14 05:01 J -29015569.45 -29015569.29 -29015569.10 0.0137 0.0100

Earth -84154-09-14 05:44 J -29015569.45 -29015569.26 -29015569.07 0.0137 0.0092 *

Earth -84153-09-17 23:59 J -29015199.65 -29015199.50 -29015199.30 0.0137 0.0101

Moon -84153-09-18 01:25 J -29015199.63 -29015199.44 -29015199.25 0.0137 0.0095 *

Moon -84152-09-22 16:18 J -29014829.95 -29014829.82 -29014829.66 0.0136 0.0110

Earth -84152-09-22 17:44 J -29014829.90 -29014829.76 -29014829.58 0.0136 0.0108 *

Earth -84151-09-27 10:32 J -29014460.19 -29014460.06 -29014459.91 0.0135 0.0115

Moon -84151-09-27 11:59 J -29014460.12 -29014460.00 -29014459.85 0.0135 0.0116 *

Moon -84150-10-01 23:44 J -29014090.62 -29014090.51 -29014090.37 0.0135 0.0116

Earth -84150-10-02 02:08 J -29014090.51 -29014090.41 -29014090.29 0.0135 0.0121 *

Earth -84149-10-05 16:32 J -29013720.88 -29013720.81 -29013720.71 0.0134 0.0127

Moon -84149-10-05 18:42 J -29013720.73 -29013720.72 -29013720.66 0.0134 0.0134 *

Moon -84148-10-10 03:49 J -29013351.42 -29013351.34 -29013351.25 0.0134 0.0125

Earth -84148-10-10 05:59 J -29013351.27 -29013351.25 -29013351.18 0.0134 0.0132 *

Moon -84136-11-27 22:47 J -29008919.55 -29008919.55 -29008919.52 0.0131 0.0131

Mars -84136-12-25 02:37 J -29008892.57 -29008892.39 -29008892.19 0.0131 0.0095

Mars -84134-11-23 07:40 J -29008194.45 -29008194.18 -29008193.90 0.0131 0.0022

Moon -84134-12-06 05:16 J -29008181.35 -29008181.28 -29008181.16 0.0131 0.0121

Earth -84134-12-06 08:37 J -29008181.16 -29008181.14 -29008181.06 0.0131 0.0129 *

Earth -84133-12-09 11:30 J -29007812.08 -29007812.02 -29007811.91 0.0131 0.0123

Moon -84133-12-09 14:52 J -29007811.91 -29007811.88 -29007811.80 0.0131 0.0129 *

Mars -84132-10-21 11:44 J -29007496.25 -29007496.01 -29007495.74 0.0131 0.0053

Moon -84132-12-13 10:32 J -29007443.17 -29007443.06 -29007442.92 0.0131 0.0114

Earth -84132-12-13 14:23 J -29007443.00 -29007442.90 -29007442.78 0.0131 0.0118 *

Earth -84131-12-17 16:18 J -29007073.94 -29007073.82 -29007073.68 0.0132 0.0112

Moon -84131-12-17 19:25 J -29007073.79 -29007073.69 -29007073.54 0.0132 0.0114 *

Mars	-84130-09-19 18:56 J	-29006797.76	-29006797.71	-29006797.60	0.0132	0.0127
Moon	-84130-12-21 14:37 J	-29006705.00	-29006704.89	-29006704.72	0.0132	0.0108
Earth	-84130-12-21 18:42 J	-29006704.86	-29006704.72	-29006704.57	0.0132	0.0105 *
Earth	-84129-12-24 20:08 J	-29006335.80	-29006335.66	-29006335.47	0.0132	0.0099
Moon	-84129-12-24 23:44 J	-29006335.67	-29006335.51	-29006335.32	0.0132	0.0095 *
Moon	-84128-12-28 18:56 J	-29005966.86	-29005966.71	-29005966.53	0.0132	0.0097
Earth	-84128-12-28 22:18 J	-29005966.74	-29005966.57	-29005966.38	0.0132	0.0092 *
Earth	-84126-01-02 00:28 J	-29005597.67	-29005597.48	-29005597.28	0.0133	0.0084
Moon	-84126-01-02 03:49 J	-29005597.53	-29005597.34	-29005597.12	0.0133	0.0077 *
Moon	-84125-01-05 23:30 J	-29005228.70	-29005228.52	-29005228.32	0.0133	0.0083
Earth	-84125-01-06 02:37 J	-29005228.58	-29005228.39	-29005228.17	0.0133	0.0076 *
Earth	-84124-01-09 05:01 J	-29004859.50	-29004859.29	-29004859.07	0.0133	0.0068
Moon	-84124-01-09 08:23 J	-29004859.36	-29004859.15	-29004858.92	0.0133	0.0062 *
Moon	-84123-01-13 04:18 J	-29004490.52	-29004490.32	-29004490.09	0.0134	0.0063
Earth	-84123-01-13 07:40 J	-29004490.39	-29004490.18	-29004489.95	0.0134	0.0059 *
Earth	-84122-01-17 10:47 J	-29004121.28	-29004121.05	-29004120.82	0.0134	0.0049
Moon	-84122-01-17 13:54 J	-29004121.14	-29004120.92	-29004120.68	0.0134	0.0049 *
Moon	-84121-01-21 10:47 J	-29003752.28	-29003752.05	-29003751.81	0.0134	0.0038
Earth	-84121-01-21 14:23 J	-29003752.14	-29003751.90	-29003751.66	0.0134	0.0040 *
Earth	-84120-01-24 17:59 J	-29003382.99	-29003382.75	-29003382.50	0.0135	0.0030
Moon	-84120-01-24 21:06 J	-29003382.86	-29003382.62	-29003382.37	0.0135	0.0034 *
Moon	-84119-01-28 18:56 J	-29003013.95	-29003013.71	-29003013.47	0.0135	0.0013
Earth	-84119-01-28 22:18 J	-29003013.82	-29003013.57	-29003013.33	0.0135	0.0020 *
Earth	-84118-02-02 02:52 J	-29002644.63	-29002644.38	-29002644.13	0.0136	0.0009
Moon	-84118-02-02 06:13 J	-29002644.49	-29002644.24	-29002643.99	0.0136	0.0017 *
Moon	-84117-02-06 05:01 J	-29002275.53	-29002275.29	-29002275.05	0.0136	0.0008
Earth	-84117-02-06 08:08 J	-29002275.41	-29002275.16	-29002274.91	0.0136	0.0001 *
Earth	-84116-02-09 13:54 J	-29001906.17	-29001905.92	-29001905.68	0.0137	0.0012
Moon	-84116-02-09 17:16 J	-29001906.02	-29001905.78	-29001905.53	0.0137	0.0008 *
Moon	-84115-02-13 17:16 J	-29001537.02	-29001536.78	-29001536.54	0.0138	0.0026

Earth -84115-02-13 20:23 J -29001536.89 -29001536.65 -29001536.40 0.0138 0.0023 *
 Venus -84115-10-06 21:35 J -29001301.76 -29001301.60 -29001301.41 0.0138 0.0077
 Earth -84114-02-18 03:49 J -29001167.58 -29001167.34 -29001167.10 0.0138 0.0034
 Moon -84114-02-18 07:11 J -29001167.44 -29001167.20 -29001166.96 0.0138 0.0036 *
 Venus -84114-05-21 03:20 J -29001075.56 -29001075.36 -29001075.14 0.0138 0.0015
 Venus -84113-01-02 09:20 J -29000849.30 -29000849.11 -29000848.91 0.0139 0.0050
 Moon -84113-02-22 08:23 J -29000798.38 -29000798.15 -29000797.91 0.0139 0.0041
 Earth -84113-02-22 11:44 J -29000798.23 -29000798.01 -29000797.77 0.0139 0.0045 *
 Venus -84113-08-15 15:20 J -29000622.97 -29000622.86 -29000622.73 0.0139 0.0114
 Mercury -84113-08-28 02:08 J -29000610.46 -29000610.41 -29000610.36 0.0139 0.0129
 Mercury -84113-11-24 05:44 J -29000522.34 -29000522.26 -29000522.18 0.0139 0.0112
 Mercury -84112-02-20 09:20 J -29000434.21 -29000434.11 -29000434.01 0.0139 0.0094
 Earth -84112-02-25 20:37 J -29000428.85 -29000428.64 -29000428.40 0.0139 0.0056
 Moon -84112-02-26 00:13 J -29000428.71 -29000428.49 -29000428.26 0.0139 0.0062 *
 Mercury -84112-05-19 12:56 J -29000346.07 -29000345.96 -29000345.84 0.0140 0.0077
 Mercury -84112-08-15 16:32 J -29000257.93 -29000257.81 -29000257.68 0.0140 0.0060
 Mercury -84112-11-11 20:23 J -29000169.78 -29000169.65 -29000169.51 0.0140 0.0042
 Mercury -84111-02-08 00:13 J -29000081.63 -29000081.49 -29000081.35 0.0140 0.0024
 Moon -84111-03-02 03:20 J -29000059.58 -29000059.36 -29000059.13 0.0140 0.0058
 Earth -84111-03-02 06:56 J -29000059.42 -29000059.21 -29000058.99 0.0140 0.0066 *
 Mercury -84111-05-07 04:04 J -28999993.47 -28999993.33 -28999993.20 0.0140 0.0007
 Mercury -84111-08-03 07:40 J -28999905.31 -28999905.18 -28999905.04 0.0140 0.0013
 Mercury -84111-10-30 11:30 J -28999817.15 -28999817.02 -28999816.88 0.0140 0.0031
 Mercury -84110-01-26 15:20 J -28999728.98 -28999728.86 -28999728.72 0.0141 0.0050
 Earth -84110-03-06 17:44 J -28999689.95 -28999689.76 -28999689.54 0.0141 0.0077
 Moon -84110-03-06 21:20 J -28999689.80 -28999689.61 -28999689.40 0.0141 0.0084 *
 Mercury -84110-04-24 19:25 J -28999640.81 -28999640.69 -28999640.57 0.0141 0.0068
 Mercury -84110-07-21 23:16 J -28999552.64 -28999552.53 -28999552.42 0.0141 0.0087
 Mercury -84110-10-18 03:06 J -28999464.45 -28999464.37 -28999464.27 0.0141 0.0106
 Mercury -84109-01-14 07:11 J -28999376.26 -28999376.20 -28999376.13 0.0141 0.0125

Moon	-84109-03-10 02:37 J	-28999320.57	-28999320.39	-28999320.18	0.0141	0.0083
Earth	-84109-03-10 06:13 J	-28999320.42	-28999320.24	-28999320.04	0.0141	0.0087 *
Earth	-84108-03-14 19:25 J	-28998950.86	-28998950.69	-28998950.50	0.0142	0.0097
Moon	-84108-03-14 23:01 J	-28998950.70	-28998950.54	-28998950.35	0.0142	0.0099 *
Moon	-84107-03-19 06:28 J	-28998581.37	-28998581.23	-28998581.05	0.0142	0.0110
Earth	-84107-03-19 10:04 J	-28998581.24	-28998581.08	-28998580.91	0.0142	0.0107 *
Earth	-84106-03-24 01:11 J	-28998211.57	-28998211.45	-28998211.29	0.0143	0.0116
Moon	-84106-03-24 05:16 J	-28998211.44	-28998211.28	-28998211.13	0.0143	0.0110 *
Moon	-84105-03-27 14:23 J	-28997841.97	-28997841.90	-28997841.78	0.0144	0.0132
Earth	-84105-03-27 17:44 J	-28997841.86	-28997841.76	-28997841.62	0.0144	0.0125 *
Earth	-84104-04-01 11:30 J	-28997472.10	-28997472.02	-28997471.91	0.0144	0.0133
Moon	-84104-04-01 14:37 J	-28997472.00	-28997471.89	-28997471.77	0.0144	0.0126 *
Moon	-84103-04-06 03:35 J	-28997102.35	-28997102.35	-28997102.33	0.0145	0.0145
Earth	-84103-04-06 06:13 J	-28997102.28	-28997102.24	-28997102.15	0.0145	0.0140
Mars	-84093-04-21 12:28 J	-28993434.17	-28993433.98	-28993433.74	0.0148	0.0116
Moon	-84092-05-28 19:25 J	-28993031.69	-28993031.69	-28993031.69	0.0148	0.0148
Mars	-84091-03-31 12:42 J	-28992725.31	-28992724.97	-28992724.63	0.0147	0.0019
Earth	-84091-06-03 05:01 J	-28992661.34	-28992661.29	-28992661.20	0.0147	0.0142
Moon	-84091-06-03 08:52 J	-28992661.22	-28992661.13	-28992661.03	0.0147	0.0137 *
Moon	-84090-06-08 08:23 J	-28992291.20	-28992291.15	-28992291.06	0.0147	0.0142
Earth	-84090-06-08 12:13 J	-28992291.08	-28992290.99	-28992290.87	0.0147	0.0134 *
Earth	-84089-06-12 19:11 J	-28991920.81	-28991920.70	-28991920.54	0.0147	0.0126
Moon	-84089-06-12 23:01 J	-28991920.68	-28991920.54	-28991920.38	0.0147	0.0117 *
Moon	-84088-06-18 00:28 J	-28991550.62	-28991550.48	-28991550.31	0.0147	0.0118
Earth	-84088-06-18 03:06 J	-28991550.52	-28991550.37	-28991550.20	0.0147	0.0115 *
Earth	-84087-06-23 10:32 J	-28991180.22	-28991180.06	-28991179.86	0.0147	0.0105
Moon	-84087-06-23 13:11 J	-28991180.12	-28991179.95	-28991179.77	0.0147	0.0106 *
Moon	-84086-06-28 17:16 J	-28990809.99	-28990809.78	-28990809.56	0.0146	0.0088
Earth	-84086-06-28 18:13 J	-28990809.92	-28990809.74	-28990809.53	0.0146	0.0094 *
Earth	-84085-07-03 01:40 J	-28990439.62	-28990439.43	-28990439.19	0.0146	0.0082

Moon	-84085-07-03 02:23 J	-28990439.59	-28990439.40	-28990439.19	0.0146	0.0090	*
Earth	-84084-07-08 09:20 J	-28990069.32	-28990069.11	-28990068.87	0.0145	0.0070	
Moon	-84084-07-08 10:04 J	-28990069.32	-28990069.08	-28990068.84	0.0145	0.0064	*
Moon	-84083-07-13 14:52 J	-28989699.10	-28989698.88	-28989698.64	0.0145	0.0058	
Earth	-84083-07-13 16:32 J	-28989699.04	-28989698.81	-28989698.56	0.0145	0.0057	*
Earth	-84082-07-18 23:30 J	-28989328.77	-28989328.52	-28989328.27	0.0144	0.0044	
Moon	-84082-07-19 01:25 J	-28989328.69	-28989328.44	-28989328.18	0.0144	0.0047	*
Moon	-84081-07-23 02:52 J	-28988958.63	-28988958.38	-28988958.13	0.0144	0.0023	
Earth	-84081-07-23 05:44 J	-28988958.51	-28988958.26	-28988958.00	0.0144	0.0031	*
Earth	-84080-07-28 11:30 J	-28988588.28	-28988588.02	-28988587.76	0.0143	0.0017	
Moon	-84080-07-28 14:52 J	-28988588.14	-28988587.88	-28988587.62	0.0143	0.0025	*
Moon	-84079-08-02 12:56 J	-28988218.22	-28988217.96	-28988217.70	0.0143	0.0002	
Earth	-84079-08-02 16:32 J	-28988218.07	-28988217.81	-28988217.54	0.0143	0.0005	*
Earth	-84078-08-07 20:37 J	-28987847.90	-28987847.64	-28987847.38	0.0142	0.0009	
Moon	-84078-08-08 00:28 J	-28987847.74	-28987847.48	-28987847.21	0.0142	0.0009	*
Moon	-84077-08-11 20:23 J	-28987477.91	-28987477.65	-28987477.38	0.0141	0.0019	
Earth	-84077-08-11 23:59 J	-28987477.76	-28987477.50	-28987477.24	0.0141	0.0022	*
Venus	-84076-03-19 10:32 J	-28987258.11	-28987258.06	-28987257.97	0.0141	0.0134	
Earth	-84076-08-17 02:08 J	-28987107.66	-28987107.41	-28987107.15	0.0141	0.0035	
Moon	-84076-08-17 05:44 J	-28987107.51	-28987107.26	-28987107.02	0.0141	0.0042	*
Venus	-84076-10-31 22:47 J	-28987031.74	-28987031.55	-28987031.33	0.0141	0.0063	
Venus	-84075-06-15 11:01 J	-28986805.26	-28986805.04	-28986804.81	0.0140	0.0009	
Moon	-84075-08-22 00:13 J	-28986737.75	-28986737.49	-28986737.23	0.0140	0.0040	
Earth	-84075-08-22 03:06 J	-28986737.61	-28986737.37	-28986737.11	0.0140	0.0047	*
Venus	-84074-01-27 22:18 J	-28986578.74	-28986578.57	-28986578.37	0.0140	0.0079	
Earth	-84074-08-27 03:20 J	-28986367.59	-28986367.36	-28986367.12	0.0140	0.0058	
Moon	-84074-08-27 05:16 J	-28986367.49	-28986367.28	-28986367.03	0.0140	0.0063	*
Mercury	-84073-01-21 22:32 J	-28986219.65	-28986219.56	-28986219.47	0.0139	0.0121	
Mercury	-84073-04-19 05:16 J	-28986131.40	-28986131.28	-28986131.14	0.0139	0.0097	
Mercury	-84073-07-16 12:13 J	-28986043.13	-28986042.99	-28986042.82	0.0139	0.0073	

Moon -84073-08-30 23:59 J -28985997.72 -28985997.50 -28985997.25 0.0139 0.0067
 Earth -84073-08-31 02:23 J -28985997.62 -28985997.40 -28985997.16 0.0139 0.0069 *
 Mercury -84073-10-12 19:25 J -28985954.86 -28985954.69 -28985954.52 0.0139 0.0049
 Mercury -84072-01-09 02:08 J -28985866.58 -28985866.41 -28985866.23 0.0139 0.0026
 Mercury -84072-04-07 09:06 J -28985778.30 -28985778.12 -28985777.94 0.0139 0.0003
 Mercury -84072-07-04 15:35 J -28985690.02 -28985689.85 -28985689.66 0.0138 0.0021
 Earth -84072-09-04 23:59 J -28985627.69 -28985627.50 -28985627.26 0.0138 0.0080
 Moon -84072-09-05 01:25 J -28985627.65 -28985627.44 -28985627.22 0.0138 0.0076 *
 Mercury -84072-09-30 22:32 J -28985601.74 -28985601.56 -28985601.39 0.0138 0.0043
 Mercury -84072-12-28 04:47 J -28985513.45 -28985513.30 -28985513.13 0.0138 0.0066
 Mercury -84071-03-26 11:30 J -28985425.15 -28985425.02 -28985424.88 0.0138 0.0087
 Mercury -84071-06-22 17:59 J -28985336.85 -28985336.75 -28985336.64 0.0138 0.0109
 Moon -84071-09-09 19:54 J -28985257.85 -28985257.67 -28985257.45 0.0138 0.0095
 Earth -84071-09-09 21:06 J -28985257.81 -28985257.62 -28985257.41 0.0138 0.0089 *
 Mercury -84071-09-19 00:13 J -28985248.53 -28985248.49 -28985248.42 0.0138 0.0131
 Earth -84070-09-14 16:47 J -28984887.96 -28984887.80 -28984887.60 0.0137 0.0098
 Moon -84070-09-14 17:16 J -28984887.96 -28984887.78 -28984887.58 0.0137 0.0092 *
 Earth -84069-09-18 11:59 J -28984518.16 -28984518.00 -28984517.83 0.0137 0.0106
 Moon -84069-09-18 11:59 J -28984518.13 -28984518.00 -28984517.82 0.0137 0.0112 *
 Moon -84068-09-23 05:01 J -28984148.42 -28984148.29 -28984148.13 0.0136 0.0111
 Earth -84068-09-23 05:44 J -28984148.40 -28984148.26 -28984148.11 0.0136 0.0113 *
 Earth -84067-09-27 21:49 J -28983778.68 -28983778.59 -28983778.45 0.0135 0.0121
 Moon -84067-09-27 23:59 J -28983778.63 -28983778.50 -28983778.37 0.0135 0.0118 *
 Moon -84066-10-02 12:13 J -28983409.03 -28983408.99 -28983408.91 0.0135 0.0131
 Earth -84066-10-02 13:40 J -28983409.00 -28983408.93 -28983408.82 0.0135 0.0126 *
 Earth -84065-10-06 04:18 J -28983039.36 -28983039.32 -28983039.26 0.0134 0.0132
 Moon -84065-10-06 06:42 J -28983039.32 -28983039.22 -28983039.12 0.0134 0.0125 *
 Mars -84051-08-19 01:25 J -28977974.68 -28977974.44 -28977974.20 0.0131 0.0063
 Moon -84051-12-02 19:25 J -28977868.74 -28977868.69 -28977868.60 0.0131 0.0126
 Earth -84050-12-06 19:25 J -28977499.73 -28977499.69 -28977499.61 0.0131 0.0128

Mars	-84049-07-17 04:04 J	-28977276.61	-28977276.33	-28977276.05	0.0131	0.0009
Earth	-84049-12-09 22:04 J	-28977130.65	-28977130.58	-28977130.47	0.0131	0.0122
Moon	-84049-12-10 01:40 J	-28977130.54	-28977130.43	-28977130.30	0.0131	0.0116 *
Moon	-84048-12-13 21:06 J	-28976761.69	-28976761.62	-28976761.50	0.0131	0.0122
Earth	-84048-12-14 00:13 J	-28976761.58	-28976761.49	-28976761.35	0.0131	0.0117 *
Mars	-84047-06-15 08:52 J	-28976578.32	-28976578.13	-28976577.89	0.0131	0.0083
Earth	-84047-12-18 02:08 J	-28976392.52	-28976392.41	-28976392.25	0.0132	0.0111
Moon	-84047-12-18 05:44 J	-28976392.38	-28976392.26	-28976392.10	0.0132	0.0110 *
Moon	-84046-12-22 01:25 J	-28976023.57	-28976023.44	-28976023.27	0.0132	0.0104
Earth	-84046-12-22 04:32 J	-28976023.45	-28976023.31	-28976023.14	0.0132	0.0104 *
Earth	-84045-12-25 05:59 J	-28975654.39	-28975654.25	-28975654.05	0.0132	0.0097
Moon	-84045-12-25 09:20 J	-28975654.25	-28975654.11	-28975653.93	0.0132	0.0101 *
Moon	-84044-12-29 05:16 J	-28975285.47	-28975285.28	-28975285.09	0.0132	0.0083
Earth	-84044-12-29 08:08 J	-28975285.33	-28975285.16	-28975284.96	0.0132	0.0090 *
Earth	-84042-01-02 10:04 J	-28974916.26	-28974916.08	-28974915.86	0.0132	0.0082
Moon	-84042-01-02 13:11 J	-28974916.13	-28974915.95	-28974915.75	0.0132	0.0088 *
Moon	-84041-01-06 09:20 J	-28974547.32	-28974547.11	-28974546.89	0.0133	0.0066
Earth	-84041-01-06 12:28 J	-28974547.18	-28974546.98	-28974546.76	0.0133	0.0073 *
Earth	-84040-01-09 14:37 J	-28974178.09	-28974177.89	-28974177.66	0.0133	0.0064
Moon	-84040-01-09 17:44 J	-28974177.97	-28974177.76	-28974177.54	0.0133	0.0071 *
Moon	-84039-01-13 14:23 J	-28973809.12	-28973808.90	-28973808.67	0.0133	0.0052
Earth	-84039-01-13 17:16 J	-28973808.99	-28973808.78	-28973808.54	0.0133	0.0055 *
Earth	-84038-01-17 20:08 J	-28973439.88	-28973439.66	-28973439.41	0.0134	0.0046
Moon	-84038-01-17 23:30 J	-28973439.75	-28973439.52	-28973439.27	0.0134	0.0047 *
Moon	-84037-01-21 21:06 J	-28973070.85	-28973070.62	-28973070.39	0.0134	0.0036
Earth	-84037-01-21 23:44 J	-28973070.74	-28973070.51	-28973070.27	0.0134	0.0036 *
Earth	-84036-01-25 03:06 J	-28972701.60	-28972701.37	-28972701.12	0.0135	0.0026
Moon	-84036-01-25 06:28 J	-28972701.48	-28972701.23	-28972700.98	0.0135	0.0021 *
Moon	-84035-01-29 04:18 J	-28972332.55	-28972332.32	-28972332.07	0.0135	0.0022
Earth	-84035-01-29 07:11 J	-28972332.44	-28972332.20	-28972331.95	0.0135	0.0016 *

Earth -84034-02-02 11:59 J -28971963.25 -28971963.00 -28971962.76 0.0136 0.0005
 Moon -84034-02-02 14:52 J -28971963.13 -28971962.88 -28971962.63 0.0136 0.0003 *
 Moon -84033-02-06 13:54 J -28971594.16 -28971593.92 -28971593.68 0.0136 0.0001
 Earth -84033-02-06 17:01 J -28971594.04 -28971593.79 -28971593.54 0.0136 0.0006 *
 Earth -84032-02-09 22:32 J -28971224.80 -28971224.56 -28971224.31 0.0137 0.0017
 Moon -84032-02-10 01:40 J -28971224.68 -28971224.43 -28971224.18 0.0137 0.0022 *
 Moon -84031-02-14 01:54 J -28970855.65 -28970855.42 -28970855.18 0.0138 0.0026
 Earth -84031-02-14 05:16 J -28970855.52 -28970855.28 -28970855.04 0.0138 0.0028 *
 Venus -84031-06-06 06:28 J -28970743.34 -28970743.23 -28970743.09 0.0138 0.0109
 Venus -84030-01-18 12:13 J -28970517.18 -28970516.99 -28970516.79 0.0138 0.0046
 Earth -84030-02-18 12:13 J -28970486.22 -28970485.99 -28970485.74 0.0138 0.0039
 Moon -84030-02-18 15:20 J -28970486.09 -28970485.86 -28970485.61 0.0138 0.0039 *
 Venus -84030-09-01 17:59 J -28970290.96 -28970290.75 -28970290.54 0.0138 0.0017
 Moon -84029-02-22 17:16 J -28970116.99 -28970116.78 -28970116.54 0.0139 0.0054
 Earth -84029-02-22 20:23 J -28970116.87 -28970116.65 -28970116.41 0.0139 0.0050 *
 Venus -84029-04-14 23:44 J -28970064.67 -28970064.51 -28970064.33 0.0139 0.0081
 Mercury -84029-09-17 08:52 J -28969909.18 -28969909.13 -28969909.07 0.0139 0.0126
 Mercury -84029-12-14 12:28 J -28969821.05 -28969820.98 -28969820.89 0.0139 0.0109
 Earth -84028-02-26 05:30 J -28969747.49 -28969747.27 -28969747.04 0.0139 0.0061
 Moon -84028-02-26 08:52 J -28969747.35 -28969747.13 -28969746.89 0.0139 0.0054 *
 Mercury -84028-03-12 16:04 J -28969732.92 -28969732.83 -28969732.72 0.0139 0.0092
 Mercury -84028-06-08 19:54 J -28969644.78 -28969644.67 -28969644.55 0.0140 0.0075
 Mercury -84028-09-04 23:30 J -28969556.64 -28969556.52 -28969556.39 0.0140 0.0057
 Mercury -84028-12-02 03:20 J -28969468.49 -28969468.36 -28969468.23 0.0140 0.0039
 Mercury -84027-02-28 06:56 J -28969380.34 -28969380.21 -28969380.07 0.0140 0.0022
 Moon -84027-03-02 12:42 J -28969378.17 -28969377.97 -28969377.77 0.0140 0.0078
 Earth -84027-03-02 15:49 J -28969378.05 -28969377.84 -28969377.63 0.0140 0.0071 *
 Mercury -84027-05-27 10:47 J -28969292.19 -28969292.05 -28969291.91 0.0140 0.0005
 Mercury -84027-08-23 14:37 J -28969204.03 -28969203.89 -28969203.75 0.0140 0.0015
 Mercury -84027-11-19 18:28 J -28969115.86 -28969115.73 -28969115.59 0.0140 0.0034

Mercury -84026-02-15 22:18 J -28969027.70 -28969027.57 -28969027.44 0.0141 0.0052

Earth -84026-03-07 03:06 J -28969008.57 -28969008.37 -28969008.17 0.0141 0.0082

Moon -84026-03-07 06:13 J -28969008.43 -28969008.24 -28969008.02 0.0141 0.0076 *

Mercury -84026-05-15 02:08 J -28968939.52 -28968939.41 -28968939.28 0.0141 0.0071

Mercury -84026-08-11 05:59 J -28968851.35 -28968851.25 -28968851.13 0.0141 0.0090

Mercury -84026-11-07 10:04 J -28968763.16 -28968763.08 -28968762.99 0.0141 0.0109

Mercury -84025-02-03 13:54 J -28968674.96 -28968674.92 -28968674.85 0.0141 0.0129

Moon -84025-03-10 11:30 J -28968639.18 -28968639.02 -28968638.83 0.0141 0.0099

Earth -84025-03-10 15:06 J -28968639.05 -28968638.87 -28968638.68 0.0141 0.0092 *

Earth -84024-03-15 04:32 J -28968269.48 -28968269.31 -28968269.14 0.0142 0.0102

Moon -84024-03-15 07:25 J -28968269.34 -28968269.19 -28968269.00 0.0142 0.0102 *

Moon -84023-03-19 15:20 J -28967900.02 -28967899.86 -28967899.71 0.0142 0.0110

Earth -84023-03-19 18:56 J -28967899.86 -28967899.71 -28967899.56 0.0142 0.0112 *

Earth -84022-03-24 09:49 J -28967530.20 -28967530.09 -28967529.94 0.0143 0.0121

Moon -84022-03-24 13:25 J -28967530.04 -28967529.94 -28967529.82 0.0143 0.0126 *

Moon -84021-03-27 23:01 J -28967160.65 -28967160.54 -28967160.39 0.0144 0.0122

Earth -84021-03-28 02:23 J -28967160.48 -28967160.40 -28967160.27 0.0144 0.0130 *

Earth -84020-04-01 19:54 J -28966790.72 -28966790.67 -28966790.57 0.0144 0.0138

Moon -84019-04-06 12:13 J -28966421.05 -28966420.99 -28966420.92 0.0145 0.0139

Earth -84019-04-06 15:06 J -28966420.88 -28966420.87 -28966420.83 0.0145 0.0144

Mars -84009-12-17 14:23 J -28962513.19 -28962512.90 -28962512.57 0.0148 0.0063

Earth -84008-05-29 08:23 J -28962350.15 -28962350.15 -28962350.12 0.0148 0.0147

Earth -84007-06-03 14:52 J -28961979.94 -28961979.88 -28961979.78 0.0148 0.0141

Moon -84007-06-03 18:42 J -28961979.74 -28961979.72 -28961979.67 0.0148 0.0146

Mars -84007-11-26 13:54 J -28961804.20 -28961803.92 -28961803.60 0.0148 0.0072

Moon -84006-06-08 18:13 J -28961609.85 -28961609.74 -28961609.58 0.0147 0.0126

Earth -84006-06-08 21:49 J -28961609.68 -28961609.59 -28961609.45 0.0147 0.0133 *

Earth -84005-06-13 05:44 J -28961239.40 -28961239.26 -28961239.12 0.0147 0.0123

Moon -84005-06-13 08:37 J -28961239.23 -28961239.14 -28961239.00 0.0147 0.0131 *

Moon -84004-06-18 09:35 J -28960869.25 -28960869.10 -28960868.90 0.0147 0.0108

Earth	-84004-06-18 13:11 J	-28960869.09	-28960868.95	-28960868.77	0.0147	0.0113	*
Earth	-84003-06-23 20:52 J	-28960498.80	-28960498.63	-28960498.43	0.0147	0.0102	
Moon	-84003-06-23 23:16 J	-28960498.69	-28960498.53	-28960498.33	0.0147	0.0101	*
Moon	-84002-06-29 02:52 J	-28960128.57	-28960128.38	-28960128.17	0.0146	0.0096	
Earth	-84002-06-29 04:47 J	-28960128.49	-28960128.30	-28960128.08	0.0146	0.0091	*
Earth	-84001-07-03 12:42 J	-28959758.18	-28959757.97	-28959757.74	0.0146	0.0078	
Moon	-84001-07-03 14:08 J	-28959758.13	-28959757.91	-28959757.69	0.0146	0.0071	*

84TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 84th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-84000-07-08 20:23 J	-28959387.87	-28959387.65	-28959387.40	0.0145	0.0071		
Earth	-84000-07-08 20:23 J	-28959387.87	-28959387.65	-28959387.41	0.0145	0.0065	*	
Moon	-83999-07-14 03:20 J	-28959017.59	-28959017.36	-28959017.12	0.0145	0.0050		
Earth	-83999-07-14 03:49 J	-28959017.57	-28959017.34	-28959017.09	0.0145	0.0052	*	
Earth	-83998-07-19 10:47 J	-28958647.29	-28958647.05	-28958646.79	0.0144	0.0039		
Moon	-83998-07-19 12:56 J	-28958647.22	-28958646.96	-28958646.69	0.0144	0.0035	*	
Moon	-83997-07-23 15:06 J	-28958277.10	-28958276.87	-28958276.61	0.0144	0.0032		
Earth	-83997-07-23 17:30 J	-28958277.03	-28958276.77	-28958276.51	0.0144	0.0025	*	
Earth	-83996-07-28 23:16 J	-28957906.79	-28957906.53	-28957906.27	0.0143	0.0012		
Moon	-83996-07-29 02:37 J	-28957906.66	-28957906.39	-28957906.13	0.0143	0.0005	*	
Moon	-83995-08-03 00:42 J	-28957536.72	-28957536.47	-28957536.21	0.0143	0.0004		

Earth -83995-08-03 04:18 J -28957536.58 -28957536.32 -28957536.06 0.0143 0.0002 *
 Earth -83994-08-08 08:23 J -28957166.41 -28957166.15 -28957165.89 0.0142 0.0015
 Moon -83994-08-08 11:59 J -28957166.26 -28957166.00 -28957165.74 0.0142 0.0015 *
 Moon -83993-08-12 07:40 J -28956796.43 -28956796.18 -28956795.92 0.0142 0.0033
 Earth -83993-08-12 11:30 J -28956796.27 -28956796.02 -28956795.75 0.0142 0.0029 *
 Venus -83992-07-01 06:13 J -28956473.39 -28956473.24 -28956473.06 0.0141 0.0095
 Earth -83992-08-17 13:40 J -28956426.17 -28956425.93 -28956425.67 0.0141 0.0041
 Moon -83992-08-17 17:01 J -28956426.03 -28956425.79 -28956425.52 0.0141 0.0035 *
 Venus -83991-02-12 18:28 J -28956246.95 -28956246.73 -28956246.51 0.0141 0.0024
 Moon -83991-08-22 11:30 J -28956056.25 -28956056.02 -28956055.77 0.0140 0.0060
 Earth -83991-08-22 15:06 J -28956056.11 -28956055.87 -28956055.63 0.0140 0.0053 *
 Venus -83991-09-27 05:59 J -28956020.45 -28956020.25 -28956020.03 0.0140 0.0047
 Venus -83990-05-11 17:16 J -28955793.89 -28955793.78 -28955793.64 0.0140 0.0117
 Earth -83990-08-27 14:52 J -28955686.10 -28955685.88 -28955685.63 0.0140 0.0065
 Moon -83990-08-27 18:13 J -28955685.97 -28955685.74 -28955685.50 0.0140 0.0059 *
 Mercury -83990-11-14 22:47 J -28955606.55 -28955606.55 -28955606.51 0.0140 0.0139
 Mercury -83989-02-11 05:59 J -28955518.34 -28955518.25 -28955518.13 0.0139 0.0114
 Mercury -83989-05-09 12:56 J -28955430.08 -28955429.96 -28955429.81 0.0139 0.0091
 Mercury -83989-08-05 20:08 J -28955341.81 -28955341.66 -28955341.49 0.0139 0.0066
 Moon -83989-08-31 11:44 J -28955316.22 -28955316.01 -28955315.77 0.0139 0.0076
 Earth -83989-08-31 14:08 J -28955316.12 -28955315.91 -28955315.68 0.0139 0.0075 *
 Mercury -83989-11-02 03:06 J -28955253.54 -28955253.37 -28955253.19 0.0139 0.0043
 Mercury -83988-01-29 10:04 J -28955165.26 -28955165.08 -28955164.90 0.0139 0.0019
 Mercury -83988-04-27 16:47 J -28955076.98 -28955076.80 -28955076.62 0.0139 0.0004
 Mercury -83988-07-24 23:30 J -28954988.70 -28954988.52 -28954988.34 0.0138 0.0027
 Earth -83988-09-05 11:59 J -28954946.19 -28954946.00 -28954945.78 0.0138 0.0086
 Moon -83988-09-05 14:08 J -28954946.09 -28954945.91 -28954945.70 0.0138 0.0089 *
 Mercury -83988-10-21 06:13 J -28954900.41 -28954900.24 -28954900.07 0.0138 0.0049
 Mercury -83987-01-17 12:28 J -28954812.12 -28954811.98 -28954811.81 0.0138 0.0073
 Mercury -83987-04-15 19:11 J -28954723.82 -28954723.70 -28954723.56 0.0138 0.0094

Mercury -83987-07-13 01:40 J -28954635.52 -28954635.43 -28954635.33 0.0138 0.0116

Moon -83987-09-10 07:40 J -28954576.37 -28954576.18 -28954575.96 0.0138 0.0089

Earth -83987-09-10 09:06 J -28954576.30 -28954576.12 -28954575.92 0.0138 0.0095 *

Mercury -83987-10-09 08:08 J -28954547.16 -28954547.16 -28954547.14 0.0138 0.0137

Earth -83986-09-15 05:01 J -28954206.45 -28954206.29 -28954206.11 0.0137 0.0104

Moon -83986-09-15 05:44 J -28954206.39 -28954206.26 -28954206.10 0.0137 0.0111 *

Moon -83985-09-18 23:16 J -28953836.68 -28953836.53 -28953836.34 0.0137 0.0106

Earth -83985-09-18 23:59 J -28953836.64 -28953836.50 -28953836.34 0.0137 0.0112 *

Moon -83984-09-23 16:47 J -28953466.88 -28953466.80 -28953466.66 0.0136 0.0122

Earth -83984-09-23 17:30 J -28953466.88 -28953466.77 -28953466.63 0.0136 0.0119 *

Earth -83983-09-28 10:18 J -28953097.15 -28953097.07 -28953096.96 0.0135 0.0126

Moon -83983-09-28 10:32 J -28953097.14 -28953097.06 -28953096.95 0.0135 0.0126 *

Moon -83982-10-03 00:56 J -28952727.54 -28952727.46 -28952727.38 0.0135 0.0127

Earth -83982-10-03 01:40 J -28952727.46 -28952727.43 -28952727.35 0.0135 0.0132 *

Mars -83968-05-14 20:08 J -28947754.81 -28947754.66 -28947754.47 0.0131 0.0104

Mars -83966-04-12 22:47 J -28947056.81 -28947056.55 -28947056.27 0.0131 0.0033

Moon -83966-12-07 04:04 J -28946818.41 -28946818.33 -28946818.22 0.0131 0.0120

Earth -83966-12-07 06:56 J -28946818.25 -28946818.21 -28946818.13 0.0131 0.0127 *

Earth -83965-12-10 09:20 J -28946449.19 -28946449.11 -28946449.00 0.0131 0.0122

Moon -83965-12-10 11:59 J -28946449.03 -28946449.00 -28946448.91 0.0131 0.0128 *

Mars -83964-03-11 02:23 J -28946358.65 -28946358.40 -28946358.12 0.0131 0.0041

Moon -83964-12-14 08:37 J -28946080.25 -28946080.14 -28946079.99 0.0131 0.0112

Earth -83964-12-14 11:44 J -28946080.11 -28946080.01 -28946079.88 0.0131 0.0116 *

Earth -83963-12-18 14:08 J -28945711.05 -28945710.91 -28945710.77 0.0131 0.0109

Moon -83963-12-18 16:18 J -28945710.93 -28945710.82 -28945710.66 0.0131 0.0112 *

Mars -83962-02-07 08:23 J -28945660.27 -28945660.15 -28945659.98 0.0131 0.0112

Moon -83962-12-22 12:42 J -28945342.10 -28945341.97 -28945341.80 0.0132 0.0104

Earth -83962-12-22 16:04 J -28945341.98 -28945341.83 -28945341.67 0.0132 0.0102 *

Earth -83961-12-25 17:30 J -28944972.92 -28944972.77 -28944972.58 0.0132 0.0095

Moon -83961-12-25 20:37 J -28944972.81 -28944972.64 -28944972.45 0.0132 0.0091 *

Moon	-83960-12-29 16:47 J	-28944603.95	-28944603.80	-28944603.61	0.0132	0.0092
Earth	-83960-12-29 19:25 J	-28944603.86	-28944603.69	-28944603.48	0.0132	0.0087 *
Earth	-83958-01-02 21:35 J	-28944234.79	-28944234.60	-28944234.39	0.0132	0.0079
Moon	-83958-01-03 00:28 J	-28944234.68	-28944234.48	-28944234.25	0.0132	0.0072 *
Moon	-83957-01-06 21:20 J	-28943865.80	-28943865.61	-28943865.40	0.0133	0.0077
Earth	-83957-01-06 23:44 J	-28943865.71	-28943865.51	-28943865.29	0.0133	0.0070 *
Earth	-83956-01-10 01:54 J	-28943496.63	-28943496.42	-28943496.19	0.0133	0.0061
Moon	-83956-01-10 05:01 J	-28943496.52	-28943496.29	-28943496.06	0.0133	0.0055 *
Moon	-83955-01-14 01:54 J	-28943127.63	-28943127.42	-28943127.19	0.0133	0.0057
Earth	-83955-01-14 04:32 J	-28943127.52	-28943127.31	-28943127.07	0.0133	0.0052 *
Earth	-83954-01-18 07:25 J	-28942758.41	-28942758.19	-28942757.94	0.0134	0.0042
Moon	-83954-01-18 10:04 J	-28942758.31	-28942758.08	-28942757.83	0.0134	0.0040 *
Moon	-83953-01-22 07:54 J	-28942389.40	-28942389.17	-28942388.93	0.0134	0.0030
Earth	-83953-01-22 10:47 J	-28942389.29	-28942389.05	-28942388.81	0.0134	0.0032 *
Earth	-83952-01-25 14:08 J	-28942020.15	-28942019.91	-28942019.66	0.0135	0.0021
Moon	-83952-01-25 16:32 J	-28942020.05	-28942019.81	-28942019.55	0.0135	0.0025 *
Moon	-83951-01-29 15:35 J	-28941651.09	-28941650.85	-28941650.61	0.0135	0.0005
Earth	-83951-01-29 18:13 J	-28941650.99	-28941650.74	-28941650.50	0.0135	0.0011 *
Earth	-83950-02-02 22:32 J	-28941281.81	-28941281.56	-28941281.32	0.0136	0.0001
Moon	-83950-02-03 01:11 J	-28941281.70	-28941281.45	-28941281.19	0.0136	0.0007 *
Moon	-83949-02-07 01:11 J	-28940912.69	-28940912.45	-28940912.21	0.0136	0.0018
Earth	-83949-02-07 03:35 J	-28940912.60	-28940912.35	-28940912.10	0.0136	0.0011 *
Earth	-83948-02-10 09:06 J	-28940543.37	-28940543.12	-28940542.88	0.0137	0.0022
Moon	-83948-02-10 11:59 J	-28940543.25	-28940543.00	-28940542.75	0.0137	0.0017 *
Moon	-83947-02-14 12:42 J	-28940174.19	-28940173.97	-28940173.72	0.0138	0.0038
Earth	-83947-02-14 15:35 J	-28940174.09	-28940173.85	-28940173.61	0.0138	0.0033 *
Venus	-83947-09-17 21:49 J	-28939958.76	-28939958.59	-28939958.41	0.0138	0.0077
Earth	-83946-02-18 22:32 J	-28939804.78	-28939804.56	-28939804.32	0.0138	0.0044
Moon	-83946-02-19 01:25 J	-28939804.67	-28939804.44	-28939804.19	0.0138	0.0045 *
Venus	-83946-05-02 03:35 J	-28939732.56	-28939732.35	-28939732.14	0.0138	0.0014

Venus -83946-12-14 09:20 J -28939506.30 -28939506.11 -28939505.91 0.0139 0.0050
 Moon -83945-02-23 03:49 J -28939435.56 -28939435.34 -28939435.11 0.0139 0.0052
 Earth -83945-02-23 06:42 J -28939435.44 -28939435.22 -28939434.99 0.0139 0.0055 *
 Venus -83945-07-27 15:20 J -28939279.97 -28939279.86 -28939279.73 0.0139 0.0114
 Mercury -83945-10-07 16:04 J -28939207.89 -28939207.83 -28939207.76 0.0139 0.0123
 Mercury -83944-01-03 19:40 J -28939119.76 -28939119.68 -28939119.59 0.0139 0.0106
 Earth -83944-02-26 15:35 J -28939066.05 -28939065.85 -28939065.62 0.0139 0.0066
 Moon -83944-02-26 18:28 J -28939065.93 -28939065.73 -28939065.51 0.0139 0.0072 *
 Mercury -83944-04-01 23:16 J -28939031.63 -28939031.53 -28939031.42 0.0139 0.0089
 Mercury -83944-06-29 02:52 J -28938943.49 -28938943.38 -28938943.25 0.0140 0.0072
 Mercury -83944-09-25 06:42 J -28938855.34 -28938855.22 -28938855.09 0.0140 0.0053
 Mercury -83944-12-22 10:32 J -28938767.20 -28938767.06 -28938766.93 0.0140 0.0036
 Moon -83943-03-02 22:32 J -28938696.76 -28938696.56 -28938696.34 0.0140 0.0070
 Earth -83943-03-03 01:54 J -28938696.62 -28938696.42 -28938696.21 0.0140 0.0077 *
 Mercury -83943-03-20 14:08 J -28938679.04 -28938678.91 -28938678.77 0.0140 0.0018
 Mercury -83943-06-16 17:59 J -28938590.89 -28938590.75 -28938590.61 0.0140 0.0001
 Mercury -83943-09-12 21:49 J -28938502.73 -28938502.59 -28938502.45 0.0140 0.0019
 Mercury -83943-12-10 01:40 J -28938414.57 -28938414.43 -28938414.30 0.0140 0.0037
 Earth -83942-03-07 12:42 J -28938327.15 -28938326.97 -28938326.76 0.0141 0.0088
 Moon -83942-03-07 16:04 J -28938327.01 -28938326.83 -28938326.64 0.0141 0.0095 *
 Mercury -83942-03-08 05:30 J -28938326.40 -28938326.27 -28938326.14 0.0141 0.0056
 Mercury -83942-06-04 09:20 J -28938238.23 -28938238.11 -28938237.99 0.0141 0.0074
 Mercury -83942-08-31 13:25 J -28938150.05 -28938149.94 -28938149.84 0.0141 0.0093
 Mercury -83942-11-27 17:16 J -28938061.86 -28938061.78 -28938061.69 0.0141 0.0112
 Mercury -83941-02-23 21:20 J -28937973.66 -28937973.61 -28937973.56 0.0141 0.0132
 Moon -83941-03-10 21:49 J -28937957.76 -28937957.59 -28937957.40 0.0141 0.0093
 Earth -83941-03-11 00:56 J -28937957.62 -28937957.46 -28937957.27 0.0141 0.0098 *
 Earth -83940-03-15 13:54 J -28937588.06 -28937587.92 -28937587.74 0.0142 0.0108
 Moon -83940-03-15 17:30 J -28937587.91 -28937587.77 -28937587.60 0.0142 0.0110 *
 Moon -83939-03-20 01:11 J -28937218.58 -28937218.45 -28937218.31 0.0142 0.0119

Earth	-83939-03-20 04:18 J	-28937218.45	-28937218.32	-28937218.17	0.0142	0.0118	*
Earth	-83938-03-24 19:40 J	-28936848.79	-28936848.68	-28936848.56	0.0143	0.0126	
Moon	-83938-03-24 23:16 J	-28936848.65	-28936848.53	-28936848.39	0.0143	0.0120	*
Moon	-83937-03-28 08:08 J	-28936479.17	-28936479.16	-28936479.09	0.0144	0.0142	
Earth	-83937-03-28 11:44 J	-28936479.07	-28936479.01	-28936478.90	0.0144	0.0135	
Earth	-83936-04-02 05:44 J	-28936109.30	-28936109.26	-28936109.21	0.0144	0.0142	
Moon	-83936-04-02 09:06 J	-28936109.20	-28936109.12	-28936109.03	0.0144	0.0135	
Mars	-83926-09-05 13:25 J	-28932301.01	-28932300.94	-28932300.82	0.0148	0.0142	
Moon	-83924-05-29 14:23 J	-28931668.91	-28931668.90	-28931668.87	0.0148	0.0147	
Earth	-83924-05-29 17:16 J	-28931668.78	-28931668.78	-28931668.75	0.0148	0.0148	
Mars	-83924-08-14 15:06 J	-28931592.21	-28931591.87	-28931591.53	0.0148	0.0009	
Earth	-83923-06-03 23:44 J	-28931298.57	-28931298.51	-28931298.42	0.0148	0.0140	
Moon	-83923-06-04 02:37 J	-28931298.46	-28931298.39	-28931298.27	0.0148	0.0137	*
Moon	-83922-06-09 03:20 J	-28930928.43	-28930928.36	-28930928.26	0.0148	0.0139	
Earth	-83922-06-09 07:11 J	-28930928.31	-28930928.20	-28930928.08	0.0148	0.0131	*
Mars	-83922-07-24 12:28 J	-28930883.15	-28930882.98	-28930882.77	0.0147	0.0122	
Earth	-83921-06-13 14:23 J	-28930558.03	-28930557.90	-28930557.74	0.0147	0.0122	
Moon	-83921-06-13 18:13 J	-28930557.89	-28930557.74	-28930557.57	0.0147	0.0114	*
Moon	-83920-06-18 18:42 J	-28930187.86	-28930187.72	-28930187.54	0.0147	0.0115	
Earth	-83920-06-18 22:04 J	-28930187.73	-28930187.58	-28930187.39	0.0147	0.0111	*
Earth	-83919-06-24 05:59 J	-28929817.42	-28929817.25	-28929817.05	0.0147	0.0100	
Moon	-83919-06-24 09:20 J	-28929817.28	-28929817.11	-28929816.92	0.0147	0.0100	*
Moon	-83918-06-29 11:44 J	-28929447.22	-28929447.01	-28929446.79	0.0146	0.0083	
Earth	-83918-06-29 14:08 J	-28929447.11	-28929446.91	-28929446.69	0.0146	0.0087	*
Earth	-83917-07-03 22:18 J	-28929076.79	-28929076.57	-28929076.34	0.0146	0.0074	
Moon	-83917-07-03 23:30 J	-28929076.71	-28929076.52	-28929076.29	0.0146	0.0083	*
Moon	-83916-07-09 05:01 J	-28928706.53	-28928706.29	-28928706.03	0.0146	0.0055	
Earth	-83916-07-09 05:59 J	-28928706.47	-28928706.25	-28928706.00	0.0146	0.0062	*
Moon	-83915-07-14 12:56 J	-28928336.18	-28928335.96	-28928335.71	0.0145	0.0051	
Earth	-83915-07-14 13:25 J	-28928336.17	-28928335.94	-28928335.68	0.0145	0.0048	*

Earth	-83914-07-19 20:52 J	-28927965.88	-28927965.63	-28927965.38	0.0145	0.0034
Moon	-83914-07-19 21:35 J	-28927965.86	-28927965.60	-28927965.34	0.0145	0.0036 *
Moon	-83913-07-24 01:25 J	-28927595.69	-28927595.44	-28927595.19	0.0144	0.0014
Earth	-83913-07-24 03:35 J	-28927595.61	-28927595.35	-28927595.09	0.0144	0.0020 *
Earth	-83912-07-29 09:20 J	-28927225.38	-28927225.11	-28927224.85	0.0143	0.0006
Moon	-83912-07-29 11:44 J	-28927225.28	-28927225.01	-28927224.74	0.0143	0.0014 *
Moon	-83911-08-03 11:16 J	-28926855.28	-28926855.03	-28926854.77	0.0143	0.0013
Earth	-83911-08-03 14:23 J	-28926855.16	-28926854.90	-28926854.64	0.0143	0.0008 *
Earth	-83910-08-08 18:28 J	-28926484.98	-28926484.73	-28926484.46	0.0142	0.0022
Moon	-83910-08-08 22:18 J	-28926484.83	-28926484.57	-28926484.30	0.0142	0.0020 *
Moon	-83909-08-12 18:13 J	-28926114.98	-28926114.74	-28926114.47	0.0142	0.0032
Earth	-83909-08-12 21:49 J	-28926114.83	-28926114.59	-28926114.33	0.0142	0.0035 *
Venus	-83908-02-28 12:28 J	-28925915.06	-28925914.98	-28925914.89	0.0141	0.0130
Earth	-83908-08-17 23:59 J	-28925744.73	-28925744.50	-28925744.24	0.0141	0.0047
Moon	-83908-08-18 04:04 J	-28925744.57	-28925744.33	-28925744.09	0.0141	0.0054 *
Venus	-83908-10-13 00:42 J	-28925688.67	-28925688.47	-28925688.26	0.0141	0.0058
Venus	-83907-05-27 12:56 J	-28925462.19	-28925461.96	-28925461.74	0.0141	0.0014
Moon	-83907-08-22 21:35 J	-28925374.83	-28925374.60	-28925374.34	0.0140	0.0052
Earth	-83907-08-23 01:11 J	-28925374.67	-28925374.45	-28925374.19	0.0140	0.0060 *
Venus	-83906-01-09 00:13 J	-28925235.66	-28925235.49	-28925235.30	0.0140	0.0084
Earth	-83906-08-28 01:54 J	-28925004.65	-28925004.42	-28925004.19	0.0140	0.0070
Moon	-83906-08-28 04:47 J	-28925004.51	-28925004.30	-28925004.07	0.0140	0.0075 *
Mercury	-83906-12-05 06:13 J	-28924905.28	-28924905.24	-28924905.16	0.0140	0.0133
Mercury	-83905-03-02 13:25 J	-28924817.04	-28924816.94	-28924816.81	0.0139	0.0109
Mercury	-83905-05-29 20:37 J	-28924728.78	-28924728.64	-28924728.49	0.0139	0.0084
Mercury	-83905-08-26 03:35 J	-28924640.51	-28924640.35	-28924640.18	0.0139	0.0061
Moon	-83905-08-31 21:35 J	-28924634.80	-28924634.60	-28924634.36	0.0139	0.0079
Earth	-83905-09-01 00:56 J	-28924634.66	-28924634.46	-28924634.23	0.0139	0.0081 *
Mercury	-83905-11-22 10:32 J	-28924552.23	-28924552.06	-28924551.88	0.0139	0.0037
Mercury	-83904-02-18 17:30 J	-28924463.95	-28924463.77	-28924463.59	0.0139	0.0013

Mercury -83904-05-18 00:13 J -28924375.67 -28924375.49 -28924375.30 0.0139 0.0011

Mercury -83904-08-14 07:11 J -28924287.38 -28924287.20 -28924287.03 0.0138 0.0033

Earth -83904-09-05 23:01 J -28924264.72 -28924264.54 -28924264.33 0.0138 0.0091

Moon -83904-09-06 01:25 J -28924264.63 -28924264.44 -28924264.24 0.0138 0.0089 *

Mercury -83904-11-10 13:40 J -28924199.09 -28924198.93 -28924198.76 0.0138 0.0055

Mercury -83903-02-06 20:08 J -28924110.80 -28924110.66 -28924110.50 0.0138 0.0078

Mercury -83903-05-06 02:37 J -28924022.50 -28924022.39 -28924022.25 0.0138 0.0100

Mercury -83903-08-02 09:06 J -28923934.19 -28923934.12 -28923934.02 0.0138 0.0122

Moon -83903-09-10 17:59 J -28923894.90 -28923894.75 -28923894.56 0.0138 0.0107

Earth -83903-09-10 20:08 J -28923894.82 -28923894.66 -28923894.46 0.0138 0.0101 *

Earth -83902-09-15 16:32 J -28923524.96 -28923524.81 -28923524.65 0.0137 0.0109

Moon -83902-09-15 17:59 J -28923524.90 -28923524.75 -28923524.57 0.0137 0.0103 *

Moon -83901-09-19 10:47 J -28923155.16 -28923155.05 -28923154.93 0.0137 0.0123

Earth -83901-09-19 11:16 J -28923155.14 -28923155.03 -28923154.88 0.0137 0.0118 *

Earth -83900-09-24 05:01 J -28922785.37 -28922785.29 -28922785.17 0.0136 0.0125

Moon -83900-09-24 05:59 J -28922785.35 -28922785.25 -28922785.13 0.0136 0.0121 *

Earth -83899-09-28 21:35 J -28922415.64 -28922415.60 -28922415.51 0.0136 0.0132

Moon -83899-09-28 22:04 J -28922415.64 -28922415.58 -28922415.49 0.0136 0.0130 *

Mars -83883-01-06 18:42 J -28916836.93 -28916836.72 -28916836.47 0.0131 0.0073

Moon -83883-12-03 18:13 J -28916505.80 -28916505.74 -28916505.65 0.0131 0.0125

Mars -83882-12-05 22:32 J -28916138.84 -28916138.56 -28916138.28 0.0131 0.0002

Earth -83882-12-07 18:42 J -28916136.77 -28916136.72 -28916136.65 0.0131 0.0126

Earth -83881-12-10 21:20 J -28915767.71 -28915767.61 -28915767.51 0.0131 0.0121

Moon -83881-12-10 23:44 J -28915767.62 -28915767.51 -28915767.37 0.0131 0.0114 *

Mars -83880-11-03 03:06 J -28915440.60 -28915440.37 -28915440.13 0.0131 0.0070

Moon -83880-12-14 21:06 J -28915398.71 -28915398.62 -28915398.51 0.0131 0.0119

Earth -83880-12-14 23:01 J -28915398.64 -28915398.54 -28915398.39 0.0131 0.0115 *

Earth -83879-12-19 01:11 J -28915029.57 -28915029.45 -28915029.29 0.0131 0.0108

Moon -83879-12-19 04:18 J -28915029.46 -28915029.32 -28915029.16 0.0131 0.0106 *

Moon -83878-12-23 00:56 J -28914660.60 -28914660.46 -28914660.28 0.0132 0.0101

Earth	-83878-12-23 03:35 J	-28914660.51	-28914660.35	-28914660.18	0.0132	0.0100	*
Earth	-83877-12-26 04:47 J	-28914291.45	-28914291.30	-28914291.10	0.0132	0.0093	
Moon	-83877-12-26 07:11 J	-28914291.35	-28914291.20	-28914291.00	0.0132	0.0096	*
Moon	-83876-12-30 04:32 J	-28913922.49	-28913922.31	-28913922.10	0.0132	0.0079	
Earth	-83876-12-30 07:11 J	-28913922.38	-28913922.20	-28913922.00	0.0132	0.0084	*
Earth	-83874-01-03 09:06 J	-28913553.31	-28913553.12	-28913552.90	0.0132	0.0076	
Moon	-83874-01-03 11:16 J	-28913553.22	-28913553.03	-28913552.82	0.0132	0.0082	*
Moon	-83873-01-07 08:37 J	-28913184.34	-28913184.14	-28913183.91	0.0133	0.0061	
Earth	-83873-01-07 11:16 J	-28913184.24	-28913184.03	-28913183.81	0.0133	0.0067	*
Earth	-83872-01-10 13:40 J	-28912815.15	-28912814.93	-28912814.70	0.0133	0.0057	
Moon	-83872-01-10 15:35 J	-28912815.06	-28912814.85	-28912814.61	0.0133	0.0064	*
Moon	-83871-01-14 14:08 J	-28912446.13	-28912445.91	-28912445.68	0.0133	0.0044	
Earth	-83871-01-14 16:18 J	-28912446.05	-28912445.82	-28912445.59	0.0133	0.0048	*
Earth	-83870-01-18 18:42 J	-28912076.95	-28912076.72	-28912076.47	0.0134	0.0038	
Moon	-83870-01-18 21:20 J	-28912076.85	-28912076.61	-28912076.36	0.0134	0.0039	*
Moon	-83869-01-22 19:54 J	-28911707.90	-28911707.67	-28911707.43	0.0134	0.0028	
Earth	-83869-01-22 21:49 J	-28911707.83	-28911707.59	-28911707.34	0.0134	0.0027	*
Earth	-83868-01-26 00:56 J	-28911338.70	-28911338.46	-28911338.21	0.0135	0.0017	
Moon	-83868-01-26 03:35 J	-28911338.60	-28911338.35	-28911338.10	0.0135	0.0012	*
Moon	-83867-01-30 02:52 J	-28910969.62	-28910969.38	-28910969.14	0.0135	0.0011	
Earth	-83867-01-30 05:01 J	-28910969.54	-28910969.29	-28910969.04	0.0135	0.0006	*
Earth	-83866-02-03 09:20 J	-28910600.36	-28910600.11	-28910599.87	0.0136	0.0005	
Moon	-83866-02-03 11:16 J	-28910600.28	-28910600.03	-28910599.77	0.0136	0.0012	*
Moon	-83865-02-07 11:44 J	-28910231.25	-28910231.01	-28910230.77	0.0136	0.0009	
Earth	-83865-02-07 14:08 J	-28910231.16	-28910230.91	-28910230.67	0.0136	0.0016	*
Earth	-83864-02-10 19:40 J	-28909861.92	-28909861.68	-28909861.44	0.0137	0.0027	
Moon	-83864-02-10 21:35 J	-28909861.84	-28909861.60	-28909861.35	0.0137	0.0033	*
Moon	-83863-02-14 23:30 J	-28909492.75	-28909492.52	-28909492.28	0.0137	0.0036	
Earth	-83863-02-15 01:54 J	-28909492.65	-28909492.42	-28909492.18	0.0137	0.0038	*
Venus	-83863-05-18 07:54 J	-28909400.30	-28909400.17	-28909400.03	0.0138	0.0107	

Venus -83863-12-30 13:11 J -28909174.14 -28909173.95 -28909173.74 0.0138 0.0045
 Earth -83862-02-19 09:06 J -28909123.35 -28909123.12 -28909122.89 0.0138 0.0049
 Moon -83862-02-19 11:16 J -28909123.25 -28909123.03 -28909122.78 0.0138 0.0050 *
 Venus -83862-08-13 19:11 J -28908947.91 -28908947.70 -28908947.49 0.0138 0.0019
 Moon -83861-02-23 14:37 J -28908754.09 -28908753.89 -28908753.66 0.0139 0.0064
 Earth -83861-02-23 17:01 J -28908754.00 -28908753.79 -28908753.56 0.0139 0.0061 *
 Venus -83861-03-27 00:42 J -28908721.63 -28908721.47 -28908721.29 0.0139 0.0083
 Mercury -83861-07-31 19:40 J -28908594.70 -28908594.68 -28908594.65 0.0139 0.0136
 Mercury -83861-10-27 23:16 J -28908506.59 -28908506.53 -28908506.46 0.0139 0.0119
 Mercury -83860-01-24 02:52 J -28908418.47 -28908418.38 -28908418.28 0.0139 0.0102
 Earth -83860-02-27 02:08 J -28908384.62 -28908384.41 -28908384.19 0.0139 0.0072
 Moon -83860-02-27 05:01 J -28908384.51 -28908384.29 -28908384.06 0.0139 0.0065 *
 Mercury -83860-04-22 06:28 J -28908330.33 -28908330.23 -28908330.12 0.0139 0.0085
 Mercury -83860-07-19 10:04 J -28908242.19 -28908242.08 -28908241.95 0.0139 0.0068
 Mercury -83860-10-15 13:54 J -28908154.05 -28908153.92 -28908153.79 0.0140 0.0050
 Mercury -83859-01-11 17:44 J -28908065.90 -28908065.76 -28908065.63 0.0140 0.0032
 Moon -83859-03-03 09:35 J -28908015.27 -28908015.10 -28908014.90 0.0140 0.0090
 Earth -83859-03-03 11:59 J -28908015.18 -28908015.00 -28908014.79 0.0140 0.0083 *
 Mercury -83859-04-09 21:20 J -28907977.75 -28907977.61 -28907977.47 0.0140 0.0014
 Mercury -83859-07-07 01:11 J -28907889.59 -28907889.45 -28907889.31 0.0140 0.0004
 Mercury -83859-10-03 05:01 J -28907801.43 -28907801.29 -28907801.16 0.0140 0.0022
 Mercury -83859-12-30 08:52 J -28907713.27 -28907713.13 -28907713.00 0.0140 0.0041
 Earth -83858-03-07 22:47 J -28907645.71 -28907645.55 -28907645.35 0.0141 0.0094
 Moon -83858-03-08 01:54 J -28907645.60 -28907645.42 -28907645.20 0.0141 0.0087 *
 Mercury -83858-03-28 12:28 J -28907625.10 -28907624.98 -28907624.85 0.0141 0.0060
 Mercury -83858-06-24 16:32 J -28907536.93 -28907536.81 -28907536.69 0.0141 0.0078
 Mercury -83858-09-20 20:23 J -28907448.75 -28907448.65 -28907448.55 0.0141 0.0097
 Mercury -83858-12-18 00:13 J -28907360.56 -28907360.49 -28907360.40 0.0141 0.0116
 Moon -83857-03-11 07:40 J -28907276.31 -28907276.18 -28907276.00 0.0141 0.0111
 Earth -83857-03-11 11:01 J -28907276.20 -28907276.04 -28907275.87 0.0141 0.0103 *

Mercury -83857-03-15 04:18 J -28907272.35 -28907272.32 -28907272.28 0.0141 0.0135

Earth -83856-03-16 00:13 J -28906906.64 -28906906.49 -28906906.35 0.0142 0.0113

Moon -83856-03-16 03:06 J -28906906.52 -28906906.37 -28906906.21 0.0142 0.0111 *

Moon -83855-03-20 10:18 J -28906537.17 -28906537.07 -28906536.92 0.0142 0.0122

Earth -83855-03-20 13:54 J -28906537.03 -28906536.92 -28906536.78 0.0142 0.0123 *

Earth -83854-03-25 05:01 J -28906167.38 -28906167.29 -28906167.18 0.0143 0.0131

Moon -83854-03-25 08:23 J -28906167.22 -28906167.15 -28906167.07 0.0143 0.0136 *

Moon -83853-03-28 17:44 J -28905797.84 -28905797.76 -28905797.65 0.0144 0.0132

Earth -83853-03-28 21:35 J -28905797.65 -28905797.60 -28905797.54 0.0144 0.0139 *

Mars -83841-05-02 14:52 J -28901380.15 -28901379.88 -28901379.61 0.0148 0.0089

Earth -83840-05-30 02:37 J -28900987.40 -28900987.39 -28900987.36 0.0148 0.0147

Mars -83839-04-11 15:35 J -28900671.17 -28900670.85 -28900670.52 0.0148 0.0042

Earth -83839-06-04 09:06 J -28900617.19 -28900617.12 -28900617.02 0.0148 0.0139

Moon -83839-06-04 12:42 J -28900617.03 -28900616.97 -28900616.91 0.0148 0.0143 *

Moon -83838-06-09 13:25 J -28900247.08 -28900246.94 -28900246.80 0.0148 0.0123

Earth -83838-06-09 16:18 J -28900246.93 -28900246.82 -28900246.69 0.0148 0.0130 *

Earth -83837-06-13 23:44 J -28899876.64 -28899876.51 -28899876.35 0.0147 0.0120

Moon -83837-06-14 03:35 J -28899876.47 -28899876.35 -28899876.22 0.0147 0.0127 *

Moon -83836-06-19 03:49 J -28899506.51 -28899506.34 -28899506.14 0.0147 0.0103

Earth -83836-06-19 07:54 J -28899506.34 -28899506.17 -28899505.99 0.0147 0.0109 *

Earth -83835-06-24 15:35 J -28899136.03 -28899135.85 -28899135.64 0.0147 0.0097

Moon -83835-06-24 18:56 J -28899135.89 -28899135.71 -28899135.51 0.0147 0.0097 *

Moon -83834-06-29 20:37 J -28898765.83 -28898765.64 -28898765.41 0.0146 0.0090

Earth -83834-06-29 23:44 J -28898765.70 -28898765.51 -28898765.28 0.0146 0.0085 *

Earth -83833-07-04 08:08 J -28898395.38 -28898395.16 -28898394.92 0.0146 0.0071

Moon -83833-07-04 10:32 J -28898395.28 -28898395.06 -28898394.82 0.0146 0.0064 *

Moon -83832-07-09 14:52 J -28898025.11 -28898024.88 -28898024.63 0.0146 0.0064

Earth -83832-07-09 16:04 J -28898025.06 -28898024.83 -28898024.58 0.0146 0.0057 *

Earth -83831-07-14 23:59 J -28897654.75 -28897654.50 -28897654.25 0.0145 0.0043

Moon -83831-07-15 00:42 J -28897654.70 -28897654.47 -28897654.22 0.0145 0.0040 *

Earth	-83830-07-20 06:56 J	-28897284.45	-28897284.21	-28897283.94	0.0145	0.0030
Moon	-83830-07-20 07:40 J	-28897284.44	-28897284.18	-28897283.90	0.0145	0.0027 *
Moon	-83829-07-24 12:42 J	-28896914.21	-28896913.97	-28896913.71	0.0144	0.0021
Earth	-83829-07-24 13:40 J	-28896914.18	-28896913.93	-28896913.66	0.0144	0.0015 *
Earth	-83828-07-29 19:54 J	-28896543.94	-28896543.67	-28896543.41	0.0144	0.0003
Moon	-83828-07-29 22:04 J	-28896543.85	-28896543.58	-28896543.31	0.0144	0.0006 *
Moon	-83827-08-03 22:04 J	-28896173.83	-28896173.58	-28896173.32	0.0143	0.0008
Earth	-83827-08-04 00:56 J	-28896173.72	-28896173.46	-28896173.20	0.0143	0.0014 *
Earth	-83826-08-09 05:01 J	-28895803.54	-28895803.29	-28895803.02	0.0142	0.0028
Moon	-83826-08-09 08:08 J	-28895803.41	-28895803.16	-28895802.89	0.0142	0.0029 *
Moon	-83825-08-13 05:01 J	-28895433.54	-28895433.29	-28895433.04	0.0142	0.0044
Earth	-83825-08-13 08:52 J	-28895433.38	-28895433.13	-28895432.88	0.0142	0.0040 *
Venus	-83824-06-12 07:25 J	-28895130.35	-28895130.19	-28895130.01	0.0141	0.0092
Earth	-83824-08-18 10:47 J	-28895063.28	-28895063.05	-28895062.80	0.0141	0.0053
Moon	-83824-08-18 14:37 J	-28895063.14	-28895062.89	-28895062.64	0.0141	0.0047 *
Venus	-83823-01-24 19:40 J	-28894903.90	-28894903.68	-28894903.46	0.0141	0.0020
Moon	-83823-08-23 08:37 J	-28894693.35	-28894693.14	-28894692.90	0.0140	0.0072
Earth	-83823-08-23 12:28 J	-28894693.21	-28894692.98	-28894692.74	0.0140	0.0065 *
Venus	-83823-09-08 07:11 J	-28894677.39	-28894677.20	-28894676.98	0.0140	0.0052
Venus	-83822-04-22 18:42 J	-28894450.81	-28894450.72	-28894450.59	0.0140	0.0121
Earth	-83822-08-28 12:42 J	-28894323.17	-28894322.97	-28894322.74	0.0140	0.0077
Moon	-83822-08-28 16:18 J	-28894323.02	-28894322.82	-28894322.58	0.0140	0.0071 *
Mercury	-83822-12-25 14:08 J	-28894203.98	-28894203.91	-28894203.83	0.0140	0.0126
Mercury	-83821-03-22 21:20 J	-28894115.73	-28894115.61	-28894115.48	0.0139	0.0102
Mercury	-83821-06-19 04:18 J	-28894027.46	-28894027.32	-28894027.16	0.0139	0.0078
Moon	-83821-09-01 08:52 J	-28893953.31	-28893953.13	-28893952.90	0.0139	0.0089
Earth	-83821-09-01 12:13 J	-28893953.18	-28893952.99	-28893952.77	0.0139	0.0087 *
Mercury	-83821-09-15 11:16 J	-28893939.19	-28893939.03	-28893938.85	0.0139	0.0054
Mercury	-83821-12-12 18:28 J	-28893850.91	-28893850.73	-28893850.56	0.0139	0.0030
Mercury	-83820-03-11 01:11 J	-28893762.63	-28893762.45	-28893762.27	0.0139	0.0007

Mercury -83820-06-07 07:54 J -28893674.34 -28893674.17 -28893673.98 0.0139 0.0017

Mercury -83820-09-03 14:37 J -28893586.06 -28893585.89 -28893585.71 0.0138 0.0040

Earth -83820-09-06 10:32 J -28893583.23 -28893583.06 -28893582.86 0.0138 0.0098

Moon -83820-09-06 13:25 J -28893583.10 -28893582.94 -28893582.74 0.0138 0.0101 *

Mercury -83820-11-30 21:20 J -28893497.77 -28893497.61 -28893497.44 0.0138 0.0062

Mercury -83819-02-27 03:49 J -28893409.47 -28893409.34 -28893409.19 0.0138 0.0085

Mercury -83819-05-26 10:32 J -28893321.17 -28893321.06 -28893320.94 0.0138 0.0106

Mercury -83819-08-22 17:01 J -28893232.85 -28893232.79 -28893232.72 0.0138 0.0128

Moon -83819-09-11 05:16 J -28893213.44 -28893213.28 -28893213.08 0.0138 0.0102

Earth -83819-09-11 07:54 J -28893213.32 -28893213.17 -28893212.99 0.0138 0.0107 *

Earth -83818-09-16 04:04 J -28892843.45 -28892843.33 -28892843.17 0.0137 0.0116

Moon -83818-09-16 05:44 J -28892843.35 -28892843.26 -28892843.13 0.0137 0.0124 *

Moon -83817-09-19 21:20 J -28892473.73 -28892473.61 -28892473.46 0.0137 0.0117

Earth -83817-09-19 23:01 J -28892473.62 -28892473.54 -28892473.40 0.0137 0.0124 *

Earth -83816-09-24 17:01 J -28892103.85 -28892103.79 -28892103.70 0.0136 0.0131

Moon -83816-09-24 17:59 J -28892103.79 -28892103.75 -28892103.69 0.0136 0.0133 *

Mars -83801-10-02 16:32 J -28886616.93 -28886616.81 -28886616.64 0.0131 0.0113

Mars -83799-08-31 19:25 J -28885918.94 -28885918.69 -28885918.41 0.0131 0.0043

Moon -83798-12-08 05:16 J -28885455.37 -28885455.28 -28885455.17 0.0131 0.0119

Earth -83798-12-08 07:11 J -28885455.24 -28885455.20 -28885455.11 0.0131 0.0127 *

Mars -83797-07-29 23:16 J -28885220.79 -28885220.53 -28885220.25 0.0131 0.0030

Earth -83797-12-11 10:04 J -28885086.18 -28885086.08 -28885085.98 0.0131 0.0120

Moon -83797-12-11 11:44 J -28885086.07 -28885086.01 -28885085.92 0.0131 0.0126 *

Moon -83796-12-15 09:49 J -28884717.21 -28884717.09 -28884716.94 0.0131 0.0109

Earth -83796-12-15 11:59 J -28884717.10 -28884717.00 -28884716.85 0.0131 0.0114 *

Mars -83795-06-28 03:20 J -28884522.52 -28884522.36 -28884522.16 0.0131 0.0101

Earth -83795-12-19 14:37 J -28884348.03 -28884347.89 -28884347.74 0.0131 0.0106

Moon -83795-12-19 16:18 J -28884347.95 -28884347.82 -28884347.66 0.0131 0.0109 *

Moon -83794-12-23 14:23 J -28883979.05 -28883978.90 -28883978.73 0.0132 0.0099

Earth -83794-12-23 16:04 J -28883978.97 -28883978.83 -28883978.64 0.0132 0.0099 *

Earth	-83793-12-26 18:28 J	-28883609.91	-28883609.73	-28883609.54	0.0132	0.0090
Moon	-83793-12-26 20:23 J	-28883609.83	-28883609.65	-28883609.44	0.0132	0.0087 *
Moon	-83792-12-30 18:56 J	-28883240.89	-28883240.71	-28883240.52	0.0132	0.0086
Earth	-83792-12-30 20:08 J	-28883240.83	-28883240.66	-28883240.44	0.0132	0.0082 *
Earth	-83790-01-03 22:47 J	-28882871.76	-28882871.55	-28882871.34	0.0132	0.0073
Moon	-83790-01-04 00:42 J	-28882871.68	-28882871.47	-28882871.24	0.0132	0.0066 *
Moon	-83789-01-07 23:01 J	-28882502.73	-28882502.54	-28882502.32	0.0133	0.0071
Earth	-83789-01-08 00:42 J	-28882502.68	-28882502.47	-28882502.24	0.0133	0.0064 *
Earth	-83788-01-11 02:52 J	-28882133.59	-28882133.38	-28882133.14	0.0133	0.0054
Moon	-83788-01-11 04:47 J	-28882133.53	-28882133.30	-28882133.05	0.0133	0.0048 *
Moon	-83787-01-15 03:35 J	-28881764.57	-28881764.35	-28881764.12	0.0133	0.0049
Earth	-83787-01-15 05:30 J	-28881764.50	-28881764.27	-28881764.03	0.0133	0.0044 *
Earth	-83786-01-19 07:54 J	-28881395.39	-28881395.17	-28881394.91	0.0134	0.0034
Moon	-83786-01-19 09:35 J	-28881395.34	-28881395.10	-28881394.84	0.0134	0.0031 *
Moon	-83785-01-23 09:06 J	-28881026.35	-28881026.12	-28881025.88	0.0134	0.0022
Earth	-83785-01-23 11:01 J	-28881026.28	-28881026.04	-28881025.79	0.0134	0.0023 *
Earth	-83784-01-26 14:23 J	-28880657.14	-28880656.90	-28880656.65	0.0135	0.0012
Moon	-83784-01-26 16:04 J	-28880657.09	-28880656.83	-28880656.58	0.0135	0.0015 *
Moon	-83783-01-30 16:32 J	-28880288.04	-28880287.81	-28880287.56	0.0135	0.0005
Earth	-83783-01-30 18:13 J	-28880287.98	-28880287.74	-28880287.49	0.0135	0.0003 *
Earth	-83782-02-03 22:32 J	-28879918.80	-28879918.56	-28879918.31	0.0136	0.0010
Moon	-83782-02-04 00:28 J	-28879918.73	-28879918.48	-28879918.22	0.0136	0.0004 *
Moon	-83781-02-08 02:08 J	-28879549.64	-28879549.41	-28879549.17	0.0136	0.0028
Earth	-83781-02-08 03:35 J	-28879549.59	-28879549.35	-28879549.10	0.0136	0.0021 *
Earth	-83780-02-11 09:06 J	-28879180.36	-28879180.12	-28879179.88	0.0137	0.0033
Moon	-83780-02-11 11:01 J	-28879180.28	-28879180.04	-28879179.78	0.0137	0.0028 *
Venus	-83779-01-15 19:40 J	-28878841.71	-28878841.68	-28878841.61	0.0137	0.0134
Moon	-83779-02-15 13:40 J	-28878811.14	-28878810.93	-28878810.69	0.0137	0.0049
Earth	-83779-02-15 15:20 J	-28878811.08	-28878810.86	-28878810.61	0.0137	0.0044 *
Venus	-83779-08-30 01:11 J	-28878615.62	-28878615.45	-28878615.26	0.0138	0.0071

Earth -83778-02-19 22:47 J -28878441.77 -28878441.55 -28878441.32 0.0138 0.0055
 Moon -83778-02-20 00:42 J -28878441.69 -28878441.47 -28878441.23 0.0138 0.0055 *
 Venus -83778-04-13 06:56 J -28878389.42 -28878389.21 -28878389.00 0.0138 0.0009
 Venus -83778-11-25 12:56 J -28878163.16 -28878162.96 -28878162.77 0.0138 0.0055
 Moon -83777-02-24 04:47 J -28878072.51 -28878072.30 -28878072.08 0.0139 0.0064
 Earth -83777-02-24 06:42 J -28878072.42 -28878072.22 -28878071.99 0.0139 0.0067 *
 Venus -83777-07-08 18:42 J -28877936.82 -28877936.72 -28877936.60 0.0139 0.0119
 Mercury -83777-08-21 03:35 J -28877893.39 -28877893.35 -28877893.30 0.0139 0.0130
 Mercury -83777-11-17 07:11 J -28877805.28 -28877805.20 -28877805.12 0.0139 0.0113
 Mercury -83776-02-13 10:32 J -28877717.15 -28877717.06 -28877716.95 0.0139 0.0097
 Earth -83776-02-27 16:04 J -28877703.03 -28877702.83 -28877702.62 0.0139 0.0078
 Moon -83776-02-27 17:59 J -28877702.95 -28877702.75 -28877702.54 0.0139 0.0082 *
 Mercury -83776-05-12 14:23 J -28877629.01 -28877628.90 -28877628.79 0.0139 0.0079
 Mercury -83776-08-08 17:59 J -28877540.87 -28877540.75 -28877540.62 0.0140 0.0061
 Mercury -83776-11-04 21:49 J -28877452.72 -28877452.59 -28877452.46 0.0140 0.0044
 Mercury -83775-02-01 01:25 J -28877364.57 -28877364.44 -28877364.30 0.0140 0.0026
 Moon -83775-03-03 23:16 J -28877333.71 -28877333.53 -28877333.32 0.0140 0.0082
 Earth -83775-03-04 01:40 J -28877333.60 -28877333.43 -28877333.22 0.0140 0.0089 *
 Mercury -83775-04-30 05:16 J -28877276.42 -28877276.28 -28877276.14 0.0140 0.0008
 Mercury -83775-07-27 08:52 J -28877188.26 -28877188.13 -28877187.99 0.0140 0.0011
 Mercury -83775-10-23 12:42 J -28877100.10 -28877099.97 -28877099.83 0.0140 0.0029
 Mercury -83774-01-19 16:32 J -28877011.94 -28877011.81 -28877011.68 0.0140 0.0047
 Earth -83774-03-08 12:56 J -28876964.13 -28876963.96 -28876963.79 0.0141 0.0099
 Moon -83774-03-08 14:52 J -28876964.02 -28876963.88 -28876963.70 0.0141 0.0107 *
 Mercury -83774-04-17 20:23 J -28876923.77 -28876923.65 -28876923.52 0.0141 0.0066
 Mercury -83774-07-15 00:13 J -28876835.60 -28876835.49 -28876835.37 0.0141 0.0084
 Mercury -83774-10-11 04:18 J -28876747.42 -28876747.32 -28876747.23 0.0141 0.0103
 Mercury -83773-01-07 08:08 J -28876659.22 -28876659.16 -28876659.09 0.0141 0.0122
 Moon -83773-03-11 22:04 J -28876594.74 -28876594.58 -28876594.41 0.0141 0.0104
 Earth -83773-03-12 00:28 J -28876594.62 -28876594.48 -28876594.31 0.0141 0.0110 *

Earth	-83772-03-16 13:25 J	-28876225.06	-28876224.94	-28876224.80	0.0142	0.0119
Moon	-83772-03-16 16:32 J	-28876224.93	-28876224.81	-28876224.67	0.0142	0.0121 *
Moon	-83771-03-21 00:42 J	-28875855.57	-28875855.47	-28875855.36	0.0142	0.0129
Earth	-83771-03-21 03:06 J	-28875855.45	-28875855.37	-28875855.24	0.0142	0.0129 *
Earth	-83770-03-25 17:59 J	-28875485.79	-28875485.75	-28875485.65	0.0143	0.0137
Moon	-83770-03-25 21:35 J	-28875485.68	-28875485.60	-28875485.48	0.0143	0.0131 *
Moon	-83768-04-03 07:25 J	-28874746.19	-28874746.19	-28874746.17	0.0144	0.0144
Mars	-83757-12-28 23:44 J	-28870458.84	-28870458.51	-28870458.18	0.0148	0.0035
Moon	-83756-05-30 12:42 J	-28870305.99	-28870305.97	-28870305.91	0.0148	0.0146
Earth	-83756-05-30 14:37 J	-28870305.90	-28870305.89	-28870305.84	0.0148	0.0147
Earth	-83755-06-04 21:20 J	-28869935.69	-28869935.61	-28869935.51	0.0148	0.0138
Moon	-83755-06-04 23:44 J	-28869935.60	-28869935.51	-28869935.40	0.0148	0.0135 *
Mars	-83755-12-07 23:01 J	-28869749.79	-28869749.54	-28869749.26	0.0148	0.0095
Moon	-83754-06-10 01:11 J	-28869565.53	-28869565.45	-28869565.33	0.0148	0.0136
Earth	-83754-06-10 04:18 J	-28869565.42	-28869565.32	-28869565.17	0.0148	0.0129 *
Earth	-83753-06-14 12:13 J	-28869195.14	-28869194.99	-28869194.83	0.0147	0.0118
Moon	-83753-06-14 15:49 J	-28869195.01	-28869194.84	-28869194.66	0.0147	0.0110 *
Moon	-83752-06-19 16:18 J	-28868824.97	-28868824.82	-28868824.64	0.0147	0.0112
Earth	-83752-06-19 19:54 J	-28868824.83	-28868824.67	-28868824.48	0.0147	0.0106 *
Earth	-83751-06-25 04:04 J	-28868454.52	-28868454.33	-28868454.12	0.0147	0.0094
Moon	-83751-06-25 07:54 J	-28868454.36	-28868454.17	-28868453.97	0.0147	0.0094 *
Moon	-83750-06-30 08:52 J	-28868084.33	-28868084.13	-28868083.89	0.0146	0.0078
Earth	-83750-06-30 12:42 J	-28868084.19	-28868083.97	-28868083.76	0.0146	0.0081 *
Earth	-83749-07-04 20:23 J	-28867713.86	-28867713.65	-28867713.40	0.0146	0.0067
Moon	-83749-07-04 23:01 J	-28867713.74	-28867713.54	-28867713.31	0.0146	0.0075 *
Moon	-83748-07-10 02:08 J	-28867343.65	-28867343.41	-28867343.15	0.0146	0.0046
Earth	-83748-07-10 04:47 J	-28867343.54	-28867343.30	-28867343.06	0.0146	0.0053 *
Earth	-83747-07-15 12:13 J	-28866973.24	-28866972.99	-28866972.74	0.0145	0.0038
Moon	-83747-07-15 12:56 J	-28866973.19	-28866972.96	-28866972.71	0.0145	0.0041 *
Moon	-83746-07-20 18:42 J	-28866602.98	-28866602.72	-28866602.45	0.0145	0.0026

Earth -83746-07-20 19:25 J -28866602.94 -28866602.69 -28866602.43 0.0145 0.0024 *
 Moon -83745-07-25 01:11 J -28866232.70 -28866232.45 -28866232.19 0.0144 0.0004
 Earth -83745-07-25 01:54 J -28866232.67 -28866232.42 -28866232.15 0.0144 0.0010 *
 Earth -83744-07-30 07:40 J -28865862.44 -28865862.18 -28865861.91 0.0144 0.0006
 Moon -83744-07-30 09:20 J -28865862.38 -28865862.11 -28865861.84 0.0144 0.0003 *
 Moon -83743-08-04 10:47 J -28865492.30 -28865492.05 -28865491.80 0.0143 0.0025
 Earth -83743-08-04 12:56 J -28865492.22 -28865491.96 -28865491.70 0.0143 0.0019 *
 Earth -83742-08-09 17:01 J -28865122.04 -28865121.79 -28865121.53 0.0142 0.0033
 Moon -83742-08-09 20:08 J -28865121.91 -28865121.66 -28865121.39 0.0142 0.0032 *
 Moon -83741-08-13 17:30 J -28864752.01 -28864751.77 -28864751.52 0.0142 0.0044
 Earth -83741-08-13 20:08 J -28864751.89 -28864751.66 -28864751.39 0.0142 0.0047 *
 Venus -83740-02-09 14:23 J -28864571.99 -28864571.90 -28864571.78 0.0141 0.0125
 Earth -83740-08-18 22:47 J -28864381.78 -28864381.55 -28864381.30 0.0141 0.0059
 Moon -83740-08-19 02:23 J -28864381.62 -28864381.40 -28864381.15 0.0141 0.0066 *
 Venus -83740-09-24 02:52 J -28864345.58 -28864345.38 -28864345.17 0.0141 0.0052
 Venus -83739-05-08 15:06 J -28864119.09 -28864118.87 -28864118.65 0.0141 0.0019
 Moon -83739-08-23 20:37 J -28864011.86 -28864011.64 -28864011.40 0.0140 0.0064
 Earth -83739-08-24 00:13 J -28864011.70 -28864011.49 -28864011.25 0.0140 0.0072 *
 Venus -83739-12-21 02:52 J -28863892.55 -28863892.38 -28863892.21 0.0140 0.0090
 Earth -83738-08-29 00:56 J -28863641.66 -28863641.46 -28863641.24 0.0140 0.0083
 Moon -83738-08-29 04:18 J -28863641.50 -28863641.32 -28863641.10 0.0140 0.0088 *
 Mercury -83737-01-14 22:04 J -28863502.67 -28863502.58 -28863502.48 0.0140 0.0119
 Mercury -83737-04-12 05:01 J -28863414.41 -28863414.29 -28863414.14 0.0139 0.0095
 Mercury -83737-07-09 12:13 J -28863326.14 -28863325.99 -28863325.82 0.0139 0.0070
 Moon -83737-09-01 20:37 J -28863271.82 -28863271.64 -28863271.42 0.0139 0.0091
 Earth -83737-09-02 00:42 J -28863271.66 -28863271.47 -28863271.27 0.0139 0.0094 *
 Mercury -83737-10-05 19:25 J -28863237.86 -28863237.69 -28863237.52 0.0139 0.0046
 Mercury -83736-01-02 02:23 J -28863149.58 -28863149.40 -28863149.22 0.0139 0.0023
 Mercury -83736-03-31 09:06 J -28863061.30 -28863061.12 -28863060.94 0.0139 0.0002
 Mercury -83736-06-27 15:49 J -28862973.01 -28862972.84 -28862972.66 0.0139 0.0024

Earth -83736-09-06 23:01 J -28862901.70 -28862901.54 -28862901.36 0.0138 0.0104
 Moon -83736-09-07 02:08 J -28862901.57 -28862901.41 -28862901.23 0.0138 0.0102 *
 Mercury -83736-09-23 22:32 J -28862884.72 -28862884.56 -28862884.38 0.0138 0.0047
 Mercury -83736-12-21 05:16 J -28862796.43 -28862796.28 -28862796.12 0.0138 0.0069
 Mercury -83735-03-19 11:59 J -28862708.13 -28862708.00 -28862707.86 0.0138 0.0091
 Mercury -83735-06-15 18:28 J -28862619.83 -28862619.73 -28862619.63 0.0138 0.0113
 Moon -83735-09-11 17:16 J -28862531.89 -28862531.78 -28862531.62 0.0138 0.0119
 Earth -83735-09-11 20:23 J -28862531.78 -28862531.65 -28862531.48 0.0138 0.0113 *
 Mercury -83735-09-12 00:56 J -28862531.49 -28862531.46 -28862531.42 0.0138 0.0135 *
 Earth -83734-09-16 16:47 J -28862161.91 -28862161.80 -28862161.67 0.0137 0.0122
 Moon -83734-09-16 19:11 J -28862161.81 -28862161.70 -28862161.54 0.0137 0.0116 *
 Moon -83733-09-20 10:04 J -28861792.11 -28861792.08 -28861792.03 0.0137 0.0135
 Earth -83733-09-20 11:59 J -28861792.08 -28861792.00 -28861791.91 0.0137 0.0129 *
 Earth -83732-09-25 05:44 J -28861422.26 -28861422.26 -28861422.24 0.0136 0.0136
 Moon -83732-09-25 07:25 J -28861422.23 -28861422.19 -28861422.11 0.0136 0.0133
 Mars -83716-05-27 16:47 J -28855699.00 -28855698.80 -28855698.56 0.0131 0.0082
 Moon -83715-12-04 18:42 J -28855142.78 -28855142.72 -28855142.62 0.0131 0.0125
 Mars -83714-04-25 20:52 J -28855000.91 -28855000.63 -28855000.35 0.0131 0.0011
 Earth -83714-12-08 20:08 J -28854773.72 -28854773.66 -28854773.58 0.0131 0.0125
 Earth -83713-12-11 22:18 J -28854404.65 -28854404.57 -28854404.44 0.0131 0.0120
 Moon -83713-12-12 00:28 J -28854404.60 -28854404.48 -28854404.33 0.0131 0.0113 *
 Mars -83712-03-23 23:44 J -28854302.75 -28854302.51 -28854302.25 0.0131 0.0059
 Moon -83712-12-15 23:44 J -28854035.60 -28854035.51 -28854035.39 0.0131 0.0118
 Earth -83712-12-16 01:25 J -28854035.57 -28854035.44 -28854035.31 0.0131 0.0112 *
 Earth -83711-12-20 03:06 J -28853666.51 -28853666.37 -28853666.20 0.0131 0.0105
 Moon -83711-12-20 04:47 J -28853666.44 -28853666.30 -28853666.12 0.0131 0.0103 *
 Mars -83710-02-20 04:04 J -28853604.37 -28853604.33 -28853604.29 0.0131 0.0130
 Moon -83710-12-24 04:04 J -28853297.49 -28853297.33 -28853297.16 0.0132 0.0097
 Earth -83710-12-24 05:01 J -28853297.44 -28853297.29 -28853297.10 0.0132 0.0097 *
 Earth -83709-12-27 07:11 J -28852928.37 -28852928.20 -28852928.00 0.0132 0.0088

Moon	-83709-12-27 08:37 J	-28852928.32	-28852928.14	-28852927.94	0.0132	0.0090	*
Moon	-83708-12-31 07:40 J	-28852559.37	-28852559.18	-28852558.96	0.0132	0.0074	
Earth	-83708-12-31 09:20 J	-28852559.30	-28852559.11	-28852558.90	0.0132	0.0079	*
Earth	-83706-01-04 11:30 J	-28852190.22	-28852190.02	-28852189.80	0.0132	0.0070	
Moon	-83706-01-04 12:42 J	-28852190.18	-28852189.97	-28852189.75	0.0132	0.0075	*
Moon	-83705-01-08 12:13 J	-28851821.21	-28851820.99	-28851820.76	0.0133	0.0054	
Earth	-83705-01-08 13:40 J	-28851821.15	-28851820.93	-28851820.70	0.0133	0.0060	*
Earth	-83704-01-11 15:35 J	-28851452.07	-28851451.85	-28851451.60	0.0133	0.0050	
Moon	-83704-01-11 17:16 J	-28851452.01	-28851451.78	-28851451.55	0.0133	0.0056	*
Moon	-83703-01-15 17:01 J	-28851083.01	-28851082.79	-28851082.54	0.0133	0.0036	
Earth	-83703-01-15 18:13 J	-28851082.97	-28851082.74	-28851082.50	0.0133	0.0040	*
Earth	-83702-01-19 20:52 J	-28850713.87	-28850713.63	-28850713.39	0.0134	0.0029	
Moon	-83702-01-19 22:18 J	-28850713.81	-28850713.57	-28850713.32	0.0134	0.0031	*
Moon	-83701-01-23 22:47 J	-28850344.78	-28850344.55	-28850344.31	0.0134	0.0018	
Earth	-83701-01-23 23:44 J	-28850344.75	-28850344.51	-28850344.26	0.0134	0.0018	*
Earth	-83700-01-27 03:06 J	-28849975.62	-28849975.37	-28849975.12	0.0135	0.0007	
Moon	-83700-01-27 04:18 J	-28849975.57	-28849975.32	-28849975.06	0.0135	0.0005	*
Moon	-83699-01-31 05:44 J	-28849606.50	-28849606.26	-28849606.02	0.0135	0.0001	
Earth	-83699-01-31 06:56 J	-28849606.46	-28849606.21	-28849605.96	0.0135	0.0004	*
Earth	-83698-02-04 11:16 J	-28849237.27	-28849237.03	-28849236.78	0.0136	0.0015	
Moon	-83698-02-04 12:13 J	-28849237.24	-28849236.99	-28849236.73	0.0136	0.0021	*
Moon	-83697-02-08 14:37 J	-28848868.12	-28848867.89	-28848867.65	0.0136	0.0020	
Earth	-83697-02-08 16:18 J	-28848868.06	-28848867.82	-28848867.58	0.0136	0.0027	*
Earth	-83696-02-11 21:49 J	-28848498.82	-28848498.59	-28848498.35	0.0137	0.0038	
Moon	-83696-02-11 23:01 J	-28848498.78	-28848498.54	-28848498.30	0.0137	0.0044	*
Moon	-83695-02-16 03:06 J	-28848129.59	-28848129.37	-28848129.14	0.0137	0.0046	
Earth	-83695-02-16 04:32 J	-28848129.54	-28848129.31	-28848129.08	0.0137	0.0050	*
Venus	-83695-04-29 12:42 J	-28848057.11	-28848056.97	-28848056.82	0.0137	0.0099	
Venus	-83695-12-11 18:13 J	-28847830.94	-28847830.74	-28847830.53	0.0138	0.0037	
Earth	-83694-02-20 11:30 J	-28847760.23	-28847760.02	-28847759.79	0.0138	0.0061	

Moon -83694-02-20 13:25 J -28847760.17 -28847759.94 -28847759.71 0.0138 0.0061 *
 Venus -83694-07-25 23:59 J -28847604.70 -28847604.50 -28847604.29 0.0138 0.0027
 Moon -83693-02-24 18:28 J -28847390.92 -28847390.73 -28847390.52 0.0139 0.0075
 Earth -83693-02-24 19:40 J -28847390.87 -28847390.68 -28847390.45 0.0139 0.0073 *
 Venus -83693-03-08 05:59 J -28847378.41 -28847378.25 -28847378.09 0.0139 0.0090
 Mercury -83693-09-10 11:01 J -28847192.09 -28847192.04 -28847191.97 0.0139 0.0125
 Mercury -83693-12-07 14:37 J -28847103.97 -28847103.89 -28847103.80 0.0139 0.0108
 Earth -83692-02-28 05:01 J -28847021.48 -28847021.29 -28847021.09 0.0139 0.0084
 Moon -83692-02-28 07:11 J -28847021.41 -28847021.20 -28847020.99 0.0139 0.0078 *
 Mercury -83692-03-05 18:28 J -28847015.83 -28847015.73 -28847015.63 0.0139 0.0091
 Mercury -83692-06-01 22:04 J -28846927.70 -28846927.58 -28846927.46 0.0139 0.0073
 Mercury -83692-08-29 01:40 J -28846839.55 -28846839.43 -28846839.30 0.0140 0.0056
 Mercury -83692-11-25 05:16 J -28846751.41 -28846751.28 -28846751.14 0.0140 0.0039
 Mercury -83691-02-21 09:06 J -28846663.26 -28846663.12 -28846662.98 0.0140 0.0020
 Moon -83691-03-04 12:56 J -28846652.10 -28846651.96 -28846651.78 0.0140 0.0102
 Earth -83691-03-04 15:06 J -28846652.05 -28846651.87 -28846651.69 0.0140 0.0094 *
 Mercury -83691-05-20 12:56 J -28846575.10 -28846574.96 -28846574.83 0.0140 0.0004
 Mercury -83691-08-16 16:32 J -28846486.94 -28846486.81 -28846486.67 0.0140 0.0016
 Mercury -83691-11-12 20:23 J -28846398.78 -28846398.65 -28846398.51 0.0140 0.0034
 Mercury -83690-02-09 00:13 J -28846310.62 -28846310.49 -28846310.36 0.0140 0.0053
 Earth -83690-03-09 01:11 J -28846282.59 -28846282.45 -28846282.26 0.0141 0.0106
 Moon -83690-03-09 03:35 J -28846282.51 -28846282.35 -28846282.15 0.0141 0.0099 *
 Mercury -83690-05-08 04:04 J -28846222.45 -28846222.33 -28846222.21 0.0141 0.0071
 Mercury -83690-08-04 07:54 J -28846134.27 -28846134.17 -28846134.06 0.0141 0.0090
 Mercury -83690-10-31 11:44 J -28846046.09 -28846046.01 -28846045.91 0.0141 0.0109
 Mercury -83689-01-27 15:49 J -28845957.89 -28845957.84 -28845957.78 0.0141 0.0128
 Moon -83689-03-12 11:16 J -28845913.15 -28845913.03 -28845912.91 0.0141 0.0121
 Earth -83689-03-12 13:11 J -28845913.07 -28845912.95 -28845912.79 0.0141 0.0116 *
 Earth -83688-03-17 02:08 J -28845543.51 -28845543.41 -28845543.28 0.0142 0.0125
 Moon -83688-03-17 04:32 J -28845543.43 -28845543.31 -28845543.17 0.0142 0.0122 *

Moon	-83687-03-21 13:11 J	-28845174.02	-28845173.95	-28845173.85	0.0142	0.0133
Earth	-83687-03-21 16:18 J	-28845173.89	-28845173.82	-28845173.73	0.0142	0.0134 *
Earth	-83686-03-26 06:56 J	-28844804.22	-28844804.21	-28844804.16	0.0143	0.0142
Moon	-83685-03-29 20:08 J	-28844434.66	-28844434.66	-28844434.61	0.0144	0.0143
Mars	-83674-09-17 07:54 J	-28840246.37	-28840246.17	-28840245.92	0.0148	0.0111
Moon	-83673-05-25 23:16 J	-28839994.53	-28839994.53	-28839994.53	0.0148	0.0148
Earth	-83672-05-31 04:04 J	-28839624.35	-28839624.33	-28839624.28	0.0148	0.0146
Mars	-83672-08-26 09:20 J	-28839537.45	-28839537.11	-28839536.77	0.0148	0.0019
Earth	-83671-06-05 10:47 J	-28839254.13	-28839254.05	-28839253.95	0.0148	0.0137
Moon	-83671-06-05 12:42 J	-28839254.02	-28839253.97	-28839253.87	0.0148	0.0141 *
Moon	-83670-06-10 15:20 J	-28838883.99	-28838883.86	-28838883.70	0.0148	0.0121
Earth	-83670-06-10 17:59 J	-28838883.87	-28838883.75	-28838883.61	0.0148	0.0127 *
Mars	-83670-08-05 08:52 J	-28838828.13	-28838828.13	-28838828.09	0.0148	0.0147
Earth	-83669-06-15 01:40 J	-28838513.58	-28838513.43	-28838513.26	0.0147	0.0116
Moon	-83669-06-15 05:01 J	-28838513.43	-28838513.29	-28838513.14	0.0147	0.0123 *
Moon	-83668-06-20 05:59 J	-28838143.43	-28838143.25	-28838143.05	0.0147	0.0098
Earth	-83668-06-20 10:04 J	-28838143.26	-28838143.08	-28838142.90	0.0147	0.0104 *
Earth	-83667-06-25 17:44 J	-28837772.95	-28837772.76	-28837772.54	0.0147	0.0091
Moon	-83667-06-25 21:35 J	-28837772.80	-28837772.60	-28837772.40	0.0147	0.0091 *
Moon	-83666-06-30 22:32 J	-28837402.76	-28837402.56	-28837402.33	0.0146	0.0083
Earth	-83666-07-01 02:23 J	-28837402.61	-28837402.40	-28837402.17	0.0146	0.0077 *
Earth	-83665-07-05 10:18 J	-28837032.29	-28837032.07	-28837031.82	0.0146	0.0064
Moon	-83665-07-05 13:40 J	-28837032.16	-28837031.93	-28837031.69	0.0146	0.0056 *
Moon	-83664-07-10 16:04 J	-28836662.07	-28836661.83	-28836661.57	0.0146	0.0055
Earth	-83664-07-10 18:13 J	-28836661.97	-28836661.74	-28836661.48	0.0146	0.0049 *
Earth	-83663-07-16 02:08 J	-28836291.66	-28836291.41	-28836291.15	0.0145	0.0034
Moon	-83663-07-16 04:04 J	-28836291.57	-28836291.33	-28836291.08	0.0145	0.0030 *
Moon	-83662-07-21 08:37 J	-28835921.40	-28835921.14	-28835920.87	0.0145	0.0017
Earth	-83662-07-21 09:20 J	-28835921.37	-28835921.11	-28835920.85	0.0145	0.0019 *
Earth	-83661-07-25 15:49 J	-28835551.10	-28835550.84	-28835550.58	0.0144	0.0004

Moon -83661-07-25 15:49 J -28835551.09 -28835550.84 -28835550.59 0.0144 0.0010 *
 Earth -83660-07-30 21:35 J -28835180.86 -28835180.60 -28835180.34 0.0144 0.0011
 Moon -83660-07-30 22:32 J -28835180.83 -28835180.56 -28835180.29 0.0144 0.0018 *
 Moon -83659-08-05 00:56 J -28834810.71 -28834810.46 -28834810.21 0.0143 0.0019
 Earth -83659-08-05 02:52 J -28834810.64 -28834810.38 -28834810.12 0.0143 0.0025 *
 Earth -83658-08-10 06:56 J -28834440.45 -28834440.21 -28834439.95 0.0142 0.0039
 Moon -83658-08-10 09:06 J -28834440.37 -28834440.12 -28834439.85 0.0142 0.0042 *
 Moon -83657-08-14 07:25 J -28834070.43 -28834070.19 -28834069.95 0.0142 0.0056
 Earth -83657-08-14 10:18 J -28834070.30 -28834070.07 -28834069.81 0.0142 0.0053 *
 Venus -83656-05-24 11:16 J -28833787.20 -28833787.03 -28833786.83 0.0141 0.0083
 Earth -83656-08-19 12:56 J -28833700.19 -28833699.96 -28833699.72 0.0141 0.0065
 Moon -83656-08-19 16:04 J -28833700.06 -28833699.83 -28833699.57 0.0141 0.0059 *
 Venus -83655-01-05 23:44 J -28833560.73 -28833560.51 -28833560.28 0.0141 0.0011
 Venus -83655-08-20 11:30 J -28833334.21 -28833334.02 -28833333.81 0.0140 0.0060
 Moon -83655-08-24 11:01 J -28833330.24 -28833330.04 -28833329.82 0.0140 0.0085
 Earth -83655-08-24 14:37 J -28833330.10 -28833329.89 -28833329.66 0.0140 0.0078 *
 Venus -83654-04-03 23:01 J -28833107.60 -28833107.54 -28833107.44 0.0140 0.0130
 Earth -83654-08-29 15:20 J -28832960.05 -28832959.86 -28832959.65 0.0140 0.0089
 Moon -83654-08-29 19:11 J -28832959.90 -28832959.70 -28832959.48 0.0140 0.0083 *
 Mercury -83654-11-07 23:30 J -28832889.56 -28832889.52 -28832889.47 0.0140 0.0134
 Mercury -83653-02-04 06:28 J -28832801.33 -28832801.23 -28832801.10 0.0139 0.0110
 Mercury -83653-05-02 13:40 J -28832713.07 -28832712.93 -28832712.78 0.0139 0.0085
 Mercury -83653-07-29 20:52 J -28832624.79 -28832624.63 -28832624.46 0.0139 0.0061
 Moon -83653-09-02 11:16 J -28832590.20 -28832590.03 -28832589.84 0.0139 0.0102
 Earth -83653-09-02 14:37 J -28832590.05 -28832589.89 -28832589.69 0.0139 0.0100 *
 Mercury -83653-10-26 03:49 J -28832536.51 -28832536.34 -28832536.16 0.0139 0.0038
 Mercury -83652-01-22 10:47 J -28832448.23 -28832448.05 -28832447.87 0.0139 0.0014
 Mercury -83652-04-20 17:44 J -28832359.95 -28832359.76 -28832359.58 0.0139 0.0010
 Mercury -83652-07-18 00:13 J -28832271.66 -28832271.49 -28832271.31 0.0139 0.0033
 Earth -83652-09-07 13:25 J -28832220.09 -28832219.94 -28832219.77 0.0138 0.0110

Moon -83652-09-07 17:01 J -28832219.93 -28832219.79 -28832219.64 0.0138 0.0113 *
 Mercury -83652-10-14 06:56 J -28832183.37 -28832183.21 -28832183.04 0.0138 0.0056
 Mercury -83651-01-10 13:54 J -28832095.07 -28832094.92 -28832094.77 0.0138 0.0078
 Mercury -83651-04-08 20:08 J -28832006.77 -28832006.66 -28832006.52 0.0138 0.0100
 Mercury -83651-07-06 02:37 J -28831918.46 -28831918.39 -28831918.29 0.0138 0.0122
 Moon -83651-09-12 07:40 J -28831850.32 -28831850.18 -28831850.03 0.0138 0.0114
 Earth -83651-09-12 11:01 J -28831850.16 -28831850.04 -28831849.90 0.0138 0.0119 *
 Earth -83650-09-17 06:56 J -28831480.29 -28831480.21 -28831480.10 0.0137 0.0128
 Moon -83650-09-17 09:20 J -28831480.13 -28831480.11 -28831480.04 0.0137 0.0136 *
 Moon -83649-09-20 23:16 J -28831110.61 -28831110.53 -28831110.43 0.0137 0.0128
 Earth -83649-09-21 02:23 J -28831110.43 -28831110.40 -28831110.36 0.0137 0.0135 *
 Mars -83633-02-21 16:04 J -28825478.95 -28825478.83 -28825478.71 0.0131 0.0119
 Mars -83631-01-19 19:40 J -28824780.92 -28824780.68 -28824780.41 0.0131 0.0050
 Moon -83630-12-09 08:37 J -28824092.23 -28824092.14 -28824092.03 0.0131 0.0119
 Earth -83630-12-09 09:35 J -28824092.15 -28824092.10 -28824092.00 0.0131 0.0126 *
 Mars -83630-12-18 23:01 J -28824082.81 -28824082.54 -28824082.26 0.0131 0.0020
 Earth -83629-12-12 12:13 J -28823723.08 -28823722.99 -28823722.86 0.0131 0.0118
 Moon -83629-12-12 12:56 J -28823723.02 -28823722.96 -28823722.85 0.0131 0.0124 *
 Mars -83628-11-16 01:54 J -28823384.60 -28823384.42 -28823384.20 0.0131 0.0090
 Moon -83628-12-16 13:25 J -28823354.07 -28823353.94 -28823353.78 0.0131 0.0107
 Earth -83628-12-16 14:52 J -28823354.00 -28823353.88 -28823353.74 0.0131 0.0111 *
 Earth -83627-12-20 17:01 J -28822984.93 -28822984.79 -28822984.62 0.0131 0.0103
 Moon -83627-12-20 17:59 J -28822984.89 -28822984.75 -28822984.59 0.0131 0.0106 *
 Moon -83626-12-24 17:59 J -28822615.90 -28822615.75 -28822615.56 0.0132 0.0095
 Earth -83626-12-24 18:56 J -28822615.87 -28822615.71 -28822615.52 0.0132 0.0095 *
 Earth -83625-12-27 20:52 J -28822246.80 -28822246.63 -28822246.42 0.0132 0.0086
 Moon -83625-12-27 22:04 J -28822246.76 -28822246.58 -28822246.36 0.0132 0.0083 *
 Moon -83624-12-31 22:47 J -28821877.73 -28821877.55 -28821877.35 0.0132 0.0080
 Earth -83624-12-31 23:16 J -28821877.72 -28821877.53 -28821877.31 0.0132 0.0076 *
 Earth -83622-01-05 01:25 J -28821508.65 -28821508.44 -28821508.22 0.0132 0.0067

Moon	-83622-01-05 02:23 J	-28821508.62	-28821508.40	-28821508.16	0.0132	0.0060	*
Moon	-83621-01-09 02:37 J	-28821139.59	-28821139.39	-28821139.17	0.0133	0.0064	
Earth	-83621-01-09 03:20 J	-28821139.58	-28821139.36	-28821139.13	0.0133	0.0057	*
Earth	-83620-01-12 05:30 J	-28820770.50	-28820770.27	-28820770.03	0.0133	0.0046	
Moon	-83620-01-12 06:13 J	-28820770.48	-28820770.24	-28820769.99	0.0133	0.0040	*
Moon	-83619-01-16 06:56 J	-28820401.43	-28820401.21	-28820400.98	0.0133	0.0040	
Earth	-83619-01-16 07:54 J	-28820401.41	-28820401.17	-28820400.93	0.0133	0.0035	*
Earth	-83618-01-20 10:32 J	-28820032.30	-28820032.06	-28820031.81	0.0134	0.0025	
Moon	-83618-01-20 10:47 J	-28820032.30	-28820032.05	-28820031.79	0.0134	0.0022	*
Moon	-83617-01-24 12:28 J	-28819663.21	-28819662.98	-28819662.74	0.0134	0.0013	
Earth	-83617-01-24 13:25 J	-28819663.19	-28819662.94	-28819662.69	0.0134	0.0014	*
Earth	-83616-01-27 16:47 J	-28819294.05	-28819293.80	-28819293.55	0.0135	0.0003	
Moon	-83616-01-27 17:30 J	-28819294.03	-28819293.77	-28819293.52	0.0135	0.0005	*
Moon	-83615-01-31 20:08 J	-28818924.89	-28818924.66	-28818924.42	0.0135	0.0014	
Earth	-83615-01-31 20:37 J	-28818924.88	-28818924.64	-28818924.39	0.0135	0.0009	*
Earth	-83614-02-05 00:56 J	-28818555.70	-28818555.46	-28818555.21	0.0136	0.0021	
Moon	-83614-02-05 01:54 J	-28818555.67	-28818555.42	-28818555.16	0.0136	0.0014	*
Moon	-83613-02-09 05:30 J	-28818186.49	-28818186.27	-28818186.03	0.0136	0.0039	
Earth	-83613-02-09 05:59 J	-28818186.48	-28818186.25	-28818186.00	0.0136	0.0032	*
Earth	-83612-02-12 11:44 J	-28817817.23	-28817817.01	-28817816.76	0.0137	0.0044	
Moon	-83612-02-12 12:42 J	-28817817.20	-28817816.97	-28817816.71	0.0137	0.0039	*
Venus	-83612-12-28 01:11 J	-28817498.53	-28817498.45	-28817498.36	0.0137	0.0125	
Moon	-83611-02-16 17:44 J	-28817447.97	-28817447.76	-28817447.54	0.0137	0.0060	
Earth	-83611-02-16 18:28 J	-28817447.95	-28817447.73	-28817447.50	0.0137	0.0055	*
Venus	-83611-08-11 06:28 J	-28817272.41	-28817272.23	-28817272.04	0.0138	0.0063	
Earth	-83610-02-21 01:40 J	-28817078.63	-28817078.43	-28817078.20	0.0138	0.0067	
Moon	-83610-02-21 02:37 J	-28817078.60	-28817078.39	-28817078.16	0.0138	0.0066	*
Venus	-83610-03-25 11:59 J	-28817046.21	-28817046.00	-28817045.78	0.0138	0.0002	
Venus	-83610-11-06 17:30 J	-28816819.94	-28816819.77	-28816819.57	0.0138	0.0064	
Moon	-83609-02-25 08:37 J	-28816709.33	-28816709.14	-28816708.93	0.0139	0.0076	

Earth -83609-02-25 09:49 J -28816709.28 -28816709.09 -28816708.87 0.0139 0.0079 *
 Venus -83609-06-19 23:44 J -28816593.59 -28816593.51 -28816593.42 0.0139 0.0127
 Mercury -83609-07-04 15:20 J -28816578.88 -28816578.86 -28816578.83 0.0139 0.0136
 Mercury -83609-09-30 18:56 J -28816490.77 -28816490.71 -28816490.64 0.0139 0.0119
 Mercury -83609-12-27 22:32 J -28816402.65 -28816402.56 -28816402.46 0.0139 0.0102
 Earth -83608-02-28 18:56 J -28816339.89 -28816339.71 -28816339.51 0.0139 0.0090
 Moon -83608-02-28 19:40 J -28816339.85 -28816339.68 -28816339.47 0.0139 0.0095 *
 Mercury -83608-03-26 02:08 J -28816314.51 -28816314.41 -28816314.30 0.0139 0.0085
 Mercury -83608-06-22 05:44 J -28816226.37 -28816226.26 -28816226.13 0.0139 0.0067
 Mercury -83608-09-18 09:35 J -28816138.23 -28816138.10 -28816137.97 0.0140 0.0050
 Mercury -83608-12-15 13:11 J -28816050.08 -28816049.95 -28816049.81 0.0140 0.0032
 Moon -83607-03-05 03:20 J -28815970.53 -28815970.36 -28815970.18 0.0140 0.0094
 Earth -83607-03-05 04:32 J -28815970.46 -28815970.31 -28815970.12 0.0140 0.0101 *
 Mercury -83607-03-13 17:01 J -28815961.93 -28815961.79 -28815961.66 0.0140 0.0014
 Mercury -83607-06-09 20:37 J -28815873.77 -28815873.64 -28815873.50 0.0140 0.0005
 Mercury -83607-09-06 00:28 J -28815785.62 -28815785.48 -28815785.34 0.0140 0.0022
 Mercury -83607-12-03 04:18 J -28815697.45 -28815697.32 -28815697.19 0.0140 0.0041
 Mercury -83606-03-01 07:54 J -28815609.29 -28815609.17 -28815609.03 0.0141 0.0060
 Earth -83606-03-09 15:49 J -28815600.99 -28815600.84 -28815600.69 0.0141 0.0111
 Moon -83606-03-09 16:47 J -28815600.91 -28815600.80 -28815600.64 0.0141 0.0119 *
 Mercury -83606-05-28 11:59 J -28815521.11 -28815521.00 -28815520.88 0.0141 0.0078
 Mercury -83606-08-24 15:49 J -28815432.94 -28815432.84 -28815432.74 0.0141 0.0097
 Mercury -83606-11-20 19:40 J -28815344.75 -28815344.68 -28815344.59 0.0141 0.0116
 Mercury -83605-02-16 23:30 J -28815256.55 -28815256.52 -28815256.47 0.0141 0.0135
 Moon -83605-03-13 01:25 J -28815231.55 -28815231.44 -28815231.28 0.0141 0.0117
 Earth -83605-03-13 03:20 J -28815231.47 -28815231.36 -28815231.22 0.0141 0.0121 *
 Earth -83604-03-17 16:04 J -28814861.90 -28814861.83 -28814861.71 0.0142 0.0131
 Moon -83604-03-17 18:28 J -28814861.79 -28814861.73 -28814861.62 0.0142 0.0133 *
 Moon -83603-03-22 04:18 J -28814492.35 -28814492.32 -28814492.26 0.0142 0.0140
 Earth -83603-03-22 06:13 J -28814492.27 -28814492.24 -28814492.17 0.0142 0.0140 *

Moon	-83602-03-27 00:13 J	-28814122.50	-28814122.49	-28814122.44	0.0143	0.0142
Mars	-83589-05-14 22:18 J	-28809324.87	-28809324.57	-28809324.24	0.0148	0.0056
Moon	-83588-05-31 18:13 J	-28808942.78	-28808942.74	-28808942.68	0.0148	0.0144
Earth	-83588-05-31 18:56 J	-28808942.73	-28808942.71	-28808942.65	0.0148	0.0146 *
Mars	-83587-04-24 00:28 J	-28808615.78	-28808615.48	-28808615.18	0.0148	0.0073
Earth	-83587-06-06 01:40 J	-28808572.51	-28808572.43	-28808572.32	0.0148	0.0136
Moon	-83587-06-06 03:20 J	-28808572.46	-28808572.36	-28808572.24	0.0148	0.0133 *
Moon	-83586-06-11 06:42 J	-28808202.31	-28808202.22	-28808202.10	0.0148	0.0132
Earth	-83586-06-11 09:20 J	-28808202.24	-28808202.11	-28808201.97	0.0148	0.0125 *
Earth	-83585-06-15 16:47 J	-28807831.95	-28807831.80	-28807831.62	0.0147	0.0114
Moon	-83585-06-15 19:54 J	-28807831.83	-28807831.67	-28807831.47	0.0147	0.0106 *
Moon	-83584-06-20 21:35 J	-28807461.76	-28807461.60	-28807461.41	0.0147	0.0106
Earth	-83584-06-21 01:11 J	-28807461.64	-28807461.45	-28807461.26	0.0147	0.0101 *
Earth	-83583-06-26 09:20 J	-28807091.32	-28807091.11	-28807090.90	0.0147	0.0087
Moon	-83583-06-26 12:56 J	-28807091.16	-28807090.96	-28807090.74	0.0147	0.0088 *
Moon	-83582-07-01 13:54 J	-28806721.14	-28806720.92	-28806720.69	0.0147	0.0070
Earth	-83582-07-01 17:16 J	-28806720.98	-28806720.78	-28806720.54	0.0147	0.0074 *
Earth	-83581-07-06 01:40 J	-28806350.67	-28806350.43	-28806350.19	0.0146	0.0058
Moon	-83581-07-06 04:47 J	-28806350.53	-28806350.30	-28806350.07	0.0146	0.0066 *
Moon	-83580-07-11 06:28 J	-28805980.49	-28805980.23	-28805979.98	0.0146	0.0036
Earth	-83580-07-11 09:20 J	-28805980.35	-28805980.11	-28805979.85	0.0146	0.0044 *
Earth	-83579-07-16 17:01 J	-28805610.04	-28805609.79	-28805609.53	0.0145	0.0028
Moon	-83579-07-16 18:56 J	-28805609.96	-28805609.71	-28805609.46	0.0145	0.0031 *
Moon	-83578-07-21 22:32 J	-28805239.83	-28805239.56	-28805239.29	0.0145	0.0014
Earth	-83578-07-22 00:13 J	-28805239.75	-28805239.49	-28805239.23	0.0145	0.0013 *
Earth	-83577-07-26 06:28 J	-28804869.49	-28804869.23	-28804868.97	0.0144	0.0003
Moon	-83577-07-26 06:56 J	-28804869.46	-28804869.21	-28804868.96	0.0144	0.0007 *
Earth	-83576-07-31 12:13 J	-28804499.25	-28804498.99	-28804498.73	0.0144	0.0017
Moon	-83576-07-31 12:42 J	-28804499.24	-28804498.97	-28804498.70	0.0144	0.0009 *
Moon	-83575-08-05 16:18 J	-28804129.06	-28804128.82	-28804128.57	0.0143	0.0037

Earth -83575-08-05 17:16 J -28804129.03 -28804128.78 -28804128.52 0.0143 0.0031 *
 Earth -83574-08-10 21:35 J -28803758.84 -28803758.60 -28803758.35 0.0142 0.0045
 Moon -83574-08-10 23:44 J -28803758.75 -28803758.51 -28803758.24 0.0142 0.0045 *
 Moon -83573-08-14 22:32 J -28803388.78 -28803388.56 -28803388.32 0.0142 0.0057
 Earth -83573-08-15 00:56 J -28803388.69 -28803388.46 -28803388.21 0.0142 0.0059 *
 Venus -83572-01-21 19:54 J -28803228.78 -28803228.67 -28803228.52 0.0141 0.0114
 Earth -83572-08-20 03:20 J -28803018.57 -28803018.36 -28803018.12 0.0141 0.0072
 Moon -83572-08-20 06:56 J -28803018.43 -28803018.21 -28803017.98 0.0141 0.0078 *
 Venus -83572-09-05 08:37 J -28803002.35 -28803002.14 -28803001.92 0.0141 0.0041
 Venus -83571-04-19 20:37 J -28802775.85 -28802775.64 -28802775.41 0.0141 0.0031
 Moon -83571-08-25 01:40 J -28802648.63 -28802648.43 -28802648.20 0.0140 0.0077
 Earth -83571-08-25 05:01 J -28802648.48 -28802648.29 -28802648.06 0.0140 0.0085 *
 Venus -83571-12-02 08:23 J -28802549.29 -28802549.15 -28802548.98 0.0140 0.0101
 Earth -83570-08-30 05:44 J -28802278.44 -28802278.26 -28802278.06 0.0140 0.0096
 Moon -83570-08-30 09:20 J -28802278.28 -28802278.11 -28802277.92 0.0140 0.0101 *
 Mercury -83570-11-28 07:54 J -28802188.24 -28802188.17 -28802188.07 0.0140 0.0125
 Mercury -83569-02-24 15:06 J -28802099.98 -28802099.87 -28802099.73 0.0139 0.0100
 Mercury -83569-05-22 22:18 J -28802011.72 -28802011.57 -28802011.41 0.0139 0.0076
 Mercury -83569-08-19 05:16 J -28801923.44 -28801923.28 -28801923.10 0.0139 0.0052
 Moon -83569-09-03 01:25 J -28801908.60 -28801908.44 -28801908.25 0.0139 0.0104
 Earth -83569-09-03 05:30 J -28801908.43 -28801908.27 -28801908.09 0.0139 0.0106 *
 Mercury -83569-11-15 12:28 J -28801835.16 -28801834.98 -28801834.80 0.0139 0.0028
 Mercury -83568-02-11 19:25 J -28801746.87 -28801746.69 -28801746.51 0.0139 0.0005
 Mercury -83568-05-11 02:08 J -28801658.59 -28801658.41 -28801658.23 0.0139 0.0019
 Mercury -83568-08-07 08:52 J -28801570.30 -28801570.13 -28801569.95 0.0139 0.0042
 Earth -83568-09-08 03:49 J -28801538.47 -28801538.34 -28801538.19 0.0138 0.0117
 Moon -83568-09-08 07:40 J -28801538.32 -28801538.18 -28801538.03 0.0138 0.0115 *
 Mercury -83568-11-03 15:35 J -28801482.00 -28801481.85 -28801481.69 0.0138 0.0064
 Mercury -83567-01-30 22:18 J -28801393.71 -28801393.57 -28801393.43 0.0138 0.0087
 Mercury -83567-04-29 04:32 J -28801305.40 -28801305.31 -28801305.18 0.0138 0.0109

Mercury -83567-07-26 11:01 J -28801217.07 -28801217.04 -28801216.97 0.0138 0.0131
 Moon -83567-09-12 21:35 J -28801168.65 -28801168.60 -28801168.50 0.0138 0.0132
 Earth -83567-09-13 01:11 J -28801168.54 -28801168.45 -28801168.32 0.0138 0.0126 *
 Earth -83566-09-17 21:06 J -28800798.65 -28800798.62 -28800798.54 0.0137 0.0134
 Moon -83566-09-18 00:28 J -28800798.55 -28800798.48 -28800798.36 0.0137 0.0128 *
 Mars -83549-10-15 18:56 J -28794560.89 -28794560.71 -28794560.48 0.0131 0.0089
 Mars -83547-09-13 22:04 J -28793862.85 -28793862.58 -28793862.29 0.0131 0.0019
 Moon -83547-12-05 20:52 J -28793779.68 -28793779.63 -28793779.53 0.0131 0.0125
 Earth -83546-12-09 23:16 J -28793410.59 -28793410.53 -28793410.44 0.0131 0.0124
 Moon -83546-12-09 23:01 J -28793410.54 -28793410.54 -28793410.52 0.0131 0.0131 *
 Mars -83545-08-11 23:59 J -28793164.76 -28793164.50 -28793164.24 0.0131 0.0051
 Earth -83545-12-13 01:40 J -28793041.52 -28793041.43 -28793041.30 0.0131 0.0118
 Moon -83545-12-13 03:06 J -28793041.51 -28793041.37 -28793041.23 0.0131 0.0111 *
 Earth -83544-12-17 04:18 J -28792672.45 -28792672.32 -28792672.17 0.0131 0.0109
 Moon -83544-12-17 03:49 J -28792672.43 -28792672.34 -28792672.20 0.0131 0.0116 *
 Mars -83543-07-11 03:20 J -28792466.47 -28792466.36 -28792466.24 0.0131 0.0120
 Earth -83543-12-21 06:13 J -28792303.38 -28792303.24 -28792303.06 0.0131 0.0101
 Moon -83543-12-21 06:42 J -28792303.37 -28792303.22 -28792303.03 0.0131 0.0099 *
 Moon -83542-12-25 08:08 J -28791934.33 -28791934.16 -28791933.98 0.0131 0.0093
 Earth -83542-12-25 08:23 J -28791934.31 -28791934.15 -28791933.95 0.0131 0.0093 *
 Moon -83541-12-28 10:32 J -28791565.24 -28791565.06 -28791564.85 0.0132 0.0085
 Earth -83541-12-28 10:47 J -28791565.24 -28791565.05 -28791564.85 0.0132 0.0083 *
 Moon -83539-01-01 11:59 J -28791196.20 -28791196.00 -28791195.79 0.0132 0.0069
 Earth -83539-01-01 12:13 J -28791196.18 -28791195.99 -28791195.76 0.0132 0.0074 *
 Moon -83538-01-05 14:23 J -28790827.11 -28790826.90 -28790826.67 0.0132 0.0069
 Earth -83538-01-05 14:23 J -28790827.11 -28790826.90 -28790826.67 0.0132 0.0063 *
 Moon -83537-01-09 15:49 J -28790458.05 -28790457.84 -28790457.60 0.0133 0.0047
 Earth -83537-01-09 16:04 J -28790458.05 -28790457.83 -28790457.59 0.0133 0.0053 *
 Earth -83536-01-12 18:13 J -28790088.97 -28790088.74 -28790088.50 0.0133 0.0042
 Moon -83536-01-12 18:28 J -28790088.96 -28790088.73 -28790088.48 0.0133 0.0049 *

Earth -83535-01-16 20:37 J -28789719.88 -28789719.64 -28789719.40 0.0133 0.0032
 Moon -83535-01-16 20:37 J -28789719.87 -28789719.64 -28789719.40 0.0133 0.0026 *
 Earth -83534-01-20 22:47 J -28789350.79 -28789350.55 -28789350.30 0.0134 0.0021
 Moon -83534-01-20 23:16 J -28789350.78 -28789350.53 -28789350.27 0.0134 0.0023 *
 Earth -83533-01-25 01:40 J -28788981.67 -28788981.43 -28788981.18 0.0134 0.0010
 Moon -83533-01-25 01:54 J -28788981.66 -28788981.42 -28788981.18 0.0134 0.0009 *
 Moon -83532-01-28 05:16 J -28788612.54 -28788612.28 -28788612.03 0.0135 0.0005
 Earth -83532-01-28 05:01 J -28788612.53 -28788612.29 -28788612.04 0.0135 0.0003 *
 Moon -83531-02-01 08:37 J -28788243.38 -28788243.14 -28788242.90 0.0135 0.0008
 Earth -83531-02-01 08:52 J -28788243.38 -28788243.13 -28788242.88 0.0135 0.0014 *
 Moon -83530-02-05 12:56 J -28787874.20 -28787873.96 -28787873.71 0.0136 0.0031
 Earth -83530-02-05 13:11 J -28787874.19 -28787873.95 -28787873.70 0.0136 0.0025 *
 Moon -83529-02-09 17:44 J -28787504.98 -28787504.76 -28787504.52 0.0136 0.0031
 Earth -83529-02-09 18:13 J -28787504.97 -28787504.74 -28787504.50 0.0136 0.0037 *
 Moon -83528-02-12 23:59 J -28787135.72 -28787135.50 -28787135.25 0.0137 0.0056
 Earth -83528-02-13 00:13 J -28787135.72 -28787135.49 -28787135.26 0.0137 0.0049 *
 Moon -83527-02-17 06:13 J -28786766.44 -28786766.24 -28786766.01 0.0137 0.0058
 Earth -83527-02-17 06:28 J -28786766.44 -28786766.23 -28786765.99 0.0137 0.0061 *
 Venus -83527-04-10 17:16 J -28786713.93 -28786713.78 -28786713.61 0.0137 0.0091
 Venus -83527-11-22 23:01 J -28786487.75 -28786487.54 -28786487.33 0.0138 0.0029
 Earth -83526-02-21 13:40 J -28786397.13 -28786396.93 -28786396.71 0.0138 0.0073
 Moon -83526-02-21 14:23 J -28786397.11 -28786396.90 -28786396.68 0.0138 0.0073 *
 Venus -83526-07-07 04:32 J -28786261.51 -28786261.31 -28786261.10 0.0138 0.0034
 Venus -83525-02-18 10:04 J -28786035.21 -28786035.08 -28786034.92 0.0139 0.0098
 Moon -83525-02-25 21:35 J -28786027.78 -28786027.60 -28786027.40 0.0139 0.0086
 Earth -83525-02-25 22:04 J -28786027.78 -28786027.58 -28786027.39 0.0139 0.0084 *
 Mercury -83525-07-24 22:47 J -28785877.58 -28785877.55 -28785877.50 0.0139 0.0131
 Mercury -83525-10-21 02:23 J -28785789.47 -28785789.40 -28785789.32 0.0139 0.0114
 Mercury -83524-01-17 05:59 J -28785701.34 -28785701.25 -28785701.15 0.0139 0.0097
 Earth -83524-03-01 06:42 J -28785658.39 -28785658.22 -28785658.03 0.0139 0.0095

Moon -83524-03-01 07:25 J -28785658.36 -28785658.19 -28785657.97 0.0139 0.0091 *
 Mercury -83524-04-15 09:35 J -28785613.21 -28785613.10 -28785612.98 0.0139 0.0080
 Mercury -83524-07-12 13:11 J -28785525.07 -28785524.95 -28785524.82 0.0139 0.0063
 Mercury -83524-10-08 17:01 J -28785436.92 -28785436.79 -28785436.66 0.0140 0.0045
 Mercury -83523-01-04 20:37 J -28785348.77 -28785348.64 -28785348.50 0.0140 0.0027
 Moon -83523-03-05 15:49 J -28785288.97 -28785288.84 -28785288.69 0.0140 0.0113
 Earth -83523-03-05 16:18 J -28785288.96 -28785288.82 -28785288.65 0.0140 0.0106 *
 Mercury -83523-04-03 00:28 J -28785260.62 -28785260.48 -28785260.35 0.0140 0.0010
 Mercury -83523-06-30 04:04 J -28785172.47 -28785172.33 -28785172.19 0.0140 0.0009
 Mercury -83523-09-26 07:54 J -28785084.31 -28785084.17 -28785084.03 0.0140 0.0027
 Mercury -83523-12-23 11:44 J -28784996.14 -28784996.01 -28784995.88 0.0140 0.0045
 Earth -83522-03-10 03:06 J -28784919.49 -28784919.37 -28784919.22 0.0141 0.0117
 Moon -83522-03-10 04:18 J -28784919.47 -28784919.32 -28784919.15 0.0141 0.0110 *
 Mercury -83522-03-21 15:35 J -28784907.97 -28784907.85 -28784907.73 0.0141 0.0064
 Mercury -83522-06-17 19:25 J -28784819.80 -28784819.69 -28784819.58 0.0141 0.0083
 Mercury -83522-09-13 23:01 J -28784731.62 -28784731.54 -28784731.43 0.0141 0.0102
 Mercury -83522-12-11 03:06 J -28784643.43 -28784643.37 -28784643.29 0.0141 0.0121
 Mercury -83521-03-08 06:56 J -28784555.21 -28784555.21 -28784555.18 0.0141 0.0140
 Moon -83521-03-13 13:11 J -28784550.00 -28784549.95 -28784549.84 0.0141 0.0134
 Earth -83521-03-13 15:06 J -28784549.97 -28784549.87 -28784549.76 0.0141 0.0126 *
 Earth -83520-03-18 03:35 J -28784180.40 -28784180.35 -28784180.26 0.0142 0.0136
 Moon -83520-03-18 05:01 J -28784180.36 -28784180.29 -28784180.18 0.0142 0.0132 *
 Mars -83506-02-01 04:47 J -28779112.44 -28779112.30 -28779112.12 0.0148 0.0130
 Moon -83505-05-27 01:11 J -28778631.45 -28778631.45 -28778631.44 0.0148 0.0148
 Mars -83504-01-10 07:40 J -28778403.52 -28778403.18 -28778402.84 0.0148 0.0002
 Earth -83504-06-01 07:40 J -28778261.22 -28778261.18 -28778261.12 0.0148 0.0145
 Earth -83503-06-06 14:37 J -28777890.98 -28777890.89 -28777890.78 0.0148 0.0135
 Moon -83503-06-06 15:35 J -28777890.92 -28777890.85 -28777890.73 0.0148 0.0138 *
 Mars -83503-12-20 09:35 J -28777694.25 -28777694.10 -28777693.89 0.0148 0.0126
 Moon -83502-06-11 20:08 J -28777520.79 -28777520.66 -28777520.49 0.0148 0.0118

Earth	-83502-06-11 22:04 J	-28777520.70	-28777520.58	-28777520.42	0.0148	0.0124	*
Earth	-83501-06-16 05:44 J	-28777150.40	-28777150.26	-28777150.07	0.0148	0.0112	
Moon	-83501-06-16 08:23 J	-28777150.29	-28777150.15	-28777149.98	0.0148	0.0119	*
Moon	-83500-06-21 10:47 J	-28776780.23	-28776780.05	-28776779.84	0.0147	0.0094	
Earth	-83500-06-21 14:23 J	-28776780.08	-28776779.90	-28776779.70	0.0147	0.0098	*
Earth	-83499-06-26 22:47 J	-28776409.76	-28776409.55	-28776409.33	0.0147	0.0084	
Moon	-83499-06-27 02:08 J	-28776409.61	-28776409.41	-28776409.19	0.0147	0.0085	*
Moon	-83498-07-02 03:20 J	-28776039.57	-28776039.36	-28776039.13	0.0147	0.0075	
Earth	-83498-07-02 06:56 J	-28776039.42	-28776039.21	-28776038.97	0.0147	0.0070	*
Earth	-83497-07-06 15:20 J	-28775669.10	-28775668.86	-28775668.62	0.0146	0.0055	
Moon	-83497-07-06 18:56 J	-28775668.95	-28775668.71	-28775668.46	0.0146	0.0047	*
Moon	-83496-07-11 20:08 J	-28775298.90	-28775298.66	-28775298.40	0.0146	0.0046	
Earth	-83496-07-11 23:16 J	-28775298.77	-28775298.53	-28775298.27	0.0146	0.0039	*
Earth	-83495-07-17 06:56 J	-28774928.47	-28774928.21	-28774927.95	0.0145	0.0023	
Moon	-83495-07-17 09:35 J	-28774928.35	-28774928.10	-28774927.84	0.0145	0.0020	*
Moon	-83494-07-22 12:13 J	-28774558.26	-28774557.99	-28774557.72	0.0145	0.0007	
Earth	-83494-07-22 14:08 J	-28774558.17	-28774557.91	-28774557.65	0.0145	0.0008	*
Earth	-83493-07-26 20:23 J	-28774187.91	-28774187.65	-28774187.39	0.0144	0.0008	
Moon	-83493-07-26 21:20 J	-28774187.86	-28774187.61	-28774187.35	0.0144	0.0002	*
Moon	-83492-08-01 01:40 J	-28773817.68	-28773817.43	-28773817.15	0.0144	0.0030	
Earth	-83492-08-01 02:08 J	-28773817.66	-28773817.41	-28773817.14	0.0144	0.0023	*
Moon	-83491-08-06 06:42 J	-28773447.47	-28773447.22	-28773446.98	0.0143	0.0032	
Earth	-83491-08-06 07:25 J	-28773447.43	-28773447.19	-28773446.93	0.0143	0.0037	*
Earth	-83490-08-11 11:44 J	-28773077.25	-28773077.01	-28773076.76	0.0142	0.0051	
Moon	-83490-08-11 13:11 J	-28773077.20	-28773076.95	-28773076.70	0.0142	0.0054	*
Moon	-83489-08-15 12:42 J	-28772707.17	-28772706.97	-28772706.73	0.0142	0.0069	
Earth	-83489-08-15 15:20 J	-28772707.08	-28772706.86	-28772706.62	0.0142	0.0065	*
Venus	-83488-05-05 17:16 J	-28772443.96	-28772443.78	-28772443.57	0.0141	0.0071	
Earth	-83488-08-20 17:59 J	-28772336.95	-28772336.75	-28772336.52	0.0141	0.0078	
Moon	-83488-08-20 20:37 J	-28772336.85	-28772336.64	-28772336.39	0.0141	0.0072	*

Venus -83488-12-18 05:59 J -28772217.48 -28772217.25 -28772217.03 0.0141 0.0002
 Venus -83487-08-01 17:59 J -28771990.94 -28771990.75 -28771990.56 0.0140 0.0072
 Moon -83487-08-25 16:47 J -28771966.98 -28771966.80 -28771966.61 0.0140 0.0098
 Earth -83487-08-25 19:54 J -28771966.86 -28771966.67 -28771966.46 0.0140 0.0091 *
 Earth -83486-08-30 20:37 J -28771596.81 -28771596.64 -28771596.45 0.0140 0.0102
 Moon -83486-08-31 00:13 J -28771596.67 -28771596.49 -28771596.28 0.0140 0.0096 *
 Mercury -83486-09-21 09:20 J -28771575.11 -28771575.11 -28771575.08 0.0140 0.0140
 Mercury -83486-12-18 16:47 J -28771486.90 -28771486.80 -28771486.69 0.0140 0.0115
 Mercury -83485-03-15 23:44 J -28771398.64 -28771398.51 -28771398.36 0.0139 0.0091
 Mercury -83485-06-12 06:56 J -28771310.36 -28771310.21 -28771310.04 0.0139 0.0067
 Moon -83485-09-03 16:47 J -28771226.94 -28771226.80 -28771226.65 0.0139 0.0116
 Earth -83485-09-03 19:54 J -28771226.80 -28771226.67 -28771226.50 0.0139 0.0113 *
 Mercury -83485-09-08 14:08 J -28771222.08 -28771221.91 -28771221.74 0.0139 0.0042
 Mercury -83485-12-05 21:06 J -28771133.80 -28771133.62 -28771133.44 0.0139 0.0019
 Mercury -83484-03-04 04:04 J -28771045.52 -28771045.33 -28771045.15 0.0139 0.0005
 Mercury -83484-05-31 10:47 J -28770957.23 -28770957.05 -28770956.87 0.0139 0.0028
 Mercury -83484-08-27 17:30 J -28770868.94 -28770868.77 -28770868.60 0.0139 0.0051
 Earth -83484-09-08 18:42 J -28770856.83 -28770856.72 -28770856.59 0.0139 0.0123
 Moon -83484-09-08 22:32 J -28770856.66 -28770856.56 -28770856.44 0.0139 0.0126 *
 Mercury -83484-11-23 23:59 J -28770780.64 -28770780.50 -28770780.34 0.0138 0.0074
 Mercury -83483-02-20 06:56 J -28770692.34 -28770692.21 -28770692.08 0.0138 0.0096
 Mercury -83483-05-19 13:11 J -28770604.03 -28770603.95 -28770603.85 0.0138 0.0118
 Moon -83483-09-13 12:13 J -28770487.07 -28770486.99 -28770486.87 0.0138 0.0127
 Earth -83483-09-13 15:49 J -28770486.89 -28770486.84 -28770486.74 0.0138 0.0132 *
 Mars -83466-07-12 17:59 J -28764340.83 -28764340.75 -28764340.66 0.0131 0.0125
 Mars -83464-06-09 21:35 J -28763642.84 -28763642.60 -28763642.34 0.0131 0.0057
 Earth -83463-12-06 10:18 J -28763098.07 -28763098.07 -28763098.05 0.0131 0.0131
 Mars -83462-05-08 23:30 J -28762944.80 -28762944.52 -28762944.24 0.0131 0.0012
 Moon -83462-12-10 12:56 J -28762729.05 -28762728.96 -28762728.84 0.0131 0.0117
 Earth -83462-12-10 12:56 J -28762729.02 -28762728.96 -28762728.86 0.0131 0.0124 *

Earth	-83461-12-13 15:49 J	-28762359.94	-28762359.84	-28762359.71	0.0131	0.0116
Moon	-83461-12-13 15:35 J	-28762359.93	-28762359.85	-28762359.75	0.0131	0.0122 *
Mars	-83460-04-06 01:11 J	-28762246.65	-28762246.45	-28762246.21	0.0131	0.0081
Moon	-83460-12-17 18:13 J	-28761990.88	-28761990.74	-28761990.59	0.0131	0.0103
Earth	-83460-12-17 17:59 J	-28761990.87	-28761990.75	-28761990.59	0.0131	0.0108 *
Moon	-83459-12-21 20:23 J	-28761621.80	-28761621.65	-28761621.48	0.0131	0.0102
Earth	-83459-12-21 20:23 J	-28761621.80	-28761621.65	-28761621.47	0.0131	0.0099 *
Earth	-83458-12-25 22:04 J	-28761252.74	-28761252.58	-28761252.37	0.0131	0.0091
Moon	-83458-12-25 22:32 J	-28761252.72	-28761252.56	-28761252.37	0.0131	0.0090 *
Moon	-83457-12-29 00:28 J	-28760883.68	-28760883.48	-28760883.26	0.0132	0.0078
Earth	-83457-12-29 00:13 J	-28760883.67	-28760883.49	-28760883.28	0.0132	0.0081 *
Earth	-83455-01-02 01:54 J	-28760514.62	-28760514.42	-28760514.19	0.0132	0.0071
Moon	-83455-01-02 02:23 J	-28760514.58	-28760514.40	-28760514.18	0.0132	0.0075 *
Moon	-83454-01-06 03:35 J	-28760145.58	-28760145.35	-28760145.11	0.0132	0.0055
Earth	-83454-01-06 03:35 J	-28760145.56	-28760145.35	-28760145.12	0.0132	0.0060 *
Earth	-83453-01-10 05:16 J	-28759776.50	-28759776.28	-28759776.04	0.0133	0.0050
Moon	-83453-01-10 05:44 J	-28759776.47	-28759776.26	-28759776.04	0.0133	0.0057 *
Moon	-83452-01-13 06:42 J	-28759407.46	-28759407.22	-28759406.96	0.0133	0.0033
Earth	-83452-01-13 07:25 J	-28759407.42	-28759407.19	-28759406.95	0.0133	0.0039 *
Earth	-83451-01-17 09:35 J	-28759038.34	-28759038.10	-28759037.85	0.0133	0.0028
Moon	-83451-01-17 09:49 J	-28759038.33	-28759038.09	-28759037.86	0.0133	0.0033 *
Moon	-83450-01-21 11:16 J	-28758669.28	-28758669.03	-28758668.77	0.0134	0.0013
Earth	-83450-01-21 11:59 J	-28758669.24	-28758669.00	-28758668.75	0.0134	0.0017 *
Earth	-83449-01-25 14:52 J	-28758300.13	-28758299.88	-28758299.63	0.0134	0.0005
Moon	-83449-01-25 15:20 J	-28758300.10	-28758299.86	-28758299.62	0.0134	0.0006 *
Moon	-83448-01-28 17:44 J	-28757931.02	-28757930.76	-28757930.51	0.0135	0.0004
Earth	-83448-01-28 18:13 J	-28757930.99	-28757930.74	-28757930.49	0.0135	0.0007 *
Earth	-83447-02-01 21:49 J	-28757561.83	-28757561.59	-28757561.34	0.0135	0.0019
Moon	-83447-02-01 22:32 J	-28757561.79	-28757561.56	-28757561.32	0.0135	0.0023 *
Moon	-83446-02-06 02:08 J	-28757192.66	-28757192.41	-28757192.16	0.0136	0.0024

Earth -83446-02-06 02:08 J -28757192.64 -28757192.41 -28757192.16 0.0136 0.0031 *
 Earth -83445-02-10 07:25 J -28756823.42 -28756823.19 -28756822.96 0.0136 0.0042
 Moon -83445-02-10 07:54 J -28756823.38 -28756823.17 -28756822.94 0.0136 0.0050 *
 Moon -83444-02-13 12:42 J -28756454.20 -28756453.97 -28756453.72 0.0137 0.0049
 Earth -83444-02-13 12:56 J -28756454.17 -28756453.96 -28756453.72 0.0137 0.0055 *
 Venus -83444-12-09 05:01 J -28756155.39 -28756155.29 -28756155.18 0.0137 0.0118
 Earth -83443-02-17 19:25 J -28756084.90 -28756084.69 -28756084.47 0.0137 0.0066
 Moon -83443-02-17 19:25 J -28756084.88 -28756084.69 -28756084.47 0.0137 0.0071 *
 Venus -83443-07-23 10:18 J -28755929.26 -28755929.07 -28755928.88 0.0138 0.0057
 Moon -83442-02-22 01:54 J -28755715.62 -28755715.42 -28755715.19 0.0138 0.0076
 Earth -83442-02-22 02:37 J -28755715.59 -28755715.39 -28755715.18 0.0138 0.0078 *
 Venus -83442-03-06 15:49 J -28755703.05 -28755702.84 -28755702.63 0.0138 0.0006
 Venus -83442-10-18 21:06 J -28755476.79 -28755476.62 -28755476.43 0.0138 0.0069
 Moon -83441-02-26 10:18 J -28755346.25 -28755346.07 -28755345.88 0.0139 0.0088
 Earth -83441-02-26 10:32 J -28755346.24 -28755346.06 -28755345.87 0.0139 0.0090 *
 Venus -83441-06-01 03:06 J -28755250.43 -28755250.37 -28755250.30 0.0139 0.0132
 Mercury -83441-08-14 06:28 J -28755176.28 -28755176.23 -28755176.17 0.0139 0.0126
 Mercury -83441-11-10 10:04 J -28755088.16 -28755088.08 -28755088.00 0.0139 0.0109
 Mercury -83440-02-06 13:25 J -28755000.03 -28754999.94 -28754999.83 0.0139 0.0092
 Moon -83440-03-01 18:42 J -28754976.86 -28754976.72 -28754976.53 0.0139 0.0105
 Earth -83440-03-01 18:56 J -28754976.86 -28754976.71 -28754976.52 0.0139 0.0102 *
 Mercury -83440-05-05 17:16 J -28754911.90 -28754911.78 -28754911.67 0.0139 0.0075
 Mercury -83440-08-01 20:52 J -28754823.75 -28754823.63 -28754823.51 0.0139 0.0057
 Mercury -83440-10-29 00:28 J -28754735.61 -28754735.48 -28754735.35 0.0140 0.0040
 Mercury -83439-01-25 04:04 J -28754647.46 -28754647.33 -28754647.19 0.0140 0.0023
 Moon -83439-03-06 04:32 J -28754607.45 -28754607.31 -28754607.15 0.0140 0.0106
 Earth -83439-03-06 04:47 J -28754607.43 -28754607.30 -28754607.14 0.0140 0.0112 *
 Mercury -83439-04-23 07:54 J -28754559.31 -28754559.17 -28754559.03 0.0140 0.0004
 Mercury -83439-07-20 11:44 J -28754471.15 -28754471.01 -28754470.88 0.0140 0.0014
 Mercury -83439-10-16 15:20 J -28754382.99 -28754382.86 -28754382.72 0.0140 0.0032

Mercury -83438-01-12 19:11 J -28754294.83 -28754294.70 -28754294.57 0.0140 0.0051

Earth -83438-03-10 15:20 J -28754237.96 -28754237.86 -28754237.72 0.0141 0.0123

Moon -83438-03-10 15:49 J -28754237.91 -28754237.84 -28754237.72 0.0141 0.0130 *

Mercury -83438-04-10 23:01 J -28754206.66 -28754206.54 -28754206.42 0.0141 0.0069

Mercury -83438-07-08 02:52 J -28754118.48 -28754118.38 -28754118.27 0.0141 0.0088

Mercury -83438-10-04 06:42 J -28754030.30 -28754030.22 -28754030.12 0.0141 0.0107

Mercury -83438-12-31 10:32 J -28753942.11 -28753942.06 -28753941.99 0.0141 0.0126

Moon -83437-03-14 02:52 J -28753868.48 -28753868.38 -28753868.27 0.0141 0.0127

Earth -83437-03-14 03:06 J -28753868.44 -28753868.37 -28753868.27 0.0141 0.0133 *

Earth -83436-03-18 16:18 J -28753498.83 -28753498.82 -28753498.80 0.0142 0.0141

Jupiter -83432-08-18 19:54 J -28751885.00 -28751884.67 -28751884.33 0.0144 0.0109

Mars -83422-09-29 12:28 J -28748191.25 -28748190.98 -28748190.67 0.0148 0.0077

Earth -83420-06-01 19:54 J -28747579.70 -28747579.67 -28747579.60 0.0148 0.0145

Moon -83420-06-01 20:08 J -28747579.70 -28747579.66 -28747579.58 0.0148 0.0143 *

Mars -83420-09-07 16:18 J -28747482.13 -28747481.82 -28747481.48 0.0148 0.0051

Earth -83419-06-07 03:20 J -28747209.46 -28747209.36 -28747209.25 0.0148 0.0134

Moon -83419-06-07 03:20 J -28747209.45 -28747209.36 -28747209.22 0.0148 0.0132 *

Moon -83418-06-12 09:49 J -28746839.21 -28746839.09 -28746838.97 0.0148 0.0128

Earth -83418-06-12 11:01 J -28746839.18 -28746839.04 -28746838.89 0.0148 0.0122 *

Earth -83417-06-16 18:42 J -28746468.87 -28746468.72 -28746468.53 0.0148 0.0110

Moon -83417-06-16 21:06 J -28746468.79 -28746468.62 -28746468.41 0.0148 0.0102 *

Moon -83416-06-22 00:28 J -28746098.64 -28746098.48 -28746098.28 0.0147 0.0102

Earth -83416-06-22 03:06 J -28746098.55 -28746098.37 -28746098.16 0.0147 0.0096 *

Earth -83415-06-27 11:30 J -28745728.22 -28745728.02 -28745727.79 0.0147 0.0081

Moon -83415-06-27 15:20 J -28745728.07 -28745727.86 -28745727.64 0.0147 0.0081 *

Moon -83414-07-02 16:32 J -28745358.03 -28745357.81 -28745357.57 0.0147 0.0063

Earth -83414-07-02 20:08 J -28745357.88 -28745357.66 -28745357.42 0.0147 0.0066 *

Earth -83413-07-07 04:04 J -28744987.56 -28744987.33 -28744987.07 0.0146 0.0051

Moon -83413-07-07 07:54 J -28744987.41 -28744987.17 -28744986.93 0.0146 0.0058 *

Moon -83412-07-12 08:37 J -28744617.39 -28744617.14 -28744616.88 0.0146 0.0027

Earth -83412-07-12 12:13 J -28744617.23 -28744616.99 -28744616.73 0.0146 0.0035 *
 Earth -83411-07-17 19:54 J -28744246.92 -28744246.67 -28744246.41 0.0145 0.0019
 Moon -83411-07-17 22:47 J -28744246.80 -28744246.55 -28744246.30 0.0145 0.0022 *
 Moon -83410-07-23 00:42 J -28743876.74 -28743876.47 -28743876.21 0.0145 0.0004
 Earth -83410-07-23 03:06 J -28743876.63 -28743876.37 -28743876.11 0.0145 0.0003 *
 Earth -83409-07-27 09:35 J -28743506.36 -28743506.10 -28743505.83 0.0144 0.0013
 Moon -83409-07-27 11:16 J -28743506.28 -28743506.03 -28743505.78 0.0144 0.0018 *
 Moon -83408-08-01 15:06 J -28743136.13 -28743135.87 -28743135.60 0.0144 0.0021
 Earth -83408-08-01 15:35 J -28743136.10 -28743135.85 -28743135.59 0.0144 0.0028 *
 Earth -83407-08-06 20:52 J -28742765.87 -28742765.63 -28742765.37 0.0143 0.0043
 Moon -83407-08-06 21:06 J -28742765.85 -28742765.62 -28742765.38 0.0143 0.0050 *
 Earth -83406-08-12 01:25 J -28742395.67 -28742395.44 -28742395.19 0.0142 0.0058
 Moon -83406-08-12 02:37 J -28742395.62 -28742395.39 -28742395.12 0.0142 0.0057 *
 Moon -83405-08-16 03:35 J -28742025.56 -28742025.35 -28742025.11 0.0142 0.0070
 Earth -83405-08-16 05:01 J -28742025.50 -28742025.29 -28742025.05 0.0142 0.0072 *
 Venus -83404-01-03 01:54 J -28741885.58 -28741885.42 -28741885.27 0.0142 0.0102
 Venus -83404-08-17 14:08 J -28741659.12 -28741658.91 -28741658.68 0.0141 0.0030
 Earth -83404-08-21 08:08 J -28741655.36 -28741655.16 -28741654.94 0.0141 0.0085
 Moon -83404-08-21 10:18 J -28741655.25 -28741655.07 -28741654.84 0.0141 0.0092 *
 Venus -83403-04-01 02:23 J -28741432.61 -28741432.40 -28741432.18 0.0141 0.0042
 Moon -83403-08-26 06:56 J -28741285.39 -28741285.21 -28741285.00 0.0141 0.0090
 Earth -83403-08-26 10:18 J -28741285.26 -28741285.07 -28741284.88 0.0141 0.0097 *
 Venus -83403-11-13 14:08 J -28741206.03 -28741205.91 -28741205.76 0.0140 0.0112
 Earth -83402-08-31 10:18 J -28740915.21 -28740915.07 -28740914.88 0.0140 0.0109
 Moon -83402-08-31 13:40 J -28740915.07 -28740914.93 -28740914.76 0.0140 0.0114 *
 Mercury -83402-10-11 17:44 J -28740873.81 -28740873.76 -28740873.68 0.0140 0.0131
 Mercury -83401-01-08 01:11 J -28740785.56 -28740785.45 -28740785.32 0.0140 0.0106
 Mercury -83401-04-05 08:23 J -28740697.29 -28740697.15 -28740697.00 0.0139 0.0082
 Mercury -83401-07-02 15:35 J -28740609.02 -28740608.85 -28740608.68 0.0139 0.0058
 Moon -83401-09-04 06:28 J -28740545.35 -28740545.23 -28740545.08 0.0139 0.0117

Earth -83401-09-04 10:18 J -28740545.19 -28740545.07 -28740544.92 0.0139 0.0119 *
 Mercury -83401-09-28 22:18 J -28740520.74 -28740520.57 -28740520.38 0.0139 0.0035
 Mercury -83401-12-26 05:30 J -28740432.45 -28740432.27 -28740432.09 0.0139 0.0010
 Mercury -83400-03-24 12:13 J -28740344.16 -28740343.99 -28740343.80 0.0139 0.0014
 Mercury -83400-06-20 18:56 J -28740255.87 -28740255.71 -28740255.52 0.0139 0.0037
 Earth -83400-09-09 09:06 J -28740175.22 -28740175.12 -28740175.03 0.0139 0.0129
 Moon -83400-09-09 12:13 J -28740175.07 -28740174.99 -28740174.87 0.0139 0.0128 *
 Mercury -83400-09-17 01:40 J -28740167.58 -28740167.43 -28740167.26 0.0139 0.0060
 Mercury -83400-12-14 08:37 J -28740079.28 -28740079.14 -28740079.00 0.0138 0.0082
 Mercury -83399-03-12 14:52 J -28739990.98 -28739990.88 -28739990.75 0.0138 0.0105
 Mercury -83399-06-08 21:35 J -28739902.66 -28739902.60 -28739902.52 0.0138 0.0126
 Earth -83399-09-14 06:13 J -28739805.24 -28739805.24 -28739805.23 0.0138 0.0138
 Mars -83381-03-05 20:52 J -28733422.82 -28733422.63 -28733422.43 0.0131 0.0093
 Mars -83379-02-01 22:47 J -28732724.81 -28732724.55 -28732724.26 0.0131 0.0026
 Moon -83379-12-07 00:13 J -28732416.57 -28732416.49 -28732416.41 0.0131 0.0124
 Earth -83379-12-07 00:13 J -28732416.49 -28732416.49 -28732416.46 0.0131 0.0131 *
 Earth -83378-12-11 03:06 J -28732047.44 -28732047.37 -28732047.27 0.0131 0.0123
 Moon -83378-12-11 03:35 J -28732047.35 -28732047.35 -28732047.29 0.0131 0.0130 *
 Mars -83377-01-01 00:28 J -28732026.73 -28732026.48 -28732026.20 0.0131 0.0043
 Moon -83377-12-14 05:16 J -28731678.40 -28731678.28 -28731678.11 0.0131 0.0109
 Earth -83377-12-14 05:44 J -28731678.36 -28731678.26 -28731678.13 0.0131 0.0115 *
 Mars -83376-11-29 04:32 J -28731328.44 -28731328.31 -28731328.15 0.0131 0.0110
 Earth -83376-12-18 08:08 J -28731309.29 -28731309.16 -28731309.00 0.0131 0.0106
 Moon -83376-12-18 08:52 J -28731309.24 -28731309.13 -28731308.99 0.0131 0.0112 *
 Moon -83375-12-22 09:35 J -28730940.28 -28730940.10 -28730939.91 0.0131 0.0094
 Earth -83375-12-22 10:04 J -28730940.23 -28730940.08 -28730939.90 0.0131 0.0098 *
 Earth -83374-12-26 12:13 J -28730571.17 -28730570.99 -28730570.80 0.0131 0.0088
 Moon -83374-12-26 12:28 J -28730571.15 -28730570.98 -28730570.79 0.0131 0.0089 *
 Moon -83373-12-29 12:42 J -28730202.17 -28730201.97 -28730201.75 0.0132 0.0079
 Earth -83373-12-29 13:54 J -28730202.11 -28730201.92 -28730201.71 0.0132 0.0078 *

Earth	-83371-01-02 15:06 J	-28729833.07	-28729832.87	-28729832.64	0.0132	0.0068
Moon	-83371-01-02 15:49 J	-28729833.04	-28729832.84	-28729832.62	0.0132	0.0064 *
Moon	-83370-01-06 15:49 J	-28729464.05	-28729463.84	-28729463.60	0.0132	0.0063
Earth	-83370-01-06 16:47 J	-28729464.01	-28729463.80	-28729463.56	0.0132	0.0057 *
Earth	-83369-01-10 18:28 J	-28729094.95	-28729094.73	-28729094.48	0.0132	0.0047
Moon	-83369-01-10 19:25 J	-28729094.91	-28729094.69	-28729094.45	0.0132	0.0041 *
Moon	-83368-01-13 19:40 J	-28728725.92	-28728725.68	-28728725.43	0.0133	0.0042
Earth	-83368-01-13 20:37 J	-28728725.88	-28728725.64	-28728725.40	0.0133	0.0035 *
Earth	-83367-01-17 22:32 J	-28728356.80	-28728356.56	-28728356.31	0.0133	0.0024
Moon	-83367-01-17 23:44 J	-28728356.74	-28728356.51	-28728356.27	0.0133	0.0018 *
Moon	-83366-01-21 23:59 J	-28727987.76	-28727987.50	-28727987.24	0.0134	0.0015
Earth	-83366-01-22 00:42 J	-28727987.71	-28727987.47	-28727987.22	0.0134	0.0013 *
Earth	-83365-01-26 03:35 J	-28727618.60	-28727618.35	-28727618.10	0.0134	0.0001
Moon	-83365-01-26 04:32 J	-28727618.55	-28727618.31	-28727618.06	0.0134	0.0003 *
Moon	-83364-01-29 05:30 J	-28727249.52	-28727249.27	-28727249.01	0.0134	0.0012
Earth	-83364-01-29 06:42 J	-28727249.46	-28727249.22	-28727248.97	0.0134	0.0012 *
Earth	-83363-02-02 10:18 J	-28726880.31	-28726880.07	-28726879.82	0.0135	0.0024
Moon	-83363-02-02 11:01 J	-28726880.27	-28726880.04	-28726879.79	0.0135	0.0019 *
Moon	-83362-02-06 13:11 J	-28726511.18	-28726510.95	-28726510.70	0.0135	0.0041
Earth	-83362-02-06 14:37 J	-28726511.12	-28726510.89	-28726510.64	0.0135	0.0036 *
Earth	-83361-02-10 19:25 J	-28726141.91	-28726141.69	-28726141.44	0.0136	0.0048
Moon	-83361-02-10 20:23 J	-28726141.87	-28726141.65	-28726141.41	0.0136	0.0041 *
Moon	-83360-02-13 23:44 J	-28725772.71	-28725772.51	-28725772.27	0.0137	0.0067
Earth	-83360-02-14 00:56 J	-28725772.67	-28725772.46	-28725772.23	0.0137	0.0060 *
Earth	-83359-02-18 07:25 J	-28725403.40	-28725403.19	-28725402.98	0.0137	0.0072
Moon	-83359-02-18 08:08 J	-28725403.36	-28725403.16	-28725402.94	0.0137	0.0067 *
Venus	-83359-03-22 20:52 J	-28725370.78	-28725370.63	-28725370.45	0.0137	0.0085
Venus	-83359-11-04 02:23 J	-28725144.61	-28725144.40	-28725144.19	0.0138	0.0023
Moon	-83358-02-22 13:25 J	-28725034.13	-28725033.94	-28725033.73	0.0138	0.0085
Earth	-83358-02-22 13:54 J	-28725034.10	-28725033.92	-28725033.71	0.0138	0.0084 *

Venus -83358-06-18 07:40 J -28724918.37 -28724918.18 -28724917.97 0.0138 0.0039
 Venus -83357-01-30 13:11 J -28724692.08 -28724691.95 -28724691.80 0.0138 0.0103
 Earth -83357-02-26 21:20 J -28724664.76 -28724664.61 -28724664.41 0.0138 0.0096
 Moon -83357-02-26 22:47 J -28724664.72 -28724664.55 -28724664.38 0.0138 0.0096 *
 Mercury -83357-06-07 10:18 J -28724563.07 -28724563.07 -28724563.07 0.0139 0.0139
 Mercury -83357-09-03 13:40 J -28724474.99 -28724474.93 -28724474.86 0.0139 0.0122
 Mercury -83357-11-30 17:16 J -28724386.86 -28724386.78 -28724386.69 0.0139 0.0105
 Mercury -83356-02-26 20:52 J -28724298.73 -28724298.63 -28724298.52 0.0139 0.0088
 Moon -83356-03-02 05:44 J -28724295.42 -28724295.26 -28724295.07 0.0139 0.0102
 Earth -83356-03-02 06:13 J -28724295.39 -28724295.24 -28724295.07 0.0139 0.0107 *
 Mercury -83356-05-26 00:28 J -28724210.59 -28724210.48 -28724210.36 0.0139 0.0071
 Mercury -83356-08-22 04:04 J -28724122.45 -28724122.33 -28724122.20 0.0139 0.0053
 Mercury -83356-11-18 07:40 J -28724034.31 -28724034.18 -28724034.04 0.0140 0.0036
 Mercury -83355-02-14 11:30 J -28723946.16 -28723946.02 -28723945.88 0.0140 0.0018
 Earth -83355-03-06 15:35 J -28723925.97 -28723925.85 -28723925.70 0.0140 0.0117
 Moon -83355-03-06 16:04 J -28723925.93 -28723925.83 -28723925.71 0.0140 0.0124 *
 Mercury -83355-05-13 15:06 J -28723858.00 -28723857.87 -28723857.73 0.0140 0.0003
 Mercury -83355-08-09 18:56 J -28723769.85 -28723769.71 -28723769.57 0.0140 0.0018
 Mercury -83355-11-05 22:47 J -28723681.69 -28723681.55 -28723681.42 0.0140 0.0037
 Mercury -83354-02-02 02:23 J -28723593.52 -28723593.40 -28723593.27 0.0140 0.0055
 Moon -83354-03-11 01:54 J -28723556.54 -28723556.42 -28723556.28 0.0140 0.0121
 Earth -83354-03-11 02:08 J -28723556.50 -28723556.41 -28723556.29 0.0140 0.0128 *
 Mercury -83354-05-01 06:13 J -28723505.35 -28723505.24 -28723505.12 0.0141 0.0073
 Mercury -83354-07-28 10:04 J -28723417.18 -28723417.08 -28723416.97 0.0141 0.0092
 Mercury -83354-10-24 13:54 J -28723329.00 -28723328.92 -28723328.83 0.0141 0.0111
 Mercury -83353-01-20 17:44 J -28723240.80 -28723240.76 -28723240.70 0.0141 0.0130
 Earth -83353-03-14 13:40 J -28723186.96 -28723186.93 -28723186.85 0.0141 0.0137
 Moon -83352-03-19 02:37 J -28722817.39 -28722817.39 -28722817.37 0.0142 0.0142
 Mars -83337-05-26 14:52 J -28717270.22 -28717269.88 -28717269.54 0.0148 0.0025
 Moon -83337-05-27 21:20 J -28717268.61 -28717268.61 -28717268.59 0.0148 0.0148

Earth	-83336-06-02 05:16 J	-28716898.31	-28716898.28	-28716898.20	0.0148	0.0145
Mars	-83335-05-05 18:42 J	-28716560.96	-28716560.72	-28716560.46	0.0148	0.0101
Moon	-83335-06-07 12:42 J	-28716528.07	-28716527.97	-28716527.86	0.0148	0.0134
Earth	-83335-06-07 12:56 J	-28716528.06	-28716527.96	-28716527.84	0.0148	0.0133 *
Moon	-83334-06-12 19:40 J	-28716157.82	-28716157.68	-28716157.51	0.0148	0.0115
Earth	-83334-06-12 20:37 J	-28716157.78	-28716157.64	-28716157.49	0.0148	0.0121 *
Earth	-83333-06-17 04:18 J	-28715787.47	-28715787.32	-28715787.12	0.0148	0.0108
Moon	-83333-06-17 05:44 J	-28715787.41	-28715787.26	-28715787.08	0.0148	0.0115 *
Moon	-83332-06-22 10:18 J	-28715417.26	-28715417.07	-28715416.86	0.0147	0.0088
Earth	-83332-06-22 12:56 J	-28715417.15	-28715416.96	-28715416.75	0.0147	0.0093 *
Earth	-83331-06-27 21:20 J	-28715046.81	-28715046.61	-28715046.38	0.0147	0.0079
Moon	-83331-06-28 00:13 J	-28715046.69	-28715046.49	-28715046.25	0.0147	0.0080 *
Moon	-83330-07-03 02:23 J	-28714676.62	-28714676.40	-28714676.16	0.0147	0.0067
Earth	-83330-07-03 05:44 J	-28714676.48	-28714676.26	-28714676.01	0.0147	0.0063 *
Earth	-83329-07-07 14:23 J	-28714306.14	-28714305.90	-28714305.65	0.0146	0.0047
Moon	-83329-07-07 17:59 J	-28714305.99	-28714305.75	-28714305.49	0.0146	0.0040 *
Moon	-83328-07-12 19:11 J	-28713935.95	-28713935.70	-28713935.45	0.0146	0.0037
Earth	-83328-07-12 22:32 J	-28713935.81	-28713935.56	-28713935.30	0.0146	0.0030 *
Earth	-83327-07-18 06:13 J	-28713565.49	-28713565.24	-28713564.97	0.0146	0.0015
Moon	-83327-07-18 09:49 J	-28713565.35	-28713565.09	-28713564.83	0.0146	0.0010 *
Moon	-83326-07-23 10:47 J	-28713195.31	-28713195.05	-28713194.78	0.0145	0.0003
Earth	-83326-07-23 13:54 J	-28713195.18	-28713194.92	-28713194.66	0.0145	0.0003 *
Earth	-83325-07-27 20:23 J	-28712824.90	-28712824.65	-28712824.38	0.0144	0.0019
Moon	-83325-07-27 22:32 J	-28712824.81	-28712824.56	-28712824.31	0.0144	0.0012 *
Moon	-83324-08-02 00:56 J	-28712454.70	-28712454.46	-28712454.18	0.0144	0.0041
Earth	-83324-08-02 02:52 J	-28712454.63	-28712454.38	-28712454.12	0.0144	0.0034 *
Earth	-83323-08-07 08:23 J	-28712084.38	-28712084.15	-28712083.89	0.0143	0.0049
Moon	-83323-08-07 08:37 J	-28712084.37	-28712084.14	-28712083.89	0.0143	0.0043 *
Moon	-83322-08-12 13:11 J	-28711714.17	-28711713.95	-28711713.69	0.0143	0.0067
Earth	-83322-08-12 13:11 J	-28711714.17	-28711713.95	-28711713.70	0.0143	0.0064 *

Moon -83321-08-16 15:49 J -28711344.03 -28711343.84 -28711343.62 0.0142 0.0080
 Earth -83321-08-16 17:30 J -28711343.99 -28711343.77 -28711343.55 0.0142 0.0077 *
 Venus -83321-09-02 08:37 J -28711327.19 -28711327.14 -28711327.06 0.0142 0.0135
 Venus -83320-04-16 21:20 J -28711100.80 -28711100.61 -28711100.40 0.0142 0.0063
 Earth -83320-08-21 20:37 J -28710973.84 -28710973.64 -28710973.44 0.0141 0.0091
 Moon -83320-08-21 22:18 J -28710973.77 -28710973.57 -28710973.34 0.0141 0.0085 *
 Venus -83320-11-29 10:04 J -28710874.30 -28710874.08 -28710873.85 0.0141 0.0010
 Venus -83319-07-13 22:18 J -28710647.75 -28710647.57 -28710647.38 0.0141 0.0081
 Moon -83319-08-26 19:40 J -28710603.81 -28710603.68 -28710603.50 0.0141 0.0111
 Earth -83319-08-26 22:32 J -28710603.73 -28710603.56 -28710603.38 0.0141 0.0103 *
 Earth -83318-08-31 23:01 J -28710233.67 -28710233.54 -28710233.37 0.0140 0.0115
 Moon -83318-09-01 02:23 J -28710233.55 -28710233.40 -28710233.21 0.0140 0.0109 *
 Mercury -83318-11-01 01:54 J -28710172.49 -28710172.42 -28710172.32 0.0140 0.0123
 Mercury -83317-01-28 09:20 J -28710084.24 -28710084.11 -28710083.98 0.0140 0.0098
 Mercury -83317-04-25 16:32 J -28709995.96 -28709995.81 -28709995.65 0.0140 0.0074
 Mercury -83317-07-22 23:44 J -28709907.68 -28709907.51 -28709907.34 0.0139 0.0050
 Moon -83317-09-04 19:40 J -28709863.75 -28709863.68 -28709863.56 0.0139 0.0130
 Earth -83317-09-04 23:01 J -28709863.64 -28709863.54 -28709863.41 0.0139 0.0126 *
 Mercury -83317-10-19 06:28 J -28709819.40 -28709819.23 -28709819.04 0.0139 0.0027
 Mercury -83316-01-15 13:40 J -28709731.12 -28709730.93 -28709730.75 0.0139 0.0003
 Mercury -83316-04-13 20:23 J -28709642.83 -28709642.65 -28709642.47 0.0139 0.0021
 Mercury -83316-07-11 03:20 J -28709554.53 -28709554.36 -28709554.19 0.0139 0.0044
 Earth -83316-09-09 21:49 J -28709493.64 -28709493.59 -28709493.53 0.0139 0.0135
 Moon -83316-09-10 01:25 J -28709493.45 -28709493.44 -28709493.41 0.0139 0.0138
 Mercury -83316-10-07 10:04 J -28709466.24 -28709466.08 -28709465.92 0.0139 0.0067
 Mercury -83315-01-03 16:32 J -28709377.94 -28709377.81 -28709377.67 0.0139 0.0090
 Mercury -83315-04-01 23:16 J -28709289.63 -28709289.53 -28709289.42 0.0138 0.0112
 Mercury -83315-06-29 05:30 J -28709201.30 -28709201.27 -28709201.21 0.0138 0.0134
 Mars -83299-11-30 20:23 J -28703202.68 -28703202.65 -28703202.60 0.0131 0.0130
 Mars -83297-10-29 00:28 J -28702504.72 -28702504.48 -28702504.23 0.0131 0.0062

Mars	-83295-09-27 02:23 J	-28701806.68	-28701806.40	-28701806.12	0.0131	0.0005
Earth	-83295-12-07 14:52 J	-28701734.89	-28701734.88	-28701734.84	0.0131	0.0130
Earth	-83294-12-11 17:59 J	-28701365.83	-28701365.75	-28701365.65	0.0131	0.0122
Moon	-83294-12-11 18:28 J	-28701365.82	-28701365.73	-28701365.60	0.0131	0.0116 *
Mars	-83293-08-25 04:32 J	-28701108.53	-28701108.31	-28701108.06	0.0131	0.0073
Moon	-83293-12-14 19:11 J	-28700996.78	-28700996.70	-28700996.58	0.0131	0.0120
Earth	-83293-12-14 20:23 J	-28700996.75	-28700996.65	-28700996.50	0.0131	0.0114 *
Earth	-83292-12-18 22:47 J	-28700627.68	-28700627.55	-28700627.38	0.0131	0.0105
Moon	-83292-12-18 23:44 J	-28700627.65	-28700627.51	-28700627.34	0.0131	0.0100 *
Moon	-83291-12-22 23:59 J	-28700258.66	-28700258.50	-28700258.32	0.0131	0.0099
Earth	-83291-12-23 00:56 J	-28700258.62	-28700258.46	-28700258.28	0.0131	0.0095 *
Earth	-83290-12-27 02:52 J	-28699889.56	-28699889.38	-28699889.18	0.0131	0.0085
Moon	-83290-12-27 04:04 J	-28699889.50	-28699889.33	-28699889.13	0.0131	0.0084 *
Moon	-83289-12-30 03:20 J	-28699520.56	-28699520.36	-28699520.13	0.0132	0.0073
Earth	-83289-12-30 04:18 J	-28699520.51	-28699520.32	-28699520.10	0.0132	0.0076 *
Earth	-83287-01-03 05:44 J	-28699151.46	-28699151.26	-28699151.02	0.0132	0.0065
Moon	-83287-01-03 07:11 J	-28699151.39	-28699151.20	-28699150.97	0.0132	0.0069 *
Moon	-83286-01-07 06:13 J	-28698782.48	-28698782.24	-28698782.00	0.0132	0.0048
Earth	-83286-01-07 07:25 J	-28698782.41	-28698782.19	-28698781.95	0.0132	0.0054 *
Earth	-83285-01-11 09:06 J	-28698413.35	-28698413.12	-28698412.87	0.0132	0.0043
Moon	-83285-01-11 10:18 J	-28698413.28	-28698413.07	-28698412.83	0.0132	0.0050 *
Moon	-83284-01-14 09:20 J	-28698044.36	-28698044.11	-28698043.85	0.0133	0.0025
Earth	-83284-01-14 11:01 J	-28698044.27	-28698044.04	-28698043.79	0.0133	0.0032 *
Earth	-83283-01-18 12:56 J	-28697675.20	-28697674.96	-28697674.71	0.0133	0.0020
Moon	-83283-01-18 14:08 J	-28697675.14	-28697674.91	-28697674.67	0.0133	0.0025 *
Moon	-83282-01-22 13:40 J	-28697306.18	-28697305.93	-28697305.67	0.0133	0.0005
Earth	-83282-01-22 15:20 J	-28697306.10	-28697305.86	-28697305.60	0.0133	0.0009 *
Earth	-83281-01-26 18:13 J	-28696936.98	-28696936.74	-28696936.49	0.0134	0.0005
Moon	-83281-01-26 19:54 J	-28696936.91	-28696936.67	-28696936.43	0.0134	0.0003 *
Moon	-83280-01-29 19:54 J	-28696567.91	-28696567.67	-28696567.41	0.0134	0.0015

Earth	-83280-01-29 21:35 J	-28696567.85	-28696567.60	-28696567.36	0.0134	0.0016	*
Earth	-83279-02-03 00:56 J	-28696198.69	-28696198.46	-28696198.20	0.0135	0.0029	
Moon	-83279-02-03 03:06 J	-28696198.60	-28696198.37	-28696198.14	0.0135	0.0032	*
Moon	-83278-02-07 04:18 J	-28695829.57	-28695829.32	-28695829.07	0.0135	0.0035	
Earth	-83278-02-07 05:16 J	-28695829.50	-28695829.28	-28695829.03	0.0135	0.0042	*
Earth	-83277-02-11 10:18 J	-28695460.29	-28695460.07	-28695459.84	0.0136	0.0053	
Moon	-83277-02-11 11:44 J	-28695460.22	-28695460.01	-28695459.79	0.0136	0.0061	*
Moon	-83276-02-14 13:54 J	-28695091.14	-28695090.92	-28695090.68	0.0137	0.0060	
Earth	-83276-02-14 15:35 J	-28695091.06	-28695090.85	-28695090.62	0.0137	0.0066	*
Venus	-83276-11-20 09:49 J	-28694812.21	-28694812.09	-28694811.96	0.0137	0.0110	
Earth	-83275-02-18 21:35 J	-28694721.80	-28694721.60	-28694721.39	0.0137	0.0078	
Moon	-83275-02-18 22:32 J	-28694721.74	-28694721.56	-28694721.36	0.0137	0.0083	*
Venus	-83275-07-04 14:52 J	-28694586.07	-28694585.88	-28694585.68	0.0137	0.0049	
Venus	-83274-02-15 20:08 J	-28694359.87	-28694359.66	-28694359.45	0.0138	0.0013	
Moon	-83274-02-23 02:52 J	-28694352.58	-28694352.38	-28694352.18	0.0138	0.0086	
Earth	-83274-02-23 04:04 J	-28694352.50	-28694352.33	-28694352.12	0.0138	0.0090	*
Venus	-83274-09-30 01:25 J	-28694133.61	-28694133.44	-28694133.26	0.0138	0.0075	
Earth	-83273-02-27 11:44 J	-28693983.16	-28693983.01	-28693982.82	0.0138	0.0101	
Moon	-83273-02-27 12:56 J	-28693983.12	-28693982.96	-28693982.79	0.0138	0.0100	*
Mercury	-83273-06-27 17:59 J	-28693861.78	-28693861.75	-28693861.71	0.0139	0.0133	
Mercury	-83273-09-23 21:35 J	-28693773.67	-28693773.60	-28693773.52	0.0139	0.0116	
Mercury	-83273-12-21 00:56 J	-28693685.54	-28693685.46	-28693685.35	0.0139	0.0099	
Moon	-83272-03-02 18:42 J	-28693613.83	-28693613.72	-28693613.55	0.0139	0.0117	
Earth	-83272-03-02 20:23 J	-28693613.78	-28693613.65	-28693613.50	0.0139	0.0112	*
Mercury	-83272-03-19 04:47 J	-28693597.41	-28693597.30	-28693597.19	0.0139	0.0082	
Mercury	-83272-06-15 08:23 J	-28693509.27	-28693509.15	-28693509.03	0.0139	0.0064	
Mercury	-83272-09-11 11:59 J	-28693421.13	-28693421.00	-28693420.87	0.0139	0.0047	
Mercury	-83272-12-08 15:35 J	-28693332.98	-28693332.85	-28693332.71	0.0140	0.0029	
Mercury	-83271-03-06 19:25 J	-28693244.83	-28693244.69	-28693244.56	0.0140	0.0012	
Earth	-83271-03-07 05:44 J	-28693244.36	-28693244.26	-28693244.13	0.0140	0.0123	

Moon -83271-03-07 06:28 J -28693244.34 -28693244.23 -28693244.08 0.0140 0.0118 *
 Mercury -83271-06-02 23:01 J -28693156.68 -28693156.54 -28693156.40 0.0140 0.0007
 Mercury -83271-08-30 02:37 J -28693068.52 -28693068.39 -28693068.25 0.0140 0.0025
 Mercury -83271-11-26 06:28 J -28692980.36 -28692980.23 -28692980.09 0.0140 0.0043
 Mercury -83270-02-22 10:18 J -28692892.19 -28692892.07 -28692891.94 0.0140 0.0061
 Earth -83270-03-11 16:04 J -28692874.88 -28692874.83 -28692874.73 0.0140 0.0134
 Moon -83270-03-11 15:49 J -28692874.84 -28692874.84 -28692874.81 0.0140 0.0140 *
 Mercury -83270-05-21 14:08 J -28692804.02 -28692803.91 -28692803.79 0.0140 0.0080
 Mercury -83270-08-17 17:59 J -28692715.85 -28692715.75 -28692715.65 0.0141 0.0099
 Mercury -83270-11-13 21:49 J -28692627.66 -28692627.59 -28692627.51 0.0141 0.0118
 Mercury -83269-02-10 01:40 J -28692539.45 -28692539.43 -28692539.39 0.0141 0.0137
 Moon -83269-03-15 04:18 J -28692505.36 -28692505.32 -28692505.25 0.0141 0.0137
 Mars -83254-02-12 21:06 J -28687057.86 -28687057.62 -28687057.35 0.0148 0.0098
 Mars -83252-01-22 00:56 J -28686348.80 -28686348.46 -28686348.13 0.0148 0.0027
 Earth -83252-06-02 18:28 J -28686216.77 -28686216.73 -28686216.66 0.0148 0.0144
 Moon -83252-06-02 19:54 J -28686216.73 -28686216.67 -28686216.58 0.0148 0.0141 *
 Moon -83251-06-08 00:56 J -28685846.57 -28685846.46 -28685846.32 0.0148 0.0130
 Earth -83251-06-08 01:40 J -28685846.53 -28685846.43 -28685846.30 0.0148 0.0132 *
 Earth -83250-06-13 09:20 J -28685476.25 -28685476.11 -28685475.95 0.0148 0.0119
 Moon -83250-06-13 09:06 J -28685476.23 -28685476.12 -28685475.97 0.0148 0.0125 *
 Earth -83249-06-17 17:01 J -28685105.95 -28685105.79 -28685105.59 0.0148 0.0106
 Moon -83249-06-17 18:28 J -28685105.91 -28685105.73 -28685105.51 0.0148 0.0098 *
 Moon -83248-06-23 00:13 J -28684735.68 -28684735.49 -28684735.30 0.0147 0.0097
 Earth -83248-06-23 01:25 J -28684735.63 -28684735.44 -28684735.22 0.0147 0.0091 *
 Earth -83247-06-28 09:49 J -28684365.30 -28684365.09 -28684364.86 0.0147 0.0075
 Moon -83247-06-28 12:56 J -28684365.18 -28684364.96 -28684364.73 0.0147 0.0074 *
 Saturn -83246-06-22 12:42 J -28684006.14 -28684005.97 -28684005.69 0.0147 0.0138
 Moon -83246-07-03 15:20 J -28683995.09 -28683994.86 -28683994.62 0.0147 0.0056
 Earth -83246-07-03 18:28 J -28683994.96 -28683994.73 -28683994.49 0.0147 0.0059 *
 Earth -83245-07-08 02:37 J -28683624.63 -28683624.39 -28683624.14 0.0146 0.0042

Moon	-83245-07-08 06:13 J	-28683624.48	-28683624.24	-28683623.99	0.0146	0.0049	*
Moon	-83244-07-13 06:56 J	-28683254.46	-28683254.21	-28683253.95	0.0146	0.0018	
Earth	-83244-07-13 10:47 J	-28683254.30	-28683254.05	-28683253.79	0.0146	0.0026	*
Earth	-83243-07-18 18:42 J	-28682883.98	-28682883.72	-28682883.46	0.0146	0.0009	
Moon	-83243-07-18 22:04 J	-28682883.83	-28682883.58	-28682883.32	0.0146	0.0014	*
Moon	-83242-07-23 22:47 J	-28682513.81	-28682513.55	-28682513.28	0.0145	0.0006	
Earth	-83242-07-24 02:08 J	-28682513.67	-28682513.41	-28682513.15	0.0145	0.0007	*
Earth	-83241-07-28 08:52 J	-28682143.38	-28682143.13	-28682142.86	0.0144	0.0024	
Moon	-83241-07-28 11:44 J	-28682143.26	-28682143.01	-28682142.76	0.0144	0.0028	*
Moon	-83240-08-02 13:40 J	-28681773.18	-28681772.93	-28681772.66	0.0144	0.0032	
Earth	-83240-08-02 15:35 J	-28681773.10	-28681772.85	-28681772.60	0.0144	0.0039	*
Earth	-83239-08-07 21:06 J	-28681402.86	-28681402.62	-28681402.37	0.0143	0.0055	
Moon	-83239-08-07 22:32 J	-28681402.79	-28681402.56	-28681402.33	0.0143	0.0062	*
Moon	-83238-08-13 02:08 J	-28681032.64	-28681032.41	-28681032.17	0.0143	0.0067	
Earth	-83238-08-13 01:54 J	-28681032.63	-28681032.42	-28681032.18	0.0143	0.0070	*
Moon	-83237-08-17 05:44 J	-28680662.46	-28680662.26	-28680662.05	0.0142	0.0082	
Earth	-83237-08-17 05:59 J	-28680662.45	-28680662.25	-28680662.02	0.0142	0.0084	*
Venus	-83237-12-15 04:47 J	-28680542.45	-28680542.30	-28680542.12	0.0142	0.0095	
Venus	-83236-07-29 17:44 J	-28680315.98	-28680315.76	-28680315.53	0.0141	0.0022	
Earth	-83236-08-22 09:06 J	-28680292.29	-28680292.12	-28680291.91	0.0141	0.0097	
Moon	-83236-08-22 10:32 J	-28680292.23	-28680292.06	-28680291.86	0.0141	0.0103	*
Venus	-83235-03-13 05:59 J	-28680089.45	-28680089.25	-28680089.03	0.0141	0.0050	
Moon	-83235-08-27 08:52 J	-28679922.28	-28679922.13	-28679921.93	0.0141	0.0103	
Earth	-83235-08-27 11:16 J	-28679922.18	-28679922.03	-28679921.85	0.0141	0.0110	*
Venus	-83235-10-25 17:59 J	-28679862.85	-28679862.75	-28679862.62	0.0141	0.0121	
Mercury	-83234-08-25 03:06 J	-28679559.38	-28679559.37	-28679559.35	0.0140	0.0139	
Earth	-83234-09-01 11:59 J	-28679552.11	-28679552.00	-28679551.85	0.0140	0.0121	
Moon	-83234-09-01 14:23 J	-28679551.99	-28679551.90	-28679551.77	0.0140	0.0127	*
Mercury	-83234-11-21 10:04 J	-28679471.17	-28679471.08	-28679470.96	0.0140	0.0115	
Mercury	-83233-02-17 17:16 J	-28679382.91	-28679382.78	-28679382.63	0.0140	0.0091	

Mercury -83233-05-16 00:42 J -28679294.63 -28679294.47 -28679294.31 0.0140 0.0066

Mercury -83233-08-12 07:40 J -28679206.35 -28679206.18 -28679206.00 0.0139 0.0042

Moon -83233-09-05 08:52 J -28679182.21 -28679182.13 -28679182.03 0.0139 0.0130

Earth -83233-09-05 12:13 J -28679182.07 -28679181.99 -28679181.90 0.0139 0.0132 *

Mercury -83233-11-08 14:37 J -28679118.07 -28679117.89 -28679117.70 0.0139 0.0019

Mercury -83232-02-04 21:35 J -28679029.78 -28679029.60 -28679029.41 0.0139 0.0006

Mercury -83232-05-04 04:32 J -28678941.49 -28678941.31 -28678941.13 0.0139 0.0029

Mercury -83232-07-31 11:16 J -28678853.19 -28678853.03 -28678852.86 0.0139 0.0052

Mercury -83232-10-27 17:59 J -28678764.90 -28678764.75 -28678764.59 0.0139 0.0075

Mercury -83231-01-24 00:28 J -28678676.59 -28678676.48 -28678676.34 0.0139 0.0098

Mercury -83231-04-22 07:11 J -28678588.28 -28678588.20 -28678588.10 0.0138 0.0119

Mars -83214-07-25 23:30 J -28672284.69 -28672284.52 -28672284.32 0.0131 0.0099

Mars -83212-06-23 02:23 J -28671586.66 -28671586.40 -28671586.12 0.0131 0.0031

Moon -83211-12-08 04:18 J -28671053.38 -28671053.32 -28671053.21 0.0131 0.0124

Earth -83211-12-08 05:30 J -28671053.27 -28671053.27 -28671053.21 0.0131 0.0130 *

Mars -83210-05-22 05:01 J -28670888.54 -28670888.29 -28670888.01 0.0131 0.0036

Earth -83210-12-12 09:06 J -28670684.21 -28670684.12 -28670684.02 0.0131 0.0121

Moon -83210-12-12 10:32 J -28670684.09 -28670684.06 -28670683.99 0.0131 0.0128 *

Moon -83209-12-15 10:04 J -28670315.21 -28670315.08 -28670314.91 0.0131 0.0106

Earth -83209-12-15 11:59 J -28670315.13 -28670315.00 -28670314.87 0.0131 0.0112 *

Mars -83208-04-19 07:54 J -28670190.33 -28670190.17 -28670189.99 0.0131 0.0102

Earth -83208-12-19 13:54 J -28669946.06 -28669945.92 -28669945.75 0.0131 0.0103

Moon -83208-12-19 15:20 J -28669945.98 -28669945.86 -28669945.71 0.0131 0.0109 *

Moon -83207-12-23 13:54 J -28669577.09 -28669576.92 -28669576.71 0.0131 0.0089

Earth -83207-12-23 15:49 J -28669577.00 -28669576.84 -28669576.65 0.0131 0.0094 *

Earth -83206-12-27 17:30 J -28669207.95 -28669207.77 -28669207.56 0.0131 0.0083

Moon -83206-12-27 19:11 J -28669207.88 -28669207.70 -28669207.51 0.0131 0.0084 *

Moon -83205-12-30 17:16 J -28668838.98 -28668838.78 -28668838.55 0.0132 0.0073

Earth -83205-12-30 19:11 J -28668838.89 -28668838.70 -28668838.47 0.0132 0.0073 *

Earth -83203-01-03 20:37 J -28668469.85 -28668469.64 -28668469.41 0.0132 0.0062

Moon	-83203-01-03 22:18 J	-28668469.78	-28668469.57	-28668469.34	0.0132	0.0058	*
Saturn	-83203-10-02 16:18 J	-28668198.17	-28668197.82	-28668197.42	0.0132	0.0106	
Moon	-83202-01-07 20:37 J	-28668100.87	-28668100.64	-28668100.40	0.0132	0.0056	
Earth	-83202-01-07 22:32 J	-28668100.79	-28668100.56	-28668100.33	0.0132	0.0050	*
Earth	-83201-01-11 23:59 J	-28667731.73	-28667731.50	-28667731.25	0.0132	0.0040	
Moon	-83201-01-12 02:08 J	-28667731.64	-28667731.41	-28667731.17	0.0132	0.0033	*
Moon	-83200-01-15 00:13 J	-28667362.73	-28667362.49	-28667362.23	0.0133	0.0034	
Earth	-83200-01-15 01:54 J	-28667362.66	-28667362.42	-28667362.17	0.0133	0.0028	*
Earth	-83199-01-19 04:04 J	-28666993.57	-28666993.33	-28666993.08	0.0133	0.0016	
Moon	-83199-01-19 06:13 J	-28666993.48	-28666993.24	-28666993.00	0.0133	0.0010	*
Moon	-83198-01-23 04:47 J	-28666624.56	-28666624.30	-28666624.05	0.0133	0.0007	
Earth	-83198-01-23 06:42 J	-28666624.47	-28666624.22	-28666623.97	0.0133	0.0004	*
Earth	-83197-01-27 09:20 J	-28666255.35	-28666255.11	-28666254.86	0.0134	0.0009	
Moon	-83197-01-27 11:16 J	-28666255.27	-28666255.03	-28666254.79	0.0134	0.0010	*
Moon	-83196-01-30 10:32 J	-28665886.31	-28665886.06	-28665885.81	0.0134	0.0022	
Earth	-83196-01-30 12:42 J	-28665886.21	-28665885.97	-28665885.72	0.0134	0.0021	*
Earth	-83195-02-03 16:18 J	-28665517.06	-28665516.82	-28665516.58	0.0135	0.0034	
Moon	-83195-02-03 17:59 J	-28665516.98	-28665516.75	-28665516.51	0.0135	0.0029	*
Moon	-83194-02-07 17:59 J	-28665147.97	-28665147.75	-28665147.50	0.0135	0.0053	
Earth	-83194-02-07 20:23 J	-28665147.87	-28665147.65	-28665147.41	0.0135	0.0046	*
Earth	-83193-02-12 00:56 J	-28664778.67	-28664778.46	-28664778.22	0.0136	0.0059	
Moon	-83193-02-12 03:06 J	-28664778.59	-28664778.37	-28664778.15	0.0136	0.0052	*
Moon	-83192-02-15 04:18 J	-28664409.51	-28664409.32	-28664409.09	0.0137	0.0078	
Earth	-83192-02-15 06:28 J	-28664409.44	-28664409.23	-28664409.01	0.0137	0.0071	*
Venus	-83192-07-20 22:32 J	-28664253.58	-28664253.56	-28664253.52	0.0137	0.0135	
Earth	-83191-02-19 12:13 J	-28664040.17	-28664039.99	-28664039.78	0.0137	0.0083	
Moon	-83191-02-19 14:08 J	-28664040.09	-28664039.91	-28664039.70	0.0137	0.0078	*
Venus	-83191-03-04 03:20 J	-28664027.53	-28664027.36	-28664027.17	0.0137	0.0075	
Venus	-83191-10-16 08:37 J	-28663801.35	-28663801.14	-28663800.93	0.0138	0.0013	
Moon	-83190-02-23 17:30 J	-28663670.94	-28663670.77	-28663670.58	0.0138	0.0097	

Earth -83190-02-23 19:11 J -28663670.87 -28663670.70 -28663670.52 0.0138 0.0095 *
 Venus -83190-05-30 13:40 J -28663575.11 -28663574.93 -28663574.72 0.0138 0.0050
 Venus -83189-01-11 19:25 J -28663348.80 -28663348.69 -28663348.56 0.0138 0.0113
 Earth -83189-02-28 02:23 J -28663301.54 -28663301.40 -28663301.23 0.0138 0.0107
 Moon -83189-02-28 04:18 J -28663301.46 -28663301.32 -28663301.16 0.0138 0.0107 *
 Mercury -83189-07-18 01:54 J -28663160.47 -28663160.42 -28663160.36 0.0139 0.0126
 Mercury -83189-10-14 05:30 J -28663072.35 -28663072.27 -28663072.18 0.0139 0.0109
 Mercury -83188-01-10 09:06 J -28662984.22 -28662984.12 -28662984.02 0.0139 0.0092
 Moon -83188-03-03 09:20 J -28662932.24 -28662932.11 -28662931.95 0.0139 0.0114
 Earth -83188-03-03 10:47 J -28662932.16 -28662932.05 -28662931.90 0.0139 0.0118 *
 Mercury -83188-04-08 12:28 J -28662896.08 -28662895.98 -28662895.86 0.0139 0.0075
 Mercury -83188-07-05 16:18 J -28662807.94 -28662807.82 -28662807.70 0.0139 0.0057
 Mercury -83188-10-01 19:54 J -28662719.80 -28662719.67 -28662719.54 0.0139 0.0040
 Mercury -83188-12-28 23:30 J -28662631.65 -28662631.52 -28662631.38 0.0140 0.0023
 Earth -83187-03-07 20:08 J -28662562.74 -28662562.66 -28662562.55 0.0140 0.0129
 Moon -83187-03-07 21:20 J -28662562.64 -28662562.61 -28662562.53 0.0140 0.0136 *
 Mercury -83187-03-27 03:20 J -28662543.50 -28662543.36 -28662543.23 0.0140 0.0005
 Mercury -83187-06-23 06:56 J -28662455.35 -28662455.21 -28662455.07 0.0140 0.0014
 Mercury -83187-09-19 10:32 J -28662367.19 -28662367.06 -28662366.92 0.0140 0.0032
 Mercury -83187-12-16 14:23 J -28662279.03 -28662278.90 -28662278.77 0.0140 0.0050
 Moon -83186-03-12 05:16 J -28662193.35 -28662193.28 -28662193.18 0.0140 0.0132
 Earth -83186-03-12 06:56 J -28662193.24 -28662193.21 -28662193.17 0.0140 0.0139 *
 Mercury -83186-03-14 18:13 J -28662190.86 -28662190.74 -28662190.62 0.0140 0.0068
 Mercury -83186-06-10 22:04 J -28662102.69 -28662102.58 -28662102.47 0.0140 0.0087
 Mercury -83186-09-07 01:54 J -28662014.51 -28662014.42 -28662014.33 0.0141 0.0106
 Mercury -83186-12-04 05:44 J -28661926.32 -28661926.26 -28661926.19 0.0141 0.0125
 Mars -83170-10-11 06:28 J -28656136.54 -28656136.23 -28656135.89 0.0148 0.0046
 Moon -83169-05-28 22:04 J -28655905.59 -28655905.58 -28655905.54 0.0148 0.0147
 Earth -83168-06-03 07:25 J -28655535.24 -28655535.19 -28655535.12 0.0148 0.0143
 Moon -83168-06-03 09:20 J -28655535.11 -28655535.11 -28655535.08 0.0148 0.0148

Mars	-83168-09-19 10:32 J	-28655427.34	-28655427.06	-28655426.76	0.0148	0.0079
Moon	-83167-06-08 12:28 J	-28655165.08	-28655164.98	-28655164.84	0.0148	0.0131
Earth	-83167-06-08 14:08 J	-28655165.01	-28655164.91	-28655164.77	0.0148	0.0131 *
Earth	-83166-06-13 21:49 J	-28654794.73	-28654794.59	-28654794.42	0.0148	0.0118
Moon	-83166-06-13 22:04 J	-28654794.72	-28654794.58	-28654794.40	0.0148	0.0112 *
Earth	-83165-06-18 05:44 J	-28654424.43	-28654424.26	-28654424.06	0.0148	0.0103
Moon	-83165-06-18 05:59 J	-28654424.42	-28654424.25	-28654424.06	0.0148	0.0110 *
Moon	-83164-06-23 12:28 J	-28654054.17	-28654053.98	-28654053.76	0.0147	0.0082
Earth	-83164-06-23 14:08 J	-28654054.11	-28654053.91	-28654053.69	0.0147	0.0088 *
Earth	-83163-06-28 22:32 J	-28653683.78	-28653683.56	-28653683.33	0.0147	0.0072
Moon	-83163-06-29 00:42 J	-28653683.69	-28653683.47	-28653683.24	0.0147	0.0074 *
Moon	-83162-07-04 03:49 J	-28653313.56	-28653313.34	-28653313.10	0.0147	0.0059
Earth	-83162-07-04 06:56 J	-28653313.45	-28653313.21	-28653312.97	0.0147	0.0055 *
Earth	-83161-07-08 15:06 J	-28652943.11	-28652942.87	-28652942.61	0.0146	0.0039
Moon	-83161-07-08 18:56 J	-28652942.97	-28652942.71	-28652942.46	0.0146	0.0031 *
Moon	-83160-07-13 19:54 J	-28652572.91	-28652572.67	-28652572.41	0.0146	0.0029
Earth	-83160-07-13 23:30 J	-28652572.77	-28652572.52	-28652572.26	0.0146	0.0022 *
Earth	-83159-07-19 07:11 J	-28652202.45	-28652202.20	-28652201.93	0.0146	0.0006
Moon	-83159-07-19 11:01 J	-28652202.29	-28652202.04	-28652201.78	0.0146	0.0003 *
Moon	-83158-07-24 11:30 J	-28651832.28	-28651832.02	-28651831.76	0.0145	0.0011
Earth	-83158-07-24 15:06 J	-28651832.13	-28651831.87	-28651831.61	0.0145	0.0012 *
Earth	-83157-07-28 22:04 J	-28651461.84	-28651461.58	-28651461.32	0.0144	0.0029
Moon	-83157-07-29 00:42 J	-28651461.72	-28651461.47	-28651461.21	0.0144	0.0023 *
Moon	-83156-08-03 01:40 J	-28651091.67	-28651091.43	-28651091.17	0.0144	0.0052
Earth	-83156-08-03 04:32 J	-28651091.55	-28651091.31	-28651091.06	0.0144	0.0045 *
Earth	-83155-08-08 10:18 J	-28650721.30	-28650721.07	-28650720.82	0.0143	0.0061
Moon	-83155-08-08 11:44 J	-28650721.24	-28650721.01	-28650720.77	0.0143	0.0054 *
Moon	-83154-08-13 14:08 J	-28650351.12	-28650350.91	-28650350.67	0.0143	0.0079
Earth	-83154-08-13 15:06 J	-28650351.08	-28650350.87	-28650350.63	0.0143	0.0076 *
Venus	-83153-08-14 12:42 J	-28649984.06	-28649983.97	-28649983.86	0.0142	0.0126

Earth -83153-08-17 19:11 J -28649980.88 -28649980.70 -28649980.47 0.0142 0.0090
 Moon -83153-08-17 19:40 J -28649980.87 -28649980.68 -28649980.49 0.0142 0.0091 *
 Venus -83152-03-29 01:25 J -28649757.64 -28649757.44 -28649757.22 0.0142 0.0054
 Earth -83152-08-22 22:32 J -28649610.72 -28649610.56 -28649610.37 0.0141 0.0104
 Moon -83152-08-22 23:30 J -28649610.70 -28649610.52 -28649610.31 0.0141 0.0097 *
 Venus -83152-11-10 14:08 J -28649531.13 -28649530.91 -28649530.68 0.0141 0.0019
 Venus -83151-06-25 02:37 J -28649304.56 -28649304.39 -28649304.21 0.0141 0.0090
 Moon -83151-08-27 23:16 J -28649240.64 -28649240.53 -28649240.39 0.0141 0.0123
 Earth -83151-08-28 00:28 J -28649240.61 -28649240.48 -28649240.31 0.0141 0.0116 *
 Earth -83150-09-02 01:40 J -28648870.53 -28648870.43 -28648870.31 0.0140 0.0127
 Moon -83150-09-02 04:04 J -28648870.45 -28648870.33 -28648870.18 0.0140 0.0121 *
 Mercury -83150-09-14 11:01 J -28648858.09 -28648858.04 -28648857.96 0.0140 0.0131
 Mercury -83150-12-11 18:28 J -28648769.84 -28648769.73 -28648769.60 0.0140 0.0106
 Mercury -83149-03-09 01:40 J -28648681.57 -28648681.43 -28648681.27 0.0140 0.0082
 Mercury -83149-06-05 08:52 J -28648593.29 -28648593.13 -28648592.96 0.0140 0.0058
 Mercury -83149-09-01 15:49 J -28648505.01 -28648504.84 -28648504.66 0.0139 0.0034
 Earth -83149-09-06 01:40 J -28648500.46 -28648500.43 -28648500.38 0.0139 0.0138
 Mercury -83149-11-28 23:01 J -28648416.72 -28648416.54 -28648416.36 0.0139 0.0010
 Mercury -83148-02-25 05:59 J -28648328.43 -28648328.25 -28648328.07 0.0139 0.0014
 Mercury -83148-05-24 12:42 J -28648240.14 -28648239.97 -28648239.79 0.0139 0.0037
 Mercury -83148-08-20 19:25 J -28648151.85 -28648151.69 -28648151.52 0.0139 0.0060
 Mercury -83148-11-17 02:08 J -28648063.55 -28648063.41 -28648063.26 0.0139 0.0083
 Mercury -83147-02-13 08:37 J -28647975.24 -28647975.14 -28647975.01 0.0139 0.0106
 Mercury -83147-05-12 15:20 J -28647886.92 -28647886.86 -28647886.78 0.0138 0.0128
 Mars -83129-03-19 03:06 J -28641366.60 -28641366.37 -28641366.12 0.0131 0.0068
 Mars -83127-02-15 06:42 J -28640668.50 -28640668.22 -28640667.94 0.0131 0.0001
 Earth -83127-12-08 21:06 J -28640371.65 -28640371.62 -28640371.56 0.0131 0.0129
 Earth -83126-12-13 00:13 J -28640002.57 -28640002.49 -28640002.38 0.0131 0.0120
 Moon -83126-12-13 01:54 J -28640002.53 -28640002.42 -28640002.29 0.0131 0.0114 *
 Mars -83125-01-14 09:06 J -28639970.35 -28639970.12 -28639969.86 0.0131 0.0066

Moon	-83125-12-16 00:28 J	-28639633.57	-28639633.48	-28639633.35	0.0131	0.0118
Earth	-83125-12-16 02:37 J	-28639633.50	-28639633.39	-28639633.23	0.0131	0.0111 *
Mars	-83124-12-12 11:30 J	-28639272.02	-28639272.02	-28639272.02	0.0131	0.0131
Earth	-83124-12-20 04:47 J	-28639264.44	-28639264.30	-28639264.12	0.0131	0.0102
Moon	-83124-12-20 06:42 J	-28639264.37	-28639264.22	-28639264.03	0.0131	0.0096 *
Moon	-83123-12-24 05:01 J	-28638895.46	-28638895.29	-28638895.10	0.0131	0.0094
Earth	-83123-12-24 06:42 J	-28638895.38	-28638895.22	-28638895.02	0.0131	0.0091 *
Earth	-83122-12-28 08:37 J	-28638526.32	-28638526.14	-28638525.93	0.0131	0.0081
Moon	-83122-12-28 11:01 J	-28638526.23	-28638526.04	-28638525.83	0.0131	0.0079 *
Moon	-83121-12-31 08:23 J	-28638157.36	-28638157.15	-28638156.92	0.0132	0.0068
Earth	-83121-12-31 10:18 J	-28638157.27	-28638157.07	-28638156.85	0.0132	0.0070 *
Earth	-83119-01-04 11:44 J	-28637788.22	-28637788.01	-28637787.77	0.0132	0.0059
Moon	-83119-01-04 13:54 J	-28637788.12	-28637787.92	-28637787.69	0.0132	0.0063 *
Moon	-83118-01-08 11:16 J	-28637419.26	-28637419.03	-28637418.78	0.0132	0.0042
Earth	-83118-01-08 13:40 J	-28637419.16	-28637418.93	-28637418.69	0.0132	0.0047 *
Earth	-83117-01-12 15:20 J	-28637050.09	-28637049.86	-28637049.61	0.0132	0.0035
Moon	-83117-01-12 17:16 J	-28637050.00	-28637049.78	-28637049.54	0.0132	0.0043 *
Moon	-83116-01-15 14:52 J	-28636681.13	-28636680.88	-28636680.62	0.0133	0.0016
Earth	-83116-01-15 17:30 J	-28636681.01	-28636680.77	-28636680.52	0.0133	0.0023 *
Earth	-83115-01-19 19:40 J	-28636311.93	-28636311.68	-28636311.43	0.0133	0.0011
Moon	-83115-01-19 21:35 J	-28636311.84	-28636311.60	-28636311.36	0.0133	0.0016 *
Moon	-83114-01-23 19:40 J	-28635942.93	-28635942.68	-28635942.42	0.0133	0.0006
Earth	-83114-01-23 22:18 J	-28635942.82	-28635942.57	-28635942.32	0.0133	0.0001 *
Earth	-83113-01-28 01:11 J	-28635573.70	-28635573.45	-28635573.20	0.0134	0.0014
Moon	-83113-01-28 03:35 J	-28635573.59	-28635573.35	-28635573.11	0.0134	0.0012 *
Moon	-83112-01-31 02:08 J	-28635204.65	-28635204.41	-28635204.15	0.0134	0.0024
Earth	-83112-01-31 04:18 J	-28635204.56	-28635204.32	-28635204.07	0.0134	0.0027 *
Earth	-83111-02-04 07:54 J	-28634835.40	-28634835.17	-28634834.92	0.0135	0.0039
Moon	-83111-02-04 10:32 J	-28634835.28	-28634835.06	-28634834.83	0.0135	0.0043 *
Moon	-83110-02-08 09:49 J	-28634466.31	-28634466.09	-28634465.84	0.0135	0.0046

Earth -83110-02-08 12:28 J -28634466.21 -28634465.98 -28634465.75 0.0135 0.0052 *
 Earth -83109-02-12 16:47 J -28634097.01 -28634096.80 -28634096.58 0.0136 0.0064
 Moon -83109-02-12 18:56 J -28634096.90 -28634096.71 -28634096.49 0.0136 0.0072 *
 Moon -83108-02-15 19:25 J -28633727.89 -28633727.69 -28633727.46 0.0137 0.0071
 Earth -83108-02-15 22:18 J -28633727.77 -28633727.57 -28633727.37 0.0137 0.0077 *
 Venus -83108-11-01 17:01 J -28633468.93 -28633468.79 -28633468.64 0.0137 0.0098
 Earth -83107-02-20 03:49 J -28633358.51 -28633358.34 -28633358.14 0.0137 0.0089
 Moon -83107-02-20 05:44 J -28633358.42 -28633358.26 -28633358.07 0.0137 0.0094 *
 Venus -83107-06-15 22:04 J -28633242.78 -28633242.58 -28633242.37 0.0137 0.0037
 Venus -83106-01-28 03:20 J -28633016.57 -28633016.36 -28633016.15 0.0138 0.0025
 Moon -83106-02-24 08:08 J -28632989.32 -28632989.16 -28632988.97 0.0138 0.0098
 Earth -83106-02-24 10:47 J -28632989.20 -28632989.05 -28632988.87 0.0138 0.0101 *
 Venus -83106-09-11 08:37 J -28632790.30 -28632790.14 -28632789.97 0.0138 0.0087
 Earth -83105-02-28 18:28 J -28632619.86 -28632619.73 -28632619.58 0.0138 0.0113
 Moon -83105-02-28 20:23 J -28632619.78 -28632619.65 -28632619.51 0.0138 0.0112 *
 Mercury -83105-05-11 06:28 J -28632547.25 -28632547.23 -28632547.19 0.0138 0.0135
 Mercury -83105-08-07 10:04 J -28632459.14 -28632459.08 -28632459.01 0.0139 0.0118
 Mercury -83105-11-03 13:25 J -28632371.02 -28632370.94 -28632370.84 0.0139 0.0102
 Mercury -83104-01-30 17:16 J -28632282.89 -28632282.78 -28632282.67 0.0139 0.0084
 Moon -83104-03-04 00:56 J -28632250.55 -28632250.46 -28632250.36 0.0139 0.0127
 Earth -83104-03-04 02:37 J -28632250.48 -28632250.39 -28632250.26 0.0139 0.0124 *
 Mercury -83104-04-28 20:52 J -28632194.75 -28632194.63 -28632194.51 0.0139 0.0067
 Mercury -83104-07-26 00:28 J -28632106.61 -28632106.48 -28632106.35 0.0139 0.0050
 Mercury -83104-10-22 04:04 J -28632018.46 -28632018.33 -28632018.19 0.0139 0.0032
 Mercury -83103-01-18 07:40 J -28631930.31 -28631930.18 -28631930.04 0.0140 0.0015
 Earth -83103-03-08 12:13 J -28631881.04 -28631880.99 -28631880.91 0.0140 0.0135
 Moon -83103-03-08 13:54 J -28631880.98 -28631880.92 -28631880.81 0.0140 0.0130 *
 Mercury -83103-04-16 11:30 J -28631842.16 -28631842.02 -28631841.88 0.0140 0.0004
 Mercury -83103-07-13 15:06 J -28631754.00 -28631753.87 -28631753.73 0.0140 0.0022
 Mercury -83103-10-09 18:56 J -28631665.84 -28631665.71 -28631665.58 0.0140 0.0040

Mercury -83102-01-05 22:47 J -28631577.68 -28631577.55 -28631577.42 0.0140 0.0058
 Mercury -83102-04-04 02:37 J -28631489.51 -28631489.39 -28631489.28 0.0140 0.0077
 Mercury -83102-07-01 06:13 J -28631401.33 -28631401.24 -28631401.13 0.0140 0.0096
 Mercury -83102-09-27 10:04 J -28631313.15 -28631313.08 -28631312.99 0.0141 0.0115
 Mercury -83102-12-24 14:08 J -28631224.95 -28631224.91 -28631224.86 0.0141 0.0133
 Mars -83087-06-29 23:16 J -28625923.73 -28625923.53 -28625923.29 0.0148 0.0114
 Mars -83085-06-08 01:11 J -28625214.79 -28625214.45 -28625214.11 0.0148 0.0009
 Earth -83084-06-03 23:59 J -28624853.56 -28624853.50 -28624853.42 0.0148 0.0142
 Moon -83084-06-04 02:23 J -28624853.47 -28624853.40 -28624853.30 0.0148 0.0138 *
 Mars -83083-05-18 04:32 J -28624505.43 -28624505.31 -28624505.13 0.0148 0.0132
 Moon -83083-06-09 05:30 J -28624483.40 -28624483.27 -28624483.14 0.0148 0.0127
 Earth -83083-06-09 06:56 J -28624483.32 -28624483.21 -28624483.08 0.0148 0.0129 *
 Earth -83082-06-14 14:08 J -28624113.05 -28624112.91 -28624112.73 0.0148 0.0115
 Moon -83082-06-14 15:35 J -28624112.99 -28624112.85 -28624112.70 0.0148 0.0120 *
 Moon -83081-06-18 22:18 J -28623742.76 -28623742.57 -28623742.35 0.0148 0.0093
 Earth -83081-06-18 22:18 J -28623742.75 -28623742.57 -28623742.38 0.0148 0.0100 *
 Moon -83080-06-24 05:44 J -28623372.45 -28623372.26 -28623372.06 0.0147 0.0091
 Earth -83080-06-24 06:13 J -28623372.44 -28623372.24 -28623372.02 0.0147 0.0084 *
 Earth -83079-06-29 14:37 J -28623002.12 -28623001.89 -28623001.66 0.0147 0.0068
 Moon -83079-06-29 16:18 J -28623002.04 -28623001.82 -28623001.57 0.0147 0.0067 *
 Moon -83078-07-04 20:23 J -28622631.88 -28622631.65 -28622631.41 0.0147 0.0048
 Earth -83078-07-04 22:47 J -28622631.78 -28622631.55 -28622631.30 0.0147 0.0051 *
 Earth -83077-07-09 07:11 J -28622261.45 -28622261.20 -28622260.95 0.0146 0.0034
 Moon -83077-07-09 10:18 J -28622261.32 -28622261.07 -28622260.82 0.0146 0.0041 *
 Moon -83076-07-14 11:44 J -28621891.27 -28621891.01 -28621890.75 0.0146 0.0009
 Earth -83076-07-14 15:20 J -28621891.11 -28621890.86 -28621890.60 0.0146 0.0017 *
 Earth -83075-07-19 23:16 J -28621520.79 -28621520.53 -28621520.27 0.0146 0.0002
 Moon -83075-07-20 02:52 J -28621520.64 -28621520.38 -28621520.12 0.0146 0.0004 *
 Moon -83074-07-25 03:20 J -28621150.62 -28621150.36 -28621150.10 0.0145 0.0017
 Earth -83074-07-25 06:56 J -28621150.47 -28621150.21 -28621149.95 0.0145 0.0018 *

Earth	-83073-07-29 13:54 J	-28620780.17	-28620779.92	-28620779.66	0.0144	0.0035
Moon	-83073-07-29 17:16 J	-28620780.02	-28620779.78	-28620779.52	0.0144	0.0039 *
Moon	-83072-08-03 17:59 J	-28620410.00	-28620409.75	-28620409.49	0.0144	0.0044
Earth	-83072-08-03 20:37 J	-28620409.88	-28620409.64	-28620409.39	0.0144	0.0051 *
Earth	-83071-08-09 01:54 J	-28620039.63	-28620039.42	-28620039.17	0.0143	0.0067
Moon	-83071-08-09 04:18 J	-28620039.52	-28620039.32	-28620039.09	0.0143	0.0074 *
Moon	-83070-08-14 05:59 J	-28619669.47	-28619669.25	-28619669.02	0.0143	0.0079
Earth	-83070-08-14 07:25 J	-28619669.40	-28619669.19	-28619668.98	0.0143	0.0082 *
Earth	-83069-08-18 11:30 J	-28619299.21	-28619299.02	-28619298.83	0.0142	0.0096
Moon	-83069-08-18 11:44 J	-28619299.19	-28619299.01	-28619298.81	0.0142	0.0095 *
Venus	-83069-11-26 10:47 J	-28619199.22	-28619199.05	-28619198.86	0.0142	0.0083
Venus	-83068-07-10 23:44 J	-28618972.73	-28618972.51	-28618972.28	0.0141	0.0010
Earth	-83068-08-23 13:54 J	-28618929.06	-28618928.92	-28618928.73	0.0141	0.0111
Moon	-83068-08-23 14:23 J	-28618929.05	-28618928.90	-28618928.73	0.0141	0.0115 *
Venus	-83067-02-22 11:59 J	-28618746.20	-28618746.00	-28618745.79	0.0141	0.0061
Moon	-83067-08-28 14:37 J	-28618559.01	-28618558.89	-28618558.73	0.0141	0.0116
Earth	-83067-08-28 16:04 J	-28618558.94	-28618558.83	-28618558.69	0.0141	0.0123 *
Venus	-83067-10-06 23:59 J	-28618519.57	-28618519.50	-28618519.42	0.0141	0.0132
Earth	-83066-09-02 16:47 J	-28618188.85	-28618188.80	-28618188.71	0.0140	0.0134
Moon	-83066-09-02 18:28 J	-28618188.73	-28618188.73	-28618188.70	0.0140	0.0140 *
Mercury	-83066-10-04 19:54 J	-28618156.75	-28618156.67	-28618156.56	0.0140	0.0121
Mercury	-83065-01-01 03:20 J	-28618068.49	-28618068.36	-28618068.22	0.0140	0.0096
Mercury	-83065-03-29 10:32 J	-28617980.21	-28617980.06	-28617979.90	0.0140	0.0072
Mercury	-83065-06-25 17:30 J	-28617891.93	-28617891.77	-28617891.59	0.0140	0.0048
Mercury	-83065-09-22 00:42 J	-28617803.65	-28617803.47	-28617803.29	0.0139	0.0024
Mercury	-83065-12-19 07:40 J	-28617715.36	-28617715.18	-28617714.99	0.0139	0.0002
Mercury	-83064-03-17 14:37 J	-28617627.07	-28617626.89	-28617626.71	0.0139	0.0024
Mercury	-83064-06-13 21:20 J	-28617538.77	-28617538.61	-28617538.43	0.0139	0.0047
Mercury	-83064-09-10 04:04 J	-28617450.48	-28617450.33	-28617450.17	0.0139	0.0070
Mercury	-83064-12-07 10:47 J	-28617362.17	-28617362.05	-28617361.91	0.0139	0.0093

Mercury -83063-03-05 17:30 J -28617273.86 -28617273.77 -28617273.66 0.0138 0.0115

Mercury -83063-06-01 23:59 J -28617185.51 -28617185.50 -28617185.47 0.0138 0.0137

Mars -83047-12-14 02:52 J -28611146.54 -28611146.38 -28611146.19 0.0131 0.0103

Mars -83045-11-11 08:08 J -28610448.42 -28610448.16 -28610447.88 0.0131 0.0036

Mars -83043-10-10 11:30 J -28609750.28 -28609750.02 -28609749.74 0.0131 0.0030

Moon -83043-12-09 10:32 J -28609690.15 -28609690.06 -28609689.96 0.0131 0.0122

Earth -83043-12-09 12:42 J -28609690.01 -28609689.97 -28609689.92 0.0131 0.0128 *

Earth -83042-12-13 15:20 J -28609320.95 -28609320.86 -28609320.74 0.0131 0.0119

Moon -83042-12-13 17:59 J -28609320.80 -28609320.75 -28609320.67 0.0131 0.0126 *

Mars -83041-09-07 12:13 J -28609052.17 -28609051.99 -28609051.79 0.0131 0.0095

Moon -83041-12-16 15:20 J -28608952.00 -28608951.86 -28608951.68 0.0131 0.0103

Earth -83041-12-16 18:13 J -28608951.88 -28608951.74 -28608951.60 0.0131 0.0109 *

Earth -83040-12-20 19:54 J -28608582.82 -28608582.67 -28608582.49 0.0131 0.0100

Moon -83040-12-20 22:18 J -28608582.70 -28608582.57 -28608582.41 0.0131 0.0105 *

Moon -83039-12-24 19:11 J -28608213.88 -28608213.70 -28608213.49 0.0131 0.0084

Earth -83039-12-24 21:49 J -28608213.75 -28608213.59 -28608213.39 0.0131 0.0089 *

Earth -83038-12-28 23:59 J -28607844.70 -28607844.50 -28607844.30 0.0131 0.0078

Moon -83038-12-29 02:08 J -28607844.61 -28607844.41 -28607844.22 0.0131 0.0079 *

Moon -83037-12-31 22:32 J -28607475.77 -28607475.56 -28607475.33 0.0132 0.0068

Earth -83036-01-01 01:25 J -28607475.65 -28607475.44 -28607475.22 0.0132 0.0067 *

Earth -83035-01-05 02:37 J -28607106.60 -28607106.39 -28607106.14 0.0132 0.0056

Moon -83035-01-05 05:30 J -28607106.49 -28607106.27 -28607106.04 0.0132 0.0052 *

Moon -83034-01-09 02:23 J -28606737.64 -28606737.40 -28606737.17 0.0132 0.0049

Earth -83034-01-09 04:47 J -28606737.53 -28606737.30 -28606737.06 0.0132 0.0043 *

Earth -83033-01-13 06:28 J -28606368.47 -28606368.23 -28606367.98 0.0132 0.0032

Moon -83033-01-13 09:20 J -28606368.35 -28606368.11 -28606367.87 0.0132 0.0025 *

Moon -83032-01-16 05:59 J -28605999.50 -28605999.25 -28605999.00 0.0133 0.0026

Earth -83032-01-16 08:23 J -28605999.39 -28605999.15 -28605998.90 0.0133 0.0019 *

Earth -83031-01-20 10:47 J -28605630.30 -28605630.05 -28605629.80 0.0133 0.0007

Moon -83031-01-20 13:25 J -28605630.18 -28605629.94 -28605629.69 0.0133 0.0003 *

Moon	-83030-01-24 10:47 J	-28605261.31	-28605261.05	-28605260.80	0.0133	0.0002
Earth	-83030-01-24 13:25 J	-28605261.19	-28605260.94	-28605260.69	0.0133	0.0006 *
Earth	-83029-01-28 16:04 J	-28604892.07	-28604891.83	-28604891.58	0.0134	0.0019
Moon	-83029-01-28 18:42 J	-28604891.96	-28604891.72	-28604891.48	0.0134	0.0019 *
Moon	-83028-01-31 16:18 J	-28604523.06	-28604522.82	-28604522.57	0.0134	0.0032
Earth	-83028-01-31 19:11 J	-28604522.93	-28604522.70	-28604522.45	0.0134	0.0032 *
Earth	-83027-02-04 23:01 J	-28604153.78	-28604153.54	-28604153.31	0.0135	0.0044
Moon	-83027-02-05 01:11 J	-28604153.67	-28604153.45	-28604153.21	0.0135	0.0040 *
Moon	-83026-02-08 23:44 J	-28603784.72	-28603784.51	-28603784.27	0.0135	0.0064
Earth	-83026-02-09 02:37 J	-28603784.60	-28603784.39	-28603784.15	0.0135	0.0058 *
Earth	-83025-02-13 07:11 J	-28603415.39	-28603415.20	-28603414.97	0.0136	0.0070
Moon	-83025-02-13 10:04 J	-28603415.29	-28603415.08	-28603414.86	0.0136	0.0063 *
Moon	-83024-02-16 10:04 J	-28603046.26	-28603046.08	-28603045.88	0.0137	0.0089
Earth	-83024-02-16 12:28 J	-28603046.16	-28603045.98	-28603045.77	0.0137	0.0083 *
Venus	-83024-07-02 05:44 J	-28602910.34	-28602910.26	-28602910.16	0.0137	0.0123
Venus	-83023-02-13 10:32 J	-28602684.24	-28602684.06	-28602683.86	0.0137	0.0062
Earth	-83023-02-20 18:42 J	-28602676.90	-28602676.72	-28602676.54	0.0137	0.0094
Moon	-83023-02-20 21:06 J	-28602676.78	-28602676.62	-28602676.42	0.0137	0.0089 *
Venus	-83023-09-27 15:49 J	-28602458.05	-28602457.84	-28602457.63	0.0137	0.0001
Moon	-83022-02-24 22:47 J	-28602307.68	-28602307.55	-28602307.38	0.0138	0.0109
Earth	-83022-02-25 01:11 J	-28602307.59	-28602307.45	-28602307.28	0.0138	0.0107 *
Venus	-83022-05-11 20:52 J	-28602231.81	-28602231.63	-28602231.43	0.0138	0.0062
Venus	-83022-12-24 02:23 J	-28602005.47	-28602005.40	-28602005.29	0.0138	0.0125
Earth	-83021-02-29 09:06 J	-28601938.25	-28601938.12	-28601937.99	0.0138	0.0118
Moon	-83021-02-29 11:30 J	-28601938.14	-28601938.02	-28601937.89	0.0138	0.0119 *
Mercury	-83021-05-31 14:23 J	-28601845.94	-28601845.90	-28601845.84	0.0138	0.0129
Mercury	-83021-08-27 17:59 J	-28601757.82	-28601757.75	-28601757.67	0.0139	0.0112
Mercury	-83021-11-23 21:35 J	-28601669.70	-28601669.60	-28601669.50	0.0139	0.0095
Mercury	-83020-02-20 00:56 J	-28601581.56	-28601581.46	-28601581.34	0.0139	0.0078
Moon	-83020-03-04 14:52 J	-28601568.97	-28601568.88	-28601568.76	0.0139	0.0126

Earth	-83020-03-04 17:16 J	-28601568.85	-28601568.78	-28601568.67	0.0139	0.0129	*
Mercury	-83020-05-19 04:47 J	-28601493.42	-28601493.30	-28601493.18	0.0139	0.0060	
Mercury	-83020-08-15 08:23 J	-28601405.28	-28601405.15	-28601405.02	0.0139	0.0043	
Mercury	-83020-11-11 11:59 J	-28601317.13	-28601317.00	-28601316.86	0.0139	0.0025	
Mercury	-83019-02-07 15:49 J	-28601228.98	-28601228.84	-28601228.71	0.0139	0.0009	
Mercury	-83019-05-06 19:25 J	-28601140.83	-28601140.69	-28601140.55	0.0140	0.0010	
Mercury	-83019-08-02 23:01 J	-28601052.67	-28601052.54	-28601052.40	0.0140	0.0029	
Mercury	-83019-10-30 02:52 J	-28600964.51	-28600964.38	-28600964.25	0.0140	0.0047	
Mercury	-83018-01-26 06:42 J	-28600876.34	-28600876.22	-28600876.10	0.0140	0.0065	
Mercury	-83018-04-24 10:32 J	-28600788.17	-28600788.06	-28600787.95	0.0140	0.0084	
Mercury	-83018-07-21 14:23 J	-28600699.99	-28600699.90	-28600699.80	0.0140	0.0102	
Mercury	-83018-10-17 17:59 J	-28600611.80	-28600611.75	-28600611.67	0.0141	0.0122	
Mercury	-83017-01-13 22:04 J	-28600523.58	-28600523.58	-28600523.57	0.0141	0.0140	
Mars	-83002-02-25 11:01 J	-28595002.34	-28595002.04	-28595001.71	0.0148	0.0062	
Moon	-83001-05-30 04:18 J	-28594542.34	-28594542.32	-28594542.26	0.0148	0.0146	

83RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 83rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-83000-02-03 14:08 J	-28594293.20	-28594292.91	-28594292.58	0.0148	0.0061		
Earth	-83000-06-04 13:54 J	-28594171.97	-28594171.92	-28594171.83	0.0148	0.0141		
Moon	-83000-06-04 16:47 J	-28594171.83	-28594171.80	-28594171.74	0.0148	0.0145	*	

Moon	-82999-06-09 18:13 J	-28593801.85	-28593801.74	-28593801.59	0.0148	0.0127
Earth	-82999-06-09 20:37 J	-28593801.74	-28593801.64	-28593801.49	0.0148	0.0128 *
Earth	-82998-06-15 04:18 J	-28593431.47	-28593431.32	-28593431.14	0.0148	0.0113
Moon	-82998-06-15 05:44 J	-28593431.43	-28593431.26	-28593431.09	0.0148	0.0107 *
Moon	-82997-06-19 11:01 J	-28593061.21	-28593061.04	-28593060.83	0.0148	0.0105
Earth	-82997-06-19 12:28 J	-28593061.17	-28593060.98	-28593060.79	0.0148	0.0097 *
Moon	-82996-06-24 19:40 J	-28592690.88	-28592690.68	-28592690.46	0.0148	0.0076
Earth	-82996-06-24 20:08 J	-28592690.86	-28592690.66	-28592690.43	0.0148	0.0081 *
Earth	-82995-06-30 04:32 J	-28592320.54	-28592320.31	-28592320.07	0.0147	0.0064
Moon	-82995-06-30 05:44 J	-28592320.49	-28592320.26	-28592320.02	0.0147	0.0066 *
Moon	-82994-07-05 10:47 J	-28591950.28	-28591950.05	-28591949.81	0.0147	0.0050
Earth	-82994-07-05 12:42 J	-28591950.20	-28591949.97	-28591949.71	0.0147	0.0047 *
Earth	-82993-07-09 21:20 J	-28591579.86	-28591579.61	-28591579.36	0.0146	0.0030
Moon	-82993-07-10 00:13 J	-28591579.74	-28591579.49	-28591579.22	0.0146	0.0023 *
Moon	-82992-07-15 02:37 J	-28591209.65	-28591209.39	-28591209.14	0.0146	0.0019
Earth	-82992-07-15 05:44 J	-28591209.52	-28591209.26	-28591209.00	0.0146	0.0012 *
Earth	-82991-07-20 13:25 J	-28590839.20	-28590838.94	-28590838.68	0.0146	0.0006
Moon	-82991-07-20 17:16 J	-28590839.04	-28590838.78	-28590838.52	0.0146	0.0010 *
Moon	-82990-07-25 17:30 J	-28590469.02	-28590468.77	-28590468.51	0.0145	0.0022
Earth	-82990-07-25 21:20 J	-28590468.87	-28590468.61	-28590468.35	0.0145	0.0023 *
Earth	-82989-07-30 04:18 J	-28590098.56	-28590098.32	-28590098.06	0.0144	0.0040
Moon	-82989-07-30 07:40 J	-28590098.42	-28590098.18	-28590097.93	0.0144	0.0035 *
Moon	-82988-08-04 07:25 J	-28589728.42	-28589728.19	-28589727.94	0.0144	0.0064
Earth	-82988-08-04 10:47 J	-28589728.28	-28589728.05	-28589727.80	0.0144	0.0057 *
Earth	-82987-08-09 16:18 J	-28589358.03	-28589357.82	-28589357.58	0.0143	0.0074
Moon	-82987-08-09 18:56 J	-28589357.93	-28589357.71	-28589357.48	0.0143	0.0067 *
Moon	-82986-08-14 19:25 J	-28588987.88	-28588987.69	-28588987.47	0.0143	0.0092
Earth	-82986-08-14 21:35 J	-28588987.80	-28588987.60	-28588987.39	0.0143	0.0088 *
Venus	-82985-07-26 19:11 J	-28588640.83	-28588640.70	-28588640.56	0.0142	0.0114
Earth	-82985-08-19 01:11 J	-28588617.61	-28588617.45	-28588617.25	0.0142	0.0103

Moon -82985-08-19 02:23 J -28588617.55 -28588617.40 -28588617.21 0.0142 0.0104 *
 Venus -82984-03-10 07:54 J -28588414.38 -28588414.17 -28588413.95 0.0142 0.0041
 Moon -82984-08-24 04:18 J -28588247.47 -28588247.32 -28588247.13 0.0141 0.0110
 Earth -82984-08-24 04:18 J -28588247.45 -28588247.32 -28588247.15 0.0141 0.0117 *
 Venus -82984-10-22 20:37 J -28588187.86 -28588187.64 -28588187.42 0.0141 0.0031
 Venus -82983-06-06 08:37 J -28587961.28 -28587961.14 -28587960.97 0.0141 0.0103
 Earth -82983-08-29 05:59 J -28587877.33 -28587877.25 -28587877.12 0.0141 0.0129
 Moon -82983-08-29 05:59 J -28587877.30 -28587877.25 -28587877.17 0.0141 0.0136 *
 Mercury -82982-07-28 21:20 J -28587543.64 -28587543.61 -28587543.56 0.0140 0.0136
 Earth -82982-09-03 07:11 J -28587507.20 -28587507.20 -28587507.17 0.0140 0.0140
 Moon -82982-09-03 08:37 J -28587507.19 -28587507.14 -28587507.04 0.0140 0.0134 *
 Mercury -82982-10-25 04:47 J -28587455.41 -28587455.30 -28587455.19 0.0140 0.0111
 Mercury -82981-01-21 11:44 J -28587367.14 -28587367.01 -28587366.86 0.0140 0.0087
 Mercury -82981-04-18 18:56 J -28587278.87 -28587278.71 -28587278.54 0.0140 0.0063
 Mercury -82981-07-16 02:08 J -28587190.58 -28587190.41 -28587190.23 0.0140 0.0038
 Mercury -82981-10-12 09:20 J -28587102.30 -28587102.11 -28587101.93 0.0139 0.0015
 Mercury -82980-01-08 16:18 J -28587014.01 -28587013.82 -28587013.64 0.0139 0.0010
 Mercury -82980-04-06 23:01 J -28586925.71 -28586925.54 -28586925.36 0.0139 0.0033
 Mercury -82980-07-04 05:59 J -28586837.42 -28586837.25 -28586837.08 0.0139 0.0056
 Mercury -82980-09-30 12:42 J -28586749.12 -28586748.97 -28586748.82 0.0139 0.0079
 Mercury -82980-12-27 19:11 J -28586660.81 -28586660.70 -28586660.57 0.0139 0.0102
 Mercury -82979-03-26 02:08 J -28586572.49 -28586572.41 -28586572.33 0.0138 0.0124
 Mars -82962-08-08 07:40 J -28580228.39 -28580228.18 -28580227.93 0.0131 0.0072
 Mars -82960-07-06 12:13 J -28579530.27 -28579529.99 -28579529.71 0.0131 0.0006
 Earth -82959-12-10 03:35 J -28579008.39 -28579008.35 -28579008.28 0.0131 0.0127
 Mars -82958-06-04 13:11 J -28578832.19 -28578831.95 -28578831.69 0.0131 0.0059
 Earth -82958-12-14 06:13 J -28578639.33 -28578639.24 -28578639.11 0.0131 0.0118
 Moon -82958-12-14 08:37 J -28578639.24 -28578639.14 -28578638.99 0.0131 0.0112 *
 Moon -82957-12-17 05:44 J -28578270.36 -28578270.26 -28578270.12 0.0131 0.0115
 Earth -82957-12-17 08:37 J -28578270.26 -28578270.14 -28578269.98 0.0131 0.0108 *

Mars	-82956-05-02 14:37 J	-28578133.96	-28578133.89	-28578133.78	0.0131	0.0123
Earth	-82956-12-21 10:47 J	-28577901.20	-28577901.05	-28577900.87	0.0131	0.0097
Moon	-82956-12-21 13:40 J	-28577901.10	-28577900.93	-28577900.74	0.0131	0.0092 *
Moon	-82955-12-25 09:49 J	-28577532.25	-28577532.09	-28577531.88	0.0131	0.0091
Earth	-82955-12-25 12:42 J	-28577532.14	-28577531.97	-28577531.77	0.0131	0.0087 *
Earth	-82954-12-29 14:23 J	-28577163.09	-28577162.90	-28577162.68	0.0131	0.0076
Moon	-82954-12-29 17:16 J	-28577162.97	-28577162.78	-28577162.56	0.0131	0.0074 *
Moon	-82952-01-01 13:25 J	-28576794.16	-28576793.94	-28576793.71	0.0132	0.0063
Earth	-82952-01-01 16:04 J	-28576794.04	-28576793.83	-28576793.60	0.0132	0.0064 *
Earth	-82951-01-05 17:44 J	-28576424.99	-28576424.76	-28576424.53	0.0132	0.0052
Moon	-82951-01-05 20:37 J	-28576424.86	-28576424.64	-28576424.42	0.0132	0.0056 *
Moon	-82950-01-09 16:18 J	-28576056.06	-28576055.82	-28576055.57	0.0132	0.0035
Earth	-82950-01-09 19:25 J	-28576055.92	-28576055.69	-28576055.45	0.0132	0.0040 *
Earth	-82949-01-13 21:06 J	-28575686.86	-28575686.62	-28575686.37	0.0132	0.0028
Moon	-82949-01-13 23:44 J	-28575686.74	-28575686.51	-28575686.27	0.0132	0.0035 *
Moon	-82948-01-16 19:54 J	-28575317.92	-28575317.67	-28575317.41	0.0133	0.0008
Earth	-82948-01-16 23:01 J	-28575317.78	-28575317.54	-28575317.28	0.0133	0.0016 *
Earth	-82947-01-21 01:25 J	-28574948.69	-28574948.44	-28574948.19	0.0133	0.0002
Moon	-82947-01-21 04:18 J	-28574948.57	-28574948.32	-28574948.08	0.0133	0.0008 *
Moon	-82946-01-25 00:56 J	-28574579.71	-28574579.46	-28574579.21	0.0133	0.0015
Earth	-82946-01-25 04:04 J	-28574579.58	-28574579.33	-28574579.08	0.0133	0.0010 *
Earth	-82945-01-29 06:28 J	-28574210.46	-28574210.23	-28574209.98	0.0134	0.0024
Moon	-82945-01-29 09:35 J	-28574210.33	-28574210.10	-28574209.85	0.0134	0.0022 *
Moon	-82944-02-01 06:56 J	-28573841.46	-28573841.21	-28573840.97	0.0134	0.0035
Earth	-82944-02-01 09:35 J	-28573841.33	-28573841.10	-28573840.85	0.0134	0.0037 *
Earth	-82943-02-05 12:56 J	-28573472.18	-28573471.96	-28573471.72	0.0135	0.0050
Moon	-82943-02-05 16:04 J	-28573472.04	-28573471.83	-28573471.59	0.0135	0.0054 *
Moon	-82942-02-09 13:54 J	-28573103.13	-28573102.92	-28573102.67	0.0135	0.0058
Earth	-82942-02-09 17:16 J	-28573103.00	-28573102.78	-28573102.56	0.0135	0.0063 *
Earth	-82941-02-13 21:35 J	-28572733.80	-28572733.60	-28572733.39	0.0136	0.0075

Moon -82941-02-14 00:13 J -28572733.66 -28572733.49 -28572733.28 0.0136 0.0083 *
 Moon -82940-02-16 23:44 J -28572364.71 -28572364.51 -28572364.30 0.0137 0.0081
 Earth -82940-02-17 02:52 J -28572364.56 -28572364.38 -28572364.19 0.0137 0.0088 *
 Venus -82940-10-13 22:47 J -28572125.70 -28572125.55 -28572125.37 0.0137 0.0088
 Earth -82939-02-21 08:37 J -28571995.29 -28571995.14 -28571994.96 0.0137 0.0100
 Moon -82939-02-21 11:16 J -28571995.17 -28571995.03 -28571994.86 0.0137 0.0105 *
 Venus -82939-05-28 04:04 J -28571899.53 -28571899.33 -28571899.12 0.0137 0.0027
 Venus -82938-01-09 09:20 J -28571673.31 -28571673.11 -28571672.90 0.0138 0.0035
 Moon -82938-02-25 12:13 J -28571626.13 -28571625.99 -28571625.82 0.0138 0.0109
 Earth -82938-02-25 15:49 J -28571625.98 -28571625.84 -28571625.70 0.0138 0.0112 *
 Venus -82938-08-23 14:52 J -28571447.03 -28571446.88 -28571446.73 0.0138 0.0097
 Earth -82937-02-29 23:16 J -28571256.63 -28571256.53 -28571256.42 0.0138 0.0124
 Moon -82937-03-01 01:54 J -28571256.52 -28571256.42 -28571256.31 0.0138 0.0124 *
 Mercury -82937-06-20 22:18 J -28571144.63 -28571144.57 -28571144.50 0.0138 0.0122
 Mercury -82937-09-17 01:54 J -28571056.50 -28571056.42 -28571056.33 0.0139 0.0105
 Mercury -82937-12-14 05:16 J -28570968.37 -28570968.28 -28570968.17 0.0139 0.0089
 Moon -82936-03-05 05:01 J -28570887.29 -28570887.29 -28570887.27 0.0139 0.0139
 Earth -82936-03-05 07:40 J -28570887.22 -28570887.18 -28570887.11 0.0139 0.0135
 Mercury -82936-03-12 09:06 J -28570880.24 -28570880.12 -28570880.00 0.0139 0.0071
 Mercury -82936-06-08 12:28 J -28570792.10 -28570791.98 -28570791.85 0.0139 0.0055
 Mercury -82936-09-04 16:18 J -28570703.95 -28570703.82 -28570703.69 0.0139 0.0036
 Mercury -82936-12-01 19:54 J -28570615.80 -28570615.67 -28570615.53 0.0139 0.0019
 Mercury -82935-02-27 23:44 J -28570527.65 -28570527.51 -28570527.38 0.0140 0.0005
 Mercury -82935-05-27 03:20 J -28570439.50 -28570439.36 -28570439.22 0.0140 0.0017
 Mercury -82935-08-23 06:56 J -28570351.34 -28570351.21 -28570351.07 0.0140 0.0036
 Mercury -82935-11-19 10:47 J -28570263.18 -28570263.05 -28570262.92 0.0140 0.0054
 Mercury -82934-02-15 14:37 J -28570175.01 -28570174.89 -28570174.77 0.0140 0.0072
 Mercury -82934-05-14 18:28 J -28570086.83 -28570086.73 -28570086.62 0.0140 0.0091
 Mercury -82934-08-10 22:04 J -28569998.65 -28569998.58 -28569998.48 0.0140 0.0110
 Mercury -82934-11-07 01:54 J -28569910.46 -28569910.42 -28569910.35 0.0141 0.0129

Mars	-82920-11-13 23:59 J	-28564789.63	-28564789.50	-28564789.31	0.0148	0.0130
Mars	-82918-10-24 00:28 J	-28564080.82	-28564080.48	-28564080.13	0.0148	0.0010
Earth	-82916-06-05 04:32 J	-28563490.37	-28563490.31	-28563490.21	0.0148	0.0140
Moon	-82916-06-05 07:54 J	-28563490.25	-28563490.17	-28563490.06	0.0148	0.0136 *
Mars	-82916-10-02 04:32 J	-28563371.51	-28563371.31	-28563371.07	0.0148	0.0112
Moon	-82915-06-10 09:20 J	-28563120.24	-28563120.11	-28563119.96	0.0148	0.0124
Earth	-82915-06-10 11:30 J	-28563120.13	-28563120.02	-28563119.86	0.0148	0.0126 *
Earth	-82914-06-15 19:25 J	-28562749.86	-28562749.69	-28562749.52	0.0148	0.0110
Moon	-82914-06-15 21:06 J	-28562749.75	-28562749.62	-28562749.45	0.0148	0.0116 *
Moon	-82913-06-20 02:08 J	-28562379.61	-28562379.41	-28562379.18	0.0148	0.0087
Earth	-82913-06-20 02:52 J	-28562379.56	-28562379.38	-28562379.17	0.0148	0.0095 *
Earth	-82912-06-25 11:16 J	-28562009.24	-28562009.03	-28562008.81	0.0148	0.0078
Moon	-82912-06-25 11:30 J	-28562009.21	-28562009.02	-28562008.81	0.0148	0.0085 *
Earth	-82911-06-30 19:25 J	-28561638.92	-28561638.69	-28561638.45	0.0147	0.0061
Moon	-82911-06-30 20:08 J	-28561638.89	-28561638.66	-28561638.40	0.0147	0.0059 *
Moon	-82910-07-06 02:08 J	-28561268.64	-28561268.41	-28561268.16	0.0147	0.0040
Earth	-82910-07-06 03:49 J	-28561268.57	-28561268.34	-28561268.08	0.0147	0.0043 *
Earth	-82909-07-10 12:42 J	-28560898.23	-28560897.97	-28560897.72	0.0146	0.0025
Moon	-82909-07-10 14:52 J	-28560898.14	-28560897.88	-28560897.62	0.0146	0.0031 *
Moon	-82908-07-15 17:30 J	-28560528.02	-28560527.77	-28560527.51	0.0146	0.0002
Earth	-82908-07-15 20:52 J	-28560527.89	-28560527.63	-28560527.37	0.0146	0.0007 *
Earth	-82907-07-21 04:47 J	-28560157.55	-28560157.30	-28560157.03	0.0146	0.0012
Moon	-82907-07-21 08:23 J	-28560157.41	-28560157.15	-28560156.89	0.0146	0.0006 *
Moon	-82906-07-26 08:52 J	-28559787.38	-28559787.13	-28559786.87	0.0145	0.0028
Earth	-82906-07-26 12:42 J	-28559787.22	-28559786.97	-28559786.71	0.0145	0.0029 *
Earth	-82905-07-30 19:40 J	-28559416.92	-28559416.68	-28559416.43	0.0145	0.0046
Moon	-82905-07-30 23:30 J	-28559416.76	-28559416.52	-28559416.27	0.0145	0.0051 *
Moon	-82904-08-04 23:01 J	-28559046.78	-28559046.54	-28559046.29	0.0144	0.0056
Earth	-82904-08-05 02:23 J	-28559046.63	-28559046.40	-28559046.17	0.0144	0.0063 *
Earth	-82903-08-10 07:40 J	-28558676.38	-28558676.18	-28558675.95	0.0143	0.0080

Moon	-82903-08-10 10:47 J	-28558676.25	-28558676.05	-28558675.84	0.0143	0.0087	*
Moon	-82902-08-15 10:32 J	-28558306.26	-28558306.06	-28558305.85	0.0143	0.0091	
Earth	-82902-08-15 12:42 J	-28558306.15	-28558305.97	-28558305.76	0.0143	0.0095	*
Earth	-82901-08-19 16:32 J	-28557935.96	-28557935.81	-28557935.63	0.0142	0.0110	
Moon	-82901-08-19 17:59 J	-28557935.90	-28557935.75	-28557935.57	0.0142	0.0108	*
Venus	-82901-11-07 16:47 J	-28557855.99	-28557855.80	-28557855.60	0.0142	0.0071	
Venus	-82900-06-22 05:44 J	-28557629.48	-28557629.26	-28557629.03	0.0142	0.0002	
Moon	-82900-08-24 18:28 J	-28557565.84	-28557565.73	-28557565.60	0.0141	0.0127	
Earth	-82900-08-24 19:25 J	-28557565.81	-28557565.69	-28557565.55	0.0141	0.0123	*
Venus	-82899-02-03 17:59 J	-28557402.93	-28557402.75	-28557402.55	0.0141	0.0073	
Moon	-82899-08-29 21:06 J	-28557195.71	-28557195.62	-28557195.51	0.0141	0.0128	
Earth	-82899-08-29 21:20 J	-28557195.67	-28557195.61	-28557195.52	0.0141	0.0135	*
Mercury	-82898-08-18 05:59 J	-28556842.32	-28556842.25	-28556842.16	0.0140	0.0127	
Mercury	-82898-11-14 13:11 J	-28556754.06	-28556753.95	-28556753.81	0.0140	0.0102	
Mercury	-82897-02-10 20:37 J	-28556665.79	-28556665.64	-28556665.48	0.0140	0.0077	
Mercury	-82897-05-09 03:49 J	-28556577.51	-28556577.34	-28556577.17	0.0140	0.0053	
Mercury	-82897-08-05 10:47 J	-28556489.22	-28556489.05	-28556488.86	0.0140	0.0029	
Mercury	-82897-11-01 17:59 J	-28556400.93	-28556400.75	-28556400.57	0.0139	0.0005	
Mercury	-82896-01-29 00:56 J	-28556312.64	-28556312.46	-28556312.28	0.0139	0.0019	
Mercury	-82896-04-27 07:54 J	-28556224.35	-28556224.17	-28556224.00	0.0139	0.0042	
Mercury	-82896-07-24 14:23 J	-28556136.05	-28556135.90	-28556135.73	0.0139	0.0066	
Mercury	-82896-10-20 21:06 J	-28556047.75	-28556047.62	-28556047.47	0.0139	0.0089	
Mercury	-82895-01-17 04:04 J	-28555959.43	-28555959.33	-28555959.22	0.0139	0.0111	
Mercury	-82895-04-15 10:32 J	-28555871.09	-28555871.06	-28555871.00	0.0138	0.0133	
Mars	-82879-05-04 05:59 J	-28550008.41	-28550008.25	-28550008.08	0.0131	0.0107	
Mars	-82877-04-01 12:13 J	-28549310.26	-28549309.99	-28549309.73	0.0131	0.0041	
Mars	-82875-02-28 14:08 J	-28548612.18	-28548611.91	-28548611.63	0.0131	0.0024	
Moon	-82875-12-10 15:06 J	-28548326.95	-28548326.87	-28548326.76	0.0131	0.0121	
Earth	-82875-12-10 17:44 J	-28548326.79	-28548326.76	-28548326.67	0.0131	0.0127	*
Earth	-82874-12-14 21:06 J	-28547957.73	-28547957.62	-28547957.51	0.0131	0.0116	

Moon	-82874-12-14 23:44 J	-28547957.57	-28547957.51	-28547957.41	0.0131	0.0124	*
Mars	-82873-01-27 14:52 J	-28547914.06	-28547913.88	-28547913.65	0.0131	0.0088	
Moon	-82873-12-17 20:08 J	-28547588.82	-28547588.66	-28547588.49	0.0131	0.0099	
Earth	-82873-12-17 23:01 J	-28547588.67	-28547588.54	-28547588.38	0.0131	0.0106	*
Earth	-82872-12-22 01:11 J	-28547219.61	-28547219.45	-28547219.27	0.0131	0.0095	
Moon	-82872-12-22 04:04 J	-28547219.48	-28547219.33	-28547219.16	0.0131	0.0101	*
Moon	-82871-12-25 23:30 J	-28546850.70	-28546850.52	-28546850.30	0.0131	0.0080	
Earth	-82871-12-26 03:06 J	-28546850.55	-28546850.37	-28546850.17	0.0131	0.0084	*
Earth	-82870-12-30 04:47 J	-28546481.51	-28546481.30	-28546481.09	0.0131	0.0073	
Moon	-82870-12-30 07:25 J	-28546481.38	-28546481.19	-28546480.98	0.0131	0.0074	*
Moon	-82868-01-02 02:52 J	-28546112.59	-28546112.38	-28546112.14	0.0131	0.0062	
Earth	-82868-01-02 06:13 J	-28546112.45	-28546112.24	-28546112.01	0.0131	0.0061	*
Earth	-82867-01-06 07:54 J	-28545743.40	-28545743.17	-28545742.93	0.0132	0.0049	
Moon	-82867-01-06 11:01 J	-28545743.26	-28545743.04	-28545742.80	0.0132	0.0046	*
Moon	-82866-01-10 06:28 J	-28545374.46	-28545374.23	-28545373.98	0.0132	0.0043	
Earth	-82866-01-10 09:35 J	-28545374.33	-28545374.10	-28545373.85	0.0132	0.0037	*
Earth	-82865-01-14 11:16 J	-28545005.27	-28545005.03	-28545004.77	0.0132	0.0025	
Moon	-82865-01-14 14:52 J	-28545005.12	-28545004.88	-28545004.64	0.0132	0.0017	*
Moon	-82864-01-17 10:18 J	-28544636.32	-28544636.07	-28544635.82	0.0133	0.0018	
Earth	-82864-01-17 13:25 J	-28544636.19	-28544635.94	-28544635.69	0.0133	0.0011	*
Earth	-82863-01-21 15:35 J	-28544267.10	-28544266.85	-28544266.60	0.0133	0.0002	
Moon	-82863-01-21 18:56 J	-28544266.96	-28544266.71	-28544266.47	0.0133	0.0008	*
Moon	-82862-01-25 14:37 J	-28543898.14	-28543897.89	-28543897.64	0.0133	0.0010	
Earth	-82862-01-25 17:59 J	-28543898.00	-28543897.75	-28543897.50	0.0133	0.0015	*
Earth	-82861-01-29 20:23 J	-28543528.89	-28543528.65	-28543528.41	0.0134	0.0028	
Moon	-82861-01-29 23:16 J	-28543528.76	-28543528.53	-28543528.28	0.0134	0.0029	*
Moon	-82860-02-01 19:40 J	-28543159.91	-28543159.68	-28543159.43	0.0134	0.0042	
Earth	-82860-02-01 23:16 J	-28543159.76	-28543159.53	-28543159.29	0.0134	0.0041	*
Earth	-82859-02-06 02:23 J	-28542790.61	-28542790.40	-28542790.16	0.0135	0.0055	
Moon	-82859-02-06 05:30 J	-28542790.49	-28542790.27	-28542790.03	0.0135	0.0051	*

Moon	-82858-02-10 03:06 J	-28542421.58	-28542421.37	-28542421.16	0.0135	0.0074
Earth	-82858-02-10 06:13 J	-28542421.44	-28542421.24	-28542421.01	0.0135	0.0068 *
Earth	-82857-02-14 10:47 J	-28542052.24	-28542052.05	-28542051.85	0.0136	0.0080
Moon	-82857-02-14 13:40 J	-28542052.11	-28542051.93	-28542051.71	0.0136	0.0074 *
Moon	-82856-02-17 12:42 J	-28541683.13	-28541682.97	-28541682.79	0.0136	0.0100
Earth	-82856-02-17 16:04 J	-28541683.01	-28541682.83	-28541682.65	0.0136	0.0093 *
Venus	-82856-06-13 10:47 J	-28541567.15	-28541567.05	-28541566.92	0.0137	0.0114
Venus	-82855-01-25 15:49 J	-28541341.03	-28541340.84	-28541340.64	0.0137	0.0053
Earth	-82855-02-21 21:35 J	-28541313.75	-28541313.60	-28541313.43	0.0137	0.0105
Moon	-82855-02-22 01:11 J	-28541313.62	-28541313.45	-28541313.28	0.0137	0.0099 *
Venus	-82855-09-08 20:52 J	-28541114.84	-28541114.63	-28541114.42	0.0137	0.0008
Moon	-82854-02-26 01:25 J	-28540944.55	-28540944.44	-28540944.31	0.0138	0.0120
Earth	-82854-02-26 04:04 J	-28540944.44	-28540944.33	-28540944.18	0.0138	0.0118 *
Venus	-82854-04-23 02:08 J	-28540888.59	-28540888.41	-28540888.23	0.0138	0.0070
Venus	-82854-12-05 07:11 J	-28540662.23	-28540662.20	-28540662.12	0.0138	0.0134
Earth	-82853-03-01 11:30 J	-28540575.09	-28540575.02	-28540574.91	0.0138	0.0129
Moon	-82853-03-01 14:37 J	-28540574.95	-28540574.89	-28540574.79	0.0138	0.0130 *
Mercury	-82853-04-14 02:23 J	-28540531.42	-28540531.40	-28540531.36	0.0138	0.0134
Mercury	-82853-07-11 05:44 J	-28540443.32	-28540443.26	-28540443.18	0.0138	0.0117
Mercury	-82853-10-07 09:20 J	-28540355.19	-28540355.11	-28540355.01	0.0139	0.0100
Mercury	-82852-01-03 13:11 J	-28540267.06	-28540266.95	-28540266.85	0.0139	0.0083
Moon	-82852-03-05 17:01 J	-28540205.80	-28540205.79	-28540205.74	0.0139	0.0138
Mercury	-82852-04-01 16:32 J	-28540178.92	-28540178.81	-28540178.69	0.0139	0.0066
Mercury	-82852-06-28 20:08 J	-28540090.78	-28540090.66	-28540090.53	0.0139	0.0049
Mercury	-82852-09-24 23:44 J	-28540002.64	-28540002.51	-28540002.37	0.0139	0.0031
Mercury	-82852-12-22 03:35 J	-28539914.49	-28539914.35	-28539914.22	0.0139	0.0014
Mercury	-82851-03-20 07:11 J	-28539826.34	-28539826.20	-28539826.06	0.0139	0.0005
Mercury	-82851-06-16 10:47 J	-28539738.18	-28539738.05	-28539737.91	0.0140	0.0023
Mercury	-82851-09-12 14:37 J	-28539650.02	-28539649.89	-28539649.76	0.0140	0.0041
Mercury	-82851-12-09 18:13 J	-28539561.86	-28539561.74	-28539561.61	0.0140	0.0059

Mercury -82850-03-07 22:04 J -28539473.69 -28539473.58 -28539473.46 0.0140 0.0078

Mercury -82850-06-04 01:54 J -28539385.51 -28539385.42 -28539385.31 0.0140 0.0096

Mercury -82850-08-31 05:59 J -28539297.33 -28539297.25 -28539297.17 0.0140 0.0115

Mercury -82850-11-27 09:35 J -28539209.13 -28539209.10 -28539209.05 0.0141 0.0134

Mars -82835-07-12 01:40 J -28533868.70 -28533868.43 -28533868.12 0.0148 0.0081

Moon -82833-05-31 04:47 J -28533179.33 -28533179.30 -28533179.22 0.0148 0.0145

Mars -82833-06-20 03:20 J -28533159.67 -28533159.36 -28533159.01 0.0148 0.0040

Earth -82832-06-05 14:37 J -28532808.96 -28532808.89 -28532808.79 0.0148 0.0139

Moon -82832-06-05 17:59 J -28532808.79 -28532808.75 -28532808.67 0.0148 0.0143 *

Moon -82831-06-10 18:13 J -28532438.87 -28532438.74 -28532438.58 0.0148 0.0123

Earth -82831-06-10 21:35 J -28532438.72 -28532438.60 -28532438.45 0.0148 0.0124 *

Earth -82830-06-16 04:47 J -28532068.45 -28532068.30 -28532068.11 0.0148 0.0109

Moon -82830-06-16 06:56 J -28532068.36 -28532068.21 -28532068.01 0.0148 0.0104 *

Moon -82829-06-20 10:47 J -28531698.23 -28531698.05 -28531697.84 0.0148 0.0100

Earth -82829-06-20 13:11 J -28531698.15 -28531697.95 -28531697.75 0.0148 0.0092 *

Earth -82828-06-25 20:52 J -28531327.83 -28531327.63 -28531327.39 0.0148 0.0076

Moon -82828-06-25 21:35 J -28531327.80 -28531327.60 -28531327.37 0.0148 0.0070 *

Moon -82827-07-01 05:44 J -28530957.49 -28530957.26 -28530957.01 0.0147 0.0060

Earth -82827-07-01 05:44 J -28530957.49 -28530957.26 -28530957.02 0.0147 0.0057 *

Moon -82826-07-06 13:25 J -28530587.17 -28530586.94 -28530586.69 0.0147 0.0042

Earth -82826-07-06 14:23 J -28530587.14 -28530586.90 -28530586.65 0.0147 0.0039 *

Earth -82825-07-10 23:01 J -28530216.79 -28530216.54 -28530216.28 0.0147 0.0021

Moon -82825-07-11 01:25 J -28530216.71 -28530216.44 -28530216.18 0.0147 0.0014 *

Moon -82824-07-16 05:16 J -28529846.53 -28529846.28 -28529846.03 0.0146 0.0010

Earth -82824-07-16 07:40 J -28529846.44 -28529846.18 -28529845.92 0.0146 0.0003 *

Earth -82823-07-21 15:49 J -28529476.10 -28529475.84 -28529475.58 0.0146 0.0016

Moon -82823-07-21 19:25 J -28529475.95 -28529475.69 -28529475.43 0.0146 0.0020 *

Moon -82822-07-26 20:08 J -28529105.91 -28529105.66 -28529105.40 0.0145 0.0033

Earth -82822-07-26 23:44 J -28529105.76 -28529105.51 -28529105.25 0.0145 0.0034 *

Earth -82821-07-31 06:56 J -28528735.45 -28528735.21 -28528734.96 0.0145 0.0052

Moon	-82821-07-31 10:18 J	-28528735.30	-28528735.07	-28528734.81	0.0145	0.0047	*
Moon	-82820-08-05 09:35 J	-28528365.31	-28528365.10	-28528364.87	0.0144	0.0076	
Earth	-82820-08-05 13:40 J	-28528365.16	-28528364.93	-28528364.70	0.0144	0.0069	*
Earth	-82819-08-10 18:56 J	-28527994.90	-28527994.71	-28527994.48	0.0143	0.0086	
Moon	-82819-08-10 22:04 J	-28527994.78	-28527994.58	-28527994.35	0.0143	0.0079	*
Moon	-82818-08-15 21:35 J	-28527624.78	-28527624.60	-28527624.41	0.0143	0.0104	
Earth	-82818-08-15 23:59 J	-28527624.66	-28527624.50	-28527624.29	0.0143	0.0101	*
Venus	-82817-07-07 23:30 J	-28527297.66	-28527297.52	-28527297.36	0.0142	0.0104	
Earth	-82817-08-20 03:49 J	-28527254.47	-28527254.34	-28527254.16	0.0142	0.0116	
Moon	-82817-08-20 06:13 J	-28527254.37	-28527254.24	-28527254.08	0.0142	0.0116	*
Venus	-82816-02-19 12:28 J	-28527071.19	-28527070.98	-28527070.76	0.0142	0.0031	
Moon	-82816-08-25 05:59 J	-28526884.36	-28526884.25	-28526884.10	0.0142	0.0123	
Earth	-82816-08-25 06:56 J	-28526884.29	-28526884.21	-28526884.08	0.0142	0.0129	*
Venus	-82816-10-04 01:11 J	-28526844.67	-28526844.45	-28526844.24	0.0142	0.0041	
Venus	-82815-05-18 13:25 J	-28526618.07	-28526617.94	-28526617.80	0.0141	0.0112	
Earth	-82815-08-30 09:20 J	-28526514.11	-28526514.11	-28526514.08	0.0141	0.0141	
Mercury	-82814-09-07 13:40 J	-28526141.01	-28526140.93	-28526140.81	0.0140	0.0120	
Mercury	-82814-12-04 21:06 J	-28526052.74	-28526052.62	-28526052.47	0.0140	0.0095	
Mercury	-82813-03-02 04:18 J	-28525964.46	-28525964.32	-28525964.15	0.0140	0.0070	
Mercury	-82813-05-29 11:44 J	-28525876.18	-28525876.01	-28525875.83	0.0140	0.0045	
Mercury	-82813-08-25 18:56 J	-28525787.89	-28525787.71	-28525787.53	0.0140	0.0021	
Mercury	-82813-11-22 01:54 J	-28525699.60	-28525699.42	-28525699.24	0.0139	0.0003	
Mercury	-82812-02-18 08:52 J	-28525611.31	-28525611.13	-28525610.95	0.0139	0.0027	
Mercury	-82812-05-17 15:35 J	-28525523.01	-28525522.85	-28525522.67	0.0139	0.0051	
Mercury	-82812-08-13 22:32 J	-28525434.71	-28525434.56	-28525434.40	0.0139	0.0073	
Mercury	-82812-11-10 05:16 J	-28525346.40	-28525346.28	-28525346.14	0.0139	0.0096	
Mercury	-82811-02-06 11:59 J	-28525258.08	-28525258.00	-28525257.90	0.0139	0.0119	
Mars	-82795-12-27 09:49 J	-28519090.29	-28519090.09	-28519089.84	0.0131	0.0078	
Saturn	-82793-02-25 16:18 J	-28518665.40	-28518664.82	-28518664.19	0.0131	0.0018	
Mars	-82793-11-24 14:37 J	-28518392.16	-28518391.89	-28518391.61	0.0131	0.0012	

Mars	-82791-10-23 16:18 J	-28517694.07	-28517693.82	-28517693.56	0.0131	0.0052
Moon	-82791-12-11 04:47 J	-28517645.31	-28517645.30	-28517645.27	0.0131	0.0130
Earth	-82791-12-11 08:23 J	-28517645.21	-28517645.15	-28517645.07	0.0131	0.0125
Earth	-82790-12-15 10:47 J	-28517276.15	-28517276.05	-28517275.92	0.0131	0.0115
Moon	-82790-12-15 13:54 J	-28517276.04	-28517275.92	-28517275.77	0.0131	0.0109 *
Mars	-82789-09-20 17:59 J	-28516995.87	-28516995.75	-28516995.61	0.0131	0.0115
Moon	-82789-12-18 10:04 J	-28516907.21	-28516907.08	-28516906.94	0.0131	0.0111
Earth	-82789-12-18 13:11 J	-28516907.09	-28516906.95	-28516906.78	0.0131	0.0104 *
Earth	-82788-12-22 15:20 J	-28516538.02	-28516537.86	-28516537.67	0.0131	0.0093
Moon	-82788-12-22 18:42 J	-28516537.89	-28516537.72	-28516537.52	0.0131	0.0087 *
Moon	-82787-12-26 14:23 J	-28516169.09	-28516168.90	-28516168.71	0.0131	0.0086
Earth	-82787-12-26 17:01 J	-28516168.96	-28516168.79	-28516168.57	0.0131	0.0083 *
Earth	-82786-12-30 18:56 J	-28515799.91	-28515799.71	-28515799.49	0.0131	0.0070
Moon	-82786-12-30 22:18 J	-28515799.77	-28515799.57	-28515799.34	0.0131	0.0068 *
Moon	-82784-01-02 17:16 J	-28515431.00	-28515430.78	-28515430.54	0.0131	0.0058
Earth	-82784-01-02 20:52 J	-28515430.86	-28515430.63	-28515430.41	0.0131	0.0058 *
Earth	-82783-01-06 22:04 J	-28515061.80	-28515061.58	-28515061.33	0.0132	0.0046
Moon	-82783-01-07 01:40 J	-28515061.65	-28515061.43	-28515061.20	0.0132	0.0050 *
Moon	-82782-01-10 20:37 J	-28514692.88	-28514692.64	-28514692.39	0.0132	0.0028
Earth	-82782-01-10 23:59 J	-28514692.73	-28514692.50	-28514692.25	0.0132	0.0033 *
Earth	-82781-01-15 01:40 J	-28514323.67	-28514323.43	-28514323.18	0.0132	0.0020
Moon	-82781-01-15 04:47 J	-28514323.53	-28514323.30	-28514323.05	0.0132	0.0027 *
Moon	-82780-01-18 00:13 J	-28513954.74	-28513954.49	-28513954.24	0.0133	0.0001
Earth	-82780-01-18 03:49 J	-28513954.59	-28513954.34	-28513954.09	0.0133	0.0007 *
Earth	-82779-01-22 05:44 J	-28513585.51	-28513585.26	-28513585.01	0.0133	0.0007
Moon	-82779-01-22 09:06 J	-28513585.37	-28513585.12	-28513584.87	0.0133	0.0001 *
Moon	-82778-01-26 04:32 J	-28513216.56	-28513216.31	-28513216.06	0.0133	0.0024
Earth	-82778-01-26 07:54 J	-28513216.41	-28513216.17	-28513215.92	0.0133	0.0020 *
Earth	-82777-01-30 10:18 J	-28512847.31	-28512847.07	-28512846.83	0.0134	0.0033
Moon	-82777-01-30 13:40 J	-28512847.16	-28512846.93	-28512846.68	0.0134	0.0031 *

Moon -82776-02-02 09:35 J -28512478.32 -28512478.10 -28512477.85 0.0134 0.0045
 Earth -82776-02-02 13:11 J -28512478.18 -28512477.95 -28512477.72 0.0134 0.0046 *
 Earth -82775-02-06 16:04 J -28512109.04 -28512108.83 -28512108.60 0.0135 0.0060
 Moon -82775-02-06 19:40 J -28512108.89 -28512108.68 -28512108.45 0.0135 0.0064 *
 Moon -82774-02-10 16:47 J -28511740.01 -28511739.80 -28511739.58 0.0135 0.0067
 Earth -82774-02-10 19:54 J -28511739.87 -28511739.67 -28511739.45 0.0135 0.0073 *
 Earth -82773-02-14 23:59 J -28511370.67 -28511370.50 -28511370.29 0.0136 0.0086
 Moon -82773-02-15 03:49 J -28511370.52 -28511370.34 -28511370.17 0.0136 0.0093 *
 Moon -82772-02-18 01:40 J -28511001.60 -28511001.43 -28511001.23 0.0136 0.0091
 Earth -82772-02-18 05:16 J -28511001.44 -28511001.28 -28511001.10 0.0136 0.0099 *
 Venus -82772-09-25 03:35 J -28510782.50 -28510782.35 -28510782.16 0.0137 0.0080
 Earth -82771-02-22 11:01 J -28510632.17 -28510632.04 -28510631.88 0.0137 0.0111
 Moon -82771-02-22 14:08 J -28510632.02 -28510631.91 -28510631.77 0.0137 0.0116 *
 Venus -82771-05-09 08:52 J -28510556.34 -28510556.13 -28510555.92 0.0137 0.0019
 Venus -82771-12-21 13:54 J -28510330.11 -28510329.92 -28510329.71 0.0137 0.0043
 Moon -82770-02-26 13:54 J -28510263.02 -28510262.92 -28510262.78 0.0137 0.0120
 Earth -82770-02-26 17:59 J -28510262.86 -28510262.75 -28510262.64 0.0137 0.0123 *
 Venus -82770-08-04 19:11 J -28510103.82 -28510103.70 -28510103.55 0.0138 0.0105
 Earth -82769-03-02 00:56 J -28509893.49 -28509893.46 -28509893.39 0.0138 0.0135
 Moon -82769-03-02 04:18 J -28509893.35 -28509893.32 -28509893.26 0.0138 0.0135
 Mercury -82769-05-04 10:04 J -28509830.12 -28509830.08 -28509830.02 0.0138 0.0128
 Mercury -82769-07-31 13:40 J -28509742.01 -28509741.93 -28509741.85 0.0138 0.0111
 Mercury -82769-10-27 17:01 J -28509653.88 -28509653.79 -28509653.68 0.0139 0.0095
 Mercury -82768-01-23 20:37 J -28509565.75 -28509565.64 -28509565.52 0.0139 0.0078
 Mercury -82768-04-22 00:13 J -28509477.61 -28509477.49 -28509477.36 0.0139 0.0060
 Mercury -82768-07-19 03:49 J -28509389.46 -28509389.34 -28509389.20 0.0139 0.0043
 Mercury -82768-10-15 07:40 J -28509301.32 -28509301.18 -28509301.05 0.0139 0.0026
 Mercury -82767-01-11 11:16 J -28509213.17 -28509213.03 -28509212.89 0.0139 0.0008
 Mercury -82767-04-09 14:52 J -28509125.02 -28509124.88 -28509124.74 0.0139 0.0010
 Mercury -82767-07-06 18:28 J -28509036.86 -28509036.73 -28509036.59 0.0140 0.0029

Mercury -82767-10-02 22:18 J -28508948.70 -28508948.57 -28508948.44 0.0140 0.0046

Mercury -82767-12-30 01:54 J -28508860.53 -28508860.42 -28508860.29 0.0140 0.0065

Mercury -82766-03-28 05:44 J -28508772.37 -28508772.26 -28508772.14 0.0140 0.0083

Mercury -82766-06-24 09:20 J -28508684.19 -28508684.11 -28508684.00 0.0140 0.0103

Mercury -82766-09-20 13:25 J -28508596.00 -28508595.94 -28508595.87 0.0140 0.0121

Mercury -82766-12-17 17:16 J -28508507.79 -28508507.78 -28508507.76 0.0141 0.0140

Mars -82752-03-30 10:18 J -28503656.07 -28503656.07 -28503656.03 0.0147 0.0147

Mars -82750-03-09 06:56 J -28502947.53 -28502947.21 -28502946.86 0.0148 0.0031

Mars -82748-02-15 09:35 J -28502238.35 -28502238.10 -28502237.80 0.0148 0.0089

Earth -82748-06-06 01:54 J -28502127.49 -28502127.42 -28502127.31 0.0148 0.0138

Moon -82748-06-06 05:44 J -28502127.36 -28502127.26 -28502127.14 0.0148 0.0132 *

Saturn -82747-03-10 07:11 J -28501850.39 -28501850.20 -28501849.92 0.0148 0.0138

Moon -82747-06-11 05:44 J -28501757.39 -28501757.26 -28501757.11 0.0148 0.0122

Earth -82747-06-11 08:52 J -28501757.26 -28501757.13 -28501756.98 0.0148 0.0123 *

Earth -82746-06-16 16:04 J -28501386.99 -28501386.83 -28501386.64 0.0148 0.0107

Moon -82746-06-16 19:11 J -28501386.85 -28501386.70 -28501386.52 0.0148 0.0112 *

Moon -82745-06-20 21:49 J -28501016.79 -28501016.59 -28501016.36 0.0148 0.0083

Earth -82745-06-21 00:13 J -28501016.69 -28501016.49 -28501016.28 0.0148 0.0090 *

Earth -82744-06-26 08:08 J -28500646.37 -28500646.16 -28500645.92 0.0148 0.0073

Moon -82744-06-26 09:49 J -28500646.29 -28500646.09 -28500645.87 0.0148 0.0080 *

Moon -82743-07-01 16:04 J -28500276.06 -28500275.83 -28500275.56 0.0147 0.0052

Earth -82743-07-01 16:47 J -28500276.03 -28500275.80 -28500275.55 0.0147 0.0055 *

Moon -82742-07-07 01:11 J -28499905.69 -28499905.45 -28499905.20 0.0147 0.0033

Earth -82742-07-07 01:40 J -28499905.67 -28499905.43 -28499905.17 0.0147 0.0036 *

Earth -82741-07-11 10:32 J -28499535.31 -28499535.06 -28499534.80 0.0147 0.0017

Moon -82741-07-11 11:44 J -28499535.27 -28499535.01 -28499534.74 0.0147 0.0023 *

Moon -82740-07-16 16:32 J -28499165.06 -28499164.81 -28499164.55 0.0146 0.0010

Earth -82740-07-16 19:11 J -28499164.96 -28499164.70 -28499164.44 0.0146 0.0002 *

Earth -82739-07-22 03:20 J -28498794.61 -28498794.36 -28498794.10 0.0146 0.0021

Moon -82739-07-22 06:13 J -28498794.50 -28498794.24 -28498793.97 0.0146 0.0015 *

Moon -82738-07-27 07:54 J -28498424.41 -28498424.17 -28498423.92 0.0145 0.0039
 Earth -82738-07-27 11:16 J -28498424.27 -28498424.03 -28498423.77 0.0145 0.0039 *
 Earth -82737-07-31 18:13 J -28498053.97 -28498053.74 -28498053.49 0.0145 0.0058
 Moon -82737-07-31 22:04 J -28498053.80 -28498053.58 -28498053.33 0.0145 0.0062 *
 Moon -82736-08-05 21:35 J -28497683.83 -28497683.60 -28497683.36 0.0144 0.0068
 Earth -82736-08-06 00:56 J -28497683.67 -28497683.46 -28497683.22 0.0144 0.0075 *
 Earth -82735-08-11 06:28 J -28497313.41 -28497313.23 -28497313.00 0.0144 0.0092
 Moon -82735-08-11 10:18 J -28497313.24 -28497313.07 -28497312.87 0.0144 0.0099 *
 Moon -82734-08-16 08:37 J -28496943.31 -28496943.14 -28496942.94 0.0143 0.0102
 Earth -82734-08-16 11:44 J -28496943.16 -28496943.01 -28496942.82 0.0143 0.0107 *
 Venus -82733-03-07 06:13 J -28496739.29 -28496739.24 -28496739.19 0.0143 0.0138
 Earth -82733-08-20 15:49 J -28496572.96 -28496572.84 -28496572.68 0.0142 0.0122
 Moon -82733-08-20 18:13 J -28496572.86 -28496572.74 -28496572.59 0.0142 0.0121 *
 Venus -82733-10-19 19:11 J -28496512.89 -28496512.70 -28496512.49 0.0142 0.0065
 Venus -82732-06-03 08:08 J -28496286.38 -28496286.16 -28496285.93 0.0142 0.0009
 Moon -82732-08-25 16:32 J -28496202.84 -28496202.81 -28496202.73 0.0142 0.0139
 Earth -82732-08-25 18:56 J -28496202.77 -28496202.71 -28496202.61 0.0142 0.0135 *
 Venus -82731-01-15 20:37 J -28496059.82 -28496059.64 -28496059.45 0.0141 0.0080
 Moon -82731-08-30 22:32 J -28495832.57 -28495832.56 -28495832.53 0.0141 0.0140
 Mercury -82730-07-01 14:23 J -28495527.92 -28495527.90 -28495527.84 0.0140 0.0137
 Mercury -82730-09-27 21:49 J -28495439.69 -28495439.59 -28495439.47 0.0140 0.0112
 Mercury -82730-12-25 05:16 J -28495351.42 -28495351.28 -28495351.13 0.0140 0.0087
 Mercury -82729-03-22 12:28 J -28495263.14 -28495262.98 -28495262.81 0.0140 0.0062
 Mercury -82729-06-18 19:40 J -28495174.85 -28495174.68 -28495174.50 0.0140 0.0038
 Mercury -82729-09-15 02:52 J -28495086.56 -28495086.38 -28495086.20 0.0140 0.0013
 Mercury -82729-12-12 09:49 J -28494998.27 -28494998.09 -28494997.90 0.0139 0.0011
 Mercury -82728-03-10 16:47 J -28494909.97 -28494909.80 -28494909.62 0.0139 0.0034
 Mercury -82728-06-06 23:44 J -28494821.67 -28494821.51 -28494821.34 0.0139 0.0058
 Mercury -82728-09-03 06:28 J -28494733.37 -28494733.23 -28494733.07 0.0139 0.0081
 Mercury -82728-11-30 13:11 J -28494645.06 -28494644.95 -28494644.82 0.0139 0.0104

Mercury -82727-02-26 20:08 J -28494556.73 -28494556.66 -28494556.59 0.0139 0.0126

Mars -82712-09-22 07:11 J -28488870.32 -28488870.20 -28488870.03 0.0132 0.0112

Mars -82710-08-21 14:08 J -28488172.17 -28488171.91 -28488171.65 0.0131 0.0047

Mars -82708-07-19 16:32 J -28487474.08 -28487473.81 -28487473.53 0.0131 0.0018

Moon -82707-12-11 19:25 J -28486963.78 -28486963.69 -28486963.57 0.0131 0.0119

Earth -82707-12-11 23:01 J -28486963.62 -28486963.54 -28486963.46 0.0131 0.0124 *

Mars -82706-06-17 18:56 J -28486775.92 -28486775.71 -28486775.49 0.0131 0.0080

Earth -82706-12-16 01:11 J -28486594.55 -28486594.45 -28486594.30 0.0131 0.0114

Moon -82706-12-16 04:47 J -28486594.37 -28486594.30 -28486594.18 0.0131 0.0121 *

Moon -82705-12-19 00:13 J -28486225.64 -28486225.49 -28486225.30 0.0131 0.0096

Earth -82705-12-19 03:49 J -28486225.48 -28486225.34 -28486225.17 0.0131 0.0103 *

Earth -82704-12-23 05:59 J -28485856.41 -28485856.25 -28485856.05 0.0131 0.0091

Moon -82704-12-23 09:20 J -28485856.26 -28485856.11 -28485855.93 0.0131 0.0097 *

Moon -82703-12-27 04:32 J -28485487.51 -28485487.31 -28485487.09 0.0131 0.0074

Earth -82703-12-27 08:23 J -28485487.35 -28485487.15 -28485486.95 0.0131 0.0079 *

Earth -82702-12-31 09:49 J -28485118.30 -28485118.09 -28485117.87 0.0131 0.0067

Moon -82702-12-31 12:56 J -28485118.15 -28485117.96 -28485117.73 0.0131 0.0069 *

Moon -82700-01-03 08:08 J -28484749.38 -28484749.16 -28484748.93 0.0131 0.0056

Earth -82700-01-03 11:59 J -28484749.23 -28484749.00 -28484748.78 0.0131 0.0055 *

Earth -82699-01-07 13:11 J -28484380.17 -28484379.95 -28484379.70 0.0132 0.0043

Moon -82699-01-07 16:47 J -28484380.03 -28484379.80 -28484379.55 0.0132 0.0040 *

Moon -82698-01-11 11:44 J -28484011.24 -28484011.01 -28484010.76 0.0132 0.0035

Earth -82698-01-11 15:20 J -28484011.10 -28484010.86 -28484010.61 0.0132 0.0029 *

Earth -82697-01-15 17:01 J -28483642.04 -28483641.79 -28483641.54 0.0132 0.0016

Moon -82697-01-15 20:37 J -28483641.89 -28483641.64 -28483641.39 0.0132 0.0009 *

Moon -82696-01-18 15:35 J -28483273.10 -28483272.85 -28483272.60 0.0133 0.0009

Earth -82696-01-18 18:56 J -28483272.96 -28483272.71 -28483272.46 0.0133 0.0003 *

Earth -82695-01-22 20:37 J -28482903.88 -28482903.64 -28482903.39 0.0133 0.0011

Moon -82695-01-23 00:13 J -28482903.73 -28482903.49 -28482903.24 0.0133 0.0017 *

Moon -82694-01-26 19:25 J -28482534.93 -28482534.69 -28482534.44 0.0133 0.0019

Earth	-82694-01-26 23:01 J	-28482534.79	-28482534.54	-28482534.30	0.0133	0.0025	*
Earth	-82693-01-31 01:11 J	-28482165.69	-28482165.45	-28482165.21	0.0134	0.0038	
Moon	-82693-01-31 04:32 J	-28482165.54	-28482165.31	-28482165.07	0.0134	0.0039	*
Moon	-82692-02-03 00:13 J	-28481796.71	-28481796.49	-28481796.25	0.0134	0.0052	
Earth	-82692-02-03 04:04 J	-28481796.56	-28481796.33	-28481796.10	0.0134	0.0051	*
Earth	-82691-02-07 07:11 J	-28481427.41	-28481427.20	-28481426.98	0.0135	0.0065	
Moon	-82691-02-07 10:32 J	-28481427.27	-28481427.06	-28481426.83	0.0135	0.0061	*
Moon	-82690-02-11 07:11 J	-28481058.38	-28481058.20	-28481058.00	0.0135	0.0084	
Earth	-82690-02-11 10:47 J	-28481058.24	-28481058.05	-28481057.84	0.0135	0.0078	*
Earth	-82689-02-15 15:06 J	-28480689.04	-28480688.87	-28480688.68	0.0136	0.0091	
Moon	-82689-02-15 18:42 J	-28480688.91	-28480688.72	-28480688.52	0.0136	0.0084	*
Moon	-82688-02-18 17:01 J	-28480319.93	-28480319.79	-28480319.64	0.0136	0.0110	
Earth	-82688-02-18 20:23 J	-28480319.80	-28480319.65	-28480319.48	0.0136	0.0104	*
Venus	-82688-05-25 16:47 J	-28480223.92	-28480223.80	-28480223.65	0.0136	0.0104	
Venus	-82687-01-06 21:49 J	-28479997.79	-28479997.59	-28479997.39	0.0137	0.0043	
Earth	-82687-02-23 01:40 J	-28479950.53	-28479950.43	-28479950.28	0.0137	0.0117	
Moon	-82687-02-23 05:44 J	-28479950.40	-28479950.26	-28479950.11	0.0137	0.0110	*
Venus	-82687-08-21 02:52 J	-28479771.59	-28479771.38	-28479771.17	0.0137	0.0018	
Moon	-82686-02-27 05:30 J	-28479581.33	-28479581.27	-28479581.20	0.0137	0.0132	
Earth	-82686-02-27 08:37 J	-28479581.21	-28479581.14	-28479581.04	0.0137	0.0129	*
Venus	-82686-04-04 07:54 J	-28479545.33	-28479545.17	-28479544.99	0.0137	0.0080	
Mercury	-82685-02-26 14:37 J	-28479216.89	-28479216.89	-28479216.88	0.0138	0.0138	
Mercury	-82685-05-24 17:59 J	-28479128.80	-28479128.75	-28479128.68	0.0138	0.0121	
Mercury	-82685-08-20 21:35 J	-28479040.68	-28479040.60	-28479040.51	0.0138	0.0105	
Mercury	-82685-11-17 01:11 J	-28478952.55	-28478952.45	-28478952.34	0.0138	0.0088	
Mercury	-82684-02-13 04:32 J	-28478864.42	-28478864.31	-28478864.19	0.0139	0.0071	
Mercury	-82684-05-12 08:08 J	-28478776.28	-28478776.16	-28478776.03	0.0139	0.0054	
Mercury	-82684-08-08 11:44 J	-28478688.14	-28478688.01	-28478687.87	0.0139	0.0036	
Mercury	-82684-11-04 15:20 J	-28478599.99	-28478599.86	-28478599.72	0.0139	0.0020	
Mercury	-82683-01-31 19:11 J	-28478511.84	-28478511.70	-28478511.56	0.0139	0.0001	

Mercury -82683-04-29 22:47 J -28478423.69 -28478423.55 -28478423.41 0.0139 0.0017
 Mercury -82683-07-27 02:23 J -28478335.53 -28478335.40 -28478335.26 0.0140 0.0035
 Mercury -82683-10-23 06:13 J -28478247.37 -28478247.24 -28478247.11 0.0140 0.0053
 Mercury -82682-01-19 09:49 J -28478159.20 -28478159.09 -28478158.96 0.0140 0.0072
 Mercury -82682-04-17 13:40 J -28478071.03 -28478070.93 -28478070.82 0.0140 0.0090
 Mercury -82682-07-14 17:30 J -28477982.85 -28477982.77 -28477982.68 0.0140 0.0109
 Mercury -82682-10-10 21:20 J -28477894.66 -28477894.61 -28477894.55 0.0140 0.0127
 Mars -82668-11-25 12:56 J -28472735.19 -28472734.96 -28472734.68 0.0147 0.0100
 Mars -82666-11-04 11:16 J -28472026.36 -28472026.03 -28472025.68 0.0148 0.0018
 Moon -82665-06-01 03:35 J -28471816.41 -28471816.35 -28471816.29 0.0148 0.0143
 Earth -82664-06-06 12:28 J -28471446.06 -28471445.98 -28471445.87 0.0148 0.0137
 Moon -82664-06-06 16:18 J -28471445.88 -28471445.82 -28471445.74 0.0148 0.0141 *
 Mars -82664-10-13 13:25 J -28471317.04 -28471316.94 -28471316.77 0.0148 0.0136
 Moon -82663-06-11 15:20 J -28471075.99 -28471075.86 -28471075.69 0.0148 0.0120
 Earth -82663-06-11 19:25 J -28471075.83 -28471075.69 -28471075.54 0.0148 0.0121 *
 Earth -82662-06-17 02:23 J -28470705.56 -28470705.40 -28470705.20 0.0148 0.0105
 Moon -82662-06-17 05:44 J -28470705.44 -28470705.26 -28470705.07 0.0148 0.0100 *
 Moon -82661-06-21 07:40 J -28470335.38 -28470335.18 -28470334.98 0.0148 0.0095
 Earth -82661-06-21 10:18 J -28470335.26 -28470335.07 -28470334.85 0.0148 0.0088 *
 Earth -82660-06-26 18:28 J -28469964.94 -28469964.73 -28469964.49 0.0147 0.0070
 Moon -82660-06-26 20:52 J -28469964.86 -28469964.63 -28469964.41 0.0147 0.0063 *
 Moon -82659-07-02 02:08 J -28469594.65 -28469594.41 -28469594.15 0.0147 0.0054
 Earth -82659-07-02 03:06 J -28469594.60 -28469594.37 -28469594.11 0.0147 0.0051 *
 Earth -82658-07-07 11:59 J -28469224.25 -28469224.00 -28469223.74 0.0147 0.0032
 Moon -82658-07-07 12:28 J -28469224.22 -28469223.98 -28469223.73 0.0147 0.0033 *
 Earth -82657-07-11 20:37 J -28468853.90 -28468853.64 -28468853.38 0.0147 0.0013
 Moon -82657-07-11 21:49 J -28468853.86 -28468853.59 -28468853.32 0.0147 0.0006 *
 Moon -82656-07-17 03:49 J -28468483.59 -28468483.34 -28468483.09 0.0146 0.0001
 Earth -82656-07-17 05:16 J -28468483.54 -28468483.28 -28468483.02 0.0146 0.0007 *
 Earth -82655-07-22 13:11 J -28468113.20 -28468112.95 -28468112.69 0.0146 0.0026

Moon -82655-07-22 16:04 J -28468113.09 -28468112.83 -28468112.57 0.0146 0.0030 *
 Moon -82654-07-27 18:13 J -28467742.99 -28467742.74 -28467742.50 0.0145 0.0043
 Earth -82654-07-27 21:06 J -28467742.86 -28467742.62 -28467742.37 0.0145 0.0044 *
 Earth -82653-08-01 04:04 J -28467372.55 -28467372.33 -28467372.08 0.0145 0.0063
 Moon -82653-08-01 07:54 J -28467372.41 -28467372.17 -28467371.93 0.0145 0.0058 *
 Moon -82652-08-06 06:56 J -28467002.41 -28467002.21 -28467002.00 0.0144 0.0087
 Earth -82652-08-06 10:32 J -28467002.26 -28467002.06 -28467001.83 0.0144 0.0080 *
 Earth -82651-08-11 16:32 J -28466631.99 -28466631.81 -28466631.61 0.0144 0.0097
 Moon -82651-08-11 19:54 J -28466631.85 -28466631.67 -28466631.45 0.0144 0.0090 *
 Moon -82650-08-16 18:28 J -28466261.88 -28466261.73 -28466261.57 0.0143 0.0116
 Earth -82650-08-16 21:35 J -28466261.74 -28466261.60 -28466261.42 0.0143 0.0112 *
 Venus -82649-06-19 00:56 J -28465954.62 -28465954.46 -28465954.30 0.0142 0.0100
 Earth -82649-08-21 01:54 J -28465891.53 -28465891.42 -28465891.29 0.0142 0.0127
 Moon -82649-08-21 04:47 J -28465891.40 -28465891.30 -28465891.16 0.0142 0.0126 *
 Venus -82648-01-31 13:54 J -28465728.13 -28465727.92 -28465727.69 0.0142 0.0027
 Moon -82648-08-26 03:06 J -28465521.44 -28465521.37 -28465521.28 0.0142 0.0135
 Earth -82648-08-26 05:30 J -28465521.30 -28465521.27 -28465521.23 0.0142 0.0140 *
 Venus -82648-09-15 02:37 J -28465501.60 -28465501.39 -28465501.17 0.0142 0.0046
 Venus -82647-04-29 15:06 J -28465274.98 -28465274.87 -28465274.74 0.0141 0.0118
 Mercury -82646-07-21 21:49 J -28464826.64 -28464826.59 -28464826.51 0.0140 0.0131
 Mercury -82646-10-18 05:16 J -28464738.39 -28464738.28 -28464738.14 0.0140 0.0106
 Mercury -82645-01-14 12:42 J -28464650.11 -28464649.97 -28464649.81 0.0140 0.0080
 Mercury -82645-04-11 19:54 J -28464561.83 -28464561.67 -28464561.49 0.0140 0.0056
 Mercury -82645-07-09 03:20 J -28464473.54 -28464473.36 -28464473.18 0.0140 0.0031
 Mercury -82645-10-05 10:18 J -28464385.25 -28464385.07 -28464384.88 0.0140 0.0008
 Mercury -82644-01-01 17:30 J -28464296.95 -28464296.77 -28464296.59 0.0140 0.0017
 Mercury -82644-03-31 00:28 J -28464208.66 -28464208.48 -28464208.31 0.0139 0.0041
 Mercury -82644-06-27 07:11 J -28464120.35 -28464120.20 -28464120.03 0.0139 0.0064
 Mercury -82644-09-23 13:54 J -28464032.05 -28464031.92 -28464031.77 0.0139 0.0088
 Mercury -82644-12-20 20:52 J -28463943.73 -28463943.63 -28463943.52 0.0139 0.0110

Mercury -82643-03-19 03:20 J -28463855.39 -28463855.36 -28463855.29 0.0139 0.0133

Mars -82627-05-17 10:18 J -28457952.29 -28457952.07 -28457951.85 0.0132 0.0082

Mars -82625-04-14 14:52 J -28457254.15 -28457253.88 -28457253.59 0.0131 0.0019

Moon -82624-12-08 12:42 J -28456650.98 -28456650.97 -28456650.93 0.0131 0.0130

Mars -82623-03-13 18:28 J -28456555.98 -28456555.73 -28456555.46 0.0131 0.0045

Moon -82623-12-12 08:52 J -28456282.16 -28456282.13 -28456282.06 0.0131 0.0129

Earth -82623-12-12 12:42 J -28456282.04 -28456281.97 -28456281.87 0.0131 0.0123

Earth -82622-12-16 15:20 J -28455912.97 -28455912.86 -28455912.71 0.0131 0.0112

Moon -82622-12-16 18:42 J -28455912.84 -28455912.72 -28455912.55 0.0131 0.0106 *

Mars -82621-02-09 20:08 J -28455857.80 -28455857.66 -28455857.48 0.0131 0.0108

Moon -82621-12-19 14:23 J -28455544.02 -28455543.90 -28455543.74 0.0131 0.0108

Earth -82621-12-19 17:59 J -28455543.89 -28455543.75 -28455543.57 0.0131 0.0101 *

Earth -82620-12-23 20:23 J -28455174.82 -28455174.65 -28455174.45 0.0131 0.0089

Moon -82620-12-24 00:13 J -28455174.68 -28455174.49 -28455174.29 0.0131 0.0082 *

Moon -82619-12-27 18:56 J -28454805.89 -28454805.71 -28454805.49 0.0131 0.0081

Earth -82619-12-27 22:18 J -28454805.75 -28454805.57 -28454805.34 0.0131 0.0078 *

Earth -82617-01-01 00:28 J -28454436.69 -28454436.48 -28454436.25 0.0131 0.0065

Moon -82617-01-01 04:18 J -28454436.54 -28454436.32 -28454436.10 0.0131 0.0062 *

Moon -82616-01-03 23:01 J -28454067.76 -28454067.54 -28454067.30 0.0131 0.0052

Earth -82616-01-04 02:37 J -28454067.62 -28454067.39 -28454067.15 0.0131 0.0052 *

Earth -82615-01-08 04:18 J -28453698.55 -28453698.32 -28453698.07 0.0132 0.0039

Moon -82615-01-08 07:54 J -28453698.40 -28453698.17 -28453697.93 0.0132 0.0043 *

Moon -82614-01-12 02:52 J -28453329.63 -28453329.38 -28453329.14 0.0132 0.0020

Earth -82614-01-12 06:28 J -28453329.48 -28453329.23 -28453328.99 0.0132 0.0025 *

Earth -82613-01-16 07:54 J -28452960.42 -28452960.17 -28452959.92 0.0132 0.0012

Moon -82613-01-16 11:16 J -28452960.27 -28452960.03 -28452959.78 0.0132 0.0018 *

Moon -82612-01-19 06:13 J -28452591.49 -28452591.24 -28452590.99 0.0133 0.0009

Earth -82612-01-19 09:49 J -28452591.34 -28452591.09 -28452590.84 0.0133 0.0003 *

Earth -82611-01-23 11:44 J -28452222.26 -28452222.01 -28452221.76 0.0133 0.0016

Moon -82611-01-23 15:06 J -28452222.11 -28452221.87 -28452221.62 0.0133 0.0010 *

Moon	-82610-01-27 10:18 J	-28451853.31	-28451853.07	-28451852.83	0.0133	0.0033
Earth	-82610-01-27 13:54 J	-28451853.16	-28451852.92	-28451852.68	0.0133	0.0029 *
Earth	-82609-01-31 16:18 J	-28451484.05	-28451483.82	-28451483.59	0.0134	0.0043
Moon	-82609-01-31 19:40 J	-28451483.91	-28451483.68	-28451483.43	0.0134	0.0041 *
Moon	-82608-02-03 15:49 J	-28451115.06	-28451114.84	-28451114.61	0.0134	0.0056
Earth	-82608-02-03 18:56 J	-28451114.92	-28451114.71	-28451114.47	0.0134	0.0057 *
Earth	-82607-02-07 22:04 J	-28450745.77	-28450745.58	-28450745.35	0.0135	0.0071
Moon	-82607-02-08 01:54 J	-28450745.61	-28450745.42	-28450745.20	0.0135	0.0075 *
Moon	-82606-02-11 22:47 J	-28450376.74	-28450376.55	-28450376.34	0.0135	0.0079
Earth	-82606-02-12 02:23 J	-28450376.59	-28450376.40	-28450376.20	0.0135	0.0084 *
Earth	-82605-02-16 06:28 J	-28450007.39	-28450007.23	-28450007.04	0.0136	0.0097
Moon	-82605-02-16 10:18 J	-28450007.23	-28450007.07	-28450006.91	0.0136	0.0104 *
Venus	-82604-01-23 06:13 J	-28449665.29	-28449665.24	-28449665.15	0.0136	0.0127
Moon	-82604-02-19 08:08 J	-28449638.31	-28449638.16	-28449637.98	0.0136	0.0103
Earth	-82604-02-19 11:30 J	-28449638.14	-28449638.02	-28449637.85	0.0136	0.0111 *
Venus	-82604-09-06 11:16 J	-28449439.21	-28449439.03	-28449438.84	0.0137	0.0067
Earth	-82603-02-23 17:30 J	-28449268.86	-28449268.77	-28449268.64	0.0137	0.0123
Moon	-82603-02-23 20:52 J	-28449268.70	-28449268.63	-28449268.52	0.0137	0.0128 *
Venus	-82603-04-20 16:18 J	-28449213.03	-28449212.82	-28449212.61	0.0137	0.0006
Venus	-82603-12-02 21:20 J	-28448986.80	-28448986.61	-28448986.41	0.0137	0.0055
Moon	-82602-02-27 20:37 J	-28448899.69	-28448899.64	-28448899.56	0.0137	0.0132
Earth	-82602-02-28 00:28 J	-28448899.52	-28448899.48	-28448899.43	0.0137	0.0135
Venus	-82602-07-17 02:37 J	-28448760.49	-28448760.39	-28448760.27	0.0138	0.0117
Mercury	-82601-03-17 22:32 J	-28448515.59	-28448515.56	-28448515.51	0.0138	0.0131
Mercury	-82601-06-14 02:08 J	-28448427.48	-28448427.41	-28448427.33	0.0138	0.0114
Mercury	-82601-09-10 05:44 J	-28448339.35	-28448339.26	-28448339.16	0.0138	0.0097
Mercury	-82601-12-07 09:06 J	-28448251.22	-28448251.12	-28448251.00	0.0139	0.0081
Mercury	-82600-03-05 12:42 J	-28448163.08	-28448162.97	-28448162.84	0.0139	0.0064
Mercury	-82600-06-01 16:18 J	-28448074.94	-28448074.82	-28448074.69	0.0139	0.0046
Mercury	-82600-08-28 19:54 J	-28447986.80	-28447986.67	-28447986.53	0.0139	0.0029

Mercury -82600-11-24 23:30 J -28447898.65 -28447898.52 -28447898.38 0.0139 0.0012

Mercury -82599-02-21 03:20 J -28447810.50 -28447810.36 -28447810.22 0.0139 0.0007

Mercury -82599-05-20 06:56 J -28447722.34 -28447722.21 -28447722.07 0.0139 0.0025

Mercury -82599-08-16 10:32 J -28447634.19 -28447634.06 -28447633.92 0.0140 0.0043

Mercury -82599-11-12 14:23 J -28447546.02 -28447545.90 -28447545.78 0.0140 0.0061

Mercury -82598-02-08 18:13 J -28447457.86 -28447457.74 -28447457.63 0.0140 0.0079

Mercury -82598-05-07 21:49 J -28447369.68 -28447369.59 -28447369.49 0.0140 0.0098

Mercury -82598-08-04 01:40 J -28447281.50 -28447281.43 -28447281.35 0.0140 0.0117

Mercury -82598-10-31 05:30 J -28447193.30 -28447193.27 -28447193.23 0.0140 0.0135

Mars -82583-07-24 00:56 J -28441813.77 -28441813.46 -28441813.12 0.0148 0.0049

Mars -82581-07-02 00:13 J -28441104.78 -28441104.49 -28441104.17 0.0148 0.0068

Earth -82580-06-07 03:20 J -28440764.46 -28440764.36 -28440764.26 0.0148 0.0135

Moon -82580-06-07 06:56 J -28440764.33 -28440764.21 -28440764.09 0.0148 0.0129 *

Moon -82579-06-12 05:59 J -28440394.38 -28440394.25 -28440394.08 0.0148 0.0120

Earth -82579-06-12 10:04 J -28440394.23 -28440394.08 -28440393.93 0.0148 0.0119 *

Earth -82578-06-17 16:47 J -28440023.96 -28440023.80 -28440023.60 0.0148 0.0103

Moon -82578-06-17 20:37 J -28440023.80 -28440023.64 -28440023.46 0.0148 0.0107 *

Moon -82577-06-21 21:49 J -28439653.80 -28439653.59 -28439653.36 0.0148 0.0078

Earth -82577-06-22 00:42 J -28439653.66 -28439653.47 -28439653.25 0.0148 0.0085 *

Earth -82576-06-27 08:52 J -28439283.34 -28439283.13 -28439282.88 0.0147 0.0067

Moon -82576-06-27 11:30 J -28439283.23 -28439283.02 -28439282.80 0.0147 0.0074 *

Moon -82575-07-02 15:49 J -28438913.09 -28438912.84 -28438912.58 0.0147 0.0043

Earth -82575-07-02 17:30 J -28438913.00 -28438912.77 -28438912.51 0.0147 0.0048 *

Earth -82574-07-08 02:08 J -28438542.65 -28438542.41 -28438542.15 0.0147 0.0028

Moon -82574-07-08 02:52 J -28438542.63 -28438542.38 -28438542.13 0.0147 0.0025 *

Moon -82573-07-12 10:47 J -28438172.32 -28438172.05 -28438171.78 0.0147 0.0013

Earth -82573-07-12 11:01 J -28438172.30 -28438172.04 -28438171.78 0.0147 0.0008 *

Moon -82572-07-17 17:44 J -28437802.00 -28437801.76 -28437801.51 0.0146 0.0019

Earth -82572-07-17 19:11 J -28437801.95 -28437801.70 -28437801.44 0.0146 0.0012 *

Earth -82571-07-23 03:06 J -28437431.61 -28437431.37 -28437431.10 0.0146 0.0032

Moon	-82571-07-23 05:16 J	-28437431.54	-28437431.28	-28437431.01	0.0146	0.0025	*
Moon	-82570-07-28 08:08 J	-28437061.39	-28437061.16	-28437060.91	0.0145	0.0051	
Earth	-82570-07-28 11:01 J	-28437061.28	-28437061.04	-28437060.79	0.0145	0.0050	*
Earth	-82569-08-01 17:44 J	-28436690.98	-28436690.76	-28436690.52	0.0145	0.0069	
Moon	-82569-08-01 21:06 J	-28436690.83	-28436690.62	-28436690.37	0.0145	0.0073	*
Moon	-82568-08-06 21:06 J	-28436320.83	-28436320.62	-28436320.40	0.0144	0.0079	
Earth	-82568-08-07 00:28 J	-28436320.68	-28436320.48	-28436320.26	0.0144	0.0086	*
Earth	-82567-08-12 06:13 J	-28435950.41	-28435950.24	-28435950.05	0.0144	0.0103	
Moon	-82567-08-12 09:49 J	-28435950.23	-28435950.09	-28435949.90	0.0144	0.0111	*
Moon	-82566-08-17 07:25 J	-28435580.33	-28435580.19	-28435580.01	0.0143	0.0113	
Earth	-82566-08-17 11:30 J	-28435580.16	-28435580.02	-28435579.87	0.0143	0.0118	*
Venus	-82565-02-17 08:23 J	-28435396.22	-28435396.15	-28435396.06	0.0143	0.0132	
Earth	-82565-08-21 15:06 J	-28435209.93	-28435209.87	-28435209.75	0.0142	0.0134	
Moon	-82565-08-21 18:28 J	-28435209.80	-28435209.73	-28435209.62	0.0142	0.0133	*
Venus	-82565-09-30 21:35 J	-28435169.79	-28435169.60	-28435169.39	0.0142	0.0059	
Venus	-82564-05-15 10:47 J	-28434943.27	-28434943.05	-28434942.83	0.0142	0.0015	
Venus	-82564-12-27 23:30 J	-28434716.70	-28434716.52	-28434716.34	0.0141	0.0087	
Mercury	-82562-08-11 06:28 J	-28434125.31	-28434125.23	-28434125.13	0.0140	0.0121	
Mercury	-82562-11-07 13:54 J	-28434037.05	-28434036.92	-28434036.78	0.0140	0.0096	
Mercury	-82561-02-03 20:52 J	-28433948.77	-28433948.63	-28433948.46	0.0140	0.0073	
Mercury	-82561-05-02 04:18 J	-28433860.49	-28433860.32	-28433860.14	0.0140	0.0047	
Mercury	-82561-07-29 11:30 J	-28433772.20	-28433772.02	-28433771.83	0.0140	0.0023	
Mercury	-82561-10-25 18:42 J	-28433683.90	-28433683.72	-28433683.54	0.0140	0.0002	
Mercury	-82560-01-22 01:40 J	-28433595.61	-28433595.43	-28433595.25	0.0139	0.0026	
Mercury	-82560-04-20 08:37 J	-28433507.31	-28433507.14	-28433506.96	0.0139	0.0049	
Mercury	-82560-07-17 15:35 J	-28433419.00	-28433418.85	-28433418.69	0.0139	0.0072	
Mercury	-82560-10-13 22:32 J	-28433330.69	-28433330.56	-28433330.43	0.0139	0.0095	
Mercury	-82559-01-10 05:16 J	-28433242.37	-28433242.28	-28433242.19	0.0139	0.0118	
Mars	-82544-02-10 05:30 J	-28427732.39	-28427732.27	-28427732.13	0.0132	0.0116	
Mars	-82542-01-09 12:42 J	-28427034.21	-28427033.97	-28427033.69	0.0131	0.0053	

Mars	-82541-12-07 18:28 J	-28426336.00	-28426335.73	-28426335.44	0.0131	0.0012
Mars	-82539-11-05 21:20 J	-28425637.82	-28425637.61	-28425637.36	0.0131	0.0074
Moon	-82539-12-12 23:30 J	-28425600.62	-28425600.52	-28425600.40	0.0131	0.0117
Earth	-82539-12-13 02:52 J	-28425600.46	-28425600.38	-28425600.28	0.0131	0.0122 *
Earth	-82538-12-17 05:30 J	-28425231.38	-28425231.27	-28425231.11	0.0131	0.0111
Moon	-82538-12-17 09:20 J	-28425231.20	-28425231.11	-28425230.98	0.0131	0.0118 *
Moon	-82537-12-20 05:01 J	-28424862.45	-28424862.29	-28424862.10	0.0131	0.0092
Earth	-82537-12-20 08:37 J	-28424862.29	-28424862.14	-28424861.96	0.0131	0.0099 *
Earth	-82536-12-24 10:47 J	-28424493.22	-28424493.05	-28424492.84	0.0131	0.0087
Moon	-82536-12-24 14:37 J	-28424493.06	-28424492.89	-28424492.71	0.0131	0.0093 *
Moon	-82535-12-28 09:35 J	-28424124.30	-28424124.10	-28424123.88	0.0131	0.0069
Earth	-82535-12-28 13:25 J	-28424124.14	-28424123.94	-28424123.73	0.0131	0.0075 *
Earth	-82533-01-01 15:20 J	-28423755.08	-28423754.86	-28423754.63	0.0131	0.0062
Moon	-82533-01-01 18:42 J	-28423754.93	-28423754.72	-28423754.49	0.0131	0.0064 *
Moon	-82532-01-04 13:40 J	-28423386.15	-28423385.93	-28423385.69	0.0132	0.0050
Earth	-82532-01-04 17:16 J	-28423386.00	-28423385.78	-28423385.53	0.0132	0.0049 *
Earth	-82531-01-08 19:25 J	-28423016.93	-28423016.69	-28423016.45	0.0132	0.0035
Moon	-82531-01-08 23:01 J	-28423016.79	-28423016.54	-28423016.30	0.0132	0.0032 *
Moon	-82530-01-12 17:30 J	-28422648.01	-28422647.77	-28422647.52	0.0132	0.0027
Earth	-82530-01-12 21:06 J	-28422647.87	-28422647.62	-28422647.37	0.0132	0.0021 *
Earth	-82529-01-16 22:47 J	-28422278.80	-28422278.55	-28422278.30	0.0132	0.0008
Moon	-82529-01-17 02:23 J	-28422278.65	-28422278.40	-28422278.15	0.0132	0.0002 *
Moon	-82528-01-19 21:20 J	-28421909.85	-28421909.61	-28421909.36	0.0133	0.0001
Earth	-82528-01-20 00:42 J	-28421909.72	-28421909.47	-28421909.22	0.0133	0.0007 *
Earth	-82527-01-24 02:37 J	-28421540.64	-28421540.39	-28421540.14	0.0133	0.0020
Moon	-82527-01-24 06:13 J	-28421540.48	-28421540.24	-28421539.99	0.0133	0.0026 *
Moon	-82526-01-28 01:11 J	-28421171.68	-28421171.45	-28421171.20	0.0133	0.0030
Earth	-82526-01-28 04:47 J	-28421171.54	-28421171.30	-28421171.05	0.0133	0.0034 *
Earth	-82525-02-01 07:11 J	-28420802.42	-28420802.20	-28420801.96	0.0134	0.0048
Moon	-82525-02-01 10:47 J	-28420802.28	-28420802.05	-28420801.82	0.0134	0.0049 *

Moon	-82524-02-04 06:28 J	-28420433.43	-28420433.23	-28420433.00	0.0134	0.0063
Earth	-82524-02-04 10:04 J	-28420433.29	-28420433.08	-28420432.85	0.0134	0.0062 *
Earth	-82523-02-08 13:25 J	-28420064.13	-28420063.94	-28420063.72	0.0135	0.0076
Moon	-82523-02-08 17:01 J	-28420064.00	-28420063.79	-28420063.58	0.0135	0.0072 *
Moon	-82522-02-12 13:54 J	-28419695.09	-28419694.92	-28419694.74	0.0135	0.0096
Earth	-82522-02-12 17:16 J	-28419694.95	-28419694.78	-28419694.58	0.0135	0.0089 *
Earth	-82521-02-16 21:49 J	-28419325.74	-28419325.59	-28419325.42	0.0136	0.0103
Moon	-82521-02-17 01:11 J	-28419325.61	-28419325.45	-28419325.26	0.0136	0.0096 *
Moon	-82520-02-19 23:44 J	-28418956.60	-28418956.51	-28418956.38	0.0136	0.0123
Earth	-82520-02-20 03:20 J	-28418956.48	-28418956.36	-28418956.22	0.0136	0.0115 *
Venus	-82520-05-07 00:42 J	-28418880.62	-28418880.47	-28418880.31	0.0136	0.0091
Venus	-82520-12-19 05:30 J	-28418654.47	-28418654.27	-28418654.06	0.0137	0.0031
Earth	-82519-02-24 09:20 J	-28418587.19	-28418587.11	-28418587.02	0.0137	0.0128
Moon	-82519-02-24 12:56 J	-28418587.06	-28418586.96	-28418586.84	0.0137	0.0122 *
Venus	-82519-08-02 10:32 J	-28418428.26	-28418428.06	-28418427.85	0.0137	0.0031
Venus	-82518-03-16 15:35 J	-28418201.99	-28418201.85	-28418201.68	0.0137	0.0092
Mercury	-82517-04-07 06:56 J	-28417814.27	-28417814.21	-28417814.15	0.0138	0.0123
Mercury	-82517-07-04 10:04 J	-28417726.15	-28417726.08	-28417725.98	0.0138	0.0108
Mercury	-82517-09-30 13:40 J	-28417638.02	-28417637.93	-28417637.82	0.0138	0.0090
Mercury	-82517-12-27 17:16 J	-28417549.89	-28417549.78	-28417549.66	0.0139	0.0073
Mercury	-82516-03-25 20:52 J	-28417461.75	-28417461.63	-28417461.50	0.0139	0.0056
Mercury	-82516-06-22 00:28 J	-28417373.61	-28417373.48	-28417373.35	0.0139	0.0039
Mercury	-82516-09-18 04:04 J	-28417285.46	-28417285.33	-28417285.19	0.0139	0.0021
Mercury	-82516-12-15 07:40 J	-28417197.31	-28417197.18	-28417197.04	0.0139	0.0004
Mercury	-82515-03-13 11:16 J	-28417109.16	-28417109.03	-28417108.89	0.0139	0.0015
Mercury	-82515-06-09 15:06 J	-28417021.01	-28417020.87	-28417020.74	0.0139	0.0032
Mercury	-82515-09-05 18:42 J	-28416932.85	-28416932.72	-28416932.59	0.0140	0.0050
Mercury	-82515-12-02 22:18 J	-28416844.68	-28416844.57	-28416844.44	0.0140	0.0069
Mercury	-82514-03-01 02:08 J	-28416756.51	-28416756.41	-28416756.30	0.0140	0.0087
Mercury	-82514-05-28 05:59 J	-28416668.34	-28416668.25	-28416668.16	0.0140	0.0106

Mercury -82514-08-24 09:49 J -28416580.15 -28416580.09 -28416580.02 0.0140 0.0124

Mars -82500-04-11 17:44 J -28411600.95 -28411600.76 -28411600.51 0.0147 0.0114

Mars -82498-03-21 11:44 J -28410892.35 -28410892.01 -28410891.66 0.0148 0.0002

Moon -82497-06-02 08:37 J -28410453.20 -28410453.14 -28410453.06 0.0148 0.0141

Mars -82496-02-27 12:28 J -28410183.17 -28410182.98 -28410182.75 0.0148 0.0117

Earth -82496-06-07 17:01 J -28410082.88 -28410082.79 -28410082.67 0.0148 0.0134

Moon -82496-06-07 20:37 J -28410082.72 -28410082.64 -28410082.54 0.0148 0.0138 *

Moon -82495-06-12 19:54 J -28409712.81 -28409712.67 -28409712.50 0.0148 0.0116

Earth -82495-06-12 23:59 J -28409712.65 -28409712.50 -28409712.35 0.0148 0.0117 *

Earth -82494-06-18 06:42 J -28409342.39 -28409342.22 -28409342.02 0.0148 0.0100

Moon -82494-06-18 10:04 J -28409342.25 -28409342.08 -28409341.87 0.0148 0.0096 *

Moon -82493-06-22 11:01 J -28408972.23 -28408972.04 -28408971.82 0.0148 0.0090

Earth -82493-06-22 14:37 J -28408972.09 -28408971.89 -28408971.67 0.0148 0.0082 *

Earth -82492-06-27 22:32 J -28408601.78 -28408601.56 -28408601.32 0.0147 0.0063

Moon -82492-06-28 01:25 J -28408601.66 -28408601.44 -28408601.20 0.0147 0.0056 *

Moon -82491-07-03 05:01 J -28408231.53 -28408231.29 -28408231.03 0.0147 0.0047

Earth -82491-07-03 06:56 J -28408231.44 -28408231.21 -28408230.95 0.0147 0.0044 *

Earth -82490-07-08 15:35 J -28407861.10 -28407860.85 -28407860.59 0.0147 0.0023

Moon -82490-07-08 17:01 J -28407861.03 -28407860.79 -28407860.53 0.0147 0.0024 *

Moon -82489-07-12 23:59 J -28407490.77 -28407490.50 -28407490.24 0.0147 0.0004

Earth -82489-07-12 23:59 J -28407490.76 -28407490.50 -28407490.24 0.0147 0.0003 *

Moon -82488-07-18 07:54 J -28407120.42 -28407120.17 -28407119.92 0.0146 0.0009

Earth -82488-07-18 08:08 J -28407120.42 -28407120.16 -28407119.90 0.0146 0.0017 *

Earth -82487-07-23 15:49 J -28406750.08 -28406749.84 -28406749.58 0.0146 0.0037

Moon -82487-07-23 17:30 J -28406750.01 -28406749.77 -28406749.50 0.0146 0.0042 *

Moon -82486-07-28 21:06 J -28406379.85 -28406379.62 -28406379.38 0.0145 0.0054

Earth -82486-07-28 23:30 J -28406379.76 -28406379.52 -28406379.28 0.0145 0.0056 *

Earth -82485-08-02 06:28 J -28406009.45 -28406009.23 -28406009.00 0.0145 0.0074

Moon -82485-08-02 09:06 J -28406009.34 -28406009.12 -28406008.87 0.0145 0.0071 *

Moon -82484-08-07 09:06 J -28405639.29 -28405639.12 -28405638.92 0.0144 0.0099

Earth -82484-08-07 12:56 J -28405639.16 -28405638.96 -28405638.75 0.0144 0.0092 *
 Earth -82483-08-12 18:28 J -28405268.89 -28405268.73 -28405268.55 0.0144 0.0109
 Moon -82483-08-12 22:18 J -28405268.75 -28405268.57 -28405268.38 0.0144 0.0101 *
 Moon -82482-08-17 19:40 J -28404898.77 -28404898.68 -28404898.54 0.0143 0.0129
 Earth -82482-08-17 23:44 J -28404898.63 -28404898.51 -28404898.37 0.0143 0.0124 *
 Venus -82481-05-31 04:32 J -28404611.47 -28404611.31 -28404611.12 0.0142 0.0091
 Earth -82481-08-22 03:35 J -28404528.38 -28404528.35 -28404528.27 0.0142 0.0139
 Moon -82481-08-22 07:11 J -28404528.23 -28404528.20 -28404528.11 0.0142 0.0139
 Venus -82480-01-12 17:59 J -28404384.97 -28404384.75 -28404384.53 0.0142 0.0018
 Venus -82480-08-27 06:42 J -28404158.42 -28404158.22 -28404158.01 0.0142 0.0055
 Venus -82479-04-10 19:11 J -28403931.79 -28403931.70 -28403931.60 0.0141 0.0126
 Mercury -82478-06-04 07:11 J -28403512.22 -28403512.20 -28403512.17 0.0140 0.0139
 Mercury -82478-08-31 14:23 J -28403423.99 -28403423.90 -28403423.78 0.0140 0.0114
 Mercury -82478-11-27 21:49 J -28403335.72 -28403335.59 -28403335.44 0.0140 0.0089
 Mercury -82477-02-24 05:01 J -28403247.44 -28403247.29 -28403247.12 0.0140 0.0064
 Mercury -82477-05-22 12:28 J -28403159.16 -28403158.98 -28403158.80 0.0140 0.0039
 Mercury -82477-08-18 19:40 J -28403070.86 -28403070.68 -28403070.50 0.0140 0.0015
 Mercury -82477-11-15 02:37 J -28402982.57 -28402982.39 -28402982.20 0.0140 0.0010
 Mercury -82476-02-11 09:35 J -28402894.27 -28402894.10 -28402893.92 0.0139 0.0033
 Mercury -82476-05-10 16:47 J -28402805.97 -28402805.80 -28402805.64 0.0139 0.0057
 Mercury -82476-08-06 23:30 J -28402717.66 -28402717.52 -28402717.37 0.0139 0.0080
 Mercury -82476-11-03 06:13 J -28402629.35 -28402629.24 -28402629.11 0.0139 0.0103
 Mercury -82475-01-30 12:56 J -28402541.02 -28402540.96 -28402540.87 0.0139 0.0126
 Saturn -82474-01-26 18:56 J -28402180.17 -28402179.71 -28402179.14 0.0138 0.0077
 Mars -82460-10-05 08:52 J -28396814.34 -28396814.13 -28396813.92 0.0132 0.0087
 Mars -82458-09-03 16:18 J -28396116.10 -28396115.82 -28396115.55 0.0131 0.0024
 Mars -82456-08-01 20:08 J -28395417.91 -28395417.66 -28395417.38 0.0131 0.0040
 Moon -82456-12-09 16:18 J -28395287.84 -28395287.82 -28395287.75 0.0131 0.0129
 Moon -82455-12-13 12:42 J -28394919.01 -28394918.97 -28394918.88 0.0131 0.0127
 Earth -82455-12-13 16:18 J -28394918.89 -28394918.82 -28394918.70 0.0131 0.0121 *

Mars	-82454-06-30 21:35 J	-28394719.75	-28394719.60	-28394719.40	0.0131	0.0101
Earth	-82454-12-17 19:40 J	-28394549.81	-28394549.68	-28394549.53	0.0131	0.0109
Moon	-82454-12-17 22:47 J	-28394549.68	-28394549.55	-28394549.37	0.0131	0.0103 *
Moon	-82453-12-20 18:42 J	-28394180.85	-28394180.72	-28394180.55	0.0131	0.0105
Earth	-82453-12-20 22:18 J	-28394180.72	-28394180.57	-28394180.38	0.0131	0.0097 *
Earth	-82452-12-25 01:11 J	-28393811.64	-28393811.45	-28393811.25	0.0131	0.0085
Moon	-82452-12-25 04:18 J	-28393811.50	-28393811.32	-28393811.09	0.0131	0.0079 *
Moon	-82451-12-28 23:44 J	-28393442.70	-28393442.51	-28393442.29	0.0131	0.0076
Earth	-82451-12-29 03:20 J	-28393442.56	-28393442.36	-28393442.14	0.0131	0.0072 *
Earth	-82449-01-02 05:30 J	-28393073.49	-28393073.27	-28393073.04	0.0131	0.0058
Moon	-82449-01-02 09:06 J	-28393073.34	-28393073.12	-28393072.88	0.0131	0.0057 *
Moon	-82448-01-05 04:04 J	-28392704.55	-28392704.33	-28392704.08	0.0132	0.0046
Earth	-82448-01-05 07:40 J	-28392704.41	-28392704.18	-28392703.94	0.0132	0.0045 *
Earth	-82447-01-09 09:20 J	-28392335.35	-28392335.11	-28392334.87	0.0132	0.0031
Moon	-82447-01-09 12:42 J	-28392335.21	-28392334.97	-28392334.72	0.0132	0.0036 *
Moon	-82446-01-13 07:40 J	-28391966.43	-28391966.18	-28391965.94	0.0132	0.0012
Earth	-82446-01-13 11:01 J	-28391966.29	-28391966.04	-28391965.79	0.0132	0.0017 *
Earth	-82445-01-17 12:42 J	-28391597.22	-28391596.97	-28391596.72	0.0132	0.0003
Moon	-82445-01-17 16:04 J	-28391597.08	-28391596.83	-28391596.58	0.0132	0.0010 *
Moon	-82444-01-20 10:47 J	-28391228.28	-28391228.05	-28391227.80	0.0133	0.0019
Earth	-82444-01-20 14:37 J	-28391228.14	-28391227.89	-28391227.64	0.0133	0.0011 *
Earth	-82443-01-24 16:18 J	-28390859.06	-28390858.82	-28390858.57	0.0133	0.0025
Moon	-82443-01-24 19:40 J	-28390858.93	-28390858.68	-28390858.43	0.0133	0.0019 *
Moon	-82442-01-28 15:06 J	-28390490.09	-28390489.87	-28390489.63	0.0133	0.0043
Earth	-82442-01-28 18:28 J	-28390489.96	-28390489.73	-28390489.48	0.0133	0.0040 *
Earth	-82441-02-01 20:52 J	-28390120.84	-28390120.63	-28390120.39	0.0134	0.0054
Moon	-82441-02-02 00:28 J	-28390120.70	-28390120.48	-28390120.24	0.0134	0.0051 *
Moon	-82440-02-04 21:06 J	-28389751.83	-28389751.62	-28389751.40	0.0134	0.0067
Earth	-82440-02-05 00:13 J	-28389751.70	-28389751.49	-28389751.27	0.0134	0.0067 *
Earth	-82439-02-09 03:35 J	-28389382.54	-28389382.35	-28389382.15	0.0135	0.0081

Moon -82439-02-09 06:56 J -28389382.39 -28389382.21 -28389382.01 0.0135 0.0086 *
 Moon -82438-02-13 04:32 J -28389013.49 -28389013.31 -28389013.12 0.0135 0.0090
 Earth -82438-02-13 07:25 J -28389013.35 -28389013.19 -28389013.00 0.0135 0.0095 *
 Earth -82437-02-17 12:28 J -28388644.13 -28388643.98 -28388643.83 0.0136 0.0108
 Moon -82437-02-17 15:20 J -28388643.96 -28388643.86 -28388643.71 0.0136 0.0116 *
 Venus -82436-01-04 13:25 J -28388322.04 -28388321.94 -28388321.82 0.0136 0.0116
 Moon -82436-02-20 14:08 J -28388275.03 -28388274.91 -28388274.76 0.0136 0.0114
 Earth -82436-02-20 17:44 J -28388274.86 -28388274.76 -28388274.64 0.0136 0.0121 *
 Venus -82436-08-18 18:13 J -28388095.93 -28388095.74 -28388095.54 0.0137 0.0056
 Earth -82435-02-24 23:30 J -28387905.55 -28387905.52 -28387905.46 0.0137 0.0134
 Venus -82435-04-01 23:01 J -28387869.75 -28387869.54 -28387869.32 0.0137 0.0006
 Venus -82435-11-14 04:04 J -28387643.51 -28387643.33 -28387643.14 0.0137 0.0066
 Venus -82434-06-28 09:35 J -28387417.18 -28387417.10 -28387417.03 0.0138 0.0128
 Mercury -82433-01-30 11:01 J -28387201.06 -28387201.04 -28387201.00 0.0138 0.0134
 Mercury -82433-04-27 14:37 J -28387112.95 -28387112.89 -28387112.82 0.0138 0.0117
 Mercury -82433-07-24 18:13 J -28387024.83 -28387024.74 -28387024.65 0.0138 0.0101
 Mercury -82433-10-20 21:49 J -28386936.70 -28386936.59 -28386936.49 0.0138 0.0084
 Mercury -82432-01-17 01:11 J -28386848.57 -28386848.45 -28386848.33 0.0139 0.0067
 Mercury -82432-04-15 04:47 J -28386760.43 -28386760.30 -28386760.17 0.0139 0.0050
 Mercury -82432-07-12 08:23 J -28386672.28 -28386672.15 -28386672.02 0.0139 0.0032
 Saturn -82432-09-29 04:47 J -28386593.70 -28386593.30 -28386592.77 0.0139 0.0100
 Mercury -82432-10-08 11:59 J -28386584.14 -28386584.00 -28386583.86 0.0139 0.0015
 Mercury -82431-01-04 15:35 J -28386495.99 -28386495.85 -28386495.71 0.0139 0.0003
 Mercury -82431-04-02 19:11 J -28386407.83 -28386407.70 -28386407.56 0.0139 0.0021
 Mercury -82431-06-29 22:47 J -28386319.68 -28386319.55 -28386319.41 0.0140 0.0039
 Mercury -82431-09-26 02:37 J -28386231.52 -28386231.39 -28386231.26 0.0140 0.0057
 Mercury -82431-12-23 06:28 J -28386143.35 -28386143.23 -28386143.12 0.0140 0.0075
 Mercury -82430-03-21 09:49 J -28386055.18 -28386055.09 -28386054.97 0.0140 0.0094
 Mercury -82430-06-17 13:54 J -28385967.00 -28385966.92 -28385966.84 0.0140 0.0112
 Mercury -82430-09-13 17:30 J -28385878.81 -28385878.77 -28385878.71 0.0140 0.0131

Mars	-82416-12-08 04:18 J	-28380679.63	-28380679.32	-28380679.01	0.0147	0.0064
Mars	-82414-11-17 00:42 J	-28379970.78	-28379970.47	-28379970.14	0.0148	0.0051
Earth	-82412-06-08 08:08 J	-28379401.27	-28379401.16	-28379401.04	0.0148	0.0132
Moon	-82412-06-08 11:16 J	-28379401.15	-28379401.03	-28379400.88	0.0148	0.0126 *
Moon	-82411-06-13 11:16 J	-28379031.17	-28379031.03	-28379030.86	0.0148	0.0116
Earth	-82411-06-13 14:52 J	-28379031.03	-28379030.88	-28379030.72	0.0148	0.0115 *
Earth	-82410-06-18 22:04 J	-28378660.77	-28378660.58	-28378660.38	0.0148	0.0097
Moon	-82410-06-19 01:40 J	-28378660.60	-28378660.43	-28378660.23	0.0148	0.0102 *
Moon	-82409-06-23 02:08 J	-28378290.63	-28378290.41	-28378290.17	0.0148	0.0072
Earth	-82409-06-23 05:30 J	-28378290.47	-28378290.27	-28378290.04	0.0148	0.0079 *
Earth	-82408-06-28 13:40 J	-28377920.16	-28377919.93	-28377919.69	0.0147	0.0059
Moon	-82408-06-28 16:32 J	-28377920.02	-28377919.81	-28377919.57	0.0147	0.0067 *
Moon	-82407-07-03 19:11 J	-28377549.95	-28377549.70	-28377549.44	0.0147	0.0034
Earth	-82407-07-03 22:04 J	-28377549.82	-28377549.58	-28377549.33	0.0147	0.0039 *
Earth	-82406-07-09 06:13 J	-28377179.49	-28377179.24	-28377178.98	0.0147	0.0019
Moon	-82406-07-09 07:40 J	-28377179.42	-28377179.18	-28377178.92	0.0147	0.0017 *
Moon	-82405-07-13 13:25 J	-28376809.21	-28376808.94	-28376808.67	0.0147	0.0003
Earth	-82405-07-13 14:37 J	-28376809.15	-28376808.89	-28376808.63	0.0147	0.0002 *
Moon	-82404-07-18 22:18 J	-28376438.81	-28376438.57	-28376438.32	0.0146	0.0030
Earth	-82404-07-18 22:32 J	-28376438.81	-28376438.56	-28376438.30	0.0146	0.0023 *
Earth	-82403-07-24 06:13 J	-28376068.48	-28376068.24	-28376067.98	0.0146	0.0043
Moon	-82403-07-24 07:25 J	-28376068.45	-28376068.19	-28376067.93	0.0146	0.0036 *
Moon	-82402-07-29 11:59 J	-28375698.22	-28375698.00	-28375697.77	0.0145	0.0063
Earth	-82402-07-29 13:54 J	-28375698.15	-28375697.92	-28375697.68	0.0145	0.0061 *
Earth	-82401-08-02 20:37 J	-28375327.85	-28375327.64	-28375327.42	0.0145	0.0080
Moon	-82401-08-02 23:30 J	-28375327.73	-28375327.52	-28375327.30	0.0145	0.0084 *
Moon	-82400-08-07 23:59 J	-28374957.68	-28374957.50	-28374957.29	0.0144	0.0092
Earth	-82400-08-08 02:52 J	-28374957.55	-28374957.38	-28374957.17	0.0144	0.0098 *
Earth	-82399-08-13 08:37 J	-28374587.28	-28374587.14	-28374586.97	0.0144	0.0115
Moon	-82399-08-13 12:42 J	-28374587.10	-28374586.97	-28374586.83	0.0144	0.0122 *

Moon -82398-08-18 09:49 J -28374217.19 -28374217.09 -28374216.94 0.0143 0.0125
 Earth -82398-08-18 13:40 J -28374217.02 -28374216.93 -28374216.81 0.0143 0.0131 *
 Venus -82397-01-29 12:28 J -28374053.07 -28374052.98 -28374052.85 0.0143 0.0123
 Venus -82397-09-12 01:54 J -28373826.62 -28373826.42 -28373826.20 0.0142 0.0049
 Venus -82396-04-26 15:06 J -28373600.09 -28373599.87 -28373599.65 0.0142 0.0024
 Venus -82396-12-09 03:35 J -28373373.50 -28373373.35 -28373373.17 0.0141 0.0096
 Mercury -82394-06-24 15:35 J -28372810.91 -28372810.85 -28372810.77 0.0140 0.0130
 Mercury -82394-09-20 23:01 J -28372722.66 -28372722.54 -28372722.41 0.0140 0.0104
 Mercury -82394-12-18 06:28 J -28372634.38 -28372634.23 -28372634.08 0.0140 0.0079
 Mercury -82393-03-15 13:40 J -28372546.10 -28372545.93 -28372545.76 0.0140 0.0055
 Mercury -82393-06-11 20:52 J -28372457.81 -28372457.63 -28372457.45 0.0140 0.0030
 Mercury -82393-09-08 04:04 J -28372369.51 -28372369.33 -28372369.15 0.0140 0.0006
 Mercury -82393-12-05 11:01 J -28372281.22 -28372281.04 -28372280.85 0.0140 0.0019
 Mercury -82392-03-03 18:13 J -28372192.92 -28372192.74 -28372192.57 0.0139 0.0042
 Mercury -82392-05-31 00:56 J -28372104.61 -28372104.46 -28372104.29 0.0139 0.0065
 Mercury -82392-08-27 07:54 J -28372016.31 -28372016.17 -28372016.03 0.0139 0.0088
 Mercury -82392-11-23 14:52 J -28371927.99 -28371927.88 -28371927.78 0.0139 0.0111
 Mercury -82391-02-19 21:20 J -28371839.64 -28371839.61 -28371839.56 0.0139 0.0134
 Saturn -82384-05-21 03:49 J -28369192.75 -28369192.34 -28369191.89 0.0135 0.0096
 Mars -82377-07-01 01:25 J -28366594.53 -28366594.44 -28366594.31 0.0132 0.0121
 Mars -82375-05-30 11:59 J -28365896.25 -28365896.00 -28365895.74 0.0132 0.0058
 Mars -82373-04-27 18:28 J -28365198.00 -28365197.73 -28365197.45 0.0131 0.0005
 Mars -82371-03-26 20:52 J -28364499.85 -28364499.63 -28364499.37 0.0131 0.0067
 Moon -82371-12-14 03:06 J -28364237.49 -28364237.37 -28364237.25 0.0131 0.0115
 Earth -82371-12-14 05:44 J -28364237.34 -28364237.26 -28364237.14 0.0131 0.0120 *
 Earth -82370-12-18 08:52 J -28363868.25 -28363868.13 -28363867.96 0.0131 0.0108
 Moon -82370-12-18 12:56 J -28363868.08 -28363867.96 -28363867.83 0.0131 0.0115 *
 Mars -82369-02-22 21:49 J -28363801.62 -28363801.59 -28363801.50 0.0131 0.0128
 Moon -82369-12-21 08:52 J -28363499.30 -28363499.13 -28363498.94 0.0131 0.0088
 Earth -82369-12-21 12:13 J -28363499.15 -28363498.99 -28363498.81 0.0131 0.0095 *

Earth	-82368-12-25 14:37 J	-28363130.08	-28363129.89	-28363129.69	0.0131	0.0082
Moon	-82368-12-25 17:44 J	-28363129.93	-28363129.76	-28363129.55	0.0131	0.0088 *
Moon	-82367-12-29 13:25 J	-28362761.15	-28362760.94	-28362760.71	0.0131	0.0064
Earth	-82367-12-29 16:47 J	-28362761.00	-28362760.80	-28362760.57	0.0131	0.0070 *
Earth	-82365-01-02 18:56 J	-28362391.93	-28362391.71	-28362391.47	0.0131	0.0056
Moon	-82365-01-02 22:04 J	-28362391.79	-28362391.58	-28362391.34	0.0131	0.0058 *
Moon	-82364-01-05 17:30 J	-28362023.00	-28362022.77	-28362022.53	0.0132	0.0043
Earth	-82364-01-05 20:52 J	-28362022.86	-28362022.63	-28362022.38	0.0132	0.0042 *
Earth	-82363-01-09 22:32 J	-28361653.80	-28361653.56	-28361653.31	0.0132	0.0028
Moon	-82363-01-10 01:54 J	-28361653.67	-28361653.42	-28361653.17	0.0132	0.0025 *
Moon	-82362-01-13 20:52 J	-28361284.86	-28361284.63	-28361284.37	0.0132	0.0020
Earth	-82362-01-14 00:13 J	-28361284.74	-28361284.49	-28361284.24	0.0132	0.0013 *
Earth	-82361-01-18 01:54 J	-28360915.67	-28360915.42	-28360915.17	0.0132	0.0001
Moon	-82361-01-18 05:16 J	-28360915.53	-28360915.28	-28360915.02	0.0132	0.0008 *
Moon	-82360-01-21 00:56 J	-28360546.71	-28360546.46	-28360546.22	0.0133	0.0008
Earth	-82360-01-21 03:49 J	-28360546.59	-28360546.34	-28360546.09	0.0133	0.0015 *
Earth	-82359-01-25 05:44 J	-28360177.51	-28360177.26	-28360177.02	0.0133	0.0029
Moon	-82359-01-25 08:52 J	-28360177.37	-28360177.13	-28360176.88	0.0133	0.0035 *
Moon	-82358-01-29 04:47 J	-28359808.53	-28359808.30	-28359808.06	0.0133	0.0039
Earth	-82358-01-29 07:54 J	-28359808.40	-28359808.17	-28359807.93	0.0133	0.0044 *
Earth	-82357-02-02 10:18 J	-28359439.28	-28359439.07	-28359438.84	0.0134	0.0058
Moon	-82357-02-02 13:25 J	-28359439.15	-28359438.94	-28359438.70	0.0134	0.0060 *
Moon	-82356-02-05 10:04 J	-28359070.27	-28359070.08	-28359069.86	0.0134	0.0073
Earth	-82356-02-05 13:25 J	-28359070.14	-28359069.94	-28359069.72	0.0134	0.0072 *
Earth	-82355-02-09 16:32 J	-28358700.98	-28358700.81	-28358700.60	0.0135	0.0087
Moon	-82355-02-09 19:54 J	-28358700.86	-28358700.67	-28358700.47	0.0135	0.0083 *
Moon	-82354-02-13 17:44 J	-28358331.90	-28358331.76	-28358331.60	0.0135	0.0106
Earth	-82354-02-13 20:52 J	-28358331.78	-28358331.63	-28358331.45	0.0135	0.0100 *
Earth	-82353-02-18 01:40 J	-28357962.55	-28357962.43	-28357962.29	0.0136	0.0114
Moon	-82353-02-18 04:32 J	-28357962.44	-28357962.31	-28357962.14	0.0136	0.0107 *

Moon -82352-02-21 04:18 J -28357593.37 -28357593.32 -28357593.28 0.0136 0.0134
 Earth -82352-02-21 06:42 J -28357593.28 -28357593.22 -28357593.11 0.0136 0.0127 *
 Venus -82352-04-18 06:13 J -28357537.40 -28357537.24 -28357537.07 0.0136 0.0082
 Venus -82352-11-30 11:01 J -28357311.24 -28357311.04 -28357310.82 0.0137 0.0022
 Moon -82351-02-25 16:04 J -28357223.87 -28357223.83 -28357223.77 0.0137 0.0134
 Venus -82351-07-14 16:04 J -28357085.03 -28357084.83 -28357084.63 0.0137 0.0039
 Venus -82350-02-25 21:06 J -28356858.76 -28356858.62 -28356858.47 0.0137 0.0101
 Mercury -82349-02-19 18:42 J -28356499.76 -28356499.72 -28356499.66 0.0138 0.0129
 Mercury -82349-05-17 22:18 J -28356411.64 -28356411.57 -28356411.49 0.0138 0.0112
 Mercury -82349-08-14 01:40 J -28356323.52 -28356323.43 -28356323.33 0.0138 0.0096
 Mercury -82349-11-10 05:16 J -28356235.39 -28356235.28 -28356235.17 0.0138 0.0078
 Mercury -82348-02-06 08:37 J -28356147.25 -28356147.14 -28356147.01 0.0139 0.0062
 Mercury -82348-05-05 12:28 J -28356059.11 -28356058.98 -28356058.85 0.0139 0.0044
 Mercury -82348-08-01 16:04 J -28355970.97 -28355970.83 -28355970.70 0.0139 0.0027
 Mercury -82348-10-28 19:40 J -28355882.82 -28355882.68 -28355882.55 0.0139 0.0010
 Mercury -82347-01-24 23:16 J -28355794.67 -28355794.53 -28355794.40 0.0139 0.0009
 Mercury -82347-04-23 02:52 J -28355706.52 -28355706.38 -28355706.24 0.0139 0.0026
 Mercury -82347-07-20 06:28 J -28355618.36 -28355618.23 -28355618.10 0.0140 0.0045
 Mercury -82347-10-16 10:04 J -28355530.20 -28355530.08 -28355529.95 0.0140 0.0063
 Mercury -82346-01-12 13:54 J -28355442.03 -28355441.92 -28355441.80 0.0140 0.0081
 Mercury -82346-04-10 17:44 J -28355353.86 -28355353.76 -28355353.66 0.0140 0.0099
 Mercury -82346-07-07 21:20 J -28355265.67 -28355265.61 -28355265.53 0.0140 0.0118
 Mercury -82346-10-04 01:25 J -28355177.47 -28355177.44 -28355177.41 0.0140 0.0137
 Jupiter -82341-11-04 00:13 J -28353319.51 -28353319.49 -28353319.39 0.0143 0.0143
 Mars -82333-08-26 16:47 J -28350466.94 -28350466.80 -28350466.61 0.0147 0.0128
 Mars -82331-08-05 07:11 J -28349758.54 -28349758.20 -28349757.86 0.0147 0.0017
 Moon -82329-06-03 11:16 J -28349090.09 -28349090.03 -28349089.93 0.0148 0.0140
 Earth -82329-06-03 13:54 J -28349089.94 -28349089.92 -28349089.90 0.0148 0.0147 *
 Mars -82329-07-14 06:42 J -28349049.46 -28349049.22 -28349048.95 0.0148 0.0098
 Earth -82328-06-08 19:25 J -28348719.79 -28348719.69 -28348719.56 0.0148 0.0131

Moon	-82328-06-08 22:47 J	-28348719.65	-28348719.55	-28348719.45	0.0148	0.0135	*
Moon	-82327-06-13 22:47 J	-28348349.70	-28348349.55	-28348349.38	0.0148	0.0112	
Earth	-82327-06-14 02:23 J	-28348349.55	-28348349.40	-28348349.23	0.0148	0.0113	*
Earth	-82326-06-19 09:20 J	-28347979.30	-28347979.11	-28347978.90	0.0148	0.0095	
Moon	-82326-06-19 12:56 J	-28347979.16	-28347978.96	-28347978.75	0.0148	0.0091	*
Moon	-82325-06-23 13:40 J	-28347609.15	-28347608.93	-28347608.72	0.0148	0.0083	
Earth	-82325-06-23 17:01 J	-28347609.00	-28347608.79	-28347608.56	0.0148	0.0076	*
Earth	-82324-06-29 00:56 J	-28347238.69	-28347238.46	-28347238.21	0.0147	0.0056	
Moon	-82324-06-29 04:32 J	-28347238.55	-28347238.31	-28347238.06	0.0147	0.0048	*
Moon	-82323-07-04 06:42 J	-28346868.48	-28346868.22	-28346867.97	0.0147	0.0039	
Earth	-82323-07-04 09:06 J	-28346868.36	-28346868.12	-28346867.86	0.0147	0.0036	*
Earth	-82322-07-09 17:30 J	-28346498.02	-28346497.77	-28346497.51	0.0147	0.0014	
Moon	-82322-07-09 20:08 J	-28346497.91	-28346497.66	-28346497.41	0.0147	0.0014	*
Moon	-82321-07-14 00:13 J	-28346127.75	-28346127.49	-28346127.22	0.0147	0.0013	
Earth	-82321-07-14 01:40 J	-28346127.69	-28346127.43	-28346127.17	0.0147	0.0007	*
Earth	-82320-07-19 09:35 J	-28345757.35	-28345757.10	-28345756.84	0.0146	0.0028	
Moon	-82320-07-19 10:18 J	-28345757.31	-28345757.07	-28345756.81	0.0146	0.0020	*
Earth	-82319-07-24 17:16 J	-28345387.02	-28345386.78	-28345386.52	0.0146	0.0048	
Moon	-82319-07-24 17:44 J	-28345387.00	-28345386.76	-28345386.50	0.0146	0.0053	*
Moon	-82318-07-29 23:01 J	-28345016.75	-28345016.54	-28345016.30	0.0145	0.0065	
Earth	-82318-07-30 00:28 J	-28345016.70	-28345016.48	-28345016.24	0.0145	0.0067	*
Earth	-82317-08-03 07:25 J	-28344646.39	-28344646.19	-28344645.97	0.0145	0.0086	
Moon	-82317-08-03 09:20 J	-28344646.32	-28344646.11	-28344645.88	0.0145	0.0083	*
Moon	-82316-08-08 10:47 J	-28344276.19	-28344276.05	-28344275.87	0.0144	0.0111	
Earth	-82316-08-08 14:08 J	-28344276.08	-28344275.91	-28344275.72	0.0144	0.0103	*
Earth	-82315-08-13 19:40 J	-28343905.80	-28343905.68	-28343905.52	0.0144	0.0121	
Moon	-82315-08-13 23:01 J	-28343905.69	-28343905.54	-28343905.37	0.0144	0.0113	*
Moon	-82314-08-18 21:20 J	-28343535.63	-28343535.61	-28343535.56	0.0143	0.0141	
Earth	-82314-08-19 00:42 J	-28343535.52	-28343535.47	-28343535.37	0.0143	0.0137	
Venus	-82313-05-12 08:23 J	-28343268.33	-28343268.15	-28343267.97	0.0142	0.0083	

Venus -82313-12-24 21:35 J -28343041.82 -28343041.60 -28343041.38 0.0142 0.0010
 Venus -82312-08-08 10:18 J -28342815.26 -28342815.07 -28342814.86 0.0142 0.0063
 Venus -82311-03-22 22:47 J -28342588.61 -28342588.55 -28342588.47 0.0141 0.0134
 Mercury -82310-07-14 23:16 J -28342109.61 -28342109.53 -28342109.43 0.0140 0.0123
 Mercury -82310-10-11 06:42 J -28342021.35 -28342021.22 -28342021.08 0.0140 0.0098
 Mercury -82309-01-07 13:54 J -28341933.07 -28341932.92 -28341932.75 0.0140 0.0073
 Mercury -82309-04-04 21:20 J -28341844.78 -28341844.61 -28341844.43 0.0140 0.0048
 Mercury -82309-07-02 04:32 J -28341756.49 -28341756.31 -28341756.13 0.0140 0.0024
 Mercury -82309-09-28 11:44 J -28341668.20 -28341668.01 -28341667.83 0.0140 0.0001
 Mercury -82309-12-25 18:42 J -28341579.90 -28341579.72 -28341579.54 0.0140 0.0025
 Mercury -82308-03-24 01:40 J -28341491.60 -28341491.43 -28341491.25 0.0139 0.0048
 Mercury -82308-06-20 08:37 J -28341403.29 -28341403.14 -28341402.98 0.0139 0.0072
 Mercury -82308-09-16 15:20 J -28341314.98 -28341314.86 -28341314.72 0.0139 0.0095
 Mercury -82308-12-13 22:04 J -28341226.66 -28341226.58 -28341226.47 0.0139 0.0118
 Mars -82292-02-23 03:06 J -28335676.54 -28335676.37 -28335676.15 0.0132 0.0093
 Mars -82290-01-22 12:56 J -28334978.23 -28334977.96 -28334977.68 0.0131 0.0030
 Mars -82289-12-20 17:59 J -28334280.02 -28334279.75 -28334279.48 0.0131 0.0032
 Earth -82288-12-10 14:37 J -28333924.90 -28333924.89 -28333924.86 0.0131 0.0130
 Moon -82288-12-10 17:16 J -28333924.81 -28333924.78 -28333924.70 0.0131 0.0128
 Mars -82287-11-18 20:23 J -28333581.83 -28333581.65 -28333581.44 0.0131 0.0093
 Moon -82287-12-14 14:37 J -28333555.95 -28333555.89 -28333555.79 0.0131 0.0124
 Earth -82287-12-14 18:28 J -28333555.83 -28333555.73 -28333555.62 0.0131 0.0118 *
 Earth -82286-12-18 21:20 J -28333186.74 -28333186.61 -28333186.45 0.0131 0.0106
 Moon -82286-12-19 00:13 J -28333186.63 -28333186.49 -28333186.30 0.0131 0.0100 *
 Moon -82285-12-21 21:06 J -28332817.76 -28332817.62 -28332817.44 0.0131 0.0100
 Earth -82285-12-22 00:28 J -28332817.64 -28332817.48 -28332817.29 0.0131 0.0093 *
 Earth -82284-12-26 03:06 J -28332448.56 -28332448.37 -28332448.16 0.0131 0.0080
 Moon -82284-12-26 06:13 J -28332448.44 -28332448.24 -28332448.01 0.0131 0.0074 *
 Moon -82283-12-30 02:23 J -28332079.59 -28332079.40 -28332079.18 0.0131 0.0071
 Earth -82283-12-30 05:16 J -28332079.48 -28332079.28 -28332079.05 0.0131 0.0067 *

Earth	-82281-01-03 07:25 J	-28331710.41	-28331710.19	-28331709.95	0.0131	0.0053
Moon	-82281-01-03 10:47 J	-28331710.28	-28331710.05	-28331709.81	0.0131	0.0051 *
Moon	-82280-01-06 06:13 J	-28331341.46	-28331341.24	-28331340.99	0.0132	0.0040
Earth	-82280-01-06 09:06 J	-28331341.35	-28331341.12	-28331340.87	0.0132	0.0039 *
Earth	-82279-01-10 10:47 J	-28330972.29	-28330972.05	-28330971.80	0.0132	0.0024
Moon	-82279-01-10 13:54 J	-28330972.17	-28330971.92	-28330971.67	0.0132	0.0028 *
Moon	-82278-01-14 09:35 J	-28330603.35	-28330603.10	-28330602.86	0.0132	0.0005
Earth	-82278-01-14 12:28 J	-28330603.23	-28330602.98	-28330602.73	0.0132	0.0010 *
Earth	-82277-01-18 14:08 J	-28330234.16	-28330233.91	-28330233.66	0.0132	0.0005
Moon	-82277-01-18 17:01 J	-28330234.04	-28330233.79	-28330233.53	0.0132	0.0001 *
Moon	-82276-01-21 12:42 J	-28329865.20	-28329864.97	-28329864.72	0.0133	0.0027
Earth	-82276-01-21 15:49 J	-28329865.08	-28329864.84	-28329864.59	0.0133	0.0020 *
Earth	-82275-01-25 17:44 J	-28329495.99	-28329495.76	-28329495.51	0.0133	0.0034
Moon	-82275-01-25 20:37 J	-28329495.89	-28329495.64	-28329495.39	0.0133	0.0027 *
Moon	-82274-01-29 17:16 J	-28329127.00	-28329126.78	-28329126.55	0.0133	0.0053
Earth	-82274-01-29 20:08 J	-28329126.89	-28329126.66	-28329126.43	0.0133	0.0048 *
Earth	-82273-02-02 22:32 J	-28328757.77	-28328757.56	-28328757.33	0.0134	0.0063
Moon	-82273-02-03 01:25 J	-28328757.65	-28328757.44	-28328757.20	0.0134	0.0061 *
Moon	-82272-02-05 23:16 J	-28328388.73	-28328388.53	-28328388.33	0.0134	0.0077
Earth	-82272-02-06 01:40 J	-28328388.62	-28328388.43	-28328388.22	0.0134	0.0077 *
Earth	-82271-02-10 04:47 J	-28328019.46	-28328019.30	-28328019.10	0.0135	0.0092
Moon	-82271-02-10 07:54 J	-28328019.33	-28328019.17	-28328018.98	0.0135	0.0096 *
Moon	-82270-02-14 06:13 J	-28327650.38	-28327650.24	-28327650.06	0.0135	0.0101
Earth	-82270-02-14 09:20 J	-28327650.26	-28327650.11	-28327649.96	0.0135	0.0106 *
Earth	-82269-02-18 13:54 J	-28327281.04	-28327280.92	-28327280.80	0.0136	0.0119
Moon	-82269-02-18 16:32 J	-28327280.89	-28327280.81	-28327280.71	0.0136	0.0126 *
Venus	-82269-12-16 17:16 J	-28326978.88	-28326978.78	-28326978.63	0.0136	0.0110
Moon	-82268-02-21 15:49 J	-28326911.92	-28326911.84	-28326911.74	0.0136	0.0125
Earth	-82268-02-21 18:56 J	-28326911.76	-28326911.71	-28326911.66	0.0136	0.0133 *
Venus	-82268-07-30 22:04 J	-28326752.77	-28326752.58	-28326752.37	0.0136	0.0050

Venus -82267-03-14 02:52 J -28326526.58 -28326526.38 -28326526.16 0.0137 0.0012
 Venus -82267-10-26 07:40 J -28326300.35 -28326300.18 -28326299.99 0.0137 0.0072
 Venus -82266-06-09 12:42 J -28326074.00 -28326073.97 -28326073.91 0.0138 0.0134
 Mercury -82265-03-11 01:54 J -28325798.46 -28325798.42 -28325798.35 0.0138 0.0125
 Mercury -82265-06-07 05:30 J -28325710.34 -28325710.27 -28325710.18 0.0138 0.0108
 Mercury -82265-09-03 09:06 J -28325622.22 -28325622.12 -28325622.02 0.0138 0.0091
 Mercury -82265-11-30 12:28 J -28325534.09 -28325533.98 -28325533.86 0.0138 0.0075
 Mercury -82264-02-26 16:04 J -28325445.95 -28325445.83 -28325445.70 0.0139 0.0057
 Mercury -82264-05-25 19:40 J -28325357.81 -28325357.68 -28325357.55 0.0139 0.0040
 Mercury -82264-08-21 23:16 J -28325269.66 -28325269.53 -28325269.39 0.0139 0.0023
 Mercury -82264-11-18 02:52 J -28325181.52 -28325181.38 -28325181.24 0.0139 0.0005
 Mercury -82263-02-14 06:28 J -28325093.36 -28325093.23 -28325093.09 0.0139 0.0013
 Mercury -82263-05-13 10:04 J -28325005.21 -28325005.08 -28325004.94 0.0139 0.0031
 Mercury -82263-08-09 13:54 J -28324917.05 -28324916.92 -28324916.79 0.0139 0.0049
 Mercury -82263-11-05 17:30 J -28324828.89 -28324828.77 -28324828.65 0.0140 0.0067
 Mercury -82262-02-01 21:20 J -28324740.72 -28324740.61 -28324740.50 0.0140 0.0085
 Mercury -82262-05-01 00:56 J -28324652.55 -28324652.46 -28324652.36 0.0140 0.0104
 Mercury -82262-07-28 04:47 J -28324564.36 -28324564.30 -28324564.23 0.0140 0.0122
 Mars -82248-04-23 14:37 J -28319546.16 -28319545.89 -28319545.60 0.0147 0.0081
 Mars -82246-04-02 08:37 J -28318837.47 -28318837.14 -28318836.80 0.0148 0.0031
 Earth -82245-06-03 23:44 J -28318408.52 -28318408.51 -28318408.47 0.0148 0.0147
 Mars -82244-03-11 10:04 J -28318128.14 -28318128.08 -28318128.00 0.0148 0.0144
 Earth -82244-06-09 05:44 J -28318038.37 -28318038.26 -28318038.13 0.0148 0.0130
 Moon -82244-06-09 08:08 J -28318038.28 -28318038.16 -28318038.00 0.0148 0.0124 *
 Moon -82243-06-14 09:20 J -28317668.25 -28317668.11 -28317667.93 0.0148 0.0114
 Earth -82243-06-14 12:13 J -28317668.14 -28317667.99 -28317667.81 0.0148 0.0112 *
 Earth -82242-06-19 19:25 J -28317297.88 -28317297.69 -28317297.48 0.0148 0.0093
 Moon -82242-06-19 23:16 J -28317297.72 -28317297.53 -28317297.33 0.0148 0.0097 *
 Moon -82241-06-23 23:30 J -28316927.73 -28316927.52 -28316927.28 0.0148 0.0067
 Earth -82241-06-24 03:06 J -28316927.58 -28316927.37 -28316927.14 0.0148 0.0073 *

Earth	-82240-06-29 11:01 J	-28316557.27	-28316557.04	-28316556.79	0.0147	0.0052
Moon	-82240-06-29 14:37 J	-28316557.12	-28316556.89	-28316556.65	0.0147	0.0060 *
Moon	-82239-07-04 15:49 J	-28316187.09	-28316186.84	-28316186.58	0.0147	0.0026
Earth	-82239-07-04 19:25 J	-28316186.94	-28316186.69	-28316186.43	0.0147	0.0031 *
Earth	-82238-07-10 03:35 J	-28315816.61	-28315816.35	-28315816.09	0.0147	0.0010
Moon	-82238-07-10 05:59 J	-28315816.50	-28315816.25	-28315816.00	0.0147	0.0009 *
Moon	-82237-07-14 09:20 J	-28315446.37	-28315446.11	-28315445.84	0.0147	0.0007
Earth	-82237-07-14 11:44 J	-28315446.26	-28315446.01	-28315445.75	0.0147	0.0011 *
Earth	-82236-07-19 19:40 J	-28315075.92	-28315075.68	-28315075.42	0.0146	0.0032
Moon	-82236-07-19 20:52 J	-28315075.86	-28315075.63	-28315075.38	0.0146	0.0039 *
Moon	-82235-07-25 03:06 J	-28314705.61	-28314705.37	-28314705.10	0.0146	0.0046
Earth	-82235-07-25 03:20 J	-28314705.59	-28314705.36	-28314705.11	0.0146	0.0053 *
Moon	-82234-07-30 10:47 J	-28314335.27	-28314335.05	-28314334.84	0.0145	0.0075
Earth	-82234-07-30 10:47 J	-28314335.26	-28314335.05	-28314334.81	0.0145	0.0072 *
Earth	-82233-08-03 18:13 J	-28313964.94	-28313964.74	-28313964.54	0.0145	0.0091
Moon	-82233-08-03 20:08 J	-28313964.86	-28313964.66	-28313964.46	0.0145	0.0094 *
Moon	-82232-08-08 23:01 J	-28313594.71	-28313594.54	-28313594.37	0.0144	0.0104
Earth	-82232-08-09 00:42 J	-28313594.63	-28313594.47	-28313594.29	0.0144	0.0110 *
Earth	-82231-08-14 06:28 J	-28313224.33	-28313224.23	-28313224.09	0.0144	0.0127
Moon	-82231-08-14 09:49 J	-28313224.17	-28313224.09	-28313223.98	0.0144	0.0134 *
Moon	-82230-08-19 08:23 J	-28312854.20	-28312854.15	-28312854.06	0.0143	0.0137
Earth	-82230-08-19 11:59 J	-28312854.00	-28312854.00	-28312853.98	0.0143	0.0143
Venus	-82229-01-10 14:08 J	-28312710.02	-28312709.91	-28312709.77	0.0143	0.0118
Venus	-82229-08-24 03:35 J	-28312483.56	-28312483.35	-28312483.13	0.0142	0.0044
Venus	-82228-04-07 16:47 J	-28312257.02	-28312256.80	-28312256.58	0.0142	0.0029
Venus	-82228-11-20 05:30 J	-28312030.42	-28312030.27	-28312030.11	0.0142	0.0101
Mercury	-82226-08-04 06:56 J	-28311408.30	-28311408.21	-28311408.10	0.0141	0.0116
Mercury	-82226-10-31 14:08 J	-28311320.04	-28311319.91	-28311319.76	0.0140	0.0092
Mercury	-82225-01-27 21:35 J	-28311231.75	-28311231.60	-28311231.43	0.0140	0.0067
Mercury	-82225-04-25 04:47 J	-28311143.46	-28311143.30	-28311143.11	0.0140	0.0043

Mercury -82225-07-22 12:13 J -28311055.17 -28311054.99 -28311054.81 0.0140 0.0017

Mercury -82225-10-18 19:25 J -28310966.88 -28310966.69 -28310966.51 0.0140 0.0007

Mercury -82224-01-15 02:23 J -28310878.58 -28310878.40 -28310878.22 0.0140 0.0031

Mercury -82224-04-13 09:20 J -28310790.28 -28310790.11 -28310789.94 0.0139 0.0055

Mercury -82224-07-10 16:04 J -28310701.97 -28310701.83 -28310701.67 0.0139 0.0078

Mercury -82224-10-06 23:01 J -28310613.66 -28310613.54 -28310613.41 0.0139 0.0101

Mercury -82223-01-03 05:44 J -28310525.33 -28310525.26 -28310525.17 0.0139 0.0124

Mars -82210-11-19 17:30 J -28305456.84 -28305456.77 -28305456.68 0.0132 0.0127

Mars -82208-10-18 06:56 J -28304758.44 -28304758.21 -28304757.95 0.0132 0.0064

Mars -82206-09-16 14:23 J -28304060.18 -28304059.90 -28304059.62 0.0131 0.0002

Mars -82204-08-14 17:16 J -28303362.01 -28303361.78 -28303361.51 0.0131 0.0061

Earth -82204-12-11 02:52 J -28303243.39 -28303243.38 -28303243.33 0.0131 0.0130

Moon -82203-12-15 04:04 J -28302874.43 -28302874.33 -28302874.19 0.0131 0.0114

Earth -82203-12-15 07:11 J -28302874.31 -28302874.20 -28302874.09 0.0131 0.0117 *

Mars -82202-07-13 19:40 J -28302663.76 -28302663.68 -28302663.54 0.0131 0.0120

Earth -82202-12-19 10:32 J -28302505.21 -28302505.06 -28302504.91 0.0131 0.0104

Moon -82202-12-19 13:11 J -28302505.07 -28302504.95 -28302504.80 0.0131 0.0111 *

Moon -82201-12-22 10:47 J -28302136.23 -28302136.05 -28302135.86 0.0131 0.0084

Earth -82201-12-22 13:25 J -28302136.11 -28302135.94 -28302135.75 0.0131 0.0091 *

Earth -82200-12-26 15:35 J -28301767.04 -28301766.85 -28301766.63 0.0131 0.0078

Moon -82200-12-26 18:42 J -28301766.92 -28301766.72 -28301766.52 0.0131 0.0083 *

Moon -82199-12-30 14:52 J -28301398.08 -28301397.88 -28301397.64 0.0131 0.0060

Earth -82199-12-30 17:44 J -28301397.96 -28301397.76 -28301397.52 0.0131 0.0065 *

Earth -82197-01-03 19:54 J -28301028.89 -28301028.67 -28301028.43 0.0131 0.0050

Moon -82197-01-03 22:32 J -28301028.79 -28301028.56 -28301028.32 0.0131 0.0053 *

Moon -82196-01-06 18:56 J -28300659.94 -28300659.71 -28300659.47 0.0132 0.0036

Earth -82196-01-06 21:35 J -28300659.83 -28300659.60 -28300659.35 0.0132 0.0036 *

Earth -82195-01-10 23:16 J -28300290.77 -28300290.53 -28300290.28 0.0132 0.0021

Moon -82195-01-11 02:08 J -28300290.66 -28300290.41 -28300290.16 0.0132 0.0018 *

Moon -82194-01-14 22:32 J -28299921.80 -28299921.56 -28299921.31 0.0132 0.0011

Earth	-82194-01-15 01:11 J	-28299921.70	-28299921.45	-28299921.20	0.0132	0.0006	*
Earth	-82193-01-19 02:37 J	-28299552.63	-28299552.39	-28299552.14	0.0132	0.0009	
Moon	-82193-01-19 05:30 J	-28299552.52	-28299552.27	-28299552.01	0.0132	0.0016	*
Moon	-82192-01-22 02:23 J	-28299183.64	-28299183.40	-28299183.16	0.0133	0.0017	
Earth	-82192-01-22 04:32 J	-28299183.55	-28299183.31	-28299183.06	0.0133	0.0024	*
Earth	-82191-01-26 06:28 J	-28298814.47	-28298814.23	-28298813.99	0.0133	0.0038	
Moon	-82191-01-26 09:06 J	-28298814.36	-28298814.12	-28298813.88	0.0133	0.0044	*
Moon	-82190-01-30 06:13 J	-28298445.46	-28298445.24	-28298445.01	0.0133	0.0048	
Earth	-82190-01-30 08:37 J	-28298445.36	-28298445.14	-28298444.90	0.0133	0.0053	*
Earth	-82189-02-03 11:16 J	-28298076.23	-28298076.03	-28298075.81	0.0134	0.0068	
Moon	-82189-02-03 13:40 J	-28298076.14	-28298075.93	-28298075.70	0.0134	0.0070	*
Moon	-82188-02-06 11:30 J	-28297707.19	-28297707.02	-28297706.81	0.0134	0.0084	
Earth	-82188-02-06 14:23 J	-28297707.09	-28297706.90	-28297706.70	0.0134	0.0082	*
Earth	-82187-02-10 17:44 J	-28297337.92	-28297337.76	-28297337.58	0.0135	0.0097	
Moon	-82187-02-10 20:08 J	-28297337.84	-28297337.66	-28297337.47	0.0135	0.0094	*
Moon	-82186-02-14 19:25 J	-28296968.81	-28296968.69	-28296968.57	0.0135	0.0117	
Earth	-82186-02-14 21:35 J	-28296968.72	-28296968.60	-28296968.44	0.0135	0.0111	*
Earth	-82185-02-19 02:08 J	-28296599.49	-28296599.41	-28296599.31	0.0136	0.0125	
Moon	-82185-02-19 04:18 J	-28296599.42	-28296599.32	-28296599.17	0.0136	0.0118	*
Venus	-82185-08-16 05:16 J	-28296420.29	-28296420.28	-28296420.25	0.0136	0.0135	
Venus	-82184-03-30 09:35 J	-28296194.26	-28296194.10	-28296193.92	0.0136	0.0076	
Venus	-82184-11-11 14:23 J	-28295968.11	-28295967.90	-28295967.69	0.0137	0.0016	
Venus	-82183-06-25 19:11 J	-28295741.90	-28295741.70	-28295741.50	0.0137	0.0044	
Venus	-82182-02-06 23:59 J	-28295515.62	-28295515.50	-28295515.36	0.0137	0.0106	
Mercury	-82181-01-03 06:13 J	-28295185.25	-28295185.24	-28295185.22	0.0138	0.0136	
Mercury	-82181-03-31 09:35 J	-28295097.16	-28295097.10	-28295097.03	0.0138	0.0120	
Mercury	-82181-06-27 12:56 J	-28295009.04	-28295008.96	-28295008.86	0.0138	0.0103	
Mercury	-82181-09-23 16:32 J	-28294920.91	-28294920.81	-28294920.70	0.0138	0.0086	
Mercury	-82181-12-20 20:08 J	-28294832.78	-28294832.66	-28294832.54	0.0138	0.0070	
Mercury	-82180-03-18 23:30 J	-28294744.64	-28294744.52	-28294744.39	0.0139	0.0053	

Mercury -82180-06-15 03:06 J -28294656.50 -28294656.37 -28294656.24 0.0139 0.0035

Mercury -82180-09-11 06:42 J -28294568.36 -28294568.22 -28294568.08 0.0139 0.0018

Mercury -82180-12-08 10:18 J -28294480.21 -28294480.07 -28294479.93 0.0139 0.0001

Mercury -82179-03-06 13:54 J -28294392.05 -28294391.92 -28294391.78 0.0139 0.0018

Mercury -82179-06-02 17:30 J -28294303.90 -28294303.77 -28294303.63 0.0139 0.0036

Mercury -82179-08-29 21:06 J -28294215.74 -28294215.62 -28294215.49 0.0139 0.0054

Mercury -82179-11-26 00:56 J -28294127.58 -28294127.46 -28294127.34 0.0140 0.0072

Mercury -82178-02-22 04:32 J -28294039.41 -28294039.31 -28294039.20 0.0140 0.0090

Mercury -82178-05-21 08:08 J -28293951.23 -28293951.16 -28293951.06 0.0140 0.0109

Mercury -82178-08-17 11:59 J -28293863.04 -28293863.00 -28293862.93 0.0140 0.0128

Mars -82165-01-11 02:08 J -28289333.45 -28289333.41 -28289333.32 0.0147 0.0144

Mars -82164-12-19 11:44 J -28288625.32 -28288625.01 -28288624.66 0.0147 0.0036

Mars -82162-11-28 07:54 J -28287916.44 -28287916.17 -28287915.85 0.0147 0.0077

Moon -82161-06-04 07:25 J -28287727.25 -28287727.19 -28287727.08 0.0148 0.0139

Earth -82161-06-04 08:52 J -28287727.15 -28287727.13 -28287727.09 0.0148 0.0146 *

Earth -82160-06-09 14:23 J -28287357.01 -28287356.90 -28287356.76 0.0148 0.0129

Moon -82160-06-09 16:32 J -28287356.91 -28287356.81 -28287356.69 0.0148 0.0134 *

Moon -82159-06-14 17:59 J -28286986.90 -28286986.75 -28286986.56 0.0148 0.0109

Earth -82159-06-14 21:06 J -28286986.78 -28286986.62 -28286986.45 0.0148 0.0110 *

Earth -82158-06-20 03:35 J -28286616.53 -28286616.35 -28286616.13 0.0148 0.0091

Moon -82158-06-20 06:42 J -28286616.42 -28286616.22 -28286616.00 0.0148 0.0088 *

Moon -82157-06-24 07:40 J -28286246.39 -28286246.18 -28286245.96 0.0147 0.0078

Earth -82157-06-24 11:01 J -28286246.25 -28286246.04 -28286245.80 0.0147 0.0071 *

Earth -82156-06-29 18:56 J -28285875.94 -28285875.71 -28285875.46 0.0147 0.0049

Moon -82156-06-29 22:32 J -28285875.80 -28285875.56 -28285875.30 0.0147 0.0042 *

Moon -82155-07-04 23:16 J -28285505.77 -28285505.53 -28285505.26 0.0147 0.0034

Earth -82155-07-05 02:52 J -28285505.63 -28285505.38 -28285505.12 0.0147 0.0028 *

Earth -82154-07-10 11:01 J -28285135.30 -28285135.04 -28285134.78 0.0147 0.0006

Moon -82154-07-10 14:23 J -28285135.15 -28285134.90 -28285134.64 0.0147 0.0006 *

Moon -82153-07-14 16:18 J -28284765.07 -28284764.82 -28284764.55 0.0147 0.0020

Earth	-82153-07-14 19:11 J	-28284764.96	-28284764.70	-28284764.44	0.0147	0.0015	*
Earth	-82152-07-20 02:52 J	-28284394.62	-28284394.38	-28284394.12	0.0146	0.0037	
Moon	-82152-07-20 05:01 J	-28284394.54	-28284394.29	-28284394.04	0.0146	0.0028	*
Moon	-82151-07-25 09:35 J	-28284024.34	-28284024.10	-28284023.85	0.0146	0.0063	
Earth	-82151-07-25 10:47 J	-28284024.28	-28284024.05	-28284023.80	0.0146	0.0057	*
Moon	-82150-07-30 17:59 J	-28283653.95	-28283653.75	-28283653.52	0.0145	0.0075	
Earth	-82150-07-30 17:59 J	-28283653.95	-28283653.75	-28283653.51	0.0145	0.0077	*
Earth	-82149-08-04 01:40 J	-28283283.62	-28283283.43	-28283283.23	0.0145	0.0096	
Moon	-82149-08-04 01:54 J	-28283283.61	-28283283.42	-28283283.20	0.0145	0.0095	*
Moon	-82148-08-09 06:13 J	-28282913.36	-28282913.24	-28282913.09	0.0144	0.0121	
Earth	-82148-08-09 08:23 J	-28282913.30	-28282913.15	-28282912.99	0.0144	0.0115	*
Earth	-82147-08-14 13:54 J	-28282543.00	-28282542.92	-28282542.80	0.0144	0.0133	
Moon	-82147-08-14 16:04 J	-28282542.94	-28282542.83	-28282542.67	0.0144	0.0125	*
Venus	-82145-04-23 07:40 J	-28281925.36	-28281925.18	-28281924.99	0.0143	0.0082	
Venus	-82145-12-05 21:06 J	-28281698.84	-28281698.62	-28281698.40	0.0142	0.0009	
Venus	-82144-07-20 10:04 J	-28281472.28	-28281472.08	-28281471.88	0.0142	0.0064	
Venus	-82143-03-03 22:32 J	-28281245.61	-28281245.56	-28281245.49	0.0141	0.0136	
Mercury	-82142-05-28 06:13 J	-28280795.27	-28280795.24	-28280795.20	0.0141	0.0138	
Mercury	-82142-08-24 13:40 J	-28280707.03	-28280706.93	-28280706.82	0.0141	0.0113	
Mercury	-82142-11-20 21:06 J	-28280618.76	-28280618.62	-28280618.47	0.0140	0.0088	
Mercury	-82141-02-17 04:18 J	-28280530.48	-28280530.32	-28280530.15	0.0140	0.0063	
Mercury	-82141-05-15 11:44 J	-28280442.19	-28280442.01	-28280441.83	0.0140	0.0038	
Mercury	-82141-08-11 18:56 J	-28280353.90	-28280353.71	-28280353.53	0.0140	0.0014	
Mercury	-82141-11-08 01:54 J	-28280265.60	-28280265.42	-28280265.23	0.0140	0.0011	
Mercury	-82140-02-04 08:52 J	-28280177.30	-28280177.13	-28280176.94	0.0140	0.0035	
Mercury	-82140-05-03 15:49 J	-28280089.00	-28280088.84	-28280088.66	0.0140	0.0059	
Mercury	-82140-07-30 23:01 J	-28280000.69	-28280000.54	-28280000.39	0.0139	0.0082	
Mercury	-82140-10-27 05:30 J	-28279912.37	-28279912.27	-28279912.14	0.0139	0.0105	
Mercury	-82139-01-23 12:13 J	-28279824.04	-28279823.99	-28279823.90	0.0139	0.0129	
Mars	-82125-07-13 19:40 J	-28274538.87	-28274538.68	-28274538.50	0.0132	0.0099	

Mars	-82123-06-12 06:28 J	-28273840.50	-28273840.23	-28273839.96	0.0132	0.0036
Mars	-82121-05-10 12:28 J	-28273142.25	-28273141.98	-28273141.70	0.0131	0.0026
Earth	-82120-12-11 14:23 J	-28272561.92	-28272561.90	-28272561.84	0.0131	0.0129
Moon	-82120-12-11 16:47 J	-28272561.84	-28272561.80	-28272561.72	0.0131	0.0127 *
Mars	-82119-04-08 16:04 J	-28272444.01	-28272443.83	-28272443.60	0.0131	0.0087
Moon	-82119-12-15 15:49 J	-28272192.91	-28272192.84	-28272192.73	0.0131	0.0122
Earth	-82119-12-15 18:28 J	-28272192.82	-28272192.73	-28272192.59	0.0131	0.0117 *
Earth	-82118-12-19 22:04 J	-28271823.72	-28271823.58	-28271823.41	0.0131	0.0103
Moon	-82118-12-20 00:13 J	-28271823.64	-28271823.49	-28271823.29	0.0131	0.0097 *
Moon	-82117-12-22 22:32 J	-28271454.71	-28271454.56	-28271454.38	0.0131	0.0096
Earth	-82117-12-23 01:11 J	-28271454.62	-28271454.45	-28271454.26	0.0131	0.0089 *
Earth	-82116-12-27 03:49 J	-28271085.54	-28271085.34	-28271085.13	0.0131	0.0075
Moon	-82116-12-27 06:28 J	-28271085.45	-28271085.23	-28271085.01	0.0131	0.0069 *
Moon	-82115-12-31 03:49 J	-28270716.54	-28270716.34	-28270716.11	0.0131	0.0067
Earth	-82115-12-31 05:59 J	-28270716.46	-28270716.25	-28270716.02	0.0131	0.0061 *
Earth	-82113-01-04 08:08 J	-28270347.39	-28270347.16	-28270346.92	0.0131	0.0047
Moon	-82113-01-04 10:47 J	-28270347.29	-28270347.05	-28270346.80	0.0131	0.0044 *
Moon	-82112-01-07 07:54 J	-28269978.40	-28269978.17	-28269977.93	0.0132	0.0033
Earth	-82112-01-07 10:04 J	-28269978.32	-28269978.08	-28269977.84	0.0132	0.0032 *
Earth	-82111-01-11 11:30 J	-28269609.26	-28269609.02	-28269608.76	0.0132	0.0017
Moon	-82111-01-11 13:54 J	-28269609.17	-28269608.92	-28269608.66	0.0132	0.0020 *
Moon	-82110-01-15 11:16 J	-28269240.28	-28269240.03	-28269239.79	0.0132	0.0003
Earth	-82110-01-15 13:25 J	-28269240.19	-28269239.94	-28269239.69	0.0132	0.0003 *
Earth	-82109-01-19 15:06 J	-28268871.11	-28268870.87	-28268870.61	0.0132	0.0014
Moon	-82109-01-19 17:16 J	-28268871.04	-28268870.78	-28268870.52	0.0132	0.0007 *
Moon	-82108-01-22 14:52 J	-28268502.12	-28268501.88	-28268501.65	0.0133	0.0035
Earth	-82108-01-22 17:16 J	-28268502.03	-28268501.78	-28268501.54	0.0133	0.0028 *
Earth	-82107-01-26 19:11 J	-28268132.93	-28268132.70	-28268132.46	0.0133	0.0043
Moon	-82107-01-26 21:06 J	-28268132.86	-28268132.62	-28268132.37	0.0133	0.0036 *
Moon	-82106-01-30 19:40 J	-28267763.89	-28267763.68	-28267763.46	0.0133	0.0063

Earth	-82106-01-30 21:35 J	-28267763.81	-28267763.60	-28267763.37	0.0133	0.0058	*
Earth	-82105-02-04 00:28 J	-28267394.68	-28267394.48	-28267394.27	0.0134	0.0073	
Moon	-82105-02-04 02:23 J	-28267394.60	-28267394.40	-28267394.17	0.0134	0.0071	*
Moon	-82104-02-07 01:54 J	-28267025.59	-28267025.42	-28267025.23	0.0134	0.0088	
Earth	-82104-02-07 03:20 J	-28267025.53	-28267025.36	-28267025.16	0.0134	0.0088	*
Earth	-82103-02-11 06:42 J	-28266656.36	-28266656.22	-28266656.04	0.0135	0.0103	
Moon	-82103-02-11 09:06 J	-28266656.26	-28266656.12	-28266655.95	0.0135	0.0106	*
Moon	-82102-02-15 08:52 J	-28266287.25	-28266287.13	-28266286.98	0.0135	0.0112	
Earth	-82102-02-15 10:32 J	-28266287.16	-28266287.06	-28266286.92	0.0135	0.0117	*
Earth	-82101-02-19 14:52 J	-28265917.92	-28265917.88	-28265917.79	0.0136	0.0131	
Venus	-82101-11-27 21:49 J	-28265635.72	-28265635.59	-28265635.44	0.0136	0.0102	
Venus	-82100-07-12 02:23 J	-28265409.60	-28265409.40	-28265409.19	0.0136	0.0043	
Venus	-82099-02-23 06:56 J	-28265183.41	-28265183.21	-28265182.99	0.0137	0.0018	
Venus	-82099-10-07 11:44 J	-28264957.18	-28264957.01	-28264956.83	0.0137	0.0078	
Mercury	-82097-01-23 13:54 J	-28264483.96	-28264483.92	-28264483.88	0.0138	0.0131	
Mercury	-82097-04-20 17:01 J	-28264395.85	-28264395.79	-28264395.71	0.0138	0.0115	
Mercury	-82097-07-17 20:37 J	-28264307.73	-28264307.64	-28264307.54	0.0138	0.0098	
Mercury	-82097-10-13 23:59 J	-28264219.60	-28264219.50	-28264219.38	0.0138	0.0082	
Mercury	-82096-01-10 03:35 J	-28264131.47	-28264131.35	-28264131.23	0.0138	0.0064	
Mercury	-82096-04-08 07:11 J	-28264043.33	-28264043.20	-28264043.07	0.0139	0.0047	
Mercury	-82096-07-05 10:47 J	-28263955.18	-28263955.05	-28263954.92	0.0139	0.0030	
Mercury	-82096-10-01 14:23 J	-28263867.04	-28263866.90	-28263866.77	0.0139	0.0013	
Mercury	-82096-12-28 17:59 J	-28263778.89	-28263778.75	-28263778.62	0.0139	0.0006	
Mercury	-82095-03-26 21:35 J	-28263690.74	-28263690.60	-28263690.47	0.0139	0.0023	
Mercury	-82095-06-23 01:11 J	-28263602.58	-28263602.45	-28263602.32	0.0139	0.0041	
Mercury	-82095-09-19 04:47 J	-28263514.42	-28263514.30	-28263514.17	0.0139	0.0059	
Mercury	-82095-12-16 08:23 J	-28263426.26	-28263426.15	-28263426.03	0.0140	0.0078	
Mercury	-82094-03-14 12:13 J	-28263338.08	-28263337.99	-28263337.88	0.0140	0.0096	
Mercury	-82094-06-10 16:04 J	-28263249.91	-28263249.83	-28263249.75	0.0140	0.0114	
Mercury	-82094-09-06 19:40 J	-28263161.71	-28263161.68	-28263161.63	0.0140	0.0133	

Mars	-82081-09-07 00:42 J	-28258412.69	-28258412.47	-28258412.19	0.0147	0.0098
Mars	-82079-08-16 14:23 J	-28257704.24	-28257703.90	-28257703.56	0.0147	0.0011
Earth	-82077-06-04 19:25 J	-28257045.71	-28257045.69	-28257045.63	0.0148	0.0146
Mars	-82077-07-25 11:44 J	-28256995.17	-28256995.01	-28256994.79	0.0148	0.0123
Earth	-82076-06-10 01:11 J	-28256675.56	-28256675.45	-28256675.31	0.0148	0.0128
Moon	-82076-06-10 02:52 J	-28256675.52	-28256675.38	-28256675.22	0.0148	0.0121 *
Moon	-82075-06-15 05:30 J	-28256305.42	-28256305.27	-28256305.10	0.0148	0.0112
Earth	-82075-06-15 07:11 J	-28256305.35	-28256305.20	-28256305.01	0.0148	0.0109 *
Earth	-82074-06-20 13:54 J	-28255935.10	-28255934.92	-28255934.70	0.0148	0.0089
Moon	-82074-06-20 17:16 J	-28255934.97	-28255934.78	-28255934.57	0.0148	0.0092 *
Moon	-82073-06-24 18:28 J	-28255564.95	-28255564.73	-28255564.50	0.0147	0.0062
Earth	-82073-06-24 21:35 J	-28255564.82	-28255564.60	-28255564.37	0.0147	0.0068 *
Earth	-82072-06-30 04:47 J	-28255194.53	-28255194.30	-28255194.04	0.0147	0.0047
Moon	-82072-06-30 08:37 J	-28255194.37	-28255194.14	-28255193.89	0.0147	0.0054 *
Moon	-82071-07-05 09:06 J	-28254824.37	-28254824.12	-28254823.86	0.0147	0.0018
Earth	-82071-07-05 12:56 J	-28254824.21	-28254823.96	-28254823.70	0.0147	0.0025 *
Earth	-82070-07-10 20:52 J	-28254453.89	-28254453.63	-28254453.37	0.0147	0.0002
Moon	-82070-07-11 00:13 J	-28254453.75	-28254453.49	-28254453.24	0.0147	0.0003 *
Moon	-82069-07-15 01:40 J	-28254083.69	-28254083.43	-28254083.17	0.0146	0.0015
Earth	-82069-07-15 04:47 J	-28254083.55	-28254083.30	-28254083.04	0.0146	0.0020 *
Earth	-82068-07-20 12:56 J	-28253713.21	-28253712.96	-28253712.71	0.0146	0.0040
Moon	-82068-07-20 15:20 J	-28253713.10	-28253712.86	-28253712.62	0.0146	0.0047 *
Moon	-82067-07-25 18:42 J	-28253342.95	-28253342.72	-28253342.46	0.0146	0.0055
Earth	-82067-07-25 20:23 J	-28253342.88	-28253342.65	-28253342.41	0.0146	0.0062 *
Saturn	-82066-04-07 23:30 J	-28253086.59	-28253086.52	-28253086.32	0.0145	0.0143
Earth	-82066-07-31 03:49 J	-28252972.54	-28252972.34	-28252972.11	0.0145	0.0082
Moon	-82066-07-31 05:01 J	-28252972.48	-28252972.29	-28252972.08	0.0145	0.0086 *
Earth	-82065-08-04 11:01 J	-28252602.20	-28252602.04	-28252601.84	0.0145	0.0102
Moon	-82065-08-04 11:30 J	-28252602.19	-28252602.02	-28252601.81	0.0145	0.0104 *
Moon	-82064-08-09 17:16 J	-28252231.92	-28252231.78	-28252231.62	0.0144	0.0115

Earth	-82064-08-09 17:59 J	-28252231.88	-28252231.75	-28252231.60	0.0144	0.0120	*
Earth	-82063-08-14 23:59 J	-28251861.56	-28251861.50	-28251861.42	0.0144	0.0138	
Venus	-82062-12-22 12:56 J	-28251367.08	-28251366.96	-28251366.83	0.0143	0.0118	
Venus	-82061-08-05 02:23 J	-28251140.61	-28251140.40	-28251140.18	0.0142	0.0044	
Venus	-82060-03-19 15:20 J	-28250914.07	-28250913.86	-28250913.63	0.0142	0.0029	
Venus	-82060-11-01 04:18 J	-28250687.47	-28250687.32	-28250687.16	0.0142	0.0101	
Mercury	-82058-06-17 13:25 J	-28250093.99	-28250093.94	-28250093.88	0.0141	0.0133	
Mercury	-82058-09-13 20:52 J	-28250005.74	-28250005.63	-28250005.51	0.0141	0.0108	
Mercury	-82058-12-11 04:18 J	-28249917.47	-28249917.32	-28249917.17	0.0140	0.0083	
Mercury	-82057-03-08 11:30 J	-28249829.18	-28249829.02	-28249828.85	0.0140	0.0058	
Mercury	-82057-06-04 18:42 J	-28249740.89	-28249740.72	-28249740.53	0.0140	0.0034	
Mercury	-82057-09-01 02:08 J	-28249652.60	-28249652.41	-28249652.23	0.0140	0.0009	
Mercury	-82057-11-28 09:06 J	-28249564.30	-28249564.12	-28249563.93	0.0140	0.0016	
Mercury	-82056-02-24 16:04 J	-28249476.00	-28249475.83	-28249475.65	0.0140	0.0040	
Mercury	-82056-05-23 23:01 J	-28249387.69	-28249387.54	-28249387.37	0.0140	0.0064	
Mercury	-82056-08-20 05:59 J	-28249299.38	-28249299.25	-28249299.10	0.0139	0.0087	
Mercury	-82056-11-16 12:42 J	-28249211.07	-28249210.97	-28249210.85	0.0139	0.0110	
Mercury	-82055-02-12 19:25 J	-28249122.72	-28249122.69	-28249122.62	0.0139	0.0133	
Mars	-82042-04-09 05:44 J	-28244319.26	-28244319.26	-28244319.25	0.0133	0.0133	
Mars	-82040-03-07 20:37 J	-28243620.86	-28243620.64	-28243620.39	0.0132	0.0070	
Mars	-82038-02-04 05:59 J	-28242922.53	-28242922.25	-28242921.97	0.0132	0.0008	
Mars	-82036-01-02 11:59 J	-28242224.25	-28242224.00	-28242223.74	0.0131	0.0053	
Earth	-82036-12-12 02:37 J	-28241880.43	-28241880.39	-28241880.33	0.0131	0.0128	
Moon	-82036-12-12 04:47 J	-28241880.31	-28241880.30	-28241880.26	0.0131	0.0130	
Mars	-82035-12-01 16:18 J	-28241525.94	-28241525.82	-28241525.65	0.0131	0.0112	
Moon	-82035-12-16 05:01 J	-28241511.40	-28241511.29	-28241511.15	0.0131	0.0112	
Earth	-82035-12-16 06:42 J	-28241511.33	-28241511.22	-28241511.09	0.0131	0.0115	*
Earth	-82034-12-20 10:18 J	-28241142.22	-28241142.07	-28241141.91	0.0131	0.0102	
Moon	-82034-12-20 12:28 J	-28241142.12	-28241141.98	-28241141.82	0.0131	0.0107	*
Moon	-82033-12-23 11:16 J	-28240773.21	-28240773.03	-28240772.82	0.0131	0.0081	

Earth	-82033-12-23 12:56 J	-28240773.13	-28240772.96	-28240772.75	0.0131	0.0088	*
Earth	-82032-12-27 15:35 J	-28240404.04	-28240403.85	-28240403.62	0.0131	0.0074	
Moon	-82032-12-27 17:30 J	-28240403.96	-28240403.77	-28240403.55	0.0131	0.0079	*
Moon	-82031-12-31 16:04 J	-28240035.05	-28240034.83	-28240034.60	0.0131	0.0054	
Earth	-82031-12-31 18:13 J	-28240034.96	-28240034.74	-28240034.51	0.0131	0.0059	*
Earth	-82029-01-04 20:23 J	-28239665.88	-28239665.65	-28239665.41	0.0131	0.0044	
Moon	-82029-01-04 21:49 J	-28239665.82	-28239665.59	-28239665.34	0.0131	0.0048	*
Moon	-82028-01-07 20:08 J	-28239296.89	-28239296.66	-28239296.41	0.0132	0.0029	
Earth	-82028-01-07 22:18 J	-28239296.81	-28239296.57	-28239296.32	0.0132	0.0029	*
Earth	-82027-01-11 23:59 J	-28238927.74	-28238927.50	-28238927.24	0.0132	0.0014	
Moon	-82027-01-12 01:54 J	-28238927.67	-28238927.42	-28238927.16	0.0132	0.0012	*
Moon	-82026-01-16 00:42 J	-28238558.71	-28238558.47	-28238558.23	0.0132	0.0003	
Earth	-82026-01-16 02:08 J	-28238558.66	-28238558.41	-28238558.16	0.0132	0.0002	*
Earth	-82025-01-20 03:49 J	-28238189.58	-28238189.34	-28238189.08	0.0132	0.0017	
Moon	-82025-01-20 05:59 J	-28238189.50	-28238189.25	-28238188.99	0.0132	0.0023	*
Moon	-82024-01-23 04:47 J	-28237820.54	-28237820.30	-28237820.06	0.0133	0.0026	
Earth	-82024-01-23 05:59 J	-28237820.49	-28237820.25	-28237820.00	0.0133	0.0032	*
Earth	-82023-01-27 08:08 J	-28237451.38	-28237451.16	-28237450.92	0.0133	0.0048	
Moon	-82023-01-27 10:18 J	-28237451.31	-28237451.07	-28237450.84	0.0133	0.0053	*
Moon	-82022-01-31 09:06 J	-28237082.32	-28237082.12	-28237081.89	0.0133	0.0058	
Earth	-82022-01-31 10:47 J	-28237082.26	-28237082.05	-28237081.82	0.0133	0.0063	*
Earth	-82021-02-04 13:54 J	-28236713.12	-28236712.92	-28236712.72	0.0134	0.0078	
Moon	-82021-02-04 15:06 J	-28236713.06	-28236712.87	-28236712.65	0.0134	0.0081	*
Moon	-82020-02-07 14:52 J	-28236344.04	-28236343.88	-28236343.69	0.0134	0.0094	
Earth	-82020-02-07 16:47 J	-28236343.97	-28236343.80	-28236343.61	0.0134	0.0093	*
Earth	-82019-02-11 20:23 J	-28235974.79	-28235974.65	-28235974.50	0.0135	0.0108	
Moon	-82019-02-11 21:20 J	-28235974.75	-28235974.61	-28235974.43	0.0135	0.0106	*
Moon	-82018-02-15 22:32 J	-28235605.62	-28235605.56	-28235605.47	0.0135	0.0128	
Earth	-82018-02-15 23:59 J	-28235605.58	-28235605.50	-28235605.38	0.0135	0.0123	*
Moon	-82017-02-20 06:13 J	-28235236.31	-28235236.24	-28235236.16	0.0136	0.0129	

Venus	-82017-07-28 10:18 J	-28235077.14	-28235077.07	-28235077.00	0.0136	0.0127
Venus	-82016-03-11 14:37 J	-28234851.07	-28234850.89	-28234850.70	0.0136	0.0068
Venus	-82016-10-23 19:11 J	-28234624.91	-28234624.70	-28234624.49	0.0137	0.0009
Venus	-82015-06-06 23:59 J	-28234398.69	-28234398.50	-28234398.30	0.0137	0.0052
Venus	-82014-01-19 04:47 J	-28234172.41	-28234172.30	-28234172.17	0.0137	0.0113
Mercury	-82013-02-12 21:20 J	-28233782.65	-28233782.61	-28233782.55	0.0138	0.0126
Mercury	-82013-05-11 00:56 J	-28233694.54	-28233694.46	-28233694.37	0.0138	0.0109
Mercury	-82013-08-07 04:18 J	-28233606.41	-28233606.32	-28233606.21	0.0138	0.0092
Mercury	-82013-11-03 07:54 J	-28233518.28	-28233518.17	-28233518.05	0.0138	0.0075
Mercury	-82012-01-30 11:16 J	-28233430.15	-28233430.03	-28233429.90	0.0138	0.0059
Mercury	-82012-04-28 14:52 J	-28233342.00	-28233341.88	-28233341.74	0.0139	0.0041
Mercury	-82012-07-25 18:28 J	-28233253.86	-28233253.73	-28233253.59	0.0139	0.0024
Mercury	-82012-10-21 22:04 J	-28233165.71	-28233165.58	-28233165.44	0.0139	0.0007
Mercury	-82011-01-18 01:40 J	-28233077.56	-28233077.43	-28233077.29	0.0139	0.0012
Mercury	-82011-04-16 05:16 J	-28232989.41	-28232989.28	-28232989.14	0.0139	0.0030
Mercury	-82011-07-13 09:06 J	-28232901.25	-28232901.12	-28232900.99	0.0139	0.0047
Mercury	-82011-10-09 12:42 J	-28232813.09	-28232812.97	-28232812.85	0.0139	0.0066
Mercury	-82010-01-05 16:18 J	-28232724.92	-28232724.82	-28232724.70	0.0140	0.0084
Mercury	-82010-04-03 20:08 J	-28232636.75	-28232636.66	-28232636.56	0.0140	0.0102
Mercury	-82010-06-30 23:44 J	-28232548.57	-28232548.51	-28232548.43	0.0140	0.0121
Mercury	-82010-09-27 03:49 J	-28232460.35	-28232460.34	-28232460.33	0.0140	0.0139

82ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 82nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-81996-05-05 05:16 J	-28227491.58	-28227491.28	-28227490.94	0.0147	0.0051		
Mars	-81994-04-13 20:37 J	-28226782.94	-28226782.64	-28226782.31	0.0147	0.0059		
Moon	-81993-06-05 08:08 J	-28226364.24	-28226364.16	-28226364.06	0.0147	0.0137		
Earth	-81993-06-05 07:54 J	-28226364.20	-28226364.17	-28226364.10	0.0147	0.0145	*	
Earth	-81992-06-10 13:11 J	-28225994.06	-28225993.95	-28225993.80	0.0148	0.0126		
Moon	-81992-06-10 13:54 J	-28225994.02	-28225993.92	-28225993.79	0.0148	0.0132	*	
Moon	-81991-06-15 17:16 J	-28225623.93	-28225623.78	-28225623.59	0.0148	0.0105		
Earth	-81991-06-15 19:11 J	-28225623.86	-28225623.70	-28225623.51	0.0148	0.0107	*	
Earth	-81990-06-21 01:40 J	-28225253.62	-28225253.43	-28225253.21	0.0148	0.0086		
Moon	-81990-06-21 03:49 J	-28225253.54	-28225253.34	-28225253.11	0.0148	0.0084	*	
Moon	-81989-06-25 05:30 J	-28224883.47	-28224883.27	-28224883.03	0.0147	0.0072		
Earth	-81989-06-25 08:52 J	-28224883.35	-28224883.13	-28224882.89	0.0147	0.0064	*	
Earth	-81988-06-30 16:18 J	-28224513.06	-28224512.82	-28224512.57	0.0147	0.0043		
Moon	-81988-06-30 19:40 J	-28224512.93	-28224512.68	-28224512.42	0.0147	0.0034	*	
Moon	-81987-07-05 20:08 J	-28224142.90	-28224142.66	-28224142.40	0.0147	0.0026		
Earth	-81987-07-05 23:59 J	-28224142.76	-28224142.50	-28224142.25	0.0147	0.0020	*	
Earth	-81986-07-11 07:40 J	-28223772.44	-28223772.18	-28223771.92	0.0147	0.0002		
Moon	-81986-07-11 11:30 J	-28223772.28	-28223772.02	-28223771.77	0.0147	0.0003	*	
Moon	-81985-07-15 12:13 J	-28223402.25	-28223401.99	-28223401.73	0.0146	0.0027		
Earth	-81985-07-15 15:35 J	-28223402.10	-28223401.85	-28223401.59	0.0146	0.0024	*	
Earth	-81984-07-20 23:01 J	-28223031.77	-28223031.54	-28223031.28	0.0146	0.0046		
Moon	-81984-07-21 01:54 J	-28223031.65	-28223031.42	-28223031.16	0.0146	0.0038	*	
Moon	-81983-07-26 04:32 J	-28222661.53	-28222661.31	-28222661.08	0.0146	0.0074		
Earth	-81983-07-26 06:56 J	-28222661.43	-28222661.21	-28222660.97	0.0146	0.0067	*	
Earth	-81982-07-31 14:37 J	-28222291.09	-28222290.89	-28222290.68	0.0145	0.0087		
Moon	-81982-07-31 15:35 J	-28222291.05	-28222290.85	-28222290.64	0.0145	0.0084	*	
Moon	-81981-08-04 20:37 J	-28221920.81	-28221920.64	-28221920.45	0.0145	0.0107		

Earth	-81981-08-04 21:20 J	-28221920.76	-28221920.61	-28221920.42	0.0145	0.0108	*
Moon	-81980-08-10 03:20 J	-28221550.44	-28221550.36	-28221550.24	0.0144	0.0132	
Earth	-81980-08-10 04:04 J	-28221550.44	-28221550.33	-28221550.19	0.0144	0.0126	*
Moon	-81979-08-15 11:16 J	-28221180.11	-28221180.03	-28221179.94	0.0144	0.0136	
Venus	-81977-04-04 07:25 J	-28220582.37	-28220582.19	-28220582.00	0.0143	0.0080	
Venus	-81977-11-16 20:52 J	-28220355.85	-28220355.63	-28220355.41	0.0142	0.0007	
Venus	-81976-07-01 09:35 J	-28220129.28	-28220129.10	-28220128.88	0.0142	0.0066	
Venus	-81975-02-12 22:04 J	-28219902.61	-28219902.58	-28219902.50	0.0141	0.0138	
Mercury	-81974-07-07 20:37 J	-28219392.71	-28219392.64	-28219392.57	0.0141	0.0128	
Mercury	-81974-10-04 04:04 J	-28219304.46	-28219304.33	-28219304.21	0.0141	0.0103	
Mercury	-81974-12-31 11:01 J	-28219216.18	-28219216.04	-28219215.87	0.0140	0.0079	
Mercury	-81973-03-28 18:28 J	-28219127.89	-28219127.73	-28219127.55	0.0140	0.0053	
Mercury	-81973-06-25 01:54 J	-28219039.60	-28219039.42	-28219039.24	0.0140	0.0028	
Mercury	-81973-09-21 09:06 J	-28218951.30	-28218951.12	-28218950.94	0.0140	0.0004	
Mercury	-81973-12-18 16:04 J	-28218863.01	-28218862.83	-28218862.64	0.0140	0.0021	
Mercury	-81972-03-16 23:01 J	-28218774.70	-28218774.54	-28218774.36	0.0140	0.0045	
Mercury	-81972-06-13 06:13 J	-28218686.40	-28218686.24	-28218686.08	0.0139	0.0068	
Mercury	-81972-09-09 12:56 J	-28218598.08	-28218597.96	-28218597.81	0.0139	0.0092	
Mercury	-81972-12-06 19:54 J	-28218509.76	-28218509.67	-28218509.56	0.0139	0.0115	
Mercury	-81971-03-05 02:52 J	-28218421.40	-28218421.38	-28218421.35	0.0139	0.0137	
Mars	-81958-12-02 06:56 J	-28213401.36	-28213401.21	-28213401.01	0.0132	0.0105	
Mars	-81956-10-30 20:52 J	-28212702.89	-28212702.63	-28212702.36	0.0132	0.0042	
Mars	-81954-09-29 05:44 J	-28212004.54	-28212004.26	-28212003.98	0.0132	0.0019	
Mars	-81952-08-27 11:30 J	-28211306.24	-28211306.02	-28211305.79	0.0131	0.0079	
Earth	-81952-12-12 13:40 J	-28211198.98	-28211198.93	-28211198.87	0.0131	0.0128	
Moon	-81952-12-12 14:52 J	-28211198.94	-28211198.88	-28211198.81	0.0131	0.0127	*
Moon	-81951-12-16 16:04 J	-28210829.92	-28210829.83	-28210829.71	0.0131	0.0119	
Earth	-81951-12-16 17:30 J	-28210829.87	-28210829.77	-28210829.62	0.0131	0.0115	*
Earth	-81950-12-20 21:06 J	-28210460.77	-28210460.62	-28210460.44	0.0131	0.0100	
Moon	-81950-12-20 22:18 J	-28210460.73	-28210460.57	-28210460.37	0.0131	0.0095	*

Moon	-81949-12-23 22:32 J	-28210091.71	-28210091.56	-28210091.36	0.0131	0.0093
Earth	-81949-12-24 00:13 J	-28210091.67	-28210091.49	-28210091.29	0.0131	0.0086 *
Earth	-81948-12-28 02:37 J	-28209722.58	-28209722.39	-28209722.16	0.0131	0.0072
Moon	-81948-12-28 04:18 J	-28209722.53	-28209722.32	-28209722.07	0.0131	0.0065 *
Moon	-81946-01-01 04:32 J	-28209353.52	-28209353.31	-28209353.09	0.0131	0.0062
Earth	-81946-01-01 05:30 J	-28209353.49	-28209353.27	-28209353.04	0.0131	0.0056 *
Earth	-81945-01-05 07:40 J	-28208984.42	-28208984.18	-28208983.94	0.0132	0.0041
Moon	-81945-01-05 09:06 J	-28208984.36	-28208984.12	-28208983.86	0.0132	0.0038 *
Moon	-81944-01-08 08:37 J	-28208615.38	-28208615.14	-28208614.90	0.0132	0.0027
Earth	-81944-01-08 09:35 J	-28208615.34	-28208615.10	-28208614.84	0.0132	0.0026 *
Earth	-81943-01-12 11:44 J	-28208246.26	-28208246.01	-28208245.76	0.0132	0.0010
Moon	-81943-01-12 12:56 J	-28208246.22	-28208245.96	-28208245.70	0.0132	0.0012 *
Moon	-81942-01-16 12:28 J	-28207877.22	-28207876.98	-28207876.74	0.0132	0.0010
Earth	-81942-01-16 13:54 J	-28207877.17	-28207876.92	-28207876.67	0.0132	0.0005 *
Earth	-81941-01-20 15:49 J	-28207508.08	-28207507.84	-28207507.59	0.0132	0.0021
Moon	-81941-01-20 16:47 J	-28207508.06	-28207507.80	-28207507.54	0.0132	0.0016 *
Moon	-81940-01-23 16:32 J	-28207139.03	-28207138.81	-28207138.57	0.0133	0.0044
Earth	-81940-01-23 17:59 J	-28207138.99	-28207138.75	-28207138.51	0.0133	0.0037 *
Earth	-81939-01-27 20:37 J	-28206769.87	-28206769.64	-28206769.41	0.0133	0.0052
Moon	-81939-01-27 21:35 J	-28206769.84	-28206769.60	-28206769.36	0.0133	0.0045 *
Moon	-81938-01-31 22:04 J	-28206400.77	-28206400.58	-28206400.36	0.0133	0.0073
Earth	-81938-01-31 23:16 J	-28206400.74	-28206400.53	-28206400.31	0.0133	0.0068 *
Earth	-81937-02-05 01:40 J	-28206031.61	-28206031.43	-28206031.22	0.0134	0.0084
Moon	-81937-02-05 03:06 J	-28206031.56	-28206031.37	-28206031.15	0.0134	0.0081 *
Moon	-81936-02-08 04:04 J	-28205662.47	-28205662.33	-28205662.15	0.0134	0.0101
Earth	-81936-02-08 05:01 J	-28205662.45	-28205662.29	-28205662.11	0.0134	0.0099 *
Earth	-81935-02-12 08:23 J	-28205293.26	-28205293.15	-28205293.00	0.0135	0.0114
Moon	-81935-02-12 09:49 J	-28205293.21	-28205293.09	-28205292.95	0.0135	0.0116 *
Moon	-81934-02-16 11:30 J	-28204924.10	-28204924.02	-28204923.91	0.0135	0.0124
Earth	-81934-02-16 12:13 J	-28204924.05	-28204923.99	-28204923.89	0.0135	0.0128 *

Saturn	-81933-08-25 22:32 J	-28204367.91	-28204367.56	-28204367.15	0.0136	0.0109
Venus	-81933-11-09 02:08 J	-28204292.54	-28204292.41	-28204292.24	0.0136	0.0095
Venus	-81932-06-23 06:56 J	-28204066.41	-28204066.21	-28204066.00	0.0136	0.0035
Venus	-81931-02-04 11:44 J	-28203840.22	-28203840.01	-28203839.80	0.0137	0.0025
Venus	-81931-09-18 16:04 J	-28203613.98	-28203613.83	-28203613.65	0.0137	0.0086
Mercury	-81930-12-07 01:40 J	-28203169.44	-28203169.43	-28203169.41	0.0138	0.0137
Mercury	-81929-03-04 05:16 J	-28203081.35	-28203081.28	-28203081.22	0.0138	0.0120
Mercury	-81929-05-31 08:23 J	-28202993.23	-28202993.15	-28202993.05	0.0138	0.0104
Mercury	-81929-08-27 11:59 J	-28202905.10	-28202905.00	-28202904.89	0.0138	0.0087
Mercury	-81929-11-23 15:20 J	-28202816.97	-28202816.86	-28202816.73	0.0138	0.0070
Mercury	-81928-02-19 18:56 J	-28202728.83	-28202728.71	-28202728.58	0.0138	0.0053
Mercury	-81928-05-18 22:32 J	-28202640.69	-28202640.56	-28202640.43	0.0139	0.0036
Mercury	-81928-08-15 02:08 J	-28202552.54	-28202552.41	-28202552.27	0.0139	0.0018
Mercury	-81928-11-11 05:44 J	-28202464.40	-28202464.26	-28202464.12	0.0139	0.0001
Mercury	-81927-02-07 09:20 J	-28202376.24	-28202376.11	-28202375.97	0.0139	0.0017
Mercury	-81927-05-06 12:56 J	-28202288.09	-28202287.96	-28202287.82	0.0139	0.0035
Mercury	-81927-08-02 16:32 J	-28202199.93	-28202199.81	-28202199.68	0.0139	0.0053
Mercury	-81927-10-29 20:23 J	-28202111.77	-28202111.65	-28202111.53	0.0139	0.0071
Mercury	-81926-01-25 23:59 J	-28202023.60	-28202023.50	-28202023.39	0.0140	0.0090
Mercury	-81926-04-24 03:49 J	-28201935.42	-28201935.34	-28201935.25	0.0140	0.0108
Mercury	-81926-07-21 07:25 J	-28201847.24	-28201847.19	-28201847.12	0.0140	0.0127
Mars	-81913-01-23 04:18 J	-28197278.54	-28197278.32	-28197278.09	0.0146	0.0109
Mars	-81912-12-31 11:30 J	-28196570.36	-28196570.02	-28196569.67	0.0147	0.0004
Mars	-81910-12-10 05:01 J	-28195861.50	-28195861.29	-28195861.02	0.0147	0.0106
Earth	-81909-06-05 21:20 J	-28195682.67	-28195682.61	-28195682.55	0.0147	0.0143
Earth	-81908-06-11 02:08 J	-28195312.53	-28195312.41	-28195312.26	0.0148	0.0125
Moon	-81908-06-11 02:37 J	-28195312.53	-28195312.39	-28195312.21	0.0148	0.0118 *
Moon	-81907-06-16 07:25 J	-28194942.35	-28194942.19	-28194942.02	0.0148	0.0108
Earth	-81907-06-16 08:08 J	-28194942.33	-28194942.16	-28194941.97	0.0148	0.0104 *
Earth	-81906-06-21 14:37 J	-28194572.10	-28194571.89	-28194571.68	0.0148	0.0083

Moon	-81906-06-21 16:32 J	-28194572.01	-28194571.81	-28194571.58	0.0148	0.0086	*
Moon	-81905-06-25 18:56 J	-28194201.93	-28194201.71	-28194201.47	0.0147	0.0056	
Earth	-81905-06-25 21:20 J	-28194201.83	-28194201.61	-28194201.37	0.0147	0.0062	*
Earth	-81904-07-01 04:18 J	-28193831.55	-28193831.32	-28193831.06	0.0147	0.0040	
Moon	-81904-07-01 07:40 J	-28193831.42	-28193831.18	-28193830.92	0.0147	0.0047	*
Moon	-81903-07-06 08:37 J	-28193461.40	-28193461.14	-28193460.89	0.0147	0.0010	
Earth	-81903-07-06 12:13 J	-28193461.25	-28193460.99	-28193460.73	0.0147	0.0017	*
Earth	-81902-07-11 19:54 J	-28193090.93	-28193090.67	-28193090.41	0.0147	0.0006	
Moon	-81902-07-11 23:30 J	-28193090.78	-28193090.52	-28193090.27	0.0147	0.0005	*
Moon	-81901-07-15 23:59 J	-28192720.75	-28192720.50	-28192720.24	0.0146	0.0024	
Earth	-81901-07-16 03:49 J	-28192720.59	-28192720.34	-28192720.09	0.0146	0.0028	*
Earth	-81900-07-21 11:30 J	-28192350.26	-28192350.02	-28192349.77	0.0146	0.0050	
Moon	-81900-07-21 14:37 J	-28192350.11	-28192349.89	-28192349.64	0.0146	0.0057	*
Moon	-81899-07-26 16:32 J	-28191980.04	-28191979.81	-28191979.56	0.0146	0.0065	
Earth	-81899-07-26 18:56 J	-28191979.92	-28191979.71	-28191979.47	0.0146	0.0073	*
Earth	-81898-08-01 02:23 J	-28191609.58	-28191609.40	-28191609.19	0.0145	0.0093	
Moon	-81898-08-01 04:32 J	-28191609.48	-28191609.31	-28191609.11	0.0145	0.0099	*
Moon	-81897-08-05 08:37 J	-28191239.29	-28191239.14	-28191238.96	0.0145	0.0114	
Earth	-81897-08-05 09:49 J	-28191239.25	-28191239.09	-28191238.93	0.0145	0.0113	*
Earth	-81896-08-10 15:49 J	-28190868.93	-28190868.84	-28190868.73	0.0144	0.0132	
Moon	-81896-08-10 16:32 J	-28190868.92	-28190868.81	-28190868.69	0.0144	0.0128	*
Venus	-81894-12-03 13:40 J	-28190024.05	-28190023.93	-28190023.78	0.0143	0.0115	
Venus	-81893-07-17 03:20 J	-28189797.57	-28189797.36	-28189797.14	0.0142	0.0041	
Venus	-81892-02-28 16:18 J	-28189571.03	-28189570.82	-28189570.60	0.0142	0.0032	
Venus	-81892-10-13 05:01 J	-28189344.43	-28189344.29	-28189344.13	0.0142	0.0104	
Mercury	-81890-07-28 04:04 J	-28188691.41	-28188691.33	-28188691.23	0.0141	0.0122	
Mercury	-81890-10-24 11:30 J	-28188603.15	-28188603.02	-28188602.88	0.0140	0.0096	
Mercury	-81889-01-20 18:56 J	-28188514.87	-28188514.71	-28188514.55	0.0140	0.0071	
Mercury	-81889-04-18 02:23 J	-28188426.58	-28188426.40	-28188426.23	0.0140	0.0046	
Mercury	-81889-07-15 09:35 J	-28188338.28	-28188338.10	-28188337.92	0.0140	0.0022	

Mercury -81889-10-11 16:47 J -28188249.99 -28188249.80 -28188249.62 0.0140 0.0003

Mercury -81888-01-07 23:44 J -28188161.69 -28188161.51 -28188161.33 0.0140 0.0027

Mercury -81888-04-06 06:42 J -28188073.38 -28188073.22 -28188073.04 0.0140 0.0051

Mercury -81888-07-03 13:40 J -28187985.07 -28187984.93 -28187984.77 0.0139 0.0075

Mercury -81888-09-29 20:52 J -28187896.76 -28187896.63 -28187896.50 0.0139 0.0098

Mercury -81888-12-27 03:20 J -28187808.43 -28187808.36 -28187808.26 0.0139 0.0121

Mars -81873-07-26 09:20 J -28182483.34 -28182483.11 -28182482.87 0.0132 0.0076

Mars -81871-06-24 21:06 J -28181784.90 -28181784.62 -28181784.34 0.0132 0.0014

Mars -81869-05-23 05:30 J -28181086.54 -28181086.27 -28181086.01 0.0131 0.0046

Earth -81868-12-13 00:42 J -28180517.51 -28180517.47 -28180517.39 0.0131 0.0127

Moon -81868-12-13 01:54 J -28180517.45 -28180517.42 -28180517.35 0.0131 0.0128 *

Mars -81867-04-21 08:52 J -28180388.28 -28180388.13 -28180387.94 0.0131 0.0105

Moon -81867-12-17 04:18 J -28180148.43 -28180148.32 -28180148.17 0.0131 0.0111

Earth -81867-12-17 04:47 J -28180148.41 -28180148.30 -28180148.15 0.0131 0.0114 *

Earth -81866-12-21 08:23 J -28179779.31 -28179779.15 -28179778.97 0.0131 0.0099

Moon -81866-12-21 09:20 J -28179779.26 -28179779.11 -28179778.94 0.0131 0.0104 *

Moon -81865-12-24 10:32 J -28179410.25 -28179410.06 -28179409.85 0.0131 0.0077

Earth -81865-12-24 11:16 J -28179410.21 -28179410.03 -28179409.82 0.0131 0.0084 *

Earth -81864-12-28 14:23 J -28179041.11 -28179040.90 -28179040.69 0.0131 0.0069

Moon -81864-12-28 14:23 J -28179041.09 -28179040.90 -28179040.66 0.0131 0.0076 *

Moon -81862-01-01 15:35 J -28178672.07 -28178671.85 -28178671.62 0.0131 0.0049

Earth -81862-01-01 16:32 J -28178672.03 -28178671.81 -28178671.57 0.0131 0.0054 *

Earth -81861-01-05 18:42 J -28178302.95 -28178302.72 -28178302.47 0.0132 0.0039

Moon -81861-01-05 19:11 J -28178302.93 -28178302.70 -28178302.44 0.0132 0.0043 *

Moon -81860-01-08 20:08 J -28177933.89 -28177933.66 -28177933.41 0.0132 0.0022

Earth -81860-01-08 20:52 J -28177933.87 -28177933.63 -28177933.37 0.0132 0.0023 *

Earth -81859-01-12 23:01 J -28177564.79 -28177564.54 -28177564.29 0.0132 0.0007

Moon -81859-01-12 23:59 J -28177564.76 -28177564.50 -28177564.24 0.0132 0.0005 *

Moon -81858-01-17 00:56 J -28177195.70 -28177195.46 -28177195.22 0.0132 0.0006

Earth -81858-01-17 01:11 J -28177195.70 -28177195.45 -28177195.20 0.0132 0.0009 *

Earth	-81857-01-21 03:06 J	-28176826.61	-28176826.37	-28176826.12	0.0132	0.0025
Moon	-81857-01-21 03:49 J	-28176826.58	-28176826.34	-28176826.07	0.0132	0.0032 *
Moon	-81856-01-24 05:16 J	-28176457.51	-28176457.28	-28176457.04	0.0133	0.0034
Earth	-81856-01-24 05:44 J	-28176457.50	-28176457.26	-28176457.02	0.0133	0.0041 *
Earth	-81855-01-28 07:54 J	-28176088.38	-28176088.17	-28176087.93	0.0133	0.0057
Moon	-81855-01-28 08:23 J	-28176088.36	-28176088.15	-28176087.91	0.0133	0.0063 *
Moon	-81854-02-01 09:49 J	-28175719.28	-28175719.09	-28175718.87	0.0133	0.0068
Earth	-81854-02-01 10:47 J	-28175719.26	-28175719.05	-28175718.84	0.0133	0.0073 *
Earth	-81853-02-05 13:25 J	-28175350.12	-28175349.94	-28175349.75	0.0134	0.0088
Moon	-81853-02-05 13:25 J	-28175350.11	-28175349.94	-28175349.74	0.0134	0.0092 *
Moon	-81852-02-08 15:49 J	-28174980.98	-28174980.84	-28174980.68	0.0134	0.0104
Earth	-81852-02-08 16:32 J	-28174980.96	-28174980.81	-28174980.65	0.0134	0.0104 *
Earth	-81851-02-12 19:54 J	-28174611.77	-28174611.67	-28174611.54	0.0135	0.0119
Moon	-81851-02-12 20:08 J	-28174611.77	-28174611.66	-28174611.52	0.0135	0.0117 *
Earth	-81850-02-16 23:44 J	-28174242.53	-28174242.51	-28174242.45	0.0135	0.0133
Venus	-81849-07-09 13:25 J	-28173734.01	-28173733.94	-28173733.83	0.0136	0.0122
Venus	-81848-02-20 17:59 J	-28173507.93	-28173507.75	-28173507.56	0.0136	0.0063
Venus	-81848-10-04 22:47 J	-28173281.77	-28173281.55	-28173281.34	0.0137	0.0004
Venus	-81847-05-19 03:06 J	-28173055.55	-28173055.37	-28173055.16	0.0137	0.0058
Venus	-81847-12-31 08:23 J	-28172829.25	-28172829.15	-28172829.04	0.0137	0.0119
Mercury	-81846-12-27 08:52 J	-28172468.15	-28172468.13	-28172468.08	0.0138	0.0133
Mercury	-81845-03-24 12:28 J	-28172380.05	-28172379.98	-28172379.90	0.0138	0.0116
Mercury	-81845-06-20 15:49 J	-28172291.92	-28172291.84	-28172291.74	0.0138	0.0100
Mercury	-81845-09-16 19:25 J	-28172203.79	-28172203.69	-28172203.58	0.0138	0.0082
Mercury	-81845-12-13 23:01 J	-28172115.66	-28172115.54	-28172115.42	0.0138	0.0065
Mercury	-81844-03-12 02:23 J	-28172027.52	-28172027.40	-28172027.27	0.0138	0.0048
Mercury	-81844-06-08 05:59 J	-28171939.38	-28171939.25	-28171939.11	0.0139	0.0031
Mercury	-81844-09-04 09:35 J	-28171851.23	-28171851.10	-28171850.96	0.0139	0.0014
Mercury	-81844-12-01 13:11 J	-28171763.08	-28171762.95	-28171762.81	0.0139	0.0005
Mercury	-81843-02-27 16:47 J	-28171674.93	-28171674.80	-28171674.66	0.0139	0.0022

Mercury -81843-05-26 20:23 J -28171586.78 -28171586.65 -28171586.51 0.0139 0.0040

Mercury -81843-08-22 23:59 J -28171498.62 -28171498.50 -28171498.37 0.0139 0.0059

Mercury -81843-11-19 03:49 J -28171410.45 -28171410.34 -28171410.22 0.0139 0.0076

Mercury -81842-02-15 07:25 J -28171322.28 -28171322.19 -28171322.08 0.0140 0.0095

Mercury -81842-05-14 11:16 J -28171234.10 -28171234.03 -28171233.94 0.0140 0.0113

Mercury -81842-08-10 14:52 J -28171145.91 -28171145.88 -28171145.82 0.0140 0.0132

Mars -81829-09-19 04:18 J -28166357.62 -28166357.32 -28166357.01 0.0147 0.0064

Mars -81827-08-28 15:20 J -28165649.18 -28165648.86 -28165648.53 0.0147 0.0042

Earth -81825-06-06 08:37 J -28165001.18 -28165001.14 -28165001.05 0.0147 0.0143

Moon -81825-06-06 09:49 J -28165001.17 -28165001.09 -28165000.98 0.0147 0.0135 *

Moon -81824-06-11 13:25 J -28164631.06 -28164630.94 -28164630.81 0.0148 0.0129

Earth -81824-06-11 13:40 J -28164631.05 -28164630.93 -28164630.77 0.0148 0.0123 *

Moon -81823-06-16 18:42 J -28164260.88 -28164260.72 -28164260.52 0.0148 0.0100

Earth -81823-06-16 19:40 J -28164260.85 -28164260.68 -28164260.49 0.0148 0.0102 *

Earth -81822-06-22 01:54 J -28163890.62 -28163890.42 -28163890.20 0.0147 0.0080

Moon -81822-06-22 03:06 J -28163890.59 -28163890.37 -28163890.14 0.0147 0.0079 *

Moon -81821-06-26 06:28 J -28163520.44 -28163520.23 -28163520.00 0.0147 0.0064

Earth -81821-06-26 08:37 J -28163520.36 -28163520.14 -28163519.89 0.0147 0.0058 *

Earth -81820-07-01 15:49 J -28163150.08 -28163149.84 -28163149.59 0.0147 0.0036

Moon -81820-07-01 18:42 J -28163149.97 -28163149.72 -28163149.46 0.0147 0.0028 *

Moon -81819-07-06 20:08 J -28162779.91 -28162779.66 -28162779.40 0.0147 0.0019

Earth -81819-07-06 23:16 J -28162779.78 -28162779.53 -28162779.27 0.0147 0.0013 *

Earth -81818-07-12 06:56 J -28162409.46 -28162409.21 -28162408.95 0.0147 0.0011

Moon -81818-07-12 10:47 J -28162409.30 -28162409.05 -28162408.79 0.0147 0.0012 *

Moon -81817-07-16 11:16 J -28162039.28 -28162039.03 -28162038.77 0.0146 0.0035

Earth -81817-07-16 14:52 J -28162039.13 -28162038.88 -28162038.62 0.0146 0.0033 *

Earth -81816-07-21 22:18 J -28161668.80 -28161668.57 -28161668.32 0.0146 0.0056

Moon -81816-07-22 01:40 J -28161668.66 -28161668.43 -28161668.18 0.0146 0.0048 *

Moon -81815-07-27 02:52 J -28161298.59 -28161298.38 -28161298.17 0.0145 0.0085

Earth -81815-07-27 05:59 J -28161298.46 -28161298.25 -28161298.02 0.0145 0.0077 *

Earth	-81814-08-01 13:25 J	-28160928.13	-28160927.94	-28160927.75	0.0145	0.0098
Moon	-81814-08-01 15:20 J	-28160928.04	-28160927.86	-28160927.65	0.0145	0.0095 *
Moon	-81813-08-05 17:44 J	-28160557.89	-28160557.76	-28160557.59	0.0145	0.0120
Earth	-81813-08-05 20:08 J	-28160557.80	-28160557.66	-28160557.51	0.0145	0.0119 *
Earth	-81812-08-11 02:08 J	-28160187.46	-28160187.41	-28160187.32	0.0144	0.0138
Moon	-81812-08-11 02:52 J	-28160187.39	-28160187.38	-28160187.33	0.0144	0.0143 *
Venus	-81809-03-16 08:23 J	-28159239.32	-28159239.15	-28159238.95	0.0143	0.0077
Venus	-81809-10-28 21:49 J	-28159012.81	-28159012.59	-28159012.36	0.0142	0.0004
Venus	-81808-06-12 10:47 J	-28158786.24	-28158786.05	-28158785.85	0.0142	0.0069
Venus	-81807-01-24 23:01 J	-28158559.55	-28158559.54	-28158559.49	0.0141	0.0141
Mercury	-81806-08-17 11:01 J	-28157990.13	-28157990.04	-28157989.92	0.0141	0.0117
Mercury	-81806-11-13 18:28 J	-28157901.85	-28157901.73	-28157901.57	0.0140	0.0092
Mercury	-81805-02-10 01:54 J	-28157813.57	-28157813.42	-28157813.24	0.0140	0.0067
Mercury	-81805-05-08 09:20 J	-28157725.28	-28157725.11	-28157724.93	0.0140	0.0042
Mercury	-81805-08-04 16:47 J	-28157636.99	-28157636.80	-28157636.62	0.0140	0.0017
Mercury	-81805-10-31 23:59 J	-28157548.69	-28157548.50	-28157548.32	0.0140	0.0008
Mercury	-81804-01-28 06:56 J	-28157460.39	-28157460.21	-28157460.03	0.0140	0.0032
Mercury	-81804-04-26 13:54 J	-28157372.08	-28157371.92	-28157371.75	0.0139	0.0056
Mercury	-81804-07-23 20:52 J	-28157283.77	-28157283.63	-28157283.47	0.0139	0.0079
Mercury	-81804-10-20 03:49 J	-28157195.45	-28157195.34	-28157195.21	0.0139	0.0103
Mercury	-81803-01-16 10:32 J	-28157107.12	-28157107.06	-28157106.97	0.0139	0.0126
Mars	-81790-04-21 16:18 J	-28152263.96	-28152263.82	-28152263.65	0.0133	0.0110
Mars	-81788-03-20 08:08 J	-28151565.41	-28151565.16	-28151564.89	0.0132	0.0048
Mars	-81786-02-16 19:40 J	-28150866.96	-28150866.68	-28150866.40	0.0132	0.0012
Mars	-81784-01-15 01:40 J	-28150168.65	-28150168.43	-28150168.19	0.0131	0.0072
Moon	-81784-12-13 10:18 J	-28149836.12	-28149836.07	-28149835.98	0.0131	0.0127
Earth	-81784-12-13 10:32 J	-28149836.11	-28149836.06	-28149835.98	0.0131	0.0127 *
Mars	-81783-12-14 04:47 J	-28149470.34	-28149470.30	-28149470.23	0.0131	0.0129
Moon	-81783-12-17 14:08 J	-28149467.01	-28149466.91	-28149466.78	0.0131	0.0116
Earth	-81783-12-17 14:23 J	-28149467.01	-28149466.90	-28149466.75	0.0131	0.0112 *

Moon	-81782-12-21 18:13 J	-28149097.92	-28149097.74	-28149097.54	0.0131	0.0092
Earth	-81782-12-21 17:59 J	-28149097.91	-28149097.75	-28149097.57	0.0131	0.0097 *
Earth	-81781-12-24 20:52 J	-28148728.81	-28148728.63	-28148728.42	0.0131	0.0082
Moon	-81781-12-24 20:52 J	-28148728.79	-28148728.63	-28148728.43	0.0131	0.0089 *
Earth	-81780-12-28 23:59 J	-28148359.71	-28148359.50	-28148359.28	0.0131	0.0067
Moon	-81780-12-29 00:13 J	-28148359.71	-28148359.49	-28148359.25	0.0131	0.0060 *
Earth	-81778-01-02 02:23 J	-28147990.62	-28147990.40	-28147990.16	0.0131	0.0051
Moon	-81778-01-02 02:37 J	-28147990.60	-28147990.39	-28147990.16	0.0131	0.0058 *
Earth	-81777-01-06 04:32 J	-28147621.54	-28147621.31	-28147621.06	0.0132	0.0036
Moon	-81777-01-06 05:01 J	-28147621.54	-28147621.29	-28147621.04	0.0132	0.0032 *
Earth	-81776-01-09 06:56 J	-28147252.46	-28147252.21	-28147251.96	0.0132	0.0020
Moon	-81776-01-09 06:42 J	-28147252.45	-28147252.22	-28147251.97	0.0132	0.0022 *
Moon	-81775-01-13 08:52 J	-28146883.38	-28146883.13	-28146882.86	0.0132	0.0005
Earth	-81775-01-13 09:06 J	-28146883.37	-28146883.12	-28146882.86	0.0132	0.0004 *
Moon	-81774-01-17 11:01 J	-28146514.28	-28146514.04	-28146513.80	0.0132	0.0017
Earth	-81774-01-17 11:16 J	-28146514.28	-28146514.03	-28146513.78	0.0132	0.0013 *
Moon	-81773-01-21 13:11 J	-28146145.20	-28146144.95	-28146144.69	0.0132	0.0024
Earth	-81773-01-21 13:25 J	-28146145.18	-28146144.94	-28146144.69	0.0132	0.0029 *
Earth	-81772-01-24 15:49 J	-28145776.07	-28145775.84	-28145775.60	0.0133	0.0045
Moon	-81772-01-24 15:35 J	-28145776.06	-28145775.85	-28145775.61	0.0133	0.0052 *
Moon	-81771-01-28 17:59 J	-28145406.97	-28145406.75	-28145406.50	0.0133	0.0054
Earth	-81771-01-28 18:13 J	-28145406.95	-28145406.74	-28145406.51	0.0133	0.0061 *
Earth	-81770-02-01 20:37 J	-28145037.83	-28145037.64	-28145037.43	0.0133	0.0077
Moon	-81770-02-01 20:52 J	-28145037.80	-28145037.63	-28145037.43	0.0133	0.0084 *
Moon	-81769-02-05 23:16 J	-28144668.71	-28144668.53	-28144668.33	0.0134	0.0090
Earth	-81769-02-05 23:16 J	-28144668.70	-28144668.53	-28144668.34	0.0134	0.0093 *
Earth	-81768-02-09 02:23 J	-28144299.53	-28144299.40	-28144299.25	0.0134	0.0109
Moon	-81768-02-09 03:06 J	-28144299.50	-28144299.37	-28144299.24	0.0134	0.0111 *
Moon	-81767-02-13 05:30 J	-28143930.35	-28143930.27	-28143930.16	0.0135	0.0125
Earth	-81767-02-13 05:44 J	-28143930.34	-28143930.26	-28143930.15	0.0135	0.0124 *

Moon -81766-02-17 09:49 J -28143561.10 -28143561.09 -28143561.06 0.0135 0.0134
 Venus -81765-10-21 04:04 J -28142949.48 -28142949.33 -28142949.17 0.0136 0.0092
 Venus -81764-06-04 08:37 J -28142723.34 -28142723.14 -28142722.93 0.0136 0.0033
 Venus -81763-01-16 13:25 J -28142497.15 -28142496.94 -28142496.73 0.0137 0.0028
 Venus -81763-08-30 18:13 J -28142270.90 -28142270.74 -28142270.57 0.0137 0.0088
 Mercury -81761-01-16 16:04 J -28141766.87 -28141766.83 -28141766.78 0.0138 0.0129
 Mercury -81761-04-13 19:25 J -28141678.75 -28141678.69 -28141678.60 0.0138 0.0113
 Mercury -81761-07-10 23:01 J -28141590.63 -28141590.54 -28141590.44 0.0138 0.0096
 Mercury -81761-10-07 02:23 J -28141502.50 -28141502.40 -28141502.28 0.0138 0.0080
 Mercury -81760-01-03 05:59 J -28141414.37 -28141414.25 -28141414.12 0.0138 0.0062
 Mercury -81760-04-01 09:35 J -28141326.23 -28141326.10 -28141325.97 0.0138 0.0045
 Mercury -81760-06-28 13:11 J -28141238.08 -28141237.95 -28141237.82 0.0139 0.0028
 Mercury -81760-09-24 16:47 J -28141149.94 -28141149.80 -28141149.67 0.0139 0.0010
 Mercury -81760-12-21 20:23 J -28141061.79 -28141061.65 -28141061.52 0.0139 0.0008
 Mercury -81759-03-19 23:59 J -28140973.64 -28140973.50 -28140973.37 0.0139 0.0025
 Mercury -81759-06-16 03:35 J -28140885.48 -28140885.35 -28140885.22 0.0139 0.0043
 Mercury -81759-09-12 07:11 J -28140797.32 -28140797.20 -28140797.07 0.0139 0.0061
 Mercury -81759-12-09 10:47 J -28140709.15 -28140709.05 -28140708.93 0.0140 0.0080
 Mercury -81758-03-07 14:37 J -28140620.98 -28140620.89 -28140620.79 0.0140 0.0098
 Mercury -81758-06-03 18:28 J -28140532.80 -28140532.73 -28140532.65 0.0140 0.0116
 Mercury -81758-08-30 22:04 J -28140444.60 -28140444.58 -28140444.54 0.0140 0.0135
 Mars -81746-06-08 20:52 J -28136144.81 -28136144.63 -28136144.44 0.0146 0.0122
 Mars -81744-05-16 22:04 J -28135436.90 -28135436.58 -28135436.23 0.0147 0.0020
 Mars -81742-04-25 12:28 J -28134728.24 -28134727.98 -28134727.69 0.0147 0.0087
 Earth -81741-06-06 17:30 J -28134319.81 -28134319.77 -28134319.68 0.0147 0.0142
 Moon -81740-06-11 21:49 J -28133949.73 -28133949.59 -28133949.40 0.0148 0.0115
 Earth -81740-06-11 22:47 J -28133949.68 -28133949.55 -28133949.39 0.0148 0.0122 *
 Earth -81739-06-17 04:18 J -28133579.49 -28133579.32 -28133579.12 0.0148 0.0101
 Moon -81739-06-17 05:01 J -28133579.45 -28133579.29 -28133579.11 0.0148 0.0105 *
 Earth -81738-06-22 10:47 J -28133209.25 -28133209.05 -28133208.82 0.0147 0.0078

Moon	-81738-06-22 11:44 J	-28133209.22	-28133209.01	-28133208.78	0.0147	0.0080	*
Moon	-81737-06-26 16:18 J	-28132839.04	-28132838.82	-28132838.58	0.0147	0.0051	
Earth	-81737-06-26 17:44 J	-28132838.99	-28132838.76	-28132838.52	0.0147	0.0056	*
Earth	-81736-07-02 00:56 J	-28132468.71	-28132468.46	-28132468.21	0.0147	0.0033	
Moon	-81736-07-02 03:06 J	-28132468.62	-28132468.37	-28132468.11	0.0147	0.0040	*
Moon	-81735-07-07 05:30 J	-28132098.52	-28132098.27	-28132098.01	0.0147	0.0003	
Earth	-81735-07-07 08:37 J	-28132098.40	-28132098.14	-28132097.88	0.0147	0.0010	*
Earth	-81734-07-12 16:32 J	-28131728.07	-28131727.81	-28131727.56	0.0147	0.0014	
Moon	-81734-07-12 19:40 J	-28131727.94	-28131727.68	-28131727.42	0.0147	0.0012	*
Moon	-81733-07-16 20:37 J	-28131357.89	-28131357.64	-28131357.39	0.0146	0.0034	
Earth	-81733-07-17 00:13 J	-28131357.73	-28131357.49	-28131357.23	0.0146	0.0037	*
Earth	-81732-07-22 07:54 J	-28130987.40	-28130987.17	-28130986.93	0.0146	0.0060	
Moon	-81732-07-22 11:30 J	-28130987.24	-28130987.02	-28130986.78	0.0146	0.0067	*
Moon	-81731-07-27 12:13 J	-28130617.20	-28130616.99	-28130616.75	0.0146	0.0075	
Earth	-81731-07-27 15:35 J	-28130617.05	-28130616.85	-28130616.63	0.0146	0.0083	*
Earth	-81730-08-01 22:32 J	-28130246.72	-28130246.56	-28130246.36	0.0145	0.0104	
Moon	-81730-08-02 01:40 J	-28130246.57	-28130246.43	-28130246.24	0.0145	0.0110	*
Moon	-81729-08-06 03:20 J	-28129876.48	-28129876.36	-28129876.21	0.0145	0.0124	
Earth	-81729-08-06 05:30 J	-28129876.38	-28129876.27	-28129876.12	0.0145	0.0125	*
Earth	-81728-08-11 11:44 J	-28129506.01	-28129506.01	-28129505.99	0.0144	0.0144	
Moon	-81728-08-11 13:11 J	-28129505.99	-28129505.95	-28129505.87	0.0144	0.0140	*
Venus	-81726-11-14 13:25 J	-28128681.06	-28128680.94	-28128680.79	0.0143	0.0113	
Venus	-81725-06-28 03:06 J	-28128454.58	-28128454.37	-28128454.15	0.0142	0.0039	
Venus	-81724-02-09 16:04 J	-28128228.04	-28128227.83	-28128227.61	0.0142	0.0033	
Venus	-81724-09-24 04:32 J	-28128001.44	-28128001.31	-28128001.15	0.0142	0.0106	
Mercury	-81722-06-10 10:47 J	-28127377.08	-28127377.05	-28127377.00	0.0141	0.0137	
Mercury	-81722-09-06 18:13 J	-28127288.84	-28127288.74	-28127288.61	0.0141	0.0112	
Mercury	-81722-12-04 01:40 J	-28127200.56	-28127200.43	-28127200.27	0.0140	0.0087	
Mercury	-81721-03-01 09:06 J	-28127112.28	-28127112.12	-28127111.94	0.0140	0.0062	
Mercury	-81721-05-28 16:32 J	-28127023.98	-28127023.81	-28127023.63	0.0140	0.0036	

Mercury -81721-08-24 23:59 J -28126935.69 -28126935.50 -28126935.32 0.0140 0.0012
 Mercury -81721-11-21 07:11 J -28126847.39 -28126847.20 -28126847.02 0.0140 0.0013
 Mercury -81720-02-17 14:08 J -28126759.09 -28126758.91 -28126758.73 0.0140 0.0037
 Mercury -81720-05-16 21:06 J -28126670.78 -28126670.62 -28126670.45 0.0139 0.0061
 Mercury -81720-08-13 04:04 J -28126582.47 -28126582.33 -28126582.18 0.0139 0.0084
 Mercury -81720-11-09 11:01 J -28126494.15 -28126494.04 -28126493.92 0.0139 0.0108
 Mercury -81719-02-05 17:44 J -28126405.81 -28126405.76 -28126405.69 0.0139 0.0131
 Mars -81706-12-14 16:47 J -28121346.01 -28121345.80 -28121345.56 0.0132 0.0081
 Mars -81704-11-12 08:23 J -28120647.42 -28120647.15 -28120646.86 0.0132 0.0021
 Mars -81702-10-11 17:44 J -28119949.02 -28119948.76 -28119948.49 0.0132 0.0039
 Mars -81700-09-08 21:35 J -28119250.77 -28119250.60 -28119250.39 0.0131 0.0097
 Moon -81700-12-13 19:54 J -28119154.73 -28119154.67 -28119154.58 0.0131 0.0126
 Earth -81700-12-13 20:23 J -28119154.71 -28119154.65 -28119154.57 0.0131 0.0126 *
 Earth -81699-12-17 23:59 J -28118785.61 -28118785.50 -28118785.34 0.0131 0.0111
 Moon -81699-12-18 00:42 J -28118785.58 -28118785.47 -28118785.31 0.0131 0.0109 *
 Moon -81698-12-22 02:37 J -28118416.53 -28118416.39 -28118416.19 0.0131 0.0101
 Earth -81698-12-22 03:20 J -28118416.51 -28118416.36 -28118416.17 0.0131 0.0096 *
 Earth -81697-12-25 06:56 J -28118047.41 -28118047.21 -28118047.01 0.0131 0.0081
 Moon -81697-12-25 06:56 J -28118047.40 -28118047.21 -28118046.99 0.0131 0.0074 *
 Moon -81696-12-29 08:37 J -28117678.34 -28117678.14 -28117677.91 0.0131 0.0072
 Earth -81696-12-29 09:20 J -28117678.31 -28117678.11 -28117677.87 0.0131 0.0066 *
 Earth -81694-01-02 11:59 J -28117309.22 -28117309.00 -28117308.75 0.0131 0.0049
 Moon -81694-01-02 12:28 J -28117309.21 -28117308.98 -28117308.75 0.0131 0.0044 *
 Moon -81693-01-06 13:54 J -28116940.17 -28116939.92 -28116939.67 0.0131 0.0038
 Earth -81693-01-06 14:37 J -28116940.13 -28116939.89 -28116939.65 0.0131 0.0033 *
 Earth -81692-01-09 16:47 J -28116571.05 -28116570.80 -28116570.55 0.0132 0.0017
 Moon -81692-01-09 17:30 J -28116571.01 -28116570.77 -28116570.53 0.0132 0.0015 *
 Moon -81691-01-13 18:42 J -28116201.98 -28116201.72 -28116201.46 0.0132 0.0001
 Earth -81691-01-13 19:11 J -28116201.95 -28116201.70 -28116201.45 0.0132 0.0001 *
 Earth -81690-01-17 21:20 J -28115832.86 -28115832.61 -28115832.36 0.0132 0.0016

Moon	-81690-01-17 22:18 J	-28115832.81	-28115832.57	-28115832.33	0.0132	0.0014	*
Moon	-81689-01-21 22:47 J	-28115463.79	-28115463.55	-28115463.30	0.0132	0.0038	
Earth	-81689-01-21 23:30 J	-28115463.76	-28115463.52	-28115463.28	0.0132	0.0033	*
Earth	-81688-01-25 01:25 J	-28115094.66	-28115094.44	-28115094.20	0.0133	0.0050	
Moon	-81688-01-25 02:23 J	-28115094.62	-28115094.40	-28115094.17	0.0133	0.0043	*
Moon	-81687-01-29 02:37 J	-28114725.59	-28114725.39	-28114725.16	0.0133	0.0072	
Earth	-81687-01-29 04:04 J	-28114725.55	-28114725.33	-28114725.12	0.0133	0.0065	*
Earth	-81686-02-02 06:13 J	-28114356.43	-28114356.24	-28114356.04	0.0133	0.0082	
Moon	-81686-02-02 06:28 J	-28114356.41	-28114356.23	-28114356.02	0.0133	0.0077	*
Moon	-81685-02-06 07:40 J	-28113987.34	-28113987.18	-28113987.01	0.0134	0.0102	
Earth	-81685-02-06 08:37 J	-28113987.29	-28113987.14	-28113986.96	0.0134	0.0098	*
Earth	-81684-02-09 11:30 J	-28113618.13	-28113618.02	-28113617.87	0.0134	0.0114	
Moon	-81684-02-09 12:13 J	-28113618.10	-28113617.99	-28113617.84	0.0134	0.0112	*
Moon	-81683-02-13 14:23 J	-28113248.98	-28113248.90	-28113248.82	0.0135	0.0127	
Earth	-81683-02-13 14:52 J	-28113248.93	-28113248.88	-28113248.79	0.0135	0.0129	*
Venus	-81681-06-20 13:40 J	-28112391.00	-28112390.93	-28112390.82	0.0136	0.0122	
Venus	-81680-02-01 18:28 J	-28112164.91	-28112164.73	-28112164.54	0.0136	0.0062	
Venus	-81680-09-15 23:01 J	-28111938.75	-28111938.54	-28111938.33	0.0136	0.0003	
Venus	-81679-04-30 03:35 J	-28111712.53	-28111712.35	-28111712.15	0.0137	0.0058	
Venus	-81679-12-12 08:37 J	-28111486.23	-28111486.14	-28111486.02	0.0137	0.0119	
Mercury	-81677-02-05 23:01 J	-28111065.58	-28111065.54	-28111065.48	0.0138	0.0127	
Mercury	-81677-05-04 02:37 J	-28110977.47	-28110977.39	-28110977.31	0.0138	0.0110	
Mercury	-81677-07-31 05:59 J	-28110889.34	-28110889.25	-28110889.15	0.0138	0.0094	
Mercury	-81677-10-27 09:35 J	-28110801.21	-28110801.10	-28110800.99	0.0138	0.0077	
Mercury	-81676-01-23 12:56 J	-28110713.08	-28110712.96	-28110712.83	0.0138	0.0060	
Mercury	-81676-04-21 16:32 J	-28110624.94	-28110624.81	-28110624.68	0.0138	0.0042	
Mercury	-81676-07-18 19:54 J	-28110536.80	-28110536.67	-28110536.53	0.0139	0.0026	
Mercury	-81676-10-14 23:44 J	-28110448.65	-28110448.51	-28110448.38	0.0139	0.0008	
Mercury	-81675-01-11 03:20 J	-28110360.50	-28110360.36	-28110360.23	0.0139	0.0011	
Mercury	-81675-04-09 06:42 J	-28110272.35	-28110272.22	-28110272.08	0.0139	0.0028	

Mercury -81675-07-06 10:18 J -28110184.19 -28110184.07 -28110183.93 0.0139 0.0046

Mercury -81675-10-02 14:08 J -28110096.03 -28110095.91 -28110095.79 0.0139 0.0064

Mercury -81675-12-29 17:44 J -28110007.87 -28110007.76 -28110007.64 0.0140 0.0082

Mercury -81674-03-27 21:20 J -28109919.69 -28109919.61 -28109919.51 0.0140 0.0101

Mercury -81674-06-24 01:11 J -28109831.51 -28109831.45 -28109831.37 0.0140 0.0119

Mercury -81674-09-20 05:01 J -28109743.31 -28109743.29 -28109743.26 0.0140 0.0137

Mars -81661-02-03 08:23 J -28105224.42 -28105224.15 -28105223.86 0.0146 0.0080

Mars -81659-01-11 14:08 J -28104516.24 -28104515.91 -28104515.57 0.0147 0.0024

Mars -81658-12-21 06:42 J -28103807.36 -28103807.22 -28103807.03 0.0147 0.0129

Earth -81657-06-07 00:28 J -28103638.53 -28103638.48 -28103638.38 0.0147 0.0142

Moon -81657-06-07 03:06 J -28103638.47 -28103638.37 -28103638.26 0.0147 0.0134 *

Moon -81656-06-12 03:35 J -28103268.47 -28103268.35 -28103268.22 0.0147 0.0128

Earth -81656-06-12 05:30 J -28103268.40 -28103268.27 -28103268.11 0.0147 0.0121 *

Earth -81655-06-17 11:01 J -28102898.21 -28102898.04 -28102897.84 0.0147 0.0099

Moon -81655-06-17 11:44 J -28102898.18 -28102898.01 -28102897.81 0.0147 0.0096 *

Moon -81654-06-22 17:16 J -28102528.00 -28102527.78 -28102527.55 0.0147 0.0077

Earth -81654-06-22 17:30 J -28102527.98 -28102527.77 -28102527.55 0.0147 0.0077 *

Moon -81653-06-26 23:30 J -28102157.74 -28102157.52 -28102157.29 0.0147 0.0058

Earth -81653-06-27 00:13 J -28102157.72 -28102157.49 -28102157.25 0.0147 0.0054 *

Earth -81652-07-02 07:40 J -28101787.43 -28101787.18 -28101786.93 0.0147 0.0030

Moon -81652-07-02 09:20 J -28101787.37 -28101787.11 -28101786.84 0.0147 0.0022 *

Moon -81651-07-07 13:11 J -28101417.20 -28101416.95 -28101416.70 0.0147 0.0013

Earth -81651-07-07 15:20 J -28101417.12 -28101416.86 -28101416.61 0.0147 0.0006 *

Earth -81650-07-12 23:01 J -28101046.79 -28101046.54 -28101046.28 0.0147 0.0017

Moon -81650-07-13 02:23 J -28101046.66 -28101046.40 -28101046.14 0.0147 0.0019 *

Moon -81649-07-17 03:35 J -28100676.59 -28100676.35 -28100676.10 0.0146 0.0043

Earth -81649-07-17 06:42 J -28100676.45 -28100676.22 -28100675.96 0.0146 0.0042 *

Earth -81648-07-22 14:37 J -28100306.12 -28100305.89 -28100305.66 0.0146 0.0064

Moon -81648-07-22 18:13 J -28100305.97 -28100305.74 -28100305.50 0.0146 0.0057 *

Moon -81647-07-27 18:28 J -28099935.92 -28099935.73 -28099935.53 0.0146 0.0095

Earth	-81647-07-27 22:18 J	-28099935.77	-28099935.57	-28099935.36	0.0146	0.0087	*
Earth	-81646-08-02 05:01 J	-28099565.44	-28099565.29	-28099565.10	0.0145	0.0109	
Moon	-81646-08-02 08:08 J	-28099565.31	-28099565.16	-28099564.96	0.0145	0.0105	*
Moon	-81645-08-06 08:52 J	-28099195.23	-28099195.13	-28099195.01	0.0145	0.0131	
Earth	-81645-08-06 11:44 J	-28099195.10	-28099195.01	-28099194.88	0.0145	0.0130	*
Venus	-81641-02-26 05:59 J	-28097896.42	-28097896.25	-28097896.05	0.0143	0.0079	
Venus	-81641-10-09 19:40 J	-28097669.91	-28097669.68	-28097669.46	0.0142	0.0006	
Venus	-81640-05-24 08:37 J	-28097443.34	-28097443.14	-28097442.94	0.0142	0.0067	
Venus	-81639-01-05 21:06 J	-28097216.65	-28097216.62	-28097216.57	0.0142	0.0139	
Mercury	-81638-06-30 17:30 J	-28096675.82	-28096675.77	-28096675.72	0.0141	0.0134	
Mercury	-81638-09-27 00:42 J	-28096587.58	-28096587.47	-28096587.34	0.0141	0.0109	
Mercury	-81638-12-24 08:08 J	-28096499.30	-28096499.16	-28096499.00	0.0140	0.0084	
Mercury	-81637-03-21 15:35 J	-28096411.01	-28096410.85	-28096410.67	0.0140	0.0059	
Mercury	-81637-06-17 23:01 J	-28096322.72	-28096322.54	-28096322.36	0.0140	0.0033	
Mercury	-81637-09-14 06:13 J	-28096234.42	-28096234.24	-28096234.05	0.0140	0.0009	
Mercury	-81637-12-11 13:25 J	-28096146.12	-28096145.94	-28096145.75	0.0140	0.0016	
Mercury	-81636-03-09 20:37 J	-28096057.82	-28096057.64	-28096057.46	0.0140	0.0040	
Mercury	-81636-06-06 03:35 J	-28095969.51	-28095969.35	-28095969.18	0.0139	0.0064	
Mercury	-81636-09-02 10:32 J	-28095881.19	-28095881.06	-28095880.91	0.0139	0.0087	
Mercury	-81636-11-29 17:30 J	-28095792.87	-28095792.77	-28095792.65	0.0139	0.0110	
Mercury	-81635-02-26 00:28 J	-28095704.52	-28095704.48	-28095704.43	0.0139	0.0133	
Mars	-81623-09-08 20:52 J	-28091126.75	-28091126.63	-28091126.47	0.0133	0.0115	
Mars	-81621-08-07 16:04 J	-28090428.07	-28090427.83	-28090427.55	0.0132	0.0055	
Mars	-81619-07-07 05:16 J	-28089729.56	-28089729.28	-28089729.00	0.0132	0.0006	
Mars	-81617-06-04 11:59 J	-28089031.24	-28089031.00	-28089030.75	0.0131	0.0064	
Moon	-81616-12-14 03:20 J	-28088473.41	-28088473.36	-28088473.27	0.0131	0.0126	
Earth	-81616-12-14 04:47 J	-28088473.35	-28088473.30	-28088473.20	0.0131	0.0125	*
Mars	-81615-05-03 17:01 J	-28088332.90	-28088332.79	-28088332.68	0.0131	0.0120	
Earth	-81615-12-18 08:37 J	-28088104.25	-28088104.14	-28088103.98	0.0131	0.0111	
Moon	-81615-12-18 09:49 J	-28088104.20	-28088104.09	-28088103.95	0.0131	0.0113	*

Moon	-81614-12-22 11:01 J	-28087735.20	-28087735.04	-28087734.82	0.0131	0.0091
Earth	-81614-12-22 12:13 J	-28087735.14	-28087734.99	-28087734.79	0.0131	0.0095 *
Earth	-81613-12-25 15:35 J	-28087366.04	-28087365.85	-28087365.63	0.0131	0.0079
Moon	-81613-12-25 16:47 J	-28087365.96	-28087365.80	-28087365.59	0.0131	0.0086 *
Moon	-81612-12-29 17:44 J	-28086996.99	-28086996.76	-28086996.51	0.0131	0.0057
Earth	-81612-12-29 18:42 J	-28086996.93	-28086996.72	-28086996.49	0.0131	0.0063 *
Earth	-81610-01-02 21:35 J	-28086627.84	-28086627.60	-28086627.37	0.0131	0.0047
Moon	-81610-01-02 22:47 J	-28086627.77	-28086627.55	-28086627.32	0.0131	0.0054 *
Moon	-81609-01-06 22:32 J	-28086258.81	-28086258.56	-28086258.30	0.0131	0.0026
Earth	-81609-01-06 23:44 J	-28086258.75	-28086258.51	-28086258.26	0.0131	0.0031 *
Earth	-81608-01-10 02:23 J	-28085889.65	-28085889.40	-28085889.15	0.0132	0.0014
Moon	-81608-01-10 03:20 J	-28085889.60	-28085889.36	-28085889.11	0.0132	0.0016 *
Moon	-81607-01-14 03:06 J	-28085520.63	-28085520.37	-28085520.11	0.0132	0.0004
Earth	-81607-01-14 04:32 J	-28085520.56	-28085520.31	-28085520.05	0.0132	0.0004 *
Earth	-81606-01-18 06:42 J	-28085151.47	-28085151.22	-28085150.97	0.0132	0.0020
Moon	-81606-01-18 07:40 J	-28085151.41	-28085151.18	-28085150.94	0.0132	0.0023 *
Moon	-81605-01-22 07:25 J	-28084782.44	-28084782.19	-28084781.94	0.0132	0.0032
Earth	-81605-01-22 08:52 J	-28084782.37	-28084782.13	-28084781.89	0.0132	0.0037 *
Earth	-81604-01-25 11:16 J	-28084413.26	-28084413.03	-28084412.81	0.0133	0.0053
Moon	-81604-01-25 12:28 J	-28084413.19	-28084412.98	-28084412.76	0.0133	0.0059 *
Moon	-81603-01-29 11:44 J	-28084044.22	-28084044.01	-28084043.77	0.0133	0.0063
Earth	-81603-01-29 13:11 J	-28084044.15	-28084043.95	-28084043.73	0.0133	0.0070 *
Earth	-81602-02-02 15:20 J	-28083675.03	-28083674.86	-28083674.65	0.0133	0.0086
Moon	-81602-02-02 17:16 J	-28083674.94	-28083674.78	-28083674.60	0.0133	0.0093 *
Moon	-81601-02-06 16:47 J	-28083305.96	-28083305.80	-28083305.61	0.0134	0.0098
Earth	-81601-02-06 17:59 J	-28083305.89	-28083305.75	-28083305.57	0.0134	0.0103 *
Earth	-81600-02-09 20:52 J	-28082936.72	-28082936.63	-28082936.49	0.0134	0.0119
Moon	-81600-02-09 22:32 J	-28082936.64	-28082936.56	-28082936.43	0.0134	0.0121 *
Moon	-81599-02-13 23:01 J	-28082567.57	-28082567.54	-28082567.49	0.0135	0.0133
Earth	-81599-02-14 00:28 J	-28082567.49	-28082567.48	-28082567.43	0.0135	0.0134 *

Venus	-81597-10-02 04:18 J	-28081606.47	-28081606.32	-28081606.16	0.0136	0.0092
Venus	-81596-05-16 08:52 J	-28081380.33	-28081380.13	-28081379.92	0.0136	0.0033
Venus	-81596-12-28 13:40 J	-28081154.13	-28081153.93	-28081153.72	0.0136	0.0027
Venus	-81595-08-11 18:13 J	-28080927.89	-28080927.74	-28080927.56	0.0137	0.0088
Mercury	-81593-02-26 06:13 J	-28080364.30	-28080364.24	-28080364.18	0.0138	0.0124
Mercury	-81593-05-24 09:20 J	-28080276.18	-28080276.11	-28080276.02	0.0138	0.0108
Mercury	-81593-08-20 12:56 J	-28080188.06	-28080187.96	-28080187.85	0.0138	0.0091
Mercury	-81593-11-16 16:18 J	-28080099.92	-28080099.82	-28080099.70	0.0138	0.0074
Mercury	-81592-02-12 19:54 J	-28080011.79	-28080011.67	-28080011.54	0.0138	0.0057
Mercury	-81592-05-11 23:30 J	-28079923.65	-28079923.52	-28079923.39	0.0138	0.0040
Mercury	-81592-08-08 03:06 J	-28079835.51	-28079835.37	-28079835.24	0.0139	0.0022
Mercury	-81592-11-04 06:28 J	-28079747.36	-28079747.23	-28079747.09	0.0139	0.0007
Mercury	-81591-01-31 10:04 J	-28079659.21	-28079659.08	-28079658.94	0.0139	0.0014
Mercury	-81591-04-29 13:40 J	-28079571.06	-28079570.93	-28079570.79	0.0139	0.0031
Mercury	-81591-07-26 17:30 J	-28079482.90	-28079482.77	-28079482.64	0.0139	0.0049
Mercury	-81591-10-22 21:06 J	-28079394.74	-28079394.62	-28079394.50	0.0139	0.0067
Mercury	-81590-01-19 00:42 J	-28079306.58	-28079306.47	-28079306.36	0.0140	0.0085
Mercury	-81590-04-17 04:32 J	-28079218.40	-28079218.31	-28079218.22	0.0140	0.0103
Mercury	-81590-07-14 07:54 J	-28079130.22	-28079130.17	-28079130.09	0.0140	0.0122
Mars	-81579-10-23 00:42 J	-28075011.56	-28075011.47	-28075011.32	0.0146	0.0136
Mars	-81577-09-29 19:40 J	-28074303.99	-28074303.68	-28074303.34	0.0147	0.0038
Mars	-81575-09-08 04:32 J	-28073595.59	-28073595.31	-28073594.98	0.0147	0.0066
Earth	-81573-06-07 07:11 J	-28072957.26	-28072957.20	-28072957.12	0.0147	0.0141
Moon	-81572-06-12 09:35 J	-28072587.25	-28072587.10	-28072586.91	0.0147	0.0113
Earth	-81572-06-12 11:44 J	-28072587.13	-28072587.01	-28072586.84	0.0147	0.0121 *
Earth	-81571-06-17 17:16 J	-28072216.95	-28072216.78	-28072216.57	0.0147	0.0098
Moon	-81571-06-17 19:25 J	-28072216.86	-28072216.69	-28072216.51	0.0147	0.0104 *
Moon	-81570-06-22 22:47 J	-28071846.77	-28071846.55	-28071846.31	0.0147	0.0074
Earth	-81570-06-22 23:30 J	-28071846.72	-28071846.52	-28071846.29	0.0147	0.0076 *
Moon	-81569-06-27 06:28 J	-28071476.46	-28071476.23	-28071475.99	0.0147	0.0047

Earth -81569-06-27 06:13 J -28071476.46 -28071476.24 -28071475.98 0.0147 0.0053 *
 Earth -81568-07-02 13:40 J -28071106.18 -28071105.93 -28071105.67 0.0147 0.0028
 Moon -81568-07-02 14:23 J -28071106.16 -28071105.90 -28071105.64 0.0147 0.0035 *
 Moon -81567-07-07 19:25 J -28070735.94 -28070735.69 -28070735.44 0.0147 0.0003
 Earth -81567-07-07 21:20 J -28070735.86 -28070735.61 -28070735.35 0.0147 0.0004 *
 Earth -81566-07-13 05:01 J -28070365.54 -28070365.29 -28070365.03 0.0147 0.0021
 Moon -81566-07-13 07:25 J -28070365.45 -28070365.19 -28070364.93 0.0147 0.0017 *
 Moon -81565-07-17 09:20 J -28069995.34 -28069995.11 -28069994.86 0.0146 0.0043
 Earth -81565-07-17 12:56 J -28069995.21 -28069994.96 -28069994.72 0.0146 0.0045 *
 Earth -81564-07-22 20:23 J -28069624.87 -28069624.65 -28069624.42 0.0146 0.0068
 Moon -81564-07-22 23:44 J -28069624.72 -28069624.51 -28069624.27 0.0146 0.0074 *
 Moon -81563-07-28 00:13 J -28069254.69 -28069254.49 -28069254.26 0.0146 0.0084
 Earth -81563-07-28 03:49 J -28069254.53 -28069254.34 -28069254.13 0.0146 0.0092 *
 Earth -81562-08-02 10:47 J -28068884.20 -28068884.05 -28068883.87 0.0145 0.0114
 Moon -81562-08-02 14:23 J -28068884.02 -28068883.90 -28068883.73 0.0145 0.0121 *
 Moon -81561-08-06 14:23 J -28068514.00 -28068513.90 -28068513.78 0.0145 0.0132
 Earth -81561-08-06 17:30 J -28068513.84 -28068513.77 -28068513.66 0.0145 0.0135 *
 Venus -81558-10-26 09:06 J -28067338.24 -28067338.12 -28067337.99 0.0143 0.0118
 Venus -81557-06-08 22:32 J -28067111.77 -28067111.56 -28067111.34 0.0143 0.0045
 Venus -81556-01-21 11:44 J -28066885.22 -28066885.01 -28066884.78 0.0142 0.0029
 Venus -81556-09-05 00:28 J -28066658.62 -28066658.48 -28066658.31 0.0142 0.0101
 Mercury -81554-07-20 23:30 J -28065974.57 -28065974.52 -28065974.45 0.0141 0.0132
 Mercury -81554-10-17 06:56 J -28065886.32 -28065886.21 -28065886.08 0.0141 0.0107
 Mercury -81553-01-13 14:23 J -28065798.04 -28065797.90 -28065797.74 0.0140 0.0082
 Mercury -81553-04-10 21:49 J -28065709.75 -28065709.59 -28065709.41 0.0140 0.0056
 Mercury -81553-07-08 05:16 J -28065621.46 -28065621.28 -28065621.09 0.0140 0.0031
 Mercury -81553-10-04 12:42 J -28065533.16 -28065532.97 -28065532.79 0.0140 0.0007
 Mercury -81553-12-31 19:54 J -28065444.85 -28065444.67 -28065444.49 0.0140 0.0018
 Mercury -81552-03-30 02:52 J -28065356.55 -28065356.38 -28065356.20 0.0140 0.0042
 Mercury -81552-06-26 09:49 J -28065268.24 -28065268.09 -28065267.92 0.0140 0.0066

Mercury -81552-09-22 17:01 J -28065179.93 -28065179.79 -28065179.65 0.0139 0.0090
 Mercury -81552-12-19 23:44 J -28065091.60 -28065091.51 -28065091.39 0.0139 0.0113
 Mercury -81551-03-18 06:42 J -28065003.24 -28065003.22 -28065003.18 0.0139 0.0136
 Mars -81538-05-03 20:37 J -28060208.83 -28060208.64 -28060208.40 0.0133 0.0088
 Mars -81536-04-01 14:37 J -28059510.16 -28059509.89 -28059509.61 0.0132 0.0027
 Mars -81534-03-01 00:42 J -28058811.73 -28058811.47 -28058811.18 0.0132 0.0032
 Mars -81532-01-27 07:40 J -28058113.37 -28058113.18 -28058112.96 0.0132 0.0089
 Moon -81532-12-14 12:13 J -28057792.06 -28057791.99 -28057791.88 0.0131 0.0124
 Earth -81532-12-14 14:08 J -28057791.98 -28057791.91 -28057791.82 0.0131 0.0125 *
 Earth -81531-12-18 17:59 J -28057422.87 -28057422.75 -28057422.59 0.0131 0.0110
 Moon -81531-12-18 20:23 J -28057422.79 -28057422.65 -28057422.51 0.0131 0.0108 *
 Moon -81530-12-22 19:54 J -28057053.84 -28057053.67 -28057053.49 0.0131 0.0097
 Earth -81530-12-22 21:49 J -28057053.75 -28057053.59 -28057053.40 0.0131 0.0094 *
 Earth -81529-12-26 01:25 J -28056684.64 -28056684.44 -28056684.23 0.0131 0.0078
 Moon -81529-12-26 02:52 J -28056684.58 -28056684.38 -28056684.17 0.0131 0.0072 *
 Moon -81528-12-30 02:23 J -28056315.62 -28056315.40 -28056315.17 0.0131 0.0068
 Earth -81528-12-30 04:18 J -28056315.53 -28056315.32 -28056315.08 0.0131 0.0061 *
 Earth -81526-01-03 07:11 J -28055946.44 -28055946.20 -28055945.96 0.0131 0.0045
 Moon -81526-01-03 08:52 J -28055946.36 -28055946.13 -28055945.90 0.0131 0.0039 *
 Moon -81525-01-07 07:54 J -28055577.41 -28055577.17 -28055576.91 0.0131 0.0033
 Earth -81525-01-07 09:49 J -28055577.33 -28055577.09 -28055576.84 0.0131 0.0028 *
 Earth -81524-01-10 12:28 J -28055208.23 -28055207.98 -28055207.73 0.0132 0.0011
 Moon -81524-01-10 14:23 J -28055208.14 -28055207.90 -28055207.65 0.0132 0.0008 *
 Moon -81523-01-14 13:11 J -28054839.21 -28054838.95 -28054838.69 0.0132 0.0006
 Earth -81523-01-14 14:52 J -28054839.13 -28054838.88 -28054838.63 0.0132 0.0006 *
 Earth -81522-01-18 17:01 J -28054470.04 -28054469.79 -28054469.54 0.0132 0.0023
 Moon -81522-01-18 19:11 J -28054469.94 -28054469.70 -28054469.46 0.0132 0.0021 *
 Moon -81521-01-22 17:01 J -28054101.02 -28054100.79 -28054100.54 0.0132 0.0045
 Earth -81521-01-22 18:56 J -28054100.94 -28054100.71 -28054100.46 0.0132 0.0041 *
 Earth -81520-01-25 21:06 J -28053731.83 -28053731.62 -28053731.38 0.0133 0.0058

Moon	-81520-01-25 23:16 J	-28053731.75	-28053731.53	-28053731.31	0.0133	0.0051	*
Moon	-81519-01-29 21:20 J	-28053362.81	-28053362.61	-28053362.40	0.0133	0.0080	
Earth	-81519-01-29 23:30 J	-28053362.72	-28053362.52	-28053362.31	0.0133	0.0074	*
Earth	-81518-02-03 01:54 J	-28052993.60	-28052993.42	-28052993.23	0.0133	0.0091	
Moon	-81518-02-03 03:35 J	-28052993.53	-28052993.35	-28052993.16	0.0133	0.0085	*
Moon	-81517-02-07 01:54 J	-28052624.53	-28052624.42	-28052624.26	0.0134	0.0113	
Earth	-81517-02-07 04:32 J	-28052624.44	-28052624.31	-28052624.15	0.0134	0.0107	*
Earth	-81516-02-10 07:25 J	-28052255.27	-28052255.19	-28052255.07	0.0134	0.0123	
Moon	-81516-02-10 09:35 J	-28052255.19	-28052255.10	-28052254.98	0.0134	0.0120	*
Venus	-81513-06-01 15:06 J	-28051047.96	-28051047.87	-28051047.76	0.0136	0.0120	
Venus	-81512-01-13 19:25 J	-28050821.86	-28050821.69	-28050821.49	0.0136	0.0061	
Venus	-81512-08-28 00:13 J	-28050595.70	-28050595.49	-28050595.27	0.0136	0.0003	
Venus	-81511-04-11 05:01 J	-28050369.48	-28050369.29	-28050369.10	0.0137	0.0059	
Venus	-81511-11-23 09:35 J	-28050143.18	-28050143.10	-28050142.98	0.0137	0.0120	
Mercury	-81510-12-20 09:49 J	-28049751.09	-28049751.09	-28049751.07	0.0138	0.0137	
Mercury	-81509-03-17 13:25 J	-28049663.00	-28049662.94	-28049662.88	0.0138	0.0120	
Mercury	-81509-06-13 16:47 J	-28049574.88	-28049574.80	-28049574.71	0.0138	0.0104	
Mercury	-81509-09-09 20:08 J	-28049486.76	-28049486.66	-28049486.55	0.0138	0.0087	
Mercury	-81509-12-06 23:44 J	-28049398.63	-28049398.51	-28049398.39	0.0138	0.0070	
Mercury	-81508-03-05 03:06 J	-28049310.49	-28049310.37	-28049310.24	0.0138	0.0053	
Mercury	-81508-06-01 06:42 J	-28049222.35	-28049222.22	-28049222.09	0.0138	0.0036	
Mercury	-81508-08-28 10:18 J	-28049134.21	-28049134.07	-28049133.94	0.0139	0.0018	
Mercury	-81508-11-24 13:54 J	-28049046.06	-28049045.92	-28049045.79	0.0139	0.0004	
Mercury	-81507-02-20 17:30 J	-28048957.91	-28048957.77	-28048957.64	0.0139	0.0017	
Mercury	-81507-05-19 20:52 J	-28048869.76	-28048869.63	-28048869.49	0.0139	0.0035	
Mercury	-81507-08-16 00:42 J	-28048781.60	-28048781.47	-28048781.35	0.0139	0.0052	
Mercury	-81507-11-12 04:18 J	-28048693.44	-28048693.32	-28048693.20	0.0139	0.0070	
Mercury	-81506-02-08 07:54 J	-28048605.27	-28048605.17	-28048605.06	0.0140	0.0089	
Mercury	-81506-05-07 11:44 J	-28048517.10	-28048517.01	-28048516.92	0.0140	0.0107	
Mercury	-81506-08-03 15:06 J	-28048428.91	-28048428.87	-28048428.80	0.0140	0.0126	

Mars	-81494-06-19 15:06 J	-28044091.12	-28044090.87	-28044090.60	0.0146	0.0094
Mars	-81492-05-27 13:54 J	-28043383.26	-28043382.92	-28043382.58	0.0147	0.0006
Mars	-81490-05-06 00:28 J	-28042674.69	-28042674.48	-28042674.22	0.0147	0.0108
Earth	-81489-06-07 15:35 J	-28042275.90	-28042275.85	-28042275.76	0.0147	0.0141
Moon	-81489-06-07 18:56 J	-28042275.80	-28042275.71	-28042275.60	0.0147	0.0134 *
Moon	-81488-06-12 17:30 J	-28041905.90	-28041905.77	-28041905.64	0.0147	0.0127
Earth	-81488-06-12 20:37 J	-28041905.79	-28041905.64	-28041905.49	0.0147	0.0119 *
Earth	-81487-06-18 01:54 J	-28041535.61	-28041535.42	-28041535.22	0.0147	0.0097
Moon	-81487-06-18 04:04 J	-28041535.52	-28041535.33	-28041535.13	0.0147	0.0092 *
Moon	-81486-06-23 06:28 J	-28041165.45	-28041165.23	-28041165.00	0.0147	0.0074
Earth	-81486-06-23 08:08 J	-28041165.38	-28041165.16	-28041164.93	0.0147	0.0073 *
Earth	-81485-06-27 14:37 J	-28040795.12	-28040794.89	-28040794.64	0.0147	0.0050
Moon	-81485-06-27 15:20 J	-28040795.08	-28040794.86	-28040794.62	0.0147	0.0053 *
Earth	-81484-07-02 21:49 J	-28040424.84	-28040424.59	-28040424.33	0.0147	0.0025
Moon	-81484-07-02 22:18 J	-28040424.83	-28040424.57	-28040424.30	0.0147	0.0018 *
Moon	-81483-07-08 04:47 J	-28040054.55	-28040054.30	-28040054.05	0.0147	0.0008
Earth	-81483-07-08 05:30 J	-28040054.53	-28040054.27	-28040054.01	0.0147	0.0001 *
Earth	-81482-07-13 12:42 J	-28039684.22	-28039683.97	-28039683.71	0.0147	0.0025
Moon	-81482-07-13 15:06 J	-28039684.13	-28039683.87	-28039683.61	0.0147	0.0027 *
Moon	-81481-07-17 17:44 J	-28039313.98	-28039313.76	-28039313.51	0.0146	0.0050
Earth	-81481-07-17 20:37 J	-28039313.89	-28039313.64	-28039313.40	0.0146	0.0049 *
Earth	-81480-07-23 03:35 J	-28038943.56	-28038943.35	-28038943.11	0.0146	0.0073
Moon	-81480-07-23 06:56 J	-28038943.43	-28038943.21	-28038942.96	0.0146	0.0067 *
Moon	-81479-07-28 07:40 J	-28038573.36	-28038573.18	-28038573.00	0.0146	0.0104
Earth	-81479-07-28 11:16 J	-28038573.22	-28038573.03	-28038572.83	0.0146	0.0096 *
Earth	-81478-08-02 17:59 J	-28038202.89	-28038202.75	-28038202.59	0.0145	0.0118
Moon	-81478-08-02 21:35 J	-28038202.75	-28038202.60	-28038202.43	0.0145	0.0112 *
Moon	-81477-08-06 20:52 J	-28037832.67	-28037832.63	-28037832.57	0.0145	0.0142
Earth	-81477-08-07 00:13 J	-28037832.53	-28037832.49	-28037832.40	0.0145	0.0140
Venus	-81473-02-07 01:40 J	-28036553.60	-28036553.43	-28036553.24	0.0143	0.0084

Venus	-81473-09-20 15:20 J	-28036327.09	-28036326.86	-28036326.64	0.0142	0.0010
Venus	-81472-05-05 04:18 J	-28036100.52	-28036100.32	-28036100.12	0.0142	0.0062
Venus	-81472-12-17 17:16 J	-28035873.85	-28035873.78	-28035873.71	0.0142	0.0134
Mercury	-81470-08-10 05:44 J	-28035273.32	-28035273.26	-28035273.18	0.0141	0.0130
Mercury	-81470-11-06 13:25 J	-28035185.06	-28035184.94	-28035184.81	0.0140	0.0104
Mercury	-81469-02-02 20:52 J	-28035096.78	-28035096.63	-28035096.47	0.0140	0.0079
Mercury	-81469-05-01 04:18 J	-28035008.49	-28035008.32	-28035008.14	0.0140	0.0053
Mercury	-81469-07-28 11:30 J	-28034920.19	-28034920.02	-28034919.83	0.0140	0.0029
Mercury	-81469-10-24 18:56 J	-28034831.89	-28034831.71	-28034831.52	0.0140	0.0004
Mercury	-81468-01-21 02:08 J	-28034743.59	-28034743.41	-28034743.23	0.0140	0.0020
Mercury	-81468-04-19 09:06 J	-28034655.29	-28034655.12	-28034654.94	0.0140	0.0045
Mercury	-81468-07-16 16:18 J	-28034566.97	-28034566.82	-28034566.66	0.0139	0.0069
Mercury	-81468-10-12 23:16 J	-28034478.66	-28034478.53	-28034478.39	0.0139	0.0092
Mercury	-81467-01-09 06:13 J	-28034390.33	-28034390.24	-28034390.13	0.0139	0.0115
Mercury	-81467-04-07 13:11 J	-28034301.96	-28034301.95	-28034301.93	0.0139	0.0138
Mars	-81455-01-26 20:08 J	-28029989.76	-28029989.66	-28029989.52	0.0133	0.0121
Mars	-81454-12-26 19:11 J	-28029290.94	-28029290.70	-28029290.43	0.0133	0.0061
Mars	-81452-11-24 10:18 J	-28028592.35	-28028592.07	-28028591.79	0.0132	0.0001
Mars	-81450-10-23 20:23 J	-28027893.89	-28027893.65	-28027893.38	0.0132	0.0057
Mars	-81448-09-21 02:37 J	-28027195.51	-28027195.39	-28027195.22	0.0132	0.0113
Moon	-81448-12-14 19:25 J	-28027110.74	-28027110.69	-28027110.60	0.0131	0.0127
Earth	-81448-12-14 22:04 J	-28027110.64	-28027110.58	-28027110.48	0.0131	0.0125 *
Earth	-81447-12-19 02:23 J	-28026741.53	-28026741.40	-28026741.25	0.0131	0.0109
Moon	-81447-12-19 04:47 J	-28026741.42	-28026741.30	-28026741.15	0.0131	0.0110 *
Moon	-81446-12-23 04:04 J	-28026372.51	-28026372.33	-28026372.12	0.0131	0.0089
Earth	-81446-12-23 06:28 J	-28026372.40	-28026372.23	-28026372.04	0.0131	0.0093 *
Earth	-81445-12-26 09:49 J	-28026003.28	-28026003.09	-28026002.87	0.0131	0.0077
Moon	-81445-12-26 12:28 J	-28026003.16	-28026002.98	-28026002.77	0.0131	0.0082 *
Moon	-81444-12-30 10:47 J	-28025634.27	-28025634.05	-28025633.79	0.0131	0.0054
Earth	-81444-12-30 13:11 J	-28025634.17	-28025633.95	-28025633.72	0.0131	0.0060 *

Earth	-81442-01-03 16:04 J	-28025265.06	-28025264.83	-28025264.58	0.0131	0.0043
Moon	-81442-01-03 18:42 J	-28025264.94	-28025264.72	-28025264.49	0.0131	0.0050 *
Moon	-81441-01-07 16:32 J	-28024896.06	-28024895.81	-28024895.55	0.0132	0.0020
Earth	-81441-01-07 19:11 J	-28024895.94	-28024895.70	-28024895.45	0.0132	0.0025 *
Earth	-81440-01-10 21:49 J	-28024526.84	-28024526.59	-28024526.34	0.0132	0.0008
Moon	-81440-01-10 23:59 J	-28024526.74	-28024526.50	-28024526.26	0.0132	0.0011 *
Moon	-81439-01-14 21:35 J	-28024157.86	-28024157.60	-28024157.35	0.0132	0.0011
Earth	-81439-01-15 00:13 J	-28024157.74	-28024157.49	-28024157.24	0.0132	0.0009 *
Earth	-81438-01-19 02:08 J	-28023788.65	-28023788.41	-28023788.15	0.0132	0.0027
Moon	-81438-01-19 04:18 J	-28023788.55	-28023788.32	-28023788.07	0.0132	0.0030 *
Moon	-81437-01-23 02:08 J	-28023419.66	-28023419.41	-28023419.17	0.0132	0.0040
Earth	-81437-01-23 04:32 J	-28023419.54	-28023419.31	-28023419.07	0.0132	0.0044 *
Earth	-81436-01-26 06:42 J	-28023050.43	-28023050.22	-28023049.99	0.0133	0.0062
Moon	-81436-01-26 09:20 J	-28023050.31	-28023050.11	-28023049.89	0.0133	0.0067 *
Moon	-81435-01-30 06:42 J	-28022681.43	-28022681.22	-28022680.99	0.0133	0.0071
Earth	-81435-01-30 09:06 J	-28022681.31	-28022681.12	-28022680.91	0.0133	0.0078 *
Earth	-81434-02-03 11:16 J	-28022312.18	-28022312.03	-28022311.83	0.0133	0.0096
Moon	-81434-02-03 14:08 J	-28022312.05	-28022311.91	-28022311.74	0.0133	0.0102 *
Saturn	-81434-09-06 19:25 J	-28022097.06	-28022096.69	-28022096.24	0.0134	0.0102
Moon	-81433-02-07 12:13 J	-28021943.14	-28021942.99	-28021942.83	0.0134	0.0106
Earth	-81433-02-07 14:23 J	-28021943.02	-28021942.90	-28021942.75	0.0134	0.0112 *
Earth	-81432-02-10 17:44 J	-28021573.82	-28021573.76	-28021573.68	0.0134	0.0128
Moon	-81432-02-10 19:54 J	-28021573.69	-28021573.67	-28021573.59	0.0134	0.0132 *
Venus	-81429-09-13 06:13 J	-28020263.39	-28020263.24	-28020263.07	0.0136	0.0089
Venus	-81428-04-27 11:01 J	-28020037.25	-28020037.04	-28020036.84	0.0136	0.0030
Venus	-81428-12-09 15:35 J	-28019811.05	-28019810.85	-28019810.64	0.0136	0.0031
Venus	-81427-07-23 20:23 J	-28019584.80	-28019584.65	-28019584.48	0.0137	0.0091
Mercury	-81425-01-09 17:16 J	-28019049.81	-28019049.78	-28019049.75	0.0138	0.0133
Mercury	-81425-04-06 20:23 J	-28018961.71	-28018961.65	-28018961.57	0.0138	0.0117
Mercury	-81425-07-03 23:59 J	-28018873.59	-28018873.50	-28018873.40	0.0138	0.0100

Mercury -81425-09-30 03:20 J -28018785.46 -28018785.36 -28018785.24 0.0138 0.0084

Mercury -81425-12-27 06:56 J -28018697.33 -28018697.21 -28018697.09 0.0138 0.0066

Mercury -81424-03-25 10:18 J -28018609.19 -28018609.07 -28018608.94 0.0138 0.0050

Mercury -81424-06-21 13:54 J -28018521.05 -28018520.92 -28018520.78 0.0139 0.0032

Mercury -81424-09-17 17:30 J -28018432.90 -28018432.77 -28018432.63 0.0139 0.0015

Mercury -81424-12-14 21:06 J -28018344.76 -28018344.62 -28018344.48 0.0139 0.0003

Mercury -81423-03-13 00:42 J -28018256.61 -28018256.47 -28018256.34 0.0139 0.0021

Mercury -81423-06-09 04:18 J -28018168.45 -28018168.32 -28018168.19 0.0139 0.0039

Mercury -81423-09-05 07:54 J -28018080.29 -28018080.17 -28018080.04 0.0139 0.0057

Mercury -81423-12-02 11:30 J -28017992.13 -28017992.02 -28017991.90 0.0139 0.0075

Mercury -81422-02-28 15:20 J -28017903.96 -28017903.86 -28017903.76 0.0140 0.0093

Mercury -81422-05-27 18:56 J -28017815.79 -28017815.71 -28017815.63 0.0140 0.0111

Mercury -81422-08-23 22:32 J -28017727.60 -28017727.56 -28017727.50 0.0140 0.0130

Mars -81411-03-08 21:20 J -28013877.61 -28013877.61 -28013877.57 0.0146 0.0146

Mars -81409-02-14 08:37 J -28013170.44 -28013170.14 -28013169.81 0.0146 0.0051

Mars -81407-01-22 10:47 J -28012462.35 -28012462.05 -28012461.71 0.0147 0.0049

Earth -81405-06-08 01:54 J -28011594.49 -28011594.42 -28011594.33 0.0147 0.0140

Moon -81405-06-08 05:16 J -28011594.29 -28011594.28 -28011594.23 0.0147 0.0146

Moon -81404-06-13 03:20 J -28011224.52 -28011224.36 -28011224.18 0.0147 0.0110

Earth -81404-06-13 06:13 J -28011224.37 -28011224.24 -28011224.07 0.0147 0.0119 *

Earth -81403-06-18 11:44 J -28010854.19 -28010854.01 -28010853.80 0.0147 0.0095

Moon -81403-06-18 14:37 J -28010854.06 -28010853.89 -28010853.70 0.0147 0.0102 *

Moon -81402-06-23 15:20 J -28010484.07 -28010483.86 -28010483.61 0.0147 0.0070

Earth -81402-06-23 17:59 J -28010483.97 -28010483.75 -28010483.52 0.0147 0.0071 *

Earth -81401-06-28 00:28 J -28010113.71 -28010113.48 -28010113.23 0.0147 0.0047

Moon -81401-06-28 01:40 J -28010113.66 -28010113.43 -28010113.18 0.0147 0.0043 *

Moon -81400-07-03 06:42 J -28009743.48 -28009743.22 -28009742.95 0.0147 0.0028

Earth -81400-07-03 07:40 J -28009743.43 -28009743.18 -28009742.93 0.0147 0.0022 *

Moon -81399-07-08 14:08 J -28009373.15 -28009372.91 -28009372.66 0.0147 0.0011

Earth -81399-07-08 14:52 J -28009373.13 -28009372.88 -28009372.62 0.0147 0.0004 *

Earth	-81398-07-13 22:04 J	-28009002.82	-28009002.58	-28009002.32	0.0147	0.0029
Moon	-81398-07-13 23:16 J	-28009002.79	-28009002.53	-28009002.26	0.0147	0.0023 *
Moon	-81397-07-18 03:06 J	-28008632.59	-28008632.37	-28008632.12	0.0146	0.0053
Earth	-81397-07-18 05:30 J	-28008632.50	-28008632.27	-28008632.02	0.0146	0.0053 *
Earth	-81396-07-23 12:56 J	-28008262.17	-28008261.96	-28008261.74	0.0146	0.0077
Moon	-81396-07-23 15:35 J	-28008262.05	-28008261.85	-28008261.62	0.0146	0.0083 *
Moon	-81395-07-28 16:47 J	-28007891.98	-28007891.80	-28007891.59	0.0146	0.0094
Earth	-81395-07-28 20:08 J	-28007891.84	-28007891.66	-28007891.47	0.0146	0.0101 *
Earth	-81394-08-03 02:37 J	-28007521.51	-28007521.39	-28007521.24	0.0145	0.0123
Moon	-81394-08-03 06:28 J	-28007521.33	-28007521.23	-28007521.10	0.0145	0.0130 *
Moon	-81393-08-07 05:30 J	-28007151.31	-28007151.27	-28007151.20	0.0145	0.0141
Earth	-81393-08-07 09:35 J	-28007151.10	-28007151.10	-28007151.10	0.0145	0.0145
Venus	-81390-10-07 05:59 J	-28005995.35	-28005995.25	-28005995.11	0.0143	0.0121
Venus	-81389-05-20 19:54 J	-28005768.88	-28005768.67	-28005768.46	0.0142	0.0047
Venus	-81388-01-02 09:06 J	-28005542.34	-28005542.12	-28005541.90	0.0142	0.0026
Venus	-81388-08-16 22:04 J	-28005315.74	-28005315.58	-28005315.41	0.0142	0.0098
Mercury	-81386-08-30 12:56 J	-28004572.04	-28004571.96	-28004571.88	0.0141	0.0125
Mercury	-81386-11-26 20:23 J	-28004483.78	-28004483.65	-28004483.52	0.0140	0.0100
Mercury	-81385-02-23 03:49 J	-28004395.49	-28004395.34	-28004395.18	0.0140	0.0074
Mercury	-81385-05-21 11:16 J	-28004307.20	-28004307.03	-28004306.86	0.0140	0.0049
Mercury	-81385-08-17 18:28 J	-28004218.91	-28004218.73	-28004218.54	0.0140	0.0025
Mercury	-81385-11-14 01:54 J	-28004130.61	-28004130.42	-28004130.24	0.0140	0.0002
Mercury	-81384-02-10 08:52 J	-28004042.30	-28004042.13	-28004041.94	0.0140	0.0025
Mercury	-81384-05-09 16:04 J	-28003954.00	-28003953.83	-28003953.65	0.0140	0.0049
Mercury	-81384-08-05 23:01 J	-28003865.69	-28003865.54	-28003865.37	0.0139	0.0073
Mercury	-81384-11-02 05:59 J	-28003777.37	-28003777.25	-28003777.11	0.0139	0.0096
Mercury	-81383-01-29 12:56 J	-28003689.04	-28003688.96	-28003688.86	0.0139	0.0120
Mars	-81371-09-20 23:01 J	-27999071.73	-27999071.54	-27999071.32	0.0133	0.0093
Mars	-81369-08-19 18:13 J	-27998373.00	-27998372.74	-27998372.45	0.0132	0.0034
Mars	-81367-07-19 07:40 J	-27997674.45	-27997674.18	-27997673.90	0.0132	0.0025

Mars	-81365-06-16 17:01 J	-27996976.01	-27996975.79	-27996975.57	0.0132	0.0081
Moon	-81364-12-15 04:04 J	-27996429.40	-27996429.33	-27996429.21	0.0132	0.0122
Earth	-81364-12-15 06:56 J	-27996429.26	-27996429.21	-27996429.10	0.0132	0.0125 *
Earth	-81363-12-19 11:16 J	-27996060.15	-27996060.03	-27996059.86	0.0131	0.0109
Moon	-81363-12-19 14:08 J	-27996060.03	-27996059.91	-27996059.74	0.0131	0.0108 *
Moon	-81362-12-23 12:42 J	-27995691.14	-27995690.97	-27995690.78	0.0131	0.0094
Earth	-81362-12-23 15:49 J	-27995691.01	-27995690.84	-27995690.65	0.0131	0.0092 *
Earth	-81361-12-26 19:25 J	-27995321.89	-27995321.69	-27995321.47	0.0131	0.0075
Moon	-81361-12-26 21:49 J	-27995321.79	-27995321.59	-27995321.37	0.0131	0.0069 *
Moon	-81360-12-30 19:40 J	-27994952.89	-27994952.68	-27994952.45	0.0131	0.0064
Earth	-81360-12-30 22:47 J	-27994952.77	-27994952.55	-27994952.31	0.0131	0.0058 *
Earth	-81358-01-04 01:40 J	-27994583.66	-27994583.43	-27994583.18	0.0132	0.0041
Moon	-81358-01-04 04:32 J	-27994583.54	-27994583.31	-27994583.07	0.0132	0.0034 *
Moon	-81357-01-08 01:54 J	-27994214.67	-27994214.42	-27994214.16	0.0132	0.0029
Earth	-81357-01-08 04:47 J	-27994214.55	-27994214.30	-27994214.05	0.0132	0.0023 *
Earth	-81356-01-11 07:11 J	-27993845.44	-27993845.20	-27993844.94	0.0132	0.0006
Moon	-81356-01-11 10:18 J	-27993845.31	-27993845.07	-27993844.82	0.0132	0.0001 *
Moon	-81355-01-15 06:42 J	-27993476.47	-27993476.22	-27993475.96	0.0132	0.0012
Earth	-81355-01-15 09:35 J	-27993476.35	-27993476.10	-27993475.85	0.0132	0.0013 *
Earth	-81354-01-19 11:44 J	-27993107.25	-27993107.01	-27993106.76	0.0132	0.0030
Moon	-81354-01-19 14:37 J	-27993107.12	-27993106.89	-27993106.64	0.0132	0.0030 *
Moon	-81353-01-23 11:16 J	-27992738.27	-27992738.03	-27992737.80	0.0132	0.0051
Earth	-81353-01-23 14:08 J	-27992738.14	-27992737.91	-27992737.67	0.0132	0.0048 *
Earth	-81352-01-26 16:04 J	-27992369.03	-27992368.83	-27992368.60	0.0133	0.0066
Moon	-81352-01-26 19:11 J	-27992368.92	-27992368.70	-27992368.48	0.0133	0.0059 *
Moon	-81351-01-30 15:20 J	-27992000.03	-27991999.86	-27991999.65	0.0133	0.0089
Earth	-81351-01-30 18:42 J	-27991999.90	-27991999.72	-27991999.51	0.0133	0.0083 *
Earth	-81350-02-03 21:20 J	-27991630.76	-27991630.61	-27991630.44	0.0133	0.0100
Moon	-81350-02-03 23:44 J	-27991630.66	-27991630.51	-27991630.32	0.0133	0.0094 *
Moon	-81349-02-07 21:20 J	-27991261.70	-27991261.61	-27991261.50	0.0134	0.0122

Earth	-81349-02-08 00:28 J	-27991261.59	-27991261.48	-27991261.35	0.0134	0.0116	*
Earth	-81348-02-11 03:35 J	-27990892.37	-27990892.35	-27990892.30	0.0134	0.0133	
Moon	-81348-02-11 06:13 J	-27990892.28	-27990892.24	-27990892.15	0.0134	0.0130	
Venus	-81345-05-13 17:01 J	-27989704.90	-27989704.79	-27989704.69	0.0136	0.0117	
Venus	-81345-12-25 21:20 J	-27989478.79	-27989478.61	-27989478.41	0.0136	0.0058	
Venus	-81344-08-09 02:08 J	-27989252.62	-27989252.41	-27989252.20	0.0136	0.0002	
Venus	-81343-03-23 06:42 J	-27989026.40	-27989026.22	-27989026.03	0.0137	0.0061	
Venus	-81343-11-04 11:16 J	-27988800.11	-27988800.03	-27988799.92	0.0137	0.0122	
Mercury	-81341-01-30 00:13 J	-27988348.52	-27988348.49	-27988348.44	0.0138	0.0130	
Mercury	-81341-04-27 03:49 J	-27988260.41	-27988260.34	-27988260.26	0.0138	0.0113	
Mercury	-81341-07-24 06:56 J	-27988172.29	-27988172.21	-27988172.10	0.0138	0.0097	
Mercury	-81341-10-20 10:32 J	-27988084.16	-27988084.06	-27988083.94	0.0138	0.0080	
Mercury	-81340-01-16 14:08 J	-27987996.03	-27987995.91	-27987995.79	0.0138	0.0063	
Mercury	-81340-04-14 17:44 J	-27987907.89	-27987907.76	-27987907.64	0.0138	0.0046	
Mercury	-81340-07-11 21:06 J	-27987819.75	-27987819.62	-27987819.48	0.0139	0.0028	
Mercury	-81340-10-08 00:42 J	-27987731.61	-27987731.47	-27987731.33	0.0139	0.0011	
Mercury	-81339-01-04 04:18 J	-27987643.46	-27987643.32	-27987643.19	0.0139	0.0007	
Mercury	-81339-04-02 07:54 J	-27987555.31	-27987555.17	-27987555.04	0.0139	0.0024	
Mercury	-81339-06-29 11:30 J	-27987467.15	-27987467.02	-27987466.89	0.0139	0.0042	
Mercury	-81339-09-25 15:06 J	-27987378.99	-27987378.87	-27987378.75	0.0139	0.0060	
Mercury	-81339-12-22 18:42 J	-27987290.83	-27987290.72	-27987290.60	0.0139	0.0078	
Mercury	-81338-03-20 22:18 J	-27987202.66	-27987202.57	-27987202.47	0.0140	0.0097	
Mercury	-81338-06-17 02:08 J	-27987114.49	-27987114.41	-27987114.33	0.0140	0.0115	
Mercury	-81338-09-13 05:44 J	-27987026.29	-27987026.26	-27987026.21	0.0140	0.0134	
Jupiter	-81332-02-14 02:23 J	-27985045.81	-27985045.40	-27985044.94	0.0143	0.0073	
Mars	-81327-11-03 12:56 J	-27982957.18	-27982956.96	-27982956.71	0.0146	0.0104	
Mars	-81325-10-11 04:47 J	-27982249.63	-27982249.30	-27982248.95	0.0147	0.0009	
Mars	-81323-09-19 10:47 J	-27981541.30	-27981541.05	-27981540.77	0.0147	0.0092	
Earth	-81321-06-08 12:42 J	-27980913.03	-27980912.97	-27980912.86	0.0147	0.0139	
Moon	-81321-06-08 16:32 J	-27980912.91	-27980912.81	-27980912.69	0.0147	0.0132	*

Moon	-81320-06-13 14:08 J	-27980543.04	-27980542.91	-27980542.77	0.0147	0.0125
Earth	-81320-06-13 17:44 J	-27980542.90	-27980542.76	-27980542.60	0.0147	0.0116 *
Earth	-81319-06-18 22:47 J	-27980172.73	-27980172.55	-27980172.34	0.0147	0.0094
Moon	-81319-06-19 01:54 J	-27980172.61	-27980172.42	-27980172.20	0.0147	0.0087 *
Moon	-81318-06-24 02:37 J	-27979802.62	-27979802.39	-27979802.16	0.0147	0.0071
Earth	-81318-06-24 04:47 J	-27979802.51	-27979802.30	-27979802.05	0.0147	0.0070 *
Earth	-81317-06-28 11:16 J	-27979432.26	-27979432.03	-27979431.77	0.0147	0.0044
Moon	-81317-06-28 13:40 J	-27979432.16	-27979431.93	-27979431.69	0.0147	0.0046 *
Moon	-81316-07-03 17:30 J	-27979062.03	-27979061.77	-27979061.50	0.0147	0.0012
Earth	-81316-07-03 18:28 J	-27979061.98	-27979061.73	-27979061.48	0.0147	0.0019 *
Earth	-81315-07-09 01:25 J	-27978691.69	-27978691.44	-27978691.18	0.0147	0.0008
Moon	-81315-07-09 02:08 J	-27978691.66	-27978691.41	-27978691.16	0.0147	0.0001 *
Earth	-81314-07-14 08:23 J	-27978321.39	-27978321.15	-27978320.89	0.0147	0.0033
Moon	-81314-07-14 09:20 J	-27978321.36	-27978321.11	-27978320.84	0.0147	0.0037 *
Moon	-81313-07-18 14:08 J	-27977951.13	-27977950.91	-27977950.66	0.0146	0.0058
Earth	-81313-07-18 15:49 J	-27977951.07	-27977950.84	-27977950.60	0.0146	0.0057 *
Earth	-81312-07-23 22:47 J	-27977580.75	-27977580.55	-27977580.33	0.0146	0.0082
Moon	-81312-07-24 01:11 J	-27977580.67	-27977580.45	-27977580.21	0.0146	0.0077 *
Moon	-81311-07-29 02:37 J	-27977210.54	-27977210.39	-27977210.22	0.0145	0.0114
Earth	-81311-07-29 05:44 J	-27977210.43	-27977210.26	-27977210.07	0.0145	0.0106 *
Earth	-81310-08-03 12:28 J	-27976840.09	-27976839.98	-27976839.86	0.0145	0.0128
Moon	-81310-08-03 15:49 J	-27976839.98	-27976839.84	-27976839.70	0.0145	0.0121 *
Venus	-81305-01-19 00:56 J	-27975210.65	-27975210.46	-27975210.28	0.0143	0.0083
Venus	-81305-09-01 14:08 J	-27974984.13	-27974983.91	-27974983.69	0.0142	0.0010
Venus	-81304-04-16 02:52 J	-27974757.57	-27974757.38	-27974757.16	0.0142	0.0063
Venus	-81304-11-28 16:04 J	-27974530.90	-27974530.83	-27974530.76	0.0142	0.0134
Mercury	-81302-09-19 19:40 J	-27973870.76	-27973870.68	-27973870.57	0.0140	0.0121
Mercury	-81302-12-17 03:06 J	-27973782.49	-27973782.37	-27973782.22	0.0140	0.0096
Mercury	-81301-03-14 10:32 J	-27973694.21	-27973694.06	-27973693.89	0.0140	0.0070
Mercury	-81301-06-10 17:59 J	-27973605.92	-27973605.75	-27973605.57	0.0140	0.0045

Mercury -81301-09-07 01:25 J -27973517.62 -27973517.44 -27973517.25 0.0140 0.0020

Mercury -81301-12-04 08:37 J -27973429.32 -27973429.14 -27973428.95 0.0140 0.0006

Mercury -81300-03-02 15:49 J -27973341.02 -27973340.84 -27973340.66 0.0140 0.0029

Mercury -81300-05-29 23:01 J -27973252.71 -27973252.54 -27973252.37 0.0139 0.0053

Mercury -81300-08-26 05:59 J -27973164.40 -27973164.25 -27973164.09 0.0139 0.0077

Mercury -81300-11-22 12:42 J -27973076.08 -27973075.97 -27973075.83 0.0139 0.0101

Mercury -81299-02-18 19:54 J -27972987.75 -27972987.67 -27972987.58 0.0139 0.0123

Mars -81288-06-15 20:08 J -27968852.72 -27968852.66 -27968852.54 0.0133 0.0127

Mars -81286-05-15 21:20 J -27968153.85 -27968153.61 -27968153.35 0.0133 0.0066

Mars -81284-04-13 15:06 J -27967455.15 -27967454.87 -27967454.59 0.0132 0.0007

Mars -81282-03-13 03:20 J -27966756.60 -27966756.36 -27966756.08 0.0132 0.0050

Mars -81280-02-08 10:18 J -27966058.21 -27966058.07 -27966057.88 0.0132 0.0106

Moon -81280-12-15 11:59 J -27965748.05 -27965748.00 -27965747.91 0.0131 0.0127

Earth -81280-12-15 15:35 J -27965747.92 -27965747.85 -27965747.75 0.0131 0.0124 *

Earth -81279-12-19 19:40 J -27965378.80 -27965378.68 -27965378.51 0.0131 0.0108

Moon -81279-12-19 23:16 J -27965378.67 -27965378.53 -27965378.38 0.0131 0.0107 *

Moon -81278-12-23 21:20 J -27965009.80 -27965009.61 -27965009.42 0.0131 0.0087

Earth -81278-12-23 23:59 J -27965009.67 -27965009.50 -27965009.30 0.0131 0.0091 *

Earth -81277-12-27 03:35 J -27964640.54 -27964640.35 -27964640.12 0.0131 0.0074

Moon -81277-12-27 07:11 J -27964640.39 -27964640.20 -27964639.99 0.0131 0.0078 *

Moon -81276-12-31 04:04 J -27964271.56 -27964271.33 -27964271.08 0.0131 0.0050

Earth -81276-12-31 07:25 J -27964271.42 -27964271.19 -27964270.96 0.0131 0.0056 *

Earth -81274-01-04 10:04 J -27963902.31 -27963902.08 -27963901.82 0.0132 0.0039

Moon -81274-01-04 13:25 J -27963902.16 -27963901.94 -27963901.70 0.0132 0.0046 *

Moon -81273-01-08 10:04 J -27963533.34 -27963533.08 -27963532.83 0.0132 0.0014

Earth -81273-01-08 13:11 J -27963533.19 -27963532.95 -27963532.70 0.0132 0.0021 *

Earth -81272-01-11 15:35 J -27963164.10 -27963163.85 -27963163.59 0.0132 0.0003

Moon -81272-01-11 18:42 J -27963163.97 -27963163.72 -27963163.47 0.0132 0.0006 *

Moon -81271-01-15 14:37 J -27962795.14 -27962794.89 -27962794.64 0.0132 0.0018

Earth -81271-01-15 17:59 J -27962795.00 -27962794.75 -27962794.50 0.0132 0.0016 *

Earth	-81270-01-19 20:08 J	-27962425.90	-27962425.66	-27962425.41	0.0132	0.0034
Moon	-81270-01-19 23:16 J	-27962425.76	-27962425.53	-27962425.29	0.0132	0.0035 *
Moon	-81269-01-23 19:11 J	-27962056.93	-27962056.70	-27962056.46	0.0133	0.0048
Earth	-81269-01-23 22:32 J	-27962056.79	-27962056.56	-27962056.32	0.0133	0.0052 *
Earth	-81268-01-27 00:42 J	-27961687.67	-27961687.47	-27961687.25	0.0133	0.0069
Moon	-81268-01-27 04:04 J	-27961687.52	-27961687.33	-27961687.12	0.0133	0.0074 *
Moon	-81267-01-31 00:13 J	-27961318.69	-27961318.49	-27961318.28	0.0133	0.0079
Earth	-81267-01-31 03:20 J	-27961318.54	-27961318.36	-27961318.17	0.0133	0.0087 *
Earth	-81266-02-04 05:59 J	-27960949.40	-27960949.25	-27960949.09	0.0133	0.0104
Moon	-81266-02-04 09:06 J	-27960949.23	-27960949.12	-27960948.96	0.0133	0.0112 *
Moon	-81265-02-08 05:44 J	-27960580.37	-27960580.26	-27960580.11	0.0134	0.0115
Earth	-81265-02-08 08:52 J	-27960580.21	-27960580.13	-27960580.00	0.0134	0.0121 *
Venus	-81261-08-25 06:56 J	-27958920.36	-27958920.21	-27958920.04	0.0136	0.0088
Venus	-81260-04-08 11:30 J	-27958694.22	-27958694.02	-27958693.81	0.0136	0.0029
Venus	-81260-11-20 16:18 J	-27958468.03	-27958467.82	-27958467.62	0.0137	0.0031
Venus	-81259-07-04 20:52 J	-27958241.78	-27958241.63	-27958241.47	0.0137	0.0091
Mercury	-81257-02-19 07:11 J	-27957647.24	-27957647.20	-27957647.14	0.0138	0.0128
Mercury	-81257-05-17 10:32 J	-27957559.13	-27957559.06	-27957558.97	0.0138	0.0111
Mercury	-81257-08-13 14:08 J	-27957471.01	-27957470.91	-27957470.81	0.0138	0.0094
Mercury	-81257-11-09 17:30 J	-27957382.88	-27957382.77	-27957382.65	0.0138	0.0077
Mercury	-81256-02-05 20:52 J	-27957294.74	-27957294.63	-27957294.50	0.0138	0.0061
Mercury	-81256-05-05 00:28 J	-27957206.60	-27957206.48	-27957206.35	0.0139	0.0043
Mercury	-81256-08-01 04:04 J	-27957118.46	-27957118.33	-27957118.20	0.0139	0.0026
Mercury	-81256-10-28 07:40 J	-27957030.32	-27957030.18	-27957030.05	0.0139	0.0009
Mercury	-81255-01-24 11:16 J	-27956942.17	-27956942.03	-27956941.90	0.0139	0.0010
Mercury	-81255-04-22 14:52 J	-27956854.02	-27956853.88	-27956853.75	0.0139	0.0027
Mercury	-81255-07-19 18:13 J	-27956765.86	-27956765.74	-27956765.60	0.0139	0.0045
Mercury	-81255-10-15 21:49 J	-27956677.70	-27956677.59	-27956677.46	0.0139	0.0063
Mercury	-81254-01-12 01:25 J	-27956589.54	-27956589.44	-27956589.32	0.0139	0.0082
Mercury	-81254-04-10 05:16 J	-27956501.37	-27956501.28	-27956501.18	0.0140	0.0099

Mercury -81254-07-07 08:52 J -27956413.19 -27956413.13 -27956413.05 0.0140 0.0118

Mercury -81254-10-03 12:56 J -27956324.99 -27956324.96 -27956324.94 0.0140 0.0136

Mars -81242-07-01 00:56 J -27952036.75 -27952036.46 -27952036.15 0.0146 0.0064

Mars -81240-06-07 21:20 J -27951328.93 -27951328.61 -27951328.28 0.0147 0.0034

Mars -81238-05-17 08:08 J -27950620.29 -27950620.16 -27950620.01 0.0147 0.0134

Earth -81237-06-08 22:18 J -27950231.64 -27950231.57 -27950231.47 0.0147 0.0138

Moon -81237-06-09 02:08 J -27950231.44 -27950231.41 -27950231.35 0.0147 0.0144

Moon -81236-06-13 23:59 J -27949861.67 -27949861.50 -27949861.32 0.0147 0.0108

Earth -81236-06-14 03:06 J -27949861.51 -27949861.37 -27949861.19 0.0147 0.0116 *

Earth -81235-06-19 08:37 J -27949491.33 -27949491.14 -27949490.93 0.0147 0.0091

Moon -81235-06-19 11:59 J -27949491.17 -27949491.00 -27949490.80 0.0147 0.0098 *

Moon -81234-06-24 11:16 J -27949121.25 -27949121.03 -27949120.79 0.0147 0.0063

Earth -81234-06-24 14:37 J -27949121.11 -27949120.89 -27949120.66 0.0147 0.0067 *

Earth -81233-06-28 20:52 J -27948750.87 -27948750.63 -27948750.37 0.0147 0.0042

Moon -81233-06-28 23:16 J -27948750.77 -27948750.53 -27948750.29 0.0147 0.0038 *

Moon -81232-07-04 01:40 J -27948380.69 -27948380.43 -27948380.16 0.0147 0.0021

Earth -81232-07-04 03:49 J -27948380.59 -27948380.34 -27948380.08 0.0147 0.0016 *

Earth -81231-07-09 10:47 J -27948010.31 -27948010.05 -27948009.79 0.0147 0.0010

Moon -81231-07-09 11:16 J -27948010.27 -27948010.03 -27948009.78 0.0147 0.0018 *

Moon -81230-07-14 17:30 J -27947640.02 -27947639.77 -27947639.50 0.0147 0.0031

Earth -81230-07-14 17:44 J -27947640.00 -27947639.76 -27947639.50 0.0147 0.0037 *

Moon -81229-07-18 23:59 J -27947269.72 -27947269.50 -27947269.27 0.0146 0.0062

Earth -81229-07-19 00:42 J -27947269.69 -27947269.47 -27947269.22 0.0146 0.0062 *

Earth -81228-07-24 07:40 J -27946899.37 -27946899.18 -27946898.95 0.0146 0.0087

Moon -81228-07-24 09:49 J -27946899.29 -27946899.09 -27946898.88 0.0146 0.0091 *

Moon -81227-07-29 12:13 J -27946529.14 -27946528.99 -27946528.79 0.0145 0.0105

Earth -81227-07-29 14:52 J -27946529.04 -27946528.88 -27946528.70 0.0145 0.0111 *

Earth -81226-08-03 21:20 J -27946158.70 -27946158.61 -27946158.50 0.0145 0.0133

Moon -81226-08-04 00:42 J -27946158.52 -27946158.47 -27946158.39 0.0145 0.0140 *

Venus -81222-09-18 05:16 J -27944652.39 -27944652.28 -27944652.15 0.0143 0.0120

Venus -81221-05-01 18:42 J -27944425.92 -27944425.72 -27944425.50 0.0142 0.0047

Venus -81221-12-14 08:08 J -27944199.38 -27944199.16 -27944198.94 0.0142 0.0027

Venus -81220-07-28 20:52 J -27943972.77 -27943972.63 -27943972.45 0.0142 0.0099

Mercury -81218-10-10 02:37 J -27943169.48 -27943169.39 -27943169.28 0.0140 0.0116

Mercury -81217-01-06 10:18 J -27943081.21 -27943081.07 -27943080.93 0.0140 0.0091

Mercury -81217-04-03 17:44 J -27942992.92 -27942992.76 -27942992.60 0.0140 0.0066

Mercury -81217-07-01 00:56 J -27942904.63 -27942904.46 -27942904.28 0.0140 0.0041

Mercury -81217-09-27 08:23 J -27942816.33 -27942816.15 -27942815.97 0.0140 0.0016

Mercury -81217-12-24 15:35 J -27942728.03 -27942727.85 -27942727.66 0.0140 0.0009

Mercury -81216-03-22 22:47 J -27942639.73 -27942639.55 -27942639.37 0.0140 0.0033

Mercury -81216-06-19 05:59 J -27942551.42 -27942551.25 -27942551.09 0.0139 0.0057

Mercury -81216-09-15 12:42 J -27942463.11 -27942462.97 -27942462.81 0.0139 0.0081

Mercury -81216-12-12 19:40 J -27942374.79 -27942374.68 -27942374.55 0.0139 0.0104

Mercury -81215-03-11 02:37 J -27942286.45 -27942286.39 -27942286.31 0.0139 0.0127

Mars -81203-02-07 21:49 J -27937934.78 -27937934.59 -27937934.40 0.0133 0.0099

Mars -81201-01-07 19:54 J -27937235.93 -27937235.67 -27937235.39 0.0133 0.0040

Mars -81200-12-06 12:56 J -27936537.23 -27936536.96 -27936536.67 0.0132 0.0018

Mars -81198-11-04 23:30 J -27935838.73 -27935838.52 -27935838.27 0.0132 0.0075

Mars -81196-10-03 05:01 J -27935140.32 -27935140.29 -27935140.21 0.0131 0.0129

Moon -81196-12-15 20:08 J -27935066.74 -27935066.66 -27935066.53 0.0131 0.0120

Earth -81196-12-15 23:30 J -27935066.58 -27935066.52 -27935066.41 0.0131 0.0124 *

Earth -81195-12-20 04:18 J -27934697.45 -27934697.32 -27934697.16 0.0131 0.0107

Moon -81195-12-20 07:40 J -27934697.31 -27934697.18 -27934697.02 0.0131 0.0106 *

Moon -81194-12-24 05:01 J -27934328.46 -27934328.29 -27934328.10 0.0131 0.0091

Earth -81194-12-24 08:37 J -27934328.31 -27934328.14 -27934327.94 0.0131 0.0089 *

Earth -81193-12-27 12:28 J -27933959.19 -27933958.98 -27933958.77 0.0131 0.0072

Moon -81193-12-27 15:49 J -27933959.06 -27933958.84 -27933958.63 0.0131 0.0067 *

Moon -81192-12-31 12:13 J -27933590.21 -27933589.99 -27933589.76 0.0131 0.0061

Earth -81192-12-31 15:35 J -27933590.07 -27933589.85 -27933589.60 0.0131 0.0054 *

Earth -81190-01-04 18:28 J -27933220.96 -27933220.73 -27933220.47 0.0131 0.0037

Moon	-81190-01-04 22:04 J	-27933220.82	-27933220.58	-27933220.33	0.0131	0.0029	*
Moon	-81189-01-08 18:13 J	-27932851.99	-27932851.74	-27932851.49	0.0132	0.0024	
Earth	-81189-01-08 21:35 J	-27932851.85	-27932851.60	-27932851.35	0.0132	0.0018	*
Earth	-81188-01-11 23:59 J	-27932482.75	-27932482.50	-27932482.25	0.0132	0.0001	
Moon	-81188-01-12 03:35 J	-27932482.60	-27932482.35	-27932482.10	0.0132	0.0006	*
Moon	-81187-01-15 22:47 J	-27932113.80	-27932113.55	-27932113.30	0.0132	0.0016	
Earth	-81187-01-16 02:08 J	-27932113.66	-27932113.41	-27932113.16	0.0132	0.0019	*
Earth	-81186-01-20 04:04 J	-27931744.56	-27931744.33	-27931744.07	0.0132	0.0038	
Moon	-81186-01-20 07:54 J	-27931744.40	-27931744.17	-27931743.93	0.0132	0.0036	*
Moon	-81185-01-24 03:20 J	-27931375.59	-27931375.36	-27931375.13	0.0132	0.0057	
Earth	-81185-01-24 06:42 J	-27931375.44	-27931375.22	-27931374.99	0.0132	0.0055	*
Earth	-81184-01-27 08:37 J	-27931006.33	-27931006.14	-27931005.92	0.0133	0.0073	
Moon	-81184-01-27 12:13 J	-27931006.20	-27931005.99	-27931005.77	0.0133	0.0067	*
Moon	-81183-01-31 07:25 J	-27930637.34	-27930637.19	-27930637.00	0.0133	0.0097	
Earth	-81183-01-31 11:16 J	-27930637.20	-27930637.03	-27930636.83	0.0133	0.0090	*
Earth	-81182-02-04 14:08 J	-27930268.05	-27930267.91	-27930267.76	0.0133	0.0108	
Moon	-81182-02-04 17:01 J	-27930267.92	-27930267.79	-27930267.61	0.0133	0.0102	*
Moon	-81181-02-08 13:54 J	-27929898.97	-27929898.92	-27929898.88	0.0134	0.0131	
Earth	-81181-02-08 17:01 J	-27929898.86	-27929898.79	-27929898.68	0.0134	0.0125	
Venus	-81177-04-24 15:49 J	-27928361.93	-27928361.84	-27928361.73	0.0136	0.0119	
Venus	-81177-12-06 20:23 J	-27928135.83	-27928135.65	-27928135.45	0.0136	0.0060	
Venus	-81176-07-21 00:56 J	-27927909.67	-27927909.46	-27927909.24	0.0136	0.0004	
Venus	-81175-03-04 05:30 J	-27927683.45	-27927683.27	-27927683.07	0.0137	0.0059	
Venus	-81175-10-16 10:18 J	-27927457.16	-27927457.07	-27927456.96	0.0137	0.0119	
Mercury	-81173-03-10 13:54 J	-27926945.97	-27926945.92	-27926945.86	0.0138	0.0126	
Mercury	-81173-06-06 17:30 J	-27926857.85	-27926857.77	-27926857.69	0.0138	0.0109	
Mercury	-81173-09-02 20:37 J	-27926769.73	-27926769.64	-27926769.53	0.0138	0.0093	
Mercury	-81173-11-29 23:59 J	-27926681.60	-27926681.50	-27926681.38	0.0138	0.0077	
Mercury	-81172-02-26 03:35 J	-27926593.47	-27926593.35	-27926593.22	0.0138	0.0059	
Mercury	-81172-05-25 07:11 J	-27926505.33	-27926505.20	-27926505.07	0.0139	0.0042	

Mercury -81172-08-21 10:47 J -27926417.19 -27926417.05 -27926416.92 0.0139 0.0024
 Mercury -81172-11-17 14:08 J -27926329.04 -27926328.91 -27926328.77 0.0139 0.0008
 Mercury -81171-02-13 17:44 J -27926240.89 -27926240.76 -27926240.62 0.0139 0.0011
 Mercury -81171-05-12 21:20 J -27926152.74 -27926152.61 -27926152.47 0.0139 0.0029
 Mercury -81171-08-09 00:56 J -27926064.59 -27926064.46 -27926064.33 0.0139 0.0046
 Mercury -81171-11-05 04:32 J -27925976.43 -27925976.31 -27925976.18 0.0139 0.0065
 Mercury -81170-02-01 08:08 J -27925888.26 -27925888.16 -27925888.04 0.0140 0.0083
 Mercury -81170-04-30 11:59 J -27925800.09 -27925800.00 -27925799.91 0.0140 0.0101
 Mercury -81170-07-27 15:35 J -27925711.91 -27925711.85 -27925711.77 0.0140 0.0120
 Mercury -81170-10-23 19:25 J -27925623.71 -27925623.69 -27925623.67 0.0140 0.0138
 Mars -81159-03-20 00:13 J -27921823.69 -27921823.49 -27921823.29 0.0146 0.0116
 Mars -81157-02-25 08:52 J -27921116.46 -27921116.13 -27921115.79 0.0146 0.0023
 Mars -81155-02-02 10:47 J -27920408.34 -27920408.05 -27920407.76 0.0147 0.0075
 Earth -81153-06-09 05:30 J -27919550.33 -27919550.27 -27919550.16 0.0147 0.0139
 Moon -81153-06-09 09:06 J -27919550.21 -27919550.12 -27919550.00 0.0147 0.0132 *
 Moon -81152-06-14 07:11 J -27919180.34 -27919180.20 -27919180.06 0.0147 0.0123
 Earth -81152-06-14 10:47 J -27919180.20 -27919180.05 -27919179.89 0.0147 0.0114 *
 Earth -81151-06-19 15:49 J -27918810.03 -27918809.84 -27918809.63 0.0147 0.0090
 Moon -81151-06-19 19:11 J -27918809.89 -27918809.70 -27918809.47 0.0147 0.0084 *
 Moon -81150-06-24 18:42 J -27918439.95 -27918439.72 -27918439.49 0.0147 0.0068
 Earth -81150-06-24 21:49 J -27918439.81 -27918439.59 -27918439.35 0.0147 0.0065 *
 Earth -81149-06-29 04:18 J -27918069.56 -27918069.32 -27918069.07 0.0147 0.0039
 Moon -81149-06-29 07:25 J -27918069.42 -27918069.19 -27918068.94 0.0147 0.0040 *
 Moon -81148-07-04 08:52 J -27917699.39 -27917699.13 -27917698.86 0.0147 0.0007
 Earth -81148-07-04 11:01 J -27917699.29 -27917699.04 -27917698.78 0.0147 0.0013 *
 Earth -81147-07-09 18:13 J -27917329.00 -27917328.74 -27917328.49 0.0147 0.0014
 Moon -81147-07-09 19:54 J -27917328.92 -27917328.67 -27917328.42 0.0147 0.0006 *
 Moon -81146-07-15 00:13 J -27916958.73 -27916958.49 -27916958.22 0.0147 0.0046
 Earth -81146-07-15 01:11 J -27916958.70 -27916958.45 -27916958.20 0.0147 0.0040 *
 Moon -81145-07-19 08:08 J -27916588.38 -27916588.16 -27916587.93 0.0146 0.0065

Earth -81145-07-19 08:23 J -27916588.38 -27916588.15 -27916587.92 0.0146 0.0066 *
 Earth -81144-07-24 15:06 J -27916218.06 -27916217.87 -27916217.65 0.0146 0.0091
 Moon -81144-07-24 16:18 J -27916218.03 -27916217.82 -27916217.60 0.0146 0.0087 *
 Moon -81143-07-29 19:54 J -27915847.79 -27915847.67 -27915847.52 0.0145 0.0123
 Earth -81143-07-29 22:18 J -27915847.72 -27915847.57 -27915847.41 0.0145 0.0115 *
 Earth -81142-08-04 04:47 J -27915477.36 -27915477.30 -27915477.21 0.0145 0.0138
 Moon -81142-08-04 06:56 J -27915477.30 -27915477.21 -27915477.07 0.0145 0.0131 *
 Venus -81138-12-30 22:47 J -27913867.72 -27913867.55 -27913867.36 0.0143 0.0084
 Venus -81137-08-13 12:13 J -27913641.21 -27913640.99 -27913640.76 0.0142 0.0011
 Venus -81136-03-28 01:25 J -27913414.64 -27913414.44 -27913414.24 0.0142 0.0061
 Venus -81136-11-09 14:08 J -27913187.98 -27913187.91 -27913187.83 0.0142 0.0133
 Mercury -81134-08-03 01:25 J -27912556.45 -27912556.44 -27912556.39 0.0141 0.0139
 Mercury -81134-10-30 09:20 J -27912468.22 -27912468.11 -27912468.00 0.0140 0.0113
 Mercury -81133-01-26 16:47 J -27912379.94 -27912379.80 -27912379.65 0.0140 0.0088
 Mercury -81133-04-24 00:13 J -27912291.65 -27912291.49 -27912291.32 0.0140 0.0062
 Mercury -81133-07-21 07:40 J -27912203.36 -27912203.18 -27912203.00 0.0140 0.0038
 Mercury -81133-10-17 14:52 J -27912115.06 -27912114.88 -27912114.69 0.0140 0.0013
 Mercury -81132-01-13 22:04 J -27912026.76 -27912026.58 -27912026.39 0.0140 0.0012
 Mercury -81132-04-12 05:16 J -27911938.46 -27911938.28 -27911938.10 0.0140 0.0036
 Mercury -81132-07-09 12:28 J -27911850.15 -27911849.98 -27911849.82 0.0139 0.0060
 Mercury -81132-10-05 19:25 J -27911761.84 -27911761.69 -27911761.54 0.0139 0.0084
 Mercury -81131-01-02 02:08 J -27911673.51 -27911673.41 -27911673.28 0.0139 0.0107
 Mercury -81131-03-31 09:06 J -27911585.17 -27911585.12 -27911585.05 0.0139 0.0130
 Mars -81121-11-02 15:49 J -27907715.87 -27907715.84 -27907715.77 0.0134 0.0132
 Mars -81119-10-02 20:37 J -27907016.87 -27907016.64 -27907016.39 0.0133 0.0072
 Mars -81117-08-31 17:59 J -27906318.03 -27906317.75 -27906317.46 0.0132 0.0014
 Mars -81115-07-31 07:54 J -27905619.43 -27905619.17 -27905618.90 0.0132 0.0043
 Mars -81113-06-28 16:18 J -27904921.01 -27904920.82 -27904920.63 0.0132 0.0098
 Moon -81112-12-16 03:35 J -27904385.40 -27904385.35 -27904385.27 0.0131 0.0127
 Earth -81112-12-16 07:40 J -27904385.27 -27904385.18 -27904385.09 0.0131 0.0123 *

Earth	-81111-12-20 12:13 J	-27904016.14	-27904015.99	-27904015.84	0.0131	0.0106
Moon	-81111-12-20 15:20 J	-27904015.99	-27904015.86	-27904015.68	0.0131	0.0105 *
Moon	-81110-12-24 12:28 J	-27903647.15	-27903646.98	-27903646.76	0.0131	0.0087
Earth	-81110-12-24 16:18 J	-27903647.00	-27903646.82	-27903646.62	0.0131	0.0088 *
Earth	-81109-12-27 19:54 J	-27903277.87	-27903277.67	-27903277.45	0.0131	0.0070
Moon	-81109-12-27 23:30 J	-27903277.71	-27903277.52	-27903277.30	0.0131	0.0075 *
Moon	-81108-12-31 19:40 J	-27902908.91	-27902908.68	-27902908.43	0.0131	0.0047
Earth	-81108-12-31 23:01 J	-27902908.76	-27902908.54	-27902908.29	0.0131	0.0053 *
Earth	-81106-01-05 02:08 J	-27902539.65	-27902539.41	-27902539.16	0.0131	0.0034
Moon	-81106-01-05 05:30 J	-27902539.49	-27902539.27	-27902539.02	0.0131	0.0042 *
Moon	-81105-01-09 01:25 J	-27902170.69	-27902170.44	-27902170.19	0.0132	0.0009
Earth	-81105-01-09 04:47 J	-27902170.54	-27902170.30	-27902170.04	0.0132	0.0016 *
Earth	-81104-01-12 07:11 J	-27901801.45	-27901801.20	-27901800.95	0.0132	0.0003
Moon	-81104-01-12 10:32 J	-27901801.31	-27901801.06	-27901800.81	0.0132	0.0002 *
Moon	-81103-01-16 05:30 J	-27901432.51	-27901432.27	-27901432.01	0.0132	0.0025
Earth	-81103-01-16 09:35 J	-27901432.35	-27901432.10	-27901431.86	0.0132	0.0021 *
Earth	-81102-01-20 11:30 J	-27901063.25	-27901063.02	-27901062.77	0.0132	0.0040
Moon	-81102-01-20 15:06 J	-27901063.11	-27901062.87	-27901062.63	0.0132	0.0039 *
Moon	-81101-01-24 10:18 J	-27900694.29	-27900694.07	-27900693.84	0.0132	0.0055
Earth	-81101-01-24 13:40 J	-27900694.14	-27900693.93	-27900693.69	0.0132	0.0059 *
Earth	-81100-01-27 16:18 J	-27900325.02	-27900324.82	-27900324.61	0.0133	0.0076
Moon	-81100-01-27 19:40 J	-27900324.86	-27900324.68	-27900324.47	0.0133	0.0081 *
Moon	-81099-01-31 15:35 J	-27899956.04	-27899955.85	-27899955.66	0.0133	0.0087
Earth	-81099-01-31 18:42 J	-27899955.88	-27899955.72	-27899955.53	0.0133	0.0094 *
Earth	-81098-02-04 21:35 J	-27899586.72	-27899586.60	-27899586.46	0.0133	0.0112
Moon	-81098-02-05 00:56 J	-27899586.54	-27899586.46	-27899586.33	0.0133	0.0120 *
Moon	-81097-02-08 21:06 J	-27899217.69	-27899217.62	-27899217.50	0.0134	0.0123
Earth	-81097-02-09 00:56 J	-27899217.52	-27899217.46	-27899217.39	0.0134	0.0129 *
Venus	-81093-08-06 04:47 J	-27897577.44	-27897577.30	-27897577.13	0.0136	0.0092
Venus	-81092-03-20 09:20 J	-27897351.31	-27897351.11	-27897350.90	0.0136	0.0033

Venus -81092-11-01 13:54 J -27897125.13 -27897124.92 -27897124.71 0.0136 0.0026
 Venus -81091-06-15 18:13 J -27896898.89 -27896898.74 -27896898.56 0.0137 0.0087
 Mercury -81089-03-30 20:23 J -27896244.70 -27896244.65 -27896244.59 0.0138 0.0125
 Mercury -81089-06-26 23:44 J -27896156.58 -27896156.51 -27896156.42 0.0138 0.0109
 Mercury -81089-09-23 03:06 J -27896068.46 -27896068.37 -27896068.26 0.0138 0.0092
 Mercury -81089-12-20 06:42 J -27895980.33 -27895980.22 -27895980.10 0.0138 0.0075
 Mercury -81088-03-18 10:04 J -27895892.20 -27895892.08 -27895891.95 0.0138 0.0058
 Mercury -81088-06-14 13:40 J -27895804.06 -27895803.93 -27895803.80 0.0139 0.0041
 Mercury -81088-09-10 17:16 J -27895715.92 -27895715.78 -27895715.65 0.0139 0.0023
 Mercury -81088-12-07 20:37 J -27895627.77 -27895627.64 -27895627.50 0.0139 0.0008
 Mercury -81087-03-06 00:13 J -27895539.62 -27895539.49 -27895539.35 0.0139 0.0012
 Mercury -81087-06-02 03:49 J -27895451.47 -27895451.34 -27895451.20 0.0139 0.0030
 Mercury -81087-08-29 07:25 J -27895363.32 -27895363.19 -27895363.06 0.0139 0.0047
 Mercury -81087-11-25 11:01 J -27895275.16 -27895275.04 -27895274.91 0.0139 0.0066
 Mercury -81086-02-21 14:37 J -27895186.99 -27895186.89 -27895186.77 0.0139 0.0084
 Mercury -81086-05-20 18:28 J -27895098.82 -27895098.73 -27895098.64 0.0140 0.0102
 Mercury -81086-08-16 22:04 J -27895010.64 -27895010.58 -27895010.51 0.0140 0.0121
 Mercury -81086-11-13 01:54 J -27894922.43 -27894922.42 -27894922.40 0.0140 0.0139
 Mars -81075-11-14 01:11 J -27890903.72 -27890903.45 -27890903.15 0.0146 0.0078
 Mars -81073-10-21 15:35 J -27890196.17 -27890195.85 -27890195.50 0.0146 0.0018
 Mars -81071-09-29 21:49 J -27889487.79 -27889487.59 -27889487.37 0.0147 0.0115
 Earth -81069-06-09 11:01 J -27888869.10 -27888869.04 -27888868.93 0.0147 0.0138
 Moon -81069-06-09 14:23 J -27888868.94 -27888868.90 -27888868.82 0.0147 0.0143 *
 Moon -81068-06-14 12:28 J -27888499.13 -27888498.98 -27888498.79 0.0147 0.0108
 Earth -81068-06-14 15:49 J -27888498.98 -27888498.84 -27888498.67 0.0147 0.0114 *
 Earth -81067-06-19 20:52 J -27888128.81 -27888128.63 -27888128.41 0.0147 0.0090
 Moon -81067-06-20 00:42 J -27888128.65 -27888128.47 -27888128.26 0.0147 0.0097 *
 Moon -81066-06-24 23:16 J -27887758.76 -27887758.53 -27887758.29 0.0147 0.0059
 Earth -81066-06-25 02:52 J -27887758.60 -27887758.38 -27887758.14 0.0147 0.0064 *
 Earth -81065-06-29 09:06 J -27887388.36 -27887388.12 -27887387.86 0.0147 0.0037

Moon -81065-06-29 12:28 J -27887388.22 -27887387.98 -27887387.73 0.0147 0.0035 *
 Moon -81064-07-04 12:42 J -27887018.23 -27887017.97 -27887017.71 0.0147 0.0016
 Earth -81064-07-04 16:04 J -27887018.09 -27887017.83 -27887017.57 0.0147 0.0010 *
 Earth -81063-07-09 22:47 J -27886647.81 -27886647.55 -27886647.29 0.0147 0.0016
 Moon -81063-07-10 00:42 J -27886647.71 -27886647.47 -27886647.21 0.0147 0.0024 *
 Moon -81062-07-15 04:04 J -27886277.58 -27886277.33 -27886277.07 0.0147 0.0036
 Earth -81062-07-15 05:59 J -27886277.50 -27886277.25 -27886277.01 0.0147 0.0043 *
 Earth -81061-07-19 12:42 J -27885907.18 -27885906.97 -27885906.72 0.0146 0.0070
 Moon -81061-07-19 13:40 J -27885907.14 -27885906.93 -27885906.70 0.0146 0.0072 *
 Earth -81060-07-24 19:40 J -27885536.85 -27885536.68 -27885536.46 0.0146 0.0095
 Moon -81060-07-24 20:08 J -27885536.84 -27885536.66 -27885536.44 0.0146 0.0098 *
 Moon -81059-07-30 02:08 J -27885166.55 -27885166.41 -27885166.24 0.0146 0.0114
 Earth -81059-07-30 02:52 J -27885166.51 -27885166.38 -27885166.21 0.0146 0.0120 *
 Earth -81058-08-04 10:18 J -27884796.12 -27884796.07 -27884796.03 0.0145 0.0143
 Venus -81054-08-30 01:25 J -27883309.54 -27883309.44 -27883309.33 0.0143 0.0124
 Venus -81053-04-12 14:52 J -27883083.08 -27883082.88 -27883082.66 0.0143 0.0051
 Venus -81053-11-25 04:18 J -27882856.54 -27882856.32 -27882856.10 0.0142 0.0022
 Venus -81052-07-09 17:30 J -27882629.93 -27882629.77 -27882629.60 0.0142 0.0094
 Mercury -81050-08-23 07:40 J -27881855.21 -27881855.18 -27881855.13 0.0141 0.0137
 Mercury -81050-11-19 15:06 J -27881766.97 -27881766.87 -27881766.74 0.0141 0.0112
 Mercury -81049-02-15 22:32 J -27881678.69 -27881678.56 -27881678.40 0.0140 0.0087
 Mercury -81049-05-14 05:59 J -27881590.40 -27881590.25 -27881590.07 0.0140 0.0062
 Mercury -81049-08-10 13:25 J -27881502.11 -27881501.94 -27881501.75 0.0140 0.0037
 Mercury -81049-11-06 20:52 J -27881413.81 -27881413.63 -27881413.44 0.0140 0.0012
 Mercury -81048-02-03 04:04 J -27881325.51 -27881325.33 -27881325.14 0.0140 0.0014
 Mercury -81048-05-02 11:16 J -27881237.20 -27881237.03 -27881236.85 0.0140 0.0038
 Mercury -81048-07-29 18:28 J -27881148.89 -27881148.73 -27881148.56 0.0140 0.0062
 Mercury -81048-10-26 01:25 J -27881060.58 -27881060.44 -27881060.29 0.0139 0.0086
 Mercury -81047-01-22 08:08 J -27880972.25 -27880972.16 -27880972.03 0.0139 0.0110
 Mercury -81047-04-20 15:20 J -27880883.91 -27880883.86 -27880883.80 0.0139 0.0132

Jupiter	-81041-01-01 21:06 J	-27878802.05	-27878801.62	-27878801.14	0.0136	0.0068
Mars	-81036-06-27 16:47 J	-27876797.96	-27876797.80	-27876797.60	0.0133	0.0105
Mars	-81034-05-27 19:54 J	-27876098.93	-27876098.67	-27876098.39	0.0133	0.0046
Mars	-81032-04-25 14:52 J	-27875400.15	-27875399.88	-27875399.59	0.0132	0.0012
Mars	-81030-03-25 02:37 J	-27874701.62	-27874701.39	-27874701.14	0.0132	0.0068
Mars	-81028-02-20 10:04 J	-27874003.16	-27874003.08	-27874002.95	0.0131	0.0122
Moon	-81028-12-16 12:28 J	-27873704.08	-27873703.98	-27873703.86	0.0131	0.0118
Earth	-81028-12-16 15:49 J	-27873703.92	-27873703.84	-27873703.74	0.0131	0.0123 *
Earth	-81027-12-20 20:08 J	-27873334.79	-27873334.66	-27873334.48	0.0131	0.0106
Moon	-81027-12-20 23:59 J	-27873334.64	-27873334.50	-27873334.33	0.0131	0.0105 *
Moon	-81026-12-24 20:52 J	-27872965.80	-27872965.63	-27872965.43	0.0131	0.0088
Earth	-81026-12-25 00:28 J	-27872965.65	-27872965.48	-27872965.27	0.0131	0.0088 *
Earth	-81025-12-28 03:49 J	-27872596.53	-27872596.34	-27872596.10	0.0131	0.0070
Moon	-81025-12-28 07:40 J	-27872596.40	-27872596.18	-27872595.95	0.0131	0.0065 *
Moon	-81023-01-01 03:49 J	-27872227.56	-27872227.34	-27872227.11	0.0131	0.0057
Earth	-81023-01-01 07:25 J	-27872227.41	-27872227.19	-27872226.95	0.0131	0.0050 *
Earth	-81022-01-05 10:32 J	-27871858.31	-27871858.06	-27871857.82	0.0131	0.0032
Moon	-81022-01-05 13:40 J	-27871858.17	-27871857.93	-27871857.67	0.0131	0.0026 *
Moon	-81021-01-09 09:35 J	-27871489.35	-27871489.10	-27871488.85	0.0132	0.0020
Earth	-81021-01-09 13:11 J	-27871489.20	-27871488.95	-27871488.70	0.0132	0.0013 *
Earth	-81020-01-12 15:35 J	-27871120.11	-27871119.85	-27871119.60	0.0132	0.0006
Moon	-81020-01-12 19:11 J	-27871119.95	-27871119.70	-27871119.45	0.0132	0.0012 *
Moon	-81019-01-16 14:23 J	-27870751.14	-27870750.90	-27870750.65	0.0132	0.0021
Earth	-81019-01-16 17:44 J	-27870751.00	-27870750.76	-27870750.50	0.0132	0.0025 *
Earth	-81018-01-20 19:54 J	-27870381.89	-27870381.67	-27870381.42	0.0132	0.0044
Moon	-81018-01-20 23:44 J	-27870381.74	-27870381.51	-27870381.26	0.0132	0.0043 *
Moon	-81017-01-24 19:11 J	-27870012.91	-27870012.70	-27870012.48	0.0132	0.0063
Earth	-81017-01-24 22:32 J	-27870012.78	-27870012.56	-27870012.33	0.0132	0.0062 *
Earth	-81016-01-28 00:42 J	-27869643.66	-27869643.47	-27869643.26	0.0133	0.0080
Moon	-81016-01-28 04:04 J	-27869643.52	-27869643.33	-27869643.11	0.0133	0.0075 *

Moon -81015-01-31 23:30 J -27869274.64 -27869274.52 -27869274.34 0.0133 0.0105
 Earth -81015-02-01 03:20 J -27869274.51 -27869274.36 -27869274.18 0.0133 0.0098 *
 Earth -81014-02-05 06:13 J -27868905.34 -27868905.24 -27868905.10 0.0133 0.0116
 Moon -81014-02-05 09:35 J -27868905.23 -27868905.10 -27868904.94 0.0133 0.0109 *
 Earth -81013-02-09 09:35 J -27868536.10 -27868536.10 -27868536.08 0.0134 0.0133
 Venus -81009-04-05 14:08 J -27867018.99 -27867018.91 -27867018.81 0.0136 0.0122
 Venus -81009-11-17 18:28 J -27866792.90 -27866792.73 -27866792.53 0.0136 0.0064
 Venus -81008-07-01 23:01 J -27866566.75 -27866566.54 -27866566.32 0.0136 0.0005
 Venus -81007-02-13 03:35 J -27866340.54 -27866340.35 -27866340.15 0.0137 0.0055
 Venus -81007-09-27 08:08 J -27866114.26 -27866114.16 -27866114.04 0.0137 0.0115
 Mercury -81005-04-20 03:20 J -27865543.42 -27865543.36 -27865543.31 0.0138 0.0123
 Mercury -81005-07-17 06:28 J -27865455.31 -27865455.23 -27865455.14 0.0138 0.0107
 Mercury -81005-10-13 09:49 J -27865367.18 -27865367.09 -27865366.98 0.0138 0.0090
 Mercury -81004-01-09 13:25 J -27865279.05 -27865278.94 -27865278.82 0.0138 0.0073
 Mercury -81004-04-07 16:47 J -27865190.92 -27865190.80 -27865190.67 0.0138 0.0057
 Mercury -81004-07-04 20:23 J -27865102.78 -27865102.65 -27865102.52 0.0138 0.0039
 Mercury -81004-09-30 23:59 J -27865014.64 -27865014.50 -27865014.37 0.0139 0.0022
 Mercury -81004-12-28 03:20 J -27864926.49 -27864926.36 -27864926.22 0.0139 0.0006
 Mercury -81003-03-26 06:56 J -27864838.34 -27864838.21 -27864838.07 0.0139 0.0014
 Mercury -81003-06-22 10:32 J -27864750.19 -27864750.06 -27864749.92 0.0139 0.0031
 Mercury -81003-09-18 14:08 J -27864662.03 -27864661.91 -27864661.78 0.0139 0.0049
 Mercury -81003-12-15 17:44 J -27864573.87 -27864573.76 -27864573.64 0.0139 0.0067
 Mercury -81002-03-13 21:20 J -27864485.71 -27864485.61 -27864485.49 0.0139 0.0086
 Mercury -81002-06-10 01:11 J -27864397.54 -27864397.45 -27864397.36 0.0140 0.0104
 Mercury -81002-09-06 05:01 J -27864309.36 -27864309.29 -27864309.23 0.0140 0.0122

81ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 81st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-80992-08-03 04:04 J		-27860690.46	-27860690.33	-27860690.15	0.0145	0.0129	
Mars	-80990-07-11 05:44 J		-27859983.57	-27859983.26	-27859982.93	0.0146	0.0039	
Mars	-80988-06-18 00:56 J		-27859275.75	-27859275.46	-27859275.13	0.0147	0.0058	
Earth	-80985-06-09 17:01 J		-27858187.85	-27858187.79	-27858187.68	0.0147	0.0139	
Moon	-80985-06-09 19:25 J		-27858187.77	-27858187.69	-27858187.56	0.0147	0.0134	*
Moon	-80984-06-14 18:28 J		-27857817.85	-27857817.73	-27857817.58	0.0147	0.0122	
Earth	-80984-06-14 21:49 J		-27857817.74	-27857817.59	-27857817.42	0.0147	0.0114	*
Earth	-80983-06-20 02:37 J		-27857447.58	-27857447.39	-27857447.17	0.0147	0.0089	
Moon	-80983-06-20 06:13 J		-27857447.45	-27857447.24	-27857447.02	0.0147	0.0081	*
Moon	-80982-06-25 04:47 J		-27857077.51	-27857077.30	-27857077.06	0.0147	0.0066	
Earth	-80982-06-25 08:23 J		-27857077.37	-27857077.15	-27857076.90	0.0147	0.0063	*
Earth	-80981-06-29 14:37 J		-27856707.13	-27856706.89	-27856706.63	0.0147	0.0036	
Moon	-80981-06-29 18:28 J		-27856706.97	-27856706.73	-27856706.48	0.0147	0.0035	*
Moon	-80980-07-04 17:59 J		-27856337.01	-27856336.75	-27856336.49	0.0147	0.0004	
Earth	-80980-07-04 21:20 J		-27856336.87	-27856336.61	-27856336.35	0.0147	0.0008	*
Earth	-80979-07-10 04:04 J		-27855966.58	-27855966.33	-27855966.07	0.0147	0.0019	
Moon	-80979-07-10 07:11 J		-27855966.45	-27855966.20	-27855965.95	0.0147	0.0011	*
Moon	-80978-07-15 08:23 J		-27855596.38	-27855596.15	-27855595.89	0.0147	0.0053	
Earth	-80978-07-15 11:01 J		-27855596.28	-27855596.04	-27855595.79	0.0147	0.0046	*
Earth	-80977-07-19 17:59 J		-27855225.96	-27855225.75	-27855225.52	0.0146	0.0073	
Moon	-80977-07-19 19:11 J		-27855225.90	-27855225.70	-27855225.46	0.0146	0.0071	*

Moon	-80976-07-24 23:59 J	-27854855.68	-27854855.50	-27854855.28	0.0146	0.0097
Earth	-80976-07-25 01:11 J	-27854855.63	-27854855.45	-27854855.25	0.0146	0.0098 *
Moon	-80975-07-30 07:40 J	-27854485.28	-27854485.18	-27854485.06	0.0145	0.0130
Earth	-80975-07-30 08:23 J	-27854485.28	-27854485.15	-27854485.01	0.0145	0.0123 *
Moon	-80974-08-04 16:04 J	-27854114.89	-27854114.83	-27854114.74	0.0145	0.0139
Venus	-80970-12-11 17:16 J	-27852524.94	-27852524.78	-27852524.60	0.0143	0.0091
Venus	-80969-07-25 06:56 J	-27852298.43	-27852298.21	-27852297.99	0.0143	0.0018
Venus	-80968-03-08 19:54 J	-27852071.87	-27852071.67	-27852071.45	0.0142	0.0055
Venus	-80968-10-21 09:06 J	-27851845.22	-27851845.12	-27851845.02	0.0142	0.0126
Mercury	-80966-09-12 13:25 J	-27851153.97	-27851153.94	-27851153.88	0.0141	0.0136
Mercury	-80966-12-09 20:52 J	-27851065.73	-27851065.63	-27851065.50	0.0141	0.0111
Mercury	-80965-03-07 04:47 J	-27850977.45	-27850977.30	-27850977.15	0.0140	0.0085
Mercury	-80965-06-03 12:13 J	-27850889.16	-27850888.99	-27850888.82	0.0140	0.0060
Mercury	-80965-08-30 19:25 J	-27850800.87	-27850800.69	-27850800.50	0.0140	0.0035
Mercury	-80965-11-27 02:52 J	-27850712.57	-27850712.38	-27850712.20	0.0140	0.0010
Mercury	-80964-02-23 10:04 J	-27850624.26	-27850624.08	-27850623.89	0.0140	0.0015
Mercury	-80964-05-22 17:16 J	-27850535.96	-27850535.78	-27850535.60	0.0140	0.0039
Mercury	-80964-08-19 00:13 J	-27850447.65	-27850447.49	-27850447.32	0.0140	0.0063
Mercury	-80964-11-15 07:11 J	-27850359.33	-27850359.20	-27850359.04	0.0139	0.0087
Mercury	-80963-02-11 14:23 J	-27850271.00	-27850270.90	-27850270.79	0.0139	0.0110
Mercury	-80963-05-10 21:06 J	-27850182.65	-27850182.62	-27850182.56	0.0139	0.0134
Mars	-80951-02-19 16:04 J	-27845880.04	-27845879.83	-27845879.58	0.0133	0.0078
Mars	-80949-01-19 17:01 J	-27845181.07	-27845180.79	-27845180.51	0.0133	0.0020
Mars	-80948-12-18 09:20 J	-27844482.37	-27844482.11	-27844481.83	0.0132	0.0037
Mars	-80946-11-16 20:37 J	-27843783.82	-27843783.64	-27843783.41	0.0132	0.0092
Moon	-80944-12-16 19:40 J	-27843022.73	-27843022.68	-27843022.59	0.0131	0.0127
Earth	-80944-12-16 23:01 J	-27843022.61	-27843022.54	-27843022.42	0.0131	0.0123 *
Earth	-80943-12-21 03:49 J	-27842653.47	-27842653.34	-27842653.17	0.0131	0.0105
Moon	-80943-12-21 07:40 J	-27842653.34	-27842653.18	-27842653.02	0.0131	0.0102 *
Moon	-80942-12-25 04:47 J	-27842284.47	-27842284.30	-27842284.09	0.0131	0.0085

Earth	-80942-12-25 08:08 J	-27842284.34	-27842284.16	-27842283.95	0.0131	0.0086	*
Earth	-80941-12-28 11:44 J	-27841915.21	-27841915.01	-27841914.78	0.0131	0.0068	
Moon	-80941-12-28 15:20 J	-27841915.06	-27841914.86	-27841914.63	0.0131	0.0072	*
Moon	-80939-01-01 12:13 J	-27841546.22	-27841545.99	-27841545.75	0.0131	0.0044	
Earth	-80939-01-01 15:20 J	-27841546.09	-27841545.86	-27841545.62	0.0131	0.0049	*
Earth	-80938-01-05 18:13 J	-27841176.98	-27841176.74	-27841176.49	0.0132	0.0030	
Moon	-80938-01-05 21:49 J	-27841176.83	-27841176.59	-27841176.34	0.0132	0.0037	*
Moon	-80937-01-09 17:44 J	-27840808.00	-27840807.76	-27840807.51	0.0132	0.0004	
Earth	-80937-01-09 21:06 J	-27840807.87	-27840807.62	-27840807.37	0.0132	0.0011	*
Earth	-80936-01-12 23:30 J	-27840438.77	-27840438.52	-27840438.27	0.0132	0.0008	
Moon	-80936-01-13 02:52 J	-27840438.63	-27840438.38	-27840438.12	0.0132	0.0003	*
Moon	-80935-01-16 22:32 J	-27840069.79	-27840069.56	-27840069.31	0.0132	0.0031	
Earth	-80935-01-17 02:08 J	-27840069.65	-27840069.41	-27840069.16	0.0132	0.0027	*
Earth	-80934-01-21 04:32 J	-27839700.54	-27839700.31	-27839700.07	0.0132	0.0046	
Moon	-80934-01-21 07:54 J	-27839700.41	-27839700.17	-27839699.93	0.0132	0.0045	*
Moon	-80933-01-25 03:35 J	-27839331.56	-27839331.35	-27839331.13	0.0132	0.0063	
Earth	-80933-01-25 06:42 J	-27839331.42	-27839331.22	-27839330.99	0.0132	0.0066	*
Earth	-80932-01-28 09:20 J	-27838962.29	-27838962.11	-27838961.90	0.0133	0.0084	
Moon	-80932-01-28 12:42 J	-27838962.15	-27838961.97	-27838961.77	0.0133	0.0088	*
Moon	-80931-02-01 09:20 J	-27838593.27	-27838593.11	-27838592.93	0.0133	0.0096	
Earth	-80931-02-01 12:28 J	-27838593.13	-27838592.98	-27838592.81	0.0133	0.0102	*
Earth	-80930-02-05 15:06 J	-27838223.96	-27838223.87	-27838223.75	0.0133	0.0120	
Moon	-80930-02-05 18:42 J	-27838223.78	-27838223.72	-27838223.63	0.0133	0.0128	*
Moon	-80929-02-09 15:06 J	-27837854.89	-27837854.87	-27837854.80	0.0134	0.0132	
Venus	-80925-07-18 04:18 J	-27836234.46	-27836234.32	-27836234.15	0.0136	0.0093	
Venus	-80924-03-01 08:52 J	-27836008.33	-27836008.13	-27836007.92	0.0136	0.0034	
Venus	-80924-10-13 13:11 J	-27835782.15	-27835781.95	-27835781.74	0.0136	0.0025	
Venus	-80923-05-27 17:44 J	-27835555.91	-27835555.76	-27835555.59	0.0137	0.0085	
Mercury	-80921-02-12 06:42 J	-27834930.22	-27834930.22	-27834930.20	0.0138	0.0137	
Mercury	-80921-05-10 10:04 J	-27834842.13	-27834842.08	-27834842.01	0.0138	0.0121	

Mercury -80921-08-06 13:25 J -27834754.02 -27834753.94 -27834753.84 0.0138 0.0104
 Mercury -80921-11-02 17:01 J -27834665.89 -27834665.79 -27834665.68 0.0138 0.0087
 Mercury -80920-01-29 20:23 J -27834577.76 -27834577.65 -27834577.53 0.0138 0.0070
 Mercury -80920-04-27 23:59 J -27834489.62 -27834489.50 -27834489.38 0.0138 0.0053
 Mercury -80920-07-25 03:20 J -27834401.49 -27834401.36 -27834401.22 0.0138 0.0036
 Mercury -80920-10-21 06:56 J -27834313.34 -27834313.21 -27834313.07 0.0139 0.0018
 Mercury -80919-01-17 10:32 J -27834225.20 -27834225.06 -27834224.93 0.0139 0.0002
 Mercury -80919-04-15 14:08 J -27834137.05 -27834136.91 -27834136.78 0.0139 0.0017
 Mercury -80919-07-12 17:30 J -27834048.90 -27834048.77 -27834048.63 0.0139 0.0035
 Mercury -80919-10-08 21:20 J -27833960.74 -27833960.61 -27833960.49 0.0139 0.0053
 Mercury -80918-01-05 00:56 J -27833872.58 -27833872.46 -27833872.34 0.0139 0.0071
 Mercury -80918-04-03 04:32 J -27833784.41 -27833784.31 -27833784.20 0.0139 0.0089
 Mercury -80918-06-30 08:08 J -27833696.24 -27833696.16 -27833696.07 0.0140 0.0107
 Mercury -80918-09-26 11:44 J -27833608.06 -27833608.01 -27833607.94 0.0140 0.0126
 Mars -80907-03-30 10:47 J -27829770.30 -27829770.05 -27829769.78 0.0145 0.0090
 Mars -80905-03-06 18:13 J -27829063.07 -27829062.74 -27829062.40 0.0146 0.0003
 Mars -80903-02-12 17:44 J -27828355.01 -27828354.76 -27828354.51 0.0147 0.0098
 Earth -80901-06-10 01:25 J -27827506.51 -27827506.44 -27827506.34 0.0147 0.0138
 Moon -80901-06-10 04:04 J -27827506.39 -27827506.33 -27827506.26 0.0147 0.0142 *
 Moon -80900-06-15 03:20 J -27827136.52 -27827136.36 -27827136.18 0.0147 0.0107
 Earth -80900-06-15 05:59 J -27827136.41 -27827136.25 -27827136.09 0.0147 0.0113 *
 Earth -80899-06-20 10:47 J -27826766.25 -27826766.05 -27826765.84 0.0147 0.0087
 Moon -80899-06-20 13:54 J -27826766.10 -27826765.92 -27826765.71 0.0147 0.0094 *
 Moon -80898-06-25 12:42 J -27826396.19 -27826395.97 -27826395.73 0.0147 0.0055
 Earth -80898-06-25 16:04 J -27826396.05 -27826395.83 -27826395.58 0.0147 0.0061 *
 Earth -80897-06-29 22:04 J -27826025.82 -27826025.58 -27826025.32 0.0147 0.0033
 Moon -80897-06-30 01:40 J -27826025.67 -27826025.43 -27826025.17 0.0147 0.0033 *
 Moon -80896-07-05 00:56 J -27825655.71 -27825655.46 -27825655.20 0.0147 0.0010
 Earth -80896-07-05 04:47 J -27825655.55 -27825655.30 -27825655.04 0.0147 0.0005 *
 Earth -80895-07-10 11:16 J -27825285.28 -27825285.03 -27825284.77 0.0147 0.0022

Moon	-80895-07-10 14:37 J	-27825285.14	-27825284.89	-27825284.65	0.0147	0.0029	*
Moon	-80894-07-15 15:35 J	-27824915.10	-27824914.85	-27824914.60	0.0147	0.0042	
Earth	-80894-07-15 18:13 J	-27824914.97	-27824914.74	-27824914.49	0.0147	0.0050	*
Earth	-80893-07-20 01:11 J	-27824544.65	-27824544.45	-27824544.21	0.0146	0.0077	
Moon	-80893-07-20 03:35 J	-27824544.54	-27824544.35	-27824544.13	0.0146	0.0081	*
Moon	-80892-07-25 07:11 J	-27824174.37	-27824174.20	-27824174.00	0.0146	0.0104	
Earth	-80892-07-25 08:37 J	-27824174.32	-27824174.14	-27824173.95	0.0146	0.0102	*
Earth	-80891-07-30 15:35 J	-27823803.96	-27823803.85	-27823803.72	0.0145	0.0128	
Moon	-80891-07-30 16:18 J	-27823803.94	-27823803.82	-27823803.67	0.0145	0.0123	*
Venus	-80886-08-10 20:23 J	-27821966.73	-27821966.65	-27821966.54	0.0143	0.0130	
Venus	-80885-03-24 10:04 J	-27821740.28	-27821740.08	-27821739.87	0.0143	0.0057	
Venus	-80885-11-05 23:30 J	-27821513.74	-27821513.52	-27821513.29	0.0142	0.0016	
Venus	-80884-06-20 12:42 J	-27821287.14	-27821286.97	-27821286.79	0.0142	0.0088	
Mercury	-80882-10-02 19:40 J	-27820452.72	-27820452.68	-27820452.61	0.0141	0.0134	
Mercury	-80882-12-30 03:20 J	-27820364.47	-27820364.36	-27820364.23	0.0141	0.0108	
Mercury	-80881-03-27 10:47 J	-27820276.19	-27820276.05	-27820275.89	0.0140	0.0083	
Mercury	-80881-06-23 18:13 J	-27820187.90	-27820187.74	-27820187.56	0.0140	0.0058	
Mercury	-80881-09-20 01:40 J	-27820099.60	-27820099.43	-27820099.24	0.0140	0.0033	
Mercury	-80881-12-17 09:06 J	-27820011.30	-27820011.12	-27820010.93	0.0140	0.0007	
Mercury	-80880-03-15 16:18 J	-27819923.00	-27819922.82	-27819922.63	0.0140	0.0017	
Mercury	-80880-06-11 23:30 J	-27819834.69	-27819834.52	-27819834.34	0.0140	0.0042	
Mercury	-80880-09-08 06:42 J	-27819746.38	-27819746.22	-27819746.06	0.0139	0.0066	
Mercury	-80880-12-05 13:40 J	-27819658.06	-27819657.93	-27819657.78	0.0139	0.0090	
Mercury	-80879-03-03 20:37 J	-27819569.74	-27819569.64	-27819569.53	0.0139	0.0113	
Mercury	-80879-05-31 03:35 J	-27819481.37	-27819481.35	-27819481.31	0.0139	0.0136	
Mars	-80869-11-14 10:04 J	-27815661.24	-27815661.08	-27815660.91	0.0134	0.0110	
Mars	-80867-10-14 17:30 J	-27814962.03	-27814961.77	-27814961.50	0.0133	0.0051	
Mars	-80865-09-12 15:20 J	-27814263.15	-27814262.86	-27814262.58	0.0132	0.0006	
Mars	-80863-08-12 05:44 J	-27813564.49	-27813564.26	-27813563.99	0.0132	0.0062	
Mars	-80861-07-10 16:32 J	-27812865.93	-27812865.81	-27812865.66	0.0132	0.0115	

Moon	-80860-12-17 04:47 J	-27812341.39	-27812341.30	-27812341.17	0.0132	0.0117
Earth	-80860-12-17 07:54 J	-27812341.25	-27812341.17	-27812341.07	0.0132	0.0122 *
Earth	-80859-12-21 12:28 J	-27811972.12	-27811971.98	-27811971.81	0.0131	0.0104
Moon	-80859-12-21 15:49 J	-27811971.99	-27811971.84	-27811971.68	0.0131	0.0105 *
Moon	-80858-12-25 13:25 J	-27811603.11	-27811602.94	-27811602.74	0.0131	0.0086
Earth	-80858-12-25 16:47 J	-27811602.99	-27811602.80	-27811602.60	0.0131	0.0085 *
Earth	-80857-12-28 20:23 J	-27811233.86	-27811233.65	-27811233.43	0.0131	0.0066
Moon	-80857-12-28 23:16 J	-27811233.75	-27811233.53	-27811233.29	0.0131	0.0063 *
Moon	-80855-01-01 20:37 J	-27810864.86	-27810864.64	-27810864.41	0.0131	0.0053
Earth	-80855-01-01 23:44 J	-27810864.74	-27810864.51	-27810864.26	0.0131	0.0047 *
Earth	-80854-01-06 02:52 J	-27810495.62	-27810495.38	-27810495.13	0.0132	0.0028
Moon	-80854-01-06 05:59 J	-27810495.50	-27810495.25	-27810495.00	0.0132	0.0021 *
Moon	-80853-01-10 02:37 J	-27810126.63	-27810126.39	-27810126.14	0.0132	0.0015
Earth	-80853-01-10 05:44 J	-27810126.51	-27810126.26	-27810126.01	0.0132	0.0008 *
Earth	-80852-01-13 08:23 J	-27809757.40	-27809757.15	-27809756.90	0.0132	0.0011
Moon	-80852-01-13 11:44 J	-27809757.27	-27809757.01	-27809756.76	0.0132	0.0017 *
Moon	-80851-01-17 08:08 J	-27809388.39	-27809388.16	-27809387.91	0.0132	0.0026
Earth	-80851-01-17 11:16 J	-27809388.28	-27809388.03	-27809387.79	0.0132	0.0030 *
Earth	-80850-01-21 13:40 J	-27809019.16	-27809018.93	-27809018.70	0.0132	0.0050
Moon	-80850-01-21 16:47 J	-27809019.03	-27809018.80	-27809018.56	0.0132	0.0050 *
Moon	-80849-01-25 13:11 J	-27808650.14	-27808649.95	-27808649.73	0.0132	0.0070
Earth	-80849-01-25 16:18 J	-27808650.03	-27808649.82	-27808649.60	0.0132	0.0069 *
Earth	-80848-01-28 18:42 J	-27808280.89	-27808280.72	-27808280.52	0.0133	0.0088
Moon	-80848-01-28 21:35 J	-27808280.77	-27808280.60	-27808280.38	0.0133	0.0084 *
Moon	-80847-02-01 18:28 J	-27807911.83	-27807911.73	-27807911.58	0.0133	0.0113
Earth	-80847-02-01 22:04 J	-27807911.73	-27807911.58	-27807911.43	0.0133	0.0106 *
Earth	-80846-02-06 00:28 J	-27807542.54	-27807542.48	-27807542.37	0.0133	0.0126
Moon	-80846-02-06 03:20 J	-27807542.45	-27807542.36	-27807542.22	0.0133	0.0119 *
Venus	-80841-03-17 14:23 J	-27805675.97	-27805675.90	-27805675.79	0.0136	0.0122
Venus	-80841-10-29 18:56 J	-27805449.89	-27805449.71	-27805449.52	0.0136	0.0063

Venus	-80840-06-12 23:30 J	-27805223.73	-27805223.52	-27805223.31	0.0136	0.0005
Venus	-80839-01-25 03:49 J	-27804997.52	-27804997.34	-27804997.14	0.0137	0.0056
Venus	-80839-09-08 08:23 J	-27804771.24	-27804771.15	-27804771.02	0.0137	0.0116
Mercury	-80837-03-03 13:54 J	-27804228.94	-27804228.92	-27804228.89	0.0138	0.0134
Mercury	-80837-05-30 17:16 J	-27804140.84	-27804140.78	-27804140.71	0.0138	0.0117
Mercury	-80837-08-26 20:37 J	-27804052.72	-27804052.64	-27804052.54	0.0138	0.0101
Mercury	-80837-11-22 23:59 J	-27803964.60	-27803964.50	-27803964.38	0.0138	0.0084
Mercury	-80836-02-19 03:35 J	-27803876.46	-27803876.35	-27803876.23	0.0138	0.0067
Mercury	-80836-05-18 07:11 J	-27803788.33	-27803788.20	-27803788.08	0.0138	0.0050
Mercury	-80836-08-14 10:32 J	-27803700.19	-27803700.06	-27803699.92	0.0138	0.0032
Mercury	-80836-11-10 14:08 J	-27803612.04	-27803611.91	-27803611.77	0.0139	0.0015
Mercury	-80835-02-06 17:44 J	-27803523.90	-27803523.76	-27803523.63	0.0139	0.0003
Mercury	-80835-05-05 21:06 J	-27803435.75	-27803435.62	-27803435.48	0.0139	0.0021
Mercury	-80835-08-02 00:56 J	-27803347.60	-27803347.46	-27803347.33	0.0139	0.0038
Mercury	-80835-10-29 04:18 J	-27803259.44	-27803259.32	-27803259.19	0.0139	0.0057
Mercury	-80834-01-25 07:54 J	-27803171.28	-27803171.17	-27803171.05	0.0139	0.0075
Mercury	-80834-04-23 11:44 J	-27803083.11	-27803083.01	-27803082.91	0.0140	0.0093
Mercury	-80834-07-20 15:20 J	-27802994.94	-27802994.86	-27802994.77	0.0140	0.0111
Mercury	-80834-10-16 18:56 J	-27802906.75	-27802906.71	-27802906.65	0.0140	0.0130
Mars	-80825-12-18 05:01 J	-27799556.38	-27799556.29	-27799556.16	0.0145	0.0136
Mars	-80823-11-24 23:30 J	-27798849.83	-27798849.52	-27798849.20	0.0146	0.0049
Mars	-80821-11-01 11:30 J	-27798142.33	-27798142.02	-27798141.68	0.0146	0.0044
Mars	-80819-10-10 14:23 J	-27797433.97	-27797433.90	-27797433.77	0.0147	0.0140
Earth	-80817-06-10 11:44 J	-27796825.09	-27796825.01	-27796824.90	0.0147	0.0137
Moon	-80817-06-10 13:11 J	-27796825.05	-27796824.95	-27796824.84	0.0147	0.0133 *
Moon	-80816-06-15 13:40 J	-27796455.07	-27796454.93	-27796454.78	0.0147	0.0118
Earth	-80816-06-15 15:49 J	-27796454.99	-27796454.84	-27796454.66	0.0147	0.0111 *
Earth	-80815-06-20 20:23 J	-27796084.84	-27796084.65	-27796084.42	0.0147	0.0086
Moon	-80815-06-20 23:30 J	-27796084.74	-27796084.52	-27796084.30	0.0147	0.0077 *
Moon	-80814-06-25 23:01 J	-27795714.76	-27795714.54	-27795714.31	0.0147	0.0062

Earth -80814-06-26 02:23 J -27795714.64 -27795714.40 -27795714.17 0.0147 0.0058 *
 Earth -80813-06-30 08:08 J -27795344.41 -27795344.16 -27795343.91 0.0147 0.0030
 Moon -80813-06-30 11:44 J -27795344.26 -27795344.01 -27795343.75 0.0147 0.0029 *
 Moon -80812-07-05 10:47 J -27794974.30 -27794974.05 -27794973.79 0.0147 0.0003
 Earth -80812-07-05 14:23 J -27794974.15 -27794973.90 -27794973.64 0.0147 0.0003 *
 Earth -80811-07-10 20:52 J -27794603.88 -27794603.63 -27794603.37 0.0147 0.0026
 Moon -80811-07-11 00:28 J -27794603.72 -27794603.48 -27794603.22 0.0147 0.0018 *
 Moon -80810-07-16 00:28 J -27794233.70 -27794233.48 -27794233.23 0.0147 0.0061
 Earth -80810-07-16 04:04 J -27794233.57 -27794233.33 -27794233.09 0.0147 0.0053 *
 Earth -80809-07-20 11:01 J -27793863.25 -27793863.04 -27793862.82 0.0146 0.0080
 Moon -80809-07-20 13:11 J -27793863.15 -27793862.95 -27793862.72 0.0146 0.0078 *
 Moon -80808-07-25 15:35 J -27793493.01 -27793492.85 -27793492.65 0.0146 0.0107
 Earth -80808-07-25 17:59 J -27793492.91 -27793492.75 -27793492.56 0.0146 0.0107 *
 Earth -80807-07-31 00:56 J -27793122.55 -27793122.46 -27793122.34 0.0145 0.0133
 Moon -80807-07-31 01:40 J -27793122.48 -27793122.43 -27793122.33 0.0145 0.0139 *
 Venus -80802-11-22 14:37 J -27791182.05 -27791181.89 -27791181.71 0.0143 0.0093
 Venus -80801-07-06 04:18 J -27790955.54 -27790955.32 -27790955.10 0.0143 0.0020
 Venus -80800-02-17 17:16 J -27790728.98 -27790728.78 -27790728.56 0.0142 0.0053
 Venus -80800-10-02 05:59 J -27790502.34 -27790502.25 -27790502.13 0.0142 0.0124
 Mercury -80798-10-23 02:52 J -27789751.45 -27789751.38 -27789751.31 0.0141 0.0129
 Mercury -80797-01-19 10:04 J -27789663.19 -27789663.08 -27789662.94 0.0140 0.0104
 Mercury -80797-04-16 17:44 J -27789574.91 -27789574.76 -27789574.60 0.0140 0.0078
 Mercury -80797-07-14 01:11 J -27789486.62 -27789486.45 -27789486.27 0.0140 0.0053
 Mercury -80797-10-10 08:37 J -27789398.32 -27789398.14 -27789397.96 0.0140 0.0028
 Mercury -80796-01-06 16:04 J -27789310.02 -27789309.83 -27789309.65 0.0140 0.0004
 Mercury -80796-04-04 23:16 J -27789221.71 -27789221.53 -27789221.35 0.0140 0.0021
 Mercury -80796-07-02 06:28 J -27789133.41 -27789133.23 -27789133.06 0.0140 0.0046
 Mercury -80796-09-28 13:25 J -27789045.09 -27789044.94 -27789044.78 0.0139 0.0070
 Mercury -80796-12-25 20:37 J -27788956.77 -27788956.64 -27788956.50 0.0139 0.0093
 Mercury -80795-03-24 03:20 J -27788868.44 -27788868.36 -27788868.25 0.0139 0.0117

Mars	-80784-07-09 12:56 J	-27784743.16	-27784742.96	-27784742.71	0.0133	0.0084
Mars	-80782-06-08 16:32 J	-27784044.08	-27784043.81	-27784043.52	0.0133	0.0025
Mars	-80780-05-07 12:13 J	-27783345.26	-27783344.99	-27783344.71	0.0132	0.0032
Mars	-80778-04-06 02:08 J	-27782646.60	-27782646.41	-27782646.17	0.0132	0.0086
Moon	-80776-12-17 13:25 J	-27781660.00	-27781659.94	-27781659.87	0.0132	0.0126
Earth	-80776-12-17 16:18 J	-27781659.92	-27781659.82	-27781659.72	0.0132	0.0121 *
Earth	-80775-12-21 20:37 J	-27781290.79	-27781290.64	-27781290.47	0.0131	0.0103
Moon	-80775-12-21 23:01 J	-27781290.69	-27781290.54	-27781290.35	0.0131	0.0100 *
Moon	-80774-12-25 22:18 J	-27780921.76	-27780921.57	-27780921.38	0.0131	0.0084
Earth	-80774-12-26 00:42 J	-27780921.66	-27780921.47	-27780921.27	0.0131	0.0084 *
Earth	-80773-12-29 04:18 J	-27780552.53	-27780552.32	-27780552.09	0.0131	0.0064
Moon	-80773-12-29 07:25 J	-27780552.41	-27780552.19	-27780551.96	0.0131	0.0068 *
Moon	-80771-01-02 05:30 J	-27780183.50	-27780183.27	-27780183.03	0.0132	0.0041
Earth	-80771-01-02 07:40 J	-27780183.40	-27780183.18	-27780182.93	0.0132	0.0046 *
Earth	-80770-01-06 10:47 J	-27779814.29	-27779814.05	-27779813.79	0.0132	0.0026
Moon	-80770-01-06 13:54 J	-27779814.17	-27779813.92	-27779813.67	0.0132	0.0032 *
Moon	-80769-01-10 11:30 J	-27779445.27	-27779445.02	-27779444.78	0.0132	0.0003
Earth	-80769-01-10 13:54 J	-27779445.17	-27779444.92	-27779444.66	0.0132	0.0006 *
Earth	-80768-01-13 16:32 J	-27779076.05	-27779075.81	-27779075.55	0.0132	0.0014
Moon	-80768-01-13 19:11 J	-27779075.95	-27779075.70	-27779075.44	0.0132	0.0008 *
Moon	-80767-01-17 16:32 J	-27778707.04	-27778706.81	-27778706.57	0.0132	0.0038
Earth	-80767-01-17 19:25 J	-27778706.93	-27778706.69	-27778706.44	0.0132	0.0033 *
Earth	-80766-01-21 21:49 J	-27778337.80	-27778337.59	-27778337.34	0.0132	0.0054
Moon	-80766-01-22 00:28 J	-27778337.71	-27778337.48	-27778337.24	0.0132	0.0050 *
Moon	-80765-01-25 21:49 J	-27777968.78	-27777968.59	-27777968.37	0.0132	0.0072
Earth	-80765-01-26 00:42 J	-27777968.67	-27777968.47	-27777968.25	0.0132	0.0073 *
Earth	-80764-01-29 03:20 J	-27777599.52	-27777599.36	-27777599.16	0.0133	0.0092
Moon	-80764-01-29 06:13 J	-27777599.41	-27777599.24	-27777599.05	0.0133	0.0095 *
Moon	-80763-02-02 04:04 J	-27777230.46	-27777230.33	-27777230.17	0.0133	0.0106
Earth	-80763-02-02 06:13 J	-27777230.35	-27777230.24	-27777230.08	0.0133	0.0111 *

Earth	-80762-02-06 09:06 J	-27776861.16	-27776861.12	-27776861.04	0.0133	0.0130
Venus	-80757-06-29 04:32 J	-27774891.45	-27774891.31	-27774891.15	0.0136	0.0093
Venus	-80756-02-10 08:52 J	-27774665.32	-27774665.13	-27774664.92	0.0136	0.0035
Venus	-80756-09-24 13:25 J	-27774439.14	-27774438.94	-27774438.73	0.0136	0.0026
Venus	-80755-05-08 18:13 J	-27774212.90	-27774212.74	-27774212.57	0.0137	0.0085
Mercury	-80753-03-23 20:52 J	-27773527.66	-27773527.63	-27773527.59	0.0138	0.0131
Mercury	-80753-06-20 00:13 J	-27773439.56	-27773439.49	-27773439.41	0.0138	0.0115
Mercury	-80753-09-16 03:35 J	-27773351.43	-27773351.35	-27773351.25	0.0138	0.0098
Mercury	-80753-12-13 07:11 J	-27773263.31	-27773263.20	-27773263.09	0.0138	0.0081
Mercury	-80752-03-11 10:32 J	-27773175.17	-27773175.06	-27773174.93	0.0138	0.0064
Mercury	-80752-06-07 14:08 J	-27773087.04	-27773086.91	-27773086.78	0.0138	0.0047
Mercury	-80752-09-03 17:30 J	-27772998.90	-27772998.77	-27772998.63	0.0139	0.0030
Mercury	-80752-11-30 21:06 J	-27772910.75	-27772910.62	-27772910.48	0.0139	0.0012
Mercury	-80751-02-27 00:42 J	-27772822.60	-27772822.47	-27772822.33	0.0139	0.0006
Mercury	-80751-05-26 04:18 J	-27772734.45	-27772734.32	-27772734.19	0.0139	0.0024
Mercury	-80751-08-22 07:54 J	-27772646.30	-27772646.17	-27772646.04	0.0139	0.0041
Mercury	-80751-11-18 11:30 J	-27772558.14	-27772558.02	-27772557.90	0.0139	0.0059
Mercury	-80750-02-14 15:06 J	-27772469.98	-27772469.87	-27772469.75	0.0139	0.0078
Mercury	-80750-05-13 18:42 J	-27772381.81	-27772381.72	-27772381.62	0.0140	0.0096
Mercury	-80750-08-09 22:18 J	-27772293.64	-27772293.57	-27772293.48	0.0140	0.0115
Mercury	-80750-11-06 02:08 J	-27772205.44	-27772205.41	-27772205.36	0.0140	0.0133
Mars	-80740-08-14 13:40 J	-27768636.16	-27768635.93	-27768635.67	0.0145	0.0098
Mars	-80738-07-22 14:08 J	-27767929.24	-27767928.91	-27767928.57	0.0146	0.0009
Mars	-80736-06-29 06:42 J	-27767221.47	-27767221.22	-27767220.92	0.0147	0.0086
Earth	-80733-06-10 22:32 J	-27766143.64	-27766143.56	-27766143.45	0.0147	0.0135
Moon	-80733-06-10 23:44 J	-27766143.58	-27766143.51	-27766143.41	0.0147	0.0138 *
Moon	-80732-06-16 01:11 J	-27765773.61	-27765773.45	-27765773.26	0.0147	0.0104
Earth	-80732-06-16 02:37 J	-27765773.55	-27765773.39	-27765773.21	0.0147	0.0109 *
Earth	-80731-06-21 07:25 J	-27765403.40	-27765403.19	-27765402.98	0.0147	0.0082
Moon	-80731-06-21 09:49 J	-27765403.29	-27765403.09	-27765402.87	0.0147	0.0090 *

Moon	-80730-06-26 09:49 J	-27765033.32	-27765033.09	-27765032.85	0.0147	0.0049
Earth	-80730-06-26 12:42 J	-27765033.20	-27765032.97	-27765032.73	0.0147	0.0055 *
Earth	-80729-06-30 18:28 J	-27764662.98	-27764662.73	-27764662.47	0.0147	0.0027
Moon	-80729-06-30 21:49 J	-27764662.84	-27764662.59	-27764662.33	0.0147	0.0028 *
Moon	-80728-07-05 21:06 J	-27764292.87	-27764292.62	-27764292.36	0.0147	0.0004
Earth	-80728-07-06 00:56 J	-27764292.72	-27764292.46	-27764292.20	0.0147	0.0001 *
Earth	-80727-07-11 07:25 J	-27763922.44	-27763922.19	-27763921.93	0.0147	0.0029
Moon	-80727-07-11 10:47 J	-27763922.29	-27763922.05	-27763921.79	0.0147	0.0037 *
Moon	-80726-07-16 11:01 J	-27763552.28	-27763552.04	-27763551.79	0.0146	0.0050
Earth	-80726-07-16 14:23 J	-27763552.13	-27763551.90	-27763551.65	0.0146	0.0058 *
Earth	-80725-07-20 21:20 J	-27763181.81	-27763181.61	-27763181.39	0.0146	0.0085
Moon	-80725-07-21 00:42 J	-27763181.66	-27763181.47	-27763181.26	0.0146	0.0090 *
Moon	-80724-07-26 01:54 J	-27762811.57	-27762811.42	-27762811.23	0.0146	0.0113
Earth	-80724-07-26 04:18 J	-27762811.47	-27762811.32	-27762811.14	0.0146	0.0112 *
Earth	-80723-07-31 11:30 J	-27762441.09	-27762441.02	-27762440.93	0.0145	0.0138
Moon	-80723-07-31 13:11 J	-27762441.03	-27762440.95	-27762440.83	0.0145	0.0134 *
Venus	-80718-07-22 19:25 J	-27760623.77	-27760623.69	-27760623.58	0.0143	0.0130
Venus	-80717-03-05 09:06 J	-27760397.32	-27760397.12	-27760396.91	0.0143	0.0056
Venus	-80717-10-17 22:32 J	-27760170.79	-27760170.56	-27760170.34	0.0142	0.0017
Venus	-80716-06-01 11:16 J	-27759944.19	-27759944.03	-27759943.84	0.0142	0.0089
Mercury	-80714-11-12 09:35 J	-27759050.17	-27759050.10	-27759050.00	0.0140	0.0124
Mercury	-80713-02-08 17:16 J	-27758961.90	-27758961.78	-27758961.64	0.0140	0.0099
Mercury	-80713-05-07 00:42 J	-27758873.62	-27758873.47	-27758873.30	0.0140	0.0074
Mercury	-80713-08-03 08:08 J	-27758785.33	-27758785.16	-27758784.98	0.0140	0.0048
Mercury	-80713-10-30 15:49 J	-27758697.03	-27758696.84	-27758696.66	0.0140	0.0023
Mercury	-80712-01-26 23:01 J	-27758608.72	-27758608.54	-27758608.35	0.0140	0.0002
Mercury	-80712-04-25 06:13 J	-27758520.42	-27758520.24	-27758520.05	0.0140	0.0026
Mercury	-80712-07-22 13:25 J	-27758432.11	-27758431.94	-27758431.77	0.0139	0.0050
Mercury	-80712-10-18 20:23 J	-27758343.79	-27758343.65	-27758343.48	0.0139	0.0075
Mercury	-80711-01-15 03:35 J	-27758255.47	-27758255.35	-27758255.22	0.0139	0.0098

Mercury -80711-04-13 10:18 J -27758167.14 -27758167.07 -27758166.97 0.0139 0.0122

Mars -80701-04-03 05:30 J -27754524.40 -27754524.27 -27754524.10 0.0134 0.0115

Mars -80699-03-03 15:35 J -27753825.10 -27753824.85 -27753824.58 0.0133 0.0056

Mars -80697-01-31 16:32 J -27753126.09 -27753125.81 -27753125.52 0.0133 0.0002

Mars -80696-12-30 11:01 J -27752427.29 -27752427.04 -27752426.78 0.0132 0.0056

Mars -80694-11-28 23:30 J -27751728.67 -27751728.52 -27751728.36 0.0132 0.0109

Moon -80692-12-17 22:47 J -27750978.66 -27750978.55 -27750978.42 0.0132 0.0115

Earth -80692-12-18 00:28 J -27750978.56 -27750978.48 -27750978.36 0.0132 0.0121 *

Earth -80691-12-22 05:01 J -27750609.44 -27750609.29 -27750609.12 0.0131 0.0102

Moon -80691-12-22 07:25 J -27750609.34 -27750609.19 -27750609.03 0.0131 0.0104 *

Moon -80690-12-26 07:11 J -27750240.39 -27750240.20 -27750240.01 0.0131 0.0082

Earth -80690-12-26 09:06 J -27750240.30 -27750240.12 -27750239.91 0.0131 0.0083 *

Earth -80689-12-29 13:11 J -27749871.17 -27749870.95 -27749870.73 0.0131 0.0063

Moon -80689-12-29 15:06 J -27749871.10 -27749870.87 -27749870.64 0.0131 0.0061 *

Moon -80687-01-02 13:54 J -27749502.13 -27749501.92 -27749501.67 0.0131 0.0049

Earth -80687-01-02 16:18 J -27749502.04 -27749501.82 -27749501.57 0.0131 0.0044 *

Earth -80686-01-06 19:40 J -27749132.92 -27749132.68 -27749132.43 0.0132 0.0023

Moon -80686-01-06 21:49 J -27749132.85 -27749132.59 -27749132.33 0.0132 0.0017 *

Moon -80685-01-10 20:37 J -27748763.89 -27748763.64 -27748763.40 0.0132 0.0010

Earth -80685-01-10 22:32 J -27748763.81 -27748763.56 -27748763.30 0.0132 0.0004 *

Earth -80684-01-14 01:25 J -27748394.69 -27748394.44 -27748394.19 0.0132 0.0017

Moon -80684-01-14 03:49 J -27748394.59 -27748394.34 -27748394.08 0.0132 0.0023 *

Moon -80683-01-18 02:23 J -27748025.63 -27748025.40 -27748025.16 0.0132 0.0032

Earth -80683-01-18 04:04 J -27748025.56 -27748025.33 -27748025.08 0.0132 0.0037 *

Earth -80682-01-22 06:42 J -27747656.44 -27747656.22 -27747655.98 0.0132 0.0057

Moon -80682-01-22 08:52 J -27747656.34 -27747656.13 -27747655.88 0.0132 0.0059 *

Moon -80681-01-26 07:54 J -27747287.37 -27747287.17 -27747286.97 0.0132 0.0076

Earth -80681-01-26 09:20 J -27747287.30 -27747287.11 -27747286.89 0.0132 0.0077 *

Earth -80680-01-29 12:13 J -27746918.15 -27746917.99 -27746917.80 0.0133 0.0096

Moon -80680-01-29 14:08 J -27746918.07 -27746917.91 -27746917.71 0.0133 0.0093 *

Moon -80679-02-02 12:56 J -27746549.05 -27746548.96 -27746548.85 0.0133 0.0120
 Earth -80679-02-02 14:52 J -27746548.98 -27746548.88 -27746548.74 0.0133 0.0115 *
 Moon -80678-02-06 19:25 J -27746179.74 -27746179.69 -27746179.59 0.0133 0.0127
 Venus -80673-02-27 13:54 J -27744333.00 -27744332.92 -27744332.82 0.0136 0.0123
 Venus -80673-10-10 18:28 J -27744106.92 -27744106.73 -27744106.55 0.0136 0.0064
 Venus -80672-05-24 22:47 J -27743880.76 -27743880.55 -27743880.34 0.0136 0.0006
 Venus -80671-01-06 03:20 J -27743654.54 -27743654.36 -27743654.16 0.0137 0.0055
 Venus -80671-08-20 08:23 J -27743428.26 -27743428.15 -27743428.03 0.0137 0.0114
 Mercury -80669-04-13 03:49 J -27742826.38 -27742826.34 -27742826.29 0.0138 0.0129
 Mercury -80669-07-10 07:11 J -27742738.27 -27742738.20 -27742738.12 0.0138 0.0112
 Mercury -80669-10-06 10:47 J -27742650.15 -27742650.05 -27742649.96 0.0138 0.0096
 Mercury -80668-01-02 14:08 J -27742562.02 -27742561.91 -27742561.80 0.0138 0.0079
 Mercury -80668-03-31 17:30 J -27742473.89 -27742473.77 -27742473.65 0.0138 0.0062
 Mercury -80668-06-27 20:52 J -27742385.75 -27742385.63 -27742385.49 0.0138 0.0045
 Mercury -80668-09-24 00:28 J -27742297.61 -27742297.48 -27742297.34 0.0139 0.0027
 Mercury -80668-12-21 04:04 J -27742209.47 -27742209.33 -27742209.20 0.0139 0.0010
 Mercury -80667-03-19 07:40 J -27742121.32 -27742121.18 -27742121.05 0.0139 0.0009
 Mercury -80667-06-15 11:01 J -27742033.17 -27742033.04 -27742032.90 0.0139 0.0026
 Mercury -80667-09-11 14:37 J -27741945.01 -27741944.89 -27741944.75 0.0139 0.0044
 Mercury -80667-12-08 18:13 J -27741856.86 -27741856.74 -27741856.61 0.0139 0.0062
 Mercury -80666-03-06 21:49 J -27741768.69 -27741768.59 -27741768.47 0.0139 0.0080
 Mercury -80666-06-03 01:25 J -27741680.53 -27741680.44 -27741680.33 0.0140 0.0099
 Mercury -80666-08-30 05:16 J -27741592.35 -27741592.28 -27741592.20 0.0140 0.0117
 Mercury -80666-11-26 09:06 J -27741504.15 -27741504.12 -27741504.09 0.0140 0.0135
 Mars -80657-05-04 08:52 J -27738422.17 -27738422.13 -27738422.08 0.0145 0.0143
 Mars -80655-04-10 19:25 J -27737715.97 -27737715.69 -27737715.37 0.0146 0.0059
 Mars -80653-03-18 01:11 J -27737008.77 -27737008.45 -27737008.12 0.0146 0.0031
 Mars -80651-02-23 23:30 J -27736300.68 -27736300.52 -27736300.33 0.0147 0.0125
 Moon -80649-06-11 07:25 J -27735462.29 -27735462.19 -27735462.07 0.0147 0.0133
 Earth -80649-06-11 07:25 J -27735462.28 -27735462.19 -27735462.08 0.0147 0.0135 *

Moon	-80648-06-16 10:32 J	-27735092.21	-27735092.06	-27735091.90	0.0147	0.0115
Earth	-80648-06-16 11:30 J	-27735092.18	-27735092.02	-27735091.83	0.0147	0.0108 *
Earth	-80647-06-21 16:04 J	-27734722.02	-27734721.83	-27734721.60	0.0147	0.0082
Moon	-80647-06-21 18:13 J	-27734721.97	-27734721.74	-27734721.51	0.0147	0.0073 *
Moon	-80646-06-26 19:25 J	-27734351.91	-27734351.69	-27734351.45	0.0147	0.0059
Earth	-80646-06-26 22:04 J	-27734351.82	-27734351.58	-27734351.34	0.0147	0.0053 *
Earth	-80645-07-01 03:49 J	-27733981.59	-27733981.34	-27733981.08	0.0147	0.0025
Moon	-80645-07-01 07:11 J	-27733981.46	-27733981.20	-27733980.94	0.0147	0.0023 *
Moon	-80644-07-06 07:11 J	-27733611.45	-27733611.20	-27733610.95	0.0147	0.0007
Earth	-80644-07-06 10:18 J	-27733611.32	-27733611.07	-27733610.81	0.0147	0.0004 *
Earth	-80643-07-11 17:01 J	-27733241.03	-27733240.79	-27733240.53	0.0147	0.0033
Moon	-80643-07-11 20:52 J	-27733240.88	-27733240.63	-27733240.37	0.0147	0.0025 *
Moon	-80642-07-16 20:23 J	-27732870.86	-27732870.65	-27732870.41	0.0147	0.0070
Earth	-80642-07-16 23:59 J	-27732870.72	-27732870.50	-27732870.25	0.0147	0.0062 *
Earth	-80641-07-21 07:11 J	-27732500.40	-27732500.20	-27732499.99	0.0146	0.0089
Moon	-80641-07-21 10:18 J	-27732500.27	-27732500.07	-27732499.86	0.0146	0.0086 *
Moon	-80640-07-26 10:47 J	-27732130.19	-27732130.05	-27732129.88	0.0146	0.0118
Earth	-80640-07-26 13:54 J	-27732130.05	-27732129.92	-27732129.74	0.0146	0.0117 *
Earth	-80639-07-31 21:06 J	-27731759.65	-27731759.62	-27731759.56	0.0145	0.0143
Venus	-80634-11-03 13:54 J	-27729839.08	-27729838.92	-27729838.74	0.0143	0.0092
Venus	-80633-06-17 03:35 J	-27729612.57	-27729612.35	-27729612.13	0.0143	0.0019
Venus	-80632-01-29 16:32 J	-27729386.01	-27729385.81	-27729385.59	0.0142	0.0053
Venus	-80632-09-13 05:16 J	-27729159.37	-27729159.28	-27729159.16	0.0142	0.0125
Mercury	-80630-12-02 16:32 J	-27728348.89	-27728348.81	-27728348.70	0.0140	0.0120
Mercury	-80629-02-29 00:28 J	-27728260.62	-27728260.48	-27728260.34	0.0140	0.0094
Mercury	-80629-05-27 07:54 J	-27728172.33	-27728172.17	-27728172.00	0.0140	0.0068
Mercury	-80629-08-23 15:20 J	-27728084.03	-27728083.86	-27728083.68	0.0140	0.0043
Mercury	-80629-11-19 22:47 J	-27727995.74	-27727995.55	-27727995.37	0.0140	0.0018
Mercury	-80628-02-16 05:59 J	-27727907.43	-27727907.25	-27727907.06	0.0140	0.0007
Mercury	-80628-05-15 13:25 J	-27727819.12	-27727818.94	-27727818.76	0.0140	0.0031

Mercury -80628-08-11 20:23 J -27727730.81 -27727730.65 -27727730.47 0.0139 0.0055

Mercury -80628-11-08 03:20 J -27727642.50 -27727642.36 -27727642.20 0.0139 0.0080

Mercury -80627-02-04 10:32 J -27727554.17 -27727554.06 -27727553.93 0.0139 0.0103

Mercury -80627-05-03 17:30 J -27727465.83 -27727465.77 -27727465.69 0.0139 0.0126

Mars -80617-11-26 09:20 J -27723606.31 -27723606.11 -27723605.87 0.0134 0.0088

Mars -80615-10-26 16:47 J -27722907.07 -27722906.80 -27722906.51 0.0133 0.0030

Mars -80613-09-24 16:32 J -27722208.09 -27722207.81 -27722207.53 0.0132 0.0026

Mars -80611-08-24 08:23 J -27721509.36 -27721509.15 -27721508.92 0.0132 0.0080

Mars -80609-07-22 17:30 J -27720810.79 -27720810.77 -27720810.75 0.0132 0.0131

Moon -80609-12-14 04:18 J -27720666.32 -27720666.32 -27720666.30 0.0132 0.0131

Moon -80608-12-18 06:28 J -27720297.28 -27720297.23 -27720297.14 0.0131 0.0125

Earth -80608-12-18 08:08 J -27720297.25 -27720297.16 -27720297.04 0.0131 0.0120 *

Earth -80607-12-22 12:42 J -27719928.12 -27719927.97 -27719927.80 0.0131 0.0101

Moon -80607-12-22 14:08 J -27719928.07 -27719927.91 -27719927.71 0.0131 0.0097 *

Moon -80606-12-26 15:35 J -27719559.03 -27719558.85 -27719558.65 0.0131 0.0083

Earth -80606-12-26 16:32 J -27719558.99 -27719558.81 -27719558.59 0.0131 0.0082 *

Earth -80605-12-29 20:23 J -27719189.86 -27719189.65 -27719189.41 0.0131 0.0062

Moon -80605-12-29 22:18 J -27719189.78 -27719189.57 -27719189.33 0.0131 0.0064 *

Moon -80603-01-02 23:01 J -27718820.78 -27718820.54 -27718820.30 0.0131 0.0038

Earth -80603-01-02 23:59 J -27718820.73 -27718820.50 -27718820.25 0.0131 0.0042 *

Earth -80602-01-07 03:06 J -27718451.61 -27718451.37 -27718451.11 0.0131 0.0021

Moon -80602-01-07 05:01 J -27718451.55 -27718451.29 -27718451.04 0.0131 0.0027 *

Moon -80601-01-11 04:32 J -27718082.55 -27718082.31 -27718082.06 0.0132 0.0007

Earth -80601-01-11 06:13 J -27718082.49 -27718082.24 -27718081.98 0.0132 0.0002 *

Earth -80600-01-14 09:06 J -27717713.37 -27717713.12 -27717712.87 0.0132 0.0019

Moon -80600-01-14 10:32 J -27717713.32 -27717713.06 -27717712.80 0.0132 0.0013 *

Moon -80599-01-18 10:04 J -27717344.30 -27717344.08 -27717343.84 0.0132 0.0044

Earth -80599-01-18 11:59 J -27717344.24 -27717344.00 -27717343.76 0.0132 0.0039 *

Earth -80598-01-22 14:37 J -27716975.11 -27716974.89 -27716974.67 0.0132 0.0060

Moon -80598-01-22 15:35 J -27716975.07 -27716974.85 -27716974.60 0.0132 0.0056 *

Moon	-80597-01-26 15:49 J	-27716606.03	-27716605.84	-27716605.65	0.0132	0.0080
Earth	-80597-01-26 17:01 J	-27716605.98	-27716605.79	-27716605.58	0.0132	0.0080 *
Earth	-80596-01-29 19:25 J	-27716236.84	-27716236.69	-27716236.51	0.0133	0.0100
Moon	-80596-01-29 21:06 J	-27716236.77	-27716236.62	-27716236.44	0.0133	0.0102 *
Moon	-80595-02-02 21:06 J	-27715867.72	-27715867.62	-27715867.48	0.0133	0.0115
Earth	-80595-02-02 22:04 J	-27715867.67	-27715867.58	-27715867.45	0.0133	0.0119 *
Venus	-80589-06-10 02:37 J	-27713548.52	-27713548.39	-27713548.22	0.0136	0.0096
Venus	-80588-01-22 07:11 J	-27713322.39	-27713322.20	-27713321.99	0.0136	0.0037
Venus	-80588-09-05 11:44 J	-27713096.21	-27713096.01	-27713095.79	0.0136	0.0023
Venus	-80587-04-19 16:32 J	-27712869.97	-27712869.81	-27712869.64	0.0137	0.0082
Mercury	-80585-05-03 10:18 J	-27712125.11	-27712125.07	-27712125.02	0.0138	0.0128
Mercury	-80585-07-30 13:40 J	-27712037.00	-27712036.93	-27712036.84	0.0138	0.0111
Mercury	-80585-10-26 17:16 J	-27711948.88	-27711948.78	-27711948.68	0.0138	0.0094
Mercury	-80584-01-22 20:37 J	-27711860.75	-27711860.64	-27711860.53	0.0138	0.0077
Mercury	-80584-04-20 23:59 J	-27711772.62	-27711772.50	-27711772.37	0.0138	0.0061
Mercury	-80584-07-18 03:35 J	-27711684.48	-27711684.35	-27711684.22	0.0139	0.0043
Mercury	-80584-10-14 07:11 J	-27711596.34	-27711596.20	-27711596.07	0.0139	0.0026
Mercury	-80583-01-10 10:32 J	-27711508.19	-27711508.06	-27711507.92	0.0139	0.0009
Mercury	-80583-04-08 14:08 J	-27711420.05	-27711419.91	-27711419.77	0.0139	0.0009
Mercury	-80583-07-05 17:44 J	-27711331.90	-27711331.76	-27711331.63	0.0139	0.0027
Mercury	-80583-10-01 21:06 J	-27711243.74	-27711243.62	-27711243.48	0.0139	0.0046
Mercury	-80583-12-29 00:42 J	-27711155.58	-27711155.47	-27711155.34	0.0139	0.0064
Mercury	-80582-03-27 04:18 J	-27711067.42	-27711067.32	-27711067.20	0.0140	0.0082
Mercury	-80582-06-23 08:08 J	-27710979.25	-27710979.16	-27710979.06	0.0140	0.0099
Mercury	-80582-09-19 11:44 J	-27710891.07	-27710891.01	-27710890.93	0.0140	0.0118
Mercury	-80582-12-16 15:35 J	-27710802.87	-27710802.85	-27710802.82	0.0140	0.0136
Mars	-80573-12-29 06:56 J	-27707502.41	-27707502.21	-27707501.97	0.0145	0.0107
Mars	-80571-12-05 23:30 J	-27706795.85	-27706795.52	-27706795.19	0.0146	0.0021
Mars	-80569-11-12 10:04 J	-27706088.36	-27706088.08	-27706087.77	0.0146	0.0071
Moon	-80565-06-11 13:54 J	-27704781.00	-27704780.92	-27704780.80	0.0147	0.0136

Earth -80565-06-11 14:37 J -27704780.99 -27704780.89 -27704780.79 0.0147 0.0134 *
 Moon -80564-06-16 18:13 J -27704410.90 -27704410.74 -27704410.55 0.0147 0.0102
 Earth -80564-06-16 18:13 J -27704410.90 -27704410.74 -27704410.55 0.0147 0.0108 *
 Earth -80563-06-21 23:16 J -27704040.73 -27704040.53 -27704040.31 0.0147 0.0080
 Moon -80563-06-22 00:13 J -27704040.68 -27704040.49 -27704040.26 0.0147 0.0087 *
 Moon -80562-06-27 03:06 J -27703670.60 -27703670.37 -27703670.13 0.0147 0.0045
 Earth -80562-06-27 04:47 J -27703670.53 -27703670.30 -27703670.05 0.0147 0.0052 *
 Earth -80561-07-01 11:01 J -27703300.29 -27703300.04 -27703299.79 0.0147 0.0022
 Moon -80561-07-01 13:25 J -27703300.20 -27703299.94 -27703299.68 0.0147 0.0024 *
 Moon -80560-07-06 14:23 J -27702930.15 -27702929.90 -27702929.64 0.0147 0.0004
 Earth -80560-07-06 17:44 J -27702930.01 -27702929.76 -27702929.50 0.0147 0.0007 *
 Earth -80559-07-12 00:42 J -27702559.72 -27702559.47 -27702559.22 0.0147 0.0036
 Moon -80559-07-12 03:49 J -27702559.58 -27702559.34 -27702559.08 0.0147 0.0043 *
 Moon -80558-07-17 04:04 J -27702189.56 -27702189.33 -27702189.09 0.0147 0.0058
 Earth -80558-07-17 07:40 J -27702189.40 -27702189.18 -27702188.94 0.0147 0.0066 *
 Earth -80557-07-21 14:52 J -27701819.07 -27701818.88 -27701818.68 0.0146 0.0094
 Moon -80557-07-21 18:42 J -27701818.91 -27701818.72 -27701818.53 0.0146 0.0100 *
 Moon -80556-07-26 18:28 J -27701448.86 -27701448.73 -27701448.57 0.0146 0.0121
 Earth -80556-07-26 22:04 J -27701448.72 -27701448.58 -27701448.44 0.0146 0.0121 *
 Moon -80555-08-01 07:54 J -27701078.20 -27701078.17 -27701078.13 0.0146 0.0144
 Venus -80550-07-03 17:44 J -27699280.84 -27699280.76 -27699280.65 0.0143 0.0130
 Venus -80549-02-15 07:25 J -27699054.39 -27699054.19 -27699053.97 0.0143 0.0057
 Venus -80549-09-28 20:52 J -27698827.85 -27698827.63 -27698827.40 0.0142 0.0016
 Venus -80548-05-13 09:49 J -27698601.26 -27698601.09 -27698600.91 0.0142 0.0088
 Mercury -80546-12-22 23:30 J -27697647.61 -27697647.52 -27697647.40 0.0140 0.0115
 Mercury -80545-03-20 07:11 J -27697559.34 -27697559.20 -27697559.05 0.0140 0.0090
 Mercury -80545-06-16 14:37 J -27697471.05 -27697470.89 -27697470.72 0.0140 0.0064
 Mercury -80545-09-12 22:04 J -27697382.75 -27697382.58 -27697382.39 0.0140 0.0039
 Mercury -80545-12-10 05:30 J -27697294.45 -27697294.27 -27697294.08 0.0140 0.0014
 Mercury -80544-03-08 12:56 J -27697206.15 -27697205.96 -27697205.78 0.0140 0.0011

Mercury -80544-06-04 20:08 J -27697117.84 -27697117.66 -27697117.48 0.0140 0.0035
 Mercury -80544-09-01 03:06 J -27697029.53 -27697029.37 -27697029.19 0.0139 0.0060
 Mercury -80544-11-28 10:18 J -27696941.21 -27696941.07 -27696940.92 0.0139 0.0083
 Mercury -80543-02-24 17:16 J -27696852.88 -27696852.78 -27696852.65 0.0139 0.0107
 Mercury -80543-05-24 00:28 J -27696764.54 -27696764.48 -27696764.41 0.0139 0.0130
 Mars -80534-08-21 23:16 J -27693387.63 -27693387.53 -27693387.37 0.0134 0.0119
 Mars -80532-07-21 12:56 J -27692688.20 -27692687.96 -27692687.68 0.0133 0.0061
 Mars -80530-06-20 18:13 J -27691989.03 -27691988.74 -27691988.46 0.0133 0.0003
 Mars -80528-05-19 14:52 J -27691290.13 -27691289.88 -27691289.61 0.0132 0.0052
 Mars -80526-04-18 03:20 J -27690591.51 -27690591.36 -27690591.16 0.0132 0.0104
 Moon -80524-12-18 15:35 J -27689615.95 -27689615.85 -27689615.70 0.0131 0.0114
 Earth -80524-12-18 16:18 J -27689615.90 -27689615.82 -27689615.69 0.0131 0.0120 *
 Earth -80523-12-22 20:52 J -27689246.78 -27689246.63 -27689246.45 0.0131 0.0100
 Moon -80523-12-22 21:35 J -27689246.75 -27689246.60 -27689246.42 0.0131 0.0103 *
 Moon -80522-12-26 23:59 J -27688877.69 -27688877.50 -27688877.29 0.0131 0.0079
 Earth -80522-12-27 01:11 J -27688877.64 -27688877.45 -27688877.24 0.0131 0.0080 *
 Earth -80521-12-30 05:01 J -27688508.51 -27688508.29 -27688508.06 0.0131 0.0060
 Moon -80521-12-30 05:16 J -27688508.49 -27688508.28 -27688508.03 0.0131 0.0060 *
 Moon -80519-01-03 07:11 J -27688139.42 -27688139.20 -27688138.96 0.0131 0.0044
 Earth -80519-01-03 08:23 J -27688139.39 -27688139.15 -27688138.90 0.0131 0.0039 *
 Earth -80518-01-07 11:30 J -27687770.26 -27687770.02 -27687769.76 0.0131 0.0019
 Moon -80518-01-07 12:28 J -27687770.24 -27687769.98 -27687769.72 0.0131 0.0013 *
 Moon -80517-01-11 13:54 J -27687401.16 -27687400.92 -27687400.67 0.0131 0.0005
 Earth -80517-01-11 14:37 J -27687401.14 -27687400.89 -27687400.63 0.0131 0.0002 *
 Earth -80516-01-14 17:30 J -27687032.02 -27687031.77 -27687031.52 0.0132 0.0022
 Moon -80516-01-14 18:28 J -27687031.97 -27687031.73 -27687031.46 0.0132 0.0029 *
 Moon -80515-01-18 19:40 J -27686662.91 -27686662.68 -27686662.44 0.0132 0.0037
 Earth -80515-01-18 20:08 J -27686662.89 -27686662.66 -27686662.41 0.0132 0.0043 *
 Earth -80514-01-22 22:32 J -27686293.77 -27686293.56 -27686293.33 0.0132 0.0063
 Moon -80514-01-22 23:30 J -27686293.73 -27686293.52 -27686293.28 0.0132 0.0066 *

Moon	-80513-01-27 00:13 J	-27685924.66	-27685924.49	-27685924.28	0.0132	0.0083
Earth	-80513-01-27 00:56 J	-27685924.64	-27685924.46	-27685924.25	0.0132	0.0084 *
Earth	-80512-01-30 03:20 J	-27685555.49	-27685555.36	-27685555.18	0.0133	0.0104
Moon	-80512-01-30 04:04 J	-27685555.48	-27685555.33	-27685555.15	0.0133	0.0102 *
Moon	-80511-02-03 04:47 J	-27685186.34	-27685186.30	-27685186.21	0.0133	0.0128
Earth	-80511-02-03 05:44 J	-27685186.33	-27685186.26	-27685186.14	0.0133	0.0123 *
Venus	-80505-02-08 11:59 J	-27682990.07	-27682990.00	-27682989.92	0.0135	0.0126
Venus	-80505-09-21 16:04 J	-27682764.01	-27682763.83	-27682763.64	0.0136	0.0068
Venus	-80504-05-05 20:37 J	-27682537.85	-27682537.64	-27682537.43	0.0136	0.0009
Venus	-80504-12-18 01:11 J	-27682311.64	-27682311.45	-27682311.25	0.0136	0.0050
Venus	-80503-08-01 05:44 J	-27682085.37	-27682085.26	-27682085.12	0.0137	0.0110
Mercury	-80501-05-23 16:47 J	-27681423.84	-27681423.80	-27681423.74	0.0138	0.0127
Mercury	-80501-08-19 20:23 J	-27681335.73	-27681335.65	-27681335.57	0.0138	0.0110
Mercury	-80501-11-15 23:44 J	-27681247.60	-27681247.51	-27681247.41	0.0138	0.0093
Mercury	-80500-02-12 03:06 J	-27681159.48	-27681159.37	-27681159.25	0.0138	0.0077
Mercury	-80500-05-11 06:42 J	-27681071.34	-27681071.22	-27681071.10	0.0138	0.0059
Mercury	-80500-08-07 10:04 J	-27680983.21	-27680983.08	-27680982.95	0.0139	0.0042
Mercury	-80500-11-03 13:40 J	-27680895.07	-27680894.93	-27680894.80	0.0139	0.0025
Mercury	-80499-01-30 17:01 J	-27680806.92	-27680806.79	-27680806.65	0.0139	0.0009
Mercury	-80499-04-28 20:37 J	-27680718.77	-27680718.64	-27680718.50	0.0139	0.0010
Mercury	-80499-07-26 00:13 J	-27680630.62	-27680630.49	-27680630.36	0.0139	0.0028
Mercury	-80499-10-22 03:35 J	-27680542.47	-27680542.35	-27680542.21	0.0139	0.0047
Mercury	-80498-01-18 07:25 J	-27680454.31	-27680454.19	-27680454.07	0.0139	0.0064
Mercury	-80498-04-16 11:01 J	-27680366.15	-27680366.04	-27680365.93	0.0140	0.0082
Mercury	-80498-07-13 14:23 J	-27680277.98	-27680277.90	-27680277.79	0.0140	0.0101
Mercury	-80498-10-09 18:13 J	-27680189.80	-27680189.74	-27680189.66	0.0140	0.0119
Mercury	-80497-01-05 22:04 J	-27680101.60	-27680101.58	-27680101.55	0.0140	0.0137
Mars	-80488-08-25 03:49 J	-27676582.62	-27676582.34	-27676582.05	0.0145	0.0071
Mars	-80486-08-02 01:54 J	-27675875.75	-27675875.42	-27675875.09	0.0146	0.0017
Mars	-80484-07-09 17:01 J	-27675167.99	-27675167.79	-27675167.53	0.0147	0.0109

Moon	-80481-06-11 17:59 J	-27674099.85	-27674099.75	-27674099.64	0.0147	0.0134
Earth	-80481-06-11 19:11 J	-27674099.78	-27674099.70	-27674099.57	0.0147	0.0135 *
Earth	-80480-06-16 23:44 J	-27673729.68	-27673729.51	-27673729.33	0.0147	0.0107
Moon	-80480-06-16 23:44 J	-27673729.64	-27673729.51	-27673729.33	0.0147	0.0113 *
Earth	-80479-06-22 04:18 J	-27673359.52	-27673359.32	-27673359.09	0.0147	0.0080
Moon	-80479-06-22 05:01 J	-27673359.52	-27673359.29	-27673359.06	0.0147	0.0071 *
Moon	-80478-06-27 09:06 J	-27672989.34	-27672989.12	-27672988.88	0.0147	0.0057
Earth	-80478-06-27 10:18 J	-27672989.31	-27672989.07	-27672988.83	0.0147	0.0050 *
Earth	-80477-07-01 16:32 J	-27672619.07	-27672618.81	-27672618.56	0.0147	0.0021
Moon	-80477-07-01 18:28 J	-27672618.98	-27672618.73	-27672618.46	0.0147	0.0019 *
Moon	-80476-07-06 20:52 J	-27672248.88	-27672248.63	-27672248.38	0.0147	0.0011
Earth	-80476-07-06 23:01 J	-27672248.79	-27672248.54	-27672248.28	0.0147	0.0010 *
Earth	-80475-07-12 05:59 J	-27671878.49	-27671878.25	-27671878.00	0.0147	0.0039
Moon	-80475-07-12 09:20 J	-27671878.36	-27671878.11	-27671877.85	0.0147	0.0032 *
Moon	-80474-07-17 09:35 J	-27671508.30	-27671508.10	-27671507.87	0.0147	0.0077
Earth	-80474-07-17 12:56 J	-27671508.17	-27671507.96	-27671507.72	0.0147	0.0069 *
Earth	-80473-07-21 20:08 J	-27671137.84	-27671137.66	-27671137.46	0.0146	0.0097
Moon	-80473-07-21 23:30 J	-27671137.70	-27671137.52	-27671137.30	0.0146	0.0093 *
Moon	-80472-07-26 23:30 J	-27670767.63	-27670767.52	-27670767.38	0.0146	0.0127
Earth	-80472-07-27 03:20 J	-27670767.48	-27670767.36	-27670767.22	0.0146	0.0125 *
Venus	-80466-10-15 10:04 J	-27668496.23	-27668496.08	-27668495.90	0.0143	0.0096
Venus	-80465-05-28 23:59 J	-27668269.72	-27668269.50	-27668269.27	0.0143	0.0023
Venus	-80464-01-10 13:11 J	-27668043.15	-27668042.95	-27668042.73	0.0142	0.0050
Venus	-80464-08-25 02:08 J	-27667816.51	-27667816.41	-27667816.28	0.0142	0.0122
Mercury	-80462-10-15 22:04 J	-27667034.59	-27667034.58	-27667034.53	0.0141	0.0139
Mercury	-80461-01-12 05:59 J	-27666946.36	-27666946.25	-27666946.13	0.0140	0.0113
Mercury	-80461-04-09 13:25 J	-27666858.08	-27666857.94	-27666857.78	0.0140	0.0087
Mercury	-80461-07-06 21:06 J	-27666769.79	-27666769.62	-27666769.45	0.0140	0.0062
Mercury	-80461-10-03 04:32 J	-27666681.49	-27666681.31	-27666681.13	0.0140	0.0036
Mercury	-80461-12-30 11:59 J	-27666593.19	-27666593.00	-27666592.81	0.0140	0.0011

Mercury -80460-03-28 19:11 J -27666504.88 -27666504.70 -27666504.51 0.0140 0.0014

Mercury -80460-06-25 02:37 J -27666416.57 -27666416.39 -27666416.21 0.0140 0.0038

Mercury -80460-09-21 09:35 J -27666328.26 -27666328.10 -27666327.93 0.0139 0.0062

Mercury -80460-12-18 16:32 J -27666239.94 -27666239.81 -27666239.65 0.0139 0.0087

Mercury -80459-03-16 23:59 J -27666151.61 -27666151.50 -27666151.39 0.0139 0.0110

Mercury -80459-06-13 06:42 J -27666063.26 -27666063.22 -27666063.16 0.0139 0.0133

Mars -80449-04-15 03:20 J -27662469.55 -27662469.36 -27662469.13 0.0134 0.0092

Mars -80447-03-15 15:20 J -27661770.13 -27661769.86 -27661769.57 0.0133 0.0034

Mars -80445-02-12 18:13 J -27661071.02 -27661070.74 -27661070.46 0.0132 0.0022

Mars -80443-01-11 11:16 J -27660372.25 -27660372.03 -27660371.78 0.0132 0.0075

Mars -80442-12-10 23:01 J -27659673.59 -27659673.54 -27659673.42 0.0132 0.0126

Moon -80441-12-14 18:56 J -27659303.72 -27659303.71 -27659303.66 0.0132 0.0131

Earth -80440-12-19 00:13 J -27658934.58 -27658934.49 -27658934.36 0.0131 0.0118

Moon -80440-12-19 00:13 J -27658934.55 -27658934.49 -27658934.40 0.0131 0.0124 *

Earth -80439-12-23 05:01 J -27658565.45 -27658565.29 -27658565.11 0.0131 0.0099

Moon -80439-12-23 05:30 J -27658565.45 -27658565.27 -27658565.09 0.0131 0.0094 *

Earth -80438-12-27 09:06 J -27658196.31 -27658196.12 -27658195.90 0.0131 0.0079

Moon -80438-12-27 09:20 J -27658196.29 -27658196.11 -27658195.91 0.0131 0.0081 *

Earth -80437-12-30 12:56 J -27657827.17 -27657826.96 -27657826.72 0.0131 0.0058

Moon -80437-12-30 13:25 J -27657827.16 -27657826.94 -27657826.69 0.0131 0.0059 *

Moon -80435-01-03 16:47 J -27657458.04 -27657457.80 -27657457.56 0.0131 0.0035

Earth -80435-01-03 16:32 J -27657458.04 -27657457.81 -27657457.56 0.0131 0.0038 *

Earth -80434-01-07 19:54 J -27657088.92 -27657088.67 -27657088.42 0.0131 0.0017

Moon -80434-01-07 19:54 J -27657088.92 -27657088.67 -27657088.40 0.0131 0.0022 *

Moon -80433-01-11 22:32 J -27656719.79 -27656719.56 -27656719.31 0.0131 0.0012

Earth -80433-01-11 23:01 J -27656719.79 -27656719.54 -27656719.28 0.0131 0.0005 *

Moon -80432-01-15 01:40 J -27656350.68 -27656350.43 -27656350.16 0.0132 0.0019

Earth -80432-01-15 01:54 J -27656350.66 -27656350.42 -27656350.17 0.0132 0.0025 *

Moon -80431-01-19 04:04 J -27655981.55 -27655981.33 -27655981.10 0.0132 0.0051

Earth -80431-01-19 04:18 J -27655981.54 -27655981.32 -27655981.07 0.0132 0.0046 *

Moon -80430-01-23 06:42 J -27655612.43 -27655612.22 -27655611.98 0.0132 0.0062
 Earth -80430-01-23 06:42 J -27655612.42 -27655612.22 -27655611.99 0.0132 0.0067 *
 Earth -80429-01-27 09:06 J -27655243.29 -27655243.12 -27655242.91 0.0132 0.0087
 Moon -80429-01-27 09:35 J -27655243.28 -27655243.10 -27655242.92 0.0132 0.0089 *
 Earth -80428-01-30 11:59 J -27654874.14 -27654874.00 -27654873.85 0.0133 0.0107
 Moon -80428-01-30 11:44 J -27654874.13 -27654874.01 -27654873.84 0.0133 0.0109 *
 Earth -80427-02-03 14:08 J -27654504.96 -27654504.91 -27654504.82 0.0133 0.0127
 Moon -80427-02-03 14:37 J -27654504.96 -27654504.89 -27654504.79 0.0133 0.0124 *
 Venus -80421-05-22 01:25 J -27652205.57 -27652205.44 -27652205.29 0.0136 0.0098
 Venus -80420-01-03 05:59 J -27651979.45 -27651979.25 -27651979.04 0.0136 0.0040
 Venus -80420-08-17 10:32 J -27651753.27 -27651753.06 -27651752.85 0.0136 0.0019
 Venus -80419-03-31 14:52 J -27651527.04 -27651526.88 -27651526.70 0.0137 0.0079
 Mercury -80417-06-12 23:44 J -27650722.56 -27650722.51 -27650722.45 0.0138 0.0125
 Mercury -80417-09-09 03:06 J -27650634.45 -27650634.37 -27650634.28 0.0138 0.0108
 Mercury -80417-12-06 06:28 J -27650546.32 -27650546.23 -27650546.12 0.0138 0.0092
 Mercury -80416-03-04 10:04 J -27650458.20 -27650458.08 -27650457.97 0.0138 0.0075
 Mercury -80416-05-31 13:25 J -27650370.06 -27650369.94 -27650369.82 0.0138 0.0057
 Mercury -80416-08-27 16:47 J -27650281.92 -27650281.80 -27650281.67 0.0139 0.0041
 Mercury -80416-11-23 20:23 J -27650193.78 -27650193.65 -27650193.52 0.0139 0.0023
 Mercury -80415-02-19 23:44 J -27650105.64 -27650105.51 -27650105.37 0.0139 0.0007
 Mercury -80415-05-19 03:20 J -27650017.49 -27650017.36 -27650017.22 0.0139 0.0012
 Mercury -80415-08-15 06:56 J -27649929.34 -27649929.21 -27649929.08 0.0139 0.0030
 Mercury -80415-11-11 10:32 J -27649841.19 -27649841.06 -27649840.93 0.0139 0.0048
 Mercury -80414-02-07 14:08 J -27649753.03 -27649752.91 -27649752.79 0.0139 0.0066
 Mercury -80414-05-06 17:44 J -27649664.87 -27649664.76 -27649664.65 0.0140 0.0084
 Mercury -80414-08-02 21:20 J -27649576.70 -27649576.61 -27649576.51 0.0140 0.0102
 Mercury -80414-10-30 00:56 J -27649488.52 -27649488.46 -27649488.39 0.0140 0.0121
 Mercury -80413-01-26 04:32 J -27649400.31 -27649400.31 -27649400.29 0.0140 0.0139
 Mars -80405-05-14 21:35 J -27646368.76 -27646368.60 -27646368.38 0.0145 0.0117
 Mars -80403-04-21 05:16 J -27645662.59 -27645662.28 -27645661.95 0.0146 0.0034

Mars	-80401-03-28 08:08 J	-27644955.45	-27644955.16	-27644954.83	0.0146	0.0056
Mars	-80399-03-06 03:35 J	-27644247.36	-27644247.35	-27644247.28	0.0147	0.0146
Moon	-80397-06-11 23:59 J	-27643418.59	-27643418.50	-27643418.37	0.0147	0.0134
Earth	-80397-06-12 02:08 J	-27643418.50	-27643418.41	-27643418.30	0.0147	0.0134 *
Earth	-80396-06-17 05:59 J	-27643048.41	-27643048.25	-27643048.06	0.0147	0.0107
Moon	-80396-06-17 07:40 J	-27643048.35	-27643048.18	-27643048.00	0.0147	0.0102 *
Moon	-80395-06-22 10:47 J	-27642678.27	-27642678.05	-27642677.83	0.0147	0.0084
Earth	-80395-06-22 11:01 J	-27642678.24	-27642678.04	-27642677.81	0.0147	0.0078 *
Moon	-80394-06-27 16:18 J	-27642308.05	-27642307.82	-27642307.57	0.0147	0.0042
Earth	-80394-06-27 16:47 J	-27642308.03	-27642307.80	-27642307.55	0.0147	0.0049 *
Earth	-80393-07-01 23:01 J	-27641937.79	-27641937.54	-27641937.28	0.0147	0.0018
Moon	-80393-07-01 23:59 J	-27641937.76	-27641937.50	-27641937.23	0.0147	0.0022 *
Moon	-80392-07-07 03:35 J	-27641567.60	-27641567.35	-27641567.10	0.0147	0.0010
Earth	-80392-07-07 05:44 J	-27641567.51	-27641567.26	-27641567.00	0.0147	0.0012 *
Earth	-80391-07-12 12:42 J	-27641197.21	-27641196.97	-27641196.72	0.0147	0.0042
Moon	-80391-07-12 15:06 J	-27641197.11	-27641196.87	-27641196.61	0.0147	0.0048 *
Moon	-80390-07-17 16:18 J	-27640827.04	-27640826.82	-27640826.59	0.0147	0.0065
Earth	-80390-07-17 19:40 J	-27640826.90	-27640826.68	-27640826.45	0.0147	0.0072 *
Earth	-80389-07-22 02:23 J	-27640456.57	-27640456.40	-27640456.20	0.0146	0.0102
Moon	-80389-07-22 06:28 J	-27640456.40	-27640456.23	-27640456.05	0.0146	0.0108 *
Saturn	-80388-02-22 11:30 J	-27640241.55	-27640241.02	-27640240.40	0.0146	0.0075
Moon	-80388-07-27 06:13 J	-27640086.36	-27640086.24	-27640086.11	0.0146	0.0127
Earth	-80388-07-27 09:20 J	-27640086.20	-27640086.11	-27640085.97	0.0146	0.0130 *
Venus	-80382-06-14 13:11 J	-27637938.01	-27637937.95	-27637937.87	0.0143	0.0135
Venus	-80381-01-27 02:52 J	-27637711.57	-27637711.38	-27637711.16	0.0143	0.0062
Venus	-80381-09-09 16:32 J	-27637485.03	-27637484.81	-27637484.58	0.0143	0.0012
Venus	-80380-04-24 05:30 J	-27637258.44	-27637258.27	-27637258.07	0.0142	0.0084
Mercury	-80378-11-05 04:32 J	-27636333.34	-27636333.31	-27636333.25	0.0141	0.0136
Mercury	-80377-02-01 11:59 J	-27636245.10	-27636245.00	-27636244.87	0.0140	0.0111
Mercury	-80377-04-29 19:54 J	-27636156.81	-27636156.67	-27636156.52	0.0140	0.0084

Mercury -80377-07-27 03:20 J -27636068.52 -27636068.36 -27636068.18 0.0140 0.0059
 Mercury -80377-10-23 10:47 J -27635980.22 -27635980.05 -27635979.86 0.0140 0.0034
 Mercury -80376-01-19 18:13 J -27635891.92 -27635891.74 -27635891.55 0.0140 0.0010
 Mercury -80376-04-18 01:40 J -27635803.61 -27635803.43 -27635803.24 0.0140 0.0016
 Mercury -80376-07-15 08:52 J -27635715.30 -27635715.13 -27635714.95 0.0140 0.0040
 Mercury -80376-10-11 16:04 J -27635626.99 -27635626.83 -27635626.66 0.0139 0.0065
 Mercury -80375-01-07 23:16 J -27635538.67 -27635538.53 -27635538.39 0.0139 0.0089
 Mercury -80375-04-06 06:13 J -27635450.34 -27635450.24 -27635450.13 0.0139 0.0112
 Mercury -80375-07-03 12:56 J -27635361.98 -27635361.96 -27635361.90 0.0139 0.0136
 Mars -80366-01-08 12:56 J -27632251.08 -27632250.96 -27632250.84 0.0134 0.0123
 Mars -80365-12-08 07:54 J -27631551.41 -27631551.17 -27631550.90 0.0134 0.0065
 Mars -80363-11-07 17:59 J -27630852.03 -27630851.75 -27630851.46 0.0133 0.0008
 Mars -80361-10-06 17:30 J -27630153.03 -27630152.77 -27630152.50 0.0132 0.0047
 Mars -80359-09-05 09:20 J -27629454.29 -27629454.11 -27629453.92 0.0132 0.0098
 Earth -80356-12-19 09:20 J -27628253.21 -27628253.11 -27628252.99 0.0131 0.0118
 Moon -80356-12-19 09:35 J -27628253.21 -27628253.10 -27628252.95 0.0131 0.0112 *
 Moon -80355-12-23 12:56 J -27627884.11 -27627883.96 -27627883.78 0.0131 0.0103
 Earth -80355-12-23 13:54 J -27627884.08 -27627883.92 -27627883.74 0.0131 0.0098 *
 Earth -80354-12-27 18:13 J -27627514.93 -27627514.74 -27627514.52 0.0131 0.0077
 Moon -80354-12-27 18:28 J -27627514.92 -27627514.73 -27627514.52 0.0131 0.0075 *
 Moon -80353-12-30 21:35 J -27627145.83 -27627145.60 -27627145.36 0.0131 0.0057
 Earth -80353-12-30 22:18 J -27627145.79 -27627145.57 -27627145.33 0.0131 0.0056 *
 Earth -80351-01-04 01:54 J -27626776.66 -27626776.42 -27626776.17 0.0131 0.0035
 Moon -80351-01-04 02:08 J -27626776.63 -27626776.41 -27626776.16 0.0131 0.0039 *
 Moon -80350-01-08 05:01 J -27626407.55 -27626407.29 -27626407.03 0.0131 0.0009
 Earth -80350-01-08 05:30 J -27626407.52 -27626407.27 -27626407.02 0.0131 0.0014 *
 Earth -80349-01-12 08:37 J -27626038.39 -27626038.14 -27626037.88 0.0131 0.0007
 Moon -80349-01-12 09:20 J -27626038.35 -27626038.11 -27626037.86 0.0131 0.0003 *
 Moon -80348-01-15 11:01 J -27625669.28 -27625669.04 -27625668.78 0.0132 0.0035
 Earth -80348-01-15 11:30 J -27625669.27 -27625669.02 -27625668.77 0.0132 0.0028 *

Earth	-80347-01-19 14:08 J	-27625300.14	-27625299.91	-27625299.68	0.0132	0.0049
Moon	-80347-01-19 14:52 J	-27625300.11	-27625299.88	-27625299.65	0.0132	0.0043 *
Moon	-80346-01-23 15:49 J	-27624931.04	-27624930.84	-27624930.61	0.0132	0.0074
Earth	-80346-01-23 16:18 J	-27624931.02	-27624930.82	-27624930.60	0.0132	0.0070 *
Earth	-80345-01-27 18:42 J	-27624561.88	-27624561.72	-27624561.52	0.0132	0.0091
Moon	-80345-01-27 19:11 J	-27624561.86	-27624561.70	-27624561.51	0.0132	0.0090 *
Saturn	-80345-04-18 14:37 J	-27624480.50	-27624479.89	-27624479.26	0.0132	0.0016
Moon	-80344-01-30 20:37 J	-27624192.78	-27624192.64	-27624192.50	0.0133	0.0111
Earth	-80344-01-30 21:06 J	-27624192.73	-27624192.62	-27624192.46	0.0133	0.0112 *
Earth	-80343-02-03 23:44 J	-27623823.53	-27623823.51	-27623823.45	0.0133	0.0131
Venus	-80337-01-20 12:13 J	-27621647.06	-27621646.99	-27621646.91	0.0135	0.0125
Venus	-80337-09-02 16:18 J	-27621420.99	-27621420.82	-27621420.63	0.0136	0.0068
Venus	-80336-04-16 20:52 J	-27621194.84	-27621194.63	-27621194.42	0.0136	0.0009
Venus	-80336-11-29 01:25 J	-27620968.63	-27620968.44	-27620968.24	0.0136	0.0050
Venus	-80335-07-13 05:59 J	-27620742.36	-27620742.25	-27620742.11	0.0137	0.0110
Mercury	-80333-07-03 06:42 J	-27620021.27	-27620021.22	-27620021.15	0.0138	0.0122
Mercury	-80333-09-29 10:04 J	-27619933.15	-27619933.08	-27619932.98	0.0138	0.0105
Mercury	-80333-12-26 13:40 J	-27619845.03	-27619844.93	-27619844.82	0.0138	0.0088
Mercury	-80332-03-24 17:01 J	-27619756.90	-27619756.79	-27619756.67	0.0138	0.0071
Mercury	-80332-06-20 20:23 J	-27619668.77	-27619668.65	-27619668.52	0.0138	0.0055
Mercury	-80332-09-16 23:59 J	-27619580.63	-27619580.50	-27619580.37	0.0139	0.0037
Mercury	-80332-12-14 03:35 J	-27619492.49	-27619492.35	-27619492.22	0.0139	0.0020
Mercury	-80331-03-12 06:56 J	-27619404.34	-27619404.21	-27619404.07	0.0139	0.0003
Mercury	-80331-06-08 10:32 J	-27619316.20	-27619316.06	-27619315.93	0.0139	0.0016
Mercury	-80331-09-04 14:08 J	-27619228.04	-27619227.91	-27619227.78	0.0139	0.0033
Mercury	-80331-12-01 17:30 J	-27619139.89	-27619139.77	-27619139.64	0.0139	0.0052
Mercury	-80330-02-27 21:06 J	-27619051.73	-27619051.62	-27619051.50	0.0139	0.0070
Mercury	-80330-05-27 00:42 J	-27618963.57	-27618963.47	-27618963.36	0.0140	0.0088
Mercury	-80330-08-23 04:18 J	-27618875.40	-27618875.32	-27618875.22	0.0140	0.0106
Mercury	-80330-11-19 08:08 J	-27618787.22	-27618787.16	-27618787.10	0.0140	0.0124

Mars	-80320-01-09 01:11 J	-27615448.71	-27615448.45	-27615448.17	0.0145	0.0079
Mars	-80319-12-16 14:52 J	-27614742.21	-27614741.88	-27614741.55	0.0146	0.0005
Mars	-80317-11-22 22:18 J	-27614034.81	-27614034.57	-27614034.30	0.0147	0.0094
Moon	-80313-06-12 08:37 J	-27612737.25	-27612737.14	-27612737.04	0.0147	0.0134
Earth	-80313-06-12 10:47 J	-27612737.13	-27612737.05	-27612736.92	0.0147	0.0134 *
Earth	-80312-06-17 15:20 J	-27612367.03	-27612366.86	-27612366.68	0.0147	0.0105
Moon	-80312-06-17 17:16 J	-27612366.94	-27612366.78	-27612366.61	0.0147	0.0109 *
Moon	-80311-06-22 19:11 J	-27611996.92	-27611996.70	-27611996.46	0.0147	0.0068
Earth	-80311-06-22 20:08 J	-27611996.86	-27611996.66	-27611996.43	0.0147	0.0076 *
Earth	-80310-06-28 01:54 J	-27611626.66	-27611626.42	-27611626.17	0.0147	0.0046
Moon	-80310-06-28 02:23 J	-27611626.62	-27611626.40	-27611626.16	0.0147	0.0053 *
Earth	-80309-07-02 08:08 J	-27611256.41	-27611256.16	-27611255.91	0.0147	0.0016
Moon	-80309-07-02 08:52 J	-27611256.39	-27611256.13	-27611255.86	0.0147	0.0012 *
Moon	-80308-07-07 13:40 J	-27610886.18	-27610885.93	-27610885.68	0.0147	0.0015
Earth	-80308-07-07 14:37 J	-27610886.14	-27610885.89	-27610885.63	0.0147	0.0015 *
Earth	-80307-07-12 21:06 J	-27610515.85	-27610515.62	-27610515.36	0.0147	0.0046
Moon	-80307-07-12 23:44 J	-27610515.76	-27610515.51	-27610515.25	0.0147	0.0040 *
Moon	-80306-07-18 01:40 J	-27610145.63	-27610145.43	-27610145.22	0.0147	0.0084
Earth	-80306-07-18 04:18 J	-27610145.53	-27610145.32	-27610145.10	0.0147	0.0076 *
Earth	-80305-07-22 11:16 J	-27609775.20	-27609775.03	-27609774.85	0.0146	0.0106
Moon	-80305-07-22 14:23 J	-27609775.08	-27609774.90	-27609774.70	0.0146	0.0100 *
Moon	-80304-07-27 14:23 J	-27609404.97	-27609404.90	-27609404.80	0.0146	0.0137
Earth	-80304-07-27 18:13 J	-27609404.83	-27609404.74	-27609404.63	0.0146	0.0134 *
Venus	-80298-09-26 07:25 J	-27607153.35	-27607153.19	-27607153.03	0.0143	0.0098
Venus	-80297-05-09 21:06 J	-27606926.84	-27606926.62	-27606926.40	0.0143	0.0025
Venus	-80297-12-22 10:18 J	-27606700.27	-27606700.07	-27606699.85	0.0142	0.0048
Venus	-80296-08-05 23:30 J	-27606473.63	-27606473.52	-27606473.39	0.0142	0.0119
Mercury	-80294-11-25 11:30 J	-27605632.08	-27605632.02	-27605631.95	0.0141	0.0132
Mercury	-80293-02-21 19:11 J	-27605543.82	-27605543.70	-27605543.57	0.0140	0.0106
Mercury	-80293-05-20 02:37 J	-27605455.53	-27605455.39	-27605455.23	0.0140	0.0081

Mercury -80293-08-16 10:04 J -27605367.24 -27605367.08 -27605366.90 0.0140 0.0056
 Mercury -80293-11-12 17:44 J -27605278.94 -27605278.76 -27605278.58 0.0140 0.0030
 Mercury -80292-02-09 01:11 J -27605190.64 -27605190.45 -27605190.26 0.0140 0.0005
 Mercury -80292-05-08 08:23 J -27605102.33 -27605102.15 -27605101.96 0.0140 0.0020
 Mercury -80292-08-04 15:35 J -27605014.02 -27605013.85 -27605013.67 0.0140 0.0045
 Mercury -80292-10-31 22:47 J -27604925.70 -27604925.55 -27604925.38 0.0139 0.0069
 Mercury -80291-01-28 05:59 J -27604837.38 -27604837.25 -27604837.11 0.0139 0.0093
 Mercury -80291-04-26 12:56 J -27604749.05 -27604748.96 -27604748.85 0.0139 0.0116
 Mars -80282-09-02 21:35 J -27601332.79 -27601332.60 -27601332.39 0.0134 0.0096
 Mars -80280-08-02 14:23 J -27600633.18 -27600632.90 -27600632.62 0.0133 0.0038
 Mars -80278-07-02 19:25 J -27599933.97 -27599933.69 -27599933.40 0.0133 0.0018
 Mars -80276-05-31 16:04 J -27599235.06 -27599234.83 -27599234.58 0.0132 0.0071
 Mars -80274-04-30 06:56 J -27598536.30 -27598536.21 -27598536.07 0.0132 0.0121
 Moon -80273-12-15 11:16 J -27597941.05 -27597941.03 -27597940.98 0.0132 0.0130
 Earth -80272-12-19 17:59 J -27597571.86 -27597571.75 -27597571.63 0.0131 0.0117
 Moon -80272-12-19 19:11 J -27597571.76 -27597571.70 -27597571.60 0.0131 0.0124 *
 Moon -80271-12-23 22:04 J -27597202.77 -27597202.58 -27597202.39 0.0131 0.0091
 Earth -80271-12-23 22:47 J -27597202.71 -27597202.55 -27597202.36 0.0131 0.0097 *
 Earth -80270-12-28 03:20 J -27596833.56 -27596833.36 -27596833.14 0.0131 0.0075
 Moon -80270-12-28 04:47 J -27596833.49 -27596833.30 -27596833.09 0.0131 0.0079 *
 Moon -80269-12-31 06:28 J -27596464.47 -27596464.23 -27596463.99 0.0131 0.0054
 Earth -80269-12-31 07:11 J -27596464.42 -27596464.20 -27596463.95 0.0131 0.0055 *
 Earth -80267-01-04 11:01 J -27596095.28 -27596095.04 -27596094.79 0.0131 0.0033
 Moon -80267-01-04 12:28 J -27596095.22 -27596094.98 -27596094.74 0.0131 0.0031 *
 Moon -80266-01-08 13:11 J -27595726.21 -27595725.95 -27595725.69 0.0131 0.0015
 Earth -80266-01-08 14:37 J -27595726.14 -27595725.89 -27595725.64 0.0131 0.0011 *
 Earth -80265-01-12 17:44 J -27595357.01 -27595356.76 -27595356.51 0.0132 0.0010
 Moon -80265-01-12 18:28 J -27595356.97 -27595356.73 -27595356.48 0.0132 0.0017 *
 Moon -80264-01-15 18:56 J -27594987.96 -27594987.71 -27594987.45 0.0132 0.0025
 Earth -80264-01-15 20:23 J -27594987.89 -27594987.65 -27594987.40 0.0132 0.0032 *

Earth	-80263-01-19 22:47 J	-27594618.77	-27594618.55	-27594618.31	0.0132	0.0053
Moon	-80263-01-19 23:44 J	-27594618.72	-27594618.51	-27594618.28	0.0132	0.0059 *
Moon	-80262-01-23 23:59 J	-27594249.71	-27594249.50	-27594249.27	0.0132	0.0069
Earth	-80262-01-24 01:11 J	-27594249.64	-27594249.45	-27594249.23	0.0132	0.0075 *
Earth	-80261-01-28 04:04 J	-27593880.50	-27593880.33	-27593880.15	0.0132	0.0095
Moon	-80261-01-28 05:01 J	-27593880.43	-27593880.29	-27593880.11	0.0132	0.0099 *
Moon	-80260-01-31 05:16 J	-27593511.39	-27593511.28	-27593511.14	0.0133	0.0116
Earth	-80260-01-31 06:13 J	-27593511.34	-27593511.24	-27593511.10	0.0133	0.0116 *
Venus	-80253-05-03 02:23 J	-27590862.53	-27590862.40	-27590862.23	0.0136	0.0097
Venus	-80253-12-15 07:11 J	-27590636.40	-27590636.20	-27590635.99	0.0136	0.0038
Venus	-80252-07-29 11:30 J	-27590410.22	-27590410.02	-27590409.80	0.0136	0.0021
Venus	-80251-03-12 16:18 J	-27590183.99	-27590183.82	-27590183.65	0.0137	0.0080
Mercury	-80249-04-26 10:32 J	-27589408.08	-27589408.06	-27589408.03	0.0138	0.0135
Mercury	-80249-07-23 14:08 J	-27589319.98	-27589319.91	-27589319.85	0.0138	0.0118
Mercury	-80249-10-19 17:16 J	-27589231.86	-27589231.78	-27589231.68	0.0138	0.0102
Mercury	-80248-01-15 20:37 J	-27589143.74	-27589143.64	-27589143.53	0.0138	0.0085
Mercury	-80248-04-13 23:59 J	-27589055.61	-27589055.50	-27589055.37	0.0138	0.0069
Mercury	-80248-07-11 03:35 J	-27588967.47	-27588967.35	-27588967.22	0.0138	0.0051
Mercury	-80248-10-07 07:11 J	-27588879.33	-27588879.20	-27588879.07	0.0139	0.0034
Mercury	-80247-01-03 10:32 J	-27588791.19	-27588791.06	-27588790.92	0.0139	0.0016
Mercury	-80247-04-01 14:08 J	-27588703.05	-27588702.91	-27588702.77	0.0139	0.0001
Mercury	-80247-06-28 17:44 J	-27588614.90	-27588614.76	-27588614.63	0.0139	0.0019
Mercury	-80247-09-24 21:06 J	-27588526.75	-27588526.62	-27588526.48	0.0139	0.0037
Mercury	-80247-12-22 00:42 J	-27588438.59	-27588438.47	-27588438.34	0.0139	0.0055
Mercury	-80246-03-20 04:18 J	-27588350.43	-27588350.32	-27588350.20	0.0139	0.0073
Mercury	-80246-06-16 07:54 J	-27588262.27	-27588262.17	-27588262.06	0.0140	0.0091
Mercury	-80246-09-12 11:30 J	-27588174.10	-27588174.02	-27588173.93	0.0140	0.0110
Mercury	-80246-12-09 15:20 J	-27588085.91	-27588085.86	-27588085.81	0.0140	0.0128
Mars	-80238-09-30 10:32 J	-27585234.23	-27585234.06	-27585233.88	0.0144	0.0122
Mars	-80236-09-05 10:04 J	-27584528.39	-27584528.08	-27584527.76	0.0145	0.0042

Mars	-80234-08-13 05:16 J	-27583821.58	-27583821.28	-27583820.95	0.0146	0.0044
Mars	-80232-07-20 17:59 J	-27583113.88	-27583113.75	-27583113.60	0.0147	0.0133
Moon	-80229-06-12 19:54 J	-27582055.78	-27582055.67	-27582055.54	0.0147	0.0130
Earth	-80229-06-12 22:47 J	-27582055.65	-27582055.55	-27582055.43	0.0147	0.0131 *
Earth	-80228-06-18 03:06 J	-27581685.55	-27581685.37	-27581685.19	0.0147	0.0103
Moon	-80228-06-18 05:30 J	-27581685.45	-27581685.27	-27581685.09	0.0147	0.0099 *
Moon	-80227-06-23 05:44 J	-27581315.47	-27581315.26	-27581315.03	0.0147	0.0080
Earth	-80227-06-23 07:40 J	-27581315.38	-27581315.18	-27581314.94	0.0147	0.0074 *
Earth	-80226-06-28 13:40 J	-27580945.18	-27580944.93	-27580944.69	0.0147	0.0043
Moon	-80226-06-28 14:23 J	-27580945.14	-27580944.90	-27580944.66	0.0147	0.0036 *
Moon	-80225-07-02 19:11 J	-27580574.96	-27580574.70	-27580574.44	0.0147	0.0017
Earth	-80225-07-02 19:25 J	-27580574.94	-27580574.69	-27580574.43	0.0147	0.0013 *
Moon	-80224-07-08 00:56 J	-27580204.70	-27580204.46	-27580204.21	0.0147	0.0019
Earth	-80224-07-08 02:08 J	-27580204.67	-27580204.41	-27580204.16	0.0147	0.0019 *
Earth	-80223-07-13 08:37 J	-27579834.38	-27579834.14	-27579833.90	0.0147	0.0050
Moon	-80223-07-13 10:04 J	-27579834.32	-27579834.08	-27579833.83	0.0147	0.0055 *
Moon	-80222-07-18 12:56 J	-27579464.17	-27579463.96	-27579463.74	0.0147	0.0074
Earth	-80222-07-18 15:20 J	-27579464.07	-27579463.86	-27579463.64	0.0147	0.0081 *
Earth	-80221-07-22 22:18 J	-27579093.73	-27579093.57	-27579093.40	0.0146	0.0111
Moon	-80221-07-23 01:25 J	-27579093.59	-27579093.44	-27579093.28	0.0146	0.0118 *
Moon	-80220-07-28 01:54 J	-27578723.50	-27578723.42	-27578723.32	0.0146	0.0137
Earth	-80220-07-28 04:47 J	-27578723.35	-27578723.30	-27578723.20	0.0146	0.0140 *
Venus	-80214-05-26 12:42 J	-27576595.03	-27576594.97	-27576594.87	0.0143	0.0134
Venus	-80213-01-08 02:37 J	-27576368.58	-27576368.39	-27576368.18	0.0143	0.0060
Venus	-80213-08-21 16:18 J	-27576142.04	-27576141.82	-27576141.59	0.0143	0.0013
Venus	-80212-04-05 05:30 J	-27575915.44	-27575915.27	-27575915.09	0.0142	0.0085
Mercury	-80210-12-15 18:56 J	-27574930.78	-27574930.71	-27574930.62	0.0141	0.0126
Mercury	-80209-03-13 02:37 J	-27574842.52	-27574842.39	-27574842.25	0.0140	0.0100
Mercury	-80209-06-09 10:04 J	-27574754.23	-27574754.08	-27574753.91	0.0140	0.0075
Mercury	-80209-09-05 17:30 J	-27574665.93	-27574665.77	-27574665.58	0.0140	0.0050

Mercury -80209-12-03 01:11 J -27574577.63 -27574577.45 -27574577.27 0.0140 0.0024

Mercury -80208-03-01 08:37 J -27574489.33 -27574489.14 -27574488.96 0.0140 0.0002

Mercury -80208-05-28 15:49 J -27574401.02 -27574400.84 -27574400.66 0.0140 0.0026

Mercury -80208-08-24 22:47 J -27574312.71 -27574312.55 -27574312.36 0.0140 0.0051

Mercury -80208-11-21 05:59 J -27574224.39 -27574224.25 -27574224.08 0.0139 0.0075

Mercury -80207-02-17 13:11 J -27574136.07 -27574135.95 -27574135.81 0.0139 0.0098

Mercury -80207-05-16 20:08 J -27574047.73 -27574047.66 -27574047.56 0.0139 0.0122

Mars -80199-05-28 06:13 J -27571114.33 -27571114.24 -27571114.13 0.0135 0.0126

Mars -80197-04-27 06:42 J -27570414.46 -27570414.22 -27570413.95 0.0134 0.0068

Mars -80195-03-27 19:25 J -27569714.98 -27569714.69 -27569714.40 0.0133 0.0011

Mars -80193-02-24 21:35 J -27569015.86 -27569015.60 -27569015.32 0.0133 0.0043

Mars -80191-01-23 17:01 J -27568316.97 -27568316.79 -27568316.57 0.0132 0.0094

Earth -80188-12-20 03:35 J -27566890.44 -27566890.35 -27566890.20 0.0131 0.0117

Moon -80188-12-20 05:30 J -27566890.39 -27566890.27 -27566890.12 0.0131 0.0110 *

Moon -80187-12-24 06:56 J -27566521.37 -27566521.21 -27566521.04 0.0131 0.0101

Earth -80187-12-24 08:37 J -27566521.29 -27566521.14 -27566520.94 0.0131 0.0096 *

Earth -80186-12-28 13:40 J -27566152.14 -27566151.93 -27566151.72 0.0131 0.0074

Moon -80186-12-28 15:06 J -27566152.07 -27566151.87 -27566151.66 0.0131 0.0071 *

Moon -80185-12-31 15:35 J -27565783.08 -27565782.85 -27565782.60 0.0131 0.0054

Earth -80185-12-31 17:30 J -27565782.99 -27565782.77 -27565782.52 0.0131 0.0053 *

Earth -80183-01-04 21:06 J -27565413.86 -27565413.62 -27565413.36 0.0131 0.0031

Moon -80183-01-04 22:47 J -27565413.78 -27565413.55 -27565413.30 0.0131 0.0033 *

Moon -80182-01-08 23:01 J -27565044.80 -27565044.54 -27565044.28 0.0131 0.0004

Earth -80182-01-09 00:42 J -27565044.72 -27565044.47 -27565044.22 0.0131 0.0009 *

Earth -80181-01-13 03:35 J -27564675.60 -27564675.35 -27564675.09 0.0132 0.0013

Moon -80181-01-13 05:44 J -27564675.51 -27564675.26 -27564675.02 0.0132 0.0008 *

Moon -80180-01-16 04:47 J -27564306.55 -27564306.30 -27564306.05 0.0132 0.0041

Earth -80180-01-16 06:13 J -27564306.48 -27564306.24 -27564305.99 0.0132 0.0035 *

Earth -80179-01-20 08:37 J -27563937.35 -27563937.14 -27563936.90 0.0132 0.0057

Moon -80179-01-20 10:32 J -27563937.28 -27563937.06 -27563936.82 0.0132 0.0050 *

Moon	-80178-01-24 09:06 J	-27563568.30	-27563568.12	-27563567.90	0.0132	0.0083
Earth	-80178-01-24 11:01 J	-27563568.22	-27563568.04	-27563567.82	0.0132	0.0079 *
Earth	-80177-01-28 13:54 J	-27563199.08	-27563198.92	-27563198.75	0.0132	0.0099
Moon	-80177-01-28 15:20 J	-27563199.01	-27563198.86	-27563198.68	0.0132	0.0097 *
Moon	-80176-01-31 13:54 J	-27562830.00	-27562829.92	-27562829.79	0.0133	0.0121
Earth	-80176-01-31 16:18 J	-27562829.91	-27562829.82	-27562829.70	0.0133	0.0120 *
Venus	-80169-01-01 13:40 J	-27560304.01	-27560303.93	-27560303.85	0.0135	0.0124
Venus	-80169-08-14 17:44 J	-27560077.94	-27560077.76	-27560077.57	0.0136	0.0066
Venus	-80168-03-28 22:04 J	-27559851.79	-27559851.58	-27559851.37	0.0136	0.0008
Venus	-80168-11-10 02:23 J	-27559625.59	-27559625.40	-27559625.20	0.0136	0.0051
Venus	-80167-06-24 06:56 J	-27559399.32	-27559399.21	-27559399.07	0.0137	0.0111
Mercury	-80165-05-16 17:30 J	-27558706.79	-27558706.77	-27558706.72	0.0138	0.0132
Mercury	-80165-08-12 21:06 J	-27558618.69	-27558618.62	-27558618.54	0.0138	0.0115
Mercury	-80165-11-09 00:28 J	-27558530.57	-27558530.48	-27558530.38	0.0138	0.0098
Mercury	-80164-02-05 03:49 J	-27558442.44	-27558442.34	-27558442.23	0.0138	0.0082
Mercury	-80164-05-04 07:25 J	-27558354.31	-27558354.19	-27558354.07	0.0138	0.0064
Mercury	-80164-07-31 10:47 J	-27558266.17	-27558266.05	-27558265.92	0.0138	0.0047
Mercury	-80164-10-27 14:08 J	-27558178.04	-27558177.91	-27558177.77	0.0139	0.0031
Mercury	-80163-01-23 17:44 J	-27558089.89	-27558089.76	-27558089.62	0.0139	0.0013
Mercury	-80163-04-21 21:20 J	-27558001.75	-27558001.61	-27558001.48	0.0139	0.0006
Mercury	-80163-07-19 00:42 J	-27557913.60	-27557913.47	-27557913.33	0.0139	0.0023
Mercury	-80163-10-15 04:18 J	-27557825.45	-27557825.32	-27557825.19	0.0139	0.0041
Mercury	-80162-01-11 07:54 J	-27557737.29	-27557737.17	-27557737.04	0.0139	0.0059
Mercury	-80162-04-09 11:30 J	-27557649.13	-27557649.02	-27557648.90	0.0139	0.0077
Mercury	-80162-07-06 15:06 J	-27557560.96	-27557560.87	-27557560.77	0.0140	0.0095
Mercury	-80162-10-02 18:42 J	-27557472.79	-27557472.72	-27557472.63	0.0140	0.0114
Mercury	-80162-12-29 22:18 J	-27557384.60	-27557384.57	-27557384.52	0.0140	0.0132
Mars	-80153-05-26 14:08 J	-27554314.14	-27554313.91	-27554313.62	0.0145	0.0086
Mars	-80151-05-02 20:37 J	-27553607.97	-27553607.64	-27553607.32	0.0146	0.0004
Mars	-80149-04-08 20:37 J	-27552900.89	-27552900.64	-27552900.35	0.0146	0.0084

Moon	-80145-06-13 06:56 J	-27551374.31	-27551374.21	-27551374.08	0.0147	0.0131
Earth	-80145-06-13 10:04 J	-27551374.17	-27551374.08	-27551373.94	0.0147	0.0131 *
Earth	-80144-06-18 14:37 J	-27551004.06	-27551003.89	-27551003.70	0.0147	0.0101
Moon	-80144-06-18 17:30 J	-27551003.94	-27551003.77	-27551003.59	0.0147	0.0104 *
Moon	-80143-06-23 17:30 J	-27550633.99	-27550633.77	-27550633.52	0.0147	0.0063
Earth	-80143-06-23 19:40 J	-27550633.89	-27550633.68	-27550633.45	0.0147	0.0071 *
Earth	-80142-06-29 01:11 J	-27550263.69	-27550263.45	-27550263.20	0.0147	0.0040
Moon	-80142-06-29 02:52 J	-27550263.61	-27550263.38	-27550263.14	0.0147	0.0047 *
Moon	-80141-07-03 06:56 J	-27549893.48	-27549893.21	-27549892.95	0.0147	0.0005
Earth	-80141-07-03 07:11 J	-27549893.45	-27549893.20	-27549892.94	0.0147	0.0009 *
Earth	-80140-07-08 13:40 J	-27549523.18	-27549522.93	-27549522.68	0.0147	0.0023
Moon	-80140-07-08 13:40 J	-27549523.17	-27549522.93	-27549522.68	0.0147	0.0023 *
Earth	-80139-07-13 19:54 J	-27549152.90	-27549152.67	-27549152.42	0.0147	0.0055
Moon	-80139-07-13 21:06 J	-27549152.86	-27549152.62	-27549152.36	0.0147	0.0050 *
Moon	-80138-07-19 00:42 J	-27548782.64	-27548782.47	-27548782.26	0.0147	0.0094
Earth	-80138-07-19 02:37 J	-27548782.58	-27548782.39	-27548782.17	0.0147	0.0086 *
Earth	-80137-07-23 09:49 J	-27548412.25	-27548412.09	-27548411.93	0.0146	0.0116
Moon	-80137-07-23 11:59 J	-27548412.16	-27548412.00	-27548411.81	0.0146	0.0110 *
Earth	-80136-07-28 16:04 J	-27548041.83	-27548041.83	-27548041.77	0.0146	0.0146
Venus	-80130-09-07 08:37 J	-27545810.30	-27545810.14	-27545809.96	0.0143	0.0094
Venus	-80129-04-20 22:32 J	-27545583.79	-27545583.56	-27545583.34	0.0143	0.0021
Venus	-80129-12-03 11:44 J	-27545357.21	-27545357.01	-27545356.79	0.0142	0.0052
Venus	-80128-07-18 00:56 J	-27545130.56	-27545130.46	-27545130.34	0.0142	0.0123
Mercury	-80125-01-05 02:23 J	-27544229.48	-27544229.40	-27544229.29	0.0141	0.0119
Mercury	-80125-04-02 10:04 J	-27544141.21	-27544141.08	-27544140.93	0.0140	0.0094
Mercury	-80125-06-29 17:30 J	-27544052.92	-27544052.77	-27544052.59	0.0140	0.0069
Mercury	-80125-09-26 01:11 J	-27543964.62	-27543964.45	-27543964.27	0.0140	0.0043
Mercury	-80125-12-23 08:37 J	-27543876.32	-27543876.14	-27543875.95	0.0140	0.0018
Mercury	-80124-03-21 16:04 J	-27543788.02	-27543787.83	-27543787.64	0.0140	0.0007
Mercury	-80124-06-17 23:16 J	-27543699.71	-27543699.53	-27543699.35	0.0140	0.0032

Mercury -80124-09-14 06:28 J -27543611.39 -27543611.23 -27543611.06 0.0140 0.0056

Mercury -80124-12-11 13:40 J -27543523.08 -27543522.93 -27543522.78 0.0139 0.0080

Mercury -80123-03-09 20:37 J -27543434.75 -27543434.64 -27543434.51 0.0139 0.0104

Mercury -80123-06-06 03:35 J -27543346.41 -27543346.35 -27543346.27 0.0139 0.0128

Mars -80114-01-20 18:42 J -27540195.90 -27540195.72 -27540195.50 0.0134 0.0099

Mars -80113-12-20 14:52 J -27539496.14 -27539495.88 -27539495.59 0.0134 0.0041

Mars -80111-11-19 23:44 J -27538796.79 -27538796.51 -27538796.22 0.0133 0.0014

Mars -80109-10-19 01:11 J -27538097.70 -27538097.45 -27538097.21 0.0132 0.0067

Mars -80107-09-17 17:30 J -27537398.88 -27537398.77 -27537398.62 0.0132 0.0117

Moon -80105-12-16 05:44 J -27536578.29 -27536578.26 -27536578.19 0.0131 0.0129

Earth -80104-12-20 13:40 J -27536209.04 -27536208.93 -27536208.80 0.0131 0.0115

Moon -80104-12-20 16:04 J -27536208.90 -27536208.83 -27536208.72 0.0131 0.0122 *

Moon -80103-12-24 16:32 J -27535840.00 -27535839.81 -27535839.61 0.0131 0.0087

Earth -80103-12-24 18:42 J -27535839.89 -27535839.72 -27535839.53 0.0131 0.0093 *

Earth -80102-12-28 23:16 J -27535470.74 -27535470.53 -27535470.31 0.0131 0.0072

Moon -80102-12-29 01:40 J -27535470.62 -27535470.43 -27535470.22 0.0131 0.0076 *

Moon -80100-01-01 00:42 J -27535101.71 -27535101.47 -27535101.22 0.0131 0.0048

Earth -80100-01-01 02:52 J -27535101.60 -27535101.38 -27535101.13 0.0131 0.0050 *

Earth -80099-01-05 06:28 J -27534732.47 -27534732.23 -27534731.97 0.0131 0.0028

Moon -80099-01-05 08:52 J -27534732.37 -27534732.13 -27534731.88 0.0131 0.0026 *

Moon -80098-01-09 07:25 J -27534363.45 -27534363.19 -27534362.93 0.0131 0.0009

Earth -80098-01-09 09:49 J -27534363.34 -27534363.09 -27534362.83 0.0131 0.0007 *

Earth -80097-01-13 12:42 J -27533994.22 -27533993.97 -27533993.72 0.0132 0.0016

Moon -80097-01-13 14:37 J -27533994.13 -27533993.89 -27533993.64 0.0132 0.0022 *

Moon -80096-01-16 12:28 J -27533625.22 -27533624.98 -27533624.71 0.0132 0.0032

Earth -80096-01-16 15:06 J -27533625.10 -27533624.87 -27533624.62 0.0132 0.0039 *

Earth -80095-01-20 17:30 J -27533255.98 -27533255.77 -27533255.53 0.0132 0.0060

Moon -80095-01-20 20:08 J -27533255.87 -27533255.66 -27533255.45 0.0132 0.0066 *

Moon -80094-01-24 17:44 J -27532886.96 -27532886.76 -27532886.53 0.0132 0.0076

Earth -80094-01-24 20:23 J -27532886.84 -27532886.65 -27532886.45 0.0132 0.0082 *

Earth -80093-01-28 22:47 J -27532517.70 -27532517.55 -27532517.39 0.0132 0.0103
 Moon -80093-01-29 00:56 J -27532517.58 -27532517.46 -27532517.30 0.0132 0.0107 *
 Moon -80092-01-31 23:01 J -27532148.63 -27532148.54 -27532148.44 0.0133 0.0123
 Earth -80092-02-01 00:56 J -27532148.53 -27532148.46 -27532148.35 0.0133 0.0124 *
 Venus -80085-04-14 03:06 J -27529519.51 -27529519.37 -27529519.22 0.0136 0.0096
 Venus -80085-11-26 07:25 J -27529293.39 -27529293.19 -27529292.98 0.0136 0.0038
 Venus -80084-07-10 11:59 J -27529067.21 -27529067.00 -27529066.79 0.0136 0.0021
 Venus -80083-02-21 16:18 J -27528840.98 -27528840.82 -27528840.64 0.0137 0.0080
 Mercury -80081-06-06 00:28 J -27528005.51 -27528005.48 -27528005.43 0.0138 0.0130
 Mercury -80081-09-02 03:49 J -27527917.41 -27527917.34 -27527917.26 0.0138 0.0113
 Mercury -80081-11-29 07:11 J -27527829.29 -27527829.20 -27527829.10 0.0138 0.0097
 Mercury -80080-02-25 10:47 J -27527741.16 -27527741.05 -27527740.94 0.0138 0.0079
 Mercury -80080-05-24 14:08 J -27527653.03 -27527652.91 -27527652.79 0.0138 0.0062
 Mercury -80080-08-20 17:30 J -27527564.89 -27527564.77 -27527564.64 0.0139 0.0045
 Mercury -80080-11-16 21:06 J -27527476.75 -27527476.62 -27527476.49 0.0139 0.0028
 Mercury -80079-02-13 00:28 J -27527388.61 -27527388.48 -27527388.34 0.0139 0.0012
 Mercury -80079-05-12 04:04 J -27527300.46 -27527300.33 -27527300.19 0.0139 0.0007
 Mercury -80079-08-08 07:40 J -27527212.31 -27527212.18 -27527212.05 0.0139 0.0025
 Mercury -80079-11-04 11:01 J -27527124.16 -27527124.04 -27527123.90 0.0139 0.0044
 Mercury -80078-01-31 14:37 J -27527036.00 -27527035.89 -27527035.76 0.0139 0.0061
 Mercury -80078-04-29 18:13 J -27526947.84 -27526947.74 -27526947.62 0.0140 0.0080
 Mercury -80078-07-26 21:49 J -27526859.68 -27526859.59 -27526859.48 0.0140 0.0098
 Mercury -80078-10-23 01:40 J -27526771.50 -27526771.43 -27526771.35 0.0140 0.0116
 Mercury -80077-01-19 05:16 J -27526683.31 -27526683.28 -27526683.24 0.0140 0.0135
 Mars -80070-02-14 23:30 J -27524099.64 -27524099.52 -27524099.34 0.0144 0.0127
 Mars -80068-01-20 15:20 J -27523394.15 -27523393.86 -27523393.53 0.0145 0.0051
 Mars -80067-12-28 03:06 J -27522687.68 -27522687.37 -27522687.03 0.0146 0.0034
 Mars -80065-12-04 10:18 J -27521980.23 -27521980.07 -27521979.86 0.0147 0.0122
 Moon -80061-06-13 17:16 J -27520692.90 -27520692.78 -27520692.64 0.0147 0.0126
 Earth -80061-06-13 20:37 J -27520692.75 -27520692.64 -27520692.51 0.0147 0.0129 *

Earth	-80060-06-19 01:11 J	-27520322.64	-27520322.45	-27520322.26	0.0147	0.0099
Moon	-80060-06-19 04:18 J	-27520322.51	-27520322.32	-27520322.13	0.0147	0.0095 *
Moon	-80059-06-24 03:06 J	-27519952.59	-27519952.37	-27519952.14	0.0147	0.0074
Earth	-80059-06-24 06:13 J	-27519952.47	-27519952.24	-27519952.02	0.0147	0.0068 *
Earth	-80058-06-29 11:44 J	-27519582.26	-27519582.01	-27519581.76	0.0147	0.0037
Moon	-80058-06-29 13:25 J	-27519582.18	-27519581.94	-27519581.69	0.0147	0.0029 *
Moon	-80057-07-03 16:18 J	-27519212.09	-27519211.82	-27519211.56	0.0147	0.0010
Earth	-80057-07-03 17:59 J	-27519212.01	-27519211.75	-27519211.50	0.0147	0.0005 *
Earth	-80056-07-09 00:13 J	-27518841.74	-27518841.49	-27518841.24	0.0147	0.0028
Moon	-80056-07-09 00:28 J	-27518841.72	-27518841.48	-27518841.23	0.0147	0.0028 *
Earth	-80055-07-14 06:42 J	-27518471.44	-27518471.22	-27518470.97	0.0147	0.0060
Moon	-80055-07-14 06:56 J	-27518471.43	-27518471.21	-27518470.96	0.0147	0.0064 *
Moon	-80054-07-19 12:28 J	-27518101.18	-27518100.98	-27518100.77	0.0147	0.0084
Earth	-80054-07-19 13:25 J	-27518101.13	-27518100.94	-27518100.72	0.0147	0.0091 *
Earth	-80053-07-23 20:37 J	-27517730.78	-27517730.64	-27517730.49	0.0147	0.0121
Moon	-80053-07-23 22:47 J	-27517730.66	-27517730.55	-27517730.41	0.0147	0.0128 *
Venus	-80046-05-07 14:37 J	-27515251.98	-27515251.89	-27515251.78	0.0143	0.0128
Venus	-80046-12-20 04:32 J	-27515025.51	-27515025.31	-27515025.10	0.0143	0.0055
Venus	-80045-08-02 18:13 J	-27514798.96	-27514798.74	-27514798.52	0.0143	0.0018
Venus	-80044-03-17 07:11 J	-27514572.36	-27514572.20	-27514572.01	0.0142	0.0090
Mercury	-80042-10-29 02:23 J	-27513616.42	-27513616.40	-27513616.36	0.0141	0.0139
Mercury	-80041-01-25 10:04 J	-27513528.18	-27513528.08	-27513527.96	0.0141	0.0113
Mercury	-80041-04-22 17:30 J	-27513439.90	-27513439.77	-27513439.61	0.0140	0.0088
Mercury	-80041-07-20 01:25 J	-27513351.61	-27513351.44	-27513351.27	0.0140	0.0061
Mercury	-80041-10-16 08:52 J	-27513263.31	-27513263.13	-27513262.95	0.0140	0.0036
Mercury	-80040-01-12 16:18 J	-27513175.01	-27513174.82	-27513174.64	0.0140	0.0011
Mercury	-80040-04-10 23:30 J	-27513086.70	-27513086.52	-27513086.33	0.0140	0.0014
Mercury	-80040-07-08 06:42 J	-27512998.39	-27512998.22	-27512998.03	0.0140	0.0039
Mercury	-80040-10-04 13:54 J	-27512910.08	-27512909.92	-27512909.75	0.0139	0.0063
Mercury	-80040-12-31 21:06 J	-27512821.76	-27512821.62	-27512821.47	0.0139	0.0087

Mercury -80039-03-30 04:18 J -27512733.43 -27512733.32 -27512733.21 0.0139 0.0110

Mercury -80039-06-26 11:01 J -27512645.07 -27512645.04 -27512644.98 0.0139 0.0134

Jupiter -80033-03-21 00:28 J -27510550.95 -27510550.48 -27510549.96 0.0136 0.0049

Mars -80032-10-15 02:08 J -27509977.49 -27509977.41 -27509977.31 0.0135 0.0128

Mars -80030-09-15 06:42 J -27509277.45 -27509277.22 -27509276.95 0.0134 0.0070

Mars -80028-08-14 22:18 J -27508577.85 -27508577.57 -27508577.27 0.0133 0.0014

Mars -80026-07-15 04:47 J -27507878.57 -27507878.30 -27507878.02 0.0133 0.0040

Mars -80024-06-13 02:23 J -27507179.59 -27507179.40 -27507179.18 0.0132 0.0091

Earth -80020-12-20 23:44 J -27505527.62 -27505527.51 -27505527.37 0.0131 0.0114

Moon -80020-12-21 02:37 J -27505527.53 -27505527.39 -27505527.24 0.0131 0.0107 *

Moon -80019-12-25 01:40 J -27505158.59 -27505158.43 -27505158.25 0.0131 0.0098

Earth -80019-12-25 05:01 J -27505158.47 -27505158.29 -27505158.11 0.0131 0.0092 *

Earth -80018-12-29 08:52 J -27504789.33 -27504789.13 -27504788.90 0.0131 0.0070

Moon -80018-12-29 11:30 J -27504789.22 -27504789.02 -27504788.79 0.0131 0.0066 *

Moon -80016-01-01 09:49 J -27504420.31 -27504420.09 -27504419.83 0.0131 0.0050

Earth -80016-01-01 12:42 J -27504420.19 -27504419.97 -27504419.71 0.0131 0.0049 *

Earth -80015-01-05 16:18 J -27504051.06 -27504050.82 -27504050.57 0.0131 0.0026

Moon -80015-01-05 19:11 J -27504050.94 -27504050.70 -27504050.45 0.0131 0.0026 *

Moon -80014-01-09 16:47 J -27503682.05 -27503681.80 -27503681.54 0.0131 0.0003

Earth -80014-01-09 19:25 J -27503681.94 -27503681.69 -27503681.43 0.0131 0.0004 *

Earth -80013-01-13 22:04 J -27503312.82 -27503312.58 -27503312.32 0.0131 0.0020

Moon -80013-01-14 01:11 J -27503312.69 -27503312.45 -27503312.20 0.0131 0.0014 *

Moon -80012-01-16 21:49 J -27502943.82 -27502943.59 -27502943.34 0.0132 0.0048

Earth -80012-01-17 00:28 J -27502943.71 -27502943.48 -27502943.23 0.0132 0.0042 *

Earth -80011-01-21 02:52 J -27502574.58 -27502574.38 -27502574.14 0.0132 0.0064

Moon -80011-01-21 05:44 J -27502574.47 -27502574.26 -27502574.02 0.0132 0.0057 *

Moon -80010-01-25 02:37 J -27502205.57 -27502205.39 -27502205.20 0.0132 0.0091

Earth -80010-01-25 05:30 J -27502205.45 -27502205.27 -27502205.07 0.0132 0.0085 *

Earth -80009-01-29 07:54 J -27501836.31 -27501836.17 -27501836.01 0.0132 0.0107

Moon -80009-01-29 10:32 J -27501836.20 -27501836.06 -27501835.90 0.0132 0.0104 *

Moon	-80008-02-01 07:11 J	-27501467.23	-27501467.20	-27501467.13	0.0132	0.0130
Earth	-80008-02-01 10:18 J	-27501467.11	-27501467.07	-27501466.98	0.0132	0.0128
Venus	-80002-12-13 12:42 J	-27498961.03	-27498960.97	-27498960.88	0.0135	0.0125
Venus	-80001-07-26 17:01 J	-27498734.97	-27498734.79	-27498734.60	0.0136	0.0068

80TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 80th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-80000-03-09 21:20 J	-27498508.82	-27498508.61	-27498508.40	0.0136	0.0010		
Venus	-80000-10-22 01:25 J	-27498282.63	-27498282.44	-27498282.23	0.0136	0.0050		
Venus	-79999-06-05 05:44 J	-27498056.37	-27498056.26	-27498056.11	0.0137	0.0109		
Mercury	-79997-06-26 07:11 J	-27497304.24	-27497304.20	-27497304.14	0.0138	0.0128		
Mercury	-79997-09-22 10:47 J	-27497216.13	-27497216.05	-27497215.97	0.0138	0.0111		
Mercury	-79997-12-19 14:08 J	-27497128.01	-27497127.91	-27497127.81	0.0138	0.0094		
Mercury	-79996-03-17 17:30 J	-27497039.88	-27497039.77	-27497039.66	0.0138	0.0077		
Mercury	-79996-06-13 20:52 J	-27496951.75	-27496951.63	-27496951.50	0.0138	0.0060		
Mercury	-79996-09-10 00:13 J	-27496863.61	-27496863.49	-27496863.35	0.0139	0.0044		
Mercury	-79996-12-07 03:49 J	-27496775.47	-27496775.34	-27496775.20	0.0139	0.0026		
Mercury	-79995-03-05 07:25 J	-27496687.33	-27496687.19	-27496687.06	0.0139	0.0009		
Mercury	-79995-06-01 10:47 J	-27496599.18	-27496599.05	-27496598.91	0.0139	0.0010		
Mercury	-79995-08-28 14:23 J	-27496511.03	-27496510.90	-27496510.77	0.0139	0.0027		
Mercury	-79995-11-24 17:59 J	-27496422.88	-27496422.75	-27496422.62	0.0139	0.0045		

Mercury -79994-02-20 21:20 J -27496334.72 -27496334.61 -27496334.48 0.0139 0.0064

Mercury -79994-05-20 00:56 J -27496246.56 -27496246.46 -27496246.34 0.0140 0.0082

Mercury -79994-08-16 04:47 J -27496158.39 -27496158.30 -27496158.20 0.0140 0.0100

Mercury -79994-11-12 08:23 J -27496070.22 -27496070.15 -27496070.07 0.0140 0.0118

Mercury -79993-02-08 11:59 J -27495982.02 -27495982.00 -27495981.96 0.0140 0.0137

Mars -79986-10-11 18:28 J -27493179.97 -27493179.73 -27493179.47 0.0145 0.0093

Mars -79984-09-16 15:35 J -27492474.18 -27492473.85 -27492473.53 0.0145 0.0014

Mars -79982-08-24 09:20 J -27491767.39 -27491767.11 -27491766.81 0.0146 0.0072

Moon -79977-06-14 00:13 J -27490011.58 -27490011.49 -27490011.35 0.0147 0.0131

Earth -79977-06-14 04:04 J -27490011.43 -27490011.33 -27490011.19 0.0147 0.0128 *

Earth -79976-06-19 08:37 J -27489641.32 -27489641.14 -27489640.95 0.0147 0.0098

Moon -79976-06-19 11:59 J -27489641.17 -27489641.00 -27489640.81 0.0147 0.0100 *

Moon -79975-06-24 10:32 J -27489271.28 -27489271.06 -27489270.81 0.0148 0.0060

Earth -79975-06-24 13:40 J -27489271.15 -27489270.93 -27489270.70 0.0148 0.0067 *

Earth -79974-06-29 19:11 J -27488900.94 -27488900.70 -27488900.45 0.0148 0.0034

Moon -79974-06-29 22:04 J -27488900.81 -27488900.58 -27488900.34 0.0148 0.0042 *

Moon -79973-07-03 23:44 J -27488530.78 -27488530.51 -27488530.25 0.0147 0.0004

Earth -79973-07-04 01:25 J -27488530.69 -27488530.44 -27488530.18 0.0147 0.0003 *

Earth -79972-07-09 07:54 J -27488160.42 -27488160.17 -27488159.92 0.0147 0.0031

Moon -79972-07-09 09:06 J -27488160.36 -27488160.12 -27488159.87 0.0147 0.0030 *

Moon -79971-07-14 14:08 J -27487790.15 -27487789.91 -27487789.66 0.0147 0.0059

Earth -79971-07-14 14:23 J -27487790.12 -27487789.90 -27487789.66 0.0147 0.0063 *

Moon -79970-07-19 20:52 J -27487419.80 -27487419.63 -27487419.45 0.0147 0.0102

Earth -79970-07-19 21:35 J -27487419.79 -27487419.60 -27487419.40 0.0147 0.0094 *

Earth -79969-07-24 04:18 J -27487049.43 -27487049.32 -27487049.17 0.0147 0.0126

Moon -79969-07-24 05:59 J -27487049.40 -27487049.25 -27487049.09 0.0147 0.0118 *

Venus -79962-08-19 09:06 J -27484467.28 -27484467.12 -27484466.93 0.0143 0.0092

Venus -79961-04-01 23:01 J -27484240.76 -27484240.54 -27484240.31 0.0143 0.0018

Venus -79961-11-14 12:28 J -27484014.18 -27484013.98 -27484013.77 0.0143 0.0055

Venus -79960-06-29 01:40 J -27483787.52 -27483787.43 -27483787.32 0.0142 0.0126

Mercury -79958-11-18 09:20 J -27482915.15 -27482915.11 -27482915.03 0.0141 0.0134

Mercury -79957-02-14 17:16 J -27482826.89 -27482826.78 -27482826.65 0.0141 0.0108

Mercury -79957-05-13 00:56 J -27482738.61 -27482738.46 -27482738.30 0.0140 0.0082

Mercury -79957-08-09 08:23 J -27482650.31 -27482650.15 -27482649.97 0.0140 0.0057

Mercury -79957-11-05 15:49 J -27482562.01 -27482561.84 -27482561.65 0.0140 0.0032

Mercury -79956-02-01 23:30 J -27482473.71 -27482473.52 -27482473.34 0.0140 0.0006

Mercury -79956-05-01 06:42 J -27482385.40 -27482385.22 -27482385.03 0.0140 0.0019

Mercury -79956-07-28 13:54 J -27482297.09 -27482296.92 -27482296.74 0.0140 0.0044

Mercury -79956-10-24 21:06 J -27482208.77 -27482208.62 -27482208.45 0.0140 0.0068

Mercury -79955-01-21 04:32 J -27482120.45 -27482120.31 -27482120.18 0.0139 0.0092

Mercury -79955-04-19 11:30 J -27482032.12 -27482032.02 -27482031.92 0.0139 0.0116

Mercury -79955-07-16 18:42 J -27481943.72 -27481943.72 -27481943.72 0.0139 0.0139

Mars -79947-06-09 15:49 J -27479059.03 -27479058.84 -27479058.63 0.0135 0.0100

Mars -79945-05-09 15:06 J -27478359.14 -27478358.87 -27478358.58 0.0134 0.0043

Mars -79943-04-09 04:32 J -27477659.60 -27477659.31 -27477659.02 0.0133 0.0012

Mars -79941-03-08 07:54 J -27476960.40 -27476960.17 -27476959.90 0.0132 0.0065

Mars -79939-02-05 02:23 J -27476261.52 -27476261.40 -27476261.24 0.0132 0.0114

Moon -79937-12-17 01:25 J -27475215.50 -27475215.44 -27475215.37 0.0131 0.0127

Earth -79936-12-21 09:35 J -27474846.21 -27474846.10 -27474845.95 0.0131 0.0112

Moon -79936-12-21 12:56 J -27474846.05 -27474845.96 -27474845.84 0.0131 0.0119 *

Moon -79935-12-25 11:16 J -27474477.21 -27474477.03 -27474476.81 0.0131 0.0084

Earth -79935-12-25 14:23 J -27474477.07 -27474476.90 -27474476.70 0.0131 0.0091 *

Earth -79934-12-29 18:28 J -27474107.93 -27474107.73 -27474107.50 0.0131 0.0068

Moon -79934-12-29 21:49 J -27474107.78 -27474107.59 -27474107.37 0.0131 0.0073 *

Moon -79932-01-01 19:11 J -27473738.94 -27473738.70 -27473738.45 0.0131 0.0042

Earth -79932-01-01 22:18 J -27473738.80 -27473738.57 -27473738.32 0.0131 0.0046 *

Earth -79931-01-06 01:40 J -27473369.68 -27473369.43 -27473369.18 0.0131 0.0023

Moon -79931-01-06 04:47 J -27473369.55 -27473369.30 -27473369.05 0.0131 0.0021 *

Moon -79930-01-10 01:25 J -27473000.70 -27473000.44 -27473000.18 0.0131 0.0003

Earth -79930-01-10 04:47 J -27473000.55 -27473000.30 -27473000.05 0.0131 0.0000 *

Earth -79929-01-14 07:11 J -27472631.44 -27472631.20 -27472630.95 0.0131 0.0022
 Moon -79929-01-14 10:04 J -27472631.32 -27472631.08 -27472630.83 0.0131 0.0028 *
 Moon -79928-01-17 06:28 J -27472262.47 -27472262.23 -27472261.98 0.0131 0.0038
 Earth -79928-01-17 09:49 J -27472262.32 -27472262.09 -27472261.85 0.0131 0.0045 *
 Earth -79927-01-21 11:59 J -27471893.20 -27471893.00 -27471892.77 0.0132 0.0067
 Moon -79927-01-21 15:06 J -27471893.06 -27471892.87 -27471892.65 0.0132 0.0074 *
 Moon -79926-01-25 11:16 J -27471524.21 -27471524.03 -27471523.81 0.0132 0.0083
 Earth -79926-01-25 14:23 J -27471524.07 -27471523.90 -27471523.70 0.0132 0.0089 *
 Earth -79925-01-29 16:47 J -27471154.92 -27471154.80 -27471154.65 0.0132 0.0111
 Moon -79925-01-29 20:08 J -27471154.76 -27471154.66 -27471154.53 0.0132 0.0116 *
 Moon -79924-02-01 16:04 J -27470785.85 -27470785.83 -27470785.76 0.0132 0.0131
 Earth -79924-02-01 19:40 J -27470785.70 -27470785.68 -27470785.66 0.0132 0.0132
 Venus -79917-03-26 02:23 J -27468176.55 -27468176.40 -27468176.26 0.0135 0.0098
 Venus -79917-11-07 06:28 J -27467950.43 -27467950.23 -27467950.03 0.0136 0.0040
 Venus -79916-06-21 10:47 J -27467724.26 -27467724.05 -27467723.84 0.0136 0.0018
 Venus -79915-02-02 14:52 J -27467498.04 -27467497.88 -27467497.69 0.0136 0.0077
 Venus -79915-09-16 19:40 J -27467271.69 -27467271.68 -27467271.66 0.0137 0.0136
 Mercury -79913-07-16 14:08 J -27466602.96 -27466602.91 -27466602.86 0.0138 0.0126
 Mercury -79913-10-12 17:16 J -27466514.85 -27466514.78 -27466514.69 0.0138 0.0110
 Mercury -79912-01-08 20:37 J -27466426.73 -27466426.64 -27466426.53 0.0138 0.0093
 Mercury -79912-04-06 23:59 J -27466338.60 -27466338.50 -27466338.38 0.0138 0.0077
 Mercury -79912-07-04 03:35 J -27466250.47 -27466250.35 -27466250.23 0.0138 0.0059
 Mercury -79912-09-30 07:11 J -27466162.33 -27466162.20 -27466162.08 0.0138 0.0042
 Mercury -79912-12-27 10:32 J -27466074.19 -27466074.06 -27466073.93 0.0139 0.0024
 Mercury -79911-03-25 13:54 J -27465986.05 -27465985.92 -27465985.78 0.0139 0.0009
 Mercury -79911-06-21 17:30 J -27465897.90 -27465897.77 -27465897.63 0.0139 0.0011
 Mercury -79911-09-17 21:06 J -27465809.75 -27465809.62 -27465809.49 0.0139 0.0029
 Mercury -79911-12-15 00:42 J -27465721.60 -27465721.47 -27465721.34 0.0139 0.0047
 Mercury -79910-03-13 04:04 J -27465633.44 -27465633.33 -27465633.20 0.0139 0.0065
 Mercury -79910-06-09 07:54 J -27465545.28 -27465545.17 -27465545.06 0.0139 0.0083

Mercury -79910-09-05 11:30 J -27465457.11 -27465457.02 -27465456.93 0.0140 0.0101

Mercury -79910-12-02 14:52 J -27465368.94 -27465368.88 -27465368.80 0.0140 0.0120

Mercury -79909-02-28 18:42 J -27465280.73 -27465280.72 -27465280.69 0.0140 0.0138

Mars -79903-07-02 05:01 J -27462965.40 -27462965.29 -27462965.16 0.0144 0.0133

Mars -79901-06-06 11:01 J -27462260.32 -27462260.04 -27462259.73 0.0145 0.0059

Mars -79899-05-13 14:23 J -27461554.22 -27461553.90 -27461553.57 0.0146 0.0023

Mars -79897-04-19 14:23 J -27460847.09 -27460846.90 -27460846.65 0.0146 0.0109

Moon -79893-06-14 07:25 J -27459330.31 -27459330.19 -27459330.04 0.0147 0.0124

Earth -79893-06-14 10:47 J -27459330.16 -27459330.05 -27459329.91 0.0147 0.0128 *

Earth -79892-06-19 15:06 J -27458960.05 -27458959.87 -27458959.67 0.0148 0.0097

Moon -79892-06-19 18:42 J -27458959.90 -27458959.72 -27458959.51 0.0148 0.0094 *

Moon -79891-06-24 16:18 J -27458590.03 -27458589.82 -27458589.58 0.0148 0.0071

Earth -79891-06-24 20:08 J -27458589.88 -27458589.66 -27458589.42 0.0148 0.0065 *

Earth -79890-06-30 01:40 J -27458219.67 -27458219.43 -27458219.17 0.0148 0.0033

Moon -79890-06-30 04:47 J -27458219.55 -27458219.30 -27458219.05 0.0148 0.0025 *

Moon -79889-07-04 05:16 J -27457849.54 -27457849.28 -27457849.02 0.0148 0.0006

Earth -79889-07-04 08:08 J -27457849.42 -27457849.16 -27457848.91 0.0148 0.0001 *

Earth -79888-07-09 14:23 J -27457479.14 -27457478.90 -27457478.65 0.0147 0.0034

Moon -79888-07-09 16:04 J -27457479.06 -27457478.83 -27457478.58 0.0147 0.0036 *

Moon -79887-07-14 20:08 J -27457108.89 -27457108.66 -27457108.42 0.0147 0.0069

Earth -79887-07-14 21:06 J -27457108.84 -27457108.62 -27457108.38 0.0147 0.0066 *

Earth -79886-07-20 04:18 J -27456738.50 -27456738.32 -27456738.12 0.0147 0.0098

Moon -79886-07-20 04:47 J -27456738.49 -27456738.30 -27456738.10 0.0147 0.0092 *

Earth -79885-07-24 11:16 J -27456368.13 -27456368.03 -27456367.89 0.0147 0.0130

Moon -79885-07-24 12:13 J -27456368.06 -27456367.99 -27456367.87 0.0147 0.0137 *

Venus -79878-04-18 13:11 J -27453909.04 -27453908.95 -27453908.85 0.0144 0.0129

Venus -79878-12-01 03:06 J -27453682.58 -27453682.37 -27453682.16 0.0143 0.0055

Venus -79877-07-14 16:47 J -27453456.02 -27453455.80 -27453455.57 0.0143 0.0018

Venus -79876-02-26 05:59 J -27453229.41 -27453229.25 -27453229.07 0.0142 0.0090

Mercury -79874-12-08 16:32 J -27452213.88 -27452213.81 -27452213.73 0.0141 0.0129

Mercury -79873-03-05 23:59 J -27452125.61 -27452125.50 -27452125.36 0.0141 0.0104
 Mercury -79873-06-02 07:40 J -27452037.33 -27452037.18 -27452037.01 0.0140 0.0078
 Mercury -79873-08-29 15:20 J -27451949.03 -27451948.86 -27451948.68 0.0140 0.0052
 Mercury -79873-11-25 22:47 J -27451860.73 -27451860.55 -27451860.36 0.0140 0.0027
 Mercury -79872-02-22 06:13 J -27451772.42 -27451772.24 -27451772.05 0.0140 0.0004
 Mercury -79872-05-21 13:40 J -27451684.11 -27451683.93 -27451683.74 0.0140 0.0023
 Mercury -79872-08-17 20:52 J -27451595.80 -27451595.63 -27451595.45 0.0140 0.0048
 Mercury -79872-11-14 04:04 J -27451507.48 -27451507.33 -27451507.16 0.0140 0.0072
 Mercury -79871-02-10 11:16 J -27451419.16 -27451419.03 -27451418.89 0.0139 0.0096
 Mercury -79871-05-09 18:13 J -27451330.82 -27451330.74 -27451330.64 0.0139 0.0120
 Mars -79864-03-03 17:30 J -27448840.83 -27448840.77 -27448840.67 0.0135 0.0131
 Mars -79862-02-02 02:08 J -27448140.64 -27448140.41 -27448140.14 0.0134 0.0073
 Mars -79860-01-01 23:30 J -27447440.80 -27447440.52 -27447440.22 0.0134 0.0017
 Mars -79859-12-02 10:18 J -27446741.34 -27446741.07 -27446740.78 0.0133 0.0038
 Mars -79857-10-31 11:16 J -27446042.23 -27446042.03 -27446041.81 0.0132 0.0089
 Earth -79852-12-21 20:23 J -27444164.76 -27444164.65 -27444164.49 0.0131 0.0111
 Moon -79852-12-21 23:44 J -27444164.64 -27444164.51 -27444164.34 0.0131 0.0104 *
 Moon -79851-12-25 21:49 J -27443795.76 -27443795.59 -27443795.41 0.0131 0.0095
 Earth -79851-12-26 01:25 J -27443795.62 -27443795.44 -27443795.24 0.0131 0.0088 *
 Earth -79850-12-30 05:16 J -27443426.49 -27443426.28 -27443426.05 0.0131 0.0066
 Moon -79850-12-30 08:37 J -27443426.35 -27443426.14 -27443425.91 0.0131 0.0061 *
 Moon -79848-01-02 05:44 J -27443057.50 -27443057.26 -27443057.02 0.0131 0.0045
 Earth -79848-01-02 09:06 J -27443057.35 -27443057.12 -27443056.87 0.0131 0.0043 *
 Earth -79847-01-06 12:28 J -27442688.23 -27442687.98 -27442687.72 0.0131 0.0020
 Moon -79847-01-06 16:04 J -27442688.08 -27442687.83 -27442687.58 0.0131 0.0020 *
 Moon -79846-01-10 12:13 J -27442319.24 -27442318.99 -27442318.73 0.0131 0.0006
 Earth -79846-01-10 15:35 J -27442319.10 -27442318.85 -27442318.60 0.0131 0.0003 *
 Earth -79845-01-14 18:13 J -27441949.99 -27441949.74 -27441949.49 0.0131 0.0025
 Moon -79845-01-14 21:49 J -27441949.84 -27441949.59 -27441949.34 0.0131 0.0020 *
 Moon -79844-01-17 17:16 J -27441581.00 -27441580.78 -27441580.54 0.0131 0.0054

Earth -79844-01-17 20:37 J -27441580.86 -27441580.64 -27441580.39 0.0131 0.0048 *
 Earth -79843-01-21 23:01 J -27441211.74 -27441211.54 -27441211.31 0.0132 0.0071
 Moon -79843-01-22 02:23 J -27441211.60 -27441211.40 -27441211.17 0.0132 0.0064 *
 Moon -79842-01-25 21:49 J -27440842.73 -27440842.59 -27440842.40 0.0132 0.0100
 Earth -79842-01-26 01:25 J -27440842.60 -27440842.44 -27440842.24 0.0132 0.0093 *
 Earth -79841-01-30 03:35 J -27440473.45 -27440473.35 -27440473.20 0.0132 0.0116
 Moon -79841-01-30 06:56 J -27440473.32 -27440473.21 -27440473.06 0.0132 0.0111 *
 Venus -79834-11-24 13:25 J -27437618.01 -27437617.94 -27437617.86 0.0135 0.0124
 Venus -79833-07-07 17:16 J -27437391.95 -27437391.78 -27437391.59 0.0135 0.0068
 Venus -79832-02-18 21:35 J -27437165.81 -27437165.60 -27437165.39 0.0136 0.0010
 Venus -79832-10-03 01:40 J -27436939.62 -27436939.43 -27436939.22 0.0136 0.0049
 Venus -79831-05-17 06:13 J -27436713.36 -27436713.24 -27436713.11 0.0136 0.0108
 Mercury -79829-08-05 21:06 J -27435901.67 -27435901.62 -27435901.55 0.0138 0.0123
 Mercury -79829-11-02 00:28 J -27435813.55 -27435813.48 -27435813.39 0.0138 0.0106
 Mercury -79828-01-29 04:04 J -27435725.43 -27435725.33 -27435725.23 0.0138 0.0089
 Mercury -79828-04-27 07:25 J -27435637.30 -27435637.19 -27435637.07 0.0138 0.0072
 Mercury -79828-07-24 10:47 J -27435549.17 -27435549.05 -27435548.92 0.0138 0.0055
 Mercury -79828-10-20 14:23 J -27435461.03 -27435460.90 -27435460.77 0.0138 0.0038
 Mercury -79827-01-16 17:44 J -27435372.89 -27435372.76 -27435372.62 0.0139 0.0021
 Mercury -79827-04-14 21:20 J -27435284.75 -27435284.61 -27435284.48 0.0139 0.0004
 Mercury -79827-07-12 00:42 J -27435196.60 -27435196.47 -27435196.33 0.0139 0.0015
 Mercury -79827-10-08 04:18 J -27435108.45 -27435108.32 -27435108.19 0.0139 0.0032
 Mercury -79826-01-04 07:54 J -27435020.30 -27435020.17 -27435020.04 0.0139 0.0050
 Mercury -79826-04-02 11:30 J -27434932.14 -27434932.02 -27434931.90 0.0139 0.0068
 Mercury -79826-06-29 15:06 J -27434843.98 -27434843.87 -27434843.77 0.0139 0.0087
 Mercury -79826-09-25 18:42 J -27434755.81 -27434755.72 -27434755.63 0.0140 0.0105
 Mercury -79826-12-22 22:04 J -27434667.63 -27434667.58 -27434667.50 0.0140 0.0124
 Mars -79818-02-25 23:59 J -27432045.72 -27432045.50 -27432045.26 0.0144 0.0099
 Mars -79816-01-31 11:59 J -27431340.32 -27431340.00 -27431339.68 0.0145 0.0023
 Mars -79814-01-07 21:49 J -27430633.88 -27430633.59 -27430633.28 0.0146 0.0060

Mars	-79813-12-15 03:35 J	-27429926.37	-27429926.35	-27429926.32	0.0147	0.0146
Moon	-79809-06-14 15:49 J	-27428648.94	-27428648.84	-27428648.71	0.0147	0.0130
Earth	-79809-06-14 19:25 J	-27428648.81	-27428648.69	-27428648.55	0.0147	0.0127 *
Earth	-79808-06-19 23:16 J	-27428278.70	-27428278.53	-27428278.32	0.0148	0.0096
Moon	-79808-06-20 03:20 J	-27428278.55	-27428278.36	-27428278.17	0.0148	0.0096 *
Moon	-79807-06-25 01:11 J	-27427908.68	-27427908.45	-27427908.21	0.0148	0.0057
Earth	-79807-06-25 04:47 J	-27427908.53	-27427908.30	-27427908.07	0.0148	0.0063 *
Earth	-79806-06-30 10:18 J	-27427538.32	-27427538.07	-27427537.83	0.0148	0.0030
Moon	-79806-06-30 13:40 J	-27427538.17	-27427537.93	-27427537.68	0.0148	0.0038 *
Moon	-79805-07-04 13:11 J	-27427168.20	-27427167.95	-27427167.68	0.0148	0.0010
Earth	-79805-07-04 16:18 J	-27427168.08	-27427167.82	-27427167.57	0.0148	0.0003 *
Earth	-79804-07-09 22:32 J	-27426797.80	-27426797.56	-27426797.30	0.0147	0.0037
Moon	-79804-07-10 00:56 J	-27426797.69	-27426797.46	-27426797.21	0.0147	0.0035 *
Moon	-79803-07-15 03:35 J	-27426427.58	-27426427.35	-27426427.11	0.0147	0.0068
Earth	-79803-07-15 05:30 J	-27426427.49	-27426427.27	-27426427.04	0.0147	0.0070 *
Earth	-79802-07-20 12:28 J	-27426057.15	-27426056.98	-27426056.78	0.0147	0.0102
Moon	-79802-07-20 13:11 J	-27426057.11	-27426056.95	-27426056.78	0.0147	0.0109 *
Moon	-79801-07-24 19:40 J	-27425686.81	-27425686.68	-27425686.54	0.0147	0.0126
Earth	-79801-07-24 19:54 J	-27425686.76	-27425686.67	-27425686.56	0.0147	0.0134 *
Venus	-79794-07-31 07:11 J	-27423124.37	-27423124.20	-27423124.03	0.0143	0.0093
Venus	-79793-03-13 20:52 J	-27422897.85	-27422897.63	-27422897.40	0.0143	0.0020
Venus	-79793-10-26 10:32 J	-27422671.27	-27422671.06	-27422670.85	0.0143	0.0053
Venus	-79792-06-09 23:30 J	-27422444.61	-27422444.52	-27422444.40	0.0142	0.0125
Mercury	-79790-12-28 23:16 J	-27421512.60	-27421512.53	-27421512.43	0.0141	0.0125
Mercury	-79789-03-26 07:11 J	-27421424.33	-27421424.20	-27421424.07	0.0141	0.0099
Mercury	-79789-06-22 14:37 J	-27421336.04	-27421335.89	-27421335.72	0.0140	0.0073
Mercury	-79789-09-18 22:18 J	-27421247.74	-27421247.57	-27421247.39	0.0140	0.0048
Mercury	-79789-12-16 05:44 J	-27421159.44	-27421159.26	-27421159.07	0.0140	0.0022
Mercury	-79788-03-14 13:11 J	-27421071.13	-27421070.95	-27421070.76	0.0140	0.0004
Mercury	-79788-06-10 20:37 J	-27420982.82	-27420982.64	-27420982.46	0.0140	0.0028

Mercury -79788-09-07 03:49 J -27420894.51 -27420894.34 -27420894.16 0.0140 0.0053

Mercury -79788-12-04 11:01 J -27420806.19 -27420806.04 -27420805.88 0.0140 0.0077

Mercury -79787-03-02 18:28 J -27420717.86 -27420717.73 -27420717.61 0.0139 0.0101

Mercury -79787-05-30 01:11 J -27420629.51 -27420629.45 -27420629.35 0.0139 0.0125

Mars -79780-10-27 07:11 J -27417922.38 -27417922.20 -27417921.99 0.0135 0.0102

Mars -79778-09-27 13:40 J -27417222.20 -27417221.93 -27417221.65 0.0134 0.0045

Mars -79776-08-27 08:08 J -27416522.45 -27416522.16 -27416521.87 0.0133 0.0010

Mars -79774-07-27 14:37 J -27415823.13 -27415822.89 -27415822.62 0.0133 0.0063

Mars -79772-06-25 12:28 J -27415124.11 -27415123.98 -27415123.81 0.0132 0.0112

Moon -79769-12-17 22:18 J -27413852.63 -27413852.57 -27413852.48 0.0131 0.0126

Earth -79768-12-22 07:11 J -27413483.32 -27413483.20 -27413483.04 0.0131 0.0109

Moon -79768-12-22 10:47 J -27413483.14 -27413483.05 -27413482.91 0.0131 0.0117 *

Moon -79767-12-26 08:23 J -27413114.34 -27413114.15 -27413113.93 0.0131 0.0080

Earth -79767-12-26 11:59 J -27413114.18 -27413114.00 -27413113.80 0.0131 0.0087 *

Earth -79766-12-30 16:04 J -27412745.05 -27412744.83 -27412744.60 0.0131 0.0064

Moon -79766-12-30 19:25 J -27412744.88 -27412744.69 -27412744.45 0.0131 0.0070 *

Moon -79764-01-02 16:04 J -27412376.06 -27412375.83 -27412375.57 0.0131 0.0037

Earth -79764-01-02 19:54 J -27412375.91 -27412375.67 -27412375.43 0.0131 0.0040 *

Earth -79763-01-06 23:01 J -27412006.78 -27412006.54 -27412006.28 0.0131 0.0018

Moon -79763-01-07 02:37 J -27412006.64 -27412006.39 -27412006.14 0.0131 0.0017 *

Moon -79762-01-10 22:32 J -27411637.81 -27411637.56 -27411637.30 0.0131 0.0004

Earth -79762-01-11 02:23 J -27411637.66 -27411637.40 -27411637.15 0.0131 0.0006 *

Earth -79761-01-15 04:32 J -27411268.54 -27411268.31 -27411268.05 0.0131 0.0030

Moon -79761-01-15 07:54 J -27411268.40 -27411268.17 -27411267.91 0.0131 0.0035 *

Moon -79760-01-18 03:35 J -27410899.57 -27410899.35 -27410899.10 0.0131 0.0046

Earth -79760-01-18 07:40 J -27410899.41 -27410899.18 -27410898.95 0.0131 0.0052 *

Earth -79759-01-22 09:49 J -27410530.28 -27410530.09 -27410529.87 0.0132 0.0075

Moon -79759-01-22 13:25 J -27410530.12 -27410529.94 -27410529.73 0.0132 0.0082 *

Moon -79758-01-26 08:52 J -27410161.29 -27410161.13 -27410160.93 0.0132 0.0091

Earth -79758-01-26 12:28 J -27410161.14 -27410160.98 -27410160.80 0.0132 0.0097 *

Earth -79757-01-30 14:52 J -27409791.97 -27409791.88 -27409791.76 0.0132 0.0119
 Moon -79757-01-30 18:56 J -27409791.79 -27409791.71 -27409791.63 0.0132 0.0124 *
 Venus -79749-03-07 04:18 J -27406833.46 -27406833.32 -27406833.16 0.0135 0.0095
 Venus -79749-10-19 08:37 J -27406607.34 -27406607.14 -27406606.94 0.0136 0.0037
 Venus -79748-06-02 12:56 J -27406381.17 -27406380.96 -27406380.75 0.0136 0.0021
 Venus -79747-01-14 17:01 J -27406154.95 -27406154.79 -27406154.61 0.0136 0.0080
 Mercury -79745-05-30 01:11 J -27405288.47 -27405288.45 -27405288.42 0.0138 0.0135
 Mercury -79745-08-26 04:32 J -27405200.37 -27405200.31 -27405200.24 0.0138 0.0118
 Mercury -79745-11-22 07:54 J -27405112.25 -27405112.17 -27405112.07 0.0138 0.0102
 Mercury -79744-02-18 11:16 J -27405024.13 -27405024.03 -27405023.92 0.0138 0.0085
 Mercury -79744-05-17 14:37 J -27404936.00 -27404935.89 -27404935.76 0.0138 0.0068
 Mercury -79744-08-13 18:13 J -27404847.86 -27404847.74 -27404847.61 0.0138 0.0051
 Mercury -79744-11-09 21:35 J -27404759.73 -27404759.60 -27404759.46 0.0138 0.0034
 Mercury -79743-02-06 01:11 J -27404671.58 -27404671.45 -27404671.32 0.0139 0.0016
 Mercury -79743-05-05 04:32 J -27404583.44 -27404583.31 -27404583.17 0.0139 0.0005
 Mercury -79743-08-01 08:08 J -27404495.29 -27404495.16 -27404495.02 0.0139 0.0019
 Mercury -79743-10-28 11:44 J -27404407.14 -27404407.01 -27404406.88 0.0139 0.0037
 Mercury -79742-01-24 15:06 J -27404318.99 -27404318.87 -27404318.74 0.0139 0.0055
 Mercury -79742-04-22 18:42 J -27404230.83 -27404230.72 -27404230.60 0.0139 0.0073
 Mercury -79742-07-19 22:18 J -27404142.67 -27404142.57 -27404142.46 0.0139 0.0091
 Mercury -79742-10-16 01:54 J -27404054.50 -27404054.42 -27404054.33 0.0140 0.0110
 Mercury -79741-01-12 05:44 J -27403966.31 -27403966.26 -27403966.21 0.0140 0.0128
 Mars -79736-11-17 03:06 J -27401830.44 -27401830.37 -27401830.25 0.0143 0.0137
 Mars -79734-10-23 00:13 J -27401125.76 -27401125.49 -27401125.19 0.0144 0.0065
 Mars -79732-09-27 19:54 J -27400419.99 -27400419.67 -27400419.34 0.0145 0.0015
 Mars -79730-09-04 12:13 J -27399713.23 -27399712.99 -27399712.74 0.0146 0.0099
 Moon -79725-06-15 03:35 J -27397967.48 -27397967.35 -27397967.20 0.0148 0.0121
 Earth -79725-06-15 06:42 J -27397967.35 -27397967.22 -27397967.08 0.0148 0.0125 *
 Earth -79724-06-20 11:01 J -27397597.24 -27397597.04 -27397596.85 0.0148 0.0093
 Moon -79724-06-20 14:08 J -27397597.10 -27397596.91 -27397596.70 0.0148 0.0091 *

Moon -79723-06-25 11:44 J -27397227.22 -27397227.01 -27397226.77 0.0148 0.0066
 Earth -79723-06-25 15:49 J -27397227.07 -27397226.84 -27397226.61 0.0148 0.0060 *
 Earth -79722-06-30 21:20 J -27396856.86 -27396856.61 -27396856.36 0.0148 0.0027
 Moon -79722-07-01 00:28 J -27396856.72 -27396856.48 -27396856.22 0.0148 0.0020 *
 Moon -79721-07-04 23:59 J -27396486.76 -27396486.50 -27396486.24 0.0148 0.0002
 Earth -79721-07-05 03:20 J -27396486.61 -27396486.36 -27396486.10 0.0148 0.0007 *
 Earth -79720-07-10 09:35 J -27396116.34 -27396116.10 -27396115.84 0.0147 0.0041
 Moon -79720-07-10 12:42 J -27396116.21 -27396115.97 -27396115.73 0.0147 0.0044 *
 Moon -79719-07-15 14:37 J -27395746.11 -27395745.89 -27395745.66 0.0147 0.0076
 Earth -79719-07-15 16:32 J -27395746.02 -27395745.81 -27395745.57 0.0147 0.0074 *
 Earth -79718-07-20 23:44 J -27395375.67 -27395375.51 -27395375.32 0.0147 0.0107
 Moon -79718-07-21 01:54 J -27395375.60 -27395375.42 -27395375.24 0.0147 0.0101 *
 Earth -79717-07-25 07:11 J -27395005.26 -27395005.20 -27395005.10 0.0147 0.0139
 Moon -79717-07-25 06:56 J -27395005.22 -27395005.21 -27395005.17 0.0147 0.0146 *
 Venus -79710-03-30 13:11 J -27392566.05 -27392565.95 -27392565.85 0.0144 0.0127
 Venus -79710-11-12 02:52 J -27392339.58 -27392339.38 -27392339.17 0.0143 0.0054
 Venus -79709-06-25 16:47 J -27392113.02 -27392112.80 -27392112.58 0.0143 0.0019
 Venus -79708-02-07 05:59 J -27391886.41 -27391886.25 -27391886.07 0.0143 0.0092
 Mercury -79705-01-18 07:11 J -27390811.30 -27390811.20 -27390811.09 0.0141 0.0118
 Mercury -79705-04-15 14:52 J -27390723.02 -27390722.88 -27390722.73 0.0141 0.0092
 Mercury -79705-07-12 22:18 J -27390634.72 -27390634.57 -27390634.39 0.0140 0.0067
 Mercury -79705-10-09 05:59 J -27390546.42 -27390546.25 -27390546.06 0.0140 0.0041
 Mercury -79704-01-05 13:40 J -27390458.12 -27390457.93 -27390457.75 0.0140 0.0015
 Mercury -79704-04-03 21:06 J -27390369.81 -27390369.62 -27390369.44 0.0140 0.0010
 Mercury -79704-07-01 04:18 J -27390281.50 -27390281.32 -27390281.14 0.0140 0.0035
 Mercury -79704-09-27 11:30 J -27390193.18 -27390193.02 -27390192.84 0.0140 0.0060
 Mercury -79704-12-24 18:56 J -27390104.86 -27390104.71 -27390104.56 0.0139 0.0084
 Mercury -79703-03-23 02:08 J -27390016.52 -27390016.41 -27390016.29 0.0139 0.0108
 Mercury -79703-06-19 09:20 J -27389928.17 -27389928.11 -27389928.05 0.0139 0.0132
 Mars -79697-07-21 08:52 J -27387704.19 -27387704.13 -27387704.06 0.0136 0.0132

Mars	-79695-06-21 23:44 J	-27387003.75	-27387003.51	-27387003.26	0.0135	0.0074
Mars	-79693-05-22 02:23 J	-27386303.69	-27386303.40	-27386303.11	0.0134	0.0018
Mars	-79691-04-21 16:32 J	-27385604.08	-27385603.81	-27385603.53	0.0133	0.0036
Mars	-79689-03-20 20:23 J	-27384904.85	-27384904.65	-27384904.42	0.0132	0.0088
Earth	-79685-12-18 13:54 J	-27383170.93	-27383170.92	-27383170.87	0.0131	0.0131
Earth	-79684-12-22 19:11 J	-27382801.83	-27382801.70	-27382801.54	0.0131	0.0108
Moon	-79684-12-22 22:47 J	-27382801.70	-27382801.55	-27382801.38	0.0131	0.0101 *
Moon	-79683-12-26 20:08 J	-27382432.83	-27382432.66	-27382432.47	0.0131	0.0092
Earth	-79683-12-26 23:59 J	-27382432.69	-27382432.50	-27382432.30	0.0131	0.0084 *
Earth	-79682-12-31 03:49 J	-27382063.56	-27382063.34	-27382063.11	0.0131	0.0061
Moon	-79682-12-31 07:11 J	-27382063.42	-27382063.20	-27382062.95	0.0131	0.0056 *
Moon	-79680-01-03 04:04 J	-27381694.57	-27381694.33	-27381694.08	0.0131	0.0041
Earth	-79680-01-03 07:54 J	-27381694.41	-27381694.17	-27381693.93	0.0131	0.0038 *
Earth	-79679-01-07 11:16 J	-27381325.28	-27381325.03	-27381324.78	0.0131	0.0014
Moon	-79679-01-07 14:52 J	-27381325.13	-27381324.88	-27381324.63	0.0131	0.0013 *
Moon	-79678-01-11 10:47 J	-27380956.30	-27380956.05	-27380955.80	0.0131	0.0012
Earth	-79678-01-11 14:08 J	-27380956.16	-27380955.91	-27380955.65	0.0131	0.0009 *
Earth	-79677-01-15 17:01 J	-27380587.03	-27380586.79	-27380586.54	0.0131	0.0032
Moon	-79677-01-15 20:37 J	-27380586.88	-27380586.64	-27380586.38	0.0131	0.0028 *
Moon	-79676-01-18 16:18 J	-27380218.03	-27380217.82	-27380217.59	0.0131	0.0062
Earth	-79676-01-18 19:40 J	-27380217.89	-27380217.68	-27380217.44	0.0131	0.0056 *
Earth	-79675-01-22 22:18 J	-27379848.76	-27379848.57	-27379848.36	0.0132	0.0079
Moon	-79675-01-23 01:54 J	-27379848.62	-27379848.42	-27379848.20	0.0132	0.0072 *
Moon	-79674-01-26 21:06 J	-27379479.73	-27379479.62	-27379479.45	0.0132	0.0109
Earth	-79674-01-27 00:42 J	-27379479.60	-27379479.47	-27379479.28	0.0132	0.0102 *
Earth	-79673-01-31 03:20 J	-27379110.42	-27379110.36	-27379110.25	0.0132	0.0125
Moon	-79673-01-31 06:42 J	-27379110.30	-27379110.22	-27379110.09	0.0132	0.0120 *
Venus	-79666-11-05 16:32 J	-27376274.89	-27376274.81	-27376274.70	0.0135	0.0119
Venus	-79665-06-18 20:37 J	-27376048.82	-27376048.64	-27376048.44	0.0135	0.0062
Venus	-79664-01-31 00:56 J	-27375822.67	-27375822.46	-27375822.25	0.0136	0.0005

Venus -79664-09-14 05:16 J -27375596.47 -27375596.28 -27375596.08 0.0136 0.0054

Venus -79663-04-28 09:20 J -27375370.20 -27375370.11 -27375369.97 0.0136 0.0114

Mercury -79661-06-19 08:52 J -27374587.17 -27374587.13 -27374587.08 0.0138 0.0129

Mercury -79661-09-15 12:13 J -27374499.06 -27374498.99 -27374498.91 0.0138 0.0113

Mercury -79661-12-12 15:35 J -27374410.94 -27374410.85 -27374410.75 0.0138 0.0096

Mercury -79660-03-10 18:56 J -27374322.81 -27374322.71 -27374322.59 0.0138 0.0079

Mercury -79660-06-06 22:32 J -27374234.68 -27374234.56 -27374234.44 0.0138 0.0062

Mercury -79660-09-03 01:54 J -27374146.55 -27374146.42 -27374146.29 0.0138 0.0045

Mercury -79660-11-30 05:16 J -27374058.41 -27374058.28 -27374058.14 0.0138 0.0028

Mercury -79659-02-26 08:52 J -27373970.27 -27373970.13 -27373970.00 0.0139 0.0010

Mercury -79659-05-25 12:13 J -27373882.12 -27373881.99 -27373881.85 0.0139 0.0009

Mercury -79659-08-21 15:49 J -27373793.97 -27373793.84 -27373793.70 0.0139 0.0025

Mercury -79659-11-17 19:25 J -27373705.82 -27373705.69 -27373705.56 0.0139 0.0043

Mercury -79658-02-13 22:47 J -27373617.66 -27373617.55 -27373617.42 0.0139 0.0061

Mercury -79658-05-13 02:23 J -27373529.50 -27373529.40 -27373529.28 0.0139 0.0079

Mercury -79658-08-09 05:59 J -27373441.34 -27373441.25 -27373441.15 0.0140 0.0097

Mercury -79658-11-05 09:35 J -27373353.17 -27373353.10 -27373353.02 0.0140 0.0116

Mercury -79657-02-01 13:25 J -27373264.97 -27373264.94 -27373264.90 0.0140 0.0134

Mars -79651-07-14 04:18 J -27370910.53 -27370910.32 -27370910.08 0.0144 0.0102

Mars -79649-06-18 09:35 J -27370205.41 -27370205.10 -27370204.78 0.0145 0.0027

Mars -79647-05-25 11:59 J -27369499.30 -27369499.00 -27369498.69 0.0146 0.0054

Mars -79645-05-01 09:35 J -27368792.20 -27368792.10 -27368791.98 0.0146 0.0138

Moon -79642-06-11 18:56 J -27367655.72 -27367655.71 -27367655.66 0.0147 0.0147

Moon -79641-06-15 17:30 J -27367285.89 -27367285.77 -27367285.63 0.0148 0.0126

Earth -79641-06-15 20:23 J -27367285.77 -27367285.65 -27367285.50 0.0148 0.0123 *

Earth -79640-06-21 00:42 J -27366915.67 -27366915.47 -27366915.27 0.0148 0.0090

Moon -79640-06-21 03:35 J -27366915.54 -27366915.35 -27366915.13 0.0148 0.0091 *

Moon -79639-06-26 01:54 J -27366545.64 -27366545.42 -27366545.17 0.0148 0.0052

Earth -79639-06-26 05:30 J -27366545.50 -27366545.27 -27366545.03 0.0148 0.0057 *

Earth -79638-07-01 11:01 J -27366175.29 -27366175.04 -27366174.79 0.0148 0.0023

Moon -79638-07-01 14:37 J -27366175.13 -27366174.89 -27366174.63 0.0148 0.0032 *
 Moon -79637-07-05 13:40 J -27365805.19 -27365804.93 -27365804.68 0.0148 0.0018
 Earth -79637-07-05 17:01 J -27365805.04 -27365804.79 -27365804.53 0.0148 0.0011 *
 Earth -79636-07-10 23:16 J -27365434.76 -27365434.53 -27365434.27 0.0147 0.0046
 Moon -79636-07-11 02:37 J -27365434.62 -27365434.39 -27365434.14 0.0147 0.0043 *
 Moon -79635-07-16 03:20 J -27365064.56 -27365064.36 -27365064.12 0.0147 0.0079
 Earth -79635-07-16 06:28 J -27365064.44 -27365064.23 -27365064.00 0.0147 0.0079 *
 Earth -79634-07-21 13:40 J -27364694.08 -27364693.93 -27364693.76 0.0147 0.0112
 Moon -79634-07-21 15:20 J -27364694.00 -27364693.86 -27364693.71 0.0147 0.0119 *
 Moon -79633-07-25 19:25 J -27364323.76 -27364323.69 -27364323.58 0.0147 0.0137
 Earth -79633-07-25 20:52 J -27364323.65 -27364323.63 -27364323.57 0.0147 0.0145 *
 Venus -79626-07-12 09:49 J -27361781.26 -27361781.09 -27361780.90 0.0144 0.0086
 Venus -79625-02-23 23:44 J -27361554.73 -27361554.51 -27361554.28 0.0143 0.0013
 Venus -79625-10-07 13:11 J -27361328.15 -27361327.95 -27361327.74 0.0143 0.0060
 Venus -79624-05-22 02:23 J -27361101.47 -27361101.40 -27361101.31 0.0142 0.0132
 Mercury -79622-11-11 07:54 J -27360198.22 -27360198.17 -27360198.12 0.0141 0.0135
 Mercury -79621-02-07 15:06 J -27360109.97 -27360109.87 -27360109.73 0.0141 0.0110
 Mercury -79621-05-05 23:01 J -27360021.68 -27360021.54 -27360021.38 0.0141 0.0083
 Mercury -79621-08-02 06:42 J -27359933.39 -27359933.22 -27359933.04 0.0140 0.0058
 Mercury -79621-10-29 14:08 J -27359845.08 -27359844.91 -27359844.72 0.0140 0.0033
 Mercury -79620-01-25 21:49 J -27359756.78 -27359756.59 -27359756.40 0.0140 0.0007
 Mercury -79620-04-24 05:16 J -27359668.47 -27359668.28 -27359668.10 0.0140 0.0018
 Mercury -79620-07-21 12:42 J -27359580.15 -27359579.97 -27359579.80 0.0140 0.0043
 Mercury -79620-10-17 19:54 J -27359491.83 -27359491.67 -27359491.51 0.0140 0.0068
 Mercury -79619-01-14 02:52 J -27359403.51 -27359403.38 -27359403.23 0.0139 0.0092
 Mercury -79619-04-12 10:04 J -27359315.17 -27359315.08 -27359314.97 0.0139 0.0116
 Mars -79612-03-16 04:32 J -27356785.49 -27356785.31 -27356785.10 0.0135 0.0103
 Mars -79610-02-14 16:18 J -27356085.08 -27356084.82 -27356084.53 0.0134 0.0046
 Mars -79608-01-14 14:37 J -27355385.18 -27355384.89 -27355384.60 0.0134 0.0010
 Mars -79607-12-15 01:11 J -27354685.70 -27354685.45 -27354685.19 0.0133 0.0062

Mars	-79605-11-13 03:20 J	-27353986.49	-27353986.36	-27353986.19	0.0132	0.0112
Moon	-79601-12-18 23:01 J	-27352489.62	-27352489.54	-27352489.44	0.0131	0.0123
Earth	-79601-12-19 02:23 J	-27352489.43	-27352489.40	-27352489.33	0.0131	0.0129
Earth	-79600-12-23 07:25 J	-27352120.33	-27352120.19	-27352120.02	0.0131	0.0106
Moon	-79600-12-23 11:01 J	-27352120.15	-27352120.04	-27352119.89	0.0131	0.0113 *
Moon	-79599-12-27 08:37 J	-27351751.34	-27351751.14	-27351750.92	0.0131	0.0076
Earth	-79599-12-27 11:59 J	-27351751.19	-27351751.00	-27351750.79	0.0131	0.0082 *
Earth	-79598-12-31 16:04 J	-27351382.05	-27351381.83	-27351381.59	0.0131	0.0059
Moon	-79598-12-31 19:40 J	-27351381.89	-27351381.68	-27351381.44	0.0131	0.0064 *
Moon	-79596-01-03 16:18 J	-27351013.05	-27351012.82	-27351012.56	0.0131	0.0031
Earth	-79596-01-03 19:54 J	-27351012.91	-27351012.67	-27351012.42	0.0131	0.0035 *
Earth	-79595-01-07 23:16 J	-27350643.78	-27350643.53	-27350643.28	0.0131	0.0011
Moon	-79595-01-08 02:52 J	-27350643.63	-27350643.38	-27350643.13	0.0131	0.0011 *
Moon	-79594-01-11 22:47 J	-27350274.80	-27350274.55	-27350274.30	0.0131	0.0011
Earth	-79594-01-12 02:23 J	-27350274.65	-27350274.40	-27350274.15	0.0131	0.0013 *
Earth	-79593-01-16 05:01 J	-27349905.53	-27349905.29	-27349905.04	0.0131	0.0036
Moon	-79593-01-16 08:37 J	-27349905.38	-27349905.14	-27349904.90	0.0131	0.0041 *
Moon	-79592-01-19 04:04 J	-27349536.54	-27349536.33	-27349536.08	0.0131	0.0054
Earth	-79592-01-19 08:08 J	-27349536.39	-27349536.16	-27349535.94	0.0131	0.0060 *
Earth	-79591-01-23 10:32 J	-27349167.25	-27349167.06	-27349166.86	0.0132	0.0083
Moon	-79591-01-23 13:54 J	-27349167.09	-27349166.92	-27349166.72	0.0132	0.0090 *
Moon	-79590-01-27 09:35 J	-27348798.25	-27348798.10	-27348797.93	0.0132	0.0100
Earth	-79590-01-27 13:11 J	-27348798.09	-27348797.95	-27348797.80	0.0132	0.0106 *
Earth	-79589-01-31 15:06 J	-27348428.89	-27348428.87	-27348428.79	0.0132	0.0130
Venus	-79581-02-17 08:08 J	-27345490.31	-27345490.16	-27345490.00	0.0135	0.0088
Venus	-79581-09-30 12:13 J	-27345264.19	-27345263.99	-27345263.78	0.0136	0.0031
Venus	-79580-05-14 16:32 J	-27345038.02	-27345037.81	-27345037.60	0.0136	0.0027
Venus	-79580-12-26 21:06 J	-27344811.78	-27344811.62	-27344811.46	0.0136	0.0086
Mercury	-79577-07-09 16:04 J	-27343885.87	-27343885.83	-27343885.76	0.0138	0.0126
Mercury	-79577-10-05 19:25 J	-27343797.76	-27343797.69	-27343797.60	0.0138	0.0109

Mercury -79576-01-01 23:01 J -27343709.64 -27343709.54 -27343709.44 0.0138 0.0092

Mercury -79576-03-31 02:23 J -27343621.51 -27343621.40 -27343621.28 0.0138 0.0075

Mercury -79576-06-27 05:44 J -27343533.38 -27343533.26 -27343533.13 0.0138 0.0058

Mercury -79576-09-23 09:20 J -27343445.24 -27343445.11 -27343444.98 0.0138 0.0041

Mercury -79576-12-20 12:42 J -27343357.10 -27343356.97 -27343356.84 0.0139 0.0023

Mercury -79575-03-18 16:18 J -27343268.96 -27343268.82 -27343268.69 0.0139 0.0007

Mercury -79575-06-14 19:40 J -27343180.81 -27343180.68 -27343180.54 0.0139 0.0012

Mercury -79575-09-10 23:16 J -27343092.66 -27343092.53 -27343092.40 0.0139 0.0029

Mercury -79575-12-08 02:52 J -27343004.51 -27343004.38 -27343004.26 0.0139 0.0047

Mercury -79574-03-06 06:13 J -27342916.36 -27342916.24 -27342916.12 0.0139 0.0066

Mercury -79574-06-02 09:49 J -27342828.19 -27342828.09 -27342827.98 0.0139 0.0084

Mercury -79574-08-29 13:25 J -27342740.03 -27342739.94 -27342739.84 0.0140 0.0102

Mercury -79574-11-25 17:16 J -27342651.85 -27342651.78 -27342651.72 0.0140 0.0120

Mercury -79573-02-21 20:37 J -27342563.64 -27342563.64 -27342563.62 0.0140 0.0139

Mars -79568-04-04 13:54 J -27340694.98 -27340694.92 -27340694.81 0.0143 0.0138

Mars -79566-03-10 04:04 J -27339990.59 -27339990.33 -27339990.03 0.0144 0.0067

Mars -79564-02-12 16:47 J -27339285.12 -27339284.80 -27339284.47 0.0145 0.0010

Mars -79562-01-20 01:11 J -27338578.69 -27338578.45 -27338578.18 0.0146 0.0092

Moon -79557-06-16 07:11 J -27336604.34 -27336604.20 -27336604.04 0.0148 0.0116

Earth -79557-06-16 09:20 J -27336604.24 -27336604.11 -27336603.95 0.0148 0.0121 *

Earth -79556-06-21 13:25 J -27336234.12 -27336233.94 -27336233.72 0.0148 0.0088

Moon -79556-06-21 16:47 J -27336234.00 -27336233.80 -27336233.58 0.0148 0.0086 *

Moon -79555-06-26 15:20 J -27335864.08 -27335863.86 -27335863.62 0.0148 0.0059

Earth -79555-06-26 18:42 J -27335863.94 -27335863.72 -27335863.47 0.0148 0.0054 *

Earth -79554-07-02 00:28 J -27335493.73 -27335493.48 -27335493.23 0.0148 0.0019

Moon -79554-07-02 04:04 J -27335493.59 -27335493.33 -27335493.08 0.0148 0.0012 *

Moon -79553-07-06 03:06 J -27335123.62 -27335123.37 -27335123.11 0.0148 0.0008

Earth -79553-07-06 06:56 J -27335123.47 -27335123.21 -27335122.96 0.0148 0.0015 *

Earth -79552-07-11 13:11 J -27334753.17 -27334752.95 -27334752.69 0.0148 0.0051

Moon -79552-07-11 17:01 J -27334753.03 -27334752.79 -27334752.56 0.0148 0.0054 *

Moon -79551-07-16 17:59 J -27334382.96 -27334382.75 -27334382.54 0.0147 0.0087
 Earth -79551-07-16 20:37 J -27334382.84 -27334382.64 -27334382.42 0.0147 0.0085 *
 Earth -79550-07-22 03:49 J -27334012.47 -27334012.34 -27334012.17 0.0147 0.0119
 Moon -79550-07-22 06:28 J -27334012.37 -27334012.23 -27334012.06 0.0147 0.0113 *
 Venus -79542-03-11 17:16 J -27331222.89 -27331222.78 -27331222.64 0.0144 0.0118
 Venus -79542-10-24 07:11 J -27330996.40 -27330996.20 -27330995.97 0.0143 0.0045
 Venus -79541-06-06 21:06 J -27330769.83 -27330769.62 -27330769.39 0.0143 0.0029
 Venus -79540-01-19 10:47 J -27330543.21 -27330543.05 -27330542.90 0.0143 0.0101
 Mercury -79538-12-01 16:04 J -27329496.90 -27329496.83 -27329496.73 0.0141 0.0126
 Mercury -79537-02-27 23:59 J -27329408.62 -27329408.50 -27329408.36 0.0141 0.0100
 Mercury -79537-05-26 07:40 J -27329320.33 -27329320.18 -27329320.01 0.0140 0.0074
 Mercury -79537-08-22 15:06 J -27329232.03 -27329231.87 -27329231.68 0.0140 0.0049
 Mercury -79537-11-18 23:01 J -27329143.73 -27329143.54 -27329143.36 0.0140 0.0023
 Mercury -79536-02-15 06:28 J -27329055.42 -27329055.23 -27329055.05 0.0140 0.0003
 Mercury -79536-05-14 13:40 J -27328967.11 -27328966.93 -27328966.74 0.0140 0.0028
 Mercury -79536-08-10 21:06 J -27328878.79 -27328878.62 -27328878.44 0.0140 0.0053
 Mercury -79536-11-07 04:32 J -27328790.47 -27328790.31 -27328790.16 0.0140 0.0077
 Mercury -79535-02-03 11:30 J -27328702.14 -27328702.02 -27328701.89 0.0139 0.0101
 Mercury -79535-05-02 18:42 J -27328613.79 -27328613.72 -27328613.63 0.0139 0.0125
 Mars -79530-12-09 04:32 J -27326567.34 -27326567.31 -27326567.22 0.0136 0.0133
 Mars -79528-11-09 02:23 J -27325866.64 -27325866.40 -27325866.15 0.0135 0.0074
 Mars -79526-10-10 09:20 J -27325166.39 -27325166.11 -27325165.81 0.0134 0.0018
 Mars -79524-09-09 03:35 J -27324466.63 -27324466.35 -27324466.07 0.0133 0.0036
 Mars -79522-08-09 11:01 J -27323767.23 -27323767.04 -27323766.80 0.0133 0.0088
 Earth -79517-12-19 15:35 J -27321807.91 -27321807.85 -27321807.78 0.0131 0.0127
 Earth -79516-12-23 20:08 J -27321438.80 -27321438.66 -27321438.49 0.0131 0.0104
 Moon -79516-12-23 23:44 J -27321438.68 -27321438.51 -27321438.33 0.0131 0.0097 *
 Moon -79515-12-27 21:06 J -27321069.79 -27321069.62 -27321069.41 0.0131 0.0087
 Earth -79515-12-28 00:56 J -27321069.65 -27321069.46 -27321069.25 0.0131 0.0080 *
 Earth -79513-01-01 04:47 J -27320700.52 -27320700.30 -27320700.06 0.0131 0.0056

Moon	-79513-01-01 08:08 J	-27320700.39	-27320700.16	-27320699.91	0.0131	0.0050	*
Moon	-79512-01-04 05:01 J	-27320331.52	-27320331.29	-27320331.03	0.0131	0.0036	
Earth	-79512-01-04 08:37 J	-27320331.38	-27320331.14	-27320330.88	0.0131	0.0032	*
Earth	-79511-01-08 11:59 J	-27319962.25	-27319962.00	-27319961.74	0.0131	0.0008	
Moon	-79511-01-08 15:35 J	-27319962.11	-27319961.85	-27319961.59	0.0131	0.0007	*
Moon	-79510-01-12 11:44 J	-27319593.25	-27319593.01	-27319592.76	0.0131	0.0018	
Earth	-79510-01-12 15:06 J	-27319593.12	-27319592.87	-27319592.62	0.0131	0.0016	*
Earth	-79509-01-16 17:44 J	-27319223.99	-27319223.76	-27319223.51	0.0131	0.0040	
Moon	-79509-01-16 21:20 J	-27319223.85	-27319223.61	-27319223.35	0.0131	0.0035	*
Moon	-79508-01-19 17:30 J	-27318854.97	-27318854.77	-27318854.55	0.0131	0.0070	
Earth	-79508-01-19 20:52 J	-27318854.85	-27318854.63	-27318854.41	0.0131	0.0064	*
Earth	-79507-01-23 23:01 J	-27318485.72	-27318485.54	-27318485.34	0.0132	0.0088	
Moon	-79507-01-24 02:23 J	-27318485.58	-27318485.40	-27318485.18	0.0132	0.0081	*
Moon	-79506-01-27 22:18 J	-27318116.67	-27318116.57	-27318116.45	0.0132	0.0118	
Earth	-79506-01-28 01:25 J	-27318116.56	-27318116.44	-27318116.29	0.0132	0.0111	*
Moon	-79505-02-01 06:56 J	-27317747.24	-27317747.21	-27317747.13	0.0132	0.0129	
Venus	-79498-10-17 19:40 J	-27314931.78	-27314931.68	-27314931.55	0.0135	0.0114	
Venus	-79497-05-30 23:44 J	-27314705.69	-27314705.51	-27314705.31	0.0135	0.0057	
Venus	-79496-01-12 04:18 J	-27314479.53	-27314479.32	-27314479.11	0.0136	0.0001	
Venus	-79496-08-26 08:23 J	-27314253.33	-27314253.15	-27314252.95	0.0136	0.0059	
Venus	-79495-04-09 12:56 J	-27314027.06	-27314026.96	-27314026.85	0.0136	0.0118	
Mercury	-79493-05-02 20:23 J	-27313272.65	-27313272.65	-27313272.64	0.0138	0.0137	
Mercury	-79493-07-29 23:44 J	-27313184.57	-27313184.51	-27313184.44	0.0138	0.0121	
Mercury	-79493-10-26 03:06 J	-27313096.45	-27313096.37	-27313096.28	0.0138	0.0104	
Mercury	-79492-01-22 06:28 J	-27313008.33	-27313008.23	-27313008.12	0.0138	0.0087	
Mercury	-79492-04-20 09:49 J	-27312920.20	-27312920.09	-27312919.97	0.0138	0.0070	
Mercury	-79492-07-17 13:11 J	-27312832.07	-27312831.95	-27312831.82	0.0138	0.0053	
Mercury	-79492-10-13 16:32 J	-27312743.93	-27312743.81	-27312743.67	0.0138	0.0037	
Mercury	-79491-01-09 20:08 J	-27312655.79	-27312655.66	-27312655.52	0.0139	0.0019	
Mercury	-79491-04-07 23:44 J	-27312567.65	-27312567.51	-27312567.38	0.0139	0.0004	

Mercury -79491-07-05 03:06 J -27312479.50 -27312479.37 -27312479.23 0.0139 0.0017
 Mercury -79491-10-01 06:42 J -27312391.35 -27312391.22 -27312391.09 0.0139 0.0034
 Mercury -79491-12-28 10:04 J -27312303.20 -27312303.08 -27312302.95 0.0139 0.0052
 Mercury -79490-03-26 13:40 J -27312215.04 -27312214.93 -27312214.81 0.0139 0.0070
 Mercury -79490-06-22 17:16 J -27312126.88 -27312126.78 -27312126.67 0.0140 0.0088
 Mercury -79490-09-18 20:52 J -27312038.71 -27312038.63 -27312038.54 0.0140 0.0107
 Mercury -79490-12-16 00:28 J -27311950.53 -27311950.48 -27311950.41 0.0140 0.0125
 Mars -79484-11-29 09:20 J -27309775.31 -27309775.11 -27309774.88 0.0143 0.0104
 Mars -79482-11-04 07:11 J -27309070.52 -27309070.20 -27309069.89 0.0145 0.0031
 Mars -79480-10-10 01:11 J -27308364.76 -27308364.45 -27308364.14 0.0145 0.0048
 Mars -79478-09-16 15:35 J -27307657.97 -27307657.85 -27307657.67 0.0146 0.0131
 Moon -79474-06-12 19:11 J -27306292.75 -27306292.70 -27306292.62 0.0148 0.0143
 Moon -79473-06-16 19:40 J -27305922.81 -27305922.68 -27305922.54 0.0148 0.0122
 Earth -79473-06-16 22:04 J -27305922.73 -27305922.58 -27305922.43 0.0148 0.0118 *
 Earth -79472-06-22 01:54 J -27305552.61 -27305552.42 -27305552.20 0.0148 0.0085
 Moon -79472-06-22 04:47 J -27305552.51 -27305552.30 -27305552.08 0.0148 0.0085 *
 Moon -79471-06-27 04:18 J -27305182.55 -27305182.32 -27305182.08 0.0148 0.0046
 Earth -79471-06-27 07:11 J -27305182.43 -27305182.20 -27305181.95 0.0148 0.0051 *
 Earth -79470-07-02 13:11 J -27304812.20 -27304811.95 -27304811.69 0.0148 0.0016
 Moon -79470-07-02 16:47 J -27304812.05 -27304811.80 -27304811.54 0.0148 0.0024 *
 Moon -79469-07-06 16:04 J -27304442.07 -27304441.83 -27304441.57 0.0148 0.0027
 Earth -79469-07-06 19:40 J -27304441.93 -27304441.68 -27304441.42 0.0148 0.0020 *
 Earth -79468-07-12 02:23 J -27304071.63 -27304071.40 -27304071.15 0.0148 0.0055
 Moon -79468-07-12 05:59 J -27304071.48 -27304071.25 -27304071.01 0.0148 0.0052 *
 Moon -79467-07-17 06:13 J -27303701.43 -27303701.24 -27303701.02 0.0147 0.0089
 Earth -79467-07-17 09:49 J -27303701.28 -27303701.09 -27303700.88 0.0147 0.0090 *
 Earth -79466-07-22 17:16 J -27303330.91 -27303330.78 -27303330.64 0.0147 0.0124
 Moon -79466-07-22 19:25 J -27303330.79 -27303330.69 -27303330.56 0.0147 0.0131 *
 Venus -79458-06-23 14:37 J -27300438.07 -27300437.89 -27300437.69 0.0144 0.0076
 Venus -79457-02-05 04:32 J -27300211.53 -27300211.31 -27300211.08 0.0143 0.0004

Venus -79457-09-18 17:59 J -27299984.94 -27299984.75 -27299984.55 0.0143 0.0070
 Venus -79456-05-03 07:11 J -27299758.21 -27299758.20 -27299758.16 0.0142 0.0142
 Mercury -79454-12-22 00:42 J -27298795.56 -27298795.47 -27298795.36 0.0141 0.0117
 Mercury -79453-03-19 08:23 J -27298707.28 -27298707.15 -27298707.00 0.0141 0.0091
 Mercury -79453-06-15 16:04 J -27298618.99 -27298618.83 -27298618.66 0.0140 0.0065
 Mercury -79453-09-11 23:44 J -27298530.69 -27298530.51 -27298530.33 0.0140 0.0039
 Mercury -79453-12-09 07:25 J -27298442.38 -27298442.19 -27298442.01 0.0140 0.0014
 Mercury -79452-03-07 14:52 J -27298354.07 -27298353.88 -27298353.70 0.0140 0.0012
 Mercury -79452-06-03 22:04 J -27298265.75 -27298265.58 -27298265.39 0.0140 0.0037
 Mercury -79452-08-31 05:16 J -27298177.43 -27298177.28 -27298177.10 0.0140 0.0062
 Mercury -79452-11-27 12:42 J -27298089.11 -27298088.97 -27298088.82 0.0140 0.0086
 Mercury -79451-02-23 20:08 J -27298000.78 -27298000.66 -27298000.55 0.0139 0.0110
 Mercury -79451-05-23 02:52 J -27297912.41 -27297912.38 -27297912.32 0.0139 0.0134
 Mars -79445-08-03 05:01 J -27295648.45 -27295648.29 -27295648.07 0.0136 0.0104
 Mars -79443-07-04 21:20 J -27294947.88 -27294947.61 -27294947.32 0.0135 0.0046
 Mars -79441-06-03 23:16 J -27294247.82 -27294247.53 -27294247.23 0.0134 0.0010
 Mars -79439-05-04 14:08 J -27293548.16 -27293547.91 -27293547.65 0.0133 0.0062
 Mars -79437-04-02 19:25 J -27292848.83 -27292848.69 -27292848.52 0.0132 0.0111
 Moon -79433-12-20 00:42 J -27291126.56 -27291126.47 -27291126.36 0.0131 0.0120
 Earth -79433-12-20 03:35 J -27291126.40 -27291126.35 -27291126.25 0.0131 0.0125 *
 Earth -79432-12-24 08:37 J -27290757.29 -27290757.14 -27290756.96 0.0131 0.0101
 Moon -79432-12-24 11:44 J -27290757.13 -27290757.01 -27290756.84 0.0131 0.0109 *
 Moon -79431-12-28 10:04 J -27290388.28 -27290388.08 -27290387.86 0.0131 0.0071
 Earth -79431-12-28 13:11 J -27290388.15 -27290387.95 -27290387.74 0.0131 0.0077 *
 Earth -79429-01-01 17:01 J -27290019.01 -27290018.79 -27290018.55 0.0131 0.0053
 Moon -79429-01-01 20:37 J -27290018.87 -27290018.64 -27290018.40 0.0131 0.0058 *
 Moon -79428-01-04 17:59 J -27289649.99 -27289649.75 -27289649.50 0.0131 0.0024
 Earth -79428-01-04 20:52 J -27289649.87 -27289649.63 -27289649.38 0.0131 0.0029 *
 Earth -79427-01-08 23:59 J -27289280.75 -27289280.50 -27289280.24 0.0131 0.0005
 Moon -79427-01-09 03:20 J -27289280.62 -27289280.36 -27289280.10 0.0131 0.0005 *

Moon -79426-01-12 23:59 J -27288911.75 -27288911.50 -27288911.25 0.0131 0.0018
 Earth -79426-01-13 03:06 J -27288911.62 -27288911.37 -27288911.11 0.0131 0.0020 *
 Earth -79425-01-17 05:44 J -27288542.49 -27288542.26 -27288542.01 0.0131 0.0044
 Moon -79425-01-17 08:37 J -27288542.36 -27288542.14 -27288541.88 0.0131 0.0049 *
 Moon -79424-01-20 05:16 J -27288173.49 -27288173.28 -27288173.05 0.0131 0.0062
 Earth -79424-01-20 08:23 J -27288173.35 -27288173.15 -27288172.92 0.0131 0.0068 *
 Earth -79423-01-24 10:47 J -27287804.22 -27287804.05 -27287803.86 0.0131 0.0092
 Moon -79423-01-24 13:40 J -27287804.08 -27287803.93 -27287803.74 0.0131 0.0099 *
 Moon -79422-01-28 10:18 J -27287435.20 -27287435.07 -27287434.93 0.0132 0.0109
 Earth -79422-01-28 12:56 J -27287435.06 -27287434.96 -27287434.82 0.0132 0.0116 *
 Venus -79413-01-29 10:47 J -27284147.21 -27284147.05 -27284146.88 0.0135 0.0084
 Venus -79413-09-11 14:52 J -27283921.09 -27283920.88 -27283920.67 0.0135 0.0027
 Venus -79412-04-25 18:56 J -27283694.91 -27283694.71 -27283694.50 0.0136 0.0031
 Venus -79412-12-07 23:16 J -27283468.68 -27283468.53 -27283468.36 0.0136 0.0089
 Mercury -79409-05-23 03:20 J -27282571.38 -27282571.36 -27282571.33 0.0138 0.0134
 Mercury -79409-08-19 06:42 J -27282483.28 -27282483.22 -27282483.15 0.0138 0.0118
 Mercury -79409-11-15 10:04 J -27282395.16 -27282395.08 -27282394.99 0.0138 0.0101
 Mercury -79408-02-11 13:25 J -27282307.04 -27282306.94 -27282306.83 0.0138 0.0084
 Mercury -79408-05-10 17:01 J -27282218.91 -27282218.79 -27282218.68 0.0138 0.0068
 Mercury -79408-08-06 20:23 J -27282130.78 -27282130.65 -27282130.53 0.0138 0.0050
 Mercury -79408-11-02 23:44 J -27282042.64 -27282042.51 -27282042.38 0.0138 0.0033
 Mercury -79407-01-30 03:06 J -27281954.50 -27281954.37 -27281954.23 0.0139 0.0016
 Mercury -79407-04-28 06:42 J -27281866.36 -27281866.22 -27281866.09 0.0139 0.0004
 Mercury -79407-07-25 10:04 J -27281778.21 -27281778.08 -27281777.94 0.0139 0.0019
 Mercury -79407-10-21 13:40 J -27281690.06 -27281689.93 -27281689.80 0.0139 0.0037
 Mercury -79406-01-17 17:01 J -27281601.91 -27281601.79 -27281601.66 0.0139 0.0055
 Mercury -79406-04-15 20:37 J -27281513.75 -27281513.64 -27281513.52 0.0139 0.0073
 Mercury -79406-07-12 23:59 J -27281425.59 -27281425.50 -27281425.38 0.0139 0.0092
 Mercury -79406-10-09 03:35 J -27281337.42 -27281337.35 -27281337.25 0.0140 0.0110
 Mercury -79405-01-05 07:25 J -27281249.24 -27281249.19 -27281249.13 0.0140 0.0128

Mars	-79401-08-20 17:59 J	-27279559.80	-27279559.75	-27279559.66	0.0143	0.0139
Mars	-79399-07-26 00:28 J	-27278855.74	-27278855.48	-27278855.19	0.0144	0.0071
Mars	-79397-06-30 04:18 J	-27278150.64	-27278150.32	-27278150.00	0.0145	0.0004
Mars	-79395-06-06 04:32 J	-27277444.57	-27277444.31	-27277444.04	0.0146	0.0084
Moon	-79389-06-17 05:16 J	-27275241.44	-27275241.28	-27275241.12	0.0148	0.0112
Earth	-79389-06-17 05:59 J	-27275241.38	-27275241.25	-27275241.07	0.0148	0.0118 *
Earth	-79388-06-22 11:01 J	-27274871.25	-27274871.04	-27274870.83	0.0148	0.0083
Moon	-79388-06-22 12:56 J	-27274871.16	-27274870.96	-27274870.73	0.0148	0.0083 *
Moon	-79387-06-27 13:25 J	-27274501.16	-27274500.94	-27274500.70	0.0148	0.0054
Earth	-79387-06-27 16:18 J	-27274501.05	-27274500.82	-27274500.57	0.0148	0.0049 *
Earth	-79386-07-02 22:18 J	-27274130.82	-27274130.57	-27274130.31	0.0148	0.0013
Moon	-79386-07-03 01:25 J	-27274130.69	-27274130.44	-27274130.18	0.0148	0.0006 *
Moon	-79385-07-07 01:25 J	-27273760.69	-27273760.44	-27273760.18	0.0148	0.0016
Earth	-79385-07-07 05:01 J	-27273760.53	-27273760.29	-27273760.03	0.0148	0.0023 *
Earth	-79384-07-12 11:59 J	-27273390.22	-27273390.00	-27273389.75	0.0148	0.0059
Moon	-79384-07-12 15:49 J	-27273390.07	-27273389.84	-27273389.60	0.0148	0.0063 *
Moon	-79383-07-17 16:04 J	-27273020.02	-27273019.83	-27273019.62	0.0147	0.0096
Earth	-79383-07-17 19:40 J	-27273019.87	-27273019.68	-27273019.48	0.0147	0.0094 *
Earth	-79382-07-23 03:06 J	-27272649.48	-27272649.37	-27272649.24	0.0147	0.0129
Moon	-79382-07-23 06:13 J	-27272649.36	-27272649.24	-27272649.08	0.0147	0.0124 *
Venus	-79374-02-20 20:23 J	-27269879.78	-27269879.65	-27269879.49	0.0144	0.0111
Venus	-79374-10-05 10:47 J	-27269653.27	-27269653.05	-27269652.83	0.0144	0.0037
Venus	-79373-05-19 00:42 J	-27269426.69	-27269426.47	-27269426.26	0.0143	0.0037
Venus	-79373-12-31 14:08 J	-27269200.05	-27269199.91	-27269199.76	0.0143	0.0109
Mercury	-79370-10-15 00:56 J	-27268182.50	-27268182.46	-27268182.39	0.0141	0.0135
Mercury	-79369-01-11 08:37 J	-27268094.24	-27268094.14	-27268094.00	0.0141	0.0109
Mercury	-79369-04-08 16:32 J	-27268005.95	-27268005.81	-27268005.65	0.0141	0.0083
Mercury	-79369-07-06 00:13 J	-27267917.66	-27267917.49	-27267917.31	0.0141	0.0057
Mercury	-79369-10-02 07:54 J	-27267829.35	-27267829.17	-27267828.98	0.0140	0.0031
Mercury	-79369-12-29 15:35 J	-27267741.04	-27267740.85	-27267740.67	0.0140	0.0006

Mercury -79368-03-27 22:47 J -27267652.73 -27267652.55 -27267652.36 0.0140 0.0021

Mercury -79368-06-24 06:13 J -27267564.41 -27267564.24 -27267564.06 0.0140 0.0045

Mercury -79368-09-20 13:25 J -27267476.09 -27267475.94 -27267475.77 0.0140 0.0070

Mercury -79368-12-17 20:52 J -27267387.76 -27267387.63 -27267387.49 0.0140 0.0094

Mercury -79367-03-16 03:49 J -27267299.42 -27267299.34 -27267299.23 0.0139 0.0119

Mars -79362-04-28 00:42 J -27265430.53 -27265430.47 -27265430.39 0.0136 0.0133

Mars -79360-03-29 03:20 J -27264729.60 -27264729.36 -27264729.10 0.0135 0.0074

Mars -79358-02-27 14:37 J -27264029.18 -27264028.89 -27264028.60 0.0134 0.0017

Mars -79356-01-27 12:56 J -27263329.22 -27263328.96 -27263328.66 0.0133 0.0038

Mars -79355-12-28 01:11 J -27262629.65 -27262629.45 -27262629.22 0.0133 0.0088

Moon -79349-12-20 14:08 J -27260444.94 -27260444.91 -27260444.84 0.0131 0.0129

Earth -79349-12-20 16:47 J -27260444.86 -27260444.80 -27260444.69 0.0131 0.0123 *

Earth -79348-12-24 21:35 J -27260075.75 -27260075.60 -27260075.41 0.0131 0.0100

Moon -79348-12-25 00:42 J -27260075.65 -27260075.47 -27260075.28 0.0131 0.0093 *

Moon -79347-12-28 23:16 J -27259706.71 -27259706.53 -27259706.32 0.0131 0.0082

Earth -79347-12-29 02:08 J -27259706.60 -27259706.41 -27259706.18 0.0131 0.0075 *

Earth -79345-01-02 06:42 J -27259337.46 -27259337.22 -27259336.99 0.0131 0.0050

Moon -79345-01-02 09:06 J -27259337.36 -27259337.12 -27259336.87 0.0131 0.0044 *

Moon -79344-01-05 07:11 J -27258968.44 -27258968.20 -27258967.95 0.0131 0.0029

Earth -79344-01-05 10:04 J -27258968.32 -27258968.08 -27258967.82 0.0131 0.0026 *

Earth -79343-01-09 13:25 J -27258599.19 -27258598.94 -27258598.68 0.0131 0.0002

Moon -79343-01-09 16:32 J -27258599.07 -27258598.81 -27258598.55 0.0131 0.0002 *

Moon -79342-01-13 13:40 J -27258230.16 -27258229.93 -27258229.68 0.0131 0.0025

Earth -79342-01-13 16:18 J -27258230.06 -27258229.82 -27258229.56 0.0131 0.0024 *

Earth -79341-01-17 19:11 J -27257860.93 -27257860.70 -27257860.46 0.0131 0.0048

Moon -79341-01-17 22:18 J -27257860.80 -27257860.57 -27257860.32 0.0131 0.0043 *

Moon -79340-01-20 18:56 J -27257491.89 -27257491.71 -27257491.49 0.0131 0.0078

Earth -79340-01-20 21:35 J -27257491.80 -27257491.60 -27257491.38 0.0131 0.0073 *

Earth -79339-01-24 23:44 J -27257122.67 -27257122.51 -27257122.33 0.0131 0.0097

Moon -79339-01-25 02:37 J -27257122.56 -27257122.39 -27257122.19 0.0131 0.0090 *

Moon -79338-01-28 23:01 J -27256753.58 -27256753.54 -27256753.46 0.0132 0.0128
 Earth -79338-01-29 01:54 J -27256753.51 -27256753.42 -27256753.30 0.0132 0.0120 *
 Venus -79330-09-28 22:32 J -27253588.67 -27253588.56 -27253588.42 0.0135 0.0110
 Venus -79329-05-12 02:37 J -27253362.58 -27253362.39 -27253362.19 0.0135 0.0053
 Venus -79329-12-24 06:56 J -27253136.42 -27253136.21 -27253136.00 0.0135 0.0005
 Venus -79328-08-07 11:16 J -27252910.22 -27252910.03 -27252909.84 0.0136 0.0062
 Venus -79327-03-21 15:20 J -27252683.95 -27252683.86 -27252683.75 0.0136 0.0121
 Mercury -79325-06-12 10:47 J -27251870.08 -27251870.05 -27251870.00 0.0137 0.0130
 Mercury -79325-09-08 14:08 J -27251781.98 -27251781.91 -27251781.83 0.0138 0.0113
 Mercury -79325-12-05 17:30 J -27251693.86 -27251693.77 -27251693.67 0.0138 0.0097
 Mercury -79324-03-03 20:52 J -27251605.74 -27251605.63 -27251605.52 0.0138 0.0080
 Mercury -79324-05-31 00:13 J -27251517.61 -27251517.49 -27251517.37 0.0138 0.0063
 Mercury -79324-08-27 03:35 J -27251429.47 -27251429.35 -27251429.22 0.0138 0.0046
 Mercury -79324-11-23 06:56 J -27251341.34 -27251341.21 -27251341.07 0.0138 0.0029
 Mercury -79323-02-19 10:32 J -27251253.20 -27251253.06 -27251252.93 0.0139 0.0012
 Mercury -79323-05-18 13:54 J -27251165.05 -27251164.92 -27251164.78 0.0139 0.0007
 Mercury -79323-08-14 17:30 J -27251076.91 -27251076.77 -27251076.64 0.0139 0.0024
 Mercury -79323-11-10 20:52 J -27250988.76 -27250988.63 -27250988.50 0.0139 0.0041
 Mercury -79322-02-07 00:28 J -27250900.60 -27250900.48 -27250900.36 0.0139 0.0059
 Mercury -79322-05-06 03:49 J -27250812.44 -27250812.34 -27250812.22 0.0139 0.0078
 Mercury -79322-08-02 07:25 J -27250724.28 -27250724.19 -27250724.08 0.0139 0.0096
 Mercury -79322-10-29 11:01 J -27250636.11 -27250636.04 -27250635.95 0.0140 0.0114
 Mercury -79321-01-25 14:52 J -27250547.92 -27250547.88 -27250547.84 0.0140 0.0132
 Mars -79316-04-16 09:06 J -27248640.32 -27248640.12 -27248639.90 0.0143 0.0106
 Mars -79314-03-21 20:23 J -27247935.95 -27247935.65 -27247935.33 0.0144 0.0036
 Mars -79312-02-24 05:16 J -27247230.58 -27247230.28 -27247229.95 0.0145 0.0041
 Mars -79310-01-31 11:59 J -27246524.16 -27246524.00 -27246523.79 0.0146 0.0121
 Moon -79306-06-13 12:28 J -27244930.05 -27244929.98 -27244929.90 0.0148 0.0141
 Moon -79305-06-17 15:06 J -27244559.99 -27244559.87 -27244559.72 0.0148 0.0121
 Earth -79305-06-17 16:04 J -27244559.97 -27244559.83 -27244559.66 0.0148 0.0116 *

Earth	-79304-06-22 20:37 J	-27244189.84	-27244189.64	-27244189.42	0.0148	0.0082
Moon	-79304-06-22 22:18 J	-27244189.78	-27244189.57	-27244189.34	0.0148	0.0081 *
Moon	-79303-06-27 23:59 J	-27243819.72	-27243819.50	-27243819.25	0.0148	0.0043
Earth	-79303-06-28 02:23 J	-27243819.64	-27243819.40	-27243819.16	0.0148	0.0046 *
Earth	-79302-07-03 08:23 J	-27243449.40	-27243449.15	-27243448.90	0.0148	0.0010
Moon	-79302-07-03 11:30 J	-27243449.28	-27243449.02	-27243448.76	0.0148	0.0018 *
Moon	-79301-07-07 11:44 J	-27243079.25	-27243079.01	-27243078.76	0.0148	0.0034
Earth	-79301-07-07 14:52 J	-27243079.12	-27243078.88	-27243078.62	0.0148	0.0026 *
Earth	-79300-07-12 21:49 J	-27242708.81	-27242708.59	-27242708.35	0.0148	0.0062
Moon	-79300-07-13 01:40 J	-27242708.66	-27242708.43	-27242708.19	0.0148	0.0059 *
Moon	-79299-07-18 01:25 J	-27242338.61	-27242338.44	-27242338.23	0.0148	0.0099
Earth	-79299-07-18 05:30 J	-27242338.46	-27242338.27	-27242338.08	0.0148	0.0098 *
Earth	-79298-07-23 12:28 J	-27241968.07	-27241967.98	-27241967.85	0.0147	0.0133
Moon	-79298-07-23 15:35 J	-27241967.91	-27241967.85	-27241967.75	0.0147	0.0140 *
Venus	-79290-06-04 15:49 J	-27239095.03	-27239094.84	-27239094.64	0.0144	0.0072
Venus	-79289-01-17 05:59 J	-27238868.47	-27238868.25	-27238868.02	0.0143	0.0002
Venus	-79289-08-30 19:40 J	-27238641.87	-27238641.68	-27238641.48	0.0143	0.0075
Mercury	-79286-11-04 08:37 J	-27237481.20	-27237481.14	-27237481.05	0.0141	0.0128
Mercury	-79285-01-31 16:32 J	-27237392.93	-27237392.81	-27237392.67	0.0141	0.0102
Mercury	-79285-04-29 00:13 J	-27237304.64	-27237304.49	-27237304.32	0.0141	0.0076
Mercury	-79285-07-26 07:54 J	-27237216.34	-27237216.17	-27237215.99	0.0141	0.0050
Mercury	-79285-10-22 15:35 J	-27237128.03	-27237127.85	-27237127.66	0.0140	0.0024
Mercury	-79284-01-18 23:01 J	-27237039.72	-27237039.54	-27237039.35	0.0140	0.0003
Mercury	-79284-04-17 06:42 J	-27236951.41	-27236951.22	-27236951.04	0.0140	0.0027
Mercury	-79284-07-14 13:54 J	-27236863.09	-27236862.92	-27236862.74	0.0140	0.0051
Mercury	-79284-10-10 21:20 J	-27236774.77	-27236774.61	-27236774.45	0.0140	0.0076
Mercury	-79283-01-07 04:18 J	-27236686.43	-27236686.32	-27236686.18	0.0140	0.0101
Mercury	-79283-04-05 11:30 J	-27236598.09	-27236598.02	-27236597.93	0.0140	0.0125
Mars	-79278-12-21 23:30 J	-27234511.70	-27234511.52	-27234511.31	0.0136	0.0103
Mars	-79276-11-21 21:06 J	-27233810.88	-27233810.62	-27233810.32	0.0135	0.0045

Mars	-79274-10-23 05:44 J	-27233110.55	-27233110.26	-27233109.97	0.0134	0.0011
Mars	-79272-09-22 02:08 J	-27232410.65	-27232410.41	-27232410.14	0.0133	0.0064
Mars	-79270-08-22 09:49 J	-27231711.21	-27231711.09	-27231710.91	0.0133	0.0113
Moon	-79265-12-21 04:04 J	-27229763.44	-27229763.33	-27229763.21	0.0131	0.0117
Earth	-79265-12-21 06:13 J	-27229763.32	-27229763.24	-27229763.13	0.0131	0.0122 *
Earth	-79264-12-25 11:01 J	-27229394.19	-27229394.04	-27229393.85	0.0131	0.0097
Moon	-79264-12-25 14:08 J	-27229394.07	-27229393.91	-27229393.75	0.0131	0.0104 *
Moon	-79263-12-29 13:40 J	-27229025.14	-27229024.93	-27229024.71	0.0131	0.0066
Earth	-79263-12-29 15:49 J	-27229025.04	-27229024.84	-27229024.62	0.0131	0.0072 *
Earth	-79261-01-02 20:08 J	-27228655.90	-27228655.66	-27228655.42	0.0131	0.0047
Moon	-79261-01-02 22:32 J	-27228655.78	-27228655.56	-27228655.30	0.0131	0.0053 *
Moon	-79260-01-05 21:35 J	-27228286.85	-27228286.60	-27228286.35	0.0131	0.0018
Earth	-79260-01-05 23:44 J	-27228286.75	-27228286.51	-27228286.25	0.0131	0.0023 *
Earth	-79259-01-10 03:06 J	-27227917.62	-27227917.37	-27227917.12	0.0131	0.0003
Moon	-79259-01-10 05:44 J	-27227917.52	-27227917.26	-27227917.00	0.0131	0.0002 *
Moon	-79258-01-14 03:35 J	-27227548.59	-27227548.35	-27227548.11	0.0131	0.0026
Earth	-79258-01-14 06:13 J	-27227548.49	-27227548.24	-27227547.99	0.0131	0.0027 *
Earth	-79257-01-18 08:37 J	-27227179.36	-27227179.14	-27227178.90	0.0131	0.0052
Moon	-79257-01-18 11:16 J	-27227179.27	-27227179.03	-27227178.80	0.0131	0.0055 *
Moon	-79256-01-21 08:08 J	-27226810.35	-27226810.16	-27226809.93	0.0131	0.0072
Earth	-79256-01-21 10:47 J	-27226810.23	-27226810.05	-27226809.83	0.0131	0.0077 *
Earth	-79255-01-25 13:11 J	-27226441.10	-27226440.95	-27226440.78	0.0131	0.0101
Moon	-79255-01-25 15:35 J	-27226440.99	-27226440.85	-27226440.70	0.0131	0.0108 *
Moon	-79254-01-29 12:56 J	-27226072.05	-27226071.96	-27226071.84	0.0132	0.0119
Earth	-79254-01-29 15:20 J	-27226071.93	-27226071.86	-27226071.77	0.0132	0.0125 *
Venus	-79246-05-29 11:01 J	-27223030.04	-27223030.04	-27223029.99	0.0135	0.0134
Venus	-79245-01-10 15:20 J	-27222804.03	-27222803.86	-27222803.68	0.0135	0.0077
Venus	-79245-08-23 19:25 J	-27222577.90	-27222577.69	-27222577.48	0.0135	0.0020
Venus	-79244-04-06 23:16 J	-27222351.73	-27222351.53	-27222351.32	0.0136	0.0037
Venus	-79244-11-19 03:20 J	-27222125.50	-27222125.36	-27222125.20	0.0136	0.0095

Mercury -79241-07-02 18:28 J -27221168.78 -27221168.73 -27221168.68 0.0137 0.0125
 Mercury -79241-09-28 21:35 J -27221080.67 -27221080.60 -27221080.51 0.0138 0.0109
 Mercury -79241-12-26 00:56 J -27220992.55 -27220992.46 -27220992.35 0.0138 0.0092
 Mercury -79240-03-24 04:18 J -27220904.43 -27220904.32 -27220904.20 0.0138 0.0075
 Mercury -79240-06-20 07:40 J -27220816.30 -27220816.18 -27220816.05 0.0138 0.0058
 Mercury -79240-09-16 11:01 J -27220728.16 -27220728.04 -27220727.90 0.0138 0.0042
 Mercury -79240-12-13 14:37 J -27220640.02 -27220639.89 -27220639.76 0.0138 0.0024
 Mercury -79239-03-11 17:59 J -27220551.88 -27220551.75 -27220551.61 0.0138 0.0007
 Mercury -79239-06-07 21:35 J -27220463.74 -27220463.60 -27220463.47 0.0139 0.0012
 Mercury -79239-09-04 00:56 J -27220375.59 -27220375.46 -27220375.33 0.0139 0.0029
 Mercury -79239-12-01 04:18 J -27220287.44 -27220287.32 -27220287.19 0.0139 0.0047
 Mercury -79238-02-27 07:54 J -27220199.29 -27220199.17 -27220199.05 0.0139 0.0064
 Mercury -79238-05-26 11:30 J -27220111.13 -27220111.02 -27220110.91 0.0139 0.0082
 Mercury -79238-08-22 15:06 J -27220022.96 -27220022.87 -27220022.78 0.0139 0.0100
 Mercury -79238-11-18 18:42 J -27219934.79 -27219934.72 -27219934.65 0.0140 0.0119
 Mercury -79237-02-14 22:18 J -27219846.59 -27219846.57 -27219846.55 0.0140 0.0137
 Mars -79233-01-07 05:59 J -27218424.28 -27218424.25 -27218424.16 0.0142 0.0140
 Jupiter -79233-06-27 16:04 J -27218252.23 -27218251.83 -27218251.39 0.0142 0.0079
 Mars -79232-12-11 02:23 J -27217720.65 -27217720.40 -27217720.11 0.0143 0.0074
 Mars -79230-11-15 19:54 J -27217015.99 -27217015.67 -27217015.35 0.0144 0.0002
 Mars -79228-10-21 11:01 J -27216310.30 -27216310.04 -27216309.75 0.0146 0.0077
 Moon -79221-06-18 02:23 J -27213878.56 -27213878.40 -27213878.23 0.0148 0.0109
 Earth -79221-06-18 02:23 J -27213878.54 -27213878.40 -27213878.23 0.0148 0.0115 *
 Earth -79220-06-23 06:56 J -27213508.40 -27213508.21 -27213507.98 0.0148 0.0080
 Moon -79220-06-23 07:54 J -27213508.37 -27213508.17 -27213507.93 0.0148 0.0081 *
 Moon -79219-06-28 10:47 J -27213138.28 -27213138.05 -27213137.81 0.0148 0.0048
 Earth -79219-06-28 12:42 J -27213138.20 -27213137.97 -27213137.72 0.0148 0.0044 *
 Earth -79218-07-03 18:42 J -27212767.97 -27212767.72 -27212767.46 0.0148 0.0008
 Moon -79218-07-03 21:06 J -27212767.88 -27212767.62 -27212767.36 0.0148 0.0000 *
 Moon -79217-07-07 22:18 J -27212397.81 -27212397.57 -27212397.32 0.0148 0.0022

Earth -79217-07-08 01:25 J -27212397.68 -27212397.44 -27212397.18 0.0148 0.0030 *
 Earth -79216-07-13 08:37 J -27212027.37 -27212027.14 -27212026.91 0.0148 0.0066
 Moon -79216-07-13 11:59 J -27212027.22 -27212027.00 -27212026.77 0.0148 0.0071 *
 Moon -79215-07-18 11:59 J -27211657.16 -27211657.00 -27211656.80 0.0148 0.0104
 Earth -79215-07-18 15:35 J -27211657.02 -27211656.85 -27211656.65 0.0148 0.0103 *
 Earth -79214-07-23 23:30 J -27211286.61 -27211286.52 -27211286.43 0.0147 0.0138
 Moon -79214-07-24 02:52 J -27211286.47 -27211286.38 -27211286.25 0.0147 0.0133 *
 Venus -79206-02-01 21:20 J -27208536.75 -27208536.61 -27208536.45 0.0144 0.0107
 Venus -79206-09-16 11:44 J -27208310.23 -27208310.01 -27208309.79 0.0144 0.0033
 Venus -79205-04-30 01:54 J -27208083.64 -27208083.42 -27208083.21 0.0143 0.0041
 Venus -79205-12-12 15:35 J -27207856.98 -27207856.85 -27207856.71 0.0143 0.0113
 Mercury -79202-11-24 16:32 J -27206779.89 -27206779.81 -27206779.70 0.0141 0.0121
 Mercury -79201-02-21 00:28 J -27206691.61 -27206691.48 -27206691.34 0.0141 0.0094
 Mercury -79201-05-19 08:23 J -27206603.32 -27206603.15 -27206602.99 0.0141 0.0068
 Mercury -79201-08-15 15:49 J -27206515.02 -27206514.84 -27206514.66 0.0141 0.0042
 Mercury -79201-11-11 23:30 J -27206426.71 -27206426.52 -27206426.33 0.0141 0.0017
 Mercury -79200-02-08 06:56 J -27206338.39 -27206338.21 -27206338.02 0.0140 0.0009
 Mercury -79200-05-07 14:23 J -27206250.08 -27206249.90 -27206249.71 0.0140 0.0034
 Mercury -79200-08-03 21:35 J -27206161.76 -27206161.60 -27206161.42 0.0140 0.0060
 Mercury -79200-10-31 05:01 J -27206073.43 -27206073.29 -27206073.13 0.0140 0.0084
 Mercury -79199-01-27 12:13 J -27205985.09 -27205984.99 -27205984.86 0.0140 0.0108
 Mercury -79199-04-25 19:40 J -27205896.74 -27205896.68 -27205896.62 0.0140 0.0132
 Mars -79195-09-14 13:40 J -27204293.96 -27204293.93 -27204293.84 0.0137 0.0134
 Mars -79193-08-15 23:16 J -27203592.77 -27203592.53 -27203592.26 0.0136 0.0074
 Mars -79191-07-17 17:01 J -27202892.08 -27202891.79 -27202891.49 0.0135 0.0016
 Mars -79189-06-16 21:35 J -27202191.87 -27202191.60 -27202191.31 0.0134 0.0038
 Mars -79187-05-17 13:11 J -27201492.15 -27201491.95 -27201491.72 0.0133 0.0089
 Moon -79181-12-21 18:13 J -27199081.80 -27199081.74 -27199081.65 0.0131 0.0125
 Earth -79181-12-21 20:08 J -27199081.75 -27199081.66 -27199081.54 0.0131 0.0120 *
 Earth -79180-12-26 01:25 J -27198712.61 -27198712.44 -27198712.26 0.0131 0.0095

Moon	-79180-12-26 03:06 J	-27198712.55	-27198712.37	-27198712.16	0.0131	0.0089	*
Moon	-79179-12-30 03:49 J	-27198343.53	-27198343.34	-27198343.13	0.0131	0.0076	
Earth	-79179-12-30 05:59 J	-27198343.45	-27198343.25	-27198343.02	0.0131	0.0070	*
Earth	-79177-01-03 10:18 J	-27197974.30	-27197974.07	-27197973.82	0.0131	0.0044	
Moon	-79177-01-03 12:13 J	-27197974.23	-27197973.99	-27197973.73	0.0131	0.0038	*
Moon	-79176-01-06 11:59 J	-27197605.24	-27197605.00	-27197604.76	0.0131	0.0022	
Earth	-79176-01-06 14:08 J	-27197605.16	-27197604.91	-27197604.66	0.0131	0.0019	*
Earth	-79175-01-10 17:30 J	-27197236.02	-27197235.77	-27197235.51	0.0131	0.0006	
Moon	-79175-01-10 19:54 J	-27197235.93	-27197235.67	-27197235.41	0.0131	0.0008	*
Moon	-79174-01-14 18:42 J	-27196866.95	-27196866.72	-27196866.48	0.0131	0.0033	
Earth	-79174-01-14 20:23 J	-27196866.88	-27196866.65	-27196866.39	0.0131	0.0032	*
Earth	-79173-01-18 23:01 J	-27196497.76	-27196497.54	-27196497.30	0.0131	0.0057	
Moon	-79173-01-19 01:25 J	-27196497.66	-27196497.44	-27196497.19	0.0131	0.0053	*
Moon	-79172-01-21 23:30 J	-27196128.69	-27196128.52	-27196128.32	0.0131	0.0087	
Earth	-79172-01-22 01:25 J	-27196128.62	-27196128.44	-27196128.23	0.0131	0.0082	*
Earth	-79171-01-26 03:20 J	-27195759.49	-27195759.36	-27195759.19	0.0131	0.0107	
Moon	-79171-01-26 05:44 J	-27195759.41	-27195759.26	-27195759.08	0.0131	0.0100	*
Earth	-79170-01-30 05:59 J	-27195390.28	-27195390.25	-27195390.21	0.0132	0.0130	
Venus	-79162-09-10 04:47 J	-27192245.42	-27192245.30	-27192245.14	0.0135	0.0100	
Venus	-79161-04-23 08:52 J	-27192019.32	-27192019.13	-27192018.92	0.0135	0.0043	
Venus	-79161-12-05 13:11 J	-27191793.16	-27191792.95	-27191792.74	0.0135	0.0014	
Venus	-79160-07-19 17:16 J	-27191566.95	-27191566.78	-27191566.60	0.0136	0.0072	
Venus	-79159-03-02 21:06 J	-27191340.66	-27191340.62	-27191340.54	0.0136	0.0130	
Mercury	-79157-04-25 23:01 J	-27190555.56	-27190555.54	-27190555.51	0.0137	0.0134	
Mercury	-79157-07-23 02:23 J	-27190467.46	-27190467.40	-27190467.33	0.0137	0.0118	
Mercury	-79157-10-19 05:30 J	-27190379.35	-27190379.27	-27190379.17	0.0138	0.0102	
Mercury	-79156-01-15 09:06 J	-27190291.22	-27190291.12	-27190291.01	0.0138	0.0085	
Mercury	-79156-04-13 12:28 J	-27190203.10	-27190202.98	-27190202.86	0.0138	0.0068	
Mercury	-79156-07-10 15:49 J	-27190114.96	-27190114.84	-27190114.71	0.0138	0.0051	
Mercury	-79156-10-06 19:11 J	-27190026.83	-27190026.70	-27190026.57	0.0138	0.0034	

Mercury -79155-01-02 22:32 J -27189938.69 -27189938.56 -27189938.42 0.0138 0.0017

Mercury -79155-04-01 02:08 J -27189850.55 -27189850.41 -27189850.28 0.0139 0.0002

Mercury -79155-06-28 05:30 J -27189762.40 -27189762.27 -27189762.13 0.0139 0.0019

Mercury -79155-09-24 09:06 J -27189674.25 -27189674.12 -27189673.99 0.0139 0.0036

Mercury -79155-12-21 12:28 J -27189586.10 -27189585.98 -27189585.85 0.0139 0.0054

Mercury -79154-03-19 16:04 J -27189497.94 -27189497.83 -27189497.71 0.0139 0.0072

Mercury -79154-06-15 19:25 J -27189409.78 -27189409.69 -27189409.58 0.0139 0.0090

Mercury -79154-09-11 23:01 J -27189321.62 -27189321.54 -27189321.45 0.0139 0.0109

Mercury -79154-12-09 02:37 J -27189233.44 -27189233.39 -27189233.33 0.0140 0.0127

Mars -79149-09-02 03:49 J -27187504.52 -27187504.34 -27187504.11 0.0143 0.0107

Mars -79147-08-07 06:28 J -27186800.52 -27186800.23 -27186799.91 0.0144 0.0038

Mars -79145-07-12 07:40 J -27186095.49 -27186095.18 -27186094.87 0.0145 0.0037

Mars -79143-06-18 05:30 J -27185389.46 -27185389.27 -27185389.06 0.0146 0.0115

Moon -79138-06-14 12:56 J -27183567.03 -27183566.96 -27183566.85 0.0148 0.0138

Earth -79138-06-14 14:23 J -27183566.92 -27183566.90 -27183566.85 0.0148 0.0146 *

Earth -79137-06-18 17:59 J -27183196.90 -27183196.75 -27183196.57 0.0148 0.0112

Moon -79137-06-18 18:28 J -27183196.87 -27183196.73 -27183196.57 0.0148 0.0117 *

Earth -79136-06-23 22:47 J -27182826.76 -27182826.55 -27182826.32 0.0148 0.0076

Moon -79136-06-23 23:30 J -27182826.74 -27182826.52 -27182826.29 0.0148 0.0075 *

Moon -79135-06-29 03:06 J -27182456.60 -27182456.37 -27182456.13 0.0148 0.0037

Earth -79135-06-29 04:04 J -27182456.57 -27182456.33 -27182456.08 0.0148 0.0040 *

Earth -79134-07-04 10:18 J -27182086.33 -27182086.07 -27182085.82 0.0148 0.0003

Moon -79134-07-04 12:42 J -27182086.23 -27182085.97 -27182085.71 0.0148 0.0010 *

Moon -79133-07-08 14:23 J -27181716.14 -27181715.90 -27181715.66 0.0148 0.0042

Earth -79133-07-08 16:47 J -27181716.05 -27181715.80 -27181715.55 0.0148 0.0034 *

Earth -79132-07-13 23:16 J -27181345.74 -27181345.53 -27181345.29 0.0148 0.0072

Moon -79132-07-14 02:52 J -27181345.60 -27181345.38 -27181345.14 0.0148 0.0068 *

Moon -79131-07-19 03:06 J -27180975.53 -27180975.37 -27180975.19 0.0148 0.0109

Earth -79131-07-19 06:56 J -27180975.38 -27180975.21 -27180975.04 0.0148 0.0108 *

Earth -79130-07-24 14:08 J -27180604.96 -27180604.91 -27180604.85 0.0147 0.0144

Venus -79123-10-02 04:47 J -27177978.34 -27177978.30 -27177978.22 0.0144 0.0139
 Venus -79122-05-16 19:25 J -27177751.88 -27177751.69 -27177751.48 0.0144 0.0064
 Venus -79122-12-29 09:49 J -27177525.31 -27177525.09 -27177524.87 0.0144 0.0010
 Venus -79121-08-11 23:30 J -27177298.69 -27177298.52 -27177298.33 0.0143 0.0083
 Mercury -79118-09-17 17:30 J -27176166.80 -27176166.77 -27176166.72 0.0141 0.0137
 Mercury -79118-12-15 01:11 J -27176078.55 -27176078.45 -27176078.32 0.0141 0.0111
 Mercury -79117-03-12 08:52 J -27175990.27 -27175990.13 -27175989.97 0.0141 0.0085
 Mercury -79117-06-08 16:47 J -27175901.97 -27175901.80 -27175901.62 0.0141 0.0059
 Mercury -79117-09-05 00:28 J -27175813.66 -27175813.48 -27175813.30 0.0141 0.0033
 Mercury -79117-12-02 08:08 J -27175725.35 -27175725.16 -27175724.98 0.0140 0.0008
 Mercury -79116-02-28 15:35 J -27175637.04 -27175636.85 -27175636.67 0.0140 0.0018
 Mercury -79116-05-27 23:01 J -27175548.72 -27175548.54 -27175548.36 0.0140 0.0043
 Mercury -79116-08-24 06:13 J -27175460.40 -27175460.24 -27175460.07 0.0140 0.0068
 Mercury -79116-11-20 13:25 J -27175372.07 -27175371.94 -27175371.79 0.0140 0.0093
 Mercury -79115-02-16 20:52 J -27175283.72 -27175283.63 -27175283.53 0.0140 0.0117
 Mars -79110-05-10 18:56 J -27173374.91 -27173374.71 -27173374.51 0.0136 0.0103
 Mars -79108-04-10 22:47 J -27172673.82 -27172673.55 -27172673.25 0.0135 0.0045
 Mars -79106-03-12 13:11 J -27171973.24 -27171972.95 -27171972.65 0.0134 0.0013
 Mars -79104-02-09 13:25 J -27171273.18 -27171272.94 -27171272.67 0.0134 0.0065
 Mars -79102-01-10 00:42 J -27170573.59 -27170573.47 -27170573.30 0.0133 0.0114
 Moon -79097-12-22 09:49 J -27168400.22 -27168400.09 -27168399.97 0.0131 0.0113
 Earth -79097-12-22 10:32 J -27168400.15 -27168400.06 -27168399.92 0.0131 0.0118 *
 Earth -79096-12-26 15:49 J -27168031.00 -27168030.84 -27168030.63 0.0131 0.0092
 Moon -79096-12-26 17:59 J -27168030.91 -27168030.75 -27168030.56 0.0131 0.0098 *
 Moon -79095-12-30 19:40 J -27167661.89 -27167661.68 -27167661.45 0.0131 0.0060
 Earth -79095-12-30 21:06 J -27167661.84 -27167661.62 -27167661.40 0.0131 0.0066 *
 Earth -79093-01-04 01:11 J -27167292.68 -27167292.45 -27167292.20 0.0131 0.0041
 Moon -79093-01-04 03:06 J -27167292.60 -27167292.37 -27167292.11 0.0131 0.0046 *
 Moon -79092-01-07 03:35 J -27166923.60 -27166923.35 -27166923.10 0.0131 0.0011
 Earth -79092-01-07 05:16 J -27166923.54 -27166923.28 -27166923.03 0.0131 0.0015 *

Earth -79091-01-11 08:23 J -27166554.40 -27166554.15 -27166553.89 0.0131 0.0011
 Moon -79091-01-11 10:04 J -27166554.34 -27166554.08 -27166553.82 0.0131 0.0009 *
 Moon -79090-01-15 09:20 J -27166185.34 -27166185.11 -27166184.87 0.0131 0.0035
 Earth -79090-01-15 11:16 J -27166185.27 -27166185.03 -27166184.78 0.0131 0.0036 *
 Earth -79089-01-19 13:40 J -27165816.14 -27165815.93 -27165815.69 0.0131 0.0062
 Moon -79089-01-19 15:06 J -27165816.08 -27165815.87 -27165815.63 0.0131 0.0065 *
 Moon -79088-01-22 13:54 J -27165447.09 -27165446.92 -27165446.71 0.0131 0.0082
 Earth -79088-01-22 16:04 J -27165447.01 -27165446.83 -27165446.63 0.0131 0.0086 *
 Earth -79087-01-26 18:13 J -27165077.86 -27165077.74 -27165077.60 0.0131 0.0111
 Moon -79087-01-26 19:40 J -27165077.78 -27165077.68 -27165077.55 0.0131 0.0118 *
 Moon -79086-01-30 19:11 J -27164708.74 -27164708.70 -27164708.65 0.0132 0.0129
 Venus -79078-05-10 18:28 J -27161686.80 -27161686.73 -27161686.63 0.0135 0.0122
 Venus -79078-12-22 22:18 J -27161460.74 -27161460.57 -27161460.37 0.0135 0.0066
 Venus -79077-08-05 02:37 J -27161234.60 -27161234.39 -27161234.18 0.0135 0.0009
 Venus -79076-03-19 06:13 J -27161008.43 -27161008.24 -27161008.03 0.0136 0.0049
 Venus -79076-10-31 10:18 J -27160782.19 -27160782.07 -27160781.93 0.0136 0.0106
 Mercury -79073-05-16 06:42 J -27159854.25 -27159854.22 -27159854.16 0.0137 0.0129
 Mercury -79073-08-12 10:18 J -27159766.14 -27159766.07 -27159765.99 0.0137 0.0111
 Mercury -79073-11-08 13:40 J -27159678.03 -27159677.93 -27159677.84 0.0138 0.0095
 Mercury -79072-02-04 17:01 J -27159589.90 -27159589.79 -27159589.68 0.0138 0.0078
 Mercury -79072-05-03 20:23 J -27159501.77 -27159501.65 -27159501.53 0.0138 0.0061
 Mercury -79072-07-30 23:44 J -27159413.64 -27159413.51 -27159413.38 0.0138 0.0044
 Mercury -79072-10-27 03:06 J -27159325.50 -27159325.37 -27159325.24 0.0138 0.0027
 Mercury -79071-01-23 06:28 J -27159237.36 -27159237.23 -27159237.09 0.0138 0.0010
 Mercury -79071-04-21 10:04 J -27159149.22 -27159149.08 -27159148.95 0.0138 0.0009
 Mercury -79071-07-18 13:25 J -27159061.07 -27159060.94 -27159060.81 0.0139 0.0025
 Mercury -79071-10-14 17:01 J -27158972.92 -27158972.79 -27158972.66 0.0139 0.0043
 Mercury -79070-01-10 20:23 J -27158884.77 -27158884.65 -27158884.53 0.0139 0.0061
 Mercury -79070-04-08 23:44 J -27158796.61 -27158796.51 -27158796.39 0.0139 0.0080
 Mercury -79070-07-06 03:20 J -27158708.45 -27158708.36 -27158708.25 0.0139 0.0097

Mercury -79070-10-02 06:56 J -27158620.28 -27158620.21 -27158620.13 0.0139 0.0116

Mercury -79070-12-29 10:32 J -27158532.09 -27158532.06 -27158532.01 0.0140 0.0134

Mars -79066-05-26 13:11 J -27157287.99 -27157287.95 -27157287.85 0.0142 0.0138

Mars -79064-04-29 01:40 J -27156584.69 -27156584.43 -27156584.15 0.0143 0.0073

Mars -79062-04-03 11:44 J -27155880.33 -27155880.01 -27155879.70 0.0144 0.0002

Mars -79060-03-08 18:42 J -27155174.99 -27155174.72 -27155174.43 0.0145 0.0074

Earth -79054-06-15 05:30 J -27152885.31 -27152885.27 -27152885.19 0.0148 0.0144

Earth -79053-06-19 09:20 J -27152515.26 -27152515.11 -27152514.92 0.0148 0.0109

Moon -79053-06-19 10:18 J -27152515.24 -27152515.07 -27152514.89 0.0148 0.0103 *

Moon -79052-06-24 13:54 J -27152145.14 -27152144.92 -27152144.68 0.0148 0.0074

Earth -79052-06-24 13:54 J -27152145.12 -27152144.92 -27152144.69 0.0148 0.0073 *

Moon -79051-06-29 18:13 J -27151774.97 -27151774.74 -27151774.49 0.0148 0.0040

Earth -79051-06-29 19:25 J -27151774.93 -27151774.69 -27151774.44 0.0148 0.0036 *

Earth -79050-07-05 01:25 J -27151404.69 -27151404.44 -27151404.18 0.0148 0.0002

Moon -79050-07-05 02:52 J -27151404.64 -27151404.38 -27151404.12 0.0148 0.0009 *

Moon -79049-07-09 05:16 J -27151034.52 -27151034.28 -27151034.03 0.0148 0.0033

Earth -79049-07-09 07:54 J -27151034.41 -27151034.17 -27151033.92 0.0148 0.0040 *

Earth -79048-07-14 14:37 J -27150664.10 -27150663.89 -27150663.66 0.0148 0.0077

Moon -79048-07-14 17:44 J -27150663.97 -27150663.76 -27150663.54 0.0148 0.0082 *

Moon -79047-07-19 18:28 J -27150293.88 -27150293.73 -27150293.56 0.0148 0.0115

Earth -79047-07-19 21:49 J -27150293.74 -27150293.59 -27150293.42 0.0148 0.0114 *

Moon -79046-07-25 08:52 J -27149923.16 -27149923.13 -27149923.06 0.0147 0.0145

Venus -79038-01-14 03:35 J -27147193.50 -27147193.35 -27147193.17 0.0144 0.0094

Venus -79038-08-28 18:13 J -27146966.96 -27146966.74 -27146966.52 0.0144 0.0020

Venus -79037-04-11 07:54 J -27146740.37 -27146740.17 -27146739.95 0.0143 0.0054

Venus -79037-11-23 21:35 J -27146513.69 -27146513.60 -27146513.48 0.0143 0.0126

Mercury -79034-10-08 02:23 J -27145465.47 -27145465.40 -27145465.31 0.0141 0.0127

Mercury -79033-01-04 10:04 J -27145377.20 -27145377.08 -27145376.93 0.0141 0.0100

Mercury -79033-04-01 17:59 J -27145288.90 -27145288.75 -27145288.58 0.0141 0.0074

Mercury -79033-06-29 01:40 J -27145200.60 -27145200.43 -27145200.25 0.0141 0.0048

Mercury -79033-09-25 09:20 J -27145112.29 -27145112.11 -27145111.92 0.0141 0.0022
 Mercury -79033-12-22 17:01 J -27145023.98 -27145023.79 -27145023.60 0.0140 0.0004
 Mercury -79032-03-21 00:13 J -27144935.66 -27144935.49 -27144935.30 0.0140 0.0030
 Mercury -79032-06-17 07:40 J -27144847.34 -27144847.18 -27144847.00 0.0140 0.0054
 Mercury -79032-09-13 15:06 J -27144759.02 -27144758.87 -27144758.71 0.0140 0.0079
 Mercury -79032-12-10 22:18 J -27144670.68 -27144670.57 -27144670.44 0.0140 0.0104
 Mercury -79031-03-09 05:30 J -27144582.33 -27144582.27 -27144582.18 0.0140 0.0128
 Mars -79027-02-01 08:37 J -27143157.19 -27143157.14 -27143157.04 0.0137 0.0133
 Mars -79025-01-03 23:59 J -27142455.74 -27142455.50 -27142455.23 0.0136 0.0073
 Mars -79024-12-05 00:28 J -27141754.78 -27141754.48 -27141754.18 0.0135 0.0015
 Mars -79022-11-05 09:35 J -27141054.36 -27141054.10 -27141053.80 0.0134 0.0041
 Mars -79020-10-05 05:30 J -27140354.47 -27140354.27 -27140354.04 0.0133 0.0091
 Moon -79013-12-23 01:25 J -27137718.53 -27137718.44 -27137718.33 0.0131 0.0120
 Earth -79013-12-23 02:23 J -27137718.50 -27137718.40 -27137718.25 0.0131 0.0115 *
 Earth -79012-12-27 07:40 J -27137349.35 -27137349.18 -27137348.98 0.0131 0.0089
 Moon -79012-12-27 09:06 J -27137349.33 -27137349.12 -27137348.92 0.0131 0.0083 *
 Moon -79011-12-31 11:16 J -27136980.23 -27136980.03 -27136979.82 0.0131 0.0069
 Earth -79011-12-31 12:28 J -27136980.19 -27136979.98 -27136979.74 0.0131 0.0063 *
 Earth -79009-01-04 16:47 J -27136611.03 -27136610.80 -27136610.55 0.0131 0.0037
 Moon -79009-01-04 17:44 J -27136611.00 -27136610.76 -27136610.49 0.0131 0.0031 *
 Moon -79008-01-07 19:11 J -27136241.94 -27136241.70 -27136241.45 0.0131 0.0015
 Earth -79008-01-07 20:37 J -27136241.90 -27136241.64 -27136241.39 0.0131 0.0011 *
 Earth -79007-01-11 23:44 J -27135872.76 -27135872.51 -27135872.26 0.0131 0.0015
 Moon -79007-01-12 01:11 J -27135872.71 -27135872.45 -27135872.19 0.0131 0.0017 *
 Moon -79006-01-16 01:40 J -27135503.66 -27135503.43 -27135503.20 0.0131 0.0041
 Earth -79006-01-16 02:23 J -27135503.63 -27135503.40 -27135503.15 0.0131 0.0041 *
 Earth -79005-01-20 04:47 J -27135134.51 -27135134.30 -27135134.07 0.0131 0.0066
 Moon -79005-01-20 06:13 J -27135134.45 -27135134.24 -27135133.99 0.0131 0.0063 *
 Moon -79004-01-23 05:44 J -27134765.40 -27134765.26 -27134765.07 0.0131 0.0098
 Earth -79004-01-23 06:56 J -27134765.37 -27134765.21 -27134765.01 0.0131 0.0092 *

Earth -79003-01-27 09:06 J -27134396.22 -27134396.12 -27134395.99 0.0131 0.0117
Moon -79003-01-27 10:32 J -27134396.19 -27134396.06 -27134395.91 0.0131 0.0110 *

79TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 79th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-78994-08-22 12:13 J	-27130902.14	-27130901.99	-27130901.83	0.0135	0.0088		
Venus	-78993-04-04 16:04 J	-27130676.03	-27130675.83	-27130675.62	0.0135	0.0032		
Venus	-78993-11-16 19:54 J	-27130449.87	-27130449.67	-27130449.46	0.0135	0.0026		
Venus	-78992-06-30 23:59 J	-27130223.66	-27130223.50	-27130223.33	0.0136	0.0083		
Mercury	-78989-06-05 14:52 J	-27129152.93	-27129152.88	-27129152.81	0.0137	0.0121		
Mercury	-78989-09-01 18:13 J	-27129064.82	-27129064.74	-27129064.65	0.0138	0.0105		
Mercury	-78989-11-28 21:35 J	-27128976.70	-27128976.60	-27128976.50	0.0138	0.0088		
Mercury	-78988-02-25 00:56 J	-27128888.57	-27128888.46	-27128888.35	0.0138	0.0071		
Mercury	-78988-05-24 04:18 J	-27128800.44	-27128800.32	-27128800.20	0.0138	0.0054		
Mercury	-78988-08-20 07:40 J	-27128712.31	-27128712.18	-27128712.05	0.0138	0.0037		
Mercury	-78988-11-16 11:01 J	-27128624.17	-27128624.04	-27128623.90	0.0138	0.0020		
Mercury	-78987-02-12 14:37 J	-27128536.03	-27128535.89	-27128535.76	0.0138	0.0004		
Mercury	-78987-05-11 17:59 J	-27128447.88	-27128447.75	-27128447.62	0.0139	0.0015		
Mercury	-78987-08-07 21:20 J	-27128359.74	-27128359.61	-27128359.47	0.0139	0.0033		
Mercury	-78987-11-04 00:56 J	-27128271.58	-27128271.46	-27128271.33	0.0139	0.0050		
Mercury	-78986-01-31 04:32 J	-27128183.43	-27128183.31	-27128183.19	0.0139	0.0068		

Mercury -78986-04-29 07:54 J -27128095.27 -27128095.17 -27128095.06 0.0139 0.0087
 Mercury -78986-07-26 11:30 J -27128007.10 -27128007.02 -27128006.93 0.0139 0.0105
 Mercury -78986-10-22 15:20 J -27127918.93 -27127918.86 -27127918.80 0.0139 0.0123
 Mars -78981-01-20 07:25 J -27126368.38 -27126368.19 -27126367.97 0.0142 0.0105
 Mars -78980-12-24 03:06 J -27125664.66 -27125664.37 -27125664.06 0.0143 0.0038
 Mars -78978-11-28 20:08 J -27124959.96 -27124959.66 -27124959.34 0.0145 0.0034
 Mars -78976-11-03 10:04 J -27124254.28 -27124254.08 -27124253.86 0.0146 0.0111
 Moon -78970-06-15 20:23 J -27122203.75 -27122203.65 -27122203.52 0.0148 0.0132
 Earth -78970-06-15 22:04 J -27122203.63 -27122203.58 -27122203.48 0.0148 0.0141 *
 Earth -78969-06-20 02:08 J -27121833.57 -27121833.41 -27121833.22 0.0148 0.0105
 Moon -78969-06-20 03:20 J -27121833.50 -27121833.36 -27121833.18 0.0148 0.0111 *
 Moon -78968-06-25 06:42 J -27121463.44 -27121463.22 -27121462.98 0.0148 0.0067
 Earth -78968-06-25 06:56 J -27121463.43 -27121463.21 -27121462.98 0.0148 0.0068 *
 Moon -78967-06-30 12:13 J -27121093.23 -27121092.99 -27121092.75 0.0148 0.0028
 Earth -78967-06-30 12:13 J -27121093.23 -27121092.99 -27121092.74 0.0148 0.0031 *
 Earth -78966-07-05 18:13 J -27120722.99 -27120722.74 -27120722.48 0.0148 0.0008
 Moon -78966-07-05 19:54 J -27120722.93 -27120722.67 -27120722.40 0.0148 0.0001 *
 Moon -78965-07-09 23:01 J -27120352.77 -27120352.54 -27120352.31 0.0148 0.0053
 Earth -78965-07-10 00:56 J -27120352.70 -27120352.46 -27120352.22 0.0148 0.0045 *
 Earth -78964-07-15 07:40 J -27119982.39 -27119982.18 -27119981.97 0.0148 0.0083
 Moon -78964-07-15 10:04 J -27119982.28 -27119982.08 -27119981.84 0.0148 0.0080 *
 Moon -78963-07-20 11:16 J -27119612.16 -27119612.03 -27119611.87 0.0148 0.0121
 Earth -78963-07-20 14:23 J -27119612.02 -27119611.90 -27119611.73 0.0148 0.0121 *
 Venus -78955-09-13 12:42 J -27116635.08 -27116634.97 -27116634.85 0.0144 0.0123
 Venus -78954-04-28 03:06 J -27116408.57 -27116408.37 -27116408.15 0.0144 0.0049
 Venus -78954-12-10 17:16 J -27116181.99 -27116181.78 -27116181.55 0.0144 0.0025
 Venus -78953-07-24 07:11 J -27115955.35 -27115955.20 -27115955.02 0.0143 0.0098
 Mercury -78950-08-01 04:04 J -27114852.33 -27114852.33 -27114852.33 0.0141 0.0141
 Mercury -78950-10-28 11:30 J -27114764.11 -27114764.02 -27114763.90 0.0141 0.0115
 Mercury -78949-01-24 19:25 J -27114675.83 -27114675.69 -27114675.54 0.0141 0.0089

Mercury -78949-04-22 03:20 J -27114587.53 -27114587.36 -27114587.19 0.0141 0.0062
 Mercury -78949-07-19 10:47 J -27114499.23 -27114499.05 -27114498.86 0.0141 0.0037
 Mercury -78949-10-15 18:28 J -27114410.91 -27114410.73 -27114410.54 0.0141 0.0011
 Mercury -78948-01-12 01:54 J -27114322.60 -27114322.42 -27114322.23 0.0140 0.0016
 Mercury -78948-04-10 09:20 J -27114234.28 -27114234.11 -27114233.92 0.0140 0.0041
 Mercury -78948-07-07 16:47 J -27114145.96 -27114145.80 -27114145.63 0.0140 0.0065
 Mercury -78948-10-03 23:59 J -27114057.63 -27114057.50 -27114057.34 0.0140 0.0090
 Mercury -78948-12-31 07:40 J -27113969.29 -27113969.18 -27113969.08 0.0140 0.0114
 Mercury -78947-03-29 14:37 J -27113880.90 -27113880.89 -27113880.86 0.0140 0.0139
 Mars -78943-09-27 18:28 J -27112237.91 -27112237.73 -27112237.51 0.0137 0.0102
 Jupiter -78942-05-21 23:16 J -27112002.06 -27112001.53 -27112001.00 0.0136 0.0011
 Mars -78941-08-29 05:44 J -27111536.53 -27111536.26 -27111535.96 0.0136 0.0043
 Mars -78939-07-31 00:42 J -27110835.76 -27110835.47 -27110835.17 0.0135 0.0014
 Mars -78937-06-30 03:49 J -27110135.58 -27110135.34 -27110135.07 0.0134 0.0067
 Mars -78935-05-30 20:08 J -27109435.78 -27109435.66 -27109435.50 0.0133 0.0115
 Moon -78929-12-23 17:30 J -27107036.91 -27107036.77 -27107036.63 0.0131 0.0108
 Earth -78929-12-23 17:44 J -27107036.88 -27107036.76 -27107036.62 0.0131 0.0112 *
 Earth -78928-12-27 23:16 J -27106667.72 -27106667.53 -27106667.34 0.0131 0.0085
 Moon -78928-12-27 23:44 J -27106667.67 -27106667.51 -27106667.30 0.0131 0.0093 *
 Moon -78926-01-01 03:20 J -27106298.58 -27106298.36 -27106298.13 0.0131 0.0053
 Earth -78926-01-01 03:35 J -27106298.56 -27106298.35 -27106298.11 0.0131 0.0060 *
 Earth -78925-01-05 07:40 J -27105929.42 -27105929.18 -27105928.93 0.0131 0.0033
 Moon -78925-01-05 08:37 J -27105929.38 -27105929.14 -27105928.88 0.0131 0.0039 *
 Moon -78924-01-08 10:32 J -27105560.31 -27105560.06 -27105559.81 0.0131 0.0003
 Earth -78924-01-08 11:16 J -27105560.28 -27105560.03 -27105559.77 0.0131 0.0007 *
 Earth -78923-01-12 14:23 J -27105191.15 -27105190.90 -27105190.65 0.0131 0.0019
 Moon -78923-01-12 15:06 J -27105191.13 -27105190.87 -27105190.61 0.0131 0.0017 *
 Moon -78922-01-16 15:49 J -27104822.06 -27104821.84 -27104821.60 0.0131 0.0044
 Earth -78922-01-16 17:01 J -27104822.02 -27104821.79 -27104821.55 0.0131 0.0045 *
 Earth -78921-01-20 19:11 J -27104452.90 -27104452.70 -27104452.47 0.0131 0.0071

Moon	-78921-01-20 19:54 J	-27104452.88	-27104452.67	-27104452.45	0.0131	0.0073	*
Moon	-78920-01-23 20:37 J	-27104083.80	-27104083.64	-27104083.45	0.0131	0.0091	
Earth	-78920-01-23 21:20 J	-27104083.76	-27104083.61	-27104083.42	0.0131	0.0097	*
Earth	-78919-01-27 23:30 J	-27103714.60	-27103714.52	-27103714.40	0.0131	0.0121	
Moon	-78919-01-28 00:13 J	-27103714.53	-27103714.49	-27103714.41	0.0131	0.0128	*
Venus	-78910-04-22 00:42 J	-27100343.57	-27100343.47	-27100343.34	0.0135	0.0112	
Venus	-78910-12-04 04:32 J	-27100117.49	-27100117.31	-27100117.10	0.0135	0.0056	
Venus	-78909-07-17 08:37 J	-27099891.35	-27099891.14	-27099890.93	0.0135	0.0001	
Venus	-78908-02-28 12:28 J	-27099665.17	-27099664.98	-27099664.79	0.0135	0.0058	
Venus	-78908-10-12 16:32 J	-27099438.92	-27099438.81	-27099438.70	0.0136	0.0115	
Mercury	-78905-03-29 19:11 J	-27098539.73	-27098539.70	-27098539.66	0.0137	0.0132	
Mercury	-78905-06-25 22:18 J	-27098451.63	-27098451.57	-27098451.49	0.0137	0.0116	
Mercury	-78905-09-22 01:40 J	-27098363.51	-27098363.43	-27098363.33	0.0137	0.0100	
Mercury	-78905-12-19 05:01 J	-27098275.39	-27098275.29	-27098275.18	0.0138	0.0083	
Mercury	-78904-03-17 08:23 J	-27098187.26	-27098187.15	-27098187.03	0.0138	0.0066	
Mercury	-78904-06-13 11:44 J	-27098099.13	-27098099.01	-27098098.88	0.0138	0.0049	
Mercury	-78904-09-09 15:20 J	-27098010.99	-27098010.86	-27098010.73	0.0138	0.0032	
Mercury	-78904-12-06 18:42 J	-27097922.85	-27097922.72	-27097922.59	0.0138	0.0014	
Mercury	-78903-03-04 22:04 J	-27097834.71	-27097834.58	-27097834.44	0.0138	0.0005	
Mercury	-78903-06-01 01:40 J	-27097746.57	-27097746.43	-27097746.30	0.0138	0.0021	
Mercury	-78903-08-28 05:01 J	-27097658.42	-27097658.29	-27097658.16	0.0139	0.0038	
Mercury	-78903-11-24 08:37 J	-27097570.27	-27097570.14	-27097570.02	0.0139	0.0056	
Mercury	-78902-02-20 11:59 J	-27097482.11	-27097482.00	-27097481.88	0.0139	0.0074	
Mercury	-78902-05-19 15:35 J	-27097393.95	-27097393.85	-27097393.74	0.0139	0.0092	
Mercury	-78902-08-15 19:11 J	-27097305.78	-27097305.70	-27097305.62	0.0139	0.0110	
Mercury	-78902-11-11 22:47 J	-27097217.60	-27097217.55	-27097217.50	0.0139	0.0129	
Mars	-78899-10-12 17:01 J	-27096151.85	-27096151.79	-27096151.69	0.0141	0.0137	
Mars	-78897-09-14 21:49 J	-27095448.84	-27095448.59	-27095448.31	0.0143	0.0074	
Mars	-78895-08-19 23:44 J	-27094744.82	-27094744.51	-27094744.19	0.0144	0.0005	
Mars	-78893-07-24 22:18 J	-27094039.84	-27094039.57	-27094039.28	0.0145	0.0069	

Moon -78886-06-16 07:40 J -27091522.20 -27091522.18 -27091522.12 0.0148 0.0146
 Earth -78886-06-16 10:04 J -27091522.14 -27091522.08 -27091521.97 0.0148 0.0139 *
 Earth -78885-06-20 13:54 J -27091152.08 -27091151.92 -27091151.72 0.0148 0.0103
 Moon -78885-06-20 15:49 J -27091152.02 -27091151.84 -27091151.65 0.0148 0.0097 *
 Moon -78884-06-25 17:30 J -27090781.99 -27090781.77 -27090781.53 0.0148 0.0068
 Earth -78884-06-25 18:56 J -27090781.93 -27090781.71 -27090781.48 0.0148 0.0065 *
 Moon -78883-07-01 00:13 J -27090411.73 -27090411.49 -27090411.25 0.0148 0.0031
 Earth -78883-07-01 00:28 J -27090411.73 -27090411.48 -27090411.23 0.0148 0.0027 *
 Earth -78882-07-06 06:28 J -27090041.49 -27090041.23 -27090040.98 0.0148 0.0011
 Moon -78882-07-06 06:42 J -27090041.48 -27090041.22 -27090040.95 0.0148 0.0018 *
 Moon -78881-07-10 11:01 J -27089671.27 -27089671.04 -27089670.79 0.0148 0.0043
 Earth -78881-07-10 12:42 J -27089671.20 -27089670.97 -27089670.72 0.0148 0.0050 *
 Earth -78880-07-15 19:40 J -27089300.87 -27089300.68 -27089300.46 0.0148 0.0088
 Moon -78880-07-15 22:04 J -27089300.77 -27089300.58 -27089300.37 0.0148 0.0093 *
 Moon -78879-07-21 00:13 J -27088930.61 -27088930.49 -27088930.35 0.0148 0.0126
 Earth -78879-07-21 02:52 J -27088930.49 -27088930.38 -27088930.23 0.0148 0.0126 *
 Venus -78871-12-26 10:18 J -27085850.24 -27085850.07 -27085849.87 0.0144 0.0081
 Venus -78870-08-10 00:56 J -27085623.68 -27085623.46 -27085623.23 0.0144 0.0007
 Venus -78869-03-23 14:52 J -27085397.07 -27085396.88 -27085396.67 0.0144 0.0067
 Venus -78869-11-05 04:18 J -27085170.35 -27085170.32 -27085170.25 0.0143 0.0140
 Mercury -78866-08-21 12:28 J -27084151.04 -27084150.98 -27084150.90 0.0141 0.0131
 Mercury -78866-11-17 20:23 J -27084062.77 -27084062.65 -27084062.52 0.0141 0.0105
 Mercury -78865-02-14 04:04 J -27083974.48 -27083974.33 -27083974.17 0.0141 0.0079
 Mercury -78865-05-12 11:59 J -27083886.18 -27083886.00 -27083885.83 0.0141 0.0052
 Mercury -78865-08-08 19:25 J -27083797.87 -27083797.69 -27083797.50 0.0141 0.0027
 Mercury -78865-11-05 03:06 J -27083709.55 -27083709.37 -27083709.18 0.0141 0.0002
 Mercury -78864-02-01 10:32 J -27083621.24 -27083621.06 -27083620.87 0.0140 0.0026
 Mercury -78864-04-30 17:59 J -27083532.92 -27083532.75 -27083532.57 0.0140 0.0051
 Mercury -78864-07-28 01:25 J -27083444.59 -27083444.44 -27083444.28 0.0140 0.0075
 Mercury -78864-10-24 08:37 J -27083356.26 -27083356.14 -27083356.00 0.0140 0.0100

Mercury -78863-01-20 16:18 J -27083267.90 -27083267.82 -27083267.74 0.0140 0.0124
 Mars -78860-06-21 03:20 J -27082020.41 -27082020.36 -27082020.25 0.0138 0.0133
 Mars -78858-05-24 01:54 J -27081318.67 -27081318.42 -27081318.15 0.0136 0.0072
 Mars -78856-04-24 07:25 J -27080617.48 -27080617.19 -27080616.88 0.0135 0.0014
 Mars -78854-03-25 20:23 J -27079916.92 -27079916.65 -27079916.36 0.0134 0.0042
 Mars -78852-02-22 20:52 J -27079216.84 -27079216.63 -27079216.42 0.0134 0.0092
 Earth -78845-12-24 08:52 J -27076355.27 -27076355.13 -27076354.98 0.0131 0.0109
 Moon -78845-12-24 08:08 J -27076355.26 -27076355.16 -27076355.02 0.0131 0.0114 *
 Moon -78844-12-28 14:08 J -27075986.13 -27075985.91 -27075985.70 0.0131 0.0076
 Earth -78844-12-28 14:08 J -27075986.11 -27075985.91 -27075985.71 0.0131 0.0082 *
 Moon -78842-01-01 17:44 J -27075616.96 -27075616.76 -27075616.53 0.0131 0.0063
 Earth -78842-01-01 18:13 J -27075616.96 -27075616.74 -27075616.49 0.0131 0.0056 *
 Moon -78841-01-05 22:32 J -27075247.82 -27075247.56 -27075247.30 0.0131 0.0023
 Earth -78841-01-05 22:18 J -27075247.81 -27075247.57 -27075247.32 0.0131 0.0030 *
 Moon -78840-01-09 01:25 J -27074878.68 -27074878.44 -27074878.19 0.0131 0.0008
 Earth -78840-01-09 01:40 J -27074878.68 -27074878.43 -27074878.17 0.0131 0.0004 *
 Earth -78839-01-13 04:32 J -27074509.55 -27074509.31 -27074509.05 0.0131 0.0024
 Moon -78839-01-13 05:16 J -27074509.53 -27074509.28 -27074509.02 0.0131 0.0025 *
 Earth -78838-01-17 07:11 J -27074140.42 -27074140.20 -27074139.95 0.0131 0.0050
 Moon -78838-01-17 07:11 J -27074140.41 -27074140.20 -27074139.96 0.0131 0.0050 *
 Earth -78837-01-21 09:35 J -27073771.30 -27073771.10 -27073770.89 0.0131 0.0075
 Moon -78837-01-21 09:49 J -27073771.29 -27073771.09 -27073770.85 0.0131 0.0072 *
 Earth -78836-01-24 11:30 J -27073402.16 -27073402.02 -27073401.84 0.0131 0.0101
 Moon -78836-01-24 11:44 J -27073402.14 -27073402.01 -27073401.86 0.0131 0.0106 *
 Moon -78835-01-28 14:08 J -27073033.01 -27073032.91 -27073032.80 0.0131 0.0120
 Earth -78835-01-28 13:40 J -27073032.98 -27073032.93 -27073032.84 0.0131 0.0126 *
 Venus -78826-08-03 17:30 J -27069558.94 -27069558.77 -27069558.60 0.0135 0.0080
 Venus -78825-03-16 21:06 J -27069332.82 -27069332.62 -27069332.41 0.0135 0.0024
 Venus -78825-10-29 00:42 J -27069106.66 -27069106.47 -27069106.25 0.0135 0.0033
 Venus -78824-06-12 04:47 J -27068880.45 -27068880.30 -27068880.14 0.0136 0.0090

Mercury -78821-04-19 02:37 J -27067838.43 -27067838.39 -27067838.33 0.0137 0.0128
 Mercury -78821-07-16 06:13 J -27067750.32 -27067750.24 -27067750.16 0.0137 0.0111
 Mercury -78821-10-12 09:20 J -27067662.20 -27067662.11 -27067662.01 0.0137 0.0094
 Mercury -78820-01-08 12:42 J -27067574.08 -27067573.97 -27067573.86 0.0138 0.0077
 Mercury -78820-04-06 16:04 J -27067485.95 -27067485.83 -27067485.71 0.0138 0.0061
 Mercury -78820-07-03 19:25 J -27067397.81 -27067397.69 -27067397.56 0.0138 0.0044
 Mercury -78820-09-29 22:47 J -27067309.68 -27067309.55 -27067309.41 0.0138 0.0027
 Mercury -78820-12-27 02:23 J -27067221.54 -27067221.40 -27067221.27 0.0138 0.0010
 Mercury -78819-03-25 05:44 J -27067133.39 -27067133.26 -27067133.13 0.0138 0.0008
 Mercury -78819-06-21 09:06 J -27067045.25 -27067045.12 -27067044.98 0.0138 0.0026
 Mercury -78819-09-17 12:42 J -27066957.10 -27066956.97 -27066956.84 0.0139 0.0044
 Mercury -78819-12-14 16:04 J -27066868.95 -27066868.83 -27066868.70 0.0139 0.0062
 Mercury -78818-03-12 19:40 J -27066780.79 -27066780.68 -27066780.57 0.0139 0.0079
 Mercury -78818-06-08 23:16 J -27066692.63 -27066692.53 -27066692.43 0.0139 0.0097
 Mercury -78818-09-05 02:52 J -27066604.45 -27066604.38 -27066604.31 0.0139 0.0116
 Mercury -78818-12-02 06:28 J -27066516.26 -27066516.23 -27066516.20 0.0139 0.0134
 Mars -78814-06-08 02:52 J -27065232.57 -27065232.38 -27065232.16 0.0142 0.0106
 Mars -78812-05-11 14:08 J -27064529.20 -27064528.91 -27064528.60 0.0143 0.0041
 Mars -78810-04-15 21:35 J -27063824.90 -27063824.60 -27063824.28 0.0144 0.0030
 Mars -78808-03-21 02:08 J -27063119.61 -27063119.41 -27063119.16 0.0145 0.0106
 Moon -78802-06-16 19:11 J -27060840.81 -27060840.70 -27060840.56 0.0148 0.0129
 Earth -78802-06-16 22:04 J -27060840.66 -27060840.58 -27060840.47 0.0148 0.0137 *
 Earth -78801-06-21 01:54 J -27060470.60 -27060470.42 -27060470.23 0.0148 0.0100
 Moon -78801-06-21 04:04 J -27060470.48 -27060470.33 -27060470.15 0.0148 0.0107 *
 Moon -78800-06-26 05:01 J -27060100.51 -27060100.29 -27060100.04 0.0148 0.0061
 Earth -78800-06-26 06:28 J -27060100.45 -27060100.23 -27060099.99 0.0148 0.0063 *
 Earth -78799-07-01 11:44 J -27059730.25 -27059730.01 -27059729.75 0.0148 0.0024
 Moon -78799-07-01 12:56 J -27059730.20 -27059729.96 -27059729.72 0.0148 0.0022 *
 Earth -78798-07-06 17:59 J -27059360.01 -27059359.75 -27059359.50 0.0148 0.0015
 Moon -78798-07-06 18:13 J -27059360.00 -27059359.74 -27059359.47 0.0148 0.0009 *

Moon -78797-07-10 23:30 J -27058989.73 -27058989.52 -27058989.29 0.0148 0.0062
 Earth -78797-07-11 00:13 J -27058989.71 -27058989.49 -27058989.24 0.0148 0.0054 *
 Earth -78796-07-16 07:25 J -27058619.39 -27058619.19 -27058618.99 0.0148 0.0092
 Moon -78796-07-16 09:06 J -27058619.32 -27058619.12 -27058618.90 0.0148 0.0088 *
 Moon -78795-07-21 11:59 J -27058249.10 -27058249.00 -27058248.87 0.0148 0.0131
 Earth -78795-07-21 15:06 J -27058248.99 -27058248.87 -27058248.76 0.0148 0.0130 *
 Venus -78787-08-25 16:32 J -27055291.93 -27055291.81 -27055291.65 0.0145 0.0115
 Venus -78786-04-09 07:11 J -27055065.40 -27055065.20 -27055064.97 0.0144 0.0041
 Venus -78786-11-21 21:35 J -27054838.81 -27054838.60 -27054838.38 0.0144 0.0034
 Venus -78785-07-05 11:30 J -27054612.15 -27054612.02 -27054611.86 0.0143 0.0107
 Mercury -78782-09-10 20:52 J -27053449.72 -27053449.63 -27053449.53 0.0141 0.0123
 Mercury -78782-12-08 04:32 J -27053361.44 -27053361.31 -27053361.16 0.0141 0.0096
 Mercury -78781-03-05 12:28 J -27053273.14 -27053272.98 -27053272.81 0.0141 0.0070
 Mercury -78781-06-01 20:08 J -27053184.83 -27053184.66 -27053184.48 0.0141 0.0044
 Mercury -78781-08-29 03:49 J -27053096.52 -27053096.34 -27053096.15 0.0141 0.0018
 Mercury -78781-11-25 11:30 J -27053008.21 -27053008.02 -27053007.83 0.0141 0.0008
 Mercury -78780-02-21 18:56 J -27052919.89 -27052919.71 -27052919.52 0.0141 0.0034
 Mercury -78780-05-21 02:23 J -27052831.56 -27052831.40 -27052831.22 0.0140 0.0059
 Mercury -78780-08-17 09:35 J -27052743.23 -27052743.10 -27052742.94 0.0140 0.0085
 Mercury -78780-11-13 17:01 J -27052654.89 -27052654.79 -27052654.66 0.0140 0.0109
 Mercury -78779-02-10 00:28 J -27052566.53 -27052566.48 -27052566.42 0.0140 0.0133
 Mars -78775-02-14 12:28 J -27051101.16 -27051100.98 -27051100.75 0.0137 0.0102
 Mars -78773-01-17 05:59 J -27050399.53 -27050399.25 -27050398.95 0.0136 0.0041
 Mars -78772-12-18 05:44 J -27049698.56 -27049698.26 -27049697.96 0.0135 0.0016
 Mars -78770-11-18 14:52 J -27048998.12 -27048997.88 -27048997.62 0.0134 0.0069
 Mars -78768-10-18 12:28 J -27048298.09 -27048297.98 -27048297.82 0.0133 0.0118
 Earth -78761-12-24 23:30 J -27045673.65 -27045673.52 -27045673.36 0.0131 0.0106
 Moon -78761-12-25 00:13 J -27045673.63 -27045673.49 -27045673.33 0.0131 0.0103 *
 Earth -78760-12-29 04:47 J -27045304.50 -27045304.30 -27045304.09 0.0131 0.0079
 Moon -78760-12-29 04:47 J -27045304.49 -27045304.30 -27045304.09 0.0131 0.0085 *

Earth	-78758-01-02 09:06 J	-27044935.35	-27044935.12	-27044934.88	0.0131	0.0053
Moon	-78758-01-02 09:35 J	-27044935.32	-27044935.10	-27044934.86	0.0131	0.0046 *
Moon	-78757-01-06 12:56 J	-27044566.22	-27044565.96	-27044565.71	0.0131	0.0031
Earth	-78757-01-06 12:56 J	-27044566.21	-27044565.96	-27044565.71	0.0131	0.0026 *
Earth	-78756-01-09 16:18 J	-27044197.07	-27044196.82	-27044196.56	0.0131	0.0002
Moon	-78756-01-09 16:32 J	-27044197.06	-27044196.81	-27044196.57	0.0131	0.0006 *
Moon	-78755-01-13 18:42 J	-27043827.97	-27043827.72	-27043827.45	0.0131	0.0025
Earth	-78755-01-13 19:11 J	-27043827.94	-27043827.70	-27043827.44	0.0131	0.0028 *
Earth	-78754-01-17 21:49 J	-27043458.82	-27043458.59	-27043458.35	0.0131	0.0054
Moon	-78754-01-17 21:35 J	-27043458.81	-27043458.60	-27043458.36	0.0131	0.0053 *
Moon	-78753-01-21 23:44 J	-27043089.71	-27043089.51	-27043089.30	0.0131	0.0082
Earth	-78753-01-21 23:59 J	-27043089.68	-27043089.50	-27043089.29	0.0131	0.0080 *
Earth	-78752-01-25 02:08 J	-27042720.54	-27042720.41	-27042720.24	0.0131	0.0106
Moon	-78752-01-25 02:37 J	-27042720.53	-27042720.39	-27042720.23	0.0131	0.0101 *
Earth	-78751-01-29 04:18 J	-27042351.32	-27042351.32	-27042351.29	0.0131	0.0131
Venus	-78742-04-03 06:28 J	-27039000.36	-27039000.23	-27039000.09	0.0134	0.0103
Venus	-78742-11-15 09:49 J	-27038774.28	-27038774.09	-27038773.88	0.0135	0.0048
Venus	-78741-06-28 13:40 J	-27038548.14	-27038547.93	-27038547.72	0.0135	0.0009
Venus	-78740-02-09 17:30 J	-27038321.95	-27038321.77	-27038321.58	0.0135	0.0066
Venus	-78740-09-23 21:20 J	-27038095.69	-27038095.61	-27038095.52	0.0136	0.0123
Mercury	-78737-05-09 10:32 J	-27037137.12	-27037137.06	-27037137.00	0.0137	0.0122
Mercury	-78737-08-05 13:40 J	-27037049.01	-27037048.93	-27037048.84	0.0137	0.0105
Mercury	-78737-11-01 17:01 J	-27036960.89	-27036960.79	-27036960.69	0.0137	0.0089
Mercury	-78736-01-28 20:23 J	-27036872.76	-27036872.65	-27036872.54	0.0137	0.0072
Mercury	-78736-04-26 23:44 J	-27036784.63	-27036784.51	-27036784.39	0.0138	0.0055
Mercury	-78736-07-24 03:06 J	-27036696.50	-27036696.37	-27036696.24	0.0138	0.0038
Mercury	-78736-10-20 06:28 J	-27036608.36	-27036608.23	-27036608.09	0.0138	0.0021
Mercury	-78735-01-16 09:49 J	-27036520.22	-27036520.09	-27036519.95	0.0138	0.0005
Mercury	-78735-04-14 13:25 J	-27036432.08	-27036431.94	-27036431.81	0.0138	0.0014
Mercury	-78735-07-11 16:47 J	-27036343.93	-27036343.80	-27036343.67	0.0138	0.0031

Mercury -78735-10-07 20:08 J -27036255.78 -27036255.66 -27036255.53 0.0139 0.0049

Mercury -78734-01-03 23:44 J -27036167.63 -27036167.51 -27036167.39 0.0139 0.0067

Mercury -78734-04-02 03:06 J -27036079.47 -27036079.37 -27036079.26 0.0139 0.0085

Mercury -78734-06-29 06:42 J -27035991.31 -27035991.22 -27035991.13 0.0139 0.0103

Mercury -78734-09-25 10:04 J -27035903.13 -27035903.08 -27035903.00 0.0139 0.0122

Mercury -78734-12-22 13:54 J -27035814.92 -27035814.92 -27035814.91 0.0139 0.0139

Mars -78731-02-28 17:01 J -27035015.85 -27035015.79 -27035015.70 0.0141 0.0136

Mars -78729-02-01 12:56 J -27034313.21 -27034312.96 -27034312.69 0.0142 0.0075

Mars -78727-01-05 04:47 J -27033609.61 -27033609.30 -27033608.99 0.0143 0.0009

Mars -78726-12-10 17:16 J -27032905.05 -27032904.78 -27032904.48 0.0144 0.0064

Mars -78724-11-15 05:16 J -27032199.36 -27032199.28 -27032199.18 0.0145 0.0140

Moon -78718-06-17 03:49 J -27030159.38 -27030159.34 -27030159.26 0.0148 0.0143

Earth -78718-06-17 06:56 J -27030159.28 -27030159.21 -27030159.09 0.0148 0.0136 *

Earth -78717-06-21 10:47 J -27029789.22 -27029789.05 -27029788.85 0.0148 0.0099

Moon -78717-06-21 13:11 J -27029789.12 -27029788.95 -27029788.74 0.0148 0.0093 *

Moon -78716-06-26 12:42 J -27029419.19 -27029418.97 -27029418.72 0.0148 0.0064

Earth -78716-06-26 15:20 J -27029419.08 -27029418.86 -27029418.62 0.0148 0.0060 *

Earth -78715-07-01 20:37 J -27029048.89 -27029048.64 -27029048.39 0.0148 0.0022

Moon -78715-07-01 21:49 J -27029048.83 -27029048.59 -27029048.35 0.0148 0.0024 *

Moon -78714-07-07 01:40 J -27028678.68 -27028678.43 -27028678.16 0.0148 0.0024

Earth -78714-07-07 02:37 J -27028678.64 -27028678.39 -27028678.14 0.0148 0.0018 *

Moon -78713-07-11 08:37 J -27028308.37 -27028308.14 -27028307.91 0.0148 0.0050

Earth -78713-07-11 08:52 J -27028308.36 -27028308.13 -27028307.89 0.0148 0.0057 *

Earth -78712-07-16 15:49 J -27027938.02 -27027937.84 -27027937.63 0.0148 0.0096

Moon -78712-07-16 17:01 J -27027937.97 -27027937.79 -27027937.58 0.0148 0.0101 *

Moon -78711-07-21 21:20 J -27027567.69 -27027567.61 -27027567.49 0.0148 0.0134

Earth -78711-07-21 23:30 J -27027567.62 -27027567.52 -27027567.41 0.0148 0.0134 *

Venus -78703-12-07 11:30 J -27024507.20 -27024507.02 -27024506.82 0.0145 0.0077

Venus -78702-07-22 02:23 J -27024280.63 -27024280.40 -27024280.18 0.0144 0.0003

Venus -78701-03-04 16:18 J -27024054.01 -27024053.82 -27024053.62 0.0144 0.0071

Mercury -78698-10-01 04:04 J -27022748.42 -27022748.33 -27022748.21 0.0142 0.0117
 Mercury -78698-12-28 12:13 J -27022660.14 -27022659.99 -27022659.84 0.0141 0.0090
 Mercury -78697-03-25 19:54 J -27022571.84 -27022571.67 -27022571.50 0.0141 0.0063
 Mercury -78697-06-22 03:35 J -27022483.53 -27022483.35 -27022483.16 0.0141 0.0037
 Mercury -78697-09-18 11:30 J -27022395.21 -27022395.02 -27022394.84 0.0141 0.0011
 Mercury -78697-12-15 18:56 J -27022306.89 -27022306.71 -27022306.52 0.0141 0.0015
 Mercury -78696-03-14 02:23 J -27022218.57 -27022218.40 -27022218.21 0.0141 0.0041
 Mercury -78696-06-10 10:04 J -27022130.24 -27022130.08 -27022129.92 0.0140 0.0066
 Mercury -78696-09-06 17:30 J -27022041.91 -27022041.77 -27022041.63 0.0140 0.0091
 Mercury -78696-12-04 00:42 J -27021953.57 -27021953.47 -27021953.36 0.0140 0.0116
 Mercury -78695-03-02 08:08 J -27021865.16 -27021865.16 -27021865.16 0.0140 0.0140
 Mars -78693-11-07 10:32 J -27020884.13 -27020884.06 -27020883.97 0.0138 0.0134
 Mars -78691-10-10 16:47 J -27020182.04 -27020181.80 -27020181.52 0.0137 0.0072
 Mars -78689-09-11 05:16 J -27019480.58 -27019480.28 -27019479.98 0.0136 0.0013
 Mars -78687-08-13 00:56 J -27018779.74 -27018779.46 -27018779.18 0.0135 0.0042
 Mars -78685-07-13 06:56 J -27018079.40 -27018079.21 -27018078.98 0.0134 0.0094
 Moon -78678-12-22 07:11 J -27015361.24 -27015361.20 -27015361.14 0.0131 0.0129
 Earth -78678-12-22 07:54 J -27015361.18 -27015361.17 -27015361.11 0.0131 0.0131 *
 Earth -78677-12-25 13:54 J -27014992.06 -27014991.92 -27014991.74 0.0131 0.0104
 Moon -78677-12-25 14:37 J -27014992.02 -27014991.89 -27014991.74 0.0131 0.0108 *
 Moon -78676-12-29 17:59 J -27014622.96 -27014622.75 -27014622.51 0.0131 0.0071
 Earth -78676-12-29 19:11 J -27014622.90 -27014622.70 -27014622.48 0.0131 0.0076 *
 Earth -78674-01-02 23:30 J -27014253.75 -27014253.52 -27014253.28 0.0131 0.0049
 Moon -78674-01-03 00:13 J -27014253.71 -27014253.49 -27014253.27 0.0131 0.0055 *
 Moon -78673-01-07 02:52 J -27013884.64 -27013884.38 -27013884.12 0.0131 0.0015
 Earth -78673-01-07 03:35 J -27013884.60 -27013884.35 -27013884.10 0.0131 0.0022 *
 Earth -78672-01-10 06:56 J -27013515.46 -27013515.21 -27013514.95 0.0131 0.0006
 Moon -78672-01-10 07:54 J -27013515.42 -27013515.17 -27013514.93 0.0131 0.0001 *
 Moon -78671-01-14 09:20 J -27013146.35 -27013146.11 -27013145.84 0.0131 0.0034
 Earth -78671-01-14 09:49 J -27013146.33 -27013146.09 -27013145.83 0.0131 0.0032 *

Earth -78670-01-18 12:28 J -27012777.19 -27012776.98 -27012776.74 0.0131 0.0059
 Moon -78670-01-18 13:25 J -27012777.14 -27012776.94 -27012776.71 0.0131 0.0059 *
 Moon -78669-01-22 14:23 J -27012408.09 -27012407.90 -27012407.68 0.0131 0.0082
 Earth -78669-01-22 14:52 J -27012408.05 -27012407.88 -27012407.67 0.0131 0.0085 *
 Earth -78668-01-25 17:16 J -27012038.90 -27012038.78 -27012038.63 0.0131 0.0111
 Moon -78668-01-25 18:13 J -27012038.84 -27012038.74 -27012038.62 0.0131 0.0116 *
 Moon -78667-01-29 18:28 J -27011669.74 -27011669.73 -27011669.68 0.0131 0.0131
 Venus -78659-12-01 20:23 J -27008441.71 -27008441.65 -27008441.56 0.0134 0.0124
 Venus -78658-07-15 23:44 J -27008215.67 -27008215.51 -27008215.31 0.0134 0.0070
 Venus -78657-02-27 03:35 J -27007989.55 -27007989.35 -27007989.13 0.0135 0.0014
 Venus -78657-10-10 07:25 J -27007763.39 -27007763.19 -27007762.99 0.0135 0.0043
 Venus -78656-05-24 11:01 J -27007537.17 -27007537.04 -27007536.89 0.0135 0.0100
 Mercury -78653-03-02 15:06 J -27006523.90 -27006523.87 -27006523.83 0.0137 0.0131
 Mercury -78653-05-29 18:28 J -27006435.80 -27006435.73 -27006435.65 0.0137 0.0114
 Mercury -78653-08-25 21:35 J -27006347.68 -27006347.60 -27006347.50 0.0137 0.0099
 Mercury -78653-11-22 01:11 J -27006259.56 -27006259.45 -27006259.34 0.0137 0.0081
 Mercury -78652-02-18 04:32 J -27006171.43 -27006171.31 -27006171.19 0.0137 0.0065
 Mercury -78652-05-17 07:54 J -27006083.30 -27006083.17 -27006083.05 0.0138 0.0048
 Mercury -78652-08-13 11:16 J -27005995.16 -27005995.03 -27005994.90 0.0138 0.0031
 Mercury -78652-11-09 14:37 J -27005907.03 -27005906.89 -27005906.76 0.0138 0.0014
 Mercury -78651-02-05 17:59 J -27005818.88 -27005818.75 -27005818.61 0.0138 0.0004
 Mercury -78651-05-04 21:20 J -27005730.74 -27005730.61 -27005730.47 0.0138 0.0021
 Mercury -78651-08-01 00:42 J -27005642.59 -27005642.47 -27005642.33 0.0138 0.0039
 Mercury -78651-10-28 04:18 J -27005554.44 -27005554.32 -27005554.20 0.0139 0.0056
 Mercury -78650-01-24 07:40 J -27005466.29 -27005466.18 -27005466.06 0.0139 0.0075
 Mercury -78650-04-22 11:16 J -27005378.13 -27005378.03 -27005377.93 0.0139 0.0092
 Mercury -78650-07-19 14:52 J -27005289.96 -27005289.88 -27005289.80 0.0139 0.0110
 Mercury -78650-10-15 18:28 J -27005201.78 -27005201.73 -27005201.68 0.0139 0.0128
 Mars -78647-10-25 06:13 J -27004096.43 -27004096.24 -27004096.02 0.0141 0.0106
 Mars -78645-09-27 07:54 J -27003393.46 -27003393.17 -27003392.87 0.0142 0.0043

Mars	-78643-09-01 05:16 J	-27002689.59	-27002689.28	-27002688.97	0.0144	0.0026
Mars	-78641-08-06 01:11 J	-27001984.66	-27001984.45	-27001984.20	0.0145	0.0101
Moon	-78634-06-17 17:44 J	-26999477.89	-26999477.76	-26999477.62	0.0148	0.0125
Earth	-78634-06-17 21:20 J	-26999477.72	-26999477.61	-26999477.50	0.0148	0.0133 *
Earth	-78633-06-22 00:13 J	-26999107.67	-26999107.49	-26999107.28	0.0148	0.0096
Moon	-78633-06-22 03:20 J	-26999107.52	-26999107.36	-26999107.17	0.0148	0.0103 *
Moon	-78632-06-27 02:23 J	-26998737.63	-26998737.40	-26998737.15	0.0148	0.0055
Earth	-78632-06-27 04:47 J	-26998737.52	-26998737.30	-26998737.06	0.0148	0.0057 *
Earth	-78631-07-02 09:49 J	-26998367.33	-26998367.09	-26998366.83	0.0148	0.0019
Moon	-78631-07-02 12:13 J	-26998367.24	-26998366.99	-26998366.75	0.0148	0.0016 *
Moon	-78630-07-07 14:52 J	-26997997.14	-26997996.88	-26997996.62	0.0148	0.0016
Earth	-78630-07-07 15:49 J	-26997997.09	-26997996.84	-26997996.59	0.0148	0.0022 *
Earth	-78629-07-11 22:18 J	-26997626.80	-26997626.57	-26997626.34	0.0148	0.0061
Moon	-78629-07-11 22:32 J	-26997626.77	-26997626.56	-26997626.34	0.0148	0.0069 *
Earth	-78628-07-17 05:01 J	-26997256.46	-26997256.29	-26997256.09	0.0148	0.0101
Moon	-78628-07-17 05:44 J	-26997256.45	-26997256.26	-26997256.05	0.0148	0.0095 *
Moon	-78627-07-22 10:47 J	-26996886.10	-26996886.05	-26996885.96	0.0148	0.0141
Earth	-78627-07-22 12:28 J	-26996886.04	-26996885.98	-26996885.88	0.0148	0.0140 *
Venus	-78619-08-06 17:59 J	-26993948.88	-26993948.75	-26993948.60	0.0145	0.0110
Venus	-78618-03-21 08:37 J	-26993722.36	-26993722.14	-26993721.92	0.0144	0.0036
Venus	-78618-11-02 23:01 J	-26993495.76	-26993495.54	-26993495.33	0.0144	0.0038
Venus	-78617-06-16 12:42 J	-26993269.09	-26993268.97	-26993268.81	0.0144	0.0112
Mercury	-78614-07-25 04:18 J	-26992135.36	-26992135.32	-26992135.25	0.0142	0.0135
Mercury	-78614-10-21 12:28 J	-26992047.10	-26992046.98	-26992046.85	0.0142	0.0108
Mercury	-78613-01-17 20:08 J	-26991958.80	-26991958.66	-26991958.49	0.0141	0.0082
Mercury	-78613-04-15 04:04 J	-26991870.50	-26991870.33	-26991870.15	0.0141	0.0055
Mercury	-78613-07-12 11:59 J	-26991782.19	-26991782.00	-26991781.82	0.0141	0.0028
Mercury	-78613-10-08 19:40 J	-26991693.87	-26991693.68	-26991693.49	0.0141	0.0003
Mercury	-78612-01-05 03:06 J	-26991605.55	-26991605.37	-26991605.18	0.0141	0.0024
Mercury	-78612-04-03 10:47 J	-26991517.23	-26991517.05	-26991516.88	0.0141	0.0049

Mercury -78612-06-30 17:59 J -26991428.90 -26991428.75 -26991428.58 0.0140 0.0075

Mercury -78612-09-27 01:25 J -26991340.56 -26991340.44 -26991340.30 0.0140 0.0099

Mercury -78612-12-24 08:52 J -26991252.20 -26991252.13 -26991252.04 0.0140 0.0124

Mars -78608-07-03 21:20 J -26989964.79 -26989964.61 -26989964.37 0.0138 0.0103

Mars -78606-06-05 21:20 J -26989262.88 -26989262.61 -26989262.30 0.0137 0.0042

Mars -78604-05-07 04:04 J -26988561.63 -26988561.33 -26988561.03 0.0136 0.0016

Mars -78602-04-07 20:08 J -26987860.90 -26987860.66 -26987860.39 0.0135 0.0070

Mars -78600-03-07 22:32 J -26987160.68 -26987160.56 -26987160.42 0.0134 0.0119

Moon -78594-12-22 21:20 J -26984679.64 -26984679.61 -26984679.55 0.0132 0.0130

Earth -78594-12-22 22:47 J -26984679.60 -26984679.55 -26984679.48 0.0132 0.0128 *

Earth -78593-12-26 04:32 J -26984310.46 -26984310.31 -26984310.14 0.0131 0.0101

Moon -78593-12-26 05:59 J -26984310.40 -26984310.25 -26984310.07 0.0131 0.0098 *

Moon -78592-12-30 08:23 J -26983941.34 -26983941.15 -26983940.92 0.0131 0.0079

Earth -78592-12-30 09:35 J -26983941.30 -26983941.10 -26983940.88 0.0131 0.0073 *

Earth -78590-01-03 13:54 J -26983572.14 -26983571.92 -26983571.66 0.0131 0.0046

Moon -78590-01-03 15:20 J -26983572.08 -26983571.86 -26983571.61 0.0131 0.0039 *

Moon -78589-01-07 16:47 J -26983203.05 -26983202.80 -26983202.53 0.0131 0.0024

Earth -78589-01-07 18:13 J -26983202.99 -26983202.74 -26983202.49 0.0131 0.0018 *

Earth -78588-01-10 21:49 J -26982833.84 -26982833.59 -26982833.34 0.0131 0.0009

Moon -78588-01-10 22:47 J -26982833.79 -26982833.55 -26982833.30 0.0131 0.0014 *

Moon -78587-01-14 23:16 J -26982464.77 -26982464.53 -26982464.27 0.0131 0.0033

Earth -78587-01-15 00:56 J -26982464.70 -26982464.46 -26982464.21 0.0131 0.0036 *

Earth -78586-01-19 03:35 J -26982095.56 -26982095.35 -26982095.12 0.0131 0.0063

Moon -78586-01-19 04:18 J -26982095.52 -26982095.32 -26982095.09 0.0131 0.0063 *

Moon -78585-01-23 04:47 J -26981726.47 -26981726.30 -26981726.10 0.0131 0.0092

Earth -78585-01-23 05:59 J -26981726.41 -26981726.25 -26981726.05 0.0131 0.0090 *

Earth -78584-01-26 08:37 J -26981357.24 -26981357.14 -26981357.01 0.0131 0.0116

Moon -78584-01-26 09:49 J -26981357.20 -26981357.09 -26981356.95 0.0131 0.0112 *

Venus -78574-03-15 14:08 J -26977657.05 -26977656.91 -26977656.74 0.0134 0.0090

Venus -78574-10-27 17:44 J -26977430.96 -26977430.76 -26977430.55 0.0135 0.0035

Venus -78573-06-09 21:35 J -26977204.81 -26977204.60 -26977204.39 0.0135 0.0022
 Venus -78572-01-22 01:25 J -26976978.61 -26976978.44 -26976978.26 0.0135 0.0078
 Venus -78572-09-05 05:30 J -26976752.27 -26976752.27 -26976752.26 0.0135 0.0135
 Mercury -78569-03-22 23:30 J -26975822.58 -26975822.52 -26975822.47 0.0137 0.0123
 Mercury -78569-06-19 02:37 J -26975734.47 -26975734.39 -26975734.30 0.0137 0.0107
 Mercury -78569-09-15 05:59 J -26975646.35 -26975646.25 -26975646.15 0.0137 0.0090
 Mercury -78569-12-12 09:20 J -26975558.22 -26975558.11 -26975558.00 0.0137 0.0074
 Mercury -78568-03-10 12:42 J -26975470.09 -26975469.97 -26975469.85 0.0137 0.0057
 Mercury -78568-06-06 16:04 J -26975381.96 -26975381.83 -26975381.70 0.0138 0.0040
 Mercury -78568-09-02 19:25 J -26975293.83 -26975293.69 -26975293.56 0.0138 0.0023
 Mercury -78568-11-29 22:47 J -26975205.69 -26975205.55 -26975205.42 0.0138 0.0006
 Mercury -78567-02-26 02:08 J -26975117.54 -26975117.41 -26975117.28 0.0138 0.0012
 Mercury -78567-05-25 05:30 J -26975029.40 -26975029.27 -26975029.13 0.0138 0.0029
 Mercury -78567-08-21 09:06 J -26974941.25 -26974941.12 -26974941.00 0.0138 0.0047
 Mercury -78567-11-17 12:28 J -26974853.10 -26974852.98 -26974852.86 0.0139 0.0064
 Mercury -78566-02-13 15:49 J -26974764.94 -26974764.84 -26974764.72 0.0139 0.0083
 Mercury -78566-05-12 19:11 J -26974676.78 -26974676.70 -26974676.59 0.0139 0.0101
 Mercury -78566-08-08 23:01 J -26974588.61 -26974588.54 -26974588.47 0.0139 0.0118
 Mercury -78566-11-05 02:37 J -26974500.41 -26974500.39 -26974500.37 0.0139 0.0137
 Mars -78564-07-18 09:49 J -26973879.15 -26973879.09 -26973878.98 0.0140 0.0135
 Mars -78562-06-20 22:04 J -26973176.82 -26973176.58 -26973176.30 0.0142 0.0076
 Mars -78560-05-24 05:44 J -26972473.57 -26972473.26 -26972472.95 0.0143 0.0010
 Mars -78558-04-28 10:32 J -26971769.35 -26971769.06 -26971768.77 0.0144 0.0061
 Mars -78556-04-02 13:25 J -26971064.03 -26971063.94 -26971063.81 0.0145 0.0136
 Moon -78550-06-18 07:40 J -26968796.25 -26968796.18 -26968796.07 0.0147 0.0138
 Earth -78550-06-18 11:16 J -26968796.13 -26968796.03 -26968795.89 0.0147 0.0130 *
 Earth -78549-06-22 14:37 J -26968426.08 -26968425.89 -26968425.68 0.0148 0.0092
 Moon -78549-06-22 17:44 J -26968425.95 -26968425.76 -26968425.55 0.0148 0.0086 *
 Moon -78548-06-27 15:35 J -26968056.08 -26968055.85 -26968055.60 0.0148 0.0057
 Earth -78548-06-27 18:56 J -26968055.94 -26968055.71 -26968055.47 0.0148 0.0053 *

Earth	-78547-07-02 23:44 J	-26967685.76	-26967685.51	-26967685.25	0.0148	0.0014
Moon	-78547-07-03 01:54 J	-26967685.66	-26967685.42	-26967685.17	0.0148	0.0016 *
Moon	-78546-07-08 03:49 J	-26967315.59	-26967315.34	-26967315.08	0.0148	0.0032
Earth	-78546-07-08 05:44 J	-26967315.51	-26967315.26	-26967315.01	0.0148	0.0026 *
Earth	-78545-07-12 11:59 J	-26966945.23	-26966945.00	-26966944.77	0.0148	0.0066
Moon	-78545-07-12 12:28 J	-26966945.19	-26966944.98	-26966944.74	0.0148	0.0060 *
Earth	-78544-07-17 18:42 J	-26966574.88	-26966574.72	-26966574.53	0.0148	0.0106
Moon	-78544-07-17 18:56 J	-26966574.86	-26966574.71	-26966574.52	0.0148	0.0112 *
Moon	-78543-07-23 01:25 J	-26966204.48	-26966204.44	-26966204.37	0.0148	0.0144
Earth	-78543-07-23 02:23 J	-26966204.44	-26966204.40	-26966204.34	0.0148	0.0145 *
Venus	-78535-04-06 00:13 J	-26963390.51	-26963390.49	-26963390.44	0.0145	0.0143
Venus	-78535-11-18 14:52 J	-26963164.06	-26963163.88	-26963163.67	0.0145	0.0069
Venus	-78534-07-03 05:44 J	-26962937.48	-26962937.26	-26962937.03	0.0144	0.0006
Venus	-78533-02-14 19:54 J	-26962710.85	-26962710.67	-26962710.48	0.0144	0.0079
Mercury	-78530-08-14 12:42 J	-26961434.04	-26961433.97	-26961433.87	0.0142	0.0126
Mercury	-78530-11-10 20:37 J	-26961345.76	-26961345.64	-26961345.49	0.0141	0.0099
Mercury	-78529-02-07 04:32 J	-26961257.46	-26961257.31	-26961257.14	0.0141	0.0072
Mercury	-78529-05-05 12:28 J	-26961169.16	-26961168.98	-26961168.80	0.0141	0.0046
Mercury	-78529-08-01 20:08 J	-26961080.84	-26961080.66	-26961080.47	0.0141	0.0020
Mercury	-78529-10-29 03:49 J	-26960992.52	-26960992.34	-26960992.15	0.0141	0.0007
Mercury	-78528-01-25 11:30 J	-26960904.20	-26960904.02	-26960903.84	0.0141	0.0033
Mercury	-78528-04-23 18:56 J	-26960815.87	-26960815.71	-26960815.53	0.0141	0.0058
Mercury	-78528-07-21 02:23 J	-26960727.54	-26960727.40	-26960727.24	0.0140	0.0083
Mercury	-78528-10-17 09:49 J	-26960639.20	-26960639.09	-26960638.96	0.0140	0.0108
Mercury	-78527-01-13 17:01 J	-26960550.83	-26960550.79	-26960550.72	0.0140	0.0133
Mars	-78525-03-26 16:18 J	-26959747.85	-26959747.82	-26959747.72	0.0139	0.0136
Mars	-78523-02-27 05:44 J	-26959045.50	-26959045.26	-26959044.98	0.0138	0.0073
Mars	-78521-01-30 00:28 J	-26958343.78	-26958343.48	-26958343.18	0.0136	0.0013
Mars	-78520-12-31 03:06 J	-26957642.63	-26957642.37	-26957642.07	0.0135	0.0044
Mars	-78518-12-01 15:06 J	-26956942.06	-26956941.87	-26956941.64	0.0134	0.0096

Moon	-78510-12-23 11:44 J	-26953998.09	-26953998.01	-26953997.92	0.0132	0.0124
Earth	-78510-12-23 13:40 J	-26953998.00	-26953997.93	-26953997.84	0.0132	0.0125 *
Earth	-78509-12-26 19:11 J	-26953628.85	-26953628.70	-26953628.51	0.0131	0.0098
Moon	-78509-12-26 20:37 J	-26953628.77	-26953628.64	-26953628.46	0.0131	0.0103 *
Moon	-78508-12-30 22:32 J	-26953259.78	-26953259.56	-26953259.32	0.0131	0.0064
Earth	-78508-12-31 00:42 J	-26953259.68	-26953259.47	-26953259.25	0.0131	0.0070 *
Earth	-78506-01-04 05:16 J	-26952890.53	-26952890.28	-26952890.04	0.0131	0.0042
Moon	-78506-01-04 06:28 J	-26952890.45	-26952890.23	-26952889.99	0.0131	0.0048 *
Moon	-78505-01-08 07:40 J	-26952521.44	-26952521.18	-26952520.92	0.0131	0.0007
Earth	-78505-01-08 09:20 J	-26952521.36	-26952521.11	-26952520.86	0.0131	0.0014 *
Earth	-78504-01-11 12:56 J	-26952152.21	-26952151.96	-26952151.71	0.0131	0.0014
Moon	-78504-01-11 14:37 J	-26952152.13	-26952151.89	-26952151.64	0.0131	0.0009 *
Moon	-78503-01-15 14:37 J	-26951783.13	-26951782.89	-26951782.64	0.0131	0.0043
Earth	-78503-01-15 15:49 J	-26951783.07	-26951782.84	-26951782.59	0.0131	0.0041 *
Earth	-78502-01-19 18:56 J	-26951413.92	-26951413.71	-26951413.49	0.0131	0.0068
Moon	-78502-01-19 20:37 J	-26951413.84	-26951413.64	-26951413.42	0.0131	0.0068 *
Moon	-78501-01-23 20:08 J	-26951044.84	-26951044.66	-26951044.47	0.0131	0.0092
Earth	-78501-01-23 21:35 J	-26951044.76	-26951044.60	-26951044.42	0.0131	0.0095 *
Earth	-78500-01-27 00:13 J	-26950675.58	-26950675.49	-26950675.39	0.0131	0.0122
Moon	-78500-01-27 01:40 J	-26950675.47	-26950675.43	-26950675.36	0.0131	0.0127 *
Venus	-78491-11-13 04:18 J	-26947098.42	-26947098.32	-26947098.19	0.0134	0.0112
Venus	-78490-06-27 08:08 J	-26946872.35	-26946872.16	-26946871.96	0.0134	0.0056
Venus	-78489-02-08 11:59 J	-26946646.22	-26946646.00	-26946645.79	0.0135	0.0002
Venus	-78489-09-21 15:20 J	-26946420.04	-26946419.86	-26946419.66	0.0135	0.0057
Venus	-78488-05-05 19:11 J	-26946193.80	-26946193.70	-26946193.57	0.0135	0.0114
Mercury	-78485-01-15 04:18 J	-26945209.35	-26945209.32	-26945209.29	0.0137	0.0132
Mercury	-78485-04-12 07:25 J	-26945121.25	-26945121.19	-26945121.11	0.0137	0.0116
Mercury	-78485-07-09 10:47 J	-26945033.14	-26945033.05	-26945032.96	0.0137	0.0099
Mercury	-78485-10-05 13:54 J	-26944945.01	-26944944.92	-26944944.80	0.0137	0.0083
Mercury	-78484-01-01 17:16 J	-26944856.89	-26944856.78	-26944856.65	0.0137	0.0067

Mercury -78484-03-30 20:37 J -26944768.76 -26944768.64 -26944768.51 0.0138 0.0050

Mercury -78484-06-26 23:59 J -26944680.62 -26944680.50 -26944680.36 0.0138 0.0033

Mercury -78484-09-23 03:35 J -26944592.49 -26944592.35 -26944592.22 0.0138 0.0015

Mercury -78484-12-20 06:56 J -26944504.35 -26944504.21 -26944504.08 0.0138 0.0003

Mercury -78483-03-18 10:18 J -26944416.20 -26944416.07 -26944415.94 0.0138 0.0020

Mercury -78483-06-14 13:40 J -26944328.06 -26944327.93 -26944327.80 0.0138 0.0037

Mercury -78483-09-10 17:16 J -26944239.91 -26944239.78 -26944239.66 0.0138 0.0055

Mercury -78483-12-07 20:37 J -26944151.75 -26944151.64 -26944151.52 0.0139 0.0072

Mercury -78482-03-05 23:59 J -26944063.59 -26944063.50 -26944063.39 0.0139 0.0091

Mercury -78482-06-02 03:20 J -26943975.43 -26943975.36 -26943975.26 0.0139 0.0109

Mercury -78482-08-29 07:11 J -26943887.25 -26943887.20 -26943887.14 0.0139 0.0127

Mars -78479-03-13 23:30 J -26942959.70 -26942959.52 -26942959.30 0.0141 0.0105

Mars -78477-02-14 17:01 J -26942257.07 -26942256.79 -26942256.48 0.0142 0.0043

Mars -78475-01-18 08:08 J -26941553.47 -26941553.16 -26941552.86 0.0143 0.0026

Mars -78474-12-23 20:37 J -26940848.85 -26940848.64 -26940848.39 0.0144 0.0098

Moon -78466-06-19 01:11 J -26938114.59 -26938114.45 -26938114.29 0.0147 0.0118

Earth -78466-06-19 05:01 J -26938114.42 -26938114.29 -26938114.17 0.0147 0.0126 *

Earth -78465-06-23 07:40 J -26937744.37 -26937744.18 -26937743.96 0.0148 0.0088

Moon -78465-06-23 11:16 J -26937744.21 -26937744.03 -26937743.83 0.0148 0.0095 *

Moon -78464-06-28 09:06 J -26937374.36 -26937374.12 -26937373.87 0.0148 0.0046

Earth -78464-06-28 11:59 J -26937374.23 -26937374.00 -26937373.75 0.0148 0.0049 *

Earth -78463-07-03 17:01 J -26937004.04 -26937003.79 -26937003.53 0.0148 0.0009

Moon -78463-07-03 19:54 J -26937003.92 -26937003.67 -26937003.42 0.0148 0.0007 *

Moon -78462-07-08 20:52 J -26936633.88 -26936633.63 -26936633.37 0.0148 0.0026

Earth -78462-07-08 22:47 J -26936633.79 -26936633.55 -26936633.30 0.0148 0.0032 *

Earth -78461-07-13 05:16 J -26936263.50 -26936263.28 -26936263.05 0.0148 0.0072

Moon -78461-07-13 05:59 J -26936263.44 -26936263.25 -26936263.02 0.0148 0.0081 *

Moon -78460-07-18 11:30 J -26935893.18 -26935893.02 -26935892.82 0.0148 0.0107

Earth -78460-07-18 11:59 J -26935893.15 -26935893.00 -26935892.82 0.0148 0.0113 *

Venus -78451-07-18 23:30 J -26932605.67 -26932605.52 -26932605.34 0.0145 0.0099

Venus	-78450-03-02 14:08 J	-26932379.12	-26932378.91	-26932378.68	0.0144	0.0024
Venus	-78450-10-15 04:18 J	-26932152.52	-26932152.32	-26932152.10	0.0144	0.0050
Venus	-78449-05-28 18:28 J	-26931925.83	-26931925.73	-26931925.60	0.0144	0.0123
Mercury	-78446-06-07 13:54 J	-26930820.92	-26930820.92	-26930820.88	0.0142	0.0141
Mercury	-78446-09-03 22:04 J	-26930732.68	-26930732.58	-26930732.46	0.0142	0.0114
Mercury	-78446-12-01 05:44 J	-26930644.39	-26930644.26	-26930644.10	0.0141	0.0088
Mercury	-78445-02-27 13:54 J	-26930556.09	-26930555.92	-26930555.75	0.0141	0.0060
Mercury	-78445-05-25 21:35 J	-26930467.78	-26930467.60	-26930467.41	0.0141	0.0034
Mercury	-78445-08-22 05:30 J	-26930379.46	-26930379.27	-26930379.09	0.0141	0.0008
Mercury	-78445-11-18 12:56 J	-26930291.14	-26930290.96	-26930290.77	0.0141	0.0018
Mercury	-78444-02-14 20:37 J	-26930202.82	-26930202.64	-26930202.46	0.0141	0.0044
Mercury	-78444-05-14 03:49 J	-26930114.49	-26930114.34	-26930114.16	0.0140	0.0070
Mercury	-78444-08-10 11:30 J	-26930026.15	-26930026.02	-26930025.88	0.0140	0.0094
Mercury	-78444-11-06 18:42 J	-26929937.80	-26929937.72	-26929937.61	0.0140	0.0120
Mars	-78441-11-20 09:06 J	-26928828.30	-26928828.12	-26928827.88	0.0138	0.0104
Mars	-78439-10-23 15:49 J	-26928126.12	-26928125.84	-26928125.54	0.0137	0.0042
Mars	-78437-09-24 05:59 J	-26927424.54	-26927424.25	-26927423.94	0.0136	0.0017
Mars	-78435-08-26 04:04 J	-26926723.57	-26926723.33	-26926723.07	0.0135	0.0071
Mars	-78433-07-26 10:32 J	-26926023.17	-26926023.06	-26926022.92	0.0134	0.0121
Moon	-78426-12-24 02:23 J	-26923316.47	-26923316.40	-26923316.29	0.0132	0.0124
Earth	-78426-12-24 04:47 J	-26923316.38	-26923316.30	-26923316.20	0.0132	0.0122 *
Earth	-78425-12-27 10:18 J	-26922947.23	-26922947.07	-26922946.88	0.0131	0.0094
Moon	-78425-12-27 12:56 J	-26922947.13	-26922946.96	-26922946.77	0.0131	0.0091 *
Moon	-78424-12-31 13:40 J	-26922578.15	-26922577.93	-26922577.71	0.0131	0.0072
Earth	-78424-12-31 15:20 J	-26922578.07	-26922577.86	-26922577.62	0.0131	0.0066 *
Earth	-78422-01-04 20:08 J	-26922208.90	-26922208.66	-26922208.41	0.0131	0.0038
Moon	-78422-01-04 22:18 J	-26922208.81	-26922208.57	-26922208.33	0.0131	0.0031 *
Moon	-78421-01-08 22:04 J	-26921839.84	-26921839.58	-26921839.31	0.0131	0.0016
Earth	-78421-01-09 00:28 J	-26921839.74	-26921839.48	-26921839.23	0.0131	0.0010 *
Earth	-78420-01-12 03:49 J	-26921470.59	-26921470.34	-26921470.08	0.0131	0.0018

Moon	-78420-01-12 05:44 J	-26921470.50	-26921470.26	-26921470.02	0.0131	0.0022	*
Moon	-78419-01-16 04:47 J	-26921101.54	-26921101.30	-26921101.05	0.0131	0.0042	
Earth	-78419-01-16 06:56 J	-26921101.43	-26921101.21	-26921100.96	0.0131	0.0046	*
Earth	-78418-01-20 10:04 J	-26920732.28	-26920732.08	-26920731.86	0.0131	0.0073	
Moon	-78418-01-20 11:44 J	-26920732.20	-26920732.01	-26920731.79	0.0131	0.0073	*
Moon	-78417-01-24 10:18 J	-26920363.20	-26920363.07	-26920362.88	0.0131	0.0103	
Earth	-78417-01-24 12:56 J	-26920363.11	-26920362.96	-26920362.79	0.0131	0.0100	*
Earth	-78416-01-27 15:06 J	-26919993.91	-26919993.87	-26919993.79	0.0131	0.0128	
Moon	-78416-01-27 17:16 J	-26919993.84	-26919993.78	-26919993.67	0.0131	0.0124	*
Venus	-78407-07-13 18:13 J	-26916539.75	-26916539.74	-26916539.69	0.0134	0.0133	
Venus	-78406-02-24 22:04 J	-26916313.75	-26916313.58	-26916313.41	0.0134	0.0077	
Venus	-78406-10-09 01:25 J	-26916087.64	-26916087.44	-26916087.22	0.0135	0.0022	
Venus	-78405-05-22 05:16 J	-26915861.48	-26915861.28	-26915861.07	0.0135	0.0034	
Venus	-78404-01-03 09:20 J	-26915635.26	-26915635.11	-26915634.95	0.0135	0.0091	
Mercury	-78401-02-04 11:59 J	-26914508.04	-26914508.00	-26914507.94	0.0137	0.0126	
Mercury	-78401-05-02 15:20 J	-26914419.93	-26914419.86	-26914419.77	0.0137	0.0109	
Mercury	-78401-07-29 18:42 J	-26914331.81	-26914331.72	-26914331.62	0.0137	0.0093	
Mercury	-78401-10-25 22:04 J	-26914243.69	-26914243.58	-26914243.47	0.0137	0.0076	
Mercury	-78400-01-22 01:25 J	-26914155.56	-26914155.44	-26914155.32	0.0137	0.0059	
Mercury	-78400-04-20 04:32 J	-26914067.43	-26914067.31	-26914067.17	0.0138	0.0043	
Mercury	-78400-07-17 08:08 J	-26913979.29	-26913979.16	-26913979.03	0.0138	0.0025	
Mercury	-78400-10-13 11:30 J	-26913891.16	-26913891.02	-26913890.89	0.0138	0.0008	
Mercury	-78399-01-09 14:52 J	-26913803.02	-26913802.88	-26913802.75	0.0138	0.0009	
Mercury	-78399-04-07 18:13 J	-26913714.87	-26913714.74	-26913714.61	0.0138	0.0027	
Mercury	-78399-07-04 21:35 J	-26913626.72	-26913626.60	-26913626.47	0.0138	0.0044	
Mercury	-78399-10-01 01:11 J	-26913538.57	-26913538.45	-26913538.33	0.0138	0.0062	
Mercury	-78399-12-28 04:32 J	-26913450.42	-26913450.31	-26913450.20	0.0139	0.0080	
Mercury	-78398-03-26 07:54 J	-26913362.26	-26913362.17	-26913362.06	0.0139	0.0098	
Mercury	-78398-06-22 11:30 J	-26913274.09	-26913274.02	-26913273.94	0.0139	0.0116	
Mercury	-78398-09-18 14:52 J	-26913185.90	-26913185.88	-26913185.83	0.0139	0.0134	

Mars	-78397-12-05 05:44 J	-26912742.33	-26912742.26	-26912742.14	0.0140	0.0133
Mars	-78395-11-07 10:04 J	-26912040.31	-26912040.08	-26912039.80	0.0141	0.0075
Mars	-78393-10-10 10:47 J	-26911337.36	-26911337.05	-26911336.74	0.0142	0.0010
Mars	-78391-09-14 08:23 J	-26910633.42	-26910633.15	-26910632.85	0.0143	0.0060
Mars	-78389-08-19 03:20 J	-26909928.47	-26909928.36	-26909928.22	0.0145	0.0133
Moon	-78382-06-19 14:52 J	-26907432.98	-26907432.88	-26907432.75	0.0147	0.0131
Earth	-78382-06-19 18:28 J	-26907432.85	-26907432.73	-26907432.58	0.0147	0.0123 *
Earth	-78381-06-23 21:49 J	-26907062.79	-26907062.59	-26907062.38	0.0148	0.0084
Moon	-78381-06-24 01:11 J	-26907062.65	-26907062.45	-26907062.23	0.0148	0.0078 *
Moon	-78380-06-28 22:32 J	-26906692.80	-26906692.56	-26906692.32	0.0148	0.0048
Earth	-78380-06-29 02:08 J	-26906692.65	-26906692.41	-26906692.17	0.0148	0.0044 *
Earth	-78379-07-04 07:11 J	-26906322.46	-26906322.20	-26906321.95	0.0148	0.0004
Moon	-78379-07-04 09:49 J	-26906322.33	-26906322.09	-26906321.84	0.0148	0.0006 *
Moon	-78378-07-09 10:32 J	-26905952.31	-26905952.06	-26905951.81	0.0148	0.0043
Earth	-78378-07-09 12:56 J	-26905952.20	-26905951.96	-26905951.71	0.0148	0.0037 *
Earth	-78377-07-13 19:11 J	-26905581.90	-26905581.70	-26905581.47	0.0148	0.0078
Moon	-78377-07-13 21:06 J	-26905581.83	-26905581.62	-26905581.40	0.0148	0.0071 *
Moon	-78376-07-19 01:25 J	-26905211.56	-26905211.44	-26905211.27	0.0148	0.0124
Earth	-78376-07-19 02:23 J	-26905211.54	-26905211.40	-26905211.24	0.0148	0.0118 *
Venus	-78367-03-18 06:13 J	-26902047.32	-26902047.24	-26902047.13	0.0145	0.0131
Venus	-78367-10-30 20:52 J	-26901820.82	-26901820.63	-26901820.41	0.0145	0.0057
Venus	-78366-06-14 11:44 J	-26901594.23	-26901594.01	-26901593.79	0.0144	0.0018
Venus	-78365-01-27 01:40 J	-26901367.59	-26901367.43	-26901367.24	0.0144	0.0092
Mercury	-78362-06-27 22:47 J	-26900119.62	-26900119.55	-26900119.48	0.0142	0.0131
Mercury	-78362-09-24 06:28 J	-26900031.35	-26900031.23	-26900031.09	0.0142	0.0104
Mercury	-78362-12-21 14:23 J	-26899943.05	-26899942.90	-26899942.73	0.0141	0.0078
Mercury	-78361-03-18 22:18 J	-26899854.74	-26899854.57	-26899854.39	0.0141	0.0051
Mercury	-78361-06-15 06:13 J	-26899766.43	-26899766.24	-26899766.06	0.0141	0.0025
Mercury	-78361-09-11 13:54 J	-26899678.11	-26899677.92	-26899677.73	0.0141	0.0002
Mercury	-78361-12-08 21:20 J	-26899589.79	-26899589.61	-26899589.42	0.0141	0.0028

Mercury -78360-03-07 05:01 J -26899501.46 -26899501.29 -26899501.11 0.0141 0.0053

Mercury -78360-06-03 12:28 J -26899413.13 -26899412.98 -26899412.82 0.0140 0.0079

Mercury -78360-08-30 19:54 J -26899324.79 -26899324.67 -26899324.54 0.0140 0.0104

Mercury -78360-11-27 03:20 J -26899236.43 -26899236.36 -26899236.28 0.0140 0.0128

Mars -78358-08-14 00:42 J -26898611.50 -26898611.47 -26898611.37 0.0139 0.0136

Mars -78356-07-16 20:23 J -26897908.90 -26897908.65 -26897908.37 0.0138 0.0073

Mars -78354-06-18 22:18 J -26897206.87 -26897206.57 -26897206.27 0.0137 0.0012

Mars -78352-05-20 06:42 J -26896505.49 -26896505.22 -26896504.92 0.0136 0.0045

Mars -78350-04-20 23:16 J -26895804.72 -26895804.53 -26895804.31 0.0135 0.0097

Moon -78342-12-24 15:35 J -26892634.95 -26892634.85 -26892634.73 0.0132 0.0119

Earth -78342-12-24 18:42 J -26892634.82 -26892634.72 -26892634.61 0.0132 0.0119 *

Earth -78341-12-28 00:13 J -26892265.67 -26892265.49 -26892265.30 0.0131 0.0091

Moon -78341-12-28 02:23 J -26892265.56 -26892265.40 -26892265.22 0.0131 0.0096 *

Moon -78339-01-01 02:37 J -26891896.62 -26891896.39 -26891896.15 0.0131 0.0057

Earth -78339-01-01 05:30 J -26891896.49 -26891896.27 -26891896.04 0.0131 0.0063 *

Earth -78338-01-05 10:04 J -26891527.32 -26891527.08 -26891526.83 0.0131 0.0034

Moon -78338-01-05 12:13 J -26891527.21 -26891526.99 -26891526.74 0.0131 0.0041 *

Moon -78337-01-09 11:59 J -26891158.26 -26891158.00 -26891157.74 0.0131 0.0001

Earth -78337-01-09 14:23 J -26891158.15 -26891157.90 -26891157.64 0.0131 0.0006 *

Earth -78336-01-12 17:44 J -26890789.00 -26890788.76 -26890788.50 0.0131 0.0023

Moon -78336-01-12 20:37 J -26890788.88 -26890788.64 -26890788.39 0.0131 0.0017 *

Moon -78335-01-16 18:42 J -26890419.94 -26890419.72 -26890419.46 0.0131 0.0053

Earth -78335-01-16 21:20 J -26890419.84 -26890419.61 -26890419.38 0.0131 0.0050 *

Earth -78334-01-21 00:13 J -26890050.69 -26890050.49 -26890050.28 0.0131 0.0078

Moon -78334-01-21 02:37 J -26890050.57 -26890050.39 -26890050.18 0.0131 0.0078 *

Moon -78333-01-25 00:42 J -26889681.62 -26889681.47 -26889681.31 0.0131 0.0103

Earth -78333-01-25 03:06 J -26889681.51 -26889681.37 -26889681.21 0.0131 0.0105 *

Venus -78323-10-25 10:47 J -26885755.18 -26885755.05 -26885754.90 0.0134 0.0101

Venus -78322-06-08 14:37 J -26885529.09 -26885528.89 -26885528.69 0.0134 0.0046

Venus -78321-01-20 18:13 J -26885302.95 -26885302.74 -26885302.53 0.0135 0.0010

Venus	-78321-09-02 22:04 J	-26885076.76	-26885076.58	-26885076.40	0.0135	0.0066
Venus	-78320-04-17 01:54 J	-26884850.50	-26884850.42	-26884850.33	0.0135	0.0123
Mercury	-78318-11-28 16:32 J	-26883894.81	-26883894.81	-26883894.80	0.0137	0.0136
Mercury	-78317-02-24 19:54 J	-26883806.73	-26883806.67	-26883806.61	0.0137	0.0120
Mercury	-78317-05-22 23:01 J	-26883718.62	-26883718.54	-26883718.45	0.0137	0.0104
Mercury	-78317-08-19 02:23 J	-26883630.50	-26883630.40	-26883630.30	0.0137	0.0087
Mercury	-78317-11-15 05:44 J	-26883542.38	-26883542.26	-26883542.15	0.0137	0.0071
Mercury	-78316-02-11 09:06 J	-26883454.25	-26883454.12	-26883454.00	0.0137	0.0054
Mercury	-78316-05-10 12:13 J	-26883366.11	-26883365.99	-26883365.86	0.0138	0.0037
Mercury	-78316-08-06 15:35 J	-26883277.98	-26883277.85	-26883277.71	0.0138	0.0020
Mercury	-78316-11-02 18:56 J	-26883189.84	-26883189.71	-26883189.57	0.0138	0.0006
Mercury	-78315-01-29 22:32 J	-26883101.70	-26883101.56	-26883101.43	0.0138	0.0015
Mercury	-78315-04-28 01:54 J	-26883013.55	-26883013.42	-26883013.29	0.0138	0.0032
Mercury	-78315-07-25 05:16 J	-26882925.40	-26882925.28	-26882925.15	0.0138	0.0050
Mercury	-78315-10-21 08:37 J	-26882837.25	-26882837.14	-26882837.02	0.0138	0.0067
Mercury	-78314-01-17 12:13 J	-26882749.10	-26882748.99	-26882748.88	0.0139	0.0085
Mercury	-78314-04-15 15:35 J	-26882660.93	-26882660.85	-26882660.75	0.0139	0.0103
Mercury	-78314-07-12 19:11 J	-26882572.76	-26882572.70	-26882572.63	0.0139	0.0121
Mars	-78312-07-31 09:35 J	-26881823.28	-26881823.10	-26881822.88	0.0140	0.0104
Mars	-78310-07-03 20:08 J	-26881120.94	-26881120.66	-26881120.35	0.0141	0.0044
Mars	-78308-06-06 04:18 J	-26880417.62	-26880417.32	-26880417.01	0.0143	0.0024
Mars	-78306-05-11 07:40 J	-26879713.39	-26879713.18	-26879712.92	0.0144	0.0095
Moon	-78298-06-20 03:35 J	-26876751.50	-26876751.35	-26876751.18	0.0147	0.0113
Earth	-78298-06-20 06:56 J	-26876751.34	-26876751.21	-26876751.05	0.0147	0.0121 *
Earth	-78297-06-24 10:32 J	-26876381.27	-26876381.06	-26876380.85	0.0148	0.0081
Moon	-78297-06-24 13:54 J	-26876381.11	-26876380.92	-26876380.70	0.0148	0.0089 *
Moon	-78296-06-29 11:16 J	-26876011.26	-26876011.03	-26876010.77	0.0148	0.0038
Earth	-78296-06-29 14:52 J	-26876011.12	-26876010.88	-26876010.63	0.0148	0.0041 *
Earth	-78295-07-04 20:08 J	-26875640.91	-26875640.66	-26875640.41	0.0148	0.0001
Moon	-78295-07-04 23:30 J	-26875640.77	-26875640.52	-26875640.27	0.0148	0.0002 *

Moon -78294-07-09 23:16 J -26875270.78 -26875270.53 -26875270.28 0.0148 0.0036
 Earth -78294-07-10 01:54 J -26875270.66 -26875270.42 -26875270.17 0.0148 0.0042 *
 Earth -78293-07-14 08:23 J -26874900.35 -26874900.15 -26874899.93 0.0148 0.0083
 Moon -78293-07-14 10:18 J -26874900.25 -26874900.07 -26874899.86 0.0148 0.0091 *
 Moon -78292-07-19 13:54 J -26874530.07 -26874529.92 -26874529.75 0.0148 0.0117
 Earth -78292-07-19 15:20 J -26874529.98 -26874529.86 -26874529.70 0.0148 0.0124 *
 Venus -78283-06-30 04:04 J -26871262.50 -26871262.33 -26871262.14 0.0145 0.0089
 Venus -78282-02-11 18:56 J -26871035.94 -26871035.71 -26871035.49 0.0144 0.0014
 Venus -78282-09-26 08:52 J -26870809.32 -26870809.13 -26870808.91 0.0144 0.0061
 Venus -78281-05-09 23:01 J -26870582.60 -26870582.54 -26870582.44 0.0144 0.0133
 Mercury -78278-07-18 06:56 J -26869418.29 -26869418.21 -26869418.09 0.0142 0.0122
 Mercury -78278-10-14 15:06 J -26869330.00 -26869329.87 -26869329.72 0.0142 0.0095
 Mercury -78277-01-10 23:01 J -26869241.70 -26869241.54 -26869241.37 0.0141 0.0068
 Mercury -78277-04-08 06:56 J -26869153.39 -26869153.21 -26869153.03 0.0141 0.0041
 Mercury -78277-07-05 14:37 J -26869065.07 -26869064.89 -26869064.70 0.0141 0.0015
 Mercury -78277-10-01 22:18 J -26868976.75 -26868976.57 -26868976.38 0.0141 0.0012
 Mercury -78277-12-29 05:59 J -26868888.43 -26868888.25 -26868888.07 0.0141 0.0037
 Mercury -78276-03-27 13:25 J -26868800.10 -26868799.94 -26868799.76 0.0141 0.0063
 Mercury -78276-06-23 21:06 J -26868711.76 -26868711.62 -26868711.47 0.0141 0.0088
 Mercury -78276-09-20 04:32 J -26868623.42 -26868623.31 -26868623.20 0.0140 0.0113
 Mercury -78276-12-17 11:59 J -26868535.03 -26868535.00 -26868534.97 0.0140 0.0138
 Mars -78273-04-08 16:04 J -26867692.02 -26867691.83 -26867691.60 0.0139 0.0104
 Mars -78271-03-12 06:28 J -26866989.52 -26866989.23 -26866988.93 0.0138 0.0042
 Mars -78269-02-12 03:06 J -26866287.67 -26866287.37 -26866287.07 0.0136 0.0018
 Mars -78267-01-13 05:59 J -26865586.50 -26865586.25 -26865586.00 0.0135 0.0073
 Mars -78266-12-14 17:44 J -26864885.85 -26864885.76 -26864885.62 0.0134 0.0123
 Moon -78258-12-25 05:30 J -26861953.38 -26861953.27 -26861953.15 0.0132 0.0118
 Earth -78258-12-25 08:08 J -26861953.26 -26861953.16 -26861953.03 0.0132 0.0117 *
 Earth -78257-12-28 13:40 J -26861584.10 -26861583.93 -26861583.72 0.0131 0.0089
 Moon -78257-12-28 17:01 J -26861583.97 -26861583.79 -26861583.59 0.0131 0.0085 *

Moon	-78255-01-01 16:04 J	-26861215.04	-26861214.83	-26861214.59	0.0131	0.0065
Earth	-78255-01-01 18:56 J	-26861214.93	-26861214.71	-26861214.47	0.0131	0.0060 *
Earth	-78254-01-05 23:44 J	-26860845.75	-26860845.51	-26860845.26	0.0131	0.0031
Moon	-78254-01-06 02:37 J	-26860845.63	-26860845.39	-26860845.14	0.0131	0.0024 *
Moon	-78253-01-10 00:56 J	-26860476.71	-26860476.46	-26860476.19	0.0131	0.0009
Earth	-78253-01-10 04:04 J	-26860476.58	-26860476.33	-26860476.07	0.0131	0.0002 *
Earth	-78252-01-13 07:40 J	-26860107.43	-26860107.18	-26860106.93	0.0131	0.0026
Moon	-78252-01-13 10:04 J	-26860107.32	-26860107.08	-26860106.83	0.0131	0.0031 *
Moon	-78251-01-17 07:40 J	-26859738.40	-26859738.18	-26859737.93	0.0131	0.0051
Earth	-78251-01-17 10:47 J	-26859738.27	-26859738.05	-26859737.80	0.0131	0.0055 *
Earth	-78250-01-21 13:40 J	-26859369.10	-26859368.93	-26859368.71	0.0131	0.0083
Moon	-78250-01-21 16:32 J	-26859368.99	-26859368.81	-26859368.61	0.0131	0.0083 *
Moon	-78249-01-25 13:25 J	-26859000.05	-26858999.94	-26858999.79	0.0131	0.0113
Earth	-78249-01-25 16:32 J	-26858999.93	-26858999.81	-26858999.66	0.0131	0.0110 *
Venus	-78239-06-24 23:44 J	-26855196.58	-26855196.51	-26855196.43	0.0134	0.0124
Venus	-78238-02-06 03:06 J	-26854970.54	-26854970.37	-26854970.18	0.0134	0.0069
Venus	-78238-09-20 06:42 J	-26854744.43	-26854744.22	-26854744.01	0.0134	0.0014
Venus	-78237-05-03 10:18 J	-26854518.27	-26854518.07	-26854517.86	0.0135	0.0042
Venus	-78237-12-15 14:08 J	-26854292.05	-26854291.91	-26854291.76	0.0135	0.0098
Mercury	-78234-12-18 23:59 J	-26853193.53	-26853193.50	-26853193.46	0.0137	0.0132
Mercury	-78233-03-16 03:06 J	-26853105.43	-26853105.37	-26853105.29	0.0137	0.0116
Mercury	-78233-06-12 06:28 J	-26853017.31	-26853017.23	-26853017.13	0.0137	0.0099
Mercury	-78233-09-08 09:49 J	-26852929.19	-26852929.09	-26852928.98	0.0137	0.0083
Mercury	-78233-12-05 12:56 J	-26852841.07	-26852840.96	-26852840.83	0.0137	0.0066
Mercury	-78232-03-03 16:18 J	-26852752.94	-26852752.82	-26852752.69	0.0137	0.0050
Mercury	-78232-05-30 19:40 J	-26852664.81	-26852664.68	-26852664.54	0.0138	0.0033
Mercury	-78232-08-26 23:01 J	-26852576.67	-26852576.54	-26852576.40	0.0138	0.0016
Mercury	-78232-11-23 02:23 J	-26852488.53	-26852488.40	-26852488.26	0.0138	0.0005
Mercury	-78231-02-19 05:44 J	-26852400.39	-26852400.26	-26852400.12	0.0138	0.0020
Mercury	-78231-05-18 09:06 J	-26852312.24	-26852312.12	-26852311.98	0.0138	0.0037

Mercury -78231-08-14 12:42 J -26852224.09 -26852223.97 -26852223.85 0.0138 0.0054

Mercury -78231-11-10 16:04 J -26852135.94 -26852135.83 -26852135.71 0.0138 0.0072

Mercury -78230-02-06 19:25 J -26852047.78 -26852047.69 -26852047.58 0.0139 0.0090

Mercury -78230-05-05 23:01 J -26851959.62 -26851959.54 -26851959.45 0.0139 0.0108

Mercury -78230-08-02 02:23 J -26851871.44 -26851871.40 -26851871.33 0.0139 0.0126

Mars -78229-04-23 15:35 J -26851605.92 -26851605.85 -26851605.73 0.0139 0.0132

Mars -78227-03-26 12:13 J -26850904.23 -26850903.99 -26850903.72 0.0141 0.0076

Mars -78225-02-27 05:16 J -26850201.58 -26850201.28 -26850200.97 0.0142 0.0012

Mars -78223-01-30 17:30 J -26849498.04 -26849497.77 -26849497.47 0.0143 0.0056

Mars -78221-01-05 03:06 J -26848793.51 -26848793.37 -26848793.22 0.0144 0.0128

Moon -78214-06-20 12:42 J -26846070.08 -26846069.97 -26846069.84 0.0147 0.0127

Earth -78214-06-20 16:04 J -26846069.97 -26846069.83 -26846069.68 0.0147 0.0119 *

Earth -78213-06-24 18:56 J -26845699.91 -26845699.71 -26845699.48 0.0148 0.0080

Moon -78213-06-24 22:32 J -26845699.77 -26845699.56 -26845699.33 0.0148 0.0073 *

Moon -78212-06-29 19:54 J -26845329.91 -26845329.67 -26845329.43 0.0148 0.0043

Earth -78212-06-29 23:30 J -26845329.76 -26845329.52 -26845329.27 0.0148 0.0039 *

Earth -78211-07-05 04:32 J -26844959.56 -26844959.31 -26844959.05 0.0148 0.0003

Moon -78211-07-05 07:54 J -26844959.42 -26844959.17 -26844958.92 0.0148 0.0003 *

Moon -78210-07-10 06:56 J -26844589.44 -26844589.21 -26844588.95 0.0148 0.0051

Earth -78210-07-10 10:18 J -26844589.30 -26844589.07 -26844588.82 0.0148 0.0045 *

Earth -78209-07-14 16:47 J -26844219.00 -26844218.80 -26844218.59 0.0148 0.0086

Moon -78209-07-14 19:25 J -26844218.89 -26844218.69 -26844218.47 0.0148 0.0079 *

Moon -78208-07-19 21:35 J -26843848.69 -26843848.60 -26843848.47 0.0148 0.0134

Earth -78208-07-19 23:16 J -26843848.63 -26843848.53 -26843848.38 0.0148 0.0128 *

Venus -78199-02-27 07:40 J -26840704.28 -26840704.18 -26840704.07 0.0145 0.0126

Venus -78199-10-11 22:18 J -26840477.77 -26840477.57 -26840477.35 0.0145 0.0052

Venus -78198-05-26 13:11 J -26840251.17 -26840250.95 -26840250.73 0.0144 0.0023

Venus -78197-01-08 03:20 J -26840024.51 -26840024.36 -26840024.18 0.0144 0.0096

Mercury -78194-08-07 14:23 J -26838717.00 -26838716.90 -26838716.79 0.0142 0.0116

Mercury -78194-11-03 22:04 J -26838628.71 -26838628.58 -26838628.42 0.0142 0.0090

Mercury -78193-01-31 06:13 J -26838540.41 -26838540.24 -26838540.07 0.0142 0.0063

Mercury -78193-04-28 13:54 J -26838452.09 -26838451.92 -26838451.73 0.0141 0.0037

Mercury -78193-07-25 21:49 J -26838363.78 -26838363.59 -26838363.40 0.0141 0.0010

Mercury -78193-10-22 05:30 J -26838275.45 -26838275.27 -26838275.08 0.0141 0.0017

Mercury -78192-01-18 13:11 J -26838187.13 -26838186.95 -26838186.77 0.0141 0.0042

Mercury -78192-04-16 20:37 J -26838098.80 -26838098.64 -26838098.47 0.0141 0.0068

Mercury -78192-07-14 04:04 J -26838010.46 -26838010.33 -26838010.18 0.0141 0.0094

Mercury -78192-10-10 11:30 J -26837922.11 -26837922.02 -26837921.91 0.0140 0.0119

Mars -78191-12-30 18:56 J -26837475.74 -26837475.71 -26837475.65 0.0140 0.0138

Mars -78189-12-02 23:01 J -26836772.78 -26836772.54 -26836772.26 0.0138 0.0075

Mars -78187-11-05 09:20 J -26836070.42 -26836070.11 -26836069.80 0.0137 0.0013

Mars -78185-10-07 00:28 J -26835368.75 -26835368.48 -26835368.18 0.0136 0.0046

Mars -78183-09-07 23:59 J -26834667.69 -26834667.50 -26834667.29 0.0135 0.0099

Moon -78174-12-25 17:01 J -26831271.90 -26831271.79 -26831271.64 0.0132 0.0115

Earth -78174-12-25 20:23 J -26831271.75 -26831271.65 -26831271.50 0.0132 0.0115 *

Earth -78173-12-29 02:23 J -26830902.58 -26830902.40 -26830902.19 0.0131 0.0085

Moon -78173-12-29 05:16 J -26830902.45 -26830902.28 -26830902.08 0.0131 0.0090 *

Moon -78171-01-02 04:32 J -26830533.54 -26830533.31 -26830533.06 0.0131 0.0050

Earth -78171-01-02 07:54 J -26830533.39 -26830533.17 -26830532.93 0.0131 0.0056 *

Earth -78170-01-06 12:42 J -26830164.21 -26830163.97 -26830163.71 0.0131 0.0027

Moon -78170-01-06 15:49 J -26830164.08 -26830163.84 -26830163.59 0.0131 0.0034 *

Moon -78169-01-10 14:08 J -26829795.17 -26829794.91 -26829794.65 0.0131 0.0008

Earth -78169-01-10 17:16 J -26829795.04 -26829794.78 -26829794.53 0.0131 0.0002 *

Earth -78168-01-13 20:37 J -26829425.87 -26829425.64 -26829425.38 0.0131 0.0031

Moon -78168-01-14 00:13 J -26829425.74 -26829425.49 -26829425.24 0.0131 0.0025 *

Moon -78167-01-17 21:20 J -26829056.83 -26829056.61 -26829056.38 0.0131 0.0062

Earth -78167-01-18 00:13 J -26829056.71 -26829056.49 -26829056.26 0.0131 0.0059 *

Earth -78166-01-22 02:52 J -26828687.54 -26828687.38 -26828687.17 0.0131 0.0088

Moon -78166-01-22 06:28 J -26828687.41 -26828687.23 -26828687.04 0.0131 0.0087 *

Moon -78165-01-26 02:23 J -26828318.50 -26828318.40 -26828318.25 0.0131 0.0114

Earth -78165-01-26 05:59 J -26828318.36 -26828318.25 -26828318.13 0.0131 0.0115 *
 Venus -78155-10-06 15:49 J -26824411.98 -26824411.84 -26824411.67 0.0134 0.0093
 Venus -78154-05-20 19:25 J -26824185.88 -26824185.69 -26824185.48 0.0134 0.0038
 Venus -78153-01-01 23:16 J -26823959.74 -26823959.53 -26823959.32 0.0134 0.0018
 Venus -78153-08-15 02:37 J -26823733.55 -26823733.39 -26823733.20 0.0135 0.0074
 Venus -78152-03-29 06:42 J -26823507.28 -26823507.22 -26823507.16 0.0135 0.0129
 Mercury -78149-01-08 07:25 J -26822492.23 -26822492.19 -26822492.13 0.0137 0.0127
 Mercury -78149-04-05 10:47 J -26822404.12 -26822404.05 -26822403.97 0.0137 0.0110
 Mercury -78149-07-02 14:08 J -26822316.01 -26822315.91 -26822315.81 0.0137 0.0094
 Mercury -78149-09-28 17:30 J -26822227.88 -26822227.77 -26822227.66 0.0137 0.0078
 Mercury -78149-12-25 20:37 J -26822139.76 -26822139.64 -26822139.52 0.0137 0.0061
 Mercury -78148-03-23 23:59 J -26822051.63 -26822051.50 -26822051.37 0.0137 0.0044
 Mercury -78148-06-20 03:20 J -26821963.49 -26821963.36 -26821963.23 0.0137 0.0027
 Mercury -78148-09-16 06:42 J -26821875.36 -26821875.22 -26821875.09 0.0138 0.0010
 Mercury -78148-12-13 10:04 J -26821787.22 -26821787.08 -26821786.95 0.0138 0.0007
 Mercury -78147-03-11 13:25 J -26821699.07 -26821698.94 -26821698.81 0.0138 0.0024
 Mercury -78147-06-07 16:47 J -26821610.93 -26821610.80 -26821610.67 0.0138 0.0042
 Mercury -78147-09-03 20:08 J -26821522.78 -26821522.66 -26821522.54 0.0138 0.0059
 Mercury -78147-11-30 23:30 J -26821434.62 -26821434.52 -26821434.40 0.0138 0.0077
 Mercury -78146-02-27 03:06 J -26821346.47 -26821346.37 -26821346.27 0.0139 0.0095
 Mercury -78146-05-26 06:28 J -26821258.30 -26821258.23 -26821258.15 0.0139 0.0113
 Mercury -78146-08-22 10:04 J -26821170.12 -26821170.08 -26821170.03 0.0139 0.0131
 Mars -78145-12-17 16:04 J -26820687.02 -26820686.83 -26820686.63 0.0140 0.0104
 Mars -78143-11-19 18:42 J -26819984.99 -26819984.72 -26819984.41 0.0141 0.0045
 Jupiter -78142-09-09 09:20 J -26819691.39 -26819691.11 -26819690.78 0.0141 0.0113
 Mars -78141-10-22 17:01 J -26819282.10 -26819281.79 -26819281.49 0.0142 0.0020
 Mars -78139-09-26 09:49 J -26818578.31 -26818578.09 -26818577.82 0.0143 0.0090
 Moon -78130-06-20 22:47 J -26815388.69 -26815388.55 -26815388.37 0.0147 0.0111
 Earth -78130-06-21 02:08 J -26815388.55 -26815388.41 -26815388.26 0.0147 0.0117 *
 Earth -78129-06-25 05:01 J -26815018.49 -26815018.29 -26815018.06 0.0147 0.0078

Moon	-78129-06-25 08:52 J	-26815018.33	-26815018.13	-26815017.92	0.0147	0.0085 *
Moon	-78128-06-30 06:13 J	-26814648.48	-26814648.24	-26814647.99	0.0148	0.0032
Earth	-78128-06-30 09:20 J	-26814648.34	-26814648.11	-26814647.85	0.0148	0.0037 *
Earth	-78127-07-05 14:37 J	-26814278.14	-26814277.89	-26814277.64	0.0148	0.0006
Moon	-78127-07-05 18:13 J	-26814277.99	-26814277.74	-26814277.48	0.0148	0.0008 *
Moon	-78126-07-10 16:32 J	-26813908.04	-26813907.81	-26813907.55	0.0148	0.0044
Earth	-78126-07-10 20:08 J	-26813907.89	-26813907.66	-26813907.41	0.0148	0.0048 *
Earth	-78125-07-15 02:23 J	-26813537.59	-26813537.40	-26813537.19	0.0148	0.0090
Moon	-78125-07-15 05:16 J	-26813537.45	-26813537.28	-26813537.08	0.0148	0.0098 *
Moon	-78124-07-20 06:28 J	-26813167.36	-26813167.23	-26813167.08	0.0148	0.0124
Earth	-78124-07-20 09:06 J	-26813167.21	-26813167.12	-26813166.99	0.0148	0.0132 *
Venus	-78115-06-11 02:23 J	-26809919.56	-26809919.40	-26809919.21	0.0145	0.0089
Venus	-78114-01-23 17:30 J	-26809692.99	-26809692.77	-26809692.55	0.0145	0.0014
Venus	-78114-09-07 07:40 J	-26809466.37	-26809466.18	-26809465.96	0.0144	0.0061
Venus	-78113-04-20 22:04 J	-26809239.65	-26809239.58	-26809239.48	0.0144	0.0133
Mercury	-78110-05-31 13:25 J	-26808103.97	-26808103.94	-26808103.88	0.0142	0.0138
Mercury	-78110-08-27 21:35 J	-26808015.71	-26808015.60	-26808015.48	0.0142	0.0111
Mercury	-78110-11-24 05:30 J	-26807927.42	-26807927.27	-26807927.11	0.0142	0.0084
Mercury	-78109-02-20 13:25 J	-26807839.11	-26807838.94	-26807838.76	0.0142	0.0057
Mercury	-78109-05-18 21:20 J	-26807750.79	-26807750.61	-26807750.42	0.0141	0.0030
Mercury	-78109-08-15 05:01 J	-26807662.48	-26807662.29	-26807662.10	0.0141	0.0005
Mercury	-78109-11-11 12:42 J	-26807574.15	-26807573.97	-26807573.78	0.0141	0.0022
Mercury	-78108-02-07 20:23 J	-26807485.82	-26807485.65	-26807485.47	0.0141	0.0048
Mercury	-78108-05-07 03:49 J	-26807397.49	-26807397.34	-26807397.17	0.0141	0.0074
Mercury	-78108-08-03 11:16 J	-26807309.15	-26807309.03	-26807308.89	0.0141	0.0099
Mercury	-78108-10-30 18:56 J	-26807220.79	-26807220.71	-26807220.62	0.0141	0.0124
Mars	-78106-08-26 06:28 J	-26806556.41	-26806556.23	-26806556.01	0.0139	0.0108
Mars	-78104-07-29 06:56 J	-26805853.51	-26805853.21	-26805852.92	0.0138	0.0044
Mars	-78102-07-01 10:32 J	-26805151.36	-26805151.06	-26805150.75	0.0137	0.0017
Mars	-78100-06-01 20:52 J	-26804449.88	-26804449.63	-26804449.37	0.0136	0.0073

Mars	-78098-05-03 16:47 J	-26803748.91	-26803748.80	-26803748.69	0.0135	0.0124
Moon	-78090-12-26 05:30 J	-26800590.38	-26800590.27	-26800590.12	0.0132	0.0114
Earth	-78090-12-26 08:52 J	-26800590.24	-26800590.13	-26800589.97	0.0132	0.0113 *
Earth	-78089-12-29 15:20 J	-26800221.06	-26800220.86	-26800220.66	0.0131	0.0083
Moon	-78089-12-29 18:42 J	-26800220.91	-26800220.72	-26800220.50	0.0131	0.0080 *
Moon	-78087-01-02 17:30 J	-26799852.00	-26799851.77	-26799851.54	0.0131	0.0059
Earth	-78087-01-02 20:52 J	-26799851.86	-26799851.63	-26799851.39	0.0131	0.0053 *
Earth	-78086-01-07 01:40 J	-26799482.67	-26799482.43	-26799482.17	0.0131	0.0024
Moon	-78086-01-07 05:01 J	-26799482.53	-26799482.29	-26799482.03	0.0131	0.0017 *
Moon	-78085-01-11 02:52 J	-26799113.64	-26799113.38	-26799113.12	0.0131	0.0002
Earth	-78085-01-11 06:28 J	-26799113.49	-26799113.23	-26799112.98	0.0131	0.0006 *
Earth	-78084-01-14 09:49 J	-26798744.32	-26798744.09	-26798743.83	0.0131	0.0035
Moon	-78084-01-14 12:56 J	-26798744.18	-26798743.96	-26798743.71	0.0131	0.0040 *
Moon	-78083-01-18 10:18 J	-26798375.30	-26798375.07	-26798374.84	0.0131	0.0059
Earth	-78083-01-18 13:25 J	-26798375.14	-26798374.94	-26798374.70	0.0131	0.0064 *
Earth	-78082-01-22 16:32 J	-26798005.98	-26798005.81	-26798005.62	0.0131	0.0092
Moon	-78082-01-22 19:40 J	-26798005.84	-26798005.68	-26798005.49	0.0131	0.0093 *
Moon	-78081-01-26 15:49 J	-26797636.92	-26797636.84	-26797636.74	0.0131	0.0123
Earth	-78081-01-26 19:11 J	-26797636.78	-26797636.70	-26797636.59	0.0131	0.0120 *
Venus	-78071-06-06 05:30 J	-26793853.36	-26793853.27	-26793853.15	0.0134	0.0115
Venus	-78070-01-18 09:06 J	-26793627.30	-26793627.12	-26793626.92	0.0134	0.0060
Venus	-78070-09-01 12:56 J	-26793401.18	-26793400.96	-26793400.75	0.0134	0.0006
Venus	-78069-04-14 16:18 J	-26793175.01	-26793174.82	-26793174.62	0.0135	0.0051
Venus	-78069-11-26 19:40 J	-26792948.79	-26792948.68	-26792948.53	0.0135	0.0107
Mercury	-78066-11-01 12:13 J	-26791878.99	-26791878.99	-26791878.98	0.0136	0.0136
Mercury	-78065-01-28 15:20 J	-26791790.91	-26791790.86	-26791790.79	0.0137	0.0120
Mercury	-78065-04-25 18:42 J	-26791702.80	-26791702.72	-26791702.63	0.0137	0.0104
Mercury	-78065-07-22 21:49 J	-26791614.68	-26791614.59	-26791614.48	0.0137	0.0088
Mercury	-78065-10-19 01:11 J	-26791526.56	-26791526.45	-26791526.33	0.0137	0.0071
Mercury	-78064-01-15 04:32 J	-26791438.43	-26791438.31	-26791438.19	0.0137	0.0054

Mercury -78064-04-13 07:54 J -26791350.30 -26791350.17 -26791350.04 0.0137 0.0037

Mercury -78064-07-10 11:16 J -26791262.17 -26791262.03 -26791261.90 0.0137 0.0021

Mercury -78064-10-06 14:37 J -26791174.03 -26791173.89 -26791173.76 0.0138 0.0005

Mercury -78063-01-02 17:44 J -26791085.89 -26791085.76 -26791085.62 0.0138 0.0015

Mercury -78063-03-31 21:20 J -26790997.74 -26790997.61 -26790997.48 0.0138 0.0031

Mercury -78063-06-28 00:42 J -26790909.60 -26790909.47 -26790909.34 0.0138 0.0049

Mercury -78063-09-24 04:04 J -26790821.45 -26790821.33 -26790821.21 0.0138 0.0066

Mercury -78063-12-21 07:25 J -26790733.29 -26790733.19 -26790733.08 0.0138 0.0084

Mercury -78062-03-19 11:01 J -26790645.13 -26790645.04 -26790644.95 0.0138 0.0102

Mercury -78062-06-15 14:23 J -26790556.96 -26790556.90 -26790556.83 0.0139 0.0120

Mars -78062-09-11 08:23 J -26790469.23 -26790469.15 -26790469.03 0.0139 0.0131

Mercury -78062-09-11 17:59 J -26790468.76 -26790468.75 -26790468.73 0.0139 0.0138

Mars -78060-08-12 22:47 J -26789767.79 -26789767.55 -26789767.28 0.0140 0.0075

Mars -78058-07-16 07:25 J -26789065.49 -26789065.19 -26789064.88 0.0141 0.0013

Mars -78056-06-18 10:32 J -26788362.34 -26788362.06 -26788361.76 0.0142 0.0054

Mars -78054-05-23 10:32 J -26787658.20 -26787658.06 -26787657.89 0.0144 0.0124

Moon -78046-06-21 11:30 J -26784707.15 -26784707.02 -26784706.88 0.0147 0.0122

Earth -78046-06-21 14:08 J -26784707.06 -26784706.91 -26784706.75 0.0147 0.0115 *

Earth -78045-06-25 17:01 J -26784337.00 -26784336.79 -26784336.56 0.0147 0.0074

Moon -78045-06-25 20:08 J -26784336.88 -26784336.66 -26784336.42 0.0147 0.0067 *

Moon -78044-06-30 17:30 J -26783967.00 -26783966.77 -26783966.52 0.0148 0.0038

Earth -78044-06-30 21:06 J -26783966.86 -26783966.62 -26783966.36 0.0148 0.0033 *

Earth -78043-07-06 01:54 J -26783596.67 -26783596.42 -26783596.17 0.0148 0.0010

Moon -78043-07-06 05:16 J -26783596.53 -26783596.28 -26783596.02 0.0148 0.0010 *

Moon -78042-07-11 03:35 J -26783226.58 -26783226.35 -26783226.11 0.0148 0.0058

Earth -78042-07-11 07:11 J -26783226.43 -26783226.20 -26783225.95 0.0148 0.0052 *

Earth -78041-07-15 12:56 J -26782856.13 -26782855.96 -26782855.75 0.0148 0.0095

Moon -78041-07-15 16:47 J -26782856.00 -26782855.80 -26782855.59 0.0148 0.0087 *

Moon -78040-07-20 16:47 J -26782485.85 -26782485.80 -26782485.72 0.0148 0.0143

Earth -78040-07-20 19:54 J -26782485.76 -26782485.67 -26782485.57 0.0148 0.0136 *

Venus -78031-02-08 06:42 J -26779361.32 -26779361.22 -26779361.10 0.0145 0.0125
 Venus -78031-09-22 21:35 J -26779134.81 -26779134.60 -26779134.38 0.0145 0.0051
 Venus -78030-05-07 12:13 J -26778908.21 -26778907.99 -26778907.76 0.0144 0.0024
 Venus -78030-12-20 02:37 J -26778681.55 -26778681.39 -26778681.22 0.0144 0.0097
 Mercury -78026-06-20 20:23 J -26777402.70 -26777402.65 -26777402.57 0.0142 0.0133
 Mercury -78026-09-17 04:32 J -26777314.43 -26777314.31 -26777314.17 0.0142 0.0106
 Mercury -78026-12-14 12:28 J -26777226.13 -26777225.98 -26777225.81 0.0142 0.0079
 Mercury -78025-03-11 20:37 J -26777137.82 -26777137.64 -26777137.47 0.0142 0.0052
 Mercury -78025-06-08 04:18 J -26777049.50 -26777049.32 -26777049.13 0.0141 0.0025
 Mercury -78025-09-04 11:59 J -26776961.18 -26776961.00 -26776960.81 0.0141 0.0004
 Mercury -78025-12-01 19:40 J -26776872.86 -26776872.68 -26776872.49 0.0141 0.0027
 Mercury -78024-02-28 03:20 J -26776784.53 -26776784.36 -26776784.18 0.0141 0.0053
 Mercury -78024-05-27 10:47 J -26776696.20 -26776696.05 -26776695.89 0.0141 0.0079
 Mercury -78024-08-23 18:13 J -26776607.85 -26776607.74 -26776607.60 0.0141 0.0104
 Mercury -78024-11-20 01:54 J -26776519.49 -26776519.42 -26776519.35 0.0140 0.0129
 Mars -78021-04-20 15:49 J -26775637.09 -26775636.84 -26775636.57 0.0139 0.0077
 Mars -78019-03-24 09:35 J -26774934.41 -26774934.10 -26774933.79 0.0138 0.0014
 Mars -78017-02-24 08:23 J -26774232.43 -26774232.15 -26774231.85 0.0137 0.0045
 Mars -78015-01-25 15:35 J -26773531.05 -26773530.85 -26773530.65 0.0136 0.0099
 Moon -78006-12-26 17:01 J -26769908.91 -26769908.79 -26769908.63 0.0132 0.0111
 Earth -78006-12-26 21:06 J -26769908.75 -26769908.62 -26769908.47 0.0132 0.0110 *
 Earth -78005-12-30 02:52 J -26769539.56 -26769539.38 -26769539.16 0.0132 0.0081
 Moon -78005-12-30 06:28 J -26769539.41 -26769539.23 -26769539.02 0.0132 0.0084 *
 Moon -78003-01-03 05:16 J -26769170.51 -26769170.28 -26769170.03 0.0131 0.0045
 Earth -78003-01-03 09:06 J -26769170.35 -26769170.12 -26769169.88 0.0131 0.0050 *
 Earth -78002-01-07 14:23 J -26768801.15 -26768800.90 -26768800.65 0.0131 0.0020
 Moon -78002-01-07 17:44 J -26768801.00 -26768800.76 -26768800.51 0.0131 0.0027 *
 Moon -78001-01-11 15:20 J -26768432.11 -26768431.86 -26768431.60 0.0131 0.0016
 Earth -78001-01-11 18:56 J -26768431.97 -26768431.71 -26768431.46 0.0131 0.0009 *

78TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 78th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-78000-01-14 22:32 J	-26768062.79	-26768062.56	-26768062.30	0.0131	0.0039		
Moon	-78000-01-15 02:23 J	-26768062.64	-26768062.40	-26768062.15	0.0131	0.0033	*	
Moon	-77999-01-18 23:01 J	-26767693.75	-26767693.54	-26767693.32	0.0131	0.0072		
Earth	-77999-01-19 02:08 J	-26767693.61	-26767693.41	-26767693.18	0.0131	0.0069	*	
Earth	-77998-01-23 05:01 J	-26767324.44	-26767324.29	-26767324.10	0.0131	0.0098		
Moon	-77998-01-23 09:06 J	-26767324.29	-26767324.12	-26767323.95	0.0131	0.0097	*	
Moon	-77997-01-27 04:32 J	-26766955.37	-26766955.31	-26766955.22	0.0131	0.0125		
Earth	-77997-01-27 07:54 J	-26766955.22	-26766955.17	-26766955.08	0.0131	0.0126	*	
Venus	-77987-09-17 22:32 J	-26763068.71	-26763068.56	-26763068.38	0.0134	0.0083		
Venus	-77986-05-02 02:08 J	-26762842.61	-26762842.41	-26762842.20	0.0134	0.0028		
Venus	-77986-12-14 05:44 J	-26762616.46	-26762616.26	-26762616.05	0.0134	0.0028		
Venus	-77985-07-27 09:06 J	-26762390.27	-26762390.12	-26762389.94	0.0135	0.0084		
Mercury	-77982-11-21 19:54 J	-26761177.69	-26761177.67	-26761177.62	0.0137	0.0131		
Mercury	-77981-02-17 23:16 J	-26761089.60	-26761089.53	-26761089.45	0.0137	0.0114		
Mercury	-77981-05-16 02:23 J	-26761001.48	-26761001.40	-26761001.30	0.0137	0.0098		
Mercury	-77981-08-12 05:44 J	-26760913.36	-26760913.26	-26760913.15	0.0137	0.0081		
Mercury	-77981-11-08 09:06 J	-26760825.24	-26760825.12	-26760825.00	0.0137	0.0064		
Mercury	-77980-02-04 12:28 J	-26760737.11	-26760736.98	-26760736.86	0.0137	0.0048		
Mercury	-77980-05-03 15:35 J	-26760648.97	-26760648.85	-26760648.71	0.0137	0.0032		

Mercury -77980-07-30 19:11 J -26760560.84 -26760560.70 -26760560.57 0.0137 0.0014

Mercury -77980-10-26 22:32 J -26760472.70 -26760472.56 -26760472.43 0.0138 0.0006

Mercury -77979-01-23 01:54 J -26760384.56 -26760384.42 -26760384.29 0.0138 0.0021

Mercury -77979-04-21 05:16 J -26760296.41 -26760296.28 -26760296.15 0.0138 0.0038

Mercury -77979-07-18 08:23 J -26760208.26 -26760208.15 -26760208.02 0.0138 0.0056

Mercury -77979-10-14 11:59 J -26760120.11 -26760120.00 -26760119.88 0.0138 0.0073

Mercury -77978-01-10 15:20 J -26760031.95 -26760031.86 -26760031.75 0.0138 0.0091

Mercury -77978-04-08 18:56 J -26759943.79 -26759943.71 -26759943.62 0.0138 0.0109

Mercury -77978-07-05 22:32 J -26759855.61 -26759855.56 -26759855.51 0.0139 0.0127

Mars -77977-05-06 13:11 J -26759550.14 -26759549.95 -26759549.74 0.0139 0.0102

Mars -77975-04-08 09:06 J -26758848.39 -26758848.12 -26758847.81 0.0140 0.0045

Mars -77973-03-10 22:47 J -26758145.85 -26758145.55 -26758145.25 0.0142 0.0020

Mars -77971-02-12 08:08 J -26757442.39 -26757442.16 -26757441.90 0.0143 0.0088

Moon -77962-06-22 03:06 J -26754025.54 -26754025.37 -26754025.20 0.0147 0.0105

Earth -77962-06-22 05:16 J -26754025.43 -26754025.28 -26754025.11 0.0147 0.0111 *

Earth -77961-06-26 08:08 J -26753655.37 -26753655.16 -26753654.93 0.0147 0.0070

Moon -77961-06-26 11:01 J -26753655.24 -26753655.04 -26753654.81 0.0147 0.0078 *

Moon -77960-07-01 09:06 J -26753285.37 -26753285.12 -26753284.88 0.0148 0.0024

Earth -77960-07-01 11:59 J -26753285.24 -26753285.00 -26753284.75 0.0148 0.0029 *

Earth -77959-07-06 16:32 J -26752915.06 -26752914.81 -26752914.55 0.0148 0.0014

Moon -77959-07-06 20:23 J -26752914.90 -26752914.65 -26752914.40 0.0148 0.0015 *

Moon -77958-07-11 18:13 J -26752544.97 -26752544.74 -26752544.50 0.0148 0.0053

Earth -77958-07-11 21:49 J -26752544.82 -26752544.59 -26752544.35 0.0148 0.0057 *

Earth -77957-07-16 03:20 J -26752174.53 -26752174.36 -26752174.16 0.0148 0.0100

Moon -77957-07-16 06:56 J -26752174.37 -26752174.21 -26752174.03 0.0148 0.0108 *

Moon -77956-07-21 06:13 J -26751804.33 -26751804.24 -26751804.12 0.0148 0.0135

Earth -77956-07-21 10:04 J -26751804.14 -26751804.08 -26751804.01 0.0148 0.0142 *

Venus -77947-05-23 04:04 J -26748576.50 -26748576.33 -26748576.13 0.0145 0.0084

Venus -77946-01-04 19:11 J -26748349.92 -26748349.70 -26748349.48 0.0145 0.0009

Venus -77946-08-19 09:20 J -26748123.29 -26748123.11 -26748122.89 0.0144 0.0066

Venus -77945-04-01 23:30 J -26747896.56 -26747896.52 -26747896.44 0.0144 0.0138

Mercury -77942-07-11 04:47 J -26746701.38 -26746701.30 -26746701.20 0.0142 0.0124

Mercury -77942-10-07 12:56 J -26746613.10 -26746612.96 -26746612.82 0.0142 0.0097

Mercury -77941-01-03 20:52 J -26746524.79 -26746524.63 -26746524.47 0.0142 0.0070

Mercury -77941-04-01 04:32 J -26746436.48 -26746436.31 -26746436.12 0.0141 0.0044

Mercury -77941-06-28 12:28 J -26746348.17 -26746347.98 -26746347.79 0.0141 0.0017

Mercury -77941-09-24 20:08 J -26746259.84 -26746259.66 -26746259.47 0.0141 0.0010

Mercury -77941-12-22 03:49 J -26746171.52 -26746171.34 -26746171.15 0.0141 0.0035

Mercury -77940-03-20 11:30 J -26746083.19 -26746083.02 -26746082.85 0.0141 0.0061

Mercury -77940-06-16 18:56 J -26745994.85 -26745994.71 -26745994.56 0.0141 0.0087

Mercury -77940-09-13 02:23 J -26745906.50 -26745906.40 -26745906.28 0.0141 0.0112

Mercury -77940-12-10 10:04 J -26745818.12 -26745818.08 -26745818.04 0.0140 0.0137

Mars -77938-01-11 20:52 J -26745420.80 -26745420.63 -26745420.42 0.0140 0.0111

Mars -77937-12-15 04:04 J -26744717.61 -26744717.33 -26744717.02 0.0138 0.0046

Mars -77935-11-17 15:49 J -26744015.14 -26744014.84 -26744014.53 0.0137 0.0016

Mars -77933-10-19 10:18 J -26743313.31 -26743313.07 -26743312.80 0.0136 0.0073

Mars -77931-09-20 12:56 J -26742612.05 -26742611.96 -26742611.83 0.0135 0.0126

Moon -77922-12-27 06:42 J -26739227.36 -26739227.22 -26739227.07 0.0132 0.0108

Earth -77922-12-27 09:49 J -26739227.22 -26739227.09 -26739226.92 0.0132 0.0108 *

Earth -77921-12-30 16:18 J -26738858.01 -26738857.82 -26738857.60 0.0132 0.0078

Moon -77921-12-30 20:23 J -26738857.86 -26738857.65 -26738857.43 0.0132 0.0074 *

Moon -77919-01-03 18:42 J -26738488.94 -26738488.72 -26738488.47 0.0131 0.0053

Earth -77919-01-03 22:18 J -26738488.80 -26738488.57 -26738488.32 0.0131 0.0047 *

Earth -77918-01-08 03:35 J -26738119.60 -26738119.35 -26738119.09 0.0131 0.0017

Moon -77918-01-08 07:11 J -26738119.45 -26738119.20 -26738118.94 0.0131 0.0010 *

Moon -77917-01-12 04:32 J -26737750.56 -26737750.31 -26737750.05 0.0131 0.0006

Earth -77917-01-12 08:08 J -26737750.41 -26737750.16 -26737749.90 0.0131 0.0013 *

Earth -77916-01-15 11:44 J -26737381.24 -26737381.01 -26737380.75 0.0131 0.0044

Moon -77916-01-15 15:20 J -26737381.09 -26737380.86 -26737380.62 0.0131 0.0048 *

Moon -77915-01-19 11:44 J -26737012.22 -26737012.01 -26737011.78 0.0131 0.0069

Earth -77915-01-19 15:49 J -26737012.05 -26737011.84 -26737011.63 0.0131 0.0073 *
 Earth -77914-01-23 18:42 J -26736642.88 -26736642.72 -26736642.56 0.0131 0.0102
 Moon -77914-01-23 21:49 J -26736642.73 -26736642.59 -26736642.42 0.0131 0.0103 *
 Earth -77913-01-27 21:06 J -26736273.63 -26736273.62 -26736273.57 0.0131 0.0130
 Venus -77903-05-18 11:59 J -26732510.12 -26732510.00 -26732509.86 0.0134 0.0105
 Venus -77903-12-30 15:35 J -26732284.04 -26732283.85 -26732283.65 0.0134 0.0050
 Venus -77902-08-13 19:11 J -26732057.91 -26732057.70 -26732057.49 0.0134 0.0005
 Venus -77901-03-26 22:32 J -26731831.74 -26731831.56 -26731831.37 0.0135 0.0060
 Venus -77901-11-08 02:08 J -26731605.51 -26731605.41 -26731605.30 0.0135 0.0116
 Mercury -77898-12-12 04:04 J -26730476.38 -26730476.33 -26730476.28 0.0137 0.0124
 Mercury -77897-03-09 07:11 J -26730388.28 -26730388.20 -26730388.12 0.0137 0.0108
 Mercury -77897-06-05 10:32 J -26730300.16 -26730300.06 -26730299.96 0.0137 0.0091
 Mercury -77897-09-01 13:40 J -26730212.04 -26730211.93 -26730211.82 0.0137 0.0075
 Mercury -77897-11-28 17:01 J -26730123.91 -26730123.79 -26730123.67 0.0137 0.0058
 Mercury -77896-02-24 20:08 J -26730035.78 -26730035.66 -26730035.53 0.0137 0.0042
 Mercury -77896-05-23 23:30 J -26729947.65 -26729947.52 -26729947.38 0.0137 0.0025
 Mercury -77896-08-20 02:52 J -26729859.51 -26729859.38 -26729859.24 0.0138 0.0008
 Mercury -77896-11-16 06:13 J -26729771.37 -26729771.24 -26729771.10 0.0138 0.0011
 Mercury -77895-02-12 09:35 J -26729683.23 -26729683.10 -26729682.96 0.0138 0.0028
 Mercury -77895-05-11 12:56 J -26729595.08 -26729594.96 -26729594.83 0.0138 0.0045
 Mercury -77895-08-07 16:32 J -26729506.93 -26729506.81 -26729506.69 0.0138 0.0062
 Mercury -77895-11-03 19:54 J -26729418.78 -26729418.67 -26729418.56 0.0138 0.0080
 Mars -77894-01-29 09:35 J -26729332.19 -26729332.10 -26729331.98 0.0138 0.0129
 Mercury -77894-01-30 23:16 J -26729330.62 -26729330.53 -26729330.43 0.0138 0.0098
 Mercury -77894-04-29 02:52 J -26729242.45 -26729242.38 -26729242.30 0.0139 0.0116
 Mercury -77894-07-26 06:28 J -26729154.26 -26729154.23 -26729154.20 0.0139 0.0134
 Mars -77893-12-30 18:28 J -26728630.97 -26728630.73 -26728630.46 0.0140 0.0074
 Mars -77891-12-02 19:25 J -26727928.99 -26727928.69 -26727928.38 0.0141 0.0013
 Mars -77889-11-04 15:20 J -26727226.13 -26727225.86 -26727225.56 0.0142 0.0053
 Mars -77887-10-09 07:54 J -26726522.32 -26726522.17 -26726521.99 0.0143 0.0122

Moon -77879-06-17 19:40 J -26723713.72 -26723713.68 -26723713.61 0.0147 0.0143
 Moon -77878-06-22 18:13 J -26723343.88 -26723343.74 -26723343.58 0.0147 0.0115
 Earth -77878-06-22 20:23 J -26723343.82 -26723343.65 -26723343.48 0.0147 0.0107 *
 Earth -77877-06-26 22:47 J -26722973.76 -26722973.55 -26722973.31 0.0147 0.0067
 Moon -77877-06-27 01:25 J -26722973.67 -26722973.44 -26722973.20 0.0147 0.0059 *
 Moon -77876-07-01 23:30 J -26722603.76 -26722603.52 -26722603.27 0.0147 0.0028
 Earth -77876-07-02 02:37 J -26722603.63 -26722603.39 -26722603.13 0.0147 0.0024 *
 Earth -77875-07-07 06:56 J -26722233.46 -26722233.21 -26722232.96 0.0148 0.0020
 Moon -77875-07-07 10:18 J -26722233.33 -26722233.07 -26722232.82 0.0148 0.0020 *
 Moon -77874-07-12 08:08 J -26721863.37 -26721863.16 -26721862.92 0.0148 0.0069
 Earth -77874-07-12 11:59 J -26721863.22 -26721863.00 -26721862.76 0.0148 0.0063 *
 Earth -77873-07-16 17:30 J -26721492.93 -26721492.77 -26721492.58 0.0148 0.0106
 Moon -77873-07-16 21:35 J -26721492.79 -26721492.60 -26721492.41 0.0148 0.0098 *
 Venus -77863-01-20 10:18 J -26718018.19 -26718018.07 -26718017.93 0.0145 0.0117
 Venus -77863-09-04 01:11 J -26717791.66 -26717791.45 -26717791.23 0.0145 0.0043
 Venus -77862-04-18 15:49 J -26717565.06 -26717564.84 -26717564.62 0.0144 0.0031
 Venus -77862-12-01 06:13 J -26717338.39 -26717338.24 -26717338.09 0.0144 0.0104
 Mercury -77858-07-31 12:28 J -26716000.07 -26715999.98 -26715999.86 0.0142 0.0117
 Mercury -77858-10-27 20:37 J -26715911.78 -26715911.64 -26715911.49 0.0142 0.0090
 Mercury -77857-01-24 04:32 J -26715823.48 -26715823.31 -26715823.14 0.0142 0.0063
 Mercury -77857-04-21 12:13 J -26715735.16 -26715734.99 -26715734.80 0.0141 0.0037
 Mercury -77857-07-18 20:08 J -26715646.84 -26715646.66 -26715646.47 0.0141 0.0010
 Mercury -77857-10-15 03:49 J -26715558.52 -26715558.34 -26715558.15 0.0141 0.0017
 Mercury -77856-01-11 11:30 J -26715470.19 -26715470.02 -26715469.83 0.0141 0.0043
 Mercury -77856-04-09 18:56 J -26715381.86 -26715381.71 -26715381.53 0.0141 0.0069
 Mercury -77856-07-07 02:37 J -26715293.52 -26715293.39 -26715293.24 0.0141 0.0094
 Mercury -77856-10-03 10:18 J -26715205.17 -26715205.07 -26715204.97 0.0140 0.0119
 Mars -77854-09-07 12:13 J -26714501.24 -26714500.99 -26714500.72 0.0139 0.0079
 Mars -77852-08-10 13:25 J -26713798.24 -26713797.94 -26713797.62 0.0138 0.0015
 Jupiter -77851-07-27 04:47 J -26713447.79 -26713447.30 -26713446.79 0.0137 0.0046

Mars -77850-07-13 19:54 J -26713095.96 -26713095.67 -26713095.38 0.0137 0.0045
 Mars -77848-06-14 08:52 J -26712394.32 -26712394.13 -26712393.92 0.0136 0.0100
 Moon -77838-12-27 18:13 J -26708545.87 -26708545.74 -26708545.57 0.0132 0.0106
 Earth -77838-12-27 22:04 J -26708545.72 -26708545.58 -26708545.42 0.0132 0.0105 *
 Earth -77837-12-31 04:18 J -26708176.52 -26708176.32 -26708176.09 0.0132 0.0075
 Moon -77837-12-31 07:54 J -26708176.37 -26708176.17 -26708175.95 0.0132 0.0078 *
 Moon -77835-01-04 06:42 J -26707807.46 -26707807.22 -26707806.97 0.0131 0.0038
 Earth -77835-01-04 10:18 J -26707807.30 -26707807.07 -26707806.82 0.0131 0.0044 *
 Earth -77834-01-08 15:35 J -26707438.10 -26707437.85 -26707437.59 0.0131 0.0013
 Moon -77834-01-08 18:56 J -26707437.95 -26707437.71 -26707437.44 0.0131 0.0021 *
 Moon -77833-01-12 16:18 J -26707069.06 -26707068.82 -26707068.56 0.0131 0.0025
 Earth -77833-01-12 20:08 J -26707068.91 -26707068.66 -26707068.41 0.0131 0.0017 *
 Earth -77832-01-15 23:59 J -26706699.73 -26706699.50 -26706699.26 0.0131 0.0047
 Moon -77832-01-16 03:35 J -26706699.58 -26706699.35 -26706699.10 0.0131 0.0041 *
 Moon -77831-01-19 23:59 J -26706330.68 -26706330.50 -26706330.29 0.0131 0.0081
 Earth -77831-01-20 03:20 J -26706330.55 -26706330.36 -26706330.14 0.0131 0.0078 *
 Earth -77830-01-24 06:28 J -26705961.36 -26705961.23 -26705961.07 0.0131 0.0106
 Moon -77830-01-24 10:32 J -26705961.21 -26705961.06 -26705960.91 0.0131 0.0106 *
 Venus -77819-01-16 00:28 J -26701951.52 -26701951.48 -26701951.41 0.0134 0.0129
 Venus -77819-08-30 03:35 J -26701725.51 -26701725.35 -26701725.16 0.0134 0.0075
 Venus -77818-04-13 07:11 J -26701499.40 -26701499.20 -26701498.98 0.0134 0.0020
 Venus -77818-11-25 10:47 J -26701273.25 -26701273.05 -26701272.84 0.0135 0.0036
 Venus -77817-07-08 14:23 J -26701047.05 -26701046.90 -26701046.74 0.0135 0.0091
 Mercury -77814-10-05 08:08 J -26699863.17 -26699863.16 -26699863.14 0.0136 0.0136
 Mercury -77813-01-01 11:30 J -26699775.08 -26699775.02 -26699774.96 0.0137 0.0119
 Mercury -77813-03-29 14:37 J -26699686.97 -26699686.89 -26699686.80 0.0137 0.0103
 Mercury -77813-06-25 17:59 J -26699598.85 -26699598.75 -26699598.65 0.0137 0.0086
 Mercury -77813-09-21 21:06 J -26699510.73 -26699510.62 -26699510.50 0.0137 0.0070
 Mercury -77813-12-19 00:28 J -26699422.60 -26699422.48 -26699422.35 0.0137 0.0053
 Mercury -77812-03-17 03:49 J -26699334.47 -26699334.34 -26699334.21 0.0137 0.0036

Mercury -77812-06-13 07:11 J -26699246.33 -26699246.20 -26699246.07 0.0137 0.0019

Mercury -77812-09-09 10:32 J -26699158.19 -26699158.06 -26699157.93 0.0138 0.0002

Mercury -77812-12-06 13:54 J -26699070.05 -26699069.92 -26699069.79 0.0138 0.0015

Mercury -77811-03-04 17:16 J -26698981.91 -26698981.78 -26698981.65 0.0138 0.0033

Mercury -77811-05-31 20:37 J -26698893.76 -26698893.64 -26698893.51 0.0138 0.0050

Mercury -77811-08-27 23:59 J -26698805.61 -26698805.50 -26698805.38 0.0138 0.0068

Mercury -77811-11-24 03:35 J -26698717.46 -26698717.35 -26698717.24 0.0138 0.0086

Mercury -77810-02-20 06:56 J -26698629.29 -26698629.21 -26698629.12 0.0138 0.0104

Mercury -77810-05-19 10:18 J -26698541.12 -26698541.07 -26698541.00 0.0139 0.0122

Mars -77810-09-24 08:23 J -26698413.35 -26698413.15 -26698412.95 0.0139 0.0101

Mars -77808-08-25 20:37 J -26697711.91 -26697711.64 -26697711.34 0.0140 0.0044

Mars -77806-07-29 03:20 J -26697009.65 -26697009.36 -26697009.05 0.0141 0.0020

Mars -77804-07-01 06:13 J -26696306.48 -26696306.24 -26696305.98 0.0142 0.0086

Earth -77795-06-18 06:56 J -26693032.22 -26693032.21 -26693032.16 0.0147 0.0146

Moon -77794-06-23 07:40 J -26692662.35 -26692662.18 -26692661.99 0.0147 0.0099

Earth -77794-06-23 08:52 J -26692662.29 -26692662.13 -26692661.94 0.0147 0.0105 *

Earth -77793-06-27 11:59 J -26692292.22 -26692292.00 -26692291.77 0.0147 0.0063

Moon -77793-06-27 14:08 J -26692292.12 -26692291.91 -26692291.67 0.0147 0.0071 *

Moon -77792-07-02 13:11 J -26691922.19 -26691921.95 -26691921.70 0.0147 0.0015

Earth -77792-07-02 15:35 J -26691922.10 -26691921.85 -26691921.60 0.0147 0.0020 *

Earth -77791-07-07 19:54 J -26691551.92 -26691551.67 -26691551.42 0.0148 0.0024

Moon -77791-07-07 23:30 J -26691551.78 -26691551.52 -26691551.27 0.0148 0.0025 *

Moon -77790-07-12 21:35 J -26691181.82 -26691181.60 -26691181.36 0.0148 0.0064

Earth -77790-07-13 00:56 J -26691181.67 -26691181.46 -26691181.22 0.0148 0.0068 *

Earth -77789-07-17 06:28 J -26690811.39 -26690811.23 -26690811.05 0.0148 0.0111

Moon -77789-07-17 09:49 J -26690811.22 -26690811.09 -26690810.92 0.0148 0.0119 *

Moon -77788-07-22 08:52 J -26690441.15 -26690441.13 -26690441.07 0.0148 0.0146

Venus -77779-05-04 07:40 J -26687233.36 -26687233.18 -26687232.98 0.0145 0.0076

Venus -77779-12-16 22:32 J -26687006.79 -26687006.56 -26687006.34 0.0145 0.0002

Venus -77778-07-31 12:42 J -26686780.15 -26686779.97 -26686779.76 0.0144 0.0073

Mercury -77774-05-24 12:28 J -26685387.01 -26685386.98 -26685386.91 0.0142 0.0136
 Mercury -77774-08-20 20:52 J -26685298.75 -26685298.63 -26685298.50 0.0142 0.0108
 Mercury -77774-11-17 04:32 J -26685210.45 -26685210.31 -26685210.14 0.0142 0.0082
 Mercury -77773-02-13 12:42 J -26685122.14 -26685121.97 -26685121.79 0.0142 0.0054
 Mercury -77773-05-11 20:37 J -26685033.83 -26685033.64 -26685033.46 0.0141 0.0028
 Mercury -77773-08-08 04:18 J -26684945.51 -26684945.32 -26684945.13 0.0141 0.0002
 Mercury -77773-11-04 11:59 J -26684857.18 -26684857.00 -26684856.81 0.0141 0.0025
 Mercury -77772-01-31 19:40 J -26684768.85 -26684768.68 -26684768.50 0.0141 0.0051
 Mercury -77772-04-30 03:06 J -26684680.52 -26684680.37 -26684680.20 0.0141 0.0077
 Mercury -77772-07-27 10:47 J -26684592.17 -26684592.05 -26684591.92 0.0141 0.0102
 Mercury -77772-10-23 17:59 J -26684503.81 -26684503.75 -26684503.66 0.0140 0.0128
 Mars -77771-05-30 12:13 J -26684285.16 -26684284.99 -26684284.78 0.0140 0.0112
 Mars -77769-05-03 02:37 J -26683581.68 -26683581.39 -26683581.09 0.0139 0.0046
 Mars -77767-04-05 21:35 J -26682878.90 -26682878.60 -26682878.28 0.0138 0.0017
 Mars -77765-03-07 22:32 J -26682176.79 -26682176.56 -26682176.28 0.0137 0.0075
 Mars -77763-02-07 05:44 J -26681475.35 -26681475.26 -26681475.14 0.0136 0.0127
 Moon -77754-12-28 06:28 J -26677864.37 -26677864.23 -26677864.06 0.0132 0.0103
 Earth -77754-12-28 09:49 J -26677864.23 -26677864.09 -26677863.91 0.0132 0.0103 *
 Earth -77753-12-31 16:32 J -26677495.02 -26677494.81 -26677494.59 0.0132 0.0072
 Moon -77753-12-31 20:08 J -26677494.87 -26677494.66 -26677494.43 0.0132 0.0069 *
 Moon -77751-01-04 19:11 J -26677125.93 -26677125.70 -26677125.46 0.0131 0.0046
 Earth -77751-01-04 22:18 J -26677125.80 -26677125.57 -26677125.32 0.0131 0.0041 *
 Earth -77750-01-09 03:20 J -26676756.61 -26676756.36 -26676756.11 0.0131 0.0010
 Moon -77750-01-09 06:56 J -26676756.47 -26676756.21 -26676755.95 0.0131 0.0003 *
 Moon -77749-01-13 04:18 J -26676387.57 -26676387.32 -26676387.06 0.0131 0.0013
 Earth -77749-01-13 07:54 J -26676387.42 -26676387.17 -26676386.92 0.0131 0.0021 *
 Earth -77748-01-16 11:30 J -26676018.24 -26676018.02 -26676017.77 0.0131 0.0051
 Moon -77748-01-16 15:06 J -26676018.10 -26676017.87 -26676017.63 0.0131 0.0056 *
 Moon -77747-01-20 11:16 J -26675649.22 -26675649.03 -26675648.81 0.0131 0.0077
 Earth -77747-01-20 14:52 J -26675649.06 -26675648.88 -26675648.66 0.0131 0.0082 *

Earth -77746-01-24 17:59 J -26675279.87 -26675279.75 -26675279.60 0.0131 0.0111
 Moon -77746-01-24 21:20 J -26675279.72 -26675279.61 -26675279.46 0.0131 0.0113 *
 Venus -77735-04-29 15:20 J -26671166.98 -26671166.86 -26671166.70 0.0134 0.0100
 Venus -77735-12-11 18:56 J -26670940.90 -26670940.71 -26670940.50 0.0134 0.0046
 Venus -77734-07-25 22:32 J -26670714.77 -26670714.56 -26670714.35 0.0134 0.0010
 Venus -77733-03-08 01:54 J -26670488.60 -26670488.42 -26670488.23 0.0135 0.0065
 Venus -77733-10-20 05:16 J -26670262.36 -26670262.28 -26670262.17 0.0135 0.0121
 Mercury -77730-10-25 15:20 J -26669161.88 -26669161.86 -26669161.82 0.0136 0.0132
 Mercury -77729-01-21 18:28 J -26669073.78 -26669073.73 -26669073.65 0.0137 0.0116
 Mercury -77729-04-18 22:04 J -26668985.67 -26668985.58 -26668985.49 0.0137 0.0099
 Mercury -77729-07-16 01:11 J -26668897.55 -26668897.45 -26668897.34 0.0137 0.0082
 Mercury -77729-10-12 04:32 J -26668809.43 -26668809.31 -26668809.19 0.0137 0.0066
 Mercury -77728-01-08 07:40 J -26668721.30 -26668721.18 -26668721.05 0.0137 0.0049
 Mercury -77728-04-06 11:01 J -26668633.16 -26668633.04 -26668632.90 0.0137 0.0033
 Mercury -77728-07-03 14:23 J -26668545.03 -26668544.90 -26668544.76 0.0137 0.0016
 Mercury -77728-09-29 17:44 J -26668456.89 -26668456.76 -26668456.62 0.0138 0.0005
 Mercury -77728-12-26 21:06 J -26668368.75 -26668368.62 -26668368.48 0.0138 0.0020
 Mercury -77727-03-25 00:42 J -26668280.60 -26668280.47 -26668280.34 0.0138 0.0037
 Mars -77727-06-18 02:08 J -26668195.49 -26668195.41 -26668195.28 0.0138 0.0128
 Mercury -77727-06-21 04:04 J -26668192.46 -26668192.33 -26668192.21 0.0138 0.0054
 Mercury -77727-09-17 07:25 J -26668104.30 -26668104.19 -26668104.07 0.0138 0.0072
 Mercury -77727-12-14 10:47 J -26668016.15 -26668016.05 -26668015.94 0.0138 0.0090
 Mercury -77726-03-12 14:23 J -26667927.98 -26667927.90 -26667927.82 0.0138 0.0108
 Mercury -77726-06-08 17:44 J -26667839.81 -26667839.76 -26667839.70 0.0139 0.0126
 Mars -77725-05-19 04:18 J -26667494.57 -26667494.32 -26667494.07 0.0139 0.0074
 Mars -77723-04-20 22:18 J -26666792.87 -26666792.57 -26666792.27 0.0140 0.0014
 Mars -77721-03-23 10:32 J -26666090.33 -26666090.06 -26666089.76 0.0142 0.0051
 Mars -77719-02-24 17:59 J -26665386.90 -26665386.75 -26665386.55 0.0143 0.0118
 Moon -77711-06-18 17:30 J -26662350.84 -26662350.77 -26662350.69 0.0147 0.0140
 Earth -77711-06-18 17:01 J -26662350.82 -26662350.79 -26662350.73 0.0147 0.0144 *

Moon	-77710-06-23 17:59 J	-26661980.90	-26661980.75	-26661980.58	0.0147	0.0110
Earth	-77710-06-23 18:42 J	-26661980.88	-26661980.72	-26661980.52	0.0147	0.0103 *
Earth	-77709-06-27 21:35 J	-26661610.82	-26661610.60	-26661610.37	0.0147	0.0060
Moon	-77709-06-27 22:47 J	-26661610.78	-26661610.55	-26661610.29	0.0147	0.0054 *
Moon	-77708-07-02 22:47 J	-26661240.79	-26661240.55	-26661240.31	0.0147	0.0022
Earth	-77708-07-03 01:11 J	-26661240.70	-26661240.45	-26661240.20	0.0147	0.0017 *
Earth	-77707-07-08 05:30 J	-26660870.52	-26660870.27	-26660870.02	0.0148	0.0027
Moon	-77707-07-08 07:54 J	-26660870.42	-26660870.17	-26660869.91	0.0148	0.0028 *
Moon	-77706-07-13 06:56 J	-26660500.42	-26660500.21	-26660499.99	0.0148	0.0076
Earth	-77706-07-13 10:18 J	-26660500.29	-26660500.07	-26660499.84	0.0148	0.0071 *
Earth	-77705-07-17 15:49 J	-26660129.99	-26660129.84	-26660129.67	0.0148	0.0115
Moon	-77705-07-17 19:40 J	-26660129.86	-26660129.68	-26660129.51	0.0148	0.0107 *
Venus	-77695-01-01 11:30 J	-26656675.14	-26656675.02	-26656674.86	0.0145	0.0113
Venus	-77695-08-16 02:37 J	-26656448.60	-26656448.39	-26656448.17	0.0145	0.0038
Venus	-77694-03-30 17:01 J	-26656222.00	-26656221.79	-26656221.56	0.0144	0.0036
Venus	-77694-11-12 07:25 J	-26655995.33	-26655995.19	-26655995.04	0.0144	0.0108
Mercury	-77690-06-13 19:54 J	-26654685.74	-26654685.67	-26654685.59	0.0142	0.0130
Mercury	-77690-09-10 04:04 J	-26654597.46	-26654597.33	-26654597.20	0.0142	0.0103
Mercury	-77690-12-07 11:59 J	-26654509.16	-26654509.00	-26654508.84	0.0142	0.0076
Mercury	-77689-03-04 19:40 J	-26654420.85	-26654420.68	-26654420.49	0.0142	0.0050
Mercury	-77689-06-01 03:35 J	-26654332.53	-26654332.35	-26654332.16	0.0141	0.0023
Mercury	-77689-08-28 11:30 J	-26654244.21	-26654244.02	-26654243.83	0.0141	0.0004
Mercury	-77689-11-24 19:11 J	-26654155.88	-26654155.70	-26654155.52	0.0141	0.0030
Mercury	-77688-02-21 02:52 J	-26654067.55	-26654067.38	-26654067.21	0.0141	0.0056
Mercury	-77688-05-20 10:18 J	-26653979.21	-26653979.07	-26653978.91	0.0141	0.0082
Mercury	-77688-08-16 17:59 J	-26653890.87	-26653890.75	-26653890.63	0.0141	0.0107
Mercury	-77688-11-13 01:11 J	-26653802.50	-26653802.45	-26653802.38	0.0140	0.0133
Mars	-77686-01-24 00:42 J	-26653365.71	-26653365.47	-26653365.19	0.0140	0.0081
Mars	-77685-12-27 10:04 J	-26652662.39	-26652662.08	-26652661.76	0.0138	0.0015
Mars	-77683-11-29 23:59 J	-26651959.78	-26651959.50	-26651959.20	0.0137	0.0046

Mars	-77681-10-31 18:42 J	-26651257.90	-26651257.72	-26651257.50	0.0136	0.0102
Moon	-77671-12-24 16:18 J	-26647551.86	-26647551.82	-26647551.76	0.0132	0.0129
Moon	-77670-12-28 17:01 J	-26647182.93	-26647182.79	-26647182.62	0.0132	0.0102
Earth	-77670-12-28 20:23 J	-26647182.80	-26647182.65	-26647182.48	0.0132	0.0101 *
Earth	-77668-01-01 02:37 J	-26646813.59	-26646813.39	-26646813.16	0.0132	0.0070
Moon	-77668-01-01 05:59 J	-26646813.47	-26646813.25	-26646813.03	0.0132	0.0072 *
Moon	-77667-01-05 05:01 J	-26646444.52	-26646444.29	-26646444.04	0.0131	0.0033
Earth	-77667-01-05 08:37 J	-26646444.38	-26646444.14	-26646443.89	0.0131	0.0038 *
Earth	-77666-01-09 13:40 J	-26646075.19	-26646074.93	-26646074.68	0.0131	0.0007
Moon	-77666-01-09 16:47 J	-26646075.06	-26646074.80	-26646074.54	0.0131	0.0014 *
Moon	-77665-01-13 14:52 J	-26645706.13	-26645705.88	-26645705.64	0.0131	0.0030
Earth	-77665-01-13 17:44 J	-26645706.00	-26645705.76	-26645705.50	0.0131	0.0025 *
Earth	-77664-01-16 22:04 J	-26645336.81	-26645336.58	-26645336.35	0.0131	0.0055
Moon	-77664-01-17 01:11 J	-26645336.68	-26645336.45	-26645336.20	0.0131	0.0048 *
Moon	-77663-01-20 22:18 J	-26644967.74	-26644967.57	-26644967.38	0.0131	0.0089
Earth	-77663-01-21 01:40 J	-26644967.63	-26644967.43	-26644967.24	0.0131	0.0085 *
Earth	-77662-01-25 04:18 J	-26644598.43	-26644598.32	-26644598.19	0.0131	0.0114
Moon	-77662-01-25 07:40 J	-26644598.29	-26644598.18	-26644598.03	0.0131	0.0114 *
Venus	-77652-12-28 02:37 J	-26640608.44	-26640608.39	-26640608.31	0.0134	0.0126
Venus	-77651-08-11 05:59 J	-26640382.42	-26640382.25	-26640382.06	0.0134	0.0072
Venus	-77650-03-25 09:20 J	-26640156.31	-26640156.11	-26640155.90	0.0134	0.0017
Venus	-77650-11-06 12:42 J	-26639930.17	-26639929.97	-26639929.76	0.0134	0.0038
Venus	-77649-06-19 16:04 J	-26639703.97	-26639703.83	-26639703.66	0.0135	0.0094
Mercury	-77646-11-14 22:32 J	-26638460.60	-26638460.56	-26638460.51	0.0136	0.0128
Mercury	-77645-02-11 01:54 J	-26638372.49	-26638372.42	-26638372.35	0.0137	0.0112
Mercury	-77645-05-09 05:01 J	-26638284.38	-26638284.29	-26638284.19	0.0137	0.0096
Mercury	-77645-08-05 08:23 J	-26638196.26	-26638196.15	-26638196.04	0.0137	0.0079
Mercury	-77645-11-01 11:30 J	-26638108.13	-26638108.02	-26638107.90	0.0137	0.0063
Mercury	-77644-01-28 14:52 J	-26638020.00	-26638019.88	-26638019.75	0.0137	0.0046
Mercury	-77644-04-26 18:13 J	-26637931.87	-26637931.74	-26637931.61	0.0137	0.0029

Mercury -77644-07-23 21:35 J -26637843.73 -26637843.60 -26637843.47 0.0137 0.0012
 Mercury -77644-10-20 00:56 J -26637755.60 -26637755.46 -26637755.33 0.0138 0.0005
 Mercury -77643-01-16 04:18 J -26637667.45 -26637667.32 -26637667.19 0.0138 0.0023
 Mercury -77643-04-14 07:40 J -26637579.31 -26637579.18 -26637579.05 0.0138 0.0040
 Mercury -77643-07-11 11:01 J -26637491.16 -26637491.04 -26637490.92 0.0138 0.0057
 Mercury -77643-10-07 14:23 J -26637403.01 -26637402.90 -26637402.78 0.0138 0.0075
 Mercury -77642-01-03 17:44 J -26637314.85 -26637314.76 -26637314.65 0.0138 0.0093
 Mars -77642-02-10 16:32 J -26637277.00 -26637276.81 -26637276.60 0.0138 0.0102
 Mercury -77642-04-01 21:20 J -26637226.69 -26637226.61 -26637226.53 0.0138 0.0111
 Mercury -77642-06-29 00:42 J -26637138.51 -26637138.47 -26637138.41 0.0139 0.0129
 Mars -77640-01-11 21:49 J -26636575.87 -26636575.59 -26636575.31 0.0140 0.0045
 Mars -77639-12-14 20:37 J -26635873.93 -26635873.64 -26635873.33 0.0141 0.0017
 Mars -77637-11-16 13:54 J -26635171.16 -26635170.92 -26635170.66 0.0142 0.0081
 Moon -77627-06-18 23:59 J -26631669.50 -26631669.50 -26631669.47 0.0147 0.0147
 Earth -77627-06-19 00:28 J -26631669.50 -26631669.48 -26631669.41 0.0147 0.0144 *
 Moon -77626-06-24 02:23 J -26631299.57 -26631299.40 -26631299.21 0.0147 0.0096
 Earth -77626-06-24 02:08 J -26631299.57 -26631299.41 -26631299.21 0.0147 0.0102 *
 Earth -77625-06-28 04:47 J -26630929.52 -26630929.30 -26630929.06 0.0147 0.0059
 Moon -77625-06-28 05:59 J -26630929.47 -26630929.25 -26630929.01 0.0147 0.0067 *
 Moon -77624-07-03 06:56 J -26630559.45 -26630559.21 -26630558.96 0.0147 0.0010
 Earth -77624-07-03 08:08 J -26630559.40 -26630559.16 -26630558.90 0.0147 0.0016 *
 Earth -77623-07-08 12:13 J -26630189.23 -26630188.99 -26630188.73 0.0148 0.0030
 Moon -77623-07-08 15:06 J -26630189.13 -26630188.87 -26630188.62 0.0148 0.0029 *
 Moon -77622-07-13 14:23 J -26629819.10 -26629818.90 -26629818.67 0.0148 0.0071
 Earth -77622-07-13 17:01 J -26629818.99 -26629818.79 -26629818.55 0.0148 0.0074 *
 Earth -77621-07-17 22:18 J -26629448.70 -26629448.57 -26629448.40 0.0148 0.0118
 Moon -77621-07-18 01:40 J -26629448.55 -26629448.43 -26629448.27 0.0148 0.0125 *
 Venus -77611-04-15 05:01 J -26625890.46 -26625890.29 -26625890.08 0.0145 0.0078
 Venus -77611-11-27 20:08 J -26625663.89 -26625663.66 -26625663.44 0.0145 0.0004
 Venus -77610-07-12 10:32 J -26625437.25 -26625437.06 -26625436.86 0.0144 0.0070

Venus -77609-02-24 00:28 J -26625210.48 -26625210.48 -26625210.43 0.0144 0.0143

Mercury -77606-07-04 02:23 J -26623984.47 -26623984.40 -26623984.30 0.0142 0.0127

Mercury -77606-09-30 10:18 J -26623896.19 -26623896.07 -26623895.92 0.0142 0.0100

Mercury -77606-12-27 18:28 J -26623807.89 -26623807.73 -26623807.56 0.0142 0.0072

Mercury -77605-03-25 02:23 J -26623719.57 -26623719.40 -26623719.21 0.0142 0.0046

Mercury -77605-06-21 10:18 J -26623631.25 -26623631.07 -26623630.88 0.0141 0.0019

Mercury -77605-09-17 18:13 J -26623542.93 -26623542.74 -26623542.55 0.0141 0.0008

Mercury -77605-12-15 01:54 J -26623454.60 -26623454.42 -26623454.24 0.0141 0.0034

Mercury -77604-03-13 09:35 J -26623366.27 -26623366.10 -26623365.93 0.0141 0.0060

Mercury -77604-06-09 17:01 J -26623277.93 -26623277.79 -26623277.63 0.0141 0.0086

Mercury -77604-09-06 00:28 J -26623189.58 -26623189.48 -26623189.35 0.0141 0.0112

Mars -77604-10-15 10:18 J -26623150.23 -26623150.07 -26623149.87 0.0141 0.0117

Mercury -77604-12-03 07:54 J -26623101.19 -26623101.17 -26623101.11 0.0140 0.0137

Mars -77602-09-19 10:47 J -26622446.35 -26622446.05 -26622445.75 0.0139 0.0049

Mars -77600-08-22 15:20 J -26621743.17 -26621742.86 -26621742.55 0.0138 0.0015

Mars -77598-07-25 23:16 J -26621040.78 -26621040.53 -26621040.26 0.0137 0.0074

Mars -77596-06-26 13:11 J -26620339.05 -26620338.95 -26620338.85 0.0136 0.0128

Earth -77587-12-24 23:16 J -26616870.54 -26616870.53 -26616870.47 0.0132 0.0131

Moon -77586-12-29 04:04 J -26616501.48 -26616501.33 -26616501.15 0.0132 0.0099

Earth -77586-12-29 06:56 J -26616501.37 -26616501.21 -26616501.04 0.0132 0.0099 *

Earth -77584-01-01 13:11 J -26616132.16 -26616131.95 -26616131.72 0.0132 0.0068

Moon -77584-01-01 16:18 J -26616132.03 -26616131.82 -26616131.58 0.0132 0.0065 *

Moon -77583-01-05 16:32 J -26615763.05 -26615762.81 -26615762.57 0.0131 0.0040

Earth -77583-01-05 19:11 J -26615762.95 -26615762.70 -26615762.45 0.0131 0.0036 *

Earth -77582-01-09 23:59 J -26615393.75 -26615393.50 -26615393.24 0.0131 0.0004

Moon -77582-01-10 03:06 J -26615393.63 -26615393.37 -26615393.11 0.0131 0.0003 *

Moon -77581-01-14 01:40 J -26615024.67 -26615024.43 -26615024.18 0.0131 0.0020

Earth -77581-01-14 04:32 J -26615024.56 -26615024.31 -26615024.06 0.0131 0.0027 *

Earth -77580-01-17 08:23 J -26614655.37 -26614655.15 -26614654.91 0.0131 0.0058

Moon -77580-01-17 11:30 J -26614655.24 -26614655.02 -26614654.79 0.0131 0.0064 *

Moon -77579-01-21 08:37 J -26614286.31 -26614286.14 -26614285.93 0.0131 0.0084
 Earth -77579-01-21 11:59 J -26614286.17 -26614286.00 -26614285.80 0.0131 0.0088 *
 Earth -77578-01-25 15:06 J -26613916.96 -26613916.87 -26613916.74 0.0131 0.0118
 Moon -77578-01-25 18:13 J -26613916.83 -26613916.74 -26613916.63 0.0131 0.0121 *
 Saturn -77577-02-05 18:13 J -26613541.24 -26613540.74 -26613540.18 0.0131 0.0063
 Venus -77567-04-10 17:30 J -26609823.90 -26609823.77 -26609823.61 0.0134 0.0097
 Venus -77567-11-22 21:06 J -26609597.82 -26609597.62 -26609597.42 0.0134 0.0042
 Venus -77566-07-07 00:28 J -26609371.69 -26609371.48 -26609371.27 0.0134 0.0012
 Venus -77565-02-18 03:49 J -26609145.52 -26609145.34 -26609145.15 0.0134 0.0068
 Venus -77565-10-01 07:25 J -26608919.27 -26608919.19 -26608919.10 0.0135 0.0123
 Mercury -77562-12-05 05:44 J -26607759.30 -26607759.26 -26607759.20 0.0136 0.0125
 Mercury -77561-03-02 08:52 J -26607671.19 -26607671.13 -26607671.04 0.0137 0.0109
 Mercury -77561-05-29 12:13 J -26607583.08 -26607582.99 -26607582.88 0.0137 0.0092
 Mercury -77561-08-25 15:35 J -26607494.96 -26607494.85 -26607494.74 0.0137 0.0075
 Mercury -77561-11-21 18:42 J -26607406.83 -26607406.72 -26607406.59 0.0137 0.0059
 Mercury -77560-02-17 22:04 J -26607318.70 -26607318.58 -26607318.45 0.0137 0.0042
 Mercury -77560-05-17 01:25 J -26607230.57 -26607230.44 -26607230.30 0.0137 0.0025
 Mercury -77560-08-13 04:47 J -26607142.43 -26607142.30 -26607142.16 0.0137 0.0008
 Mars -77560-11-04 15:35 J -26607058.94 -26607058.85 -26607058.73 0.0137 0.0128
 Mercury -77560-11-09 08:08 J -26607054.29 -26607054.16 -26607054.02 0.0137 0.0010
 Mercury -77559-02-05 11:30 J -26606966.15 -26606966.02 -26606965.89 0.0138 0.0027
 Mercury -77559-05-04 14:52 J -26606878.00 -26606877.88 -26606877.75 0.0138 0.0044
 Mercury -77559-07-31 18:13 J -26606789.86 -26606789.74 -26606789.62 0.0138 0.0062
 Mercury -77559-10-27 21:35 J -26606701.70 -26606701.60 -26606701.48 0.0138 0.0079
 Mercury -77558-01-24 00:56 J -26606613.54 -26606613.46 -26606613.35 0.0138 0.0097
 Mercury -77558-04-22 04:32 J -26606525.38 -26606525.31 -26606525.23 0.0138 0.0115
 Mercury -77558-07-19 08:08 J -26606437.19 -26606437.16 -26606437.12 0.0139 0.0133
 Mars -77558-10-06 09:20 J -26606358.34 -26606358.11 -26606357.85 0.0139 0.0075
 Mars -77556-09-06 20:08 J -26605656.95 -26605656.66 -26605656.36 0.0140 0.0016
 Mars -77554-08-09 23:30 J -26604954.80 -26604954.52 -26604954.22 0.0141 0.0047

Mars	-77552-07-12 21:06 J	-26604251.78	-26604251.62	-26604251.41	0.0142	0.0114
Moon	-77543-06-19 07:40 J	-26600988.24	-26600988.18	-26600988.10	0.0147	0.0141
Earth	-77543-06-19 08:52 J	-26600988.17	-26600988.13	-26600988.06	0.0147	0.0143 *
Earth	-77542-06-24 10:18 J	-26600618.24	-26600618.07	-26600617.87	0.0147	0.0101
Moon	-77542-06-24 10:32 J	-26600618.21	-26600618.06	-26600617.88	0.0147	0.0108 *
Moon	-77541-06-28 12:28 J	-26600248.22	-26600247.98	-26600247.72	0.0147	0.0050
Earth	-77541-06-28 12:42 J	-26600248.20	-26600247.97	-26600247.73	0.0147	0.0058 *
Moon	-77540-07-03 14:37 J	-26599878.13	-26599877.89	-26599877.64	0.0147	0.0019
Earth	-77540-07-03 15:49 J	-26599878.08	-26599877.84	-26599877.58	0.0147	0.0014 *
Earth	-77539-07-08 19:54 J	-26599507.91	-26599507.67	-26599507.42	0.0147	0.0031
Moon	-77539-07-08 21:20 J	-26599507.86	-26599507.61	-26599507.35	0.0147	0.0034 *
Moon	-77538-07-13 22:04 J	-26599137.78	-26599137.58	-26599137.37	0.0148	0.0080
Earth	-77538-07-14 00:28 J	-26599137.69	-26599137.48	-26599137.25	0.0148	0.0076 *
Earth	-77537-07-18 05:44 J	-26598767.39	-26598767.26	-26598767.10	0.0148	0.0121
Moon	-77537-07-18 09:06 J	-26598767.28	-26598767.12	-26598766.95	0.0148	0.0113 *
Venus	-77528-12-13 06:56 J	-26595332.32	-26595332.21	-26595332.07	0.0145	0.0118
Venus	-77527-07-27 22:04 J	-26595105.79	-26595105.58	-26595105.36	0.0145	0.0044
Venus	-77526-03-11 12:28 J	-26594879.19	-26594878.98	-26594878.75	0.0144	0.0031
Venus	-77526-10-24 02:37 J	-26594652.53	-26594652.39	-26594652.22	0.0144	0.0104
Mercury	-77522-07-24 08:23 J	-26593283.23	-26593283.15	-26593283.05	0.0142	0.0125
Mercury	-77522-10-20 16:18 J	-26593194.94	-26593194.82	-26593194.67	0.0142	0.0098
Mercury	-77521-01-17 00:28 J	-26593106.64	-26593106.48	-26593106.31	0.0142	0.0071
Mercury	-77521-04-14 08:23 J	-26593018.32	-26593018.15	-26593017.96	0.0142	0.0044
Mercury	-77521-07-11 16:32 J	-26592930.00	-26592929.81	-26592929.62	0.0141	0.0017
Mercury	-77521-10-08 00:13 J	-26592841.68	-26592841.49	-26592841.30	0.0141	0.0010
Mercury	-77520-01-04 07:54 J	-26592753.35	-26592753.17	-26592752.98	0.0141	0.0036
Mercury	-77520-04-02 15:35 J	-26592665.01	-26592664.85	-26592664.68	0.0141	0.0062
Mercury	-77520-06-29 23:16 J	-26592576.67	-26592576.53	-26592576.38	0.0141	0.0088
Mercury	-77520-09-26 06:42 J	-26592488.32	-26592488.22	-26592488.10	0.0141	0.0114
Mercury	-77520-12-23 14:08 J	-26592399.92	-26592399.91	-26592399.87	0.0140	0.0139

Mars	-77519-06-10 20:08 J	-26592230.89	-26592230.66	-26592230.39	0.0140	0.0086
Mars	-77517-05-14 14:52 J	-26591527.18	-26591526.88	-26591526.55	0.0139	0.0019
Mars	-77515-04-17 12:56 J	-26590824.24	-26590823.96	-26590823.65	0.0138	0.0044
Mars	-77513-03-19 15:20 J	-26590122.05	-26590121.86	-26590121.64	0.0137	0.0101
Earth	-77503-12-25 07:54 J	-26586189.19	-26586189.17	-26586189.10	0.0132	0.0130
Moon	-77503-12-25 10:18 J	-26586189.13	-26586189.07	-26586188.98	0.0132	0.0127 *
Moon	-77502-12-29 12:56 J	-26585820.11	-26585819.96	-26585819.78	0.0132	0.0100
Earth	-77502-12-29 15:20 J	-26585820.01	-26585819.86	-26585819.67	0.0132	0.0098 *
Earth	-77500-01-01 22:04 J	-26585450.79	-26585450.58	-26585450.35	0.0132	0.0066
Moon	-77500-01-02 00:13 J	-26585450.70	-26585450.49	-26585450.25	0.0132	0.0067 *
Moon	-77499-01-06 01:11 J	-26585081.68	-26585081.45	-26585081.20	0.0132	0.0030
Earth	-77499-01-06 04:04 J	-26585081.58	-26585081.33	-26585081.08	0.0132	0.0034 *
Earth	-77498-01-10 09:06 J	-26584712.37	-26584712.12	-26584711.86	0.0131	0.0003
Moon	-77498-01-10 11:30 J	-26584712.28	-26584712.02	-26584711.75	0.0131	0.0009 *
Moon	-77497-01-14 11:16 J	-26584343.26	-26584343.03	-26584342.78	0.0131	0.0037
Earth	-77497-01-14 13:54 J	-26584343.16	-26584342.92	-26584342.67	0.0131	0.0030 *
Earth	-77496-01-17 17:59 J	-26583973.96	-26583973.75	-26583973.51	0.0131	0.0061
Moon	-77496-01-17 20:52 J	-26583973.86	-26583973.63	-26583973.38	0.0131	0.0054 *
Moon	-77495-01-21 19:25 J	-26583604.84	-26583604.69	-26583604.51	0.0131	0.0097
Earth	-77495-01-21 22:04 J	-26583604.76	-26583604.58	-26583604.40	0.0131	0.0092 *
Earth	-77494-01-26 00:56 J	-26583235.52	-26583235.46	-26583235.34	0.0131	0.0123
Moon	-77494-01-26 04:04 J	-26583235.42	-26583235.33	-26583235.21	0.0131	0.0120 *
Venus	-77484-12-09 05:16 J	-26579265.34	-26579265.28	-26579265.17	0.0134	0.0122
Venus	-77483-07-23 08:52 J	-26579039.30	-26579039.13	-26579038.94	0.0134	0.0067
Venus	-77482-03-06 12:13 J	-26578813.19	-26578812.99	-26578812.77	0.0134	0.0013
Venus	-77482-10-18 15:35 J	-26578587.04	-26578586.85	-26578586.64	0.0134	0.0043
Venus	-77481-05-31 19:11 J	-26578360.84	-26578360.70	-26578360.55	0.0135	0.0098
Mercury	-77478-09-28 10:04 J	-26577146.08	-26577146.08	-26577146.07	0.0136	0.0136
Mercury	-77478-12-25 13:25 J	-26577058.00	-26577057.94	-26577057.88	0.0136	0.0120
Mercury	-77477-03-22 16:32 J	-26576969.89	-26576969.81	-26576969.72	0.0137	0.0104

Mercury -77477-06-18 19:54 J -26576881.77 -26576881.67 -26576881.57 0.0137 0.0087

Mercury -77477-09-14 23:01 J -26576793.65 -26576793.54 -26576793.42 0.0137 0.0071

Mercury -77477-12-12 02:23 J -26576705.52 -26576705.40 -26576705.28 0.0137 0.0054

Mercury -77476-03-10 05:44 J -26576617.39 -26576617.26 -26576617.13 0.0137 0.0037

Mercury -77476-06-06 09:06 J -26576529.26 -26576529.12 -26576528.99 0.0137 0.0020

Mercury -77476-09-02 12:13 J -26576441.12 -26576440.99 -26576440.85 0.0137 0.0005

Mercury -77476-11-29 15:35 J -26576352.98 -26576352.85 -26576352.71 0.0138 0.0015

Mercury -77475-02-25 18:56 J -26576264.84 -26576264.71 -26576264.58 0.0138 0.0032

Mercury -77475-05-24 22:18 J -26576176.69 -26576176.57 -26576176.44 0.0138 0.0049

Mars -77475-06-30 06:56 J -26576140.39 -26576140.21 -26576139.99 0.0138 0.0102

Mercury -77475-08-21 01:40 J -26576088.54 -26576088.43 -26576088.31 0.0138 0.0067

Mercury -77475-11-17 05:01 J -26576000.39 -26576000.29 -26576000.18 0.0138 0.0085

Mercury -77474-02-13 08:23 J -26575912.23 -26575912.15 -26575912.05 0.0138 0.0103

Mercury -77474-05-12 11:59 J -26575824.06 -26575824.00 -26575823.93 0.0138 0.0120

Mercury -77474-08-08 15:35 J -26575735.86 -26575735.85 -26575735.84 0.0139 0.0138

Mars -77473-05-31 06:42 J -26575439.49 -26575439.22 -26575438.93 0.0139 0.0046

Mars -77471-05-02 22:32 J -26574737.85 -26574737.56 -26574737.26 0.0140 0.0014

Mars -77469-04-04 06:28 J -26574035.47 -26574035.23 -26574034.96 0.0141 0.0079

Moon -77459-06-19 18:13 J -26570306.79 -26570306.74 -26570306.69 0.0147 0.0143

Earth -77459-06-19 19:54 J -26570306.73 -26570306.67 -26570306.60 0.0147 0.0141 *

Earth -77458-06-24 20:37 J -26569936.81 -26569936.64 -26569936.44 0.0147 0.0099

Moon -77458-06-24 22:04 J -26569936.75 -26569936.58 -26569936.38 0.0147 0.0094 *

Moon -77457-06-28 23:01 J -26569566.78 -26569566.54 -26569566.31 0.0147 0.0063

Earth -77457-06-28 22:47 J -26569566.77 -26569566.55 -26569566.30 0.0147 0.0056 *

Earth -77456-07-04 01:54 J -26569196.67 -26569196.42 -26569196.16 0.0147 0.0011

Moon -77456-07-04 01:54 J -26569196.66 -26569196.42 -26569196.17 0.0147 0.0005 *

Earth -77455-07-09 05:44 J -26568826.50 -26568826.26 -26568826.01 0.0147 0.0034

Moon -77455-07-09 07:11 J -26568826.45 -26568826.20 -26568825.94 0.0147 0.0033 *

Moon -77454-07-14 08:37 J -26568456.34 -26568456.14 -26568455.92 0.0147 0.0077

Earth -77454-07-14 10:18 J -26568456.27 -26568456.07 -26568455.85 0.0147 0.0080 *

Earth -77453-07-18 15:20 J -26568085.97 -26568085.86 -26568085.70 0.0147 0.0125
 Moon -77453-07-18 17:59 J -26568085.85 -26568085.75 -26568085.61 0.0147 0.0131 *
 Venus -77443-03-27 01:25 J -26564547.61 -26564547.44 -26564547.24 0.0145 0.0081
 Venus -77443-11-08 16:18 J -26564321.04 -26564320.82 -26564320.59 0.0145 0.0007
 Venus -77442-06-23 06:42 J -26564094.41 -26564094.22 -26564094.01 0.0144 0.0067
 Venus -77441-02-04 20:52 J -26563867.67 -26563867.63 -26563867.55 0.0144 0.0139
 Mercury -77438-08-13 15:20 J -26562581.95 -26562581.86 -26562581.75 0.0142 0.0120
 Mercury -77438-11-09 23:30 J -26562493.66 -26562493.52 -26562493.37 0.0142 0.0093
 Mercury -77437-02-06 07:25 J -26562405.35 -26562405.19 -26562405.01 0.0142 0.0066
 Mercury -77437-05-04 15:35 J -26562317.04 -26562316.85 -26562316.67 0.0141 0.0039
 Mercury -77437-07-31 23:16 J -26562228.71 -26562228.53 -26562228.34 0.0141 0.0012
 Mercury -77437-10-28 07:11 J -26562140.39 -26562140.20 -26562140.01 0.0141 0.0014
 Mercury -77436-01-24 14:52 J -26562052.06 -26562051.88 -26562051.70 0.0141 0.0041
 Mars -77436-03-01 23:30 J -26562015.67 -26562015.52 -26562015.36 0.0141 0.0122
 Mercury -77436-04-22 22:18 J -26561963.72 -26561963.57 -26561963.39 0.0141 0.0067
 Mercury -77436-07-20 05:59 J -26561875.38 -26561875.25 -26561875.10 0.0141 0.0093
 Mercury -77436-10-16 13:40 J -26561787.02 -26561786.93 -26561786.82 0.0141 0.0118
 Mars -77434-02-04 08:37 J -26561311.42 -26561311.14 -26561310.83 0.0140 0.0054
 Mars -77432-01-07 21:20 J -26560607.92 -26560607.61 -26560607.29 0.0139 0.0012
 Mars -77431-12-11 12:42 J -26559905.21 -26559904.97 -26559904.69 0.0138 0.0073
 Mars -77429-11-12 11:59 J -26559203.11 -26559203.00 -26559202.89 0.0136 0.0127
 Earth -77419-12-25 18:13 J -26555507.79 -26555507.74 -26555507.68 0.0132 0.0129
 Moon -77418-12-30 00:13 J -26555138.67 -26555138.49 -26555138.32 0.0132 0.0095
 Earth -77418-12-30 01:25 J -26555138.60 -26555138.44 -26555138.25 0.0132 0.0097 *
 Earth -77416-01-02 07:54 J -26554769.38 -26554769.17 -26554768.93 0.0132 0.0064
 Moon -77416-01-02 10:04 J -26554769.30 -26554769.08 -26554768.83 0.0132 0.0062 *
 Moon -77415-01-06 12:28 J -26554400.22 -26554399.98 -26554399.74 0.0132 0.0035
 Earth -77415-01-06 13:54 J -26554400.16 -26554399.92 -26554399.66 0.0132 0.0032 *
 Earth -77414-01-10 19:25 J -26554030.95 -26554030.69 -26554030.44 0.0132 0.0001
 Moon -77414-01-10 21:35 J -26554030.86 -26554030.60 -26554030.34 0.0132 0.0007 *

Moon -77413-01-14 22:18 J -26553661.82 -26553661.57 -26553661.33 0.0131 0.0026
 Earth -77413-01-15 00:13 J -26553661.73 -26553661.49 -26553661.24 0.0131 0.0033 *
 Earth -77412-01-18 04:18 J -26553292.53 -26553292.32 -26553292.08 0.0131 0.0065
 Moon -77412-01-18 06:13 J -26553292.45 -26553292.24 -26553292.00 0.0131 0.0071 *
 Moon -77411-01-22 05:44 J -26552923.42 -26552923.26 -26552923.06 0.0131 0.0091
 Earth -77411-01-22 08:23 J -26552923.32 -26552923.15 -26552922.97 0.0131 0.0095 *
 Earth -77410-01-26 11:44 J -26552554.06 -26552554.01 -26552553.92 0.0131 0.0126
 Moon -77410-01-26 13:40 J -26552553.95 -26552553.93 -26552553.86 0.0131 0.0129 *
 Venus -77399-03-22 20:37 J -26548480.78 -26548480.64 -26548480.47 0.0134 0.0092
 Venus -77399-11-04 00:13 J -26548254.69 -26548254.49 -26548254.28 0.0134 0.0037
 Venus -77398-06-18 03:49 J -26548028.55 -26548028.34 -26548028.13 0.0134 0.0017
 Venus -77397-01-30 07:11 J -26547802.37 -26547802.20 -26547802.01 0.0134 0.0073
 Venus -77397-09-12 11:01 J -26547576.10 -26547576.04 -26547575.97 0.0135 0.0128
 Mercury -77394-10-18 17:30 J -26546444.79 -26546444.77 -26546444.73 0.0136 0.0132
 Mercury -77393-01-14 20:37 J -26546356.69 -26546356.64 -26546356.56 0.0136 0.0116
 Mercury -77393-04-11 23:59 J -26546268.58 -26546268.50 -26546268.40 0.0137 0.0099
 Mercury -77393-07-09 03:20 J -26546180.46 -26546180.36 -26546180.25 0.0137 0.0082
 Mercury -77393-10-05 06:28 J -26546092.34 -26546092.23 -26546092.10 0.0137 0.0066
 Mercury -77392-01-01 09:49 J -26546004.21 -26546004.09 -26546003.96 0.0137 0.0049
 Mars -77392-03-24 13:25 J -26545922.02 -26545921.94 -26545921.81 0.0137 0.0128
 Mercury -77392-03-30 13:11 J -26545916.08 -26545915.95 -26545915.82 0.0137 0.0032
 Mercury -77392-06-26 16:32 J -26545827.94 -26545827.81 -26545827.68 0.0137 0.0015
 Mercury -77392-09-22 19:54 J -26545739.81 -26545739.67 -26545739.54 0.0137 0.0003
 Mercury -77392-12-19 23:16 J -26545651.67 -26545651.53 -26545651.40 0.0138 0.0020
 Mercury -77391-03-18 02:37 J -26545563.52 -26545563.39 -26545563.26 0.0138 0.0037
 Mercury -77391-06-14 05:59 J -26545475.38 -26545475.25 -26545475.13 0.0138 0.0054
 Mercury -77391-09-10 09:06 J -26545387.23 -26545387.12 -26545387.00 0.0138 0.0072
 Mercury -77391-12-07 12:42 J -26545299.07 -26545298.97 -26545298.87 0.0138 0.0089
 Mars -77390-02-23 02:37 J -26545221.62 -26545221.39 -26545221.13 0.0138 0.0075
 Mercury -77390-03-05 16:04 J -26545210.91 -26545210.83 -26545210.74 0.0138 0.0107

Mercury -77390-06-01 19:25 J -26545122.74 -26545122.69 -26545122.62 0.0138 0.0126
 Mars -77388-01-24 06:56 J -26544520.50 -26544520.21 -26544519.91 0.0139 0.0017
 Mars -77387-12-27 02:52 J -26543818.66 -26543818.38 -26543818.08 0.0141 0.0045
 Mars -77385-11-28 17:30 J -26543115.94 -26543115.77 -26543115.56 0.0142 0.0111
 Moon -77375-06-20 05:59 J -26539625.31 -26539625.25 -26539625.14 0.0147 0.0138
 Earth -77375-06-20 08:37 J -26539625.21 -26539625.14 -26539625.05 0.0147 0.0139 *
 Earth -77374-06-25 09:35 J -26539255.28 -26539255.10 -26539254.90 0.0147 0.0096
 Moon -77374-06-25 11:16 J -26539255.20 -26539255.03 -26539254.86 0.0147 0.0102 *
 Moon -77373-06-29 10:18 J -26538885.31 -26538885.07 -26538884.82 0.0147 0.0044
 Earth -77373-06-29 11:30 J -26538885.24 -26538885.02 -26538884.77 0.0147 0.0052 *
 Earth -77372-07-04 14:37 J -26538515.14 -26538514.89 -26538514.64 0.0147 0.0007
 Moon -77372-07-04 14:37 J -26538515.13 -26538514.89 -26538514.65 0.0147 0.0013 *
 Earth -77371-07-09 18:13 J -26538144.97 -26538144.74 -26538144.49 0.0147 0.0039
 Moon -77371-07-09 18:42 J -26538144.97 -26538144.72 -26538144.46 0.0147 0.0042 *
 Moon -77370-07-14 21:20 J -26537774.80 -26537774.61 -26537774.40 0.0147 0.0087
 Earth -77370-07-14 23:01 J -26537774.75 -26537774.54 -26537774.33 0.0147 0.0084 *
 Earth -77369-07-19 03:49 J -26537404.44 -26537404.34 -26537404.20 0.0147 0.0129
 Moon -77369-07-19 05:59 J -26537404.37 -26537404.25 -26537404.08 0.0147 0.0123 *
 Venus -77360-11-24 05:59 J -26533989.37 -26533989.25 -26533989.10 0.0145 0.0117
 Venus -77359-07-08 21:06 J -26533762.83 -26533762.62 -26533762.40 0.0145 0.0043
 Venus -77358-02-20 11:44 J -26533536.23 -26533536.01 -26533535.79 0.0144 0.0031
 Venus -77358-10-05 02:08 J -26533309.57 -26533309.41 -26533309.26 0.0144 0.0104
 Mercury -77354-06-06 14:37 J -26531968.89 -26531968.89 -26531968.88 0.0142 0.0142
 Mercury -77354-09-02 22:32 J -26531880.66 -26531880.56 -26531880.44 0.0142 0.0115
 Mercury -77354-11-30 06:28 J -26531792.36 -26531792.23 -26531792.06 0.0142 0.0088
 Mercury -77353-02-26 14:37 J -26531704.05 -26531703.89 -26531703.71 0.0142 0.0060
 Mercury -77353-05-24 22:32 J -26531615.74 -26531615.56 -26531615.37 0.0141 0.0034
 Mercury -77353-08-21 06:28 J -26531527.42 -26531527.23 -26531527.04 0.0141 0.0007
 Mercury -77353-11-17 14:23 J -26531439.09 -26531438.90 -26531438.71 0.0141 0.0020
 Mercury -77352-02-13 22:04 J -26531350.76 -26531350.58 -26531350.40 0.0141 0.0046

Mercury -77352-05-13 05:44 J -26531262.42 -26531262.26 -26531262.10 0.0141 0.0072
 Mercury -77352-08-09 13:11 J -26531174.08 -26531173.95 -26531173.81 0.0141 0.0098
 Mars -77352-10-26 17:44 J -26531095.99 -26531095.76 -26531095.49 0.0141 0.0090
 Mercury -77352-11-05 20:37 J -26531085.71 -26531085.64 -26531085.54 0.0140 0.0123
 Mars -77350-09-30 20:37 J -26530391.95 -26530391.64 -26530391.32 0.0139 0.0022
 Mars -77348-09-03 01:54 J -26529688.71 -26529688.42 -26529688.11 0.0138 0.0042
 Mars -77346-08-06 12:42 J -26528986.15 -26528985.97 -26528985.73 0.0137 0.0100
 Earth -77335-12-26 03:06 J -26524826.42 -26524826.37 -26524826.29 0.0132 0.0128
 Moon -77335-12-26 04:18 J -26524826.41 -26524826.32 -26524826.21 0.0132 0.0123 *
 Moon -77334-12-30 09:06 J -26524457.27 -26524457.12 -26524456.93 0.0132 0.0097
 Earth -77334-12-30 10:18 J -26524457.22 -26524457.07 -26524456.87 0.0132 0.0096 *
 Earth -77332-01-02 17:16 J -26524088.00 -26524087.78 -26524087.54 0.0132 0.0062
 Moon -77332-01-02 18:13 J -26524087.96 -26524087.74 -26524087.49 0.0132 0.0062 *
 Moon -77331-01-06 21:49 J -26523718.83 -26523718.59 -26523718.35 0.0132 0.0026
 Earth -77331-01-06 23:16 J -26523718.77 -26523718.53 -26523718.27 0.0132 0.0029 *
 Earth -77330-01-11 04:47 J -26523349.55 -26523349.30 -26523349.04 0.0132 0.0004
 Moon -77330-01-11 06:13 J -26523349.50 -26523349.24 -26523348.98 0.0132 0.0002 *
 Moon -77329-01-15 08:23 J -26522980.38 -26522980.15 -26522979.91 0.0131 0.0042
 Earth -77329-01-15 09:49 J -26522980.33 -26522980.09 -26522979.84 0.0131 0.0035 *
 Earth -77328-01-18 14:08 J -26522611.12 -26522610.91 -26522610.69 0.0131 0.0067
 Moon -77328-01-18 16:04 J -26522611.06 -26522610.83 -26522610.60 0.0131 0.0061 *
 Moon -77327-01-22 17:16 J -26522241.93 -26522241.78 -26522241.63 0.0131 0.0105
 Earth -77327-01-22 18:28 J -26522241.90 -26522241.73 -26522241.56 0.0131 0.0099 *
 Earth -77326-01-26 22:18 J -26521872.60 -26521872.57 -26521872.54 0.0131 0.0130
 Moon -77326-01-26 23:30 J -26521872.56 -26521872.52 -26521872.43 0.0131 0.0128 *
 Venus -77316-11-20 08:23 J -26517922.25 -26517922.15 -26517922.05 0.0134 0.0117
 Venus -77315-07-04 11:30 J -26517696.19 -26517696.02 -26517695.82 0.0134 0.0063
 Venus -77314-02-15 15:20 J -26517470.07 -26517469.86 -26517469.65 0.0134 0.0008
 Venus -77314-09-29 18:42 J -26517243.91 -26517243.72 -26517243.52 0.0134 0.0047
 Venus -77313-05-12 22:32 J -26517017.70 -26517017.56 -26517017.43 0.0135 0.0102

Mercury -77310-11-08 00:56 J -26515743.50 -26515743.46 -26515743.41 0.0136 0.0127

Mercury -77309-02-04 04:18 J -26515655.40 -26515655.32 -26515655.25 0.0137 0.0111

Mercury -77309-05-02 07:25 J -26515567.28 -26515567.19 -26515567.09 0.0137 0.0095

Mercury -77309-07-29 10:47 J -26515479.16 -26515479.05 -26515478.94 0.0137 0.0078

Mercury -77309-10-25 13:54 J -26515391.04 -26515390.92 -26515390.80 0.0137 0.0061

Mercury -77308-01-21 17:16 J -26515302.91 -26515302.78 -26515302.65 0.0137 0.0045

Mercury -77308-04-19 20:23 J -26515214.77 -26515214.65 -26515214.51 0.0137 0.0028

Mercury -77308-07-16 23:44 J -26515126.64 -26515126.51 -26515126.37 0.0137 0.0011

Mercury -77308-10-13 03:06 J -26515038.50 -26515038.37 -26515038.23 0.0138 0.0007

Mars -77308-11-17 03:06 J -26515003.55 -26515003.37 -26515003.16 0.0138 0.0102

Mercury -77307-01-09 06:28 J -26514950.36 -26514950.23 -26514950.10 0.0138 0.0024

Mercury -77307-04-07 09:49 J -26514862.22 -26514862.09 -26514861.96 0.0138 0.0041

Mercury -77307-07-04 13:11 J -26514774.07 -26514773.95 -26514773.83 0.0138 0.0059

Mercury -77307-09-30 16:32 J -26514685.92 -26514685.81 -26514685.69 0.0138 0.0076

Mercury -77307-12-27 19:54 J -26514597.76 -26514597.67 -26514597.56 0.0138 0.0094

Mercury -77306-03-25 23:30 J -26514509.60 -26514509.52 -26514509.44 0.0138 0.0112

Mercury -77306-06-22 02:52 J -26514421.42 -26514421.38 -26514421.33 0.0139 0.0130

Mars -77306-10-18 21:06 J -26514302.89 -26514302.62 -26514302.33 0.0139 0.0047

Mars -77304-09-19 05:44 J -26513601.56 -26513601.26 -26513600.96 0.0140 0.0012

Mars -77302-08-22 07:11 J -26512899.44 -26512899.20 -26512898.93 0.0141 0.0077

Moon -77291-06-20 18:13 J -26508943.82 -26508943.74 -26508943.65 0.0147 0.0138

Earth -77291-06-20 20:37 J -26508943.71 -26508943.64 -26508943.53 0.0147 0.0136 *

Earth -77290-06-25 21:49 J -26508573.78 -26508573.59 -26508573.39 0.0147 0.0093

Moon -77290-06-25 23:44 J -26508573.68 -26508573.51 -26508573.29 0.0147 0.0089 *

Moon -77289-06-29 22:18 J -26508203.80 -26508203.57 -26508203.31 0.0147 0.0056

Earth -77289-06-29 23:59 J -26508203.74 -26508203.50 -26508203.26 0.0147 0.0049 *

Earth -77288-07-05 02:52 J -26507833.63 -26507833.38 -26507833.12 0.0147 0.0004

Moon -77288-07-05 04:04 J -26507833.58 -26507833.33 -26507833.09 0.0147 0.0004 *

Moon -77287-07-10 06:28 J -26507463.47 -26507463.23 -26507462.96 0.0147 0.0041

Earth -77287-07-10 06:42 J -26507463.46 -26507463.22 -26507462.98 0.0147 0.0042 *

Moon -77286-07-15 10:32 J -26507093.25 -26507093.06 -26507092.86 0.0147 0.0087
 Earth -77286-07-15 11:01 J -26507093.23 -26507093.04 -26507092.82 0.0147 0.0089 *
 Earth -77285-07-19 16:32 J -26506722.91 -26506722.81 -26506722.70 0.0147 0.0134
 Moon -77285-07-19 17:44 J -26506722.83 -26506722.76 -26506722.66 0.0147 0.0139 *
 Venus -77275-03-08 02:08 J -26503204.59 -26503204.41 -26503204.21 0.0145 0.0078
 Venus -77275-10-20 17:01 J -26502978.01 -26502977.79 -26502977.56 0.0145 0.0004
 Venus -77274-06-04 07:25 J -26502751.38 -26502751.19 -26502750.99 0.0144 0.0069
 Venus -77273-01-16 21:35 J -26502524.62 -26502524.60 -26502524.55 0.0144 0.0142
 Mercury -77270-06-26 22:18 J -26501267.62 -26501267.57 -26501267.51 0.0142 0.0135
 Mercury -77270-09-23 06:13 J -26501179.35 -26501179.24 -26501179.11 0.0142 0.0108
 Mercury -77270-12-20 14:08 J -26501091.05 -26501090.91 -26501090.74 0.0142 0.0081
 Mercury -77269-03-17 22:18 J -26501002.74 -26501002.57 -26501002.39 0.0141 0.0054
 Mercury -77269-06-14 06:13 J -26500914.43 -26500914.24 -26500914.05 0.0141 0.0027
 Mars -77269-07-17 19:54 J -26500880.78 -26500880.67 -26500880.50 0.0141 0.0127
 Mercury -77269-09-10 14:08 J -26500826.10 -26500825.91 -26500825.72 0.0141 0.0001
 Mercury -77269-12-07 21:49 J -26500737.77 -26500737.59 -26500737.40 0.0141 0.0026
 Mercury -77268-03-06 05:30 J -26500649.44 -26500649.27 -26500649.09 0.0141 0.0053
 Mercury -77268-06-02 12:56 J -26500561.10 -26500560.96 -26500560.79 0.0141 0.0079
 Mercury -77268-08-29 20:52 J -26500472.75 -26500472.63 -26500472.50 0.0141 0.0104
 Mercury -77268-11-26 04:04 J -26500384.38 -26500384.33 -26500384.24 0.0140 0.0130
 Mars -77267-06-22 13:25 J -26500176.24 -26500175.94 -26500175.65 0.0140 0.0057
 Mars -77265-05-26 08:08 J -26499472.47 -26499472.16 -26499471.84 0.0139 0.0010
 Mars -77263-04-29 07:40 J -26498769.44 -26498769.18 -26498768.91 0.0138 0.0071
 Mars -77261-03-31 13:11 J -26498067.04 -26498066.95 -26498066.82 0.0137 0.0128
 Earth -77251-12-26 12:42 J -26494145.02 -26494144.97 -26494144.87 0.0132 0.0126
 Moon -77251-12-26 13:40 J -26494144.96 -26494144.93 -26494144.89 0.0132 0.0131 *
 Moon -77250-12-30 20:08 J -26493775.83 -26493775.66 -26493775.47 0.0132 0.0090
 Earth -77250-12-30 20:23 J -26493775.82 -26493775.65 -26493775.46 0.0132 0.0093 *
 Earth -77248-01-03 02:52 J -26493406.60 -26493406.38 -26493406.14 0.0132 0.0060
 Moon -77248-01-03 04:04 J -26493406.56 -26493406.33 -26493406.09 0.0132 0.0059 *

Moon -77247-01-07 08:37 J -26493037.38 -26493037.14 -26493036.89 0.0132 0.0030
 Earth -77247-01-07 09:20 J -26493037.36 -26493037.11 -26493036.86 0.0132 0.0027 *
 Earth -77246-01-11 14:52 J -26492668.14 -26492667.88 -26492667.63 0.0131 0.0006
 Moon -77246-01-11 15:35 J -26492668.11 -26492667.85 -26492667.58 0.0131 0.0011 *
 Moon -77245-01-15 18:56 J -26492298.95 -26492298.71 -26492298.47 0.0131 0.0032
 Earth -77245-01-15 19:40 J -26492298.92 -26492298.68 -26492298.43 0.0131 0.0039 *
 Earth -77244-01-19 00:13 J -26491929.70 -26491929.49 -26491929.27 0.0131 0.0071
 Moon -77244-01-19 00:28 J -26491929.67 -26491929.48 -26491929.24 0.0131 0.0078 *
 Moon -77243-01-23 03:20 J -26491560.52 -26491560.36 -26491560.20 0.0131 0.0098
 Earth -77243-01-23 04:18 J -26491560.47 -26491560.32 -26491560.15 0.0131 0.0103 *
 Venus -77231-03-03 22:32 J -26487137.71 -26487137.56 -26487137.39 0.0134 0.0089
 Venus -77231-10-16 01:54 J -26486911.61 -26486911.42 -26486911.21 0.0134 0.0035
 Venus -77230-05-30 05:30 J -26486685.47 -26486685.27 -26486685.05 0.0134 0.0020
 Venus -77229-01-11 09:06 J -26486459.28 -26486459.12 -26486458.93 0.0135 0.0075
 Venus -77229-08-24 12:42 J -26486233.00 -26486232.97 -26486232.90 0.0135 0.0131
 Mercury -77226-11-28 07:54 J -26485042.21 -26485042.17 -26485042.11 0.0137 0.0125
 Mercury -77225-02-24 11:16 J -26484954.11 -26484954.03 -26484953.95 0.0137 0.0108
 Mercury -77225-05-22 14:23 J -26484865.99 -26484865.90 -26484865.79 0.0137 0.0092
 Mars -77225-08-11 07:40 J -26484785.26 -26484785.18 -26484785.06 0.0137 0.0128
 Mercury -77225-08-18 17:44 J -26484777.87 -26484777.76 -26484777.65 0.0137 0.0075
 Mercury -77225-11-14 21:06 J -26484689.74 -26484689.62 -26484689.50 0.0137 0.0058
 Mercury -77224-02-11 00:13 J -26484601.61 -26484601.49 -26484601.36 0.0137 0.0042
 Mercury -77224-05-10 03:35 J -26484513.48 -26484513.35 -26484513.22 0.0137 0.0025
 Mercury -77224-08-06 06:56 J -26484425.35 -26484425.21 -26484425.08 0.0137 0.0008
 Mercury -77224-11-02 10:18 J -26484337.21 -26484337.07 -26484336.94 0.0138 0.0010
 Mercury -77223-01-29 13:40 J -26484249.07 -26484248.93 -26484248.80 0.0138 0.0027
 Mercury -77223-04-27 16:47 J -26484160.92 -26484160.80 -26484160.67 0.0138 0.0045
 Mars -77223-07-12 15:35 J -26484085.07 -26484084.85 -26484084.58 0.0138 0.0076
 Mercury -77223-07-24 20:08 J -26484072.77 -26484072.66 -26484072.53 0.0138 0.0062
 Mercury -77223-10-20 23:44 J -26483984.62 -26483984.51 -26483984.40 0.0138 0.0079

Mercury -77222-01-17 03:06 J -26483896.46 -26483896.37 -26483896.27 0.0138 0.0097
 Mercury -77222-04-15 06:28 J -26483808.30 -26483808.23 -26483808.15 0.0138 0.0115
 Mercury -77222-07-12 10:04 J -26483720.11 -26483720.08 -26483720.04 0.0139 0.0133
 Mars -77221-06-12 13:40 J -26483384.22 -26483383.93 -26483383.63 0.0139 0.0019
 Mars -77219-05-15 03:35 J -26482682.64 -26482682.35 -26482682.06 0.0140 0.0043
 Mars -77217-04-16 12:13 J -26481980.19 -26481979.99 -26481979.79 0.0141 0.0108
 Moon -77207-06-21 03:49 J -26478262.43 -26478262.34 -26478262.24 0.0146 0.0135
 Earth -77207-06-21 06:56 J -26478262.30 -26478262.21 -26478262.11 0.0146 0.0135 *
 Earth -77206-06-26 07:54 J -26477892.36 -26477892.17 -26477891.96 0.0147 0.0091
 Moon -77206-06-26 10:18 J -26477892.25 -26477892.07 -26477891.88 0.0147 0.0097 *
 Moon -77205-06-30 07:40 J -26477522.42 -26477522.18 -26477521.92 0.0147 0.0039
 Earth -77205-06-30 10:18 J -26477522.31 -26477522.07 -26477521.83 0.0147 0.0046 *
 Earth -77204-07-05 13:25 J -26477152.20 -26477151.94 -26477151.69 0.0147 0.0002
 Moon -77204-07-05 14:23 J -26477152.14 -26477151.90 -26477151.65 0.0147 0.0007 *
 Moon -77203-07-10 16:32 J -26476782.06 -26476781.81 -26476781.56 0.0147 0.0050
 Earth -77203-07-10 17:01 J -26476782.02 -26476781.79 -26476781.54 0.0147 0.0046 *
 Moon -77202-07-15 21:49 J -26476411.78 -26476411.59 -26476411.40 0.0147 0.0094
 Earth -77202-07-15 21:35 J -26476411.78 -26476411.60 -26476411.39 0.0147 0.0093 *
 Earth -77201-07-20 02:52 J -26476041.45 -26476041.38 -26476041.28 0.0147 0.0139
 Moon -77201-07-20 04:18 J -26476041.43 -26476041.32 -26476041.20 0.0147 0.0132 *
 Venus -77192-11-05 06:56 J -26472646.35 -26472646.21 -26472646.07 0.0145 0.0113
 Venus -77191-06-19 21:35 J -26472419.81 -26472419.60 -26472419.38 0.0145 0.0040
 Venus -77190-02-01 12:13 J -26472193.20 -26472192.99 -26472192.77 0.0144 0.0034
 Venus -77190-09-16 02:37 J -26471966.54 -26471966.39 -26471966.24 0.0144 0.0106
 Mercury -77186-07-17 05:16 J -26470566.34 -26470566.28 -26470566.19 0.0142 0.0130
 Mercury -77186-10-13 13:11 J -26470478.06 -26470477.95 -26470477.80 0.0142 0.0103
 Mercury -77185-01-09 21:20 J -26470389.76 -26470389.61 -26470389.44 0.0142 0.0076
 Mercury -77185-04-07 05:16 J -26470301.45 -26470301.28 -26470301.09 0.0141 0.0049
 Mercury -77185-07-04 13:25 J -26470213.13 -26470212.94 -26470212.75 0.0141 0.0021
 Mercury -77185-09-30 21:20 J -26470124.80 -26470124.61 -26470124.42 0.0141 0.0006

Mercury -77185-12-28 05:01 J -26470036.48 -26470036.29 -26470036.11 0.0141 0.0031
 Mars -77184-03-13 16:04 J -26469961.04 -26469960.83 -26469960.56 0.0141 0.0094
 Mercury -77184-03-26 12:28 J -26469948.14 -26469947.98 -26469947.80 0.0141 0.0058
 Mercury -77184-06-22 20:08 J -26469859.80 -26469859.66 -26469859.50 0.0141 0.0084
 Mercury -77184-09-19 03:49 J -26469771.45 -26469771.34 -26469771.22 0.0141 0.0109
 Mercury -77184-12-16 11:01 J -26469683.07 -26469683.04 -26469682.97 0.0140 0.0135
 Mars -77182-02-16 01:54 J -26469256.74 -26469256.42 -26469256.11 0.0140 0.0024
 Mars -77180-01-19 14:37 J -26468553.18 -26468552.89 -26468552.57 0.0139 0.0041
 Mars -77179-12-23 09:35 J -26467850.31 -26467850.10 -26467849.89 0.0137 0.0100
 Moon -77167-12-26 20:37 J -26463463.74 -26463463.64 -26463463.52 0.0132 0.0119
 Earth -77167-12-26 21:06 J -26463463.68 -26463463.62 -26463463.53 0.0132 0.0125 *
 Moon -77166-12-31 04:18 J -26463094.48 -26463094.32 -26463094.13 0.0132 0.0095
 Earth -77166-12-31 04:18 J -26463094.48 -26463094.32 -26463094.12 0.0132 0.0092 *
 Moon -77164-01-03 11:01 J -26462725.28 -26462725.04 -26462724.80 0.0132 0.0057
 Earth -77164-01-03 11:01 J -26462725.25 -26462725.04 -26462724.79 0.0132 0.0059 *
 Moon -77163-01-07 17:16 J -26462356.02 -26462355.78 -26462355.53 0.0132 0.0023
 Earth -77163-01-07 17:16 J -26462356.02 -26462355.78 -26462355.52 0.0132 0.0026 *
 Earth -77162-01-11 23:01 J -26461986.79 -26461986.54 -26461986.28 0.0131 0.0009
 Moon -77162-01-11 23:16 J -26461986.79 -26461986.53 -26461986.26 0.0131 0.0003 *
 Earth -77161-01-16 03:49 J -26461617.57 -26461617.34 -26461617.08 0.0131 0.0042
 Moon -77161-01-16 04:18 J -26461617.55 -26461617.32 -26461617.09 0.0131 0.0047 *
 Earth -77160-01-19 08:37 J -26461248.35 -26461248.14 -26461247.93 0.0131 0.0074
 Moon -77160-01-19 09:06 J -26461248.34 -26461248.12 -26461247.89 0.0131 0.0067 *
 Earth -77159-01-23 12:42 J -26460879.11 -26460878.97 -26460878.81 0.0131 0.0106
 Moon -77159-01-23 12:28 J -26460879.08 -26460878.98 -26460878.83 0.0131 0.0113 *
 Venus -77148-11-01 08:23 J -26456579.24 -26456579.15 -26456579.03 0.0134 0.0117
 Venus -77147-06-15 11:44 J -26456353.18 -26456353.01 -26456352.81 0.0134 0.0063
 Venus -77146-01-27 15:35 J -26456127.06 -26456126.85 -26456126.64 0.0134 0.0008
 Venus -77146-09-10 18:56 J -26455900.90 -26455900.71 -26455900.50 0.0134 0.0047
 Venus -77145-04-23 22:32 J -26455674.69 -26455674.56 -26455674.41 0.0135 0.0102

Mercury -77142-12-18 14:52 J -26454340.94 -26454340.88 -26454340.83 0.0137 0.0123

Mercury -77141-03-15 17:59 J -26454252.83 -26454252.75 -26454252.67 0.0137 0.0106

Mercury -77141-06-11 21:06 J -26454164.71 -26454164.62 -26454164.51 0.0137 0.0090

Mercury -77141-09-08 00:13 J -26454076.59 -26454076.49 -26454076.37 0.0137 0.0074

Mercury -77141-12-05 03:35 J -26453988.46 -26453988.35 -26453988.22 0.0137 0.0057

Mercury -77140-03-03 06:56 J -26453900.33 -26453900.21 -26453900.08 0.0137 0.0040

Mars -77140-04-05 14:52 J -26453867.06 -26453866.88 -26453866.69 0.0137 0.0104

Mercury -77140-05-30 10:18 J -26453812.20 -26453812.07 -26453811.94 0.0137 0.0023

Mercury -77140-08-26 13:40 J -26453724.07 -26453723.93 -26453723.80 0.0137 0.0006

Mercury -77140-11-22 17:01 J -26453635.93 -26453635.79 -26453635.66 0.0138 0.0012

Mercury -77139-02-18 20:08 J -26453547.79 -26453547.66 -26453547.52 0.0138 0.0029

Mercury -77139-05-17 23:30 J -26453459.64 -26453459.52 -26453459.39 0.0138 0.0046

Mercury -77139-08-14 03:06 J -26453371.49 -26453371.37 -26453371.25 0.0138 0.0064

Mercury -77139-11-10 06:13 J -26453283.34 -26453283.24 -26453283.12 0.0138 0.0081

Mercury -77138-02-06 09:49 J -26453195.18 -26453195.09 -26453195.00 0.0138 0.0099

Mars -77138-03-07 01:54 J -26453166.69 -26453166.42 -26453166.15 0.0138 0.0050

Mercury -77138-05-05 13:11 J -26453107.02 -26453106.95 -26453106.88 0.0138 0.0117

Mercury -77138-08-01 16:32 J -26453018.83 -26453018.81 -26453018.77 0.0139 0.0135

Mars -77136-02-05 03:20 J -26452465.66 -26452465.36 -26452465.06 0.0139 0.0009

Mars -77134-01-07 22:32 J -26451763.80 -26451763.56 -26451763.29 0.0141 0.0073

Jupiter -77134-12-22 13:54 J -26451415.16 -26451414.92 -26451414.62 0.0141 0.0120

Mars -77133-12-10 12:13 J -26451061.03 -26451060.99 -26451060.91 0.0142 0.0139

Moon -77123-06-21 10:04 J -26447581.15 -26447581.08 -26447580.97 0.0146 0.0136

Earth -77123-06-21 13:40 J -26447581.02 -26447580.93 -26447580.83 0.0146 0.0135 *

Earth -77122-06-26 14:23 J -26447211.08 -26447210.90 -26447210.68 0.0147 0.0091

Moon -77122-06-26 17:44 J -26447210.95 -26447210.76 -26447210.55 0.0147 0.0087 *

Moon -77121-06-30 14:23 J -26446841.13 -26446840.90 -26446840.65 0.0147 0.0052

Earth -77121-06-30 17:01 J -26446841.03 -26446840.79 -26446840.55 0.0147 0.0045 *

Earth -77120-07-05 20:08 J -26446470.91 -26446470.66 -26446470.41 0.0147 0.0001

Moon -77120-07-05 22:18 J -26446470.81 -26446470.57 -26446470.32 0.0147 0.0009 *

Moon -77119-07-10 22:32 J -26446100.81 -26446100.56 -26446100.31 0.0147 0.0044
 Earth -77119-07-10 23:44 J -26446100.74 -26446100.51 -26446100.26 0.0147 0.0048 *
 Earth -77118-07-16 04:32 J -26445730.50 -26445730.31 -26445730.11 0.0147 0.0095
 Moon -77118-07-16 04:47 J -26445730.48 -26445730.30 -26445730.10 0.0147 0.0094 *
 Earth -77117-07-20 09:20 J -26445360.16 -26445360.11 -26445360.02 0.0147 0.0142
 Moon -77117-07-20 09:20 J -26445360.13 -26445360.11 -26445360.05 0.0147 0.0146 *
 Venus -77107-02-17 00:28 J -26441861.66 -26441861.48 -26441861.29 0.0145 0.0078
 Venus -77107-10-01 15:20 J -26441635.09 -26441634.86 -26441634.64 0.0145 0.0005
 Venus -77106-05-16 05:44 J -26441408.45 -26441408.26 -26441408.06 0.0144 0.0069
 Venus -77106-12-28 19:54 J -26441181.70 -26441181.67 -26441181.61 0.0144 0.0141
 Mercury -77102-08-06 11:59 J -26439865.08 -26439865.00 -26439864.91 0.0142 0.0126
 Mercury -77102-11-02 19:54 J -26439776.79 -26439776.67 -26439776.52 0.0142 0.0099
 Mars -77102-12-03 06:28 J -26439746.32 -26439746.23 -26439746.09 0.0142 0.0133
 Mercury -77101-01-30 04:04 J -26439688.49 -26439688.33 -26439688.16 0.0142 0.0072
 Mercury -77101-04-27 11:59 J -26439600.17 -26439600.00 -26439599.81 0.0141 0.0045
 Mercury -77101-07-24 19:54 J -26439511.85 -26439511.67 -26439511.48 0.0141 0.0018
 Mercury -77101-10-21 03:49 J -26439423.53 -26439423.34 -26439423.15 0.0141 0.0009
 Mercury -77100-01-17 11:30 J -26439335.20 -26439335.02 -26439334.83 0.0141 0.0035
 Mercury -77100-04-15 19:11 J -26439246.86 -26439246.70 -26439246.52 0.0141 0.0061
 Mercury -77100-07-13 02:52 J -26439158.52 -26439158.38 -26439158.23 0.0141 0.0087
 Mercury -77100-10-09 10:18 J -26439070.17 -26439070.07 -26439069.95 0.0141 0.0113
 Mars -77100-11-07 07:11 J -26439041.48 -26439041.20 -26439040.90 0.0141 0.0061
 Mercury -77099-01-05 17:59 J -26438981.78 -26438981.75 -26438981.71 0.0140 0.0138
 Mars -77098-10-12 11:01 J -26438337.36 -26438337.04 -26438336.72 0.0139 0.0007
 Mars -77096-09-14 19:25 J -26437633.94 -26437633.69 -26437633.40 0.0138 0.0070
 Mars -77094-08-18 08:23 J -26436931.24 -26436931.15 -26436931.02 0.0137 0.0128
 Earth -77083-12-27 05:30 J -26432782.34 -26432782.27 -26432782.17 0.0132 0.0124
 Moon -77083-12-27 05:01 J -26432782.33 -26432782.29 -26432782.23 0.0132 0.0130 *
 Earth -77082-12-31 12:56 J -26432413.13 -26432412.96 -26432412.76 0.0132 0.0091
 Moon -77082-12-31 13:54 J -26432413.08 -26432412.92 -26432412.71 0.0132 0.0087 *

Moon -77080-01-03 18:56 J -26432043.93 -26432043.71 -26432043.45 0.0132 0.0058
 Earth -77080-01-03 19:40 J -26432043.90 -26432043.68 -26432043.44 0.0132 0.0057 *
 Earth -77079-01-08 01:54 J -26431674.66 -26431674.42 -26431674.16 0.0132 0.0024
 Moon -77079-01-08 02:37 J -26431674.62 -26431674.39 -26431674.14 0.0132 0.0026 *
 Moon -77078-01-12 06:56 J -26431305.47 -26431305.21 -26431304.94 0.0131 0.0014
 Earth -77078-01-12 07:40 J -26431305.43 -26431305.18 -26431304.92 0.0131 0.0011 *
 Earth -77077-01-16 12:42 J -26430936.21 -26430935.97 -26430935.72 0.0131 0.0044
 Moon -77077-01-16 12:56 J -26430936.19 -26430935.96 -26430935.72 0.0131 0.0037 *
 Moon -77076-01-19 16:32 J -26430567.01 -26430566.81 -26430566.60 0.0131 0.0083
 Earth -77076-01-19 17:01 J -26430566.98 -26430566.79 -26430566.57 0.0131 0.0077 *
 Earth -77075-01-23 21:35 J -26430197.74 -26430197.60 -26430197.46 0.0131 0.0109
 Moon -77075-01-23 21:35 J -26430197.74 -26430197.60 -26430197.44 0.0131 0.0103 *
 Venus -77063-02-12 21:35 J -26425794.74 -26425794.60 -26425794.43 0.0134 0.0091
 Venus -77063-09-27 01:25 J -26425568.65 -26425568.44 -26425568.24 0.0134 0.0036
 Venus -77062-05-11 04:47 J -26425342.51 -26425342.30 -26425342.09 0.0134 0.0018
 Venus -77062-12-23 08:23 J -26425116.32 -26425116.15 -26425115.97 0.0134 0.0073
 Venus -77061-08-05 11:44 J -26424890.06 -26424890.01 -26424889.93 0.0135 0.0128
 Mars -77058-12-29 18:42 J -26423648.77 -26423648.72 -26423648.61 0.0136 0.0131
 Mercury -77057-01-07 21:20 J -26423639.66 -26423639.61 -26423639.55 0.0136 0.0122
 Mercury -77057-04-05 00:28 J -26423551.55 -26423551.48 -26423551.39 0.0137 0.0106
 Mercury -77057-07-02 03:49 J -26423463.44 -26423463.34 -26423463.24 0.0137 0.0089
 Mercury -77057-09-28 07:11 J -26423375.31 -26423375.20 -26423375.09 0.0137 0.0072
 Mercury -77057-12-25 10:18 J -26423287.19 -26423287.07 -26423286.95 0.0137 0.0056
 Mercury -77056-03-23 13:40 J -26423199.06 -26423198.93 -26423198.80 0.0137 0.0039
 Mercury -77056-06-19 16:47 J -26423110.93 -26423110.80 -26423110.66 0.0137 0.0022
 Mercury -77056-09-15 20:08 J -26423022.79 -26423022.66 -26423022.52 0.0137 0.0005
 Mars -77056-11-28 20:37 J -26422948.88 -26422948.64 -26422948.41 0.0138 0.0079
 Mercury -77056-12-12 23:30 J -26422934.65 -26422934.52 -26422934.39 0.0138 0.0012
 Mercury -77055-03-11 02:52 J -26422846.51 -26422846.38 -26422846.25 0.0138 0.0030
 Mercury -77055-06-07 06:13 J -26422758.37 -26422758.24 -26422758.11 0.0138 0.0047

Mercury -77055-09-03 09:20 J -26422670.22 -26422670.11 -26422669.98 0.0138 0.0065

Mercury -77055-11-30 12:56 J -26422582.07 -26422581.96 -26422581.85 0.0138 0.0082

Mercury -77054-02-26 16:18 J -26422493.91 -26422493.82 -26422493.72 0.0138 0.0100

Mercury -77054-05-25 19:54 J -26422405.74 -26422405.67 -26422405.60 0.0138 0.0118

Mercury -77054-08-21 23:16 J -26422317.55 -26422317.53 -26422317.50 0.0139 0.0136

Mars -77054-10-30 10:32 J -26422248.34 -26422248.06 -26422247.76 0.0139 0.0023

Mars -77052-09-30 17:16 J -26421547.05 -26421546.78 -26421546.48 0.0140 0.0039

Mars -77050-09-02 17:16 J -26420844.96 -26420844.78 -26420844.55 0.0141 0.0103

Moon -77039-06-21 15:20 J -26416899.94 -26416899.86 -26416899.77 0.0146 0.0137

Earth -77039-06-21 18:42 J -26416899.80 -26416899.72 -26416899.61 0.0146 0.0135 *

Earth -77038-06-26 19:54 J -26416529.85 -26416529.67 -26416529.46 0.0147 0.0091

Moon -77038-06-26 23:01 J -26416529.71 -26416529.54 -26416529.34 0.0147 0.0096 *

Moon -77037-06-30 18:56 J -26416159.95 -26416159.71 -26416159.46 0.0147 0.0038

Earth -77037-06-30 22:18 J -26416159.80 -26416159.57 -26416159.32 0.0147 0.0045 *

Earth -77036-07-06 01:11 J -26415789.70 -26415789.45 -26415789.19 0.0147 0.0003

Moon -77036-07-06 03:49 J -26415789.59 -26415789.34 -26415789.10 0.0147 0.0005 *

Moon -77035-07-11 02:37 J -26415419.62 -26415419.39 -26415419.13 0.0147 0.0055

Earth -77035-07-11 04:47 J -26415419.52 -26415419.30 -26415419.05 0.0147 0.0050 *

Earth -77034-07-16 09:06 J -26415049.29 -26415049.12 -26415048.91 0.0147 0.0097

Moon -77034-07-16 11:01 J -26415049.23 -26415049.04 -26415048.85 0.0147 0.0096 *

Moon -77033-07-20 14:08 J -26414678.99 -26414678.91 -26414678.81 0.0147 0.0138

Earth -77033-07-20 14:08 J -26414678.95 -26414678.91 -26414678.83 0.0147 0.0144 *

Saturn -77032-07-05 05:59 J -26414329.95 -26414329.25 -26414328.55 0.0147 0.0005

Venus -77024-10-17 01:25 J -26411303.56 -26411303.44 -26411303.31 0.0145 0.0120

Venus -77023-05-31 16:18 J -26411077.03 -26411076.82 -26411076.60 0.0145 0.0046

Venus -77022-01-13 07:11 J -26410850.42 -26410850.20 -26410849.98 0.0144 0.0028

Venus -77022-08-27 21:35 J -26410623.76 -26410623.60 -26410623.44 0.0144 0.0101

Mercury -77018-08-26 17:44 J -26409163.84 -26409163.76 -26409163.67 0.0142 0.0125

Mercury -77018-11-23 01:40 J -26409075.56 -26409075.43 -26409075.28 0.0142 0.0098

Mercury -77017-02-19 09:49 J -26408987.25 -26408987.09 -26408986.92 0.0142 0.0071

Mercury -77017-05-17 17:44 J -26408898.94 -26408898.76 -26408898.58 0.0142 0.0044

Mars -77017-07-28 20:08 J -26408826.87 -26408826.66 -26408826.42 0.0141 0.0101

Mercury -77017-08-14 01:40 J -26408810.62 -26408810.43 -26408810.24 0.0141 0.0017

Mercury -77017-11-10 09:35 J -26408722.29 -26408722.10 -26408721.91 0.0141 0.0010

Mercury -77016-02-06 17:16 J -26408633.96 -26408633.78 -26408633.60 0.0141 0.0036

Mercury -77016-05-06 00:56 J -26408545.63 -26408545.46 -26408545.29 0.0141 0.0062

Mercury -77016-08-02 08:23 J -26408457.29 -26408457.15 -26408456.99 0.0141 0.0088

Mercury -77016-10-29 16:04 J -26408368.93 -26408368.83 -26408368.71 0.0141 0.0114

Mercury -77015-01-25 23:44 J -26408280.53 -26408280.51 -26408280.48 0.0141 0.0139

Mars -77015-07-03 15:06 J -26408122.17 -26408121.87 -26408121.54 0.0140 0.0031

Mars -77013-06-06 14:23 J -26407418.20 -26407417.90 -26407417.59 0.0139 0.0037

Mars -77011-05-10 16:47 J -26406715.00 -26406714.80 -26406714.56 0.0138 0.0099

77TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 77th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-76999-12-27 10:32 J	-26402101.17	-26402101.06	-26402100.93	0.0132	0.0117		
Earth	-76999-12-27 12:28 J	-26402101.05	-26402100.98	-26402100.88	0.0132	0.0124	*	
Earth	-76998-12-31 19:54 J	-26401731.84	-26401731.67	-26401731.47	0.0132	0.0090		
Moon	-76998-12-31 21:06 J	-26401731.78	-26401731.62	-26401731.43	0.0132	0.0094	*	
Moon	-76996-01-04 01:11 J	-26401362.68	-26401362.45	-26401362.19	0.0132	0.0054		
Earth	-76996-01-04 03:06 J	-26401362.60	-26401362.37	-26401362.13	0.0132	0.0056	*	

Earth -76995-01-08 09:35 J -26400993.35 -26400993.10 -26400992.85 0.0132 0.0022
 Moon -76995-01-08 10:47 J -26400993.29 -26400993.05 -26400992.80 0.0132 0.0021 *
 Moon -76994-01-12 14:08 J -26400624.17 -26400623.91 -26400623.64 0.0131 0.0008
 Earth -76994-01-12 15:20 J -26400624.11 -26400623.86 -26400623.60 0.0131 0.0012 *
 Earth -76993-01-16 20:23 J -26400254.88 -26400254.65 -26400254.40 0.0131 0.0046
 Moon -76993-01-16 21:49 J -26400254.81 -26400254.59 -26400254.35 0.0131 0.0051 *
 Moon -76992-01-19 23:59 J -26399885.70 -26399885.50 -26399885.26 0.0131 0.0073
 Earth -76992-01-20 00:56 J -26399885.65 -26399885.46 -26399885.24 0.0131 0.0079 *
 Earth -76991-01-24 05:16 J -26399516.40 -26399516.28 -26399516.14 0.0131 0.0112
 Moon -76991-01-24 06:28 J -26399516.32 -26399516.23 -26399516.11 0.0131 0.0119 *
 Venus -76980-10-13 07:54 J -26395236.25 -26395236.17 -26395236.05 0.0133 0.0118
 Venus -76979-05-27 11:16 J -26395010.20 -26395010.03 -26395009.83 0.0134 0.0064
 Venus -76978-01-08 15:06 J -26394784.08 -26394783.87 -26394783.66 0.0134 0.0010
 Venus -76978-08-22 18:13 J -26394557.93 -26394557.74 -26394557.53 0.0134 0.0046
 Venus -76977-04-04 21:49 J -26394331.72 -26394331.59 -26394331.44 0.0135 0.0100
 Mercury -76974-11-01 00:56 J -26393026.46 -26393026.46 -26393026.44 0.0136 0.0136
 Mercury -76973-01-28 04:04 J -26392938.38 -26392938.33 -26392938.26 0.0136 0.0120
 Mercury -76973-04-25 07:40 J -26392850.27 -26392850.18 -26392850.10 0.0137 0.0103
 Mercury -76973-07-22 10:32 J -26392762.15 -26392762.06 -26392761.95 0.0137 0.0087
 Mars -76973-08-23 00:42 J -26392730.64 -26392730.47 -26392730.28 0.0137 0.0107
 Mercury -76973-10-18 13:54 J -26392674.03 -26392673.92 -26392673.80 0.0137 0.0070
 Mercury -76972-01-14 17:16 J -26392585.90 -26392585.78 -26392585.66 0.0137 0.0053
 Mercury -76972-04-12 20:23 J -26392497.77 -26392497.65 -26392497.52 0.0137 0.0037
 Mercury -76972-07-09 23:44 J -26392409.64 -26392409.51 -26392409.38 0.0137 0.0020
 Mercury -76972-10-06 03:06 J -26392321.51 -26392321.37 -26392321.24 0.0137 0.0004
 Mercury -76971-01-02 06:13 J -26392233.37 -26392233.24 -26392233.10 0.0138 0.0016
 Mercury -76971-03-31 09:35 J -26392145.23 -26392145.10 -26392144.96 0.0138 0.0032
 Mercury -76971-06-27 12:56 J -26392057.08 -26392056.96 -26392056.83 0.0138 0.0050
 Mars -76971-07-24 05:01 J -26392030.55 -26392030.29 -26392030.02 0.0138 0.0053
 Mercury -76971-09-23 16:18 J -26391968.93 -26391968.82 -26391968.70 0.0138 0.0067

Mercury -76971-12-20 19:40 J -26391880.78 -26391880.68 -26391880.57 0.0138 0.0085

Mercury -76970-03-18 23:16 J -26391792.62 -26391792.53 -26391792.44 0.0138 0.0102

Mercury -76970-06-15 02:37 J -26391704.45 -26391704.39 -26391704.32 0.0138 0.0120

Mercury -76970-09-11 05:59 J -26391616.25 -26391616.25 -26391616.24 0.0138 0.0138

Mars -76969-06-24 00:28 J -26391329.77 -26391329.48 -26391329.18 0.0139 0.0006

Mars -76967-05-26 12:28 J -26390628.22 -26390627.98 -26390627.70 0.0140 0.0068

Mars -76965-04-27 16:18 J -26389925.89 -26389925.82 -26389925.70 0.0141 0.0134

Moon -76955-06-21 21:49 J -26386218.68 -26386218.59 -26386218.49 0.0146 0.0135

Earth -76955-06-22 01:11 J -26386218.52 -26386218.45 -26386218.34 0.0146 0.0136 *

Earth -76954-06-27 02:08 J -26385848.59 -26385848.41 -26385848.20 0.0147 0.0091

Moon -76954-06-27 06:13 J -26385848.44 -26385848.24 -26385848.04 0.0147 0.0087 *

Moon -76953-07-01 00:56 J -26385478.69 -26385478.46 -26385478.21 0.0147 0.0051

Earth -76953-07-01 04:18 J -26385478.55 -26385478.32 -26385478.07 0.0147 0.0044 *

Earth -76952-07-06 07:11 J -26385108.45 -26385108.20 -26385107.94 0.0147 0.0004

Moon -76952-07-06 10:32 J -26385108.31 -26385108.06 -26385107.82 0.0147 0.0011 *

Moon -76951-07-11 07:40 J -26384738.41 -26384738.18 -26384737.92 0.0147 0.0045

Earth -76951-07-11 10:32 J -26384738.29 -26384738.06 -26384737.81 0.0147 0.0051 *

Earth -76950-07-16 14:52 J -26384368.06 -26384367.88 -26384367.68 0.0147 0.0098

Moon -76950-07-16 16:32 J -26384367.98 -26384367.81 -26384367.61 0.0147 0.0099 *

Earth -76949-07-20 19:40 J -26383997.70 -26383997.68 -26383997.63 0.0147 0.0146

Venus -76939-01-28 17:30 J -26380518.94 -26380518.77 -26380518.58 0.0145 0.0087

Venus -76939-09-12 08:23 J -26380292.37 -26380292.15 -26380291.92 0.0145 0.0013

Venus -76938-04-26 22:47 J -26380065.74 -26380065.55 -26380065.34 0.0144 0.0060

Venus -76938-12-09 13:11 J -26379839.02 -26379838.95 -26379838.85 0.0144 0.0132

Mercury -76934-09-15 23:01 J -26378462.61 -26378462.54 -26378462.43 0.0142 0.0125

Mercury -76934-12-13 07:25 J -26378374.32 -26378374.19 -26378374.05 0.0142 0.0097

Mercury -76933-03-10 15:35 J -26378286.02 -26378285.85 -26378285.69 0.0142 0.0070

Mercury -76933-06-06 23:16 J -26378197.70 -26378197.53 -26378197.34 0.0142 0.0043

Mercury -76933-09-03 07:11 J -26378109.38 -26378109.20 -26378109.01 0.0141 0.0017

Mercury -76933-11-30 15:06 J -26378021.06 -26378020.87 -26378020.68 0.0141 0.0010

Mercury -76932-02-26 22:47 J -26377932.73 -26377932.55 -26377932.36 0.0141 0.0037
 Mars -76932-03-24 07:54 J -26377907.45 -26377907.17 -26377906.88 0.0141 0.0069
 Mercury -76932-05-26 06:28 J -26377844.39 -26377844.23 -26377844.05 0.0141 0.0063
 Mercury -76932-08-22 14:08 J -26377756.05 -26377755.91 -26377755.76 0.0141 0.0089
 Mercury -76932-11-18 21:35 J -26377667.69 -26377667.60 -26377667.48 0.0141 0.0115
 Mercury -76931-02-15 05:16 J -26377579.28 -26377579.28 -26377579.26 0.0141 0.0140
 Mars -76930-02-26 22:32 J -26377202.88 -26377202.56 -26377202.24 0.0140 0.0002
 Mars -76928-01-30 15:35 J -26376499.11 -26376498.85 -26376498.55 0.0139 0.0067
 Mars -76926-01-03 12:56 J -26375796.05 -26375795.96 -26375795.81 0.0138 0.0127
 Moon -76915-12-27 17:59 J -26371419.79 -26371419.75 -26371419.69 0.0132 0.0130
 Earth -76915-12-27 19:54 J -26371419.74 -26371419.67 -26371419.56 0.0132 0.0124 *
 Earth -76913-01-01 03:35 J -26371050.52 -26371050.35 -26371050.14 0.0132 0.0090
 Moon -76913-01-01 05:59 J -26371050.42 -26371050.25 -26371050.04 0.0132 0.0084 *
 Moon -76912-01-04 08:52 J -26370681.36 -26370681.13 -26370680.88 0.0132 0.0057
 Earth -76912-01-04 10:47 J -26370681.27 -26370681.05 -26370680.80 0.0132 0.0055 *
 Earth -76911-01-08 17:44 J -26370312.02 -26370311.76 -26370311.51 0.0132 0.0020
 Moon -76911-01-08 19:40 J -26370311.93 -26370311.68 -26370311.44 0.0132 0.0021 *
 Moon -76910-01-12 21:20 J -26369942.87 -26369942.61 -26369942.34 0.0132 0.0017
 Earth -76910-01-12 23:30 J -26369942.77 -26369942.52 -26369942.26 0.0132 0.0014 *
 Earth -76909-01-17 04:32 J -26369573.54 -26369573.31 -26369573.06 0.0131 0.0048
 Moon -76909-01-17 05:59 J -26369573.47 -26369573.25 -26369573.00 0.0131 0.0043 *
 Moon -76908-01-20 06:56 J -26369204.39 -26369204.21 -26369204.00 0.0131 0.0089
 Earth -76908-01-20 09:20 J -26369204.30 -26369204.11 -26369203.90 0.0131 0.0082 *
 Earth -76907-01-24 13:40 J -26368835.05 -26368834.93 -26368834.80 0.0131 0.0115
 Moon -76907-01-24 15:20 J -26368835.00 -26368834.86 -26368834.72 0.0131 0.0109 *
 Venus -76895-01-24 22:18 J -26364451.72 -26364451.57 -26364451.41 0.0134 0.0090
 Venus -76895-09-08 01:40 J -26364225.63 -26364225.43 -26364225.22 0.0134 0.0036
 Venus -76894-04-22 05:01 J -26363999.50 -26363999.29 -26363999.08 0.0134 0.0018
 Venus -76894-12-04 08:37 J -26363773.32 -26363773.14 -26363772.96 0.0134 0.0073
 Venus -76893-07-17 11:59 J -26363547.05 -26363547.00 -26363546.92 0.0135 0.0128

Mars -76890-05-18 13:11 J -26362511.98 -26362511.95 -26362511.87 0.0136 0.0133
 Mercury -76890-11-21 08:08 J -26362325.18 -26362325.16 -26362325.13 0.0136 0.0132
 Mercury -76889-02-17 11:16 J -26362237.09 -26362237.03 -26362236.96 0.0136 0.0116
 Mercury -76889-05-15 14:37 J -26362148.98 -26362148.89 -26362148.80 0.0137 0.0100
 Mercury -76889-08-11 17:44 J -26362060.86 -26362060.76 -26362060.65 0.0137 0.0083
 Mercury -76889-11-07 20:52 J -26361972.74 -26361972.63 -26361972.51 0.0137 0.0067
 Mercury -76888-02-04 00:13 J -26361884.61 -26361884.49 -26361884.36 0.0137 0.0050
 Mars -76888-04-17 09:20 J -26361812.32 -26361812.11 -26361811.86 0.0137 0.0082
 Mercury -76888-05-03 03:35 J -26361796.48 -26361796.35 -26361796.22 0.0137 0.0033
 Mercury -76888-07-30 06:56 J -26361708.35 -26361708.21 -26361708.08 0.0137 0.0017
 Mercury -76888-10-26 10:04 J -26361620.21 -26361620.08 -26361619.94 0.0137 0.0004
 Mercury -76887-01-22 13:25 J -26361532.07 -26361531.94 -26361531.81 0.0138 0.0018
 Mercury -76887-04-20 16:47 J -26361443.93 -26361443.80 -26361443.67 0.0138 0.0036
 Mercury -76887-07-17 20:08 J -26361355.78 -26361355.66 -26361355.53 0.0138 0.0053
 Mercury -76887-10-13 23:30 J -26361267.63 -26361267.52 -26361267.40 0.0138 0.0071
 Mercury -76886-01-10 02:52 J -26361179.48 -26361179.38 -26361179.27 0.0138 0.0088
 Mars -76886-03-18 19:11 J -26361111.99 -26361111.70 -26361111.41 0.0138 0.0026
 Mercury -76886-04-08 06:13 J -26361091.32 -26361091.24 -26361091.15 0.0138 0.0106
 Mercury -76886-07-05 09:35 J -26361003.15 -26361003.10 -26361003.03 0.0138 0.0124
 Mars -76884-02-16 19:40 J -26360410.97 -26360410.68 -26360410.39 0.0139 0.0035
 Mars -76882-01-19 10:47 J -26359709.24 -26359709.05 -26359708.82 0.0140 0.0099
 Moon -76871-06-22 07:40 J -26355537.26 -26355537.18 -26355537.09 0.0146 0.0137
 Earth -76871-06-22 10:47 J -26355537.13 -26355537.05 -26355536.93 0.0146 0.0134 *
 Earth -76870-06-27 11:44 J -26355167.20 -26355167.01 -26355166.80 0.0147 0.0089
 Moon -76870-06-27 15:06 J -26355167.05 -26355166.87 -26355166.66 0.0147 0.0093 *
 Moon -76869-07-01 10:04 J -26354797.32 -26354797.08 -26354796.83 0.0147 0.0035
 Earth -76869-07-01 13:54 J -26354797.16 -26354796.92 -26354796.68 0.0147 0.0042 *
 Earth -76868-07-06 16:18 J -26354427.07 -26354426.82 -26354426.57 0.0147 0.0006
 Moon -76868-07-06 19:40 J -26354426.93 -26354426.68 -26354426.43 0.0147 0.0002 *
 Moon -76867-07-11 16:32 J -26354057.04 -26354056.81 -26354056.57 0.0147 0.0059

Earth -76867-07-11 19:40 J -26354056.91 -26354056.68 -26354056.44 0.0147 0.0054 *
 Earth -76866-07-16 23:44 J -26353686.69 -26353686.51 -26353686.32 0.0147 0.0102
 Moon -76866-07-17 02:23 J -26353686.57 -26353686.40 -26353686.21 0.0147 0.0099 *
 Moon -76865-07-21 02:08 J -26353316.42 -26353316.41 -26353316.34 0.0147 0.0146
 Venus -76856-09-27 20:23 J -26349960.75 -26349960.65 -26349960.52 0.0145 0.0125
 Venus -76855-05-12 11:30 J -26349734.23 -26349734.02 -26349733.81 0.0145 0.0051
 Venus -76855-12-25 02:08 J -26349507.63 -26349507.41 -26349507.19 0.0144 0.0022
 Venus -76854-08-08 16:18 J -26349280.97 -26349280.82 -26349280.63 0.0144 0.0096
 Mercury -76850-10-06 05:30 J -26347761.36 -26347761.27 -26347761.16 0.0142 0.0122
 Mars -76850-12-13 17:30 J -26347692.96 -26347692.77 -26347692.55 0.0142 0.0110
 Mercury -76849-01-02 13:25 J -26347673.07 -26347672.94 -26347672.78 0.0142 0.0095
 Mercury -76849-03-30 21:35 J -26347584.76 -26347584.60 -26347584.42 0.0142 0.0067
 Mercury -76849-06-27 05:30 J -26347496.44 -26347496.27 -26347496.08 0.0141 0.0041
 Mercury -76849-09-23 13:40 J -26347408.12 -26347407.93 -26347407.74 0.0141 0.0014
 Mercury -76849-12-20 21:20 J -26347319.80 -26347319.61 -26347319.42 0.0141 0.0013
 Mercury -76848-03-19 05:01 J -26347231.46 -26347231.29 -26347231.10 0.0141 0.0040
 Mercury -76848-06-15 12:42 J -26347143.13 -26347142.97 -26347142.79 0.0141 0.0066
 Mercury -76848-09-11 20:23 J -26347054.78 -26347054.65 -26347054.50 0.0141 0.0092
 Mars -76848-11-17 22:32 J -26346987.86 -26346987.56 -26346987.24 0.0141 0.0037
 Mercury -76848-12-09 03:49 J -26346966.43 -26346966.34 -26346966.22 0.0141 0.0118
 Mars -76846-10-23 06:56 J -26346283.52 -26346283.21 -26346282.90 0.0139 0.0032
 Mars -76844-09-25 18:13 J -26345579.96 -26345579.74 -26345579.50 0.0138 0.0096
 Jupiter -76843-10-18 05:44 J -26345192.71 -26345192.26 -26345191.74 0.0138 0.0058
 Moon -76831-12-28 00:28 J -26340738.60 -26340738.48 -26340738.35 0.0132 0.0116
 Earth -76831-12-28 03:06 J -26340738.43 -26340738.37 -26340738.25 0.0132 0.0124 *
 Earth -76829-01-01 11:01 J -26340369.21 -26340369.04 -26340368.83 0.0132 0.0088
 Moon -76829-01-01 13:25 J -26340369.10 -26340368.94 -26340368.74 0.0132 0.0094 *
 Moon -76828-01-04 15:49 J -26340000.08 -26339999.84 -26339999.59 0.0132 0.0050
 Earth -76828-01-04 18:42 J -26339999.95 -26339999.72 -26339999.48 0.0132 0.0053 *
 Earth -76827-01-09 01:11 J -26339630.70 -26339630.45 -26339630.19 0.0132 0.0019

Moon	-76827-01-09 03:49 J	-26339630.58	-26339630.34	-26339630.09	0.0132	0.0019	*
Moon	-76826-01-13 04:47 J	-26339261.56	-26339261.30	-26339261.03	0.0132	0.0013	
Earth	-76826-01-13 07:11 J	-26339261.45	-26339261.20	-26339260.94	0.0132	0.0016	*
Earth	-76825-01-17 12:13 J	-26338892.22	-26338891.99	-26338891.74	0.0132	0.0051	
Moon	-76825-01-17 14:52 J	-26338892.10	-26338891.88	-26338891.64	0.0132	0.0056	*
Moon	-76824-01-20 14:52 J	-26338523.08	-26338522.88	-26338522.66	0.0131	0.0078	
Earth	-76824-01-20 17:01 J	-26338522.97	-26338522.79	-26338522.59	0.0131	0.0085	*
Earth	-76823-01-24 21:06 J	-26338153.72	-26338153.62	-26338153.49	0.0131	0.0118	
Moon	-76823-01-24 23:59 J	-26338153.58	-26338153.50	-26338153.43	0.0131	0.0125	*
Venus	-76812-09-24 08:23 J	-26333893.23	-26333893.15	-26333893.02	0.0134	0.0117	
Venus	-76811-05-08 11:59 J	-26333667.18	-26333667.00	-26333666.80	0.0134	0.0063	
Venus	-76811-12-20 15:35 J	-26333441.06	-26333440.85	-26333440.63	0.0134	0.0009	
Venus	-76810-08-03 19:11 J	-26333214.90	-26333214.70	-26333214.50	0.0134	0.0046	
Venus	-76809-03-16 22:18 J	-26332988.69	-26332988.57	-26332988.42	0.0135	0.0101	
Mercury	-76806-12-11 15:06 J	-26331623.90	-26331623.87	-26331623.82	0.0136	0.0130	
Mars	-76805-01-10 19:54 J	-26331593.82	-26331593.67	-26331593.48	0.0136	0.0110	
Mercury	-76805-03-08 18:13 J	-26331535.80	-26331535.74	-26331535.66	0.0137	0.0114	
Mercury	-76805-06-04 21:35 J	-26331447.69	-26331447.60	-26331447.50	0.0137	0.0097	
Mercury	-76805-09-01 00:56 J	-26331359.57	-26331359.46	-26331359.35	0.0137	0.0080	
Mercury	-76805-11-28 04:04 J	-26331271.44	-26331271.33	-26331271.21	0.0137	0.0064	
Mercury	-76804-02-24 07:25 J	-26331183.32	-26331183.19	-26331183.07	0.0137	0.0047	
Mercury	-76804-05-23 10:32 J	-26331095.18	-26331095.06	-26331094.92	0.0137	0.0030	
Mercury	-76804-08-19 13:54 J	-26331007.05	-26331006.92	-26331006.78	0.0137	0.0013	
Mercury	-76804-11-15 17:16 J	-26330918.91	-26330918.78	-26330918.64	0.0137	0.0005	
Mars	-76804-12-10 20:23 J	-26330893.91	-26330893.65	-26330893.38	0.0137	0.0056	
Mercury	-76803-02-11 20:37 J	-26330830.77	-26330830.64	-26330830.51	0.0138	0.0022	
Mercury	-76803-05-10 23:59 J	-26330742.63	-26330742.50	-26330742.37	0.0138	0.0039	
Mercury	-76803-08-07 03:20 J	-26330654.48	-26330654.36	-26330654.24	0.0138	0.0057	
Mercury	-76803-11-03 06:42 J	-26330566.33	-26330566.22	-26330566.11	0.0138	0.0074	
Mercury	-76802-01-30 10:04 J	-26330478.17	-26330478.08	-26330477.98	0.0138	0.0092	

Mercury -76802-04-28 13:25 J -26330390.01 -26330389.94 -26330389.85 0.0138 0.0110
 Mercury -76802-07-25 17:01 J -26330301.84 -26330301.79 -26330301.74 0.0138 0.0128
 Mars -76802-11-11 11:16 J -26330193.32 -26330193.03 -26330192.74 0.0139 0.0002
 Mars -76800-10-12 15:20 J -26329492.11 -26329491.86 -26329491.58 0.0140 0.0065
 Mars -76798-09-14 12:13 J -26328790.08 -26328789.99 -26328789.85 0.0141 0.0130
 Moon -76787-06-22 19:11 J -26324855.80 -26324855.70 -26324855.58 0.0146 0.0131
 Earth -76787-06-22 22:32 J -26324855.66 -26324855.56 -26324855.45 0.0146 0.0132 *
 Earth -76786-06-27 23:16 J -26324485.73 -26324485.53 -26324485.32 0.0147 0.0086
 Moon -76786-06-28 03:06 J -26324485.58 -26324485.37 -26324485.17 0.0147 0.0083 *
 Moon -76785-07-01 21:20 J -26324115.84 -26324115.61 -26324115.36 0.0147 0.0045
 Earth -76785-07-02 00:56 J -26324115.70 -26324115.46 -26324115.22 0.0147 0.0039 *
 Earth -76784-07-07 03:20 J -26323745.61 -26323745.36 -26323745.11 0.0147 0.0009
 Moon -76784-07-07 06:56 J -26323745.46 -26323745.21 -26323744.96 0.0147 0.0017 *
 Moon -76783-07-12 03:06 J -26323375.61 -26323375.37 -26323375.13 0.0147 0.0051
 Earth -76783-07-12 06:28 J -26323375.46 -26323375.23 -26323374.99 0.0147 0.0058 *
 Earth -76782-07-17 10:32 J -26323005.24 -26323005.06 -26323004.89 0.0147 0.0106
 Moon -76782-07-17 12:56 J -26323005.12 -26323004.96 -26323004.78 0.0147 0.0107 *
 Venus -76771-01-09 15:49 J -26319176.02 -26319175.84 -26319175.66 0.0145 0.0087
 Venus -76771-08-24 06:28 J -26318949.45 -26318949.23 -26318949.01 0.0145 0.0014
 Venus -76770-04-07 20:37 J -26318722.83 -26318722.64 -26318722.42 0.0144 0.0059
 Venus -76770-11-20 10:47 J -26318496.12 -26318496.05 -26318495.94 0.0144 0.0131
 Mercury -76766-10-26 12:28 J -26317060.08 -26317059.98 -26317059.87 0.0142 0.0117
 Mercury -76765-01-22 20:23 J -26316971.78 -26316971.65 -26316971.49 0.0142 0.0090
 Mercury -76765-04-20 04:32 J -26316883.48 -26316883.31 -26316883.13 0.0142 0.0063
 Mercury -76765-07-17 12:28 J -26316795.16 -26316794.98 -26316794.79 0.0141 0.0036
 Mars -76765-08-08 17:01 J -26316773.05 -26316772.79 -26316772.50 0.0141 0.0077
 Mercury -76765-10-13 20:23 J -26316706.84 -26316706.65 -26316706.46 0.0141 0.0009
 Mercury -76764-01-10 04:18 J -26316618.51 -26316618.32 -26316618.13 0.0141 0.0018
 Mercury -76764-04-08 11:59 J -26316530.18 -26316530.00 -26316529.82 0.0141 0.0044
 Mercury -76764-07-05 19:40 J -26316441.84 -26316441.68 -26316441.51 0.0141 0.0070

Mercury -76764-10-02 03:06 J -26316353.49 -26316353.37 -26316353.22 0.0141 0.0097

Mercury -76764-12-29 11:01 J -26316265.13 -26316265.04 -26316264.94 0.0140 0.0122

Mars -76763-07-14 16:18 J -26316068.15 -26316067.82 -26316067.50 0.0140 0.0004

Mars -76761-06-17 17:30 J -26315364.06 -26315363.77 -26315363.49 0.0139 0.0063

Mars -76759-05-21 22:47 J -26314660.66 -26314660.55 -26314660.40 0.0138 0.0125

Moon -76747-12-28 08:52 J -26310057.17 -26310057.13 -26310057.05 0.0132 0.0129

Earth -76747-12-28 12:13 J -26310057.08 -26310056.99 -26310056.88 0.0132 0.0122 *

Earth -76745-01-01 20:23 J -26309687.85 -26309687.65 -26309687.46 0.0132 0.0087

Moon -76745-01-01 23:16 J -26309687.71 -26309687.53 -26309687.32 0.0132 0.0081 *

Moon -76744-01-05 00:28 J -26309318.71 -26309318.48 -26309318.23 0.0132 0.0055

Earth -76744-01-05 03:35 J -26309318.58 -26309318.35 -26309318.11 0.0132 0.0051 *

Earth -76743-01-09 10:04 J -26308949.33 -26308949.08 -26308948.82 0.0132 0.0016

Moon -76743-01-09 12:56 J -26308949.20 -26308948.96 -26308948.70 0.0132 0.0017 *

Moon -76742-01-13 12:42 J -26308580.22 -26308579.97 -26308579.70 0.0132 0.0021

Earth -76742-01-13 16:04 J -26308580.08 -26308579.83 -26308579.57 0.0132 0.0019 *

Earth -76741-01-17 20:52 J -26308210.85 -26308210.63 -26308210.38 0.0132 0.0054

Moon -76741-01-17 23:30 J -26308210.74 -26308210.52 -26308210.27 0.0132 0.0049 *

Moon -76740-01-20 22:47 J -26307841.72 -26307841.55 -26307841.36 0.0131 0.0094

Earth -76740-01-21 01:40 J -26307841.60 -26307841.43 -26307841.22 0.0131 0.0088 *

Earth -76739-01-25 05:44 J -26307472.33 -26307472.26 -26307472.14 0.0131 0.0122

Moon -76739-01-25 08:52 J -26307472.24 -26307472.13 -26307472.00 0.0131 0.0115 *

Venus -76727-01-05 22:32 J -26303108.70 -26303108.56 -26303108.39 0.0134 0.0090

Venus -76727-08-20 01:54 J -26302882.61 -26302882.42 -26302882.21 0.0134 0.0036

Venus -76726-04-03 05:30 J -26302656.48 -26302656.27 -26302656.06 0.0134 0.0018

Venus -76726-11-15 08:37 J -26302430.30 -26302430.14 -26302429.95 0.0135 0.0074

Venus -76725-06-28 12:28 J -26302204.04 -26302203.98 -26302203.91 0.0135 0.0128

Mars -76723-10-05 10:47 J -26301375.05 -26301375.05 -26301375.02 0.0136 0.0136

Mercury -76722-12-31 22:18 J -26300922.62 -26300922.57 -26300922.52 0.0136 0.0127

Mercury -76721-03-29 01:25 J -26300834.51 -26300834.44 -26300834.36 0.0137 0.0110

Mercury -76721-06-25 04:32 J -26300746.40 -26300746.31 -26300746.21 0.0137 0.0094

Mars -76721-09-04 02:37 J -26300675.59 -26300675.39 -26300675.14 0.0137 0.0085
 Mercury -76721-09-21 07:54 J -26300658.28 -26300658.17 -26300658.06 0.0137 0.0077
 Mercury -76721-12-18 11:01 J -26300570.15 -26300570.04 -26300569.91 0.0137 0.0061
 Mercury -76720-03-16 14:23 J -26300482.02 -26300481.90 -26300481.77 0.0137 0.0044
 Mercury -76720-06-12 17:44 J -26300393.89 -26300393.76 -26300393.63 0.0137 0.0027
 Mercury -76720-09-08 21:06 J -26300305.76 -26300305.62 -26300305.49 0.0137 0.0010
 Mercury -76720-12-06 00:28 J -26300217.62 -26300217.48 -26300217.35 0.0138 0.0009
 Mercury -76719-03-04 03:35 J -26300129.48 -26300129.35 -26300129.21 0.0138 0.0025
 Mercury -76719-05-31 06:56 J -26300041.33 -26300041.21 -26300041.08 0.0138 0.0043
 Mars -76719-08-05 08:08 J -26299975.43 -26299975.16 -26299974.86 0.0138 0.0029
 Mercury -76719-08-27 10:18 J -26299953.18 -26299953.07 -26299952.94 0.0138 0.0060
 Mercury -76719-11-23 13:40 J -26299865.03 -26299864.93 -26299864.81 0.0138 0.0078
 Mercury -76718-02-19 17:16 J -26299776.88 -26299776.78 -26299776.68 0.0138 0.0095
 Mercury -76718-05-18 20:37 J -26299688.71 -26299688.64 -26299688.56 0.0138 0.0113
 Mercury -76718-08-14 23:59 J -26299600.53 -26299600.50 -26299600.45 0.0138 0.0131
 Mars -76717-07-06 02:23 J -26299274.68 -26299274.40 -26299274.11 0.0139 0.0031
 Mars -76715-06-07 11:44 J -26298573.21 -26298573.01 -26298572.77 0.0140 0.0095
 Moon -76703-06-23 05:59 J -26294174.33 -26294174.25 -26294174.13 0.0146 0.0134
 Earth -76703-06-23 08:52 J -26294174.22 -26294174.13 -26294173.99 0.0146 0.0131 *
 Earth -76702-06-28 09:49 J -26293804.28 -26293804.09 -26293803.87 0.0147 0.0084
 Moon -76702-06-28 12:56 J -26293804.15 -26293803.96 -26293803.74 0.0147 0.0087 *
 Moon -76701-07-02 07:54 J -26293434.40 -26293434.17 -26293433.91 0.0147 0.0030
 Earth -76701-07-02 11:44 J -26293434.25 -26293434.01 -26293433.76 0.0147 0.0036 *
 Earth -76700-07-07 14:08 J -26293064.16 -26293063.91 -26293063.66 0.0147 0.0013
 Moon -76700-07-07 17:44 J -26293064.02 -26293063.76 -26293063.51 0.0147 0.0006 *
 Moon -76699-07-12 13:40 J -26292694.15 -26292693.93 -26292693.69 0.0147 0.0068
 Earth -76699-07-12 17:16 J -26292694.00 -26292693.78 -26292693.54 0.0147 0.0061 *
 Earth -76698-07-17 20:52 J -26292323.78 -26292323.63 -26292323.44 0.0147 0.0110
 Moon -76698-07-18 00:13 J -26292323.64 -26292323.49 -26292323.30 0.0147 0.0108 *
 Venus -76688-09-08 20:08 J -26288617.76 -26288617.66 -26288617.53 0.0145 0.0123

Venus	-76687-04-23 11:01 J	-26288391.24	-26288391.04	-26288390.82	0.0145	0.0049
Venus	-76687-12-06 01:40 J	-26288164.65	-26288164.43	-26288164.20	0.0144	0.0024
Venus	-76686-07-20 15:49 J	-26287937.99	-26287937.84	-26287937.65	0.0144	0.0097
Mars	-76682-04-30 02:52 J	-26286558.55	-26286558.38	-26286558.18	0.0142	0.0117
Mercury	-76682-08-19 11:30 J	-26286447.05	-26286447.02	-26286446.98	0.0142	0.0139
Mercury	-76682-11-15 19:25 J	-26286358.79	-26286358.69	-26286358.56	0.0142	0.0112
Mercury	-76681-02-12 03:35 J	-26286270.49	-26286270.35	-26286270.19	0.0142	0.0085
Mercury	-76681-05-10 11:30 J	-26286182.18	-26286182.02	-26286181.83	0.0141	0.0058
Mercury	-76681-08-06 19:40 J	-26286093.86	-26286093.68	-26286093.49	0.0141	0.0030
Mercury	-76681-11-03 03:35 J	-26286005.54	-26286005.35	-26286005.16	0.0141	0.0003
Mercury	-76680-01-30 11:30 J	-26285917.21	-26285917.02	-26285916.83	0.0141	0.0023
Mars	-76680-04-04 15:35 J	-26285853.15	-26285852.85	-26285852.52	0.0141	0.0043
Mercury	-76680-04-28 18:56 J	-26285828.88	-26285828.71	-26285828.52	0.0141	0.0050
Mercury	-76680-07-26 02:37 J	-26285740.54	-26285740.39	-26285740.22	0.0141	0.0076
Mercury	-76680-10-22 10:18 J	-26285652.19	-26285652.07	-26285651.93	0.0141	0.0102
Mercury	-76679-01-18 18:13 J	-26285563.82	-26285563.74	-26285563.66	0.0140	0.0127
Mars	-76678-03-10 07:11 J	-26285148.51	-26285148.20	-26285147.88	0.0140	0.0029
Mars	-76676-02-11 02:37 J	-26284444.61	-26284444.39	-26284444.15	0.0139	0.0094
Moon	-76663-12-28 16:32 J	-26279375.92	-26279375.81	-26279375.66	0.0132	0.0114
Earth	-76663-12-28 20:37 J	-26279375.74	-26279375.64	-26279375.54	0.0132	0.0121 *
Earth	-76661-01-02 04:04 J	-26279006.51	-26279006.33	-26279006.12	0.0132	0.0085
Moon	-76661-01-02 07:11 J	-26279006.36	-26279006.20	-26279005.99	0.0132	0.0091 *
Moon	-76660-01-05 07:54 J	-26278637.40	-26278637.17	-26278636.91	0.0132	0.0046
Earth	-76660-01-05 11:30 J	-26278637.25	-26278637.02	-26278636.77	0.0132	0.0050 *
Earth	-76659-01-09 17:59 J	-26278268.00	-26278267.75	-26278267.49	0.0132	0.0015
Moon	-76659-01-09 21:20 J	-26278267.85	-26278267.61	-26278267.35	0.0132	0.0016 *
Moon	-76658-01-13 20:37 J	-26277898.90	-26277898.64	-26277898.38	0.0132	0.0018
Earth	-76658-01-13 23:44 J	-26277898.76	-26277898.51	-26277898.25	0.0132	0.0021 *
Earth	-76657-01-18 04:47 J	-26277529.52	-26277529.30	-26277529.06	0.0132	0.0056
Moon	-76657-01-18 08:08 J	-26277529.37	-26277529.16	-26277528.92	0.0132	0.0061 *

Moon -76656-01-21 06:13 J -26277160.42 -26277160.24 -26277160.02 0.0131 0.0085
 Earth -76656-01-21 09:20 J -26277160.27 -26277160.11 -26277159.91 0.0131 0.0091 *
 Earth -76655-01-25 13:40 J -26276791.00 -26276790.93 -26276790.84 0.0131 0.0124
 Moon -76655-01-25 17:01 J -26276790.79 -26276790.79 -26276790.77 0.0131 0.0131
 Venus -76644-09-05 08:23 J -26272550.25 -26272550.15 -26272550.05 0.0134 0.0117
 Venus -76643-04-19 11:30 J -26272324.20 -26272324.02 -26272323.83 0.0134 0.0064
 Venus -76643-12-01 15:06 J -26272098.08 -26272097.87 -26272097.66 0.0134 0.0010
 Venus -76642-07-15 18:28 J -26271871.93 -26271871.73 -26271871.53 0.0134 0.0045
 Venus -76641-02-26 21:35 J -26271645.72 -26271645.60 -26271645.44 0.0135 0.0100
 Mars -76638-05-30 12:56 J -26270457.11 -26270456.96 -26270456.79 0.0136 0.0113
 Mercury -76637-01-21 05:01 J -26270221.34 -26270221.29 -26270221.24 0.0137 0.0125
 Mercury -76637-04-18 08:08 J -26270133.23 -26270133.16 -26270133.08 0.0137 0.0109
 Mercury -76637-07-15 11:30 J -26270045.12 -26270045.02 -26270044.92 0.0137 0.0092
 Mercury -76637-10-11 14:37 J -26269957.00 -26269956.89 -26269956.78 0.0137 0.0075
 Mercury -76636-01-07 17:44 J -26269868.87 -26269868.76 -26269868.63 0.0137 0.0059
 Mercury -76636-04-05 21:06 J -26269780.74 -26269780.62 -26269780.49 0.0137 0.0042
 Mars -76636-04-29 10:04 J -26269757.33 -26269757.08 -26269756.81 0.0137 0.0059
 Mercury -76636-07-03 00:28 J -26269692.61 -26269692.48 -26269692.35 0.0137 0.0025
 Mercury -76636-09-29 03:49 J -26269604.47 -26269604.34 -26269604.21 0.0137 0.0008
 Mercury -76636-12-26 07:11 J -26269516.33 -26269516.20 -26269516.07 0.0138 0.0010
 Mercury -76635-03-24 10:32 J -26269428.19 -26269428.06 -26269427.93 0.0138 0.0027
 Mercury -76635-06-20 13:40 J -26269340.05 -26269339.93 -26269339.80 0.0138 0.0045
 Mercury -76635-09-16 17:16 J -26269251.90 -26269251.78 -26269251.66 0.0138 0.0062
 Mercury -76635-12-13 20:23 J -26269163.75 -26269163.65 -26269163.53 0.0138 0.0080
 Mercury -76634-03-11 23:59 J -26269075.59 -26269075.50 -26269075.40 0.0138 0.0098
 Mars -76634-03-30 18:42 J -26269057.01 -26269056.72 -26269056.43 0.0138 0.0001
 Mercury -76634-06-08 03:20 J -26268987.43 -26268987.36 -26268987.28 0.0138 0.0116
 Mercury -76634-09-04 06:42 J -26268899.24 -26268899.22 -26268899.18 0.0139 0.0134
 Mars -76632-02-28 16:18 J -26268356.07 -26268355.82 -26268355.54 0.0139 0.0061
 Mars -76630-01-31 07:11 J -26267654.32 -26267654.20 -26267654.05 0.0141 0.0125

Moon -76619-06-23 15:06 J -26263492.98 -26263492.87 -26263492.74 0.0146 0.0127
 Earth -76619-06-23 17:44 J -26263492.87 -26263492.76 -26263492.64 0.0146 0.0129 *
 Earth -76618-06-28 18:28 J -26263122.93 -26263122.73 -26263122.52 0.0147 0.0082
 Moon -76618-06-28 21:35 J -26263122.80 -26263122.60 -26263122.38 0.0147 0.0080 *
 Moon -76617-07-02 17:01 J -26262753.02 -26262752.79 -26262752.55 0.0147 0.0039
 Earth -76617-07-02 20:08 J -26262752.90 -26262752.66 -26262752.41 0.0147 0.0034 *
 Earth -76616-07-07 22:32 J -26262382.81 -26262382.56 -26262382.31 0.0147 0.0015
 Moon -76616-07-08 02:08 J -26262382.65 -26262382.41 -26262382.15 0.0147 0.0024 *
 Moon -76615-07-12 22:04 J -26262012.80 -26262012.58 -26262012.33 0.0147 0.0057
 Earth -76615-07-13 01:40 J -26262012.64 -26262012.43 -26262012.19 0.0147 0.0065 *
 Earth -76614-07-18 05:30 J -26261642.42 -26261642.27 -26261642.10 0.0147 0.0113
 Moon -76614-07-18 08:52 J -26261642.27 -26261642.13 -26261641.96 0.0147 0.0116 *
 Venus -76604-12-21 14:52 J -26257833.05 -26257832.88 -26257832.69 0.0145 0.0086
 Venus -76603-08-05 05:59 J -26257606.48 -26257606.25 -26257606.03 0.0145 0.0013
 Venus -76602-03-19 20:08 J -26257379.86 -26257379.66 -26257379.45 0.0144 0.0060
 Venus -76602-11-01 10:32 J -26257153.15 -26257153.06 -26257152.97 0.0144 0.0131
 Mercury -76598-09-08 18:42 J -26255745.78 -26255745.72 -26255745.66 0.0142 0.0134
 Mercury -76598-12-06 02:37 J -26255657.51 -26255657.39 -26255657.26 0.0142 0.0107
 Mars -76598-12-25 04:18 J -26255638.57 -26255638.32 -26255638.03 0.0142 0.0083
 Mercury -76597-03-03 10:32 J -26255569.21 -26255569.06 -26255568.89 0.0142 0.0080
 Mercury -76597-05-30 18:42 J -26255480.89 -26255480.72 -26255480.54 0.0141 0.0052
 Mercury -76597-08-27 02:37 J -26255392.57 -26255392.39 -26255392.20 0.0141 0.0025
 Mercury -76597-11-23 10:32 J -26255304.25 -26255304.06 -26255303.87 0.0141 0.0002
 Mercury -76596-02-19 18:28 J -26255215.92 -26255215.73 -26255215.55 0.0141 0.0028
 Mercury -76596-05-19 02:08 J -26255127.58 -26255127.41 -26255127.23 0.0141 0.0054
 Mercury -76596-08-15 09:35 J -26255039.24 -26255039.10 -26255038.93 0.0141 0.0081
 Mercury -76596-11-11 17:16 J -26254950.89 -26254950.78 -26254950.64 0.0141 0.0107
 Mars -76596-11-29 10:47 J -26254933.37 -26254933.05 -26254932.72 0.0140 0.0008
 Mercury -76595-02-08 00:56 J -26254862.51 -26254862.46 -26254862.39 0.0140 0.0132
 Mars -76594-11-03 19:54 J -26254228.94 -26254228.67 -26254228.36 0.0139 0.0062

Mars	-76592-10-07 09:49 J	-26253525.20	-26253525.09	-26253524.93	0.0138	0.0125
Moon	-76579-12-29 00:56 J	-26248694.51	-26248694.46	-26248694.37	0.0132	0.0127
Earth	-76579-12-29 04:32 J	-26248694.40	-26248694.31	-26248694.19	0.0132	0.0120 *
Earth	-76577-01-02 12:13 J	-26248325.17	-26248324.99	-26248324.77	0.0132	0.0084
Moon	-76577-01-02 16:18 J	-26248325.02	-26248324.82	-26248324.61	0.0132	0.0077 *
Moon	-76576-01-05 16:04 J	-26247956.05	-26247955.83	-26247955.58	0.0132	0.0053
Earth	-76576-01-05 19:40 J	-26247955.91	-26247955.68	-26247955.43	0.0132	0.0048 *
Earth	-76575-01-10 01:54 J	-26247586.67	-26247586.42	-26247586.16	0.0132	0.0012
Moon	-76575-01-10 05:30 J	-26247586.52	-26247586.27	-26247586.02	0.0132	0.0012 *
Moon	-76574-01-14 03:49 J	-26247217.59	-26247217.34	-26247217.08	0.0132	0.0024
Earth	-76574-01-14 07:40 J	-26247217.43	-26247217.18	-26247216.93	0.0132	0.0023 *
Earth	-76573-01-18 12:28 J	-26246848.19	-26246847.98	-26246847.74	0.0131	0.0059
Moon	-76573-01-18 16:04 J	-26246848.06	-26246847.83	-26246847.60	0.0131	0.0054 *
Moon	-76572-01-21 13:25 J	-26246479.09	-26246478.94	-26246478.75	0.0131	0.0099
Earth	-76572-01-21 17:30 J	-26246478.95	-26246478.77	-26246478.59	0.0131	0.0093 *
Earth	-76571-01-25 21:35 J	-26246109.66	-26246109.60	-26246109.53	0.0131	0.0127
Moon	-76571-01-26 00:42 J	-26246109.55	-26246109.47	-26246109.35	0.0131	0.0120 *
Venus	-76560-12-17 21:06 J	-26241765.77	-26241765.62	-26241765.47	0.0134	0.0092
Venus	-76559-08-01 00:13 J	-26241539.69	-26241539.49	-26241539.28	0.0134	0.0039
Venus	-76558-03-15 03:35 J	-26241313.56	-26241313.35	-26241313.14	0.0134	0.0016
Venus	-76558-10-27 06:56 J	-26241087.38	-26241087.21	-26241087.02	0.0134	0.0070
Venus	-76557-06-09 10:18 J	-26240861.13	-26240861.07	-26240860.98	0.0135	0.0125
Mars	-76553-01-22 15:20 J	-26239539.06	-26239538.86	-26239538.63	0.0136	0.0089
Mercury	-76553-02-10 11:30 J	-26239520.07	-26239520.02	-26239519.96	0.0136	0.0124
Mercury	-76553-05-08 14:37 J	-26239431.96	-26239431.89	-26239431.80	0.0137	0.0108
Mercury	-76553-08-04 17:59 J	-26239343.84	-26239343.75	-26239343.65	0.0137	0.0091
Mercury	-76553-10-31 21:06 J	-26239255.72	-26239255.62	-26239255.50	0.0137	0.0075
Mercury	-76552-01-28 00:28 J	-26239167.60	-26239167.48	-26239167.36	0.0137	0.0058
Mercury	-76552-04-26 03:49 J	-26239079.47	-26239079.34	-26239079.21	0.0137	0.0041
Mercury	-76552-07-23 06:56 J	-26238991.34	-26238991.21	-26238991.07	0.0137	0.0024

Mercury -76552-10-19 10:18 J -26238903.20 -26238903.07 -26238902.93 0.0137 0.0007

Mars -76552-12-22 14:37 J -26238839.17 -26238838.89 -26238838.61 0.0138 0.0033

Mercury -76551-01-15 13:40 J -26238815.06 -26238814.93 -26238814.80 0.0138 0.0010

Mercury -76551-04-13 17:01 J -26238726.92 -26238726.79 -26238726.66 0.0138 0.0028

Mercury -76551-07-10 20:23 J -26238638.78 -26238638.65 -26238638.52 0.0138 0.0045

Mercury -76551-10-06 23:30 J -26238550.63 -26238550.52 -26238550.39 0.0138 0.0063

Mercury -76550-01-03 03:06 J -26238462.48 -26238462.37 -26238462.26 0.0138 0.0080

Mercury -76550-04-01 06:28 J -26238374.32 -26238374.23 -26238374.13 0.0138 0.0098

Mercury -76550-06-28 09:49 J -26238286.16 -26238286.09 -26238286.01 0.0138 0.0116

Mercury -76550-09-24 13:11 J -26238197.97 -26238197.95 -26238197.91 0.0139 0.0134

Mars -76550-11-23 01:40 J -26238138.71 -26238138.43 -26238138.14 0.0139 0.0027

Mars -76548-10-24 04:18 J -26237437.52 -26237437.32 -26237437.07 0.0140 0.0090

Moon -76535-06-23 21:06 J -26232811.70 -26232811.62 -26232811.50 0.0146 0.0134

Earth -76535-06-23 23:01 J -26232811.64 -26232811.54 -26232811.40 0.0146 0.0130 *

Earth -76534-06-28 23:44 J -26232441.71 -26232441.51 -26232441.29 0.0147 0.0082

Moon -76534-06-29 02:08 J -26232441.61 -26232441.41 -26232441.19 0.0147 0.0083 *

Moon -76533-07-02 22:18 J -26232071.80 -26232071.57 -26232071.32 0.0147 0.0028

Earth -76533-07-03 01:40 J -26232071.67 -26232071.43 -26232071.18 0.0147 0.0033 *

Earth -76532-07-08 03:49 J -26231701.58 -26231701.34 -26231701.08 0.0147 0.0016

Moon -76532-07-08 07:11 J -26231701.46 -26231701.20 -26231700.95 0.0147 0.0009 *

Moon -76531-07-13 03:35 J -26231331.56 -26231331.35 -26231331.13 0.0147 0.0072

Earth -76531-07-13 07:11 J -26231331.42 -26231331.20 -26231330.97 0.0147 0.0066 *

Earth -76530-07-18 10:47 J -26230961.19 -26230961.05 -26230960.88 0.0147 0.0115

Moon -76530-07-18 14:52 J -26230961.04 -26230960.88 -26230960.71 0.0147 0.0111 *

Venus -76520-08-20 17:01 J -26227274.89 -26227274.79 -26227274.66 0.0145 0.0126

Venus -76519-04-04 07:54 J -26227048.37 -26227048.17 -26227047.95 0.0145 0.0052

Venus -76519-11-16 22:32 J -26226821.78 -26226821.56 -26226821.33 0.0145 0.0021

Venus -76518-07-01 12:56 J -26226595.12 -26226594.96 -26226594.78 0.0144 0.0093

Mars -76515-09-14 02:52 J -26225424.52 -26225424.38 -26225424.20 0.0142 0.0126

Mercury -76514-09-29 00:56 J -26225044.53 -26225044.46 -26225044.39 0.0142 0.0131

Mercury -76514-12-26 08:52 J -26224956.25 -26224956.13 -26224955.99 0.0142 0.0104

Mercury -76513-03-23 17:01 J -26224867.94 -26224867.79 -26224867.62 0.0142 0.0076

Mercury -76513-06-20 00:56 J -26224779.63 -26224779.46 -26224779.27 0.0141 0.0050

Mars -76513-08-20 00:28 J -26224718.79 -26224718.48 -26224718.17 0.0141 0.0049

Mercury -76513-09-16 09:06 J -26224691.31 -26224691.12 -26224690.93 0.0141 0.0022

Mercury -76513-12-13 17:01 J -26224602.98 -26224602.79 -26224602.60 0.0141 0.0005

Mercury -76512-03-12 00:42 J -26224514.65 -26224514.47 -26224514.28 0.0141 0.0031

Mercury -76512-06-08 08:23 J -26224426.31 -26224426.15 -26224425.97 0.0141 0.0058

Mercury -76512-09-04 16:04 J -26224337.97 -26224337.83 -26224337.67 0.0141 0.0084

Mercury -76512-12-01 23:44 J -26224249.61 -26224249.51 -26224249.38 0.0141 0.0110

Mercury -76511-02-28 07:40 J -26224161.23 -26224161.18 -26224161.13 0.0140 0.0135

Mars -76511-07-26 01:25 J -26224013.76 -26224013.44 -26224013.12 0.0140 0.0024

Mars -76509-06-29 05:16 J -26223309.50 -26223309.28 -26223309.02 0.0139 0.0092

Moon -76495-12-29 08:23 J -26218013.28 -26218013.15 -26218013.01 0.0132 0.0112

Earth -76495-12-29 11:44 J -26218013.09 -26218013.01 -26218012.87 0.0132 0.0120 *

Earth -76493-01-02 19:25 J -26217643.87 -26217643.69 -26217643.47 0.0132 0.0083

Moon -76493-01-02 23:01 J -26217643.71 -26217643.54 -26217643.33 0.0132 0.0089 *

Moon -76492-01-05 23:01 J -26217274.77 -26217274.54 -26217274.29 0.0132 0.0042

Earth -76492-01-06 02:52 J -26217274.61 -26217274.38 -26217274.13 0.0132 0.0047 *

Earth -76491-01-10 09:06 J -26216905.37 -26216905.12 -26216904.86 0.0132 0.0011

Moon -76491-01-10 12:42 J -26216905.22 -26216904.97 -26216904.71 0.0132 0.0013 *

Moon -76490-01-14 11:16 J -26216536.28 -26216536.03 -26216535.77 0.0131 0.0024

Earth -76490-01-14 14:37 J -26216536.13 -26216535.89 -26216535.63 0.0131 0.0026 *

Earth -76489-01-18 19:40 J -26216166.89 -26216166.68 -26216166.44 0.0131 0.0061

Moon -76489-01-18 23:30 J -26216166.73 -26216166.52 -26216166.29 0.0131 0.0065 *

Moon -76488-01-21 20:52 J -26215797.80 -26215797.63 -26215797.43 0.0131 0.0090

Earth -76488-01-22 00:28 J -26215797.64 -26215797.48 -26215797.29 0.0131 0.0095 *

Earth -76487-01-26 04:18 J -26215428.34 -26215428.32 -26215428.26 0.0131 0.0130

Venus -76476-08-17 05:59 J -26211207.33 -26211207.25 -26211207.15 0.0133 0.0121

Venus -76475-03-31 09:06 J -26210981.29 -26210981.12 -26210980.93 0.0134 0.0068

Venus -76475-11-12 12:42 J -26210755.18 -26210754.97 -26210754.76 0.0134 0.0014
 Venus -76474-06-26 16:04 J -26210529.03 -26210528.83 -26210528.63 0.0134 0.0040
 Venus -76473-02-07 19:40 J -26210302.83 -26210302.68 -26210302.53 0.0134 0.0095
 Mars -76471-10-17 02:37 J -26209320.51 -26209320.39 -26209320.23 0.0136 0.0117
 Mercury -76469-03-01 17:59 J -26208818.79 -26208818.75 -26208818.69 0.0136 0.0123
 Mercury -76469-05-28 21:20 J -26208730.69 -26208730.61 -26208730.53 0.0137 0.0107
 Mercury -76469-08-25 00:28 J -26208642.57 -26208642.48 -26208642.38 0.0137 0.0090
 Mars -76469-09-15 17:30 J -26208621.01 -26208620.77 -26208620.51 0.0137 0.0064
 Mercury -76469-11-21 03:35 J -26208554.45 -26208554.35 -26208554.23 0.0137 0.0074
 Mercury -76468-02-17 06:56 J -26208466.33 -26208466.21 -26208466.08 0.0137 0.0057
 Mercury -76468-05-16 10:18 J -26208378.20 -26208378.07 -26208377.94 0.0137 0.0040
 Mercury -76468-08-12 13:40 J -26208290.07 -26208289.93 -26208289.80 0.0137 0.0024
 Mercury -76468-11-08 16:47 J -26208201.93 -26208201.80 -26208201.66 0.0137 0.0007
 Mercury -76467-02-04 20:08 J -26208113.79 -26208113.66 -26208113.53 0.0138 0.0011
 Mercury -76467-05-03 23:30 J -26208025.65 -26208025.52 -26208025.39 0.0138 0.0028
 Mercury -76467-07-31 02:52 J -26207937.51 -26207937.38 -26207937.26 0.0138 0.0046
 Mars -76467-08-16 18:42 J -26207921.00 -26207920.72 -26207920.42 0.0138 0.0007
 Mercury -76467-10-27 06:13 J -26207849.36 -26207849.24 -26207849.12 0.0138 0.0063
 Mercury -76466-01-23 09:20 J -26207761.21 -26207761.11 -26207760.99 0.0138 0.0082
 Mercury -76466-04-21 12:42 J -26207673.05 -26207672.97 -26207672.87 0.0138 0.0099
 Mercury -76466-07-18 16:18 J -26207584.89 -26207584.82 -26207584.75 0.0138 0.0117
 Mercury -76466-10-14 19:40 J -26207496.70 -26207496.68 -26207496.64 0.0139 0.0135
 Mars -76465-07-17 10:04 J -26207220.33 -26207220.08 -26207219.79 0.0139 0.0055
 Mars -76463-06-18 17:16 J -26206518.92 -26206518.78 -26206518.60 0.0140 0.0118
 Moon -76451-06-24 02:52 J -26202130.50 -26202130.38 -26202130.26 0.0146 0.0126
 Earth -76451-06-24 03:35 J -26202130.45 -26202130.35 -26202130.22 0.0146 0.0130 *
 Earth -76450-06-29 04:18 J -26201760.52 -26201760.32 -26201760.10 0.0147 0.0082
 Moon -76450-06-29 06:28 J -26201760.44 -26201760.23 -26201760.01 0.0147 0.0081 *
 Moon -76449-07-03 03:49 J -26201390.57 -26201390.34 -26201390.10 0.0147 0.0037
 Earth -76449-07-03 05:44 J -26201390.50 -26201390.26 -26201390.01 0.0147 0.0033 *

Earth -76448-07-08 08:08 J -26201020.41 -26201020.16 -26201019.90 0.0147 0.0017
 Moon -76448-07-08 11:16 J -26201020.28 -26201020.03 -26201019.77 0.0147 0.0025 *
 Moon -76447-07-13 08:08 J -26200650.38 -26200650.16 -26200649.92 0.0147 0.0059
 Earth -76447-07-13 11:30 J -26200650.24 -26200650.02 -26200649.79 0.0147 0.0067 *
 Earth -76446-07-18 15:06 J -26200280.01 -26200279.87 -26200279.70 0.0147 0.0116
 Moon -76446-07-18 18:28 J -26200279.86 -26200279.73 -26200279.57 0.0147 0.0120 *
 Venus -76436-12-02 08:23 J -26196490.31 -26196490.15 -26196489.97 0.0145 0.0094
 Venus -76435-07-16 23:30 J -26196263.74 -26196263.52 -26196263.30 0.0145 0.0021
 Venus -76434-02-28 13:54 J -26196037.12 -26196036.92 -26196036.70 0.0145 0.0052
 Venus -76434-10-13 04:04 J -26195810.43 -26195810.33 -26195810.20 0.0144 0.0124
 Mars -76430-05-10 22:04 J -26194504.81 -26194504.58 -26194504.31 0.0142 0.0092
 Mercury -76430-10-19 06:13 J -26194343.29 -26194343.24 -26194343.15 0.0142 0.0131
 Mercury -76429-01-15 14:37 J -26194255.01 -26194254.89 -26194254.75 0.0142 0.0103
 Mercury -76429-04-12 22:47 J -26194166.71 -26194166.55 -26194166.38 0.0142 0.0076
 Mercury -76429-07-10 06:42 J -26194078.39 -26194078.22 -26194078.03 0.0141 0.0049
 Mercury -76429-10-06 14:52 J -26193990.07 -26193989.88 -26193989.69 0.0141 0.0021
 Mercury -76428-01-02 22:47 J -26193901.74 -26193901.55 -26193901.36 0.0141 0.0006
 Mercury -76428-04-01 06:42 J -26193813.41 -26193813.22 -26193813.04 0.0141 0.0032
 Mars -76428-04-15 14:08 J -26193799.23 -26193798.91 -26193798.57 0.0141 0.0016
 Mercury -76428-06-28 14:08 J -26193725.07 -26193724.91 -26193724.73 0.0141 0.0059
 Mercury -76428-09-24 22:04 J -26193636.73 -26193636.58 -26193636.43 0.0141 0.0085
 Mercury -76428-12-22 05:30 J -26193548.37 -26193548.27 -26193548.14 0.0141 0.0111
 Mercury -76427-03-20 13:11 J -26193459.98 -26193459.95 -26193459.89 0.0140 0.0136
 Mars -76426-03-21 10:04 J -26193094.38 -26193094.08 -26193093.78 0.0140 0.0056
 Mars -76424-02-22 08:23 J -26192390.28 -26192390.15 -26192389.98 0.0139 0.0122
 Moon -76411-12-29 15:49 J -26187331.89 -26187331.84 -26187331.73 0.0132 0.0126
 Earth -76411-12-29 19:25 J -26187331.79 -26187331.69 -26187331.56 0.0132 0.0118 *
 Earth -76409-01-03 03:06 J -26186962.55 -26186962.37 -26186962.15 0.0132 0.0082
 Moon -76409-01-03 06:56 J -26186962.41 -26186962.21 -26186961.98 0.0132 0.0075 *
 Moon -76408-01-06 06:56 J -26186593.43 -26186593.21 -26186592.96 0.0132 0.0051

Earth -76408-01-06 10:32 J -26186593.30 -26186593.06 -26186592.81 0.0132 0.0045 *
 Earth -76407-01-10 16:47 J -26186224.06 -26186223.80 -26186223.54 0.0132 0.0009
 Moon -76407-01-10 20:23 J -26186223.91 -26186223.65 -26186223.39 0.0132 0.0007 *
 Moon -76406-01-14 18:56 J -26185854.95 -26185854.71 -26185854.46 0.0132 0.0027
 Earth -76406-01-14 22:32 J -26185854.80 -26185854.56 -26185854.30 0.0132 0.0027 *
 Earth -76405-01-19 03:49 J -26185485.56 -26185485.34 -26185485.11 0.0131 0.0063
 Moon -76405-01-19 07:11 J -26185485.42 -26185485.20 -26185484.96 0.0131 0.0059 *
 Moon -76404-01-22 04:47 J -26185116.45 -26185116.30 -26185116.14 0.0131 0.0104
 Earth -76404-01-22 08:37 J -26185116.30 -26185116.14 -26185115.97 0.0131 0.0098 *
 Moon -76403-01-26 16:18 J -26184746.88 -26184746.82 -26184746.74 0.0131 0.0126
 Venus -76392-11-28 19:40 J -26180422.83 -26180422.68 -26180422.53 0.0133 0.0094
 Venus -76391-07-12 22:47 J -26180196.75 -26180196.55 -26180196.34 0.0134 0.0041
 Venus -76390-02-24 02:08 J -26179970.62 -26179970.41 -26179970.20 0.0134 0.0013
 Venus -76390-10-08 05:30 J -26179744.44 -26179744.27 -26179744.08 0.0134 0.0067
 Venus -76389-05-21 09:06 J -26179518.20 -26179518.12 -26179518.03 0.0134 0.0122
 Mars -76386-06-11 05:59 J -26178402.43 -26178402.25 -26178402.02 0.0136 0.0093
 Mercury -76385-03-22 01:11 J -26178117.51 -26178117.45 -26178117.39 0.0136 0.0121
 Mercury -76385-06-18 04:04 J -26178029.40 -26178029.33 -26178029.24 0.0137 0.0105
 Mercury -76385-09-14 07:25 J -26177941.29 -26177941.19 -26177941.09 0.0137 0.0088
 Mercury -76385-12-11 10:32 J -26177853.17 -26177853.06 -26177852.94 0.0137 0.0072
 Mercury -76384-03-09 13:54 J -26177765.04 -26177764.92 -26177764.80 0.0137 0.0055
 Mars -76384-05-10 23:16 J -26177702.80 -26177702.53 -26177702.25 0.0137 0.0038
 Mercury -76384-06-05 17:01 J -26177676.91 -26177676.79 -26177676.66 0.0137 0.0038
 Mercury -76384-09-01 20:23 J -26177588.78 -26177588.65 -26177588.52 0.0137 0.0021
 Mercury -76384-11-28 23:44 J -26177500.65 -26177500.51 -26177500.38 0.0137 0.0004
 Mercury -76383-02-25 02:52 J -26177412.51 -26177412.38 -26177412.24 0.0138 0.0014
 Mercury -76383-05-24 06:13 J -26177324.37 -26177324.24 -26177324.11 0.0138 0.0031
 Mercury -76383-08-20 09:35 J -26177236.22 -26177236.10 -26177235.97 0.0138 0.0048
 Mercury -76383-11-16 12:56 J -26177148.08 -26177147.96 -26177147.84 0.0138 0.0066
 Mercury -76382-02-12 16:18 J -26177059.92 -26177059.82 -26177059.71 0.0138 0.0083

Mars -76382-04-11 05:16 J -26177002.57 -26177002.28 -26177001.99 0.0138 0.0022
 Mercury -76382-05-11 19:40 J -26176971.77 -26176971.68 -26176971.59 0.0138 0.0101
 Mercury -76382-08-07 23:01 J -26176883.60 -26176883.54 -26176883.47 0.0138 0.0119
 Mercury -76382-11-04 02:37 J -26176795.41 -26176795.39 -26176795.37 0.0139 0.0137
 Mars -76380-03-12 00:42 J -26176301.69 -26176301.47 -26176301.22 0.0139 0.0084
 Moon -76367-06-24 09:35 J -26171449.19 -26171449.10 -26171449.00 0.0146 0.0135
 Earth -76367-06-24 10:04 J -26171449.18 -26171449.08 -26171448.96 0.0146 0.0129 *
 Earth -76366-06-29 10:18 J -26171079.27 -26171079.07 -26171078.85 0.0147 0.0082
 Moon -76366-06-29 11:30 J -26171079.24 -26171079.02 -26171078.81 0.0147 0.0080 *
 Moon -76365-07-03 10:04 J -26170709.32 -26170709.08 -26170708.84 0.0147 0.0028
 Earth -76365-07-03 11:59 J -26170709.25 -26170709.00 -26170708.75 0.0147 0.0032 *
 Earth -76364-07-08 14:08 J -26170339.16 -26170338.91 -26170338.66 0.0147 0.0018
 Moon -76364-07-08 16:18 J -26170339.07 -26170338.82 -26170338.56 0.0147 0.0011 *
 Moon -76363-07-13 14:08 J -26169969.11 -26169968.91 -26169968.68 0.0147 0.0076
 Earth -76363-07-13 17:01 J -26169969.00 -26169968.79 -26169968.55 0.0147 0.0068 *
 Earth -76362-07-18 21:06 J -26169598.76 -26169598.62 -26169598.46 0.0147 0.0118
 Moon -76362-07-19 00:42 J -26169598.63 -26169598.47 -26169598.30 0.0147 0.0113 *
 Venus -76352-08-01 09:49 J -26165932.15 -26165932.09 -26165931.98 0.0145 0.0135
 Venus -76351-03-16 00:56 J -26165705.66 -26165705.46 -26165705.25 0.0145 0.0061
 Venus -76351-10-28 15:35 J -26165479.07 -26165478.85 -26165478.62 0.0145 0.0013
 Venus -76350-06-12 06:13 J -26165252.42 -26165252.24 -26165252.06 0.0144 0.0085
 Mars -76347-01-28 10:04 J -26164291.13 -26164291.08 -26164290.95 0.0143 0.0138
 Mercury -76346-11-08 12:13 J -26163642.05 -26163641.99 -26163641.90 0.0142 0.0129
 Mars -76345-01-04 17:16 J -26163585.06 -26163584.78 -26163584.46 0.0142 0.0059
 Mercury -76345-02-04 20:37 J -26163553.77 -26163553.64 -26163553.50 0.0142 0.0101
 Mercury -76345-05-03 04:47 J -26163465.46 -26163465.30 -26163465.14 0.0142 0.0074
 Mercury -76345-07-30 12:42 J -26163377.15 -26163376.97 -26163376.78 0.0141 0.0047
 Mercury -76345-10-26 20:52 J -26163288.82 -26163288.63 -26163288.44 0.0141 0.0019
 Mercury -76344-01-23 04:47 J -26163200.49 -26163200.30 -26163200.11 0.0141 0.0008
 Mercury -76344-04-21 12:28 J -26163112.16 -26163111.98 -26163111.79 0.0141 0.0034

Mercury -76344-07-18 20:08 J -26163023.82 -26163023.66 -26163023.48 0.0141 0.0061

Mercury -76344-10-15 03:49 J -26162935.48 -26162935.34 -26162935.18 0.0141 0.0087

Mars -76344-12-10 04:32 J -26162879.63 -26162879.31 -26162878.98 0.0141 0.0017

Mercury -76343-01-11 11:30 J -26162847.12 -26162847.02 -26162846.90 0.0141 0.0113

Mercury -76343-04-09 19:11 J -26162758.72 -26162758.70 -26162758.66 0.0140 0.0138

Mars -76342-11-14 17:44 J -26162174.99 -26162174.76 -26162174.48 0.0140 0.0088

Moon -76327-12-29 23:16 J -26156650.66 -26156650.53 -26156650.38 0.0132 0.0111

Earth -76327-12-30 02:23 J -26156650.50 -26156650.40 -26156650.26 0.0132 0.0118 *

Earth -76325-01-03 10:18 J -26156281.26 -26156281.07 -26156280.85 0.0132 0.0081

Moon -76325-01-03 13:11 J -26156281.12 -26156280.95 -26156280.73 0.0132 0.0088 *

Moon -76324-01-06 13:54 J -26155912.15 -26155911.92 -26155911.67 0.0132 0.0039

Earth -76324-01-06 17:30 J -26155912.01 -26155911.77 -26155911.52 0.0132 0.0044 *

Earth -76323-01-10 23:59 J -26155542.75 -26155542.50 -26155542.24 0.0132 0.0007

Moon -76323-01-11 03:20 J -26155542.62 -26155542.36 -26155542.10 0.0132 0.0011 *

Moon -76322-01-15 02:23 J -26155173.63 -26155173.40 -26155173.14 0.0132 0.0030

Earth -76322-01-15 05:44 J -26155173.50 -26155173.26 -26155173.00 0.0132 0.0030 *

Earth -76321-01-19 11:01 J -26154804.25 -26154804.04 -26154803.80 0.0131 0.0066

Moon -76321-01-19 14:37 J -26154804.10 -26154803.89 -26154803.65 0.0131 0.0069 *

Moon -76320-01-22 12:42 J -26154435.12 -26154434.97 -26154434.78 0.0131 0.0097

Earth -76320-01-22 16:04 J -26154434.98 -26154434.83 -26154434.65 0.0131 0.0101 *

Venus -76308-07-29 05:44 J -26149864.33 -26149864.26 -26149864.16 0.0133 0.0121

Venus -76307-03-12 08:52 J -26149638.29 -26149638.13 -26149637.93 0.0134 0.0068

Venus -76307-10-24 12:28 J -26149412.19 -26149411.98 -26149411.76 0.0134 0.0014

Venus -76306-06-07 16:04 J -26149186.03 -26149185.83 -26149185.63 0.0134 0.0040

Venus -76305-01-19 19:40 J -26148959.82 -26148959.68 -26148959.53 0.0134 0.0095

Mars -76303-03-06 02:23 J -26148183.51 -26148183.40 -26148183.26 0.0135 0.0121

Mercury -76301-01-14 04:47 J -26147504.31 -26147504.30 -26147504.27 0.0136 0.0134

Mars -76301-02-03 11:30 J -26147484.26 -26147484.02 -26147483.76 0.0136 0.0068

Mercury -76301-04-11 07:54 J -26147416.23 -26147416.17 -26147416.10 0.0136 0.0118

Mercury -76301-07-08 11:16 J -26147328.12 -26147328.03 -26147327.94 0.0137 0.0102

Mercury -76301-10-04 14:23 J -26147240.00 -26147239.90 -26147239.79 0.0137 0.0085
 Mercury -76301-12-31 17:30 J -26147151.88 -26147151.77 -26147151.65 0.0137 0.0069
 Mercury -76300-03-29 20:52 J -26147063.75 -26147063.63 -26147063.50 0.0137 0.0052
 Mercury -76300-06-26 00:13 J -26146975.62 -26146975.49 -26146975.36 0.0137 0.0035
 Mercury -76300-09-22 03:20 J -26146887.49 -26146887.36 -26146887.22 0.0137 0.0018
 Mercury -76300-12-19 06:42 J -26146799.35 -26146799.22 -26146799.08 0.0137 0.0002
 Mars -76299-01-03 08:23 J -26146784.43 -26146784.15 -26146783.86 0.0137 0.0011
 Mercury -76299-03-17 10:04 J -26146711.21 -26146711.08 -26146710.95 0.0138 0.0017
 Mercury -76299-06-13 13:25 J -26146623.07 -26146622.94 -26146622.81 0.0138 0.0034
 Mercury -76299-09-09 16:32 J -26146534.93 -26146534.81 -26146534.68 0.0138 0.0052
 Mercury -76299-12-06 19:54 J -26146446.78 -26146446.67 -26146446.55 0.0138 0.0069
 Mercury -76298-03-04 23:30 J -26146358.63 -26146358.52 -26146358.42 0.0138 0.0087
 Mercury -76298-06-01 02:37 J -26146270.47 -26146270.39 -26146270.30 0.0138 0.0105
 Mercury -76298-08-28 05:59 J -26146182.30 -26146182.25 -26146182.18 0.0138 0.0123
 Mars -76298-12-04 18:13 J -26146084.00 -26146083.74 -26146083.45 0.0139 0.0050
 Mars -76296-11-04 17:44 J -26145382.91 -26145382.76 -26145382.57 0.0140 0.0113
 Earth -76283-06-24 20:08 J -26140767.78 -26140767.66 -26140767.54 0.0146 0.0128
 Moon -76283-06-24 20:23 J -26140767.77 -26140767.65 -26140767.51 0.0146 0.0123 *
 Earth -76282-06-29 20:08 J -26140397.86 -26140397.66 -26140397.43 0.0147 0.0080
 Moon -76282-06-29 21:06 J -26140397.83 -26140397.62 -26140397.39 0.0147 0.0080 *
 Moon -76281-07-03 20:52 J -26140027.86 -26140027.63 -26140027.39 0.0147 0.0032
 Earth -76281-07-03 21:35 J -26140027.84 -26140027.60 -26140027.35 0.0147 0.0030 *
 Earth -76280-07-08 23:44 J -26139657.75 -26139657.51 -26139657.25 0.0147 0.0021
 Moon -76280-07-09 01:54 J -26139657.67 -26139657.42 -26139657.16 0.0147 0.0028 *
 Moon -76279-07-14 00:28 J -26139287.68 -26139287.48 -26139287.24 0.0147 0.0064
 Earth -76279-07-14 03:06 J -26139287.59 -26139287.37 -26139287.15 0.0147 0.0072 *
 Earth -76278-07-19 06:28 J -26138917.35 -26138917.23 -26138917.07 0.0147 0.0123
 Moon -76278-07-19 09:49 J -26138917.21 -26138917.09 -26138916.95 0.0147 0.0127 *
 Venus -76268-11-13 04:18 J -26135147.47 -26135147.32 -26135147.14 0.0145 0.0098
 Venus -76267-06-27 19:25 J -26134920.91 -26134920.69 -26134920.47 0.0145 0.0025

Venus -76266-02-09 09:49 J -26134694.29 -26134694.09 -26134693.87 0.0144 0.0048
 Venus -76266-09-23 23:59 J -26134467.60 -26134467.50 -26134467.36 0.0144 0.0121
 Mars -76263-09-24 15:35 J -26133371.06 -26133370.85 -26133370.59 0.0142 0.0103
 Mercury -76262-11-28 18:56 J -26132940.78 -26132940.71 -26132940.60 0.0142 0.0125
 Mercury -76261-02-25 03:20 J -26132852.49 -26132852.36 -26132852.21 0.0142 0.0097
 Mercury -76261-05-23 11:30 J -26132764.18 -26132764.02 -26132763.85 0.0142 0.0069
 Mercury -76261-08-19 19:25 J -26132675.86 -26132675.69 -26132675.50 0.0141 0.0043
 Mars -76261-08-30 17:16 J -26132665.10 -26132664.78 -26132664.45 0.0141 0.0024
 Mercury -76261-11-16 03:35 J -26132587.54 -26132587.35 -26132587.16 0.0141 0.0015
 Mercury -76260-02-12 11:30 J -26132499.21 -26132499.02 -26132498.83 0.0141 0.0012
 Mercury -76260-05-11 19:25 J -26132410.88 -26132410.69 -26132410.51 0.0141 0.0038
 Mercury -76260-08-08 02:52 J -26132322.54 -26132322.38 -26132322.20 0.0141 0.0065
 Mercury -76260-11-04 10:47 J -26132234.19 -26132234.05 -26132233.90 0.0141 0.0091
 Mercury -76259-01-31 18:13 J -26132145.83 -26132145.74 -26132145.62 0.0141 0.0117
 Mars -76259-08-05 21:49 J -26131959.88 -26131959.59 -26131959.27 0.0140 0.0051
 Mars -76257-07-10 04:18 J -26131255.47 -26131255.32 -26131255.13 0.0139 0.0119
 Moon -76243-12-30 08:23 J -26125969.23 -26125969.15 -26125969.04 0.0132 0.0123
 Earth -76243-12-30 10:47 J -26125969.15 -26125969.05 -26125968.90 0.0132 0.0117 *
 Earth -76241-01-03 18:42 J -26125599.91 -26125599.72 -26125599.50 0.0132 0.0079
 Moon -76241-01-03 21:49 J -26125599.79 -26125599.59 -26125599.35 0.0132 0.0073 *
 Moon -76240-01-06 23:30 J -26125230.75 -26125230.52 -26125230.28 0.0132 0.0048
 Earth -76240-01-07 02:08 J -26125230.65 -26125230.41 -26125230.16 0.0132 0.0042 *
 Earth -76239-01-11 08:37 J -26124861.39 -26124861.14 -26124860.88 0.0132 0.0006
 Moon -76239-01-11 11:59 J -26124861.26 -26124861.00 -26124860.74 0.0132 0.0003 *
 Moon -76238-01-15 11:44 J -26124492.25 -26124492.01 -26124491.76 0.0132 0.0031
 Earth -76238-01-15 14:52 J -26124492.13 -26124491.88 -26124491.63 0.0132 0.0032 *
 Earth -76237-01-19 19:54 J -26124122.87 -26124122.67 -26124122.43 0.0132 0.0069
 Moon -76237-01-19 23:16 J -26124122.75 -26124122.53 -26124122.30 0.0132 0.0066 *
 Moon -76236-01-22 21:35 J -26123753.72 -26123753.60 -26123753.44 0.0131 0.0110
 Earth -76236-01-23 01:11 J -26123753.60 -26123753.45 -26123753.29 0.0131 0.0104 *

Venus -76224-11-09 20:08 J -26119079.81 -26119079.66 -26119079.51 0.0134 0.0093
 Venus -76223-06-23 23:30 J -26118853.72 -26118853.52 -26118853.32 0.0134 0.0040
 Venus -76222-02-05 03:06 J -26118627.58 -26118627.37 -26118627.16 0.0134 0.0014
 Venus -76222-09-19 06:28 J -26118401.40 -26118401.23 -26118401.04 0.0134 0.0068
 Venus -76221-05-02 10:04 J -26118175.15 -26118175.08 -26118174.99 0.0135 0.0123
 Mars -76219-10-29 06:13 J -26117265.43 -26117265.24 -26117265.04 0.0136 0.0096
 Mercury -76217-02-03 11:44 J -26116803.03 -26116803.01 -26116802.96 0.0136 0.0132
 Mercury -76217-05-01 15:06 J -26116714.93 -26116714.87 -26116714.79 0.0137 0.0115
 Mercury -76217-07-28 18:13 J -26116626.82 -26116626.74 -26116626.64 0.0137 0.0099
 Mars -76217-09-27 19:25 J -26116565.96 -26116565.69 -26116565.41 0.0137 0.0041
 Mercury -76217-10-24 21:35 J -26116538.70 -26116538.60 -26116538.49 0.0137 0.0082
 Mercury -76216-01-21 00:42 J -26116450.58 -26116450.47 -26116450.35 0.0137 0.0065
 Mercury -76216-04-19 04:04 J -26116362.45 -26116362.33 -26116362.20 0.0137 0.0048
 Mercury -76216-07-16 07:25 J -26116274.32 -26116274.19 -26116274.06 0.0137 0.0032
 Mercury -76216-10-12 10:32 J -26116186.19 -26116186.06 -26116185.93 0.0137 0.0014
 Mercury -76215-01-08 13:54 J -26116098.05 -26116097.92 -26116097.79 0.0138 0.0003
 Mercury -76215-04-06 17:16 J -26116009.91 -26116009.78 -26116009.65 0.0138 0.0020
 Mercury -76215-07-03 20:23 J -26115921.77 -26115921.65 -26115921.52 0.0138 0.0038
 Mars -76215-08-28 20:37 J -26115865.92 -26115865.64 -26115865.35 0.0138 0.0017
 Mercury -76215-09-29 23:44 J -26115833.63 -26115833.51 -26115833.38 0.0138 0.0055
 Mercury -76215-12-27 03:06 J -26115745.48 -26115745.37 -26115745.25 0.0138 0.0073
 Mercury -76214-03-25 06:28 J -26115657.32 -26115657.23 -26115657.12 0.0138 0.0091
 Mercury -76214-06-21 09:49 J -26115569.16 -26115569.09 -26115569.00 0.0138 0.0108
 Mercury -76214-09-17 13:11 J -26115480.99 -26115480.95 -26115480.89 0.0138 0.0126
 Mars -76213-07-29 09:49 J -26115165.31 -26115165.09 -26115164.83 0.0139 0.0079
 Earth -76199-06-25 07:11 J -26110086.31 -26110086.20 -26110086.05 0.0146 0.0126
 Moon -76199-06-25 07:40 J -26110086.26 -26110086.18 -26110086.05 0.0146 0.0131 *
 Moon -76198-06-30 07:25 J -26109716.41 -26109716.19 -26109715.96 0.0147 0.0074
 Earth -76198-06-30 07:40 J -26109716.38 -26109716.18 -26109715.96 0.0147 0.0077 *
 Moon -76197-07-04 08:23 J -26109346.38 -26109346.15 -26109345.90 0.0147 0.0023

Earth -76197-07-04 09:06 J -26109346.36 -26109346.12 -26109345.86 0.0147 0.0027 *
 Earth -76196-07-09 11:44 J -26108976.26 -26108976.01 -26108975.76 0.0147 0.0025
 Moon -76196-07-09 12:42 J -26108976.22 -26108975.97 -26108975.71 0.0147 0.0018 *
 Moon -76195-07-14 12:28 J -26108606.16 -26108605.98 -26108605.76 0.0147 0.0083
 Earth -76195-07-14 14:52 J -26108606.10 -26108605.88 -26108605.66 0.0147 0.0075 *
 Earth -76194-07-19 18:42 J -26108235.84 -26108235.72 -26108235.59 0.0147 0.0127
 Moon -76194-07-19 21:35 J -26108235.75 -26108235.60 -26108235.45 0.0147 0.0121 *
 Venus -76184-07-13 09:20 J -26104589.19 -26104589.11 -26104589.01 0.0145 0.0133
 Venus -76183-02-25 00:28 J -26104362.69 -26104362.48 -26104362.28 0.0145 0.0059
 Venus -76183-10-09 15:06 J -26104136.10 -26104135.87 -26104135.65 0.0145 0.0014
 Venus -76182-05-24 05:16 J -26103909.45 -26103909.28 -26103909.09 0.0144 0.0086
 Mars -76178-05-22 00:42 J -26102450.75 -26102450.47 -26102450.16 0.0142 0.0066
 Mercury -76178-12-19 02:37 J -26102239.48 -26102239.39 -26102239.27 0.0142 0.0118
 Mercury -76177-03-16 10:47 J -26102151.19 -26102151.05 -26102150.90 0.0142 0.0091
 Mercury -76177-06-12 18:42 J -26102062.88 -26102062.72 -26102062.54 0.0141 0.0064
 Mercury -76177-09-09 02:52 J -26101974.56 -26101974.38 -26101974.19 0.0141 0.0036
 Mercury -76177-12-06 11:01 J -26101886.23 -26101886.04 -26101885.85 0.0141 0.0009
 Mercury -76176-03-04 18:42 J -26101797.90 -26101797.72 -26101797.52 0.0141 0.0019
 Mars -76176-04-26 19:25 J -26101745.01 -26101744.69 -26101744.35 0.0141 0.0012
 Mercury -76176-06-01 02:23 J -26101709.57 -26101709.40 -26101709.21 0.0141 0.0045
 Mercury -76176-08-28 10:18 J -26101621.23 -26101621.07 -26101620.90 0.0141 0.0071
 Mercury -76176-11-24 17:59 J -26101532.88 -26101532.75 -26101532.60 0.0141 0.0097
 Mercury -76175-02-21 01:40 J -26101444.51 -26101444.43 -26101444.33 0.0140 0.0123
 Mars -76174-04-01 15:49 J -26101040.08 -26101039.84 -26101039.56 0.0140 0.0084
 Moon -76159-12-30 17:16 J -26095287.90 -26095287.78 -26095287.61 0.0132 0.0109
 Earth -76159-12-30 19:54 J -26095287.78 -26095287.67 -26095287.52 0.0132 0.0115 *
 Earth -76157-01-04 03:49 J -26094918.53 -26094918.34 -26094918.12 0.0132 0.0077
 Moon -76157-01-04 06:13 J -26094918.44 -26094918.24 -26094918.03 0.0132 0.0084 *
 Moon -76156-01-07 08:37 J -26094549.38 -26094549.14 -26094548.90 0.0132 0.0034
 Earth -76156-01-07 11:01 J -26094549.28 -26094549.04 -26094548.78 0.0132 0.0040 *

Earth -76155-01-11 17:44 J -26094180.01 -26094179.76 -26094179.50 0.0132 0.0003
 Moon -76155-01-11 20:23 J -26094179.91 -26094179.65 -26094179.38 0.0132 0.0007 *
 Moon -76154-01-15 21:20 J -26093810.84 -26093810.61 -26093810.36 0.0132 0.0036
 Earth -76154-01-15 23:59 J -26093810.75 -26093810.50 -26093810.25 0.0132 0.0035 *
 Earth -76153-01-20 05:01 J -26093441.49 -26093441.29 -26093441.06 0.0131 0.0072
 Moon -76153-01-20 08:08 J -26093441.37 -26093441.16 -26093440.93 0.0131 0.0074 *
 Moon -76152-01-23 07:54 J -26093072.31 -26093072.17 -26093072.01 0.0131 0.0104
 Earth -76152-01-23 10:04 J -26093072.20 -26093072.08 -26093071.91 0.0131 0.0108 *
 Venus -76140-07-10 06:28 J -26088521.31 -26088521.23 -26088521.13 0.0133 0.0119
 Venus -76139-02-21 10:04 J -26088295.26 -26088295.08 -26088294.90 0.0134 0.0066
 Venus -76139-10-05 13:25 J -26088069.15 -26088068.94 -26088068.73 0.0134 0.0013
 Venus -76138-05-19 16:47 J -26087842.99 -26087842.80 -26087842.59 0.0134 0.0041
 Venus -76138-12-31 20:23 J -26087616.78 -26087616.65 -26087616.49 0.0134 0.0096
 Mars -76136-07-24 03:20 J -26087046.45 -26087046.36 -26087046.23 0.0135 0.0125
 Mars -76134-06-23 09:20 J -26086347.34 -26086347.11 -26086346.85 0.0136 0.0071
 Mercury -76133-02-23 18:56 J -26086101.75 -26086101.71 -26086101.67 0.0137 0.0129
 Mercury -76133-05-21 22:04 J -26086013.65 -26086013.58 -26086013.50 0.0137 0.0112
 Mercury -76133-08-18 01:11 J -26085925.53 -26085925.45 -26085925.35 0.0137 0.0096
 Mercury -76133-11-14 04:32 J -26085837.42 -26085837.31 -26085837.20 0.0137 0.0079
 Mercury -76132-02-10 07:54 J -26085749.29 -26085749.17 -26085749.06 0.0137 0.0063
 Mercury -76132-05-09 11:01 J -26085661.16 -26085661.04 -26085660.91 0.0137 0.0046
 Mars -76132-05-23 03:06 J -26085647.66 -26085647.37 -26085647.09 0.0137 0.0015
 Mercury -76132-08-05 14:23 J -26085573.03 -26085572.90 -26085572.77 0.0137 0.0029
 Mercury -76132-11-01 17:30 J -26085484.90 -26085484.77 -26085484.63 0.0137 0.0012
 Mercury -76131-01-28 20:52 J -26085396.76 -26085396.63 -26085396.50 0.0138 0.0006
 Mercury -76131-04-27 00:13 J -26085308.62 -26085308.49 -26085308.36 0.0138 0.0023
 Mercury -76131-07-24 03:20 J -26085220.48 -26085220.36 -26085220.23 0.0138 0.0041
 Mercury -76131-10-20 06:42 J -26085132.34 -26085132.22 -26085132.09 0.0138 0.0058
 Mercury -76130-01-16 10:04 J -26085044.19 -26085044.08 -26085043.96 0.0138 0.0076
 Mercury -76130-04-14 13:25 J -26084956.03 -26084955.94 -26084955.84 0.0138 0.0094

Mars -76130-04-23 07:40 J -26084947.45 -26084947.18 -26084946.90 0.0138 0.0045
 Mercury -76130-07-11 16:47 J -26084867.87 -26084867.80 -26084867.71 0.0138 0.0112
 Mercury -76130-10-07 20:08 J -26084779.69 -26084779.66 -26084779.60 0.0139 0.0130
 Mars -76128-03-24 01:11 J -26084246.62 -26084246.45 -26084246.25 0.0139 0.0109
 Earth -76115-06-25 17:59 J -26079404.86 -26079404.75 -26079404.59 0.0146 0.0124
 Moon -76115-06-25 19:40 J -26079404.80 -26079404.68 -26079404.51 0.0146 0.0118 *
 Moon -76114-06-30 18:28 J -26079034.94 -26079034.73 -26079034.49 0.0147 0.0075
 Earth -76114-06-30 18:56 J -26079034.92 -26079034.71 -26079034.48 0.0147 0.0074 *
 Earth -76113-07-04 20:37 J -26078664.88 -26078664.64 -26078664.38 0.0147 0.0023
 Moon -76113-07-04 21:06 J -26078664.86 -26078664.62 -26078664.38 0.0147 0.0025 *
 Earth -76112-07-09 23:16 J -26078294.78 -26078294.53 -26078294.28 0.0147 0.0028
 Moon -76112-07-10 00:13 J -26078294.75 -26078294.49 -26078294.24 0.0147 0.0035 *
 Moon -76111-07-15 01:11 J -26077924.66 -26077924.45 -26077924.23 0.0147 0.0072
 Earth -76111-07-15 02:23 J -26077924.60 -26077924.40 -26077924.18 0.0147 0.0081 *
 Earth -76110-07-20 06:28 J -26077554.33 -26077554.23 -26077554.11 0.0147 0.0132
 Moon -76110-07-20 08:37 J -26077554.23 -26077554.14 -26077554.04 0.0147 0.0137 *
 Venus -76100-10-25 05:44 J -26073804.42 -26073804.26 -26073804.08 0.0145 0.0093
 Venus -76099-06-08 20:37 J -26073577.86 -26073577.64 -26073577.41 0.0145 0.0021
 Venus -76098-01-21 11:16 J -26073351.23 -26073351.03 -26073350.82 0.0144 0.0052
 Venus -76098-09-05 01:25 J -26073124.53 -26073124.44 -26073124.31 0.0144 0.0125
 Mars -76095-02-08 23:44 J -26072236.70 -26072236.51 -26072236.27 0.0143 0.0110
 Mercury -76094-10-12 02:08 J -26071626.43 -26071626.41 -26071626.36 0.0142 0.0139
 Mercury -76093-01-08 10:18 J -26071538.18 -26071538.07 -26071537.94 0.0142 0.0111
 Mars -76093-01-16 08:52 J -26071530.46 -26071530.13 -26071529.81 0.0142 0.0029
 Mercury -76093-04-05 18:28 J -26071449.88 -26071449.73 -26071449.57 0.0142 0.0084
 Mercury -76093-07-03 02:23 J -26071361.56 -26071361.40 -26071361.21 0.0141 0.0057
 Mercury -76093-09-29 10:32 J -26071273.24 -26071273.06 -26071272.87 0.0141 0.0029
 Mercury -76093-12-26 18:28 J -26071184.92 -26071184.73 -26071184.53 0.0141 0.0004
 Mercury -76092-03-25 02:23 J -26071096.59 -26071096.40 -26071096.21 0.0141 0.0025
 Mercury -76092-06-21 10:18 J -26071008.25 -26071008.07 -26071007.89 0.0141 0.0051

Mercury -76092-09-17 17:44 J -26070919.91 -26070919.76 -26070919.59 0.0141 0.0078
 Mercury -76092-12-15 01:25 J -26070831.55 -26070831.44 -26070831.30 0.0141 0.0104
 Mars -76092-12-21 19:40 J -26070824.98 -26070824.68 -26070824.36 0.0141 0.0047
 Mercury -76091-03-13 09:20 J -26070743.18 -26070743.11 -26070743.04 0.0140 0.0129
 Mars -76090-11-26 09:20 J -26070120.26 -26070120.11 -26070119.90 0.0139 0.0117
 Moon -76075-12-31 04:18 J -26064606.42 -26064606.32 -26064606.21 0.0132 0.0119
 Earth -76075-12-31 05:44 J -26064606.39 -26064606.26 -26064606.12 0.0132 0.0113 *
 Earth -76073-01-04 13:11 J -26064237.15 -26064236.95 -26064236.72 0.0132 0.0075
 Moon -76073-01-04 15:35 J -26064237.07 -26064236.85 -26064236.62 0.0132 0.0068 *
 Moon -76072-01-07 18:56 J -26063867.94 -26063867.71 -26063867.47 0.0132 0.0044
 Earth -76072-01-07 20:52 J -26063867.88 -26063867.63 -26063867.39 0.0132 0.0037 *
 Earth -76071-01-12 03:20 J -26063498.61 -26063498.36 -26063498.10 0.0132 0.0001
 Moon -76071-01-12 05:30 J -26063498.53 -26063498.27 -26063498.00 0.0132 0.0004 *
 Moon -76070-01-16 06:56 J -26063129.44 -26063129.21 -26063128.96 0.0131 0.0037
 Earth -76070-01-16 09:20 J -26063129.35 -26063129.11 -26063128.86 0.0131 0.0038 *
 Earth -76069-01-20 14:37 J -26062760.08 -26062759.89 -26062759.66 0.0131 0.0075
 Moon -76069-01-20 16:32 J -26062760.01 -26062759.81 -26062759.57 0.0131 0.0074 *
 Moon -76068-01-23 17:01 J -26062390.88 -26062390.79 -26062390.65 0.0131 0.0116
 Earth -76068-01-23 19:40 J -26062390.80 -26062390.68 -26062390.53 0.0131 0.0111 *
 Venus -76056-10-21 20:23 J -26057736.80 -26057736.65 -26057736.50 0.0134 0.0093
 Venus -76055-06-04 23:44 J -26057510.71 -26057510.51 -26057510.31 0.0134 0.0040
 Venus -76054-01-17 03:20 J -26057284.57 -26057284.36 -26057284.15 0.0134 0.0014
 Venus -76054-08-31 06:28 J -26057058.40 -26057058.23 -26057058.03 0.0134 0.0069
 Venus -76053-04-13 10:32 J -26056832.15 -26056832.06 -26056831.98 0.0135 0.0122
 Mars -76051-03-18 04:32 J -26056128.47 -26056128.31 -26056128.09 0.0136 0.0101
 Mars -76049-02-15 14:23 J -26055429.16 -26055428.90 -26055428.62 0.0137 0.0046
 Mercury -76049-03-15 01:40 J -26055400.47 -26055400.43 -26055400.38 0.0137 0.0127
 Mercury -76049-06-11 04:47 J -26055312.37 -26055312.30 -26055312.21 0.0137 0.0111
 Mercury -76049-09-07 08:08 J -26055224.25 -26055224.16 -26055224.06 0.0137 0.0094
 Mercury -76049-12-04 11:16 J -26055136.13 -26055136.03 -26055135.91 0.0137 0.0077

Mercury -76048-03-02 14:37 J -26055048.01 -26055047.89 -26055047.77 0.0137 0.0060

Mercury -76048-05-29 17:44 J -26054959.88 -26054959.76 -26054959.63 0.0137 0.0044

Mercury -76048-08-25 21:06 J -26054871.75 -26054871.62 -26054871.49 0.0137 0.0027

Mercury -76048-11-22 00:28 J -26054783.62 -26054783.48 -26054783.35 0.0137 0.0010

Mars -76047-01-15 10:04 J -26054729.36 -26054729.08 -26054728.79 0.0138 0.0013

Mercury -76047-02-18 03:35 J -26054695.48 -26054695.35 -26054695.21 0.0138 0.0009

Mercury -76047-05-17 06:56 J -26054607.34 -26054607.21 -26054607.08 0.0138 0.0025

Mercury -76047-08-13 10:18 J -26054519.20 -26054519.07 -26054518.94 0.0138 0.0043

Mercury -76047-11-09 13:40 J -26054431.05 -26054430.93 -26054430.81 0.0138 0.0060

Mercury -76046-02-05 16:47 J -26054342.90 -26054342.80 -26054342.68 0.0138 0.0079

Mercury -76046-05-04 20:23 J -26054254.74 -26054254.65 -26054254.55 0.0138 0.0096

Mercury -76046-07-31 23:44 J -26054166.58 -26054166.51 -26054166.43 0.0138 0.0114

Mercury -76046-10-28 03:06 J -26054078.40 -26054078.37 -26054078.32 0.0139 0.0132

Mars -76046-12-16 17:44 J -26054029.01 -26054028.76 -26054028.52 0.0139 0.0074

Mars -76044-11-16 16:18 J -26053327.83 -26053327.82 -26053327.76 0.0140 0.0139

Earth -76031-06-26 02:37 J -26048723.50 -26048723.39 -26048723.23 0.0146 0.0123

Moon -76031-06-26 04:18 J -26048723.41 -26048723.32 -26048723.18 0.0146 0.0129 *

Moon -76030-07-01 01:54 J -26048353.64 -26048353.42 -26048353.18 0.0147 0.0069

Earth -76030-07-01 03:49 J -26048353.55 -26048353.34 -26048353.12 0.0147 0.0072 *

Earth -76029-07-05 05:30 J -26047983.51 -26047983.27 -26047983.02 0.0147 0.0021

Moon -76029-07-05 05:59 J -26047983.48 -26047983.25 -26047983.00 0.0147 0.0019 *

Moon -76028-07-10 08:08 J -26047613.41 -26047613.16 -26047612.90 0.0147 0.0025

Earth -76028-07-10 08:08 J -26047613.40 -26047613.16 -26047612.91 0.0147 0.0031 *

Moon -76027-07-15 10:47 J -26047243.24 -26047243.05 -26047242.85 0.0147 0.0090

Earth -76027-07-15 11:16 J -26047243.22 -26047243.03 -26047242.81 0.0147 0.0084 *

Earth -76026-07-20 15:20 J -26046872.94 -26046872.86 -26046872.75 0.0147 0.0136

Moon -76026-07-20 17:01 J -26046872.89 -26046872.79 -26046872.65 0.0147 0.0129 *

Venus -76016-06-24 10:18 J -26043246.16 -26043246.07 -26043245.96 0.0145 0.0129

Venus -76015-02-06 01:25 J -26043019.65 -26043019.44 -26043019.23 0.0145 0.0055

Venus -76015-09-20 16:04 J -26042793.05 -26042792.83 -26042792.60 0.0145 0.0017

Venus	-76014-05-05 06:28 J	-26042566.40	-26042566.23	-26042566.04	0.0144	0.0090
Mars	-76011-10-06 10:18 J	-26041316.34	-26041316.07	-26041315.76	0.0143	0.0073
Mercury	-76010-11-01 09:20 J	-26040925.15	-26040925.11	-26040925.02	0.0142	0.0133
Mercury	-76009-01-28 17:44 J	-26040836.88	-26040836.76	-26040836.62	0.0142	0.0105
Mercury	-76009-04-26 01:40 J	-26040748.58	-26040748.43	-26040748.25	0.0142	0.0078
Mercury	-76009-07-23 09:49 J	-26040660.26	-26040660.09	-26040659.90	0.0141	0.0050
Mars	-76009-09-11 12:13 J	-26040610.32	-26040609.99	-26040609.66	0.0141	0.0007
Mercury	-76009-10-19 17:59 J	-26040571.94	-26040571.75	-26040571.56	0.0141	0.0023
Mercury	-76008-01-16 01:54 J	-26040483.61	-26040483.42	-26040483.23	0.0141	0.0004
Mercury	-76008-04-14 09:35 J	-26040395.28	-26040395.10	-26040394.91	0.0141	0.0031
Mercury	-76008-07-11 17:30 J	-26040306.94	-26040306.77	-26040306.59	0.0141	0.0057
Mercury	-76008-10-08 00:56 J	-26040218.60	-26040218.46	-26040218.29	0.0141	0.0084
Mercury	-76007-01-04 08:37 J	-26040130.24	-26040130.14	-26040130.00	0.0141	0.0110
Mercury	-76007-04-02 16:32 J	-26040041.85	-26040041.81	-26040041.75	0.0140	0.0135
Mars	-76007-08-17 17:01 J	-26039905.06	-26039904.79	-26039904.52	0.0140	0.0081

76TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 76th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-75991-12-31 13:11 J	-26033925.09	-26033924.95	-26033924.79	0.0132	0.0105		
Earth	-75991-12-31 14:23 J	-26033925.02	-26033924.90	-26033924.74	0.0132	0.0111	*	
Earth	-75989-01-04 22:18 J	-26033555.77	-26033555.57	-26033555.35	0.0132	0.0073		

Moon -75989-01-04 23:01 J -26033555.73 -26033555.54 -26033555.31 0.0132 0.0080 *
 Moon -75988-01-08 04:04 J -26033186.57 -26033186.33 -26033186.08 0.0132 0.0029
 Earth -75988-01-08 05:30 J -26033186.51 -26033186.27 -26033186.02 0.0132 0.0035 *
 Earth -75987-01-12 12:13 J -26032817.25 -26032816.99 -26032816.73 0.0132 0.0003
 Moon -75987-01-12 13:40 J -26032817.19 -26032816.93 -26032816.66 0.0132 0.0003 *
 Moon -75986-01-16 16:47 J -26032448.03 -26032447.80 -26032447.56 0.0131 0.0043
 Earth -75986-01-16 17:59 J -26032447.98 -26032447.75 -26032447.49 0.0131 0.0041 *
 Earth -75985-01-20 23:16 J -26032078.72 -26032078.53 -26032078.31 0.0131 0.0078
 Moon -75985-01-21 01:25 J -26032078.64 -26032078.44 -26032078.22 0.0131 0.0079 *
 Moon -75984-01-24 02:52 J -26031709.49 -26031709.38 -26031709.23 0.0131 0.0112
 Earth -75984-01-24 04:04 J -26031709.43 -26031709.33 -26031709.18 0.0131 0.0115 *
 Venus -75972-06-21 05:44 J -26027178.33 -26027178.26 -26027178.16 0.0133 0.0121
 Venus -75971-02-02 09:06 J -26026952.29 -26026952.12 -26026951.93 0.0134 0.0068
 Venus -75971-09-16 12:28 J -26026726.18 -26026725.98 -26026725.76 0.0134 0.0015
 Venus -75970-04-30 15:49 J -26026500.03 -26026499.84 -26026499.63 0.0134 0.0039
 Venus -75970-12-12 19:11 J -26026273.83 -26026273.70 -26026273.53 0.0134 0.0094
 Mars -75969-12-11 00:56 J -26025909.51 -26025909.46 -26025909.35 0.0135 0.0129
 Mars -75967-11-10 03:49 J -26025210.57 -26025210.34 -26025210.10 0.0136 0.0076
 Mercury -75965-04-04 08:23 J -26024699.20 -26024699.15 -26024699.10 0.0137 0.0126
 Mercury -75965-07-01 11:16 J -26024611.10 -26024611.03 -26024610.94 0.0137 0.0110
 Mercury -75965-09-27 14:37 J -26024522.98 -26024522.89 -26024522.79 0.0137 0.0093
 Mars -75965-10-09 15:35 J -26024511.13 -26024510.85 -26024510.57 0.0137 0.0020
 Mercury -75965-12-24 17:59 J -26024434.86 -26024434.75 -26024434.64 0.0137 0.0076
 Mercury -75964-03-22 21:06 J -26024346.74 -26024346.62 -26024346.50 0.0137 0.0060
 Mercury -75964-06-19 00:13 J -26024258.61 -26024258.49 -26024258.36 0.0137 0.0043
 Mercury -75964-09-15 03:35 J -26024170.48 -26024170.35 -26024170.22 0.0137 0.0026
 Mercury -75964-12-12 06:56 J -26024082.35 -26024082.21 -26024082.08 0.0137 0.0009
 Mercury -75963-03-10 10:04 J -26023994.21 -26023994.08 -26023993.94 0.0138 0.0010
 Mercury -75963-06-06 13:25 J -26023906.07 -26023905.94 -26023905.81 0.0138 0.0026
 Mercury -75963-09-02 16:47 J -26023817.93 -26023817.80 -26023817.67 0.0138 0.0043

Mars -75963-09-09 13:25 J -26023811.21 -26023810.94 -26023810.65 0.0138 0.0040
 Mercury -75963-11-29 20:08 J -26023729.78 -26023729.66 -26023729.54 0.0138 0.0061
 Mercury -75962-02-25 23:16 J -26023641.63 -26023641.53 -26023641.41 0.0138 0.0079
 Mercury -75962-05-25 02:52 J -26023553.47 -26023553.38 -26023553.28 0.0138 0.0096
 Mercury -75962-08-21 06:13 J -26023465.31 -26023465.24 -26023465.16 0.0138 0.0114
 Mercury -75962-11-17 09:35 J -26023377.13 -26023377.10 -26023377.06 0.0139 0.0133
 Mars -75961-08-10 01:25 J -26023110.62 -26023110.44 -26023110.23 0.0139 0.0103
 Earth -75947-06-26 09:20 J -26018042.24 -26018042.11 -26018041.97 0.0146 0.0122
 Moon -75947-06-26 11:59 J -26018042.14 -26018042.00 -26018041.84 0.0146 0.0115 *
 Moon -75946-07-01 08:23 J -26017672.37 -26017672.15 -26017671.92 0.0147 0.0074
 Earth -75946-07-01 10:18 J -26017672.29 -26017672.07 -26017671.85 0.0147 0.0071 *
 Earth -75945-07-05 11:59 J -26017302.24 -26017302.00 -26017301.74 0.0147 0.0020
 Moon -75945-07-05 13:40 J -26017302.17 -26017301.93 -26017301.69 0.0147 0.0021 *
 Moon -75944-07-10 13:54 J -26016932.17 -26016931.92 -26016931.67 0.0147 0.0038
 Earth -75944-07-10 14:23 J -26016932.13 -26016931.90 -26016931.64 0.0147 0.0033 *
 Moon -75943-07-15 17:30 J -26016561.96 -26016561.77 -26016561.55 0.0147 0.0079
 Earth -75943-07-15 17:59 J -26016561.95 -26016561.75 -26016561.54 0.0147 0.0086 *
 Earth -75942-07-20 21:35 J -26016191.66 -26016191.60 -26016191.49 0.0147 0.0139
 Moon -75942-07-20 22:04 J -26016191.60 -26016191.58 -26016191.50 0.0147 0.0145 *
 Venus -75932-10-06 04:18 J -26012461.49 -26012461.32 -26012461.15 0.0145 0.0094
 Venus -75931-05-20 19:11 J -26012234.92 -26012234.70 -26012234.48 0.0145 0.0020
 Venus -75930-01-02 10:04 J -26012008.29 -26012008.08 -26012007.87 0.0145 0.0052
 Venus -75930-08-17 00:13 J -26011781.59 -26011781.49 -26011781.36 0.0144 0.0124
 Mars -75928-06-25 21:20 J -26011102.77 -26011102.61 -26011102.40 0.0143 0.0120
 Mars -75926-06-02 14:08 J -26010396.22 -26010395.91 -26010395.57 0.0142 0.0037
 Mercury -75926-11-21 16:04 J -26010223.89 -26010223.83 -26010223.73 0.0142 0.0129
 Mercury -75925-02-18 00:28 J -26010135.61 -26010135.48 -26010135.34 0.0142 0.0101
 Mercury -75925-05-16 08:23 J -26010047.30 -26010047.15 -26010046.97 0.0142 0.0074
 Mercury -75925-08-12 16:47 J -26009958.98 -26009958.80 -26009958.62 0.0142 0.0046
 Mercury -75925-11-09 00:42 J -26009870.66 -26009870.47 -26009870.28 0.0141 0.0019

Mercury -75924-02-05 08:37 J -26009782.33 -26009782.14 -26009781.95 0.0141 0.0008
 Mercury -75924-05-04 16:18 J -26009694.00 -26009693.82 -26009693.63 0.0141 0.0035
 Mars -75924-05-08 09:35 J -26009690.40 -26009690.10 -26009689.77 0.0141 0.0042
 Mercury -75924-08-01 00:13 J -26009605.66 -26009605.49 -26009605.32 0.0141 0.0061
 Mercury -75924-10-28 07:40 J -26009517.31 -26009517.18 -26009517.01 0.0141 0.0088
 Mercury -75923-01-24 15:35 J -26009428.95 -26009428.85 -26009428.73 0.0141 0.0114
 Mercury -75923-04-22 23:01 J -26009340.55 -26009340.54 -26009340.50 0.0140 0.0140
 Mars -75922-04-13 09:06 J -26008985.28 -26008985.12 -26008984.91 0.0140 0.0114
 Earth -75907-12-31 23:59 J -26003243.63 -26003243.50 -26003243.35 0.0132 0.0110
 Moon -75907-12-31 23:44 J -26003243.61 -26003243.51 -26003243.37 0.0132 0.0115 *
 Earth -75905-01-05 07:54 J -26002874.38 -26002874.17 -26002873.95 0.0132 0.0071
 Moon -75905-01-05 08:23 J -26002874.36 -26002874.15 -26002873.90 0.0132 0.0065 *
 Moon -75904-01-08 14:23 J -26002505.13 -26002504.90 -26002504.65 0.0132 0.0040
 Earth -75904-01-08 15:06 J -26002505.11 -26002504.87 -26002504.62 0.0132 0.0033 *
 Earth -75903-01-12 21:49 J -26002135.84 -26002135.59 -26002135.33 0.0132 0.0005
 Moon -75903-01-12 22:47 J -26002135.82 -26002135.55 -26002135.29 0.0132 0.0010 *
 Moon -75902-01-17 02:23 J -26001766.62 -26001766.40 -26001766.15 0.0131 0.0041
 Earth -75902-01-17 03:35 J -26001766.58 -26001766.35 -26001766.10 0.0131 0.0043 *
 Earth -75901-01-21 08:52 J -26001397.32 -26001397.13 -26001396.91 0.0131 0.0081
 Moon -75901-01-21 09:35 J -26001397.29 -26001397.10 -26001396.88 0.0131 0.0081 *
 Moon -75900-01-24 12:13 J -26001028.06 -26001027.99 -26001027.87 0.0131 0.0121
 Earth -75900-01-24 13:40 J -26001028.02 -26001027.93 -26001027.80 0.0131 0.0117 *
 Venus -75888-10-02 19:11 J -25996393.83 -25996393.70 -25996393.53 0.0133 0.0095
 Venus -75887-05-16 22:32 J -25996167.75 -25996167.56 -25996167.35 0.0134 0.0042
 Venus -75887-12-29 02:08 J -25995941.62 -25995941.41 -25995941.19 0.0134 0.0012
 Venus -75886-08-12 05:30 J -25995715.45 -25995715.27 -25995715.08 0.0134 0.0065
 Venus -75885-03-25 08:37 J -25995489.22 -25995489.14 -25995489.03 0.0134 0.0120
 Mars -75884-08-05 01:11 J -25994991.61 -25994991.45 -25994991.27 0.0135 0.0105
 Mars -75882-07-05 05:30 J -25994292.53 -25994292.27 -25994292.00 0.0136 0.0051
 Mercury -75881-04-24 14:52 J -25993997.92 -25993997.88 -25993997.82 0.0136 0.0125

Mercury -75881-07-21 18:13 J -25993909.82 -25993909.74 -25993909.66 0.0137 0.0108

Mercury -75881-10-17 21:20 J -25993821.70 -25993821.61 -25993821.51 0.0137 0.0091

Mercury -75880-01-14 00:28 J -25993733.58 -25993733.48 -25993733.36 0.0137 0.0075

Mercury -75880-04-12 03:49 J -25993645.46 -25993645.34 -25993645.22 0.0137 0.0058

Mars -75880-06-03 18:56 J -25993592.99 -25993592.71 -25993592.42 0.0137 0.0007

Mercury -75880-07-09 06:56 J -25993557.33 -25993557.21 -25993557.08 0.0137 0.0042

Mercury -75880-10-05 10:18 J -25993469.20 -25993469.07 -25993468.94 0.0137 0.0024

Mercury -75879-01-01 13:40 J -25993381.07 -25993380.93 -25993380.80 0.0137 0.0007

Mercury -75879-03-30 16:47 J -25993292.93 -25993292.80 -25993292.66 0.0138 0.0011

Mercury -75879-06-26 20:08 J -25993204.79 -25993204.66 -25993204.53 0.0138 0.0028

Mercury -75879-09-22 23:30 J -25993116.65 -25993116.52 -25993116.39 0.0138 0.0045

Mercury -75879-12-20 02:52 J -25993028.50 -25993028.38 -25993028.26 0.0138 0.0063

Mercury -75878-03-18 06:13 J -25992940.35 -25992940.24 -25992940.13 0.0138 0.0080

Mars -75878-05-04 21:20 J -25992892.85 -25992892.61 -25992892.35 0.0138 0.0068

Mercury -75878-06-14 09:35 J -25992852.19 -25992852.10 -25992852.00 0.0138 0.0098

Mercury -75878-09-10 12:56 J -25992764.03 -25992763.96 -25992763.88 0.0138 0.0116

Mercury -75878-12-07 16:18 J -25992675.84 -25992675.82 -25992675.78 0.0138 0.0134

Mars -75876-04-04 14:08 J -25992191.99 -25992191.91 -25992191.81 0.0139 0.0133

Earth -75863-06-26 14:37 J -25987361.00 -25987360.89 -25987360.73 0.0146 0.0123

Moon -75863-06-26 17:59 J -25987360.86 -25987360.75 -25987360.64 0.0146 0.0129 *

Moon -75862-07-01 12:42 J -25986991.18 -25986990.97 -25986990.73 0.0147 0.0067

Earth -75862-07-01 15:35 J -25986991.05 -25986990.85 -25986990.61 0.0147 0.0072 *

Earth -75861-07-05 17:30 J -25986621.02 -25986620.77 -25986620.52 0.0147 0.0019

Moon -75861-07-05 19:25 J -25986620.93 -25986620.69 -25986620.44 0.0147 0.0019 *

Moon -75860-07-10 18:28 J -25986250.98 -25986250.73 -25986250.47 0.0147 0.0029

Earth -75860-07-10 19:54 J -25986250.91 -25986250.67 -25986250.42 0.0147 0.0034 *

Earth -75859-07-15 22:47 J -25985880.73 -25985880.55 -25985880.33 0.0147 0.0088

Moon -75859-07-16 00:13 J -25985880.68 -25985880.49 -25985880.30 0.0147 0.0094 *

Moon -75858-07-21 03:35 J -25985510.46 -25985510.35 -25985510.24 0.0147 0.0133

Earth -75858-07-21 02:52 J -25985510.44 -25985510.38 -25985510.29 0.0147 0.0140 *

Venus -75848-06-05 05:44 J -25981903.34 -25981903.26 -25981903.17 0.0145 0.0134
 Venus -75847-01-17 20:52 J -25981676.83 -25981676.63 -25981676.42 0.0145 0.0060
 Venus -75847-09-01 11:44 J -25981450.23 -25981450.01 -25981449.79 0.0145 0.0013
 Venus -75846-04-16 02:08 J -25981223.58 -25981223.41 -25981223.22 0.0145 0.0085
 Mars -75843-02-19 23:44 J -25980182.75 -25980182.51 -25980182.21 0.0143 0.0084
 Mercury -75842-12-11 22:04 J -25979522.64 -25979522.58 -25979522.47 0.0142 0.0127
 Mars -75841-01-27 11:01 J -25979476.37 -25979476.04 -25979475.71 0.0142 0.0002
 Mercury -75841-03-09 06:28 J -25979434.36 -25979434.23 -25979434.08 0.0142 0.0099
 Mercury -75841-06-05 14:37 J -25979346.05 -25979345.89 -25979345.72 0.0142 0.0071
 Mercury -75841-09-01 22:47 J -25979257.73 -25979257.55 -25979257.37 0.0142 0.0044
 Mercury -75841-11-29 06:42 J -25979169.41 -25979169.22 -25979169.03 0.0141 0.0017
 Mercury -75840-02-25 14:37 J -25979081.08 -25979080.89 -25979080.69 0.0141 0.0011
 Mercury -75840-05-24 22:32 J -25978992.74 -25978992.56 -25978992.37 0.0141 0.0037
 Mercury -75840-08-21 06:13 J -25978904.40 -25978904.24 -25978904.06 0.0141 0.0064
 Mercury -75840-11-17 14:08 J -25978816.05 -25978815.91 -25978815.76 0.0141 0.0090
 Mars -75839-01-02 01:54 J -25978770.68 -25978770.42 -25978770.13 0.0141 0.0075
 Mercury -75839-02-13 21:49 J -25978727.69 -25978727.59 -25978727.48 0.0141 0.0116
 Moon -75822-01-01 08:23 J -25972562.29 -25972562.15 -25972561.98 0.0132 0.0103
 Earth -75822-01-01 08:23 J -25972562.28 -25972562.15 -25972561.99 0.0132 0.0109 *
 Moon -75821-01-05 16:04 J -25972193.03 -25972192.83 -25972192.60 0.0132 0.0076
 Earth -75821-01-05 16:47 J -25972193.02 -25972192.80 -25972192.58 0.0132 0.0069 *
 Moon -75820-01-08 23:59 J -25971823.74 -25971823.50 -25971823.25 0.0132 0.0025
 Earth -75820-01-08 23:59 J -25971823.74 -25971823.50 -25971823.24 0.0132 0.0031 *
 Earth -75819-01-13 06:42 J -25971454.47 -25971454.22 -25971453.96 0.0132 0.0008
 Moon -75819-01-13 06:56 J -25971454.47 -25971454.21 -25971453.94 0.0132 0.0004 *
 Earth -75818-01-17 12:28 J -25971085.20 -25971084.98 -25971084.72 0.0131 0.0047
 Moon -75818-01-17 12:42 J -25971085.19 -25971084.97 -25971084.73 0.0131 0.0049 *
 Earth -75817-01-21 17:59 J -25970715.94 -25970715.75 -25970715.55 0.0131 0.0084
 Moon -75817-01-21 18:13 J -25970715.92 -25970715.74 -25970715.52 0.0131 0.0084 *
 Moon -75816-01-24 22:18 J -25970346.65 -25970346.57 -25970346.44 0.0131 0.0120

Earth	-75816-01-24 23:01 J	-25970346.64	-25970346.54	-25970346.44	0.0131	0.0121	*
Venus	-75804-06-02 05:59 J	-25965835.33	-25965835.25	-25965835.15	0.0133	0.0120	
Venus	-75803-01-14 09:20 J	-25965609.28	-25965609.11	-25965608.92	0.0133	0.0068	
Venus	-75803-08-28 12:42 J	-25965383.18	-25965382.97	-25965382.76	0.0134	0.0015	
Venus	-75802-04-11 15:49 J	-25965157.03	-25965156.84	-25965156.63	0.0134	0.0039	
Venus	-75802-11-23 19:11 J	-25964930.84	-25964930.70	-25964930.54	0.0134	0.0092	
Mars	-75801-04-30 03:49 J	-25964772.35	-25964772.34	-25964772.28	0.0134	0.0134	
Mars	-75799-03-30 02:52 J	-25964073.59	-25964073.38	-25964073.14	0.0135	0.0081	
Mars	-75797-02-27 09:06 J	-25963374.39	-25963374.12	-25963373.83	0.0136	0.0026	
Mercury	-75797-05-14 21:49 J	-25963296.64	-25963296.59	-25963296.52	0.0136	0.0122	
Mercury	-75797-08-11 00:56 J	-25963208.53	-25963208.46	-25963208.36	0.0137	0.0106	
Mercury	-75797-11-07 04:18 J	-25963120.41	-25963120.32	-25963120.21	0.0137	0.0089	
Mercury	-75796-02-03 07:40 J	-25963032.29	-25963032.18	-25963032.07	0.0137	0.0072	
Mercury	-75796-05-02 10:47 J	-25962944.17	-25962944.05	-25962943.93	0.0137	0.0055	
Mercury	-75796-07-29 14:08 J	-25962856.04	-25962855.91	-25962855.79	0.0137	0.0038	
Mercury	-75796-10-25 17:16 J	-25962767.91	-25962767.78	-25962767.65	0.0137	0.0021	
Mercury	-75795-01-21 20:37 J	-25962679.77	-25962679.64	-25962679.51	0.0137	0.0004	
Mars	-75795-01-27 02:08 J	-25962674.68	-25962674.41	-25962674.12	0.0137	0.0035	
Mercury	-75795-04-19 23:59 J	-25962591.64	-25962591.50	-25962591.37	0.0137	0.0014	
Mercury	-75795-07-17 03:06 J	-25962503.50	-25962503.37	-25962503.24	0.0138	0.0031	
Mercury	-75795-10-13 06:28 J	-25962415.35	-25962415.23	-25962415.10	0.0138	0.0048	
Mercury	-75794-01-09 09:49 J	-25962327.21	-25962327.09	-25962326.97	0.0138	0.0066	
Mercury	-75794-04-07 13:11 J	-25962239.05	-25962238.95	-25962238.84	0.0138	0.0083	
Mercury	-75794-07-04 16:32 J	-25962150.90	-25962150.81	-25962150.72	0.0138	0.0101	
Mercury	-75794-09-30 19:54 J	-25962062.73	-25962062.67	-25962062.60	0.0138	0.0119	
Mercury	-75794-12-27 23:16 J	-25961974.54	-25961974.53	-25961974.51	0.0138	0.0137	
Mars	-75794-12-28 08:52 J	-25961974.32	-25961974.13	-25961973.91	0.0138	0.0098	
Earth	-75779-06-26 23:01 J	-25956679.66	-25956679.54	-25956679.38	0.0146	0.0121	
Moon	-75779-06-27 02:37 J	-25956679.53	-25956679.39	-25956679.22	0.0146	0.0113	*
Moon	-75778-07-01 21:06 J	-25956309.84	-25956309.62	-25956309.40	0.0147	0.0074	

Earth -75778-07-01 23:44 J -25956309.71 -25956309.51 -25956309.27 0.0147 0.0070 *
 Earth -75777-07-06 01:40 J -25955939.68 -25955939.43 -25955939.18 0.0147 0.0017
 Moon -75777-07-06 04:18 J -25955939.56 -25955939.32 -25955939.08 0.0147 0.0017 *
 Moon -75776-07-11 01:40 J -25955569.68 -25955569.43 -25955569.18 0.0147 0.0040
 Earth -75776-07-11 03:49 J -25955569.58 -25955569.34 -25955569.09 0.0147 0.0036 *
 Earth -75775-07-16 06:42 J -25955199.40 -25955199.22 -25955199.00 0.0147 0.0090
 Moon -75775-07-16 08:08 J -25955199.35 -25955199.16 -25955198.95 0.0147 0.0083 *
 Earth -75774-07-21 10:32 J -25954829.10 -25954829.06 -25954828.98 0.0148 0.0144
 Venus -75764-09-16 23:44 J -25951118.66 -25951118.51 -25951118.33 0.0145 0.0098
 Venus -75763-05-01 14:52 J -25950892.10 -25950891.88 -25950891.66 0.0145 0.0025
 Venus -75763-12-14 05:30 J -25950665.47 -25950665.27 -25950665.05 0.0145 0.0048
 Venus -75762-07-28 20:08 J -25950438.77 -25950438.66 -25950438.52 0.0144 0.0120
 Mars -75761-11-09 04:18 J -25949969.43 -25949969.32 -25949969.17 0.0144 0.0132
 Mars -75759-10-17 04:47 J -25949262.60 -25949262.30 -25949261.97 0.0143 0.0048
 Mercury -75757-01-01 04:47 J -25948821.38 -25948821.30 -25948821.19 0.0142 0.0123
 Mercury -75757-03-29 13:11 J -25948733.09 -25948732.95 -25948732.80 0.0142 0.0095
 Mercury -75757-06-25 21:06 J -25948644.78 -25948644.62 -25948644.44 0.0142 0.0068
 Mercury -75757-09-22 05:16 J -25948556.46 -25948556.28 -25948556.09 0.0142 0.0040
 Mars -75757-09-22 10:32 J -25948556.37 -25948556.06 -25948555.72 0.0142 0.0034 *
 Mercury -75757-12-19 13:25 J -25948468.13 -25948467.94 -25948467.75 0.0141 0.0013
 Mercury -75756-03-17 21:20 J -25948379.80 -25948379.61 -25948379.42 0.0141 0.0014
 Mercury -75756-06-14 05:01 J -25948291.46 -25948291.29 -25948291.10 0.0141 0.0041
 Mercury -75756-09-10 12:56 J -25948203.12 -25948202.96 -25948202.79 0.0141 0.0068
 Mercury -75756-12-07 20:37 J -25948114.77 -25948114.64 -25948114.49 0.0141 0.0094
 Mercury -75755-03-06 04:32 J -25948026.40 -25948026.31 -25948026.21 0.0141 0.0120
 Mars -75755-08-28 20:23 J -25947850.84 -25947850.65 -25947850.43 0.0140 0.0109
 Earth -75738-01-01 18:13 J -25941880.88 -25941880.74 -25941880.58 0.0132 0.0107
 Moon -75738-01-01 19:25 J -25941880.81 -25941880.69 -25941880.54 0.0132 0.0112 *
 Moon -75737-01-06 01:40 J -25941511.66 -25941511.43 -25941511.18 0.0132 0.0061
 Earth -75737-01-06 02:23 J -25941511.61 -25941511.40 -25941511.17 0.0132 0.0067 *

Earth -75736-01-09 09:49 J -25941142.33 -25941142.09 -25941141.83 0.0132 0.0028
 Moon -75736-01-09 10:32 J -25941142.30 -25941142.06 -25941141.82 0.0132 0.0035 *
 Moon -75735-01-13 16:04 J -25940773.10 -25940772.83 -25940772.57 0.0132 0.0016
 Earth -75735-01-13 16:32 J -25940773.06 -25940772.81 -25940772.55 0.0132 0.0011 *
 Earth -75734-01-17 22:18 J -25940403.80 -25940403.57 -25940403.32 0.0132 0.0049
 Moon -75734-01-17 22:32 J -25940403.79 -25940403.56 -25940403.32 0.0132 0.0046 *
 Moon -75733-01-22 02:52 J -25940034.56 -25940034.38 -25940034.17 0.0131 0.0089
 Earth -75733-01-22 03:35 J -25940034.52 -25940034.35 -25940034.14 0.0131 0.0087 *
 Earth -75732-01-25 08:23 J -25939665.21 -25939665.15 -25939665.05 0.0131 0.0125
 Moon -75732-01-25 08:23 J -25939665.18 -25939665.15 -25939665.07 0.0131 0.0128 *
 Venus -75720-09-13 21:06 J -25935050.77 -25935050.62 -25935050.46 0.0133 0.0092
 Venus -75719-04-28 00:13 J -25934824.69 -25934824.49 -25934824.28 0.0134 0.0039
 Venus -75719-12-10 03:35 J -25934598.56 -25934598.35 -25934598.14 0.0134 0.0014
 Venus -75718-07-24 06:56 J -25934372.39 -25934372.21 -25934372.02 0.0134 0.0067
 Venus -75717-03-06 10:04 J -25934146.15 -25934146.08 -25934145.97 0.0134 0.0121
 Mars -75717-12-23 07:40 J -25933854.33 -25933854.18 -25933854.01 0.0135 0.0110
 Mars -75715-11-22 07:40 J -25933155.43 -25933155.18 -25933154.92 0.0136 0.0056
 Mercury -75713-03-08 02:08 J -25932683.43 -25932683.41 -25932683.38 0.0136 0.0134
 Mercury -75713-06-04 05:16 J -25932595.34 -25932595.28 -25932595.21 0.0136 0.0117
 Mercury -75713-08-31 08:37 J -25932507.23 -25932507.14 -25932507.05 0.0137 0.0101
 Mars -75713-10-21 17:30 J -25932456.06 -25932455.77 -25932455.49 0.0137 0.0002
 Mercury -75713-11-27 11:44 J -25932419.11 -25932419.01 -25932418.90 0.0137 0.0084
 Mercury -75712-02-23 14:52 J -25932330.99 -25932330.88 -25932330.76 0.0137 0.0068
 Mercury -75712-05-22 18:13 J -25932242.86 -25932242.74 -25932242.62 0.0137 0.0051
 Mercury -75712-08-18 21:20 J -25932154.73 -25932154.61 -25932154.48 0.0137 0.0034
 Mercury -75712-11-15 00:42 J -25932066.60 -25932066.47 -25932066.34 0.0137 0.0017
 Mercury -75711-02-11 04:04 J -25931978.47 -25931978.33 -25931978.20 0.0137 0.0002
 Mercury -75711-05-10 07:11 J -25931890.33 -25931890.20 -25931890.06 0.0137 0.0019
 Mercury -75711-08-06 10:32 J -25931802.19 -25931802.06 -25931801.93 0.0138 0.0035
 Mars -75711-09-21 15:20 J -25931756.10 -25931755.86 -25931755.59 0.0138 0.0064

Mercury -75711-11-02 13:54 J -25931714.04 -25931713.92 -25931713.80 0.0138 0.0053

Mercury -75710-01-29 17:16 J -25931625.89 -25931625.78 -25931625.66 0.0138 0.0070

Mercury -75710-04-27 20:37 J -25931537.74 -25931537.64 -25931537.54 0.0138 0.0088

Mercury -75710-07-24 23:44 J -25931449.58 -25931449.51 -25931449.41 0.0138 0.0107

Mercury -75710-10-21 03:06 J -25931361.41 -25931361.37 -25931361.30 0.0138 0.0125

Mars -75709-08-22 01:11 J -25931055.54 -25931055.45 -25931055.32 0.0139 0.0128

Earth -75695-06-27 10:47 J -25925998.17 -25925998.05 -25925997.88 0.0146 0.0119

Moon -75695-06-27 14:23 J -25925998.02 -25925997.90 -25925997.76 0.0146 0.0125 *

Moon -75694-07-02 08:08 J -25925628.38 -25925628.16 -25925627.92 0.0147 0.0061

Earth -75694-07-02 11:44 J -25925628.23 -25925628.01 -25925627.78 0.0147 0.0067 *

Earth -75693-07-06 12:56 J -25925258.20 -25925257.96 -25925257.70 0.0147 0.0014

Moon -75693-07-06 16:04 J -25925258.07 -25925257.83 -25925257.58 0.0147 0.0014 *

Moon -75692-07-11 12:56 J -25924888.21 -25924887.96 -25924887.71 0.0147 0.0036

Earth -75692-07-11 15:20 J -25924888.10 -25924887.86 -25924887.61 0.0147 0.0040 *

Earth -75691-07-16 17:59 J -25924517.92 -25924517.75 -25924517.54 0.0147 0.0095

Moon -75691-07-16 20:37 J -25924517.82 -25924517.64 -25924517.46 0.0147 0.0101 *

Moon -75690-07-21 20:37 J -25924147.69 -25924147.64 -25924147.54 0.0148 0.0141

Venus -75680-05-17 04:47 J -25920560.39 -25920560.30 -25920560.21 0.0146 0.0133

Venus -75680-12-29 19:25 J -25920333.88 -25920333.69 -25920333.47 0.0145 0.0061

Venus -75679-08-13 10:32 J -25920107.28 -25920107.06 -25920106.83 0.0145 0.0013

Venus -75678-03-28 01:11 J -25919880.63 -25919880.45 -25919880.26 0.0145 0.0085

Mars -75676-07-06 18:56 J -25919048.95 -25919048.71 -25919048.44 0.0143 0.0095

Mars -75674-06-13 14:52 J -25918342.21 -25918341.88 -25918341.55 0.0142 0.0010

Mercury -75673-01-21 12:28 J -25918120.08 -25918119.98 -25918119.87 0.0142 0.0116

Mercury -75673-04-18 20:23 J -25918031.79 -25918031.65 -25918031.49 0.0142 0.0089

Mercury -75673-07-16 04:47 J -25917943.47 -25917943.30 -25917943.13 0.0142 0.0061

Mercury -75673-10-12 12:42 J -25917855.15 -25917854.97 -25917854.78 0.0142 0.0034

Mercury -75672-01-08 20:52 J -25917766.82 -25917766.63 -25917766.44 0.0141 0.0006

Mercury -75672-04-07 04:47 J -25917678.49 -25917678.30 -25917678.11 0.0141 0.0021

Mars -75672-05-19 14:37 J -25917636.17 -25917635.89 -25917635.60 0.0141 0.0069

Mercury -75672-07-04 12:42 J -25917590.15 -25917589.97 -25917589.79 0.0141 0.0047

Mercury -75672-09-30 20:23 J -25917501.81 -25917501.65 -25917501.48 0.0141 0.0074

Mercury -75672-12-28 04:18 J -25917413.45 -25917413.32 -25917413.19 0.0141 0.0100

Mercury -75671-03-26 11:44 J -25917325.08 -25917325.01 -25917324.92 0.0141 0.0127

Earth -75654-01-02 04:47 J -25911199.44 -25911199.30 -25911199.13 0.0132 0.0104

Moon -75654-01-02 06:13 J -25911199.40 -25911199.24 -25911199.07 0.0132 0.0100 *

Moon -75653-01-06 11:16 J -25910830.24 -25910830.03 -25910829.79 0.0132 0.0071

Earth -75653-01-06 13:11 J -25910830.17 -25910829.95 -25910829.72 0.0132 0.0065 *

Earth -75652-01-09 20:37 J -25910460.89 -25910460.64 -25910460.39 0.0132 0.0025

Moon -75652-01-09 21:49 J -25910460.83 -25910460.59 -25910460.34 0.0132 0.0019 *

Moon -75651-01-14 02:08 J -25910091.67 -25910091.41 -25910091.14 0.0132 0.0008

Earth -75651-01-14 03:06 J -25910091.62 -25910091.37 -25910091.11 0.0132 0.0014 *

Earth -75650-01-18 08:52 J -25909722.36 -25909722.13 -25909721.89 0.0132 0.0053

Moon -75650-01-18 10:04 J -25909722.29 -25909722.08 -25909721.84 0.0132 0.0058 *

Moon -75649-01-22 13:11 J -25909353.12 -25909352.95 -25909352.74 0.0131 0.0091

Earth -75649-01-22 13:54 J -25909353.08 -25909352.92 -25909352.71 0.0131 0.0092 *

Earth -75648-01-25 18:56 J -25908983.75 -25908983.71 -25908983.65 0.0131 0.0129

Moon -75648-01-25 19:54 J -25908983.71 -25908983.67 -25908983.60 0.0131 0.0128 *

Venus -75636-05-14 08:23 J -25904492.25 -25904492.15 -25904492.04 0.0133 0.0117

Venus -75636-12-26 11:30 J -25904266.19 -25904266.02 -25904265.82 0.0133 0.0065

Venus -75635-08-09 14:52 J -25904040.09 -25904039.88 -25904039.66 0.0134 0.0012

Venus -75634-03-23 17:59 J -25903813.94 -25903813.75 -25903813.54 0.0134 0.0042

Venus -75634-11-04 21:20 J -25903587.75 -25903587.61 -25903587.45 0.0134 0.0095

Mars -75632-08-17 09:35 J -25902936.31 -25902936.10 -25902935.88 0.0135 0.0085

Mars -75630-07-17 12:28 J -25902237.25 -25902236.98 -25902236.70 0.0136 0.0029

Mercury -75629-03-28 09:35 J -25901982.14 -25901982.10 -25901982.06 0.0136 0.0130

Mercury -75629-06-24 12:28 J -25901894.04 -25901893.98 -25901893.90 0.0136 0.0114

Mercury -75629-09-20 15:49 J -25901805.93 -25901805.84 -25901805.75 0.0137 0.0097

Mercury -75629-12-17 18:56 J -25901717.81 -25901717.71 -25901717.60 0.0137 0.0080

Mercury -75628-03-15 22:04 J -25901629.69 -25901629.58 -25901629.45 0.0137 0.0064

Mercury -75628-06-12 01:25 J -25901541.56 -25901541.44 -25901541.31 0.0137 0.0047
 Mars -75628-06-16 02:52 J -25901537.65 -25901537.38 -25901537.10 0.0137 0.0031
 Mercury -75628-09-08 04:47 J -25901453.43 -25901453.30 -25901453.17 0.0137 0.0030
 Mercury -75628-12-05 07:54 J -25901365.30 -25901365.17 -25901365.03 0.0137 0.0013
 Mercury -75627-03-03 11:16 J -25901277.16 -25901277.03 -25901276.90 0.0137 0.0005
 Mercury -75627-05-30 14:37 J -25901189.02 -25901188.89 -25901188.76 0.0138 0.0022
 Mercury -75627-08-26 17:44 J -25901100.88 -25901100.76 -25901100.62 0.0138 0.0040
 Mercury -75627-11-22 21:20 J -25901012.74 -25901012.61 -25901012.49 0.0138 0.0057
 Mercury -75626-02-19 00:28 J -25900924.59 -25900924.48 -25900924.36 0.0138 0.0075
 Mars -75626-05-17 04:47 J -25900837.51 -25900837.30 -25900837.09 0.0138 0.0094
 Mercury -75626-05-18 04:04 J -25900836.43 -25900836.33 -25900836.23 0.0138 0.0093
 Mercury -75626-08-14 07:11 J -25900748.27 -25900748.20 -25900748.11 0.0138 0.0111
 Mercury -75626-11-10 10:32 J -25900660.10 -25900660.06 -25900660.00 0.0138 0.0129
 Earth -75611-06-28 00:13 J -25895316.64 -25895316.49 -25895316.33 0.0146 0.0115
 Moon -75611-06-28 04:04 J -25895316.50 -25895316.33 -25895316.16 0.0146 0.0107 *
 Moon -75610-07-02 21:06 J -25894946.83 -25894946.62 -25894946.38 0.0147 0.0068
 Earth -75610-07-03 00:28 J -25894946.69 -25894946.48 -25894946.24 0.0147 0.0063 *
 Earth -75609-07-07 02:08 J -25894576.66 -25894576.41 -25894576.16 0.0147 0.0009
 Moon -75609-07-07 05:30 J -25894576.52 -25894576.27 -25894576.02 0.0147 0.0009 *
 Moon -75608-07-12 01:11 J -25894206.68 -25894206.45 -25894206.20 0.0147 0.0048
 Earth -75608-07-12 04:18 J -25894206.55 -25894206.32 -25894206.07 0.0147 0.0046 *
 Earth -75607-07-17 07:25 J -25893836.37 -25893836.19 -25893836.00 0.0147 0.0100
 Moon -75607-07-17 09:35 J -25893836.29 -25893836.10 -25893835.90 0.0147 0.0093 *
 Venus -75596-08-29 01:54 J -25889775.58 -25889775.42 -25889775.23 0.0145 0.0093
 Venus -75595-04-12 17:01 J -25889549.01 -25889548.79 -25889548.56 0.0145 0.0020
 Venus -75595-11-25 07:40 J -25889322.38 -25889322.18 -25889321.97 0.0145 0.0053
 Venus -75594-07-09 22:04 J -25889095.67 -25889095.58 -25889095.45 0.0145 0.0125
 Mars -75593-03-26 05:44 J -25888835.28 -25888835.26 -25888835.17 0.0144 0.0143
 Mars -75591-03-03 14:08 J -25888128.22 -25888127.91 -25888127.60 0.0143 0.0056
 Mercury -75590-11-14 12:28 J -25887507.03 -25887506.98 -25887506.92 0.0142 0.0135

Mars -75589-02-08 03:35 J -25887421.67 -25887421.35 -25887421.01 0.0142 0.0028
 Mercury -75589-02-10 20:23 J -25887418.76 -25887418.65 -25887418.51 0.0142 0.0108
 Mercury -75589-05-09 04:47 J -25887330.45 -25887330.30 -25887330.14 0.0142 0.0080
 Mercury -75589-08-05 12:42 J -25887242.14 -25887241.97 -25887241.78 0.0142 0.0053
 Mercury -75589-11-01 21:06 J -25887153.81 -25887153.62 -25887153.43 0.0141 0.0025
 Mercury -75588-01-29 05:01 J -25887065.48 -25887065.29 -25887065.10 0.0141 0.0003
 Mercury -75588-04-27 12:56 J -25886977.14 -25886976.96 -25886976.77 0.0141 0.0029
 Mercury -75588-07-24 20:52 J -25886888.80 -25886888.63 -25886888.45 0.0141 0.0056
 Mercury -75588-10-21 04:32 J -25886800.46 -25886800.31 -25886800.15 0.0141 0.0083
 Mars -75587-01-13 20:23 J -25886715.85 -25886715.65 -25886715.42 0.0141 0.0106
 Mercury -75587-01-17 12:13 J -25886712.10 -25886711.99 -25886711.86 0.0141 0.0109
 Mercury -75587-04-15 20:08 J -25886623.71 -25886623.66 -25886623.61 0.0141 0.0135
 Earth -75570-01-02 16:47 J -25880517.95 -25880517.80 -25880517.62 0.0132 0.0102
 Moon -75570-01-02 18:56 J -25880517.84 -25880517.71 -25880517.54 0.0132 0.0106 *
 Moon -75569-01-06 23:01 J -25880148.77 -25880148.54 -25880148.28 0.0132 0.0056
 Earth -75569-01-07 00:56 J -25880148.67 -25880148.46 -25880148.22 0.0132 0.0062 *
 Earth -75568-01-10 08:23 J -25879779.40 -25879779.15 -25879778.89 0.0132 0.0022
 Moon -75568-01-10 10:04 J -25879779.32 -25879779.08 -25879778.83 0.0132 0.0029 *
 Moon -75567-01-14 12:56 J -25879410.22 -25879409.96 -25879409.70 0.0132 0.0024
 Earth -75567-01-14 14:52 J -25879410.13 -25879409.88 -25879409.62 0.0132 0.0018 *
 Earth -75566-01-18 20:37 J -25879040.87 -25879040.64 -25879040.41 0.0131 0.0057
 Moon -75566-01-18 21:35 J -25879040.81 -25879040.60 -25879040.36 0.0131 0.0054 *
 Moon -75565-01-22 23:44 J -25878671.67 -25878671.51 -25878671.32 0.0131 0.0097
 Earth -75565-01-23 01:40 J -25878671.59 -25878671.43 -25878671.24 0.0131 0.0095 *
 Venus -75552-08-25 23:30 J -25873707.67 -25873707.52 -25873707.36 0.0133 0.0088
 Venus -75551-04-09 02:37 J -25873481.59 -25873481.39 -25873481.18 0.0134 0.0036
 Venus -75551-11-21 05:59 J -25873255.46 -25873255.25 -25873255.04 0.0134 0.0017
 Venus -75550-07-05 09:20 J -25873029.29 -25873029.11 -25873028.93 0.0134 0.0070
 Venus -75549-02-16 12:28 J -25872803.04 -25872802.98 -25872802.88 0.0134 0.0124
 Mars -75549-05-12 16:18 J -25872716.94 -25872716.82 -25872716.65 0.0134 0.0115

Mars -75547-04-11 13:54 J -25872018.16 -25872017.92 -25872017.66 0.0135 0.0060
 Mars -75545-03-10 21:35 J -25871318.89 -25871318.60 -25871318.32 0.0136 0.0002
 Mercury -75545-04-17 16:47 J -25871280.84 -25871280.80 -25871280.75 0.0136 0.0126
 Mercury -75545-07-14 19:54 J -25871192.74 -25871192.67 -25871192.58 0.0137 0.0109
 Mercury -75545-10-10 23:01 J -25871104.63 -25871104.54 -25871104.43 0.0137 0.0093
 Mercury -75544-01-07 02:23 J -25871016.51 -25871016.40 -25871016.29 0.0137 0.0076
 Mercury -75544-04-05 05:30 J -25870928.38 -25870928.27 -25870928.14 0.0137 0.0059
 Mercury -75544-07-02 08:52 J -25870840.25 -25870840.13 -25870840.00 0.0137 0.0042
 Mercury -75544-09-28 12:13 J -25870752.12 -25870751.99 -25870751.86 0.0137 0.0025
 Mercury -75544-12-25 15:20 J -25870663.99 -25870663.86 -25870663.72 0.0137 0.0009
 Mars -75543-02-08 14:08 J -25870619.15 -25870618.91 -25870618.63 0.0137 0.0061
 Mercury -75543-03-23 18:42 J -25870575.85 -25870575.72 -25870575.59 0.0137 0.0009
 Mercury -75543-06-19 22:04 J -25870487.71 -25870487.58 -25870487.45 0.0138 0.0027
 Mercury -75543-09-16 01:11 J -25870399.57 -25870399.45 -25870399.32 0.0138 0.0045
 Mercury -75543-12-13 04:32 J -25870311.42 -25870311.31 -25870311.19 0.0138 0.0062
 Mercury -75542-03-11 07:54 J -25870223.27 -25870223.17 -25870223.06 0.0138 0.0080
 Mercury -75542-06-07 11:16 J -25870135.12 -25870135.03 -25870134.93 0.0138 0.0097
 Mercury -75542-09-03 14:37 J -25870046.96 -25870046.89 -25870046.81 0.0138 0.0115
 Mercury -75542-11-30 17:59 J -25869958.77 -25869958.75 -25869958.71 0.0139 0.0133
 Mars -75541-01-09 18:13 J -25869918.84 -25869918.74 -25869918.59 0.0139 0.0125
 Earth -75527-06-28 12:28 J -25864635.13 -25864634.98 -25864634.81 0.0147 0.0112
 Moon -75527-06-28 16:04 J -25864634.97 -25864634.83 -25864634.68 0.0147 0.0119 *
 Moon -75526-07-03 09:35 J -25864265.33 -25864265.10 -25864264.86 0.0147 0.0053
 Earth -75526-07-03 13:11 J -25864265.17 -25864264.95 -25864264.71 0.0147 0.0059 *
 Earth -75525-07-07 14:37 J -25863895.14 -25863894.89 -25863894.64 0.0147 0.0005
 Moon -75525-07-07 17:59 J -25863894.99 -25863894.75 -25863894.50 0.0147 0.0007 *
 Moon -75524-07-12 13:54 J -25863525.16 -25863524.92 -25863524.67 0.0147 0.0046
 Earth -75524-07-12 16:47 J -25863525.02 -25863524.80 -25863524.55 0.0147 0.0051 *
 Earth -75523-07-17 20:08 J -25863154.83 -25863154.66 -25863154.48 0.0148 0.0105
 Moon -75523-07-17 23:01 J -25863154.69 -25863154.54 -25863154.37 0.0148 0.0112 *

Venus	-75512-04-28 08:23 J	-25859217.25	-25859217.15	-25859217.02	0.0146	0.0125
Venus	-75512-12-10 23:16 J	-25858990.72	-25858990.53	-25858990.30	0.0145	0.0053
Venus	-75511-07-25 14:23 J	-25858764.12	-25858763.90	-25858763.67	0.0145	0.0021
Venus	-75510-03-09 04:47 J	-25858537.46	-25858537.30	-25858537.11	0.0145	0.0093
Mars	-75509-11-21 04:32 J	-25857914.53	-25857914.31	-25857914.05	0.0144	0.0103
Mars	-75507-10-29 07:40 J	-25857207.51	-25857207.18	-25857206.84	0.0143	0.0016
Mercury	-75506-12-04 20:52 J	-25856805.71	-25856805.63	-25856805.54	0.0142	0.0126
Mercury	-75505-03-02 04:47 J	-25856717.42	-25856717.30	-25856717.15	0.0142	0.0099
Mercury	-75505-05-29 13:11 J	-25856629.11	-25856628.95	-25856628.78	0.0142	0.0071
Mercury	-75505-08-25 21:06 J	-25856540.79	-25856540.62	-25856540.43	0.0142	0.0044
Mars	-75505-10-04 14:23 J	-25856501.18	-25856500.90	-25856500.59	0.0141	0.0067
Mercury	-75505-11-22 05:16 J	-25856452.47	-25856452.28	-25856452.08	0.0141	0.0016
Mercury	-75504-02-18 13:25 J	-25856364.13	-25856363.94	-25856363.75	0.0141	0.0012
Mercury	-75504-05-17 21:20 J	-25856275.80	-25856275.61	-25856275.43	0.0141	0.0038
Mercury	-75504-08-14 05:01 J	-25856187.45	-25856187.29	-25856187.12	0.0141	0.0065
Mercury	-75504-11-10 12:42 J	-25856099.10	-25856098.97	-25856098.81	0.0141	0.0092
Mercury	-75503-02-06 20:23 J	-25856010.74	-25856010.65	-25856010.53	0.0141	0.0118
Earth	-75486-01-03 04:32 J	-25849836.47	-25849836.31	-25849836.13	0.0132	0.0099
Moon	-75486-01-03 06:56 J	-25849836.38	-25849836.21	-25849836.03	0.0132	0.0094 *
Moon	-75485-01-07 09:49 J	-25849467.31	-25849467.09	-25849466.85	0.0132	0.0065
Earth	-75485-01-07 12:28 J	-25849467.20	-25849466.98	-25849466.74	0.0132	0.0058 *
Earth	-75484-01-10 19:40 J	-25849097.93	-25849097.68	-25849097.42	0.0132	0.0018
Moon	-75484-01-10 22:04 J	-25849097.83	-25849097.58	-25849097.33	0.0132	0.0012 *
Moon	-75483-01-14 23:44 J	-25848728.77	-25848728.51	-25848728.24	0.0132	0.0016
Earth	-75483-01-15 01:54 J	-25848728.67	-25848728.42	-25848728.17	0.0132	0.0021 *
Earth	-75482-01-19 07:25 J	-25848359.41	-25848359.19	-25848358.95	0.0131	0.0061
Moon	-75482-01-19 09:49 J	-25848359.30	-25848359.09	-25848358.86	0.0131	0.0066 *
Moon	-75481-01-23 10:32 J	-25847990.22	-25847990.06	-25847989.86	0.0131	0.0098
Earth	-75481-01-23 12:28 J	-25847990.12	-25847989.98	-25847989.79	0.0131	0.0100 *
Venus	-75468-04-25 10:32 J	-25843149.17	-25843149.06	-25843148.95	0.0133	0.0114

Venus -75468-12-07 13:25 J -25842923.12 -25842922.94 -25842922.74 0.0133 0.0062
 Venus -75467-07-21 16:47 J -25842697.01 -25842696.80 -25842696.59 0.0134 0.0009
 Venus -75466-03-04 19:54 J -25842470.86 -25842470.67 -25842470.46 0.0134 0.0044
 Venus -75466-10-16 23:16 J -25842244.67 -25842244.53 -25842244.38 0.0134 0.0097
 Mars -75464-01-04 16:04 J -25841799.03 -25841798.83 -25841798.61 0.0135 0.0090
 Mars -75463-12-04 16:18 J -25841100.08 -25841099.82 -25841099.53 0.0136 0.0034
 Mercury -75461-05-07 23:44 J -25840579.56 -25840579.51 -25840579.45 0.0136 0.0123
 Mercury -75461-08-04 02:52 J -25840491.45 -25840491.38 -25840491.29 0.0137 0.0107
 Mercury -75461-10-31 06:13 J -25840403.34 -25840403.24 -25840403.14 0.0137 0.0090
 Mars -75461-11-03 02:08 J -25840400.69 -25840400.41 -25840400.13 0.0137 0.0027
 Mercury -75460-01-27 09:20 J -25840315.22 -25840315.11 -25840315.00 0.0137 0.0073
 Mercury -75460-04-25 12:28 J -25840227.09 -25840226.98 -25840226.85 0.0137 0.0057
 Mercury -75460-07-22 15:49 J -25840138.97 -25840138.84 -25840138.71 0.0137 0.0040
 Mercury -75460-10-18 19:11 J -25840050.83 -25840050.70 -25840050.57 0.0137 0.0023
 Mercury -75459-01-14 22:18 J -25839962.70 -25839962.57 -25839962.43 0.0137 0.0006
 Mercury -75459-04-13 01:40 J -25839874.56 -25839874.43 -25839874.30 0.0138 0.0012
 Mercury -75459-07-10 04:47 J -25839786.42 -25839786.30 -25839786.16 0.0138 0.0030
 Mars -75459-10-03 21:06 J -25839700.82 -25839700.62 -25839700.38 0.0138 0.0090
 Mercury -75459-10-06 08:08 J -25839698.28 -25839698.16 -25839698.03 0.0138 0.0047
 Mercury -75458-01-02 11:30 J -25839610.13 -25839610.02 -25839609.90 0.0138 0.0064
 Mercury -75458-03-31 14:52 J -25839521.98 -25839521.88 -25839521.77 0.0138 0.0082
 Mercury -75458-06-27 17:59 J -25839433.83 -25839433.75 -25839433.65 0.0138 0.0101
 Mercury -75458-09-23 21:35 J -25839345.66 -25839345.60 -25839345.53 0.0138 0.0118
 Mercury -75458-12-21 00:56 J -25839257.48 -25839257.46 -25839257.43 0.0139 0.0136
 Earth -75443-06-28 22:04 J -25833953.75 -25833953.58 -25833953.42 0.0147 0.0110
 Moon -75443-06-29 01:25 J -25833953.61 -25833953.44 -25833953.25 0.0147 0.0102 *
 Moon -75442-07-03 18:56 J -25833583.92 -25833583.71 -25833583.47 0.0147 0.0063
 Earth -75442-07-03 22:18 J -25833583.79 -25833583.57 -25833583.32 0.0147 0.0057 *
 Earth -75441-07-08 00:13 J -25833213.74 -25833213.49 -25833213.24 0.0147 0.0002
 Moon -75441-07-08 03:49 J -25833213.59 -25833213.34 -25833213.09 0.0147 0.0002 *

Moon -75440-07-12 23:01 J -25832843.76 -25832843.54 -25832843.29 0.0147 0.0055
 Earth -75440-07-13 02:37 J -25832843.62 -25832843.39 -25832843.15 0.0147 0.0053 *
 Earth -75439-07-18 05:44 J -25832473.42 -25832473.26 -25832473.08 0.0148 0.0109
 Moon -75439-07-18 08:37 J -25832473.30 -25832473.14 -25832472.95 0.0148 0.0102 *
 Venus -75428-08-10 05:01 J -25828432.46 -25828432.29 -25828432.10 0.0146 0.0086
 Venus -75427-03-24 20:08 J -25828205.88 -25828205.66 -25828205.43 0.0145 0.0013
 Venus -75427-11-06 10:32 J -25827979.25 -25827979.06 -25827978.84 0.0145 0.0060
 Venus -75426-06-21 01:11 J -25827752.52 -25827752.45 -25827752.34 0.0145 0.0132
 Mars -75424-07-19 01:25 J -25826993.74 -25826993.44 -25826993.13 0.0144 0.0063
 Mars -75422-06-25 22:47 J -25826286.88 -25826286.55 -25826286.22 0.0142 0.0024
 Mercury -75422-12-25 04:47 J -25826104.39 -25826104.30 -25826104.18 0.0142 0.0118
 Mercury -75421-03-22 13:11 J -25826016.09 -25826015.95 -25826015.79 0.0142 0.0090
 Mercury -75421-06-18 21:20 J -25825927.78 -25825927.61 -25825927.43 0.0142 0.0062
 Mercury -75421-09-15 05:30 J -25825839.45 -25825839.27 -25825839.08 0.0142 0.0034
 Mercury -75421-12-12 13:40 J -25825751.12 -25825750.93 -25825750.74 0.0141 0.0007
 Mercury -75420-03-10 21:35 J -25825662.79 -25825662.60 -25825662.41 0.0141 0.0020
 Mars -75420-05-31 23:01 J -25825580.74 -25825580.54 -25825580.29 0.0141 0.0105
 Mercury -75420-06-07 05:16 J -25825574.45 -25825574.28 -25825574.09 0.0141 0.0048
 Mercury -75420-09-03 13:11 J -25825486.10 -25825485.95 -25825485.78 0.0141 0.0074
 Mercury -75420-11-30 21:06 J -25825397.75 -25825397.62 -25825397.48 0.0141 0.0100
 Mercury -75419-02-27 05:01 J -25825309.37 -25825309.29 -25825309.21 0.0141 0.0126
 Earth -75402-01-03 16:32 J -25819154.98 -25819154.81 -25819154.62 0.0132 0.0096
 Moon -75402-01-03 19:25 J -25819154.84 -25819154.69 -25819154.51 0.0132 0.0100 *
 Moon -75401-01-07 21:20 J -25818785.84 -25818785.61 -25818785.35 0.0132 0.0050
 Earth -75401-01-08 00:28 J -25818785.71 -25818785.48 -25818785.24 0.0132 0.0055 *
 Earth -75400-01-11 07:11 J -25818416.45 -25818416.20 -25818415.94 0.0132 0.0015
 Moon -75400-01-11 09:49 J -25818416.34 -25818416.09 -25818415.84 0.0132 0.0022 *
 Moon -75399-01-15 10:32 J -25818047.31 -25818047.06 -25818046.80 0.0131 0.0032
 Earth -75399-01-15 13:40 J -25818047.18 -25818046.93 -25818046.68 0.0131 0.0025 *
 Earth -75398-01-19 18:56 J -25817677.92 -25817677.71 -25817677.48 0.0131 0.0065

Moon -75398-01-19 21:20 J -25817677.82 -25817677.61 -25817677.38 0.0131 0.0060 *
 Moon -75397-01-23 21:35 J -25817308.75 -25817308.60 -25817308.44 0.0131 0.0106
 Earth -75397-01-23 23:59 J -25817308.64 -25817308.50 -25817308.32 0.0131 0.0103 *
 Venus -75384-08-07 00:42 J -25812364.62 -25812364.47 -25812364.30 0.0133 0.0086
 Venus -75383-03-21 03:49 J -25812138.54 -25812138.34 -25812138.13 0.0133 0.0034
 Venus -75383-11-02 06:56 J -25811912.41 -25811912.21 -25811912.00 0.0134 0.0019
 Venus -75382-06-16 10:18 J -25811686.25 -25811686.07 -25811685.89 0.0134 0.0071
 Mars -75382-09-30 22:32 J -25811579.66 -25811579.56 -25811579.41 0.0134 0.0119
 Venus -75381-01-28 13:54 J -25811460.00 -25811459.92 -25811459.85 0.0134 0.0125
 Mars -75380-08-29 17:16 J -25810881.02 -25810880.78 -25810880.53 0.0135 0.0064
 Mars -75378-07-29 19:54 J -25810181.95 -25810181.67 -25810181.39 0.0136 0.0006
 Mercury -75377-05-28 06:42 J -25809878.27 -25809878.22 -25809878.15 0.0136 0.0120
 Mercury -75377-08-24 10:04 J -25809790.16 -25809790.08 -25809790.00 0.0136 0.0104
 Mercury -75377-11-20 12:56 J -25809702.05 -25809701.96 -25809701.85 0.0137 0.0088
 Mercury -75376-02-16 16:18 J -25809613.93 -25809613.82 -25809613.70 0.0137 0.0071
 Mercury -75376-05-15 19:25 J -25809525.80 -25809525.69 -25809525.56 0.0137 0.0054
 Mars -75376-06-28 06:42 J -25809482.48 -25809482.22 -25809481.96 0.0137 0.0055
 Mercury -75376-08-11 22:47 J -25809437.68 -25809437.55 -25809437.42 0.0137 0.0037
 Mercury -75376-11-08 02:08 J -25809349.54 -25809349.41 -25809349.28 0.0137 0.0020
 Mercury -75375-02-04 05:16 J -25809261.41 -25809261.28 -25809261.14 0.0137 0.0004
 Mercury -75375-05-03 08:37 J -25809173.27 -25809173.14 -25809173.01 0.0137 0.0015
 Mercury -75375-07-30 11:44 J -25809085.13 -25809085.01 -25809084.88 0.0138 0.0032
 Mercury -75375-10-26 15:06 J -25808996.99 -25808996.87 -25808996.74 0.0138 0.0049
 Mercury -75374-01-22 18:28 J -25808908.85 -25808908.73 -25808908.61 0.0138 0.0067
 Mercury -75374-04-20 21:35 J -25808820.69 -25808820.60 -25808820.48 0.0138 0.0085
 Mars -75374-05-29 05:59 J -25808782.38 -25808782.25 -25808782.09 0.0138 0.0119
 Mercury -75374-07-18 01:11 J -25808732.54 -25808732.45 -25808732.36 0.0138 0.0102
 Mercury -75374-10-14 04:18 J -25808644.37 -25808644.32 -25808644.24 0.0138 0.0121
 Mercury -75373-01-10 07:54 J -25808556.17 -25808556.17 -25808556.16 0.0139 0.0138
 Earth -75359-06-29 05:16 J -25803272.43 -25803272.28 -25803272.10 0.0147 0.0109

Moon	-75359-06-29 08:08 J	-25803272.29	-25803272.16	-25803271.98	0.0147	0.0117	*
Moon	-75358-07-04 02:52 J	-25802902.62	-25802902.38	-25802902.15	0.0147	0.0049	
Earth	-75358-07-04 05:59 J	-25802902.47	-25802902.25	-25802902.00	0.0147	0.0056	*
Earth	-75357-07-08 07:40 J	-25802532.43	-25802532.18	-25802531.92	0.0147	0.0003	
Moon	-75357-07-08 11:16 J	-25802532.28	-25802532.03	-25802531.78	0.0147	0.0003	*
Moon	-75356-07-13 06:42 J	-25802162.45	-25802162.22	-25802161.98	0.0147	0.0052	
Earth	-75356-07-13 10:04 J	-25802162.30	-25802162.08	-25802161.83	0.0147	0.0056	*
Earth	-75355-07-18 13:25 J	-25801792.09	-25801791.94	-25801791.76	0.0148	0.0111	
Moon	-75355-07-18 16:47 J	-25801791.93	-25801791.80	-25801791.63	0.0148	0.0118	*
Venus	-75344-04-09 08:08 J	-25797874.26	-25797874.16	-25797874.03	0.0146	0.0123	
Venus	-75344-11-21 23:30 J	-25797647.73	-25797647.52	-25797647.31	0.0146	0.0050	
Venus	-75343-07-06 14:23 J	-25797421.11	-25797420.90	-25797420.67	0.0145	0.0023	
Venus	-75342-02-18 05:01 J	-25797194.44	-25797194.29	-25797194.11	0.0145	0.0095	
Mars	-75341-04-07 00:56 J	-25796780.64	-25796780.46	-25796780.22	0.0144	0.0115	
Mars	-75339-03-15 12:28 J	-25796073.30	-25796072.98	-25796072.64	0.0143	0.0024	
Mercury	-75338-10-18 03:49 J	-25795491.36	-25795491.34	-25795491.29	0.0142	0.0140	
Mercury	-75337-01-14 12:13 J	-25795403.10	-25795402.99	-25795402.86	0.0142	0.0112	
Mars	-75337-02-20 04:18 J	-25795366.61	-25795366.32	-25795366.01	0.0142	0.0061	
Mercury	-75337-04-11 20:23 J	-25795314.79	-25795314.65	-25795314.49	0.0142	0.0084	
Mercury	-75337-07-09 04:47 J	-25795226.48	-25795226.30	-25795226.12	0.0142	0.0056	
Mercury	-75337-10-05 12:42 J	-25795138.15	-25795137.97	-25795137.78	0.0142	0.0029	
Mercury	-75336-01-01 20:52 J	-25795049.82	-25795049.63	-25795049.44	0.0141	0.0001	
Mercury	-75336-03-31 04:47 J	-25794961.48	-25794961.30	-25794961.11	0.0141	0.0026	
Mercury	-75336-06-27 12:42 J	-25794873.14	-25794872.97	-25794872.79	0.0141	0.0053	
Mercury	-75336-09-23 20:23 J	-25794784.79	-25794784.65	-25794784.48	0.0141	0.0080	
Mercury	-75336-12-21 04:18 J	-25794696.43	-25794696.32	-25794696.19	0.0141	0.0106	
Mars	-75335-01-25 23:59 J	-25794660.51	-25794660.50	-25794660.44	0.0141	0.0140	
Mercury	-75335-03-19 12:13 J	-25794608.05	-25794607.99	-25794607.92	0.0141	0.0132	
Earth	-75318-01-04 03:49 J	-25788473.50	-25788473.34	-25788473.14	0.0132	0.0093	
Moon	-75318-01-04 07:11 J	-25788473.38	-25788473.20	-25788473.01	0.0132	0.0089	*

Moon -75317-01-08 08:37 J -25788104.37 -25788104.14 -25788103.90 0.0132 0.0058
 Earth -75317-01-08 11:44 J -25788104.24 -25788104.01 -25788103.77 0.0132 0.0052 *
 Earth -75316-01-11 18:42 J -25787734.98 -25787734.72 -25787734.46 0.0132 0.0012
 Moon -75316-01-11 21:49 J -25787734.84 -25787734.59 -25787734.34 0.0132 0.0005 *
 Moon -75315-01-15 21:49 J -25787365.84 -25787365.59 -25787365.32 0.0131 0.0022
 Earth -75315-01-16 00:56 J -25787365.71 -25787365.46 -25787365.21 0.0131 0.0029 *
 Earth -75314-01-20 06:13 J -25786996.44 -25786996.24 -25786996.01 0.0131 0.0068
 Moon -75314-01-20 09:35 J -25786996.30 -25786996.10 -25786995.89 0.0131 0.0074 *
 Moon -75313-01-24 08:37 J -25786627.29 -25786627.14 -25786626.97 0.0131 0.0104
 Earth -75313-01-24 11:30 J -25786627.15 -25786627.02 -25786626.86 0.0131 0.0107 *
 Venus -75300-04-06 11:44 J -25781806.11 -25781806.01 -25781805.88 0.0133 0.0111
 Venus -75300-11-18 14:52 J -25781580.06 -25781579.88 -25781579.68 0.0133 0.0059
 Venus -75299-07-02 18:13 J -25781353.95 -25781353.74 -25781353.53 0.0133 0.0007
 Venus -75298-02-13 21:20 J -25781127.80 -25781127.61 -25781127.41 0.0134 0.0046
 Venus -75298-09-28 00:28 J -25780901.61 -25780901.48 -25780901.33 0.0134 0.0099
 Mars -75297-05-24 22:18 J -25780661.75 -25780661.57 -25780661.35 0.0134 0.0095
 Mars -75295-04-23 19:25 J -25779962.95 -25779962.69 -25779962.42 0.0135 0.0038
 Mercury -75293-03-21 10:47 J -25779265.07 -25779265.05 -25779265.03 0.0136 0.0134
 Mars -75293-03-22 23:16 J -25779263.81 -25779263.53 -25779263.25 0.0136 0.0021
 Mercury -75293-06-17 13:40 J -25779176.98 -25779176.93 -25779176.86 0.0136 0.0118
 Mercury -75293-09-13 16:47 J -25779088.88 -25779088.80 -25779088.70 0.0136 0.0102
 Mercury -75293-12-10 20:08 J -25779000.76 -25779000.66 -25779000.55 0.0137 0.0084
 Mercury -75292-03-08 23:16 J -25778912.64 -25778912.53 -25778912.41 0.0137 0.0068
 Mercury -75292-06-05 02:37 J -25778824.51 -25778824.39 -25778824.27 0.0137 0.0051
 Mercury -75292-09-01 05:44 J -25778736.39 -25778736.26 -25778736.13 0.0137 0.0034
 Mercury -75292-11-28 08:52 J -25778648.26 -25778648.13 -25778647.99 0.0137 0.0018
 Mars -75291-02-20 12:56 J -25778564.17 -25778563.96 -25778563.72 0.0137 0.0084
 Mercury -75291-02-24 12:13 J -25778560.12 -25778559.99 -25778559.86 0.0137 0.0000
 Mercury -75291-05-23 15:35 J -25778471.99 -25778471.85 -25778471.72 0.0137 0.0017
 Mercury -75291-08-19 18:42 J -25778383.85 -25778383.72 -25778383.59 0.0138 0.0035

Mercury -75291-11-15 22:04 J -25778295.70 -25778295.58 -25778295.46 0.0138 0.0052
 Mercury -75290-02-12 01:11 J -25778207.56 -25778207.45 -25778207.33 0.0138 0.0070
 Mercury -75290-05-11 04:32 J -25778119.41 -25778119.31 -25778119.20 0.0138 0.0087
 Mercury -75290-08-07 07:54 J -25778031.25 -25778031.17 -25778031.08 0.0138 0.0105
 Mercury -75290-11-03 11:30 J -25777943.08 -25777943.02 -25777942.96 0.0138 0.0123
 Earth -75275-06-29 11:59 J -25772591.16 -25772591.00 -25772590.83 0.0147 0.0109
 Moon -75275-06-29 14:52 J -25772591.05 -25772590.88 -25772590.68 0.0147 0.0101 *
 Moon -75274-07-04 09:35 J -25772221.31 -25772221.10 -25772220.86 0.0147 0.0062
 Earth -75274-07-04 12:28 J -25772221.20 -25772220.98 -25772220.73 0.0147 0.0055 *
 Earth -75273-07-08 14:23 J -25771851.15 -25771850.90 -25771850.65 0.0147 0.0002
 Moon -75273-07-08 17:59 J -25771851.01 -25771850.75 -25771850.50 0.0147 0.0003 *
 Moon -75272-07-13 13:25 J -25771481.17 -25771480.94 -25771480.71 0.0147 0.0058
 Earth -75272-07-13 17:01 J -25771481.02 -25771480.79 -25771480.56 0.0147 0.0057 *
 Earth -75271-07-18 20:08 J -25771110.81 -25771110.66 -25771110.49 0.0148 0.0113
 Moon -75271-07-18 23:30 J -25771110.68 -25771110.52 -25771110.33 0.0148 0.0107 *
 Venus -75260-07-22 02:08 J -25767089.58 -25767089.41 -25767089.22 0.0146 0.0088
 Venus -75259-03-05 17:16 J -25766863.00 -25766862.78 -25766862.55 0.0146 0.0015
 Venus -75259-10-18 07:54 J -25766636.36 -25766636.17 -25766635.95 0.0145 0.0059
 Venus -75258-06-01 22:47 J -25766409.63 -25766409.55 -25766409.44 0.0145 0.0130
 Mars -75257-12-02 13:40 J -25765860.19 -25765859.93 -25765859.62 0.0144 0.0076
 Mars -75255-11-09 20:23 J -25765152.98 -25765152.65 -25765152.31 0.0143 0.0014
 Mercury -75254-11-07 10:47 J -25764790.09 -25764790.05 -25764789.98 0.0142 0.0136
 Mercury -75253-02-03 19:11 J -25764701.82 -25764701.70 -25764701.57 0.0142 0.0107
 Mercury -75253-05-02 03:20 J -25764613.51 -25764613.36 -25764613.19 0.0142 0.0079
 Mercury -75253-07-29 11:44 J -25764525.19 -25764525.01 -25764524.83 0.0142 0.0051
 Mars -75253-10-16 07:25 J -25764446.42 -25764446.19 -25764445.94 0.0142 0.0098
 Mercury -75253-10-25 19:40 J -25764436.86 -25764436.68 -25764436.48 0.0142 0.0024
 Mercury -75252-01-22 03:49 J -25764348.53 -25764348.34 -25764348.15 0.0142 0.0004
 Mercury -75252-04-20 11:44 J -25764260.19 -25764260.01 -25764259.82 0.0141 0.0031
 Mercury -75252-07-17 19:40 J -25764171.85 -25764171.68 -25764171.50 0.0141 0.0058

Mercury -75252-10-14 03:20 J -25764083.50 -25764083.36 -25764083.19 0.0141 0.0086

Mercury -75251-01-10 11:30 J -25763995.13 -25763995.02 -25763994.90 0.0141 0.0111

Mercury -75251-04-08 18:56 J -25763906.73 -25763906.71 -25763906.66 0.0141 0.0138

Moon -75236-12-31 03:35 J -25758161.38 -25758161.35 -25758161.30 0.0133 0.0131

Earth -75236-12-31 06:42 J -25758161.23 -25758161.22 -25758161.17 0.0133 0.0132

Earth -75234-01-04 15:20 J -25757792.03 -25757791.86 -25757791.66 0.0132 0.0090

Moon -75234-01-04 18:56 J -25757791.87 -25757791.71 -25757791.52 0.0132 0.0094 *

Moon -75233-01-08 19:54 J -25757422.91 -25757422.67 -25757422.42 0.0132 0.0044

Earth -75233-01-08 23:16 J -25757422.76 -25757422.53 -25757422.28 0.0132 0.0049 *

Earth -75232-01-12 06:13 J -25757053.50 -25757053.24 -25757052.98 0.0132 0.0008

Moon -75232-01-12 09:20 J -25757053.36 -25757053.11 -25757052.85 0.0132 0.0015 *

Moon -75231-01-16 08:52 J -25756684.37 -25756684.13 -25756683.87 0.0132 0.0039

Earth -75231-01-16 12:28 J -25756684.22 -25756683.98 -25756683.72 0.0132 0.0032 *

Earth -75230-01-20 17:59 J -25756314.95 -25756314.75 -25756314.52 0.0131 0.0073

Moon -75230-01-20 21:20 J -25756314.82 -25756314.61 -25756314.39 0.0131 0.0068 *

Moon -75229-01-24 19:54 J -25755945.78 -25755945.67 -25755945.53 0.0131 0.0115

Earth -75229-01-24 23:16 J -25755945.65 -25755945.53 -25755945.38 0.0131 0.0112 *

Venus -75217-12-05 00:56 J -25751247.46 -25751247.46 -25751247.45 0.0133 0.0133

Venus -75216-07-19 03:49 J -25751021.50 -25751021.34 -25751021.16 0.0133 0.0081

Venus -75215-03-02 06:56 J -25750795.41 -25750795.21 -25750795.00 0.0133 0.0029

Venus -75215-10-14 10:04 J -25750569.28 -25750569.08 -25750568.86 0.0133 0.0024

Mars -75214-02-18 12:56 J -25750442.05 -25750441.96 -25750441.85 0.0134 0.0124

Venus -75214-05-28 13:25 J -25750343.11 -25750342.94 -25750342.76 0.0134 0.0076

Venus -75213-01-09 16:32 J -25750116.84 -25750116.81 -25750116.73 0.0134 0.0129

Mars -75212-01-17 04:18 J -25749743.54 -25749743.32 -25749743.06 0.0134 0.0069

Mars -75211-12-17 01:54 J -25749044.70 -25749044.42 -25749044.14 0.0135 0.0011

Mercury -75209-04-10 18:13 J -25748563.78 -25748563.74 -25748563.70 0.0136 0.0128

Mercury -75209-07-07 21:20 J -25748475.68 -25748475.61 -25748475.53 0.0136 0.0112

Mercury -75209-10-04 00:28 J -25748387.57 -25748387.48 -25748387.38 0.0136 0.0096

Mars -75209-11-15 08:23 J -25748345.40 -25748345.15 -25748344.88 0.0136 0.0051

Mercury -75209-12-31 03:35 J -25748299.45 -25748299.35 -25748299.24 0.0137 0.0080

Mercury -75208-03-29 06:56 J -25748211.33 -25748211.21 -25748211.09 0.0137 0.0063

Mercury -75208-06-25 10:04 J -25748123.20 -25748123.08 -25748122.95 0.0137 0.0046

Mercury -75208-09-21 13:25 J -25748035.07 -25748034.94 -25748034.81 0.0137 0.0029

Mercury -75208-12-18 16:32 J -25747946.94 -25747946.81 -25747946.68 0.0137 0.0012

Mercury -75207-03-16 19:54 J -25747858.81 -25747858.67 -25747858.54 0.0137 0.0006

Mercury -75207-06-12 23:01 J -25747770.67 -25747770.54 -25747770.41 0.0137 0.0023

Mercury -75207-09-09 02:23 J -25747682.53 -25747682.40 -25747682.27 0.0138 0.0040

Mars -75207-10-16 02:52 J -25747645.53 -25747645.38 -25747645.21 0.0138 0.0114

Mercury -75207-12-06 05:30 J -25747594.39 -25747594.27 -25747594.14 0.0138 0.0058

Mercury -75206-03-04 08:52 J -25747506.24 -25747506.13 -25747506.01 0.0138 0.0075

Mercury -75206-05-31 11:59 J -25747418.09 -25747418.00 -25747417.89 0.0138 0.0093

Mercury -75206-08-27 15:35 J -25747329.93 -25747329.85 -25747329.77 0.0138 0.0110

Mercury -75206-11-23 18:42 J -25747241.75 -25747241.72 -25747241.66 0.0138 0.0129

Earth -75191-06-29 23:01 J -25741909.69 -25741909.54 -25741909.35 0.0147 0.0107

Moon -75191-06-30 01:11 J -25741909.59 -25741909.45 -25741909.27 0.0147 0.0114 *

Moon -75190-07-04 20:52 J -25741539.85 -25741539.63 -25741539.39 0.0147 0.0046

Earth -75190-07-04 23:44 J -25741539.73 -25741539.51 -25741539.26 0.0147 0.0052 *

Earth -75189-07-09 01:25 J -25741169.69 -25741169.44 -25741169.18 0.0147 0.0005

Moon -75189-07-09 04:32 J -25741169.56 -25741169.31 -25741169.05 0.0147 0.0001 *

Moon -75188-07-14 00:28 J -25740799.70 -25740799.48 -25740799.24 0.0147 0.0058

Earth -75188-07-14 03:49 J -25740799.56 -25740799.34 -25740799.10 0.0147 0.0061 *

Earth -75187-07-19 07:25 J -25740429.34 -25740429.19 -25740429.03 0.0148 0.0117

Moon -75187-07-19 11:01 J -25740429.17 -25740429.04 -25740428.89 0.0148 0.0123 *

Venus -75176-03-21 06:28 J -25736531.34 -25736531.23 -25736531.10 0.0146 0.0123

Venus -75176-11-02 21:49 J -25736304.80 -25736304.59 -25736304.38 0.0146 0.0050

Venus -75175-06-17 12:56 J -25736078.18 -25736077.96 -25736077.74 0.0145 0.0023

Venus -75174-01-30 03:49 J -25735851.50 -25735851.34 -25735851.17 0.0145 0.0095

Mars -75174-08-22 11:59 J -25735647.15 -25735647.00 -25735646.84 0.0145 0.0128

Mars -75172-07-30 06:42 J -25734939.54 -25734939.22 -25734938.89 0.0144 0.0036

Mars -75170-07-07 07:54 J -25734232.47 -25734232.17 -25734231.85 0.0143 0.0053
 Mercury -75170-11-27 18:28 J -25734088.80 -25734088.73 -25734088.64 0.0142 0.0129
 Mercury -75169-02-24 02:37 J -25734000.52 -25734000.39 -25734000.24 0.0142 0.0101
 Mercury -75169-05-22 11:01 J -25733912.20 -25733912.04 -25733911.87 0.0142 0.0072
 Mercury -75169-08-18 18:56 J -25733823.88 -25733823.71 -25733823.52 0.0142 0.0045
 Mercury -75169-11-15 03:20 J -25733735.55 -25733735.36 -25733735.17 0.0142 0.0017
 Mercury -75168-02-11 11:16 J -25733647.22 -25733647.03 -25733646.83 0.0142 0.0011
 Mercury -75168-05-10 19:25 J -25733558.88 -25733558.69 -25733558.51 0.0141 0.0038
 Mars -75168-06-12 13:25 J -25733526.04 -25733525.94 -25733525.84 0.0141 0.0135
 Mercury -75168-08-07 03:20 J -25733470.53 -25733470.36 -25733470.19 0.0141 0.0065
 Mercury -75168-11-03 11:01 J -25733382.18 -25733382.04 -25733381.89 0.0141 0.0091
 Mercury -75167-01-30 18:42 J -25733293.81 -25733293.72 -25733293.60 0.0141 0.0118
 Moon -75152-12-31 14:52 J -25727479.92 -25727479.88 -25727479.80 0.0133 0.0129
 Earth -75152-12-31 18:42 J -25727479.76 -25727479.72 -25727479.64 0.0133 0.0129
 Earth -75150-01-05 03:20 J -25727110.54 -25727110.36 -25727110.16 0.0132 0.0087
 Moon -75150-01-05 06:42 J -25727110.40 -25727110.22 -25727110.01 0.0132 0.0085 *
 Moon -75149-01-09 07:25 J -25726741.42 -25726741.19 -25726740.94 0.0132 0.0052
 Earth -75149-01-09 11:01 J -25726741.27 -25726741.04 -25726740.78 0.0132 0.0046 *
 Earth -75148-01-12 18:28 J -25726371.99 -25726371.73 -25726371.48 0.0132 0.0005
 Moon -75148-01-12 22:04 J -25726371.84 -25726371.58 -25726371.33 0.0132 0.0002 *
 Moon -75147-01-16 21:20 J -25726002.85 -25726002.61 -25726002.35 0.0132 0.0030
 Earth -75147-01-17 00:42 J -25726002.71 -25726002.47 -25726002.21 0.0132 0.0037 *
 Earth -75146-01-21 06:28 J -25725633.42 -25725633.23 -25725633.01 0.0131 0.0077
 Moon -75146-01-21 10:04 J -25725633.26 -25725633.08 -25725632.87 0.0131 0.0083 *
 Moon -75145-01-25 08:37 J -25725264.26 -25725264.14 -25725264.00 0.0131 0.0113
 Earth -75145-01-25 11:44 J -25725264.11 -25725264.01 -25725263.87 0.0131 0.0116 *
 Venus -75132-03-18 16:47 J -25720462.93 -25720462.80 -25720462.66 0.0133 0.0103
 Venus -75132-10-30 19:54 J -25720236.87 -25720236.67 -25720236.48 0.0133 0.0052
 Venus -75131-06-13 23:01 J -25720010.75 -25720010.54 -25720010.33 0.0133 0.0001
 Venus -75130-01-26 02:08 J -25719784.59 -25719784.41 -25719784.21 0.0134 0.0053

Venus -75130-09-09 05:30 J -25719558.39 -25719558.27 -25719558.13 0.0134 0.0106
 Mars -75130-10-13 16:47 J -25719523.97 -25719523.80 -25719523.60 0.0134 0.0099
 Mars -75128-09-11 09:06 J -25718825.37 -25718825.12 -25718824.84 0.0135 0.0043
 Mars -75126-08-11 09:35 J -25718126.38 -25718126.10 -25718125.82 0.0136 0.0018
 Mercury -75125-05-01 01:40 J -25717862.47 -25717862.43 -25717862.37 0.0136 0.0124
 Mercury -75125-07-28 04:47 J -25717774.37 -25717774.30 -25717774.21 0.0136 0.0107
 Mercury -75125-10-24 08:08 J -25717686.26 -25717686.16 -25717686.06 0.0136 0.0090
 Mercury -75124-01-20 11:16 J -25717598.14 -25717598.03 -25717597.92 0.0137 0.0074
 Mercury -75124-04-18 14:23 J -25717510.01 -25717509.90 -25717509.77 0.0137 0.0057
 Mars -75124-07-10 19:54 J -25717426.88 -25717426.67 -25717426.42 0.0137 0.0080
 Mercury -75124-07-15 17:30 J -25717421.89 -25717421.77 -25717421.64 0.0137 0.0041
 Mercury -75124-10-11 20:52 J -25717333.76 -25717333.63 -25717333.50 0.0137 0.0024
 Mercury -75123-01-08 00:13 J -25717245.63 -25717245.49 -25717245.36 0.0137 0.0007
 Mercury -75123-04-06 03:20 J -25717157.49 -25717157.36 -25717157.23 0.0137 0.0011
 Mercury -75123-07-03 06:42 J -25717069.35 -25717069.22 -25717069.09 0.0137 0.0028
 Mercury -75123-09-29 09:49 J -25716981.21 -25716981.09 -25716980.96 0.0138 0.0046
 Mercury -75123-12-26 13:11 J -25716893.07 -25716892.95 -25716892.83 0.0138 0.0063
 Mercury -75122-03-24 16:18 J -25716804.92 -25716804.82 -25716804.70 0.0138 0.0081
 Mercury -75122-06-20 19:54 J -25716716.76 -25716716.67 -25716716.58 0.0138 0.0098
 Mercury -75122-09-16 23:01 J -25716628.60 -25716628.54 -25716628.46 0.0138 0.0116
 Mercury -75122-12-14 02:23 J -25716540.42 -25716540.40 -25716540.36 0.0138 0.0134
 Earth -75107-06-30 12:42 J -25711228.14 -25711227.97 -25711227.78 0.0147 0.0103
 Moon -75107-06-30 14:52 J -25711228.07 -25711227.88 -25711227.67 0.0147 0.0095 *
 Moon -75106-07-05 11:01 J -25710858.25 -25710858.04 -25710857.80 0.0147 0.0055
 Earth -75106-07-05 13:25 J -25710858.18 -25710857.94 -25710857.70 0.0147 0.0047 *
 Earth -75105-07-09 15:06 J -25710488.12 -25710487.87 -25710487.62 0.0147 0.0009
 Moon -75105-07-09 18:13 J -25710488.00 -25710487.74 -25710487.49 0.0147 0.0011 *
 Moon -75104-07-14 14:23 J -25710118.11 -25710117.90 -25710117.67 0.0147 0.0066
 Earth -75104-07-14 17:44 J -25710117.98 -25710117.76 -25710117.53 0.0147 0.0066 *
 Earth -75103-07-19 20:52 J -25709747.76 -25709747.63 -25709747.48 0.0148 0.0123

Moon -75103-07-20 00:13 J -25709747.63 -25709747.49 -25709747.32 0.0148 0.0117 *
 Venus -75092-07-03 04:18 J -25705746.50 -25705746.32 -25705746.13 0.0146 0.0082
 Venus -75091-02-14 19:40 J -25705519.90 -25705519.68 -25705519.46 0.0146 0.0009
 Venus -75091-09-29 10:18 J -25705293.26 -25705293.07 -25705292.85 0.0145 0.0064
 Venus -75090-05-14 01:11 J -25705066.51 -25705066.45 -25705066.36 0.0145 0.0136
 Mars -75089-04-18 15:20 J -25704726.12 -25704725.86 -25704725.57 0.0144 0.0087
 Mars -75087-03-27 05:30 J -25704018.61 -25704018.27 -25704017.93 0.0143 0.0006
 Mercury -75086-12-18 03:06 J -25703387.47 -25703387.37 -25703387.26 0.0142 0.0119
 Mars -75085-03-03 00:28 J -25703311.73 -25703311.48 -25703311.22 0.0142 0.0093
 Mercury -75085-03-15 11:16 J -25703299.17 -25703299.03 -25703298.88 0.0142 0.0091
 Mercury -75085-06-11 19:40 J -25703210.85 -25703210.68 -25703210.51 0.0142 0.0062
 Mercury -75085-09-08 03:35 J -25703122.53 -25703122.35 -25703122.16 0.0142 0.0035
 Mercury -75085-12-05 11:44 J -25703034.20 -25703034.01 -25703033.81 0.0142 0.0008
 Mercury -75084-03-03 19:54 J -25702945.86 -25702945.67 -25702945.48 0.0142 0.0020
 Mercury -75084-05-31 03:49 J -25702857.52 -25702857.34 -25702857.16 0.0141 0.0047
 Mercury -75084-08-27 11:44 J -25702769.17 -25702769.01 -25702768.85 0.0141 0.0074
 Mercury -75084-11-23 19:25 J -25702680.81 -25702680.69 -25702680.55 0.0141 0.0101
 Mercury -75083-02-20 03:20 J -25702592.43 -25702592.36 -25702592.28 0.0141 0.0127
 Moon -75067-01-01 05:01 J -25696798.35 -25696798.29 -25696798.19 0.0133 0.0126
 Earth -75067-01-01 08:23 J -25696798.20 -25696798.15 -25696798.04 0.0133 0.0126 *
 Earth -75066-01-05 17:16 J -25696428.97 -25696428.78 -25696428.57 0.0132 0.0083
 Moon -75066-01-05 20:52 J -25696428.80 -25696428.63 -25696428.42 0.0132 0.0088 *
 Moon -75065-01-09 21:35 J -25696059.84 -25696059.60 -25696059.34 0.0132 0.0037
 Earth -75065-01-10 01:11 J -25696059.68 -25696059.45 -25696059.20 0.0132 0.0042 *
 Earth -75064-01-13 08:23 J -25695690.41 -25695690.15 -25695689.89 0.0132 0.0000
 Moon -75064-01-13 11:59 J -25695690.26 -25695690.00 -25695689.75 0.0132 0.0007 *
 Moon -75063-01-17 11:01 J -25695321.27 -25695321.04 -25695320.79 0.0132 0.0049
 Earth -75063-01-17 15:06 J -25695321.12 -25695320.87 -25695320.63 0.0132 0.0041 *
 Earth -75062-01-21 20:52 J -25694951.83 -25694951.63 -25694951.43 0.0131 0.0082
 Moon -75062-01-22 00:13 J -25694951.69 -25694951.49 -25694951.28 0.0131 0.0077 *

Moon -75061-01-25 22:32 J -25694582.64 -25694582.56 -25694582.48 0.0131 0.0125
 Earth -75061-01-26 01:54 J -25694582.50 -25694582.42 -25694582.31 0.0131 0.0122 *
 Venus -75049-11-16 06:28 J -25689904.29 -25689904.23 -25689904.15 0.0133 0.0124
 Venus -75048-06-30 09:20 J -25689678.27 -25689678.11 -25689677.92 0.0133 0.0073
 Venus -75047-02-11 12:56 J -25689452.17 -25689451.96 -25689451.75 0.0133 0.0021
 Mars -75047-07-09 10:18 J -25689304.13 -25689304.07 -25689303.98 0.0133 0.0128
 Venus -75047-09-25 16:04 J -25689226.03 -25689225.83 -25689225.62 0.0133 0.0032
 Venus -75046-05-09 18:56 J -25688999.86 -25688999.71 -25688999.53 0.0134 0.0085
 Mars -75045-06-06 22:32 J -25688605.78 -25688605.56 -25688605.32 0.0134 0.0073
 Mars -75043-05-06 17:30 J -25687907.05 -25687906.77 -25687906.49 0.0135 0.0014
 Mercury -75041-02-23 06:28 J -25687249.25 -25687249.23 -25687249.20 0.0136 0.0133
 Mars -75041-04-04 22:04 J -25687207.84 -25687207.58 -25687207.31 0.0136 0.0048
 Mercury -75041-05-21 09:35 J -25687161.16 -25687161.10 -25687161.03 0.0136 0.0117
 Mercury -75041-08-17 12:42 J -25687073.05 -25687072.97 -25687072.88 0.0136 0.0101
 Mercury -75041-11-13 15:49 J -25686984.94 -25686984.84 -25686984.73 0.0137 0.0084
 Mercury -75040-02-09 18:56 J -25686896.81 -25686896.71 -25686896.59 0.0137 0.0068
 Mercury -75040-05-08 22:18 J -25686808.69 -25686808.57 -25686808.44 0.0137 0.0051
 Mercury -75040-08-05 01:25 J -25686720.56 -25686720.44 -25686720.31 0.0137 0.0034
 Mercury -75040-11-01 04:47 J -25686632.43 -25686632.30 -25686632.17 0.0137 0.0017
 Mercury -75039-01-28 07:54 J -25686544.30 -25686544.17 -25686544.03 0.0137 0.0004
 Mars -75039-03-05 11:59 J -25686508.16 -25686508.00 -25686507.83 0.0137 0.0111
 Mercury -75039-04-26 11:16 J -25686456.16 -25686456.03 -25686455.90 0.0137 0.0017
 Mercury -75039-07-23 14:37 J -25686368.02 -25686367.89 -25686367.76 0.0137 0.0035
 Mercury -75039-10-19 17:44 J -25686279.88 -25686279.76 -25686279.63 0.0138 0.0052
 Mercury -75038-01-15 21:06 J -25686191.73 -25686191.62 -25686191.50 0.0138 0.0070
 Mercury -75038-04-14 00:28 J -25686103.58 -25686103.48 -25686103.38 0.0138 0.0087
 Mercury -75038-07-11 03:35 J -25686015.43 -25686015.35 -25686015.26 0.0138 0.0106
 Mercury -75038-10-07 06:56 J -25685927.26 -25685927.21 -25685927.14 0.0138 0.0123
 Jupiter -75034-05-08 02:37 J -25684618.88 -25684618.39 -25684617.88 0.0140 0.0019
 Moon -75024-06-26 04:18 J -25680916.32 -25680916.32 -25680916.31 0.0146 0.0146

Earth -75023-07-01 04:32 J -25680546.48 -25680546.31 -25680546.10 0.0147 0.0098
 Moon -75023-07-01 05:44 J -25680546.42 -25680546.26 -25680546.06 0.0147 0.0105 *
 Moon -75022-07-06 03:20 J -25680176.59 -25680176.36 -25680176.12 0.0147 0.0036
 Earth -75022-07-06 05:44 J -25680176.50 -25680176.26 -25680176.02 0.0147 0.0042 *
 Earth -75021-07-10 07:25 J -25679806.43 -25679806.19 -25679805.93 0.0147 0.0016
 Moon -75021-07-10 10:04 J -25679806.34 -25679806.08 -25679805.82 0.0147 0.0011 *
 Moon -75020-07-15 06:56 J -25679436.41 -25679436.21 -25679435.98 0.0147 0.0071
 Earth -75020-07-15 10:04 J -25679436.29 -25679436.08 -25679435.85 0.0147 0.0072 *
 Earth -75019-07-20 13:25 J -25679066.04 -25679065.94 -25679065.81 0.0148 0.0130
 Moon -75019-07-20 17:01 J -25679065.87 -25679065.79 -25679065.68 0.0148 0.0136 *
 Venus -75008-03-02 12:28 J -25675188.12 -25675187.98 -25675187.83 0.0146 0.0111
 Venus -75008-10-15 03:35 J -25674961.56 -25674961.35 -25674961.13 0.0146 0.0039
 Venus -75007-05-29 18:42 J -25674734.93 -25674734.72 -25674734.50 0.0145 0.0035
 Mars -75006-01-06 21:20 J -25674512.70 -25674512.61 -25674512.49 0.0145 0.0138
 Venus -75006-01-11 09:49 J -25674508.24 -25674508.09 -25674507.94 0.0145 0.0106
 Mars -75005-12-14 22:32 J -25673804.89 -25673804.56 -25673804.24 0.0144 0.0044
 Mars -75003-11-22 05:59 J -25673097.55 -25673097.25 -25673096.92 0.0143 0.0048
 Mercury -75002-10-11 03:49 J -25672774.39 -25672774.34 -25672774.27 0.0142 0.0135
 Mercury -75001-01-07 11:59 J -25672686.11 -25672686.00 -25672685.86 0.0142 0.0107
 Mercury -75001-04-04 20:08 J -25672597.81 -25672597.66 -25672597.49 0.0142 0.0080
 Mercury -75001-07-02 04:32 J -25672509.48 -25672509.31 -25672509.13 0.0142 0.0051
 Mercury -75001-09-28 12:42 J -25672421.16 -25672420.97 -25672420.78 0.0142 0.0023
 Mars -75001-10-28 17:30 J -25672390.86 -25672390.77 -25672390.62 0.0142 0.0133
 Mercury -75001-12-25 20:52 J -25672332.82 -25672332.63 -25672332.44 0.0142 0.0004

75TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 75th millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
	TRANSIT							
	TIME							
Mercury	-75000-03-24 04:47 J	-25672244.48	-25672244.30	-25672244.11	0.0142	0.0032		
Mercury	-75000-06-20 12:42 J	-25672156.14	-25672155.97	-25672155.79	0.0141	0.0059		
Mercury	-75000-09-16 20:37 J	-25672067.79	-25672067.64	-25672067.49	0.0141	0.0085		
Mercury	-75000-12-14 04:18 J	-25671979.42	-25671979.32	-25671979.20	0.0141	0.0112		
Mercury	-74999-03-12 12:13 J	-25671891.02	-25671890.99	-25671890.95	0.0141	0.0138		
Moon	-74983-01-01 19:11 J	-25666116.78	-25666116.70	-25666116.57	0.0133	0.0122		
Earth	-74983-01-01 23:01 J	-25666116.62	-25666116.54	-25666116.42	0.0133	0.0122	*	
Earth	-74982-01-06 07:40 J	-25665747.37	-25665747.18	-25665746.96	0.0132	0.0079		
Moon	-74982-01-06 11:16 J	-25665747.23	-25665747.03	-25665746.81	0.0132	0.0076	*	
Moon	-74981-01-10 11:44 J	-25665378.24	-25665378.01	-25665377.76	0.0132	0.0043		
Earth	-74981-01-10 15:35 J	-25665378.09	-25665377.85	-25665377.60	0.0132	0.0037	*	
Earth	-74980-01-13 22:47 J	-25665008.80	-25665008.55	-25665008.29	0.0132	0.0005		
Moon	-74980-01-14 02:23 J	-25665008.65	-25665008.40	-25665008.14	0.0132	0.0012	*	
Moon	-74979-01-18 01:54 J	-25664639.66	-25664639.42	-25664639.17	0.0131	0.0039		
Earth	-74979-01-18 05:16 J	-25664639.51	-25664639.28	-25664639.03	0.0131	0.0046	*	
Earth	-74978-01-22 11:16 J	-25664270.22	-25664270.03	-25664269.84	0.0131	0.0087		
Moon	-74978-01-22 14:52 J	-25664270.05	-25664269.88	-25664269.69	0.0131	0.0093	*	
Moon	-74977-01-26 12:42 J	-25663901.03	-25663900.97	-25663900.86	0.0131	0.0124		
Earth	-74977-01-26 16:18 J	-25663900.86	-25663900.82	-25663900.74	0.0131	0.0127	*	
Venus	-74964-02-27 22:47 J	-25659119.69	-25659119.55	-25659119.39	0.0133	0.0094		
Venus	-74964-10-12 01:54 J	-25658893.61	-25658893.42	-25658893.21	0.0133	0.0042		
Venus	-74963-05-26 05:01 J	-25658667.50	-25658667.29	-25658667.07	0.0133	0.0010		
Venus	-74962-01-07 08:23 J	-25658441.33	-25658441.15	-25658440.96	0.0134	0.0062		
Mars	-74962-03-03 14:23 J	-25658386.07	-25658385.90	-25658385.71	0.0134	0.0103		

Venus -74962-08-21 11:44 J -25658215.12 -25658215.01 -25658214.90 0.0134 0.0114

Mars -74960-01-30 03:49 J -25657687.60 -25657687.34 -25657687.07 0.0135 0.0046

Mars -74959-12-30 01:25 J -25656988.71 -25656988.44 -25656988.15 0.0135 0.0015

Mercury -74957-03-14 13:54 J -25656547.95 -25656547.92 -25656547.87 0.0136 0.0129

Mercury -74957-06-10 17:01 J -25656459.85 -25656459.79 -25656459.71 0.0136 0.0112

Mercury -74957-09-06 20:23 J -25656371.74 -25656371.65 -25656371.56 0.0136 0.0095

Mars -74957-11-28 07:40 J -25656289.40 -25656289.18 -25656288.93 0.0137 0.0077

Mercury -74957-12-03 23:30 J -25656283.62 -25656283.52 -25656283.41 0.0137 0.0079

Mercury -74956-03-02 02:37 J -25656195.50 -25656195.39 -25656195.27 0.0137 0.0062

Mercury -74956-05-29 05:44 J -25656107.38 -25656107.26 -25656107.13 0.0137 0.0046

Mercury -74956-08-25 09:06 J -25656019.25 -25656019.12 -25656018.99 0.0137 0.0029

Mercury -74956-11-21 12:13 J -25655931.12 -25655930.99 -25655930.85 0.0137 0.0013

Mercury -74955-02-17 15:35 J -25655842.98 -25655842.85 -25655842.72 0.0137 0.0006

Mercury -74955-05-16 18:42 J -25655754.85 -25655754.72 -25655754.58 0.0137 0.0023

Mercury -74955-08-12 22:04 J -25655666.71 -25655666.58 -25655666.45 0.0137 0.0040

Mercury -74955-11-09 01:25 J -25655578.56 -25655578.44 -25655578.32 0.0138 0.0058

Mercury -74954-02-05 04:32 J -25655490.41 -25655490.31 -25655490.19 0.0138 0.0076

Mercury -74954-05-04 07:54 J -25655402.26 -25655402.17 -25655402.07 0.0138 0.0093

Mercury -74954-07-31 11:16 J -25655314.10 -25655314.03 -25655313.95 0.0138 0.0111

Mercury -74954-10-27 14:23 J -25655225.93 -25655225.90 -25655225.84 0.0138 0.0130

Earth -74939-07-01 18:13 J -25649864.93 -25649864.74 -25649864.54 0.0147 0.0094

Moon -74939-07-01 19:40 J -25649864.89 -25649864.68 -25649864.47 0.0147 0.0086 *

Moon -74938-07-06 17:59 J -25649494.98 -25649494.75 -25649494.51 0.0147 0.0045

Earth -74938-07-06 19:11 J -25649494.93 -25649494.70 -25649494.45 0.0147 0.0038 *

Earth -74937-07-10 21:06 J -25649124.86 -25649124.62 -25649124.37 0.0147 0.0020

Moon -74937-07-10 23:30 J -25649124.77 -25649124.52 -25649124.26 0.0147 0.0023 *

Moon -74936-07-15 21:06 J -25648754.81 -25648754.62 -25648754.40 0.0148 0.0079

Earth -74936-07-15 23:59 J -25648754.71 -25648754.50 -25648754.28 0.0148 0.0078 *

Earth -74935-07-21 03:20 J -25648384.44 -25648384.36 -25648384.25 0.0148 0.0136

Moon -74935-07-21 06:28 J -25648384.33 -25648384.23 -25648384.09 0.0148 0.0130 *

Venus	-74925-10-30 19:54 J	-25644629.71	-25644629.67	-25644629.61	0.0146	0.0142
Venus	-74924-06-14 11:30 J	-25644403.21	-25644403.02	-25644402.82	0.0146	0.0068
Venus	-74923-01-27 02:52 J	-25644176.61	-25644176.38	-25644176.16	0.0146	0.0005
Venus	-74923-09-10 17:30 J	-25643949.94	-25643949.77	-25643949.57	0.0145	0.0078
Mars	-74922-09-04 07:25 J	-25643591.45	-25643591.19	-25643590.93	0.0145	0.0095
Mars	-74920-08-12 03:20 J	-25642883.70	-25642883.36	-25642883.02	0.0144	0.0002
Mars	-74918-07-20 04:47 J	-25642176.54	-25642176.30	-25642176.02	0.0143	0.0090
Mercury	-74918-10-31 12:56 J	-25642073.04	-25642072.96	-25642072.86	0.0142	0.0124
Mercury	-74917-01-27 21:06 J	-25641984.75	-25641984.62	-25641984.46	0.0142	0.0096
Mercury	-74917-04-25 05:30 J	-25641896.43	-25641896.27	-25641896.10	0.0142	0.0067
Mercury	-74917-07-22 13:40 J	-25641808.11	-25641807.93	-25641807.74	0.0142	0.0039
Mercury	-74917-10-18 21:49 J	-25641719.78	-25641719.59	-25641719.40	0.0142	0.0012
Mercury	-74916-01-15 05:59 J	-25641631.44	-25641631.25	-25641631.06	0.0142	0.0016
Mercury	-74916-04-13 13:40 J	-25641543.10	-25641542.93	-25641542.74	0.0142	0.0044
Mercury	-74916-07-10 21:35 J	-25641454.75	-25641454.60	-25641454.42	0.0141	0.0071
Mercury	-74916-10-07 05:30 J	-25641366.40	-25641366.27	-25641366.12	0.0141	0.0097
Mercury	-74915-01-03 13:25 J	-25641278.02	-25641277.94	-25641277.84	0.0141	0.0123
Moon	-74899-01-02 10:47 J	-25635435.15	-25635435.05	-25635434.92	0.0132	0.0118
Earth	-74899-01-02 13:54 J	-25635435.02	-25635434.92	-25635434.78	0.0132	0.0118 *
Earth	-74898-01-06 22:18 J	-25635065.77	-25635065.57	-25635065.34	0.0132	0.0075
Moon	-74898-01-07 02:08 J	-25635065.61	-25635065.41	-25635065.19	0.0132	0.0079 *
Moon	-74897-01-11 02:52 J	-25634696.62	-25634696.38	-25634696.12	0.0132	0.0028
Earth	-74897-01-11 06:13 J	-25634696.48	-25634696.24	-25634695.98	0.0132	0.0033 *
Earth	-74896-01-14 13:40 J	-25634327.19	-25634326.93	-25634326.67	0.0132	0.0010
Moon	-74896-01-14 17:16 J	-25634327.04	-25634326.78	-25634326.52	0.0132	0.0003 *
Moon	-74895-01-18 16:18 J	-25633958.04	-25633957.82	-25633957.58	0.0131	0.0059
Earth	-74895-01-18 19:54 J	-25633957.89	-25633957.67	-25633957.42	0.0131	0.0052 *
Earth	-74894-01-23 01:40 J	-25633588.60	-25633588.43	-25633588.23	0.0131	0.0093
Moon	-74894-01-23 05:01 J	-25633588.46	-25633588.29	-25633588.08	0.0131	0.0087 *
Venus	-74881-10-28 11:59 J	-25628561.08	-25628561.00	-25628560.88	0.0133	0.0116

Venus -74880-06-11 15:20 J -25628335.04 -25628334.86 -25628334.67 0.0133 0.0064
 Mars -74880-11-27 07:54 J -25628166.18 -25628166.17 -25628166.12 0.0133 0.0132
 Venus -74879-01-23 18:28 J -25628108.94 -25628108.73 -25628108.52 0.0133 0.0012
 Venus -74879-09-06 21:35 J -25627882.80 -25627882.60 -25627882.40 0.0133 0.0040
 Venus -74878-04-21 00:28 J -25627656.62 -25627656.48 -25627656.32 0.0134 0.0092
 Mars -74878-10-26 16:47 J -25627468.00 -25627467.80 -25627467.55 0.0134 0.0077
 Mars -74876-09-24 09:35 J -25626769.37 -25626769.10 -25626768.81 0.0135 0.0018
 Mars -74874-08-24 09:49 J -25626070.35 -25626070.09 -25626069.82 0.0136 0.0043
 Mercury -74873-04-03 21:35 J -25625846.65 -25625846.60 -25625846.54 0.0136 0.0123
 Mercury -74873-07-01 00:42 J -25625758.54 -25625758.47 -25625758.38 0.0136 0.0107
 Mercury -74873-09-27 03:49 J -25625670.43 -25625670.34 -25625670.24 0.0136 0.0090
 Mercury -74873-12-24 07:11 J -25625582.31 -25625582.20 -25625582.09 0.0137 0.0074
 Mercury -74872-03-22 10:18 J -25625494.19 -25625494.07 -25625493.95 0.0137 0.0057
 Mercury -74872-06-18 13:25 J -25625406.06 -25625405.94 -25625405.81 0.0137 0.0040
 Mars -74872-07-23 17:59 J -25625370.91 -25625370.75 -25625370.56 0.0137 0.0107
 Mercury -74872-09-14 16:32 J -25625317.93 -25625317.81 -25625317.67 0.0137 0.0024
 Mercury -74872-12-11 19:54 J -25625229.80 -25625229.67 -25625229.54 0.0137 0.0006
 Mercury -74871-03-09 23:01 J -25625141.67 -25625141.54 -25625141.40 0.0137 0.0012
 Mercury -74871-06-06 02:23 J -25625053.53 -25625053.40 -25625053.27 0.0137 0.0028
 Mercury -74871-09-02 05:44 J -25624965.39 -25624965.26 -25624965.14 0.0137 0.0046
 Mercury -74871-11-29 08:52 J -25624877.24 -25624877.13 -25624877.01 0.0138 0.0063
 Mercury -74870-02-25 12:13 J -25624789.09 -25624788.99 -25624788.88 0.0138 0.0081
 Mercury -74870-05-24 15:20 J -25624700.94 -25624700.86 -25624700.76 0.0138 0.0099
 Mercury -74870-08-20 18:56 J -25624612.78 -25624612.71 -25624612.64 0.0138 0.0116
 Mercury -74870-11-16 22:18 J -25624524.60 -25624524.57 -25624524.54 0.0138 0.0134
 Moon -74856-06-27 07:11 J -25619553.26 -25619553.20 -25619553.13 0.0146 0.0140
 Earth -74856-06-27 07:11 J -25619553.21 -25619553.20 -25619553.18 0.0146 0.0146 *
 Earth -74855-07-02 06:42 J -25619183.40 -25619183.22 -25619183.00 0.0147 0.0091
 Moon -74855-07-02 06:42 J -25619183.39 -25619183.22 -25619183.00 0.0147 0.0098 *
 Moon -74854-07-07 06:42 J -25618813.45 -25618813.22 -25618812.97 0.0147 0.0028

Earth -74854-07-07 07:54 J -25618813.40 -25618813.17 -25618812.91 0.0147 0.0034 *
 Earth -74853-07-11 10:04 J -25618443.32 -25618443.08 -25618442.83 0.0147 0.0024
 Moon -74853-07-11 11:44 J -25618443.26 -25618443.01 -25618442.75 0.0147 0.0020 *
 Moon -74852-07-16 10:18 J -25618073.26 -25618073.07 -25618072.85 0.0148 0.0082
 Earth -74852-07-16 12:42 J -25618073.17 -25618072.97 -25618072.75 0.0148 0.0083 *
 Earth -74851-07-21 16:18 J -25617702.88 -25617702.82 -25617702.74 0.0148 0.0141
 Moon -74851-07-21 19:11 J -25617702.71 -25617702.70 -25617702.66 0.0148 0.0147
 Venus -74840-02-11 17:59 J -25613844.90 -25613844.75 -25613844.57 0.0146 0.0100
 Venus -74840-09-26 09:35 J -25613618.32 -25613618.10 -25613617.88 0.0146 0.0027
 Venus -74839-05-11 00:42 J -25613391.68 -25613391.47 -25613391.25 0.0146 0.0046
 Venus -74839-12-23 15:35 J -25613164.96 -25613164.85 -25613164.71 0.0145 0.0118
 Mars -74837-05-01 13:25 J -25612670.25 -25612669.94 -25612669.62 0.0145 0.0052
 Mars -74835-04-09 03:49 J -25611962.66 -25611962.34 -25611962.01 0.0143 0.0043
 Mercury -74834-08-24 13:11 J -25611459.95 -25611459.95 -25611459.91 0.0143 0.0142
 Mercury -74834-11-20 21:35 J -25611371.70 -25611371.60 -25611371.47 0.0142 0.0114
 Mercury -74833-02-17 06:13 J -25611283.40 -25611283.24 -25611283.09 0.0142 0.0085
 Mars -74833-03-15 22:04 J -25611255.68 -25611255.58 -25611255.41 0.0142 0.0130
 Mercury -74833-05-15 14:08 J -25611195.08 -25611194.91 -25611194.72 0.0142 0.0057
 Mercury -74833-08-11 22:18 J -25611106.75 -25611106.57 -25611106.37 0.0142 0.0029
 Mercury -74833-11-08 06:28 J -25611018.42 -25611018.23 -25611018.03 0.0142 0.0004
 Mercury -74832-02-04 14:37 J -25610930.08 -25610929.89 -25610929.70 0.0142 0.0026
 Mercury -74832-05-03 22:32 J -25610841.73 -25610841.56 -25610841.38 0.0142 0.0054
 Mercury -74832-07-31 06:28 J -25610753.38 -25610753.23 -25610753.07 0.0141 0.0081
 Mercury -74832-10-27 14:08 J -25610665.02 -25610664.91 -25610664.77 0.0141 0.0108
 Mercury -74831-01-23 21:49 J -25610576.63 -25610576.59 -25610576.51 0.0141 0.0134
 Moon -74815-01-03 00:56 J -25604753.57 -25604753.46 -25604753.31 0.0132 0.0114
 Earth -74815-01-03 04:18 J -25604753.43 -25604753.32 -25604753.17 0.0132 0.0114 *
 Earth -74814-01-07 13:11 J -25604384.17 -25604383.95 -25604383.73 0.0132 0.0071
 Moon -74814-01-07 16:04 J -25604384.04 -25604383.83 -25604383.59 0.0132 0.0068 *
 Moon -74813-01-11 17:16 J -25604015.02 -25604014.78 -25604014.52 0.0132 0.0034

Earth -74813-01-11 20:52 J -25604014.88 -25604014.63 -25604014.37 0.0132 0.0028 *
 Earth -74812-01-15 04:04 J -25603645.58 -25603645.33 -25603645.07 0.0132 0.0014
 Moon -74812-01-15 07:25 J -25603645.44 -25603645.19 -25603644.93 0.0132 0.0022 *
 Moon -74811-01-19 07:11 J -25603276.43 -25603276.20 -25603275.96 0.0131 0.0050
 Earth -74811-01-19 10:18 J -25603276.29 -25603276.07 -25603275.82 0.0131 0.0057 *
 Earth -74810-01-23 15:49 J -25602907.00 -25602906.84 -25602906.65 0.0131 0.0098
 Moon -74810-01-23 19:25 J -25602906.83 -25602906.69 -25602906.51 0.0131 0.0103 *
 Venus -74796-02-09 04:04 J -25597776.49 -25597776.33 -25597776.17 0.0133 0.0086
 Venus -74796-09-23 06:56 J -25597550.41 -25597550.21 -25597550.00 0.0133 0.0035
 Venus -74795-05-07 09:49 J -25597324.29 -25597324.09 -25597323.87 0.0133 0.0017
 Mars -74795-07-22 08:23 J -25597248.31 -25597248.15 -25597247.98 0.0133 0.0108
 Venus -74795-12-19 12:56 J -25597098.13 -25597097.96 -25597097.77 0.0133 0.0069
 Venus -74794-08-02 15:49 J -25596871.91 -25596871.84 -25596871.74 0.0134 0.0121
 Mars -74793-06-19 19:40 J -25596549.94 -25596549.68 -25596549.42 0.0134 0.0050
 Mars -74791-05-19 13:40 J -25595851.21 -25595850.93 -25595850.65 0.0135 0.0009
 Mercury -74789-01-27 01:54 J -25595233.43 -25595233.42 -25595233.41 0.0136 0.0135
 Mars -74789-04-17 14:52 J -25595152.10 -25595151.88 -25595151.62 0.0136 0.0072
 Mercury -74789-04-24 04:47 J -25595145.35 -25595145.30 -25595145.23 0.0136 0.0119
 Mercury -74789-07-21 07:54 J -25595057.25 -25595057.17 -25595057.08 0.0136 0.0103
 Mercury -74789-10-17 11:01 J -25594969.13 -25594969.04 -25594968.93 0.0136 0.0087
 Mercury -74788-01-13 14:23 J -25594881.01 -25594880.90 -25594880.79 0.0136 0.0070
 Mercury -74788-04-11 17:30 J -25594792.89 -25594792.77 -25594792.65 0.0137 0.0053
 Mercury -74788-07-08 20:37 J -25594704.76 -25594704.64 -25594704.51 0.0137 0.0036
 Mercury -74788-10-04 23:59 J -25594616.63 -25594616.50 -25594616.37 0.0137 0.0019
 Mercury -74787-01-01 03:06 J -25594528.50 -25594528.37 -25594528.24 0.0137 0.0003
 Mars -74787-03-18 02:37 J -25594452.40 -25594452.39 -25594452.36 0.0137 0.0137
 Mercury -74787-03-30 06:28 J -25594440.37 -25594440.23 -25594440.10 0.0137 0.0015
 Mercury -74787-06-26 09:35 J -25594352.23 -25594352.10 -25594351.97 0.0137 0.0032
 Mercury -74787-09-22 12:56 J -25594264.09 -25594263.96 -25594263.84 0.0137 0.0050
 Mercury -74787-12-19 16:04 J -25594175.94 -25594175.83 -25594175.71 0.0138 0.0067

Mercury -74786-03-17 19:25 J -25594087.79 -25594087.69 -25594087.58 0.0138 0.0085

Mercury -74786-06-13 22:32 J -25593999.64 -25593999.56 -25593999.46 0.0138 0.0103

Mercury -74786-09-10 02:08 J -25593911.47 -25593911.41 -25593911.34 0.0138 0.0120

Mercury -74786-12-07 05:30 J -25593823.27 -25593823.27 -25593823.27 0.0138 0.0138

Earth -74772-06-27 15:35 J -25588871.88 -25588871.85 -25588871.81 0.0146 0.0145

Moon -74771-07-02 15:20 J -25588502.06 -25588501.86 -25588501.63 0.0147 0.0082

Earth -74771-07-02 15:35 J -25588502.05 -25588501.85 -25588501.65 0.0147 0.0089 *

Moon -74770-07-07 16:18 J -25588132.05 -25588131.82 -25588131.58 0.0147 0.0039

Earth -74770-07-07 16:32 J -25588132.05 -25588131.81 -25588131.56 0.0147 0.0032 *

Earth -74769-07-11 18:13 J -25587761.98 -25587761.74 -25587761.49 0.0147 0.0027

Moon -74769-07-11 19:40 J -25587761.94 -25587761.68 -25587761.43 0.0147 0.0030 *

Moon -74768-07-16 19:11 J -25587391.89 -25587391.70 -25587391.49 0.0148 0.0086

Earth -74768-07-16 20:52 J -25587391.82 -25587391.63 -25587391.41 0.0148 0.0085 *

Earth -74767-07-22 00:28 J -25587021.52 -25587021.48 -25587021.42 0.0148 0.0144

Moon -74767-07-22 02:52 J -25587021.46 -25587021.38 -25587021.29 0.0148 0.0139 *

Venus -74757-10-11 21:35 J -25583286.66 -25583286.60 -25583286.50 0.0146 0.0137

Venus -74756-05-26 13:11 J -25583060.14 -25583059.95 -25583059.73 0.0146 0.0063

Venus -74755-01-08 04:47 J -25582833.52 -25582833.30 -25582833.07 0.0146 0.0011

Venus -74755-08-22 19:54 J -25582606.84 -25582606.67 -25582606.47 0.0146 0.0083

Mars -74754-01-19 03:49 J -25582457.54 -25582457.34 -25582457.09 0.0145 0.0110

Mars -74753-12-27 07:40 J -25581749.51 -25581749.18 -25581748.83 0.0144 0.0012

Mars -74751-12-04 17:01 J -25581042.05 -25581041.79 -25581041.50 0.0143 0.0082

Mercury -74750-09-13 20:52 J -25580758.68 -25580758.63 -25580758.55 0.0143 0.0135

Mercury -74750-12-11 05:30 J -25580670.40 -25580670.27 -25580670.14 0.0143 0.0106

Mercury -74749-03-08 13:40 J -25580582.09 -25580581.93 -25580581.76 0.0142 0.0078

Mercury -74749-06-04 21:49 J -25580493.76 -25580493.59 -25580493.40 0.0142 0.0050

Mercury -74749-09-01 06:13 J -25580405.43 -25580405.24 -25580405.05 0.0142 0.0022

Mercury -74749-11-28 14:08 J -25580317.10 -25580316.91 -25580316.71 0.0142 0.0007

Mercury -74748-02-24 22:18 J -25580228.75 -25580228.57 -25580228.38 0.0142 0.0034

Mercury -74748-05-24 06:13 J -25580140.41 -25580140.24 -25580140.06 0.0142 0.0061

Mercury -74748-08-20 14:08 J -25580052.05 -25580051.91 -25580051.75 0.0142 0.0088
 Mercury -74748-11-16 21:49 J -25579963.68 -25579963.59 -25579963.46 0.0141 0.0116
 Jupiter -74743-03-12 05:01 J -25578387.75 -25578387.29 -25578386.78 0.0139 0.0057
 Moon -74731-01-03 16:04 J -25574071.95 -25574071.83 -25574071.68 0.0132 0.0111
 Earth -74731-01-03 18:42 J -25574071.84 -25574071.72 -25574071.56 0.0132 0.0110 *
 Earth -74730-01-08 03:20 J -25573702.58 -25573702.36 -25573702.13 0.0132 0.0066
 Moon -74730-01-08 06:28 J -25573702.43 -25573702.23 -25573701.99 0.0132 0.0070 *
 Moon -74729-01-12 08:23 J -25573333.39 -25573333.15 -25573332.89 0.0132 0.0019
 Earth -74729-01-12 11:30 J -25573333.27 -25573333.02 -25573332.77 0.0132 0.0023 *
 Earth -74728-01-15 18:28 J -25572963.98 -25572963.73 -25572963.47 0.0132 0.0020
 Moon -74728-01-15 21:49 J -25572963.84 -25572963.59 -25572963.32 0.0132 0.0013 *
 Moon -74727-01-19 21:35 J -25572594.81 -25572594.60 -25572594.38 0.0131 0.0069
 Earth -74727-01-20 00:42 J -25572594.68 -25572594.47 -25572594.23 0.0131 0.0062 *
 Earth -74726-01-24 06:13 J -25572225.38 -25572225.24 -25572225.06 0.0131 0.0103
 Moon -74726-01-24 09:35 J -25572225.26 -25572225.10 -25572224.92 0.0131 0.0097 *
 Venus -74713-10-09 17:30 J -25567217.88 -25567217.77 -25567217.63 0.0132 0.0107
 Venus -74712-05-23 20:23 J -25566991.83 -25566991.65 -25566991.45 0.0133 0.0056
 Venus -74711-01-04 23:44 J -25566765.72 -25566765.51 -25566765.30 0.0133 0.0005
 Venus -74711-08-19 02:23 J -25566539.59 -25566539.40 -25566539.19 0.0133 0.0047
 Mars -74710-03-16 13:11 J -25566330.16 -25566329.95 -25566329.72 0.0133 0.0082
 Venus -74710-04-02 05:30 J -25566313.41 -25566313.27 -25566313.13 0.0133 0.0099
 Mars -74708-02-12 02:23 J -25565631.67 -25565631.40 -25565631.12 0.0134 0.0024
 Mars -74706-01-11 21:20 J -25564932.87 -25564932.61 -25564932.33 0.0135 0.0038
 Mercury -74705-02-16 09:20 J -25564532.14 -25564532.11 -25564532.06 0.0136 0.0130
 Mercury -74705-05-14 12:28 J -25564444.04 -25564443.98 -25564443.90 0.0136 0.0113
 Mercury -74705-08-10 15:35 J -25564355.93 -25564355.85 -25564355.75 0.0136 0.0097
 Mercury -74705-11-06 18:56 J -25564267.82 -25564267.71 -25564267.60 0.0136 0.0080
 Mars -74705-12-11 00:42 J -25564233.63 -25564233.47 -25564233.26 0.0136 0.0103
 Mercury -74704-02-02 22:04 J -25564179.70 -25564179.58 -25564179.46 0.0136 0.0064
 Mercury -74704-05-02 01:11 J -25564091.57 -25564091.45 -25564091.32 0.0136 0.0047

Mercury -74704-07-29 04:18 J -25564003.44 -25564003.32 -25564003.19 0.0137 0.0031

Mercury -74704-10-25 07:40 J -25563915.31 -25563915.18 -25563915.05 0.0137 0.0013

Mercury -74703-01-21 10:47 J -25563827.18 -25563827.05 -25563826.91 0.0137 0.0005

Mercury -74703-04-19 14:08 J -25563739.04 -25563738.91 -25563738.78 0.0137 0.0021

Mercury -74703-07-16 17:16 J -25563650.90 -25563650.78 -25563650.65 0.0137 0.0038

Mercury -74703-10-12 20:37 J -25563562.76 -25563562.64 -25563562.52 0.0137 0.0056

Mercury -74702-01-08 23:44 J -25563474.62 -25563474.51 -25563474.39 0.0137 0.0073

Mercury -74702-04-07 03:06 J -25563386.47 -25563386.37 -25563386.27 0.0138 0.0091

Mercury -74702-07-04 06:13 J -25563298.31 -25563298.24 -25563298.15 0.0138 0.0109

Mercury -74702-09-30 09:49 J -25563210.14 -25563210.09 -25563210.04 0.0138 0.0126

Earth -74688-06-28 02:52 J -25558190.42 -25558190.38 -25558190.32 0.0146 0.0143

Moon -74688-06-28 03:49 J -25558190.40 -25558190.34 -25558190.25 0.0146 0.0138 *

Moon -74687-07-03 01:25 J -25557820.63 -25557820.44 -25557820.23 0.0147 0.0093

Earth -74687-07-03 02:23 J -25557820.58 -25557820.40 -25557820.18 0.0147 0.0087 *

Earth -74686-07-08 03:20 J -25557450.60 -25557450.36 -25557450.11 0.0147 0.0029

Moon -74686-07-08 03:35 J -25557450.59 -25557450.35 -25557450.11 0.0147 0.0022 *

Earth -74685-07-12 05:01 J -25557080.53 -25557080.29 -25557080.04 0.0147 0.0030

Moon -74685-07-12 05:30 J -25557080.52 -25557080.27 -25557080.01 0.0147 0.0025 *

Moon -74684-07-17 06:28 J -25556710.41 -25556710.23 -25556710.03 0.0148 0.0090

Earth -74684-07-17 07:25 J -25556710.37 -25556710.19 -25556709.97 0.0148 0.0090 *

Venus -74672-01-23 17:59 J -25552501.91 -25552501.75 -25552501.58 0.0146 0.0098

Venus -74672-09-07 09:20 J -25552275.33 -25552275.11 -25552274.89 0.0146 0.0025

Venus -74671-04-22 00:42 J -25552048.68 -25552048.47 -25552048.26 0.0146 0.0048

Venus -74671-12-04 15:20 J -25551821.96 -25551821.86 -25551821.72 0.0145 0.0121

Mars -74670-09-16 03:06 J -25551536.66 -25551536.37 -25551536.05 0.0145 0.0067

Mars -74668-08-24 01:25 J -25550828.77 -25550828.44 -25550828.11 0.0144 0.0030

Mars -74666-08-01 05:59 J -25550121.42 -25550121.25 -25550121.07 0.0143 0.0121

Mercury -74666-10-04 04:18 J -25550057.39 -25550057.32 -25550057.22 0.0143 0.0128

Mercury -74666-12-31 12:42 J -25549969.09 -25549968.97 -25549968.82 0.0143 0.0100

Mercury -74665-03-28 21:20 J -25549880.78 -25549880.61 -25549880.44 0.0142 0.0071

Mercury -74665-06-25 05:30 J -25549792.45 -25549792.27 -25549792.09 0.0142 0.0043

Mercury -74665-09-21 13:40 J -25549704.12 -25549703.93 -25549703.74 0.0142 0.0015

Mercury -74665-12-18 21:49 J -25549615.78 -25549615.59 -25549615.40 0.0142 0.0013

Mercury -74664-03-17 05:44 J -25549527.44 -25549527.26 -25549527.07 0.0142 0.0041

Mercury -74664-06-13 13:54 J -25549439.09 -25549438.92 -25549438.75 0.0142 0.0068

Mercury -74664-09-09 21:35 J -25549350.73 -25549350.60 -25549350.45 0.0142 0.0096

Mercury -74664-12-07 05:30 J -25549262.35 -25549262.27 -25549262.16 0.0141 0.0123

Moon -74647-01-04 05:30 J -25543390.41 -25543390.27 -25543390.11 0.0133 0.0106

Earth -74647-01-04 08:37 J -25543390.30 -25543390.14 -25543389.99 0.0133 0.0106 *

Earth -74646-01-08 17:01 J -25543021.01 -25543020.79 -25543020.55 0.0132 0.0063

Moon -74646-01-08 19:40 J -25543020.90 -25543020.68 -25543020.43 0.0132 0.0060 *

Moon -74645-01-12 22:18 J -25542651.82 -25542651.57 -25542651.32 0.0132 0.0024

Earth -74645-01-13 01:11 J -25542651.70 -25542651.45 -25542651.19 0.0132 0.0019 *

Earth -74644-01-16 08:37 J -25542282.40 -25542282.14 -25542281.89 0.0132 0.0024

Moon -74644-01-16 11:30 J -25542282.27 -25542282.02 -25542281.76 0.0132 0.0031 *

Moon -74643-01-20 11:44 J -25541913.22 -25541913.01 -25541912.77 0.0131 0.0061

Earth -74643-01-20 14:52 J -25541913.09 -25541912.88 -25541912.65 0.0131 0.0067 *

Earth -74642-01-24 20:08 J -25541543.78 -25541543.66 -25541543.50 0.0131 0.0109

Moon -74642-01-24 23:59 J -25541543.63 -25541543.50 -25541543.37 0.0131 0.0114 *

Venus -74629-06-09 07:40 J -25536659.22 -25536659.18 -25536659.10 0.0132 0.0126

Venus -74628-01-21 10:47 J -25536433.22 -25536433.05 -25536432.87 0.0133 0.0076

Venus -74628-09-04 13:40 J -25536207.13 -25536206.93 -25536206.72 0.0133 0.0025

Mars -74628-12-10 09:49 J -25536110.21 -25536110.09 -25536109.92 0.0133 0.0113

Venus -74627-04-18 16:32 J -25535981.01 -25535980.81 -25535980.60 0.0133 0.0027

Venus -74627-11-30 19:25 J -25535754.85 -25535754.69 -25535754.51 0.0133 0.0078

Venus -74626-07-14 22:04 J -25535528.60 -25535528.58 -25535528.51 0.0133 0.0131

Mars -74626-11-08 19:11 J -25535411.93 -25535411.70 -25535411.43 0.0134 0.0056

Mars -74624-10-07 09:49 J -25534713.37 -25534713.09 -25534712.81 0.0134 0.0005

Mars -74622-09-06 06:56 J -25534014.44 -25534014.21 -25534013.95 0.0135 0.0068

Mercury -74621-03-07 17:16 J -25533830.83 -25533830.78 -25533830.72 0.0136 0.0123

Mercury -74621-06-03 20:37 J -25533742.72 -25533742.64 -25533742.56 0.0136 0.0106
 Mercury -74621-08-30 23:30 J -25533654.61 -25533654.52 -25533654.41 0.0136 0.0090
 Mercury -74621-11-27 02:52 J -25533566.49 -25533566.38 -25533566.27 0.0136 0.0073
 Mercury -74620-02-23 05:44 J -25533478.37 -25533478.26 -25533478.13 0.0136 0.0058
 Mercury -74620-05-22 09:06 J -25533390.24 -25533390.12 -25533389.99 0.0136 0.0040
 Mars -74620-08-05 14:52 J -25533314.92 -25533314.88 -25533314.79 0.0137 0.0133
 Mercury -74620-08-18 12:13 J -25533302.12 -25533301.99 -25533301.85 0.0137 0.0024
 Mercury -74620-11-14 15:35 J -25533213.98 -25533213.85 -25533213.72 0.0137 0.0006
 Mercury -74619-02-10 18:42 J -25533125.85 -25533125.72 -25533125.58 0.0137 0.0011
 Mercury -74619-05-09 22:04 J -25533037.71 -25533037.58 -25533037.45 0.0137 0.0028
 Mercury -74619-08-06 01:11 J -25532949.57 -25532949.45 -25532949.32 0.0137 0.0045
 Mercury -74619-11-02 04:32 J -25532861.43 -25532861.31 -25532861.19 0.0137 0.0063
 Mercury -74618-01-29 07:40 J -25532773.28 -25532773.18 -25532773.07 0.0137 0.0080
 Mercury -74618-04-27 11:01 J -25532685.13 -25532685.04 -25532684.94 0.0138 0.0098
 Mercury -74618-07-24 14:08 J -25532596.97 -25532596.91 -25532596.83 0.0138 0.0116
 Mercury -74618-10-20 17:44 J -25532508.79 -25532508.76 -25532508.73 0.0138 0.0133
 Earth -74604-06-28 15:20 J -25527508.91 -25527508.86 -25527508.76 0.0146 0.0139
 Moon -74604-06-28 17:59 J -25527508.80 -25527508.75 -25527508.70 0.0146 0.0143 *
 Moon -74603-07-03 13:54 J -25527139.13 -25527138.92 -25527138.68 0.0147 0.0076
 Earth -74603-07-03 15:06 J -25527139.06 -25527138.87 -25527138.65 0.0147 0.0083 *
 Earth -74602-07-08 15:49 J -25526769.08 -25526768.84 -25526768.59 0.0147 0.0025
 Moon -74602-07-08 16:47 J -25526769.03 -25526768.80 -25526768.56 0.0147 0.0032 *
 Moon -74601-07-12 17:01 J -25526399.03 -25526398.79 -25526398.53 0.0147 0.0040
 Earth -74601-07-12 17:16 J -25526399.02 -25526398.78 -25526398.53 0.0147 0.0035 *
 Moon -74600-07-17 18:56 J -25526028.89 -25526028.71 -25526028.52 0.0148 0.0094
 Earth -74600-07-17 19:40 J -25526028.87 -25526028.68 -25526028.48 0.0148 0.0094 *
 Venus -74589-09-22 22:47 J -25521943.63 -25521943.55 -25521943.44 0.0147 0.0132
 Venus -74588-05-07 14:23 J -25521717.10 -25521716.90 -25521716.69 0.0146 0.0059
 Venus -74588-12-20 05:59 J -25521490.47 -25521490.25 -25521490.03 0.0146 0.0015
 Mars -74587-06-04 17:59 J -25521323.90 -25521323.75 -25521323.55 0.0146 0.0126

Venus -74587-08-03 20:52 J -25521263.79 -25521263.63 -25521263.43 0.0146 0.0088

Mars -74585-05-13 03:49 J -25520615.67 -25520615.34 -25520615.00 0.0145 0.0025

Mars -74583-04-20 21:06 J -25519907.91 -25519907.62 -25519907.32 0.0144 0.0071

Mercury -74582-10-24 12:42 J -25519356.07 -25519355.97 -25519355.86 0.0143 0.0119

Mercury -74581-01-20 20:52 J -25519267.77 -25519267.63 -25519267.47 0.0143 0.0091

Mercury -74581-04-18 05:01 J -25519179.45 -25519179.29 -25519179.10 0.0142 0.0063

Mercury -74581-07-15 13:25 J -25519091.12 -25519090.94 -25519090.75 0.0142 0.0034

Mercury -74581-10-11 21:49 J -25519002.79 -25519002.59 -25519002.40 0.0142 0.0006

Mercury -74580-01-08 05:44 J -25518914.44 -25518914.26 -25518914.06 0.0142 0.0022

Mercury -74580-04-06 13:54 J -25518826.10 -25518825.92 -25518825.74 0.0142 0.0050

Mercury -74580-07-03 21:49 J -25518737.74 -25518737.59 -25518737.42 0.0142 0.0077

Mercury -74580-09-30 05:59 J -25518649.38 -25518649.25 -25518649.12 0.0142 0.0104

Mercury -74580-12-27 13:54 J -25518560.99 -25518560.92 -25518560.85 0.0141 0.0131

Moon -74563-01-04 21:06 J -25512708.77 -25512708.62 -25512708.46 0.0133 0.0103

Earth -74563-01-04 23:01 J -25512708.69 -25512708.54 -25512708.36 0.0133 0.0102 *

Earth -74562-01-09 07:54 J -25512339.40 -25512339.17 -25512338.93 0.0132 0.0058

Moon -74562-01-09 10:47 J -25512339.28 -25512339.05 -25512338.81 0.0132 0.0061 *

Moon -74561-01-13 13:54 J -25511970.17 -25511969.92 -25511969.67 0.0132 0.0009

Earth -74561-01-13 16:04 J -25511970.08 -25511969.83 -25511969.57 0.0132 0.0014 *

Earth -74560-01-16 23:16 J -25511600.78 -25511600.53 -25511600.27 0.0132 0.0030

Moon -74560-01-17 02:08 J -25511600.67 -25511600.41 -25511600.15 0.0132 0.0023 *

Moon -74559-01-21 02:37 J -25511231.58 -25511231.39 -25511231.18 0.0132 0.0080

Earth -74559-01-21 05:16 J -25511231.48 -25511231.28 -25511231.05 0.0132 0.0073 *

Earth -74558-01-25 11:01 J -25510862.15 -25510862.04 -25510861.90 0.0131 0.0115

Moon -74558-01-25 13:40 J -25510862.06 -25510861.93 -25510861.77 0.0131 0.0109 *

Venus -74545-09-21 01:25 J -25505874.58 -25505874.44 -25505874.28 0.0132 0.0095

Venus -74544-05-05 04:18 J -25505648.52 -25505648.32 -25505648.12 0.0133 0.0044

Venus -74544-12-17 07:25 J -25505422.40 -25505422.19 -25505421.98 0.0133 0.0007

Venus -74543-07-31 10:18 J -25505196.26 -25505196.07 -25505195.88 0.0133 0.0059

Mars -74543-08-04 17:16 J -25505191.98 -25505191.78 -25505191.55 0.0133 0.0086

Venus -74542-03-14 12:56 J -25504970.06 -25504969.96 -25504969.83 0.0133 0.0111
 Mars -74541-07-03 03:49 J -25504493.61 -25504493.34 -25504493.06 0.0134 0.0027
 Mars -74539-06-01 19:54 J -25503794.93 -25503794.67 -25503794.39 0.0135 0.0035
 Mercury -74538-12-30 22:32 J -25503217.59 -25503217.56 -25503217.53 0.0136 0.0131
 Mercury -74537-03-28 01:25 J -25503129.50 -25503129.44 -25503129.36 0.0136 0.0115
 Mars -74537-04-30 22:04 J -25503095.75 -25503095.58 -25503095.37 0.0136 0.0099
 Mercury -74537-06-24 04:32 J -25503041.39 -25503041.31 -25503041.21 0.0136 0.0099
 Mercury -74537-09-20 07:40 J -25502953.27 -25502953.18 -25502953.07 0.0136 0.0083
 Mercury -74537-12-17 11:01 J -25502865.15 -25502865.04 -25502864.92 0.0136 0.0065
 Mercury -74536-03-15 14:08 J -25502777.03 -25502776.91 -25502776.78 0.0136 0.0049
 Mercury -74536-06-11 17:16 J -25502688.90 -25502688.78 -25502688.65 0.0136 0.0032
 Mercury -74536-09-07 20:37 J -25502600.77 -25502600.64 -25502600.51 0.0137 0.0015
 Mercury -74536-12-04 23:44 J -25502512.64 -25502512.51 -25502512.38 0.0137 0.0002
 Mercury -74535-03-03 02:52 J -25502424.51 -25502424.38 -25502424.24 0.0137 0.0020
 Mercury -74535-05-30 06:13 J -25502336.37 -25502336.24 -25502336.11 0.0137 0.0036
 Mercury -74535-08-26 09:35 J -25502248.22 -25502248.10 -25502247.98 0.0137 0.0054
 Mercury -74535-11-22 12:42 J -25502160.08 -25502159.97 -25502159.85 0.0137 0.0071
 Mercury -74534-02-18 16:04 J -25502071.93 -25502071.83 -25502071.73 0.0137 0.0089
 Mercury -74534-05-17 19:11 J -25501983.77 -25501983.70 -25501983.61 0.0138 0.0107
 Mercury -74534-08-13 22:32 J -25501895.61 -25501895.56 -25501895.50 0.0138 0.0124
 Earth -74520-06-29 09:20 J -25496827.20 -25496827.11 -25496827.00 0.0146 0.0133
 Moon -74520-06-29 11:01 J -25496827.13 -25496827.04 -25496826.90 0.0146 0.0130 *
 Moon -74519-07-04 06:56 J -25496457.41 -25496457.21 -25496456.99 0.0147 0.0083
 Earth -74519-07-04 09:06 J -25496457.33 -25496457.12 -25496456.90 0.0147 0.0076 *
 Earth -74518-07-09 09:35 J -25496087.35 -25496087.10 -25496086.85 0.0147 0.0018
 Moon -74518-07-09 10:32 J -25496087.30 -25496087.06 -25496086.82 0.0147 0.0011 *
 Moon -74517-07-13 10:32 J -25495717.31 -25495717.06 -25495716.81 0.0147 0.0036
 Earth -74517-07-13 11:01 J -25495717.28 -25495717.04 -25495716.80 0.0147 0.0042 *
 Moon -74516-07-18 12:56 J -25495347.12 -25495346.96 -25495346.77 0.0148 0.0103
 Earth -74516-07-18 12:56 J -25495347.12 -25495346.96 -25495346.76 0.0148 0.0102 *

Venus	-74504-01-04 22:47 J	-25491158.72	-25491158.55	-25491158.37	0.0146	0.0088
Venus	-74504-08-19 14:23 J	-25490932.13	-25490931.90	-25490931.68	0.0146	0.0015
Venus	-74503-04-03 05:30 J	-25490705.47	-25490705.27	-25490705.06	0.0146	0.0058
Venus	-74503-11-15 20:37 J	-25490478.74	-25490478.64	-25490478.54	0.0146	0.0130
Mars	-74502-01-31 08:23 J	-25490402.43	-25490402.15	-25490401.86	0.0145	0.0080
Mars	-74500-01-08 12:28 J	-25489694.32	-25489693.98	-25489693.64	0.0144	0.0020
Mars	-74499-12-17 00:13 J	-25488986.67	-25488986.49	-25488986.27	0.0143	0.0115
Mercury	-74498-08-17 13:11 J	-25488742.99	-25488742.95	-25488742.87	0.0143	0.0136
Mercury	-74498-11-13 21:49 J	-25488654.71	-25488654.59	-25488654.45	0.0143	0.0107
Mercury	-74497-02-10 05:59 J	-25488566.40	-25488566.25	-25488566.07	0.0143	0.0079
Mercury	-74497-05-08 14:37 J	-25488478.07	-25488477.89	-25488477.71	0.0142	0.0050
Mercury	-74497-08-04 22:47 J	-25488389.74	-25488389.55	-25488389.36	0.0142	0.0022
Mercury	-74497-11-01 06:56 J	-25488301.40	-25488301.21	-25488301.01	0.0142	0.0007
Mercury	-74496-01-28 15:06 J	-25488213.05	-25488212.87	-25488212.68	0.0142	0.0034
Mercury	-74496-04-26 23:01 J	-25488124.70	-25488124.54	-25488124.36	0.0142	0.0062
Mercury	-74496-07-24 07:11 J	-25488036.34	-25488036.20	-25488036.05	0.0142	0.0089
Mercury	-74496-10-20 14:52 J	-25487947.97	-25487947.88	-25487947.76	0.0141	0.0116
Moon	-74479-01-05 12:28 J	-25482027.13	-25482026.98	-25482026.79	0.0133	0.0097
Earth	-74479-01-05 14:52 J	-25482027.05	-25482026.88	-25482026.70	0.0133	0.0097 *
Earth	-74478-01-09 23:44 J	-25481657.74	-25481657.51	-25481657.27	0.0132	0.0053
Moon	-74478-01-10 01:40 J	-25481657.67	-25481657.43	-25481657.18	0.0132	0.0050 *
Moon	-74477-01-14 05:44 J	-25481288.51	-25481288.26	-25481288.01	0.0132	0.0014
Earth	-74477-01-14 07:54 J	-25481288.42	-25481288.17	-25481287.91	0.0132	0.0008 *
Earth	-74476-01-17 14:37 J	-25480919.12	-25480918.89	-25480918.63	0.0132	0.0036
Moon	-74476-01-17 17:16 J	-25480919.02	-25480918.78	-25480918.52	0.0132	0.0042 *
Moon	-74475-01-21 19:11 J	-25480549.91	-25480549.70	-25480549.49	0.0132	0.0072
Earth	-74475-01-21 21:06 J	-25480549.81	-25480549.62	-25480549.40	0.0132	0.0079 *
Earth	-74474-01-26 02:37 J	-25480180.47	-25480180.39	-25480180.27	0.0131	0.0121
Moon	-74474-01-26 05:44 J	-25480180.33	-25480180.26	-25480180.18	0.0131	0.0126 *
Venus	-74461-05-21 16:04 J	-25475315.92	-25475315.83	-25475315.71	0.0132	0.0114

Venus -74460-01-02 19:11 J -25475089.88 -25475089.70 -25475089.51 0.0133 0.0063

Mars -74460-04-30 16:47 J -25474971.91 -25474971.80 -25474971.65 0.0133 0.0117

Venus -74460-08-16 22:04 J -25474863.79 -25474863.58 -25474863.37 0.0133 0.0012

Venus -74459-03-31 00:56 J -25474637.66 -25474637.46 -25474637.26 0.0133 0.0039

Venus -74459-11-12 03:49 J -25474411.49 -25474411.34 -25474411.18 0.0133 0.0091

Mars -74458-03-30 00:28 J -25474273.72 -25474273.48 -25474273.22 0.0133 0.0060

Mars -74456-02-25 12:42 J -25473575.25 -25473574.97 -25473574.69 0.0134 0.0002

Mars -74454-01-25 08:23 J -25472876.39 -25472876.15 -25472875.90 0.0135 0.0065

Mercury -74453-01-20 06:28 J -25472516.27 -25472516.23 -25472516.17 0.0136 0.0124

Mercury -74453-04-17 09:49 J -25472428.17 -25472428.09 -25472428.01 0.0136 0.0107

Mercury -74453-07-14 12:42 J -25472340.06 -25472339.97 -25472339.87 0.0136 0.0091

Mercury -74453-10-10 16:04 J -25472251.94 -25472251.83 -25472251.72 0.0136 0.0074

Mars -74453-12-24 12:28 J -25472177.03 -25472176.98 -25472176.86 0.0136 0.0131

Mercury -74452-01-06 19:11 J -25472163.82 -25472163.70 -25472163.58 0.0136 0.0058

Mercury -74452-04-04 22:18 J -25472075.70 -25472075.57 -25472075.44 0.0136 0.0041

Mercury -74452-07-02 01:25 J -25471987.57 -25471987.44 -25471987.31 0.0137 0.0024

Mercury -74452-09-28 04:47 J -25471899.44 -25471899.30 -25471899.17 0.0137 0.0008

Mercury -74452-12-25 07:54 J -25471811.30 -25471811.17 -25471811.04 0.0137 0.0010

Mercury -74451-03-23 11:01 J -25471723.17 -25471723.04 -25471722.91 0.0137 0.0027

Mercury -74451-06-19 14:23 J -25471635.03 -25471634.90 -25471634.78 0.0137 0.0044

Mercury -74451-09-15 17:30 J -25471546.88 -25471546.77 -25471546.65 0.0137 0.0062

Mercury -74451-12-12 20:52 J -25471458.74 -25471458.63 -25471458.52 0.0137 0.0079

Mercury -74450-03-10 23:59 J -25471370.58 -25471370.50 -25471370.40 0.0138 0.0097

Mercury -74450-06-07 03:20 J -25471282.43 -25471282.36 -25471282.28 0.0138 0.0114

Mercury -74450-09-03 06:42 J -25471194.25 -25471194.22 -25471194.18 0.0138 0.0132

Earth -74436-06-30 01:25 J -25466145.55 -25466145.44 -25466145.31 0.0146 0.0128

Moon -74436-06-30 04:18 J -25466145.42 -25466145.32 -25466145.21 0.0146 0.0131 *

Moon -74435-07-04 22:47 J -25465775.77 -25465775.55 -25465775.30 0.0147 0.0064

Earth -74435-07-05 00:42 J -25465775.67 -25465775.47 -25465775.24 0.0147 0.0071 *

Earth -74434-07-10 01:25 J -25465405.69 -25465405.44 -25465405.19 0.0147 0.0011

Moon -74434-07-10 03:06 J -25465405.61 -25465405.37 -25465405.13 0.0147 0.0019 *
 Moon -74433-07-14 01:40 J -25465035.66 -25465035.43 -25465035.18 0.0147 0.0053
 Earth -74433-07-14 02:37 J -25465035.62 -25465035.39 -25465035.14 0.0147 0.0049 *
 Earth -74432-07-19 05:01 J -25464665.45 -25464665.29 -25464665.11 0.0148 0.0109
 Moon -74432-07-19 05:01 J -25464665.44 -25464665.29 -25464665.12 0.0148 0.0109 *
 Venus -74421-09-04 06:13 J -25460600.35 -25460600.24 -25460600.09 0.0147 0.0118
 Venus -74420-04-18 21:49 J -25460373.79 -25460373.59 -25460373.37 0.0146 0.0045
 Mars -74420-10-20 05:44 J -25460189.36 -25460189.26 -25460189.13 0.0146 0.0137
 Venus -74420-12-01 13:11 J -25460147.16 -25460146.95 -25460146.72 0.0146 0.0029
 Venus -74419-07-16 04:32 J -25459920.46 -25459920.31 -25459920.14 0.0146 0.0101
 Mars -74418-09-28 19:11 J -25459481.03 -25459480.70 -25459480.36 0.0145 0.0035
 Mars -74416-09-05 18:42 J -25458773.00 -25458772.72 -25458772.39 0.0144 0.0064
 Mercury -74414-09-06 22:47 J -25458041.64 -25458041.55 -25458041.45 0.0143 0.0123
 Mercury -74414-12-04 06:56 J -25457953.34 -25457953.21 -25457953.05 0.0143 0.0095
 Mercury -74413-03-01 15:35 J -25457865.02 -25457864.85 -25457864.68 0.0143 0.0066
 Mercury -74413-05-28 23:44 J -25457776.69 -25457776.51 -25457776.32 0.0142 0.0038
 Mercury -74413-08-25 08:08 J -25457688.35 -25457688.16 -25457687.97 0.0142 0.0009
 Mercury -74413-11-21 16:04 J -25457600.01 -25457599.83 -25457599.63 0.0142 0.0020
 Mercury -74412-02-18 00:13 J -25457511.67 -25457511.49 -25457511.30 0.0142 0.0047
 Mercury -74412-05-17 08:23 J -25457423.31 -25457423.15 -25457422.99 0.0142 0.0074
 Mercury -74412-08-13 16:04 J -25457334.95 -25457334.83 -25457334.68 0.0142 0.0102
 Mercury -74412-11-09 23:59 J -25457246.56 -25457246.50 -25457246.40 0.0141 0.0129
 Moon -74396-01-01 23:01 J -25451714.56 -25451714.54 -25451714.52 0.0133 0.0132
 Moon -74395-01-06 05:44 J -25451345.43 -25451345.26 -25451345.08 0.0133 0.0093
 Earth -74395-01-06 06:42 J -25451345.39 -25451345.22 -25451345.02 0.0133 0.0092 *
 Earth -74394-01-10 15:49 J -25450976.08 -25450975.84 -25450975.60 0.0132 0.0047
 Moon -74394-01-10 17:44 J -25450976.00 -25450975.76 -25450975.51 0.0132 0.0050 *
 Moon -74393-01-14 22:04 J -25450606.83 -25450606.58 -25450606.33 0.0132 0.0002
 Earth -74393-01-14 23:44 J -25450606.77 -25450606.51 -25450606.25 0.0132 0.0002 *
 Earth -74392-01-18 06:28 J -25450237.46 -25450237.23 -25450236.97 0.0132 0.0042

Moon -74392-01-18 08:23 J -25450237.39 -25450237.15 -25450236.88 0.0132 0.0036 *
 Moon -74391-01-22 10:47 J -25449868.22 -25449868.05 -25449867.87 0.0132 0.0092
 Earth -74391-01-22 12:42 J -25449868.15 -25449867.97 -25449867.76 0.0132 0.0085 *
 Earth -74390-01-26 18:13 J -25449498.77 -25449498.74 -25449498.65 0.0131 0.0128
 Moon -74390-01-26 20:08 J -25449498.73 -25449498.66 -25449498.53 0.0131 0.0121 *
 Venus -74377-09-02 09:35 J -25444531.26 -25444531.10 -25444530.93 0.0132 0.0083
 Venus -74376-04-16 12:28 J -25444305.18 -25444304.98 -25444304.77 0.0133 0.0032
 Venus -74376-11-28 15:20 J -25444079.07 -25444078.86 -25444078.65 0.0133 0.0020
 Mars -74376-12-23 23:16 J -25444053.73 -25444053.53 -25444053.32 0.0133 0.0090
 Venus -74375-07-12 17:59 J -25443852.91 -25443852.75 -25443852.55 0.0133 0.0071
 Venus -74374-02-23 21:06 J -25443626.69 -25443626.62 -25443626.52 0.0133 0.0123
 Mars -74374-11-22 06:56 J -25443355.48 -25443355.21 -25443354.94 0.0134 0.0031
 Mars -74372-10-20 21:35 J -25442656.86 -25442656.60 -25442656.32 0.0135 0.0032
 Mars -74370-09-19 20:23 J -25441957.83 -25441957.65 -25441957.44 0.0136 0.0096
 Mercury -74370-11-13 11:30 J -25441903.04 -25441903.02 -25441902.99 0.0136 0.0133
 Mercury -74369-02-09 14:23 J -25441814.95 -25441814.90 -25441814.82 0.0136 0.0117
 Mercury -74369-05-07 17:44 J -25441726.85 -25441726.76 -25441726.67 0.0136 0.0100
 Mercury -74369-08-03 20:52 J -25441638.73 -25441638.63 -25441638.53 0.0136 0.0084
 Mercury -74369-10-30 23:59 J -25441550.61 -25441550.50 -25441550.38 0.0136 0.0067
 Mercury -74368-01-27 03:06 J -25441462.49 -25441462.37 -25441462.24 0.0136 0.0051
 Mercury -74368-04-25 06:13 J -25441374.36 -25441374.24 -25441374.11 0.0136 0.0034
 Mercury -74368-07-22 09:35 J -25441286.23 -25441286.10 -25441285.97 0.0137 0.0017
 Mercury -74368-10-18 12:42 J -25441198.10 -25441197.97 -25441197.84 0.0137 0.0000
 Mercury -74367-01-14 15:49 J -25441109.97 -25441109.84 -25441109.70 0.0137 0.0018
 Mercury -74367-04-12 19:11 J -25441021.83 -25441021.70 -25441021.57 0.0137 0.0034
 Mercury -74367-07-09 22:18 J -25440933.69 -25440933.57 -25440933.44 0.0137 0.0052
 Mercury -74367-10-06 01:25 J -25440845.55 -25440845.44 -25440845.32 0.0137 0.0069
 Mercury -74366-01-02 04:47 J -25440757.40 -25440757.30 -25440757.19 0.0137 0.0087
 Mercury -74366-03-31 08:08 J -25440669.24 -25440669.16 -25440669.07 0.0138 0.0104
 Mercury -74366-06-27 11:16 J -25440581.08 -25440581.03 -25440580.96 0.0138 0.0122

Earth -74352-06-30 17:30 J -25435463.90 -25435463.77 -25435463.63 0.0146 0.0122
 Moon -74352-06-30 19:54 J -25435463.80 -25435463.67 -25435463.52 0.0146 0.0118 *
 Moon -74351-07-05 14:08 J -25435094.12 -25435093.91 -25435093.68 0.0147 0.0072
 Earth -74351-07-05 16:47 J -25435094.01 -25435093.80 -25435093.56 0.0147 0.0065 *
 Earth -74350-07-10 17:30 J -25434724.02 -25434723.77 -25434723.52 0.0147 0.0005
 Moon -74350-07-10 19:25 J -25434723.94 -25434723.69 -25434723.45 0.0147 0.0003 *
 Moon -74349-07-14 17:44 J -25434354.00 -25434353.76 -25434353.51 0.0147 0.0050
 Earth -74349-07-14 18:42 J -25434353.94 -25434353.72 -25434353.47 0.0147 0.0056 *
 Earth -74348-07-19 21:06 J -25433983.76 -25433983.62 -25433983.44 0.0148 0.0116
 Moon -74348-07-19 22:18 J -25433983.71 -25433983.57 -25433983.42 0.0148 0.0117 *
 Venus -74337-05-04 15:06 J -25430041.88 -25430041.87 -25430041.84 0.0147 0.0146
 Venus -74337-12-17 06:42 J -25429815.41 -25429815.22 -25429815.02 0.0146 0.0073
 Venus -74336-07-31 22:18 J -25429588.80 -25429588.57 -25429588.35 0.0146 0.0002
 Venus -74335-03-15 13:11 J -25429362.13 -25429361.95 -25429361.75 0.0146 0.0073
 Mars -74335-06-17 23:01 J -25429267.81 -25429267.54 -25429267.27 0.0146 0.0091
 Venus -74335-10-28 04:04 J -25429135.34 -25429135.33 -25429135.28 0.0146 0.0145
 Mars -74333-05-26 08:52 J -25428559.46 -25428559.13 -25428558.78 0.0145 0.0012
 Mars -74331-05-04 02:37 J -25427851.58 -25427851.39 -25427851.14 0.0144 0.0110
 Mercury -74330-07-01 00:13 J -25427428.53 -25427428.49 -25427428.44 0.0143 0.0138
 Mercury -74330-09-27 08:23 J -25427340.26 -25427340.15 -25427340.02 0.0143 0.0110
 Mercury -74330-12-24 16:47 J -25427251.95 -25427251.80 -25427251.63 0.0143 0.0081
 Mercury -74329-03-22 01:11 J -25427163.63 -25427163.45 -25427163.27 0.0142 0.0052
 Mercury -74329-06-18 09:20 J -25427075.29 -25427075.11 -25427074.91 0.0142 0.0025
 Mercury -74329-09-14 17:44 J -25426986.95 -25426986.76 -25426986.57 0.0142 0.0004
 Mercury -74329-12-12 01:40 J -25426898.61 -25426898.43 -25426898.23 0.0142 0.0033
 Mercury -74328-03-10 09:49 J -25426810.26 -25426810.09 -25426809.91 0.0142 0.0060
 Mercury -74328-06-06 17:59 J -25426721.90 -25426721.75 -25426721.60 0.0142 0.0087
 Mercury -74328-09-03 01:54 J -25426633.53 -25426633.42 -25426633.30 0.0142 0.0114
 Mercury -74328-11-30 09:49 J -25426545.10 -25426545.09 -25426545.07 0.0141 0.0141
 Earth -74312-01-02 12:42 J -25421032.98 -25421032.97 -25421032.92 0.0133 0.0132

Moon -74311-01-06 20:52 J -25420663.80 -25420663.63 -25420663.42 0.0133 0.0087
 Earth -74311-01-06 22:18 J -25420663.75 -25420663.57 -25420663.36 0.0133 0.0087 *
 Earth -74310-01-11 07:11 J -25420294.44 -25420294.20 -25420293.95 0.0132 0.0042
 Moon -74310-01-11 08:23 J -25420294.41 -25420294.15 -25420293.90 0.0132 0.0040 *
 Moon -74309-01-15 13:40 J -25419925.18 -25419924.93 -25419924.68 0.0132 0.0003
 Earth -74309-01-15 15:06 J -25419925.13 -25419924.87 -25419924.61 0.0132 0.0003 *
 Earth -74308-01-18 21:49 J -25419555.83 -25419555.59 -25419555.35 0.0132 0.0047
 Moon -74308-01-18 23:16 J -25419555.76 -25419555.53 -25419555.28 0.0132 0.0054 *
 Moon -74307-01-23 02:23 J -25419186.57 -25419186.40 -25419186.19 0.0131 0.0085
 Earth -74307-01-23 03:49 J -25419186.51 -25419186.34 -25419186.14 0.0131 0.0091 *
 Venus -74293-05-02 23:16 J -25413972.65 -25413972.53 -25413972.38 0.0132 0.0103
 Mars -74293-09-18 21:35 J -25413833.70 -25413833.60 -25413833.49 0.0132 0.0122
 Venus -74293-12-15 02:23 J -25413746.59 -25413746.40 -25413746.20 0.0132 0.0052
 Venus -74292-07-29 05:16 J -25413520.49 -25413520.28 -25413520.07 0.0133 0.0002
 Venus -74291-03-12 07:54 J -25413294.36 -25413294.17 -25413293.97 0.0133 0.0050
 Mars -74291-08-18 01:40 J -25413135.66 -25413135.43 -25413135.17 0.0133 0.0064
 Venus -74291-10-24 10:32 J -25413068.18 -25413068.06 -25413067.91 0.0133 0.0102
 Mars -74289-07-16 11:59 J -25412437.28 -25412437.00 -25412436.72 0.0134 0.0003
 Mars -74287-06-15 05:01 J -25411738.53 -25411738.29 -25411738.03 0.0135 0.0061
 Mercury -74286-12-03 19:11 J -25411201.74 -25411201.70 -25411201.65 0.0136 0.0127
 Mercury -74285-02-29 22:18 J -25411113.64 -25411113.57 -25411113.49 0.0136 0.0111
 Mars -74285-05-14 05:16 J -25411039.38 -25411039.28 -25411039.18 0.0136 0.0126
 Mercury -74285-05-28 01:11 J -25411025.53 -25411025.45 -25411025.35 0.0136 0.0095
 Mercury -74285-08-24 04:32 J -25410937.42 -25410937.31 -25410937.20 0.0136 0.0078
 Mercury -74285-11-20 07:40 J -25410849.30 -25410849.18 -25410849.06 0.0136 0.0061
 Mercury -74284-02-16 10:47 J -25410761.17 -25410761.05 -25410760.92 0.0136 0.0045
 Mercury -74284-05-15 13:54 J -25410673.05 -25410672.92 -25410672.79 0.0136 0.0028
 Mercury -74284-08-11 17:01 J -25410584.92 -25410584.79 -25410584.65 0.0137 0.0012
 Mercury -74284-11-07 20:23 J -25410496.78 -25410496.65 -25410496.52 0.0137 0.0006
 Mercury -74283-02-03 23:30 J -25410408.65 -25410408.52 -25410408.39 0.0137 0.0023

Mercury -74283-05-03 02:37 J -25410320.51 -25410320.39 -25410320.26 0.0137 0.0040
 Mercury -74283-07-30 05:59 J -25410232.37 -25410232.25 -25410232.13 0.0137 0.0057
 Mercury -74283-10-26 09:20 J -25410144.23 -25410144.11 -25410144.00 0.0137 0.0075
 Mercury -74282-01-22 12:13 J -25410056.08 -25410055.99 -25410055.88 0.0137 0.0093
 Mercury -74282-04-20 15:49 J -25409967.92 -25409967.84 -25409967.76 0.0138 0.0110
 Mercury -74282-07-17 18:56 J -25409879.75 -25409879.71 -25409879.65 0.0138 0.0128
 Earth -74268-07-01 04:32 J -25404782.44 -25404782.31 -25404782.16 0.0146 0.0119
 Moon -74268-07-01 07:40 J -25404782.29 -25404782.18 -25404782.03 0.0146 0.0124 *
 Moon -74267-07-06 01:11 J -25404412.68 -25404412.45 -25404412.21 0.0147 0.0055
 Earth -74267-07-06 03:49 J -25404412.56 -25404412.34 -25404412.10 0.0147 0.0061 *
 Earth -74266-07-11 04:18 J -25404042.57 -25404042.32 -25404042.06 0.0147 0.0003
 Moon -74266-07-11 06:42 J -25404042.46 -25404042.22 -25404041.97 0.0147 0.0010 *
 Moon -74265-07-15 03:35 J -25403672.57 -25403672.35 -25403672.11 0.0147 0.0065
 Earth -74265-07-15 05:30 J -25403672.48 -25403672.27 -25403672.02 0.0147 0.0060 *
 Earth -74264-07-20 08:08 J -25403302.30 -25403302.16 -25403302.01 0.0147 0.0120
 Moon -74264-07-20 08:52 J -25403302.26 -25403302.13 -25403301.97 0.0147 0.0120 *
 Venus -74253-08-16 11:30 J -25399257.16 -25399257.02 -25399256.86 0.0147 0.0107
 Venus -74252-03-31 03:06 J -25399030.59 -25399030.37 -25399030.15 0.0146 0.0034
 Venus -74252-11-12 18:13 J -25398803.95 -25398803.74 -25398803.51 0.0146 0.0039
 Venus -74251-06-27 09:49 J -25398577.23 -25398577.09 -25398576.95 0.0146 0.0111
 Mars -74250-02-13 02:37 J -25398346.71 -25398346.39 -25398346.06 0.0146 0.0048
 Mars -74248-01-21 09:06 J -25397638.44 -25397638.12 -25397637.80 0.0145 0.0055
 Mercury -74246-07-21 08:23 J -25396727.23 -25396727.15 -25396727.07 0.0143 0.0129
 Mercury -74246-10-17 16:47 J -25396638.93 -25396638.80 -25396638.66 0.0143 0.0100
 Mercury -74245-01-14 00:56 J -25396550.62 -25396550.46 -25396550.28 0.0143 0.0072
 Mercury -74245-04-11 09:20 J -25396462.29 -25396462.11 -25396461.92 0.0143 0.0043
 Mercury -74245-07-08 17:44 J -25396373.95 -25396373.76 -25396373.57 0.0142 0.0015
 Mercury -74245-10-05 01:54 J -25396285.61 -25396285.42 -25396285.23 0.0142 0.0013
 Mercury -74244-01-01 10:04 J -25396197.26 -25396197.08 -25396196.89 0.0142 0.0041
 Mercury -74244-03-30 17:59 J -25396108.91 -25396108.75 -25396108.57 0.0142 0.0069

Mercury -74244-06-27 02:23 J -25396020.54 -25396020.40 -25396020.26 0.0142 0.0096

Mercury -74244-09-23 09:49 J -25395932.16 -25395932.09 -25395931.98 0.0142 0.0124

Earth -74228-01-03 03:20 J -25390351.42 -25390351.36 -25390351.28 0.0133 0.0127

Moon -74228-01-03 04:04 J -25390351.42 -25390351.33 -25390351.22 0.0133 0.0123 *

Moon -74227-01-07 12:28 J -25389982.16 -25389981.98 -25389981.77 0.0133 0.0084

Earth -74227-01-07 12:56 J -25389982.16 -25389981.96 -25389981.75 0.0133 0.0082 *

Earth -74226-01-11 21:35 J -25389612.84 -25389612.60 -25389612.35 0.0132 0.0036

Moon -74226-01-11 22:32 J -25389612.81 -25389612.56 -25389612.29 0.0132 0.0039 *

Moon -74225-01-16 04:32 J -25389243.56 -25389243.31 -25389243.06 0.0132 0.0013

Earth -74225-01-16 05:16 J -25389243.53 -25389243.28 -25389243.02 0.0132 0.0009 *

Earth -74224-01-19 11:59 J -25388874.22 -25388874.00 -25388873.75 0.0132 0.0053

Moon -74224-01-19 13:11 J -25388874.19 -25388873.95 -25388873.69 0.0132 0.0047 *

Moon -74223-01-23 16:47 J -25388504.93 -25388504.80 -25388504.63 0.0131 0.0104

Earth -74223-01-23 18:13 J -25388504.89 -25388504.74 -25388504.55 0.0131 0.0096 *

Venus -74209-01-01 12:56 J -25383414.02 -25383413.96 -25383413.87 0.0132 0.0123

Venus -74209-08-14 15:35 J -25383188.01 -25383187.85 -25383187.66 0.0132 0.0073

Venus -74208-03-28 18:28 J -25382961.93 -25382961.73 -25382961.52 0.0132 0.0023

Mars -74208-05-13 22:47 J -25382915.74 -25382915.55 -25382915.36 0.0132 0.0096

Venus -74208-11-09 21:06 J -25382735.82 -25382735.62 -25382735.40 0.0133 0.0029

Venus -74207-06-24 00:13 J -25382509.66 -25382509.49 -25382509.32 0.0133 0.0079

Venus -74206-02-05 03:20 J -25382283.40 -25382283.36 -25382283.32 0.0133 0.0130

Mars -74206-04-12 05:01 J -25382217.55 -25382217.29 -25382217.02 0.0133 0.0036

Mars -74204-03-10 17:44 J -25381519.03 -25381518.76 -25381518.48 0.0134 0.0027

Mars -74202-02-07 11:16 J -25380820.22 -25380820.03 -25380819.81 0.0135 0.0091

Mercury -74202-12-24 02:37 J -25380500.44 -25380500.39 -25380500.33 0.0136 0.0122

Mercury -74201-03-21 05:44 J -25380412.34 -25380412.26 -25380412.17 0.0136 0.0106

Mercury -74201-06-17 08:52 J -25380324.22 -25380324.13 -25380324.03 0.0136 0.0089

Mercury -74201-09-13 11:59 J -25380236.11 -25380236.00 -25380235.88 0.0136 0.0073

Mercury -74201-12-10 15:06 J -25380147.99 -25380147.87 -25380147.75 0.0136 0.0057

Mercury -74200-03-08 18:13 J -25380059.86 -25380059.74 -25380059.61 0.0136 0.0040

Mercury -74200-06-04 21:20 J -25379971.73 -25379971.61 -25379971.47 0.0136 0.0024

Mercury -74200-09-01 00:42 J -25379883.60 -25379883.47 -25379883.34 0.0136 0.0006

Mercury -74200-11-28 03:49 J -25379795.47 -25379795.34 -25379795.21 0.0137 0.0011

Mercury -74199-02-24 06:56 J -25379707.34 -25379707.21 -25379707.08 0.0137 0.0028

Mercury -74199-05-23 10:18 J -25379619.20 -25379619.07 -25379618.95 0.0137 0.0045

Mercury -74199-08-19 13:25 J -25379531.06 -25379530.94 -25379530.82 0.0137 0.0062

Mercury -74199-11-15 16:47 J -25379442.91 -25379442.80 -25379442.69 0.0137 0.0080

Mercury -74198-02-11 19:54 J -25379354.76 -25379354.67 -25379354.57 0.0137 0.0097

Mercury -74198-05-10 23:16 J -25379266.60 -25379266.53 -25379266.46 0.0138 0.0115

Mercury -74198-08-07 02:23 J -25379178.42 -25379178.40 -25379178.36 0.0138 0.0133

Earth -74184-07-01 14:52 J -25374101.02 -25374100.88 -25374100.73 0.0146 0.0117

Moon -74184-07-01 18:13 J -25374100.89 -25374100.74 -25374100.59 0.0146 0.0114 *

Moon -74183-07-06 10:47 J -25373731.27 -25373731.05 -25373730.82 0.0146 0.0066

Earth -74183-07-06 14:08 J -25373731.13 -25373730.91 -25373730.67 0.0146 0.0059 *

Earth -74182-07-11 14:37 J -25373361.14 -25373360.89 -25373360.64 0.0147 0.0002

Moon -74182-07-11 17:16 J -25373361.02 -25373360.78 -25373360.53 0.0147 0.0009 *

Moon -74181-07-15 13:40 J -25372991.16 -25372990.93 -25372990.69 0.0147 0.0056

Earth -74181-07-15 15:49 J -25372991.06 -25372990.84 -25372990.60 0.0147 0.0063 *

Earth -74180-07-20 18:13 J -25372620.86 -25372620.74 -25372620.59 0.0147 0.0124

Moon -74180-07-20 20:37 J -25372620.77 -25372620.64 -25372620.52 0.0147 0.0126 *

Venus -74169-04-15 15:06 J -25368698.90 -25368698.87 -25368698.80 0.0147 0.0143

Venus -74169-11-28 06:56 J -25368472.40 -25368472.21 -25368472.01 0.0147 0.0070

Venus -74168-07-12 22:47 J -25368245.78 -25368245.55 -25368245.33 0.0146 0.0004

Mars -74168-11-01 08:52 J -25368134.33 -25368134.13 -25368133.88 0.0146 0.0110

Venus -74167-02-24 13:54 J -25368019.10 -25368018.92 -25368018.72 0.0146 0.0076

Mars -74166-10-11 01:54 J -25367425.76 -25367425.42 -25367425.07 0.0145 0.0004

Mars -74164-09-18 03:35 J -25366717.58 -25366717.35 -25366717.08 0.0144 0.0098

Mercury -74162-08-10 15:49 J -25366025.92 -25366025.84 -25366025.73 0.0143 0.0122

Mercury -74162-11-07 00:28 J -25365937.62 -25365937.48 -25365937.33 0.0143 0.0093

Mercury -74161-02-03 08:37 J -25365849.30 -25365849.14 -25365848.96 0.0143 0.0065

Mercury -74161-05-01 17:16 J -25365760.97 -25365760.78 -25365760.59 0.0143 0.0036

Mercury -74161-07-29 01:25 J -25365672.63 -25365672.44 -25365672.24 0.0142 0.0008

Mercury -74161-10-25 09:35 J -25365584.29 -25365584.10 -25365583.90 0.0142 0.0021

Mercury -74160-01-21 17:44 J -25365495.94 -25365495.76 -25365495.58 0.0142 0.0049

Mercury -74160-04-20 01:54 J -25365407.58 -25365407.42 -25365407.26 0.0142 0.0076

Mercury -74160-07-17 09:49 J -25365319.21 -25365319.09 -25365318.95 0.0142 0.0104

Mercury -74160-10-13 17:44 J -25365230.82 -25365230.76 -25365230.68 0.0142 0.0131

Earth -74144-01-03 16:32 J -25359669.88 -25359669.81 -25359669.69 0.0133 0.0124

Moon -74144-01-03 16:18 J -25359669.87 -25359669.82 -25359669.73 0.0133 0.0128 *

Moon -74143-01-08 01:40 J -25359300.61 -25359300.43 -25359300.21 0.0133 0.0078

Earth -74143-01-08 02:23 J -25359300.60 -25359300.40 -25359300.18 0.0133 0.0078 *

Moon -74142-01-12 11:16 J -25358931.29 -25358931.03 -25358930.77 0.0132 0.0031

Earth -74142-01-12 11:01 J -25358931.28 -25358931.04 -25358930.78 0.0132 0.0032 *

Moon -74141-01-16 18:28 J -25358561.97 -25358561.73 -25358561.48 0.0132 0.0009

Earth -74141-01-16 18:56 J -25358561.96 -25358561.71 -25358561.45 0.0132 0.0013 *

Earth -74140-01-20 01:40 J -25358192.65 -25358192.43 -25358192.18 0.0132 0.0058

Moon -74140-01-20 02:37 J -25358192.62 -25358192.39 -25358192.15 0.0132 0.0064 *

Moon -74139-01-24 07:40 J -25357823.33 -25357823.18 -25357822.99 0.0131 0.0096

Earth -74139-01-24 08:08 J -25357823.30 -25357823.16 -25357822.98 0.0131 0.0102 *

Mars -74125-02-07 23:01 J -25352695.58 -25352695.54 -25352695.45 0.0132 0.0129

Venus -74125-04-14 05:59 J -25352629.40 -25352629.25 -25352629.10 0.0132 0.0092

Venus -74125-11-26 08:37 J -25352403.34 -25352403.14 -25352402.94 0.0132 0.0042

Venus -74124-07-10 11:30 J -25352177.23 -25352177.02 -25352176.81 0.0132 0.0008

Mars -74123-01-06 02:08 J -25351997.62 -25351997.41 -25351997.15 0.0133 0.0070

Venus -74123-02-21 14:23 J -25351951.09 -25351950.90 -25351950.71 0.0133 0.0059

Venus -74123-10-05 17:01 J -25351724.90 -25351724.79 -25351724.66 0.0133 0.0110

Mars -74122-12-05 11:01 J -25351299.31 -25351299.04 -25351298.76 0.0133 0.0008

Mars -74120-11-02 23:59 J -25350600.75 -25350600.50 -25350600.25 0.0134 0.0056

Mars -74118-10-02 19:11 J -25349901.80 -25349901.70 -25349901.55 0.0135 0.0122

Mercury -74118-10-17 07:25 J -25349887.21 -25349887.19 -25349887.16 0.0135 0.0132

Mercury -74117-01-13 10:32 J -25349799.13 -25349799.06 -25349798.99 0.0135 0.0116

Mercury -74117-04-10 13:25 J -25349711.02 -25349710.94 -25349710.84 0.0136 0.0100

Mercury -74117-07-07 16:47 J -25349622.91 -25349622.80 -25349622.70 0.0136 0.0083

Mercury -74117-10-03 19:40 J -25349534.79 -25349534.68 -25349534.56 0.0136 0.0067

Mercury -74117-12-30 23:01 J -25349446.67 -25349446.54 -25349446.42 0.0136 0.0050

Mercury -74116-03-29 01:54 J -25349358.54 -25349358.42 -25349358.28 0.0136 0.0034

Mercury -74116-06-25 05:16 J -25349270.41 -25349270.28 -25349270.15 0.0136 0.0017

Mercury -74116-09-21 08:23 J -25349182.28 -25349182.15 -25349182.02 0.0136 0.0000

Mercury -74116-12-18 11:30 J -25349094.15 -25349094.02 -25349093.89 0.0137 0.0017

Mercury -74115-03-16 14:37 J -25349006.01 -25349005.89 -25349005.76 0.0137 0.0035

Mercury -74115-06-12 17:59 J -25348917.87 -25348917.75 -25348917.63 0.0137 0.0051

Mercury -74115-09-08 21:06 J -25348829.73 -25348829.62 -25348829.50 0.0137 0.0069

Mercury -74115-12-06 00:13 J -25348741.58 -25348741.49 -25348741.38 0.0137 0.0086

Mercury -74114-03-04 03:35 J -25348653.43 -25348653.35 -25348653.26 0.0137 0.0103

Mercury -74114-05-31 06:56 J -25348565.27 -25348565.21 -25348565.15 0.0137 0.0121

Earth -74100-07-02 00:42 J -25343419.60 -25343419.47 -25343419.30 0.0146 0.0115

Moon -74100-07-02 04:32 J -25343419.44 -25343419.31 -25343419.15 0.0146 0.0118 *

Moon -74099-07-06 20:52 J -25343049.87 -25343049.63 -25343049.39 0.0146 0.0050

Earth -74099-07-07 00:13 J -25343049.72 -25343049.49 -25343049.26 0.0146 0.0056 *

Earth -74098-07-12 00:13 J -25342679.74 -25342679.49 -25342679.24 0.0147 0.0005

Moon -74098-07-12 03:20 J -25342679.60 -25342679.36 -25342679.11 0.0147 0.0004 *

Moon -74097-07-15 22:32 J -25342309.78 -25342309.56 -25342309.33 0.0147 0.0072

Earth -74097-07-16 01:40 J -25342309.65 -25342309.43 -25342309.20 0.0147 0.0066 *

Earth -74096-07-21 03:20 J -25341939.46 -25341939.36 -25341939.21 0.0147 0.0128

Moon -74096-07-21 05:30 J -25341939.38 -25341939.27 -25341939.13 0.0147 0.0126 *

Venus -74085-07-28 09:49 J -25337914.24 -25337914.09 -25337913.93 0.0147 0.0107

Venus -74084-03-12 01:25 J -25337687.66 -25337687.44 -25337687.22 0.0146 0.0034

Venus -74084-10-24 16:47 J -25337461.01 -25337460.80 -25337460.58 0.0146 0.0039

Venus -74083-06-08 08:23 J -25337234.30 -25337234.15 -25337234.01 0.0146 0.0111

Mars -74083-06-29 05:59 J -25337213.54 -25337213.25 -25337212.93 0.0146 0.0067

Mars -74081-06-06 18:56 J -25336505.03 -25336504.71 -25336504.37 0.0145 0.0039
 Mars -74079-05-15 16:18 J -25335796.88 -25335796.82 -25335796.71 0.0144 0.0139
 Mercury -74078-08-30 22:47 J -25335324.65 -25335324.55 -25335324.43 0.0143 0.0117
 Mercury -74078-11-27 07:11 J -25335236.34 -25335236.20 -25335236.04 0.0143 0.0088
 Mercury -74077-02-23 15:35 J -25335148.02 -25335147.85 -25335147.67 0.0143 0.0060
 Mercury -74077-05-21 23:59 J -25335059.69 -25335059.50 -25335059.31 0.0143 0.0031
 Mercury -74077-08-18 08:23 J -25334971.35 -25334971.15 -25334970.96 0.0143 0.0004
 Mercury -74077-11-14 16:32 J -25334883.00 -25334882.81 -25334882.62 0.0142 0.0026
 Mercury -74076-02-11 00:42 J -25334794.65 -25334794.47 -25334794.29 0.0142 0.0054
 Mercury -74076-05-10 08:37 J -25334706.29 -25334706.14 -25334705.98 0.0142 0.0081
 Mercury -74076-08-06 16:32 J -25334617.92 -25334617.81 -25334617.68 0.0142 0.0109
 Mercury -74076-11-03 00:42 J -25334529.52 -25334529.47 -25334529.41 0.0142 0.0136
 Moon -74060-01-04 03:49 J -25328988.44 -25328988.34 -25328988.18 0.0133 0.0117
 Earth -74060-01-04 04:32 J -25328988.40 -25328988.31 -25328988.19 0.0133 0.0121 *
 Earth -74059-01-08 14:23 J -25328619.10 -25328618.90 -25328618.68 0.0133 0.0074
 Moon -74059-01-08 15:20 J -25328619.06 -25328618.86 -25328618.65 0.0133 0.0076 *
 Moon -74058-01-12 23:16 J -25328249.79 -25328249.53 -25328249.26 0.0133 0.0029
 Earth -74058-01-12 23:30 J -25328249.77 -25328249.52 -25328249.27 0.0133 0.0028 *
 Earth -74057-01-17 07:25 J -25327880.45 -25327880.19 -25327879.93 0.0132 0.0018
 Moon -74057-01-17 07:25 J -25327880.43 -25327880.19 -25327879.94 0.0132 0.0022 *
 Moon -74056-01-20 14:23 J -25327511.13 -25327510.90 -25327510.65 0.0132 0.0057
 Earth -74056-01-20 14:23 J -25327511.11 -25327510.90 -25327510.66 0.0132 0.0063 *
 Earth -74055-01-24 21:06 J -25327141.75 -25327141.62 -25327141.45 0.0132 0.0107
 Moon -74055-01-24 20:52 J -25327141.74 -25327141.63 -25327141.50 0.0132 0.0114 *
 Venus -74042-12-13 19:54 J -25322070.77 -25322070.67 -25322070.55 0.0132 0.0112
 Venus -74041-07-26 22:47 J -25321844.73 -25321844.55 -25321844.36 0.0132 0.0062
 Mars -74041-10-02 02:08 J -25321777.58 -25321777.41 -25321777.23 0.0132 0.0102
 Venus -74040-03-10 01:40 J -25321618.64 -25321618.43 -25321618.22 0.0132 0.0012
 Venus -74040-10-22 04:32 J -25321392.51 -25321392.31 -25321392.11 0.0133 0.0039
 Venus -74039-06-05 07:11 J -25321166.34 -25321166.20 -25321166.03 0.0133 0.0090

Mars -74039-08-31 07:54 J -25321079.43 -25321079.17 -25321078.90 0.0133 0.0041
 Mars -74037-07-29 17:16 J -25320381.05 -25320380.78 -25320380.50 0.0134 0.0022
 Mars -74035-06-28 07:25 J -25319682.38 -25319682.19 -25319681.96 0.0135 0.0087
 Mercury -74034-11-06 15:06 J -25319185.90 -25319185.87 -25319185.81 0.0135 0.0126
 Mercury -74033-02-02 18:28 J -25319097.80 -25319097.73 -25319097.65 0.0135 0.0109
 Mercury -74033-04-30 21:20 J -25319009.70 -25319009.61 -25319009.50 0.0136 0.0093
 Mercury -74033-07-28 00:42 J -25318921.58 -25318921.47 -25318921.36 0.0136 0.0076
 Mercury -74033-10-24 03:35 J -25318833.46 -25318833.35 -25318833.22 0.0136 0.0060
 Mercury -74032-01-20 06:56 J -25318745.34 -25318745.21 -25318745.09 0.0136 0.0043
 Mercury -74032-04-18 10:04 J -25318657.21 -25318657.08 -25318656.95 0.0136 0.0027
 Mercury -74032-07-15 13:11 J -25318569.08 -25318568.95 -25318568.82 0.0136 0.0010
 Mercury -74032-10-11 16:18 J -25318480.95 -25318480.82 -25318480.69 0.0136 0.0007
 Mercury -74031-01-07 19:25 J -25318392.82 -25318392.69 -25318392.56 0.0137 0.0025
 Mercury -74031-04-05 22:32 J -25318304.68 -25318304.56 -25318304.43 0.0137 0.0042
 Mercury -74031-07-03 01:54 J -25318216.54 -25318216.42 -25318216.30 0.0137 0.0059
 Mercury -74031-09-29 05:01 J -25318128.39 -25318128.29 -25318128.17 0.0137 0.0076
 Mercury -74031-12-26 08:23 J -25318040.24 -25318040.15 -25318040.05 0.0137 0.0093
 Mercury -74030-03-24 11:44 J -25317952.09 -25317952.01 -25317951.93 0.0137 0.0111
 Mercury -74030-06-20 14:52 J -25317863.92 -25317863.88 -25317863.83 0.0137 0.0128
 Earth -74016-07-02 15:35 J -25312738.00 -25312737.85 -25312737.67 0.0146 0.0110
 Moon -74016-07-02 18:56 J -25312737.86 -25312737.71 -25312737.52 0.0146 0.0107 *
 Moon -74015-07-07 11:16 J -25312368.26 -25312368.03 -25312367.80 0.0146 0.0058
 Earth -74015-07-07 14:52 J -25312368.11 -25312367.88 -25312367.64 0.0146 0.0051 *
 Earth -74014-07-12 14:52 J -25311998.12 -25311997.88 -25311997.62 0.0147 0.0010
 Moon -74014-07-12 18:13 J -25311997.98 -25311997.74 -25311997.49 0.0147 0.0018 *
 Moon -74013-07-16 13:11 J -25311628.17 -25311627.95 -25311627.72 0.0147 0.0065
 Earth -74013-07-16 16:18 J -25311628.04 -25311627.82 -25311627.60 0.0147 0.0071 *
 Earth -74012-07-21 17:59 J -25311257.83 -25311257.75 -25311257.62 0.0147 0.0134
 Moon -74012-07-21 21:06 J -25311257.70 -25311257.62 -25311257.52 0.0147 0.0137 *
 Venus -74001-03-27 15:20 J -25307355.91 -25307355.86 -25307355.77 0.0147 0.0140

Venus -74001-11-09 07:11 J -25307129.39 -25307129.20 -25307128.99 0.0147 0.0066

74TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 74th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-74000-03-17 16:04 J	-25307000.96	-25307000.83	-25307000.64	0.0146	0.0130		
Venus	-74000-06-23 23:01 J	-25306902.77	-25306902.54	-25306902.32	0.0146	0.0007		
Venus	-73999-02-05 14:23 J	-25306676.08	-25306675.90	-25306675.71	0.0146	0.0079		
Mars	-73998-02-24 13:11 J	-25306292.28	-25306291.95	-25306291.60	0.0146	0.0021		
Mars	-73996-02-01 21:06 J	-25305583.87	-25305583.62	-25305583.32	0.0145	0.0085		
Mercury	-73994-06-23 22:32 J	-25304711.60	-25304711.56	-25304711.50	0.0143	0.0137		
Mercury	-73994-09-20 06:56 J	-25304623.33	-25304623.21	-25304623.07	0.0143	0.0108		
Mercury	-73994-12-17 15:35 J	-25304535.01	-25304534.85	-25304534.69	0.0143	0.0079		
Mercury	-73993-03-14 23:44 J	-25304446.68	-25304446.51	-25304446.32	0.0143	0.0051		
Mercury	-73993-06-11 08:08 J	-25304358.35	-25304358.16	-25304357.97	0.0143	0.0022		
Mercury	-73993-09-07 16:32 J	-25304270.01	-25304269.81	-25304269.62	0.0143	0.0007		
Mercury	-73993-12-05 00:42 J	-25304181.66	-25304181.47	-25304181.29	0.0142	0.0035		
Mercury	-73992-03-03 08:37 J	-25304093.30	-25304093.14	-25304092.96	0.0142	0.0063		
Mercury	-73992-05-30 16:47 J	-25304004.94	-25304004.80	-25304004.65	0.0142	0.0090		
Mercury	-73992-08-27 00:56 J	-25303916.57	-25303916.46	-25303916.35	0.0142	0.0117		
Moon	-73976-01-04 16:18 J	-25298306.91	-25298306.82	-25298306.70	0.0133	0.0122		
Earth	-73976-01-04 17:59 J	-25298306.86	-25298306.75	-25298306.62	0.0133	0.0117	*	

Earth -73975-01-09 03:49 J -25297937.55 -25297937.34 -25297937.11 0.0133 0.0070
 Moon -73975-01-09 04:32 J -25297937.51 -25297937.31 -25297937.09 0.0133 0.0069 *
 Moon -73974-01-13 11:44 J -25297568.26 -25297568.01 -25297567.74 0.0133 0.0023
 Earth -73974-01-13 12:42 J -25297568.21 -25297567.97 -25297567.71 0.0133 0.0024 *
 Earth -73973-01-17 21:06 J -25297198.87 -25297198.62 -25297198.36 0.0132 0.0022
 Moon -73973-01-17 21:35 J -25297198.84 -25297198.60 -25297198.34 0.0132 0.0020 *
 Moon -73972-01-21 04:04 J -25296829.54 -25296829.33 -25296829.10 0.0132 0.0074
 Earth -73972-01-21 04:18 J -25296829.53 -25296829.32 -25296829.09 0.0132 0.0068 *
 Earth -73971-01-25 11:01 J -25296460.15 -25296460.04 -25296459.89 0.0132 0.0113
 Moon -73971-01-25 11:59 J -25296460.14 -25296460.00 -25296459.85 0.0132 0.0106 *
 Venus -73958-08-13 10:32 J -25291512.07 -25291512.06 -25291512.04 0.0132 0.0131
 Venus -73957-03-26 13:11 J -25291286.11 -25291285.95 -25291285.78 0.0132 0.0081
 Venus -73957-11-07 16:04 J -25291060.03 -25291059.83 -25291059.62 0.0132 0.0031
 Mars -73956-05-27 06:42 J -25290859.43 -25290859.22 -25290858.97 0.0133 0.0075
 Venus -73956-06-21 18:56 J -25290833.92 -25290833.71 -25290833.50 0.0133 0.0020
 Venus -73955-02-02 22:04 J -25290607.76 -25290607.58 -25290607.40 0.0133 0.0070
 Venus -73955-09-17 00:42 J -25290381.54 -25290381.47 -25290381.37 0.0133 0.0121
 Mars -73954-04-25 13:54 J -25290161.19 -25290160.92 -25290160.64 0.0133 0.0012
 Mars -73952-03-24 00:42 J -25289462.71 -25289462.47 -25289462.20 0.0134 0.0052
 Mars -73950-02-20 19:11 J -25288763.83 -25288763.70 -25288763.56 0.0135 0.0117
 Mercury -73950-08-30 20:08 J -25288572.66 -25288572.66 -25288572.63 0.0135 0.0134
 Mercury -73950-11-26 23:30 J -25288484.58 -25288484.52 -25288484.46 0.0135 0.0118
 Mercury -73949-02-23 02:23 J -25288396.48 -25288396.40 -25288396.31 0.0136 0.0102
 Mercury -73949-05-21 05:30 J -25288308.37 -25288308.27 -25288308.16 0.0136 0.0085
 Mercury -73949-08-17 08:37 J -25288220.25 -25288220.14 -25288220.02 0.0136 0.0069
 Mercury -73949-11-13 11:44 J -25288132.13 -25288132.01 -25288131.89 0.0136 0.0052
 Mercury -73948-02-09 14:52 J -25288044.00 -25288043.88 -25288043.75 0.0136 0.0036
 Mercury -73948-05-08 17:59 J -25287955.88 -25287955.75 -25287955.61 0.0136 0.0019
 Mercury -73948-08-04 21:20 J -25287867.75 -25287867.61 -25287867.48 0.0136 0.0004
 Mercury -73948-11-01 00:28 J -25287779.61 -25287779.48 -25287779.35 0.0136 0.0015

Mercury -73947-01-28 03:35 J -25287691.48 -25287691.35 -25287691.22 0.0137 0.0032
 Mercury -73947-04-26 06:42 J -25287603.34 -25287603.22 -25287603.09 0.0137 0.0049
 Mercury -73947-07-23 10:04 J -25287515.20 -25287515.08 -25287514.97 0.0137 0.0066
 Mercury -73947-10-19 13:11 J -25287427.05 -25287426.95 -25287426.84 0.0137 0.0084
 Mercury -73946-01-15 16:18 J -25287338.90 -25287338.82 -25287338.72 0.0137 0.0102
 Mercury -73946-04-13 19:40 J -25287250.74 -25287250.68 -25287250.61 0.0137 0.0119
 Mercury -73946-07-10 22:47 J -25287162.55 -25287162.55 -25287162.52 0.0137 0.0137
 Jupiter -73943-07-28 09:49 J -25286049.55 -25286049.09 -25286048.59 0.0139 0.0045
 Earth -73932-07-03 07:40 J -25282056.35 -25282056.18 -25282056.00 0.0146 0.0104
 Moon -73932-07-03 11:01 J -25282056.19 -25282056.04 -25282055.85 0.0146 0.0108 *
 Moon -73931-07-08 03:20 J -25281686.60 -25281686.36 -25281686.12 0.0146 0.0038
 Earth -73931-07-08 06:42 J -25281686.45 -25281686.22 -25281685.98 0.0146 0.0044 *
 Earth -73930-07-13 06:56 J -25281316.46 -25281316.21 -25281315.97 0.0147 0.0017
 Moon -73930-07-13 10:18 J -25281316.32 -25281316.07 -25281315.82 0.0147 0.0009 *
 Moon -73929-07-17 04:32 J -25280946.51 -25280946.31 -25280946.10 0.0147 0.0085
 Earth -73929-07-17 08:08 J -25280946.37 -25280946.16 -25280945.95 0.0147 0.0078 *
 Earth -73928-07-22 09:49 J -25280576.15 -25280576.09 -25280576.01 0.0147 0.0141
 Moon -73928-07-22 12:28 J -25280576.05 -25280575.98 -25280575.89 0.0147 0.0139 *
 Venus -73917-07-09 13:25 J -25276571.09 -25276570.94 -25276570.76 0.0147 0.0099
 Venus -73916-02-21 05:16 J -25276344.50 -25276344.28 -25276344.06 0.0146 0.0026
 Venus -73916-10-05 20:23 J -25276117.85 -25276117.65 -25276117.43 0.0146 0.0048
 Mars -73916-11-13 02:37 J -25276079.66 -25276079.39 -25276079.09 0.0146 0.0082
 Venus -73915-05-20 11:44 J -25275891.12 -25275891.01 -25275890.87 0.0146 0.0119
 Mars -73914-10-22 19:11 J -25275371.02 -25275370.70 -25275370.35 0.0145 0.0027
 Mars -73912-09-29 22:32 J -25274662.69 -25274662.56 -25274662.39 0.0144 0.0129
 Mercury -73910-07-14 06:42 J -25274010.29 -25274010.22 -25274010.12 0.0143 0.0128
 Mercury -73910-10-10 15:06 J -25273922.00 -25273921.87 -25273921.72 0.0143 0.0099
 Mercury -73909-01-06 23:44 J -25273833.68 -25273833.51 -25273833.34 0.0143 0.0070
 Mercury -73909-04-04 07:54 J -25273745.35 -25273745.17 -25273744.98 0.0143 0.0042
 Mercury -73909-07-01 16:18 J -25273657.01 -25273656.82 -25273656.62 0.0143 0.0013

Mercury -73909-09-28 00:28 J -25273568.67 -25273568.48 -25273568.28 0.0142 0.0016
 Mercury -73909-12-25 08:37 J -25273480.32 -25273480.14 -25273479.95 0.0142 0.0044
 Mercury -73908-03-23 16:47 J -25273391.96 -25273391.80 -25273391.63 0.0142 0.0071
 Mercury -73908-06-20 00:42 J -25273303.59 -25273303.47 -25273303.32 0.0142 0.0099
 Mercury -73908-09-16 08:52 J -25273215.21 -25273215.13 -25273215.04 0.0142 0.0126
 Moon -73892-01-05 05:44 J -25267625.41 -25267625.26 -25267625.09 0.0133 0.0108
 Earth -73892-01-05 07:11 J -25267625.32 -25267625.20 -25267625.05 0.0133 0.0113 *
 Earth -73891-01-09 17:16 J -25267256.00 -25267255.78 -25267255.55 0.0133 0.0065
 Moon -73891-01-09 18:42 J -25267255.92 -25267255.72 -25267255.49 0.0133 0.0068 *
 Moon -73890-01-14 00:56 J -25266886.72 -25266886.46 -25266886.19 0.0133 0.0020
 Earth -73890-01-14 02:23 J -25266886.65 -25266886.40 -25266886.14 0.0133 0.0019 *
 Earth -73889-01-18 10:32 J -25266517.31 -25266517.06 -25266516.80 0.0132 0.0028
 Moon -73889-01-18 11:30 J -25266517.25 -25266517.02 -25266516.77 0.0132 0.0033 *
 Moon -73888-01-21 16:47 J -25266148.02 -25266147.80 -25266147.56 0.0132 0.0068
 Earth -73888-01-21 17:59 J -25266147.95 -25266147.75 -25266147.52 0.0132 0.0074 *
 Earth -73887-01-26 01:11 J -25265778.55 -25265778.45 -25265778.33 0.0132 0.0118
 Moon -73887-01-26 01:54 J -25265778.49 -25265778.42 -25265778.34 0.0132 0.0125 *
 Venus -73874-11-25 03:20 J -25260727.48 -25260727.36 -25260727.21 0.0132 0.0101
 Mars -73873-02-21 07:11 J -25260639.34 -25260639.20 -25260639.01 0.0132 0.0108
 Venus -73873-07-08 06:13 J -25260501.43 -25260501.24 -25260501.04 0.0132 0.0051
 Venus -73872-02-19 09:20 J -25260275.32 -25260275.11 -25260274.90 0.0133 0.0001
 Venus -73872-10-03 11:59 J -25260049.19 -25260049.00 -25260048.80 0.0133 0.0050
 Mars -73871-01-19 11:44 J -25259941.26 -25259941.01 -25259940.74 0.0133 0.0046
 Venus -73871-05-17 14:37 J -25259823.01 -25259822.89 -25259822.73 0.0133 0.0101
 Mars -73870-12-18 18:42 J -25259242.99 -25259242.72 -25259242.44 0.0134 0.0018
 Mars -73868-11-16 08:08 J -25258544.37 -25258544.16 -25258543.93 0.0134 0.0083
 Mercury -73866-09-20 04:04 J -25257871.36 -25257871.33 -25257871.28 0.0135 0.0128
 Mercury -73866-12-17 07:11 J -25257783.27 -25257783.20 -25257783.12 0.0135 0.0112
 Mercury -73865-03-14 10:18 J -25257695.16 -25257695.07 -25257694.97 0.0136 0.0095
 Mercury -73865-06-10 13:25 J -25257607.04 -25257606.94 -25257606.83 0.0136 0.0079

Mercury -73865-09-06 16:32 J -25257518.92 -25257518.81 -25257518.69 0.0136 0.0062

Mercury -73865-12-03 19:40 J -25257430.80 -25257430.68 -25257430.55 0.0136 0.0046

Mercury -73864-03-01 22:47 J -25257342.68 -25257342.55 -25257342.42 0.0136 0.0029

Mercury -73864-05-29 01:54 J -25257254.55 -25257254.42 -25257254.28 0.0136 0.0013

Mercury -73864-08-25 05:16 J -25257166.42 -25257166.28 -25257166.15 0.0136 0.0006

Mercury -73864-11-21 08:23 J -25257078.28 -25257078.15 -25257078.02 0.0137 0.0022

Mercury -73863-02-17 11:30 J -25256990.14 -25256990.02 -25256989.89 0.0137 0.0039

Mercury -73863-05-16 14:37 J -25256902.01 -25256901.89 -25256901.76 0.0137 0.0056

Mercury -73863-08-12 17:44 J -25256813.86 -25256813.76 -25256813.64 0.0137 0.0074

Mercury -73863-11-08 21:06 J -25256725.71 -25256725.62 -25256725.52 0.0137 0.0091

Mercury -73862-02-05 00:28 J -25256637.56 -25256637.48 -25256637.40 0.0137 0.0108

Mercury -73862-05-04 03:35 J -25256549.39 -25256549.35 -25256549.29 0.0137 0.0126

Earth -73848-07-03 23:30 J -25251374.68 -25251374.52 -25251374.32 0.0146 0.0099

Moon -73848-07-04 02:52 J -25251374.55 -25251374.38 -25251374.17 0.0146 0.0096 *

Moon -73847-07-08 19:25 J -25251004.93 -25251004.69 -25251004.45 0.0146 0.0045

Earth -73847-07-08 23:01 J -25251004.78 -25251004.54 -25251004.29 0.0146 0.0038 *

Earth -73846-07-13 23:16 J -25250634.77 -25250634.53 -25250634.28 0.0147 0.0023

Moon -73846-07-14 02:52 J -25250634.62 -25250634.38 -25250634.14 0.0147 0.0031 *

Moon -73845-07-17 21:06 J -25250264.83 -25250264.62 -25250264.40 0.0147 0.0079

Earth -73845-07-18 00:13 J -25250264.68 -25250264.49 -25250264.27 0.0147 0.0086 *

Venus -73833-03-08 21:35 J -25246012.70 -25246012.60 -25246012.48 0.0147 0.0128

Mars -73833-08-01 18:56 J -25245866.76 -25245866.71 -25245866.64 0.0147 0.0144

Venus -73833-10-21 12:56 J -25245786.15 -25245785.96 -25245785.74 0.0147 0.0056

Venus -73832-06-05 04:47 J -25245559.52 -25245559.30 -25245559.08 0.0146 0.0018

Venus -73831-01-17 19:54 J -25245332.83 -25245332.67 -25245332.48 0.0146 0.0090

Mars -73831-07-11 17:59 J -25245158.08 -25245157.75 -25245157.40 0.0146 0.0034

Mars -73829-06-19 06:56 J -25244449.50 -25244449.21 -25244448.91 0.0145 0.0074

Mercury -73826-08-03 15:49 J -25243308.94 -25243308.84 -25243308.72 0.0143 0.0117

Mercury -73826-10-31 00:28 J -25243220.63 -25243220.48 -25243220.33 0.0143 0.0087

Mercury -73825-01-27 08:37 J -25243132.31 -25243132.14 -25243131.96 0.0143 0.0059

Mercury -73825-04-24 17:01 J -25243043.98 -25243043.79 -25243043.60 0.0143 0.0030

Mercury -73825-07-22 01:25 J -25242955.64 -25242955.44 -25242955.25 0.0143 0.0002

Mercury -73825-10-18 09:35 J -25242867.29 -25242867.10 -25242866.91 0.0142 0.0027

Mercury -73824-01-14 17:44 J -25242778.94 -25242778.76 -25242778.58 0.0142 0.0055

Mercury -73824-04-13 01:54 J -25242690.58 -25242690.42 -25242690.27 0.0142 0.0082

Mercury -73824-07-10 09:35 J -25242602.21 -25242602.10 -25242601.97 0.0142 0.0110

Mercury -73824-10-06 17:44 J -25242513.80 -25242513.76 -25242513.71 0.0142 0.0137

Moon -73808-01-05 18:56 J -25236943.84 -25236943.71 -25236943.57 0.0133 0.0114

Earth -73808-01-05 21:06 J -25236943.75 -25236943.62 -25236943.45 0.0133 0.0109 *

Earth -73807-01-10 07:11 J -25236574.42 -25236574.20 -25236573.96 0.0133 0.0061

Moon -73807-01-10 09:06 J -25236574.34 -25236574.12 -25236573.89 0.0133 0.0059 *

Moon -73806-01-14 14:37 J -25236205.16 -25236204.89 -25236204.63 0.0132 0.0013

Earth -73806-01-14 16:32 J -25236205.07 -25236204.81 -25236204.55 0.0132 0.0014 *

Earth -73805-01-19 00:42 J -25235835.71 -25235835.47 -25235835.21 0.0132 0.0033

Moon -73805-01-19 02:23 J -25235835.63 -25235835.40 -25235835.15 0.0132 0.0030 *

Moon -73804-01-22 06:56 J -25235466.39 -25235466.21 -25235465.99 0.0132 0.0085

Earth -73804-01-22 08:23 J -25235466.34 -25235466.15 -25235465.93 0.0132 0.0079 *

Earth -73803-01-26 15:20 J -25235096.93 -25235096.86 -25235096.77 0.0132 0.0124

Moon -73803-01-26 16:47 J -25235096.89 -25235096.80 -25235096.67 0.0132 0.0118 *

Venus -73790-07-25 17:16 J -25230168.85 -25230168.78 -25230168.69 0.0132 0.0121

Venus -73789-03-07 20:08 J -25229942.83 -25229942.66 -25229942.48 0.0132 0.0071

Mars -73789-10-15 10:04 J -25229721.30 -25229721.08 -25229720.86 0.0132 0.0080

Venus -73789-10-19 22:47 J -25229716.75 -25229716.55 -25229716.33 0.0132 0.0022

Venus -73788-06-03 01:40 J -25229490.63 -25229490.43 -25229490.22 0.0133 0.0029

Venus -73787-01-15 04:32 J -25229264.47 -25229264.31 -25229264.13 0.0133 0.0080

Venus -73787-08-29 07:40 J -25229038.22 -25229038.18 -25229038.14 0.0133 0.0130

Mars -73787-09-13 14:08 J -25229023.18 -25229022.91 -25229022.63 0.0133 0.0017

Mars -73785-08-11 23:16 J -25228324.77 -25228324.53 -25228324.25 0.0134 0.0048

Mars -73783-07-11 15:20 J -25227626.00 -25227625.86 -25227625.70 0.0135 0.0113

Mercury -73782-10-10 11:59 J -25227170.05 -25227170.00 -25227169.94 0.0135 0.0122

Mercury -73781-01-06 14:52 J -25227081.95 -25227081.88 -25227081.79 0.0136 0.0106

Mercury -73781-04-03 17:59 J -25226993.84 -25226993.75 -25226993.64 0.0136 0.0089

Mercury -73781-06-30 21:06 J -25226905.72 -25226905.62 -25226905.50 0.0136 0.0073

Mercury -73781-09-27 00:13 J -25226817.60 -25226817.49 -25226817.37 0.0136 0.0056

Mercury -73781-12-24 03:20 J -25226729.48 -25226729.36 -25226729.23 0.0136 0.0040

Mercury -73780-03-22 06:28 J -25226641.35 -25226641.23 -25226641.09 0.0136 0.0024

Mercury -73780-06-18 09:49 J -25226553.22 -25226553.09 -25226552.96 0.0136 0.0006

Mercury -73780-09-14 12:56 J -25226465.09 -25226464.96 -25226464.83 0.0136 0.0011

Mercury -73780-12-11 16:04 J -25226376.96 -25226376.83 -25226376.70 0.0137 0.0028

Mercury -73779-03-09 19:11 J -25226288.82 -25226288.70 -25226288.57 0.0137 0.0046

Mercury -73779-06-05 22:18 J -25226200.68 -25226200.57 -25226200.44 0.0137 0.0063

Mercury -73779-09-02 01:40 J -25226112.53 -25226112.43 -25226112.32 0.0137 0.0080

Mercury -73779-11-29 05:01 J -25226024.38 -25226024.29 -25226024.20 0.0137 0.0097

Mercury -73778-02-25 08:08 J -25225936.22 -25225936.16 -25225936.08 0.0137 0.0115

Mercury -73778-05-24 11:30 J -25225848.05 -25225848.02 -25225847.98 0.0137 0.0132

Earth -73764-07-04 13:25 J -25220693.13 -25220692.94 -25220692.75 0.0146 0.0094

Moon -73764-07-04 16:32 J -25220692.98 -25220692.81 -25220692.60 0.0146 0.0098 *

Moon -73763-07-09 09:06 J -25220323.35 -25220323.12 -25220322.87 0.0146 0.0028

Earth -73763-07-09 12:42 J -25220323.22 -25220322.97 -25220322.73 0.0146 0.0033 *

Earth -73762-07-14 12:42 J -25219953.22 -25219952.97 -25219952.73 0.0146 0.0029

Moon -73762-07-14 16:18 J -25219953.07 -25219952.82 -25219952.57 0.0146 0.0021 *

Moon -73761-07-18 10:04 J -25219583.26 -25219583.08 -25219582.89 0.0147 0.0098

Earth -73761-07-18 13:40 J -25219583.12 -25219582.93 -25219582.73 0.0147 0.0091 *

Venus -73749-06-20 18:56 J -25215227.87 -25215227.71 -25215227.52 0.0147 0.0088

Venus -73748-02-02 10:47 J -25215001.27 -25215001.05 -25215000.83 0.0146 0.0015

Mars -73748-03-30 04:18 J -25214945.55 -25214945.32 -25214945.04 0.0146 0.0098

Venus -73748-09-17 02:08 J -25214774.61 -25214774.41 -25214774.20 0.0146 0.0057

Venus -73747-05-01 17:16 J -25214547.87 -25214547.78 -25214547.67 0.0146 0.0129

Mars -73746-03-09 00:56 J -25214236.81 -25214236.46 -25214236.12 0.0146 0.0014

Mars -73744-02-14 08:23 J -25213528.32 -25213528.15 -25213527.94 0.0145 0.0121

Mercury -73742-05-27 15:20 J -25212695.90 -25212695.86 -25212695.79 0.0143 0.0137
 Mercury -73742-08-23 23:44 J -25212607.62 -25212607.51 -25212607.37 0.0143 0.0108
 Mercury -73742-11-20 08:23 J -25212519.30 -25212519.15 -25212518.98 0.0143 0.0079
 Mercury -73741-02-16 16:47 J -25212430.98 -25212430.80 -25212430.62 0.0143 0.0050
 Mercury -73741-05-15 01:11 J -25212342.64 -25212342.45 -25212342.26 0.0143 0.0021
 Mercury -73741-08-11 09:20 J -25212254.30 -25212254.11 -25212253.91 0.0143 0.0007
 Mercury -73741-11-07 17:30 J -25212165.95 -25212165.77 -25212165.58 0.0142 0.0035
 Mercury -73740-02-04 01:40 J -25212077.60 -25212077.43 -25212077.25 0.0142 0.0063
 Mercury -73740-05-03 09:35 J -25211989.23 -25211989.10 -25211988.94 0.0142 0.0091
 Mercury -73740-07-30 17:59 J -25211900.85 -25211900.75 -25211900.65 0.0142 0.0118
 Moon -73724-01-06 07:11 J -25206262.36 -25206262.20 -25206262.01 0.0133 0.0100
 Earth -73724-01-06 09:49 J -25206262.24 -25206262.09 -25206261.93 0.0133 0.0105 *
 Earth -73723-01-10 19:25 J -25205892.91 -25205892.69 -25205892.44 0.0133 0.0057
 Moon -73723-01-10 22:04 J -25205892.79 -25205892.58 -25205892.34 0.0133 0.0060 *
 Moon -73722-01-15 02:37 J -25205523.65 -25205523.39 -25205523.12 0.0132 0.0009
 Earth -73722-01-15 05:01 J -25205523.55 -25205523.29 -25205523.03 0.0132 0.0009 *
 Earth -73721-01-19 13:25 J -25205154.19 -25205153.94 -25205153.69 0.0132 0.0038
 Moon -73721-01-19 15:06 J -25205154.10 -25205153.87 -25205153.62 0.0132 0.0042 *
 Moon -73720-01-22 18:28 J -25204784.93 -25204784.73 -25204784.50 0.0132 0.0079
 Earth -73720-01-22 20:52 J -25204784.81 -25204784.63 -25204784.42 0.0132 0.0084 *
 Earth -73719-01-27 03:49 J -25204415.38 -25204415.34 -25204415.28 0.0132 0.0129
 Mars -73706-07-12 06:13 J -25199501.36 -25199501.24 -25199501.08 0.0132 0.0114
 Venus -73706-11-06 08:37 J -25199384.28 -25199384.14 -25199383.98 0.0132 0.0094
 Venus -73705-06-19 11:30 J -25199158.22 -25199158.02 -25199157.82 0.0132 0.0044
 Venus -73704-01-31 14:23 J -25198932.11 -25198931.90 -25198931.68 0.0132 0.0007
 Mars -73704-06-09 08:08 J -25198803.40 -25198803.16 -25198802.89 0.0133 0.0052
 Venus -73704-09-14 17:16 J -25198705.97 -25198705.78 -25198705.59 0.0133 0.0057
 Venus -73703-04-28 20:08 J -25198479.79 -25198479.66 -25198479.54 0.0133 0.0107
 Mars -73702-05-08 14:08 J -25198105.18 -25198104.91 -25198104.63 0.0133 0.0012
 Mars -73700-04-06 01:54 J -25197406.63 -25197406.42 -25197406.18 0.0134 0.0077

Mercury -73698-08-03 16:18 J -25196556.84 -25196556.82 -25196556.80 0.0135 0.0134

Mercury -73698-10-30 19:11 J -25196468.76 -25196468.70 -25196468.63 0.0135 0.0118

Mercury -73697-01-26 22:18 J -25196380.65 -25196380.57 -25196380.48 0.0135 0.0101

Mercury -73697-04-24 01:25 J -25196292.54 -25196292.44 -25196292.34 0.0136 0.0085

Mercury -73697-07-21 04:32 J -25196204.42 -25196204.31 -25196204.20 0.0136 0.0068

Mercury -73697-10-17 07:40 J -25196116.30 -25196116.18 -25196116.06 0.0136 0.0052

Mercury -73696-01-13 10:47 J -25196028.18 -25196028.05 -25196027.92 0.0136 0.0035

Mercury -73696-04-11 13:54 J -25195940.05 -25195939.92 -25195939.79 0.0136 0.0019

Mercury -73696-07-08 17:01 J -25195851.92 -25195851.79 -25195851.65 0.0136 0.0004

Mercury -73696-10-04 20:08 J -25195763.79 -25195763.66 -25195763.52 0.0136 0.0016

Mercury -73696-12-31 23:30 J -25195675.65 -25195675.52 -25195675.39 0.0137 0.0032

Mercury -73695-03-30 02:37 J -25195587.51 -25195587.39 -25195587.27 0.0137 0.0050

Mercury -73695-06-26 05:44 J -25195499.37 -25195499.26 -25195499.14 0.0137 0.0067

Mercury -73695-09-22 09:06 J -25195411.22 -25195411.12 -25195411.02 0.0137 0.0084

Mercury -73695-12-19 12:13 J -25195323.07 -25195322.99 -25195322.90 0.0137 0.0102

Mercury -73694-03-17 15:35 J -25195234.91 -25195234.85 -25195234.78 0.0137 0.0119

Mercury -73694-06-13 18:56 J -25195146.72 -25195146.71 -25195146.70 0.0137 0.0137

Earth -73680-07-04 23:44 J -25190011.70 -25190011.51 -25190011.31 0.0146 0.0092

Moon -73680-07-05 02:23 J -25190011.58 -25190011.40 -25190011.18 0.0146 0.0090 *

Moon -73679-07-09 19:25 J -25189641.92 -25189641.69 -25189641.45 0.0146 0.0037

Earth -73679-07-09 23:01 J -25189641.79 -25189641.54 -25189641.30 0.0146 0.0031 *

Earth -73678-07-14 22:47 J -25189271.79 -25189271.55 -25189271.30 0.0146 0.0032

Moon -73678-07-15 02:08 J -25189271.64 -25189271.41 -25189271.16 0.0146 0.0040 *

Moon -73677-07-18 19:54 J -25188901.85 -25188901.67 -25188901.45 0.0147 0.0089

Earth -73677-07-18 23:30 J -25188901.69 -25188901.52 -25188901.31 0.0147 0.0095 *

Venus -73665-02-18 23:16 J -25184669.63 -25184669.53 -25184669.39 0.0147 0.0123

Venus -73665-10-02 15:06 J -25184443.08 -25184442.87 -25184442.66 0.0147 0.0050

Venus -73664-05-17 06:42 J -25184216.44 -25184216.22 -25184216.00 0.0146 0.0023

Mars -73664-11-25 07:40 J -25184024.49 -25184024.18 -25184023.84 0.0146 0.0051

Venus -73664-12-29 21:49 J -25183989.75 -25183989.59 -25183989.41 0.0146 0.0095

Mars -73662-11-04 01:11 J -25183315.75 -25183315.45 -25183315.12 0.0145 0.0061
 Mercury -73658-06-16 23:16 J -25181994.61 -25181994.53 -25181994.44 0.0143 0.0130
 Mercury -73658-09-13 07:40 J -25181906.31 -25181906.18 -25181906.04 0.0143 0.0100
 Mercury -73658-12-10 16:04 J -25181817.99 -25181817.83 -25181817.66 0.0143 0.0072
 Mercury -73657-03-08 00:28 J -25181729.66 -25181729.48 -25181729.29 0.0143 0.0043
 Mercury -73657-06-04 08:52 J -25181641.32 -25181641.13 -25181640.94 0.0143 0.0014
 Mercury -73657-08-31 17:01 J -25181552.98 -25181552.79 -25181552.59 0.0143 0.0015
 Mercury -73657-11-28 01:25 J -25181464.63 -25181464.44 -25181464.26 0.0142 0.0043
 Mercury -73656-02-24 09:35 J -25181376.27 -25181376.10 -25181375.94 0.0142 0.0071
 Mercury -73656-05-23 17:30 J -25181287.90 -25181287.77 -25181287.63 0.0142 0.0099
 Mercury -73656-08-20 01:25 J -25181199.51 -25181199.44 -25181199.34 0.0142 0.0126
 Jupiter -73652-05-14 01:25 J -25179836.97 -25179836.44 -25179835.91 0.0140 0.0009
 Moon -73640-01-06 18:42 J -25175580.86 -25175580.72 -25175580.55 0.0133 0.0107
 Earth -73640-01-06 21:49 J -25175580.74 -25175580.59 -25175580.40 0.0133 0.0102 *
 Earth -73639-01-11 08:08 J -25175211.39 -25175211.16 -25175210.92 0.0133 0.0053
 Moon -73639-01-11 10:32 J -25175211.28 -25175211.06 -25175210.81 0.0133 0.0051 *
 Moon -73638-01-15 14:37 J -25174842.15 -25174841.89 -25174841.62 0.0132 0.0005
 Earth -73638-01-15 17:30 J -25174842.03 -25174841.77 -25174841.51 0.0132 0.0005 *
 Earth -73637-01-20 01:40 J -25174472.66 -25174472.43 -25174472.18 0.0132 0.0042
 Moon -73637-01-20 04:32 J -25174472.55 -25174472.31 -25174472.07 0.0132 0.0039 *
 Moon -73636-01-23 06:56 J -25174103.38 -25174103.21 -25174103.01 0.0132 0.0094
 Earth -73636-01-23 09:35 J -25174103.29 -25174103.10 -25174102.91 0.0132 0.0088 *
 Moon -73635-01-27 18:13 J -25173733.77 -25173733.74 -25173733.65 0.0132 0.0128
 Venus -73622-07-06 21:20 J -25168825.70 -25168825.61 -25168825.50 0.0132 0.0115
 Venus -73621-02-18 00:13 J -25168599.68 -25168599.49 -25168599.31 0.0132 0.0065
 Mars -73621-03-05 05:16 J -25168583.48 -25168583.28 -25168583.07 0.0132 0.0087
 Venus -73621-10-01 02:52 J -25168373.59 -25168373.38 -25168373.17 0.0132 0.0016
 Venus -73620-05-15 05:30 J -25168147.47 -25168147.27 -25168147.06 0.0132 0.0034
 Venus -73620-12-27 08:08 J -25167921.31 -25167921.16 -25167920.99 0.0133 0.0085
 Mars -73619-02-01 08:08 J -25167885.43 -25167885.16 -25167884.88 0.0133 0.0025

Mars -73618-12-31 15:20 J -25167187.11 -25167186.86 -25167186.58 0.0133 0.0041
 Mars -73616-11-29 03:06 J -25166488.52 -25166488.37 -25166488.18 0.0134 0.0107
 Mercury -73614-08-23 23:30 J -25165855.55 -25165855.52 -25165855.48 0.0135 0.0129
 Mercury -73614-11-20 02:23 J -25165767.46 -25165767.40 -25165767.32 0.0135 0.0114
 Mercury -73613-02-16 05:30 J -25165679.35 -25165679.27 -25165679.17 0.0135 0.0097
 Mercury -73613-05-14 08:37 J -25165591.24 -25165591.14 -25165591.03 0.0135 0.0081
 Mercury -73613-08-10 11:44 J -25165503.12 -25165503.01 -25165502.89 0.0136 0.0064
 Mercury -73613-11-06 14:52 J -25165415.00 -25165414.88 -25165414.75 0.0136 0.0048
 Mercury -73612-02-02 18:13 J -25165326.87 -25165326.74 -25165326.62 0.0136 0.0031
 Mercury -73612-05-01 21:06 J -25165238.75 -25165238.62 -25165238.48 0.0136 0.0015
 Mercury -73612-07-29 00:28 J -25165150.62 -25165150.48 -25165150.35 0.0136 0.0004
 Mercury -73612-10-25 03:35 J -25165062.48 -25165062.35 -25165062.22 0.0136 0.0020
 Mercury -73611-01-21 06:42 J -25164974.34 -25164974.22 -25164974.09 0.0136 0.0037
 Mercury -73611-04-19 10:04 J -25164886.21 -25164886.08 -25164885.96 0.0137 0.0054
 Mercury -73611-07-16 13:11 J -25164798.06 -25164797.95 -25164797.84 0.0137 0.0071
 Mercury -73611-10-12 16:18 J -25164709.92 -25164709.82 -25164709.72 0.0137 0.0088
 Mercury -73610-01-08 19:25 J -25164621.76 -25164621.69 -25164621.60 0.0137 0.0106
 Mercury -73610-04-06 22:47 J -25164533.60 -25164533.55 -25164533.49 0.0137 0.0123
 Earth -73596-07-05 07:40 J -25159330.36 -25159330.18 -25159329.97 0.0146 0.0091
 Moon -73596-07-05 10:47 J -25159330.24 -25159330.05 -25159329.84 0.0146 0.0093 *
 Moon -73595-07-10 04:18 J -25158960.56 -25158960.32 -25158960.08 0.0146 0.0024
 Earth -73595-07-10 06:56 J -25158960.45 -25158960.21 -25158959.96 0.0146 0.0029 *
 Earth -73594-07-15 06:28 J -25158590.47 -25158590.23 -25158589.98 0.0146 0.0034
 Moon -73594-07-15 09:49 J -25158590.33 -25158590.09 -25158589.83 0.0146 0.0027 *
 Moon -73593-07-19 03:35 J -25158220.51 -25158220.35 -25158220.16 0.0147 0.0105
 Earth -73593-07-19 07:11 J -25158220.38 -25158220.20 -25158220.00 0.0147 0.0097 *
 Venus -73581-06-01 16:18 J -25153884.98 -25153884.82 -25153884.63 0.0147 0.0090
 Mars -73581-08-12 22:32 J -25153812.73 -25153812.56 -25153812.34 0.0147 0.0121
 Venus -73580-01-14 08:08 J -25153658.38 -25153658.16 -25153657.94 0.0146 0.0017
 Venus -73580-08-28 23:30 J -25153431.72 -25153431.52 -25153431.31 0.0146 0.0056

Venus -73579-04-12 14:37 J -25153204.98 -25153204.89 -25153204.77 0.0146 0.0127
 Mars -73579-07-22 23:16 J -25153103.87 -25153103.53 -25153103.18 0.0146 0.0007
 Mars -73577-06-30 11:59 J -25152395.21 -25152395.00 -25152394.73 0.0145 0.0104
 Mercury -73574-07-07 05:01 J -25151293.36 -25151293.29 -25151293.19 0.0143 0.0128
 Mercury -73574-10-03 13:40 J -25151205.06 -25151204.93 -25151204.78 0.0143 0.0098
 Mercury -73574-12-30 22:04 J -25151116.74 -25151116.58 -25151116.40 0.0143 0.0069
 Mercury -73573-03-28 06:42 J -25151028.41 -25151028.22 -25151028.04 0.0143 0.0040
 Mercury -73573-06-24 14:52 J -25150940.07 -25150939.88 -25150939.68 0.0143 0.0012
 Mercury -73573-09-20 23:16 J -25150851.72 -25150851.53 -25150851.34 0.0143 0.0017
 Mercury -73573-12-18 07:25 J -25150763.37 -25150763.19 -25150763.01 0.0142 0.0045
 Mercury -73572-03-16 15:35 J -25150675.01 -25150674.85 -25150674.68 0.0142 0.0073
 Mercury -73572-06-12 23:30 J -25150586.64 -25150586.52 -25150586.37 0.0142 0.0101
 Mercury -73572-09-09 07:25 J -25150498.25 -25150498.19 -25150498.09 0.0142 0.0129
 Moon -73556-01-07 04:18 J -25144899.49 -25144899.32 -25144899.12 0.0133 0.0094
 Earth -73556-01-07 07:25 J -25144899.34 -25144899.19 -25144899.00 0.0133 0.0099 *
 Earth -73555-01-11 17:44 J -25144529.99 -25144529.76 -25144529.51 0.0133 0.0050
 Moon -73555-01-11 20:52 J -25144529.85 -25144529.63 -25144529.38 0.0133 0.0054 *
 Moon -73554-01-16 00:13 J -25144160.75 -25144160.49 -25144160.22 0.0133 0.0003
 Earth -73554-01-16 03:35 J -25144160.61 -25144160.35 -25144160.10 0.0133 0.0003 *
 Earth -73553-01-20 11:59 J -25143791.24 -25143791.00 -25143790.75 0.0132 0.0046
 Moon -73553-01-20 14:37 J -25143791.11 -25143790.89 -25143790.65 0.0132 0.0050 *
 Moon -73552-01-23 16:47 J -25143422.00 -25143421.80 -25143421.61 0.0132 0.0088
 Earth -73552-01-23 19:40 J -25143421.85 -25143421.68 -25143421.49 0.0132 0.0093 *
 Mars -73539-11-30 01:40 J -25138363.50 -25138363.43 -25138363.30 0.0132 0.0123
 Venus -73538-10-18 12:42 J -25138041.13 -25138040.97 -25138040.81 0.0132 0.0087
 Venus -73537-05-31 15:06 J -25137815.06 -25137814.87 -25137814.66 0.0132 0.0038
 Mars -73537-10-28 03:06 J -25137665.60 -25137665.37 -25137665.11 0.0132 0.0061
 Venus -73536-01-12 18:13 J -25137588.95 -25137588.74 -25137588.53 0.0132 0.0012
 Venus -73536-08-26 20:37 J -25137362.81 -25137362.64 -25137362.44 0.0133 0.0063
 Venus -73535-04-09 23:16 J -25137136.62 -25137136.53 -25137136.40 0.0133 0.0113

Mars -73535-09-26 08:37 J -25136967.42 -25136967.14 -25136966.87 0.0133 0.0004
 Mars -73533-08-24 16:32 J -25136269.03 -25136268.81 -25136268.56 0.0134 0.0070
 Mercury -73530-09-13 06:56 J -25135154.25 -25135154.21 -25135154.16 0.0135 0.0125
 Mercury -73530-12-10 10:04 J -25135066.15 -25135066.08 -25135066.00 0.0135 0.0108
 Mercury -73529-03-07 12:56 J -25134978.05 -25134977.96 -25134977.86 0.0135 0.0093
 Mercury -73529-06-03 16:18 J -25134889.93 -25134889.82 -25134889.71 0.0135 0.0076
 Mercury -73529-08-30 19:11 J -25134801.81 -25134801.70 -25134801.58 0.0136 0.0060
 Mercury -73529-11-26 22:32 J -25134713.69 -25134713.56 -25134713.44 0.0136 0.0043
 Mercury -73528-02-23 01:40 J -25134625.56 -25134625.43 -25134625.30 0.0136 0.0026
 Mercury -73528-05-22 04:47 J -25134537.43 -25134537.30 -25134537.17 0.0136 0.0010
 Mercury -73528-08-18 07:54 J -25134449.30 -25134449.17 -25134449.04 0.0136 0.0008
 Mercury -73528-11-14 11:01 J -25134361.17 -25134361.04 -25134360.91 0.0136 0.0025
 Mercury -73527-02-10 14:08 J -25134273.03 -25134272.91 -25134272.78 0.0136 0.0042
 Mercury -73527-05-09 17:30 J -25134184.89 -25134184.77 -25134184.65 0.0137 0.0059
 Mercury -73527-08-05 20:37 J -25134096.75 -25134096.64 -25134096.53 0.0137 0.0076
 Mercury -73527-11-01 23:44 J -25134008.60 -25134008.51 -25134008.41 0.0137 0.0093
 Mercury -73526-01-29 02:52 J -25133920.45 -25133920.38 -25133920.29 0.0137 0.0111
 Mercury -73526-04-27 06:13 J -25133832.28 -25133832.24 -25133832.19 0.0137 0.0128
 Earth -73512-07-05 17:30 J -25128648.95 -25128648.77 -25128648.55 0.0145 0.0089
 Moon -73512-07-05 19:54 J -25128648.87 -25128648.67 -25128648.46 0.0145 0.0087 *
 Moon -73511-07-10 13:40 J -25128279.16 -25128278.93 -25128278.69 0.0146 0.0032
 Earth -73511-07-10 16:32 J -25128279.06 -25128278.81 -25128278.56 0.0146 0.0026 *
 Earth -73510-07-15 15:49 J -25127909.08 -25127908.84 -25127908.59 0.0146 0.0037
 Moon -73510-07-15 18:42 J -25127908.96 -25127908.72 -25127908.47 0.0146 0.0044 *
 Moon -73509-07-19 12:56 J -25127539.14 -25127538.96 -25127538.76 0.0147 0.0094
 Earth -73509-07-19 16:04 J -25127539.00 -25127538.83 -25127538.63 0.0147 0.0101 *
 Venus -73497-01-30 18:56 J -25123326.80 -25123326.71 -25123326.58 0.0147 0.0127
 Venus -73497-09-13 10:32 J -25123100.26 -25123100.06 -25123099.84 0.0147 0.0055
 Mars -73496-04-09 20:52 J -25122891.90 -25122891.63 -25122891.31 0.0146 0.0076
 Venus -73496-04-28 02:08 J -25122873.63 -25122873.41 -25122873.18 0.0146 0.0018

Venus -73496-12-10 17:16 J -25122646.94 -25122646.78 -25122646.59 0.0146 0.0090
 Mars -73494-03-19 17:59 J -25122183.08 -25122182.75 -25122182.41 0.0146 0.0039
 Mercury -73490-07-27 11:44 J -25120592.10 -25120592.01 -25120591.91 0.0143 0.0124
 Mercury -73490-10-23 20:08 J -25120503.80 -25120503.66 -25120503.51 0.0143 0.0094
 Mercury -73489-01-20 04:47 J -25120415.47 -25120415.30 -25120415.13 0.0143 0.0065
 Mercury -73489-04-17 13:11 J -25120327.14 -25120326.95 -25120326.76 0.0143 0.0036
 Mercury -73489-07-14 21:35 J -25120238.80 -25120238.60 -25120238.41 0.0143 0.0008
 Mercury -73489-10-11 05:44 J -25120150.45 -25120150.26 -25120150.07 0.0143 0.0021
 Mercury -73488-01-07 13:54 J -25120062.09 -25120061.92 -25120061.73 0.0142 0.0050
 Mercury -73488-04-05 22:04 J -25119973.73 -25119973.58 -25119973.41 0.0142 0.0078
 Mercury -73488-07-03 06:13 J -25119885.36 -25119885.24 -25119885.10 0.0142 0.0105
 Mercury -73488-09-29 14:08 J -25119796.96 -25119796.91 -25119796.83 0.0142 0.0133
 Moon -73472-01-07 13:40 J -25114218.07 -25114217.93 -25114217.75 0.0133 0.0104
 Earth -73472-01-07 17:30 J -25114217.93 -25114217.77 -25114217.58 0.0133 0.0097 *
 Earth -73471-01-12 04:18 J -25113848.56 -25113848.32 -25113848.08 0.0133 0.0048
 Moon -73471-01-12 07:25 J -25113848.42 -25113848.19 -25113847.94 0.0133 0.0044 *
 Moon -73470-01-16 10:32 J -25113479.32 -25113479.06 -25113478.80 0.0133 0.0002
 Earth -73470-01-16 13:54 J -25113479.18 -25113478.92 -25113478.66 0.0133 0.0001 *
 Earth -73469-01-20 22:18 J -25113109.80 -25113109.57 -25113109.32 0.0132 0.0050
 Moon -73469-01-21 01:40 J -25113109.66 -25113109.43 -25113109.18 0.0132 0.0048 *
 Moon -73468-01-24 02:52 J -25112740.53 -25112740.38 -25112740.19 0.0132 0.0102
 Earth -73468-01-24 06:13 J -25112740.41 -25112740.24 -25112740.06 0.0132 0.0096 *
 Venus -73454-06-18 01:11 J -25107482.55 -25107482.45 -25107482.32 0.0132 0.0109
 Mars -73454-07-25 00:28 J -25107445.64 -25107445.48 -25107445.27 0.0132 0.0096
 Venus -73453-01-30 04:18 J -25107256.51 -25107256.32 -25107256.13 0.0132 0.0059
 Venus -73453-09-12 06:56 J -25107030.42 -25107030.21 -25107030.00 0.0132 0.0010
 Venus -73452-04-26 09:35 J -25106804.29 -25106804.10 -25106803.89 0.0133 0.0041
 Mars -73452-06-22 04:04 J -25106747.59 -25106747.33 -25106747.05 0.0133 0.0033
 Venus -73452-12-08 12:13 J -25106578.13 -25106577.99 -25106577.82 0.0133 0.0091
 Mars -73450-05-21 09:49 J -25106049.35 -25106049.09 -25106048.81 0.0133 0.0033

Mars -73448-04-18 19:40 J -25105350.84 -25105350.68 -25105350.48 0.0134 0.0100
 Mercury -73446-07-07 11:44 J -25104541.01 -25104541.01 -25104541.01 0.0135 0.0135
 Mercury -73446-10-03 14:37 J -25104452.95 -25104452.89 -25104452.83 0.0135 0.0119
 Mercury -73446-12-30 17:44 J -25104364.84 -25104364.76 -25104364.67 0.0135 0.0103
 Mercury -73445-03-27 20:52 J -25104276.73 -25104276.63 -25104276.53 0.0135 0.0086
 Mercury -73445-06-23 23:59 J -25104188.61 -25104188.50 -25104188.39 0.0136 0.0070
 Mercury -73445-09-20 02:52 J -25104100.49 -25104100.38 -25104100.25 0.0136 0.0054
 Mercury -73445-12-17 06:13 J -25104012.37 -25104012.24 -25104012.12 0.0136 0.0037
 Mercury -73444-03-15 09:20 J -25103924.24 -25103924.11 -25103923.98 0.0136 0.0020
 Mercury -73444-06-11 12:28 J -25103836.11 -25103835.98 -25103835.85 0.0136 0.0003
 Mercury -73444-09-07 15:35 J -25103747.98 -25103747.85 -25103747.72 0.0136 0.0014
 Mercury -73444-12-04 18:42 J -25103659.85 -25103659.72 -25103659.59 0.0136 0.0031
 Mercury -73443-03-02 21:49 J -25103571.71 -25103571.59 -25103571.46 0.0136 0.0048
 Mercury -73443-05-30 01:11 J -25103483.57 -25103483.45 -25103483.34 0.0137 0.0065
 Mercury -73443-08-26 04:04 J -25103395.42 -25103395.33 -25103395.21 0.0137 0.0083
 Mercury -73443-11-22 07:25 J -25103307.27 -25103307.19 -25103307.09 0.0137 0.0100
 Mercury -73442-02-18 10:47 J -25103219.11 -25103219.05 -25103218.98 0.0137 0.0117
 Mercury -73442-05-17 14:08 J -25103130.93 -25103130.91 -25103130.89 0.0137 0.0135
 Earth -73429-07-01 09:35 J -25098337.11 -25098337.10 -25098337.05 0.0145 0.0144
 Earth -73428-07-06 06:56 J -25097967.40 -25097967.21 -25097966.99 0.0145 0.0084
 Moon -73428-07-06 08:52 J -25097967.32 -25097967.13 -25097966.90 0.0145 0.0086 *
 Moon -73427-07-11 03:35 J -25097597.58 -25097597.35 -25097597.10 0.0146 0.0017
 Earth -73427-07-11 05:30 J -25097597.51 -25097597.27 -25097597.02 0.0146 0.0021 *
 Earth -73426-07-16 04:32 J -25097227.54 -25097227.31 -25097227.06 0.0146 0.0042
 Moon -73426-07-16 07:25 J -25097227.43 -25097227.19 -25097226.93 0.0146 0.0035 *
 Moon -73425-07-20 01:40 J -25096857.57 -25096857.43 -25096857.26 0.0147 0.0114
 Earth -73425-07-20 04:47 J -25096857.46 -25096857.30 -25096857.12 0.0147 0.0106 *
 Mars -73414-12-27 20:52 J -25092679.69 -25092679.63 -25092679.54 0.0147 0.0143
 Venus -73413-05-13 14:37 J -25092542.06 -25092541.89 -25092541.71 0.0147 0.0090
 Venus -73413-12-26 06:13 J -25092315.46 -25092315.24 -25092315.02 0.0146 0.0018

Venus -73412-08-09 21:35 J -25092088.80 -25092088.60 -25092088.39 0.0146 0.0054
 Mars -73412-12-05 22:04 J -25091970.91 -25091970.58 -25091970.23 0.0146 0.0028
 Venus -73411-03-24 12:28 J -25091862.07 -25091861.98 -25091861.85 0.0146 0.0126
 Mars -73410-11-14 14:23 J -25091262.16 -25091261.90 -25091261.60 0.0145 0.0085
 Mercury -73406-08-16 18:42 J -25089890.82 -25089890.72 -25089890.60 0.0143 0.0118
 Mercury -73406-11-13 03:06 J -25089802.51 -25089802.37 -25089802.21 0.0143 0.0089
 Mercury -73405-02-09 11:44 J -25089714.18 -25089714.01 -25089713.83 0.0143 0.0060
 Mercury -73405-05-07 20:08 J -25089625.85 -25089625.66 -25089625.47 0.0143 0.0031
 Mercury -73405-08-04 04:32 J -25089537.50 -25089537.31 -25089537.12 0.0143 0.0002
 Mercury -73405-10-31 12:42 J -25089449.15 -25089448.97 -25089448.78 0.0142 0.0027
 Mercury -73404-01-27 21:06 J -25089360.80 -25089360.62 -25089360.44 0.0142 0.0055
 Mercury -73404-04-26 05:16 J -25089272.44 -25089272.28 -25089272.12 0.0142 0.0083
 Mercury -73404-07-23 13:25 J -25089184.06 -25089183.94 -25089183.82 0.0142 0.0110
 Mercury -73404-10-19 21:20 J -25089095.64 -25089095.61 -25089095.56 0.0142 0.0138
 Moon -73388-01-07 23:44 J -25083536.69 -25083536.51 -25083536.30 0.0134 0.0089
 Earth -73388-01-08 03:20 J -25083536.53 -25083536.36 -25083536.16 0.0134 0.0095 *
 Earth -73387-01-12 13:54 J -25083167.16 -25083166.92 -25083166.67 0.0133 0.0045
 Moon -73387-01-12 17:44 J -25083167.00 -25083166.76 -25083166.52 0.0133 0.0048 *
 Moon -73386-01-16 20:08 J -25082797.92 -25082797.66 -25082797.40 0.0133 0.0007
 Earth -73386-01-16 23:44 J -25082797.76 -25082797.51 -25082797.25 0.0133 0.0005 *
 Earth -73385-01-21 08:23 J -25082428.38 -25082428.15 -25082427.91 0.0133 0.0053
 Moon -73385-01-21 11:30 J -25082428.24 -25082428.02 -25082427.78 0.0133 0.0057 *
 Moon -73384-01-24 12:13 J -25082059.15 -25082058.99 -25082058.80 0.0132 0.0096
 Earth -73384-01-24 16:04 J -25082058.99 -25082058.83 -25082058.66 0.0132 0.0101 *
 Mars -73371-04-19 21:49 J -25077225.60 -25077225.59 -25077225.55 0.0132 0.0131
 Venus -73370-02-15 13:40 J -25076923.93 -25076923.93 -25076923.88 0.0132 0.0131
 Venus -73370-09-29 16:47 J -25076697.96 -25076697.80 -25076697.63 0.0132 0.0081
 Mars -73369-03-18 00:42 J -25076527.70 -25076527.47 -25076527.22 0.0132 0.0068
 Venus -73369-05-12 19:25 J -25076471.89 -25076471.69 -25076471.48 0.0132 0.0032
 Venus -73369-12-24 22:18 J -25076245.77 -25076245.57 -25076245.35 0.0133 0.0019

Venus -73368-08-08 00:56 J -25076019.63 -25076019.46 -25076019.26 0.0133 0.0069
 Mars -73367-02-14 05:16 J -25075829.56 -25075829.28 -25075829.01 0.0133 0.0004
 Venus -73367-03-22 03:35 J -25075793.42 -25075793.35 -25075793.23 0.0133 0.0119
 Mars -73365-01-13 11:16 J -25075131.26 -25075131.03 -25075130.77 0.0134 0.0063
 Mars -73364-12-11 23:30 J -25074432.55 -25074432.52 -25074432.43 0.0134 0.0132
 Mercury -73362-07-27 18:56 J -25073839.73 -25073839.71 -25073839.66 0.0135 0.0131
 Mercury -73362-10-23 22:18 J -25073751.64 -25073751.57 -25073751.50 0.0135 0.0114
 Mercury -73361-01-20 01:11 J -25073663.53 -25073663.45 -25073663.35 0.0135 0.0098
 Mercury -73361-04-17 04:32 J -25073575.42 -25073575.31 -25073575.21 0.0135 0.0081
 Mercury -73361-07-14 07:25 J -25073487.30 -25073487.19 -25073487.07 0.0136 0.0065
 Mercury -73361-10-10 10:47 J -25073399.18 -25073399.05 -25073398.93 0.0136 0.0048
 Mercury -73360-01-06 13:54 J -25073311.05 -25073310.92 -25073310.79 0.0136 0.0031
 Mercury -73360-04-04 17:01 J -25073222.92 -25073222.79 -25073222.66 0.0136 0.0015
 Mercury -73360-07-01 20:08 J -25073134.79 -25073134.66 -25073134.53 0.0136 0.0003
 Mercury -73360-09-27 23:16 J -25073046.66 -25073046.53 -25073046.40 0.0136 0.0019
 Mercury -73360-12-25 02:23 J -25072958.53 -25072958.40 -25072958.27 0.0136 0.0037
 Mercury -73359-03-23 05:30 J -25072870.39 -25072870.27 -25072870.14 0.0137 0.0054
 Mercury -73359-06-19 08:52 J -25072782.25 -25072782.13 -25072782.02 0.0137 0.0071
 Mercury -73359-09-15 11:59 J -25072694.10 -25072694.00 -25072693.90 0.0137 0.0088
 Mercury -73359-12-12 15:06 J -25072605.95 -25072605.87 -25072605.78 0.0137 0.0106
 Mercury -73358-03-10 18:28 J -25072517.78 -25072517.73 -25072517.67 0.0137 0.0123
 Moon -73345-07-01 23:01 J -25067655.60 -25067655.54 -25067655.44 0.0145 0.0137
 Earth -73345-07-02 00:13 J -25067655.55 -25067655.49 -25067655.42 0.0145 0.0139 *
 Earth -73344-07-06 21:20 J -25067285.81 -25067285.61 -25067285.39 0.0145 0.0079
 Moon -73344-07-06 22:32 J -25067285.78 -25067285.56 -25067285.34 0.0145 0.0078 *
 Moon -73343-07-11 17:44 J -25066916.00 -25066915.76 -25066915.52 0.0146 0.0021
 Earth -73343-07-11 19:40 J -25066915.92 -25066915.68 -25066915.43 0.0146 0.0016 *
 Earth -73342-07-16 18:42 J -25066545.95 -25066545.72 -25066545.47 0.0146 0.0048
 Moon -73342-07-16 20:52 J -25066545.86 -25066545.63 -25066545.38 0.0146 0.0055 *
 Moon -73341-07-20 16:32 J -25066175.98 -25066175.81 -25066175.64 0.0147 0.0105

Earth -73341-07-20 18:56 J -25066175.86 -25066175.71 -25066175.54 0.0147 0.0112 *
 Venus -73329-01-11 20:37 J -25061983.75 -25061983.64 -25061983.50 0.0147 0.0122
 Mars -73329-08-24 06:42 J -25061758.46 -25061758.22 -25061757.93 0.0147 0.0095
 Venus -73329-08-25 12:13 J -25061757.20 -25061756.99 -25061756.78 0.0147 0.0050
 Venus -73328-04-09 03:20 J -25061530.57 -25061530.36 -25061530.13 0.0146 0.0023
 Venus -73328-11-21 18:42 J -25061303.89 -25061303.72 -25061303.55 0.0146 0.0093
 Mars -73327-08-03 05:01 J -25061049.62 -25061049.29 -25061048.94 0.0146 0.0021
 Mars -73325-07-11 18:42 J -25060340.85 -25060340.72 -25060340.57 0.0145 0.0132
 Mercury -73322-06-09 18:28 J -25059277.77 -25059277.73 -25059277.68 0.0143 0.0139
 Mercury -73322-09-06 02:52 J -25059189.50 -25059189.38 -25059189.25 0.0143 0.0109
 Mercury -73322-12-03 11:30 J -25059101.18 -25059101.02 -25059100.86 0.0143 0.0080
 Mercury -73321-02-29 19:54 J -25059012.85 -25059012.67 -25059012.49 0.0143 0.0051
 Mercury -73321-05-28 04:18 J -25058924.51 -25058924.32 -25058924.13 0.0143 0.0022
 Mercury -73321-08-24 12:42 J -25058836.17 -25058835.97 -25058835.78 0.0143 0.0007
 Mercury -73321-11-20 20:52 J -25058747.82 -25058747.63 -25058747.44 0.0142 0.0035
 Mercury -73320-02-17 05:01 J -25058659.46 -25058659.29 -25058659.11 0.0142 0.0063
 Mercury -73320-05-16 13:11 J -25058571.09 -25058570.95 -25058570.80 0.0142 0.0091
 Mercury -73320-08-12 21:06 J -25058482.71 -25058482.62 -25058482.50 0.0142 0.0119
 Moon -73304-01-08 11:16 J -25052855.20 -25052855.03 -25052854.85 0.0134 0.0098
 Earth -73304-01-08 15:06 J -25052855.05 -25052854.87 -25052854.67 0.0134 0.0091 *
 Earth -73303-01-13 01:25 J -25052485.67 -25052485.44 -25052485.18 0.0133 0.0041
 Moon -73303-01-13 05:16 J -25052485.53 -25052485.28 -25052485.03 0.0133 0.0037 *
 Moon -73302-01-17 07:40 J -25052116.44 -25052116.18 -25052115.92 0.0133 0.0008
 Earth -73302-01-17 11:16 J -25052116.28 -25052116.03 -25052115.76 0.0133 0.0009 *
 Earth -73301-01-21 19:40 J -25051746.90 -25051746.68 -25051746.43 0.0133 0.0058
 Moon -73301-01-21 23:30 J -25051746.74 -25051746.52 -25051746.28 0.0133 0.0056 *
 Moon -73300-01-25 00:13 J -25051377.62 -25051377.49 -25051377.34 0.0132 0.0110
 Earth -73300-01-25 03:21 J -25051377.49 -25051377.36 -25051377.18 0.0132 0.0106 *
 Mars -73287-12-12 21:49 J -25046307.75 -25046307.59 -25046307.41 0.0132 0.0105
 Venus -73286-05-30 05:16 J -25046139.40 -25046139.28 -25046139.14 0.0132 0.0103

Venus -73285-01-11 08:23 J -25045913.35 -25045913.15 -25045912.96 0.0132 0.0054
 Venus -73285-08-24 11:01 J -25045687.25 -25045687.04 -25045686.82 0.0133 0.0004
 Mars -73285-11-10 00:28 J -25045609.74 -25045609.48 -25045609.21 0.0133 0.0040
 Venus -73284-04-07 13:54 J -25045461.12 -25045460.92 -25045460.72 0.0133 0.0046
 Venus -73284-11-19 16:33 J -25045234.95 -25045234.81 -25045234.66 0.0133 0.0096
 Mars -73283-10-09 04:33 J -25044911.57 -25044911.31 -25044911.03 0.0133 0.0026
 Mars -73281-09-06 13:11 J -25044213.13 -25044212.95 -25044212.73 0.0134 0.0094
 Mercury -73278-08-17 02:52 J -25043138.43 -25043138.38 -25043138.33 0.0135 0.0125
 Mercury -73278-11-13 05:45 J -25043050.33 -25043050.26 -25043050.18 0.0135 0.0109
 Mercury -73277-02-09 08:52 J -25042962.22 -25042962.13 -25042962.03 0.0135 0.0092
 Mercury -73277-05-07 11:59 J -25042874.10 -25042874.00 -25042873.89 0.0136 0.0076
 Mercury -73277-08-03 15:06 J -25042785.99 -25042785.87 -25042785.75 0.0136 0.0059
 Mercury -73277-10-30 18:13 J -25042697.86 -25042697.74 -25042697.61 0.0136 0.0043
 Mercury -73276-01-26 21:21 J -25042609.74 -25042609.61 -25042609.48 0.0136 0.0026
 Mercury -73276-04-25 00:28 J -25042521.61 -25042521.48 -25042521.35 0.0136 0.0009
 Mercury -73276-07-22 03:35 J -25042433.48 -25042433.35 -25042433.21 0.0136 0.0008
 Mercury -73276-10-18 06:42 J -25042345.35 -25042345.22 -25042345.09 0.0136 0.0025
 Mercury -73275-01-14 10:04 J -25042257.21 -25042257.08 -25042256.96 0.0137 0.0042
 Mercury -73275-04-12 13:11 J -25042169.07 -25042168.95 -25042168.83 0.0137 0.0059
 Mercury -73275-07-09 16:18 J -25042080.93 -25042080.82 -25042080.71 0.0137 0.0076
 Mercury -73275-10-05 19:25 J -25041992.78 -25041992.69 -25041992.59 0.0137 0.0094
 Mercury -73274-01-01 22:47 J -25041904.62 -25041904.55 -25041904.47 0.0137 0.0111
 Mercury -73274-03-31 01:54 J -25041816.45 -25041816.42 -25041816.37 0.0137 0.0129
 Earth -73261-07-02 13:40 J -25036974.00 -25036973.93 -25036973.83 0.0145 0.0135
 Moon -73261-07-02 13:54 J -25036973.97 -25036973.92 -25036973.85 0.0145 0.0139 *
 Earth -73260-07-07 11:01 J -25036604.25 -25036604.04 -25036603.82 0.0145 0.0074
 Moon -73260-07-07 11:59 J -25036604.21 -25036604.00 -25036603.77 0.0145 0.0075 *
 Moon -73259-07-12 08:23 J -25036234.39 -25036234.15 -25036233.91 0.0146 0.0007
 Earth -73259-07-12 09:21 J -25036234.36 -25036234.11 -25036233.86 0.0146 0.0011 *
 Earth -73258-07-17 08:23 J -25035864.38 -25035864.15 -25035863.91 0.0146 0.0053

Moon -73258-07-17 10:18 J -25035864.30 -25035864.07 -25035863.81 0.0146 0.0047 *
 Moon -73257-07-21 05:59 J -25035494.35 -25035494.25 -25035494.10 0.0147 0.0126
 Earth -73257-07-21 08:23 J -25035494.28 -25035494.15 -25035493.98 0.0147 0.0118 *
 Venus -73245-04-24 17:45 J -25031198.93 -25031198.76 -25031198.56 0.0147 0.0083
 Venus -73245-12-07 09:21 J -25030972.33 -25030972.11 -25030971.88 0.0146 0.0011
 Mars -73244-04-21 15:35 J -25030837.17 -25030836.85 -25030836.52 0.0146 0.0046
 Venus -73244-07-22 00:28 J -25030745.67 -25030745.48 -25030745.26 0.0146 0.0061
 Venus -73243-03-05 15:35 J -25030518.93 -25030518.85 -25030518.74 0.0146 0.0132
 Mars -73242-03-31 10:47 J -25030128.34 -25030128.05 -25030127.74 0.0145 0.0070
 Mercury -73238-06-30 02:23 J -25028576.47 -25028576.40 -25028576.32 0.0143 0.0130
 Mercury -73238-09-26 10:47 J -25028488.18 -25028488.05 -25028487.90 0.0143 0.0101
 Mercury -73238-12-23 19:25 J -25028399.86 -25028399.69 -25028399.52 0.0143 0.0072
 Mercury -73237-03-21 03:49 J -25028311.52 -25028311.34 -25028311.15 0.0143 0.0043
 Mercury -73237-06-17 12:13 J -25028223.18 -25028222.99 -25028222.80 0.0143 0.0014
 Mercury -73237-09-13 20:23 J -25028134.84 -25028134.65 -25028134.45 0.0142 0.0015
 Mercury -73237-12-11 04:47 J -25028046.48 -25028046.30 -25028046.12 0.0142 0.0043
 Mercury -73236-03-09 12:42 J -25027958.12 -25027957.97 -25027957.79 0.0142 0.0071
 Mercury -73236-06-05 20:52 J -25027869.76 -25027869.63 -25027869.48 0.0142 0.0099
 Mercury -73236-09-02 05:16 J -25027781.36 -25027781.28 -25027781.20 0.0142 0.0126
 Moon -73220-01-08 22:04 J -25022173.78 -25022173.58 -25022173.37 0.0133 0.0082
 Earth -73220-01-09 01:11 J -25022173.63 -25022173.45 -25022173.24 0.0133 0.0089 *
 Earth -73219-01-13 11:45 J -25021804.25 -25021804.01 -25021803.76 0.0133 0.0038
 Moon -73219-01-13 15:35 J -25021804.09 -25021803.85 -25021803.60 0.0133 0.0042 *
 Moon -73218-01-17 17:45 J -25021435.01 -25021434.76 -25021434.50 0.0133 0.0015
 Earth -73218-01-17 21:35 J -25021434.86 -25021434.60 -25021434.35 0.0133 0.0012 *
 Earth -73217-01-22 05:59 J -25021065.48 -25021065.25 -25021065.02 0.0132 0.0061
 Moon -73217-01-22 09:21 J -25021065.32 -25021065.11 -25021064.87 0.0132 0.0064 *
 Moon -73216-01-25 10:04 J -25020696.23 -25020696.08 -25020695.92 0.0132 0.0105
 Earth -73216-01-25 13:54 J -25020696.06 -25020695.92 -25020695.77 0.0132 0.0109 *
 Venus -73202-01-27 17:01 J -25015580.84 -25015580.79 -25015580.72 0.0132 0.0126

Mars	-73202-08-06 18:57 J	-25015389.93	-25015389.71	-25015389.49	0.0132	0.0078
Venus	-73202-09-10 19:40 J	-25015354.84	-25015354.68	-25015354.50	0.0132	0.0077
Venus	-73201-04-23 22:33 J	-25015128.76	-25015128.56	-25015128.34	0.0132	0.0028
Venus	-73201-12-06 01:25 J	-25014902.64	-25014902.44	-25014902.22	0.0133	0.0023
Mars	-73200-07-04 21:21 J	-25014691.89	-25014691.61	-25014691.34	0.0133	0.0012
Venus	-73200-07-20 04:18 J	-25014676.49	-25014676.32	-25014676.14	0.0133	0.0073
Venus	-73199-03-03 07:11 J	-25014450.27	-25014450.20	-25014450.11	0.0133	0.0123
Mars	-73198-06-03 02:52 J	-25013993.62	-25013993.38	-25013993.12	0.0133	0.0056
Mars	-73196-05-01 14:37 J	-25013294.98	-25013294.89	-25013294.77	0.0134	0.0125
Mercury	-73194-09-06 09:49 J	-25012437.14	-25012437.09	-25012437.02	0.0135	0.0121
Mercury	-73194-12-03 13:11 J	-25012349.03	-25012348.95	-25012348.87	0.0135	0.0105
Mercury	-73193-02-29 16:04 J	-25012260.92	-25012260.83	-25012260.73	0.0136	0.0089
Mercury	-73193-05-27 19:11 J	-25012172.81	-25012172.70	-25012172.58	0.0136	0.0072
Mercury	-73193-08-23 22:18 J	-25012084.69	-25012084.57	-25012084.45	0.0136	0.0056
Mercury	-73193-11-20 01:25 J	-25011996.56	-25011996.44	-25011996.31	0.0136	0.0039
Mercury	-73192-02-16 04:33 J	-25011908.44	-25011908.31	-25011908.18	0.0136	0.0022
Mercury	-73192-05-15 07:40 J	-25011820.31	-25011820.18	-25011820.05	0.0136	0.0006
Mercury	-73192-08-11 10:47 J	-25011732.18	-25011732.05	-25011731.91	0.0136	0.0012
Mercury	-73192-11-07 13:54 J	-25011644.04	-25011643.92	-25011643.79	0.0136	0.0029
Mercury	-73191-02-03 17:16 J	-25011555.91	-25011555.78	-25011555.66	0.0137	0.0046
Mercury	-73191-05-02 20:23 J	-25011467.77	-25011467.65	-25011467.53	0.0137	0.0063
Mercury	-73191-07-29 23:30 J	-25011379.62	-25011379.52	-25011379.41	0.0137	0.0080
Mercury	-73191-10-26 02:37 J	-25011291.47	-25011291.39	-25011291.29	0.0137	0.0098
Mercury	-73190-01-22 05:59 J	-25011203.32	-25011203.25	-25011203.18	0.0137	0.0115
Mercury	-73190-04-20 09:21 J	-25011115.14	-25011115.11	-25011115.08	0.0137	0.0133
Moon	-73177-07-03 00:13 J	-25006292.58	-25006292.49	-25006292.37	0.0145	0.0130
Earth	-73177-07-03 00:13 J	-25006292.57	-25006292.49	-25006292.38	0.0145	0.0133 *
Moon	-73176-07-07 21:21 J	-25005922.83	-25005922.61	-25005922.38	0.0145	0.0071
Earth	-73176-07-07 21:21 J	-25005922.81	-25005922.61	-25005922.38	0.0145	0.0072 *
Moon	-73175-07-12 18:42 J	-25005552.95	-25005552.72	-25005552.47	0.0146	0.0013

Earth -73175-07-12 19:54 J -25005552.92 -25005552.67 -25005552.42 0.0146 0.0008 *
 Earth -73174-07-17 18:57 J -25005182.94 -25005182.71 -25005182.47 0.0146 0.0056
 Moon -73174-07-17 20:09 J -25005182.89 -25005182.66 -25005182.42 0.0146 0.0064 *
 Moon -73173-07-21 17:16 J -25004812.92 -25004812.78 -25004812.62 0.0147 0.0115
 Earth -73173-07-21 18:57 J -25004812.83 -25004812.71 -25004812.55 0.0147 0.0122 *
 Venus -73162-12-23 22:33 J -25000640.68 -25000640.56 -25000640.41 0.0147 0.0117
 Mars -73161-01-08 18:42 J -25000624.90 -25000624.72 -25000624.48 0.0147 0.0116
 Venus -73161-08-06 14:09 J -25000414.11 -25000413.91 -25000413.69 0.0146 0.0045
 Venus -73160-03-21 05:30 J -25000187.49 -25000187.27 -25000187.05 0.0146 0.0027
 Venus -73160-11-02 20:37 J -24999960.80 -24999960.64 -24999960.47 0.0146 0.0098
 Mars -73160-12-17 19:40 J -24999916.02 -24999915.68 -24999915.33 0.0146 0.0003
 Mars -73158-11-26 12:28 J -24999207.15 -24999206.98 -24999206.75 0.0145 0.0118
 Mercury -73154-07-20 10:18 J -24997875.17 -24997875.07 -24997874.97 0.0143 0.0123
 Mercury -73154-10-16 18:42 J -24997786.86 -24997786.72 -24997786.57 0.0143 0.0093
 Mercury -73153-01-13 03:21 J -24997698.54 -24997698.36 -24997698.19 0.0143 0.0064
 Mercury -73153-04-10 11:30 J -24997610.20 -24997610.02 -24997609.83 0.0143 0.0036
 Mercury -73153-07-07 19:54 J -24997521.86 -24997521.67 -24997521.47 0.0143 0.0007
 Mercury -73153-10-04 04:18 J -24997433.51 -24997433.32 -24997433.13 0.0142 0.0022
 Mercury -73153-12-31 12:28 J -24997345.16 -24997344.98 -24997344.80 0.0142 0.0050
 Mercury -73152-03-29 20:37 J -24997256.80 -24997256.64 -24997256.48 0.0142 0.0078
 Mercury -73152-06-26 04:47 J -24997168.42 -24997168.30 -24997168.17 0.0142 0.0106
 Mercury -73152-09-22 12:42 J -24997080.02 -24997079.97 -24997079.90 0.0142 0.0134
 Moon -73137-01-06 04:04 J -24991861.39 -24991861.33 -24991861.26 0.0134 0.0129
 Moon -73136-01-09 08:09 J -24991492.32 -24991492.16 -24991491.96 0.0133 0.0093
 Earth -73136-01-09 11:45 J -24991492.19 -24991492.01 -24991491.80 0.0133 0.0086 *
 Earth -73135-01-13 22:04 J -24991122.82 -24991122.58 -24991122.32 0.0133 0.0035
 Moon -73135-01-14 01:25 J -24991122.68 -24991122.44 -24991122.17 0.0133 0.0030 *
 Moon -73134-01-18 04:18 J -24990753.58 -24990753.32 -24990753.07 0.0133 0.0014
 Earth -73134-01-18 07:54 J -24990753.43 -24990753.17 -24990752.91 0.0133 0.0015 *
 Earth -73133-01-22 15:49 J -24990384.05 -24990383.84 -24990383.60 0.0132 0.0065

Moon -73133-01-22 19:25 J -24990383.90 -24990383.69 -24990383.44 0.0132 0.0064 *
 Moon -73132-01-25 20:37 J -24990014.75 -24990014.64 -24990014.52 0.0132 0.0116
 Earth -73132-01-25 23:45 J -24990014.62 -24990014.51 -24990014.36 0.0132 0.0113 *
 Mars -73119-05-02 11:59 J -24985170.11 -24985170.00 -24985169.85 0.0132 0.0116
 Venus -73118-05-11 06:42 J -24984796.34 -24984796.22 -24984796.07 0.0132 0.0101
 Venus -73118-12-23 09:49 J -24984570.28 -24984570.09 -24984569.89 0.0132 0.0051
 Mars -73117-03-30 13:40 J -24984472.17 -24984471.93 -24984471.66 0.0132 0.0051
 Venus -73117-08-05 12:42 J -24984344.18 -24984343.97 -24984343.76 0.0132 0.0002
 Venus -73116-03-19 15:21 J -24984118.05 -24984117.86 -24984117.65 0.0133 0.0049
 Venus -73116-10-31 17:59 J -24983891.87 -24983891.75 -24983891.59 0.0133 0.0099
 Mars -73115-02-26 17:16 J -24983774.04 -24983773.78 -24983773.50 0.0133 0.0017
 Mars -73113-01-26 00:57 J -24983075.65 -24983075.46 -24983075.23 0.0134 0.0086
 Mercury -73110-06-30 13:54 J -24981823.92 -24981823.92 -24981823.91 0.0135 0.0135
 Mercury -73110-09-26 17:01 J -24981735.85 -24981735.79 -24981735.73 0.0135 0.0119
 Mercury -73110-12-23 19:54 J -24981647.75 -24981647.67 -24981647.58 0.0135 0.0103
 Mercury -73109-03-20 23:01 J -24981559.64 -24981559.54 -24981559.44 0.0136 0.0086
 Mercury -73109-06-17 02:09 J -24981471.52 -24981471.41 -24981471.29 0.0136 0.0070
 Mercury -73109-09-13 05:16 J -24981383.40 -24981383.28 -24981383.16 0.0136 0.0053
 Mercury -73109-12-10 08:23 J -24981295.28 -24981295.15 -24981295.02 0.0136 0.0036
 Mercury -73108-03-08 11:30 J -24981207.15 -24981207.02 -24981206.89 0.0136 0.0020
 Mercury -73108-06-04 14:37 J -24981119.02 -24981118.89 -24981118.76 0.0136 0.0003
 Mercury -73108-08-31 17:45 J -24981030.89 -24981030.76 -24981030.63 0.0136 0.0014
 Mercury -73108-11-27 20:52 J -24980942.76 -24980942.63 -24980942.50 0.0136 0.0031
 Mercury -73107-02-23 23:59 J -24980854.62 -24980854.50 -24980854.37 0.0137 0.0048
 Mercury -73107-05-23 03:06 J -24980766.48 -24980766.37 -24980766.25 0.0137 0.0066
 Mercury -73107-08-19 06:28 J -24980678.33 -24980678.23 -24980678.12 0.0137 0.0083
 Mercury -73107-11-15 09:35 J -24980590.18 -24980590.10 -24980590.01 0.0137 0.0100
 Mercury -73106-02-11 12:57 J -24980502.03 -24980501.96 -24980501.89 0.0137 0.0117
 Mercury -73106-05-10 16:04 J -24980413.84 -24980413.83 -24980413.80 0.0137 0.0135
 Earth -73093-07-03 08:09 J -24975611.25 -24975611.16 -24975611.05 0.0145 0.0132

Moon -73093-07-03 09:35 J -24975611.17 -24975611.10 -24975611.02 0.0145 0.0137 *
 Moon -73092-07-08 04:47 J -24975241.51 -24975241.30 -24975241.06 0.0145 0.0070
 Earth -73092-07-08 05:01 J -24975241.49 -24975241.29 -24975241.06 0.0145 0.0071 *
 Earth -73091-07-13 03:35 J -24974871.60 -24974871.35 -24974871.10 0.0146 0.0007
 Moon -73091-07-13 03:49 J -24974871.59 -24974871.34 -24974871.10 0.0146 0.0004 *
 Earth -73090-07-18 02:37 J -24974501.62 -24974501.39 -24974501.16 0.0146 0.0058
 Moon -73090-07-18 03:35 J -24974501.60 -24974501.35 -24974501.11 0.0146 0.0052 *
 Moon -73089-07-22 01:11 J -24974131.53 -24974131.45 -24974131.32 0.0146 0.0132
 Earth -73089-07-22 02:37 J -24974131.51 -24974131.39 -24974131.24 0.0146 0.0124 *
 Saturn -73087-12-02 06:57 J -24973268.87 -24973268.21 -24973267.50 0.0147 0.0037
 Venus -73077-04-05 16:04 J -24969856.00 -24969855.83 -24969855.63 0.0147 0.0083
 Mars -73077-09-04 13:40 J -24969704.21 -24969703.93 -24969703.61 0.0146 0.0071
 Venus -73077-11-18 07:40 J -24969629.40 -24969629.18 -24969628.96 0.0146 0.0011
 Venus -73076-07-02 22:47 J -24969402.74 -24969402.55 -24969402.33 0.0146 0.0061
 Venus -73075-02-14 13:54 J -24969176.00 -24969175.92 -24969175.81 0.0146 0.0132
 Mars -73075-08-14 13:40 J -24968995.26 -24968994.93 -24968994.60 0.0146 0.0049
 Mercury -73070-08-09 16:33 J -24967173.90 -24967173.81 -24967173.69 0.0143 0.0119
 Mercury -73070-11-06 00:57 J -24967085.60 -24967085.46 -24967085.29 0.0143 0.0090
 Mercury -73069-02-02 09:35 J -24966997.27 -24966997.10 -24966996.92 0.0143 0.0061
 Mercury -73069-04-30 17:59 J -24966908.93 -24966908.75 -24966908.56 0.0143 0.0032
 Mercury -73069-07-28 02:23 J -24966820.59 -24966820.40 -24966820.20 0.0143 0.0004
 Mercury -73069-10-24 10:47 J -24966732.24 -24966732.05 -24966731.86 0.0142 0.0025
 Mercury -73068-01-20 18:57 J -24966643.89 -24966643.71 -24966643.53 0.0142 0.0054
 Mercury -73068-04-19 02:52 J -24966555.52 -24966555.38 -24966555.21 0.0142 0.0083
 Mercury -73068-07-16 11:01 J -24966467.15 -24966467.04 -24966466.91 0.0142 0.0110
 Mercury -73068-10-12 19:25 J -24966378.73 -24966378.69 -24966378.64 0.0142 0.0137
 Moon -73052-01-09 17:16 J -24960810.97 -24960810.78 -24960810.56 0.0134 0.0078
 Earth -73052-01-09 20:09 J -24960810.85 -24960810.66 -24960810.45 0.0134 0.0084 *
 Earth -73051-01-14 06:28 J -24960441.47 -24960441.23 -24960440.97 0.0133 0.0033
 Moon -73051-01-14 10:04 J -24960441.33 -24960441.08 -24960440.83 0.0133 0.0037 *

Moon -73050-01-18 12:57 J -24960072.21 -24960071.96 -24960071.70 0.0133 0.0021
 Earth -73050-01-18 16:04 J -24960072.08 -24960071.83 -24960071.57 0.0133 0.0017 *
 Earth -73049-01-23 00:28 J -24959702.69 -24959702.48 -24959702.24 0.0132 0.0067
 Moon -73049-01-23 03:49 J -24959702.55 -24959702.34 -24959702.10 0.0132 0.0069 *
 Moon -73048-01-26 05:16 J -24959333.41 -24959333.28 -24959333.14 0.0132 0.0112
 Earth -73048-01-26 08:23 J -24959333.26 -24959333.15 -24959333.01 0.0132 0.0116 *
 Mars -73035-12-25 06:13 J -24954252.42 -24954252.24 -24954252.01 0.0132 0.0090
 Venus -73034-01-08 17:30 J -24954237.82 -24954237.77 -24954237.69 0.0132 0.0125
 Venus -73034-08-22 20:37 J -24954011.81 -24954011.64 -24954011.46 0.0132 0.0075
 Venus -73033-04-04 23:16 J -24953785.73 -24953785.53 -24953785.31 0.0132 0.0026
 Venus -73033-11-17 02:09 J -24953559.62 -24953559.41 -24953559.20 0.0132 0.0024
 Mars -73033-11-22 07:54 J -24953554.43 -24953554.17 -24953553.88 0.0132 0.0024
 Venus -73032-07-01 04:47 J -24953333.46 -24953333.30 -24953333.11 0.0133 0.0074
 Venus -73031-02-12 07:40 J -24953107.23 -24953107.18 -24953107.08 0.0133 0.0124
 Mars -73031-10-21 13:25 J -24952856.20 -24952855.94 -24952855.68 0.0133 0.0045
 Mars -73029-09-18 21:21 J -24952157.73 -24952157.61 -24952157.44 0.0134 0.0115
 Mercury -73026-07-20 20:52 J -24951122.65 -24951122.63 -24951122.61 0.0135 0.0132
 Mercury -73026-10-16 23:45 J -24951034.57 -24951034.51 -24951034.44 0.0135 0.0116
 Mercury -73025-01-13 02:52 J -24950946.46 -24950946.38 -24950946.29 0.0135 0.0100
 Mercury -73025-04-10 05:59 J -24950858.35 -24950858.25 -24950858.15 0.0135 0.0084
 Mercury -73025-07-07 08:52 J -24950770.24 -24950770.13 -24950770.01 0.0136 0.0068
 Mercury -73025-10-03 12:13 J -24950682.12 -24950681.99 -24950681.87 0.0136 0.0051
 Mercury -73025-12-30 15:06 J -24950593.99 -24950593.87 -24950593.74 0.0136 0.0035
 Mercury -73024-03-28 18:13 J -24950505.87 -24950505.74 -24950505.60 0.0136 0.0018
 Mercury -73024-06-24 21:21 J -24950417.74 -24950417.61 -24950417.47 0.0136 0.0004
 Mercury -73024-09-21 00:28 J -24950329.61 -24950329.48 -24950329.34 0.0136 0.0017
 Mercury -73024-12-18 03:49 J -24950241.47 -24950241.34 -24950241.21 0.0136 0.0033
 Mercury -73023-03-16 06:57 J -24950153.33 -24950153.21 -24950153.09 0.0136 0.0050
 Mercury -73023-06-12 10:04 J -24950065.19 -24950065.08 -24950064.96 0.0137 0.0067
 Mercury -73023-09-08 13:11 J -24949977.05 -24949976.95 -24949976.84 0.0137 0.0085

Mercury -73023-12-05 16:33 J -24949888.90 -24949888.81 -24949888.73 0.0137 0.0102

Mercury -73022-03-03 19:25 J -24949800.74 -24949800.69 -24949800.61 0.0137 0.0120

Mercury -73022-05-30 23:01 J -24949712.54 -24949712.54 -24949712.54 0.0137 0.0137

Earth -73009-07-03 13:40 J -24944930.00 -24944929.93 -24944929.81 0.0145 0.0133

Moon -73009-07-03 15:35 J -24944929.96 -24944929.85 -24944929.74 0.0145 0.0128 *

Moon -73008-07-08 09:21 J -24944560.32 -24944560.11 -24944559.88 0.0145 0.0072

Earth -73008-07-08 10:47 J -24944560.25 -24944560.05 -24944559.81 0.0145 0.0071 *

Earth -73007-07-13 09:06 J -24944190.37 -24944190.12 -24944189.87 0.0146 0.0006

Moon -73007-07-13 09:35 J -24944190.34 -24944190.10 -24944189.86 0.0146 0.0009 *

Moon -73006-07-18 07:54 J -24943820.39 -24943820.17 -24943819.93 0.0146 0.0065

Earth -73006-07-18 07:54 J -24943820.38 -24943820.17 -24943819.92 0.0146 0.0059 *

Moon -73005-07-22 07:54 J -24943450.30 -24943450.17 -24943450.02 0.0146 0.0118

Earth -73005-07-22 08:09 J -24943450.27 -24943450.16 -24943450.01 0.0146 0.0125 *

73RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 73rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-72994-05-24 01:11 J	-24939492.49	-24939492.45	-24939492.39	0.0147	0.0145		
Venus	-72994-12-04 16:33 J	-24939297.92	-24939297.81	-24939297.68	0.0147	0.0123		
Venus	-72993-07-18 08:23 J	-24939071.36	-24939071.15	-24939070.94	0.0146	0.0051		
Venus	-72992-03-01 23:45 J	-24938844.73	-24938844.51	-24938844.29	0.0146	0.0021		
Mars	-72992-05-02 03:49 J	-24938783.67	-24938783.34	-24938782.99	0.0146	0.0025		

Venus -72992-10-14 14:37 J -24938618.05 -24938617.89 -24938617.70 0.0146 0.0092
 Mars -72990-04-11 00:57 J -24938074.70 -24938074.46 -24938074.18 0.0145 0.0095
 Mercury -72986-08-29 22:18 J -24936472.67 -24936472.57 -24936472.45 0.0143 0.0118
 Mercury -72986-11-26 06:42 J -24936384.36 -24936384.22 -24936384.06 0.0143 0.0089
 Mercury -72985-02-22 15:06 J -24936296.03 -24936295.87 -24936295.68 0.0143 0.0060
 Mercury -72985-05-20 23:45 J -24936207.70 -24936207.51 -24936207.32 0.0143 0.0031
 Mercury -72985-08-17 08:09 J -24936119.35 -24936119.16 -24936118.97 0.0143 0.0002
 Mercury -72985-11-13 16:18 J -24936031.00 -24936030.82 -24936030.62 0.0143 0.0027
 Mercury -72984-02-10 00:28 J -24935942.65 -24935942.48 -24935942.29 0.0142 0.0055
 Mercury -72984-05-09 08:37 J -24935854.28 -24935854.14 -24935853.97 0.0142 0.0084
 Mercury -72984-08-05 16:47 J -24935765.91 -24935765.80 -24935765.67 0.0142 0.0111
 Mercury -72984-11-02 00:42 J -24935677.49 -24935677.47 -24935677.41 0.0142 0.0139
 Earth -72969-01-06 16:33 J -24930498.81 -24930498.81 -24930498.80 0.0134 0.0134
 Moon -72969-01-06 18:42 J -24930498.79 -24930498.72 -24930498.63 0.0134 0.0128
 Moon -72968-01-10 00:57 J -24930129.63 -24930129.46 -24930129.26 0.0134 0.0090
 Earth -72968-01-10 03:35 J -24930129.53 -24930129.35 -24930129.13 0.0134 0.0083 *
 Earth -72967-01-14 14:23 J -24929760.14 -24929759.90 -24929759.64 0.0133 0.0031
 Moon -72967-01-14 17:01 J -24929760.05 -24929759.79 -24929759.53 0.0133 0.0026 *
 Moon -72966-01-18 21:06 J -24929390.87 -24929390.62 -24929390.36 0.0133 0.0017
 Earth -72966-01-18 23:59 J -24929390.74 -24929390.50 -24929390.23 0.0133 0.0020 *
 Earth -72965-01-23 08:37 J -24929021.35 -24929021.14 -24929020.91 0.0133 0.0070
 Moon -72965-01-23 11:59 J -24929021.22 -24929021.00 -24929020.77 0.0133 0.0069 *
 Moon -72964-01-26 13:54 J -24928652.00 -24928651.92 -24928651.81 0.0132 0.0122
 Earth -72964-01-26 16:47 J -24928651.89 -24928651.80 -24928651.67 0.0132 0.0118 *
 Mars -72952-09-19 23:45 J -24924032.54 -24924032.51 -24924032.42 0.0132 0.0129
 Venus -72950-04-22 07:40 J -24923453.31 -24923453.18 -24923453.03 0.0132 0.0099
 Mars -72950-08-19 01:11 J -24923334.68 -24923334.45 -24923334.20 0.0132 0.0062
 Venus -72950-12-04 10:47 J -24923227.25 -24923227.05 -24923226.85 0.0132 0.0049
 Venus -72949-07-17 13:40 J -24923001.14 -24923000.93 -24923000.72 0.0132 0.0001
 Venus -72948-02-28 16:33 J -24922775.01 -24922774.81 -24922774.61 0.0132 0.0050

Mars -72948-07-17 05:01 J -24922636.57 -24922636.29 -24922636.01 0.0133 0.0006
 Venus -72948-10-12 19:11 J -24922548.83 -24922548.70 -24922548.55 0.0133 0.0100
 Mars -72946-06-15 10:18 J -24921938.27 -24921938.07 -24921937.82 0.0133 0.0076
 Mercury -72942-08-10 03:49 J -24920421.37 -24920421.34 -24920421.30 0.0135 0.0129
 Mercury -72942-11-06 06:42 J -24920333.28 -24920333.22 -24920333.14 0.0135 0.0114
 Mercury -72941-02-02 09:49 J -24920245.17 -24920245.09 -24920244.99 0.0135 0.0097
 Mercury -72941-04-30 12:57 J -24920157.06 -24920156.96 -24920156.85 0.0135 0.0081
 Mercury -72941-07-27 16:04 J -24920068.94 -24920068.83 -24920068.71 0.0136 0.0064
 Mercury -72941-10-23 19:11 J -24919980.82 -24919980.70 -24919980.58 0.0136 0.0048
 Mercury -72940-01-19 22:18 J -24919892.70 -24919892.57 -24919892.44 0.0136 0.0031
 Mercury -72940-04-18 01:25 J -24919804.57 -24919804.44 -24919804.31 0.0136 0.0014
 Mercury -72940-07-15 04:33 J -24919716.44 -24919716.31 -24919716.18 0.0136 0.0003
 Mercury -72940-10-11 07:40 J -24919628.31 -24919628.18 -24919628.05 0.0136 0.0020
 Mercury -72939-01-07 10:47 J -24919540.18 -24919540.05 -24919539.92 0.0136 0.0037
 Mercury -72939-04-05 13:54 J -24919452.04 -24919451.92 -24919451.79 0.0136 0.0054
 Mercury -72939-07-02 17:16 J -24919363.90 -24919363.78 -24919363.67 0.0137 0.0071
 Mercury -72939-09-28 20:09 J -24919275.75 -24919275.66 -24919275.55 0.0137 0.0089
 Mercury -72939-12-25 23:30 J -24919187.60 -24919187.52 -24919187.43 0.0137 0.0106
 Mercury -72938-03-24 02:37 J -24919099.44 -24919099.39 -24919099.33 0.0137 0.0123
 Jupiter -72935-11-08 19:40 J -24917773.75 -24917773.68 -24917773.61 0.0139 0.0138
 Earth -72925-07-03 22:33 J -24914248.65 -24914248.56 -24914248.45 0.0145 0.0131
 Moon -72925-07-04 00:42 J -24914248.52 -24914248.47 -24914248.37 0.0145 0.0138 *
 Moon -72924-07-08 17:45 J -24913878.99 -24913878.76 -24913878.53 0.0145 0.0067
 Earth -72924-07-08 19:25 J -24913878.91 -24913878.69 -24913878.47 0.0145 0.0068 *
 Earth -72923-07-13 17:30 J -24913509.02 -24913508.77 -24913508.52 0.0146 0.0005
 Moon -72923-07-13 18:57 J -24913508.96 -24913508.71 -24913508.47 0.0146 0.0002 *
 Moon -72922-07-18 15:35 J -24913139.09 -24913138.85 -24913138.61 0.0146 0.0055
 Earth -72922-07-18 16:18 J -24913139.04 -24913138.82 -24913138.58 0.0146 0.0061 *
 Earth -72921-07-22 16:18 J -24912768.93 -24912768.82 -24912768.68 0.0146 0.0127
 Moon -72921-07-22 16:33 J -24912768.90 -24912768.81 -24912768.72 0.0146 0.0135 *

Mars -72909-01-18 18:57 J -24908571.94 -24908571.71 -24908571.43 0.0147 0.0100
 Venus -72909-03-17 09:49 J -24908513.26 -24908513.09 -24908512.91 0.0147 0.0089
 Venus -72909-10-30 01:11 J -24908286.67 -24908286.45 -24908286.22 0.0146 0.0018
 Venus -72908-06-13 16:33 J -24908060.01 -24908059.81 -24908059.60 0.0146 0.0053
 Mars -72908-12-27 20:37 J -24907862.98 -24907862.64 -24907862.30 0.0146 0.0022
 Venus -72907-01-26 07:54 J -24907833.28 -24907833.17 -24907833.05 0.0146 0.0124
 Mars -72906-12-06 14:23 J -24907153.96 -24907153.90 -24907153.79 0.0145 0.0141
 Mercury -72902-09-19 04:18 J -24905771.43 -24905771.32 -24905771.21 0.0143 0.0117
 Mercury -72902-12-16 12:42 J -24905683.12 -24905682.97 -24905682.82 0.0143 0.0087
 Mercury -72901-03-13 21:06 J -24905594.80 -24905594.62 -24905594.44 0.0143 0.0058
 Mercury -72901-06-10 05:30 J -24905506.46 -24905506.27 -24905506.08 0.0143 0.0029
 Mercury -72901-09-06 13:54 J -24905418.12 -24905417.92 -24905417.73 0.0143 0.0002
 Mercury -72901-12-03 22:04 J -24905329.77 -24905329.58 -24905329.39 0.0142 0.0028
 Mercury -72900-03-02 06:13 J -24905241.41 -24905241.24 -24905241.06 0.0142 0.0057
 Mercury -72900-05-29 14:37 J -24905153.05 -24905152.89 -24905152.74 0.0142 0.0085
 Mercury -72900-08-25 22:47 J -24905064.67 -24905064.55 -24905064.44 0.0142 0.0112
 Mercury -72900-11-22 06:42 J -24904976.24 -24904976.22 -24904976.19 0.0142 0.0140
 Earth -72885-01-06 22:33 J -24899817.57 -24899817.56 -24899817.52 0.0134 0.0134
 Moon -72884-01-10 08:37 J -24899448.34 -24899448.14 -24899447.92 0.0134 0.0075
 Earth -72884-01-10 10:04 J -24899448.26 -24899448.08 -24899447.86 0.0134 0.0082 *
 Earth -72883-01-14 20:52 J -24899078.87 -24899078.63 -24899078.37 0.0133 0.0031
 Moon -72883-01-14 23:30 J -24899078.77 -24899078.52 -24899078.25 0.0133 0.0035 *
 Moon -72882-01-19 04:47 J -24898709.55 -24898709.30 -24898709.05 0.0133 0.0025
 Earth -72882-01-19 06:57 J -24898709.47 -24898709.21 -24898708.96 0.0133 0.0021 *
 Earth -72881-01-23 15:35 J -24898340.05 -24898339.85 -24898339.62 0.0133 0.0072
 Moon -72881-01-23 18:13 J -24898339.95 -24898339.74 -24898339.50 0.0133 0.0072 *
 Moon -72880-01-26 21:06 J -24897970.71 -24897970.62 -24897970.48 0.0132 0.0119
 Earth -72880-01-27 00:13 J -24897970.58 -24897970.49 -24897970.38 0.0132 0.0121 *
 Mars -72867-05-14 17:59 J -24893114.91 -24893114.75 -24893114.56 0.0132 0.0102
 Venus -72867-12-20 18:57 J -24892894.78 -24892894.71 -24892894.63 0.0132 0.0122

Venus -72866-08-03 21:35 J -24892668.76 -24892668.60 -24892668.41 0.0132 0.0074
 Venus -72865-03-17 00:42 J -24892442.68 -24892442.47 -24892442.26 0.0132 0.0024
 Mars -72865-04-11 21:21 J -24892416.87 -24892416.61 -24892416.34 0.0132 0.0034
 Venus -72865-10-29 03:35 J -24892216.56 -24892216.35 -24892216.14 0.0132 0.0026
 Venus -72864-06-12 06:13 J -24891990.40 -24891990.24 -24891990.05 0.0133 0.0076
 Venus -72863-01-24 09:21 J -24891764.16 -24891764.11 -24891764.03 0.0133 0.0126
 Mars -72863-03-11 02:23 J -24891718.66 -24891718.40 -24891718.13 0.0133 0.0035
 Mars -72861-02-07 08:37 J -24891020.31 -24891020.14 -24891019.97 0.0134 0.0105
 Mercury -72858-08-30 10:47 J -24889720.08 -24889720.05 -24889719.99 0.0135 0.0126
 Mercury -72858-11-26 14:09 J -24889631.99 -24889631.91 -24889631.84 0.0135 0.0110
 Mercury -72857-02-22 17:01 J -24889543.88 -24889543.79 -24889543.69 0.0135 0.0094
 Mercury -72857-05-20 20:09 J -24889455.76 -24889455.66 -24889455.55 0.0136 0.0077
 Mercury -72857-08-16 23:16 J -24889367.64 -24889367.53 -24889367.41 0.0136 0.0060
 Mercury -72857-11-13 02:23 J -24889279.52 -24889279.40 -24889279.27 0.0136 0.0044
 Mercury -72856-02-09 05:30 J -24889191.40 -24889191.27 -24889191.14 0.0136 0.0027
 Mercury -72856-05-08 08:37 J -24889103.27 -24889103.14 -24889103.01 0.0136 0.0010
 Mercury -72856-08-04 11:45 J -24889015.14 -24889015.01 -24889014.88 0.0136 0.0007
 Mercury -72856-10-31 14:52 J -24888927.01 -24888926.88 -24888926.75 0.0136 0.0024
 Mercury -72855-01-27 17:59 J -24888838.87 -24888838.75 -24888838.62 0.0136 0.0041
 Mercury -72855-04-25 21:06 J -24888750.73 -24888750.62 -24888750.50 0.0136 0.0058
 Mercury -72855-07-23 00:28 J -24888662.59 -24888662.48 -24888662.37 0.0137 0.0075
 Mercury -72855-10-19 03:21 J -24888574.44 -24888574.36 -24888574.25 0.0137 0.0093
 Mercury -72854-01-15 06:42 J -24888486.29 -24888486.22 -24888486.14 0.0137 0.0110
 Mercury -72854-04-13 10:04 J -24888398.13 -24888398.08 -24888398.03 0.0137 0.0127
 Earth -72841-07-04 09:21 J -24883567.20 -24883567.11 -24883566.97 0.0145 0.0129
 Moon -72841-07-04 12:13 J -24883567.11 -24883566.99 -24883566.86 0.0145 0.0123 *
 Moon -72840-07-09 03:49 J -24883197.55 -24883197.34 -24883197.10 0.0145 0.0068
 Earth -72840-07-09 06:28 J -24883197.44 -24883197.23 -24883196.99 0.0145 0.0065 *
 Earth -72839-07-14 04:33 J -24882827.56 -24882827.31 -24882827.06 0.0146 0.0002
 Moon -72839-07-14 06:28 J -24882827.47 -24882827.23 -24882826.99 0.0146 0.0003 *

Moon -72838-07-19 02:09 J -24882457.63 -24882457.41 -24882457.18 0.0146 0.0071
 Earth -72838-07-19 03:21 J -24882457.57 -24882457.36 -24882457.12 0.0146 0.0065 *
 Earth -72837-07-23 03:06 J -24882087.46 -24882087.37 -24882087.24 0.0146 0.0132
 Moon -72837-07-23 04:18 J -24882087.44 -24882087.32 -24882087.19 0.0146 0.0125 *
 Venus -72826-11-15 13:25 J -24877955.05 -24877954.94 -24877954.82 0.0147 0.0125
 Venus -72825-06-29 04:47 J -24877728.50 -24877728.30 -24877728.09 0.0146 0.0054
 Mars -72825-09-14 19:25 J -24877651.00 -24877650.69 -24877650.35 0.0146 0.0051
 Venus -72824-02-10 20:09 J -24877501.88 -24877501.66 -24877501.44 0.0146 0.0018
 Venus -72824-09-25 11:16 J -24877275.20 -24877275.03 -24877274.85 0.0146 0.0088
 Mars -72823-08-24 18:28 J -24876942.02 -24876941.73 -24876941.41 0.0146 0.0071
 Mercury -72818-07-13 02:23 J -24875158.42 -24875158.40 -24875158.37 0.0143 0.0142
 Mercury -72818-10-09 10:47 J -24875070.16 -24875070.05 -24875069.92 0.0143 0.0112
 Mercury -72817-01-05 19:11 J -24874981.85 -24874981.70 -24874981.53 0.0143 0.0083
 Mercury -72817-04-03 03:49 J -24874893.52 -24874893.34 -24874893.16 0.0143 0.0054
 Mercury -72817-06-30 12:13 J -24874805.18 -24874804.99 -24874804.80 0.0143 0.0025
 Mercury -72817-09-26 20:37 J -24874716.84 -24874716.64 -24874716.45 0.0143 0.0005
 Mercury -72817-12-24 04:47 J -24874628.49 -24874628.30 -24874628.11 0.0142 0.0032
 Mercury -72816-03-22 12:57 J -24874540.13 -24874539.96 -24874539.78 0.0142 0.0061
 Mercury -72816-06-18 20:52 J -24874451.76 -24874451.63 -24874451.46 0.0142 0.0090
 Mercury -72816-09-15 05:01 J -24874363.38 -24874363.29 -24874363.17 0.0142 0.0117
 Earth -72801-01-07 06:57 J -24869136.24 -24869136.21 -24869136.15 0.0134 0.0132
 Moon -72801-01-07 07:40 J -24869136.24 -24869136.18 -24869136.06 0.0134 0.0127 *
 Moon -72800-01-10 17:01 J -24868766.96 -24868766.79 -24868766.58 0.0134 0.0087
 Earth -72800-01-10 18:42 J -24868766.91 -24868766.72 -24868766.50 0.0134 0.0080 *
 Earth -72799-01-15 05:45 J -24868397.51 -24868397.26 -24868397.01 0.0133 0.0028
 Moon -72799-01-15 06:57 J -24868397.47 -24868397.21 -24868396.94 0.0133 0.0022 *
 Moon -72798-01-19 13:40 J -24868028.17 -24868027.93 -24868027.68 0.0133 0.0021
 Earth -72798-01-19 15:35 J -24868028.10 -24868027.85 -24868027.59 0.0133 0.0024 *
 Earth -72797-01-24 00:28 J -24867658.67 -24867658.48 -24867658.25 0.0133 0.0075
 Moon -72797-01-24 02:52 J -24867658.59 -24867658.38 -24867658.15 0.0133 0.0075 *

Moon -72796-01-27 07:11 J -24867289.25 -24867289.20 -24867289.11 0.0132 0.0126
 Earth -72796-01-27 09:35 J -24867289.19 -24867289.10 -24867289.01 0.0132 0.0124 *
 Mars -72782-01-06 15:06 J -24862197.08 -24862196.87 -24862196.62 0.0132 0.0074
 Venus -72782-04-03 08:52 J -24862110.26 -24862110.13 -24862109.97 0.0132 0.0097
 Venus -72782-11-15 11:59 J -24861884.19 -24861884.00 -24861883.79 0.0132 0.0048
 Venus -72781-06-28 15:06 J -24861658.08 -24861657.87 -24861657.66 0.0132 0.0002
 Mars -72781-12-04 18:57 J -24861498.98 -24861498.71 -24861498.43 0.0133 0.0005
 Venus -72780-02-09 17:59 J -24861431.94 -24861431.75 -24861431.55 0.0133 0.0052
 Venus -72780-09-23 20:52 J -24861205.75 -24861205.63 -24861205.48 0.0133 0.0102
 Mars -72779-11-02 22:47 J -24860800.78 -24860800.55 -24860800.30 0.0133 0.0065
 Mercury -72774-09-19 18:13 J -24859018.79 -24859018.74 -24859018.68 0.0135 0.0122
 Mercury -72774-12-16 21:06 J -24858930.69 -24858930.62 -24858930.53 0.0135 0.0106
 Mercury -72773-03-14 00:13 J -24858842.58 -24858842.49 -24858842.39 0.0135 0.0090
 Mercury -72773-06-10 03:21 J -24858754.47 -24858754.36 -24858754.25 0.0136 0.0073
 Mercury -72773-09-06 06:28 J -24858666.35 -24858666.23 -24858666.11 0.0136 0.0057
 Mercury -72773-12-03 09:35 J -24858578.22 -24858578.10 -24858577.97 0.0136 0.0040
 Mercury -72772-03-01 12:42 J -24858490.10 -24858489.97 -24858489.84 0.0136 0.0023
 Mercury -72772-05-28 15:49 J -24858401.97 -24858401.84 -24858401.71 0.0136 0.0007
 Mercury -72772-08-24 18:57 J -24858313.84 -24858313.71 -24858313.58 0.0136 0.0011
 Mercury -72772-11-20 22:04 J -24858225.71 -24858225.58 -24858225.45 0.0136 0.0028
 Mercury -72771-02-17 01:11 J -24858137.57 -24858137.45 -24858137.32 0.0136 0.0045
 Mercury -72771-05-16 04:18 J -24858049.43 -24858049.32 -24858049.19 0.0137 0.0063
 Mercury -72771-08-12 07:25 J -24857961.29 -24857961.19 -24857961.07 0.0137 0.0080
 Mercury -72771-11-08 10:47 J -24857873.14 -24857873.05 -24857872.95 0.0137 0.0097
 Mercury -72770-02-04 14:09 J -24857784.98 -24857784.91 -24857784.84 0.0137 0.0114
 Mercury -72770-05-03 17:16 J -24857696.81 -24857696.78 -24857696.74 0.0137 0.0132
 Earth -72757-07-04 21:49 J -24852885.69 -24852885.59 -24852885.44 0.0145 0.0125
 Moon -72757-07-05 01:11 J -24852885.53 -24852885.45 -24852885.33 0.0145 0.0132 *
 Moon -72756-07-09 16:33 J -24852516.04 -24852515.81 -24852515.57 0.0145 0.0058
 Earth -72756-07-09 18:57 J -24852515.92 -24852515.71 -24852515.47 0.0145 0.0062 *

Earth -72755-07-14 17:16 J -24852146.03 -24852145.78 -24852145.53 0.0146 0.0004
 Moon -72755-07-14 19:40 J -24852145.93 -24852145.68 -24852145.44 0.0146 0.0006 *
 Moon -72754-07-19 14:09 J -24851776.13 -24851775.91 -24851775.67 0.0146 0.0065
 Earth -72754-07-19 16:18 J -24851776.04 -24851775.82 -24851775.60 0.0146 0.0070 *
 Earth -72753-07-23 15:49 J -24851405.91 -24851405.84 -24851405.74 0.0146 0.0137
 Moon -72753-07-23 16:47 J -24851405.82 -24851405.80 -24851405.75 0.0146 0.0145 *
 Mars -72742-06-04 00:13 J -24847438.66 -24847438.49 -24847438.29 0.0147 0.0124
 Venus -72741-02-27 09:35 J -24847170.26 -24847170.10 -24847169.90 0.0146 0.0088
 Venus -72741-10-11 01:11 J -24846943.67 -24846943.45 -24846943.22 0.0146 0.0016
 Mars -72740-05-13 01:40 J -24846729.78 -24846729.43 -24846729.09 0.0146 0.0001
 Venus -72740-05-25 16:18 J -24846717.02 -24846716.82 -24846716.61 0.0146 0.0055
 Venus -72739-01-07 07:11 J -24846490.29 -24846490.20 -24846490.07 0.0146 0.0126
 Mars -72738-04-21 21:21 J -24846020.77 -24846020.61 -24846020.39 0.0145 0.0121
 Mercury -72734-08-02 09:35 J -24844457.15 -24844457.10 -24844457.03 0.0143 0.0135
 Mercury -72734-10-29 17:59 J -24844368.87 -24844368.75 -24844368.61 0.0143 0.0106
 Mercury -72733-01-26 02:23 J -24844280.55 -24844280.40 -24844280.22 0.0143 0.0077
 Mercury -72733-04-23 11:01 J -24844192.22 -24844192.04 -24844191.85 0.0143 0.0048
 Mercury -72733-07-20 19:25 J -24844103.88 -24844103.69 -24844103.50 0.0143 0.0019
 Mercury -72733-10-17 03:49 J -24844015.54 -24844015.34 -24844015.15 0.0143 0.0010
 Mercury -72732-01-13 11:59 J -24843927.18 -24843927.00 -24843926.81 0.0142 0.0038
 Mercury -72732-04-11 20:09 J -24843838.82 -24843838.66 -24843838.48 0.0142 0.0067
 Mercury -72732-07-09 04:04 J -24843750.46 -24843750.33 -24843750.17 0.0142 0.0095
 Mercury -72732-10-05 12:13 J -24843662.07 -24843661.99 -24843661.88 0.0142 0.0123
 Earth -72717-01-07 15:35 J -24838454.90 -24838454.85 -24838454.78 0.0134 0.0130
 Moon -72716-01-11 02:52 J -24838085.58 -24838085.38 -24838085.16 0.0134 0.0072
 Earth -72716-01-11 03:21 J -24838085.56 -24838085.36 -24838085.14 0.0134 0.0078 *
 Earth -72715-01-15 14:23 J -24837716.15 -24837715.90 -24837715.64 0.0133 0.0025
 Moon -72715-01-15 15:35 J -24837716.10 -24837715.85 -24837715.58 0.0133 0.0031 *
 Moon -72714-01-19 23:16 J -24837346.77 -24837346.53 -24837346.28 0.0133 0.0031
 Earth -72714-01-20 00:13 J -24837346.74 -24837346.49 -24837346.23 0.0133 0.0026 *

Earth -72713-01-24 09:21 J -24836977.30 -24836977.11 -24836976.88 0.0133 0.0078
 Moon -72713-01-24 11:01 J -24836977.25 -24836977.04 -24836976.82 0.0133 0.0076 *
 Moon -72712-01-27 16:18 J -24836607.88 -24836607.82 -24836607.73 0.0132 0.0125
 Earth -72712-01-27 17:45 J -24836607.80 -24836607.76 -24836607.66 0.0132 0.0128 *
 Mars -72700-10-02 07:54 J -24831977.31 -24831977.17 -24831977.03 0.0132 0.0114
 Venus -72699-12-01 20:09 J -24831551.74 -24831551.66 -24831551.57 0.0132 0.0120
 Venus -72698-07-15 23:01 J -24831325.71 -24831325.54 -24831325.36 0.0132 0.0071
 Mars -72698-08-31 11:16 J -24831279.29 -24831279.03 -24831278.77 0.0132 0.0046
 Venus -72697-02-27 01:54 J -24831099.62 -24831099.42 -24831099.20 0.0132 0.0023
 Venus -72697-10-10 05:01 J -24830873.50 -24830873.29 -24830873.08 0.0133 0.0028
 Venus -72696-05-24 07:54 J -24830647.34 -24830647.17 -24830647.00 0.0133 0.0077
 Mars -72696-07-29 14:09 J -24830581.18 -24830580.91 -24830580.64 0.0133 0.0024
 Venus -72695-01-05 10:47 J -24830421.10 -24830421.05 -24830420.98 0.0133 0.0127
 Mars -72694-06-27 19:11 J -24829882.87 -24829882.70 -24829882.49 0.0134 0.0096
 Mercury -72690-10-10 01:11 J -24828317.50 -24828317.45 -24828317.38 0.0135 0.0119
 Mercury -72689-01-06 04:04 J -24828229.40 -24828229.33 -24828229.23 0.0135 0.0104
 Mercury -72689-04-03 07:25 J -24828141.29 -24828141.19 -24828141.09 0.0136 0.0087
 Mercury -72689-06-30 10:33 J -24828053.17 -24828053.06 -24828052.95 0.0136 0.0070
 Mercury -72689-09-26 13:25 J -24827965.05 -24827964.94 -24827964.81 0.0136 0.0054
 Mercury -72689-12-23 16:33 J -24827876.93 -24827876.81 -24827876.68 0.0136 0.0037
 Mercury -72688-03-21 19:54 J -24827788.80 -24827788.67 -24827788.54 0.0136 0.0020
 Mercury -72688-06-17 23:01 J -24827700.67 -24827700.54 -24827700.41 0.0136 0.0004
 Mercury -72688-09-14 02:09 J -24827612.54 -24827612.41 -24827612.28 0.0136 0.0014
 Mercury -72688-12-11 05:16 J -24827524.41 -24827524.28 -24827524.15 0.0136 0.0031
 Mercury -72687-03-09 08:23 J -24827436.27 -24827436.15 -24827436.02 0.0137 0.0048
 Mercury -72687-06-05 11:30 J -24827348.13 -24827348.02 -24827347.90 0.0137 0.0066
 Mercury -72687-09-01 14:52 J -24827259.99 -24827259.88 -24827259.78 0.0137 0.0083
 Mercury -72687-11-28 17:45 J -24827171.84 -24827171.76 -24827171.66 0.0137 0.0101
 Mercury -72686-02-24 21:06 J -24827083.68 -24827083.62 -24827083.55 0.0137 0.0118
 Mercury -72686-05-24 00:28 J -24826995.49 -24826995.48 -24826995.46 0.0137 0.0136

Earth -72673-07-05 09:06 J -24822204.24 -24822204.12 -24822203.98 0.0145 0.0122
 Moon -72673-07-05 12:28 J -24822204.13 -24822203.98 -24822203.84 0.0145 0.0116 *
 Moon -72672-07-10 02:52 J -24821834.60 -24821834.38 -24821834.14 0.0145 0.0062
 Earth -72672-07-10 06:13 J -24821834.46 -24821834.24 -24821834.00 0.0145 0.0058 *
 Earth -72671-07-15 04:33 J -24821464.56 -24821464.31 -24821464.06 0.0146 0.0008
 Moon -72671-07-15 07:11 J -24821464.44 -24821464.20 -24821463.96 0.0146 0.0007 *
 Moon -72670-07-20 00:57 J -24821094.66 -24821094.46 -24821094.23 0.0146 0.0080
 Earth -72670-07-20 03:21 J -24821094.57 -24821094.36 -24821094.14 0.0146 0.0074 *
 Earth -72669-07-24 02:52 J -24820724.42 -24820724.38 -24820724.29 0.0146 0.0142
 Moon -72669-07-24 05:01 J -24820724.37 -24820724.29 -24820724.18 0.0146 0.0135 *
 Venus -72658-10-27 14:37 J -24816611.99 -24816611.89 -24816611.74 0.0146 0.0121
 Mars -72657-01-30 06:13 J -24816517.53 -24816517.24 -24816516.93 0.0146 0.0074
 Venus -72657-06-10 06:13 J -24816385.44 -24816385.24 -24816385.02 0.0146 0.0049
 Venus -72656-01-22 21:35 J -24816158.82 -24816158.60 -24816158.37 0.0146 0.0022
 Venus -72656-09-06 12:42 J -24815932.14 -24815931.97 -24815931.79 0.0146 0.0092
 Mars -72655-01-08 05:45 J -24815808.57 -24815808.26 -24815807.92 0.0146 0.0051
 Mercury -72650-08-22 17:16 J -24813755.86 -24813755.78 -24813755.70 0.0143 0.0129
 Mercury -72650-11-19 01:40 J -24813667.57 -24813667.43 -24813667.29 0.0143 0.0099
 Mercury -72649-02-15 10:04 J -24813579.25 -24813579.08 -24813578.91 0.0143 0.0070
 Mercury -72649-05-13 18:28 J -24813490.91 -24813490.73 -24813490.54 0.0143 0.0041
 Mercury -72649-08-10 02:52 J -24813402.57 -24813402.38 -24813402.19 0.0143 0.0012
 Mercury -72649-11-06 11:16 J -24813314.22 -24813314.03 -24813313.84 0.0142 0.0017
 Mercury -72648-02-02 19:11 J -24813225.87 -24813225.70 -24813225.50 0.0142 0.0046
 Mercury -72648-05-02 03:35 J -24813137.51 -24813137.35 -24813137.18 0.0142 0.0073
 Mercury -72648-07-29 11:45 J -24813049.14 -24813049.01 -24813048.87 0.0142 0.0101
 Mercury -72648-10-25 19:54 J -24812960.74 -24812960.67 -24812960.59 0.0142 0.0129
 Jupiter -72644-08-03 10:18 J -24811583.39 -24811583.07 -24811582.69 0.0140 0.0105
 Moon -72633-01-08 00:13 J -24807773.57 -24807773.49 -24807773.37 0.0134 0.0124
 Earth -72633-01-08 00:57 J -24807773.52 -24807773.46 -24807773.38 0.0134 0.0129 *
 Moon -72632-01-11 11:59 J -24807404.17 -24807404.00 -24807403.78 0.0134 0.0083

Earth -72632-01-11 12:28 J -24807404.17 -24807403.98 -24807403.75 0.0134 0.0076 *
 Moon -72631-01-15 23:30 J -24807034.78 -24807034.52 -24807034.25 0.0133 0.0017
 Earth -72631-01-15 23:30 J -24807034.77 -24807034.52 -24807034.26 0.0133 0.0023 *
 Moon -72630-01-20 08:52 J -24806665.37 -24806665.13 -24806664.88 0.0133 0.0025
 Earth -72630-01-20 09:35 J -24806665.35 -24806665.10 -24806664.84 0.0133 0.0029 *
 Earth -72629-01-24 18:28 J -24806295.91 -24806295.73 -24806295.50 0.0133 0.0081
 Moon -72629-01-24 19:40 J -24806295.88 -24806295.68 -24806295.46 0.0133 0.0082 *
 Moon -72628-01-28 02:23 J -24805926.41 -24805926.40 -24805926.36 0.0132 0.0132
 Earth -72628-01-28 03:06 J -24805926.39 -24805926.37 -24805926.31 0.0132 0.0131 *
 Mars -72615-05-27 02:23 J -24801059.59 -24801059.40 -24801059.17 0.0132 0.0087
 Venus -72614-03-15 09:21 J -24800767.24 -24800767.11 -24800766.95 0.0132 0.0096
 Venus -72614-10-27 12:28 J -24800541.17 -24800540.98 -24800540.78 0.0132 0.0047
 Mars -72613-04-24 04:47 J -24800361.57 -24800361.30 -24800361.02 0.0132 0.0017
 Venus -72613-06-09 15:35 J -24800315.07 -24800314.85 -24800314.64 0.0132 0.0004
 Venus -72612-01-21 18:28 J -24800088.92 -24800088.73 -24800088.53 0.0133 0.0052
 Venus -72612-09-04 21:06 J -24799862.74 -24799862.62 -24799862.47 0.0133 0.0102
 Mars -72611-03-23 08:52 J -24799663.38 -24799663.13 -24799662.87 0.0133 0.0054
 Mars -72609-02-19 16:18 J -24798964.89 -24798964.82 -24798964.71 0.0134 0.0126
 Mercury -72606-08-03 05:01 J -24797704.30 -24797704.29 -24797704.27 0.0135 0.0134
 Mercury -72606-10-30 07:54 J -24797616.22 -24797616.17 -24797616.10 0.0135 0.0118
 Mercury -72605-01-26 11:16 J -24797528.12 -24797528.03 -24797527.95 0.0135 0.0101
 Mercury -72605-04-23 14:09 J -24797440.01 -24797439.91 -24797439.80 0.0136 0.0085
 Mercury -72605-07-20 17:16 J -24797351.89 -24797351.78 -24797351.66 0.0136 0.0068
 Mercury -72605-10-16 20:23 J -24797263.77 -24797263.65 -24797263.52 0.0136 0.0051
 Mercury -72604-01-12 23:30 J -24797175.64 -24797175.52 -24797175.39 0.0136 0.0035
 Mercury -72604-04-11 02:37 J -24797087.52 -24797087.39 -24797087.26 0.0136 0.0018
 Mercury -72604-07-08 05:45 J -24796999.39 -24796999.26 -24796999.12 0.0136 0.0004
 Mercury -72604-10-04 08:52 J -24796911.26 -24796911.13 -24796910.99 0.0136 0.0017
 Mercury -72604-12-31 12:13 J -24796823.12 -24796822.99 -24796822.87 0.0136 0.0034
 Mercury -72603-03-29 15:21 J -24796734.98 -24796734.86 -24796734.74 0.0137 0.0051

Mercury -72603-06-25 18:28 J -24796646.84 -24796646.73 -24796646.61 0.0137 0.0068

Mercury -72603-09-21 21:35 J -24796558.70 -24796558.60 -24796558.49 0.0137 0.0085

Mercury -72603-12-19 00:42 J -24796470.55 -24796470.47 -24796470.37 0.0137 0.0103

Mercury -72602-03-17 04:04 J -24796382.39 -24796382.33 -24796382.26 0.0137 0.0120

Earth -72589-07-05 17:30 J -24791522.88 -24791522.77 -24791522.61 0.0145 0.0121

Moon -72589-07-05 21:21 J -24791522.71 -24791522.61 -24791522.48 0.0145 0.0128 *

Moon -72588-07-10 11:45 J -24791153.24 -24791153.01 -24791152.77 0.0145 0.0052

Earth -72588-07-10 14:52 J -24791153.10 -24791152.88 -24791152.64 0.0145 0.0056 *

Earth -72587-07-15 12:57 J -24790783.21 -24790782.96 -24790782.71 0.0146 0.0010

Moon -72587-07-15 16:04 J -24790783.07 -24790782.83 -24790782.58 0.0146 0.0011 *

Moon -72586-07-20 08:37 J -24790413.34 -24790413.14 -24790412.90 0.0146 0.0073

Earth -72586-07-20 11:45 J -24790413.21 -24790413.01 -24790412.79 0.0146 0.0077 *

Earth -72585-07-24 11:16 J -24790043.05 -24790043.03 -24790042.97 0.0146 0.0144

Venus -72573-02-08 09:49 J -24785827.26 -24785827.09 -24785826.90 0.0146 0.0085

Venus -72573-09-22 01:11 J -24785600.67 -24785600.45 -24785600.22 0.0146 0.0014

Mars -72573-09-26 06:42 J -24785596.56 -24785596.22 -24785595.87 0.0146 0.0024

Venus -72572-05-06 16:18 J -24785374.02 -24785373.82 -24785373.61 0.0146 0.0057

Venus -72572-12-19 07:25 J -24785147.29 -24785147.19 -24785147.07 0.0146 0.0127

Mars -72571-09-05 05:01 J -24784887.52 -24784887.29 -24784887.02 0.0146 0.0101

Mercury -72566-09-11 23:59 J -24783054.59 -24783054.50 -24783054.39 0.0143 0.0123

Mercury -72566-12-09 08:23 J -24782966.28 -24782966.15 -24782965.99 0.0143 0.0094

Mercury -72565-03-06 17:01 J -24782877.96 -24782877.79 -24782877.61 0.0143 0.0065

Mercury -72565-06-03 01:25 J -24782789.62 -24782789.44 -24782789.25 0.0143 0.0036

Mercury -72565-08-30 09:49 J -24782701.28 -24782701.09 -24782700.89 0.0143 0.0007

Mercury -72565-11-26 18:13 J -24782612.93 -24782612.74 -24782612.55 0.0142 0.0022

Mercury -72564-02-23 02:23 J -24782524.58 -24782524.40 -24782524.21 0.0142 0.0050

Mercury -72564-05-22 10:47 J -24782436.21 -24782436.05 -24782435.89 0.0142 0.0079

Mercury -72564-08-18 18:28 J -24782347.84 -24782347.73 -24782347.58 0.0142 0.0107

Mercury -72564-11-15 03:06 J -24782259.43 -24782259.37 -24782259.31 0.0142 0.0134

Earth -72549-01-08 08:52 J -24777092.19 -24777092.13 -24777092.03 0.0134 0.0127

Moon -72549-01-08 08:23 J -24777092.17 -24777092.15 -24777092.09 0.0134 0.0132 *
 Earth -72548-01-11 20:52 J -24776722.84 -24776722.63 -24776722.41 0.0134 0.0074
 Moon -72548-01-11 21:35 J -24776722.80 -24776722.60 -24776722.37 0.0134 0.0068 *
 Moon -72547-01-16 07:25 J -24776353.44 -24776353.19 -24776352.92 0.0133 0.0027
 Earth -72547-01-16 07:40 J -24776353.43 -24776353.18 -24776352.92 0.0133 0.0021 *
 Earth -72546-01-20 17:45 J -24775984.01 -24775983.76 -24775983.51 0.0133 0.0031
 Moon -72546-01-20 17:45 J -24775983.99 -24775983.76 -24775983.51 0.0133 0.0037 *
 Moon -72545-01-25 02:52 J -24775614.59 -24775614.38 -24775614.16 0.0133 0.0080
 Earth -72545-01-25 02:52 J -24775614.57 -24775614.38 -24775614.17 0.0133 0.0083 *
 Moon -72544-01-28 10:47 J -24775245.05 -24775245.05 -24775245.04 0.0132 0.0132
 Mars -72532-02-19 16:47 J -24770839.85 -24770839.80 -24770839.74 0.0132 0.0129
 Venus -72531-11-12 19:11 J -24770208.77 -24770208.70 -24770208.61 0.0132 0.0121
 Mars -72530-01-18 18:28 J -24770141.96 -24770141.73 -24770141.47 0.0132 0.0060
 Venus -72530-06-26 22:04 J -24769982.75 -24769982.58 -24769982.40 0.0132 0.0072
 Venus -72529-02-08 00:57 J -24769756.66 -24769756.46 -24769756.24 0.0132 0.0024
 Venus -72529-09-21 03:49 J -24769530.54 -24769530.34 -24769530.13 0.0132 0.0026
 Mars -72529-12-16 20:37 J -24769443.91 -24769443.64 -24769443.36 0.0133 0.0011
 Venus -72528-05-05 06:28 J -24769304.39 -24769304.23 -24769304.04 0.0133 0.0076
 Venus -72528-12-17 09:21 J -24769078.16 -24769078.11 -24769078.02 0.0133 0.0125
 Mars -72527-11-15 01:40 J -24768745.64 -24768745.43 -24768745.21 0.0133 0.0083
 Mercury -72522-08-23 11:45 J -24767003.03 -24767003.01 -24767002.99 0.0135 0.0133
 Mercury -72522-11-19 14:37 J -24766914.95 -24766914.89 -24766914.82 0.0135 0.0116
 Mercury -72521-02-15 17:30 J -24766826.85 -24766826.77 -24766826.67 0.0135 0.0101
 Mercury -72521-05-13 20:37 J -24766738.73 -24766738.64 -24766738.53 0.0135 0.0084
 Mercury -72521-08-09 23:59 J -24766650.62 -24766650.50 -24766650.39 0.0136 0.0067
 Mercury -72521-11-06 02:52 J -24766562.50 -24766562.38 -24766562.25 0.0136 0.0051
 Mercury -72520-02-02 05:59 J -24766474.37 -24766474.25 -24766474.12 0.0136 0.0034
 Mercury -72520-05-01 09:21 J -24766386.25 -24766386.11 -24766385.98 0.0136 0.0017
 Mercury -72520-07-28 12:28 J -24766298.12 -24766297.98 -24766297.85 0.0136 0.0004
 Mercury -72520-10-24 15:35 J -24766209.98 -24766209.85 -24766209.72 0.0136 0.0017

Mercury -72519-01-20 18:42 J -24766121.85 -24766121.72 -24766121.59 0.0136 0.0034

Mercury -72519-04-18 21:49 J -24766033.71 -24766033.59 -24766033.47 0.0136 0.0051

Mercury -72519-07-16 00:57 J -24765945.57 -24765945.46 -24765945.34 0.0137 0.0069

Mercury -72519-10-12 04:18 J -24765857.43 -24765857.32 -24765857.22 0.0137 0.0086

Mercury -72518-01-08 07:11 J -24765769.27 -24765769.20 -24765769.10 0.0137 0.0104

Mercury -72518-04-06 10:33 J -24765681.11 -24765681.06 -24765680.99 0.0137 0.0121

Earth -72505-07-05 22:47 J -24760841.66 -24760841.55 -24760841.39 0.0145 0.0122

Moon -72505-07-06 02:23 J -24760841.54 -24760841.40 -24760841.24 0.0145 0.0115 *

Moon -72504-07-10 16:18 J -24760472.03 -24760471.82 -24760471.58 0.0145 0.0061

Earth -72504-07-10 20:09 J -24760471.88 -24760471.66 -24760471.42 0.0145 0.0056 *

Earth -72503-07-15 17:59 J -24760101.99 -24760101.75 -24760101.49 0.0146 0.0010

Moon -72503-07-15 21:35 J -24760101.85 -24760101.60 -24760101.36 0.0146 0.0011 *

Moon -72502-07-20 13:25 J -24759732.13 -24759731.94 -24759731.71 0.0146 0.0082

Earth -72502-07-20 16:47 J -24759732.00 -24759731.80 -24759731.58 0.0146 0.0077 *

Earth -72501-07-24 16:04 J -24759361.84 -24759361.83 -24759361.77 0.0146 0.0146

Moon -72501-07-24 19:11 J -24759361.76 -24759361.70 -24759361.60 0.0146 0.0139

Mars -72490-06-14 18:57 J -24755384.94 -24755384.71 -24755384.45 0.0147 0.0104

Venus -72490-10-08 10:47 J -24755269.16 -24755269.05 -24755268.93 0.0147 0.0124

Venus -72489-05-22 01:54 J -24755042.62 -24755042.42 -24755042.20 0.0146 0.0054

Venus -72488-01-03 17:30 J -24754816.00 -24754815.77 -24754815.55 0.0146 0.0018

Mars -72488-05-23 20:52 J -24754675.97 -24754675.63 -24754675.29 0.0146 0.0023

Venus -72488-08-18 08:23 J -24754589.31 -24754589.15 -24754588.96 0.0146 0.0088

Mercury -72482-10-02 05:59 J -24752353.35 -24752353.25 -24752353.14 0.0143 0.0122

Mercury -72482-12-29 14:23 J -24752265.04 -24752264.90 -24752264.74 0.0143 0.0092

Mercury -72481-03-26 23:01 J -24752176.71 -24752176.54 -24752176.37 0.0143 0.0063

Mercury -72481-06-23 07:25 J -24752088.38 -24752088.19 -24752088.00 0.0143 0.0034

Mercury -72481-09-19 15:49 J -24752000.03 -24751999.84 -24751999.65 0.0143 0.0005

Mercury -72481-12-17 00:13 J -24751911.68 -24751911.49 -24751911.30 0.0142 0.0024

Mercury -72480-03-15 08:23 J -24751823.33 -24751823.15 -24751822.97 0.0142 0.0052

Mercury -72480-06-11 16:18 J -24751734.96 -24751734.82 -24751734.64 0.0142 0.0082

Mercury -72480-09-08 00:42 J -24751646.58 -24751646.47 -24751646.34 0.0142 0.0109
 Mercury -72480-12-05 08:37 J -24751558.17 -24751558.14 -24751558.07 0.0142 0.0137
 Moon -72465-01-08 14:37 J -24746410.98 -24746410.89 -24746410.76 0.0134 0.0122
 Earth -72465-01-08 16:33 J -24746410.87 -24746410.81 -24746410.70 0.0134 0.0126 *
 Earth -72464-01-12 04:18 J -24746041.52 -24746041.32 -24746041.08 0.0134 0.0073
 Moon -72464-01-12 05:45 J -24746041.46 -24746041.26 -24746041.06 0.0134 0.0079 *
 Moon -72463-01-16 14:09 J -24745672.17 -24745671.91 -24745671.64 0.0133 0.0013
 Earth -72463-01-16 15:35 J -24745672.11 -24745671.85 -24745671.59 0.0133 0.0019 *
 Earth -72462-01-21 01:25 J -24745302.68 -24745302.44 -24745302.18 0.0133 0.0034
 Moon -72462-01-21 02:09 J -24745302.64 -24745302.41 -24745302.15 0.0133 0.0029 *
 Moon -72461-01-25 10:04 J -24744933.26 -24744933.08 -24744932.86 0.0133 0.0088
 Earth -72461-01-25 10:47 J -24744933.24 -24744933.05 -24744932.85 0.0133 0.0085 *
 Mars -72448-10-14 09:06 J -24739922.29 -24739922.12 -24739921.94 0.0132 0.0102
 Venus -72446-02-24 08:09 J -24739424.30 -24739424.16 -24739424.01 0.0132 0.0097
 Mars -72446-09-12 10:33 J -24739224.32 -24739224.06 -24739223.79 0.0132 0.0032
 Venus -72446-10-08 11:01 J -24739198.24 -24739198.04 -24739197.84 0.0132 0.0048
 Venus -72445-05-21 13:40 J -24738972.14 -24738971.93 -24738971.71 0.0132 0.0003
 Venus -72444-01-02 16:33 J -24738746.00 -24738745.81 -24738745.61 0.0132 0.0050
 Mars -72444-08-10 14:09 J -24738526.17 -24738525.91 -24738525.64 0.0133 0.0040
 Venus -72444-08-16 19:25 J -24738519.82 -24738519.69 -24738519.54 0.0133 0.0099
 Mars -72442-07-09 19:25 J -24737827.83 -24737827.69 -24737827.54 0.0133 0.0112
 Mercury -72438-09-12 18:13 J -24736301.76 -24736301.74 -24736301.71 0.0135 0.0131
 Mercury -72438-12-09 21:06 J -24736213.67 -24736213.62 -24736213.54 0.0135 0.0115
 Mercury -72437-03-07 00:28 J -24736125.57 -24736125.48 -24736125.39 0.0135 0.0099
 Mercury -72437-06-03 03:21 J -24736037.46 -24736037.36 -24736037.25 0.0135 0.0082
 Mercury -72437-08-30 06:28 J -24735949.34 -24735949.23 -24735949.11 0.0136 0.0066
 Mercury -72437-11-26 09:35 J -24735861.22 -24735861.10 -24735860.97 0.0136 0.0049
 Mercury -72436-02-22 12:42 J -24735773.10 -24735772.97 -24735772.84 0.0136 0.0032
 Mercury -72436-05-21 15:49 J -24735684.97 -24735684.84 -24735684.71 0.0136 0.0016
 Mercury -72436-08-17 18:57 J -24735596.84 -24735596.71 -24735596.58 0.0136 0.0002

Mercury -72436-11-13 22:04 J -24735508.71 -24735508.58 -24735508.45 0.0136 0.0019

Mercury -72435-02-10 01:11 J -24735420.57 -24735420.45 -24735420.32 0.0136 0.0036

Mercury -72435-05-09 04:33 J -24735332.44 -24735332.31 -24735332.19 0.0136 0.0053

Mercury -72435-08-05 07:40 J -24735244.30 -24735244.18 -24735244.07 0.0137 0.0070

Mercury -72435-11-01 10:33 J -24735156.15 -24735156.06 -24735155.95 0.0137 0.0088

Mercury -72434-01-28 13:54 J -24735068.00 -24735067.92 -24735067.83 0.0137 0.0105

Mercury -72434-04-26 17:16 J -24734979.84 -24734979.78 -24734979.72 0.0137 0.0122

Earth -72421-07-06 03:21 J -24730160.47 -24730160.36 -24730160.20 0.0145 0.0123

Moon -72421-07-06 07:11 J -24730160.29 -24730160.20 -24730160.08 0.0145 0.0130 *

Moon -72420-07-10 21:06 J -24729790.84 -24729790.62 -24729790.38 0.0145 0.0052

Earth -72420-07-11 00:28 J -24729790.70 -24729790.48 -24729790.24 0.0145 0.0057 *

Earth -72419-07-15 22:18 J -24729420.82 -24729420.57 -24729420.32 0.0146 0.0010

Moon -72419-07-16 01:54 J -24729420.67 -24729420.42 -24729420.17 0.0146 0.0010 *

Moon -72418-07-20 17:16 J -24729050.99 -24729050.78 -24729050.56 0.0146 0.0074

Earth -72418-07-20 20:37 J -24729050.84 -24729050.64 -24729050.41 0.0146 0.0077 *

Earth -72417-07-24 19:54 J -24728680.68 -24728680.67 -24728680.61 0.0146 0.0145

Venus -72405-01-20 01:54 J -24724484.58 -24724484.42 -24724484.24 0.0147 0.0094

Mars -72405-02-09 06:13 J -24724464.54 -24724464.24 -24724463.91 0.0147 0.0058

Venus -72405-09-02 17:16 J -24724257.99 -24724257.78 -24724257.55 0.0146 0.0023

Venus -72404-04-17 08:23 J -24724031.36 -24724031.15 -24724030.93 0.0146 0.0048

Venus -72404-11-29 23:30 J -24723804.65 -24723804.52 -24723804.38 0.0146 0.0117

Mars -72403-01-18 06:28 J -24723755.53 -24723755.23 -24723754.92 0.0146 0.0070

Mercury -72398-10-22 11:01 J -24721652.13 -24721652.04 -24721651.93 0.0143 0.0122

Mercury -72397-01-18 19:25 J -24721563.82 -24721563.69 -24721563.53 0.0143 0.0093

Mercury -72397-04-16 04:04 J -24721475.50 -24721475.33 -24721475.15 0.0143 0.0063

Mercury -72397-07-13 12:42 J -24721387.16 -24721386.97 -24721386.78 0.0143 0.0034

Mercury -72397-10-09 21:06 J -24721298.82 -24721298.62 -24721298.43 0.0143 0.0005

Mercury -72396-01-06 05:16 J -24721210.47 -24721210.28 -24721210.08 0.0142 0.0024

Mercury -72396-04-04 13:40 J -24721122.11 -24721121.93 -24721121.75 0.0142 0.0052

Mercury -72396-07-01 21:35 J -24721033.74 -24721033.60 -24721033.43 0.0142 0.0081

Mercury -72396-09-28 05:59 J -24720945.36 -24720945.25 -24720945.12 0.0142 0.0109

Mercury -72396-12-25 13:54 J -24720856.95 -24720856.92 -24720856.85 0.0142 0.0137

Moon -72381-01-08 20:09 J -24715729.70 -24715729.66 -24715729.58 0.0134 0.0131

Earth -72381-01-08 22:04 J -24715729.64 -24715729.58 -24715729.47 0.0134 0.0127 *

Earth -72380-01-12 10:18 J -24715360.28 -24715360.07 -24715359.85 0.0134 0.0072

Moon -72380-01-12 12:28 J -24715360.19 -24715359.98 -24715359.75 0.0134 0.0066 *

Moon -72379-01-16 19:40 J -24714990.94 -24714990.68 -24714990.41 0.0133 0.0025

Earth -72379-01-16 21:21 J -24714990.86 -24714990.61 -24714990.35 0.0133 0.0019 *

Earth -72378-01-21 07:25 J -24714621.43 -24714621.19 -24714620.93 0.0133 0.0035

Moon -72378-01-21 08:52 J -24714621.36 -24714621.13 -24714620.88 0.0133 0.0041 *

Moon -72377-01-25 14:52 J -24714252.08 -24714251.88 -24714251.66 0.0133 0.0083

Earth -72377-01-25 16:33 J -24714251.99 -24714251.81 -24714251.60 0.0133 0.0087 *

Mars -72363-06-08 00:13 J -24709004.70 -24709004.49 -24709004.24 0.0132 0.0075

Venus -72363-10-24 17:59 J -24708865.82 -24708865.75 -24708865.67 0.0132 0.0122

Venus -72362-06-07 20:37 J -24708639.81 -24708639.64 -24708639.45 0.0132 0.0074

Venus -72361-01-19 23:45 J -24708413.71 -24708413.51 -24708413.30 0.0132 0.0025

Mars -72361-05-06 03:35 J -24708306.62 -24708306.35 -24708306.07 0.0132 0.0004

Venus -72361-09-02 02:37 J -24708187.60 -24708187.39 -24708187.18 0.0132 0.0024

Venus -72360-04-16 05:16 J -24707961.45 -24707961.28 -24707961.09 0.0133 0.0074

Venus -72360-11-28 07:54 J -24707735.23 -24707735.17 -24707735.07 0.0133 0.0123

Mars -72359-04-04 07:54 J -24707608.39 -24707608.17 -24707607.92 0.0133 0.0069

Mercury -72354-10-03 00:57 J -24705600.49 -24705600.46 -24705600.41 0.0135 0.0129

Mercury -72354-12-30 04:18 J -24705512.39 -24705512.32 -24705512.25 0.0135 0.0113

Mercury -72353-03-27 07:11 J -24705424.29 -24705424.20 -24705424.10 0.0135 0.0096

Mercury -72353-06-23 10:18 J -24705336.17 -24705336.07 -24705335.96 0.0135 0.0080

Mercury -72353-09-19 13:25 J -24705248.06 -24705247.94 -24705247.82 0.0136 0.0063

Mercury -72353-12-16 16:33 J -24705159.93 -24705159.81 -24705159.69 0.0136 0.0047

Mercury -72352-03-14 19:40 J -24705071.81 -24705071.68 -24705071.55 0.0136 0.0030

Mercury -72352-06-10 22:47 J -24704983.68 -24704983.55 -24704983.42 0.0136 0.0013

Mercury -72352-09-07 01:54 J -24704895.55 -24704895.42 -24704895.29 0.0136 0.0004

Mercury -72352-12-04 05:01 J -24704807.42 -24704807.29 -24704807.16 0.0136 0.0021
 Mercury -72351-03-02 08:09 J -24704719.29 -24704719.16 -24704719.03 0.0136 0.0038
 Mercury -72351-05-29 11:16 J -24704631.15 -24704631.03 -24704630.91 0.0136 0.0055
 Mercury -72351-08-25 14:23 J -24704543.01 -24704542.90 -24704542.79 0.0137 0.0072
 Mercury -72351-11-21 17:30 J -24704454.86 -24704454.77 -24704454.67 0.0137 0.0090
 Mercury -72350-02-17 20:52 J -24704366.71 -24704366.63 -24704366.55 0.0137 0.0107
 Mercury -72350-05-16 23:45 J -24704278.55 -24704278.51 -24704278.44 0.0137 0.0125
 Earth -72337-07-06 11:01 J -24699479.15 -24699479.04 -24699478.88 0.0145 0.0122
 Moon -72337-07-06 14:23 J -24699479.04 -24699478.90 -24699478.73 0.0145 0.0114 *
 Moon -72336-07-11 04:18 J -24699109.54 -24699109.32 -24699109.09 0.0145 0.0061
 Earth -72336-07-11 07:40 J -24699109.39 -24699109.18 -24699108.93 0.0145 0.0056 *
 Earth -72335-07-16 05:16 J -24698739.52 -24698739.28 -24698739.02 0.0145 0.0012
 Moon -72335-07-16 08:52 J -24698739.38 -24698739.13 -24698738.88 0.0145 0.0013 *
 Moon -72334-07-20 23:59 J -24698369.69 -24698369.50 -24698369.28 0.0146 0.0083
 Earth -72334-07-21 03:35 J -24698369.55 -24698369.35 -24698369.13 0.0146 0.0079 *
 Moon -72333-07-25 06:42 J -24697999.28 -24697999.22 -24697999.15 0.0146 0.0141
 Mars -72323-10-27 21:06 J -24694252.73 -24694252.62 -24694252.50 0.0147 0.0137
 Venus -72322-09-19 03:06 J -24693926.45 -24693926.37 -24693926.27 0.0147 0.0133
 Venus -72321-05-02 18:13 J -24693699.93 -24693699.74 -24693699.53 0.0146 0.0063
 Mars -72321-10-05 21:35 J -24693543.94 -24693543.60 -24693543.25 0.0146 0.0009
 Venus -72321-12-15 09:35 J -24693473.32 -24693473.10 -24693472.87 0.0146 0.0008
 Venus -72320-07-30 00:42 J -24693246.65 -24693246.47 -24693246.27 0.0146 0.0079
 Mars -72319-09-14 18:57 J -24692834.88 -24692834.71 -24692834.48 0.0146 0.0119
 Mercury -72314-11-11 16:33 J -24690950.90 -24690950.81 -24690950.69 0.0143 0.0121
 Mercury -72313-02-08 01:25 J -24690862.59 -24690862.44 -24690862.29 0.0143 0.0091
 Mercury -72313-05-06 09:49 J -24690774.26 -24690774.09 -24690773.91 0.0143 0.0062
 Mercury -72313-08-02 18:13 J -24690685.92 -24690685.74 -24690685.54 0.0143 0.0033
 Mercury -72313-10-30 02:52 J -24690597.58 -24690597.38 -24690597.19 0.0143 0.0005
 Mercury -72312-01-26 11:01 J -24690509.23 -24690509.04 -24690508.85 0.0142 0.0025
 Mercury -72312-04-24 19:25 J -24690420.87 -24690420.69 -24690420.51 0.0142 0.0054

Mercury -72312-07-22 03:35 J -24690332.50 -24690332.35 -24690332.19 0.0142 0.0082
 Mercury -72312-10-18 11:45 J -24690244.12 -24690244.01 -24690243.88 0.0142 0.0110
 Mercury -72311-01-14 19:54 J -24690155.70 -24690155.67 -24690155.62 0.0142 0.0138
 Moon -72297-01-09 01:40 J -24685048.52 -24685048.43 -24685048.31 0.0134 0.0122
 Earth -72297-01-09 04:47 J -24685048.37 -24685048.30 -24685048.19 0.0134 0.0126 *
 Earth -72296-01-12 16:47 J -24684679.01 -24684678.80 -24684678.57 0.0134 0.0071
 Moon -72296-01-12 19:11 J -24684678.90 -24684678.70 -24684678.48 0.0134 0.0077 *
 Moon -72295-01-17 01:40 J -24684309.69 -24684309.43 -24684309.16 0.0133 0.0010
 Earth -72295-01-17 04:04 J -24684309.58 -24684309.33 -24684309.07 0.0133 0.0017 *
 Earth -72294-01-21 14:09 J -24683940.15 -24683939.91 -24683939.65 0.0133 0.0037
 Moon -72294-01-21 16:18 J -24683940.05 -24683939.82 -24683939.56 0.0133 0.0031 *
 Moon -72293-01-25 21:35 J -24683570.78 -24683570.60 -24683570.40 0.0133 0.0093
 Earth -72293-01-25 23:30 J -24683570.70 -24683570.52 -24683570.32 0.0133 0.0089 *
 Mars -72280-03-03 16:18 J -24678784.94 -24678784.82 -24678784.68 0.0132 0.0117
 Mars -72278-01-30 19:25 J -24678086.93 -24678086.69 -24678086.41 0.0132 0.0046
 Venus -72278-02-05 07:11 J -24678081.33 -24678081.20 -24678081.05 0.0132 0.0098
 Venus -72278-09-19 10:04 J -24677855.27 -24677855.08 -24677854.88 0.0132 0.0050
 Venus -72277-05-02 13:11 J -24677629.17 -24677628.95 -24677628.74 0.0132 0.0002
 Venus -72277-12-14 15:49 J -24677403.03 -24677402.84 -24677402.63 0.0133 0.0049
 Mars -72277-12-28 23:01 J -24677388.81 -24677388.54 -24677388.26 0.0133 0.0026
 Venus -72276-07-28 18:42 J -24677176.85 -24677176.72 -24677176.57 0.0133 0.0098
 Mars -72275-11-27 02:37 J -24676690.56 -24676690.39 -24676690.19 0.0133 0.0100
 Mercury -72270-10-23 08:09 J -24674899.20 -24674899.16 -24674899.11 0.0135 0.0126
 Mercury -72269-01-19 11:01 J -24674811.10 -24674811.04 -24674810.95 0.0135 0.0110
 Mercury -72269-04-16 14:09 J -24674723.00 -24674722.91 -24674722.81 0.0135 0.0094
 Mercury -72269-07-13 17:16 J -24674634.88 -24674634.78 -24674634.67 0.0135 0.0077
 Mercury -72269-10-09 20:23 J -24674546.76 -24674546.65 -24674546.53 0.0136 0.0060
 Mercury -72268-01-05 23:30 J -24674458.64 -24674458.52 -24674458.39 0.0136 0.0044
 Mercury -72268-04-04 02:37 J -24674370.52 -24674370.39 -24674370.26 0.0136 0.0027
 Mercury -72268-07-01 05:45 J -24674282.39 -24674282.26 -24674282.13 0.0136 0.0010

Mercury -72268-09-27 08:52 J -24674194.26 -24674194.13 -24674194.00 0.0136 0.0007

Mercury -72268-12-24 11:59 J -24674106.13 -24674106.00 -24674105.87 0.0136 0.0024

Mercury -72267-03-22 15:06 J -24674017.99 -24674017.87 -24674017.74 0.0136 0.0041

Mercury -72267-06-18 18:13 J -24673929.86 -24673929.74 -24673929.62 0.0137 0.0058

Mercury -72267-09-14 21:21 J -24673841.71 -24673841.61 -24673841.49 0.0137 0.0076

Mercury -72267-12-12 00:42 J -24673753.57 -24673753.47 -24673753.37 0.0137 0.0093

Mercury -72266-03-10 03:35 J -24673665.41 -24673665.35 -24673665.26 0.0137 0.0111

Mercury -72266-06-06 06:57 J -24673577.25 -24673577.21 -24673577.16 0.0137 0.0128

Earth -72253-07-06 21:21 J -24668797.73 -24668797.61 -24668797.45 0.0145 0.0119

Moon -72253-07-07 00:42 J -24668797.58 -24668797.47 -24668797.34 0.0145 0.0126 *

Moon -72252-07-11 15:06 J -24668428.09 -24668427.87 -24668427.63 0.0145 0.0047

Earth -72252-07-11 17:59 J -24668427.97 -24668427.75 -24668427.50 0.0145 0.0053 *

Earth -72251-07-16 15:21 J -24668058.10 -24668057.86 -24668057.61 0.0145 0.0015

Moon -72251-07-16 18:57 J -24668057.95 -24668057.71 -24668057.45 0.0145 0.0014 *

Moon -72250-07-21 10:18 J -24667688.27 -24667688.07 -24667687.86 0.0146 0.0081

Earth -72250-07-21 13:40 J -24667688.12 -24667687.93 -24667687.71 0.0146 0.0083 *

Mars -72238-06-24 20:52 J -24663331.90 -24663331.63 -24663331.35 0.0147 0.0087

Venus -72238-12-31 21:49 J -24663141.75 -24663141.59 -24663141.42 0.0147 0.0098

Venus -72237-08-14 13:11 J -24662915.17 -24662914.95 -24662914.73 0.0146 0.0027

Venus -72236-03-29 04:04 J -24662688.54 -24662688.33 -24662688.11 0.0146 0.0043

Mars -72236-06-02 19:54 J -24662622.99 -24662622.67 -24662622.33 0.0146 0.0042

Venus -72236-11-10 18:57 J -24662461.84 -24662461.71 -24662461.56 0.0146 0.0113

Mercury -72230-12-01 23:30 J -24660249.62 -24660249.52 -24660249.40 0.0143 0.0116

Mercury -72229-02-28 07:54 J -24660161.31 -24660161.17 -24660161.00 0.0143 0.0087

Mercury -72229-05-26 16:33 J -24660072.98 -24660072.81 -24660072.63 0.0143 0.0057

Mercury -72229-08-23 00:57 J -24659984.64 -24659984.46 -24659984.26 0.0143 0.0029

Mercury -72229-11-19 09:35 J -24659896.30 -24659896.10 -24659895.91 0.0142 0.0002

Mercury -72228-02-15 17:59 J -24659807.94 -24659807.75 -24659807.57 0.0142 0.0030

Mercury -72228-05-15 02:09 J -24659719.59 -24659719.41 -24659719.23 0.0142 0.0058

Mercury -72228-08-11 10:04 J -24659631.22 -24659631.08 -24659630.91 0.0142 0.0087

Mercury -72228-11-07 18:13 J -24659542.83 -24659542.74 -24659542.61 0.0142 0.0115
 Moon -72213-01-09 09:21 J -24654367.17 -24654367.11 -24654367.01 0.0134 0.0127
 Earth -72213-01-09 12:57 J -24654367.06 -24654366.96 -24654366.86 0.0134 0.0124 *
 Earth -72212-01-13 00:28 J -24653997.69 -24653997.48 -24653997.25 0.0134 0.0069
 Moon -72212-01-13 03:49 J -24653997.56 -24653997.34 -24653997.11 0.0134 0.0063 *
 Moon -72211-01-17 08:52 J -24653628.39 -24653628.13 -24653627.87 0.0133 0.0021
 Earth -72211-01-17 11:45 J -24653628.26 -24653628.01 -24653627.75 0.0133 0.0015 *
 Earth -72210-01-21 21:35 J -24653258.83 -24653258.60 -24653258.34 0.0133 0.0040
 Moon -72210-01-22 00:28 J -24653258.72 -24653258.48 -24653258.24 0.0133 0.0046 *
 Moon -72209-01-26 04:04 J -24652889.52 -24652889.33 -24652889.12 0.0133 0.0086
 Earth -72209-01-26 06:42 J -24652889.39 -24652889.22 -24652889.02 0.0133 0.0092 *
 Mars -72196-10-26 09:49 J -24647867.28 -24647867.09 -24647866.87 0.0132 0.0089
 Venus -72195-10-05 17:45 J -24647522.84 -24647522.76 -24647522.68 0.0132 0.0123
 Venus -72194-05-19 20:23 J -24647296.82 -24647296.65 -24647296.47 0.0132 0.0074
 Mars -72194-09-24 13:40 J -24647169.20 -24647168.93 -24647168.65 0.0132 0.0017
 Venus -72194-12-31 23:30 J -24647070.72 -24647070.52 -24647070.31 0.0132 0.0025
 Venus -72193-08-14 02:23 J -24646844.60 -24646844.40 -24646844.19 0.0133 0.0024
 Venus -72192-03-28 05:30 J -24646618.45 -24646618.27 -24646618.10 0.0133 0.0073
 Mars -72192-08-22 16:33 J -24646471.05 -24646470.81 -24646470.55 0.0133 0.0057
 Venus -72192-11-09 07:54 J -24646392.23 -24646392.17 -24646392.07 0.0133 0.0123
 Mars -72190-07-21 21:35 J -24645772.63 -24645772.60 -24645772.52 0.0133 0.0131
 Mercury -72186-11-12 15:06 J -24644197.92 -24644197.87 -24644197.81 0.0135 0.0123
 Mercury -72185-02-08 17:59 J -24644109.82 -24644109.75 -24644109.66 0.0135 0.0108
 Mercury -72185-05-06 21:21 J -24644021.71 -24644021.61 -24644021.51 0.0135 0.0091
 Mercury -72185-08-03 00:13 J -24643933.59 -24643933.49 -24643933.37 0.0136 0.0074
 Mercury -72185-10-30 03:21 J -24643845.47 -24643845.36 -24643845.24 0.0136 0.0058
 Mercury -72184-01-26 06:28 J -24643757.35 -24643757.23 -24643757.10 0.0136 0.0041
 Mercury -72184-04-24 09:35 J -24643669.23 -24643669.10 -24643668.97 0.0136 0.0024
 Mercury -72184-07-21 12:42 J -24643581.10 -24643580.97 -24643580.84 0.0136 0.0007
 Mercury -72184-10-17 15:49 J -24643492.97 -24643492.84 -24643492.71 0.0136 0.0010

Mercury -72183-01-13 18:57 J -24643404.84 -24643404.71 -24643404.58 0.0136 0.0027

Mercury -72183-04-11 22:04 J -24643316.70 -24643316.58 -24643316.45 0.0137 0.0045

Mercury -72183-07-09 01:11 J -24643228.56 -24643228.45 -24643228.33 0.0137 0.0062

Mercury -72183-10-05 04:33 J -24643140.42 -24643140.31 -24643140.20 0.0137 0.0079

Mercury -72182-01-01 07:40 J -24643052.27 -24643052.18 -24643052.08 0.0137 0.0096

Mercury -72182-03-30 10:47 J -24642964.12 -24642964.05 -24642963.97 0.0137 0.0114

Mercury -72182-06-26 14:09 J -24642875.94 -24642875.91 -24642875.87 0.0137 0.0131

Earth -72169-07-07 08:23 J -24638116.28 -24638116.15 -24638115.98 0.0145 0.0116

Moon -72169-07-07 11:01 J -24638116.20 -24638116.04 -24638115.86 0.0145 0.0108 *

Moon -72168-07-12 02:23 J -24637746.63 -24637746.40 -24637746.18 0.0145 0.0054

Earth -72168-07-12 05:16 J -24637746.51 -24637746.28 -24637746.04 0.0145 0.0049 *

Earth -72167-07-17 02:37 J -24637376.63 -24637376.39 -24637376.14 0.0146 0.0019

Moon -72167-07-17 05:45 J -24637376.51 -24637376.26 -24637376.00 0.0146 0.0022 *

Moon -72166-07-21 21:35 J -24637006.78 -24637006.60 -24637006.40 0.0146 0.0090

Earth -72166-07-22 01:11 J -24637006.65 -24637006.45 -24637006.25 0.0146 0.0087 *

Venus -72154-08-31 02:52 J -24632583.47 -24632583.38 -24632583.28 0.0147 0.0131

Mars -72153-02-20 00:57 J -24632410.79 -24632410.46 -24632410.12 0.0146 0.0035

Venus -72153-04-13 17:59 J -24632356.95 -24632356.75 -24632356.55 0.0146 0.0061

Venus -72153-11-26 08:52 J -24632130.35 -24632130.13 -24632129.90 0.0146 0.0010

Venus -72152-07-10 23:59 J -24631903.68 -24631903.50 -24631903.31 0.0146 0.0079

Mars -72151-01-28 22:47 J -24631701.78 -24631701.55 -24631701.26 0.0146 0.0095

Mercury -72146-09-24 22:18 J -24629636.60 -24629636.57 -24629636.51 0.0143 0.0139

Mercury -72146-12-22 07:11 J -24629548.32 -24629548.20 -24629548.08 0.0143 0.0109

Mercury -72145-03-19 15:35 J -24629460.01 -24629459.85 -24629459.69 0.0143 0.0080

Mercury -72145-06-15 23:59 J -24629371.68 -24629371.50 -24629371.31 0.0143 0.0051

Mercury -72145-09-12 08:37 J -24629283.34 -24629283.14 -24629282.95 0.0143 0.0022

Mercury -72145-12-09 16:47 J -24629194.99 -24629194.80 -24629194.60 0.0142 0.0008

Mercury -72144-03-08 01:11 J -24629106.64 -24629106.45 -24629106.26 0.0142 0.0036

Mercury -72144-06-04 09:21 J -24629018.27 -24629018.11 -24629017.93 0.0142 0.0065

Mercury -72144-08-31 17:30 J -24628929.90 -24628929.77 -24628929.61 0.0142 0.0093

Mercury -72144-11-28 01:40 J -24628841.52 -24628841.43 -24628841.32 0.0142 0.0121
 Moon -72129-01-09 17:59 J -24623685.86 -24623685.75 -24623685.62 0.0134 0.0119
 Earth -72129-01-09 21:21 J -24623685.69 -24623685.61 -24623685.48 0.0134 0.0122 *
 Earth -72128-01-13 09:21 J -24623316.32 -24623316.11 -24623315.87 0.0134 0.0067
 Moon -72128-01-13 12:42 J -24623316.18 -24623315.97 -24623315.75 0.0134 0.0072 *
 Moon -72127-01-17 17:16 J -24622947.04 -24622946.78 -24622946.51 0.0133 0.0006
 Earth -72127-01-17 20:37 J -24622946.89 -24622946.64 -24622946.38 0.0133 0.0013 *
 Earth -72126-01-22 06:28 J -24622577.46 -24622577.23 -24622576.97 0.0133 0.0042
 Moon -72126-01-22 09:49 J -24622577.33 -24622577.09 -24622576.84 0.0133 0.0035 *
 Moon -72125-01-26 13:11 J -24622208.12 -24622207.95 -24622207.78 0.0133 0.0099
 Earth -72125-01-26 15:35 J -24622208.01 -24622207.85 -24622207.65 0.0133 0.0095 *
 Mars -72111-06-20 05:30 J -24616949.51 -24616949.27 -24616949.01 0.0132 0.0060
 Venus -72110-01-17 06:57 J -24616738.33 -24616738.21 -24616738.05 0.0132 0.0099
 Venus -72110-08-31 10:04 J -24616512.27 -24616512.08 -24616511.87 0.0132 0.0050
 Venus -72109-04-13 13:11 J -24616286.16 -24616285.95 -24616285.74 0.0132 0.0001
 Mars -72109-05-18 08:09 J -24616251.43 -24616251.16 -24616250.88 0.0132 0.0014
 Venus -72109-11-25 16:04 J -24616060.02 -24616059.83 -24616059.63 0.0133 0.0049
 Venus -72108-07-09 18:57 J -24615833.84 -24615833.71 -24615833.56 0.0133 0.0098
 Mars -72107-04-16 12:13 J -24615553.20 -24615552.99 -24615552.78 0.0133 0.0087
 Mercury -72102-12-02 21:49 J -24613496.63 -24613496.59 -24613496.52 0.0135 0.0122
 Mercury -72101-02-29 01:11 J -24613408.53 -24613408.45 -24613408.37 0.0135 0.0105
 Mercury -72101-05-27 04:04 J -24613320.42 -24613320.33 -24613320.22 0.0136 0.0089
 Mercury -72101-08-23 07:11 J -24613232.30 -24613232.20 -24613232.08 0.0136 0.0072
 Mercury -72101-11-19 10:18 J -24613144.19 -24613144.07 -24613143.95 0.0136 0.0055
 Mercury -72100-02-15 13:25 J -24613056.06 -24613055.94 -24613055.81 0.0136 0.0038
 Mercury -72100-05-14 16:33 J -24612967.94 -24612967.81 -24612967.68 0.0136 0.0022
 Mercury -72100-08-10 19:40 J -24612879.81 -24612879.68 -24612879.55 0.0136 0.0005
 Mercury -72100-11-06 22:47 J -24612791.68 -24612791.55 -24612791.42 0.0136 0.0013
 Mercury -72099-02-03 01:54 J -24612703.55 -24612703.42 -24612703.29 0.0136 0.0030
 Mercury -72099-05-02 05:01 J -24612615.41 -24612615.29 -24612615.16 0.0137 0.0047

Mercury -72099-07-29 08:09 J -24612527.27 -24612527.16 -24612527.04 0.0137 0.0065
 Mercury -72099-10-25 11:16 J -24612439.13 -24612439.03 -24612438.92 0.0137 0.0082
 Mercury -72098-01-21 14:37 J -24612350.98 -24612350.89 -24612350.80 0.0137 0.0099
 Mercury -72098-04-19 17:45 J -24612262.82 -24612262.76 -24612262.69 0.0137 0.0117
 Mercury -72098-07-16 20:52 J -24612174.64 -24612174.63 -24612174.60 0.0137 0.0135
 Earth -72085-07-07 18:28 J -24607434.87 -24607434.73 -24607434.56 0.0145 0.0113
 Moon -72085-07-07 20:37 J -24607434.76 -24607434.64 -24607434.48 0.0145 0.0121 *
 Moon -72084-07-12 12:57 J -24607065.19 -24607064.96 -24607064.72 0.0145 0.0040
 Earth -72084-07-12 15:21 J -24607065.10 -24607064.86 -24607064.63 0.0145 0.0046 *
 Earth -72083-07-17 12:42 J -24606695.22 -24606694.97 -24606694.72 0.0146 0.0022
 Moon -72083-07-17 15:49 J -24606695.09 -24606694.84 -24606694.59 0.0146 0.0020 *
 Moon -72082-07-22 07:54 J -24606325.35 -24606325.17 -24606324.96 0.0146 0.0090
 Earth -72082-07-22 11:01 J -24606325.22 -24606325.04 -24606324.83 0.0146 0.0091 *
 Mars -72071-11-08 05:45 J -24602198.45 -24602198.26 -24602198.01 0.0147 0.0114
 Venus -72070-12-12 22:18 J -24601798.72 -24601798.57 -24601798.38 0.0147 0.0095
 Venus -72069-07-26 13:54 J -24601572.14 -24601571.92 -24601571.70 0.0146 0.0024
 Mars -72069-10-17 04:47 J -24601489.64 -24601489.30 -24601488.95 0.0146 0.0018
 Venus -72068-03-10 05:01 J -24601345.50 -24601345.29 -24601345.08 0.0146 0.0046
 Venus -72068-10-22 19:40 J -24601118.80 -24601118.68 -24601118.53 0.0146 0.0116
 Mercury -72062-10-15 05:45 J -24598935.31 -24598935.26 -24598935.16 0.0143 0.0133
 Mercury -72061-01-11 14:37 J -24598847.02 -24598846.89 -24598846.75 0.0143 0.0102
 Mercury -72061-04-08 23:01 J -24598758.70 -24598758.54 -24598758.36 0.0143 0.0073
 Mercury -72061-07-06 07:40 J -24598670.36 -24598670.18 -24598669.99 0.0143 0.0044
 Mercury -72061-10-02 16:04 J -24598582.02 -24598581.83 -24598581.63 0.0143 0.0015
 Mercury -72061-12-30 00:28 J -24598493.67 -24598493.48 -24598493.29 0.0142 0.0014
 Mercury -72060-03-28 08:37 J -24598405.32 -24598405.14 -24598404.95 0.0142 0.0043
 Mercury -72060-06-24 17:01 J -24598316.96 -24598316.79 -24598316.62 0.0142 0.0071
 Mercury -72060-09-21 00:57 J -24598228.58 -24598228.46 -24598228.31 0.0142 0.0100
 Mercury -72060-12-18 09:06 J -24598140.19 -24598140.12 -24598140.02 0.0142 0.0128
 Moon -72045-01-10 02:52 J -24593004.46 -24593004.38 -24593004.25 0.0134 0.0122

Earth	-72045-01-10 06:42 J	-24593004.32	-24593004.22	-24593004.09	0.0134	0.0120	*
Earth	-72044-01-13 17:59 J	-24592634.96	-24592634.75	-24592634.50	0.0134	0.0065	
Moon	-72044-01-13 21:49 J	-24592634.80	-24592634.59	-24592634.34	0.0134	0.0059	*
Moon	-72043-01-18 01:54 J	-24592265.68	-24592265.42	-24592265.16	0.0133	0.0016	
Earth	-72043-01-18 05:16 J	-24592265.53	-24592265.28	-24592265.02	0.0133	0.0010	*
Earth	-72042-01-22 14:52 J	-24591896.11	-24591895.88	-24591895.62	0.0133	0.0045	
Moon	-72042-01-22 18:13 J	-24591895.96	-24591895.74	-24591895.49	0.0133	0.0052	*
Moon	-72041-01-26 20:23 J	-24591526.82	-24591526.65	-24591526.44	0.0133	0.0092	
Earth	-72041-01-27 00:13 J	-24591526.65	-24591526.49	-24591526.31	0.0133	0.0098	*
Mars	-72028-03-15 18:42 J	-24586729.86	-24586729.72	-24586729.53	0.0132	0.0105	
Venus	-72027-09-16 16:47 J	-24586179.86	-24586179.80	-24586179.70	0.0132	0.0123	
Mars	-72026-02-11 22:18 J	-24586031.83	-24586031.57	-24586031.29	0.0132	0.0031	
Venus	-72026-04-30 19:54 J	-24585953.83	-24585953.67	-24585953.48	0.0132	0.0075	
Venus	-72026-12-12 23:01 J	-24585727.75	-24585727.54	-24585727.33	0.0132	0.0026	
Venus	-72025-07-26 01:54 J	-24585501.62	-24585501.42	-24585501.20	0.0132	0.0024	
Mars	-72024-01-10 00:42 J	-24585333.72	-24585333.47	-24585333.20	0.0133	0.0043	
Venus	-72024-03-09 04:47 J	-24585275.47	-24585275.30	-24585275.11	0.0133	0.0073	
Venus	-72024-10-21 07:40 J	-24585049.25	-24585049.18	-24585049.08	0.0133	0.0122	
Mars	-72023-12-09 05:45 J	-24584635.36	-24584635.26	-24584635.11	0.0133	0.0119	
Mercury	-72018-12-23 04:47 J	-24582795.36	-24582795.30	-24582795.24	0.0135	0.0120	
Mercury	-72017-03-20 07:40 J	-24582707.26	-24582707.18	-24582707.09	0.0135	0.0104	
Mercury	-72017-06-16 10:47 J	-24582619.14	-24582619.05	-24582618.94	0.0136	0.0087	
Mercury	-72017-09-12 13:54 J	-24582531.03	-24582530.92	-24582530.80	0.0136	0.0070	
Mercury	-72017-12-09 17:01 J	-24582442.91	-24582442.79	-24582442.67	0.0136	0.0054	
Mercury	-72016-03-07 20:09 J	-24582354.79	-24582354.66	-24582354.53	0.0136	0.0037	
Mercury	-72016-06-03 23:16 J	-24582266.66	-24582266.53	-24582266.40	0.0136	0.0020	
Mercury	-72016-08-31 02:23 J	-24582178.53	-24582178.40	-24582178.27	0.0136	0.0003	
Mercury	-72016-11-27 05:30 J	-24582090.40	-24582090.27	-24582090.14	0.0136	0.0014	
Mercury	-72015-02-23 08:37 J	-24582002.27	-24582002.14	-24582002.01	0.0136	0.0031	
Mercury	-72015-05-22 11:45 J	-24581914.13	-24581914.01	-24581913.89	0.0137	0.0048	

Mercury -72015-08-18 14:52 J -24581825.99 -24581825.88 -24581825.76 0.0137 0.0066

Mercury -72015-11-14 17:59 J -24581737.85 -24581737.75 -24581737.64 0.0137 0.0083

Mercury -72014-02-10 21:21 J -24581649.70 -24581649.61 -24581649.52 0.0137 0.0100

Mercury -72014-05-10 00:13 J -24581561.54 -24581561.49 -24581561.41 0.0137 0.0119

Mercury -72014-08-06 03:35 J -24581473.36 -24581473.35 -24581473.33 0.0137 0.0136

Earth -72001-07-08 02:09 J -24576753.56 -24576753.41 -24576753.25 0.0145 0.0112

Moon -72001-07-08 03:06 J -24576753.53 -24576753.37 -24576753.17 0.0145 0.0105 *

72ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 72nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-72000-07-12 20:23 J	-24576383.87	-24576383.65	-24576383.41	0.0145	0.0051		
Earth	-72000-07-12 22:33 J	-24576383.79	-24576383.56	-24576383.31	0.0145	0.0045	*	
Earth	-71999-07-17 20:09 J	-24576013.90	-24576013.66	-24576013.40	0.0146	0.0024		
Moon	-71999-07-17 22:33 J	-24576013.81	-24576013.56	-24576013.30	0.0146	0.0027	*	
Moon	-71998-07-22 16:04 J	-24575644.01	-24575643.83	-24575643.63	0.0146	0.0095		
Earth	-71998-07-22 18:57 J	-24575643.89	-24575643.71	-24575643.51	0.0146	0.0093	*	
Mars	-71986-07-06 03:21 J	-24571277.65	-24571277.36	-24571277.02	0.0147	0.0064		
Venus	-71986-08-12 01:54 J	-24571240.51	-24571240.42	-24571240.31	0.0147	0.0130		
Venus	-71985-03-25 17:01 J	-24571013.98	-24571013.79	-24571013.57	0.0147	0.0060		
Venus	-71985-11-07 08:23 J	-24570787.37	-24570787.15	-24570786.92	0.0146	0.0011		
Mars	-71984-06-14 04:04 J	-24570568.63	-24570568.33	-24570568.03	0.0146	0.0070		

Venus -71984-06-21 23:16 J -24570560.70 -24570560.53 -24570560.33 0.0146 0.0081
 Mercury -71978-11-04 13:11 J -24568234.03 -24568233.95 -24568233.85 0.0143 0.0126
 Mercury -71977-01-31 21:35 J -24568145.73 -24568145.60 -24568145.44 0.0143 0.0097
 Mercury -71977-04-29 05:59 J -24568057.41 -24568057.25 -24568057.06 0.0143 0.0068
 Mercury -71977-07-26 14:52 J -24567969.07 -24567968.88 -24567968.70 0.0143 0.0038
 Mercury -71977-10-22 23:16 J -24567880.73 -24567880.53 -24567880.34 0.0143 0.0009
 Mercury -71976-01-19 07:25 J -24567792.38 -24567792.19 -24567791.99 0.0142 0.0020
 Mercury -71976-04-17 15:49 J -24567704.02 -24567703.84 -24567703.66 0.0142 0.0048
 Mercury -71976-07-14 23:45 J -24567615.66 -24567615.51 -24567615.33 0.0142 0.0078
 Mercury -71976-10-11 08:09 J -24567527.28 -24567527.16 -24567527.02 0.0142 0.0105
 Mercury -71975-01-07 16:18 J -24567438.88 -24567438.82 -24567438.75 0.0142 0.0133
 Moon -71961-01-10 11:30 J -24562323.13 -24562323.02 -24562322.87 0.0134 0.0116
 Earth -71961-01-10 15:49 J -24562322.96 -24562322.84 -24562322.72 0.0134 0.0118 *
 Earth -71960-01-14 03:21 J -24561953.59 -24561953.36 -24561953.13 0.0134 0.0062
 Moon -71960-01-14 06:42 J -24561953.44 -24561953.22 -24561952.99 0.0134 0.0067 *
 Moon -71959-01-18 10:33 J -24561584.32 -24561584.06 -24561583.80 0.0133 0.0001
 Earth -71959-01-18 14:09 J -24561584.17 -24561583.91 -24561583.65 0.0133 0.0007 *
 Earth -71958-01-22 23:45 J -24561214.74 -24561214.51 -24561214.26 0.0133 0.0047
 Moon -71958-01-23 03:21 J -24561214.60 -24561214.36 -24561214.10 0.0133 0.0040 *
 Moon -71957-01-27 05:30 J -24560845.41 -24560845.27 -24560845.10 0.0133 0.0106
 Earth -71957-01-27 08:52 J -24560845.28 -24560845.13 -24560844.95 0.0133 0.0101 *
 Mars -71944-11-07 12:13 J -24555812.22 -24555811.99 -24555811.76 0.0132 0.0076
 Venus -71943-12-29 05:59 J -24555395.38 -24555395.25 -24555395.10 0.0132 0.0099
 Venus -71942-08-12 09:06 J -24555169.32 -24555169.12 -24555168.92 0.0132 0.0050
 Mars -71942-10-06 14:09 J -24555114.18 -24555113.91 -24555113.63 0.0132 0.0002
 Venus -71941-03-25 11:59 J -24554943.21 -24554943.00 -24554942.79 0.0132 0.0002
 Venus -71941-11-06 14:37 J -24554717.08 -24554716.89 -24554716.68 0.0132 0.0047
 Venus -71940-06-20 17:45 J -24554490.90 -24554490.76 -24554490.61 0.0133 0.0096
 Mars -71940-09-03 17:45 J -24554415.97 -24554415.76 -24554415.51 0.0133 0.0074
 Mercury -71934-10-16 08:23 J -24552182.15 -24552182.15 -24552182.15 0.0135 0.0135

Mercury -71933-01-12 11:01 J -24552094.09 -24552094.04 -24552093.96 0.0135 0.0120

Mercury -71933-04-09 14:23 J -24552005.98 -24552005.90 -24552005.81 0.0135 0.0102

Mercury -71933-07-06 17:30 J -24551917.87 -24551917.77 -24551917.67 0.0136 0.0086

Mercury -71933-10-02 20:23 J -24551829.76 -24551829.65 -24551829.53 0.0136 0.0070

Mercury -71933-12-29 23:30 J -24551741.64 -24551741.52 -24551741.40 0.0136 0.0053

Mercury -71932-03-28 02:37 J -24551653.51 -24551653.39 -24551653.26 0.0136 0.0036

Mercury -71932-06-24 05:45 J -24551565.39 -24551565.26 -24551565.13 0.0136 0.0019

Mercury -71932-09-20 08:52 J -24551477.26 -24551477.13 -24551477.00 0.0136 0.0002

Mercury -71932-12-17 11:59 J -24551389.13 -24551389.00 -24551388.87 0.0136 0.0015

Mercury -71931-03-15 15:06 J -24551301.00 -24551300.87 -24551300.74 0.0136 0.0032

Mercury -71931-06-11 18:13 J -24551212.86 -24551212.74 -24551212.62 0.0137 0.0049

Mercury -71931-09-07 21:21 J -24551124.72 -24551124.61 -24551124.49 0.0137 0.0066

Mercury -71931-12-05 00:28 J -24551036.58 -24551036.48 -24551036.37 0.0137 0.0084

Mercury -71930-03-03 03:49 J -24550948.43 -24550948.34 -24550948.25 0.0137 0.0101

Mercury -71930-05-30 06:42 J -24550860.27 -24550860.22 -24550860.14 0.0137 0.0119

Mercury -71930-08-26 10:04 J -24550772.08 -24550772.08 -24550772.06 0.0137 0.0136

Earth -71917-07-08 06:57 J -24546072.36 -24546072.21 -24546072.06 0.0145 0.0113

Moon -71917-07-08 07:25 J -24546072.31 -24546072.19 -24546072.02 0.0145 0.0121 *

Moon -71916-07-13 02:23 J -24545702.63 -24545702.40 -24545702.16 0.0145 0.0039

Earth -71916-07-13 03:21 J -24545702.59 -24545702.36 -24545702.12 0.0145 0.0046 *

Earth -71915-07-18 00:57 J -24545332.70 -24545332.46 -24545332.21 0.0146 0.0023

Moon -71915-07-18 03:06 J -24545332.62 -24545332.37 -24545332.11 0.0146 0.0020 *

Moon -71914-07-22 21:35 J -24544962.78 -24544962.60 -24544962.41 0.0146 0.0093

Earth -71914-07-22 23:45 J -24544962.69 -24544962.51 -24544962.31 0.0146 0.0093 *

Venus -71902-11-23 17:45 J -24540455.91 -24540455.76 -24540455.58 0.0147 0.0099

Mars -71901-03-01 17:30 J -24540357.11 -24540356.77 -24540356.42 0.0147 0.0014

Venus -71901-07-07 09:21 J -24540229.32 -24540229.11 -24540228.88 0.0146 0.0029

Venus -71900-02-19 00:42 J -24540002.68 -24540002.47 -24540002.25 0.0146 0.0042

Venus -71900-10-03 15:35 J -24539775.98 -24539775.85 -24539775.69 0.0146 0.0112

Mars -71899-02-08 17:45 J -24539647.95 -24539647.76 -24539647.55 0.0146 0.0119

Mercury -71894-11-24 18:57 J -24537532.79 -24537532.71 -24537532.60 0.0143 0.0125

Mercury -71893-02-21 03:49 J -24537444.48 -24537444.34 -24537444.19 0.0143 0.0095

Mercury -71893-05-19 12:13 J -24537356.16 -24537355.99 -24537355.81 0.0143 0.0065

Mercury -71893-08-15 20:37 J -24537267.82 -24537267.64 -24537267.45 0.0143 0.0036

Mercury -71893-11-12 05:01 J -24537179.48 -24537179.29 -24537179.09 0.0143 0.0008

Mercury -71892-02-08 13:25 J -24537091.13 -24537090.94 -24537090.74 0.0143 0.0022

Mercury -71892-05-07 21:49 J -24537002.77 -24537002.59 -24537002.41 0.0142 0.0051

Mercury -71892-08-04 05:59 J -24536914.41 -24536914.25 -24536914.09 0.0142 0.0079

Mercury -71892-10-31 14:23 J -24536826.03 -24536825.90 -24536825.78 0.0142 0.0108

Mercury -71891-01-27 22:04 J -24536737.62 -24536737.58 -24536737.51 0.0142 0.0136

Moon -71877-01-10 19:54 J -24531641.79 -24531641.67 -24531641.55 0.0134 0.0118

Earth -71877-01-10 23:01 J -24531641.65 -24531641.54 -24531641.40 0.0134 0.0116 *

Earth -71876-01-14 10:47 J -24531272.27 -24531272.05 -24531271.81 0.0134 0.0061

Moon -71876-01-14 14:52 J -24531272.12 -24531271.88 -24531271.64 0.0134 0.0055 *

Moon -71875-01-18 18:13 J -24530902.99 -24530902.74 -24530902.48 0.0133 0.0011

Earth -71875-01-18 21:49 J -24530902.85 -24530902.59 -24530902.33 0.0133 0.0005 *

Earth -71874-01-23 07:25 J -24530533.41 -24530533.19 -24530532.93 0.0133 0.0050

Moon -71874-01-23 11:01 J -24530533.26 -24530533.04 -24530532.79 0.0133 0.0057 *

Moon -71873-01-27 12:57 J -24530164.12 -24530163.96 -24530163.77 0.0133 0.0097

Earth -71873-01-27 16:33 J -24530163.95 -24530163.81 -24530163.63 0.0133 0.0104 *

Mars -71861-08-03 00:57 J -24525592.54 -24525592.46 -24525592.33 0.0131 0.0122

Mars -71859-07-02 03:49 J -24524894.59 -24524894.34 -24524894.08 0.0132 0.0047

Venus -71859-08-28 15:35 J -24524836.90 -24524836.85 -24524836.76 0.0132 0.0124

Venus -71858-04-11 18:57 J -24524610.88 -24524610.71 -24524610.53 0.0132 0.0075

Venus -71858-11-23 21:49 J -24524384.80 -24524384.59 -24524384.38 0.0132 0.0027

Mars -71857-05-30 06:57 J -24524196.47 -24524196.21 -24524195.93 0.0132 0.0028

Venus -71857-07-07 00:42 J -24524158.68 -24524158.47 -24524158.26 0.0132 0.0022

Venus -71856-02-18 03:35 J -24523932.52 -24523932.35 -24523932.16 0.0132 0.0071

Venus -71856-10-02 06:13 J -24523706.31 -24523706.24 -24523706.13 0.0133 0.0120

Mars -71855-04-28 11:01 J -24523498.19 -24523498.04 -24523497.85 0.0133 0.0104

Mercury -71850-11-05 14:37 J -24521480.89 -24521480.89 -24521480.86 0.0135 0.0134
 Mercury -71849-02-01 17:59 J -24521392.81 -24521392.75 -24521392.69 0.0135 0.0118
 Mercury -71849-04-29 20:52 J -24521304.71 -24521304.63 -24521304.54 0.0135 0.0101
 Mercury -71849-07-26 23:59 J -24521216.60 -24521216.50 -24521216.40 0.0135 0.0085
 Mercury -71849-10-23 02:52 J -24521128.48 -24521128.38 -24521128.26 0.0136 0.0069
 Mercury -71848-01-19 06:13 J -24521040.36 -24521040.24 -24521040.12 0.0136 0.0052
 Mercury -71848-04-17 09:21 J -24520952.24 -24520952.11 -24520951.99 0.0136 0.0035
 Mercury -71848-07-14 12:13 J -24520864.12 -24520863.99 -24520863.85 0.0136 0.0019
 Mercury -71848-10-10 15:21 J -24520775.99 -24520775.86 -24520775.72 0.0136 0.0004
 Mercury -71847-01-06 18:28 J -24520687.86 -24520687.73 -24520687.60 0.0136 0.0016
 Mercury -71847-04-04 21:35 J -24520599.72 -24520599.60 -24520599.47 0.0136 0.0033
 Mercury -71847-07-02 00:42 J -24520511.59 -24520511.47 -24520511.34 0.0136 0.0050
 Mercury -71847-09-28 03:49 J -24520423.45 -24520423.34 -24520423.22 0.0137 0.0068
 Mercury -71847-12-25 07:11 J -24520335.30 -24520335.20 -24520335.10 0.0137 0.0085
 Mercury -71846-03-23 10:18 J -24520247.15 -24520247.07 -24520246.98 0.0137 0.0102
 Mercury -71846-06-19 13:25 J -24520159.00 -24520158.94 -24520158.87 0.0137 0.0120
 Jupiter -71844-12-18 11:30 J -24519246.07 -24519246.02 -24519245.90 0.0138 0.0137
 Moon -71833-07-08 11:16 J -24515391.18 -24515391.03 -24515390.83 0.0145 0.0107
 Earth -71833-07-08 11:45 J -24515391.15 -24515391.01 -24515390.84 0.0145 0.0114 *
 Moon -71832-07-13 07:40 J -24515021.40 -24515021.18 -24515020.95 0.0145 0.0052
 Earth -71832-07-13 08:09 J -24515021.38 -24515021.16 -24515020.91 0.0145 0.0047 *
 Earth -71831-07-18 05:59 J -24514651.49 -24514651.25 -24514651.00 0.0145 0.0024
 Moon -71831-07-18 06:57 J -24514651.46 -24514651.21 -24514650.95 0.0145 0.0029 *
 Moon -71830-07-23 03:06 J -24514281.55 -24514281.37 -24514281.18 0.0146 0.0094
 Earth -71830-07-23 04:33 J -24514281.48 -24514281.31 -24514281.10 0.0146 0.0094 *
 Mars -71819-11-18 06:57 J -24510145.45 -24510145.21 -24510144.95 0.0147 0.0099
 Venus -71818-07-23 18:28 J -24509897.78 -24509897.73 -24509897.63 0.0147 0.0138
 Venus -71817-03-06 10:04 J -24509671.27 -24509671.08 -24509670.88 0.0147 0.0068
 Venus -71817-10-19 01:25 J -24509444.66 -24509444.44 -24509444.22 0.0146 0.0003
 Mars -71817-10-27 06:42 J -24509436.54 -24509436.22 -24509435.87 0.0146 0.0037

Venus -71816-06-02 16:33 J -24509218.00 -24509217.81 -24509217.61 0.0146 0.0073
 Venus -71815-01-15 07:25 J -24508991.22 -24508991.19 -24508991.12 0.0146 0.0142
 Mercury -71810-12-15 00:42 J -24506831.56 -24506831.47 -24506831.37 0.0143 0.0124
 Mercury -71809-03-12 09:06 J -24506743.26 -24506743.12 -24506742.96 0.0143 0.0094
 Mercury -71809-06-08 17:30 J -24506654.93 -24506654.77 -24506654.58 0.0143 0.0065
 Mercury -71809-09-05 02:09 J -24506566.59 -24506566.41 -24506566.22 0.0143 0.0035
 Mercury -71809-12-02 10:33 J -24506478.25 -24506478.06 -24506477.86 0.0143 0.0007
 Mercury -71808-02-28 18:57 J -24506389.90 -24506389.71 -24506389.52 0.0143 0.0023
 Mercury -71808-05-28 03:21 J -24506301.54 -24506301.36 -24506301.18 0.0142 0.0052
 Mercury -71808-08-24 11:30 J -24506213.17 -24506213.02 -24506212.86 0.0142 0.0080
 Mercury -71808-11-20 19:40 J -24506124.80 -24506124.68 -24506124.55 0.0142 0.0109
 Mercury -71807-02-17 04:04 J -24506036.38 -24506036.33 -24506036.28 0.0142 0.0136
 Moon -71793-01-11 02:09 J -24500960.51 -24500960.41 -24500960.25 0.0134 0.0116
 Earth -71793-01-11 05:59 J -24500960.37 -24500960.25 -24500960.11 0.0134 0.0116 *
 Earth -71792-01-14 17:59 J -24500590.98 -24500590.75 -24500590.51 0.0134 0.0059
 Moon -71792-01-14 21:06 J -24500590.84 -24500590.62 -24500590.38 0.0134 0.0063 *
 Moon -71791-01-19 01:25 J -24500221.69 -24500221.44 -24500221.18 0.0133 0.0003
 Earth -71791-01-19 05:01 J -24500221.54 -24500221.29 -24500221.03 0.0133 0.0004 *
 Earth -71790-01-23 14:52 J -24499852.11 -24499851.88 -24499851.63 0.0133 0.0052
 Moon -71790-01-23 18:42 J -24499851.97 -24499851.72 -24499851.47 0.0133 0.0044 *
 Moon -71789-01-27 20:52 J -24499482.75 -24499482.63 -24499482.48 0.0133 0.0112
 Earth -71789-01-28 00:13 J -24499482.62 -24499482.49 -24499482.31 0.0133 0.0106 *
 Mars -71776-03-27 19:25 J -24494674.89 -24494674.69 -24494674.49 0.0132 0.0092
 Venus -71775-12-10 05:30 J -24494052.40 -24494052.27 -24494052.12 0.0132 0.0099
 Mars -71774-02-23 23:16 J -24493976.80 -24493976.53 -24493976.25 0.0132 0.0017
 Venus -71774-07-24 08:52 J -24493826.33 -24493826.13 -24493825.94 0.0132 0.0050
 Venus -71773-03-06 11:45 J -24493600.22 -24493600.01 -24493599.80 0.0132 0.0002
 Venus -71773-10-18 14:37 J -24493374.09 -24493373.89 -24493373.69 0.0132 0.0047
 Mars -71772-01-22 02:52 J -24493278.61 -24493278.38 -24493278.11 0.0132 0.0060
 Venus -71772-06-01 17:16 J -24493147.91 -24493147.78 -24493147.62 0.0132 0.0096

Mercury -71766-11-25 21:49 J -24490779.61 -24490779.59 -24490779.56 0.0135 0.0131

Mercury -71765-02-22 00:42 J -24490691.53 -24490691.47 -24490691.39 0.0135 0.0115

Mercury -71765-05-20 03:49 J -24490603.42 -24490603.34 -24490603.24 0.0135 0.0099

Mercury -71765-08-16 06:57 J -24490515.31 -24490515.21 -24490515.10 0.0135 0.0082

Mercury -71765-11-12 10:04 J -24490427.19 -24490427.08 -24490426.96 0.0136 0.0065

Mercury -71764-02-08 13:11 J -24490339.07 -24490338.95 -24490338.83 0.0136 0.0049

Mercury -71764-05-07 16:18 J -24490250.95 -24490250.82 -24490250.69 0.0136 0.0032

Mercury -71764-08-03 19:25 J -24490162.82 -24490162.69 -24490162.56 0.0136 0.0015

Mercury -71764-10-30 22:33 J -24490074.69 -24490074.56 -24490074.43 0.0136 0.0004

Mercury -71763-01-27 01:40 J -24489986.56 -24489986.43 -24489986.30 0.0136 0.0019

Mercury -71763-04-25 04:33 J -24489898.43 -24489898.31 -24489898.18 0.0136 0.0037

Mercury -71763-07-22 07:54 J -24489810.29 -24489810.17 -24489810.05 0.0136 0.0053

Mercury -71763-10-18 11:01 J -24489722.15 -24489722.04 -24489721.93 0.0137 0.0071

Mercury -71762-01-14 14:09 J -24489634.01 -24489633.91 -24489633.81 0.0137 0.0088

Mercury -71762-04-12 17:16 J -24489545.86 -24489545.78 -24489545.69 0.0137 0.0106

Mercury -71762-07-09 20:23 J -24489457.70 -24489457.65 -24489457.59 0.0137 0.0123

Moon -71749-07-08 19:54 J -24484709.80 -24484709.67 -24484709.51 0.0144 0.0119

Earth -71749-07-08 20:23 J -24484709.79 -24484709.65 -24484709.48 0.0144 0.0112 *

Earth -71748-07-13 17:01 J -24484340.02 -24484339.79 -24484339.55 0.0145 0.0044

Moon -71748-07-13 17:30 J -24484340.00 -24484339.77 -24484339.53 0.0145 0.0036 *

Earth -71747-07-18 14:52 J -24483970.13 -24483969.88 -24483969.64 0.0145 0.0026

Moon -71747-07-18 15:21 J -24483970.11 -24483969.86 -24483969.60 0.0145 0.0021 *

Moon -71746-07-23 11:59 J -24483600.16 -24483600.00 -24483599.81 0.0146 0.0098

Earth -71746-07-23 13:11 J -24483600.13 -24483599.95 -24483599.76 0.0146 0.0096 *

Mars -71734-07-16 01:25 J -24479224.76 -24479224.44 -24479224.11 0.0147 0.0048

Venus -71734-11-04 12:13 J -24479113.13 -24479112.99 -24479112.82 0.0147 0.0105

Venus -71733-06-18 03:35 J -24478886.56 -24478886.35 -24478886.12 0.0146 0.0035

Venus -71732-01-30 18:57 J -24478659.92 -24478659.71 -24478659.49 0.0146 0.0036

Mars -71732-06-24 01:25 J -24478515.70 -24478515.44 -24478515.15 0.0146 0.0088

Venus -71732-09-14 10:04 J -24478433.22 -24478433.08 -24478432.92 0.0146 0.0105

Mercury -71725-01-04 06:57 J -24476130.31 -24476130.21 -24476130.10 0.0143 0.0121
 Mercury -71725-04-01 15:21 J -24476042.00 -24476041.86 -24476041.70 0.0143 0.0091
 Mercury -71725-06-28 23:45 J -24475953.67 -24475953.51 -24475953.32 0.0143 0.0062
 Mercury -71725-09-25 08:23 J -24475865.34 -24475865.15 -24475864.96 0.0143 0.0032
 Mercury -71725-12-22 16:47 J -24475776.99 -24475776.80 -24475776.60 0.0143 0.0004
 Mercury -71724-03-21 01:11 J -24475688.64 -24475688.45 -24475688.26 0.0143 0.0026
 Mercury -71724-06-17 09:35 J -24475600.28 -24475600.10 -24475599.92 0.0142 0.0055
 Mercury -71724-09-13 17:45 J -24475511.91 -24475511.76 -24475511.60 0.0142 0.0083
 Mercury -71724-12-11 02:09 J -24475423.53 -24475423.41 -24475423.29 0.0142 0.0111
 Mercury -71723-03-09 09:49 J -24475335.10 -24475335.09 -24475335.04 0.0142 0.0140
 Moon -71709-01-11 10:33 J -24470279.17 -24470279.06 -24470278.90 0.0134 0.0114
 Earth -71709-01-11 13:54 J -24470279.06 -24470278.92 -24470278.78 0.0134 0.0114 *
 Earth -71708-01-15 01:40 J -24469909.66 -24469909.43 -24469909.19 0.0134 0.0057
 Moon -71708-01-15 05:01 J -24469909.52 -24469909.29 -24469909.04 0.0134 0.0053 *
 Moon -71707-01-19 09:49 J -24469540.34 -24469540.09 -24469539.83 0.0133 0.0006
 Earth -71707-01-19 12:57 J -24469540.22 -24469539.96 -24469539.70 0.0133 0.0001 *
 Earth -71706-01-23 23:01 J -24469170.77 -24469170.54 -24469170.30 0.0133 0.0054
 Moon -71706-01-24 02:37 J -24469170.62 -24469170.39 -24469170.16 0.0133 0.0061 *
 Moon -71705-01-28 05:01 J -24468801.44 -24468801.29 -24468801.11 0.0133 0.0102
 Earth -71705-01-28 08:37 J -24468801.27 -24468801.14 -24468800.98 0.0133 0.0109 *
 Mars -71692-11-19 14:23 J -24463757.14 -24463756.90 -24463756.65 0.0132 0.0062
 Venus -71691-08-09 16:33 J -24463493.88 -24463493.81 -24463493.73 0.0132 0.0122
 Venus -71690-03-23 19:25 J -24463267.86 -24463267.69 -24463267.51 0.0132 0.0074
 Mars -71690-10-18 18:42 J -24463058.99 -24463058.72 -24463058.44 0.0132 0.0014
 Venus -71690-11-04 22:18 J -24463041.77 -24463041.57 -24463041.35 0.0132 0.0026
 Venus -71689-06-18 01:25 J -24462815.65 -24462815.44 -24462815.23 0.0132 0.0023
 Venus -71688-01-30 04:18 J -24462589.49 -24462589.32 -24462589.13 0.0132 0.0071
 Venus -71688-09-13 07:11 J -24462363.28 -24462363.20 -24462363.10 0.0133 0.0120
 Mars -71688-09-15 21:35 J -24462360.80 -24462360.60 -24462360.40 0.0133 0.0091
 Mercury -71682-12-16 04:47 J -24460078.33 -24460078.30 -24460078.25 0.0135 0.0128

Mercury -71681-03-13 07:40 J -24459990.24 -24459990.18 -24459990.09 0.0135 0.0113

Mercury -71681-06-09 10:47 J -24459902.13 -24459902.05 -24459901.95 0.0135 0.0096

Mercury -71681-09-05 14:09 J -24459814.02 -24459813.91 -24459813.81 0.0135 0.0079

Mercury -71681-12-02 17:01 J -24459725.90 -24459725.79 -24459725.67 0.0136 0.0062

Mercury -71680-02-28 20:09 J -24459637.78 -24459637.66 -24459637.53 0.0136 0.0046

Mercury -71680-05-27 23:16 J -24459549.66 -24459549.53 -24459549.40 0.0136 0.0029

Mercury -71680-08-24 02:23 J -24459461.53 -24459461.40 -24459461.27 0.0136 0.0012

Mercury -71680-11-20 05:30 J -24459373.40 -24459373.27 -24459373.14 0.0136 0.0006

Mercury -71679-02-16 08:37 J -24459285.27 -24459285.14 -24459285.01 0.0136 0.0023

Mercury -71679-05-15 11:45 J -24459197.13 -24459197.01 -24459196.88 0.0136 0.0040

Mercury -71679-08-11 14:52 J -24459108.99 -24459108.88 -24459108.76 0.0136 0.0057

Mercury -71679-11-07 17:59 J -24459020.85 -24459020.75 -24459020.63 0.0137 0.0075

Mercury -71678-02-03 21:21 J -24458932.71 -24458932.61 -24458932.51 0.0137 0.0092

Mercury -71678-05-03 00:28 J -24458844.55 -24458844.48 -24458844.40 0.0137 0.0109

Mercury -71678-07-30 03:35 J -24458756.39 -24458756.35 -24458756.30 0.0137 0.0127

Moon -71665-07-09 06:28 J -24454028.40 -24454028.23 -24454028.03 0.0145 0.0102

Earth -71665-07-09 07:54 J -24454028.31 -24454028.17 -24454027.98 0.0145 0.0109 *

Earth -71664-07-14 05:01 J -24453658.53 -24453658.29 -24453658.05 0.0145 0.0039

Moon -71664-07-14 05:16 J -24453658.50 -24453658.28 -24453658.05 0.0145 0.0046 *

Moon -71663-07-19 02:09 J -24453288.65 -24453288.41 -24453288.15 0.0145 0.0036

Earth -71663-07-19 02:23 J -24453288.64 -24453288.40 -24453288.15 0.0145 0.0031 *

Moon -71662-07-24 00:42 J -24452918.64 -24452918.47 -24452918.30 0.0146 0.0100

Earth -71662-07-24 00:42 J -24452918.63 -24452918.47 -24452918.27 0.0146 0.0102 *

Mars -71651-04-03 08:23 J -24449012.30 -24449012.15 -24449011.98 0.0147 0.0130

Venus -71650-07-04 17:01 J -24448554.84 -24448554.79 -24448554.69 0.0147 0.0138

Venus -71649-02-16 08:37 J -24448328.33 -24448328.14 -24448327.94 0.0147 0.0068

Mars -71649-03-12 06:13 J -24448303.58 -24448303.24 -24448302.89 0.0147 0.0008

Venus -71649-09-29 23:59 J -24448101.72 -24448101.50 -24448101.28 0.0146 0.0002

Venus -71648-05-14 14:52 J -24447875.06 -24447874.88 -24447874.68 0.0146 0.0072

Venus -71648-12-27 05:59 J -24447648.29 -24447648.25 -24447648.18 0.0146 0.0141

Mars -71647-02-19 05:01 J -24447594.32 -24447594.29 -24447594.20 0.0146 0.0144
 Mercury -71641-01-24 14:09 J -24445429.02 -24445428.91 -24445428.78 0.0143 0.0114
 Mercury -71641-04-21 22:47 J -24445340.70 -24445340.55 -24445340.39 0.0143 0.0084
 Mercury -71641-07-19 07:11 J -24445252.37 -24445252.20 -24445252.01 0.0143 0.0055
 Mercury -71641-10-15 15:49 J -24445164.03 -24445163.84 -24445163.65 0.0143 0.0026
 Mercury -71640-01-12 00:13 J -24445075.68 -24445075.49 -24445075.29 0.0143 0.0003
 Mercury -71640-04-10 08:37 J -24444987.33 -24444987.14 -24444986.95 0.0142 0.0032
 Mercury -71640-07-07 16:47 J -24444898.97 -24444898.80 -24444898.62 0.0142 0.0061
 Mercury -71640-10-04 00:57 J -24444810.60 -24444810.46 -24444810.30 0.0142 0.0090
 Mercury -71640-12-31 09:06 J -24444722.21 -24444722.12 -24444722.00 0.0142 0.0119
 Moon -71625-01-11 20:52 J -24439597.76 -24439597.63 -24439597.48 0.0134 0.0111
 Earth -71625-01-11 23:30 J -24439597.65 -24439597.52 -24439597.36 0.0134 0.0111 *
 Earth -71624-01-15 11:45 J -24439228.24 -24439228.01 -24439227.77 0.0134 0.0054
 Moon -71624-01-15 14:09 J -24439228.14 -24439227.91 -24439227.66 0.0134 0.0057 *
 Moon -71623-01-19 19:54 J -24438858.92 -24438858.67 -24438858.41 0.0133 0.0008
 Earth -71623-01-19 23:01 J -24438858.80 -24438858.54 -24438858.28 0.0133 0.0003 *
 Earth -71622-01-24 09:06 J -24438489.34 -24438489.12 -24438488.88 0.0133 0.0058
 Moon -71622-01-24 12:13 J -24438489.22 -24438488.99 -24438488.74 0.0133 0.0051 *
 Moon -71621-01-28 15:49 J -24438119.94 -24438119.84 -24438119.72 0.0133 0.0119
 Earth -71621-01-28 18:42 J -24438119.83 -24438119.72 -24438119.57 0.0133 0.0113 *
 Mars -71609-08-15 07:11 J -24433537.36 -24433537.20 -24433537.03 0.0132 0.0107
 Mars -71607-07-14 12:13 J -24432839.25 -24432838.99 -24432838.71 0.0132 0.0031
 Venus -71607-11-21 06:57 J -24432709.34 -24432709.21 -24432709.05 0.0132 0.0097
 Venus -71606-07-05 10:04 J -24432483.27 -24432483.08 -24432482.88 0.0132 0.0049
 Venus -71605-02-16 13:11 J -24432257.16 -24432256.95 -24432256.74 0.0132 0.0000
 Mars -71605-06-11 15:06 J -24432141.12 -24432140.87 -24432140.61 0.0132 0.0047
 Venus -71605-09-29 15:49 J -24432031.03 -24432030.84 -24432030.63 0.0132 0.0049
 Venus -71604-05-13 18:42 J -24431804.85 -24431804.72 -24431804.56 0.0133 0.0097
 Mars -71603-05-10 18:13 J -24431442.82 -24431442.74 -24431442.62 0.0133 0.0124
 Mercury -71597-01-05 11:59 J -24429377.04 -24429377.00 -24429376.94 0.0135 0.0125

Mercury -71597-04-02 15:06 J -24429288.94 -24429288.87 -24429288.79 0.0135 0.0108
 Mercury -71597-06-29 18:13 J -24429200.83 -24429200.74 -24429200.64 0.0135 0.0091
 Mercury -71597-09-25 21:21 J -24429112.72 -24429112.61 -24429112.50 0.0136 0.0075
 Mercury -71597-12-23 00:28 J -24429024.60 -24429024.48 -24429024.36 0.0136 0.0058
 Mercury -71596-03-21 03:35 J -24428936.48 -24428936.35 -24428936.23 0.0136 0.0041
 Mercury -71596-06-17 06:42 J -24428848.35 -24428848.22 -24428848.09 0.0136 0.0024
 Mercury -71596-09-13 09:49 J -24428760.22 -24428760.09 -24428759.96 0.0136 0.0008
 Mercury -71596-12-10 12:57 J -24428672.09 -24428671.96 -24428671.83 0.0136 0.0010
 Mercury -71595-03-08 16:04 J -24428583.96 -24428583.83 -24428583.70 0.0136 0.0027
 Mercury -71595-06-04 19:11 J -24428495.83 -24428495.70 -24428495.58 0.0136 0.0044
 Mercury -71595-08-31 22:18 J -24428407.69 -24428407.57 -24428407.45 0.0137 0.0061
 Mercury -71595-11-28 01:25 J -24428319.54 -24428319.44 -24428319.33 0.0137 0.0079
 Mercury -71594-02-24 04:33 J -24428231.40 -24428231.31 -24428231.21 0.0137 0.0096
 Mercury -71594-05-23 07:40 J -24428143.24 -24428143.18 -24428143.10 0.0137 0.0114
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 Moon -71581-07-09 18:57 J -24423346.86 -24423346.71 -24423346.53 0.0145 0.0111
 Earth -71581-07-09 20:52 J -24423346.80 -24423346.63 -24423346.46 0.0145 0.0104 *
 Earth -71580-07-14 17:16 J -24422977.01 -24422976.78 -24422976.53 0.0145 0.0035
 Moon -71580-07-14 18:42 J -24422976.95 -24422976.72 -24422976.48 0.0145 0.0028 *
 Moon -71579-07-19 14:23 J -24422607.15 -24422606.90 -24422606.64 0.0145 0.0031
 Earth -71579-07-19 15:06 J -24422607.11 -24422606.87 -24422606.62 0.0145 0.0036 *
 Earth -71578-07-24 13:11 J -24422237.10 -24422236.95 -24422236.76 0.0146 0.0107
 Moon -71578-07-24 13:11 J -24422237.09 -24422236.95 -24422236.77 0.0146 0.0109 *
 Mars -71567-11-29 16:18 J -24418091.10 -24418090.82 -24418090.51 0.0147 0.0074
 Venus -71566-10-16 14:37 J -24417770.04 -24417769.89 -24417769.72 0.0147 0.0099
 Venus -71565-05-30 05:59 J -24417543.46 -24417543.25 -24417543.03 0.0147 0.0029
 Mars -71565-11-07 14:37 J -24417382.18 -24417381.89 -24417381.56 0.0146 0.0065
 Venus -71564-01-11 21:06 J -24417316.83 -24417316.62 -24417316.40 0.0146 0.0041
 Venus -71564-08-26 12:13 J -24417090.12 -24417089.99 -24417089.83 0.0146 0.0110
 Mercury -71558-11-17 13:25 J -24414815.98 -24414815.94 -24414815.86 0.0143 0.0136

Mercury -71557-02-13 22:18 J -24414727.69 -24414727.57 -24414727.43 0.0143 0.0105
 Mercury -71557-05-12 06:42 J -24414639.37 -24414639.22 -24414639.04 0.0143 0.0076
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 Earth -71541-01-12 10:47 J -24408916.20 -24408916.05 -24408915.89 0.0134 0.0108 *
 Earth -71540-01-15 22:33 J -24408546.79 -24408546.56 -24408546.31 0.0134 0.0051
 Moon -71540-01-16 01:11 J -24408546.68 -24408546.45 -24408546.19 0.0134 0.0047 *
 Moon -71539-01-20 07:40 J -24408177.43 -24408177.18 -24408176.93 0.0133 0.0002
 Earth -71539-01-20 09:49 J -24408177.35 -24408177.09 -24408176.83 0.0133 0.0007 *
 Earth -71538-01-24 20:09 J -24407807.88 -24407807.66 -24407807.43 0.0133 0.0062
 Moon -71538-01-24 22:47 J -24407807.76 -24407807.55 -24407807.31 0.0133 0.0069 *
 Moon -71537-01-29 02:23 J -24407438.51 -24407438.40 -24407438.23 0.0133 0.0111
 Earth -71537-01-29 05:59 J -24407438.37 -24407438.25 -24407438.13 0.0133 0.0117 *
 Mars -71524-04-09 04:47 J -24402619.53 -24402619.30 -24402619.07 0.0132 0.0076
 Venus -71523-07-21 17:59 J -24402150.81 -24402150.75 -24402150.64 0.0132 0.0120
 Venus -71522-03-04 21:21 J -24401924.78 -24401924.61 -24401924.43 0.0132 0.0072
 Mars -71522-03-08 08:37 J -24401921.41 -24401921.14 -24401920.86 0.0132 0.0002
 Venus -71522-10-17 00:13 J -24401698.70 -24401698.49 -24401698.28 0.0132 0.0023
 Venus -71521-05-30 03:06 J -24401472.58 -24401472.37 -24401472.16 0.0132 0.0025
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 Mercury -71513-01-25 19:11 J -24398675.75 -24398675.70 -24398675.64 0.0135 0.0121
 Mercury -71513-04-22 22:18 J -24398587.65 -24398587.57 -24398587.49 0.0135 0.0105

Mercury -71513-07-20 01:11 J -24398499.54 -24398499.45 -24398499.34 0.0135 0.0089
 Mercury -71513-10-16 04:18 J -24398411.42 -24398411.32 -24398411.20 0.0136 0.0072
 Mercury -71512-01-12 07:25 J -24398323.31 -24398323.19 -24398323.07 0.0136 0.0055
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 Mercury -71512-07-07 13:40 J -24398147.06 -24398146.93 -24398146.80 0.0136 0.0021
 Mercury -71512-10-03 16:47 J -24398058.93 -24398058.80 -24398058.67 0.0136 0.0005
 Mercury -71512-12-30 19:54 J -24397970.80 -24397970.67 -24397970.54 0.0136 0.0013
 Mercury -71511-03-28 23:01 J -24397882.67 -24397882.54 -24397882.41 0.0136 0.0030
 Mercury -71511-06-25 02:09 J -24397794.53 -24397794.41 -24397794.28 0.0136 0.0048
 Mercury -71511-09-21 05:16 J -24397706.39 -24397706.28 -24397706.16 0.0137 0.0065
 Mercury -71511-12-18 08:37 J -24397618.25 -24397618.14 -24397618.04 0.0137 0.0082
 Mercury -71510-03-16 11:30 J -24397530.10 -24397530.02 -24397529.92 0.0137 0.0100
 Mercury -71510-06-12 14:52 J -24397441.94 -24397441.88 -24397441.81 0.0137 0.0117
 Mercury -71510-09-08 17:59 J -24397353.76 -24397353.75 -24397353.72 0.0137 0.0135
 Moon -71497-07-10 05:01 J -24392665.47 -24392665.29 -24392665.08 0.0145 0.0095
 Earth -71497-07-10 07:54 J -24392665.35 -24392665.17 -24392665.00 0.0145 0.0101 *
 Earth -71496-07-15 04:33 J -24392295.55 -24392295.31 -24392295.07 0.0145 0.0031
 Moon -71496-07-15 05:59 J -24392295.48 -24392295.25 -24392295.01 0.0145 0.0039 *
 Moon -71495-07-20 00:42 J -24391925.70 -24391925.47 -24391925.21 0.0146 0.0046
 Earth -71495-07-20 02:09 J -24391925.65 -24391925.41 -24391925.17 0.0146 0.0040 *
 Earth -71494-07-25 00:28 J -24391555.62 -24391555.48 -24391555.30 0.0146 0.0112
 Moon -71494-07-25 01:40 J -24391555.59 -24391555.43 -24391555.27 0.0146 0.0109 *
 Venus -71482-06-15 20:52 J -24387211.72 -24387211.63 -24387211.52 0.0147 0.0130
 Mars -71482-07-28 00:42 J -24387169.80 -24387169.47 -24387169.12 0.0147 0.0018
 Venus -71481-01-28 12:28 J -24386985.19 -24386984.98 -24386984.78 0.0147 0.0060
 Venus -71481-09-11 03:35 J -24386758.57 -24386758.35 -24386758.13 0.0147 0.0009
 Venus -71480-04-25 18:42 J -24386531.91 -24386531.72 -24386531.53 0.0146 0.0079
 Mars -71480-07-05 23:45 J -24386460.67 -24386460.51 -24386460.29 0.0146 0.0123
 Mercury -71474-12-07 22:04 J -24384114.66 -24384114.58 -24384114.48 0.0143 0.0125
 Mercury -71473-03-05 06:28 J -24384026.36 -24384026.23 -24384026.07 0.0143 0.0096

Mercury -71473-06-01 15:21 J -24383938.03 -24383937.86 -24383937.69 0.0143 0.0066
 Mercury -71473-08-28 23:45 J -24383849.70 -24383849.51 -24383849.32 0.0143 0.0037
 Mercury -71473-11-25 08:09 J -24383761.35 -24383761.16 -24383760.96 0.0143 0.0008
 Mercury -71472-02-21 16:33 J -24383673.00 -24383672.81 -24383672.61 0.0142 0.0022
 Mercury -71472-05-21 00:57 J -24383584.64 -24383584.46 -24383584.28 0.0142 0.0050
 Mercury -71472-08-17 09:06 J -24383496.27 -24383496.12 -24383495.95 0.0142 0.0079
 Mercury -71472-11-13 17:16 J -24383407.89 -24383407.78 -24383407.64 0.0142 0.0108
 Mercury -71471-02-10 01:25 J -24383319.48 -24383319.44 -24383319.37 0.0142 0.0136
 Moon -71457-01-12 20:23 J -24378234.79 -24378234.65 -24378234.48 0.0134 0.0105
 Earth -71457-01-12 22:18 J -24378234.72 -24378234.57 -24378234.40 0.0134 0.0104 *
 Earth -71456-01-16 10:04 J -24377865.31 -24377865.08 -24377864.83 0.0134 0.0047
 Moon -71456-01-16 11:45 J -24377865.25 -24377865.01 -24377864.75 0.0134 0.0049 *
 Moon -71455-01-20 19:11 J -24377495.95 -24377495.70 -24377495.45 0.0133 0.0016
 Earth -71455-01-20 21:35 J -24377495.86 -24377495.60 -24377495.34 0.0133 0.0010 *
 Earth -71454-01-25 07:25 J -24377126.40 -24377126.19 -24377125.95 0.0133 0.0067
 Moon -71454-01-25 10:04 J -24377126.32 -24377126.08 -24377125.84 0.0133 0.0059 *
 Moon -71453-01-29 14:37 J -24376756.94 -24376756.89 -24376756.82 0.0133 0.0128
 Earth -71453-01-29 16:47 J -24376756.88 -24376756.80 -24376756.68 0.0133 0.0122 *
 Mars -71441-01-03 20:37 J -24372399.72 -24372399.64 -24372399.52 0.0131 0.0123
 Mars -71440-12-02 01:11 J -24371701.70 -24371701.45 -24371701.18 0.0132 0.0045
 Venus -71439-11-02 08:37 J -24371366.29 -24371366.14 -24371365.99 0.0132 0.0094
 Venus -71438-06-16 11:30 J -24371140.22 -24371140.02 -24371139.82 0.0132 0.0046
 Mars -71438-10-31 03:35 J -24371003.62 -24371003.35 -24371003.08 0.0132 0.0033
 Venus -71437-01-28 14:23 J -24370914.11 -24370913.90 -24370913.68 0.0132 0.0003
 Venus -71437-09-10 17:16 J -24370687.97 -24370687.78 -24370687.58 0.0132 0.0050
 Venus -71436-04-24 20:09 J -24370461.80 -24370461.66 -24370461.52 0.0133 0.0098
 Mars -71436-09-28 07:25 J -24370305.34 -24370305.19 -24370305.04 0.0133 0.0111
 Mercury -71430-11-18 23:16 J -24368062.53 -24368062.53 -24368062.52 0.0135 0.0135
 Mercury -71429-02-15 02:09 J -24367974.46 -24367974.41 -24367974.34 0.0135 0.0119
 Mercury -71429-05-13 05:16 J -24367886.36 -24367886.28 -24367886.19 0.0135 0.0102

Mercury -71429-08-09 08:23 J -24367798.25 -24367798.15 -24367798.05 0.0135 0.0085
 Mercury -71429-11-05 11:30 J -24367710.13 -24367710.02 -24367709.91 0.0136 0.0069
 Mercury -71428-02-01 14:37 J -24367622.01 -24367621.89 -24367621.77 0.0136 0.0052
 Mercury -71428-04-30 17:30 J -24367533.89 -24367533.77 -24367533.64 0.0136 0.0036
 Mercury -71428-07-27 20:37 J -24367445.77 -24367445.64 -24367445.51 0.0136 0.0019
 Mercury -71428-10-23 23:45 J -24367357.64 -24367357.51 -24367357.37 0.0136 0.0004
 Mercury -71427-01-20 02:52 J -24367269.51 -24367269.38 -24367269.25 0.0136 0.0016
 Mercury -71427-04-18 05:59 J -24367181.37 -24367181.25 -24367181.12 0.0136 0.0033
 Mercury -71427-07-15 09:06 J -24367093.24 -24367093.12 -24367092.99 0.0136 0.0050
 Mercury -71427-10-11 12:13 J -24367005.10 -24367004.99 -24367004.87 0.0137 0.0068
 Mercury -71426-01-07 15:35 J -24366916.95 -24366916.85 -24366916.75 0.0137 0.0085
 Mercury -71426-04-05 18:28 J -24366828.80 -24366828.73 -24366828.63 0.0137 0.0103
 Mercury -71426-07-02 21:49 J -24366740.65 -24366740.59 -24366740.52 0.0137 0.0120
 Moon -71413-07-10 13:40 J -24361984.08 -24361983.93 -24361983.74 0.0145 0.0106
 Earth -71413-07-10 16:18 J -24361983.99 -24361983.82 -24361983.63 0.0145 0.0100 *
 Earth -71412-07-15 13:11 J -24361614.19 -24361613.95 -24361613.70 0.0145 0.0030
 Moon -71412-07-15 15:35 J -24361614.09 -24361613.85 -24361613.61 0.0145 0.0022 *
 Moon -71411-07-20 08:52 J -24361244.37 -24361244.13 -24361243.87 0.0146 0.0036
 Earth -71411-07-20 10:47 J -24361244.28 -24361244.05 -24361243.80 0.0146 0.0042 *
 Earth -71410-07-25 09:06 J -24360874.26 -24360874.12 -24360873.95 0.0146 0.0115
 Moon -71410-07-25 10:04 J -24360874.20 -24360874.08 -24360873.92 0.0146 0.0117 *
 Mars -71399-04-15 03:06 J -24356957.58 -24356957.37 -24356957.10 0.0147 0.0104
 Venus -71398-09-27 15:49 J -24356426.99 -24356426.84 -24356426.65 0.0147 0.0095
 Mars -71397-03-24 01:40 J -24356248.75 -24356248.43 -24356248.08 0.0147 0.0038
 Venus -71397-05-11 07:25 J -24356200.41 -24356200.19 -24356199.97 0.0147 0.0025
 Venus -71397-12-23 22:33 J -24355973.77 -24355973.56 -24355973.34 0.0147 0.0045
 Venus -71396-08-07 13:40 J -24355747.05 -24355746.93 -24355746.78 0.0146 0.0114
 Mercury -71390-12-28 05:30 J -24353413.36 -24353413.27 -24353413.15 0.0143 0.0119
 Mercury -71389-03-25 14:23 J -24353325.05 -24353324.90 -24353324.75 0.0143 0.0088
 Mercury -71389-06-21 22:47 J -24353236.72 -24353236.55 -24353236.37 0.0143 0.0059

Mercury -71389-09-18 07:11 J -24353148.38 -24353148.20 -24353148.00 0.0143 0.0030

Mercury -71389-12-15 15:49 J -24353060.03 -24353059.84 -24353059.64 0.0143 0.0002

Mercury -71388-03-14 00:13 J -24352971.68 -24352971.49 -24352971.30 0.0142 0.0029

Mercury -71388-06-10 08:23 J -24352883.32 -24352883.15 -24352882.96 0.0142 0.0058

Mercury -71388-09-06 17:01 J -24352794.95 -24352794.79 -24352794.64 0.0142 0.0087

Mercury -71388-12-04 00:57 J -24352706.56 -24352706.46 -24352706.34 0.0142 0.0115

Moon -71373-01-13 08:52 J -24347553.29 -24347553.13 -24347552.96 0.0134 0.0099

Earth -71373-01-13 09:21 J -24347553.26 -24347553.11 -24347552.92 0.0134 0.0101 *

Earth -71372-01-16 21:35 J -24347183.84 -24347183.60 -24347183.35 0.0134 0.0043

Moon -71372-01-16 23:16 J -24347183.78 -24347183.53 -24347183.27 0.0134 0.0040 *

Moon -71371-01-21 07:11 J -24346814.45 -24346814.20 -24346813.95 0.0133 0.0010

Earth -71371-01-21 08:37 J -24346814.40 -24346814.14 -24346813.88 0.0133 0.0014 *

Earth -71370-01-25 18:13 J -24346444.94 -24346444.74 -24346444.50 0.0133 0.0071

Moon -71370-01-25 20:23 J -24346444.86 -24346444.65 -24346444.42 0.0133 0.0077 *

Moon -71369-01-30 01:25 J -24346075.53 -24346075.44 -24346075.31 0.0133 0.0120

Earth -71369-01-30 03:49 J -24346075.41 -24346075.34 -24346075.26 0.0133 0.0126 *

Mars -71357-08-27 16:33 J -24341482.01 -24341481.81 -24341481.61 0.0131 0.0092

Venus -71355-07-02 18:57 J -24340807.79 -24340807.71 -24340807.60 0.0132 0.0118

Mars -71355-07-26 19:11 J -24340783.97 -24340783.70 -24340783.42 0.0132 0.0014

Venus -71354-02-13 22:04 J -24340581.76 -24340581.58 -24340581.40 0.0132 0.0070

Venus -71354-09-28 00:57 J -24340355.67 -24340355.46 -24340355.25 0.0132 0.0022

Venus -71353-05-11 03:35 J -24340129.55 -24340129.35 -24340129.14 0.0132 0.0026

Mars -71353-06-23 22:04 J -24340085.82 -24340085.58 -24340085.33 0.0132 0.0065

Venus -71353-12-23 06:28 J -24339903.40 -24339903.23 -24339903.05 0.0132 0.0074

Venus -71352-08-06 09:06 J -24339677.19 -24339677.12 -24339677.03 0.0132 0.0122

Mercury -71346-12-09 05:59 J -24337361.27 -24337361.25 -24337361.23 0.0135 0.0133

Mercury -71345-03-06 08:52 J -24337273.19 -24337273.13 -24337273.06 0.0135 0.0117

Mercury -71345-06-02 11:59 J -24337185.08 -24337185.00 -24337184.91 0.0135 0.0100

Mercury -71345-08-29 15:06 J -24337096.97 -24337096.87 -24337096.77 0.0135 0.0084

Mercury -71345-11-25 17:59 J -24337008.86 -24337008.75 -24337008.63 0.0135 0.0068

Mercury -71344-02-21 21:06 J -24336920.74 -24336920.62 -24336920.49 0.0136 0.0051

Mercury -71344-05-21 00:13 J -24336832.61 -24336832.49 -24336832.36 0.0136 0.0034

Mercury -71344-08-17 03:21 J -24336744.49 -24336744.36 -24336744.23 0.0136 0.0017

Mercury -71344-11-13 06:28 J -24336656.36 -24336656.23 -24336656.10 0.0136 0.0001

Mercury -71343-02-09 09:35 J -24336568.23 -24336568.10 -24336567.97 0.0136 0.0017

Mercury -71343-05-08 12:42 J -24336480.10 -24336479.97 -24336479.84 0.0136 0.0034

Mercury -71343-08-04 15:49 J -24336391.96 -24336391.84 -24336391.72 0.0136 0.0052

Mercury -71343-10-31 18:57 J -24336303.82 -24336303.71 -24336303.59 0.0137 0.0069

Mercury -71342-01-27 22:04 J -24336215.68 -24336215.58 -24336215.47 0.0137 0.0086

Mercury -71342-04-26 01:11 J -24336127.53 -24336127.45 -24336127.36 0.0137 0.0104

Mercury -71342-07-23 04:33 J -24336039.37 -24336039.31 -24336039.25 0.0137 0.0121

Moon -71329-07-10 18:42 J -24331302.90 -24331302.72 -24331302.52 0.0145 0.0094

Earth -71329-07-10 22:04 J -24331302.75 -24331302.58 -24331302.39 0.0145 0.0100 *

Earth -71328-07-15 18:42 J -24330932.96 -24330932.72 -24330932.47 0.0145 0.0029

Moon -71328-07-15 21:21 J -24330932.84 -24330932.61 -24330932.37 0.0145 0.0037 *

Moon -71327-07-20 13:40 J -24330563.16 -24330562.93 -24330562.67 0.0146 0.0050

Earth -71327-07-20 16:18 J -24330563.05 -24330562.82 -24330562.57 0.0146 0.0043 *

Earth -71326-07-25 14:52 J -24330193.02 -24330192.88 -24330192.72 0.0146 0.0115

Moon -71326-07-25 16:33 J -24330192.94 -24330192.81 -24330192.63 0.0146 0.0113 *

Mars -71315-12-10 20:23 J -24326036.96 -24326036.65 -24326036.32 0.0147 0.0051

Venus -71314-05-27 17:45 J -24325868.84 -24325868.76 -24325868.64 0.0147 0.0132

Venus -71313-01-09 09:21 J -24325642.31 -24325642.11 -24325641.90 0.0147 0.0062

Venus -71313-08-23 00:42 J -24325415.69 -24325415.47 -24325415.24 0.0147 0.0008

Mars -71313-11-18 19:25 J -24325327.94 -24325327.69 -24325327.40 0.0147 0.0092

Venus -71312-04-06 16:04 J -24325189.02 -24325188.83 -24325188.64 0.0147 0.0077

Venus -71312-11-19 06:57 J -24324962.21 -24324962.21 -24324962.19 0.0146 0.0146

Mercury -71305-01-17 12:13 J -24322712.09 -24322711.99 -24322711.86 0.0143 0.0114

Mercury -71305-04-14 20:52 J -24322623.78 -24322623.63 -24322623.46 0.0143 0.0084

Mercury -71305-07-12 05:30 J -24322535.44 -24322535.27 -24322535.08 0.0143 0.0054

Mercury -71305-10-08 14:09 J -24322447.10 -24322446.91 -24322446.72 0.0143 0.0025

Mercury -71304-01-04 22:33 J -24322358.75 -24322358.56 -24322358.36 0.0143 0.0005

Mercury -71304-04-03 06:57 J -24322270.40 -24322270.21 -24322270.02 0.0143 0.0034

Mercury -71304-06-30 15:21 J -24322182.03 -24322181.86 -24322181.68 0.0142 0.0063

Mercury -71304-09-26 23:30 J -24322093.66 -24322093.52 -24322093.36 0.0142 0.0092

Mercury -71304-12-24 07:40 J -24322005.27 -24322005.18 -24322005.06 0.0142 0.0120

Moon -71289-01-13 19:11 J -24316871.86 -24316871.70 -24316871.52 0.0134 0.0099

Earth -71289-01-13 19:40 J -24316871.84 -24316871.68 -24316871.48 0.0134 0.0098 *

Earth -71288-01-17 07:40 J -24316502.42 -24316502.18 -24316501.92 0.0134 0.0040

Moon -71288-01-17 08:09 J -24316502.41 -24316502.16 -24316501.89 0.0134 0.0041 *

Moon -71287-01-21 17:45 J -24316133.00 -24316132.76 -24316132.51 0.0133 0.0023

Earth -71287-01-21 18:42 J -24316132.97 -24316132.72 -24316132.45 0.0133 0.0019 *

Earth -71286-01-26 04:33 J -24315763.50 -24315763.31 -24315763.08 0.0133 0.0075

Moon -71286-01-26 05:59 J -24315763.47 -24315763.25 -24315763.01 0.0133 0.0068 *

Earth -71285-01-30 13:54 J -24315393.96 -24315393.92 -24315393.86 0.0133 0.0130

Mars -71272-04-21 12:28 J -24310564.22 -24310563.98 -24310563.72 0.0131 0.0061

Venus -71271-10-14 09:35 J -24310023.25 -24310023.10 -24310022.94 0.0132 0.0092

Mars -71270-03-20 16:33 J -24309866.09 -24309865.81 -24309865.54 0.0132 0.0018

Venus -71270-05-28 12:13 J -24309797.18 -24309796.99 -24309796.78 0.0132 0.0045

Venus -71269-01-09 15:21 J -24309571.07 -24309570.86 -24309570.65 0.0132 0.0003

Venus -71269-08-22 17:59 J -24309344.94 -24309344.75 -24309344.55 0.0132 0.0051

Mars -71268-02-15 19:54 J -24309167.85 -24309167.67 -24309167.47 0.0132 0.0097

Venus -71268-04-05 20:23 J -24309118.77 -24309118.65 -24309118.49 0.0132 0.0100

Mercury -71262-12-29 12:57 J -24306659.99 -24306659.96 -24306659.92 0.0135 0.0130

Mercury -71261-03-26 16:04 J -24306571.90 -24306571.83 -24306571.76 0.0135 0.0113

Mercury -71261-06-22 18:57 J -24306483.79 -24306483.71 -24306483.61 0.0135 0.0097

Mercury -71261-09-18 22:04 J -24306395.68 -24306395.58 -24306395.47 0.0135 0.0081

Mercury -71261-12-16 01:11 J -24306307.56 -24306307.45 -24306307.33 0.0135 0.0064

Mercury -71260-03-14 04:18 J -24306219.44 -24306219.32 -24306219.20 0.0136 0.0047

Mercury -71260-06-10 07:25 J -24306131.32 -24306131.19 -24306131.06 0.0136 0.0030

Mercury -71260-09-06 10:33 J -24306043.19 -24306043.06 -24306042.93 0.0136 0.0014

Mercury -71260-12-03 13:40 J -24305955.07 -24305954.93 -24305954.80 0.0136 0.0005
 Mercury -71259-03-01 16:33 J -24305866.93 -24305866.81 -24305866.67 0.0136 0.0021
 Mercury -71259-05-28 19:40 J -24305778.80 -24305778.68 -24305778.55 0.0136 0.0038
 Mercury -71259-08-24 22:47 J -24305690.66 -24305690.55 -24305690.42 0.0136 0.0055
 Mercury -71259-11-21 01:54 J -24305602.52 -24305602.42 -24305602.30 0.0137 0.0072
 Mercury -71258-02-17 05:01 J -24305514.38 -24305514.29 -24305514.18 0.0137 0.0090
 Mercury -71258-05-16 08:23 J -24305426.23 -24305426.15 -24305426.07 0.0137 0.0107
 Mercury -71258-08-12 11:16 J -24305338.07 -24305338.03 -24305337.96 0.0137 0.0125
 Moon -71245-07-11 02:23 J -24300621.56 -24300621.40 -24300621.22 0.0145 0.0104
 Earth -71245-07-11 05:30 J -24300621.44 -24300621.27 -24300621.07 0.0145 0.0099 *
 Earth -71244-07-16 01:54 J -24300251.66 -24300251.42 -24300251.17 0.0145 0.0028
 Moon -71244-07-16 05:16 J -24300251.52 -24300251.28 -24300251.03 0.0145 0.0020 *
 Moon -71243-07-20 20:37 J -24299881.89 -24299881.64 -24299881.40 0.0146 0.0037
 Earth -71243-07-20 23:16 J -24299881.75 -24299881.53 -24299881.28 0.0146 0.0045 *
 Earth -71242-07-25 21:35 J -24299511.73 -24299511.60 -24299511.44 0.0146 0.0117
 Moon -71242-07-25 23:45 J -24299511.63 -24299511.51 -24299511.36 0.0146 0.0121 *
 Mars -71232-08-28 17:16 J -24295824.86 -24295824.78 -24295824.66 0.0147 0.0141
 Mars -71230-08-07 13:40 J -24295116.27 -24295115.93 -24295115.58 0.0147 0.0003
 Venus -71230-09-08 11:16 J -24295084.19 -24295084.03 -24295083.86 0.0147 0.0099
 Venus -71229-04-22 02:23 J -24294857.61 -24294857.40 -24294857.18 0.0147 0.0030
 Venus -71229-12-04 17:30 J -24294630.97 -24294630.77 -24294630.54 0.0147 0.0040
 Mars -71228-07-16 12:28 J -24294407.01 -24294406.98 -24294406.90 0.0146 0.0145
 Venus -71228-07-19 08:52 J -24294404.27 -24294404.13 -24294403.97 0.0146 0.0109
 Mercury -71222-11-10 10:04 J -24292099.11 -24292099.08 -24292099.04 0.0143 0.0141
 Mercury -71221-02-06 18:42 J -24292010.84 -24292010.72 -24292010.59 0.0143 0.0111
 Mercury -71221-05-05 03:06 J -24291922.52 -24291922.37 -24291922.20 0.0143 0.0081
 Mercury -71221-08-01 11:45 J -24291834.18 -24291834.01 -24291833.82 0.0143 0.0051
 Mercury -71221-10-28 20:23 J -24291745.84 -24291745.65 -24291745.46 0.0143 0.0022
 Mercury -71220-01-25 04:47 J -24291657.49 -24291657.30 -24291657.10 0.0143 0.0009
 Mercury -71220-04-23 13:11 J -24291569.13 -24291568.95 -24291568.76 0.0143 0.0037

Mercury -71220-07-20 21:35 J -24291480.77 -24291480.60 -24291480.42 0.0142 0.0066
 Mercury -71220-10-17 05:45 J -24291392.39 -24291392.26 -24291392.10 0.0142 0.0095
 Mercury -71219-01-13 14:09 J -24291303.99 -24291303.91 -24291303.81 0.0142 0.0124
 Earth -71205-01-14 05:01 J -24286190.46 -24286190.29 -24286190.10 0.0134 0.0096
 Moon -71205-01-14 05:16 J -24286190.44 -24286190.28 -24286190.08 0.0134 0.0093 *
 Earth -71204-01-17 17:01 J -24285821.03 -24285820.79 -24285820.53 0.0134 0.0037
 Moon -71204-01-17 17:30 J -24285821.02 -24285820.77 -24285820.50 0.0134 0.0035 *
 Moon -71203-01-22 04:04 J -24285451.58 -24285451.33 -24285451.08 0.0133 0.0017
 Earth -71203-01-22 04:18 J -24285451.57 -24285451.32 -24285451.06 0.0133 0.0021 *
 Earth -71202-01-26 14:09 J -24285082.11 -24285081.91 -24285081.69 0.0133 0.0078
 Moon -71202-01-26 14:37 J -24285082.08 -24285081.89 -24285081.67 0.0133 0.0084 *
 Moon -71201-01-30 22:04 J -24284712.62 -24284712.58 -24284712.49 0.0133 0.0128
 Mars -71189-01-16 05:30 J -24280344.42 -24280344.27 -24280344.10 0.0131 0.0108
 Mars -71188-12-14 09:49 J -24279646.35 -24279646.09 -24279645.81 0.0132 0.0029
 Venus -71187-06-13 20:37 J -24279464.72 -24279464.64 -24279464.51 0.0132 0.0115
 Venus -71186-01-25 23:59 J -24279238.68 -24279238.50 -24279238.31 0.0132 0.0067
 Venus -71186-09-09 02:52 J -24279012.59 -24279012.38 -24279012.17 0.0132 0.0019
 Mars -71186-11-12 13:11 J -24278948.19 -24278947.95 -24278947.68 0.0132 0.0051
 Venus -71185-04-22 05:45 J -24278786.47 -24278786.26 -24278786.06 0.0132 0.0028
 Venus -71185-12-04 08:09 J -24278560.32 -24278560.16 -24278559.97 0.0132 0.0077
 Venus -71184-07-18 10:47 J -24278334.10 -24278334.05 -24278333.96 0.0132 0.0125
 Mars -71184-10-10 15:35 J -24278249.88 -24278249.85 -24278249.78 0.0132 0.0130
 Mercury -71177-01-18 20:09 J -24275958.70 -24275958.66 -24275958.61 0.0135 0.0126
 Mercury -71177-04-15 23:01 J -24275870.60 -24275870.54 -24275870.45 0.0135 0.0110
 Mercury -71177-07-13 02:09 J -24275782.49 -24275782.41 -24275782.31 0.0135 0.0094
 Mercury -71177-10-09 05:30 J -24275694.38 -24275694.27 -24275694.17 0.0135 0.0077
 Mercury -71176-01-05 08:23 J -24275606.26 -24275606.15 -24275606.03 0.0135 0.0060
 Mercury -71176-04-03 11:30 J -24275518.14 -24275518.02 -24275517.90 0.0136 0.0043
 Mercury -71176-06-30 14:37 J -24275430.02 -24275429.89 -24275429.76 0.0136 0.0027
 Mercury -71176-09-26 17:45 J -24275341.89 -24275341.76 -24275341.63 0.0136 0.0010

Mercury -71176-12-23 20:52 J -24275253.77 -24275253.63 -24275253.50 0.0136 0.0008
 Mercury -71175-03-21 23:45 J -24275165.63 -24275165.51 -24275165.38 0.0136 0.0025
 Mercury -71175-06-18 02:52 J -24275077.50 -24275077.38 -24275077.25 0.0136 0.0042
 Mercury -71175-09-14 05:59 J -24274989.36 -24274989.25 -24274989.13 0.0136 0.0059
 Mercury -71175-12-11 09:06 J -24274901.22 -24274901.12 -24274901.01 0.0137 0.0076
 Mercury -71174-03-09 12:13 J -24274813.08 -24274812.99 -24274812.89 0.0137 0.0094
 Mercury -71174-06-05 15:21 J -24274724.93 -24274724.86 -24274724.78 0.0137 0.0111
 Mercury -71174-09-01 18:42 J -24274636.76 -24274636.72 -24274636.68 0.0137 0.0128
 Moon -71161-07-11 12:13 J -24269940.18 -24269939.99 -24269939.79 0.0145 0.0090
 Earth -71161-07-11 15:49 J -24269940.01 -24269939.84 -24269939.64 0.0145 0.0096 *
 Earth -71160-07-16 12:13 J -24269570.23 -24269569.99 -24269569.74 0.0145 0.0024
 Moon -71160-07-16 15:35 J -24269570.09 -24269569.85 -24269569.61 0.0145 0.0032 *
 Moon -71159-07-21 06:13 J -24269200.47 -24269200.24 -24269200.00 0.0146 0.0055
 Earth -71159-07-21 09:35 J -24269200.33 -24269200.10 -24269199.86 0.0146 0.0048 *
 Earth -71158-07-26 07:40 J -24268830.31 -24268830.18 -24268830.03 0.0146 0.0121
 Moon -71158-07-26 10:47 J -24268830.19 -24268830.05 -24268829.90 0.0146 0.0116 *
 Mars -71147-04-25 17:01 J -24264904.05 -24264903.79 -24264903.49 0.0147 0.0086
 Venus -71146-05-08 14:37 J -24264525.96 -24264525.89 -24264525.78 0.0147 0.0135
 Venus -71146-12-21 06:28 J -24264299.43 -24264299.23 -24264299.03 0.0147 0.0064
 Mars -71145-04-03 13:54 J -24264195.21 -24264194.92 -24264194.58 0.0147 0.0059
 Venus -71145-08-03 21:49 J -24264072.81 -24264072.59 -24264072.37 0.0147 0.0005
 Venus -71144-03-18 12:42 J -24263846.15 -24263845.97 -24263845.76 0.0147 0.0075
 Venus -71144-10-31 03:49 J -24263619.36 -24263619.34 -24263619.28 0.0146 0.0144
 Mercury -71138-11-30 17:16 J -24261397.83 -24261397.78 -24261397.70 0.0143 0.0134
 Mercury -71137-02-27 01:54 J -24261309.54 -24261309.42 -24261309.27 0.0143 0.0104
 Mercury -71137-05-25 10:33 J -24261221.22 -24261221.06 -24261220.88 0.0143 0.0075
 Mercury -71137-08-21 19:25 J -24261132.88 -24261132.69 -24261132.51 0.0143 0.0044
 Mercury -71137-11-18 03:49 J -24261044.53 -24261044.34 -24261044.15 0.0143 0.0015
 Mercury -71136-02-14 12:13 J -24260956.18 -24260955.99 -24260955.79 0.0143 0.0015
 Mercury -71136-05-13 20:37 J -24260867.82 -24260867.64 -24260867.45 0.0143 0.0044

Mercury -71136-08-10 05:01 J -24260779.45 -24260779.29 -24260779.12 0.0142 0.0073

Mercury -71136-11-06 13:11 J -24260691.07 -24260690.95 -24260690.80 0.0142 0.0102

Mercury -71135-02-02 21:21 J -24260602.67 -24260602.61 -24260602.52 0.0142 0.0131

Earth -71121-01-14 15:49 J -24255509.01 -24255508.84 -24255508.63 0.0134 0.0092

Moon -71121-01-14 16:18 J -24255508.98 -24255508.82 -24255508.62 0.0134 0.0095 *

Moon -71120-01-18 03:21 J -24255139.62 -24255139.36 -24255139.10 0.0134 0.0033

Earth -71120-01-18 04:04 J -24255139.57 -24255139.33 -24255139.07 0.0134 0.0033 *

Earth -71119-01-22 15:06 J -24254770.12 -24254769.87 -24254769.61 0.0133 0.0026

Moon -71119-01-22 15:21 J -24254770.10 -24254769.86 -24254769.61 0.0133 0.0029 *

Moon -71118-01-27 01:11 J -24254400.66 -24254400.45 -24254400.22 0.0133 0.0076

Earth -71118-01-27 00:57 J -24254400.64 -24254400.46 -24254400.24 0.0133 0.0083 *

Mars -71105-09-09 05:01 J -24249426.52 -24249426.29 -24249426.06 0.0131 0.0075

Mars -71103-08-08 10:04 J -24248728.36 -24248728.08 -24248727.80 0.0132 0.0005

Venus -71103-09-25 12:13 J -24248680.13 -24248679.99 -24248679.82 0.0132 0.0088

Venus -71102-05-09 15:21 J -24248454.06 -24248453.86 -24248453.66 0.0132 0.0040

Venus -71102-12-21 18:13 J -24248227.95 -24248227.74 -24248227.53 0.0132 0.0007

Mars -71101-07-06 12:28 J -24248030.18 -24248029.98 -24248029.76 0.0132 0.0084

Venus -71101-08-03 20:52 J -24248001.81 -24248001.63 -24248001.43 0.0132 0.0055

Venus -71100-03-17 23:30 J -24247775.63 -24247775.52 -24247775.37 0.0132 0.0104

Mercury -71093-02-08 03:35 J -24245257.39 -24245257.35 -24245257.28 0.0135 0.0121

Mercury -71093-05-06 06:57 J -24245169.29 -24245169.21 -24245169.13 0.0135 0.0104

Mercury -71093-08-02 09:49 J -24245081.19 -24245081.09 -24245080.99 0.0135 0.0088

Mercury -71093-10-29 12:57 J -24244993.07 -24244992.96 -24244992.85 0.0135 0.0071

Mercury -71092-01-25 16:04 J -24244904.95 -24244904.83 -24244904.71 0.0136 0.0055

Mercury -71092-04-23 18:57 J -24244816.83 -24244816.71 -24244816.58 0.0136 0.0038

Mercury -71092-07-20 22:04 J -24244728.71 -24244728.58 -24244728.45 0.0136 0.0021

Mercury -71092-10-17 01:11 J -24244640.58 -24244640.45 -24244640.32 0.0136 0.0004

Mercury -71091-01-13 04:18 J -24244552.45 -24244552.32 -24244552.19 0.0136 0.0013

Mercury -71091-04-11 07:25 J -24244464.32 -24244464.19 -24244464.06 0.0136 0.0030

Mercury -71091-07-08 10:33 J -24244376.18 -24244376.06 -24244375.94 0.0136 0.0047

Mercury -71091-10-04 13:40 J -24244288.05 -24244287.93 -24244287.81 0.0136 0.0064

Mercury -71091-12-31 16:47 J -24244199.90 -24244199.80 -24244199.69 0.0137 0.0082

Mercury -71090-03-29 19:54 J -24244111.76 -24244111.67 -24244111.58 0.0137 0.0099

Mercury -71090-06-25 23:01 J -24244023.60 -24244023.54 -24244023.47 0.0137 0.0117

Mercury -71090-09-22 02:09 J -24243935.42 -24243935.41 -24243935.38 0.0137 0.0134

Moon -71077-07-12 02:09 J -24239258.58 -24239258.41 -24239258.21 0.0145 0.0096

Earth -71077-07-12 05:30 J -24239258.45 -24239258.27 -24239258.06 0.0145 0.0091 *

Earth -71076-07-17 01:54 J -24238888.66 -24238888.42 -24238888.16 0.0145 0.0019

Moon -71076-07-17 05:45 J -24238888.51 -24238888.26 -24238888.02 0.0145 0.0011 *

Moon -71075-07-21 19:54 J -24238518.90 -24238518.67 -24238518.42 0.0146 0.0047

Earth -71075-07-21 23:30 J -24238518.75 -24238518.52 -24238518.29 0.0146 0.0054 *

Earth -71074-07-26 21:49 J -24238148.70 -24238148.59 -24238148.46 0.0146 0.0127

Moon -71074-07-27 00:28 J -24238148.57 -24238148.48 -24238148.36 0.0146 0.0132 *

Mars -71063-12-22 01:54 J -24233982.75 -24233982.42 -24233982.07 0.0147 0.0027

Venus -71062-08-20 12:28 J -24233741.14 -24233740.98 -24233740.80 0.0147 0.0096

Venus -71061-04-03 03:49 J -24233514.55 -24233514.34 -24233514.12 0.0147 0.0026

Venus -71061-11-15 18:57 J -24233287.91 -24233287.71 -24233287.49 0.0147 0.0044

Mars -71061-11-29 23:16 J -24233273.71 -24233273.53 -24233273.30 0.0147 0.0118

Venus -71060-06-30 10:18 J -24233061.20 -24233061.07 -24233060.92 0.0147 0.0113

Mercury -71054-12-21 01:40 J -24230696.51 -24230696.43 -24230696.32 0.0143 0.0125

Mercury -71053-03-18 10:18 J -24230608.21 -24230608.07 -24230607.91 0.0143 0.0095

Mercury -71053-06-14 18:57 J -24230519.88 -24230519.71 -24230519.53 0.0143 0.0065

Mercury -71053-09-11 03:35 J -24230431.54 -24230431.35 -24230431.16 0.0143 0.0035

Mercury -71053-12-08 11:59 J -24230343.19 -24230343.00 -24230342.80 0.0143 0.0007

Mercury -71052-03-06 20:37 J -24230254.83 -24230254.64 -24230254.45 0.0143 0.0024

Mercury -71052-06-03 05:01 J -24230166.47 -24230166.29 -24230166.11 0.0143 0.0053

Mercury -71052-08-30 12:57 J -24230078.10 -24230077.96 -24230077.79 0.0142 0.0083

Mercury -71052-11-26 21:35 J -24229989.72 -24229989.60 -24229989.48 0.0142 0.0111

Mercury -71051-02-23 05:45 J -24229901.29 -24229901.26 -24229901.22 0.0142 0.0139

Earth -71037-01-15 04:33 J -24224827.50 -24224827.31 -24224827.11 0.0134 0.0087

Moon -71037-01-15 05:59 J -24224827.43 -24224827.25 -24224827.04 0.0134 0.0084 *
 Moon -71036-01-18 15:35 J -24224458.10 -24224457.85 -24224457.58 0.0134 0.0028
 Earth -71036-01-18 16:33 J -24224458.06 -24224457.81 -24224457.55 0.0134 0.0028 *
 Earth -71035-01-23 03:35 J -24224088.60 -24224088.35 -24224088.09 0.0133 0.0030
 Moon -71035-01-23 04:33 J -24224088.56 -24224088.31 -24224088.07 0.0133 0.0027 *
 Moon -71034-01-27 12:28 J -24223719.15 -24223718.98 -24223718.77 0.0133 0.0093
 Earth -71034-01-27 13:11 J -24223719.12 -24223718.95 -24223718.74 0.0133 0.0088 *
 Mars -71022-06-05 22:47 J -24219206.63 -24219206.55 -24219206.43 0.0131 0.0122
 Mars -71020-05-04 05:16 J -24218508.53 -24218508.28 -24218508.00 0.0132 0.0043
 Venus -71019-05-26 00:42 J -24218121.57 -24218121.47 -24218121.33 0.0132 0.0109
 Venus -71018-01-07 04:04 J -24217895.52 -24217895.33 -24217895.14 0.0132 0.0061
 Mars -71018-04-02 09:06 J -24217810.37 -24217810.12 -24217809.84 0.0132 0.0039
 Venus -71018-08-21 06:57 J -24217669.42 -24217669.21 -24217669.00 0.0132 0.0014
 Venus -71017-04-03 09:35 J -24217443.30 -24217443.10 -24217442.89 0.0132 0.0034
 Venus -71017-11-15 12:13 J -24217217.14 -24217216.99 -24217216.81 0.0132 0.0082
 Mars -71016-02-28 11:59 J -24217112.11 -24217112.00 -24217111.87 0.0132 0.0119
 Venus -71016-06-29 15:06 J -24216990.90 -24216990.87 -24216990.82 0.0132 0.0130
 Mercury -71010-12-02 07:54 J -24214644.18 -24214644.17 -24214644.13 0.0135 0.0133
 Mercury -71009-02-28 11:16 J -24214556.09 -24214556.03 -24214555.97 0.0135 0.0116
 Mercury -71009-05-26 14:09 J -24214467.99 -24214467.91 -24214467.82 0.0135 0.0100
 Mercury -71009-08-22 17:16 J -24214379.88 -24214379.78 -24214379.68 0.0135 0.0083
 Mercury -71009-11-18 20:23 J -24214291.76 -24214291.65 -24214291.54 0.0135 0.0067
 Mercury -71008-02-14 23:16 J -24214203.65 -24214203.53 -24214203.40 0.0136 0.0050
 Mercury -71008-05-14 02:23 J -24214115.52 -24214115.40 -24214115.27 0.0136 0.0034
 Mercury -71008-08-10 05:30 J -24214027.40 -24214027.27 -24214027.14 0.0136 0.0017
 Mercury -71008-11-06 08:37 J -24213939.27 -24213939.14 -24213939.01 0.0136 0.0001
 Mercury -71007-02-02 11:45 J -24213851.14 -24213851.01 -24213850.88 0.0136 0.0018
 Mercury -71007-05-01 14:52 J -24213763.01 -24213762.88 -24213762.75 0.0136 0.0035
 Mercury -71007-07-28 17:45 J -24213674.87 -24213674.76 -24213674.63 0.0136 0.0053
 Mercury -71007-10-24 20:52 J -24213586.73 -24213586.63 -24213586.51 0.0136 0.0070

Mercury -71006-01-21 00:13 J -24213498.59 -24213498.49 -24213498.39 0.0137 0.0087

Mercury -71006-04-19 03:21 J -24213410.44 -24213410.36 -24213410.27 0.0137 0.0104

Mercury -71006-07-16 06:28 J -24213322.28 -24213322.23 -24213322.17 0.0137 0.0122

71ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 71st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-70993-07-12 14:52 J	-24208577.07	-24208576.88	-24208576.66	0.0145	0.0081		
Earth	-70993-07-12 18:42 J	-24208576.91	-24208576.72	-24208576.51	0.0145	0.0086	*	
Earth	-70992-07-17 15:21 J	-24208207.11	-24208206.86	-24208206.61	0.0145	0.0014		
Moon	-70992-07-17 18:42 J	-24208206.96	-24208206.72	-24208206.47	0.0145	0.0021	*	
Moon	-70991-07-22 09:21 J	-24207837.33	-24207837.11	-24207836.89	0.0146	0.0067		
Earth	-70991-07-22 12:42 J	-24207837.19	-24207836.97	-24207836.73	0.0146	0.0060	*	
Earth	-70990-07-27 11:01 J	-24207467.12	-24207467.04	-24207466.92	0.0146	0.0134		
Moon	-70990-07-27 14:52 J	-24207466.99	-24207466.88	-24207466.76	0.0146	0.0128	*	
Mars	-70980-09-09 19:54 J	-24203769.86	-24203769.67	-24203769.42	0.0148	0.0113		
Venus	-70978-04-19 19:54 J	-24203182.78	-24203182.67	-24203182.55	0.0147	0.0124		
Mars	-70978-08-19 14:23 J	-24203061.22	-24203060.90	-24203060.55	0.0147	0.0034		
Venus	-70978-12-02 11:01 J	-24202956.23	-24202956.04	-24202955.82	0.0147	0.0055		
Venus	-70977-07-16 02:37 J	-24202729.61	-24202729.39	-24202729.16	0.0147	0.0015		
Venus	-70976-02-27 17:45 J	-24202502.93	-24202502.76	-24202502.57	0.0147	0.0084		
Mercury	-70970-10-14 02:09 J	-24200083.42	-24200083.41	-24200083.38	0.0144	0.0143		

Mercury -70969-01-10 10:47 J -24199995.16 -24199995.05 -24199994.92 0.0143 0.0113

Mercury -70969-04-07 19:25 J -24199906.84 -24199906.69 -24199906.52 0.0143 0.0083

Mercury -70969-07-05 04:04 J -24199818.51 -24199818.33 -24199818.15 0.0143 0.0053

Mercury -70969-10-01 12:42 J -24199730.16 -24199729.97 -24199729.78 0.0143 0.0023

Mercury -70969-12-28 21:06 J -24199641.81 -24199641.62 -24199641.42 0.0143 0.0006

Mercury -70968-03-27 05:30 J -24199553.46 -24199553.27 -24199553.08 0.0143 0.0036

Mercury -70968-06-23 13:54 J -24199465.09 -24199464.92 -24199464.75 0.0143 0.0065

Mercury -70968-09-19 22:04 J -24199376.72 -24199376.58 -24199376.42 0.0142 0.0094

Mercury -70968-12-17 06:13 J -24199288.32 -24199288.24 -24199288.13 0.0142 0.0123

Earth -70953-01-15 18:13 J -24194145.93 -24194145.74 -24194145.52 0.0134 0.0083

Moon -70953-01-15 19:40 J -24194145.86 -24194145.68 -24194145.47 0.0134 0.0085 *

Moon -70952-01-19 04:33 J -24193776.57 -24193776.31 -24193776.04 0.0134 0.0023

Earth -70952-01-19 06:28 J -24193776.49 -24193776.23 -24193775.97 0.0134 0.0023 *

Earth -70951-01-23 17:01 J -24193407.03 -24193406.79 -24193406.53 0.0133 0.0036

Moon -70951-01-23 18:13 J -24193406.97 -24193406.74 -24193406.49 0.0133 0.0040 *

Moon -70950-01-28 02:09 J -24193037.60 -24193037.41 -24193037.20 0.0133 0.0087

Earth -70950-01-28 02:52 J -24193037.54 -24193037.38 -24193037.18 0.0133 0.0094 *

Mars -70937-01-29 02:09 J -24188288.59 -24188288.41 -24188288.18 0.0131 0.0090

Mars -70936-12-27 07:25 J -24187590.47 -24187590.19 -24187589.91 0.0132 0.0008

Venus -70935-01-23 14:09 J -24187562.95 -24187562.91 -24187562.85 0.0132 0.0128

Venus -70935-09-06 17:01 J -24187336.95 -24187336.79 -24187336.61 0.0132 0.0081

Venus -70934-04-20 19:54 J -24187110.87 -24187110.67 -24187110.46 0.0132 0.0034

Mars -70934-11-25 09:35 J -24186892.32 -24186892.10 -24186891.86 0.0132 0.0073

Venus -70934-12-02 22:47 J -24186884.76 -24186884.55 -24186884.34 0.0132 0.0014

Venus -70933-07-16 01:40 J -24186658.62 -24186658.43 -24186658.24 0.0132 0.0061

Venus -70932-02-27 04:18 J -24186432.42 -24186432.32 -24186432.19 0.0132 0.0109

Mercury -70926-12-22 15:35 J -24183942.88 -24183942.85 -24183942.80 0.0135 0.0128

Mercury -70925-03-19 18:42 J -24183854.79 -24183854.72 -24183854.64 0.0135 0.0111

Mercury -70925-06-15 21:35 J -24183766.68 -24183766.60 -24183766.50 0.0135 0.0095

Mercury -70925-09-12 00:42 J -24183678.57 -24183678.47 -24183678.36 0.0135 0.0079

Mercury -70925-12-09 03:49 J -24183590.45 -24183590.34 -24183590.22 0.0136 0.0062

Mercury -70924-03-07 06:57 J -24183502.33 -24183502.21 -24183502.09 0.0136 0.0045

Mercury -70924-06-03 10:04 J -24183414.21 -24183414.08 -24183413.95 0.0136 0.0028

Mercury -70924-08-30 13:11 J -24183326.09 -24183325.95 -24183325.82 0.0136 0.0012

Mercury -70924-11-26 16:04 J -24183237.96 -24183237.83 -24183237.69 0.0136 0.0007

Mercury -70923-02-22 19:11 J -24183149.83 -24183149.70 -24183149.57 0.0136 0.0023

Mercury -70923-05-21 22:18 J -24183061.69 -24183061.57 -24183061.44 0.0136 0.0040

Mercury -70923-08-18 01:25 J -24182973.56 -24182973.44 -24182973.32 0.0136 0.0057

Mercury -70923-11-14 04:33 J -24182885.42 -24182885.31 -24182885.20 0.0137 0.0075

Mercury -70922-02-10 07:40 J -24182797.27 -24182797.18 -24182797.08 0.0137 0.0092

Mercury -70922-05-09 10:47 J -24182709.12 -24182709.05 -24182708.97 0.0137 0.0110

Mercury -70922-08-05 13:54 J -24182620.96 -24182620.92 -24182620.86 0.0137 0.0127

Moon -70909-07-13 04:33 J -24177895.49 -24177895.31 -24177895.10 0.0145 0.0086

Earth -70909-07-13 07:54 J -24177895.37 -24177895.17 -24177894.96 0.0145 0.0081 *

Earth -70908-07-18 04:18 J -24177525.56 -24177525.32 -24177525.07 0.0145 0.0009

Moon -70908-07-18 08:09 J -24177525.41 -24177525.16 -24177524.91 0.0145 0.0001 *

Moon -70907-07-22 22:33 J -24177155.78 -24177155.56 -24177155.32 0.0146 0.0058

Earth -70907-07-23 01:54 J -24177155.63 -24177155.42 -24177155.18 0.0146 0.0066 *

Earth -70906-07-28 00:28 J -24176785.53 -24176785.48 -24176785.39 0.0146 0.0140

Moon -70906-07-28 04:04 J -24176785.35 -24176785.33 -24176785.28 0.0146 0.0144

Mars -70895-05-08 06:28 J -24172848.55 -24172848.23 -24172847.91 0.0147 0.0054

Venus -70894-08-01 18:13 J -24172397.91 -24172397.74 -24172397.55 0.0147 0.0085

Venus -70893-03-15 09:49 J -24172171.31 -24172171.09 -24172170.87 0.0147 0.0015

Mars -70893-04-16 03:21 J -24172139.60 -24172139.36 -24172139.07 0.0147 0.0094

Venus -70893-10-28 00:57 J -24171944.66 -24171944.46 -24171944.25 0.0147 0.0055

Venus -70892-06-11 16:04 J -24171717.93 -24171717.83 -24171717.69 0.0147 0.0124

Mercury -70886-11-03 11:16 J -24169382.10 -24169382.03 -24169381.95 0.0144 0.0131

Mercury -70885-01-30 19:40 J -24169293.80 -24169293.68 -24169293.53 0.0143 0.0101

Mercury -70885-04-28 04:18 J -24169205.48 -24169205.32 -24169205.14 0.0143 0.0071

Mercury -70885-07-25 12:57 J -24169117.14 -24169116.96 -24169116.77 0.0143 0.0041

Mercury -70885-10-21 21:35 J -24169028.79 -24169028.60 -24169028.41 0.0143 0.0012

Mercury -70884-01-18 05:59 J -24168940.44 -24168940.25 -24168940.05 0.0143 0.0018

Mercury -70884-04-16 14:23 J -24168852.08 -24168851.90 -24168851.71 0.0143 0.0047

Mercury -70884-07-13 22:47 J -24168763.71 -24168763.55 -24168763.38 0.0143 0.0076

Mercury -70884-10-10 07:11 J -24168675.33 -24168675.20 -24168675.07 0.0142 0.0105

Mercury -70883-01-06 15:21 J -24168586.92 -24168586.86 -24168586.79 0.0142 0.0133

Earth -70869-01-16 08:09 J -24163464.36 -24163464.16 -24163463.93 0.0134 0.0077

Moon -70869-01-16 10:47 J -24163464.25 -24163464.05 -24163463.83 0.0134 0.0074 *

Moon -70868-01-19 18:13 J -24163095.00 -24163094.74 -24163094.47 0.0134 0.0018

Earth -70868-01-19 20:09 J -24163094.91 -24163094.66 -24163094.40 0.0134 0.0018 *

Earth -70867-01-24 06:57 J -24162725.45 -24162725.21 -24162724.96 0.0133 0.0041

Moon -70867-01-24 08:37 J -24162725.38 -24162725.14 -24162724.89 0.0133 0.0038 *

Moon -70866-01-28 14:37 J -24162356.03 -24162355.89 -24162355.70 0.0133 0.0104

Earth -70866-01-28 16:47 J -24162355.97 -24162355.80 -24162355.62 0.0133 0.0099 *

Mars -70853-09-22 02:09 J -24157370.66 -24157370.41 -24157370.15 0.0131 0.0056

Venus -70851-05-07 05:16 J -24156778.40 -24156778.28 -24156778.13 0.0131 0.0101

Mars -70851-08-21 05:16 J -24156672.55 -24156672.28 -24156672.00 0.0132 0.0025

Venus -70851-12-19 08:09 J -24156552.34 -24156552.16 -24156551.96 0.0132 0.0055

Venus -70850-08-02 11:01 J -24156326.25 -24156326.04 -24156325.82 0.0132 0.0008

Venus -70849-03-15 13:54 J -24156100.12 -24156099.92 -24156099.71 0.0132 0.0040

Mars -70849-07-19 08:23 J -24155974.31 -24155974.15 -24155973.98 0.0132 0.0106

Venus -70849-10-27 16:18 J -24155873.96 -24155873.82 -24155873.64 0.0132 0.0088

Mercury -70841-01-11 22:47 J -24153241.59 -24153241.55 -24153241.50 0.0135 0.0124

Mercury -70841-04-09 01:40 J -24153153.50 -24153153.43 -24153153.34 0.0135 0.0108

Mercury -70841-07-06 04:47 J -24153065.39 -24153065.30 -24153065.20 0.0135 0.0092

Mercury -70841-10-02 07:54 J -24152977.28 -24152977.17 -24152977.06 0.0135 0.0075

Mercury -70841-12-29 11:01 J -24152889.16 -24152889.04 -24152888.92 0.0135 0.0058

Mercury -70840-03-27 13:54 J -24152801.04 -24152800.92 -24152800.79 0.0136 0.0042

Mercury -70840-06-23 17:01 J -24152712.92 -24152712.79 -24152712.66 0.0136 0.0025

Mercury -70840-09-19 20:09 J -24152624.79 -24152624.66 -24152624.53 0.0136 0.0008

Mercury -70840-12-16 23:16 J -24152536.66 -24152536.53 -24152536.40 0.0136 0.0009

Mercury -70839-03-15 02:23 J -24152448.53 -24152448.40 -24152448.27 0.0136 0.0026

Mercury -70839-06-11 05:30 J -24152360.40 -24152360.27 -24152360.15 0.0136 0.0043

Mercury -70839-09-07 08:37 J -24152272.26 -24152272.14 -24152272.02 0.0136 0.0061

Mercury -70839-12-04 11:45 J -24152184.12 -24152184.01 -24152183.90 0.0136 0.0078

Mercury -70838-03-02 14:37 J -24152095.97 -24152095.89 -24152095.79 0.0137 0.0096

Mercury -70838-05-29 17:59 J -24152007.82 -24152007.75 -24152007.68 0.0137 0.0113

Mercury -70838-08-25 20:52 J -24151919.65 -24151919.63 -24151919.58 0.0137 0.0131

Jupiter -70835-03-22 06:28 J -24150980.73 -24150980.23 -24150979.73 0.0138 0.0021

Moon -70825-07-13 13:11 J -24147214.15 -24147213.95 -24147213.73 0.0145 0.0075

Earth -70825-07-13 16:33 J -24147214.00 -24147213.81 -24147213.59 0.0145 0.0080 *

Earth -70824-07-18 13:25 J -24146844.19 -24146843.94 -24146843.69 0.0145 0.0006

Moon -70824-07-18 16:47 J -24146844.05 -24146843.80 -24146843.55 0.0145 0.0013 *

Moon -70823-07-23 07:25 J -24146474.39 -24146474.19 -24146473.96 0.0146 0.0076

Earth -70823-07-23 11:16 J -24146474.25 -24146474.03 -24146473.80 0.0146 0.0068 *

Earth -70822-07-28 09:49 J -24146104.12 -24146104.09 -24146104.02 0.0146 0.0143

Moon -70822-07-28 13:25 J -24146104.01 -24146103.94 -24146103.84 0.0146 0.0137

Mars -70812-01-24 14:23 J -24142635.94 -24142635.90 -24142635.80 0.0148 0.0145

Mars -70810-01-03 08:23 J -24141927.49 -24141927.15 -24141926.81 0.0147 0.0003

Venus -70810-03-31 22:33 J -24141839.68 -24141839.56 -24141839.41 0.0147 0.0118

Venus -70810-11-13 14:09 J -24141613.11 -24141612.91 -24141612.69 0.0147 0.0048

Venus -70809-06-27 05:45 J -24141386.47 -24141386.26 -24141386.03 0.0147 0.0022

Venus -70808-02-08 21:06 J -24141159.78 -24141159.62 -24141159.43 0.0147 0.0091

Mercury -70802-11-23 19:25 J -24138680.79 -24138680.69 -24138680.58 0.0144 0.0122

Mercury -70801-02-20 04:04 J -24138592.47 -24138592.33 -24138592.18 0.0144 0.0092

Mercury -70801-05-18 12:42 J -24138504.14 -24138503.97 -24138503.79 0.0143 0.0062

Mercury -70801-08-14 21:06 J -24138415.80 -24138415.62 -24138415.42 0.0143 0.0032

Mercury -70801-11-11 05:45 J -24138327.45 -24138327.26 -24138327.06 0.0143 0.0002

Mercury -70800-02-07 14:09 J -24138239.10 -24138238.91 -24138238.71 0.0143 0.0027

Mercury -70800-05-06 22:33 J -24138150.73 -24138150.56 -24138150.38 0.0143 0.0057

Mercury -70800-08-03 06:42 J -24138062.36 -24138062.22 -24138062.05 0.0143 0.0086
 Mercury -70800-10-30 15:06 J -24137973.97 -24137973.87 -24137973.74 0.0143 0.0115
 Moon -70786-01-12 06:13 J -24133152.32 -24133152.24 -24133152.13 0.0135 0.0126
 Earth -70786-01-12 09:21 J -24133152.13 -24133152.11 -24133152.05 0.0135 0.0133 *
 Earth -70785-01-16 21:49 J -24132782.79 -24132782.59 -24132782.35 0.0134 0.0073
 Moon -70785-01-17 00:13 J -24132782.68 -24132782.49 -24132782.27 0.0134 0.0075 *
 Moon -70784-01-20 07:25 J -24132413.46 -24132413.19 -24132412.93 0.0134 0.0012
 Earth -70784-01-20 10:04 J -24132413.34 -24132413.08 -24132412.82 0.0134 0.0012 *
 Earth -70783-01-24 20:23 J -24132043.88 -24132043.65 -24132043.40 0.0133 0.0047
 Moon -70783-01-24 22:47 J -24132043.78 -24132043.55 -24132043.32 0.0133 0.0050 *
 Moon -70782-01-29 04:18 J -24131674.48 -24131674.32 -24131674.12 0.0133 0.0099
 Earth -70782-01-29 06:28 J -24131674.38 -24131674.23 -24131674.06 0.0133 0.0105 *
 Mars -70770-06-18 21:06 J -24127150.77 -24127150.62 -24127150.43 0.0131 0.0105
 Mars -70768-05-17 01:54 J -24126452.69 -24126452.42 -24126452.14 0.0131 0.0023
 Venus -70767-01-04 17:59 J -24126219.81 -24126219.75 -24126219.65 0.0131 0.0121
 Venus -70767-08-18 20:52 J -24125993.79 -24125993.63 -24125993.44 0.0131 0.0075
 Venus -70766-04-01 23:45 J -24125767.71 -24125767.51 -24125767.29 0.0132 0.0028
 Mars -70766-04-15 05:16 J -24125754.51 -24125754.28 -24125754.02 0.0132 0.0059
 Venus -70766-11-14 02:37 J -24125541.60 -24125541.39 -24125541.18 0.0132 0.0020
 Venus -70765-06-27 05:16 J -24125315.45 -24125315.28 -24125315.09 0.0132 0.0067
 Venus -70764-02-08 08:09 J -24125089.25 -24125089.16 -24125089.04 0.0132 0.0114
 Mercury -70757-02-01 05:59 J -24122540.30 -24122540.25 -24122540.19 0.0135 0.0120
 Mercury -70757-04-29 09:06 J -24122452.20 -24122452.12 -24122452.03 0.0135 0.0104
 Mercury -70757-07-26 12:13 J -24122364.09 -24122363.99 -24122363.89 0.0135 0.0087
 Mercury -70757-10-22 15:06 J -24122275.98 -24122275.87 -24122275.75 0.0135 0.0071
 Mercury -70756-01-18 18:13 J -24122187.86 -24122187.74 -24122187.62 0.0135 0.0054
 Mercury -70756-04-16 21:21 J -24122099.74 -24122099.61 -24122099.49 0.0135 0.0038
 Mercury -70756-07-14 00:13 J -24122011.61 -24122011.49 -24122011.35 0.0136 0.0021
 Mercury -70756-10-10 03:21 J -24121923.49 -24121923.36 -24121923.23 0.0136 0.0005
 Mercury -70755-01-06 06:28 J -24121835.36 -24121835.23 -24121835.10 0.0136 0.0013

Mercury -70755-04-04 09:35 J -24121747.23 -24121747.10 -24121746.97 0.0136 0.0030
 Mercury -70755-07-01 12:42 J -24121659.09 -24121658.97 -24121658.85 0.0136 0.0047
 Mercury -70755-09-27 15:49 J -24121570.96 -24121570.84 -24121570.73 0.0136 0.0065
 Mercury -70755-12-24 18:42 J -24121482.81 -24121482.72 -24121482.61 0.0136 0.0082
 Mercury -70754-03-22 21:49 J -24121394.67 -24121394.59 -24121394.49 0.0136 0.0100
 Mercury -70754-06-19 01:11 J -24121306.51 -24121306.45 -24121306.38 0.0137 0.0117
 Mercury -70754-09-15 04:04 J -24121218.34 -24121218.33 -24121218.29 0.0137 0.0135
 Moon -70741-07-13 22:33 J -24116532.75 -24116532.56 -24116532.34 0.0145 0.0082
 Earth -70741-07-14 01:11 J -24116532.65 -24116532.45 -24116532.23 0.0145 0.0078 *
 Earth -70740-07-18 22:04 J -24116162.83 -24116162.58 -24116162.33 0.0145 0.0005
 Moon -70740-07-19 01:25 J -24116162.69 -24116162.44 -24116162.19 0.0145 0.0003 *
 Moon -70739-07-23 16:18 J -24115793.03 -24115792.82 -24115792.58 0.0146 0.0063
 Earth -70739-07-23 19:40 J -24115792.89 -24115792.68 -24115792.45 0.0146 0.0071 *
 Earth -70738-07-28 18:42 J -24115422.74 -24115422.72 -24115422.70 0.0146 0.0145
 Mars -70728-09-21 10:18 J -24111715.33 -24111715.07 -24111714.80 0.0148 0.0090
 Venus -70726-07-13 17:01 J -24111054.96 -24111054.79 -24111054.59 0.0147 0.0084
 Mars -70726-08-31 05:59 J -24111006.54 -24111006.25 -24111005.92 0.0147 0.0061
 Venus -70725-02-25 08:52 J -24110828.35 -24110828.13 -24110827.91 0.0147 0.0014
 Venus -70725-10-09 00:13 J -24110601.69 -24110601.49 -24110601.28 0.0147 0.0056
 Venus -70724-05-23 15:35 J -24110374.95 -24110374.85 -24110374.72 0.0147 0.0125
 Mercury -70718-12-14 02:09 J -24107979.51 -24107979.41 -24107979.28 0.0144 0.0117
 Mercury -70717-03-11 10:47 J -24107891.19 -24107891.05 -24107890.88 0.0144 0.0087
 Mercury -70717-06-07 19:25 J -24107802.86 -24107802.69 -24107802.50 0.0143 0.0057
 Mercury -70717-09-04 04:18 J -24107714.51 -24107714.32 -24107714.13 0.0143 0.0026
 Mercury -70717-12-01 12:42 J -24107626.16 -24107625.97 -24107625.77 0.0143 0.0004
 Mercury -70716-02-27 21:06 J -24107537.80 -24107537.62 -24107537.42 0.0143 0.0033
 Mercury -70716-05-27 05:45 J -24107449.44 -24107449.26 -24107449.09 0.0143 0.0062
 Mercury -70716-08-23 13:54 J -24107361.06 -24107360.92 -24107360.76 0.0143 0.0092
 Mercury -70716-11-19 22:04 J -24107272.67 -24107272.58 -24107272.46 0.0143 0.0121
 Moon -70702-01-12 18:13 J -24102470.74 -24102470.74 -24102470.72 0.0135 0.0135

Earth	-70702-01-12 21:06 J	-24102470.68	-24102470.62	-24102470.53	0.0135	0.0129
Earth	-70701-01-17 09:49 J	-24102101.30	-24102101.09	-24102100.85	0.0134	0.0068
Moon	-70701-01-17 12:57 J	-24102101.17	-24102100.96	-24102100.72	0.0134	0.0064 *
Moon	-70700-01-20 19:11 J	-24101731.96	-24101731.70	-24101731.43	0.0134	0.0008
Earth	-70700-01-20 22:04 J	-24101731.84	-24101731.58	-24101731.32	0.0134	0.0007 *
Earth	-70699-01-25 08:37 J	-24101362.37	-24101362.14	-24101361.89	0.0133	0.0052
Moon	-70699-01-25 11:30 J	-24101362.26	-24101362.02	-24101361.79	0.0133	0.0049 *
Moon	-70698-01-29 15:49 J	-24100992.95	-24100992.84	-24100992.68	0.0133	0.0115
Earth	-70698-01-29 18:57 J	-24100992.85	-24100992.71	-24100992.56	0.0133	0.0110 *
Mars	-70685-02-10 22:33 J	-24096232.79	-24096232.56	-24096232.32	0.0131	0.0071
Mars	-70683-01-09 03:06 J	-24095534.65	-24095534.37	-24095534.09	0.0131	0.0011
Venus	-70683-04-18 09:49 J	-24095435.22	-24095435.09	-24095434.93	0.0131	0.0094
Venus	-70683-11-30 12:42 J	-24095209.16	-24095208.97	-24095208.76	0.0131	0.0047
Venus	-70682-07-14 15:49 J	-24094983.06	-24094982.84	-24094982.63	0.0132	0.0003
Mars	-70682-12-08 06:13 J	-24094836.42	-24094836.24	-24094836.03	0.0132	0.0094
Venus	-70681-02-25 18:28 J	-24094756.93	-24094756.73	-24094756.53	0.0132	0.0047
Venus	-70681-10-08 20:52 J	-24094530.76	-24094530.63	-24094530.47	0.0132	0.0094
Mercury	-70674-11-25 10:18 J	-24091927.08	-24091927.07	-24091927.04	0.0135	0.0132
Mercury	-70673-02-21 13:11 J	-24091839.00	-24091838.95	-24091838.87	0.0135	0.0116
Mercury	-70673-05-19 16:33 J	-24091750.90	-24091750.81	-24091750.72	0.0135	0.0099
Mercury	-70673-08-15 19:25 J	-24091662.79	-24091662.69	-24091662.58	0.0135	0.0083
Mercury	-70673-11-11 22:33 J	-24091574.67	-24091574.56	-24091574.45	0.0135	0.0066
Mercury	-70672-02-08 01:40 J	-24091486.55	-24091486.43	-24091486.31	0.0135	0.0050
Mercury	-70672-05-07 04:33 J	-24091398.43	-24091398.31	-24091398.18	0.0135	0.0033
Mercury	-70672-08-03 07:40 J	-24091310.31	-24091310.18	-24091310.05	0.0135	0.0016
Mercury	-70672-10-30 10:47 J	-24091222.18	-24091222.05	-24091221.92	0.0136	0.0001
Mercury	-70671-01-26 13:54 J	-24091134.05	-24091133.92	-24091133.79	0.0136	0.0018
Mercury	-70671-04-24 17:01 J	-24091045.92	-24091045.79	-24091045.67	0.0136	0.0035
Mercury	-70671-07-21 19:54 J	-24090957.79	-24090957.67	-24090957.54	0.0136	0.0052
Mercury	-70671-10-17 23:01 J	-24090869.65	-24090869.54	-24090869.42	0.0136	0.0069

Mercury -70670-01-14 02:23 J -24090781.50 -24090781.40 -24090781.30 0.0136 0.0087
 Mercury -70670-04-12 05:16 J -24090693.36 -24090693.28 -24090693.19 0.0136 0.0104
 Mercury -70670-07-09 08:23 J -24090605.20 -24090605.15 -24090605.08 0.0137 0.0122
 Moon -70657-07-14 07:25 J -24085851.39 -24085851.19 -24085850.97 0.0145 0.0072
 Earth -70657-07-14 10:04 J -24085851.28 -24085851.08 -24085850.86 0.0145 0.0076 *
 Earth -70656-07-19 06:42 J -24085481.46 -24085481.22 -24085480.97 0.0145 0.0003
 Moon -70656-07-19 09:21 J -24085481.36 -24085481.11 -24085480.85 0.0145 0.0008 *
 Moon -70655-07-24 01:11 J -24085111.64 -24085111.45 -24085111.24 0.0146 0.0081
 Earth -70655-07-24 04:33 J -24085111.52 -24085111.31 -24085111.09 0.0146 0.0073 *
 Moon -70654-07-29 05:59 J -24084741.28 -24084741.25 -24084741.17 0.0146 0.0142
 Mars -70643-05-19 06:13 J -24080794.57 -24080794.24 -24080793.90 0.0148 0.0034
 Venus -70642-03-12 19:54 J -24080496.79 -24080496.67 -24080496.53 0.0147 0.0119
 Venus -70642-10-25 11:30 J -24080270.22 -24080270.02 -24080269.80 0.0147 0.0049
 Mars -70641-04-27 04:33 J -24080085.51 -24080085.31 -24080085.10 0.0147 0.0118
 Venus -70641-06-08 03:21 J -24080043.58 -24080043.36 -24080043.14 0.0147 0.0020
 Venus -70640-01-20 18:28 J -24079816.89 -24079816.73 -24079816.54 0.0147 0.0090
 Mercury -70634-10-07 00:42 J -24077366.50 -24077366.47 -24077366.43 0.0144 0.0141
 Mercury -70633-01-03 09:21 J -24077278.23 -24077278.11 -24077277.98 0.0144 0.0111
 Mercury -70633-03-31 17:59 J -24077189.91 -24077189.75 -24077189.59 0.0144 0.0081
 Mercury -70633-06-28 02:37 J -24077101.57 -24077101.39 -24077101.21 0.0144 0.0051
 Mercury -70633-09-24 11:01 J -24077013.23 -24077013.04 -24077012.84 0.0143 0.0021
 Mercury -70633-12-21 19:40 J -24076924.87 -24076924.68 -24076924.48 0.0143 0.0009
 Mercury -70632-03-20 04:04 J -24076836.51 -24076836.33 -24076836.14 0.0143 0.0039
 Mercury -70632-06-16 12:28 J -24076748.14 -24076747.98 -24076747.80 0.0143 0.0068
 Mercury -70632-09-12 21:06 J -24076659.76 -24076659.62 -24076659.48 0.0143 0.0097
 Mercury -70632-12-10 05:01 J -24076571.36 -24076571.29 -24076571.18 0.0143 0.0127
 Moon -70618-01-13 05:01 J -24071789.39 -24071789.29 -24071789.14 0.0135 0.0118
 Earth -70618-01-13 08:52 J -24071789.21 -24071789.13 -24071789.02 0.0135 0.0125 *
 Earth -70617-01-17 21:49 J -24071419.81 -24071419.59 -24071419.35 0.0134 0.0063
 Moon -70617-01-18 01:11 J -24071419.67 -24071419.45 -24071419.23 0.0134 0.0067 *

Moon -70616-01-21 06:57 J -24071050.48 -24071050.21 -24071049.95 0.0134 0.0002
 Earth -70616-01-21 10:04 J -24071050.33 -24071050.08 -24071049.81 0.0134 0.0004 *
 Earth -70615-01-25 20:52 J -24070680.85 -24070680.63 -24070680.38 0.0133 0.0058
 Moon -70615-01-25 23:59 J -24070680.72 -24070680.50 -24070680.27 0.0133 0.0059 *
 Moon -70614-01-30 04:33 J -24070311.44 -24070311.31 -24070311.15 0.0133 0.0110
 Earth -70614-01-30 07:11 J -24070311.31 -24070311.20 -24070311.06 0.0133 0.0116 *
 Mars -70603-11-06 17:45 J -24066012.85 -24066012.76 -24066012.62 0.0131 0.0120
 Mars -70601-10-05 00:57 J -24065314.73 -24065314.46 -24065314.19 0.0131 0.0036
 Venus -70600-12-16 23:45 J -24064876.61 -24064876.51 -24064876.39 0.0131 0.0113
 Venus -70599-07-31 02:23 J -24064650.57 -24064650.40 -24064650.20 0.0131 0.0067
 Mars -70599-09-03 05:59 J -24064616.51 -24064616.25 -24064615.99 0.0131 0.0047
 Venus -70598-03-14 05:16 J -24064424.48 -24064424.28 -24064424.06 0.0132 0.0020
 Venus -70598-10-26 08:09 J -24064198.37 -24064198.16 -24064197.95 0.0132 0.0028
 Venus -70597-06-08 10:33 J -24063972.22 -24063972.06 -24063971.87 0.0132 0.0075
 Mars -70597-08-01 08:09 J -24063918.20 -24063918.16 -24063918.10 0.0132 0.0129
 Venus -70596-01-20 13:54 J -24063746.00 -24063745.92 -24063745.84 0.0132 0.0121
 Mercury -70590-12-15 17:59 J -24061225.78 -24061225.75 -24061225.69 0.0135 0.0126
 Mercury -70589-03-12 21:21 J -24061137.69 -24061137.61 -24061137.53 0.0135 0.0109
 Mercury -70589-06-09 00:13 J -24061049.58 -24061049.49 -24061049.39 0.0135 0.0093
 Mercury -70589-09-05 03:21 J -24060961.47 -24060961.36 -24060961.25 0.0135 0.0076
 Mercury -70589-12-02 06:28 J -24060873.35 -24060873.23 -24060873.12 0.0135 0.0059
 Mercury -70588-02-28 09:21 J -24060785.23 -24060785.11 -24060784.98 0.0135 0.0043
 Mercury -70588-05-27 12:28 J -24060697.11 -24060696.98 -24060696.85 0.0135 0.0026
 Mercury -70588-08-23 15:35 J -24060608.98 -24060608.85 -24060608.72 0.0135 0.0009
 Mercury -70588-11-19 18:42 J -24060520.85 -24060520.72 -24060520.59 0.0136 0.0008
 Mercury -70587-02-15 21:49 J -24060432.72 -24060432.59 -24060432.46 0.0136 0.0025
 Mercury -70587-05-15 00:42 J -24060344.59 -24060344.47 -24060344.34 0.0136 0.0042
 Mercury -70587-08-11 03:49 J -24060256.45 -24060256.34 -24060256.22 0.0136 0.0059
 Mercury -70587-11-07 06:57 J -24060168.31 -24060168.21 -24060168.10 0.0136 0.0076
 Mercury -70586-02-03 10:04 J -24060080.17 -24060080.08 -24060079.98 0.0136 0.0094

Mercury -70586-05-02 13:11 J -24059992.02 -24059991.95 -24059991.87 0.0136 0.0111

Mercury -70586-07-29 16:18 J -24059903.85 -24059903.82 -24059903.77 0.0137 0.0129

Earth -70574-07-11 05:30 J -24055539.30 -24055539.27 -24055539.21 0.0144 0.0141

Moon -70574-07-11 07:11 J -24055539.23 -24055539.20 -24055539.13 0.0144 0.0141 *

Moon -70573-07-14 23:01 J -24055169.73 -24055169.54 -24055169.31 0.0145 0.0073

Earth -70573-07-15 00:57 J -24055169.67 -24055169.46 -24055169.23 0.0145 0.0069 *

Earth -70572-07-19 21:35 J -24054799.85 -24054799.60 -24054799.35 0.0145 0.0005

Moon -70572-07-20 00:28 J -24054799.74 -24054799.48 -24054799.23 0.0145 0.0012 *

Moon -70571-07-24 16:04 J -24054430.02 -24054429.83 -24054429.60 0.0146 0.0073

Earth -70571-07-24 19:11 J -24054429.91 -24054429.70 -24054429.49 0.0146 0.0080 *

Mars -70560-02-04 22:04 J -24050581.74 -24050581.58 -24050581.38 0.0148 0.0124

Mars -70558-01-14 14:37 J -24049873.22 -24049872.89 -24049872.54 0.0148 0.0028

Venus -70558-06-24 17:30 J -24049711.94 -24049711.77 -24049711.57 0.0147 0.0081

Venus -70557-02-06 09:21 J -24049485.33 -24049485.11 -24049484.89 0.0147 0.0011

Venus -70557-09-20 00:57 J -24049258.67 -24049258.46 -24049258.26 0.0147 0.0059

Venus -70556-05-04 16:18 J -24049031.93 -24049031.82 -24049031.71 0.0147 0.0127

Mercury -70550-10-27 08:37 J -24046665.20 -24046665.14 -24046665.05 0.0144 0.0132

Mercury -70549-01-23 17:16 J -24046576.90 -24046576.78 -24046576.63 0.0144 0.0102

Mercury -70549-04-21 02:09 J -24046488.58 -24046488.41 -24046488.24 0.0144 0.0072

Mercury -70549-07-18 10:47 J -24046400.23 -24046400.05 -24046399.86 0.0143 0.0041

Mercury -70549-10-14 19:25 J -24046311.89 -24046311.69 -24046311.50 0.0143 0.0011

Mercury -70548-01-11 03:49 J -24046223.53 -24046223.34 -24046223.14 0.0143 0.0019

Mercury -70548-04-09 12:13 J -24046135.16 -24046134.99 -24046134.80 0.0143 0.0048

Mercury -70548-07-06 20:52 J -24046046.79 -24046046.63 -24046046.47 0.0143 0.0077

Mercury -70548-10-03 05:01 J -24045958.41 -24045958.29 -24045958.15 0.0143 0.0107

Mercury -70548-12-30 13:25 J -24045869.99 -24045869.94 -24045869.87 0.0143 0.0136

Jupiter -70545-12-02 16:18 J -24044802.34 -24044801.82 -24044801.29 0.0141 0.0019

Moon -70534-01-13 18:42 J -24041107.80 -24041107.72 -24041107.62 0.0135 0.0126

Earth -70534-01-13 22:04 J -24041107.68 -24041107.58 -24041107.45 0.0135 0.0120 *

Earth -70533-01-18 11:16 J -24040738.26 -24040738.03 -24040737.79 0.0134 0.0058

Moon -70533-01-18 14:37 J -24040738.11 -24040737.89 -24040737.64 0.0134 0.0055 *
 Moon -70532-01-21 20:09 J -24040368.92 -24040368.66 -24040368.39 0.0134 0.0002
 Earth -70532-01-21 23:30 J -24040368.78 -24040368.52 -24040368.26 0.0134 0.0003 *
 Earth -70531-01-26 10:33 J -24039999.28 -24039999.06 -24039998.82 0.0133 0.0063
 Moon -70531-01-26 13:40 J -24039999.14 -24039998.93 -24039998.69 0.0133 0.0060 *
 Moon -70530-01-30 17:45 J -24039629.83 -24039629.76 -24039629.67 0.0133 0.0126
 Earth -70530-01-30 20:52 J -24039629.71 -24039629.63 -24039629.51 0.0133 0.0122 *
 Mars -70518-07-01 21:49 J -24035094.79 -24035094.59 -24035094.36 0.0131 0.0085
 Mars -70516-05-30 05:01 J -24034396.57 -24034396.29 -24034396.01 0.0131 0.0002
 Venus -70516-08-16 13:40 J -24034317.93 -24034317.93 -24034317.90 0.0131 0.0131
 Venus -70515-03-30 16:33 J -24034091.96 -24034091.81 -24034091.64 0.0131 0.0085
 Venus -70515-11-11 19:25 J -24033865.89 -24033865.69 -24033865.48 0.0132 0.0038
 Mars -70514-04-28 08:23 J -24033698.35 -24033698.15 -24033697.92 0.0132 0.0083
 Venus -70514-06-25 22:04 J -24033639.79 -24033639.58 -24033639.36 0.0132 0.0010
 Venus -70513-02-07 00:57 J -24033413.65 -24033413.46 -24033413.26 0.0132 0.0056
 Venus -70513-09-20 03:21 J -24033187.47 -24033187.36 -24033187.21 0.0132 0.0103
 Mercury -70505-01-05 01:54 J -24030524.47 -24030524.42 -24030524.35 0.0135 0.0119
 Mercury -70505-04-02 05:01 J -24030436.37 -24030436.29 -24030436.20 0.0135 0.0102
 Mercury -70505-06-29 08:09 J -24030348.26 -24030348.16 -24030348.06 0.0135 0.0086
 Mercury -70505-09-25 11:16 J -24030260.14 -24030260.03 -24030259.92 0.0135 0.0069
 Mercury -70505-12-22 14:09 J -24030172.03 -24030171.91 -24030171.79 0.0135 0.0053
 Mercury -70504-03-20 17:16 J -24030083.90 -24030083.78 -24030083.65 0.0135 0.0036
 Mercury -70504-06-16 20:23 J -24029995.78 -24029995.65 -24029995.52 0.0135 0.0019
 Mercury -70504-09-12 23:30 J -24029907.65 -24029907.52 -24029907.39 0.0135 0.0004
 Mercury -70504-12-10 02:23 J -24029819.53 -24029819.40 -24029819.26 0.0136 0.0015
 Mercury -70503-03-08 05:30 J -24029731.39 -24029731.27 -24029731.14 0.0136 0.0032
 Mercury -70503-06-04 08:37 J -24029643.26 -24029643.14 -24029643.01 0.0136 0.0049
 Mercury -70503-08-31 11:45 J -24029555.12 -24029555.01 -24029554.89 0.0136 0.0066
 Mercury -70503-11-27 14:52 J -24029466.98 -24029466.88 -24029466.77 0.0136 0.0083
 Mercury -70502-02-23 17:59 J -24029378.83 -24029378.75 -24029378.66 0.0136 0.0101

Mercury -70502-05-22 21:06 J -24029290.68 -24029290.62 -24029290.55 0.0136 0.0118
 Mercury -70502-08-19 00:13 J -24029202.49 -24029202.49 -24029202.47 0.0137 0.0136
 Earth -70490-07-11 20:37 J -24024857.71 -24024857.64 -24024857.55 0.0144 0.0135
 Moon -70490-07-11 21:35 J -24024857.68 -24024857.60 -24024857.49 0.0144 0.0134 *
 Moon -70489-07-15 14:23 J -24024488.12 -24024487.90 -24024487.68 0.0145 0.0059
 Earth -70489-07-15 16:04 J -24024488.05 -24024487.83 -24024487.60 0.0145 0.0063 *
 Earth -70488-07-20 12:42 J -24024118.22 -24024117.97 -24024117.72 0.0145 0.0012
 Moon -70488-07-20 14:37 J -24024118.15 -24024117.89 -24024117.63 0.0145 0.0005 *
 Moon -70487-07-25 07:11 J -24023748.37 -24023748.20 -24023748.00 0.0146 0.0095
 Earth -70487-07-25 09:49 J -24023748.27 -24023748.09 -24023747.87 0.0146 0.0088 *
 Mars -70476-10-03 09:49 J -24019660.39 -24019660.09 -24019659.77 0.0148 0.0063
 Venus -70474-02-22 01:11 J -24019153.60 -24019153.45 -24019153.30 0.0148 0.0109
 Mars -70474-09-12 04:18 J -24018951.58 -24018951.32 -24018951.04 0.0147 0.0091
 Venus -70474-10-06 16:47 J -24018927.02 -24018926.80 -24018926.59 0.0147 0.0040
 Venus -70473-05-20 08:09 J -24018700.38 -24018700.16 -24018699.94 0.0147 0.0029
 Venus -70472-01-01 23:30 J -24018473.68 -24018473.52 -24018473.35 0.0147 0.0098
 Mercury -70466-11-16 17:45 J -24015963.86 -24015963.76 -24015963.65 0.0144 0.0120
 Mercury -70465-02-13 02:23 J -24015875.54 -24015875.40 -24015875.24 0.0144 0.0090
 Mercury -70465-05-11 11:01 J -24015787.21 -24015787.04 -24015786.85 0.0144 0.0060
 Mercury -70465-08-07 19:40 J -24015698.86 -24015698.68 -24015698.48 0.0143 0.0030
 Mercury -70465-11-04 04:18 J -24015610.51 -24015610.32 -24015610.12 0.0143 0.0004
 Mercury -70464-01-31 12:57 J -24015522.15 -24015521.96 -24015521.77 0.0143 0.0030
 Mercury -70464-04-29 21:21 J -24015433.78 -24015433.61 -24015433.43 0.0143 0.0060
 Mercury -70464-07-27 05:30 J -24015345.40 -24015345.27 -24015345.10 0.0143 0.0090
 Mercury -70464-10-23 14:09 J -24015257.01 -24015256.91 -24015256.80 0.0143 0.0119
 Moon -70450-01-14 09:35 J -24010426.24 -24010426.10 -24010425.92 0.0135 0.0107
 Earth -70450-01-14 13:25 J -24010426.06 -24010425.94 -24010425.78 0.0135 0.0114 *
 Earth -70449-01-19 02:37 J -24010056.62 -24010056.39 -24010056.14 0.0134 0.0052
 Moon -70449-01-19 05:59 J -24010056.47 -24010056.25 -24010056.00 0.0134 0.0056 *
 Moon -70448-01-22 11:30 J -24009687.28 -24009687.02 -24009686.76 0.0134 0.0011

Earth -70448-01-22 15:06 J -24009687.13 -24009686.87 -24009686.61 0.0134 0.0010 *
 Earth -70447-01-27 02:09 J -24009317.62 -24009317.41 -24009317.18 0.0133 0.0071
 Moon -70447-01-27 05:30 J -24009317.47 -24009317.27 -24009317.04 0.0133 0.0073 *
 Moon -70446-01-31 09:21 J -24008948.18 -24008948.11 -24008948.00 0.0133 0.0124
 Earth -70446-01-31 12:28 J -24008948.01 -24008947.98 -24008947.90 0.0133 0.0130 *
 Mars -70433-02-24 05:30 J -24004176.53 -24004176.27 -24004176.01 0.0131 0.0049
 Venus -70432-11-28 07:25 J -24003533.32 -24003533.19 -24003533.06 0.0131 0.0102
 Mars -70431-01-22 10:33 J -24003478.31 -24003478.06 -24003477.78 0.0131 0.0036
 Venus -70431-07-12 10:04 J -24003307.27 -24003307.08 -24003306.88 0.0131 0.0056
 Venus -70430-02-23 12:57 J -24003081.17 -24003080.96 -24003080.75 0.0132 0.0009
 Venus -70430-10-07 15:35 J -24002855.05 -24002854.85 -24002854.64 0.0132 0.0038
 Mars -70430-12-21 12:28 J -24002780.07 -24002779.98 -24002779.85 0.0132 0.0120
 Venus -70429-05-20 17:59 J -24002628.90 -24002628.75 -24002628.57 0.0132 0.0085
 Venus -70428-01-01 20:52 J -24002402.64 -24002402.63 -24002402.60 0.0132 0.0131
 Mercury -70422-10-29 07:11 J -23999911.24 -23999911.20 -23999911.16 0.0135 0.0128
 Mercury -70421-01-25 10:04 J -23999823.14 -23999823.08 -23999823.00 0.0135 0.0112
 Mercury -70421-04-22 13:11 J -23999735.04 -23999734.95 -23999734.86 0.0135 0.0095
 Mercury -70421-07-19 16:18 J -23999646.93 -23999646.82 -23999646.72 0.0135 0.0078
 Mercury -70421-10-15 19:11 J -23999558.81 -23999558.70 -23999558.58 0.0135 0.0062
 Mercury -70420-01-11 22:18 J -23999470.69 -23999470.57 -23999470.45 0.0135 0.0045
 Mercury -70420-04-10 01:25 J -23999382.57 -23999382.44 -23999382.31 0.0135 0.0028
 Mercury -70420-07-07 04:18 J -23999294.45 -23999294.32 -23999294.18 0.0135 0.0013
 Mercury -70420-10-03 07:25 J -23999206.32 -23999206.19 -23999206.05 0.0136 0.0007
 Mercury -70420-12-30 10:33 J -23999118.19 -23999118.06 -23999117.93 0.0136 0.0022
 Mercury -70419-03-28 13:40 J -23999030.06 -23999029.93 -23999029.80 0.0136 0.0039
 Mercury -70419-06-24 16:33 J -23998941.92 -23998941.81 -23998941.68 0.0136 0.0057
 Mercury -70419-09-20 19:40 J -23998853.78 -23998853.68 -23998853.56 0.0136 0.0075
 Mercury -70419-12-17 23:01 J -23998765.64 -23998765.54 -23998765.44 0.0136 0.0091
 Mercury -70418-03-16 02:09 J -23998677.49 -23998677.41 -23998677.33 0.0136 0.0109
 Mercury -70418-06-12 05:01 J -23998589.33 -23998589.29 -23998589.23 0.0137 0.0127

Earth -70406-07-12 13:40 J -23994176.03 -23994175.93 -23994175.81 0.0144 0.0128
 Moon -70406-07-12 14:37 J -23994175.99 -23994175.89 -23994175.76 0.0144 0.0128 *
 Moon -70405-07-16 08:23 J -23993806.37 -23993806.15 -23993805.93 0.0145 0.0058
 Earth -70405-07-16 09:21 J -23993806.34 -23993806.11 -23993805.88 0.0145 0.0055 *
 Earth -70404-07-21 05:45 J -23993436.50 -23993436.26 -23993436.01 0.0145 0.0020
 Moon -70404-07-21 07:54 J -23993436.42 -23993436.17 -23993435.91 0.0145 0.0027 *
 Moon -70403-07-26 00:57 J -23993066.64 -23993066.46 -23993066.25 0.0146 0.0089
 Earth -70403-07-26 03:06 J -23993066.54 -23993066.37 -23993066.17 0.0146 0.0096 *
 Mars -70391-06-01 04:47 J -23988738.64 -23988738.30 -23988737.96 0.0148 0.0002
 Venus -70391-10-22 10:18 J -23988595.15 -23988595.07 -23988594.97 0.0148 0.0135
 Venus -70390-06-06 01:54 J -23988368.62 -23988368.42 -23988368.22 0.0147 0.0066
 Venus -70389-01-18 17:30 J -23988141.99 -23988141.77 -23988141.55 0.0147 0.0004
 Venus -70389-09-01 08:52 J -23987915.32 -23987915.13 -23987914.93 0.0147 0.0072
 Venus -70388-04-15 23:59 J -23987688.54 -23987688.50 -23987688.42 0.0147 0.0141
 Mercury -70382-09-09 18:57 J -23985350.76 -23985350.71 -23985350.64 0.0144 0.0136
 Mercury -70382-12-07 03:49 J -23985262.47 -23985262.34 -23985262.21 0.0144 0.0105
 Mercury -70381-03-04 12:28 J -23985174.14 -23985173.98 -23985173.81 0.0144 0.0075
 Mercury -70381-05-31 21:06 J -23985085.80 -23985085.62 -23985085.43 0.0144 0.0045
 Mercury -70381-08-28 05:45 J -23984997.45 -23984997.26 -23984997.07 0.0143 0.0015
 Mercury -70381-11-24 14:09 J -23984909.10 -23984908.91 -23984908.71 0.0143 0.0016
 Mercury -70380-02-20 22:33 J -23984820.73 -23984820.56 -23984820.36 0.0143 0.0046
 Mercury -70380-05-20 06:57 J -23984732.36 -23984732.21 -23984732.03 0.0143 0.0075
 Mercury -70380-08-16 15:35 J -23984643.98 -23984643.85 -23984643.71 0.0143 0.0104
 Mercury -70380-11-12 23:59 J -23984555.56 -23984555.50 -23984555.43 0.0143 0.0133
 Moon -70366-01-15 02:37 J -23979744.53 -23979744.39 -23979744.25 0.0135 0.0113
 Earth -70366-01-15 05:59 J -23979744.40 -23979744.25 -23979744.08 0.0135 0.0107 *
 Earth -70365-01-19 19:11 J -23979374.94 -23979374.70 -23979374.45 0.0134 0.0045
 Moon -70365-01-19 23:01 J -23979374.78 -23979374.54 -23979374.29 0.0134 0.0040 *
 Moon -70364-01-23 03:35 J -23979005.60 -23979005.35 -23979005.08 0.0134 0.0016
 Earth -70364-01-23 07:25 J -23979005.45 -23979005.19 -23979004.94 0.0134 0.0017 *

Earth -70363-01-27 18:28 J -23978635.94 -23978635.73 -23978635.52 0.0133 0.0078
 Moon -70363-01-27 21:49 J -23978635.79 -23978635.59 -23978635.37 0.0133 0.0075 *
 Mars -70351-11-20 02:37 J -23973956.55 -23973956.39 -23973956.18 0.0131 0.0098
 Mars -70349-10-18 10:33 J -23973258.34 -23973258.06 -23973257.78 0.0131 0.0013
 Venus -70348-07-28 21:35 J -23972974.67 -23972974.60 -23972974.50 0.0131 0.0119
 Venus -70347-03-12 00:13 J -23972748.65 -23972748.49 -23972748.30 0.0131 0.0074
 Mars -70347-09-16 13:25 J -23972560.15 -23972559.94 -23972559.69 0.0131 0.0073
 Venus -70347-10-24 03:06 J -23972522.57 -23972522.37 -23972522.15 0.0131 0.0027
 Venus -70346-06-07 05:59 J -23972296.46 -23972296.25 -23972296.04 0.0132 0.0020
 Venus -70345-01-19 08:23 J -23972070.32 -23972070.15 -23972069.95 0.0132 0.0067
 Venus -70345-09-01 11:01 J -23971844.13 -23971844.04 -23971843.92 0.0132 0.0113
 Mercury -70338-11-18 15:06 J -23969209.93 -23969209.87 -23969209.82 0.0135 0.0121
 Mercury -70337-02-14 17:59 J -23969121.83 -23969121.75 -23969121.67 0.0135 0.0105
 Mercury -70337-05-12 20:52 J -23969033.72 -23969033.63 -23969033.52 0.0135 0.0089
 Mercury -70337-08-08 23:59 J -23968945.61 -23968945.50 -23968945.38 0.0135 0.0072
 Mercury -70337-11-05 03:06 J -23968857.49 -23968857.37 -23968857.25 0.0135 0.0055
 Mercury -70336-02-01 06:13 J -23968769.37 -23968769.24 -23968769.12 0.0135 0.0039
 Mercury -70336-04-30 09:06 J -23968681.25 -23968681.12 -23968680.99 0.0135 0.0022
 Mercury -70336-07-27 12:13 J -23968593.12 -23968592.99 -23968592.86 0.0135 0.0005
 Mercury -70336-10-23 15:21 J -23968504.99 -23968504.86 -23968504.73 0.0136 0.0012
 Mercury -70335-01-19 18:28 J -23968416.86 -23968416.73 -23968416.60 0.0136 0.0029
 Mercury -70335-04-17 21:35 J -23968328.73 -23968328.60 -23968328.48 0.0136 0.0046
 Mercury -70335-07-15 00:28 J -23968240.59 -23968240.48 -23968240.36 0.0136 0.0063
 Mercury -70335-10-11 03:35 J -23968152.45 -23968152.35 -23968152.24 0.0136 0.0081
 Mercury -70334-01-07 06:42 J -23968064.31 -23968064.22 -23968064.13 0.0136 0.0098
 Mercury -70334-04-05 09:49 J -23967976.15 -23967976.09 -23967976.02 0.0136 0.0115
 Mercury -70334-07-02 12:57 J -23967887.98 -23967887.96 -23967887.93 0.0137 0.0133
 Moon -70322-07-13 03:21 J -23963494.49 -23963494.36 -23963494.22 0.0144 0.0121
 Earth -70322-07-13 03:06 J -23963494.48 -23963494.37 -23963494.23 0.0144 0.0123 *
 Moon -70321-07-16 21:21 J -23963124.82 -23963124.61 -23963124.37 0.0145 0.0047

Earth -70321-07-16 22:33 J -23963124.78 -23963124.56 -23963124.32 0.0145 0.0050 *
 Earth -70320-07-21 18:57 J -23962754.95 -23962754.71 -23962754.46 0.0145 0.0026
 Moon -70320-07-21 20:23 J -23962754.91 -23962754.65 -23962754.40 0.0145 0.0020 *
 Moon -70319-07-26 14:09 J -23962385.05 -23962384.91 -23962384.73 0.0146 0.0110
 Earth -70319-07-26 16:18 J -23962384.98 -23962384.82 -23962384.63 0.0146 0.0102 *
 Mars -70308-02-17 23:30 J -23958525.76 -23958525.52 -23958525.23 0.0148 0.0091
 Mars -70306-01-27 15:49 J -23957817.14 -23957816.84 -23957816.52 0.0148 0.0065
 Venus -70306-02-03 08:52 J -23957810.30 -23957810.13 -23957809.96 0.0148 0.0095
 Venus -70306-09-18 00:28 J -23957583.70 -23957583.48 -23957583.26 0.0148 0.0026
 Venus -70305-05-01 15:35 J -23957357.05 -23957356.85 -23957356.63 0.0147 0.0044
 Venus -70305-12-14 06:57 J -23957130.34 -23957130.21 -23957130.05 0.0147 0.0112
 Mercury -70298-09-30 04:04 J -23954649.41 -23954649.33 -23954649.21 0.0144 0.0123
 Mercury -70298-12-27 13:11 J -23954561.10 -23954560.95 -23954560.80 0.0144 0.0092
 Mercury -70297-03-24 21:49 J -23954472.77 -23954472.59 -23954472.41 0.0144 0.0062
 Mercury -70297-06-21 06:28 J -23954384.42 -23954384.23 -23954384.04 0.0144 0.0032
 Mercury -70297-09-17 15:06 J -23954296.07 -23954295.87 -23954295.68 0.0143 0.0003
 Mercury -70297-12-14 23:30 J -23954207.71 -23954207.52 -23954207.32 0.0143 0.0028
 Mercury -70296-03-13 07:54 J -23954119.34 -23954119.17 -23954118.98 0.0143 0.0058
 Mercury -70296-06-09 16:18 J -23954030.96 -23954030.82 -23954030.65 0.0143 0.0088
 Mercury -70296-09-06 00:42 J -23953942.57 -23953942.47 -23953942.35 0.0143 0.0117
 Moon -70282-01-15 18:13 J -23949062.90 -23949062.74 -23949062.53 0.0135 0.0094
 Earth -70282-01-15 22:04 J -23949062.73 -23949062.58 -23949062.39 0.0135 0.0101 *
 Earth -70281-01-20 11:16 J -23948693.28 -23948693.03 -23948692.78 0.0134 0.0037
 Moon -70281-01-20 14:37 J -23948693.13 -23948692.89 -23948692.63 0.0134 0.0042 *
 Moon -70280-01-23 19:40 J -23948323.93 -23948323.68 -23948323.42 0.0134 0.0025
 Earth -70280-01-23 23:16 J -23948323.77 -23948323.53 -23948323.26 0.0134 0.0025 *
 Earth -70279-01-28 10:18 J -23947954.25 -23947954.07 -23947953.86 0.0133 0.0085
 Moon -70279-01-28 13:54 J -23947954.10 -23947953.92 -23947953.71 0.0133 0.0087 *
 Mars -70266-07-15 08:09 J -23943038.39 -23943038.16 -23943037.90 0.0131 0.0062
 Mars -70264-06-12 13:11 J -23942340.22 -23942339.95 -23942339.67 0.0131 0.0024

Venus	-70264-11-09 14:23 J	-23942190.04	-23942189.90	-23942189.74	0.0131	0.0091
Venus	-70263-06-23 17:01 J	-23941963.98	-23941963.79	-23941963.58	0.0131	0.0045
Venus	-70262-02-04 19:54 J	-23941737.88	-23941737.67	-23941737.45	0.0131	0.0004
Mars	-70262-05-11 16:04 J	-23941641.97	-23941641.83	-23941641.65	0.0132	0.0109
Venus	-70262-09-18 22:33 J	-23941511.75	-23941511.56	-23941511.36	0.0132	0.0048
Venus	-70261-05-02 01:11 J	-23941285.59	-23941285.45	-23941285.30	0.0132	0.0094
Mercury	-70254-09-11 19:40 J	-23938596.70	-23938596.68	-23938596.65	0.0134	0.0131
Mercury	-70254-12-08 22:33 J	-23938508.62	-23938508.56	-23938508.49	0.0135	0.0116
Mercury	-70253-03-06 01:40 J	-23938420.51	-23938420.43	-23938420.34	0.0135	0.0099
Mercury	-70253-06-02 04:33 J	-23938332.40	-23938332.31	-23938332.20	0.0135	0.0083
Mercury	-70253-08-29 07:40 J	-23938244.29	-23938244.18	-23938244.06	0.0135	0.0066
Mercury	-70253-11-25 10:47 J	-23938156.17	-23938156.05	-23938155.93	0.0135	0.0049
Mercury	-70252-02-21 13:40 J	-23938068.05	-23938067.93	-23938067.80	0.0135	0.0033
Mercury	-70252-05-20 16:47 J	-23937979.93	-23937979.80	-23937979.67	0.0135	0.0016
Mercury	-70252-08-16 19:54 J	-23937891.80	-23937891.67	-23937891.54	0.0135	0.0001
Mercury	-70252-11-12 23:01 J	-23937803.67	-23937803.54	-23937803.41	0.0136	0.0018
Mercury	-70251-02-09 02:09 J	-23937715.54	-23937715.41	-23937715.29	0.0136	0.0035
Mercury	-70251-05-08 05:01 J	-23937627.41	-23937627.29	-23937627.16	0.0136	0.0052
Mercury	-70251-08-04 08:09 J	-23937539.27	-23937539.16	-23937539.04	0.0136	0.0069
Mercury	-70251-10-31 11:16 J	-23937451.13	-23937451.03	-23937450.93	0.0136	0.0086
Mercury	-70250-01-27 14:23 J	-23937362.98	-23937362.90	-23937362.81	0.0136	0.0104
Mercury	-70250-04-25 17:16 J	-23937274.83	-23937274.78	-23937274.71	0.0136	0.0122
Moon	-70238-07-13 15:49 J	-23932812.98	-23932812.84	-23932812.69	0.0144	0.0119
Earth	-70238-07-13 15:21 J	-23932812.98	-23932812.86	-23932812.70	0.0144	0.0119 *
Moon	-70237-07-17 10:47 J	-23932443.27	-23932443.05	-23932442.81	0.0145	0.0048
Earth	-70237-07-17 11:01 J	-23932443.27	-23932443.04	-23932442.80	0.0145	0.0045 *
Earth	-70236-07-22 07:25 J	-23932073.43	-23932073.19	-23932072.95	0.0145	0.0030
Moon	-70236-07-22 08:37 J	-23932073.39	-23932073.14	-23932072.89	0.0145	0.0037 *
Moon	-70235-07-27 03:21 J	-23931703.53	-23931703.36	-23931703.18	0.0146	0.0100
Earth	-70235-07-27 04:18 J	-23931703.47	-23931703.32	-23931703.13	0.0146	0.0108 *

Mars -70224-10-16 04:47 J -23927604.63 -23927604.30 -23927603.96 0.0148 0.0030
 Venus -70223-10-03 14:23 J -23927252.00 -23927251.90 -23927251.78 0.0148 0.0126
 Venus -70222-05-18 05:59 J -23927025.45 -23927025.25 -23927025.04 0.0148 0.0057
 Mars -70222-09-24 23:30 J -23926895.67 -23926895.52 -23926895.32 0.0148 0.0128
 Venus -70222-12-30 21:35 J -23926798.82 -23926798.60 -23926798.38 0.0148 0.0012
 Venus -70221-08-13 12:57 J -23926572.13 -23926571.96 -23926571.76 0.0147 0.0081
 Mercury -70214-07-24 04:18 J -23924036.34 -23924036.32 -23924036.29 0.0144 0.0143
 Mercury -70214-10-20 12:57 J -23923948.07 -23923947.96 -23923947.83 0.0144 0.0112
 Mercury -70213-01-16 21:49 J -23923859.75 -23923859.59 -23923859.43 0.0144 0.0081
 Mercury -70213-04-14 06:28 J -23923771.41 -23923771.23 -23923771.05 0.0144 0.0051
 Mercury -70213-07-11 15:06 J -23923683.06 -23923682.87 -23923682.68 0.0144 0.0021
 Mercury -70213-10-07 23:45 J -23923594.71 -23923594.51 -23923594.32 0.0143 0.0009
 Mercury -70212-01-04 08:09 J -23923506.34 -23923506.16 -23923505.97 0.0143 0.0040
 Mercury -70212-04-02 16:33 J -23923417.97 -23923417.81 -23923417.63 0.0143 0.0070
 Mercury -70212-06-30 00:57 J -23923329.58 -23923329.46 -23923329.31 0.0143 0.0099
 Mercury -70212-09-26 09:35 J -23923241.18 -23923241.10 -23923241.01 0.0143 0.0128
 Moon -70198-01-16 09:49 J -23918381.24 -23918381.09 -23918380.90 0.0135 0.0101
 Earth -70198-01-16 13:40 J -23918381.11 -23918380.93 -23918380.74 0.0135 0.0094 *
 Earth -70197-01-21 02:23 J -23918011.64 -23918011.40 -23918011.14 0.0134 0.0032
 Moon -70197-01-21 06:13 J -23918011.48 -23918011.24 -23918010.97 0.0134 0.0028 *
 Moon -70196-01-24 10:47 J -23917642.29 -23917642.05 -23917641.78 0.0134 0.0030
 Earth -70196-01-24 14:37 J -23917642.14 -23917641.89 -23917641.64 0.0134 0.0031 *
 Earth -70195-01-29 01:11 J -23917272.61 -23917272.45 -23917272.24 0.0133 0.0093
 Moon -70195-01-29 05:16 J -23917272.46 -23917272.28 -23917272.08 0.0133 0.0089 *
 Mars -70183-04-10 04:18 J -23912818.46 -23912818.32 -23912818.17 0.0131 0.0112
 Mars -70181-03-08 11:59 J -23912120.27 -23912120.00 -23912119.72 0.0131 0.0026
 Venus -70180-07-10 04:04 J -23911631.43 -23911631.33 -23911631.19 0.0131 0.0110
 Mars -70179-02-04 16:47 J -23911422.04 -23911421.80 -23911421.55 0.0131 0.0059
 Venus -70179-02-21 06:57 J -23911405.38 -23911405.21 -23911405.01 0.0131 0.0063
 Venus -70179-10-05 09:49 J -23911179.30 -23911179.09 -23911178.88 0.0131 0.0017

Venus -70178-05-19 12:13 J -23910953.19 -23910952.99 -23910952.77 0.0131 0.0030
 Venus -70178-12-31 14:52 J -23910727.04 -23910726.88 -23910726.70 0.0132 0.0076
 Venus -70177-08-13 17:16 J -23910500.84 -23910500.78 -23910500.68 0.0132 0.0122
 Mercury -70170-10-02 03:21 J -23907895.40 -23907895.36 -23907895.32 0.0134 0.0126
 Mercury -70170-12-29 06:13 J -23907807.31 -23907807.24 -23907807.16 0.0134 0.0110
 Mercury -70169-03-26 09:06 J -23907719.20 -23907719.12 -23907719.02 0.0135 0.0094
 Mercury -70169-06-22 12:13 J -23907631.09 -23907630.99 -23907630.88 0.0135 0.0077
 Mercury -70169-09-18 15:06 J -23907542.98 -23907542.87 -23907542.74 0.0135 0.0061
 Mercury -70169-12-15 18:13 J -23907454.86 -23907454.74 -23907454.61 0.0135 0.0044
 Mercury -70168-03-13 21:21 J -23907366.74 -23907366.61 -23907366.48 0.0135 0.0027
 Mercury -70168-06-10 00:28 J -23907278.61 -23907278.48 -23907278.35 0.0135 0.0011
 Mercury -70168-09-06 03:21 J -23907190.49 -23907190.36 -23907190.22 0.0135 0.0007
 Mercury -70168-12-03 06:28 J -23907102.36 -23907102.23 -23907102.10 0.0135 0.0023
 Mercury -70167-03-01 09:21 J -23907014.23 -23907014.11 -23907013.98 0.0136 0.0041
 Mercury -70167-05-28 12:28 J -23906926.09 -23906925.98 -23906925.86 0.0136 0.0058
 Mercury -70167-08-24 15:35 J -23906837.95 -23906837.85 -23906837.74 0.0136 0.0075
 Mercury -70167-11-20 18:42 J -23906749.81 -23906749.72 -23906749.62 0.0136 0.0092
 Mercury -70166-02-16 21:49 J -23906661.66 -23906661.59 -23906661.51 0.0136 0.0109
 Mercury -70166-05-16 00:57 J -23906573.50 -23906573.46 -23906573.41 0.0136 0.0126
 Moon -70154-07-13 23:45 J -23902131.66 -23902131.51 -23902131.35 0.0144 0.0113
 Earth -70154-07-14 00:57 J -23902131.60 -23902131.46 -23902131.31 0.0144 0.0116 *
 Moon -70153-07-17 19:54 J -23901761.90 -23901761.67 -23901761.43 0.0144 0.0040
 Earth -70153-07-17 19:54 J -23901761.90 -23901761.67 -23901761.43 0.0144 0.0042 *
 Moon -70152-07-22 15:49 J -23901392.09 -23901391.84 -23901391.58 0.0145 0.0028
 Earth -70152-07-22 16:04 J -23901392.07 -23901391.83 -23901391.59 0.0145 0.0033 *
 Moon -70151-07-27 11:59 J -23901022.12 -23901022.00 -23901021.84 0.0146 0.0118
 Earth -70151-07-27 13:11 J -23901022.11 -23901021.95 -23901021.78 0.0146 0.0110 *
 Mars -70141-07-04 11:01 J -23897392.18 -23897392.04 -23897391.85 0.0148 0.0128
 Mars -70139-06-12 23:30 J -23896683.85 -23896683.52 -23896683.18 0.0148 0.0029
 Venus -70138-01-15 08:23 J -23896467.31 -23896467.15 -23896466.97 0.0148 0.0093

Venus -70138-08-29 23:59 J -23896240.72 -23896240.50 -23896240.28 0.0148 0.0024
 Venus -70137-04-12 15:21 J -23896014.06 -23896013.86 -23896013.64 0.0147 0.0046
 Venus -70137-11-25 06:42 J -23895787.34 -23895787.22 -23895787.07 0.0147 0.0114
 Mercury -70130-08-13 11:01 J -23893335.09 -23893335.04 -23893334.97 0.0144 0.0137
 Mercury -70130-11-09 19:54 J -23893246.79 -23893246.67 -23893246.53 0.0144 0.0106
 Mercury -70129-02-06 04:33 J -23893158.47 -23893158.31 -23893158.13 0.0144 0.0076
 Mercury -70129-05-04 13:25 J -23893070.12 -23893069.94 -23893069.75 0.0144 0.0045
 Mercury -70129-07-31 22:04 J -23892981.77 -23892981.58 -23892981.38 0.0144 0.0015
 Mercury -70129-10-28 06:42 J -23892893.41 -23892893.22 -23892893.03 0.0144 0.0015
 Mercury -70128-01-24 15:06 J -23892805.05 -23892804.87 -23892804.68 0.0143 0.0046
 Mercury -70128-04-22 23:45 J -23892716.67 -23892716.51 -23892716.34 0.0143 0.0075
 Mercury -70128-07-20 08:09 J -23892628.28 -23892628.16 -23892628.02 0.0143 0.0105
 Mercury -70128-10-16 16:33 J -23892539.86 -23892539.81 -23892539.73 0.0143 0.0134
 Moon -70114-01-16 22:47 J -23887699.74 -23887699.55 -23887699.34 0.0135 0.0082
 Earth -70114-01-17 02:23 J -23887699.59 -23887699.40 -23887699.20 0.0135 0.0089 *
 Earth -70113-01-21 15:21 J -23887330.11 -23887329.86 -23887329.60 0.0134 0.0026
 Moon -70113-01-21 18:42 J -23887329.96 -23887329.72 -23887329.45 0.0134 0.0030 *
 Moon -70112-01-24 23:59 J -23886960.74 -23886960.50 -23886960.25 0.0134 0.0038
 Earth -70112-01-25 03:49 J -23886960.59 -23886960.34 -23886960.09 0.0134 0.0037 *
 Earth -70111-01-29 14:37 J -23886591.05 -23886590.89 -23886590.70 0.0134 0.0099
 Moon -70111-01-29 18:13 J -23886590.90 -23886590.74 -23886590.56 0.0134 0.0101 *
 Mars -70099-12-03 08:52 J -23881900.35 -23881900.13 -23881899.89 0.0131 0.0076
 Mars -70097-10-31 15:35 J -23881202.13 -23881201.85 -23881201.57 0.0131 0.0011
 Venus -70096-03-09 18:42 J -23881072.77 -23881072.72 -23881072.67 0.0131 0.0127
 Venus -70096-10-21 21:06 J -23880846.78 -23880846.62 -23880846.44 0.0131 0.0081
 Venus -70095-06-04 23:45 J -23880620.71 -23880620.51 -23880620.29 0.0131 0.0035
 Mars -70095-09-29 19:54 J -23880503.84 -23880503.67 -23880503.46 0.0131 0.0096
 Venus -70094-01-17 02:37 J -23880394.60 -23880394.39 -23880394.17 0.0131 0.0012
 Venus -70094-08-31 05:16 J -23880168.47 -23880168.28 -23880168.08 0.0131 0.0057
 Venus -70093-04-13 07:40 J -23879942.30 -23879942.18 -23879942.04 0.0132 0.0104

Mercury -70086-10-22 11:01 J -23877194.09 -23877194.04 -23877193.97 0.0134 0.0119

Mercury -70085-01-18 14:09 J -23877105.99 -23877105.91 -23877105.82 0.0134 0.0103

Mercury -70085-04-15 17:01 J -23877017.88 -23877017.79 -23877017.68 0.0135 0.0087

Mercury -70085-07-12 20:09 J -23876929.77 -23876929.66 -23876929.55 0.0135 0.0070

Mercury -70085-10-08 23:01 J -23876841.65 -23876841.54 -23876841.41 0.0135 0.0054

Mercury -70084-01-05 02:09 J -23876753.53 -23876753.41 -23876753.28 0.0135 0.0037

Mercury -70084-04-03 05:16 J -23876665.41 -23876665.28 -23876665.15 0.0135 0.0021

Mercury -70084-06-30 08:09 J -23876577.29 -23876577.16 -23876577.03 0.0135 0.0005

Mercury -70084-09-26 11:16 J -23876489.16 -23876489.03 -23876488.90 0.0135 0.0013

Mercury -70084-12-23 14:23 J -23876401.03 -23876400.90 -23876400.77 0.0135 0.0030

Mercury -70083-03-21 17:16 J -23876312.90 -23876312.78 -23876312.65 0.0136 0.0047

Mercury -70083-06-17 20:23 J -23876224.76 -23876224.65 -23876224.53 0.0136 0.0064

Mercury -70083-09-13 23:30 J -23876136.62 -23876136.52 -23876136.41 0.0136 0.0081

Mercury -70083-12-11 02:37 J -23876048.48 -23876048.39 -23876048.30 0.0136 0.0098

Mercury -70082-03-09 05:30 J -23875960.33 -23875960.27 -23875960.19 0.0136 0.0116

Mercury -70082-06-05 08:37 J -23875872.15 -23875872.14 -23875872.11 0.0136 0.0133

Moon -70070-07-14 12:42 J -23871450.11 -23871449.97 -23871449.79 0.0144 0.0113

Earth -70070-07-14 14:09 J -23871450.07 -23871449.91 -23871449.75 0.0144 0.0111 *

Earth -70069-07-18 08:37 J -23871080.37 -23871080.14 -23871079.89 0.0144 0.0038

Moon -70069-07-18 09:49 J -23871080.32 -23871080.09 -23871079.85 0.0144 0.0039 *

Moon -70068-07-23 04:33 J -23870710.55 -23870710.31 -23870710.06 0.0145 0.0044

Earth -70068-07-23 04:33 J -23870710.54 -23870710.31 -23870710.06 0.0145 0.0039 *

Moon -70067-07-28 01:11 J -23870340.59 -23870340.45 -23870340.27 0.0145 0.0109

Earth -70067-07-28 01:40 J -23870340.57 -23870340.43 -23870340.27 0.0145 0.0116 *

Mars -70056-03-01 12:13 J -23866471.28 -23866470.99 -23866470.68 0.0148 0.0067

Venus -70055-09-14 13:11 J -23865909.06 -23865908.95 -23865908.83 0.0148 0.0125

Mars -70054-02-08 02:23 J -23865762.65 -23865762.40 -23865762.12 0.0148 0.0091

Venus -70054-04-29 04:33 J -23865682.51 -23865682.31 -23865682.10 0.0148 0.0057

Venus -70054-12-11 20:09 J -23865455.88 -23865455.66 -23865455.44 0.0148 0.0012

Venus -70053-07-25 11:30 J -23865229.19 -23865229.02 -23865228.82 0.0147 0.0082

Mercury -70046-09-02 18:42 J -23862633.79 -23862633.72 -23862633.62 0.0144 0.0130
 Mercury -70046-11-30 03:35 J -23862545.48 -23862545.35 -23862545.20 0.0144 0.0099
 Mercury -70045-02-26 12:13 J -23862457.15 -23862456.99 -23862456.81 0.0144 0.0068
 Mercury -70045-05-24 21:06 J -23862368.80 -23862368.62 -23862368.43 0.0144 0.0037
 Mercury -70045-08-21 05:45 J -23862280.45 -23862280.26 -23862280.06 0.0144 0.0008
 Mercury -70045-11-17 14:23 J -23862192.09 -23862191.90 -23862191.70 0.0144 0.0023
 Mercury -70044-02-13 22:47 J -23862103.72 -23862103.55 -23862103.36 0.0143 0.0054
 Mercury -70044-05-13 07:25 J -23862015.34 -23862015.19 -23862015.03 0.0143 0.0083
 Mercury -70044-08-09 15:35 J -23861926.95 -23861926.85 -23861926.71 0.0143 0.0114
 Mercury -70044-11-06 00:13 J -23861838.50 -23861838.49 -23861838.46 0.0143 0.0142
 Moon -70030-01-17 11:59 J -23857018.18 -23857018.00 -23857017.81 0.0135 0.0090
 Earth -70030-01-17 14:52 J -23857018.07 -23857017.88 -23857017.66 0.0135 0.0084 *
 Earth -70029-01-22 04:18 J -23856648.57 -23856648.32 -23856648.06 0.0135 0.0020
 Moon -70029-01-22 07:54 J -23856648.43 -23856648.17 -23856647.91 0.0135 0.0016 *
 Moon -70028-01-25 13:11 J -23856279.18 -23856278.95 -23856278.70 0.0134 0.0041
 Earth -70028-01-25 16:33 J -23856279.05 -23856278.81 -23856278.56 0.0134 0.0043 *
 Earth -70027-01-30 03:35 J -23855909.50 -23855909.35 -23855909.18 0.0134 0.0105
 Moon -70027-01-30 07:11 J -23855909.35 -23855909.20 -23855909.02 0.0134 0.0102 *
 Mars -70016-08-29 03:06 J -23851680.41 -23851680.37 -23851680.28 0.0131 0.0127
 Mars -70014-07-28 13:25 J -23850982.20 -23850981.94 -23850981.67 0.0131 0.0039
 Venus -70012-06-21 11:30 J -23850288.15 -23850288.02 -23850287.87 0.0131 0.0099
 Mars -70012-06-25 20:23 J -23850283.91 -23850283.65 -23850283.39 0.0131 0.0048
 Venus -70011-02-02 14:23 J -23850062.09 -23850061.90 -23850061.70 0.0131 0.0053
 Venus -70011-09-16 17:01 J -23849836.00 -23849835.79 -23849835.57 0.0131 0.0007
 Venus -70010-04-30 19:40 J -23849609.88 -23849609.68 -23849609.47 0.0131 0.0040
 Venus -70010-12-12 22:18 J -23849383.73 -23849383.57 -23849383.41 0.0132 0.0086
 Mercury -70002-08-15 16:04 J -23846580.86 -23846580.83 -23846580.79 0.0134 0.0128
 Mercury -70002-11-11 19:11 J -23846492.77 -23846492.70 -23846492.63 0.0134 0.0112
 Mercury -70001-02-07 22:04 J -23846404.67 -23846404.58 -23846404.48 0.0134 0.0096
 Mercury -70001-05-06 01:11 J -23846316.56 -23846316.45 -23846316.34 0.0135 0.0079

Mercury -70001-08-02 04:04 J -23846228.44 -23846228.33 -23846228.21 0.0135 0.0063

Mercury -70001-10-29 07:11 J -23846140.32 -23846140.20 -23846140.08 0.0135 0.0046

70TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 70th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-70000-01-25 10:04 J	-23846052.20	-23846052.08	-23846051.95	0.0135	0.0030		
Mercury	-70000-04-23 13:11 J	-23845964.08	-23845963.95	-23845963.82	0.0135	0.0013		
Mercury	-70000-07-20 16:18 J	-23845875.95	-23845875.82	-23845875.69	0.0135	0.0005		
Mercury	-70000-10-16 19:11 J	-23845787.83	-23845787.70	-23845787.57	0.0135	0.0021		
Mercury	-69999-01-12 22:18 J	-23845699.70	-23845699.57	-23845699.44	0.0135	0.0038		
Mercury	-69999-04-11 01:25 J	-23845611.56	-23845611.44	-23845611.32	0.0136	0.0055		
Mercury	-69999-07-08 04:18 J	-23845523.42	-23845523.32	-23845523.20	0.0136	0.0072		
Mercury	-69999-10-04 07:25 J	-23845435.28	-23845435.19	-23845435.09	0.0136	0.0089		
Mercury	-69999-12-31 10:33 J	-23845347.14	-23845347.06	-23845346.98	0.0136	0.0106		
Mercury	-69998-03-29 13:40 J	-23845258.98	-23845258.93	-23845258.87	0.0136	0.0124		
Moon	-69986-07-15 02:52 J	-23840768.55	-23840768.38	-23840768.19	0.0144	0.0101		
Earth	-69986-07-15 05:01 J	-23840768.45	-23840768.29	-23840768.11	0.0144	0.0104	*	
Earth	-69985-07-18 23:45 J	-23840398.75	-23840398.51	-23840398.26	0.0144	0.0030		
Moon	-69985-07-19 00:42 J	-23840398.70	-23840398.47	-23840398.23	0.0144	0.0028	*	
Moon	-69984-07-23 18:28 J	-23840028.97	-23840028.73	-23840028.48	0.0145	0.0041		
Earth	-69984-07-23 19:11 J	-23840028.92	-23840028.70	-23840028.45	0.0145	0.0047	*	

Earth	-69983-07-28 16:04 J	-23839658.94	-23839658.83	-23839658.68	0.0145	0.0124
Moon	-69983-07-28 16:18 J	-23839658.91	-23839658.82	-23839658.70	0.0145	0.0131 *
Mars	-69972-10-27 16:47 J	-23835550.13	-23835549.80	-23835549.46	0.0148	0.0005
Venus	-69971-12-27 10:04 J	-23835124.25	-23835124.08	-23835123.89	0.0148	0.0088
Venus	-69970-08-11 01:40 J	-23834897.64	-23834897.43	-23834897.20	0.0148	0.0019
Venus	-69969-03-24 17:01 J	-23834670.99	-23834670.79	-23834670.57	0.0147	0.0050
Venus	-69969-11-06 08:23 J	-23834444.27	-23834444.15	-23834444.00	0.0147	0.0118
Mercury	-69962-09-23 02:52 J	-23831932.47	-23831932.38	-23831932.26	0.0144	0.0120
Mercury	-69962-12-20 11:45 J	-23831844.16	-23831844.01	-23831843.85	0.0144	0.0089
Mercury	-69961-03-17 20:37 J	-23831755.82	-23831755.64	-23831755.46	0.0144	0.0058
Mercury	-69961-06-14 05:16 J	-23831667.47	-23831667.28	-23831667.09	0.0144	0.0028
Mercury	-69961-09-10 13:54 J	-23831579.11	-23831578.92	-23831578.72	0.0144	0.0003
Mercury	-69961-12-07 22:33 J	-23831490.75	-23831490.56	-23831490.37	0.0144	0.0033
Mercury	-69960-03-06 06:57 J	-23831402.38	-23831402.21	-23831402.03	0.0143	0.0063
Mercury	-69960-06-02 15:21 J	-23831314.00	-23831313.86	-23831313.70	0.0143	0.0093
Mercury	-69960-08-29 23:45 J	-23831225.59	-23831225.51	-23831225.39	0.0143	0.0122
Moon	-69946-01-18 01:40 J	-23826336.64	-23826336.43	-23826336.21	0.0135	0.0071
Earth	-69946-01-18 04:33 J	-23826336.51	-23826336.31	-23826336.09	0.0135	0.0078 *
Earth	-69945-01-22 17:59 J	-23825967.01	-23825966.75	-23825966.49	0.0135	0.0014
Moon	-69945-01-22 20:52 J	-23825966.89	-23825966.63	-23825966.36	0.0135	0.0018 *
Moon	-69944-01-26 02:37 J	-23825597.61	-23825597.39	-23825597.14	0.0134	0.0051
Earth	-69944-01-26 06:13 J	-23825597.47	-23825597.24	-23825596.99	0.0134	0.0050 *
Earth	-69943-01-30 17:16 J	-23825227.90	-23825227.78	-23825227.62	0.0134	0.0112
Moon	-69943-01-30 20:52 J	-23825227.76	-23825227.63	-23825227.49	0.0134	0.0113 *
Mars	-69931-04-23 09:21 J	-23820762.30	-23820762.11	-23820761.89	0.0131	0.0089
Mars	-69929-03-21 19:40 J	-23820063.96	-23820063.68	-23820063.40	0.0131	0.0002
Venus	-69928-02-19 01:54 J	-23819729.50	-23819729.42	-23819729.30	0.0131	0.0116
Venus	-69928-10-03 04:47 J	-23819503.47	-23819503.30	-23819503.11	0.0131	0.0070
Mars	-69927-02-18 01:40 J	-23819365.63	-23819365.43	-23819365.21	0.0131	0.0086
Venus	-69927-05-17 07:40 J	-23819277.39	-23819277.18	-23819276.97	0.0131	0.0024

Venus -69927-12-29 10:18 J -23819051.27 -23819051.07 -23819050.85 0.0131 0.0023
 Venus -69926-08-12 12:57 J -23818825.13 -23818824.96 -23818824.77 0.0132 0.0069
 Venus -69925-03-25 15:35 J -23818598.94 -23818598.85 -23818598.73 0.0132 0.0115
 Mercury -69918-09-05 00:13 J -23815879.54 -23815879.49 -23815879.43 0.0134 0.0120
 Mercury -69918-12-02 03:06 J -23815791.44 -23815791.37 -23815791.28 0.0134 0.0104
 Mercury -69917-02-28 06:13 J -23815703.34 -23815703.24 -23815703.14 0.0135 0.0088
 Mercury -69917-05-26 09:06 J -23815615.22 -23815615.12 -23815615.00 0.0135 0.0072
 Mercury -69917-08-22 12:13 J -23815527.11 -23815526.99 -23815526.87 0.0135 0.0055
 Mercury -69917-11-18 15:21 J -23815438.99 -23815438.86 -23815438.74 0.0135 0.0038
 Mercury -69916-02-14 18:13 J -23815350.87 -23815350.74 -23815350.61 0.0135 0.0022
 Mercury -69916-05-13 21:21 J -23815262.74 -23815262.61 -23815262.48 0.0135 0.0005
 Mercury -69916-08-10 00:28 J -23815174.62 -23815174.48 -23815174.35 0.0135 0.0013
 Mercury -69916-11-06 03:21 J -23815086.49 -23815086.36 -23815086.23 0.0135 0.0029
 Mercury -69915-02-02 06:28 J -23814998.35 -23814998.23 -23814998.11 0.0136 0.0046
 Mercury -69915-05-01 09:35 J -23814910.22 -23814910.10 -23814909.99 0.0136 0.0063
 Mercury -69915-07-28 12:28 J -23814822.08 -23814821.98 -23814821.87 0.0136 0.0080
 Mercury -69915-10-24 15:35 J -23814733.94 -23814733.85 -23814733.75 0.0136 0.0097
 Mercury -69914-01-20 18:42 J -23814645.79 -23814645.72 -23814645.65 0.0136 0.0115
 Mercury -69914-04-18 21:35 J -23814557.62 -23814557.60 -23814557.56 0.0136 0.0132
 Moon -69902-07-15 20:37 J -23810086.81 -23810086.64 -23810086.44 0.0144 0.0098
 Earth -69902-07-15 22:47 J -23810086.74 -23810086.55 -23810086.37 0.0144 0.0096 *
 Earth -69901-07-19 17:16 J -23809717.02 -23809716.78 -23809716.53 0.0144 0.0022
 Moon -69901-07-19 18:57 J -23809716.94 -23809716.71 -23809716.46 0.0144 0.0024 *
 Moon -69900-07-24 12:13 J -23809347.22 -23809346.99 -23809346.75 0.0145 0.0060
 Earth -69900-07-24 13:11 J -23809347.17 -23809346.95 -23809346.71 0.0145 0.0055 *
 Earth -69899-07-29 10:18 J -23808977.16 -23808977.07 -23808976.97 0.0145 0.0133
 Moon -69899-07-29 10:33 J -23808977.16 -23808977.06 -23808976.92 0.0145 0.0126 *
 Mars -69889-07-17 00:42 J -23805336.71 -23805336.47 -23805336.20 0.0148 0.0096
 Mars -69887-06-25 09:06 J -23804628.41 -23804628.12 -23804627.79 0.0148 0.0063
 Venus -69887-08-26 19:11 J -23804565.83 -23804565.70 -23804565.55 0.0148 0.0114

Venus -69886-04-10 10:33 J -23804339.27 -23804339.06 -23804338.84 0.0148 0.0046
 Venus -69886-11-23 01:54 J -23804112.63 -23804112.42 -23804112.19 0.0147 0.0023
 Venus -69885-07-06 17:30 J -23803885.94 -23803885.77 -23803885.59 0.0147 0.0092
 Mercury -69878-07-17 04:04 J -23801319.39 -23801319.33 -23801319.27 0.0144 0.0137
 Mercury -69878-10-13 12:28 J -23801231.10 -23801230.98 -23801230.83 0.0144 0.0106
 Mercury -69877-01-09 21:21 J -23801142.77 -23801142.61 -23801142.44 0.0144 0.0075
 Mercury -69877-04-07 05:59 J -23801054.43 -23801054.25 -23801054.05 0.0144 0.0045
 Mercury -69877-07-04 14:52 J -23800966.07 -23800965.88 -23800965.69 0.0144 0.0014
 Mercury -69877-09-30 23:30 J -23800877.72 -23800877.52 -23800877.33 0.0144 0.0016
 Mercury -69877-12-28 07:54 J -23800789.35 -23800789.17 -23800788.98 0.0144 0.0046
 Mercury -69876-03-26 16:18 J -23800700.97 -23800700.82 -23800700.64 0.0143 0.0076
 Mercury -69876-06-23 00:57 J -23800612.58 -23800612.46 -23800612.32 0.0143 0.0106
 Mercury -69876-09-19 09:21 J -23800524.16 -23800524.11 -23800524.04 0.0143 0.0135
 Moon -69863-01-14 07:54 J -23796024.22 -23796024.17 -23796024.07 0.0136 0.0130
 Moon -69862-01-18 17:30 J -23795654.96 -23795654.77 -23795654.55 0.0135 0.0078
 Earth -69862-01-18 20:09 J -23795654.87 -23795654.66 -23795654.43 0.0135 0.0071 *
 Earth -69861-01-23 09:35 J -23795285.36 -23795285.10 -23795284.84 0.0135 0.0007
 Moon -69861-01-23 12:42 J -23795285.23 -23795284.97 -23795284.70 0.0135 0.0002 *
 Moon -69860-01-26 19:11 J -23794915.93 -23794915.70 -23794915.47 0.0134 0.0055
 Earth -69860-01-26 21:35 J -23794915.82 -23794915.60 -23794915.35 0.0134 0.0057 *
 Earth -69859-01-31 08:52 J -23794546.23 -23794546.13 -23794546.00 0.0134 0.0119
 Moon -69859-01-31 12:13 J -23794546.10 -23794545.99 -23794545.85 0.0134 0.0116 *
 Mars -69847-12-16 17:45 J -23789844.01 -23789843.76 -23789843.49 0.0131 0.0052
 Mars -69845-11-14 02:09 J -23789145.67 -23789145.41 -23789145.13 0.0131 0.0037
 Venus -69844-06-02 19:25 J -23788944.83 -23788944.69 -23788944.51 0.0131 0.0088
 Venus -69843-01-14 22:33 J -23788718.75 -23788718.56 -23788718.35 0.0131 0.0041
 Venus -69843-08-29 01:25 J -23788492.65 -23788492.44 -23788492.22 0.0131 0.0006
 Mars -69843-10-13 05:59 J -23788447.33 -23788447.25 -23788447.14 0.0131 0.0124
 Venus -69842-04-12 03:49 J -23788266.52 -23788266.34 -23788266.13 0.0132 0.0052
 Venus -69842-11-24 06:28 J -23788040.35 -23788040.23 -23788040.07 0.0132 0.0098

Mercury -69834-06-29 05:16 J -23785266.31 -23785266.28 -23785266.24 0.0134 0.0129
 Mercury -69834-09-25 08:09 J -23785178.22 -23785178.16 -23785178.08 0.0134 0.0113
 Mercury -69834-12-22 11:16 J -23785090.11 -23785090.03 -23785089.94 0.0135 0.0097
 Mercury -69833-03-19 14:09 J -23785002.01 -23785001.91 -23785001.80 0.0135 0.0081
 Mercury -69833-06-15 17:16 J -23784913.89 -23784913.78 -23784913.66 0.0135 0.0064
 Mercury -69833-09-11 20:23 J -23784825.77 -23784825.65 -23784825.53 0.0135 0.0047
 Mercury -69833-12-08 23:16 J -23784737.65 -23784737.53 -23784737.40 0.0135 0.0031
 Mercury -69832-03-07 02:23 J -23784649.53 -23784649.40 -23784649.27 0.0135 0.0014
 Mercury -69832-06-03 05:30 J -23784561.41 -23784561.27 -23784561.14 0.0135 0.0006
 Mercury -69832-08-30 08:23 J -23784473.28 -23784473.15 -23784473.02 0.0135 0.0020
 Mercury -69832-11-26 11:30 J -23784385.15 -23784385.02 -23784384.89 0.0135 0.0037
 Mercury -69831-02-22 14:37 J -23784297.01 -23784296.89 -23784296.77 0.0136 0.0054
 Mercury -69831-05-21 17:30 J -23784208.88 -23784208.77 -23784208.65 0.0136 0.0071
 Mercury -69831-08-17 20:37 J -23784120.74 -23784120.64 -23784120.54 0.0136 0.0088
 Mercury -69831-11-13 23:45 J -23784032.59 -23784032.51 -23784032.43 0.0136 0.0105
 Mercury -69830-02-10 02:52 J -23783944.43 -23783944.38 -23783944.32 0.0136 0.0123
 Moon -69818-07-16 11:45 J -23779405.20 -23779405.01 -23779404.79 0.0144 0.0086
 Earth -69818-07-16 14:37 J -23779405.08 -23779404.89 -23779404.69 0.0144 0.0089 *
 Earth -69817-07-20 09:21 J -23779035.36 -23779035.11 -23779034.86 0.0144 0.0014
 Moon -69817-07-20 11:01 J -23779035.28 -23779035.04 -23779034.80 0.0144 0.0012 *
 Moon -69816-07-25 03:21 J -23778665.58 -23778665.36 -23778665.11 0.0145 0.0058
 Earth -69816-07-25 05:01 J -23778665.50 -23778665.29 -23778665.05 0.0145 0.0064 *
 Earth -69815-07-30 01:54 J -23778295.45 -23778295.42 -23778295.34 0.0145 0.0142
 Mars -69804-03-14 10:18 J -23774415.39 -23774415.07 -23774414.74 0.0148 0.0032
 Venus -69803-04-26 02:52 J -23774007.43 -23774007.38 -23774007.31 0.0148 0.0142
 Venus -69803-12-08 18:13 J -23773780.92 -23773780.74 -23773780.54 0.0148 0.0074
 Mars -69802-02-20 22:18 J -23773706.71 -23773706.57 -23773706.38 0.0148 0.0129
 Venus -69802-07-23 10:04 J -23773554.30 -23773554.08 -23773553.86 0.0148 0.0005
 Venus -69801-03-06 01:25 J -23773327.64 -23773327.44 -23773327.24 0.0147 0.0063
 Venus -69801-10-18 16:47 J -23773100.89 -23773100.80 -23773100.69 0.0147 0.0132

Mercury -69794-08-06 12:57 J -23770618.05 -23770617.96 -23770617.85 0.0144 0.0125
 Mercury -69794-11-02 21:49 J -23770529.73 -23770529.59 -23770529.44 0.0144 0.0094
 Mercury -69793-01-30 06:28 J -23770441.40 -23770441.23 -23770441.05 0.0144 0.0063
 Mercury -69793-04-27 15:21 J -23770353.05 -23770352.86 -23770352.67 0.0144 0.0032
 Mercury -69793-07-24 23:59 J -23770264.70 -23770264.50 -23770264.31 0.0144 0.0002
 Mercury -69793-10-21 08:23 J -23770176.33 -23770176.15 -23770175.95 0.0144 0.0029
 Mercury -69792-01-17 17:01 J -23770087.96 -23770087.79 -23770087.61 0.0144 0.0058
 Mercury -69792-04-16 01:25 J -23769999.58 -23769999.44 -23769999.28 0.0143 0.0088
 Mercury -69792-07-13 09:49 J -23769911.19 -23769911.09 -23769910.97 0.0143 0.0118
 Earth -69779-01-14 20:23 J -23765342.70 -23765342.65 -23765342.56 0.0136 0.0131
 Moon -69778-01-19 08:37 J -23764973.36 -23764973.14 -23764972.90 0.0135 0.0058
 Earth -69778-01-19 10:47 J -23764973.26 -23764973.05 -23764972.80 0.0135 0.0065 *
 Earth -69777-01-24 00:28 J -23764603.74 -23764603.48 -23764603.22 0.0135 0.0000
 Moon -69777-01-24 02:52 J -23764603.65 -23764603.38 -23764603.12 0.0135 0.0004 *
 Moon -69776-01-27 09:35 J -23764234.31 -23764234.10 -23764233.87 0.0134 0.0065
 Earth -69776-01-27 12:28 J -23764234.19 -23764233.98 -23764233.74 0.0134 0.0064 *
 Earth -69775-01-31 23:30 J -23763864.58 -23763864.52 -23763864.41 0.0134 0.0127
 Moon -69775-02-01 02:23 J -23763864.45 -23763864.40 -23763864.30 0.0134 0.0128 *
 Mars -69764-09-11 11:30 J -23759624.17 -23759624.02 -23759623.83 0.0131 0.0104
 Mars -69762-08-10 23:45 J -23758925.79 -23758925.51 -23758925.23 0.0131 0.0014
 Venus -69760-01-31 10:04 J -23758386.20 -23758386.08 -23758385.94 0.0131 0.0105
 Mars -69760-07-09 05:45 J -23758227.48 -23758227.26 -23758227.02 0.0131 0.0074
 Venus -69760-09-14 13:11 J -23758160.14 -23758159.95 -23758159.76 0.0131 0.0059
 Venus -69759-04-28 15:49 J -23757934.05 -23757933.84 -23757933.63 0.0131 0.0013
 Venus -69759-12-10 18:28 J -23757707.93 -23757707.73 -23757707.52 0.0131 0.0033
 Venus -69758-07-24 20:52 J -23757481.78 -23757481.63 -23757481.44 0.0132 0.0080
 Venus -69757-03-06 23:59 J -23757255.56 -23757255.50 -23757255.43 0.0132 0.0125
 Mercury -69750-07-19 12:57 J -23754565.00 -23754564.96 -23754564.90 0.0134 0.0123
 Mercury -69750-10-15 16:04 J -23754476.90 -23754476.83 -23754476.75 0.0134 0.0107
 Mercury -69749-01-11 18:57 J -23754388.80 -23754388.71 -23754388.60 0.0135 0.0091

Mercury -69749-04-08 22:04 J -23754300.68 -23754300.58 -23754300.47 0.0135 0.0074
 Mercury -69749-07-06 00:57 J -23754212.57 -23754212.46 -23754212.33 0.0135 0.0058
 Mercury -69749-10-02 04:04 J -23754124.45 -23754124.33 -23754124.20 0.0135 0.0041
 Mercury -69749-12-29 07:11 J -23754036.33 -23754036.20 -23754036.07 0.0135 0.0024
 Mercury -69748-03-27 10:04 J -23753948.21 -23753948.08 -23753947.94 0.0135 0.0009
 Mercury -69748-06-23 13:11 J -23753860.08 -23753859.95 -23753859.82 0.0135 0.0010
 Mercury -69748-09-19 16:18 J -23753771.95 -23753771.82 -23753771.69 0.0135 0.0026
 Mercury -69748-12-16 19:11 J -23753683.82 -23753683.70 -23753683.57 0.0135 0.0044
 Mercury -69747-03-14 22:18 J -23753595.68 -23753595.57 -23753595.45 0.0136 0.0060
 Mercury -69747-06-11 01:25 J -23753507.55 -23753507.44 -23753507.33 0.0136 0.0078
 Mercury -69747-09-07 04:18 J -23753419.40 -23753419.32 -23753419.22 0.0136 0.0095
 Mercury -69747-12-04 07:25 J -23753331.25 -23753331.19 -23753331.11 0.0136 0.0112
 Mercury -69746-03-02 10:33 J -23753243.09 -23753243.06 -23753243.01 0.0136 0.0130
 Jupiter -69744-05-31 00:13 J -23752422.91 -23752422.49 -23752422.00 0.0137 0.0060
 Moon -69734-07-17 02:37 J -23748723.59 -23748723.39 -23748723.18 0.0144 0.0085
 Earth -69734-07-17 04:47 J -23748723.49 -23748723.30 -23748723.08 0.0144 0.0084 *
 Earth -69733-07-20 23:45 J -23748353.76 -23748353.51 -23748353.26 0.0144 0.0008
 Moon -69733-07-21 02:23 J -23748353.64 -23748353.40 -23748353.16 0.0144 0.0009 *
 Moon -69732-07-25 17:45 J -23747983.97 -23747983.76 -23747983.53 0.0145 0.0075
 Earth -69732-07-25 19:40 J -23747983.89 -23747983.68 -23747983.45 0.0145 0.0070 *
 Moon -69731-07-30 18:28 J -23747613.78 -23747613.73 -23747613.67 0.0145 0.0141
 Mars -69722-12-02 15:21 J -23744202.02 -23744201.86 -23744201.68 0.0148 0.0126
 Mars -69720-11-09 19:54 J -23743493.99 -23743493.67 -23743493.33 0.0148 0.0033
 Venus -69719-08-08 01:40 J -23743222.57 -23743222.43 -23743222.26 0.0148 0.0102
 Venus -69718-03-22 17:16 J -23742995.99 -23742995.78 -23742995.56 0.0148 0.0034
 Venus -69718-11-04 08:52 J -23742769.34 -23742769.13 -23742768.91 0.0147 0.0035
 Venus -69717-06-18 00:28 J -23742542.63 -23742542.48 -23742542.32 0.0147 0.0104
 Mercury -69710-05-30 13:25 J -23740004.96 -23740004.94 -23740004.89 0.0144 0.0143
 Mercury -69710-08-26 22:18 J -23739916.68 -23739916.57 -23739916.44 0.0144 0.0111
 Mercury -69710-11-23 07:11 J -23739828.36 -23739828.20 -23739828.04 0.0144 0.0081

Mercury -69709-02-19 15:49 J -23739740.02 -23739739.84 -23739739.65 0.0144 0.0050
 Mercury -69709-05-18 00:28 J -23739651.67 -23739651.48 -23739651.28 0.0144 0.0020
 Mercury -69709-08-14 09:06 J -23739563.31 -23739563.12 -23739562.92 0.0144 0.0011
 Mercury -69709-11-10 17:30 J -23739474.95 -23739474.77 -23739474.57 0.0144 0.0042
 Mercury -69708-02-07 02:09 J -23739386.57 -23739386.41 -23739386.23 0.0144 0.0071
 Mercury -69708-05-06 10:33 J -23739298.18 -23739298.06 -23739297.91 0.0143 0.0101
 Mercury -69708-08-02 19:11 J -23739209.77 -23739209.70 -23739209.62 0.0143 0.0131
 Earth -69695-01-15 11:45 J -23734661.09 -23734661.01 -23734660.88 0.0136 0.0125
 Moon -69695-01-15 13:40 J -23734661.05 -23734660.93 -23734660.78 0.0136 0.0117 *
 Moon -69694-01-20 00:28 J -23734291.69 -23734291.48 -23734291.25 0.0135 0.0065
 Earth -69694-01-20 02:23 J -23734291.63 -23734291.40 -23734291.16 0.0135 0.0058 *
 Earth -69693-01-24 15:35 J -23733922.11 -23733921.85 -23733921.59 0.0135 0.0007
 Moon -69693-01-24 17:59 J -23733922.01 -23733921.75 -23733921.48 0.0135 0.0012 *
 Moon -69692-01-28 01:25 J -23733552.64 -23733552.44 -23733552.21 0.0134 0.0069
 Earth -69692-01-28 03:35 J -23733552.55 -23733552.35 -23733552.12 0.0134 0.0071 *
 Earth -69691-02-01 14:52 J -23733182.88 -23733182.88 -23733182.86 0.0134 0.0133
 Moon -69691-02-01 17:30 J -23733182.80 -23733182.77 -23733182.70 0.0134 0.0131
 Mars -69679-05-06 17:30 J -23728706.00 -23728705.77 -23728705.52 0.0131 0.0067
 Mars -69677-04-04 02:37 J -23728007.66 -23728007.39 -23728007.11 0.0131 0.0023
 Venus -69677-09-30 23:45 J -23727827.58 -23727827.51 -23727827.43 0.0131 0.0122
 Venus -69676-05-15 02:23 J -23727601.56 -23727601.40 -23727601.21 0.0131 0.0077
 Venus -69676-12-27 05:30 J -23727375.47 -23727375.27 -23727375.06 0.0131 0.0031
 Mars -69675-03-03 08:37 J -23727309.28 -23727309.14 -23727308.98 0.0131 0.0111
 Venus -69675-08-10 08:09 J -23727149.36 -23727149.16 -23727148.94 0.0131 0.0016
 Venus -69674-03-24 11:01 J -23726923.23 -23726923.04 -23726922.85 0.0131 0.0061
 Venus -69674-11-05 13:25 J -23726697.05 -23726696.94 -23726696.80 0.0131 0.0107
 Mercury -69666-05-12 17:45 J -23723951.76 -23723951.76 -23723951.75 0.0134 0.0134
 Mercury -69666-08-08 20:37 J -23723863.69 -23723863.64 -23723863.57 0.0134 0.0118
 Mercury -69666-11-04 23:30 J -23723775.59 -23723775.52 -23723775.42 0.0134 0.0102
 Mercury -69665-02-01 02:37 J -23723687.49 -23723687.39 -23723687.29 0.0134 0.0085

Mercury -69665-04-29 05:30 J -23723599.37 -23723599.27 -23723599.15 0.0135 0.0069
 Mercury -69665-07-26 08:37 J -23723511.26 -23723511.14 -23723511.02 0.0135 0.0052
 Mercury -69665-10-22 11:30 J -23723423.14 -23723423.02 -23723422.89 0.0135 0.0036
 Mercury -69664-01-18 14:37 J -23723335.02 -23723334.89 -23723334.76 0.0135 0.0019
 Mercury -69664-04-16 17:45 J -23723246.89 -23723246.76 -23723246.63 0.0135 0.0002
 Mercury -69664-07-13 20:52 J -23723158.76 -23723158.63 -23723158.50 0.0135 0.0016
 Mercury -69664-10-09 23:45 J -23723070.64 -23723070.51 -23723070.38 0.0135 0.0032
 Mercury -69663-01-06 02:52 J -23722982.50 -23722982.38 -23722982.26 0.0135 0.0049
 Mercury -69663-04-04 05:59 J -23722894.37 -23722894.25 -23722894.14 0.0135 0.0066
 Mercury -69663-07-01 08:52 J -23722806.23 -23722806.13 -23722806.02 0.0136 0.0083
 Mercury -69663-09-27 11:45 J -23722718.08 -23722718.01 -23722717.91 0.0136 0.0101
 Mercury -69663-12-24 14:52 J -23722629.93 -23722629.88 -23722629.80 0.0136 0.0118
 Mercury -69662-03-22 17:59 J -23722541.75 -23722541.75 -23722541.72 0.0136 0.0135
 Moon -69650-07-17 12:13 J -23718042.20 -23718041.99 -23718041.77 0.0144 0.0076
 Earth -69650-07-17 15:21 J -23718042.05 -23718041.86 -23718041.64 0.0144 0.0080 *
 Earth -69649-07-21 10:18 J -23717672.32 -23717672.07 -23717671.82 0.0144 0.0004
 Moon -69649-07-21 12:57 J -23717672.20 -23717671.96 -23717671.72 0.0144 0.0002 *
 Moon -69648-07-26 03:35 J -23717302.56 -23717302.35 -23717302.11 0.0145 0.0069
 Earth -69648-07-26 06:28 J -23717302.44 -23717302.23 -23717302.02 0.0145 0.0074 *
 Mars -69637-07-29 07:11 J -23713281.48 -23713281.20 -23713280.88 0.0148 0.0068
 Venus -69635-04-07 05:01 J -23712664.36 -23712664.29 -23712664.19 0.0148 0.0136
 Mars -69635-07-07 16:04 J -23712573.07 -23712572.83 -23712572.55 0.0148 0.0095
 Venus -69635-11-19 20:37 J -23712437.83 -23712437.64 -23712437.44 0.0148 0.0068
 Venus -69634-07-04 12:13 J -23712211.21 -23712210.99 -23712210.76 0.0148 0.0003
 Venus -69633-02-16 03:35 J -23711984.53 -23711984.35 -23711984.14 0.0147 0.0070
 Venus -69633-09-29 19:11 J -23711757.77 -23711757.70 -23711757.61 0.0147 0.0137
 Mercury -69626-06-19 20:23 J -23709303.69 -23709303.65 -23709303.57 0.0145 0.0137
 Mercury -69626-09-16 05:16 J -23709215.40 -23709215.28 -23709215.13 0.0144 0.0106
 Mercury -69626-12-13 14:09 J -23709127.07 -23709126.91 -23709126.74 0.0144 0.0075
 Mercury -69625-03-10 22:47 J -23709038.73 -23709038.55 -23709038.36 0.0144 0.0044

Mercury -69625-06-07 07:40 J -23708950.37 -23708950.18 -23708949.99 0.0144 0.0013
 Mercury -69625-09-03 16:18 J -23708862.01 -23708861.82 -23708861.63 0.0144 0.0017
 Mercury -69625-12-01 00:42 J -23708773.65 -23708773.47 -23708773.28 0.0144 0.0048
 Mercury -69624-02-27 09:21 J -23708685.27 -23708685.11 -23708684.94 0.0144 0.0078
 Mercury -69624-05-26 17:45 J -23708596.88 -23708596.76 -23708596.62 0.0143 0.0108
 Mercury -69624-08-23 02:09 J -23708508.45 -23708508.41 -23708508.34 0.0143 0.0137
 Earth -69611-01-15 23:30 J -23703979.62 -23703979.52 -23703979.38 0.0136 0.0120
 Moon -69611-01-16 00:42 J -23703979.55 -23703979.47 -23703979.35 0.0136 0.0126 *
 Moon -69610-01-20 12:57 J -23703610.20 -23703609.96 -23703609.72 0.0135 0.0047
 Earth -69610-01-20 14:23 J -23703610.13 -23703609.90 -23703609.66 0.0135 0.0053 *
 Earth -69609-01-25 03:49 J -23703240.60 -23703240.34 -23703240.08 0.0135 0.0012
 Moon -69609-01-25 05:16 J -23703240.55 -23703240.28 -23703240.01 0.0135 0.0007 *
 Moon -69608-01-28 13:40 J -23702871.12 -23702870.93 -23702870.71 0.0134 0.0078
 Earth -69608-01-28 16:04 J -23702871.04 -23702870.83 -23702870.61 0.0134 0.0077 *
 Mars -69596-01-30 08:23 J -23698486.26 -23698486.15 -23698486.04 0.0131 0.0120
 Mars -69595-12-29 20:52 J -23697787.90 -23697787.63 -23697787.35 0.0131 0.0030
 Mars -69593-11-27 04:47 J -23697089.55 -23697089.30 -23697089.05 0.0131 0.0060
 Venus -69592-01-12 16:04 J -23697042.97 -23697042.83 -23697042.68 0.0131 0.0095
 Venus -69592-08-26 18:42 J -23696816.91 -23696816.72 -23696816.51 0.0131 0.0050
 Venus -69591-04-09 21:35 J -23696590.81 -23696590.60 -23696590.38 0.0131 0.0005
 Venus -69591-11-22 00:13 J -23696364.69 -23696364.49 -23696364.28 0.0131 0.0042
 Venus -69590-07-06 02:37 J -23696138.53 -23696138.39 -23696138.21 0.0131 0.0088
 Mercury -69582-06-02 01:11 J -23693250.48 -23693250.45 -23693250.41 0.0134 0.0128
 Mercury -69582-08-29 04:04 J -23693162.39 -23693162.33 -23693162.25 0.0134 0.0112
 Mercury -69582-11-25 06:57 J -23693074.29 -23693074.21 -23693074.11 0.0134 0.0097
 Mercury -69581-02-21 10:04 J -23692986.18 -23692986.08 -23692985.97 0.0134 0.0080
 Mercury -69581-05-19 12:57 J -23692898.07 -23692897.96 -23692897.84 0.0134 0.0064
 Mercury -69581-08-15 16:04 J -23692809.95 -23692809.83 -23692809.70 0.0135 0.0047
 Mercury -69581-11-11 19:11 J -23692721.83 -23692721.70 -23692721.57 0.0135 0.0030
 Mercury -69580-02-07 22:04 J -23692633.71 -23692633.58 -23692633.44 0.0135 0.0014

Mercury -69580-05-07 01:11 J -23692545.58 -23692545.45 -23692545.32 0.0135 0.0003

Mercury -69580-08-03 04:18 J -23692457.45 -23692457.32 -23692457.19 0.0135 0.0020

Mercury -69580-10-30 07:11 J -23692369.32 -23692369.20 -23692369.07 0.0135 0.0037

Mercury -69579-01-26 10:18 J -23692281.19 -23692281.07 -23692280.95 0.0135 0.0054

Mercury -69579-04-24 13:11 J -23692193.05 -23692192.95 -23692192.83 0.0135 0.0072

Mercury -69579-07-21 16:18 J -23692104.91 -23692104.82 -23692104.71 0.0136 0.0088

Mercury -69579-10-17 19:25 J -23692016.77 -23692016.69 -23692016.60 0.0136 0.0105

Mercury -69578-01-13 22:33 J -23691928.61 -23691928.56 -23691928.50 0.0136 0.0123

Moon -69566-07-17 22:18 J -23687360.77 -23687360.57 -23687360.35 0.0143 0.0080

Earth -69566-07-18 01:25 J -23687360.64 -23687360.44 -23687360.22 0.0143 0.0077 *

Earth -69565-07-21 20:09 J -23686990.91 -23686990.66 -23686990.41 0.0144 0.0001

Moon -69565-07-21 23:16 J -23686990.77 -23686990.53 -23686990.28 0.0144 0.0003 *

Moon -69564-07-26 13:11 J -23686621.16 -23686620.95 -23686620.74 0.0145 0.0081

Earth -69564-07-26 15:35 J -23686621.04 -23686620.85 -23686620.62 0.0145 0.0078 *

Mars -69552-03-26 00:42 J -23682360.81 -23682360.47 -23682360.13 0.0148 0.0007

Venus -69551-07-19 23:30 J -23681879.66 -23681879.52 -23681879.35 0.0148 0.0103

Venus -69550-03-03 15:06 J -23681653.08 -23681652.87 -23681652.65 0.0148 0.0035

Venus -69550-10-16 06:42 J -23681426.43 -23681426.22 -23681426.00 0.0147 0.0034

Venus -69549-05-29 22:04 J -23681199.73 -23681199.58 -23681199.41 0.0147 0.0102

Mercury -69542-07-10 03:21 J -23678602.43 -23678602.36 -23678602.28 0.0145 0.0132

Mercury -69542-10-06 11:59 J -23678514.13 -23678514.00 -23678513.85 0.0144 0.0101

Mercury -69541-01-02 20:37 J -23678425.80 -23678425.64 -23678425.45 0.0144 0.0071

Mercury -69541-03-31 05:30 J -23678337.45 -23678337.27 -23678337.07 0.0144 0.0039

Mercury -69541-06-27 14:23 J -23678249.10 -23678248.90 -23678248.71 0.0144 0.0008

Mercury -69541-09-23 23:01 J -23678160.73 -23678160.54 -23678160.35 0.0144 0.0022

Mercury -69541-12-21 07:25 J -23678072.36 -23678072.19 -23678072.00 0.0144 0.0053

Mercury -69540-03-19 16:04 J -23677983.98 -23677983.83 -23677983.66 0.0144 0.0083

Mercury -69540-06-16 00:28 J -23677895.59 -23677895.48 -23677895.35 0.0143 0.0113

Mercury -69540-09-12 08:52 J -23677807.13 -23677807.13 -23677807.09 0.0143 0.0143

Earth -69527-01-16 10:33 J -23673298.19 -23673298.06 -23673297.92 0.0136 0.0116

Moon	-69527-01-16 10:47 J	-23673298.19	-23673298.05	-23673297.87	0.0136	0.0109	*
Moon	-69526-01-21 00:28 J	-23672928.70	-23672928.48	-23672928.24	0.0135	0.0056	
Earth	-69526-01-21 00:57 J	-23672928.69	-23672928.46	-23672928.20	0.0135	0.0050	*
Earth	-69525-01-25 14:37 J	-23672559.14	-23672558.89	-23672558.62	0.0135	0.0017	
Moon	-69525-01-25 16:04 J	-23672559.08	-23672558.83	-23672558.55	0.0135	0.0022	*
Moon	-69524-01-29 01:54 J	-23672189.60	-23672189.42	-23672189.20	0.0134	0.0079	
Earth	-69524-01-29 03:21 J	-23672189.56	-23672189.36	-23672189.15	0.0134	0.0082	*
Mars	-69512-09-24 11:30 J	-23667568.23	-23667568.02	-23667567.79	0.0131	0.0083	
Mars	-69510-08-23 23:01 J	-23666869.82	-23666869.54	-23666869.26	0.0131	0.0008	
Venus	-69509-09-12 05:16 J	-23666484.37	-23666484.28	-23666484.17	0.0131	0.0114	
Venus	-69508-04-26 07:54 J	-23666258.33	-23666258.17	-23666257.97	0.0131	0.0069	
Mars	-69508-07-22 06:57 J	-23666171.38	-23666171.21	-23666171.01	0.0131	0.0098	
Venus	-69508-12-08 11:01 J	-23666032.25	-23666032.04	-23666031.83	0.0131	0.0023	
Venus	-69507-07-22 13:54 J	-23665806.13	-23665805.92	-23665805.71	0.0131	0.0023	
Venus	-69506-03-05 16:18 J	-23665579.99	-23665579.82	-23665579.63	0.0131	0.0069	
Venus	-69506-10-17 19:11 J	-23665353.80	-23665353.70	-23665353.59	0.0131	0.0114	
Mercury	-69498-06-22 08:52 J	-23662549.17	-23662549.13	-23662549.07	0.0134	0.0122	
Mercury	-69498-09-18 11:45 J	-23662461.08	-23662461.01	-23662460.92	0.0134	0.0106	
Mercury	-69498-12-15 14:52 J	-23662372.97	-23662372.88	-23662372.78	0.0134	0.0090	
Mercury	-69497-03-12 17:45 J	-23662284.86	-23662284.76	-23662284.64	0.0134	0.0074	
Mercury	-69497-06-08 20:52 J	-23662196.75	-23662196.63	-23662196.51	0.0134	0.0057	
Mercury	-69497-09-04 23:45 J	-23662108.63	-23662108.51	-23662108.38	0.0135	0.0041	
Mercury	-69497-12-02 02:52 J	-23662020.51	-23662020.38	-23662020.25	0.0135	0.0024	
Mercury	-69496-02-28 05:59 J	-23661932.38	-23661932.25	-23661932.12	0.0135	0.0007	
Mercury	-69496-05-27 08:52 J	-23661844.26	-23661844.13	-23661844.00	0.0135	0.0010	
Mercury	-69496-08-23 11:59 J	-23661756.13	-23661756.00	-23661755.87	0.0135	0.0027	
Mercury	-69496-11-19 14:52 J	-23661668.00	-23661667.88	-23661667.75	0.0135	0.0044	
Mercury	-69495-02-15 17:59 J	-23661579.86	-23661579.75	-23661579.63	0.0135	0.0061	
Mercury	-69495-05-14 21:06 J	-23661491.73	-23661491.62	-23661491.51	0.0135	0.0078	
Mercury	-69495-08-11 00:13 J	-23661403.58	-23661403.49	-23661403.40	0.0135	0.0095	

Mercury -69495-11-07 03:21 J -23661315.43 -23661315.36 -23661315.29 0.0136 0.0112

Mercury -69494-02-03 06:28 J -23661227.27 -23661227.23 -23661227.20 0.0136 0.0129

Moon -69482-07-18 10:04 J -23656679.29 -23656679.08 -23656678.85 0.0143 0.0067

Earth -69482-07-18 13:54 J -23656679.13 -23656678.92 -23656678.70 0.0143 0.0072 *

Earth -69481-07-22 08:23 J -23656309.40 -23656309.15 -23656308.90 0.0144 0.0005

Moon -69481-07-22 11:30 J -23656309.27 -23656309.02 -23656308.77 0.0144 0.0006 *

Moon -69480-07-27 00:42 J -23655939.68 -23655939.47 -23655939.25 0.0144 0.0078

Earth -69480-07-27 03:49 J -23655939.53 -23655939.34 -23655939.13 0.0144 0.0083 *

Mars -69470-12-13 16:33 J -23652148.02 -23652147.81 -23652147.57 0.0148 0.0107

Mars -69468-11-20 18:57 J -23651440.02 -23651439.71 -23651439.39 0.0148 0.0055

Venus -69467-03-19 02:37 J -23651321.45 -23651321.39 -23651321.29 0.0148 0.0137

Venus -69467-10-31 18:13 J -23651094.93 -23651094.74 -23651094.54 0.0148 0.0069

Venus -69466-06-15 09:49 J -23650868.32 -23650868.09 -23650867.87 0.0147 0.0002

Venus -69465-01-28 00:57 J -23650641.65 -23650641.46 -23650641.25 0.0147 0.0067

Venus -69465-09-10 16:18 J -23650414.89 -23650414.82 -23650414.71 0.0147 0.0135

Mercury -69458-07-30 09:49 J -23647901.17 -23647901.09 -23647901.00 0.0144 0.0128

Mercury -69458-10-26 18:42 J -23647812.86 -23647812.72 -23647812.58 0.0144 0.0097

Mercury -69457-01-23 03:06 J -23647724.53 -23647724.37 -23647724.18 0.0144 0.0067

Mercury -69457-04-20 11:59 J -23647636.18 -23647636.00 -23647635.80 0.0144 0.0035

Mercury -69457-07-17 20:52 J -23647547.83 -23647547.63 -23647547.44 0.0144 0.0005

Mercury -69457-10-14 05:30 J -23647459.46 -23647459.27 -23647459.08 0.0144 0.0026

Mercury -69456-01-10 13:54 J -23647371.09 -23647370.92 -23647370.73 0.0144 0.0057

Mercury -69456-04-08 22:33 J -23647282.71 -23647282.56 -23647282.40 0.0144 0.0087

Mercury -69456-07-06 06:57 J -23647194.31 -23647194.21 -23647194.09 0.0143 0.0117

Jupiter -69453-02-06 20:23 J -23646248.92 -23646248.65 -23646248.28 0.0142 0.0113

Moon -69443-01-16 18:42 J -23642616.83 -23642616.72 -23642616.57 0.0136 0.0119

Earth -69443-01-16 19:25 J -23642616.83 -23642616.69 -23642616.54 0.0136 0.0113 *

Moon -69442-01-21 09:49 J -23642247.32 -23642247.09 -23642246.84 0.0135 0.0039

Earth -69442-01-21 10:04 J -23642247.31 -23642247.08 -23642246.82 0.0135 0.0047 *

Moon -69441-01-26 00:28 J -23641877.75 -23641877.48 -23641877.21 0.0135 0.0015

Earth -69441-01-26 00:13 J -23641877.74 -23641877.49 -23641877.23 0.0135 0.0021 *
 Moon -69440-01-29 11:30 J -23641508.19 -23641508.02 -23641507.81 0.0134 0.0089
 Earth -69440-01-29 13:11 J -23641508.15 -23641507.95 -23641507.75 0.0134 0.0086 *
 Mars -69427-05-19 13:25 J -23636650.20 -23636649.94 -23636649.66 0.0131 0.0046
 Mars -69425-04-17 01:11 J -23635951.71 -23635951.45 -23635951.18 0.0131 0.0047
 Venus -69425-12-24 21:06 J -23635699.77 -23635699.62 -23635699.45 0.0131 0.0088
 Venus -69424-08-08 00:13 J -23635473.69 -23635473.49 -23635473.29 0.0131 0.0043
 Venus -69423-03-22 02:52 J -23635247.59 -23635247.38 -23635247.16 0.0131 0.0003
 Venus -69423-11-03 05:30 J -23635021.46 -23635021.27 -23635021.07 0.0131 0.0049
 Venus -69422-06-17 07:54 J -23634795.30 -23634795.17 -23634795.00 0.0132 0.0095
 Mercury -69414-04-15 13:25 J -23631935.94 -23631935.94 -23631935.91 0.0134 0.0133
 Mercury -69414-07-12 16:47 J -23631847.86 -23631847.80 -23631847.74 0.0134 0.0116
 Mercury -69414-10-08 19:40 J -23631759.76 -23631759.68 -23631759.59 0.0134 0.0100
 Mercury -69413-01-04 22:47 J -23631671.65 -23631671.55 -23631671.45 0.0134 0.0084
 Mercury -69413-04-02 01:40 J -23631583.54 -23631583.43 -23631583.32 0.0134 0.0067
 Mercury -69413-06-29 04:33 J -23631495.43 -23631495.31 -23631495.18 0.0134 0.0051
 Mercury -69413-09-25 07:40 J -23631407.31 -23631407.18 -23631407.05 0.0135 0.0034
 Mercury -69413-12-22 10:47 J -23631319.18 -23631319.05 -23631318.92 0.0135 0.0018
 Mercury -69412-03-20 13:40 J -23631231.06 -23631230.93 -23631230.80 0.0135 0.0002
 Mercury -69412-06-16 16:47 J -23631142.93 -23631142.80 -23631142.67 0.0135 0.0016
 Mercury -69412-09-12 19:40 J -23631054.80 -23631054.68 -23631054.55 0.0135 0.0033
 Mercury -69412-12-09 22:47 J -23630966.67 -23630966.55 -23630966.43 0.0135 0.0050
 Mercury -69411-03-08 01:40 J -23630878.54 -23630878.43 -23630878.31 0.0135 0.0068
 Mercury -69411-06-04 04:47 J -23630790.40 -23630790.30 -23630790.19 0.0135 0.0084
 Mercury -69411-08-31 07:54 J -23630702.25 -23630702.17 -23630702.08 0.0136 0.0101
 Mercury -69411-11-27 11:01 J -23630614.10 -23630614.04 -23630613.97 0.0136 0.0119
 Earth -69399-07-14 11:16 J -23626367.07 -23626367.03 -23626366.98 0.0143 0.0140
 Moon -69399-07-14 14:52 J -23626366.96 -23626366.88 -23626366.78 0.0143 0.0133
 Moon -69398-07-19 01:11 J -23625997.66 -23625997.45 -23625997.22 0.0143 0.0069
 Earth -69398-07-19 04:33 J -23625997.52 -23625997.31 -23625997.07 0.0143 0.0066 *

Earth -69397-07-22 23:16 J -23625627.78 -23625627.53 -23625627.28 0.0144 0.0012
 Moon -69397-07-23 02:52 J -23625627.63 -23625627.38 -23625627.13 0.0144 0.0011 *
 Moon -69396-07-27 15:06 J -23625258.05 -23625257.87 -23625257.67 0.0144 0.0094
 Earth -69396-07-27 18:42 J -23625257.91 -23625257.72 -23625257.52 0.0144 0.0090 *
 Mars -69385-08-09 19:25 J -23621227.00 -23621226.69 -23621226.36 0.0148 0.0043
 Venus -69383-07-01 00:42 J -23620536.64 -23620536.47 -23620536.31 0.0148 0.0099
 Mars -69383-07-18 23:45 J -23620518.67 -23620518.51 -23620518.29 0.0148 0.0122
 Venus -69382-02-12 15:49 J -23620310.05 -23620309.84 -23620309.62 0.0147 0.0032
 Venus -69382-09-27 07:11 J -23620083.41 -23620083.20 -23620082.98 0.0147 0.0036
 Venus -69381-05-10 22:18 J -23619856.71 -23619856.57 -23619856.40 0.0147 0.0104
 Mercury -69374-08-19 17:59 J -23617199.86 -23617199.75 -23617199.64 0.0144 0.0119
 Mercury -69374-11-16 02:52 J -23617111.54 -23617111.38 -23617111.23 0.0144 0.0088
 Mercury -69373-02-12 11:16 J -23617023.20 -23617023.03 -23617022.84 0.0144 0.0057
 Mercury -69373-05-10 20:09 J -23616934.85 -23616934.66 -23616934.47 0.0144 0.0026
 Mercury -69373-08-07 04:47 J -23616846.49 -23616846.30 -23616846.10 0.0144 0.0005
 Mercury -69373-11-03 13:25 J -23616758.12 -23616757.94 -23616757.75 0.0144 0.0035
 Mercury -69372-01-30 21:49 J -23616669.75 -23616669.59 -23616669.40 0.0144 0.0066
 Mercury -69372-04-29 06:28 J -23616581.36 -23616581.23 -23616581.07 0.0143 0.0096
 Mercury -69372-07-26 15:06 J -23616492.95 -23616492.87 -23616492.77 0.0143 0.0125
 Moon -69359-01-17 06:28 J -23611935.39 -23611935.23 -23611935.04 0.0136 0.0102
 Earth -69359-01-17 07:11 J -23611935.34 -23611935.20 -23611935.03 0.0136 0.0109 *
 Earth -69358-01-21 22:18 J -23611565.81 -23611565.57 -23611565.31 0.0135 0.0041
 Moon -69358-01-21 22:47 J -23611565.77 -23611565.55 -23611565.30 0.0135 0.0049 *
 Earth -69357-01-26 12:13 J -23611196.24 -23611195.99 -23611195.73 0.0135 0.0026
 Moon -69357-01-26 12:28 J -23611196.23 -23611195.98 -23611195.71 0.0135 0.0031 *
 Moon -69356-01-30 00:57 J -23610826.63 -23610826.46 -23610826.25 0.0134 0.0089
 Earth -69356-01-30 00:57 J -23610826.63 -23610826.46 -23610826.25 0.0134 0.0092 *
 Mars -69344-02-12 02:52 J -23606430.56 -23606430.38 -23606430.19 0.0131 0.0101
 Mars -69342-01-11 18:28 J -23605732.01 -23605731.73 -23605731.44 0.0131 0.0007
 Venus -69341-08-24 10:18 J -23605141.18 -23605141.07 -23605140.93 0.0131 0.0108

Mars	-69341-12-10 04:18 J	-23605033.52	-23605033.32	-23605033.09	0.0131	0.0085
Venus	-69340-04-07 13:25 J	-23604915.12	-23604914.94	-23604914.75	0.0131	0.0062
Venus	-69340-11-19 16:18 J	-23604689.03	-23604688.82	-23604688.61	0.0131	0.0016
Venus	-69339-07-03 18:57 J	-23604462.91	-23604462.71	-23604462.49	0.0131	0.0030
Venus	-69338-02-14 21:35 J	-23604236.76	-23604236.60	-23604236.41	0.0132	0.0076
Venus	-69338-09-29 00:13 J	-23604010.55	-23604010.49	-23604010.39	0.0132	0.0121
Mercury	-69330-05-05 21:35 J	-23601234.64	-23601234.60	-23601234.56	0.0134	0.0126
Mercury	-69330-08-02 00:28 J	-23601146.55	-23601146.48	-23601146.40	0.0134	0.0110
Mercury	-69330-10-29 03:35 J	-23601058.44	-23601058.35	-23601058.26	0.0134	0.0094
Mercury	-69329-01-25 06:28 J	-23600970.33	-23600970.23	-23600970.12	0.0134	0.0077
Mercury	-69329-04-22 09:35 J	-23600882.22	-23600882.10	-23600881.99	0.0134	0.0061
Mercury	-69329-07-19 12:28 J	-23600794.10	-23600793.98	-23600793.85	0.0135	0.0044
Mercury	-69329-10-15 15:35 J	-23600705.98	-23600705.85	-23600705.72	0.0135	0.0027
Mercury	-69328-01-11 18:28 J	-23600617.86	-23600617.73	-23600617.60	0.0135	0.0011
Mercury	-69328-04-09 21:35 J	-23600529.73	-23600529.60	-23600529.47	0.0135	0.0006
Mercury	-69328-07-07 00:42 J	-23600441.60	-23600441.47	-23600441.35	0.0135	0.0023
Mercury	-69328-10-03 03:35 J	-23600353.47	-23600353.35	-23600353.22	0.0135	0.0040
Mercury	-69328-12-30 06:28 J	-23600265.34	-23600265.23	-23600265.10	0.0135	0.0058
Mercury	-69327-03-28 09:35 J	-23600177.20	-23600177.10	-23600176.98	0.0135	0.0074
Mercury	-69327-06-24 12:42 J	-23600089.06	-23600088.97	-23600088.87	0.0136	0.0091
Mercury	-69327-09-20 15:35 J	-23600000.91	-23600000.85	-23600000.76	0.0136	0.0109
Mercury	-69327-12-17 18:42 J	-23599912.75	-23599912.72	-23599912.66	0.0136	0.0126
Earth	-69315-07-15 02:37 J	-23595685.45	-23595685.39	-23595685.28	0.0143	0.0134
Moon	-69315-07-15 06:28 J	-23595685.27	-23595685.23	-23595685.17	0.0143	0.0139
Moon	-69314-07-19 16:47 J	-23595316.03	-23595315.80	-23595315.57	0.0143	0.0054
Earth	-69314-07-19 20:09 J	-23595315.87	-23595315.66	-23595315.42	0.0143	0.0058 *
Earth	-69313-07-23 14:37 J	-23594946.13	-23594945.89	-23594945.64	0.0144	0.0020
Moon	-69313-07-23 17:59 J	-23594945.99	-23594945.75	-23594945.50	0.0144	0.0020 *
Moon	-69312-07-28 06:42 J	-23594576.41	-23594576.22	-23594576.03	0.0144	0.0093
Earth	-69312-07-28 09:49 J	-23594576.26	-23594576.09	-23594575.89	0.0144	0.0098 *

Mars	-69302-04-30 06:13 J	-23591013.32	-23591013.24	-23591013.10	0.0148	0.0139
Mars	-69300-04-07 01:25 J	-23590305.77	-23590305.44	-23590305.11	0.0148	0.0023
Venus	-69299-02-28 07:40 J	-23589978.29	-23589978.18	-23589978.07	0.0148	0.0128
Venus	-69299-10-12 22:47 J	-23589751.75	-23589751.55	-23589751.35	0.0147	0.0061
Venus	-69298-05-27 13:54 J	-23589525.14	-23589524.92	-23589524.69	0.0147	0.0007
Venus	-69297-01-09 05:01 J	-23589298.47	-23589298.29	-23589298.09	0.0147	0.0074
Venus	-69297-08-22 20:23 J	-23589071.69	-23589071.65	-23589071.58	0.0147	0.0142
Mercury	-69290-06-12 17:01 J	-23586586.82	-23586586.79	-23586586.73	0.0144	0.0141
Mercury	-69290-09-09 01:54 J	-23586498.53	-23586498.42	-23586498.28	0.0144	0.0110
Mercury	-69290-12-06 10:47 J	-23586410.21	-23586410.05	-23586409.88	0.0144	0.0078
Mercury	-69289-03-03 19:40 J	-23586321.86	-23586321.68	-23586321.49	0.0144	0.0047
Mercury	-69289-05-31 04:18 J	-23586233.51	-23586233.32	-23586233.12	0.0144	0.0017
Mercury	-69289-08-27 12:57 J	-23586145.15	-23586144.96	-23586144.76	0.0144	0.0014
Mercury	-69289-11-23 21:35 J	-23586056.78	-23586056.60	-23586056.41	0.0144	0.0044
Mercury	-69288-02-20 06:13 J	-23585968.40	-23585968.24	-23585968.07	0.0144	0.0075
Mercury	-69288-05-19 14:37 J	-23585880.01	-23585879.89	-23585879.75	0.0143	0.0105
Mercury	-69288-08-15 23:16 J	-23585791.59	-23585791.53	-23585791.46	0.0143	0.0134
Moon	-69275-01-17 17:16 J	-23581253.92	-23581253.78	-23581253.61	0.0136	0.0110
Earth	-69275-01-17 18:42 J	-23581253.86	-23581253.72	-23581253.53	0.0136	0.0105 *
Earth	-69274-01-22 10:04 J	-23580884.32	-23580884.08	-23580883.82	0.0135	0.0037
Moon	-69274-01-22 11:01 J	-23580884.29	-23580884.04	-23580883.80	0.0135	0.0030 *
Moon	-69273-01-26 23:01 J	-23580514.79	-23580514.54	-23580514.27	0.0135	0.0025
Earth	-69273-01-26 23:59 J	-23580514.74	-23580514.50	-23580514.24	0.0135	0.0031 *
Earth	-69272-01-30 12:57 J	-23580145.13	-23580144.96	-23580144.77	0.0134	0.0097
Moon	-69272-01-30 12:57 J	-23580145.11	-23580144.96	-23580144.78	0.0134	0.0100 *
Mars	-69260-10-07 07:11 J	-23575512.44	-23575512.20	-23575511.94	0.0131	0.0063
Mars	-69258-09-05 21:35 J	-23574813.87	-23574813.60	-23574813.33	0.0131	0.0032
Venus	-69257-04-23 23:16 J	-23574582.57	-23574582.53	-23574582.46	0.0131	0.0127
Venus	-69257-12-06 02:09 J	-23574356.56	-23574356.41	-23574356.23	0.0131	0.0081
Venus	-69256-07-20 05:16 J	-23574130.48	-23574130.28	-23574130.07	0.0131	0.0036

Mars -69256-08-04 05:16 J -23574115.36 -23574115.28 -23574115.17 0.0131 0.0124
 Venus -69255-03-03 08:09 J -23573904.37 -23573904.16 -23573903.94 0.0132 0.0010
 Venus -69255-10-15 10:47 J -23573678.24 -23573678.05 -23573677.85 0.0132 0.0056
 Venus -69254-05-29 13:40 J -23573452.06 -23573451.93 -23573451.79 0.0132 0.0101
 Mercury -69246-05-26 05:16 J -23570533.33 -23570533.28 -23570533.23 0.0134 0.0121
 Mercury -69246-08-22 08:09 J -23570445.24 -23570445.16 -23570445.08 0.0134 0.0104
 Mercury -69246-11-18 11:01 J -23570357.13 -23570357.04 -23570356.93 0.0134 0.0088
 Mercury -69245-02-14 14:09 J -23570269.02 -23570268.91 -23570268.80 0.0134 0.0071
 Mercury -69245-05-12 17:16 J -23570180.90 -23570180.78 -23570180.66 0.0135 0.0055
 Mercury -69245-08-08 20:09 J -23570092.78 -23570092.66 -23570092.53 0.0135 0.0038
 Mercury -69245-11-04 23:16 J -23570004.66 -23570004.53 -23570004.40 0.0135 0.0022
 Mercury -69244-02-01 02:09 J -23569916.54 -23569916.41 -23569916.28 0.0135 0.0006
 Mercury -69244-04-30 05:16 J -23569828.41 -23569828.28 -23569828.15 0.0135 0.0012
 Mercury -69244-07-27 08:09 J -23569740.28 -23569740.16 -23569740.03 0.0135 0.0029
 Mercury -69244-10-23 11:16 J -23569652.15 -23569652.03 -23569651.91 0.0135 0.0046
 Mercury -69243-01-19 14:09 J -23569564.02 -23569563.91 -23569563.79 0.0135 0.0064
 Mercury -69243-04-17 17:16 J -23569475.88 -23569475.78 -23569475.67 0.0136 0.0080
 Mercury -69243-07-14 20:23 J -23569387.74 -23569387.65 -23569387.56 0.0136 0.0097
 Mercury -69243-10-10 23:16 J -23569299.59 -23569299.53 -23569299.45 0.0136 0.0115
 Mercury -69242-01-07 02:23 J -23569211.42 -23569211.40 -23569211.36 0.0136 0.0132
 Earth -69231-07-15 17:01 J -23565003.89 -23565003.79 -23565003.68 0.0143 0.0128
 Moon -69231-07-15 20:23 J -23565003.77 -23565003.65 -23565003.51 0.0143 0.0121 *
 Moon -69230-07-20 07:11 J -23564634.43 -23564634.20 -23564633.97 0.0143 0.0056
 Earth -69230-07-20 10:18 J -23564634.29 -23564634.07 -23564633.83 0.0143 0.0052 *
 Earth -69229-07-24 04:33 J -23564264.54 -23564264.31 -23564264.05 0.0144 0.0026
 Moon -69229-07-24 08:23 J -23564264.39 -23564264.15 -23564263.90 0.0144 0.0025 *
 Moon -69228-07-28 20:37 J -23563894.80 -23563894.64 -23563894.47 0.0144 0.0108
 Earth -69228-07-28 23:45 J -23563894.66 -23563894.51 -23563894.32 0.0144 0.0105 *
 Mars -69218-12-26 09:06 J -23560092.40 -23560092.12 -23560091.82 0.0148 0.0075
 Mars -69216-12-03 08:09 J -23559384.41 -23559384.16 -23559383.87 0.0148 0.0091

Venus	-69215-06-12 05:59 J	-23559193.42	-23559193.25	-23559193.07	0.0148	0.0089
Venus	-69214-01-24 21:21 J	-23558966.83	-23558966.61	-23558966.39	0.0147	0.0022
Venus	-69214-09-08 12:28 J	-23558740.19	-23558739.98	-23558739.77	0.0147	0.0046
Venus	-69213-04-22 03:49 J	-23558513.48	-23558513.34	-23558513.20	0.0147	0.0113
Mercury	-69206-07-03 02:09 J	-23555885.49	-23555885.41	-23555885.32	0.0144	0.0129
Mercury	-69206-09-29 11:01 J	-23555797.18	-23555797.04	-23555796.89	0.0144	0.0098
Mercury	-69206-12-26 19:40 J	-23555708.85	-23555708.68	-23555708.50	0.0144	0.0067
Mercury	-69205-03-24 04:33 J	-23555620.50	-23555620.31	-23555620.12	0.0144	0.0036
Mercury	-69205-06-20 13:11 J	-23555532.14	-23555531.95	-23555531.75	0.0144	0.0006
Mercury	-69205-09-16 21:49 J	-23555443.78	-23555443.59	-23555443.39	0.0144	0.0025
Mercury	-69205-12-14 06:28 J	-23555355.41	-23555355.23	-23555355.05	0.0144	0.0056
Mercury	-69204-03-12 15:06 J	-23555267.02	-23555266.87	-23555266.71	0.0143	0.0086
Mercury	-69204-06-08 23:16 J	-23555178.62	-23555178.53	-23555178.40	0.0143	0.0117
Moon	-69191-01-18 06:28 J	-23550572.41	-23550572.23	-23550572.02	0.0136	0.0093
Earth	-69191-01-18 08:09 J	-23550572.32	-23550572.16	-23550571.97	0.0136	0.0100 *
Earth	-69190-01-22 23:16 J	-23550202.77	-23550202.53	-23550202.27	0.0135	0.0032
Moon	-69190-01-23 00:57 J	-23550202.69	-23550202.46	-23550202.21	0.0135	0.0039 *
Moon	-69189-01-27 12:13 J	-23549833.24	-23549832.99	-23549832.72	0.0135	0.0042
Earth	-69189-01-27 13:11 J	-23549833.19	-23549832.95	-23549832.69	0.0135	0.0036 *
Earth	-69188-01-31 01:54 J	-23549463.57	-23549463.42	-23549463.24	0.0134	0.0102
Moon	-69188-01-31 03:06 J	-23549463.53	-23549463.37	-23549463.19	0.0134	0.0099 *
Mars	-69177-07-02 16:47 J	-23545292.91	-23545292.80	-23545292.67	0.0131	0.0120
Mars	-69175-06-01 11:01 J	-23544594.31	-23544594.04	-23544593.75	0.0131	0.0025
Mars	-69173-04-29 22:18 J	-23543895.80	-23543895.57	-23543895.33	0.0131	0.0070
Venus	-69173-08-05 14:52 J	-23543798.00	-23543797.88	-23543797.73	0.0131	0.0101
Venus	-69172-03-19 17:45 J	-23543571.94	-23543571.76	-23543571.56	0.0131	0.0055
Venus	-69172-10-31 20:37 J	-23543345.85	-23543345.64	-23543345.42	0.0131	0.0010
Venus	-69171-06-14 23:30 J	-23543119.72	-23543119.52	-23543119.31	0.0132	0.0036
Venus	-69170-01-27 02:23 J	-23542893.57	-23542893.40	-23542893.23	0.0132	0.0081
Venus	-69170-09-10 04:33 J	-23542667.34	-23542667.31	-23542667.23	0.0132	0.0127

Mercury -69162-03-19 09:35 J -23539920.11 -23539920.10 -23539920.07 0.0134 0.0132

Mercury -69162-06-15 12:28 J -23539832.03 -23539831.98 -23539831.91 0.0134 0.0116

Mercury -69162-09-11 15:35 J -23539743.93 -23539743.85 -23539743.76 0.0134 0.0100

Mercury -69162-12-08 18:28 J -23539655.82 -23539655.73 -23539655.62 0.0134 0.0083

Mercury -69161-03-05 21:35 J -23539567.71 -23539567.60 -23539567.48 0.0134 0.0067

Mercury -69161-06-02 00:28 J -23539479.59 -23539479.48 -23539479.35 0.0135 0.0051

Mercury -69161-08-29 03:35 J -23539391.48 -23539391.35 -23539391.22 0.0135 0.0033

Mercury -69161-11-25 06:42 J -23539303.35 -23539303.22 -23539303.09 0.0135 0.0017

Mercury -69160-02-21 09:35 J -23539215.23 -23539215.10 -23539214.97 0.0135 0.0002

Mercury -69160-05-20 12:42 J -23539127.10 -23539126.97 -23539126.84 0.0135 0.0017

Mercury -69160-08-16 15:35 J -23539038.97 -23539038.85 -23539038.72 0.0135 0.0034

Mercury -69160-11-12 18:42 J -23538950.84 -23538950.72 -23538950.60 0.0135 0.0051

Mercury -69159-02-08 21:49 J -23538862.71 -23538862.59 -23538862.48 0.0135 0.0068

Mercury -69159-05-08 00:57 J -23538774.57 -23538774.46 -23538774.36 0.0136 0.0085

Mercury -69159-08-04 03:49 J -23538686.42 -23538686.34 -23538686.25 0.0136 0.0102

Mercury -69159-10-31 06:57 J -23538598.27 -23538598.21 -23538598.15 0.0136 0.0119

Earth -69147-07-16 04:47 J -23534322.41 -23534322.30 -23534322.17 0.0143 0.0124

Moon -69147-07-16 08:09 J -23534322.26 -23534322.16 -23534322.05 0.0143 0.0130 *

Moon -69146-07-20 18:42 J -23533952.95 -23533952.72 -23533952.48 0.0143 0.0044

Earth -69146-07-20 22:04 J -23533952.81 -23533952.58 -23533952.34 0.0143 0.0048 *

Earth -69145-07-24 16:18 J -23533583.06 -23533582.82 -23533582.57 0.0144 0.0030

Moon -69145-07-24 19:40 J -23533582.92 -23533582.68 -23533582.43 0.0144 0.0030 *

Moon -69144-07-29 07:54 J -23533213.33 -23533213.17 -23533212.99 0.0144 0.0105

Earth -69144-07-29 11:30 J -23533213.17 -23533213.02 -23533212.85 0.0144 0.0110 *

Saturn -69141-06-05 17:59 J -23532171.37 -23532170.75 -23532170.10 0.0146 0.0053

Mars -69133-08-22 05:16 J -23529171.62 -23529171.28 -23529170.95 0.0148 0.0012

Venus -69131-02-09 10:33 J -23528635.17 -23528635.06 -23528634.92 0.0148 0.0121

Venus -69131-09-24 01:54 J -23528408.62 -23528408.42 -23528408.21 0.0147 0.0054

Venus -69130-05-08 17:01 J -23528182.01 -23528181.79 -23528181.57 0.0147 0.0014

Venus -69130-12-21 08:09 J -23527955.34 -23527955.16 -23527954.97 0.0147 0.0081

Mercury -69122-07-23 10:04 J -23525184.19 -23525184.08 -23525183.98 0.0144 0.0121

Mercury -69122-10-19 18:42 J -23525095.87 -23525095.72 -23525095.56 0.0144 0.0090

Mercury -69121-01-16 03:21 J -23525007.53 -23525007.36 -23525007.17 0.0144 0.0059

Mercury -69121-04-13 12:13 J -23524919.18 -23524918.99 -23524918.80 0.0144 0.0028

Mercury -69121-07-10 20:52 J -23524830.82 -23524830.63 -23524830.43 0.0144 0.0004

Mercury -69121-10-07 05:30 J -23524742.46 -23524742.27 -23524742.08 0.0144 0.0033

Mercury -69120-01-03 14:09 J -23524654.08 -23524653.91 -23524653.73 0.0144 0.0064

Mercury -69120-04-01 22:47 J -23524565.69 -23524565.55 -23524565.40 0.0143 0.0094

Mercury -69120-06-29 07:11 J -23524477.29 -23524477.20 -23524477.10 0.0143 0.0124

Moon -69107-01-18 16:33 J -23519890.97 -23519890.81 -23519890.62 0.0136 0.0101

Earth -69107-01-18 19:11 J -23519890.87 -23519890.70 -23519890.51 0.0136 0.0096 *

Earth -69106-01-23 10:04 J -23519521.33 -23519521.08 -23519520.82 0.0135 0.0028

Moon -69106-01-23 11:45 J -23519521.25 -23519521.01 -23519520.75 0.0135 0.0021 *

Moon -69105-01-27 21:49 J -23519151.84 -23519151.59 -23519151.32 0.0135 0.0034

Earth -69105-01-27 23:45 J -23519151.74 -23519151.51 -23519151.25 0.0135 0.0041 *

Earth -69104-01-31 12:42 J -23518782.12 -23518781.97 -23518781.80 0.0134 0.0107

Moon -69104-01-31 13:54 J -23518782.05 -23518781.92 -23518781.77 0.0134 0.0110 *

Mars -69092-02-24 19:25 J -23514374.89 -23514374.69 -23514374.45 0.0131 0.0083

Mars -69090-01-24 11:16 J -23513676.31 -23513676.03 -23513675.74 0.0131 0.0013

Venus -69089-04-05 02:23 J -23513239.47 -23513239.40 -23513239.31 0.0131 0.0121

Venus -69089-11-17 05:16 J -23513013.44 -23513013.28 -23513013.10 0.0131 0.0076

Mars -69089-12-22 20:52 J -23512977.79 -23512977.63 -23512977.46 0.0131 0.0107

Venus -69088-07-01 08:23 J -23512787.36 -23512787.15 -23512786.94 0.0131 0.0031

Venus -69087-02-12 11:16 J -23512561.24 -23512561.03 -23512560.82 0.0131 0.0015

Venus -69087-09-26 13:54 J -23512335.11 -23512334.92 -23512334.73 0.0131 0.0060

Venus -69086-05-10 16:33 J -23512108.93 -23512108.81 -23512108.68 0.0132 0.0105

Mercury -69078-04-08 16:33 J -23509218.83 -23509218.81 -23509218.76 0.0134 0.0129

Mercury -69078-07-05 19:54 J -23509130.74 -23509130.67 -23509130.60 0.0134 0.0112

Mercury -69078-10-01 22:33 J -23509042.64 -23509042.56 -23509042.46 0.0134 0.0097

Mercury -69078-12-29 01:40 J -23508954.53 -23508954.43 -23508954.32 0.0134 0.0080

Mercury -69077-03-26 04:33 J -23508866.42 -23508866.31 -23508866.19 0.0134 0.0064

Mercury -69077-06-22 07:40 J -23508778.30 -23508778.18 -23508778.06 0.0135 0.0047

Mercury -69077-09-18 10:33 J -23508690.18 -23508690.06 -23508689.93 0.0135 0.0031

Mercury -69077-12-15 13:40 J -23508602.06 -23508601.93 -23508601.80 0.0135 0.0013

Mercury -69076-03-13 16:47 J -23508513.94 -23508513.80 -23508513.67 0.0135 0.0005

Mercury -69076-06-09 19:40 J -23508425.81 -23508425.68 -23508425.55 0.0135 0.0020

Mercury -69076-09-05 22:47 J -23508337.68 -23508337.55 -23508337.43 0.0135 0.0037

Mercury -69076-12-03 01:40 J -23508249.55 -23508249.43 -23508249.31 0.0135 0.0054

Mercury -69075-03-01 04:33 J -23508161.41 -23508161.31 -23508161.19 0.0135 0.0072

Mercury -69075-05-28 07:40 J -23508073.27 -23508073.18 -23508073.07 0.0135 0.0088

Mercury -69075-08-24 10:47 J -23507985.13 -23507985.05 -23507984.96 0.0136 0.0105

Mercury -69075-11-20 13:54 J -23507896.97 -23507896.92 -23507896.86 0.0136 0.0123

Earth -69063-07-16 12:57 J -23503641.08 -23503640.96 -23503640.83 0.0143 0.0123

Moon -69063-07-16 15:35 J -23503640.98 -23503640.85 -23503640.68 0.0143 0.0116 *

Moon -69062-07-21 03:06 J -23503271.59 -23503271.37 -23503271.14 0.0143 0.0051

Earth -69062-07-21 05:59 J -23503271.48 -23503271.25 -23503271.01 0.0143 0.0047 *

Earth -69061-07-24 23:59 J -23502901.73 -23502901.50 -23502901.25 0.0144 0.0032

Moon -69061-07-25 03:35 J -23502901.59 -23502901.35 -23502901.10 0.0144 0.0032 *

Moon -69060-07-29 15:35 J -23502531.98 -23502531.85 -23502531.68 0.0144 0.0114

Earth -69060-07-29 18:57 J -23502531.85 -23502531.71 -23502531.54 0.0144 0.0112 *

Mars -69050-05-12 00:28 J -23498958.67 -23498958.48 -23498958.26 0.0147 0.0116

Mars -69048-04-18 17:16 J -23498251.08 -23498250.78 -23498250.45 0.0148 0.0050

Venus -69047-05-24 04:18 J -23497850.50 -23497850.32 -23497850.15 0.0147 0.0089

Venus -69046-01-05 19:11 J -23497623.91 -23497623.70 -23497623.47 0.0147 0.0023

Venus -69046-08-20 10:33 J -23497397.27 -23497397.06 -23497396.84 0.0147 0.0045

Venus -69045-04-03 01:25 J -23497170.56 -23497170.44 -23497170.28 0.0147 0.0113

Mercury -69038-08-12 16:18 J -23494482.92 -23494482.82 -23494482.69 0.0144 0.0117

Mercury -69038-11-09 01:11 J -23494394.60 -23494394.45 -23494394.28 0.0144 0.0085

Mercury -69037-02-05 10:04 J -23494306.26 -23494306.08 -23494305.89 0.0144 0.0054

Mercury -69037-05-03 18:57 J -23494217.91 -23494217.71 -23494217.52 0.0144 0.0023

Mercury	-69037-07-31 03:35 J	-23494129.55	-23494129.35	-23494129.15	0.0144	0.0007
Mercury	-69037-10-27 12:13 J	-23494041.18	-23494040.99	-23494040.80	0.0144	0.0038
Mercury	-69036-01-23 20:37 J	-23493952.80	-23493952.64	-23493952.46	0.0144	0.0069
Mercury	-69036-04-22 05:16 J	-23493864.41	-23493864.28	-23493864.13	0.0143	0.0099
Mercury	-69036-07-19 13:54 J	-23493776.00	-23493775.92	-23493775.83	0.0143	0.0128
Moon	-69023-01-19 02:23 J	-23489209.59	-23489209.40	-23489209.18	0.0136	0.0087
Earth	-69023-01-19 05:01 J	-23489209.46	-23489209.29	-23489209.08	0.0136	0.0093 *
Earth	-69022-01-23 20:23 J	-23488839.91	-23488839.65	-23488839.40	0.0135	0.0024
Moon	-69022-01-23 23:01 J	-23488839.79	-23488839.54	-23488839.29	0.0135	0.0031 *
Moon	-69021-01-28 08:09 J	-23488470.41	-23488470.16	-23488469.91	0.0135	0.0050
Earth	-69021-01-28 10:04 J	-23488470.32	-23488470.08	-23488469.83	0.0135	0.0044 *
Earth	-69020-01-31 22:33 J	-23488100.68	-23488100.56	-23488100.39	0.0134	0.0112
Moon	-69020-02-01 00:57 J	-23488100.60	-23488100.46	-23488100.30	0.0134	0.0107 *
Mars	-69008-10-19 20:37 J	-23483456.90	-23483456.64	-23483456.36	0.0131	0.0044
Mars	-69006-09-18 09:49 J	-23482758.34	-23482758.09	-23482757.82	0.0131	0.0051
Venus	-69005-07-17 17:01 J	-23482454.93	-23482454.79	-23482454.64	0.0131	0.0097
Venus	-69004-02-28 19:54 J	-23482228.86	-23482228.67	-23482228.46	0.0131	0.0052
Venus	-69004-10-12 22:47 J	-23482002.76	-23482002.55	-23482002.33	0.0131	0.0007
Venus	-69003-05-27 01:25 J	-23481776.63	-23481776.44	-23481776.23	0.0131	0.0039
Venus	-69002-01-08 04:04 J	-23481550.47	-23481550.33	-23481550.15	0.0131	0.0085
Venus	-69002-08-22 06:42 J	-23481324.23	-23481324.22	-23481324.16	0.0132	0.0130

69TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 69th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-68994-04-28 23:59 J	-23478517.54	-23478517.50	-23478517.45	0.0134	0.0125		
Mercury	-68994-07-26 02:52 J	-23478429.45	-23478429.38	-23478429.30	0.0134	0.0109		
Mercury	-68994-10-22 05:59 J	-23478341.35	-23478341.25	-23478341.16	0.0134	0.0092		
Mercury	-68993-01-18 08:52 J	-23478253.24	-23478253.13	-23478253.02	0.0134	0.0076		
Mercury	-68993-04-15 11:45 J	-23478165.12	-23478165.01	-23478164.89	0.0134	0.0060		
Mercury	-68993-07-12 14:37 J	-23478077.01	-23478076.89	-23478076.76	0.0134	0.0044		
Mercury	-68993-10-08 17:45 J	-23477988.89	-23477988.76	-23477988.63	0.0135	0.0027		
Mercury	-68992-01-04 20:52 J	-23477900.76	-23477900.63	-23477900.50	0.0135	0.0010		
Mercury	-68992-04-02 23:45 J	-23477812.64	-23477812.51	-23477812.38	0.0135	0.0007		
Mercury	-68992-06-30 02:52 J	-23477724.51	-23477724.38	-23477724.25	0.0135	0.0024		
Mercury	-68992-09-26 05:45 J	-23477636.38	-23477636.26	-23477636.13	0.0135	0.0041		
Mercury	-68992-12-23 08:52 J	-23477548.25	-23477548.13	-23477548.01	0.0135	0.0058		
Mercury	-68991-03-21 11:59 J	-23477460.11	-23477460.00	-23477459.89	0.0135	0.0075		
Mercury	-68991-06-17 14:52 J	-23477371.97	-23477371.88	-23477371.78	0.0135	0.0092		
Mercury	-68991-09-13 17:59 J	-23477283.83	-23477283.75	-23477283.67	0.0136	0.0109		
Mercury	-68991-12-10 21:06 J	-23477195.67	-23477195.62	-23477195.57	0.0136	0.0126		
Earth	-68979-07-16 21:06 J	-23472959.74	-23472959.62	-23472959.49	0.0143	0.0121		
Moon	-68979-07-16 23:16 J	-23472959.62	-23472959.53	-23472959.40	0.0143	0.0128	*	
Moon	-68978-07-21 11:01 J	-23472590.26	-23472590.04	-23472589.80	0.0143	0.0040		
Earth	-68978-07-21 14:09 J	-23472590.15	-23472589.91	-23472589.67	0.0143	0.0045	*	
Earth	-68977-07-25 07:40 J	-23472220.41	-23472220.18	-23472219.93	0.0144	0.0034		
Moon	-68977-07-25 10:33 J	-23472220.30	-23472220.06	-23472219.81	0.0144	0.0033	*	
Moon	-68976-07-29 23:16 J	-23471850.68	-23471850.53	-23471850.36	0.0144	0.0110		
Earth	-68976-07-30 02:23 J	-23471850.53	-23471850.40	-23471850.23	0.0144	0.0114	*	
Mars	-68965-01-06 06:13 J	-23468038.52	-23468038.24	-23468037.91	0.0147	0.0058		
Mars	-68964-12-14 02:23 J	-23467330.60	-23467330.40	-23467330.15	0.0147	0.0111		
Venus	-68963-01-21 05:16 J	-23467292.38	-23467292.28	-23467292.16	0.0147	0.0126		

Venus	-68963-09-04 20:09 J	-23467065.85	-23467065.66	-23467065.44	0.0147	0.0060
Venus	-68962-04-19 11:30 J	-23466839.24	-23466839.02	-23466838.80	0.0147	0.0008
Venus	-68962-12-02 02:37 J	-23466612.58	-23466612.39	-23466612.20	0.0147	0.0075
Venus	-68961-07-15 17:45 J	-23466385.81	-23466385.76	-23466385.69	0.0147	0.0141
Mercury	-68954-09-01 21:49 J	-23463781.69	-23463781.59	-23463781.46	0.0144	0.0116
Mercury	-68954-11-29 06:42 J	-23463693.37	-23463693.22	-23463693.05	0.0144	0.0085
Mercury	-68953-02-25 15:35 J	-23463605.03	-23463604.85	-23463604.67	0.0144	0.0054
Mercury	-68953-05-24 00:13 J	-23463516.68	-23463516.49	-23463516.29	0.0144	0.0023
Mercury	-68953-08-20 09:06 J	-23463428.32	-23463428.12	-23463427.93	0.0144	0.0008
Mercury	-68953-11-16 17:30 J	-23463339.95	-23463339.77	-23463339.57	0.0144	0.0039
Mercury	-68952-02-13 02:23 J	-23463251.57	-23463251.40	-23463251.23	0.0144	0.0069
Mercury	-68952-05-12 10:33 J	-23463163.18	-23463163.06	-23463162.90	0.0143	0.0100
Mercury	-68952-08-08 19:11 J	-23463074.77	-23463074.70	-23463074.61	0.0143	0.0129
Moon	-68939-01-19 08:09 J	-23458528.34	-23458528.16	-23458527.97	0.0136	0.0096
Earth	-68939-01-19 11:16 J	-23458528.20	-23458528.03	-23458527.82	0.0136	0.0092 *
Earth	-68938-01-24 02:23 J	-23458158.65	-23458158.40	-23458158.13	0.0136	0.0023
Moon	-68938-01-24 05:16 J	-23458158.53	-23458158.28	-23458158.03	0.0136	0.0015 *
Moon	-68937-01-28 13:25 J	-23457789.18	-23457788.94	-23457788.68	0.0135	0.0039
Earth	-68937-01-28 16:47 J	-23457789.05	-23457788.80	-23457788.56	0.0135	0.0046 *
Earth	-68936-02-01 05:16 J	-23457419.40	-23457419.28	-23457419.12	0.0135	0.0114
Moon	-68936-02-01 07:25 J	-23457419.28	-23457419.19	-23457419.04	0.0135	0.0119 *
Mars	-68925-07-15 00:13 J	-23453237.64	-23453237.49	-23453237.29	0.0131	0.0105
Mars	-68923-06-13 18:42 J	-23452539.00	-23452538.72	-23452538.43	0.0131	0.0007
Venus	-68921-03-17 03:49 J	-23451896.42	-23451896.34	-23451896.24	0.0131	0.0118
Mars	-68921-05-12 07:40 J	-23451840.37	-23451840.18	-23451839.95	0.0131	0.0089
Venus	-68921-10-29 06:42 J	-23451670.38	-23451670.22	-23451670.03	0.0131	0.0074
Venus	-68920-06-12 09:49 J	-23451444.29	-23451444.09	-23451443.87	0.0131	0.0028
Venus	-68919-01-24 12:57 J	-23451218.17	-23451217.96	-23451217.75	0.0131	0.0017
Venus	-68919-09-07 15:35 J	-23450992.03	-23450991.85	-23450991.65	0.0131	0.0063
Venus	-68918-04-21 18:28 J	-23450765.85	-23450765.73	-23450765.60	0.0132	0.0108

Mercury -68910-05-19 07:11 J -23447816.25 -23447816.20 -23447816.14 0.0134 0.0121

Mercury -68910-08-15 10:04 J -23447728.15 -23447728.08 -23447727.99 0.0134 0.0105

Mercury -68910-11-11 13:11 J -23447640.05 -23447639.95 -23447639.85 0.0134 0.0089

Mercury -68909-02-07 16:04 J -23447551.94 -23447551.83 -23447551.72 0.0134 0.0072

Mercury -68909-05-05 19:11 J -23447463.82 -23447463.70 -23447463.58 0.0134 0.0056

Mercury -68909-08-01 22:04 J -23447375.71 -23447375.58 -23447375.45 0.0135 0.0039

Mercury -68909-10-29 00:57 J -23447287.59 -23447287.46 -23447287.33 0.0135 0.0023

Mercury -68908-01-25 04:04 J -23447199.46 -23447199.33 -23447199.20 0.0135 0.0006

Mercury -68908-04-23 06:57 J -23447111.34 -23447111.21 -23447111.08 0.0135 0.0012

Mercury -68908-07-20 10:04 J -23447023.21 -23447023.08 -23447022.95 0.0135 0.0028

Mercury -68908-10-16 12:57 J -23446935.08 -23446934.96 -23446934.83 0.0135 0.0045

Mercury -68907-01-12 16:04 J -23446846.95 -23446846.83 -23446846.71 0.0135 0.0062

Mercury -68907-04-10 19:11 J -23446758.81 -23446758.70 -23446758.60 0.0135 0.0079

Mercury -68907-07-07 22:04 J -23446670.67 -23446670.58 -23446670.48 0.0135 0.0096

Mercury -68907-10-04 01:11 J -23446582.52 -23446582.45 -23446582.38 0.0136 0.0113

Mercury -68907-12-31 04:04 J -23446494.35 -23446494.33 -23446494.29 0.0136 0.0131

Earth -68895-07-17 07:25 J -23442278.32 -23442278.19 -23442278.04 0.0142 0.0118

Moon -68895-07-17 09:21 J -23442278.25 -23442278.11 -23442277.93 0.0142 0.0110 *

Moon -68894-07-21 22:04 J -23441908.81 -23441908.58 -23441908.35 0.0143 0.0046

Earth -68894-07-21 23:59 J -23441908.73 -23441908.50 -23441908.25 0.0143 0.0042 *

Earth -68893-07-25 17:45 J -23441538.99 -23441538.76 -23441538.51 0.0144 0.0038

Moon -68893-07-25 20:52 J -23441538.87 -23441538.63 -23441538.38 0.0144 0.0038 *

Moon -68892-07-30 09:35 J -23441169.22 -23441169.10 -23441168.95 0.0144 0.0119

Earth -68892-07-30 12:13 J -23441169.11 -23441168.99 -23441168.83 0.0144 0.0118 *

Mars -68881-09-01 18:28 J -23437118.07 -23437117.73 -23437117.40 0.0147 0.0005

Venus -68879-05-04 22:47 J -23436507.71 -23436507.55 -23436507.37 0.0147 0.0094

Venus -68879-12-17 13:54 J -23436281.13 -23436280.92 -23436280.70 0.0147 0.0028

Venus -68878-08-01 05:01 J -23436054.49 -23436054.29 -23436054.07 0.0147 0.0040

Venus -68877-03-14 20:09 J -23435827.80 -23435827.66 -23435827.49 0.0147 0.0106

Mercury -68870-06-25 19:25 J -23433168.70 -23433168.69 -23433168.66 0.0144 0.0143

Mercury -68870-09-22 04:04 J -23433080.44 -23433080.33 -23433080.19 0.0144 0.0113

Mercury -68870-12-19 12:57 J -23432992.11 -23432991.96 -23432991.79 0.0144 0.0081

Mercury -68869-03-16 21:49 J -23432903.77 -23432903.59 -23432903.40 0.0144 0.0050

Mercury -68869-06-13 06:42 J -23432815.42 -23432815.22 -23432815.03 0.0144 0.0019

Mercury -68869-09-09 15:21 J -23432727.06 -23432726.86 -23432726.67 0.0144 0.0011

Mercury -68869-12-06 23:59 J -23432638.69 -23432638.50 -23432638.31 0.0144 0.0042

Mercury -68868-03-05 08:23 J -23432550.31 -23432550.15 -23432549.97 0.0144 0.0072

Mercury -68868-06-01 17:01 J -23432461.92 -23432461.79 -23432461.65 0.0143 0.0102

Mercury -68868-08-29 01:25 J -23432373.50 -23432373.44 -23432373.36 0.0143 0.0133

Moon -68855-01-19 15:35 J -23427847.04 -23427846.85 -23427846.63 0.0136 0.0085

Earth -68855-01-19 18:57 J -23427846.89 -23427846.71 -23427846.50 0.0136 0.0090 *

Earth -68854-01-24 10:18 J -23427477.33 -23427477.07 -23427476.81 0.0136 0.0020

Moon -68854-01-24 13:54 J -23427477.17 -23427476.92 -23427476.67 0.0136 0.0027 *

Moon -68853-01-28 21:21 J -23427107.84 -23427107.61 -23427107.36 0.0135 0.0056

Earth -68853-01-29 00:13 J -23427107.72 -23427107.49 -23427107.24 0.0135 0.0049 *

Earth -68852-02-01 13:11 J -23426738.06 -23426737.95 -23426737.80 0.0135 0.0117

Moon -68852-02-01 16:04 J -23426737.95 -23426737.83 -23426737.66 0.0135 0.0112 *

Mars -68840-03-09 00:57 J -23422319.70 -23422319.46 -23422319.20 0.0131 0.0066

Mars -68838-02-05 19:11 J -23421620.97 -23421620.70 -23421620.42 0.0131 0.0032

Venus -68837-06-28 18:13 J -23421111.88 -23421111.74 -23421111.58 0.0131 0.0095

Mars -68836-01-04 07:25 J -23420922.25 -23420922.19 -23420922.10 0.0131 0.0127

Venus -68836-02-09 21:21 J -23420885.80 -23420885.61 -23420885.40 0.0131 0.0049

Venus -68836-09-24 00:28 J -23420659.69 -23420659.48 -23420659.26 0.0131 0.0004

Venus -68835-05-08 03:06 J -23420433.56 -23420433.37 -23420433.16 0.0132 0.0042

Venus -68835-12-20 05:59 J -23420207.40 -23420207.25 -23420207.08 0.0132 0.0087

Mercury -68826-03-12 11:30 J -23417203.03 -23417203.02 -23417203.01 0.0134 0.0133

Mercury -68826-06-08 14:23 J -23417114.95 -23417114.90 -23417114.83 0.0134 0.0117

Mercury -68826-09-04 17:30 J -23417026.85 -23417026.77 -23417026.68 0.0134 0.0101

Mercury -68826-12-01 20:23 J -23416938.75 -23416938.65 -23416938.54 0.0134 0.0084

Mercury -68825-02-27 23:30 J -23416850.63 -23416850.52 -23416850.41 0.0134 0.0068

Mercury -68825-05-26 02:23 J -23416762.52 -23416762.40 -23416762.28 0.0134 0.0051

Mercury -68825-08-22 05:30 J -23416674.40 -23416674.27 -23416674.15 0.0135 0.0035

Mercury -68825-11-18 08:23 J -23416586.28 -23416586.15 -23416586.02 0.0135 0.0018

Mercury -68824-02-14 11:30 J -23416498.16 -23416498.02 -23416497.89 0.0135 0.0005

Mercury -68824-05-13 14:23 J -23416410.03 -23416409.90 -23416409.77 0.0135 0.0016

Mercury -68824-08-09 17:16 J -23416321.90 -23416321.78 -23416321.65 0.0135 0.0033

Mercury -68824-11-05 20:23 J -23416233.77 -23416233.65 -23416233.53 0.0135 0.0050

Mercury -68823-02-01 23:30 J -23416145.63 -23416145.52 -23416145.41 0.0135 0.0067

Mercury -68823-05-01 02:23 J -23416057.50 -23416057.40 -23416057.29 0.0135 0.0084

Mercury -68823-07-28 05:30 J -23415969.35 -23415969.27 -23415969.18 0.0136 0.0101

Mercury -68823-10-24 08:37 J -23415881.20 -23415881.14 -23415881.08 0.0136 0.0118

Mercury -68822-01-20 11:45 J -23415793.02 -23415793.01 -23415793.00 0.0136 0.0135

Earth -68811-07-17 20:09 J -23411596.80 -23411596.66 -23411596.50 0.0142 0.0113

Moon -68811-07-17 21:21 J -23411596.72 -23411596.61 -23411596.44 0.0142 0.0120 *

Moon -68810-07-22 10:47 J -23411227.28 -23411227.05 -23411226.80 0.0143 0.0031

Earth -68810-07-22 12:57 J -23411227.19 -23411226.96 -23411226.71 0.0143 0.0036 *

Earth -68809-07-26 06:28 J -23410857.46 -23410857.23 -23410856.98 0.0144 0.0043

Moon -68809-07-26 08:52 J -23410857.38 -23410857.13 -23410856.89 0.0144 0.0041 *

Moon -68808-07-30 22:33 J -23410487.68 -23410487.56 -23410487.42 0.0144 0.0120

Earth -68808-07-31 01:11 J -23410487.56 -23410487.45 -23410487.31 0.0144 0.0124 *

Mars -68798-05-23 03:21 J -23406904.59 -23406904.36 -23406904.09 0.0147 0.0096

Mars -68796-04-29 14:23 J -23406197.17 -23406196.90 -23406196.59 0.0147 0.0071

Venus -68795-01-02 03:49 J -23405949.44 -23405949.34 -23405949.21 0.0147 0.0126

Venus -68795-08-16 18:57 J -23405722.90 -23405722.71 -23405722.50 0.0147 0.0059

Venus -68794-03-31 10:04 J -23405496.30 -23405496.08 -23405495.86 0.0147 0.0008

Venus -68794-11-13 00:57 J -23405269.64 -23405269.46 -23405269.26 0.0147 0.0074

Venus -68793-06-26 16:04 J -23405042.88 -23405042.83 -23405042.75 0.0147 0.0140

Mercury -68786-07-16 02:23 J -23402467.44 -23402467.40 -23402467.33 0.0144 0.0138

Mercury -68786-10-12 11:16 J -23402379.15 -23402379.03 -23402378.89 0.0144 0.0107

Mercury -68785-01-08 20:09 J -23402290.82 -23402290.66 -23402290.49 0.0144 0.0075

Mercury -68785-04-06 05:01 J -23402202.48 -23402202.29 -23402202.11 0.0144 0.0045
 Mercury -68785-07-03 13:40 J -23402114.13 -23402113.93 -23402113.74 0.0144 0.0014
 Mercury -68785-09-29 22:18 J -23402025.76 -23402025.57 -23402025.38 0.0144 0.0017
 Mercury -68785-12-27 06:42 J -23401937.39 -23401937.22 -23401937.03 0.0144 0.0048
 Mercury -68784-03-25 15:21 J -23401849.02 -23401848.86 -23401848.69 0.0144 0.0078
 Mercury -68784-06-21 23:59 J -23401760.62 -23401760.50 -23401760.37 0.0143 0.0108
 Mercury -68784-09-18 08:37 J -23401672.19 -23401672.14 -23401672.09 0.0143 0.0138
 Moon -68771-01-19 23:45 J -23397165.70 -23397165.51 -23397165.31 0.0136 0.0092
 Earth -68771-01-20 03:06 J -23397165.55 -23397165.37 -23397165.15 0.0136 0.0088 *
 Earth -68770-01-24 18:28 J -23396795.98 -23396795.73 -23396795.47 0.0136 0.0018
 Moon -68770-01-24 21:49 J -23396795.84 -23396795.59 -23396795.33 0.0136 0.0011 *
 Moon -68769-01-29 05:01 J -23396426.53 -23396426.29 -23396426.04 0.0135 0.0044
 Earth -68769-01-29 08:37 J -23396426.37 -23396426.14 -23396425.89 0.0135 0.0052 *
 Earth -68768-02-01 21:21 J -23396056.70 -23396056.61 -23396056.47 0.0135 0.0120
 Moon -68768-02-02 00:57 J -23396056.54 -23396056.46 -23396056.36 0.0135 0.0125 *
 Mars -68758-12-03 03:21 J -23392100.43 -23392100.36 -23392100.29 0.0132 0.0127
 Mars -68756-11-01 01:40 J -23391401.70 -23391401.43 -23391401.14 0.0131 0.0028
 Mars -68754-09-30 18:13 J -23390702.97 -23390702.74 -23390702.49 0.0131 0.0070
 Venus -68753-02-27 05:30 J -23390553.36 -23390553.27 -23390553.16 0.0131 0.0116
 Venus -68753-10-10 08:37 J -23390327.31 -23390327.14 -23390326.95 0.0131 0.0070
 Venus -68752-05-24 11:45 J -23390101.22 -23390101.01 -23390100.80 0.0132 0.0025
 Venus -68751-01-05 14:52 J -23389875.09 -23389874.88 -23389874.67 0.0132 0.0020
 Venus -68751-08-19 17:30 J -23389648.94 -23389648.77 -23389648.57 0.0132 0.0066
 Venus -68750-04-02 20:23 J -23389422.75 -23389422.65 -23389422.52 0.0132 0.0111
 Mercury -68742-04-01 18:42 J -23386501.74 -23386501.72 -23386501.68 0.0134 0.0129
 Mercury -68742-06-28 21:35 J -23386413.66 -23386413.60 -23386413.52 0.0134 0.0113
 Mercury -68742-09-25 00:42 J -23386325.56 -23386325.47 -23386325.38 0.0134 0.0097
 Mercury -68742-12-22 03:35 J -23386237.45 -23386237.35 -23386237.24 0.0134 0.0081
 Mercury -68741-03-19 06:42 J -23386149.33 -23386149.22 -23386149.10 0.0135 0.0064
 Mercury -68741-06-15 09:35 J -23386061.22 -23386061.10 -23386060.97 0.0135 0.0047

Mercury -68741-09-11 12:42 J -23385973.10 -23385972.97 -23385972.84 0.0135 0.0030

Mercury -68741-12-08 15:49 J -23385884.97 -23385884.84 -23385884.71 0.0135 0.0014

Mercury -68740-03-06 18:42 J -23385796.85 -23385796.72 -23385796.59 0.0135 0.0003

Mercury -68740-06-02 21:49 J -23385708.72 -23385708.59 -23385708.46 0.0135 0.0020

Mercury -68740-08-30 00:42 J -23385620.59 -23385620.47 -23385620.34 0.0135 0.0037

Mercury -68740-11-26 03:35 J -23385532.46 -23385532.35 -23385532.22 0.0135 0.0055

Mercury -68739-02-22 06:42 J -23385444.33 -23385444.22 -23385444.10 0.0135 0.0071

Mercury -68739-05-21 09:49 J -23385356.19 -23385356.09 -23385355.99 0.0135 0.0088

Mercury -68739-08-17 12:42 J -23385268.04 -23385267.97 -23385267.88 0.0136 0.0106

Mercury -68739-11-13 15:49 J -23385179.88 -23385179.84 -23385179.78 0.0136 0.0123

Jupiter -68736-09-08 07:54 J -23384150.51 -23384150.17 -23384149.77 0.0137 0.0094

Earth -68727-07-18 08:37 J -23380915.28 -23380915.14 -23380914.96 0.0142 0.0109

Moon -68727-07-18 10:04 J -23380915.25 -23380915.08 -23380914.89 0.0142 0.0101 *

Moon -68726-07-23 00:28 J -23380545.71 -23380545.48 -23380545.24 0.0143 0.0036

Earth -68726-07-23 01:40 J -23380545.67 -23380545.43 -23380545.18 0.0143 0.0031 *

Earth -68725-07-26 19:25 J -23380175.92 -23380175.69 -23380175.45 0.0144 0.0049

Moon -68725-07-26 21:35 J -23380175.83 -23380175.60 -23380175.35 0.0144 0.0050 *

Moon -68724-07-31 11:59 J -23379806.07 -23379806.00 -23379805.87 0.0144 0.0132

Earth -68724-07-31 14:09 J -23379806.00 -23379805.91 -23379805.78 0.0144 0.0130 *

Mars -68713-01-17 23:30 J -23375983.83 -23375983.52 -23375983.19 0.0147 0.0032

Mars -68712-12-25 15:21 J -23375275.95 -23375275.86 -23375275.72 0.0147 0.0138

Venus -68711-04-16 01:11 J -23375164.62 -23375164.45 -23375164.27 0.0147 0.0088

Venus -68711-11-28 16:18 J -23374938.04 -23374937.82 -23374937.60 0.0147 0.0022

Venus -68710-07-13 07:11 J -23374711.40 -23374711.20 -23374710.98 0.0147 0.0044

Venus -68709-02-24 22:18 J -23374484.71 -23374484.57 -23374484.41 0.0147 0.0110

Mercury -68702-08-05 10:18 J -23371766.14 -23371766.07 -23371765.97 0.0144 0.0129

Mercury -68702-11-01 19:11 J -23371677.83 -23371677.70 -23371677.55 0.0144 0.0098

Mercury -68701-01-29 03:49 J -23371589.50 -23371589.34 -23371589.15 0.0144 0.0068

Mercury -68701-04-26 12:42 J -23371501.15 -23371500.97 -23371500.78 0.0144 0.0036

Mercury -68701-07-23 21:35 J -23371412.80 -23371412.60 -23371412.41 0.0144 0.0006

Mercury -68701-10-20 05:59 J -23371324.44 -23371324.25 -23371324.05 0.0144 0.0026
 Mercury -68700-01-16 14:37 J -23371236.06 -23371235.89 -23371235.70 0.0144 0.0056
 Mercury -68700-04-14 23:16 J -23371147.68 -23371147.53 -23371147.37 0.0143 0.0086
 Mercury -68700-07-12 07:25 J -23371059.28 -23371059.19 -23371059.06 0.0143 0.0117
 Moon -68687-01-20 10:18 J -23366484.28 -23366484.07 -23366483.86 0.0136 0.0079
 Earth -68687-01-20 13:40 J -23366484.12 -23366483.93 -23366483.71 0.0136 0.0085 *
 Earth -68686-01-25 05:01 J -23366114.55 -23366114.29 -23366114.03 0.0136 0.0014
 Moon -68686-01-25 08:52 J -23366114.39 -23366114.13 -23366113.87 0.0136 0.0020 *
 Moon -68685-01-29 15:49 J -23365745.07 -23365744.84 -23365744.61 0.0135 0.0062
 Earth -68685-01-29 19:11 J -23365744.93 -23365744.70 -23365744.46 0.0135 0.0056 *
 Earth -68684-02-02 07:54 J -23365375.25 -23365375.17 -23365375.05 0.0135 0.0124
 Moon -68684-02-02 11:45 J -23365375.12 -23365375.01 -23365374.88 0.0135 0.0118 *
 Mars -68673-07-27 06:13 J -23361182.43 -23361182.24 -23361182.01 0.0132 0.0089
 Mars -68671-06-26 03:49 J -23360483.62 -23360483.34 -23360483.05 0.0131 0.0011
 Mars -68669-05-24 17:30 J -23359784.91 -23359784.77 -23359784.59 0.0131 0.0109
 Venus -68669-06-09 19:54 J -23359768.81 -23359768.67 -23359768.50 0.0131 0.0091
 Venus -68668-01-21 23:30 J -23359542.72 -23359542.52 -23359542.32 0.0131 0.0046
 Venus -68668-09-05 02:37 J -23359316.60 -23359316.39 -23359316.18 0.0132 0.0001
 Venus -68667-04-19 05:30 J -23359090.47 -23359090.27 -23359090.07 0.0132 0.0045
 Venus -68667-12-01 08:23 J -23358864.30 -23358864.15 -23358863.99 0.0132 0.0090
 Mercury -68658-04-22 02:09 J -23355800.45 -23355800.41 -23355800.37 0.0134 0.0126
 Mercury -68658-07-19 05:01 J -23355712.36 -23355712.29 -23355712.21 0.0134 0.0109
 Mercury -68658-10-15 07:54 J -23355624.26 -23355624.17 -23355624.07 0.0134 0.0093
 Mercury -68657-01-11 10:47 J -23355536.15 -23355536.05 -23355535.93 0.0134 0.0077
 Mercury -68657-04-08 13:54 J -23355448.03 -23355447.92 -23355447.80 0.0135 0.0060
 Mercury -68657-07-05 17:01 J -23355359.92 -23355359.79 -23355359.67 0.0135 0.0043
 Mercury -68657-10-01 19:54 J -23355271.80 -23355271.67 -23355271.54 0.0135 0.0026
 Mercury -68657-12-28 23:01 J -23355183.67 -23355183.54 -23355183.41 0.0135 0.0010
 Mercury -68656-03-27 01:54 J -23355095.55 -23355095.42 -23355095.29 0.0135 0.0008
 Mercury -68656-06-23 05:01 J -23355007.42 -23355007.29 -23355007.16 0.0135 0.0024

Mercury -68656-09-19 07:54 J -23354919.29 -23354919.17 -23354919.04 0.0135 0.0041

Mercury -68656-12-16 11:01 J -23354831.16 -23354831.04 -23354830.92 0.0135 0.0058

Mercury -68655-03-14 13:54 J -23354743.02 -23354742.92 -23354742.80 0.0135 0.0076

Mercury -68655-06-10 17:01 J -23354654.88 -23354654.79 -23354654.69 0.0136 0.0093

Mercury -68655-09-06 20:09 J -23354566.73 -23354566.66 -23354566.58 0.0136 0.0110

Mercury -68655-12-03 23:16 J -23354478.57 -23354478.53 -23354478.48 0.0136 0.0127

Earth -68643-07-18 20:23 J -23350233.80 -23350233.65 -23350233.47 0.0142 0.0105

Moon -68643-07-18 21:06 J -23350233.78 -23350233.62 -23350233.46 0.0142 0.0111 *

Moon -68642-07-23 12:13 J -23349864.22 -23349863.99 -23349863.74 0.0143 0.0022

Earth -68642-07-23 13:40 J -23349864.18 -23349863.93 -23349863.69 0.0143 0.0026 *

Earth -68641-07-27 07:11 J -23349494.42 -23349494.20 -23349493.96 0.0144 0.0054

Moon -68641-07-27 08:23 J -23349494.38 -23349494.15 -23349493.90 0.0144 0.0051 *

Moon -68640-08-01 00:13 J -23349124.57 -23349124.49 -23349124.38 0.0144 0.0132

Earth -68640-08-01 02:23 J -23349124.48 -23349124.40 -23349124.30 0.0144 0.0134 *

Mars -68631-10-07 15:06 J -23345769.98 -23345769.87 -23345769.71 0.0147 0.0134

Mars -68629-09-13 20:09 J -23345062.97 -23345062.66 -23345062.33 0.0147 0.0033

Venus -68628-12-14 06:57 J -23344606.33 -23344606.21 -23344606.06 0.0147 0.0118

Venus -68627-07-28 22:04 J -23344379.78 -23344379.58 -23344379.36 0.0147 0.0052

Venus -68626-03-12 13:11 J -23344153.17 -23344152.95 -23344152.72 0.0147 0.0014

Venus -68626-10-25 04:04 J -23343926.50 -23343926.33 -23343926.13 0.0147 0.0080

Venus -68625-06-07 19:11 J -23343699.71 -23343699.70 -23343699.67 0.0147 0.0146

Mercury -68618-08-25 18:13 J -23341064.83 -23341064.74 -23341064.62 0.0144 0.0121

Mercury -68618-11-22 03:06 J -23340976.52 -23340976.37 -23340976.21 0.0144 0.0090

Mercury -68617-02-18 11:45 J -23340888.18 -23340888.01 -23340887.82 0.0144 0.0059

Mercury -68617-05-16 20:37 J -23340799.83 -23340799.64 -23340799.45 0.0144 0.0028

Mercury -68617-08-13 05:16 J -23340711.47 -23340711.28 -23340711.08 0.0144 0.0003

Mercury -68617-11-09 13:54 J -23340623.11 -23340622.92 -23340622.73 0.0144 0.0033

Mercury -68616-02-05 22:33 J -23340534.73 -23340534.56 -23340534.39 0.0144 0.0064

Mercury -68616-05-05 06:42 J -23340446.35 -23340446.22 -23340446.06 0.0143 0.0095

Mercury -68616-08-01 15:21 J -23340357.94 -23340357.86 -23340357.75 0.0143 0.0124

Moon	-68603-01-20 19:40 J	-23335802.86	-23335802.68	-23335802.46	0.0136	0.0085
Earth	-68603-01-20 23:30 J	-23335802.72	-23335802.52	-23335802.30	0.0136	0.0081 *
Earth	-68602-01-25 14:37 J	-23335433.15	-23335432.89	-23335432.63	0.0136	0.0011
Moon	-68602-01-25 18:13 J	-23335433.00	-23335432.74	-23335432.48	0.0136	0.0004 *
Moon	-68601-01-30 00:57 J	-23335063.70	-23335063.46	-23335063.22	0.0135	0.0051
Earth	-68601-01-30 04:33 J	-23335063.53	-23335063.31	-23335063.07	0.0135	0.0059 *
Earth	-68600-02-02 17:16 J	-23334693.84	-23334693.78	-23334693.67	0.0135	0.0128
Moon	-68600-02-02 20:52 J	-23334693.64	-23334693.63	-23334693.58	0.0135	0.0134
Mars	-68588-03-21 07:25 J	-23330264.45	-23330264.19	-23330263.92	0.0131	0.0051
Mars	-68586-02-18 02:23 J	-23329565.66	-23329565.40	-23329565.13	0.0131	0.0049
Venus	-68585-02-08 06:42 J	-23329210.31	-23329210.22	-23329210.10	0.0131	0.0113
Venus	-68585-09-21 10:04 J	-23328984.26	-23328984.08	-23328983.89	0.0131	0.0067
Venus	-68584-05-05 13:11 J	-23328758.16	-23328757.95	-23328757.73	0.0131	0.0022
Venus	-68584-12-17 16:18 J	-23328532.03	-23328531.82	-23328531.61	0.0132	0.0023
Venus	-68583-07-31 19:11 J	-23328305.87	-23328305.70	-23328305.51	0.0132	0.0068
Venus	-68582-03-14 22:04 J	-23328079.67	-23328079.58	-23328079.46	0.0132	0.0113
Mercury	-68574-05-12 08:52 J	-23325099.17	-23325099.13	-23325099.07	0.0134	0.0123
Mercury	-68574-08-08 11:59 J	-23325011.08	-23325011.00	-23325010.92	0.0134	0.0107
Mercury	-68574-11-04 14:52 J	-23324922.97	-23324922.88	-23324922.78	0.0134	0.0090
Mercury	-68573-01-31 17:59 J	-23324834.86	-23324834.75	-23324834.64	0.0134	0.0074
Mercury	-68573-04-28 20:52 J	-23324746.75	-23324746.63	-23324746.51	0.0135	0.0057
Mercury	-68573-07-25 23:45 J	-23324658.63	-23324658.51	-23324658.38	0.0135	0.0041
Mercury	-68573-10-22 02:52 J	-23324570.51	-23324570.38	-23324570.25	0.0135	0.0024
Mercury	-68572-01-18 05:59 J	-23324482.39	-23324482.25	-23324482.12	0.0135	0.0008
Mercury	-68572-04-16 08:52 J	-23324394.26	-23324394.13	-23324394.00	0.0135	0.0010
Mercury	-68572-07-13 11:59 J	-23324306.13	-23324306.00	-23324305.87	0.0135	0.0027
Mercury	-68572-10-09 14:52 J	-23324218.00	-23324217.88	-23324217.75	0.0135	0.0044
Mercury	-68571-01-05 17:59 J	-23324129.87	-23324129.75	-23324129.63	0.0135	0.0061
Mercury	-68571-04-03 20:52 J	-23324041.73	-23324041.63	-23324041.52	0.0135	0.0079
Mercury	-68571-06-30 23:59 J	-23323953.59	-23323953.50	-23323953.40	0.0136	0.0096

Mercury -68571-09-27 03:06 J -23323865.44 -23323865.37 -23323865.29 0.0136 0.0113

Mercury -68571-12-24 06:13 J -23323777.27 -23323777.24 -23323777.20 0.0136 0.0130

Moon -68559-07-19 05:30 J -23319552.46 -23319552.27 -23319552.08 0.0142 0.0095

Earth -68559-07-19 05:16 J -23319552.44 -23319552.28 -23319552.10 0.0142 0.0103 *

Earth -68558-07-23 22:18 J -23319182.82 -23319182.57 -23319182.33 0.0143 0.0024

Moon -68558-07-23 22:04 J -23319182.81 -23319182.58 -23319182.34 0.0143 0.0031 *

Earth -68557-07-27 16:18 J -23318813.05 -23318812.82 -23318812.59 0.0144 0.0056

Moon -68557-07-27 17:16 J -23318813.01 -23318812.78 -23318812.53 0.0144 0.0058 *

Moon -68556-08-01 10:04 J -23318443.13 -23318443.08 -23318442.99 0.0144 0.0138

Earth -68556-08-01 11:01 J -23318443.09 -23318443.04 -23318442.94 0.0144 0.0138 *

Mars -68546-06-03 23:30 J -23314849.80 -23314849.52 -23314849.23 0.0147 0.0073

Mars -68544-05-11 10:18 J -23314142.32 -23314142.07 -23314141.82 0.0147 0.0097

Venus -68543-03-28 01:25 J -23313821.60 -23313821.44 -23313821.24 0.0147 0.0086

Venus -68543-11-09 16:47 J -23313595.02 -23313594.80 -23313594.58 0.0147 0.0019

Venus -68542-06-24 07:40 J -23313368.38 -23313368.18 -23313367.96 0.0147 0.0047

Venus -68541-02-05 22:47 J -23313141.68 -23313141.55 -23313141.40 0.0147 0.0113

Mercury -68534-09-15 01:25 J -23310363.55 -23310363.44 -23310363.32 0.0144 0.0115

Mercury -68534-12-12 10:18 J -23310275.23 -23310275.07 -23310274.91 0.0144 0.0084

Mercury -68533-03-09 18:42 J -23310186.89 -23310186.72 -23310186.53 0.0144 0.0053

Mercury -68533-06-06 03:35 J -23310098.54 -23310098.35 -23310098.15 0.0144 0.0022

Mercury -68533-09-02 12:13 J -23310010.18 -23310009.99 -23310009.79 0.0144 0.0010

Mercury -68533-11-29 20:52 J -23309921.81 -23309921.63 -23309921.44 0.0144 0.0040

Mercury -68532-02-26 05:30 J -23309833.44 -23309833.27 -23309833.10 0.0144 0.0070

Mercury -68532-05-25 13:54 J -23309745.05 -23309744.92 -23309744.77 0.0143 0.0100

Mercury -68532-08-21 22:18 J -23309656.63 -23309656.57 -23309656.47 0.0143 0.0131

Moon -68519-01-21 05:45 J -23305121.47 -23305121.26 -23305121.04 0.0136 0.0074

Earth -68519-01-21 09:06 J -23305121.32 -23305121.12 -23305120.90 0.0136 0.0078 *

Earth -68518-01-26 00:13 J -23304751.75 -23304751.49 -23304751.23 0.0135 0.0007

Moon -68518-01-26 04:04 J -23304751.59 -23304751.33 -23304751.07 0.0135 0.0014 *

Moon -68517-01-30 11:01 J -23304382.26 -23304382.04 -23304381.82 0.0135 0.0069

Earth -68517-01-30 14:23 J -23304382.12 -23304381.90 -23304381.67 0.0135 0.0062 *
 Earth -68516-02-03 03:21 J -23304012.41 -23304012.36 -23304012.30 0.0135 0.0131
 Moon -68516-02-03 06:57 J -23304012.29 -23304012.21 -23304012.10 0.0135 0.0125
 Mars -68506-12-15 07:54 J -23300045.30 -23300045.17 -23300045.02 0.0131 0.0114
 Mars -68504-11-13 07:11 J -23299346.48 -23299346.20 -23299345.91 0.0131 0.0013
 Mars -68502-10-12 23:30 J -23298647.73 -23298647.52 -23298647.30 0.0131 0.0087
 Venus -68501-05-21 20:23 J -23298425.79 -23298425.65 -23298425.48 0.0131 0.0089
 Venus -68500-01-02 23:45 J -23298199.70 -23298199.51 -23298199.30 0.0131 0.0044
 Venus -68500-08-17 03:06 J -23297973.59 -23297973.37 -23297973.16 0.0131 0.0003
 Venus -68499-03-31 05:59 J -23297747.45 -23297747.25 -23297747.05 0.0131 0.0046
 Venus -68499-11-12 08:37 J -23297521.28 -23297521.14 -23297520.98 0.0132 0.0091
 Mercury -68490-06-01 15:35 J -23294397.90 -23294397.85 -23294397.79 0.0134 0.0121
 Mercury -68490-08-28 18:42 J -23294309.80 -23294309.72 -23294309.64 0.0134 0.0105
 Mercury -68490-11-24 21:35 J -23294221.69 -23294221.60 -23294221.50 0.0134 0.0088
 Mercury -68489-02-21 00:42 J -23294133.58 -23294133.47 -23294133.36 0.0134 0.0072
 Mercury -68489-05-19 03:35 J -23294045.47 -23294045.35 -23294045.23 0.0134 0.0055
 Mercury -68489-08-15 06:42 J -23293957.35 -23293957.22 -23293957.10 0.0135 0.0038
 Mercury -68489-11-11 09:35 J -23293869.23 -23293869.10 -23293868.97 0.0135 0.0022
 Mercury -68488-02-07 12:42 J -23293781.10 -23293780.97 -23293780.84 0.0135 0.0005
 Mercury -68488-05-06 15:35 J -23293692.98 -23293692.85 -23293692.72 0.0135 0.0012
 Mercury -68488-08-02 18:42 J -23293604.85 -23293604.72 -23293604.59 0.0135 0.0029
 Mercury -68488-10-29 21:35 J -23293516.72 -23293516.60 -23293516.47 0.0135 0.0046
 Mercury -68487-01-26 00:42 J -23293428.58 -23293428.47 -23293428.35 0.0135 0.0063
 Mercury -68487-04-24 03:35 J -23293340.45 -23293340.35 -23293340.24 0.0135 0.0081
 Mercury -68487-07-21 06:42 J -23293252.30 -23293252.22 -23293252.12 0.0135 0.0098
 Mercury -68487-10-17 09:49 J -23293164.15 -23293164.09 -23293164.02 0.0136 0.0115
 Mercury -68486-01-13 12:57 J -23293075.98 -23293075.96 -23293075.93 0.0136 0.0132
 Moon -68475-07-19 10:18 J -23288871.22 -23288871.07 -23288870.89 0.0142 0.0110
 Earth -68475-07-19 11:30 J -23288871.19 -23288871.02 -23288870.84 0.0142 0.0103 *
 Earth -68474-07-24 04:33 J -23288501.56 -23288501.31 -23288501.07 0.0143 0.0024

Moon -68474-07-24 04:33 J -23288501.55 -23288501.31 -23288501.07 0.0143 0.0018 *
 Moon -68473-07-27 22:18 J -23288131.81 -23288131.57 -23288131.33 0.0144 0.0052
 Earth -68473-07-27 22:18 J -23288131.79 -23288131.57 -23288131.33 0.0144 0.0057 *
 Moon -68472-08-01 16:33 J -23287761.87 -23287761.81 -23287761.73 0.0144 0.0137
 Earth -68472-08-01 17:01 J -23287761.84 -23287761.79 -23287761.70 0.0144 0.0138 *
 Mars -68461-01-29 03:06 J -23283929.70 -23283929.37 -23283929.04 0.0147 0.0014
 Venus -68460-11-25 02:37 J -23283263.49 -23283263.39 -23283263.24 0.0147 0.0122
 Venus -68459-07-09 17:59 J -23283036.95 -23283036.75 -23283036.54 0.0147 0.0055
 Venus -68458-02-21 09:06 J -23282810.34 -23282810.12 -23282809.90 0.0147 0.0011
 Venus -68458-10-06 00:13 J -23282583.68 -23282583.49 -23282583.30 0.0147 0.0076
 Venus -68457-05-19 14:52 J -23282356.92 -23282356.88 -23282356.81 0.0147 0.0142
 Mercury -68450-07-08 22:18 J -23279750.57 -23279750.57 -23279750.56 0.0144 0.0144
 Mercury -68450-10-05 06:57 J -23279662.32 -23279662.21 -23279662.08 0.0144 0.0113
 Mercury -68449-01-01 15:49 J -23279574.00 -23279573.84 -23279573.68 0.0144 0.0082
 Mercury -68449-03-30 00:28 J -23279485.66 -23279485.48 -23279485.29 0.0144 0.0051
 Mercury -68449-06-26 09:21 J -23279397.30 -23279397.11 -23279396.92 0.0144 0.0020
 Mercury -68449-09-22 17:59 J -23279308.94 -23279308.75 -23279308.55 0.0144 0.0011
 Mercury -68449-12-20 02:37 J -23279220.57 -23279220.39 -23279220.20 0.0144 0.0041
 Mercury -68448-03-18 11:16 J -23279132.20 -23279132.03 -23279131.86 0.0144 0.0072
 Mercury -68448-06-14 19:54 J -23279043.81 -23279043.67 -23279043.53 0.0143 0.0102
 Mercury -68448-09-11 04:04 J -23278955.39 -23278955.33 -23278955.24 0.0143 0.0133
 Jupiter -68445-05-08 21:21 J -23277985.12 -23277984.61 -23277984.08 0.0142 0.0026
 Moon -68435-01-21 12:28 J -23274440.17 -23274439.98 -23274439.76 0.0136 0.0080
 Earth -68435-01-21 15:35 J -23274440.05 -23274439.85 -23274439.62 0.0136 0.0077 *
 Earth -68434-01-26 06:57 J -23274070.46 -23274070.21 -23274069.95 0.0136 0.0006
 Moon -68434-01-26 10:18 J -23274070.33 -23274070.07 -23274069.81 0.0136 0.0000 *
 Moon -68433-01-30 17:30 J -23273700.99 -23273700.77 -23273700.53 0.0135 0.0057
 Earth -68433-01-30 20:52 J -23273700.84 -23273700.63 -23273700.39 0.0135 0.0065 *
 Earth -68432-02-03 10:04 J -23273331.09 -23273331.08 -23273331.03 0.0135 0.0134
 Mars -68421-08-08 06:42 J -23269127.46 -23269127.22 -23269126.98 0.0131 0.0076

Mars	-68419-07-08 03:49 J	-23268428.62	-23268428.34	-23268428.06	0.0131	0.0026
Venus	-68417-01-20 06:28 J	-23267867.33	-23267867.23	-23267867.10	0.0131	0.0112
Mars	-68417-06-05 19:40 J	-23267729.75	-23267729.68	-23267729.58	0.0131	0.0124
Venus	-68417-09-02 09:49 J	-23267641.27	-23267641.09	-23267640.90	0.0131	0.0067
Venus	-68416-04-16 12:57 J	-23267415.17	-23267414.96	-23267414.74	0.0131	0.0022
Venus	-68416-11-28 16:04 J	-23267189.04	-23267188.83	-23267188.62	0.0131	0.0023
Venus	-68415-07-12 18:42 J	-23266962.89	-23266962.72	-23266962.52	0.0132	0.0069
Venus	-68414-02-23 21:49 J	-23266736.69	-23266736.59	-23266736.47	0.0132	0.0113
Mercury	-68406-06-21 22:18 J	-23263696.62	-23263696.57	-23263696.50	0.0134	0.0119
Mercury	-68406-09-18 01:25 J	-23263608.52	-23263608.44	-23263608.35	0.0134	0.0103
Mercury	-68406-12-15 04:18 J	-23263520.41	-23263520.32	-23263520.21	0.0134	0.0086
Mercury	-68405-03-12 07:25 J	-23263432.30	-23263432.19	-23263432.08	0.0134	0.0069
Mercury	-68405-06-08 10:18 J	-23263344.18	-23263344.07	-23263343.94	0.0134	0.0053
Mercury	-68405-09-04 13:25 J	-23263256.07	-23263255.94	-23263255.81	0.0134	0.0036
Mercury	-68405-12-01 16:33 J	-23263167.94	-23263167.81	-23263167.68	0.0135	0.0020
Mercury	-68404-02-27 19:25 J	-23263079.82	-23263079.69	-23263079.56	0.0135	0.0003
Mercury	-68404-05-26 22:33 J	-23262991.69	-23262991.56	-23262991.43	0.0135	0.0015
Mercury	-68404-08-23 01:25 J	-23262903.57	-23262903.44	-23262903.31	0.0135	0.0031
Mercury	-68404-11-19 04:33 J	-23262815.43	-23262815.31	-23262815.19	0.0135	0.0048
Mercury	-68403-02-15 07:25 J	-23262727.30	-23262727.19	-23262727.07	0.0135	0.0065
Mercury	-68403-05-14 10:33 J	-23262639.16	-23262639.06	-23262638.95	0.0135	0.0082
Mercury	-68403-08-10 13:40 J	-23262551.02	-23262550.93	-23262550.84	0.0135	0.0100
Mercury	-68403-11-06 16:33 J	-23262462.87	-23262462.81	-23262462.74	0.0136	0.0117
Mercury	-68402-02-02 19:40 J	-23262374.69	-23262374.68	-23262374.66	0.0136	0.0134
Moon	-68391-07-19 16:47 J	-23258189.98	-23258189.80	-23258189.60	0.0142	0.0095
Earth	-68391-07-19 17:59 J	-23258189.91	-23258189.75	-23258189.56	0.0142	0.0102 *
Earth	-68390-07-24 11:01 J	-23257820.29	-23257820.04	-23257819.80	0.0143	0.0023
Moon	-68390-07-24 12:13 J	-23257820.22	-23257819.99	-23257819.75	0.0143	0.0030 *
Moon	-68389-07-28 04:18 J	-23257450.55	-23257450.32	-23257450.08	0.0143	0.0061
Earth	-68389-07-28 04:33 J	-23257450.53	-23257450.31	-23257450.07	0.0143	0.0057 *

Earth	-68388-08-01 23:01 J	-23257080.58	-23257080.54	-23257080.46	0.0144	0.0139
Moon	-68388-08-01 23:45 J	-23257080.57	-23257080.51	-23257080.44	0.0144	0.0138 *
Mars	-68379-10-18 02:37 J	-23253716.55	-23253716.39	-23253716.19	0.0147	0.0123
Mars	-68377-09-24 05:30 J	-23253009.58	-23253009.27	-23253008.95	0.0147	0.0047
Venus	-68375-03-08 18:42 J	-23252478.89	-23252478.72	-23252478.55	0.0147	0.0092
Venus	-68375-10-21 09:35 J	-23252252.32	-23252252.10	-23252251.88	0.0147	0.0027
Venus	-68374-06-05 00:28 J	-23252025.69	-23252025.48	-23252025.26	0.0147	0.0039
Venus	-68373-01-17 15:35 J	-23251799.00	-23251798.85	-23251798.69	0.0147	0.0104
Mercury	-68366-10-25 12:13 J	-23248961.10	-23248960.99	-23248960.87	0.0144	0.0113
Mercury	-68365-01-21 20:52 J	-23248872.78	-23248872.63	-23248872.46	0.0144	0.0083
Mercury	-68365-04-19 05:45 J	-23248784.44	-23248784.26	-23248784.07	0.0144	0.0051
Mercury	-68365-07-16 14:23 J	-23248696.09	-23248695.90	-23248695.70	0.0144	0.0021
Mercury	-68365-10-12 23:16 J	-23248607.73	-23248607.53	-23248607.34	0.0144	0.0010
Mercury	-68364-01-09 07:54 J	-23248519.36	-23248519.17	-23248518.98	0.0144	0.0041
Mercury	-68364-04-07 16:18 J	-23248430.98	-23248430.82	-23248430.64	0.0143	0.0072
Mercury	-68364-07-05 00:42 J	-23248342.59	-23248342.47	-23248342.32	0.0143	0.0103
Mercury	-68364-10-01 09:21 J	-23248254.17	-23248254.11	-23248254.02	0.0143	0.0132
Moon	-68351-01-21 18:28 J	-23243758.93	-23243758.73	-23243758.51	0.0136	0.0074
Earth	-68351-01-21 21:21 J	-23243758.82	-23243758.61	-23243758.39	0.0136	0.0077 *
Earth	-68350-01-26 12:42 J	-23243389.23	-23243388.97	-23243388.71	0.0136	0.0005
Moon	-68350-01-26 15:35 J	-23243389.11	-23243388.85	-23243388.58	0.0136	0.0011 *
Moon	-68349-01-30 23:59 J	-23243019.70	-23243019.50	-23243019.27	0.0135	0.0073
Earth	-68349-01-31 02:52 J	-23243019.59	-23243019.38	-23243019.14	0.0135	0.0066 *
Moon	-68348-02-03 19:40 J	-23242649.73	-23242649.68	-23242649.58	0.0135	0.0129
Mars	-68336-04-02 04:33 J	-23238209.57	-23238209.31	-23238209.02	0.0131	0.0037
Mars	-68334-03-02 01:54 J	-23237510.66	-23237510.42	-23237510.16	0.0131	0.0065
Venus	-68333-05-02 19:40 J	-23237082.82	-23237082.68	-23237082.50	0.0131	0.0090
Venus	-68333-12-14 23:01 J	-23236856.73	-23236856.54	-23236856.33	0.0131	0.0045
Venus	-68332-07-29 02:23 J	-23236630.61	-23236630.40	-23236630.18	0.0131	0.0001
Venus	-68331-03-12 05:16 J	-23236404.47	-23236404.28	-23236404.07	0.0132	0.0046

Venus -68331-10-24 07:54 J -23236178.30 -23236178.17 -23236178.00 0.0132 0.0091
 Mercury -68322-04-15 02:37 J -23233083.41 -23233083.39 -23233083.38 0.0134 0.0132
 Mercury -68322-07-12 05:30 J -23232995.33 -23232995.27 -23232995.20 0.0134 0.0116
 Mercury -68322-10-08 08:23 J -23232907.23 -23232907.15 -23232907.06 0.0134 0.0100
 Mercury -68321-01-04 11:16 J -23232819.12 -23232819.03 -23232818.92 0.0134 0.0084
 Mercury -68321-04-01 14:23 J -23232731.01 -23232730.90 -23232730.78 0.0134 0.0067
 Mercury -68321-06-28 17:30 J -23232642.89 -23232642.77 -23232642.65 0.0134 0.0050
 Mercury -68321-09-24 20:23 J -23232554.77 -23232554.65 -23232554.52 0.0135 0.0033
 Mercury -68321-12-21 23:30 J -23232466.65 -23232466.52 -23232466.39 0.0135 0.0017
 Mercury -68320-03-20 02:23 J -23232378.53 -23232378.40 -23232378.27 0.0135 0.0003
 Mercury -68320-06-16 05:30 J -23232290.40 -23232290.27 -23232290.14 0.0135 0.0017
 Mercury -68320-09-12 08:23 J -23232202.27 -23232202.15 -23232202.02 0.0135 0.0035
 Mercury -68320-12-09 11:30 J -23232114.14 -23232114.02 -23232113.90 0.0135 0.0051
 Mercury -68319-03-07 14:37 J -23232026.01 -23232025.89 -23232025.78 0.0135 0.0068
 Mercury -68319-06-03 17:30 J -23231937.87 -23231937.77 -23231937.66 0.0135 0.0086
 Mercury -68319-08-30 20:37 J -23231849.72 -23231849.64 -23231849.55 0.0135 0.0103
 Mercury -68319-11-26 23:45 J -23231761.57 -23231761.51 -23231761.45 0.0136 0.0120
 Moon -68307-07-20 00:42 J -23227508.61 -23227508.47 -23227508.28 0.0142 0.0107
 Earth -68307-07-20 03:21 J -23227508.53 -23227508.36 -23227508.17 0.0142 0.0099 *
 Earth -68306-07-24 20:09 J -23227138.90 -23227138.66 -23227138.41 0.0143 0.0020
 Moon -68306-07-24 21:35 J -23227138.84 -23227138.60 -23227138.36 0.0143 0.0014 *
 Moon -68305-07-28 11:59 J -23226769.22 -23226769.00 -23226768.75 0.0143 0.0055
 Earth -68305-07-28 13:40 J -23226769.15 -23226768.93 -23226768.70 0.0143 0.0061 *
 Earth -68304-08-02 08:09 J -23226399.18 -23226399.16 -23226399.12 0.0144 0.0142
 Moon -68304-08-02 08:52 J -23226399.14 -23226399.13 -23226399.10 0.0144 0.0143 *
 Mars -68294-06-14 08:23 J -23222796.43 -23222796.15 -23222795.84 0.0147 0.0062
 Mars -68292-05-21 14:09 J -23222089.10 -23222088.91 -23222088.66 0.0147 0.0112
 Venus -68292-11-05 20:52 J -23221920.72 -23221920.63 -23221920.50 0.0147 0.0127
 Venus -68291-06-20 11:45 J -23221694.19 -23221694.01 -23221693.79 0.0147 0.0062
 Venus -68290-02-02 02:52 J -23221467.60 -23221467.38 -23221467.15 0.0147 0.0005

Venus -68290-09-16 17:45 J -23221240.95 -23221240.76 -23221240.56 0.0147 0.0069
 Venus -68289-04-30 08:23 J -23221014.22 -23221014.15 -23221014.04 0.0147 0.0135
 Mercury -68282-08-18 09:06 J -23218348.13 -23218348.12 -23218348.07 0.0144 0.0143
 Mercury -68282-11-14 17:59 J -23218259.86 -23218259.75 -23218259.61 0.0144 0.0111
 Mercury -68281-02-11 02:52 J -23218171.53 -23218171.38 -23218171.21 0.0144 0.0080
 Mercury -68281-05-09 11:45 J -23218083.19 -23218083.01 -23218082.82 0.0144 0.0049
 Mercury -68281-08-05 20:37 J -23217994.84 -23217994.64 -23217994.45 0.0144 0.0018
 Mercury -68281-11-02 05:16 J -23217906.48 -23217906.28 -23217906.09 0.0144 0.0013
 Mercury -68280-01-29 13:40 J -23217818.11 -23217817.93 -23217817.74 0.0144 0.0044
 Mercury -68280-04-27 22:18 J -23217729.73 -23217729.57 -23217729.39 0.0143 0.0074
 Mercury -68280-07-25 06:57 J -23217641.33 -23217641.21 -23217641.07 0.0143 0.0104
 Mercury -68280-10-21 15:35 J -23217552.91 -23217552.85 -23217552.78 0.0143 0.0134
 Moon -68267-01-22 00:57 J -23213077.65 -23213077.46 -23213077.24 0.0136 0.0077
 Earth -68267-01-22 03:06 J -23213077.58 -23213077.37 -23213077.15 0.0136 0.0076 *
 Earth -68266-01-26 18:42 J -23212707.98 -23212707.72 -23212707.46 0.0136 0.0004
 Moon -68266-01-26 21:06 J -23212707.89 -23212707.62 -23212707.36 0.0136 0.0002 *
 Moon -68265-01-31 05:59 J -23212338.46 -23212338.25 -23212338.00 0.0135 0.0062
 Earth -68265-01-31 08:52 J -23212338.34 -23212338.13 -23212337.89 0.0135 0.0068 *
 Mars -68254-12-27 00:57 J -23207990.63 -23207990.46 -23207990.27 0.0132 0.0102
 Mars -68252-11-25 03:06 J -23207291.66 -23207291.37 -23207291.08 0.0131 0.0002
 Mars -68250-10-24 22:18 J -23206592.72 -23206592.57 -23206592.37 0.0131 0.0104
 Venus -68249-01-01 05:59 J -23206524.36 -23206524.25 -23206524.14 0.0131 0.0112
 Venus -68249-08-14 08:52 J -23206298.30 -23206298.13 -23206297.93 0.0132 0.0068
 Venus -68248-03-28 12:13 J -23206072.20 -23206071.99 -23206071.77 0.0132 0.0022
 Venus -68248-11-09 15:21 J -23205846.07 -23205845.86 -23205845.65 0.0132 0.0023
 Venus -68247-06-23 17:59 J -23205619.92 -23205619.75 -23205619.55 0.0132 0.0068
 Venus -68246-02-04 21:21 J -23205393.71 -23205393.61 -23205393.49 0.0132 0.0112
 Mercury -68238-05-05 09:21 J -23202382.13 -23202382.11 -23202382.07 0.0134 0.0130
 Mercury -68238-08-01 12:28 J -23202294.04 -23202293.98 -23202293.91 0.0134 0.0113
 Mercury -68238-10-28 15:21 J -23202205.94 -23202205.86 -23202205.76 0.0134 0.0097

Mercury -68237-01-24 18:28 J -23202117.83 -23202117.73 -23202117.62 0.0134 0.0080

Mercury -68237-04-21 21:21 J -23202029.72 -23202029.61 -23202029.49 0.0134 0.0064

Mercury -68237-07-19 00:28 J -23201941.60 -23201941.48 -23201941.36 0.0135 0.0047

Mercury -68237-10-15 03:21 J -23201853.48 -23201853.36 -23201853.23 0.0135 0.0031

Mercury -68236-01-11 06:28 J -23201765.36 -23201765.23 -23201765.10 0.0135 0.0013

Mercury -68236-04-09 09:35 J -23201677.23 -23201677.10 -23201676.97 0.0135 0.0005

Mercury -68236-07-06 12:28 J -23201589.11 -23201588.98 -23201588.85 0.0135 0.0021

Mercury -68236-10-02 15:35 J -23201500.98 -23201500.85 -23201500.73 0.0135 0.0038

Mercury -68236-12-29 18:28 J -23201412.85 -23201412.73 -23201412.61 0.0135 0.0055

Mercury -68235-03-27 21:35 J -23201324.71 -23201324.60 -23201324.49 0.0135 0.0072

Mercury -68235-06-24 00:42 J -23201236.57 -23201236.47 -23201236.37 0.0135 0.0089

Mercury -68235-09-20 03:35 J -23201148.42 -23201148.35 -23201148.26 0.0136 0.0106

Mercury -68235-12-17 06:28 J -23201060.27 -23201060.23 -23201060.16 0.0136 0.0124

Moon -68223-07-20 11:59 J -23196827.18 -23196827.00 -23196826.78 0.0142 0.0088

Earth -68223-07-20 14:37 J -23196827.07 -23196826.89 -23196826.70 0.0142 0.0096 *

Earth -68222-07-25 07:11 J -23196457.45 -23196457.20 -23196456.95 0.0143 0.0016

Moon -68222-07-25 09:35 J -23196457.34 -23196457.10 -23196456.86 0.0143 0.0023 *

Moon -68221-07-28 23:01 J -23196087.76 -23196087.54 -23196087.31 0.0143 0.0070

Earth -68221-07-29 00:28 J -23196087.69 -23196087.48 -23196087.24 0.0143 0.0066 *

Mars -68209-02-08 22:18 J -23191875.90 -23191875.57 -23191875.24 0.0147 0.0004

Venus -68207-02-17 16:33 J -23191135.97 -23191135.81 -23191135.63 0.0147 0.0093

Venus -68207-10-02 07:25 J -23190909.41 -23190909.19 -23190908.98 0.0147 0.0028

Venus -68206-05-16 22:04 J -23190682.79 -23190682.58 -23190682.36 0.0147 0.0037

Venus -68206-12-29 12:42 J -23190456.12 -23190455.97 -23190455.80 0.0147 0.0102

Mercury -68198-09-07 16:04 J -23187646.87 -23187646.83 -23187646.75 0.0144 0.0137

Mercury -68198-12-05 00:57 J -23187558.58 -23187558.46 -23187558.32 0.0144 0.0106

Mercury -68197-03-02 09:49 J -23187470.25 -23187470.09 -23187469.92 0.0144 0.0075

Mercury -68197-05-29 18:28 J -23187381.91 -23187381.73 -23187381.53 0.0144 0.0044

Mercury -68197-08-26 03:21 J -23187293.55 -23187293.36 -23187293.16 0.0144 0.0013

Mercury -68197-11-22 11:59 J -23187205.19 -23187205.00 -23187204.80 0.0144 0.0019

Mercury -68196-02-18 20:37 J -23187116.82 -23187116.64 -23187116.45 0.0144 0.0049

Mercury -68196-05-18 05:16 J -23187028.44 -23187028.28 -23187028.11 0.0143 0.0079

Mercury -68196-08-14 13:54 J -23186940.04 -23186939.92 -23186939.79 0.0143 0.0110

Mercury -68196-11-10 22:33 J -23186851.60 -23186851.56 -23186851.52 0.0143 0.0140

Moon -68183-01-22 09:49 J -23182396.29 -23182396.09 -23182395.86 0.0136 0.0073

Earth -68183-01-22 11:30 J -23182396.24 -23182396.02 -23182395.80 0.0136 0.0074 *

Earth -68182-01-27 03:06 J -23182026.63 -23182026.37 -23182026.11 0.0136 0.0002

Moon -68182-01-27 05:01 J -23182026.56 -23182026.29 -23182026.02 0.0136 0.0006 *

Moon -68181-01-31 15:49 J -23181657.04 -23181656.84 -23181656.63 0.0135 0.0077

Earth -68181-01-31 17:30 J -23181656.98 -23181656.77 -23181656.54 0.0135 0.0070 *

Moon -68180-02-04 09:21 J -23181287.12 -23181287.11 -23181287.05 0.0135 0.0134

Mars -68169-08-20 02:09 J -23177072.64 -23177072.41 -23177072.13 0.0132 0.0063

Mars -68167-07-20 03:21 J -23176373.63 -23176373.36 -23176373.08 0.0132 0.0042

Venus -68165-04-13 19:40 J -23175739.83 -23175739.68 -23175739.52 0.0132 0.0089

Venus -68165-11-25 22:47 J -23175513.74 -23175513.55 -23175513.34 0.0132 0.0044

Venus -68164-07-10 02:09 J -23175287.63 -23175287.41 -23175287.20 0.0132 0.0002

Venus -68163-02-21 05:01 J -23175061.48 -23175061.29 -23175061.08 0.0132 0.0046

Venus -68163-10-05 08:09 J -23174835.31 -23174835.16 -23174835.00 0.0132 0.0090

Mercury -68154-05-25 16:18 J -23171680.84 -23171680.82 -23171680.76 0.0134 0.0127

Mercury -68154-08-21 19:25 J -23171592.75 -23171592.69 -23171592.61 0.0134 0.0110

Mercury -68154-11-17 22:33 J -23171504.65 -23171504.56 -23171504.46 0.0134 0.0094

Mercury -68153-02-14 01:25 J -23171416.54 -23171416.44 -23171416.33 0.0134 0.0077

Mercury -68153-05-12 04:33 J -23171328.43 -23171328.31 -23171328.19 0.0135 0.0060

Mercury -68153-08-08 07:25 J -23171240.31 -23171240.19 -23171240.06 0.0135 0.0044

Mercury -68153-11-04 10:33 J -23171152.19 -23171152.06 -23171151.93 0.0135 0.0027

Mercury -68152-01-31 13:40 J -23171064.06 -23171063.93 -23171063.80 0.0135 0.0011

Mercury -68152-04-29 16:33 J -23170975.94 -23170975.81 -23170975.68 0.0135 0.0007

Mercury -68152-07-26 19:40 J -23170887.81 -23170887.68 -23170887.55 0.0135 0.0024

Mercury -68152-10-22 22:33 J -23170799.68 -23170799.56 -23170799.43 0.0135 0.0041

Mercury -68151-01-19 01:25 J -23170711.55 -23170711.44 -23170711.31 0.0135 0.0059

Mercury -68151-04-17 04:33 J -23170623.41 -23170623.31 -23170623.20 0.0135 0.0075

Mercury -68151-07-14 07:40 J -23170535.27 -23170535.18 -23170535.08 0.0136 0.0092

Mercury -68151-10-10 10:33 J -23170447.12 -23170447.06 -23170446.97 0.0136 0.0110

Mercury -68150-01-06 13:40 J -23170358.96 -23170358.93 -23170358.88 0.0136 0.0127

Moon -68139-07-20 22:18 J -23166145.74 -23166145.57 -23166145.38 0.0142 0.0099

Earth -68139-07-21 01:11 J -23166145.62 -23166145.45 -23166145.24 0.0142 0.0093 *

Earth -68138-07-25 18:13 J -23165775.99 -23165775.74 -23165775.49 0.0143 0.0012

Moon -68138-07-25 20:23 J -23165775.89 -23165775.65 -23165775.40 0.0143 0.0006 *

Moon -68137-07-29 09:06 J -23165406.33 -23165406.12 -23165405.88 0.0143 0.0064

Earth -68137-07-29 11:45 J -23165406.22 -23165406.01 -23165405.78 0.0143 0.0070 *

Mars -68127-10-29 17:30 J -23161662.01 -23161661.77 -23161661.53 0.0147 0.0100

Mars -68125-10-05 15:49 J -23160955.12 -23160954.84 -23160954.55 0.0147 0.0072

Venus -68124-10-17 22:04 J -23160577.68 -23160577.58 -23160577.44 0.0147 0.0123

Venus -68123-06-01 12:57 J -23160351.16 -23160350.96 -23160350.75 0.0147 0.0058

Venus -68122-01-14 03:49 J -23160124.56 -23160124.34 -23160124.12 0.0147 0.0007

Venus -68122-08-28 18:28 J -23159897.92 -23159897.73 -23159897.53 0.0147 0.0072

Venus -68121-04-11 09:06 J -23159671.18 -23159671.12 -23159671.03 0.0147 0.0137

Mercury -68114-09-27 23:45 J -23156945.58 -23156945.51 -23156945.40 0.0144 0.0130

Mercury -68114-12-25 08:37 J -23156857.27 -23156857.14 -23156856.98 0.0144 0.0098

Mercury -68113-03-22 17:30 J -23156768.93 -23156768.77 -23156768.59 0.0144 0.0067

Mercury -68113-06-19 02:23 J -23156680.59 -23156680.40 -23156680.21 0.0144 0.0036

Mercury -68113-09-15 11:01 J -23156592.23 -23156592.04 -23156591.84 0.0144 0.0006

Mercury -68113-12-12 19:40 J -23156503.87 -23156503.68 -23156503.48 0.0144 0.0026

Mercury -68112-03-11 04:18 J -23156415.49 -23156415.32 -23156415.14 0.0143 0.0057

Mercury -68112-06-07 12:42 J -23156327.11 -23156326.97 -23156326.80 0.0143 0.0087

Mercury -68112-09-03 21:21 J -23156238.71 -23156238.61 -23156238.49 0.0143 0.0117

Moon -68099-01-22 19:40 J -23151714.88 -23151714.68 -23151714.45 0.0136 0.0071

Earth -68099-01-22 20:37 J -23151714.86 -23151714.64 -23151714.41 0.0136 0.0071 *

Earth -68098-01-27 12:13 J -23151345.25 -23151344.99 -23151344.73 0.0136 0.0002

Moon -68098-01-27 13:11 J -23151345.22 -23151344.95 -23151344.68 0.0136 0.0006 *

Moon -68097-02-01 00:42 J -23150975.68 -23150975.47 -23150975.25 0.0135 0.0067
 Earth -68097-02-01 02:09 J -23150975.61 -23150975.41 -23150975.17 0.0135 0.0074 *
 Mars -68086-05-15 20:52 J -23146853.67 -23146853.63 -23146853.55 0.0132 0.0129
 Mars -68084-04-14 03:35 J -23146154.63 -23146154.35 -23146154.06 0.0132 0.0023
 Mars -68082-03-14 00:57 J -23145455.66 -23145455.46 -23145455.21 0.0132 0.0082
 Venus -68082-12-13 05:45 J -23145181.37 -23145181.26 -23145181.14 0.0132 0.0111
 Venus -68081-07-26 08:52 J -23144955.30 -23144955.13 -23144954.93 0.0132 0.0067
 Venus -68080-03-09 12:13 J -23144729.20 -23144728.99 -23144728.77 0.0132 0.0022
 Venus -68080-10-21 15:21 J -23144503.07 -23144502.86 -23144502.65 0.0132 0.0023
 Venus -68079-06-04 18:13 J -23144276.91 -23144276.74 -23144276.55 0.0132 0.0068
 Venus -68078-01-16 21:21 J -23144050.71 -23144050.61 -23144050.49 0.0132 0.0112
 Mercury -68070-06-14 23:30 J -23140979.56 -23140979.52 -23140979.47 0.0134 0.0124
 Mercury -68070-09-11 02:37 J -23140891.47 -23140891.39 -23140891.32 0.0134 0.0108
 Mercury -68070-12-08 05:16 J -23140803.36 -23140803.28 -23140803.17 0.0134 0.0092
 Mercury -68069-03-05 08:23 J -23140715.25 -23140715.15 -23140715.04 0.0135 0.0075
 Mercury -68069-06-01 11:30 J -23140627.14 -23140627.02 -23140626.90 0.0135 0.0058
 Mercury -68069-08-28 14:23 J -23140539.02 -23140538.90 -23140538.77 0.0135 0.0041
 Mercury -68069-11-24 17:30 J -23140450.90 -23140450.77 -23140450.64 0.0135 0.0024
 Mercury -68068-02-20 20:23 J -23140362.78 -23140362.65 -23140362.52 0.0135 0.0008
 Mercury -68068-05-19 23:30 J -23140274.65 -23140274.52 -23140274.39 0.0135 0.0010
 Mercury -68068-08-16 02:23 J -23140186.52 -23140186.40 -23140186.27 0.0135 0.0027
 Mercury -68068-11-12 05:30 J -23140098.39 -23140098.27 -23140098.15 0.0135 0.0044
 Mercury -68067-02-08 08:37 J -23140010.26 -23140010.14 -23140010.03 0.0135 0.0061
 Mercury -68067-05-07 11:30 J -23139922.12 -23139922.02 -23139921.91 0.0136 0.0078
 Mercury -68067-08-03 14:37 J -23139833.98 -23139833.89 -23139833.80 0.0136 0.0095
 Mercury -68067-10-30 17:30 J -23139745.83 -23139745.77 -23139745.69 0.0136 0.0113
 Mercury -68066-01-26 20:37 J -23139657.67 -23139657.64 -23139657.60 0.0136 0.0130
 Moon -68055-07-21 07:54 J -23135464.36 -23135464.17 -23135463.94 0.0142 0.0083
 Earth -68055-07-21 11:01 J -23135464.22 -23135464.04 -23135463.83 0.0142 0.0090 *
 Earth -68054-07-26 04:04 J -23135094.58 -23135094.33 -23135094.08 0.0143 0.0009

Moon -68054-07-26 06:57 J -23135094.44 -23135094.21 -23135093.96 0.0143 0.0017 *
 Moon -68053-07-29 18:57 J -23134724.92 -23134724.71 -23134724.49 0.0144 0.0079
 Earth -68053-07-29 21:21 J -23134724.81 -23134724.61 -23134724.38 0.0144 0.0073 *
 Mars -68042-06-26 04:18 J -23130741.64 -23130741.32 -23130741.00 0.0147 0.0036
 Mars -68040-06-02 07:54 J -23130034.25 -23130034.17 -23130034.04 0.0147 0.0139
 Venus -68039-01-29 17:45 J -23129792.92 -23129792.76 -23129792.57 0.0147 0.0089
 Venus -68039-09-13 08:37 J -23129566.36 -23129566.14 -23129565.92 0.0147 0.0024
 Venus -68038-04-27 23:01 J -23129339.74 -23129339.54 -23129339.31 0.0147 0.0041
 Venus -68038-12-10 14:09 J -23129113.06 -23129112.91 -23129112.76 0.0147 0.0105
 Mercury -68030-10-18 07:40 J -23126244.28 -23126244.18 -23126244.07 0.0144 0.0121
 Mercury -68029-01-14 16:18 J -23126155.96 -23126155.82 -23126155.66 0.0144 0.0090
 Mercury -68029-04-12 01:11 J -23126067.62 -23126067.45 -23126067.26 0.0144 0.0059
 Mercury -68029-07-09 10:04 J -23125979.27 -23125979.08 -23125978.89 0.0144 0.0028
 Mercury -68029-10-05 18:42 J -23125890.91 -23125890.72 -23125890.52 0.0144 0.0003
 Mercury -68028-01-02 03:21 J -23125802.55 -23125802.36 -23125802.17 0.0144 0.0033
 Mercury -68028-03-31 11:45 J -23125714.17 -23125714.01 -23125713.82 0.0143 0.0064
 Mercury -68028-06-27 20:23 J -23125625.79 -23125625.65 -23125625.49 0.0143 0.0095
 Mercury -68028-09-24 05:01 J -23125537.38 -23125537.29 -23125537.19 0.0143 0.0125
 Earth -68015-01-23 06:42 J -23121033.45 -23121033.22 -23121033.00 0.0136 0.0067
 Moon -68015-01-23 06:13 J -23121033.44 -23121033.24 -23121033.01 0.0136 0.0068 *
 Earth -68014-01-27 21:49 J -23120663.85 -23120663.59 -23120663.33 0.0136 0.0006
 Moon -68014-01-27 22:33 J -23120663.82 -23120663.56 -23120663.29 0.0136 0.0003 *
 Moon -68013-02-01 11:16 J -23120294.21 -23120294.03 -23120293.82 0.0135 0.0083
 Earth -68013-02-01 11:59 J -23120294.20 -23120294.00 -23120293.78 0.0135 0.0077 *
 Mars -68001-01-08 00:28 J -23115935.68 -23115935.48 -23115935.26 0.0132 0.0089

68TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 68th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-68000-12-07 03:06 J	-23115236.65	-23115236.37	-23115236.07	0.0131	0.0018		
Mars	-67998-11-05 21:35 J	-23114537.68	-23114537.60	-23114537.45	0.0131	0.0121		
Venus	-67997-03-25 18:57 J	-23114396.86	-23114396.71	-23114396.54	0.0131	0.0088		
Venus	-67997-11-06 22:18 J	-23114170.77	-23114170.57	-23114170.37	0.0132	0.0044		
Venus	-67996-06-21 01:25 J	-23113944.65	-23113944.44	-23113944.23	0.0132	0.0001		
Venus	-67995-02-02 04:18 J	-23113718.51	-23113718.32	-23113718.10	0.0132	0.0046		
Venus	-67995-09-16 07:25 J	-23113492.34	-23113492.19	-23113492.02	0.0132	0.0090		
Mercury	-67986-07-05 06:13 J	-23110278.29	-23110278.24	-23110278.19	0.0134	0.0123		
Mercury	-67986-10-01 09:06 J	-23110190.19	-23110190.12	-23110190.03	0.0134	0.0106		
Mercury	-67986-12-28 12:13 J	-23110102.09	-23110101.99	-23110101.89	0.0134	0.0090		
Mercury	-67985-03-25 15:06 J	-23110013.98	-23110013.87	-23110013.76	0.0134	0.0073		
Mercury	-67985-06-21 17:59 J	-23109925.86	-23109925.75	-23109925.62	0.0135	0.0057		
Mercury	-67985-09-17 21:06 J	-23109837.74	-23109837.62	-23109837.49	0.0135	0.0040		
Mercury	-67985-12-15 00:13 J	-23109749.62	-23109749.49	-23109749.36	0.0135	0.0023		
Mercury	-67984-03-13 03:06 J	-23109661.50	-23109661.37	-23109661.24	0.0135	0.0006		
Mercury	-67984-06-09 06:13 J	-23109573.37	-23109573.24	-23109573.11	0.0135	0.0012		
Mercury	-67984-09-05 09:06 J	-23109485.25	-23109485.12	-23109484.99	0.0135	0.0028		
Mercury	-67984-12-02 12:13 J	-23109397.11	-23109396.99	-23109396.87	0.0135	0.0045		
Mercury	-67983-02-28 15:06 J	-23109308.98	-23109308.87	-23109308.75	0.0135	0.0062		
Mercury	-67983-05-27 18:13 J	-23109220.84	-23109220.74	-23109220.63	0.0136	0.0079		
Mercury	-67983-08-23 21:06 J	-23109132.70	-23109132.62	-23109132.52	0.0136	0.0097		

Mercury -67983-11-20 00:13 J -23109044.55 -23109044.49 -23109044.41 0.0136 0.0114

Mercury -67982-02-16 03:21 J -23108956.39 -23108956.36 -23108956.33 0.0136 0.0131

Moon -67971-07-21 14:09 J -23104783.07 -23104782.91 -23104782.70 0.0142 0.0096

Earth -67971-07-21 18:13 J -23104782.93 -23104782.74 -23104782.55 0.0142 0.0089 *

Earth -67970-07-26 10:47 J -23104413.30 -23104413.05 -23104412.80 0.0143 0.0008

Moon -67970-07-26 13:40 J -23104413.17 -23104412.93 -23104412.68 0.0143 0.0003 *

Moon -67969-07-30 00:42 J -23104043.68 -23104043.47 -23104043.23 0.0144 0.0068

Earth -67969-07-30 04:04 J -23104043.53 -23104043.33 -23104043.10 0.0144 0.0075 *

Mars -67959-03-15 17:16 J -23100527.81 -23100527.78 -23100527.70 0.0147 0.0145

Mars -67957-02-20 09:35 J -23099821.42 -23099821.10 -23099820.77 0.0147 0.0027

Venus -67956-09-28 20:09 J -23099234.76 -23099234.66 -23099234.52 0.0147 0.0123

Venus -67955-05-13 11:01 J -23099008.24 -23099008.04 -23099007.83 0.0147 0.0058

Venus -67955-12-26 01:54 J -23098781.64 -23098781.42 -23098781.20 0.0147 0.0006

Venus -67954-08-09 16:47 J -23098554.99 -23098554.80 -23098554.61 0.0147 0.0071

Venus -67953-03-23 07:25 J -23098328.26 -23098328.19 -23098328.10 0.0147 0.0136

Mercury -67946-11-07 14:23 J -23095543.00 -23095542.90 -23095542.78 0.0144 0.0116

Mercury -67945-02-03 23:16 J -23095454.68 -23095454.53 -23095454.37 0.0144 0.0085

Mercury -67945-05-02 07:54 J -23095366.34 -23095366.17 -23095365.98 0.0144 0.0054

Mercury -67945-07-29 16:47 J -23095277.99 -23095277.80 -23095277.61 0.0144 0.0023

Mercury -67945-10-26 01:25 J -23095189.63 -23095189.44 -23095189.24 0.0144 0.0008

Mercury -67944-01-22 10:04 J -23095101.27 -23095101.08 -23095100.89 0.0144 0.0039

Mercury -67944-04-20 18:28 J -23095012.89 -23095012.73 -23095012.55 0.0143 0.0070

Mercury -67944-07-18 03:06 J -23094924.50 -23094924.37 -23094924.22 0.0143 0.0100

Mercury -67944-10-14 11:59 J -23094836.08 -23094836.00 -23094835.92 0.0143 0.0130

Earth -67931-01-23 14:52 J -23090352.10 -23090351.88 -23090351.64 0.0136 0.0065

Moon -67931-01-23 15:06 J -23090352.07 -23090351.87 -23090351.63 0.0136 0.0065 *

Moon -67930-01-28 05:59 J -23089982.52 -23089982.25 -23089981.98 0.0136 0.0011

Earth -67930-01-28 06:28 J -23089982.49 -23089982.23 -23089981.97 0.0136 0.0008 *

Moon -67929-02-01 19:40 J -23089612.87 -23089612.68 -23089612.46 0.0135 0.0075

Earth -67929-02-01 20:23 J -23089612.85 -23089612.65 -23089612.43 0.0135 0.0081 *

Mars	-67917-08-31 23:30 J	-23085017.77	-23085017.52	-23085017.23	0.0131	0.0049
Mars	-67915-07-31 23:30 J	-23084318.77	-23084318.52	-23084318.25	0.0131	0.0057
Venus	-67914-11-24 04:04 J	-23083838.42	-23083838.33	-23083838.20	0.0131	0.0112
Venus	-67913-07-07 07:40 J	-23083612.36	-23083612.18	-23083611.99	0.0131	0.0067
Venus	-67912-02-18 10:47 J	-23083386.25	-23083386.05	-23083385.83	0.0131	0.0023
Venus	-67912-10-02 13:54 J	-23083160.12	-23083159.92	-23083159.70	0.0131	0.0022
Venus	-67911-05-16 16:47 J	-23082933.97	-23082933.80	-23082933.60	0.0132	0.0067
Venus	-67911-12-28 19:54 J	-23082707.78	-23082707.67	-23082707.55	0.0132	0.0111
Mercury	-67902-07-25 12:28 J	-23079577.02	-23079576.98	-23079576.91	0.0134	0.0122
Mercury	-67902-10-21 15:35 J	-23079488.92	-23079488.85	-23079488.76	0.0134	0.0105
Mercury	-67901-01-17 18:42 J	-23079400.82	-23079400.72	-23079400.62	0.0134	0.0089
Mercury	-67901-04-14 21:35 J	-23079312.71	-23079312.60	-23079312.49	0.0134	0.0072
Mercury	-67901-07-12 00:28 J	-23079224.59	-23079224.48	-23079224.35	0.0135	0.0056
Mercury	-67901-10-08 03:35 J	-23079136.47	-23079136.35	-23079136.22	0.0135	0.0039
Mercury	-67900-01-04 06:42 J	-23079048.35	-23079048.22	-23079048.09	0.0135	0.0022
Mercury	-67900-04-02 09:35 J	-23078960.23	-23078960.10	-23078959.97	0.0135	0.0005
Mercury	-67900-06-29 12:42 J	-23078872.10	-23078871.97	-23078871.84	0.0135	0.0012
Mercury	-67900-09-25 15:35 J	-23078783.98	-23078783.85	-23078783.72	0.0135	0.0029
Mercury	-67900-12-22 18:28 J	-23078695.85	-23078695.73	-23078695.60	0.0135	0.0046
Mercury	-67899-03-20 21:35 J	-23078607.71	-23078607.60	-23078607.48	0.0135	0.0063
Mercury	-67899-06-17 00:28 J	-23078519.58	-23078519.48	-23078519.37	0.0135	0.0081
Mercury	-67899-09-13 03:35 J	-23078431.43	-23078431.35	-23078431.25	0.0136	0.0097
Mercury	-67899-12-10 06:42 J	-23078343.28	-23078343.22	-23078343.15	0.0136	0.0114
Mercury	-67898-03-08 09:35 J	-23078255.12	-23078255.10	-23078255.06	0.0136	0.0132
Moon	-67887-07-21 18:57 J	-23074101.90	-23074101.71	-23074101.49	0.0142	0.0083
Earth	-67887-07-21 22:33 J	-23074101.74	-23074101.56	-23074101.36	0.0142	0.0090 *
Earth	-67886-07-26 15:06 J	-23073732.11	-23073731.87	-23073731.62	0.0143	0.0009
Moon	-67886-07-26 18:42 J	-23073731.96	-23073731.72	-23073731.47	0.0143	0.0017 *
Moon	-67885-07-30 05:01 J	-23073362.48	-23073362.29	-23073362.07	0.0143	0.0081
Earth	-67885-07-30 08:23 J	-23073362.35	-23073362.15	-23073361.93	0.0143	0.0074 *

Mars -67875-11-09 12:42 J -23069608.22 -23069607.97 -23069607.69 0.0147 0.0086
 Mars -67873-10-16 09:21 J -23068901.36 -23068901.11 -23068900.84 0.0147 0.0089
 Venus -67871-01-10 11:30 J -23068450.18 -23068450.02 -23068449.84 0.0147 0.0095
 Venus -67871-08-25 02:23 J -23068223.61 -23068223.40 -23068223.18 0.0147 0.0031
 Venus -67870-04-08 17:01 J -23067997.00 -23067996.79 -23067996.57 0.0147 0.0034
 Venus -67870-11-21 07:40 J -23067770.33 -23067770.18 -23067770.00 0.0147 0.0099
 Mercury -67862-11-27 19:54 J -23064841.78 -23064841.67 -23064841.55 0.0144 0.0116
 Mercury -67861-02-24 04:47 J -23064753.46 -23064753.30 -23064753.14 0.0144 0.0085
 Mercury -67861-05-22 13:25 J -23064665.12 -23064664.94 -23064664.76 0.0144 0.0053
 Mercury -67861-08-18 22:04 J -23064576.77 -23064576.58 -23064576.38 0.0144 0.0023
 Mercury -67861-11-15 06:57 J -23064488.41 -23064488.21 -23064488.02 0.0144 0.0009
 Mercury -67860-02-11 15:21 J -23064400.04 -23064399.86 -23064399.66 0.0144 0.0039
 Mercury -67860-05-10 23:59 J -23064311.66 -23064311.50 -23064311.32 0.0144 0.0070
 Mercury -67860-08-07 08:23 J -23064223.27 -23064223.15 -23064223.00 0.0143 0.0101
 Mercury -67860-11-03 17:01 J -23064134.86 -23064134.79 -23064134.70 0.0143 0.0131
 Moon -67848-01-19 03:21 J -23060040.41 -23060040.36 -23060040.29 0.0137 0.0133
 Earth -67847-01-23 21:35 J -23059670.83 -23059670.60 -23059670.37 0.0136 0.0064
 Moon -67847-01-23 22:47 J -23059670.76 -23059670.55 -23059670.32 0.0136 0.0066 *
 Moon -67846-01-28 12:13 J -23059301.26 -23059300.99 -23059300.72 0.0136 0.0007
 Earth -67846-01-28 12:42 J -23059301.23 -23059300.97 -23059300.71 0.0136 0.0010 *
 Earth -67845-02-02 02:52 J -23058931.58 -23058931.38 -23058931.17 0.0135 0.0083
 Moon -67845-02-02 03:35 J -23058931.53 -23058931.35 -23058931.15 0.0135 0.0088 *
 Mars -67834-05-27 16:04 J -23054798.94 -23054798.83 -23054798.67 0.0132 0.0117
 Mars -67832-04-25 22:04 J -23054099.87 -23054099.58 -23054099.29 0.0131 0.0009
 Mars -67830-03-25 21:06 J -23053400.81 -23053400.62 -23053400.42 0.0131 0.0096
 Venus -67829-03-06 17:16 J -23053053.92 -23053053.78 -23053053.61 0.0131 0.0089
 Venus -67829-10-18 20:52 J -23052827.83 -23052827.63 -23052827.43 0.0131 0.0045
 Venus -67828-06-01 23:59 J -23052601.72 -23052601.50 -23052601.29 0.0131 0.0002
 Venus -67827-01-14 02:52 J -23052375.57 -23052375.38 -23052375.17 0.0131 0.0044
 Venus -67827-08-28 05:45 J -23052149.40 -23052149.26 -23052149.09 0.0132 0.0089

Mercury -67818-08-14 19:25 J -23048875.74 -23048875.69 -23048875.63 0.0134 0.0120

Mercury -67818-11-10 22:18 J -23048787.65 -23048787.57 -23048787.48 0.0134 0.0104

Mercury -67817-02-07 01:11 J -23048699.54 -23048699.45 -23048699.34 0.0134 0.0087

Mercury -67817-05-05 04:18 J -23048611.43 -23048611.32 -23048611.21 0.0134 0.0070

Mercury -67817-08-01 07:25 J -23048523.31 -23048523.19 -23048523.07 0.0134 0.0054

Mercury -67817-10-28 10:18 J -23048435.20 -23048435.07 -23048434.94 0.0135 0.0037

Mercury -67816-01-24 13:11 J -23048347.07 -23048346.95 -23048346.82 0.0135 0.0021

Mercury -67816-04-22 16:18 J -23048258.95 -23048258.82 -23048258.69 0.0135 0.0003

Mercury -67816-07-19 19:11 J -23048170.83 -23048170.70 -23048170.56 0.0135 0.0014

Mercury -67816-10-15 22:18 J -23048082.70 -23048082.57 -23048082.44 0.0135 0.0030

Mercury -67815-01-12 01:11 J -23047994.57 -23047994.45 -23047994.32 0.0135 0.0048

Mercury -67815-04-10 04:18 J -23047906.43 -23047906.32 -23047906.20 0.0135 0.0064

Mercury -67815-07-07 07:25 J -23047818.30 -23047818.19 -23047818.09 0.0135 0.0082

Mercury -67815-10-03 10:18 J -23047730.15 -23047730.07 -23047729.98 0.0135 0.0099

Mercury -67815-12-30 13:11 J -23047642.00 -23047641.95 -23047641.87 0.0136 0.0117

Mercury -67814-03-28 16:18 J -23047553.83 -23047553.82 -23047553.79 0.0136 0.0134

Moon -67803-07-22 00:42 J -23043420.64 -23043420.47 -23043420.27 0.0142 0.0096

Earth -67803-07-22 04:18 J -23043420.50 -23043420.32 -23043420.12 0.0142 0.0090 *

Earth -67802-07-26 20:37 J -23043050.88 -23043050.64 -23043050.39 0.0143 0.0009

Moon -67802-07-27 00:13 J -23043050.74 -23043050.49 -23043050.24 0.0143 0.0002 *

Moon -67801-07-30 10:18 J -23042681.29 -23042681.07 -23042680.84 0.0143 0.0066

Earth -67801-07-30 13:40 J -23042681.12 -23042680.93 -23042680.70 0.0143 0.0075 *

Mars -67790-07-06 08:52 J -23038688.44 -23038688.13 -23038687.80 0.0147 0.0026

Venus -67788-09-09 11:45 J -23037892.08 -23037892.01 -23037891.89 0.0147 0.0133

Venus -67787-04-24 02:23 J -23037665.58 -23037665.40 -23037665.19 0.0147 0.0068

Venus -67787-12-06 17:30 J -23037438.99 -23037438.77 -23037438.55 0.0147 0.0004

Venus -67786-07-21 08:23 J -23037212.35 -23037212.15 -23037211.95 0.0147 0.0062

Venus -67785-03-03 23:01 J -23036985.64 -23036985.54 -23036985.42 0.0147 0.0126

Mercury -67778-12-18 00:42 J -23034140.57 -23034140.47 -23034140.34 0.0144 0.0117

Mercury -67777-03-15 09:35 J -23034052.25 -23034052.10 -23034051.93 0.0144 0.0085

Mercury -67777-06-11 18:28 J -23033963.91 -23033963.73 -23033963.54 0.0144 0.0054
 Mercury -67777-09-08 03:06 J -23033875.56 -23033875.37 -23033875.17 0.0144 0.0023
 Mercury -67777-12-05 11:59 J -23033787.20 -23033787.00 -23033786.81 0.0144 0.0008
 Mercury -67776-03-03 20:37 J -23033698.83 -23033698.64 -23033698.45 0.0144 0.0039
 Mercury -67776-05-31 05:01 J -23033610.45 -23033610.29 -23033610.11 0.0144 0.0070
 Mercury -67776-08-27 13:25 J -23033522.06 -23033521.94 -23033521.78 0.0143 0.0101
 Mercury -67776-11-23 22:04 J -23033433.64 -23033433.58 -23033433.49 0.0143 0.0131
 Earth -67763-01-24 02:09 J -23028989.63 -23028989.41 -23028989.17 0.0136 0.0063
 Moon -67763-01-24 04:04 J -23028989.55 -23028989.33 -23028989.10 0.0136 0.0062 *
 Moon -67762-01-28 15:49 J -23028620.10 -23028619.84 -23028619.57 0.0136 0.0012
 Earth -67762-01-28 17:45 J -23028620.01 -23028619.76 -23028619.50 0.0136 0.0011 *
 Earth -67761-02-02 08:09 J -23028250.36 -23028250.16 -23028249.95 0.0135 0.0084
 Moon -67761-02-02 08:52 J -23028250.32 -23028250.13 -23028249.91 0.0135 0.0079 *
 Mars -67749-01-19 14:52 J -23023881.09 -23023880.88 -23023880.62 0.0132 0.0077
 Mars -67748-12-18 19:40 J -23023181.95 -23023181.68 -23023181.39 0.0131 0.0032
 Venus -67746-11-05 02:23 J -23022495.49 -23022495.40 -23022495.27 0.0131 0.0113
 Venus -67745-06-18 05:45 J -23022269.43 -23022269.26 -23022269.06 0.0131 0.0069
 Venus -67744-01-30 09:21 J -23022043.32 -23022043.11 -23022042.89 0.0131 0.0024
 Venus -67744-09-13 12:42 J -23021817.18 -23021816.97 -23021816.76 0.0132 0.0021
 Venus -67743-04-27 15:35 J -23021591.03 -23021590.85 -23021590.66 0.0132 0.0065
 Venus -67743-12-09 18:13 J -23021364.83 -23021364.74 -23021364.60 0.0132 0.0110
 Mercury -67734-09-04 02:09 J -23018174.46 -23018174.41 -23018174.35 0.0134 0.0118
 Mercury -67734-12-01 05:16 J -23018086.37 -23018086.28 -23018086.20 0.0134 0.0102
 Mercury -67733-02-27 07:54 J -23017998.26 -23017998.17 -23017998.06 0.0134 0.0086
 Mercury -67733-05-25 11:01 J -23017910.15 -23017910.04 -23017909.92 0.0134 0.0069
 Mercury -67733-08-21 14:09 J -23017822.03 -23017821.91 -23017821.79 0.0134 0.0052
 Mercury -67733-11-17 17:01 J -23017733.91 -23017733.79 -23017733.66 0.0135 0.0035
 Mercury -67732-02-13 20:09 J -23017645.79 -23017645.66 -23017645.53 0.0135 0.0018
 Mercury -67732-05-12 23:01 J -23017557.67 -23017557.54 -23017557.41 0.0135 0.0003
 Mercury -67732-08-09 02:09 J -23017469.54 -23017469.41 -23017469.28 0.0135 0.0016

Mercury -67732-11-05 05:01 J -23017381.41 -23017381.29 -23017381.16 0.0135 0.0033
 Mercury -67731-02-01 07:54 J -23017293.28 -23017293.17 -23017293.04 0.0135 0.0051
 Mercury -67731-04-30 11:01 J -23017205.15 -23017205.04 -23017204.92 0.0135 0.0067
 Mercury -67731-07-27 13:54 J -23017117.01 -23017116.92 -23017116.81 0.0135 0.0085
 Mercury -67731-10-23 17:01 J -23017028.87 -23017028.79 -23017028.70 0.0135 0.0102
 Mercury -67730-01-19 20:09 J -23016940.71 -23016940.66 -23016940.59 0.0136 0.0119
 Jupiter -67728-11-25 05:30 J -23015900.62 -23015900.27 -23015899.92 0.0137 0.0099
 Moon -67719-07-22 09:49 J -23012739.28 -23012739.09 -23012738.88 0.0142 0.0081
 Earth -67719-07-22 12:57 J -23012739.14 -23012738.96 -23012738.75 0.0142 0.0087 *
 Earth -67718-07-27 05:30 J -23012369.52 -23012369.27 -23012369.02 0.0143 0.0006
 Moon -67718-07-27 09:06 J -23012369.37 -23012369.12 -23012368.87 0.0143 0.0013 *
 Moon -67717-07-30 19:11 J -23011999.89 -23011999.70 -23011999.49 0.0143 0.0085
 Earth -67717-07-30 22:33 J -23011999.76 -23011999.56 -23011999.34 0.0143 0.0077 *
 Mars -67707-03-26 02:23 J -23008474.50 -23008474.40 -23008474.24 0.0147 0.0134
 Mars -67705-03-01 13:25 J -23007768.25 -23007767.94 -23007767.62 0.0147 0.0039
 Venus -67704-12-22 05:16 J -23007107.43 -23007107.28 -23007107.11 0.0147 0.0102
 Venus -67703-08-05 20:09 J -23006880.87 -23006880.66 -23006880.44 0.0147 0.0038
 Venus -67702-03-20 10:47 J -23006654.26 -23006654.05 -23006653.82 0.0147 0.0027
 Venus -67702-11-02 01:25 J -23006427.60 -23006427.44 -23006427.25 0.0147 0.0092
 Mercury -67693-01-07 06:57 J -23003439.32 -23003439.21 -23003439.08 0.0144 0.0114
 Mercury -67693-04-04 15:49 J -23003351.00 -23003350.84 -23003350.68 0.0144 0.0082
 Mercury -67693-07-02 00:28 J -23003262.66 -23003262.48 -23003262.29 0.0144 0.0051
 Mercury -67693-09-28 09:21 J -23003174.30 -23003174.11 -23003173.92 0.0144 0.0020
 Mercury -67693-12-25 17:59 J -23003085.94 -23003085.75 -23003085.55 0.0144 0.0011
 Mercury -67692-03-24 02:37 J -23002997.58 -23002997.39 -23002997.20 0.0144 0.0041
 Mercury -67692-06-20 11:01 J -23002909.20 -23002909.04 -23002908.86 0.0144 0.0072
 Mercury -67692-09-16 19:40 J -23002820.81 -23002820.68 -23002820.53 0.0143 0.0103
 Mercury -67692-12-14 04:33 J -23002732.38 -23002732.31 -23002732.24 0.0143 0.0133
 Moon -67680-01-19 13:25 J -22998678.00 -22998677.94 -22998677.85 0.0137 0.0131
 Earth -67679-01-24 08:37 J -22998308.36 -22998308.14 -22998307.89 0.0136 0.0062

Moon	-67679-01-24 11:30 J	-22998308.23	-22998308.02	-22998307.79	0.0136	0.0065 *
Moon	-67678-01-28 22:18 J	-22997938.83	-22997938.57	-22997938.30	0.0136	0.0011
Earth	-67678-01-29 00:28 J	-22997938.74	-22997938.48	-22997938.22	0.0136	0.0013 *
Earth	-67677-02-02 14:37 J	-22997569.08	-22997568.89	-22997568.68	0.0135	0.0086
Moon	-67677-02-02 16:47 J	-22997568.98	-22997568.80	-22997568.60	0.0135	0.0090 *
Mars	-67665-09-12 15:35 J	-22992963.12	-22992962.85	-22992962.56	0.0132	0.0035
Mars	-67663-08-12 19:11 J	-22992263.94	-22992263.70	-22992263.45	0.0132	0.0072
Venus	-67661-02-16 16:04 J	-22991710.97	-22991710.83	-22991710.66	0.0132	0.0090
Venus	-67661-09-29 19:40 J	-22991484.88	-22991484.68	-22991484.48	0.0132	0.0046
Venus	-67660-05-13 23:01 J	-22991258.76	-22991258.54	-22991258.33	0.0132	0.0002
Venus	-67660-12-26 02:09 J	-22991032.61	-22991032.41	-22991032.21	0.0132	0.0043
Venus	-67659-08-09 05:16 J	-22990806.44	-22990806.28	-22990806.12	0.0132	0.0087
Venus	-67658-03-23 08:09 J	-22990580.16	-22990580.16	-22990580.13	0.0132	0.0131
Mercury	-67650-06-28 05:59 J	-22987561.26	-22987561.25	-22987561.22	0.0134	0.0132
Mercury	-67650-09-24 09:06 J	-22987473.18	-22987473.12	-22987473.05	0.0134	0.0115
Mercury	-67650-12-21 11:59 J	-22987385.08	-22987385.00	-22987384.90	0.0134	0.0099
Mercury	-67649-03-18 15:06 J	-22987296.97	-22987296.87	-22987296.76	0.0134	0.0082
Mercury	-67649-06-14 17:59 J	-22987208.86	-22987208.75	-22987208.63	0.0134	0.0066
Mercury	-67649-09-10 21:06 J	-22987120.74	-22987120.62	-22987120.50	0.0135	0.0049
Mercury	-67649-12-07 23:59 J	-22987032.62	-22987032.50	-22987032.37	0.0135	0.0033
Mercury	-67648-03-06 03:06 J	-22986944.50	-22986944.37	-22986944.24	0.0135	0.0015
Mercury	-67648-06-02 05:59 J	-22986856.38	-22986856.25	-22986856.11	0.0135	0.0005
Mercury	-67648-08-29 09:06 J	-22986768.25	-22986768.12	-22986767.99	0.0135	0.0019
Mercury	-67648-11-25 11:59 J	-22986680.12	-22986680.00	-22986679.87	0.0135	0.0036
Mercury	-67647-02-21 15:06 J	-22986591.99	-22986591.87	-22986591.75	0.0135	0.0053
Mercury	-67647-05-20 17:59 J	-22986503.85	-22986503.75	-22986503.63	0.0135	0.0071
Mercury	-67647-08-16 21:06 J	-22986415.71	-22986415.62	-22986415.52	0.0135	0.0088
Mercury	-67647-11-13 00:13 J	-22986327.57	-22986327.49	-22986327.41	0.0136	0.0105
Mercury	-67646-02-09 03:21 J	-22986239.41	-22986239.36	-22986239.30	0.0136	0.0122
Moon	-67635-07-22 20:37 J	-22982057.83	-22982057.64	-22982057.45	0.0142	0.0089

Earth -67635-07-22 23:30 J -22982057.71 -22982057.52 -22982057.31 0.0142 0.0084 *
 Earth -67634-07-27 16:04 J -22981688.08 -22981687.83 -22981687.58 0.0143 0.0003
 Moon -67634-07-27 19:11 J -22981687.95 -22981687.70 -22981687.45 0.0143 0.0005 *
 Moon -67633-07-31 05:30 J -22981318.46 -22981318.27 -22981318.04 0.0143 0.0075
 Earth -67633-07-31 09:21 J -22981318.31 -22981318.11 -22981317.90 0.0143 0.0082 *
 Mars -67623-11-20 10:47 J -22977554.32 -22977554.05 -22977553.75 0.0147 0.0070
 Mars -67621-10-27 02:23 J -22976847.60 -22976847.40 -22976847.15 0.0147 0.0108
 Venus -67620-08-21 10:18 J -22976549.15 -22976549.07 -22976548.96 0.0147 0.0132
 Venus -67619-04-05 00:57 J -22976322.64 -22976322.46 -22976322.25 0.0147 0.0069
 Venus -67619-11-17 15:49 J -22976096.06 -22976095.84 -22976095.62 0.0147 0.0004
 Venus -67618-07-02 06:42 J -22975869.42 -22975869.22 -22975869.02 0.0147 0.0060
 Venus -67617-02-13 21:06 J -22975642.72 -22975642.62 -22975642.49 0.0147 0.0125
 Mercury -67610-10-31 05:16 J -22972826.32 -22972826.28 -22972826.21 0.0144 0.0139
 Mercury -67609-01-27 14:09 J -22972738.03 -22972737.91 -22972737.77 0.0144 0.0107
 Mercury -67609-04-24 22:47 J -22972649.70 -22972649.55 -22972649.37 0.0144 0.0077
 Mercury -67609-07-22 07:40 J -22972561.36 -22972561.18 -22972560.99 0.0144 0.0045
 Mercury -67609-10-18 16:33 J -22972473.01 -22972472.81 -22972472.62 0.0144 0.0014
 Mercury -67608-01-15 01:11 J -22972384.65 -22972384.45 -22972384.26 0.0144 0.0017
 Mercury -67608-04-13 09:35 J -22972296.28 -22972296.10 -22972295.91 0.0144 0.0048
 Mercury -67608-07-10 18:13 J -22972207.90 -22972207.74 -22972207.57 0.0143 0.0078
 Mercury -67608-10-07 02:52 J -22972119.50 -22972119.38 -22972119.25 0.0143 0.0109
 Mercury -67607-01-03 11:01 J -22972031.06 -22972031.04 -22972030.97 0.0143 0.0140
 Earth -67596-01-20 00:57 J -22967996.48 -22967996.46 -22967996.40 0.0137 0.0135
 Earth -67595-01-24 17:16 J -22967627.00 -22967626.78 -22967626.53 0.0136 0.0059
 Moon -67595-01-24 20:09 J -22967626.88 -22967626.66 -22967626.42 0.0136 0.0057 *
 Moon -67594-01-29 05:59 J -22967257.51 -22967257.25 -22967256.98 0.0136 0.0015
 Earth -67594-01-29 09:06 J -22967257.38 -22967257.12 -22967256.86 0.0136 0.0016 *
 Earth -67593-02-02 23:01 J -22966887.71 -22966887.54 -22966887.32 0.0135 0.0090
 Moon -67593-02-03 01:25 J -22966887.62 -22966887.44 -22966887.23 0.0135 0.0085 *
 Mars -67582-06-08 08:09 J -22962744.32 -22962744.16 -22962743.96 0.0132 0.0104

Mars	-67580-05-07 17:45 J	-22962045.05	-22962044.76	-22962044.47	0.0132	0.0006
Mars	-67578-04-06 18:13 J	-22961345.88	-22961345.74	-22961345.59	0.0131	0.0113
Venus	-67578-10-17 02:23 J	-22961152.50	-22961152.40	-22961152.28	0.0131	0.0112
Venus	-67577-05-30 05:45 J	-22960926.43	-22960926.26	-22960926.06	0.0132	0.0068
Venus	-67576-01-11 09:21 J	-22960700.32	-22960700.11	-22960699.89	0.0132	0.0023
Venus	-67576-08-25 12:28 J	-22960474.18	-22960473.98	-22960473.76	0.0132	0.0022
Venus	-67575-04-08 15:35 J	-22960248.02	-22960247.85	-22960247.65	0.0132	0.0066
Venus	-67575-11-20 18:28 J	-22960021.83	-22960021.73	-22960021.59	0.0132	0.0110
Mercury	-67566-07-18 13:11 J	-22956859.98	-22956859.95	-22956859.92	0.0134	0.0129
Mercury	-67566-10-14 15:49 J	-22956771.89	-22956771.84	-22956771.76	0.0134	0.0114
Mercury	-67565-01-10 18:57 J	-22956683.79	-22956683.71	-22956683.61	0.0134	0.0097
Mercury	-67565-04-07 22:04 J	-22956595.68	-22956595.58	-22956595.47	0.0134	0.0080
Mercury	-67565-07-05 01:11 J	-22956507.57	-22956507.45	-22956507.34	0.0135	0.0063
Mercury	-67565-10-01 04:04 J	-22956419.45	-22956419.33	-22956419.21	0.0135	0.0046
Mercury	-67565-12-28 06:57 J	-22956331.33	-22956331.21	-22956331.08	0.0135	0.0030
Mercury	-67564-03-26 10:04 J	-22956243.21	-22956243.08	-22956242.95	0.0135	0.0012
Mercury	-67564-06-22 13:11 J	-22956155.08	-22956154.95	-22956154.82	0.0135	0.0006
Mercury	-67564-09-18 16:04 J	-22956066.96	-22956066.83	-22956066.70	0.0135	0.0022
Mercury	-67564-12-15 18:57 J	-22955978.83	-22955978.71	-22955978.58	0.0135	0.0040
Mercury	-67563-03-13 22:04 J	-22955890.69	-22955890.58	-22955890.46	0.0135	0.0056
Mercury	-67563-06-10 01:11 J	-22955802.56	-22955802.45	-22955802.34	0.0135	0.0073
Mercury	-67563-09-06 04:04 J	-22955714.42	-22955714.33	-22955714.22	0.0136	0.0091
Mercury	-67563-12-03 07:11 J	-22955626.27	-22955626.20	-22955626.12	0.0136	0.0108
Mercury	-67562-03-01 10:04 J	-22955538.11	-22955538.08	-22955538.02	0.0136	0.0126
Moon	-67551-07-23 07:25 J	-22951376.39	-22951376.19	-22951375.97	0.0142	0.0075
Earth	-67551-07-23 10:04 J	-22951376.27	-22951376.08	-22951375.86	0.0142	0.0080 *
Earth	-67550-07-28 02:52 J	-22951006.63	-22951006.38	-22951006.13	0.0143	0.0003
Moon	-67550-07-28 06:13 J	-22951006.49	-22951006.24	-22951005.99	0.0143	0.0005 *
Moon	-67549-07-31 17:30 J	-22950636.95	-22950636.77	-22950636.58	0.0143	0.0094
Earth	-67549-07-31 20:23 J	-22950636.84	-22950636.65	-22950636.44	0.0143	0.0086 *

Mars	-67538-07-17 23:01 J	-22946633.86	-22946633.54	-22946633.21	0.0147	0.0003
Venus	-67536-12-03 06:57 J	-22945764.36	-22945764.21	-22945764.03	0.0147	0.0098
Venus	-67535-07-17 21:49 J	-22945537.80	-22945537.59	-22945537.37	0.0147	0.0034
Venus	-67534-03-01 12:42 J	-22945311.18	-22945310.97	-22945310.75	0.0147	0.0031
Venus	-67534-10-14 03:35 J	-22945084.52	-22945084.35	-22945084.18	0.0147	0.0095
Mercury	-67526-11-20 13:11 J	-22942125.02	-22942124.95	-22942124.85	0.0144	0.0130
Mercury	-67525-02-16 21:49 J	-22942036.71	-22942036.59	-22942036.43	0.0144	0.0099
Mercury	-67525-05-15 06:42 J	-22941948.38	-22941948.22	-22941948.04	0.0144	0.0068
Mercury	-67525-08-11 15:35 J	-22941860.04	-22941859.85	-22941859.66	0.0144	0.0037
Mercury	-67525-11-08 00:13 J	-22941771.68	-22941771.49	-22941771.29	0.0144	0.0007
Mercury	-67524-02-04 08:52 J	-22941683.32	-22941683.13	-22941682.93	0.0144	0.0026
Mercury	-67524-05-03 17:30 J	-22941594.94	-22941594.77	-22941594.58	0.0144	0.0056
Mercury	-67524-07-31 02:09 J	-22941506.56	-22941506.41	-22941506.25	0.0143	0.0087
Mercury	-67524-10-27 10:33 J	-22941418.16	-22941418.06	-22941417.94	0.0143	0.0117
Moon	-67512-01-20 07:40 J	-22937315.26	-22937315.18	-22937315.05	0.0137	0.0125
Earth	-67512-01-20 11:45 J	-22937315.08	-22937315.01	-22937314.94	0.0137	0.0131 *
Earth	-67511-01-25 03:49 J	-22936945.57	-22936945.34	-22936945.10	0.0136	0.0055
Moon	-67511-01-25 06:57 J	-22936945.42	-22936945.21	-22936944.96	0.0136	0.0061 *
Moon	-67510-01-29 16:33 J	-22936576.07	-22936575.81	-22936575.55	0.0136	0.0019
Earth	-67510-01-29 19:25 J	-22936575.95	-22936575.69	-22936575.43	0.0136	0.0019 *
Earth	-67509-02-03 09:21 J	-22936206.28	-22936206.11	-22936205.90	0.0135	0.0093
Moon	-67509-02-03 12:28 J	-22936206.14	-22936205.98	-22936205.79	0.0135	0.0097 *
Mars	-67497-01-31 14:09 J	-22931826.16	-22931825.91	-22931825.64	0.0132	0.0062
Mars	-67496-12-30 20:23 J	-22931126.91	-22931126.65	-22931126.37	0.0131	0.0048
Venus	-67493-01-28 16:33 J	-22930367.95	-22930367.81	-22930367.63	0.0131	0.0089
Venus	-67493-09-10 20:23 J	-22930141.85	-22930141.65	-22930141.45	0.0131	0.0044
Venus	-67492-04-24 23:45 J	-22929915.73	-22929915.51	-22929915.30	0.0132	0.0003
Venus	-67492-12-07 02:37 J	-22929689.58	-22929689.39	-22929689.18	0.0132	0.0045
Venus	-67491-07-21 05:45 J	-22929463.41	-22929463.26	-22929463.09	0.0132	0.0088
Mercury	-67482-08-07 20:09 J	-22926158.70	-22926158.66	-22926158.62	0.0134	0.0126

Mercury -67482-11-03 23:01 J -22926070.61 -22926070.54 -22926070.46 0.0134 0.0110

Mercury -67481-01-31 01:54 J -22925982.50 -22925982.42 -22925982.32 0.0134 0.0094

Mercury -67481-04-28 05:01 J -22925894.39 -22925894.29 -22925894.18 0.0134 0.0077

Mercury -67481-07-25 08:09 J -22925806.28 -22925806.16 -22925806.04 0.0135 0.0060

Mercury -67481-10-21 11:01 J -22925718.16 -22925718.04 -22925717.91 0.0135 0.0043

Mercury -67480-01-17 14:09 J -22925630.04 -22925629.91 -22925629.78 0.0135 0.0026

Mercury -67480-04-15 17:01 J -22925541.92 -22925541.79 -22925541.66 0.0135 0.0010

Mercury -67480-07-12 20:09 J -22925453.79 -22925453.66 -22925453.53 0.0135 0.0008

Mercury -67480-10-08 23:01 J -22925365.66 -22925365.54 -22925365.41 0.0135 0.0025

Mercury -67479-01-05 02:09 J -22925277.53 -22925277.41 -22925277.28 0.0135 0.0042

Mercury -67479-04-03 05:01 J -22925189.40 -22925189.29 -22925189.17 0.0135 0.0060

Mercury -67479-06-30 08:09 J -22925101.26 -22925101.16 -22925101.05 0.0135 0.0077

Mercury -67479-09-26 11:16 J -22925013.12 -22925013.03 -22925012.93 0.0136 0.0094

Mercury -67479-12-23 14:23 J -22924924.97 -22924924.90 -22924924.83 0.0136 0.0111

Mercury -67478-03-21 17:16 J -22924836.81 -22924836.78 -22924836.73 0.0136 0.0129

Moon -67467-07-23 17:30 J -22920694.95 -22920694.77 -22920694.56 0.0142 0.0082

Earth -67467-07-23 19:54 J -22920694.87 -22920694.67 -22920694.45 0.0142 0.0078 *

Earth -67466-07-28 12:42 J -22920325.22 -22920324.97 -22920324.72 0.0143 0.0005

Moon -67466-07-28 15:21 J -22920325.11 -22920324.86 -22920324.60 0.0143 0.0012 *

Moon -67465-08-01 03:06 J -22919955.55 -22919955.37 -22919955.15 0.0143 0.0083

Earth -67465-08-01 06:28 J -22919955.42 -22919955.23 -22919955.03 0.0143 0.0090 *

Mars -67455-04-07 00:13 J -22916419.69 -22916419.49 -22916419.27 0.0147 0.0111

Mars -67453-03-13 10:18 J -22915713.35 -22915713.07 -22915712.76 0.0147 0.0066

Venus -67452-08-02 12:13 J -22915206.08 -22915205.99 -22915205.87 0.0147 0.0127

Venus -67451-03-17 02:52 J -22914979.57 -22914979.38 -22914979.17 0.0147 0.0064

Venus -67451-10-29 17:45 J -22914752.98 -22914752.76 -22914752.54 0.0147 0.0002

Venus -67450-06-13 08:23 J -22914526.34 -22914526.15 -22914525.94 0.0147 0.0066

Venus -67449-01-25 23:16 J -22914299.62 -22914299.53 -22914299.41 0.0147 0.0129

Mercury -67442-12-10 21:06 J -22911423.71 -22911423.62 -22911423.51 0.0144 0.0122

Mercury -67441-03-08 05:59 J -22911335.40 -22911335.25 -22911335.09 0.0144 0.0090

Mercury -67441-06-04 14:37 J -22911247.06 -22911246.89 -22911246.70 0.0144 0.0059
 Mercury -67441-08-31 23:30 J -22911158.71 -22911158.52 -22911158.33 0.0144 0.0028
 Mercury -67441-11-28 08:09 J -22911070.35 -22911070.16 -22911069.96 0.0144 0.0004
 Mercury -67440-02-24 16:47 J -22910981.99 -22910981.80 -22910981.61 0.0144 0.0034
 Mercury -67440-05-24 01:25 J -22910893.61 -22910893.44 -22910893.26 0.0143 0.0065
 Mercury -67440-08-20 09:49 J -22910805.22 -22910805.09 -22910804.93 0.0143 0.0096
 Mercury -67440-11-16 18:42 J -22910716.81 -22910716.72 -22910716.63 0.0143 0.0125
 Jupiter -67437-07-31 02:09 J -22909729.93 -22909729.41 -22909728.88 0.0142 0.0013
 Moon -67428-01-20 18:28 J -22906633.75 -22906633.73 -22906633.66 0.0137 0.0135
 Earth -67428-01-20 22:04 J -22906633.65 -22906633.58 -22906633.46 0.0137 0.0128
 Earth -67427-01-25 14:37 J -22906264.13 -22906263.89 -22906263.65 0.0136 0.0051
 Moon -67427-01-25 17:59 J -22906263.99 -22906263.75 -22906263.51 0.0136 0.0048 *
 Moon -67426-01-30 02:23 J -22905894.66 -22905894.40 -22905894.14 0.0136 0.0022
 Earth -67426-01-30 05:59 J -22905894.50 -22905894.25 -22905893.99 0.0136 0.0024 *
 Earth -67425-02-03 20:09 J -22905524.83 -22905524.66 -22905524.47 0.0135 0.0098
 Moon -67425-02-03 23:01 J -22905524.70 -22905524.54 -22905524.34 0.0135 0.0095 *
 Mars -67413-09-24 16:47 J -22900908.09 -22900907.80 -22900907.51 0.0131 0.0020
 Mars -67411-08-24 19:25 J -22900208.88 -22900208.69 -22900208.46 0.0131 0.0089
 Venus -67410-09-28 03:06 J -22899809.48 -22899809.37 -22899809.25 0.0131 0.0109
 Venus -67409-05-11 06:28 J -22899583.41 -22899583.23 -22899583.04 0.0131 0.0066
 Venus -67409-12-23 09:49 J -22899357.30 -22899357.09 -22899356.87 0.0131 0.0022
 Venus -67408-08-06 13:11 J -22899131.16 -22899130.95 -22899130.74 0.0131 0.0022
 Venus -67407-03-20 16:04 J -22898905.00 -22898904.83 -22898904.63 0.0131 0.0067
 Venus -67407-11-01 19:25 J -22898678.81 -22898678.69 -22898678.57 0.0132 0.0110
 Mercury -67398-08-28 02:37 J -22895457.42 -22895457.39 -22895457.33 0.0134 0.0125
 Mercury -67398-11-24 05:45 J -22895369.33 -22895369.26 -22895369.18 0.0134 0.0108
 Mercury -67397-02-20 08:52 J -22895281.22 -22895281.13 -22895281.03 0.0134 0.0092
 Mercury -67397-05-18 11:45 J -22895193.11 -22895193.01 -22895192.90 0.0134 0.0075
 Mercury -67397-08-14 14:37 J -22895105.00 -22895104.89 -22895104.76 0.0134 0.0059
 Mercury -67397-11-10 17:45 J -22895016.88 -22895016.76 -22895016.63 0.0135 0.0041

Mercury -67396-02-06 20:52 J -22894928.76 -22894928.63 -22894928.50 0.0135 0.0024
 Mercury -67396-05-05 23:45 J -22894840.64 -22894840.51 -22894840.38 0.0135 0.0008
 Mercury -67396-08-02 02:52 J -22894752.51 -22894752.38 -22894752.25 0.0135 0.0010
 Mercury -67396-10-29 05:45 J -22894664.38 -22894664.26 -22894664.13 0.0135 0.0027
 Mercury -67395-01-25 08:52 J -22894576.25 -22894576.13 -22894576.01 0.0135 0.0044
 Mercury -67395-04-23 11:45 J -22894488.12 -22894488.01 -22894487.89 0.0135 0.0061
 Mercury -67395-07-20 14:52 J -22894399.98 -22894399.88 -22894399.77 0.0135 0.0078
 Mercury -67395-10-16 17:45 J -22894311.84 -22894311.76 -22894311.66 0.0136 0.0096
 Mercury -67394-01-12 20:52 J -22894223.69 -22894223.63 -22894223.55 0.0136 0.0113
 Mercury -67394-04-11 00:13 J -22894135.53 -22894135.49 -22894135.46 0.0136 0.0130
 Moon -67383-07-24 00:57 J -22890013.65 -22890013.46 -22890013.24 0.0142 0.0073
 Earth -67383-07-24 03:06 J -22890013.58 -22890013.37 -22890013.16 0.0142 0.0077 *
 Earth -67382-07-28 19:40 J -22889643.92 -22889643.68 -22889643.43 0.0143 0.0007
 Moon -67382-07-28 22:18 J -22889643.83 -22889643.57 -22889643.32 0.0143 0.0001 *
 Moon -67381-08-01 11:16 J -22889274.20 -22889274.03 -22889273.85 0.0143 0.0099
 Earth -67381-08-01 13:40 J -22889274.12 -22889273.93 -22889273.74 0.0143 0.0091 *
 Mars -67371-12-02 01:25 J -22885499.73 -22885499.44 -22885499.12 0.0147 0.0049
 Mars -67369-11-07 17:16 J -22884792.89 -22884792.78 -22884792.61 0.0147 0.0133
 Venus -67368-11-14 05:59 J -22884421.40 -22884421.25 -22884421.07 0.0147 0.0096
 Venus -67367-06-28 20:52 J -22884194.84 -22884194.63 -22884194.40 0.0147 0.0033
 Venus -67366-02-10 11:45 J -22883968.22 -22883968.01 -22883967.79 0.0147 0.0032
 Venus -67366-09-25 02:37 J -22883741.55 -22883741.39 -22883741.22 0.0147 0.0096
 Mercury -67358-12-31 04:18 J -22880722.43 -22880722.32 -22880722.20 0.0144 0.0116
 Mercury -67357-03-28 12:57 J -22880634.11 -22880633.96 -22880633.80 0.0144 0.0084
 Mercury -67357-06-24 21:49 J -22880545.77 -22880545.59 -22880545.41 0.0144 0.0053
 Mercury -67357-09-21 06:28 J -22880457.42 -22880457.23 -22880457.03 0.0144 0.0022
 Mercury -67357-12-18 15:06 J -22880369.06 -22880368.87 -22880368.67 0.0144 0.0010
 Mercury -67356-03-16 23:59 J -22880280.69 -22880280.50 -22880280.31 0.0144 0.0040
 Mercury -67356-06-13 08:37 J -22880192.31 -22880192.14 -22880191.97 0.0144 0.0071
 Mercury -67356-09-09 17:01 J -22880103.92 -22880103.79 -22880103.64 0.0143 0.0102

Mercury -67356-12-07 01:54 J -22880015.50 -22880015.42 -22880015.35 0.0143 0.0132

Moon -67344-01-21 04:18 J -22875952.43 -22875952.32 -22875952.17 0.0137 0.0118

Earth -67344-01-21 08:23 J -22875952.25 -22875952.15 -22875952.04 0.0137 0.0124 *

Earth -67343-01-26 00:42 J -22875582.71 -22875582.47 -22875582.22 0.0136 0.0048

Moon -67343-01-26 04:33 J -22875582.55 -22875582.31 -22875582.07 0.0136 0.0053 *

Moon -67342-01-30 12:28 J -22875213.22 -22875212.98 -22875212.71 0.0136 0.0029

Earth -67342-01-30 16:04 J -22875213.08 -22875212.83 -22875212.57 0.0136 0.0028 *

Earth -67341-02-04 06:13 J -22874843.40 -22874843.24 -22874843.06 0.0135 0.0102

Moon -67341-02-04 09:49 J -22874843.24 -22874843.09 -22874842.92 0.0135 0.0105 *

Mars -67330-06-20 09:49 J -22870689.28 -22870689.09 -22870688.85 0.0131 0.0090

Mars -67328-05-19 18:57 J -22869989.99 -22869989.71 -22869989.42 0.0131 0.0023

Mars -67326-04-18 20:37 J -22869290.65 -22869290.64 -22869290.60 0.0131 0.0131

Venus -67326-05-28 13:25 J -22869250.95 -22869250.94 -22869250.89 0.0131 0.0130

Venus -67325-01-09 17:01 J -22869024.94 -22869024.79 -22869024.61 0.0131 0.0087

Venus -67325-08-22 20:37 J -22868798.84 -22868798.64 -22868798.43 0.0131 0.0042

Venus -67324-04-05 23:45 J -22868572.72 -22868572.51 -22868572.29 0.0131 0.0003

Venus -67324-11-18 02:37 J -22868346.58 -22868346.39 -22868346.18 0.0131 0.0046

Venus -67323-07-02 05:45 J -22868120.41 -22868120.26 -22868120.09 0.0131 0.0089

Mercury -67314-09-17 09:49 J -22864756.14 -22864756.09 -22864756.04 0.0134 0.0122

Mercury -67314-12-14 12:28 J -22864668.05 -22864667.98 -22864667.89 0.0134 0.0106

Mercury -67313-03-11 15:35 J -22864579.94 -22864579.85 -22864579.75 0.0134 0.0089

Mercury -67313-06-07 18:42 J -22864491.83 -22864491.72 -22864491.61 0.0134 0.0073

Mercury -67313-09-03 21:35 J -22864403.72 -22864403.60 -22864403.48 0.0134 0.0056

Mercury -67313-12-01 00:28 J -22864315.60 -22864315.48 -22864315.35 0.0134 0.0040

Mercury -67312-02-27 03:35 J -22864227.48 -22864227.35 -22864227.22 0.0135 0.0022

Mercury -67312-05-26 06:42 J -22864139.35 -22864139.22 -22864139.09 0.0135 0.0006

Mercury -67312-08-22 09:35 J -22864051.23 -22864051.10 -22864050.97 0.0135 0.0012

Mercury -67312-11-18 12:42 J -22863963.10 -22863962.97 -22863962.85 0.0135 0.0029

Mercury -67311-02-14 15:35 J -22863874.97 -22863874.85 -22863874.72 0.0135 0.0046

Mercury -67311-05-13 18:28 J -22863786.84 -22863786.73 -22863786.61 0.0135 0.0064

Mercury -67311-08-09 21:35 J -22863698.70 -22863698.60 -22863698.49 0.0135 0.0080

Mercury -67311-11-06 00:42 J -22863610.56 -22863610.47 -22863610.38 0.0135 0.0097

Mercury -67310-02-02 03:35 J -22863522.41 -22863522.35 -22863522.27 0.0136 0.0115

Mercury -67310-05-01 06:57 J -22863434.24 -22863434.21 -22863434.19 0.0136 0.0132

Moon -67299-07-24 07:40 J -22859332.37 -22859332.18 -22859331.97 0.0142 0.0080

Earth -67299-07-24 09:06 J -22859332.33 -22859332.12 -22859331.91 0.0142 0.0077 *

Earth -67298-07-29 01:40 J -22858962.68 -22858962.43 -22858962.18 0.0143 0.0007

Moon -67298-07-29 03:06 J -22858962.63 -22858962.37 -22858962.11 0.0143 0.0012 *

Moon -67297-08-01 16:47 J -22858592.98 -22858592.80 -22858592.59 0.0143 0.0085

Earth -67297-08-01 19:11 J -22858592.89 -22858592.70 -22858592.50 0.0143 0.0092 *

Mars -67286-07-28 23:16 J -22854579.85 -22854579.53 -22854579.20 0.0147 0.0014

Venus -67284-07-14 07:25 J -22853863.27 -22853863.19 -22853863.07 0.0147 0.0131

Venus -67283-02-25 22:18 J -22853636.76 -22853636.57 -22853636.37 0.0147 0.0067

Venus -67283-10-10 13:11 J -22853410.17 -22853409.95 -22853409.73 0.0147 0.0004

Venus -67282-05-25 03:49 J -22853183.54 -22853183.34 -22853183.14 0.0147 0.0060

Venus -67281-01-06 18:28 J -22852956.83 -22852956.73 -22852956.60 0.0147 0.0125

Mercury -67273-01-20 10:04 J -22850021.20 -22850021.08 -22850020.96 0.0144 0.0114

Mercury -67273-04-17 18:42 J -22849932.87 -22849932.72 -22849932.55 0.0144 0.0083

Mercury -67273-07-15 03:35 J -22849844.53 -22849844.35 -22849844.16 0.0144 0.0051

Mercury -67273-10-11 12:13 J -22849756.18 -22849755.99 -22849755.79 0.0144 0.0020

Mercury -67272-01-07 21:06 J -22849667.81 -22849667.62 -22849667.42 0.0144 0.0011

Mercury -67272-04-06 05:45 J -22849579.44 -22849579.26 -22849579.07 0.0144 0.0042

Mercury -67272-07-03 14:09 J -22849491.06 -22849490.91 -22849490.73 0.0144 0.0074

Mercury -67272-09-29 23:01 J -22849402.67 -22849402.54 -22849402.40 0.0143 0.0104

Mercury -67272-12-27 07:25 J -22849314.24 -22849314.19 -22849314.11 0.0143 0.0135

Moon -67260-01-21 12:42 J -22845271.05 -22845270.97 -22845270.89 0.0137 0.0129

Earth -67260-01-21 15:49 J -22845270.94 -22845270.84 -22845270.71 0.0137 0.0122 *

Earth -67259-01-26 08:23 J -22844901.38 -22844901.15 -22844900.89 0.0136 0.0046

Moon -67259-01-26 12:13 J -22844901.23 -22844900.99 -22844900.74 0.0136 0.0041 *

Moon -67258-01-30 20:09 J -22844531.90 -22844531.66 -22844531.40 0.0136 0.0029

Earth -67258-01-30 23:59 J -22844531.74 -22844531.50 -22844531.24 0.0136 0.0031 *
 Earth -67257-02-04 14:23 J -22844162.05 -22844161.90 -22844161.72 0.0135 0.0105
 Moon -67257-02-04 18:13 J -22844161.90 -22844161.74 -22844161.57 0.0135 0.0103 *
 Mars -67245-02-12 13:11 J -22839771.21 -22839770.95 -22839770.66 0.0131 0.0046
 Mars -67243-01-11 20:23 J -22839071.88 -22839071.65 -22839071.38 0.0131 0.0066
 Venus -67242-09-09 03:35 J -22838466.46 -22838466.35 -22838466.22 0.0131 0.0108
 Venus -67241-04-22 06:42 J -22838240.39 -22838240.22 -22838240.02 0.0131 0.0064
 Venus -67241-12-04 10:04 J -22838014.29 -22838014.08 -22838013.86 0.0131 0.0021
 Venus -67240-07-18 13:25 J -22837788.15 -22837787.94 -22837787.73 0.0131 0.0023
 Venus -67239-03-01 16:18 J -22837561.99 -22837561.82 -22837561.63 0.0131 0.0067
 Venus -67239-10-13 19:11 J -22837335.80 -22837335.70 -22837335.57 0.0131 0.0111
 Mercury -67230-10-07 16:33 J -22834054.86 -22834054.81 -22834054.75 0.0134 0.0120
 Mercury -67229-01-03 19:40 J -22833966.77 -22833966.68 -22833966.60 0.0134 0.0103
 Mercury -67229-03-31 22:18 J -22833878.66 -22833878.57 -22833878.46 0.0134 0.0087
 Mercury -67229-06-28 01:25 J -22833790.55 -22833790.44 -22833790.32 0.0134 0.0070
 Mercury -67229-09-24 04:33 J -22833702.43 -22833702.31 -22833702.19 0.0134 0.0053
 Mercury -67229-12-21 07:25 J -22833614.31 -22833614.19 -22833614.06 0.0134 0.0037
 Mercury -67228-03-19 10:33 J -22833526.19 -22833526.06 -22833525.93 0.0135 0.0020
 Mercury -67228-06-15 13:25 J -22833438.07 -22833437.94 -22833437.81 0.0135 0.0003
 Mercury -67228-09-11 16:33 J -22833349.94 -22833349.81 -22833349.68 0.0135 0.0014
 Mercury -67228-12-08 19:25 J -22833261.82 -22833261.69 -22833261.56 0.0135 0.0031
 Mercury -67227-03-06 22:33 J -22833173.68 -22833173.56 -22833173.44 0.0135 0.0048
 Mercury -67227-06-03 01:25 J -22833085.55 -22833085.44 -22833085.32 0.0135 0.0065
 Mercury -67227-08-30 04:33 J -22832997.41 -22832997.31 -22832997.21 0.0135 0.0083
 Mercury -67227-11-26 07:40 J -22832909.27 -22832909.18 -22832909.10 0.0135 0.0100
 Mercury -67226-02-22 10:18 J -22832821.12 -22832821.07 -22832820.99 0.0136 0.0118
 Mercury -67226-05-21 13:25 J -22832732.94 -22832732.94 -22832732.92 0.0136 0.0135
 Moon -67215-07-24 15:49 J -22828651.04 -22828650.84 -22828650.62 0.0142 0.0073
 Earth -67215-07-24 16:18 J -22828651.02 -22828650.82 -22828650.60 0.0142 0.0075 *
 Earth -67214-07-29 08:52 J -22828281.38 -22828281.13 -22828280.88 0.0143 0.0009

Moon -67214-07-29 10:04 J -22828281.33 -22828281.08 -22828280.82 0.0143 0.0003 *
 Moon -67213-08-02 01:11 J -22827911.62 -22827911.45 -22827911.28 0.0143 0.0101
 Earth -67213-08-02 01:54 J -22827911.59 -22827911.42 -22827911.21 0.0143 0.0094 *
 Mars -67203-04-17 16:18 J -22824366.03 -22824365.82 -22824365.56 0.0147 0.0100
 Mars -67201-03-23 23:45 J -22823659.76 -22823659.51 -22823659.22 0.0147 0.0081
 Venus -67200-10-25 23:59 J -22823078.64 -22823078.50 -22823078.33 0.0147 0.0103
 Venus -67199-06-09 14:52 J -22822852.09 -22822851.88 -22822851.66 0.0147 0.0039
 Venus -67198-01-22 05:45 J -22822625.48 -22822625.26 -22822625.04 0.0147 0.0025
 Venus -67198-09-05 20:23 J -22822398.82 -22822398.65 -22822398.47 0.0147 0.0089
 Mercury -67190-11-13 07:11 J -22819408.22 -22819408.20 -22819408.16 0.0144 0.0143
 Mercury -67189-02-09 15:49 J -22819319.95 -22819319.84 -22819319.70 0.0144 0.0112
 Mercury -67189-05-08 00:57 J -22819231.62 -22819231.46 -22819231.30 0.0144 0.0080
 Mercury -67189-08-04 09:35 J -22819143.28 -22819143.10 -22819142.91 0.0144 0.0048
 Mercury -67189-10-31 18:28 J -22819054.92 -22819054.73 -22819054.53 0.0144 0.0017
 Mercury -67188-01-28 03:06 J -22818966.56 -22818966.37 -22818966.17 0.0144 0.0014
 Mercury -67188-04-26 11:59 J -22818878.19 -22818878.00 -22818877.82 0.0144 0.0045
 Mercury -67188-07-23 20:37 J -22818789.81 -22818789.64 -22818789.48 0.0144 0.0076
 Mercury -67188-10-20 05:01 J -22818701.41 -22818701.29 -22818701.15 0.0143 0.0107
 Mercury -67187-01-16 13:40 J -22818612.97 -22818612.93 -22818612.87 0.0143 0.0137
 Moon -67176-01-21 19:40 J -22814589.80 -22814589.68 -22814589.52 0.0137 0.0114
 Earth -67176-01-21 23:45 J -22814589.63 -22814589.51 -22814589.39 0.0137 0.0120 *
 Earth -67175-01-26 16:04 J -22814220.07 -22814219.83 -22814219.57 0.0136 0.0043
 Moon -67175-01-26 19:54 J -22814219.91 -22814219.67 -22814219.42 0.0136 0.0049 *
 Moon -67174-01-31 04:18 J -22813850.56 -22813850.32 -22813850.06 0.0136 0.0035
 Earth -67174-01-31 08:09 J -22813850.41 -22813850.16 -22813849.91 0.0136 0.0033 *
 Earth -67173-02-04 22:04 J -22813480.71 -22813480.58 -22813480.40 0.0135 0.0109
 Moon -67173-02-05 02:09 J -22813480.54 -22813480.41 -22813480.25 0.0135 0.0110 *
 Mars -67163-11-07 03:06 J -22809552.49 -22809552.37 -22809552.21 0.0132 0.0117
 Mars -67161-10-06 17:16 J -22808853.08 -22808852.78 -22808852.49 0.0131 0.0003
 Mars -67159-09-05 22:47 J -22808153.69 -22808153.55 -22808153.37 0.0131 0.0108

Venus	-67158-05-09 14:09 J	-22807907.94	-22807907.91	-22807907.86	0.0131	0.0129
Venus	-67158-12-21 17:59 J	-22807681.92	-22807681.75	-22807681.59	0.0131	0.0085
Venus	-67157-08-03 21:06 J	-22807455.82	-22807455.62	-22807455.41	0.0131	0.0041
Venus	-67156-03-18 00:28 J	-22807229.70	-22807229.48	-22807229.27	0.0131	0.0003
Venus	-67156-10-30 03:21 J	-22807003.55	-22807003.36	-22807003.15	0.0131	0.0046
Venus	-67155-06-13 06:13 J	-22806777.38	-22806777.24	-22806777.07	0.0132	0.0090
Mercury	-67146-07-31 20:37 J	-22803441.64	-22803441.64	-22803441.62	0.0134	0.0133
Mercury	-67146-10-27 23:45 J	-22803353.57	-22803353.51	-22803353.44	0.0134	0.0116
Mercury	-67145-01-24 02:37 J	-22803265.47	-22803265.39	-22803265.30	0.0134	0.0100
Mercury	-67145-04-21 05:30 J	-22803177.36	-22803177.27	-22803177.16	0.0134	0.0084
Mercury	-67145-07-18 08:37 J	-22803089.25	-22803089.14	-22803089.02	0.0134	0.0066
Mercury	-67145-10-14 11:45 J	-22803001.13	-22803001.01	-22803000.89	0.0134	0.0050
Mercury	-67144-01-10 14:37 J	-22802913.01	-22802912.89	-22802912.76	0.0135	0.0033
Mercury	-67144-04-08 17:45 J	-22802824.89	-22802824.76	-22802824.63	0.0135	0.0016
Mercury	-67144-07-05 20:37 J	-22802736.77	-22802736.64	-22802736.51	0.0135	0.0002
Mercury	-67144-10-01 23:30 J	-22802648.64	-22802648.52	-22802648.38	0.0135	0.0019
Mercury	-67144-12-29 02:37 J	-22802560.51	-22802560.39	-22802560.26	0.0135	0.0035
Mercury	-67143-03-27 05:45 J	-22802472.38	-22802472.26	-22802472.14	0.0135	0.0052
Mercury	-67143-06-23 08:37 J	-22802384.25	-22802384.14	-22802384.02	0.0135	0.0069
Mercury	-67143-09-19 11:45 J	-22802296.11	-22802296.01	-22802295.91	0.0135	0.0087
Mercury	-67143-12-16 14:52 J	-22802207.97	-22802207.88	-22802207.80	0.0135	0.0104
Mercury	-67142-03-14 17:30 J	-22802119.81	-22802119.77	-22802119.70	0.0136	0.0122
Moon	-67131-07-25 02:52 J	-22797969.57	-22797969.38	-22797969.16	0.0142	0.0074
Earth	-67131-07-25 03:06 J	-22797969.57	-22797969.37	-22797969.14	0.0142	0.0071 *
Moon	-67130-07-29 19:40 J	-22797599.93	-22797599.68	-22797599.42	0.0143	0.0018
Earth	-67130-07-29 19:40 J	-22797599.92	-22797599.68	-22797599.43	0.0143	0.0013 *
Moon	-67129-08-02 11:30 J	-22797230.19	-22797230.02	-22797229.82	0.0143	0.0092
Earth	-67129-08-02 12:42 J	-22797230.14	-22797229.97	-22797229.78	0.0143	0.0098 *
Mars	-67119-12-12 22:18 J	-22793445.88	-22793445.57	-22793445.25	0.0147	0.0032
Venus	-67116-06-25 04:33 J	-22792520.39	-22792520.31	-22792520.21	0.0147	0.0133

Venus -67115-02-06 18:57 J -22792293.89 -22792293.71 -22792293.50 0.0147 0.0071
 Venus -67115-09-21 09:49 J -22792067.31 -22792067.09 -22792066.87 0.0147 0.0007
 Venus -67114-05-06 00:13 J -22791840.68 -22791840.49 -22791840.28 0.0147 0.0057
 Venus -67114-12-18 15:06 J -22791613.99 -22791613.87 -22791613.74 0.0147 0.0121
 Mercury -67106-12-03 14:23 J -22788706.96 -22788706.90 -22788706.84 0.0144 0.0137
 Mercury -67105-02-29 23:01 J -22788618.66 -22788618.54 -22788618.40 0.0144 0.0105
 Mercury -67105-05-28 07:40 J -22788530.33 -22788530.18 -22788530.00 0.0144 0.0075
 Mercury -67105-08-24 16:47 J -22788441.99 -22788441.80 -22788441.61 0.0144 0.0043
 Mercury -67105-11-21 01:25 J -22788353.63 -22788353.44 -22788353.24 0.0144 0.0012
 Mercury -67104-02-17 10:18 J -22788265.27 -22788265.07 -22788264.88 0.0144 0.0020
 Mercury -67104-05-16 18:57 J -22788176.89 -22788176.71 -22788176.53 0.0144 0.0051
 Mercury -67104-08-13 03:35 J -22788088.51 -22788088.35 -22788088.19 0.0144 0.0082
 Mercury -67104-11-09 11:59 J -22788000.11 -22788000.00 -22787999.87 0.0143 0.0113
 Mercury -67103-02-05 20:37 J -22787911.64 -22787911.64 -22787911.62 0.0143 0.0143
 Moon -67092-01-22 05:30 J -22783908.35 -22783908.27 -22783908.14 0.0137 0.0125
 Earth -67092-01-22 08:52 J -22783908.26 -22783908.13 -22783907.99 0.0137 0.0117 *
 Earth -67091-01-27 01:40 J -22783538.68 -22783538.43 -22783538.18 0.0136 0.0040
 Moon -67091-01-27 05:01 J -22783538.54 -22783538.29 -22783538.03 0.0136 0.0035 *
 Moon -67090-01-31 13:40 J -22783169.17 -22783168.93 -22783168.67 0.0136 0.0034
 Earth -67090-01-31 17:16 J -22783169.02 -22783168.78 -22783168.52 0.0136 0.0037 *
 Earth -67089-02-05 07:40 J -22782799.30 -22782799.18 -22782799.01 0.0135 0.0112
 Moon -67089-02-05 11:30 J -22782799.16 -22782799.02 -22782798.86 0.0135 0.0111 *
 Mars -67078-07-02 09:21 J -22778634.33 -22778634.11 -22778633.84 0.0132 0.0073
 Mars -67076-05-31 21:49 J -22777934.86 -22777934.59 -22777934.30 0.0131 0.0042
 Venus -67074-08-21 04:47 J -22777123.42 -22777123.30 -22777123.17 0.0131 0.0106
 Venus -67073-04-03 07:54 J -22776897.35 -22776897.17 -22776896.97 0.0131 0.0062
 Venus -67073-11-15 11:16 J -22776671.24 -22776671.03 -22776670.81 0.0131 0.0019
 Venus -67072-06-29 14:23 J -22776445.10 -22776444.90 -22776444.68 0.0131 0.0026
 Venus -67071-02-10 17:45 J -22776218.94 -22776218.76 -22776218.57 0.0132 0.0069
 Venus -67071-09-24 20:37 J -22775992.74 -22775992.64 -22775992.52 0.0132 0.0112

Mercury -67062-08-21 03:49 J -22772740.36 -22772740.34 -22772740.30 0.0134 0.0129
 Mercury -67062-11-17 06:42 J -22772652.28 -22772652.22 -22772652.14 0.0134 0.0113
 Mercury -67061-02-13 09:49 J -22772564.17 -22772564.09 -22772563.99 0.0134 0.0096
 Mercury -67061-05-11 12:57 J -22772476.07 -22772475.96 -22772475.86 0.0134 0.0079
 Mercury -67061-08-07 15:49 J -22772387.95 -22772387.84 -22772387.72 0.0134 0.0063
 Mercury -67061-11-03 18:57 J -22772299.84 -22772299.71 -22772299.59 0.0134 0.0046
 Mercury -67060-01-30 21:49 J -22772211.72 -22772211.59 -22772211.46 0.0135 0.0029
 Mercury -67060-04-29 00:57 J -22772123.59 -22772123.46 -22772123.33 0.0135 0.0013
 Mercury -67060-07-26 03:49 J -22772035.47 -22772035.34 -22772035.21 0.0135 0.0005
 Mercury -67060-10-22 06:57 J -22771947.34 -22771947.21 -22771947.09 0.0135 0.0022
 Mercury -67059-01-18 09:49 J -22771859.21 -22771859.09 -22771858.96 0.0135 0.0039
 Mercury -67059-04-16 12:42 J -22771771.08 -22771770.97 -22771770.84 0.0135 0.0057
 Mercury -67059-07-13 15:49 J -22771682.95 -22771682.84 -22771682.73 0.0135 0.0073
 Mercury -67059-10-09 18:57 J -22771594.81 -22771594.71 -22771594.61 0.0135 0.0091
 Mercury -67058-01-05 21:49 J -22771506.66 -22771506.59 -22771506.51 0.0136 0.0108
 Mercury -67058-04-04 00:42 J -22771418.50 -22771418.47 -22771418.41 0.0136 0.0126
 Earth -67047-07-25 14:52 J -22767288.09 -22767287.88 -22767287.65 0.0142 0.0067
 Moon -67047-07-25 15:35 J -22767288.05 -22767287.85 -22767287.62 0.0142 0.0066 *
 Earth -67046-07-30 07:40 J -22766918.43 -22766918.18 -22766917.94 0.0143 0.0018
 Moon -67046-07-30 07:40 J -22766918.43 -22766918.18 -22766917.92 0.0143 0.0013 *
 Earth -67045-08-03 00:42 J -22766548.63 -22766548.47 -22766548.29 0.0143 0.0104
 Moon -67045-08-03 00:28 J -22766548.61 -22766548.48 -22766548.31 0.0143 0.0112 *
 Mars -67036-09-02 12:28 J -22763231.04 -22763230.98 -22763230.85 0.0147 0.0140
 Mars -67034-08-09 11:45 J -22762525.31 -22762525.01 -22762524.68 0.0147 0.0040
 Venus -67032-10-07 01:40 J -22761735.58 -22761735.43 -22761735.26 0.0147 0.0099
 Venus -67031-05-21 16:04 J -22761509.03 -22761508.83 -22761508.61 0.0147 0.0036
 Venus -67030-01-03 06:57 J -22761282.43 -22761282.21 -22761281.99 0.0147 0.0028
 Venus -67030-08-17 21:21 J -22761055.76 -22761055.61 -22761055.42 0.0147 0.0093
 Mercury -67022-12-23 22:47 J -22758005.64 -22758005.55 -22758005.46 0.0144 0.0127
 Mercury -67021-03-21 07:25 J -22757917.33 -22757917.19 -22757917.04 0.0144 0.0095

Mercury	-67021-06-17 16:04 J	-22757828.99	-22757828.83	-22757828.64	0.0144	0.0064
Mercury	-67021-09-14 00:57 J	-22757740.65	-22757740.46	-22757740.26	0.0144	0.0033
Mercury	-67021-12-11 09:49 J	-22757652.29	-22757652.09	-22757651.90	0.0144	0.0002
Mercury	-67020-03-09 18:28 J	-22757563.92	-22757563.73	-22757563.54	0.0144	0.0030
Mercury	-67020-06-06 03:06 J	-22757475.54	-22757475.37	-22757475.19	0.0144	0.0061
Mercury	-67020-09-02 11:45 J	-22757387.15	-22757387.01	-22757386.85	0.0144	0.0092
Mercury	-67020-11-29 20:09 J	-22757298.75	-22757298.66	-22757298.54	0.0143	0.0123
Moon	-67008-01-22 17:59 J	-22753226.90	-22753226.75	-22753226.58	0.0137	0.0106
Earth	-67008-01-22 20:37 J	-22753226.76	-22753226.64	-22753226.47	0.0137	0.0113 *
Earth	-67007-01-27 13:40 J	-22752857.18	-22752856.93	-22752856.67	0.0136	0.0035
Moon	-67007-01-27 16:47 J	-22752857.05	-22752856.80	-22752856.54	0.0136	0.0041 *
Moon	-67006-02-01 02:09 J	-22752487.64	-22752487.41	-22752487.16	0.0136	0.0045
Earth	-67006-02-01 05:30 J	-22752487.51	-22752487.27	-22752487.02	0.0136	0.0042 *
Earth	-67005-02-05 19:54 J	-22752117.79	-22752117.67	-22752117.54	0.0135	0.0118
Moon	-67005-02-05 23:16 J	-22752117.63	-22752117.53	-22752117.39	0.0135	0.0119 *

67TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 67th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-66993-02-24 20:09 J	-22747715.94	-22747715.66	-22747715.36	0.0132	0.0027		
Mars	-66991-01-24 04:47 J	-22747016.50	-22747016.30	-22747016.07	0.0131	0.0087		
Venus	-66990-04-20 16:33 J	-22746564.86	-22746564.81	-22746564.73	0.0131	0.0125		

Venus	-66990-12-02 19:54 J	-22746338.82	-22746338.67	-22746338.49	0.0131	0.0081
Venus	-66989-07-15 23:30 J	-22746112.72	-22746112.52	-22746112.31	0.0131	0.0038
Venus	-66988-02-27 02:52 J	-22745886.59	-22745886.38	-22745886.16	0.0131	0.0006
Venus	-66988-10-11 05:45 J	-22745660.45	-22745660.26	-22745660.05	0.0132	0.0050
Venus	-66987-05-25 08:52 J	-22745434.27	-22745434.13	-22745433.97	0.0132	0.0093
Mercury	-66978-09-10 11:30 J	-22742039.07	-22742039.02	-22742038.98	0.0134	0.0124
Mercury	-66978-12-07 14:09 J	-22741950.97	-22741950.91	-22741950.82	0.0134	0.0108
Mercury	-66977-03-04 17:16 J	-22741862.87	-22741862.78	-22741862.68	0.0134	0.0091
Mercury	-66977-05-31 20:23 J	-22741774.76	-22741774.65	-22741774.54	0.0134	0.0075
Mercury	-66977-08-27 23:16 J	-22741686.64	-22741686.53	-22741686.41	0.0134	0.0058
Mercury	-66977-11-24 02:09 J	-22741598.53	-22741598.41	-22741598.28	0.0135	0.0042
Mercury	-66976-02-20 05:16 J	-22741510.41	-22741510.28	-22741510.15	0.0135	0.0024
Mercury	-66976-05-19 08:09 J	-22741422.29	-22741422.16	-22741422.02	0.0135	0.0009
Mercury	-66976-08-15 11:16 J	-22741334.16	-22741334.03	-22741333.90	0.0135	0.0010
Mercury	-66976-11-11 14:09 J	-22741246.03	-22741245.91	-22741245.78	0.0135	0.0027
Mercury	-66975-02-07 17:16 J	-22741157.90	-22741157.78	-22741157.66	0.0135	0.0044
Mercury	-66975-05-06 20:09 J	-22741069.77	-22741069.66	-22741069.54	0.0135	0.0061
Mercury	-66975-08-02 23:16 J	-22740981.63	-22740981.53	-22740981.42	0.0135	0.0078
Mercury	-66975-10-30 02:09 J	-22740893.49	-22740893.41	-22740893.31	0.0136	0.0096
Mercury	-66974-01-26 05:16 J	-22740805.34	-22740805.28	-22740805.20	0.0136	0.0113
Mercury	-66974-04-24 08:09 J	-22740717.18	-22740717.16	-22740717.11	0.0136	0.0131
Earth	-66963-07-26 03:49 J	-22736606.55	-22736606.34	-22736606.10	0.0142	0.0061
Moon	-66963-07-26 04:33 J	-22736606.51	-22736606.31	-22736606.08	0.0142	0.0064 *
Moon	-66962-07-30 19:25 J	-22736236.94	-22736236.69	-22736236.43	0.0143	0.0028
Earth	-66962-07-30 20:23 J	-22736236.89	-22736236.65	-22736236.40	0.0143	0.0024 *
Moon	-66961-08-03 13:25 J	-22735867.09	-22735866.94	-22735866.76	0.0143	0.0104
Earth	-66961-08-03 13:54 J	-22735867.08	-22735866.92	-22735866.76	0.0143	0.0110 *
Mars	-66951-04-29 23:59 J	-22732310.76	-22732310.50	-22732310.20	0.0147	0.0072
Mars	-66949-04-05 05:16 J	-22731604.46	-22731604.28	-22731604.04	0.0147	0.0113
Venus	-66948-06-06 08:37 J	-22731177.23	-22731177.14	-22731177.00	0.0147	0.0126

Venus -66947-01-18 23:16 J -22730950.71 -22730950.53 -22730950.32 0.0147 0.0063
 Venus -66947-09-02 14:09 J -22730724.13 -22730723.91 -22730723.68 0.0147 0.0003
 Venus -66946-04-17 04:47 J -22730497.49 -22730497.30 -22730497.10 0.0147 0.0065
 Venus -66946-11-29 19:11 J -22730270.79 -22730270.70 -22730270.57 0.0147 0.0129
 Mercury -66937-01-13 07:25 J -22727304.30 -22727304.19 -22727304.07 0.0144 0.0115
 Mercury -66937-04-10 16:18 J -22727215.97 -22727215.82 -22727215.66 0.0144 0.0084
 Mercury -66937-07-08 01:11 J -22727127.63 -22727127.45 -22727127.27 0.0144 0.0052
 Mercury -66937-10-04 09:49 J -22727039.28 -22727039.09 -22727038.89 0.0144 0.0021
 Mercury -66937-12-31 18:28 J -22726950.92 -22726950.73 -22726950.53 0.0144 0.0011
 Mercury -66936-03-30 03:21 J -22726862.55 -22726862.36 -22726862.17 0.0144 0.0041
 Mercury -66936-06-26 11:59 J -22726774.17 -22726774.00 -22726773.83 0.0144 0.0072
 Mercury -66936-09-22 20:37 J -22726685.77 -22726685.64 -22726685.50 0.0144 0.0103
 Mercury -66936-12-20 05:01 J -22726597.35 -22726597.29 -22726597.21 0.0143 0.0134
 Moon -66924-01-23 08:09 J -22722545.28 -22722545.16 -22722545.01 0.0137 0.0114
 Earth -66924-01-23 10:18 J -22722545.21 -22722545.07 -22722544.89 0.0137 0.0107 *
 Earth -66923-01-28 03:06 J -22722175.62 -22722175.37 -22722175.11 0.0136 0.0029
 Moon -66923-01-28 06:13 J -22722175.51 -22722175.24 -22722174.98 0.0136 0.0024 *
 Moon -66922-02-01 15:21 J -22721806.09 -22721805.86 -22721805.61 0.0136 0.0046
 Earth -66922-02-01 18:28 J -22721805.96 -22721805.73 -22721805.48 0.0136 0.0049 *
 Earth -66921-02-06 08:37 J -22721436.22 -22721436.14 -22721436.02 0.0135 0.0124
 Moon -66921-02-06 11:45 J -22721436.10 -22721436.01 -22721435.88 0.0135 0.0123 *
 Mars -66911-11-19 13:11 J -22717497.13 -22717496.95 -22717496.73 0.0132 0.0098
 Mars -66909-10-19 04:18 J -22716797.61 -22716797.32 -22716797.03 0.0131 0.0019
 Mars -66907-09-18 09:21 J -22716098.13 -22716098.11 -22716098.08 0.0131 0.0131
 Venus -66906-08-02 07:40 J -22715780.30 -22715780.18 -22715780.02 0.0131 0.0101
 Venus -66905-03-15 11:30 J -22715554.22 -22715554.02 -22715553.83 0.0131 0.0057
 Venus -66905-10-27 14:37 J -22715328.10 -22715327.89 -22715327.67 0.0131 0.0013
 Venus -66904-06-10 17:30 J -22715101.97 -22715101.77 -22715101.55 0.0131 0.0031
 Venus -66903-01-22 20:37 J -22714875.80 -22714875.64 -22714875.44 0.0131 0.0074
 Venus -66903-09-05 23:30 J -22714649.59 -22714649.52 -22714649.40 0.0131 0.0117

Mercury -66894-09-30 18:28 J -22711337.78 -22711337.73 -22711337.67 0.0134 0.0121
 Mercury -66894-12-27 21:35 J -22711249.68 -22711249.60 -22711249.52 0.0134 0.0104
 Mercury -66893-03-25 00:28 J -22711161.57 -22711161.48 -22711161.38 0.0134 0.0088
 Mercury -66893-06-21 03:21 J -22711073.46 -22711073.36 -22711073.24 0.0134 0.0071
 Mercury -66893-09-17 06:28 J -22710985.35 -22710985.23 -22710985.11 0.0134 0.0054
 Mercury -66893-12-14 09:21 J -22710897.23 -22710897.11 -22710896.98 0.0135 0.0038
 Mercury -66892-03-12 12:28 J -22710809.11 -22710808.98 -22710808.85 0.0135 0.0021
 Mercury -66892-06-08 15:21 J -22710720.99 -22710720.86 -22710720.73 0.0135 0.0005
 Mercury -66892-09-04 18:28 J -22710632.86 -22710632.73 -22710632.60 0.0135 0.0014
 Mercury -66892-12-01 21:21 J -22710544.73 -22710544.61 -22710544.48 0.0135 0.0031
 Mercury -66891-02-28 00:28 J -22710456.60 -22710456.48 -22710456.36 0.0135 0.0048
 Mercury -66891-05-27 03:21 J -22710368.47 -22710368.36 -22710368.24 0.0135 0.0065
 Mercury -66891-08-23 06:13 J -22710280.33 -22710280.24 -22710280.13 0.0135 0.0083
 Mercury -66891-11-19 09:21 J -22710192.19 -22710192.11 -22710192.02 0.0136 0.0099
 Mercury -66890-02-15 12:28 J -22710104.04 -22710103.98 -22710103.91 0.0136 0.0117
 Mercury -66890-05-14 15:35 J -22710015.87 -22710015.85 -22710015.83 0.0136 0.0134
 Moon -66880-07-21 20:37 J -22706294.68 -22706294.64 -22706294.57 0.0142 0.0138
 Earth -66880-07-21 22:33 J -22706294.57 -22706294.56 -22706294.52 0.0142 0.0141 *
 Earth -66879-07-26 14:23 J -22705925.12 -22705924.90 -22705924.67 0.0142 0.0058
 Moon -66879-07-26 16:04 J -22705925.04 -22705924.83 -22705924.60 0.0142 0.0057 *
 Moon -66878-07-31 05:45 J -22705555.50 -22705555.26 -22705555.00 0.0143 0.0023
 Earth -66878-07-31 06:42 J -22705555.45 -22705555.22 -22705554.97 0.0143 0.0028 *
 Earth -66877-08-04 00:28 J -22705185.63 -22705185.48 -22705185.33 0.0144 0.0114
 Moon -66877-08-04 00:57 J -22705185.56 -22705185.46 -22705185.31 0.0144 0.0122 *
 Mars -66867-12-25 09:49 J -22701390.41 -22701390.09 -22701389.77 0.0147 0.0002
 Venus -66864-09-18 05:30 J -22700392.43 -22700392.27 -22700392.09 0.0148 0.0091
 Venus -66863-05-02 20:09 J -22700165.87 -22700165.66 -22700165.44 0.0148 0.0028
 Venus -66863-12-15 10:47 J -22699939.26 -22699939.05 -22699938.83 0.0147 0.0036
 Venus -66862-07-30 01:40 J -22699712.58 -22699712.43 -22699712.26 0.0147 0.0100
 Mercury -66854-11-06 07:40 J -22696691.25 -22696691.18 -22696691.11 0.0145 0.0135

Mercury -66853-02-02 16:18 J -22696602.95 -22696602.82 -22696602.68 0.0144 0.0104

Mercury -66853-05-01 00:57 J -22696514.62 -22696514.46 -22696514.28 0.0144 0.0072

Mercury -66853-07-28 09:49 J -22696426.27 -22696426.09 -22696425.90 0.0144 0.0041

Mercury -66853-10-24 18:42 J -22696337.92 -22696337.72 -22696337.53 0.0144 0.0009

Mercury -66852-01-21 03:21 J -22696249.55 -22696249.36 -22696249.16 0.0144 0.0022

Mercury -66852-04-19 11:59 J -22696161.18 -22696161.00 -22696160.81 0.0144 0.0053

Mercury -66852-07-16 20:37 J -22696072.79 -22696072.64 -22696072.48 0.0144 0.0084

Mercury -66852-10-13 05:01 J -22695984.39 -22695984.29 -22695984.16 0.0144 0.0115

Moon -66840-01-23 22:18 J -22691863.74 -22691863.57 -22691863.37 0.0137 0.0094

Earth -66840-01-24 00:28 J -22691863.64 -22691863.48 -22691863.29 0.0137 0.0101 *

Earth -66839-01-28 16:47 J -22691494.05 -22691493.80 -22691493.53 0.0136 0.0023

Moon -66839-01-28 19:25 J -22691493.95 -22691493.69 -22691493.42 0.0136 0.0028 *

Moon -66838-02-02 05:45 J -22691124.48 -22691124.26 -22691124.03 0.0136 0.0058

Earth -66838-02-02 08:23 J -22691124.38 -22691124.15 -22691123.91 0.0136 0.0055 *

Earth -66837-02-06 22:33 J -22690754.62 -22690754.56 -22690754.49 0.0135 0.0130

Moon -66837-02-07 01:54 J -22690754.47 -22690754.42 -22690754.36 0.0135 0.0132

Mars -66826-07-15 00:28 J -22686578.74 -22686578.48 -22686578.19 0.0131 0.0052

Mars -66824-06-13 11:01 J -22685879.28 -22685879.04 -22685878.77 0.0131 0.0064

Venus -66822-04-01 19:54 J -22685221.75 -22685221.67 -22685221.57 0.0131 0.0119

Venus -66822-11-13 23:16 J -22684995.70 -22684995.53 -22684995.35 0.0131 0.0075

Venus -66821-06-27 02:37 J -22684769.60 -22684769.39 -22684769.18 0.0131 0.0032

Venus -66820-02-08 05:59 J -22684543.46 -22684543.25 -22684543.03 0.0131 0.0011

Venus -66820-09-22 08:52 J -22684317.31 -22684317.13 -22684316.92 0.0131 0.0054

Venus -66819-05-06 11:45 J -22684091.14 -22684091.01 -22684090.85 0.0131 0.0097

Mercury -66810-07-24 22:47 J -22680724.55 -22680724.55 -22680724.54 0.0134 0.0133

Mercury -66810-10-21 01:40 J -22680636.49 -22680636.43 -22680636.36 0.0134 0.0117

Mercury -66809-01-17 04:47 J -22680548.39 -22680548.30 -22680548.22 0.0134 0.0100

Mercury -66809-04-14 07:25 J -22680460.28 -22680460.19 -22680460.08 0.0134 0.0085

Mercury -66809-07-11 10:33 J -22680372.17 -22680372.06 -22680371.94 0.0134 0.0067

Mercury -66809-10-07 13:40 J -22680284.05 -22680283.93 -22680283.81 0.0134 0.0050

Mercury -66808-01-03 16:33 J -22680195.93 -22680195.81 -22680195.68 0.0135 0.0034

Mercury -66808-04-01 19:40 J -22680107.81 -22680107.68 -22680107.55 0.0135 0.0017

Mercury -66808-06-28 22:33 J -22680019.69 -22680019.56 -22680019.43 0.0135 0.0001

Mercury -66808-09-25 01:25 J -22679931.56 -22679931.44 -22679931.30 0.0135 0.0018

Mercury -66808-12-22 04:33 J -22679843.44 -22679843.31 -22679843.18 0.0135 0.0034

Mercury -66807-03-20 07:25 J -22679755.31 -22679755.19 -22679755.06 0.0135 0.0052

Mercury -66807-06-16 10:33 J -22679667.17 -22679667.06 -22679666.95 0.0135 0.0068

Mercury -66807-09-12 13:40 J -22679579.03 -22679578.93 -22679578.83 0.0135 0.0086

Mercury -66807-12-09 16:18 J -22679490.89 -22679490.82 -22679490.72 0.0135 0.0104

Mercury -66806-03-07 19:25 J -22679402.74 -22679402.69 -22679402.62 0.0136 0.0121

Earth -66796-07-22 07:40 J -22675613.21 -22675613.18 -22675613.11 0.0142 0.0139

Earth -66795-07-26 23:16 J -22675243.75 -22675243.53 -22675243.29 0.0142 0.0055

Moon -66795-07-27 01:11 J -22675243.67 -22675243.45 -22675243.22 0.0142 0.0057 *

Moon -66794-07-31 13:25 J -22674874.17 -22674873.94 -22674873.68 0.0143 0.0034

Earth -66794-07-31 15:49 J -22674874.08 -22674873.84 -22674873.59 0.0143 0.0030 *

Earth -66793-08-04 08:37 J -22674504.26 -22674504.14 -22674503.97 0.0144 0.0118

Moon -66793-08-04 10:04 J -22674504.22 -22674504.08 -22674503.91 0.0144 0.0111 *

Mars -66784-09-14 16:18 J -22671175.99 -22671175.82 -22671175.60 0.0147 0.0116

Mars -66782-08-21 15:06 J -22670470.14 -22670469.87 -22670469.56 0.0148 0.0067

Venus -66780-05-18 09:21 J -22669834.22 -22669834.11 -22669833.97 0.0148 0.0122

Venus -66780-12-30 23:59 J -22669607.69 -22669607.50 -22669607.29 0.0148 0.0059

Venus -66779-08-14 14:52 J -22669381.10 -22669380.88 -22669380.66 0.0148 0.0005

Venus -66778-03-29 05:30 J -22669154.45 -22669154.27 -22669154.06 0.0147 0.0068

Venus -66778-11-10 20:23 J -22668927.74 -22668927.65 -22668927.54 0.0147 0.0132

Mercury -66770-11-26 14:52 J -22665989.96 -22665989.88 -22665989.78 0.0145 0.0128

Mercury -66769-02-22 23:30 J -22665901.65 -22665901.52 -22665901.36 0.0145 0.0097

Mercury -66769-05-21 08:37 J -22665813.31 -22665813.14 -22665812.96 0.0144 0.0065

Mercury -66769-08-17 17:16 J -22665724.97 -22665724.78 -22665724.58 0.0144 0.0033

Mercury -66769-11-14 02:09 J -22665636.61 -22665636.41 -22665636.21 0.0144 0.0002

Mercury -66768-02-10 10:47 J -22665548.24 -22665548.05 -22665547.86 0.0144 0.0030

Mercury -66768-05-09 19:25 J -22665459.86 -22665459.69 -22665459.51 0.0144 0.0061

Mercury -66768-08-06 03:49 J -22665371.47 -22665371.34 -22665371.17 0.0144 0.0092

Mercury -66768-11-02 12:28 J -22665283.06 -22665282.98 -22665282.86 0.0144 0.0123

Moon -66756-01-24 11:01 J -22661182.18 -22661182.04 -22661181.85 0.0137 0.0103

Earth -66756-01-24 12:42 J -22661182.14 -22661181.97 -22661181.77 0.0137 0.0095 *

Earth -66755-01-29 05:16 J -22660812.54 -22660812.28 -22660812.02 0.0136 0.0016

Moon -66755-01-29 07:25 J -22660812.46 -22660812.19 -22660811.92 0.0136 0.0011 *

Moon -66754-02-02 17:59 J -22660442.97 -22660442.75 -22660442.51 0.0136 0.0058

Earth -66754-02-02 20:37 J -22660442.87 -22660442.64 -22660442.41 0.0136 0.0061 *

Mars -66743-04-08 15:21 J -22656359.94 -22656359.86 -22656359.74 0.0132 0.0124

Mars -66741-03-08 09:21 J -22655660.41 -22655660.11 -22655659.82 0.0131 0.0005

Mars -66739-02-05 17:59 J -22654960.90 -22654960.75 -22654960.58 0.0131 0.0108

Venus -66738-07-14 11:01 J -22654437.18 -22654437.04 -22654436.88 0.0131 0.0094

Venus -66737-02-25 14:23 J -22654211.09 -22654210.90 -22654210.69 0.0131 0.0052

Venus -66737-10-08 17:45 J -22653984.97 -22653984.76 -22653984.54 0.0131 0.0008

Venus -66736-05-22 20:37 J -22653758.83 -22653758.64 -22653758.42 0.0131 0.0036

Venus -66735-01-03 23:45 J -22653532.67 -22653532.51 -22653532.33 0.0131 0.0078

Venus -66735-08-18 02:52 J -22653306.45 -22653306.38 -22653306.29 0.0131 0.0120

Mercury -66726-08-14 05:45 J -22650023.28 -22650023.26 -22650023.23 0.0134 0.0130

Mercury -66726-11-10 08:37 J -22649935.20 -22649935.14 -22649935.07 0.0134 0.0114

Mercury -66725-02-06 11:45 J -22649847.10 -22649847.01 -22649846.92 0.0134 0.0097

Mercury -66725-05-04 14:37 J -22649758.99 -22649758.89 -22649758.78 0.0134 0.0081

Mercury -66725-07-31 17:30 J -22649670.88 -22649670.77 -22649670.65 0.0134 0.0064

Mercury -66725-10-27 20:37 J -22649582.76 -22649582.64 -22649582.52 0.0134 0.0047

Mercury -66724-01-23 23:30 J -22649494.64 -22649494.52 -22649494.39 0.0134 0.0031

Mercury -66724-04-22 02:37 J -22649406.52 -22649406.39 -22649406.26 0.0134 0.0014

Mercury -66724-07-19 05:30 J -22649318.40 -22649318.27 -22649318.14 0.0135 0.0004

Mercury -66724-10-15 08:23 J -22649230.27 -22649230.15 -22649230.02 0.0135 0.0021

Mercury -66723-01-11 11:30 J -22649142.15 -22649142.02 -22649141.89 0.0135 0.0037

Mercury -66723-04-09 14:23 J -22649054.01 -22649053.90 -22649053.78 0.0135 0.0054

Mercury -66723-07-06 17:30 J -22648965.88 -22648965.77 -22648965.66 0.0135 0.0071

Mercury -66723-10-02 20:37 J -22648877.74 -22648877.64 -22648877.55 0.0135 0.0089

Mercury -66723-12-29 23:16 J -22648789.60 -22648789.53 -22648789.44 0.0135 0.0106

Mercury -66722-03-28 02:23 J -22648701.44 -22648701.40 -22648701.34 0.0135 0.0123

Jupiter -66719-02-14 23:45 J -22647646.75 -22647646.51 -22647646.18 0.0137 0.0113

Moon -66712-07-22 11:45 J -22644932.07 -22644932.01 -22644931.91 0.0142 0.0134

Earth -66712-07-22 14:37 J -22644931.93 -22644931.89 -22644931.82 0.0142 0.0138 *

Earth -66711-07-27 05:59 J -22644562.47 -22644562.25 -22644562.01 0.0142 0.0055

Moon -66711-07-27 08:52 J -22644562.34 -22644562.13 -22644561.90 0.0142 0.0056 *

Moon -66710-07-31 20:23 J -22644192.90 -22644192.65 -22644192.40 0.0143 0.0027

Earth -66710-07-31 22:33 J -22644192.80 -22644192.56 -22644192.32 0.0143 0.0031 *

Earth -66709-08-04 15:21 J -22643822.98 -22643822.86 -22643822.70 0.0143 0.0119

Moon -66709-08-04 17:59 J -22643822.86 -22643822.75 -22643822.63 0.0143 0.0125 *

Mars -66699-05-11 11:59 J -22640256.28 -22640256.00 -22640255.68 0.0147 0.0053

Mars -66697-04-16 15:21 J -22639549.97 -22639549.86 -22639549.70 0.0148 0.0134

Venus -66696-08-30 02:09 J -22639049.56 -22639049.41 -22639049.22 0.0148 0.0093

Venus -66695-04-13 17:01 J -22638823.00 -22638822.79 -22638822.57 0.0148 0.0029

Venus -66695-11-26 07:40 J -22638596.38 -22638596.18 -22638595.95 0.0148 0.0035

Venus -66694-07-10 22:47 J -22638369.71 -22638369.55 -22638369.38 0.0148 0.0098

Mercury -66686-12-16 21:21 J -22635288.70 -22635288.61 -22635288.50 0.0145 0.0124

Mercury -66685-03-14 06:13 J -22635200.38 -22635200.24 -22635200.08 0.0145 0.0092

Mercury -66685-06-10 14:52 J -22635112.05 -22635111.88 -22635111.69 0.0144 0.0061

Mercury -66685-09-06 23:59 J -22635023.70 -22635023.50 -22635023.31 0.0144 0.0029

Mercury -66685-12-04 08:37 J -22634935.33 -22634935.14 -22634934.94 0.0144 0.0003

Mercury -66684-03-02 17:16 J -22634846.97 -22634846.78 -22634846.58 0.0144 0.0034

Mercury -66684-05-30 01:54 J -22634758.59 -22634758.42 -22634758.24 0.0144 0.0065

Mercury -66684-08-26 10:47 J -22634670.19 -22634670.05 -22634669.91 0.0144 0.0096

Mercury -66684-11-22 19:25 J -22634581.78 -22634581.69 -22634581.60 0.0144 0.0127

Moon -66672-01-24 22:04 J -22630500.78 -22630500.58 -22630500.38 0.0137 0.0084

Earth -66672-01-24 22:47 J -22630500.72 -22630500.55 -22630500.33 0.0137 0.0091 *

Earth -66671-01-29 15:35 J -22630131.11 -22630130.85 -22630130.59 0.0136 0.0012
 Moon -66671-01-29 17:01 J -22630131.05 -22630130.79 -22630130.52 0.0136 0.0018 *
 Moon -66670-02-03 05:01 J -22629761.49 -22629761.29 -22629761.06 0.0136 0.0070
 Earth -66670-02-03 06:57 J -22629761.43 -22629761.21 -22629760.98 0.0136 0.0066 *
 Mars -66659-12-02 02:09 J -22625441.63 -22625441.41 -22625441.14 0.0132 0.0077
 Mars -66657-10-31 17:01 J -22624742.05 -22624741.79 -22624741.49 0.0131 0.0042
 Venus -66654-03-13 23:01 J -22623878.63 -22623878.54 -22623878.41 0.0131 0.0113
 Venus -66654-10-26 02:37 J -22623652.56 -22623652.39 -22623652.20 0.0131 0.0070
 Venus -66653-06-08 05:59 J -22623426.46 -22623426.25 -22623426.04 0.0131 0.0027
 Venus -66652-01-20 09:21 J -22623200.32 -22623200.11 -22623199.89 0.0131 0.0016
 Venus -66652-09-03 12:13 J -22622974.17 -22622973.99 -22622973.79 0.0131 0.0059
 Venus -66651-04-17 15:35 J -22622747.99 -22622747.85 -22622747.72 0.0131 0.0102
 Mercury -66642-09-03 12:57 J -22619321.99 -22619321.96 -22619321.90 0.0134 0.0126
 Mercury -66642-11-30 16:04 J -22619233.90 -22619233.83 -22619233.75 0.0134 0.0109
 Mercury -66641-02-26 19:11 J -22619145.80 -22619145.70 -22619145.61 0.0134 0.0092
 Mercury -66641-05-24 21:49 J -22619057.69 -22619057.59 -22619057.47 0.0134 0.0076
 Mercury -66641-08-21 00:57 J -22618969.57 -22618969.46 -22618969.34 0.0134 0.0059
 Mercury -66641-11-17 04:04 J -22618881.46 -22618881.33 -22618881.21 0.0134 0.0042
 Mercury -66640-02-13 06:57 J -22618793.34 -22618793.21 -22618793.08 0.0134 0.0026
 Mercury -66640-05-12 09:49 J -22618705.22 -22618705.09 -22618704.95 0.0134 0.0010
 Mercury -66640-08-08 12:57 J -22618617.09 -22618616.96 -22618616.83 0.0135 0.0008
 Mercury -66640-11-04 15:49 J -22618528.96 -22618528.84 -22618528.71 0.0135 0.0026
 Mercury -66639-01-31 18:57 J -22618440.84 -22618440.71 -22618440.59 0.0135 0.0042
 Mercury -66639-04-29 21:49 J -22618352.70 -22618352.59 -22618352.47 0.0135 0.0059
 Mercury -66639-07-27 00:57 J -22618264.57 -22618264.46 -22618264.35 0.0135 0.0076
 Mercury -66639-10-23 03:49 J -22618176.43 -22618176.34 -22618176.24 0.0135 0.0094
 Mercury -66638-01-19 06:42 J -22618088.28 -22618088.22 -22618088.14 0.0135 0.0111
 Mercury -66638-04-17 09:49 J -22618000.12 -22618000.09 -22618000.04 0.0135 0.0128
 Moon -66628-07-22 22:18 J -22614250.60 -22614250.57 -22614250.50 0.0142 0.0139
 Earth -66628-07-23 01:40 J -22614250.50 -22614250.43 -22614250.34 0.0142 0.0134 *

Earth	-66627-07-27 16:47 J	-22613881.02	-22613880.80	-22613880.56	0.0142	0.0050
Moon	-66627-07-27 19:40 J	-22613880.90	-22613880.68	-22613880.45	0.0142	0.0050 *
Moon	-66626-08-01 06:13 J	-22613511.49	-22613511.24	-22613511.00	0.0143	0.0038
Earth	-66626-08-01 09:06 J	-22613511.35	-22613511.12	-22613510.87	0.0143	0.0036 *
Earth	-66625-08-05 01:54 J	-22613141.52	-22613141.42	-22613141.27	0.0143	0.0124
Moon	-66625-08-05 04:18 J	-22613141.44	-22613141.32	-22613141.17	0.0143	0.0117 *
Mars	-66614-01-05 14:09 J	-22609336.22	-22609335.91	-22609335.59	0.0148	0.0016
Venus	-66612-04-29 06:13 J	-22608491.36	-22608491.24	-22608491.12	0.0148	0.0124
Venus	-66612-12-11 20:37 J	-22608264.83	-22608264.64	-22608264.43	0.0148	0.0061
Venus	-66611-07-26 11:30 J	-22608038.24	-22608038.02	-22608037.79	0.0148	0.0004
Venus	-66610-03-10 02:09 J	-22607811.59	-22607811.41	-22607811.20	0.0148	0.0066
Venus	-66610-10-22 17:01 J	-22607584.88	-22607584.79	-22607584.67	0.0147	0.0129
Mercury	-66601-01-06 04:04 J	-22604587.43	-22604587.33	-22604587.21	0.0145	0.0119
Mercury	-66601-04-03 12:57 J	-22604499.11	-22604498.96	-22604498.79	0.0145	0.0087
Mercury	-66601-06-30 21:49 J	-22604410.77	-22604410.59	-22604410.40	0.0145	0.0055
Mercury	-66601-09-27 06:42 J	-22604322.41	-22604322.22	-22604322.03	0.0144	0.0024
Mercury	-66601-12-24 15:21 J	-22604234.05	-22604233.86	-22604233.66	0.0144	0.0009
Mercury	-66600-03-23 00:13 J	-22604145.68	-22604145.49	-22604145.30	0.0144	0.0039
Mercury	-66600-06-19 08:52 J	-22604057.30	-22604057.13	-22604056.96	0.0144	0.0070
Mercury	-66600-09-15 17:16 J	-22603968.90	-22603968.78	-22603968.63	0.0144	0.0102
Mercury	-66600-12-13 01:54 J	-22603880.48	-22603880.42	-22603880.33	0.0144	0.0133
Earth	-66588-01-25 08:37 J	-22599819.33	-22599819.14	-22599818.93	0.0137	0.0087
Moon	-66588-01-25 08:37 J	-22599819.32	-22599819.14	-22599818.96	0.0137	0.0094 *
Earth	-66587-01-30 01:25 J	-22599449.70	-22599449.44	-22599449.18	0.0136	0.0008
Moon	-66587-01-30 02:23 J	-22599449.67	-22599449.40	-22599449.13	0.0136	0.0002 *
Moon	-66586-02-03 15:21 J	-22599080.07	-22599079.86	-22599079.63	0.0136	0.0067
Earth	-66586-02-03 17:01 J	-22599080.01	-22599079.79	-22599079.57	0.0136	0.0070 *
Mars	-66574-07-27 11:45 J	-22594523.29	-22594523.01	-22594522.71	0.0131	0.0029
Mars	-66572-06-26 00:42 J	-22593823.66	-22593823.47	-22593823.22	0.0131	0.0088
Venus	-66570-06-25 14:23 J	-22593094.04	-22593093.90	-22593093.72	0.0131	0.0090

Venus	-66569-02-06 18:13 J	-22592867.94	-22592867.74	-22592867.53	0.0131	0.0046
Venus	-66569-09-19 21:35 J	-22592641.81	-22592641.60	-22592641.38	0.0131	0.0003
Venus	-66568-05-04 00:42 J	-22592415.67	-22592415.47	-22592415.26	0.0131	0.0040
Venus	-66568-12-16 03:35 J	-22592189.50	-22592189.35	-22592189.17	0.0131	0.0083
Venus	-66567-07-30 06:42 J	-22591963.27	-22591963.22	-22591963.15	0.0131	0.0125
Mercury	-66558-09-23 20:23 J	-22588620.69	-22588620.65	-22588620.58	0.0134	0.0121
Mercury	-66558-12-20 23:30 J	-22588532.60	-22588532.52	-22588532.43	0.0134	0.0104
Mercury	-66557-03-18 02:23 J	-22588444.49	-22588444.40	-22588444.29	0.0134	0.0088
Mercury	-66557-06-14 05:16 J	-22588356.38	-22588356.28	-22588356.16	0.0134	0.0071
Mercury	-66557-09-10 08:23 J	-22588268.27	-22588268.15	-22588268.03	0.0134	0.0054
Mercury	-66557-12-07 11:30 J	-22588180.15	-22588180.02	-22588179.90	0.0134	0.0037
Mercury	-66556-03-05 14:23 J	-22588092.03	-22588091.90	-22588091.77	0.0134	0.0021
Mercury	-66556-06-01 17:16 J	-22588003.91	-22588003.78	-22588003.64	0.0134	0.0006
Mercury	-66556-08-28 20:23 J	-22587915.78	-22587915.65	-22587915.52	0.0135	0.0013
Mercury	-66556-11-24 23:16 J	-22587827.65	-22587827.53	-22587827.40	0.0135	0.0030
Mercury	-66555-02-21 02:09 J	-22587739.52	-22587739.41	-22587739.28	0.0135	0.0048
Mercury	-66555-05-20 05:16 J	-22587651.39	-22587651.28	-22587651.16	0.0135	0.0065
Mercury	-66555-08-16 08:09 J	-22587563.25	-22587563.16	-22587563.05	0.0135	0.0082
Mercury	-66555-11-12 11:16 J	-22587475.11	-22587475.03	-22587474.94	0.0135	0.0099
Mercury	-66554-02-08 14:23 J	-22587386.96	-22587386.90	-22587386.83	0.0135	0.0116
Mercury	-66554-05-07 17:16 J	-22587298.79	-22587298.78	-22587298.75	0.0135	0.0134
Moon	-66544-07-23 10:04 J	-22583569.17	-22583569.08	-22583568.94	0.0141	0.0125
Earth	-66544-07-23 13:40 J	-22583569.02	-22583568.93	-22583568.81	0.0141	0.0129 *
Earth	-66543-07-28 05:01 J	-22583199.52	-22583199.29	-22583199.05	0.0142	0.0045
Moon	-66543-07-28 08:23 J	-22583199.38	-22583199.15	-22583198.91	0.0142	0.0046 *
Moon	-66542-08-01 18:28 J	-22582829.98	-22582829.73	-22582829.49	0.0143	0.0038
Earth	-66542-08-01 21:06 J	-22582829.85	-22582829.62	-22582829.37	0.0143	0.0042 *
Earth	-66541-08-05 14:09 J	-22582459.99	-22582459.91	-22582459.78	0.0143	0.0130
Moon	-66541-08-05 17:30 J	-22582459.84	-22582459.77	-22582459.69	0.0143	0.0136 *
Mars	-66532-09-26 05:30 J	-22579121.49	-22579121.27	-22579121.02	0.0147	0.0096

Mars -66530-09-02 00:13 J -22578415.75 -22578415.49 -22578415.23 0.0148 0.0088
 Venus -66528-08-11 02:23 J -22577706.56 -22577706.40 -22577706.21 0.0148 0.0091
 Venus -66527-03-25 17:16 J -22577479.99 -22577479.78 -22577479.56 0.0148 0.0027
 Venus -66527-11-07 07:54 J -22577253.38 -22577253.17 -22577252.95 0.0148 0.0036
 Venus -66526-06-21 23:01 J -22577026.70 -22577026.54 -22577026.38 0.0148 0.0099
 Mercury -66518-10-30 03:21 J -22573974.39 -22573974.36 -22573974.32 0.0145 0.0141
 Mercury -66517-01-26 11:59 J -22573886.11 -22573886.00 -22573885.86 0.0145 0.0110
 Mercury -66517-04-23 20:52 J -22573797.79 -22573797.63 -22573797.46 0.0145 0.0078
 Mercury -66517-07-21 05:45 J -22573709.44 -22573709.26 -22573709.07 0.0145 0.0046
 Mercury -66517-10-17 14:37 J -22573621.08 -22573620.89 -22573620.69 0.0144 0.0015
 Mercury -66516-01-13 23:16 J -22573532.72 -22573532.53 -22573532.33 0.0144 0.0017
 Mercury -66516-04-12 08:09 J -22573444.34 -22573444.16 -22573443.98 0.0144 0.0048
 Mercury -66516-07-09 16:33 J -22573355.96 -22573355.81 -22573355.63 0.0144 0.0080
 Mercury -66516-10-06 01:11 J -22573267.56 -22573267.45 -22573267.31 0.0144 0.0111
 Mercury -66515-01-02 09:49 J -22573179.10 -22573179.09 -22573179.04 0.0144 0.0142
 Moon -66504-01-25 21:06 J -22569137.82 -22569137.62 -22569137.40 0.0137 0.0075
 Earth -66504-01-25 20:52 J -22569137.82 -22569137.63 -22569137.40 0.0137 0.0082 *
 Earth -66503-01-30 13:54 J -22568768.18 -22568767.92 -22568767.66 0.0136 0.0002
 Moon -66503-01-30 14:23 J -22568768.17 -22568767.90 -22568767.63 0.0136 0.0009 *
 Moon -66502-02-04 04:47 J -22568398.49 -22568398.30 -22568398.09 0.0136 0.0081
 Earth -66502-02-04 05:16 J -22568398.48 -22568398.28 -22568398.05 0.0136 0.0077 *
 Mars -66491-04-21 03:35 J -22564304.52 -22564304.35 -22564304.14 0.0132 0.0102
 Mars -66489-03-21 00:13 J -22563604.78 -22563604.49 -22563604.19 0.0131 0.0018
 Venus -66486-02-23 03:49 J -22562535.45 -22562535.34 -22562535.20 0.0131 0.0106
 Venus -66486-10-07 07:11 J -22562309.38 -22562309.20 -22562309.00 0.0131 0.0064
 Venus -66485-05-20 10:47 J -22562083.26 -22562083.05 -22562082.84 0.0131 0.0020
 Venus -66484-01-01 14:09 J -22561857.12 -22561856.91 -22561856.70 0.0131 0.0023
 Venus -66484-08-15 17:01 J -22561630.96 -22561630.79 -22561630.59 0.0131 0.0066
 Venus -66483-03-29 20:23 J -22561404.77 -22561404.65 -22561404.53 0.0131 0.0108
 Mercury -66474-07-18 01:25 J -22558007.46 -22558007.44 -22558007.42 0.0134 0.0131

Mercury -66474-10-14 04:04 J -22557919.38 -22557919.33 -22557919.25 0.0134 0.0115

Mercury -66473-01-10 07:11 J -22557831.28 -22557831.20 -22557831.11 0.0134 0.0098

Mercury -66473-04-07 10:18 J -22557743.17 -22557743.07 -22557742.97 0.0134 0.0081

Mercury -66473-07-04 13:11 J -22557655.06 -22557654.95 -22557654.83 0.0134 0.0065

Mercury -66473-09-30 16:04 J -22557566.95 -22557566.83 -22557566.70 0.0134 0.0048

Mercury -66473-12-27 19:11 J -22557478.83 -22557478.70 -22557478.57 0.0134 0.0031

Mercury -66472-03-25 22:04 J -22557390.71 -22557390.58 -22557390.45 0.0134 0.0015

Mercury -66472-06-22 01:11 J -22557302.58 -22557302.45 -22557302.32 0.0135 0.0003

Mercury -66472-09-18 04:04 J -22557214.46 -22557214.33 -22557214.20 0.0135 0.0020

Mercury -66472-12-15 07:11 J -22557126.33 -22557126.20 -22557126.08 0.0135 0.0037

Mercury -66471-03-13 10:04 J -22557038.20 -22557038.08 -22557037.96 0.0135 0.0054

Mercury -66471-06-09 13:11 J -22556950.06 -22556949.95 -22556949.84 0.0135 0.0071

Mercury -66471-09-05 16:18 J -22556861.92 -22556861.82 -22556861.73 0.0135 0.0089

Mercury -66471-12-02 18:57 J -22556773.78 -22556773.71 -22556773.62 0.0135 0.0106

Mercury -66470-02-28 22:04 J -22556685.62 -22556685.58 -22556685.52 0.0135 0.0123

Moon -66460-07-24 01:11 J -22552887.54 -22552887.45 -22552887.32 0.0141 0.0127

Earth -66460-07-24 04:47 J -22552887.41 -22552887.30 -22552887.16 0.0141 0.0122 *

Earth -66459-07-28 20:09 J -22552517.89 -22552517.66 -22552517.41 0.0142 0.0037

Moon -66459-07-28 23:16 J -22552517.76 -22552517.53 -22552517.28 0.0142 0.0038 *

Moon -66458-08-02 09:06 J -22552148.35 -22552148.12 -22552147.88 0.0143 0.0052

Earth -66458-08-02 12:28 J -22552148.20 -22552147.98 -22552147.73 0.0143 0.0050 *

Earth -66457-08-06 05:59 J -22551778.30 -22551778.25 -22551778.17 0.0143 0.0138

Moon -66457-08-06 08:52 J -22551778.21 -22551778.13 -22551778.02 0.0143 0.0132 *

Mars -66447-05-23 19:11 J -22548201.01 -22548200.70 -22548200.38 0.0147 0.0024

Venus -66444-04-10 10:47 J -22547148.17 -22547148.05 -22547147.90 0.0148 0.0116

Venus -66444-11-23 01:40 J -22546921.63 -22546921.43 -22546921.22 0.0148 0.0053

Venus -66443-07-07 16:33 J -22546695.03 -22546694.81 -22546694.59 0.0148 0.0010

Venus -66442-02-19 06:57 J -22546468.38 -22546468.21 -22546468.00 0.0148 0.0074

Venus -66442-10-03 21:49 J -22546241.65 -22546241.59 -22546241.49 0.0148 0.0137

Mercury -66434-11-19 12:13 J -22543273.06 -22543272.99 -22543272.89 0.0145 0.0129

Mercury -66433-02-15 21:21 J -22543184.75 -22543184.61 -22543184.47 0.0145 0.0097

Mercury -66433-05-14 05:59 J -22543096.42 -22543096.25 -22543096.07 0.0145 0.0066

Mercury -66433-08-10 14:52 J -22543008.07 -22543007.88 -22543007.69 0.0144 0.0034

Mercury -66433-11-06 23:45 J -22542919.71 -22542919.51 -22542919.32 0.0144 0.0003

Mercury -66432-02-03 08:23 J -22542831.34 -22542831.15 -22542830.96 0.0144 0.0029

Mercury -66432-05-02 17:01 J -22542742.96 -22542742.79 -22542742.61 0.0144 0.0061

Mercury -66432-07-30 01:40 J -22542654.57 -22542654.43 -22542654.27 0.0144 0.0092

Mercury -66432-10-26 10:18 J -22542566.16 -22542566.07 -22542565.96 0.0144 0.0123

Jupiter -66429-11-10 18:57 J -22541455.11 -22541454.71 -22541454.27 0.0142 0.0085

Earth -66420-01-26 11:16 J -22538456.23 -22538456.03 -22538455.79 0.0137 0.0075

Moon -66420-01-26 11:59 J -22538456.19 -22538456.00 -22538455.78 0.0137 0.0082 *

Moon -66419-01-31 04:04 J -22538086.59 -22538086.33 -22538086.06 0.0136 0.0011

Earth -66419-01-31 04:18 J -22538086.58 -22538086.32 -22538086.06 0.0136 0.0005 *

Moon -66418-02-04 19:11 J -22537716.89 -22537716.70 -22537716.48 0.0136 0.0080

Earth -66418-02-04 19:40 J -22537716.87 -22537716.68 -22537716.46 0.0136 0.0084 *

Mars -66407-12-14 20:52 J -22533385.91 -22533385.63 -22533385.36 0.0132 0.0053

Mars -66405-11-13 13:11 J -22532686.19 -22532685.95 -22532685.68 0.0131 0.0067

Venus -66403-10-23 17:30 J -22531976.85 -22531976.77 -22531976.70 0.0131 0.0123

Venus -66402-06-06 20:37 J -22531750.80 -22531750.64 -22531750.46 0.0131 0.0080

Venus -66401-01-19 00:13 J -22531524.69 -22531524.49 -22531524.27 0.0131 0.0038

Venus -66401-09-01 03:49 J -22531298.56 -22531298.34 -22531298.13 0.0131 0.0006

Venus -66400-04-15 06:42 J -22531072.41 -22531072.22 -22531072.01 0.0131 0.0049

Venus -66400-11-27 09:35 J -22530846.23 -22530846.10 -22530845.93 0.0131 0.0092

Mercury -66390-08-07 09:06 J -22527306.16 -22527306.12 -22527306.07 0.0134 0.0125

Mercury -66390-11-03 11:45 J -22527218.07 -22527218.01 -22527217.92 0.0134 0.0109

Mercury -66389-01-30 14:52 J -22527129.97 -22527129.88 -22527129.78 0.0134 0.0092

Mercury -66389-04-27 17:59 J -22527041.86 -22527041.75 -22527041.64 0.0134 0.0075

Mercury -66389-07-24 20:52 J -22526953.74 -22526953.63 -22526953.51 0.0134 0.0058

Mercury -66389-10-20 23:59 J -22526865.63 -22526865.50 -22526865.38 0.0134 0.0042

Mercury -66388-01-17 02:52 J -22526777.51 -22526777.38 -22526777.25 0.0134 0.0025

Mercury -66388-04-15 05:45 J -22526689.39 -22526689.26 -22526689.12 0.0134 0.0009
 Mercury -66388-07-12 08:52 J -22526601.26 -22526601.13 -22526601.00 0.0135 0.0009
 Mercury -66388-10-08 11:45 J -22526513.13 -22526513.01 -22526512.88 0.0135 0.0026
 Mercury -66387-01-04 14:52 J -22526425.00 -22526424.88 -22526424.76 0.0135 0.0043
 Mercury -66387-04-02 17:45 J -22526336.87 -22526336.76 -22526336.64 0.0135 0.0060
 Mercury -66387-06-29 20:37 J -22526248.74 -22526248.64 -22526248.52 0.0135 0.0078
 Mercury -66387-09-25 23:45 J -22526160.60 -22526160.51 -22526160.41 0.0135 0.0095
 Mercury -66387-12-23 02:37 J -22526072.45 -22526072.39 -22526072.31 0.0135 0.0113
 Mercury -66386-03-21 05:45 J -22525984.29 -22525984.26 -22525984.22 0.0135 0.0130
 Moon -66376-07-24 14:37 J -22522206.03 -22522205.89 -22522205.72 0.0142 0.0112
 Earth -66376-07-24 18:28 J -22522205.87 -22522205.73 -22522205.58 0.0142 0.0116 *
 Earth -66375-07-29 09:49 J -22521836.33 -22521836.09 -22521835.84 0.0142 0.0031
 Moon -66375-07-29 13:25 J -22521836.18 -22521835.94 -22521835.69 0.0142 0.0033 *
 Moon -66374-08-02 23:16 J -22521466.76 -22521466.53 -22521466.30 0.0143 0.0053
 Earth -66374-08-03 02:09 J -22521466.62 -22521466.41 -22521466.17 0.0143 0.0057 *
 Mars -66364-02-11 20:09 J -22517985.77 -22517985.66 -22517985.52 0.0147 0.0134
 Mars -66362-01-18 08:52 J -22517280.42 -22517280.13 -22517279.82 0.0148 0.0050
 Venus -66361-12-08 18:42 J -22516589.77 -22516589.72 -22516589.64 0.0148 0.0141
 Venus -66360-07-23 09:21 J -22516363.28 -22516363.11 -22516362.91 0.0148 0.0079
 Venus -66359-03-07 00:28 J -22516136.70 -22516136.48 -22516136.26 0.0148 0.0016
 Venus -66359-10-19 15:06 J -22515910.07 -22515909.87 -22515909.66 0.0148 0.0047
 Venus -66358-06-03 05:45 J -22515683.39 -22515683.26 -22515683.10 0.0148 0.0111
 Mercury -66350-12-09 21:49 J -22512571.70 -22512571.59 -22512571.46 0.0145 0.0115
 Mercury -66349-03-07 06:42 J -22512483.37 -22512483.22 -22512483.06 0.0145 0.0083
 Mercury -66349-06-03 15:21 J -22512395.03 -22512394.86 -22512394.66 0.0145 0.0052
 Mercury -66349-08-31 00:28 J -22512306.68 -22512306.48 -22512306.29 0.0144 0.0019
 Mercury -66349-11-27 09:06 J -22512218.31 -22512218.12 -22512217.92 0.0144 0.0013
 Mercury -66348-02-23 17:59 J -22512129.94 -22512129.75 -22512129.56 0.0144 0.0044
 Mercury -66348-05-23 02:23 J -22512041.55 -22512041.40 -22512041.22 0.0144 0.0076
 Mercury -66348-08-19 11:16 J -22511953.15 -22511953.03 -22511952.89 0.0144 0.0106

Mercury -66348-11-15 19:54 J -22511864.72 -22511864.67 -22511864.61 0.0144 0.0137
 Earth -66336-01-27 03:21 J -22507774.57 -22507774.36 -22507774.12 0.0137 0.0067
 Moon -66336-01-27 04:33 J -22507774.53 -22507774.31 -22507774.08 0.0137 0.0060 *
 Moon -66335-01-31 19:54 J -22507404.94 -22507404.67 -22507404.40 0.0136 0.0007
 Earth -66335-01-31 20:23 J -22507404.91 -22507404.65 -22507404.39 0.0136 0.0014 *
 Earth -66334-02-05 11:59 J -22507035.19 -22507035.00 -22507034.81 0.0136 0.0092
 Moon -66334-02-05 11:59 J -22507035.16 -22507035.00 -22507034.81 0.0136 0.0097 *
 Mars -66324-09-08 12:13 J -22503167.07 -22503166.99 -22503166.90 0.0132 0.0126
 Mars -66322-08-09 12:28 J -22502467.28 -22502466.98 -22502466.68 0.0131 0.0004
 Mars -66320-07-09 00:57 J -22501767.58 -22501767.46 -22501767.29 0.0131 0.0115
 Venus -66318-02-04 10:33 J -22501192.19 -22501192.06 -22501191.90 0.0131 0.0096
 Venus -66318-09-18 14:09 J -22500966.10 -22500965.91 -22500965.71 0.0131 0.0053
 Venus -66317-05-01 17:30 J -22500739.98 -22500739.77 -22500739.55 0.0131 0.0011
 Venus -66317-12-13 20:37 J -22500513.84 -22500513.64 -22500513.42 0.0131 0.0032
 Venus -66316-07-27 23:45 J -22500287.68 -22500287.51 -22500287.33 0.0131 0.0074
 Venus -66315-03-11 02:52 J -22500061.47 -22500061.38 -22500061.27 0.0131 0.0117
 Mercury -66306-08-27 16:47 J -22496604.85 -22496604.80 -22496604.74 0.0134 0.0119
 Mercury -66306-11-23 19:40 J -22496516.76 -22496516.68 -22496516.59 0.0134 0.0102
 Mercury -66305-02-19 22:33 J -22496428.65 -22496428.56 -22496428.45 0.0134 0.0086
 Mercury -66305-05-18 01:40 J -22496340.54 -22496340.43 -22496340.32 0.0134 0.0069
 Mercury -66305-08-14 04:33 J -22496252.42 -22496252.31 -22496252.18 0.0134 0.0052
 Mercury -66305-11-10 07:40 J -22496164.31 -22496164.18 -22496164.05 0.0134 0.0035
 Mercury -66304-02-06 10:33 J -22496076.19 -22496076.06 -22496075.93 0.0134 0.0019
 Mercury -66304-05-05 13:40 J -22495988.06 -22495987.93 -22495987.80 0.0134 0.0002
 Mercury -66304-08-01 16:33 J -22495899.94 -22495899.81 -22495899.68 0.0135 0.0016
 Mercury -66304-10-28 19:40 J -22495811.81 -22495811.68 -22495811.56 0.0135 0.0033
 Mercury -66303-01-24 22:33 J -22495723.68 -22495723.56 -22495723.44 0.0135 0.0050
 Mercury -66303-04-23 01:25 J -22495635.55 -22495635.44 -22495635.32 0.0135 0.0067
 Mercury -66303-07-20 04:33 J -22495547.41 -22495547.31 -22495547.21 0.0135 0.0084
 Mercury -66303-10-16 07:25 J -22495459.27 -22495459.19 -22495459.10 0.0135 0.0101

Mercury -66302-01-12 10:33 J -22495371.12 -22495371.06 -22495371.00 0.0135 0.0118

Moon -66292-07-25 04:47 J -22491524.43 -22491524.30 -22491524.15 0.0142 0.0116

Earth -66292-07-25 08:09 J -22491524.30 -22491524.16 -22491523.99 0.0142 0.0110 *

Earth -66291-07-29 23:45 J -22491154.76 -22491154.51 -22491154.27 0.0142 0.0024

Moon -66291-07-30 03:06 J -22491154.61 -22491154.37 -22491154.12 0.0142 0.0024 *

Moon -66290-08-03 12:28 J -22490785.19 -22490784.98 -22490784.75 0.0143 0.0065

Earth -66290-08-03 16:18 J -22490785.04 -22490784.82 -22490784.59 0.0143 0.0063 *

Mars -66280-10-09 05:01 J -22487065.56 -22487065.29 -22487064.99 0.0147 0.0065

Mars -66278-09-15 00:42 J -22486359.62 -22486359.47 -22486359.28 0.0148 0.0125

Venus -66276-03-22 17:16 J -22485804.94 -22485804.78 -22485804.63 0.0148 0.0104

Venus -66276-11-04 07:40 J -22485578.38 -22485578.18 -22485577.96 0.0148 0.0042

Venus -66275-06-18 22:33 J -22485351.78 -22485351.56 -22485351.34 0.0148 0.0021

Venus -66274-01-31 13:25 J -22485125.12 -22485124.94 -22485124.75 0.0148 0.0084

Venus -66274-09-15 04:18 J -22484898.33 -22484898.32 -22484898.29 0.0148 0.0147

Mercury -66266-10-02 22:18 J -22481958.64 -22481958.57 -22481958.49 0.0145 0.0133

Mercury -66266-12-30 06:57 J -22481870.33 -22481870.21 -22481870.06 0.0145 0.0102

Mercury -66265-03-27 15:49 J -22481782.00 -22481781.84 -22481781.66 0.0145 0.0070

Mercury -66265-06-24 00:57 J -22481693.65 -22481693.46 -22481693.27 0.0145 0.0038

Mercury -66265-09-20 09:49 J -22481605.29 -22481605.09 -22481604.90 0.0144 0.0007

Mercury -66265-12-17 18:28 J -22481516.92 -22481516.73 -22481516.54 0.0144 0.0026

Mercury -66264-03-16 03:06 J -22481428.54 -22481428.37 -22481428.18 0.0144 0.0057

Mercury -66264-06-12 11:45 J -22481340.15 -22481340.01 -22481339.84 0.0144 0.0089

Mercury -66264-09-08 20:23 J -22481251.74 -22481251.65 -22481251.53 0.0144 0.0120

Moon -66253-01-24 00:13 J -22477462.53 -22477462.49 -22477462.44 0.0138 0.0135

Earth -66252-01-27 19:11 J -22477092.92 -22477092.70 -22477092.45 0.0137 0.0059

Moon -66252-01-27 20:37 J -22477092.85 -22477092.64 -22477092.41 0.0137 0.0066 *

Moon -66251-02-01 10:47 J -22476723.31 -22476723.05 -22476722.78 0.0136 0.0028

Earth -66251-02-01 11:59 J -22476723.25 -22476723.00 -22476722.74 0.0136 0.0022 *

Earth -66250-02-06 03:21 J -22476353.52 -22476353.36 -22476353.17 0.0136 0.0101

Moon -66250-02-06 03:35 J -22476353.51 -22476353.35 -22476353.16 0.0136 0.0097 *

Mars	-66239-05-04 05:59 J	-22472248.47	-22472248.25	-22472247.98	0.0131	0.0077
Mars	-66237-04-03 01:40 J	-22471548.70	-22471548.43	-22471548.14	0.0131	0.0045
Venus	-66235-10-04 23:59 J	-22470633.60	-22470633.50	-22470633.38	0.0131	0.0112
Venus	-66234-05-19 03:21 J	-22470407.53	-22470407.36	-22470407.16	0.0131	0.0070
Venus	-66234-12-31 06:57 J	-22470181.42	-22470181.21	-22470181.00	0.0131	0.0027
Venus	-66233-08-13 10:18 J	-22469955.29	-22469955.07	-22469954.86	0.0131	0.0015
Venus	-66232-03-27 13:25 J	-22469729.14	-22469728.94	-22469728.75	0.0131	0.0057
Venus	-66232-11-08 16:18 J	-22469502.96	-22469502.82	-22469502.68	0.0131	0.0099
Mercury	-66222-06-20 21:21 J	-22465991.64	-22465991.61	-22465991.58	0.0133	0.0130
Mercury	-66222-09-16 23:59 J	-22465903.55	-22465903.50	-22465903.42	0.0134	0.0114
Mercury	-66222-12-14 03:06 J	-22465815.45	-22465815.37	-22465815.27	0.0134	0.0097
Mercury	-66221-03-11 06:13 J	-22465727.34	-22465727.24	-22465727.14	0.0134	0.0080
Mercury	-66221-06-07 09:06 J	-22465639.23	-22465639.12	-22465639.00	0.0134	0.0064
Mercury	-66221-09-03 11:59 J	-22465551.12	-22465551.00	-22465550.87	0.0134	0.0047
Mercury	-66221-11-30 15:06 J	-22465463.00	-22465462.87	-22465462.74	0.0134	0.0030
Mercury	-66220-02-26 17:59 J	-22465374.88	-22465374.75	-22465374.62	0.0134	0.0014
Mercury	-66220-05-25 21:06 J	-22465286.75	-22465286.62	-22465286.49	0.0134	0.0005
Mercury	-66220-08-21 23:59 J	-22465198.63	-22465198.50	-22465198.37	0.0134	0.0021
Mercury	-66220-11-18 02:52 J	-22465110.50	-22465110.38	-22465110.25	0.0135	0.0038
Mercury	-66219-02-14 05:59 J	-22465022.37	-22465022.25	-22465022.13	0.0135	0.0055
Mercury	-66219-05-13 08:52 J	-22464934.24	-22464934.13	-22464934.02	0.0135	0.0072
Mercury	-66219-08-09 11:45 J	-22464846.10	-22464846.01	-22464845.90	0.0135	0.0089
Mercury	-66219-11-05 14:52 J	-22464757.96	-22464757.88	-22464757.80	0.0135	0.0106
Mercury	-66218-02-01 17:45 J	-22464669.80	-22464669.76	-22464669.70	0.0135	0.0124
Moon	-66208-07-25 14:09 J	-22460843.07	-22460842.91	-22460842.73	0.0141	0.0103
Earth	-66208-07-25 17:59 J	-22460842.91	-22460842.75	-22460842.59	0.0141	0.0107 *
Earth	-66207-07-30 09:06 J	-22460473.36	-22460473.12	-22460472.87	0.0142	0.0022
Moon	-66207-07-30 12:57 J	-22460473.21	-22460472.96	-22460472.72	0.0142	0.0024 *
Moon	-66206-08-03 22:04 J	-22460103.79	-22460103.58	-22460103.35	0.0143	0.0064
Earth	-66206-08-04 01:25 J	-22460103.65	-22460103.44	-22460103.21	0.0143	0.0067 *

Mars -66195-06-05 05:30 J -22456145.58 -22456145.27 -22456144.95 0.0147 0.0005
 Venus -66193-11-19 20:52 J -22455246.70 -22455246.63 -22455246.53 0.0148 0.0135
 Venus -66192-07-04 11:45 J -22455020.19 -22455020.01 -22455019.81 0.0148 0.0073
 Venus -66191-02-16 02:37 J -22454793.61 -22454793.39 -22454793.17 0.0148 0.0010
 Venus -66191-09-30 17:16 J -22454566.98 -22454566.78 -22454566.57 0.0148 0.0053
 Venus -66190-05-15 07:54 J -22454340.29 -22454340.17 -22454340.02 0.0148 0.0116
 Mercury -66182-10-23 05:45 J -22451257.34 -22451257.26 -22451257.15 0.0145 0.0125
 Mercury -66181-01-19 14:37 J -22451169.03 -22451168.89 -22451168.73 0.0145 0.0093
 Mercury -66181-04-16 23:45 J -22451080.68 -22451080.51 -22451080.33 0.0145 0.0061
 Mercury -66181-07-14 08:37 J -22450992.33 -22450992.14 -22450991.95 0.0145 0.0029
 Mercury -66181-10-10 17:30 J -22450903.97 -22450903.77 -22450903.58 0.0145 0.0003
 Mercury -66180-01-07 02:09 J -22450815.59 -22450815.41 -22450815.21 0.0144 0.0035
 Mercury -66180-04-05 10:47 J -22450727.21 -22450727.05 -22450726.86 0.0144 0.0067
 Mercury -66180-07-02 19:25 J -22450638.82 -22450638.69 -22450638.53 0.0144 0.0098
 Mercury -66180-09-29 04:18 J -22450550.39 -22450550.32 -22450550.22 0.0144 0.0129
 Earth -66169-01-24 15:06 J -22446780.91 -22446780.87 -22446780.78 0.0138 0.0134
 Earth -66168-01-28 09:21 J -22446411.34 -22446411.11 -22446410.86 0.0137 0.0051
 Moon -66168-01-28 11:01 J -22446411.27 -22446411.04 -22446410.79 0.0137 0.0045 *
 Moon -66167-02-02 00:57 J -22446041.72 -22446041.46 -22446041.19 0.0136 0.0023
 Earth -66167-02-02 02:23 J -22446041.66 -22446041.40 -22446041.15 0.0136 0.0030 *
 Earth -66166-02-06 17:30 J -22445671.91 -22445671.77 -22445671.60 0.0136 0.0109
 Moon -66166-02-06 18:42 J -22445671.84 -22445671.72 -22445671.57 0.0136 0.0114 *
 Mars -66155-12-27 22:33 J -22441329.85 -22441329.56 -22441329.26 0.0131 0.0026
 Mars -66153-11-26 14:52 J -22440630.06 -22440629.88 -22440629.66 0.0131 0.0094
 Venus -66151-06-04 13:25 J -22440074.96 -22440074.94 -22440074.89 0.0131 0.0129
 Venus -66150-01-16 17:16 J -22439848.94 -22439848.78 -22439848.61 0.0131 0.0086
 Venus -66150-08-30 20:37 J -22439622.84 -22439622.64 -22439622.43 0.0131 0.0044
 Venus -66149-04-12 23:59 J -22439396.72 -22439396.50 -22439396.29 0.0131 0.0003
 Venus -66149-11-25 02:37 J -22439170.58 -22439170.39 -22439170.17 0.0131 0.0041
 Venus -66148-07-09 05:59 J -22438944.42 -22438944.25 -22438944.08 0.0131 0.0082

Venus -66147-02-20 08:52 J -22438718.19 -22438718.13 -22438718.06 0.0131 0.0124
 Mercury -66138-07-11 05:01 J -22435290.34 -22435290.29 -22435290.24 0.0133 0.0124
 Mercury -66138-10-07 07:40 J -22435202.24 -22435202.18 -22435202.09 0.0133 0.0108
 Mercury -66137-01-03 10:47 J -22435114.14 -22435114.05 -22435113.95 0.0134 0.0091
 Mercury -66137-03-31 13:40 J -22435026.03 -22435025.93 -22435025.81 0.0134 0.0074
 Mercury -66137-06-27 16:47 J -22434937.92 -22434937.80 -22434937.68 0.0134 0.0058
 Mercury -66137-09-23 19:40 J -22434849.80 -22434849.68 -22434849.55 0.0134 0.0041
 Mercury -66137-12-20 22:47 J -22434761.68 -22434761.55 -22434761.43 0.0134 0.0024
 Mercury -66136-03-19 01:40 J -22434673.56 -22434673.43 -22434673.30 0.0134 0.0007
 Mercury -66136-06-15 04:33 J -22434585.44 -22434585.31 -22434585.18 0.0134 0.0010
 Mercury -66136-09-11 07:40 J -22434497.31 -22434497.18 -22434497.06 0.0134 0.0027
 Mercury -66136-12-08 10:33 J -22434409.18 -22434409.06 -22434408.94 0.0134 0.0043
 Mercury -66135-03-06 13:25 J -22434321.05 -22434320.94 -22434320.82 0.0135 0.0061
 Mercury -66135-06-02 16:18 J -22434232.92 -22434232.82 -22434232.71 0.0135 0.0078
 Mercury -66135-08-29 19:25 J -22434144.78 -22434144.69 -22434144.59 0.0135 0.0095
 Mercury -66135-11-25 22:18 J -22434056.63 -22434056.57 -22434056.49 0.0135 0.0112
 Mercury -66134-02-22 01:25 J -22433968.47 -22433968.44 -22433968.40 0.0135 0.0129
 Moon -66124-07-26 01:54 J -22430161.56 -22430161.42 -22430161.25 0.0141 0.0109
 Earth -66124-07-26 05:01 J -22430161.45 -22430161.29 -22430161.11 0.0141 0.0102 *
 Earth -66123-07-30 20:09 J -22429791.90 -22429791.66 -22429791.41 0.0142 0.0017
 Moon -66123-07-30 23:30 J -22429791.76 -22429791.52 -22429791.26 0.0142 0.0016 *
 Moon -66122-08-04 08:37 J -22429422.34 -22429422.14 -22429421.92 0.0143 0.0073
 Earth -66122-08-04 12:28 J -22429422.19 -22429421.98 -22429421.76 0.0143 0.0071 *
 Mars -66112-02-23 20:37 J -22425930.83 -22425930.64 -22425930.42 0.0147 0.0113
 Mars -66110-01-30 07:54 J -22425225.43 -22425225.17 -22425224.89 0.0148 0.0075
 Venus -66108-03-03 15:35 J -22424461.99 -22424461.85 -22424461.68 0.0148 0.0104
 Venus -66108-10-16 06:28 J -22424235.44 -22424235.23 -22424235.02 0.0148 0.0041
 Venus -66107-05-30 21:06 J -22424008.83 -22424008.62 -22424008.40 0.0148 0.0022
 Venus -66106-01-12 11:59 J -22423782.17 -22423782.00 -22423781.81 0.0148 0.0084
 Venus -66106-08-27 02:52 J -22423555.39 -22423555.38 -22423555.34 0.0148 0.0147

Mercury -66098-11-12 13:11 J -22420556.06 -22420555.95 -22420555.84 0.0145 0.0118
 Mercury -66097-02-08 22:04 J -22420467.73 -22420467.58 -22420467.42 0.0145 0.0086
 Mercury -66097-05-07 06:57 J -22420379.39 -22420379.21 -22420379.03 0.0145 0.0054
 Mercury -66097-08-03 15:49 J -22420291.03 -22420290.84 -22420290.65 0.0145 0.0022
 Mercury -66097-10-31 00:42 J -22420202.67 -22420202.47 -22420202.28 0.0145 0.0010
 Mercury -66096-01-27 09:21 J -22420114.29 -22420114.11 -22420113.92 0.0144 0.0041
 Mercury -66096-04-25 17:59 J -22420025.91 -22420025.75 -22420025.57 0.0144 0.0073
 Mercury -66096-07-23 02:52 J -22419937.51 -22419937.38 -22419937.24 0.0144 0.0104
 Mercury -66096-10-19 11:16 J -22419849.07 -22419849.03 -22419848.95 0.0144 0.0136
 Moon -66085-01-24 23:59 J -22416099.59 -22416099.50 -22416099.36 0.0138 0.0124
 Earth -66085-01-25 02:37 J -22416099.46 -22416099.39 -22416099.28 0.0138 0.0129 *
 Earth -66084-01-28 20:52 J -22415729.87 -22415729.63 -22415729.38 0.0137 0.0046
 Moon -66084-01-28 23:16 J -22415729.76 -22415729.53 -22415729.29 0.0137 0.0053 *
 Moon -66083-02-02 11:59 J -22415360.26 -22415360.00 -22415359.75 0.0137 0.0042
 Earth -66083-02-02 13:54 J -22415360.17 -22415359.92 -22415359.66 0.0137 0.0035 *
 Earth -66082-02-07 05:45 J -22414990.39 -22414990.26 -22414990.11 0.0136 0.0115
 Moon -66082-02-07 06:42 J -22414990.34 -22414990.22 -22414990.06 0.0136 0.0111 *
 Mars -66072-09-21 11:16 J -22411111.21 -22411111.03 -22411110.82 0.0132 0.0100
 Mars -66070-08-22 11:30 J -22410411.30 -22410411.02 -22410410.71 0.0131 0.0025
 Venus -66067-09-16 06:28 J -22409290.35 -22409290.23 -22409290.09 0.0131 0.0103
 Venus -66066-04-30 09:49 J -22409064.27 -22409064.09 -22409063.89 0.0131 0.0061
 Venus -66066-12-12 13:11 J -22408838.16 -22408837.95 -22408837.73 0.0131 0.0019
 Venus -66065-07-25 16:18 J -22408612.03 -22408611.82 -22408611.60 0.0131 0.0023
 Venus -66064-03-08 19:11 J -22408385.87 -22408385.70 -22408385.50 0.0131 0.0066
 Venus -66064-10-20 22:18 J -22408159.68 -22408159.57 -22408159.44 0.0131 0.0107
 Mercury -66054-07-31 12:28 J -22404589.03 -22404588.98 -22404588.91 0.0133 0.0118
 Mercury -66054-10-27 15:35 J -22404500.93 -22404500.85 -22404500.76 0.0133 0.0101
 Mercury -66053-01-23 18:28 J -22404412.82 -22404412.73 -22404412.62 0.0134 0.0084
 Mercury -66053-04-20 21:35 J -22404324.71 -22404324.60 -22404324.49 0.0134 0.0068
 Mercury -66053-07-18 00:28 J -22404236.60 -22404236.48 -22404236.36 0.0134 0.0051

Mercury -66053-10-14 03:21 J -22404148.48 -22404148.36 -22404148.23 0.0134 0.0035

Mercury -66052-01-10 06:28 J -22404060.36 -22404060.23 -22404060.10 0.0134 0.0018

Mercury -66052-04-08 09:21 J -22403972.24 -22403972.11 -22403971.98 0.0134 0.0001

Mercury -66052-07-05 12:13 J -22403884.12 -22403883.99 -22403883.86 0.0134 0.0016

Mercury -66052-10-01 15:06 J -22403795.99 -22403795.87 -22403795.74 0.0134 0.0033

Mercury -66052-12-28 18:13 J -22403707.86 -22403707.74 -22403707.62 0.0134 0.0050

Mercury -66051-03-26 21:06 J -22403619.73 -22403619.62 -22403619.50 0.0135 0.0067

Mercury -66051-06-23 00:13 J -22403531.59 -22403531.49 -22403531.39 0.0135 0.0084

Mercury -66051-09-19 03:06 J -22403443.45 -22403443.37 -22403443.28 0.0135 0.0101

Mercury -66051-12-16 05:59 J -22403355.30 -22403355.25 -22403355.18 0.0135 0.0118

Moon -66040-07-26 14:09 J -22399480.09 -22399479.91 -22399479.72 0.0141 0.0092

Earth -66040-07-26 17:16 J -22399479.95 -22399479.78 -22399479.59 0.0141 0.0096 *

Earth -66039-07-31 08:09 J -22399110.40 -22399110.16 -22399109.91 0.0142 0.0011

Moon -66039-07-31 11:30 J -22399110.27 -22399110.02 -22399109.77 0.0142 0.0013 *

Moon -66038-08-04 20:52 J -22398740.83 -22398740.63 -22398740.41 0.0143 0.0076

Earth -66038-08-04 23:59 J -22398740.70 -22398740.50 -22398740.28 0.0143 0.0078 *

Mars -66028-10-20 20:23 J -22395010.94 -22395010.65 -22395010.34 0.0147 0.0043

Mars -66026-09-26 11:59 J -22394305.00 -22394305.00 -22394304.98 0.0148 0.0148

Venus -66025-10-31 20:09 J -22393903.75 -22393903.66 -22393903.57 0.0148 0.0134

Venus -66024-06-15 10:18 J -22393677.25 -22393677.07 -22393676.87 0.0148 0.0073

Venus -66023-01-28 01:11 J -22393450.67 -22393450.45 -22393450.23 0.0148 0.0010

Venus -66023-09-11 16:04 J -22393224.04 -22393223.83 -22393223.63 0.0148 0.0052

Venus -66022-04-26 06:28 J -22392997.35 -22392997.23 -22392997.08 0.0148 0.0115

Mercury -66014-09-05 11:16 J -22389943.04 -22389943.03 -22389942.99 0.0145 0.0144

Mercury -66014-12-02 20:09 J -22389854.77 -22389854.66 -22389854.52 0.0145 0.0112

Mercury -66013-02-29 05:01 J -22389766.44 -22389766.29 -22389766.11 0.0145 0.0080

Mercury -66013-05-27 14:09 J -22389678.09 -22389677.91 -22389677.72 0.0145 0.0047

Mercury -66013-08-23 23:01 J -22389589.73 -22389589.54 -22389589.34 0.0145 0.0015

Mercury -66013-11-20 07:54 J -22389501.36 -22389501.17 -22389500.97 0.0145 0.0017

Mercury -66012-02-16 16:33 J -22389412.99 -22389412.81 -22389412.62 0.0145 0.0049

Mercury -66012-05-16 01:11 J -22389324.60 -22389324.45 -22389324.27 0.0144 0.0081

Mercury -66012-08-12 10:18 J -22389236.19 -22389236.07 -22389235.95 0.0144 0.0112

Mercury -66012-11-08 18:42 J -22389147.73 -22389147.72 -22389147.68 0.0144 0.0143

Moon -66001-01-25 10:47 J -22385418.13 -22385418.05 -22385417.93 0.0138 0.0128

Earth -66001-01-25 14:23 J -22385418.01 -22385417.90 -22385417.78 0.0138 0.0123 *

66TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 66th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-66000-01-29 08:37 J	-22385048.38	-22385048.14	-22385047.89	0.0137	0.0040		
Moon	-66000-01-29 11:01 J	-22385048.27	-22385048.04	-22385047.78	0.0137	0.0035	*	
Moon	-65999-02-02 23:30 J	-22384678.77	-22384678.52	-22384678.25	0.0137	0.0035		
Earth	-65999-02-03 01:54 J	-22384678.66	-22384678.42	-22384678.17	0.0137	0.0042	*	
Earth	-65998-02-07 17:30 J	-22384308.86	-22384308.77	-22384308.64	0.0136	0.0122		
Moon	-65998-02-07 20:09 J	-22384308.74	-22384308.66	-22384308.57	0.0136	0.0127	*	
Mars	-65987-05-17 03:21 J	-22380192.64	-22380192.36	-22380192.08	0.0132	0.0049		
Mars	-65985-04-16 01:25 J	-22379492.66	-22379492.44	-22379492.18	0.0131	0.0075		
Venus	-65983-05-16 19:40 J	-22378731.75	-22378731.68	-22378731.58	0.0131	0.0121		
Venus	-65983-12-28 23:16 J	-22378505.69	-22378505.53	-22378505.35	0.0131	0.0078		
Venus	-65982-08-12 02:37 J	-22378279.59	-22378279.39	-22378279.17	0.0131	0.0036		
Venus	-65981-03-25 05:59 J	-22378053.46	-22378053.25	-22378053.03	0.0131	0.0007		
Venus	-65981-11-06 09:06 J	-22377827.32	-22377827.12	-22377826.92	0.0131	0.0048		

Venus -65980-06-20 11:59 J -22377601.14 -22377601.00 -22377600.84 0.0131 0.0090
 Mercury -65970-05-24 17:45 J -22373975.80 -22373975.76 -22373975.72 0.0133 0.0127
 Mercury -65970-08-20 20:23 J -22373887.71 -22373887.65 -22373887.57 0.0133 0.0111
 Mercury -65970-11-16 23:30 J -22373799.61 -22373799.52 -22373799.42 0.0134 0.0094
 Mercury -65969-02-13 02:23 J -22373711.50 -22373711.40 -22373711.29 0.0134 0.0077
 Mercury -65969-05-11 05:16 J -22373623.39 -22373623.28 -22373623.15 0.0134 0.0061
 Mercury -65969-08-07 08:23 J -22373535.27 -22373535.15 -22373535.03 0.0134 0.0044
 Mercury -65969-11-03 11:16 J -22373447.15 -22373447.03 -22373446.90 0.0134 0.0027
 Mercury -65968-01-30 14:23 J -22373359.03 -22373358.90 -22373358.77 0.0134 0.0011
 Mercury -65968-04-28 17:16 J -22373270.91 -22373270.78 -22373270.65 0.0134 0.0006
 Mercury -65968-07-25 20:09 J -22373182.79 -22373182.66 -22373182.53 0.0134 0.0023
 Mercury -65968-10-21 23:01 J -22373094.66 -22373094.54 -22373094.41 0.0134 0.0041
 Mercury -65967-01-18 02:09 J -22373006.53 -22373006.41 -22373006.29 0.0135 0.0057
 Mercury -65967-04-16 05:01 J -22372918.39 -22372918.29 -22372918.18 0.0135 0.0074
 Mercury -65967-07-13 07:54 J -22372830.26 -22372830.17 -22372830.07 0.0135 0.0092
 Mercury -65967-10-09 10:47 J -22372742.11 -22372742.05 -22372741.96 0.0135 0.0109
 Mercury -65966-01-05 13:54 J -22372653.96 -22372653.92 -22372653.87 0.0135 0.0126
 Moon -65956-07-27 06:42 J -22368798.39 -22368798.22 -22368798.03 0.0141 0.0095
 Earth -65956-07-27 09:06 J -22368798.29 -22368798.12 -22368797.90 0.0141 0.0089 *
 Earth -65955-08-01 00:28 J -22368428.73 -22368428.48 -22368428.23 0.0142 0.0002
 Moon -65955-08-01 03:35 J -22368428.60 -22368428.35 -22368428.10 0.0142 0.0001 *
 Moon -65954-08-05 12:57 J -22368059.15 -22368058.96 -22368058.76 0.0143 0.0088
 Earth -65954-08-05 16:04 J -22368059.01 -22368058.83 -22368058.62 0.0143 0.0087 *
 Mars -65943-06-17 09:35 J -22364090.40 -22364090.10 -22364089.79 0.0147 0.0033
 Venus -65940-02-12 18:42 J -22363118.87 -22363118.72 -22363118.55 0.0148 0.0098
 Venus -65940-09-27 09:21 J -22362892.32 -22362892.11 -22362891.90 0.0148 0.0036
 Venus -65939-05-11 23:45 J -22362665.72 -22362665.51 -22362665.29 0.0148 0.0026
 Venus -65939-12-24 14:37 J -22362439.07 -22362438.89 -22362438.72 0.0148 0.0088
 Mercury -65930-09-25 20:37 J -22359241.72 -22359241.64 -22359241.56 0.0145 0.0132
 Mercury -65930-12-23 05:30 J -22359153.41 -22359153.27 -22359153.13 0.0145 0.0100

Mercury -65929-03-20 14:23 J -22359065.08 -22359064.90 -22359064.73 0.0145 0.0067

Mercury -65929-06-16 23:01 J -22358976.72 -22358976.54 -22358976.34 0.0145 0.0036

Mercury -65929-09-13 07:54 J -22358888.36 -22358888.17 -22358887.97 0.0145 0.0004

Mercury -65929-12-10 16:47 J -22358799.99 -22358799.80 -22358799.61 0.0145 0.0029

Mercury -65928-03-09 01:25 J -22358711.61 -22358711.44 -22358711.25 0.0145 0.0061

Mercury -65928-06-05 10:04 J -22358623.22 -22358623.08 -22358622.92 0.0144 0.0092

Mercury -65928-09-01 18:57 J -22358534.80 -22358534.71 -22358534.60 0.0144 0.0124

Moon -65917-01-26 01:40 J -22354736.57 -22354736.43 -22354736.27 0.0138 0.0112

Earth -65917-01-26 04:33 J -22354736.43 -22354736.31 -22354736.15 0.0138 0.0117 *

Earth -65916-01-29 23:01 J -22354366.78 -22354366.54 -22354366.28 0.0137 0.0033

Moon -65916-01-30 02:09 J -22354366.65 -22354366.41 -22354366.16 0.0137 0.0040 *

Moon -65915-02-03 13:25 J -22353997.18 -22353996.94 -22353996.70 0.0137 0.0056

Earth -65915-02-03 16:18 J -22353997.06 -22353996.82 -22353996.58 0.0137 0.0049 *

Earth -65914-02-08 08:09 J -22353627.23 -22353627.16 -22353627.07 0.0136 0.0130

Moon -65914-02-08 10:04 J -22353627.16 -22353627.08 -22353626.97 0.0136 0.0125 *

Mars -65904-02-08 15:06 J -22349973.94 -22349973.87 -22349973.74 0.0132 0.0125

Mars -65902-01-09 22:18 J -22349273.87 -22349273.57 -22349273.27 0.0132 0.0002

Mars -65901-12-09 16:33 J -22348573.88 -22348573.81 -22348573.70 0.0131 0.0125

Venus -65899-08-28 13:11 J -22347947.08 -22347946.95 -22347946.78 0.0131 0.0094

Venus -65898-04-11 16:33 J -22347720.99 -22347720.81 -22347720.60 0.0131 0.0052

Venus -65898-11-23 20:09 J -22347494.87 -22347494.66 -22347494.44 0.0131 0.0010

Venus -65897-07-06 23:16 J -22347268.73 -22347268.53 -22347268.32 0.0131 0.0033

Venus -65896-02-18 02:37 J -22347042.57 -22347042.39 -22347042.21 0.0131 0.0074

Venus -65896-10-02 05:16 J -22346816.36 -22346816.28 -22346816.16 0.0131 0.0117

Mercury -65886-06-14 01:40 J -22343274.48 -22343274.43 -22343274.37 0.0133 0.0119

Mercury -65886-09-10 04:33 J -22343186.39 -22343186.31 -22343186.22 0.0134 0.0103

Mercury -65886-12-07 07:25 J -22343098.28 -22343098.19 -22343098.08 0.0134 0.0087

Mercury -65885-03-04 10:33 J -22343010.17 -22343010.06 -22343009.95 0.0134 0.0070

Mercury -65885-05-31 13:25 J -22342922.06 -22342921.94 -22342921.82 0.0134 0.0053

Mercury -65885-08-27 16:18 J -22342833.94 -22342833.82 -22342833.69 0.0134 0.0037

Mercury -65885-11-23 19:25 J -22342745.82 -22342745.69 -22342745.56 0.0134 0.0020
 Mercury -65884-02-19 22:18 J -22342657.70 -22342657.57 -22342657.44 0.0134 0.0003
 Mercury -65884-05-19 01:11 J -22342569.58 -22342569.45 -22342569.32 0.0134 0.0014
 Mercury -65884-08-15 04:04 J -22342481.45 -22342481.33 -22342481.20 0.0134 0.0032
 Mercury -65884-11-11 07:11 J -22342393.32 -22342393.20 -22342393.08 0.0134 0.0048
 Mercury -65883-02-07 10:04 J -22342305.19 -22342305.08 -22342304.96 0.0135 0.0065
 Mercury -65883-05-06 13:11 J -22342217.06 -22342216.95 -22342216.85 0.0135 0.0082
 Mercury -65883-08-02 16:04 J -22342128.91 -22342128.83 -22342128.74 0.0135 0.0099
 Mercury -65883-10-29 19:11 J -22342040.77 -22342040.70 -22342040.64 0.0135 0.0116
 Mercury -65882-01-25 22:04 J -22341952.59 -22341952.58 -22341952.56 0.0135 0.0133
 Moon -65872-07-27 22:18 J -22338116.76 -22338116.57 -22338116.35 0.0141 0.0075
 Earth -65872-07-28 01:11 J -22338116.65 -22338116.45 -22338116.24 0.0141 0.0080 *
 Earth -65871-08-01 16:04 J -22337747.08 -22337746.83 -22337746.58 0.0142 0.0008
 Moon -65871-08-01 18:57 J -22337746.96 -22337746.71 -22337746.45 0.0142 0.0005 *
 Moon -65870-08-06 05:01 J -22337377.47 -22337377.29 -22337377.10 0.0143 0.0094
 Earth -65870-08-06 07:40 J -22337377.35 -22337377.18 -22337376.98 0.0143 0.0096 *
 Mars -65860-03-08 16:04 J -22333875.09 -22333874.83 -22333874.56 0.0147 0.0079
 Mars -65858-02-11 23:59 J -22333169.69 -22333169.50 -22333169.27 0.0148 0.0111
 Venus -65857-10-13 02:52 J -22332560.48 -22332560.38 -22332560.24 0.0148 0.0123
 Venus -65856-05-27 17:30 J -22332333.97 -22332333.77 -22332333.57 0.0148 0.0061
 Venus -65855-01-09 07:54 J -22332107.39 -22332107.17 -22332106.95 0.0148 0.0003
 Venus -65855-08-23 22:33 J -22331880.75 -22331880.56 -22331880.35 0.0148 0.0063
 Venus -65854-04-07 13:11 J -22331654.05 -22331653.95 -22331653.82 0.0148 0.0125
 Mercury -65846-10-16 05:30 J -22328540.37 -22328540.27 -22328540.14 0.0145 0.0119
 Mercury -65845-01-12 14:23 J -22328452.04 -22328451.90 -22328451.73 0.0145 0.0087
 Mercury -65845-04-09 23:30 J -22328363.70 -22328363.52 -22328363.34 0.0145 0.0054
 Mercury -65845-07-07 08:23 J -22328275.34 -22328275.15 -22328274.96 0.0145 0.0022
 Mercury -65845-10-03 17:16 J -22328186.98 -22328186.78 -22328186.59 0.0145 0.0010
 Mercury -65845-12-31 01:54 J -22328098.60 -22328098.42 -22328098.23 0.0145 0.0042
 Mercury -65844-03-29 10:47 J -22328010.22 -22328010.05 -22328009.88 0.0145 0.0074

Mercury -65844-06-25 19:11 J -22327921.82 -22327921.70 -22327921.55 0.0144 0.0106
 Mercury -65844-09-22 04:18 J -22327833.38 -22327833.32 -22327833.26 0.0144 0.0137
 Moon -65833-01-26 16:47 J -22324054.93 -22324054.80 -22324054.63 0.0138 0.0113
 Earth -65833-01-26 20:37 J -22324054.79 -22324054.64 -22324054.47 0.0138 0.0108 *
 Earth -65832-01-30 14:52 J -22323685.13 -22323684.88 -22323684.62 0.0137 0.0024
 Moon -65832-01-30 18:13 J -22323685.00 -22323684.74 -22323684.49 0.0137 0.0018 *
 Moon -65831-02-04 05:01 J -22323315.53 -22323315.29 -22323315.03 0.0137 0.0051
 Earth -65831-02-04 07:54 J -22323315.39 -22323315.17 -22323314.92 0.0137 0.0059 *
 Mars -65820-10-04 13:40 J -22319055.17 -22319054.93 -22319054.66 0.0132 0.0072
 Mars -65818-09-04 16:18 J -22318355.08 -22318354.82 -22318354.54 0.0131 0.0055
 Venus -65815-04-28 03:35 J -22317388.45 -22317388.35 -22317388.22 0.0131 0.0109
 Venus -65815-12-10 07:11 J -22317162.38 -22317162.20 -22317162.01 0.0131 0.0067
 Venus -65814-07-24 10:33 J -22316936.26 -22316936.06 -22316935.84 0.0131 0.0025
 Venus -65813-03-06 13:54 J -22316710.13 -22316709.92 -22316709.70 0.0131 0.0018
 Venus -65813-10-18 17:01 J -22316483.97 -22316483.79 -22316483.59 0.0131 0.0059
 Venus -65812-06-01 20:23 J -22316257.79 -22316257.65 -22316257.52 0.0131 0.0101
 Mercury -65802-04-07 06:42 J -22312661.25 -22312661.22 -22312661.18 0.0133 0.0128
 Mercury -65802-07-04 09:35 J -22312573.16 -22312573.10 -22312573.02 0.0133 0.0112
 Mercury -65802-09-30 12:28 J -22312485.06 -22312484.98 -22312484.88 0.0134 0.0096
 Mercury -65802-12-27 15:35 J -22312396.95 -22312396.85 -22312396.74 0.0134 0.0079
 Mercury -65801-03-24 18:28 J -22312308.84 -22312308.73 -22312308.61 0.0134 0.0062
 Mercury -65801-06-20 21:21 J -22312220.73 -22312220.61 -22312220.48 0.0134 0.0046
 Mercury -65801-09-17 00:28 J -22312132.61 -22312132.48 -22312132.35 0.0134 0.0029
 Mercury -65801-12-14 03:21 J -22312044.49 -22312044.36 -22312044.23 0.0134 0.0012
 Mercury -65800-03-12 06:28 J -22311956.37 -22311956.23 -22311956.10 0.0134 0.0007
 Mercury -65800-06-08 09:21 J -22311868.24 -22311868.11 -22311867.98 0.0134 0.0022
 Mercury -65800-09-04 12:13 J -22311780.11 -22311779.99 -22311779.86 0.0134 0.0039
 Mercury -65800-12-01 15:21 J -22311691.98 -22311691.86 -22311691.75 0.0135 0.0056
 Mercury -65799-02-27 18:13 J -22311603.85 -22311603.74 -22311603.63 0.0135 0.0073
 Mercury -65799-05-26 21:06 J -22311515.71 -22311515.62 -22311515.52 0.0135 0.0090

Mercury -65799-08-22 23:59 J -22311427.57 -22311427.50 -22311427.41 0.0135 0.0107

Mercury -65799-11-19 03:06 J -22311339.42 -22311339.37 -22311339.32 0.0135 0.0124

Moon -65788-07-28 15:35 J -22307435.04 -22307434.85 -22307434.64 0.0141 0.0077

Earth -65788-07-28 17:30 J -22307434.97 -22307434.77 -22307434.54 0.0141 0.0071 *

Earth -65787-08-02 08:37 J -22307065.38 -22307065.14 -22307064.89 0.0142 0.0016

Moon -65787-08-02 11:30 J -22307065.28 -22307065.02 -22307064.77 0.0142 0.0017 *

Moon -65786-08-06 21:21 J -22306695.75 -22306695.61 -22306695.43 0.0143 0.0107

Earth -65786-08-07 00:13 J -22306695.64 -22306695.49 -22306695.30 0.0143 0.0105 *

Mars -65776-11-03 06:28 J -22302954.54 -22302954.23 -22302953.91 0.0147 0.0004

Venus -65773-06-12 12:57 J -22302002.00 -22302001.96 -22302001.92 0.0148 0.0145

Venus -65772-01-25 03:06 J -22301775.55 -22301775.37 -22301775.19 0.0148 0.0084

Venus -65772-09-08 17:30 J -22301548.98 -22301548.77 -22301548.55 0.0148 0.0023

Venus -65771-04-23 07:54 J -22301322.37 -22301322.17 -22301321.95 0.0148 0.0040

Venus -65771-12-05 22:33 J -22301095.70 -22301095.56 -22301095.38 0.0148 0.0102

Mercury -65762-08-09 06:42 J -22297927.27 -22297927.22 -22297927.13 0.0145 0.0135

Mercury -65762-11-05 15:35 J -22297838.97 -22297838.85 -22297838.69 0.0145 0.0103

Mercury -65761-02-02 00:42 J -22297750.63 -22297750.47 -22297750.29 0.0145 0.0070

Mercury -65761-04-30 09:35 J -22297662.28 -22297662.10 -22297661.91 0.0145 0.0038

Mercury -65761-07-27 18:28 J -22297573.92 -22297573.73 -22297573.53 0.0145 0.0006

Mercury -65761-10-24 03:06 J -22297485.55 -22297485.37 -22297485.17 0.0145 0.0027

Mercury -65760-01-20 11:59 J -22297397.17 -22297397.00 -22297396.82 0.0145 0.0058

Mercury -65760-04-18 20:52 J -22297308.78 -22297308.63 -22297308.48 0.0144 0.0090

Mercury -65760-07-16 05:16 J -22297220.37 -22297220.28 -22297220.16 0.0144 0.0122

Moon -65749-01-27 10:18 J -22293373.24 -22293373.07 -22293372.86 0.0138 0.0095

Earth -65749-01-27 13:54 J -22293373.09 -22293372.92 -22293372.73 0.0138 0.0099 *

Earth -65748-01-31 08:09 J -22293003.42 -22293003.16 -22293002.90 0.0137 0.0015

Moon -65748-01-31 11:30 J -22293003.27 -22293003.02 -22293002.76 0.0137 0.0022 *

Moon -65747-02-04 21:21 J -22292633.81 -22292633.61 -22292633.37 0.0137 0.0075

Earth -65747-02-05 00:42 J -22292633.68 -22292633.47 -22292633.23 0.0137 0.0068 *

Mars -65735-05-30 10:47 J -22288136.35 -22288136.05 -22288135.75 0.0132 0.0019

Mars	-65733-04-29 08:09 J	-22287436.32	-22287436.16	-22287435.97	0.0131	0.0106
Venus	-65732-12-26 17:45 J	-22286829.81	-22286829.76	-22286829.68	0.0131	0.0125
Venus	-65731-08-09 21:21 J	-22286603.77	-22286603.61	-22286603.43	0.0131	0.0083
Venus	-65730-03-24 00:57 J	-22286377.66	-22286377.46	-22286377.25	0.0131	0.0040
Venus	-65730-11-05 04:18 J	-22286151.54	-22286151.32	-22286151.10	0.0131	0.0002
Venus	-65729-06-18 07:11 J	-22285925.39	-22285925.20	-22285924.98	0.0131	0.0044
Venus	-65728-01-30 10:33 J	-22285699.21	-22285699.06	-22285698.89	0.0131	0.0086
Venus	-65728-09-13 13:25 J	-22285472.97	-22285472.94	-22285472.87	0.0131	0.0127
Mercury	-65718-04-27 14:23 J	-22281959.94	-22281959.90	-22281959.83	0.0133	0.0122
Mercury	-65718-07-24 17:30 J	-22281871.84	-22281871.77	-22281871.69	0.0133	0.0105
Mercury	-65718-10-20 20:23 J	-22281783.74	-22281783.65	-22281783.55	0.0134	0.0088
Mercury	-65717-01-16 23:30 J	-22281695.63	-22281695.52	-22281695.41	0.0134	0.0072
Mercury	-65717-04-14 02:23 J	-22281607.52	-22281607.40	-22281607.28	0.0134	0.0055
Mercury	-65717-07-11 05:16 J	-22281519.40	-22281519.28	-22281519.15	0.0134	0.0038
Mercury	-65717-10-07 08:09 J	-22281431.28	-22281431.16	-22281431.02	0.0134	0.0022
Mercury	-65716-01-03 11:16 J	-22281343.16	-22281343.03	-22281342.90	0.0134	0.0005
Mercury	-65716-04-01 14:09 J	-22281255.04	-22281254.91	-22281254.78	0.0134	0.0012
Mercury	-65716-06-28 17:01 J	-22281166.91	-22281166.79	-22281166.66	0.0134	0.0029
Mercury	-65716-09-24 19:54 J	-22281078.78	-22281078.67	-22281078.54	0.0134	0.0047
Mercury	-65716-12-21 23:01 J	-22280990.65	-22280990.54	-22280990.42	0.0134	0.0063
Mercury	-65715-03-20 01:54 J	-22280902.52	-22280902.42	-22280902.31	0.0135	0.0080
Mercury	-65715-06-16 05:01 J	-22280814.38	-22280814.29	-22280814.20	0.0135	0.0097
Mercury	-65715-09-12 07:54 J	-22280726.23	-22280726.17	-22280726.10	0.0135	0.0114
Mercury	-65715-12-09 11:01 J	-22280638.07	-22280638.04	-22280638.01	0.0135	0.0131
Moon	-65704-07-29 05:16 J	-22276753.50	-22276753.28	-22276753.06	0.0141	0.0060
Earth	-65704-07-29 07:11 J	-22276753.41	-22276753.20	-22276752.97	0.0141	0.0064 *
Earth	-65703-08-02 22:04 J	-22276383.83	-22276383.58	-22276383.33	0.0142	0.0023
Moon	-65703-08-03 00:13 J	-22276383.74	-22276383.49	-22276383.24	0.0142	0.0020 *
Moon	-65702-08-07 11:16 J	-22276014.17	-22276014.03	-22276013.86	0.0143	0.0111
Earth	-65702-08-07 13:40 J	-22276014.07	-22276013.93	-22276013.76	0.0143	0.0112 *

Mars	-65693-07-25 11:01 J	-22272739.20	-22272739.04	-22272738.83	0.0147	0.0118
Mars	-65691-06-30 12:57 J	-22272034.22	-22272033.96	-22272033.67	0.0147	0.0071
Venus	-65689-09-24 09:06 J	-22271217.24	-22271217.12	-22271216.96	0.0148	0.0112
Venus	-65688-05-08 23:45 J	-22270990.71	-22270990.51	-22270990.30	0.0148	0.0050
Venus	-65688-12-21 14:23 J	-22270764.12	-22270763.90	-22270763.68	0.0148	0.0012
Venus	-65687-08-05 05:01 J	-22270537.47	-22270537.29	-22270537.09	0.0148	0.0074
Venus	-65686-03-19 19:40 J	-22270310.75	-22270310.68	-22270310.58	0.0148	0.0136
Mercury	-65678-08-29 15:35 J	-22267225.95	-22267225.85	-22267225.74	0.0145	0.0123
Mercury	-65678-11-26 00:28 J	-22267137.63	-22267137.48	-22267137.32	0.0145	0.0090
Mercury	-65677-02-22 09:21 J	-22267049.28	-22267049.11	-22267048.93	0.0145	0.0058
Mercury	-65677-05-20 18:13 J	-22266960.93	-22266960.74	-22266960.54	0.0145	0.0026
Mercury	-65677-08-17 03:06 J	-22266872.57	-22266872.37	-22266872.17	0.0145	0.0006
Mercury	-65677-11-13 11:59 J	-22266784.19	-22266784.00	-22266783.81	0.0145	0.0038
Mercury	-65676-02-09 20:37 J	-22266695.81	-22266695.64	-22266695.46	0.0145	0.0070
Mercury	-65676-05-09 05:16 J	-22266607.41	-22266607.28	-22266607.13	0.0145	0.0102
Mercury	-65676-08-05 13:54 J	-22266518.98	-22266518.92	-22266518.83	0.0144	0.0133
Moon	-65665-01-28 01:40 J	-22262691.61	-22262691.43	-22262691.24	0.0138	0.0095
Earth	-65665-01-28 05:30 J	-22262691.46	-22262691.27	-22262691.07	0.0138	0.0090 *
Earth	-65664-01-31 23:16 J	-22262321.78	-22262321.53	-22262321.27	0.0137	0.0007
Moon	-65664-02-01 02:52 J	-22262321.64	-22262321.38	-22262321.12	0.0137	0.0001 *
Moon	-65663-02-05 12:42 J	-22261952.18	-22261951.97	-22261951.73	0.0137	0.0070
Earth	-65663-02-05 16:04 J	-22261952.03	-22261951.83	-22261951.60	0.0137	0.0077 *
Mars	-65652-02-21 22:47 J	-22257917.74	-22257917.55	-22257917.31	0.0132	0.0095
Mars	-65650-01-23 05:01 J	-22257217.58	-22257217.29	-22257217.00	0.0131	0.0034
Venus	-65647-04-09 11:16 J	-22256045.16	-22256045.03	-22256044.88	0.0131	0.0098
Venus	-65647-11-21 14:52 J	-22255819.07	-22255818.88	-22255818.68	0.0131	0.0056
Venus	-65646-07-05 18:13 J	-22255592.95	-22255592.74	-22255592.52	0.0131	0.0014
Venus	-65645-02-16 21:35 J	-22255366.81	-22255366.60	-22255366.39	0.0131	0.0028
Venus	-65645-09-30 00:42 J	-22255140.65	-22255140.47	-22255140.28	0.0131	0.0069
Venus	-65644-05-14 03:21 J	-22254914.45	-22254914.36	-22254914.22	0.0131	0.0111

Mercury -65634-02-18 19:25 J -22251346.71 -22251346.69 -22251346.67 0.0133 0.0131
 Mercury -65634-05-17 22:04 J -22251258.63 -22251258.58 -22251258.50 0.0133 0.0116
 Mercury -65634-08-14 01:11 J -22251170.53 -22251170.45 -22251170.36 0.0133 0.0099
 Mercury -65634-11-10 04:04 J -22251082.43 -22251082.33 -22251082.22 0.0133 0.0082
 Mercury -65633-02-06 06:57 J -22250994.32 -22250994.21 -22250994.09 0.0134 0.0066
 Mercury -65633-05-04 10:04 J -22250906.20 -22250906.08 -22250905.96 0.0134 0.0049
 Mercury -65633-07-31 12:57 J -22250818.08 -22250817.96 -22250817.83 0.0134 0.0032
 Mercury -65633-10-27 15:49 J -22250729.97 -22250729.84 -22250729.70 0.0134 0.0016
 Mercury -65632-01-23 18:57 J -22250641.84 -22250641.71 -22250641.58 0.0134 0.0003
 Mercury -65632-04-21 21:49 J -22250553.72 -22250553.59 -22250553.46 0.0134 0.0018
 Mercury -65632-07-19 00:42 J -22250465.59 -22250465.47 -22250465.34 0.0134 0.0035
 Mercury -65632-10-15 03:35 J -22250377.46 -22250377.35 -22250377.22 0.0134 0.0052
 Mercury -65631-01-11 06:28 J -22250289.33 -22250289.23 -22250289.11 0.0134 0.0070
 Mercury -65631-04-09 09:35 J -22250201.20 -22250201.10 -22250201.00 0.0134 0.0086
 Mercury -65631-07-06 12:42 J -22250113.05 -22250112.97 -22250112.89 0.0135 0.0103
 Mercury -65631-10-02 15:35 J -22250024.90 -22250024.85 -22250024.79 0.0135 0.0120
 Jupiter -65628-04-30 15:35 J -22249084.35 -22249083.85 -22249083.35 0.0136 0.0023
 Moon -65621-07-25 06:42 J -22246441.26 -22246441.22 -22246441.16 0.0141 0.0138
 Moon -65620-07-29 17:45 J -22246071.96 -22246071.76 -22246071.54 0.0141 0.0066
 Earth -65620-07-29 18:57 J -22246071.92 -22246071.71 -22246071.47 0.0141 0.0060 *
 Earth -65619-08-03 09:49 J -22245702.33 -22245702.09 -22245701.84 0.0142 0.0028
 Moon -65619-08-03 11:45 J -22245702.26 -22245702.01 -22245701.76 0.0142 0.0030 *
 Moon -65618-08-07 23:01 J -22245332.66 -22245332.54 -22245332.39 0.0142 0.0119
 Earth -65618-08-08 00:57 J -22245332.58 -22245332.46 -22245332.30 0.0142 0.0118 *
 Mars -65608-03-21 11:01 J -22241819.32 -22241819.04 -22241818.73 0.0147 0.0048
 Mars -65606-02-24 17:45 J -22241113.82 -22241113.76 -22241113.68 0.0148 0.0144
 Venus -65605-05-24 14:37 J -22240658.94 -22240658.89 -22240658.81 0.0148 0.0140
 Venus -65604-01-06 05:01 J -22240432.47 -22240432.29 -22240432.10 0.0148 0.0079
 Venus -65604-08-20 19:40 J -22240205.89 -22240205.68 -22240205.46 0.0148 0.0017
 Venus -65603-04-04 10:18 J -22239979.28 -22239979.07 -22239978.86 0.0148 0.0045

Venus -65603-11-17 01:11 J -22239752.60 -22239752.45 -22239752.30 0.0148 0.0106
 Mercury -65594-09-18 23:30 J -22236524.64 -22236524.52 -22236524.40 0.0145 0.0114
 Mercury -65594-12-16 08:23 J -22236436.31 -22236436.15 -22236435.99 0.0145 0.0081
 Mercury -65593-03-13 17:16 J -22236347.96 -22236347.78 -22236347.60 0.0145 0.0049
 Mercury -65593-06-10 02:09 J -22236259.61 -22236259.41 -22236259.22 0.0145 0.0017
 Mercury -65593-09-06 11:01 J -22236171.24 -22236171.04 -22236170.85 0.0145 0.0015
 Mercury -65593-12-03 19:40 J -22236082.86 -22236082.68 -22236082.49 0.0145 0.0047
 Mercury -65592-03-02 04:33 J -22235994.47 -22235994.31 -22235994.15 0.0145 0.0079
 Mercury -65592-05-29 13:11 J -22235906.07 -22235905.95 -22235905.82 0.0145 0.0111
 Mercury -65592-08-25 21:49 J -22235817.61 -22235817.59 -22235817.55 0.0144 0.0143
 Moon -65581-01-28 15:21 J -22232010.07 -22232009.86 -22232009.64 0.0138 0.0079
 Earth -65581-01-28 18:57 J -22232009.91 -22232009.71 -22232009.50 0.0138 0.0083 *
 Earth -65580-02-01 12:57 J -22231640.22 -22231639.96 -22231639.70 0.0137 0.0002
 Moon -65580-02-01 16:47 J -22231640.06 -22231639.80 -22231639.55 0.0137 0.0007 *
 Moon -65579-02-06 01:54 J -22231270.59 -22231270.42 -22231270.21 0.0137 0.0092
 Earth -65579-02-06 05:45 J -22231270.45 -22231270.26 -22231270.05 0.0137 0.0084 *
 Mars -65568-10-17 17:45 J -22226999.03 -22226998.76 -22226998.46 0.0132 0.0042
 Mars -65566-09-17 19:25 J -22226298.89 -22226298.69 -22226298.44 0.0131 0.0086
 Venus -65564-12-08 00:57 J -22225486.56 -22225486.46 -22225486.35 0.0131 0.0114
 Venus -65563-07-22 04:33 J -22225260.49 -22225260.31 -22225260.13 0.0131 0.0072
 Venus -65562-03-05 08:09 J -22225034.37 -22225034.16 -22225033.95 0.0131 0.0030
 Venus -65562-10-17 11:16 J -22224808.24 -22224808.03 -22224807.81 0.0131 0.0012
 Venus -65561-05-30 14:23 J -22224582.09 -22224581.90 -22224581.69 0.0131 0.0053
 Venus -65560-01-11 17:30 J -22224355.90 -22224355.77 -22224355.61 0.0131 0.0095
 Mercury -65550-03-11 02:52 J -22220645.41 -22220645.38 -22220645.32 0.0133 0.0125
 Mercury -65550-06-07 05:59 J -22220557.32 -22220557.25 -22220557.17 0.0133 0.0108
 Mercury -65550-09-03 08:52 J -22220469.22 -22220469.13 -22220469.03 0.0133 0.0092
 Mercury -65550-11-30 11:59 J -22220381.11 -22220381.00 -22220380.89 0.0133 0.0075
 Mercury -65549-02-26 14:52 J -22220293.00 -22220292.88 -22220292.76 0.0133 0.0059
 Mercury -65549-05-24 17:45 J -22220204.88 -22220204.76 -22220204.63 0.0134 0.0042

Mercury -65549-08-20 20:37 J -22220116.76 -22220116.64 -22220116.51 0.0134 0.0026

Mercury -65549-11-16 23:45 J -22220028.64 -22220028.51 -22220028.38 0.0134 0.0009

Mercury -65548-02-13 02:37 J -22219940.52 -22219940.39 -22219940.26 0.0134 0.0008

Mercury -65548-05-12 05:30 J -22219852.40 -22219852.27 -22219852.14 0.0134 0.0025

Mercury -65548-08-08 08:23 J -22219764.27 -22219764.15 -22219764.02 0.0134 0.0042

Mercury -65548-11-04 11:30 J -22219676.14 -22219676.02 -22219675.90 0.0134 0.0059

Mercury -65547-01-31 14:23 J -22219588.01 -22219587.90 -22219587.79 0.0134 0.0076

Mercury -65547-04-29 17:16 J -22219499.87 -22219499.78 -22219499.68 0.0134 0.0093

Mercury -65547-07-26 20:23 J -22219411.72 -22219411.65 -22219411.58 0.0134 0.0110

Mercury -65547-10-22 23:16 J -22219323.57 -22219323.53 -22219323.48 0.0135 0.0127

Earth -65537-07-25 16:47 J -22215759.81 -22215759.80 -22215759.75 0.0140 0.0139

Moon -65536-07-30 05:16 J -22215390.49 -22215390.28 -22215390.04 0.0141 0.0049

Earth -65536-07-30 06:28 J -22215390.45 -22215390.23 -22215389.99 0.0141 0.0054 *

Earth -65535-08-03 20:52 J -22215020.86 -22215020.63 -22215020.38 0.0142 0.0034

Moon -65535-08-03 22:04 J -22215020.82 -22215020.58 -22215020.32 0.0142 0.0031 *

Moon -65534-08-08 11:01 J -22214651.15 -22214651.04 -22214650.91 0.0142 0.0122

Earth -65534-08-08 12:28 J -22214651.10 -22214650.98 -22214650.85 0.0142 0.0123 *

Mars -65524-11-15 05:59 J -22210899.55 -22210899.25 -22210898.93 0.0147 0.0023

Venus -65521-09-05 08:09 J -22209874.29 -22209874.16 -22209874.00 0.0148 0.0111

Venus -65520-04-19 22:33 J -22209647.75 -22209647.56 -22209647.34 0.0148 0.0050

Venus -65520-12-02 13:25 J -22209421.16 -22209420.94 -22209420.72 0.0148 0.0012

Venus -65519-07-17 04:04 J -22209194.51 -22209194.33 -22209194.13 0.0148 0.0074

Venus -65518-02-28 18:42 J -22208967.79 -22208967.72 -22208967.62 0.0148 0.0136

Mercury -65510-07-12 20:37 J -22205911.66 -22205911.64 -22205911.59 0.0146 0.0143

Mercury -65510-10-09 05:45 J -22205823.38 -22205823.26 -22205823.13 0.0145 0.0110

Mercury -65509-01-05 14:37 J -22205735.05 -22205734.89 -22205734.72 0.0145 0.0078

Mercury -65509-04-02 23:30 J -22205646.70 -22205646.52 -22205646.33 0.0145 0.0045

Mercury -65509-06-30 08:23 J -22205558.34 -22205558.15 -22205557.95 0.0145 0.0013

Mercury -65509-09-26 17:16 J -22205469.97 -22205469.78 -22205469.58 0.0145 0.0019

Mercury -65509-12-24 02:09 J -22205381.59 -22205381.41 -22205381.23 0.0145 0.0051

Mercury -65508-03-22 11:01 J -22205293.20 -22205293.04 -22205292.88 0.0145 0.0083
 Mercury -65508-06-18 19:40 J -22205204.79 -22205204.68 -22205204.56 0.0145 0.0115
 Moon -65497-01-29 00:13 J -22201328.68 -22201328.49 -22201328.27 0.0138 0.0084
 Earth -65497-01-29 04:04 J -22201328.53 -22201328.33 -22201328.10 0.0138 0.0079 *
 Earth -65496-02-01 22:33 J -22200958.82 -22200958.56 -22200958.30 0.0138 0.0006
 Moon -65496-02-02 02:09 J -22200958.67 -22200958.41 -22200958.15 0.0138 0.0012 *
 Moon -65495-02-06 11:59 J -22200589.20 -22200589.00 -22200588.78 0.0137 0.0082
 Earth -65495-02-06 15:21 J -22200589.03 -22200588.86 -22200588.64 0.0137 0.0090 *
 Mars -65485-07-11 21:49 J -22196780.70 -22196780.59 -22196780.45 0.0132 0.0120
 Mars -65483-06-12 08:52 J -22196080.43 -22196080.13 -22196079.83 0.0132 0.0011
 Venus -65479-03-21 17:16 J -22194701.93 -22194701.78 -22194701.61 0.0131 0.0090
 Venus -65479-11-02 20:52 J -22194475.82 -22194475.63 -22194475.42 0.0131 0.0048
 Venus -65478-06-17 00:28 J -22194249.69 -22194249.48 -22194249.26 0.0131 0.0006
 Venus -65477-01-29 03:49 J -22194023.54 -22194023.34 -22194023.12 0.0131 0.0036
 Venus -65477-09-11 07:11 J -22193797.37 -22193797.20 -22193797.02 0.0131 0.0077
 Venus -65476-04-25 10:04 J -22193571.15 -22193571.08 -22193570.97 0.0131 0.0119
 Mercury -65466-03-31 10:47 J -22189944.10 -22189944.05 -22189943.98 0.0133 0.0118
 Mercury -65466-06-27 13:40 J -22189856.00 -22189855.93 -22189855.84 0.0133 0.0102
 Mercury -65466-09-23 16:47 J -22189767.90 -22189767.80 -22189767.70 0.0133 0.0085
 Mercury -65466-12-20 19:40 J -22189679.79 -22189679.68 -22189679.56 0.0133 0.0069
 Mercury -65465-03-17 22:33 J -22189591.67 -22189591.56 -22189591.43 0.0133 0.0052
 Mercury -65465-06-14 01:40 J -22189503.56 -22189503.43 -22189503.31 0.0134 0.0035
 Mercury -65465-09-10 04:33 J -22189415.44 -22189415.31 -22189415.18 0.0134 0.0019
 Mercury -65465-12-07 07:25 J -22189327.32 -22189327.19 -22189327.06 0.0134 0.0003
 Mercury -65464-03-05 10:18 J -22189239.19 -22189239.07 -22189238.93 0.0134 0.0016
 Mercury -65464-06-01 13:25 J -22189151.07 -22189150.94 -22189150.81 0.0134 0.0032
 Mercury -65464-08-28 16:18 J -22189062.94 -22189062.82 -22189062.70 0.0134 0.0049
 Mercury -65464-11-24 19:11 J -22188974.81 -22188974.70 -22188974.58 0.0134 0.0066
 Mercury -65463-02-20 22:18 J -22188886.67 -22188886.57 -22188886.47 0.0134 0.0083
 Mercury -65463-05-20 01:11 J -22188798.53 -22188798.45 -22188798.36 0.0134 0.0100

Mercury -65463-08-16 04:04 J -22188710.39 -22188710.33 -22188710.26 0.0134 0.0117

Mercury -65463-11-12 07:11 J -22188622.21 -22188622.20 -22188622.19 0.0135 0.0134

Moon -65453-07-26 07:25 J -22185078.28 -22185078.19 -22185078.05 0.0140 0.0126

Earth -65453-07-26 07:11 J -22185078.26 -22185078.20 -22185078.10 0.0140 0.0132 *

Moon -65452-07-30 20:23 J -22184708.86 -22184708.65 -22184708.42 0.0141 0.0053

Earth -65452-07-30 20:52 J -22184708.86 -22184708.63 -22184708.39 0.0141 0.0046 *

Earth -65451-08-04 11:01 J -22184339.26 -22184339.04 -22184338.79 0.0142 0.0042

Moon -65451-08-04 12:13 J -22184339.23 -22184338.99 -22184338.74 0.0142 0.0044 *

Moon -65450-08-09 01:40 J -22183969.52 -22183969.43 -22183969.35 0.0142 0.0132

Earth -65450-08-09 02:37 J -22183969.47 -22183969.39 -22183969.28 0.0142 0.0131 *

Mars -65441-08-06 13:54 J -22180684.14 -22180683.92 -22180683.67 0.0147 0.0093

Mars -65439-07-12 10:18 J -22179979.30 -22179979.07 -22179978.82 0.0147 0.0097

Venus -65437-05-05 14:37 J -22179315.96 -22179315.89 -22179315.81 0.0148 0.0138

Venus -65437-12-18 04:47 J -22179089.48 -22179089.30 -22179089.11 0.0148 0.0078

Venus -65436-08-01 19:25 J -22178862.91 -22178862.69 -22178862.47 0.0148 0.0016

Venus -65435-03-16 10:04 J -22178636.29 -22178636.08 -22178635.87 0.0148 0.0045

Venus -65435-10-29 00:28 J -22178409.62 -22178409.48 -22178409.32 0.0148 0.0107

Mercury -65426-08-02 04:47 J -22175210.38 -22175210.30 -22175210.23 0.0146 0.0134

Mercury -65426-10-29 13:25 J -22175122.07 -22175121.94 -22175121.79 0.0145 0.0102

Mercury -65425-01-25 22:18 J -22175033.73 -22175033.57 -22175033.39 0.0145 0.0069

Mercury -65425-04-23 07:11 J -22174945.38 -22174945.20 -22174945.00 0.0145 0.0037

Mercury -65425-07-20 16:18 J -22174857.02 -22174856.82 -22174856.63 0.0145 0.0006

Mercury -65425-10-17 00:57 J -22174768.65 -22174768.46 -22174768.26 0.0145 0.0028

Mercury -65424-01-13 09:49 J -22174680.27 -22174680.09 -22174679.91 0.0145 0.0060

Mercury -65424-04-11 18:28 J -22174591.87 -22174591.73 -22174591.57 0.0145 0.0092

Mercury -65424-07-09 03:06 J -22174503.45 -22174503.37 -22174503.25 0.0145 0.0124

Moon -65413-01-29 11:59 J -22170647.20 -22170647.00 -22170646.76 0.0138 0.0071

Earth -65413-01-29 15:21 J -22170647.06 -22170646.86 -22170646.63 0.0138 0.0075 *

Earth -65412-02-02 10:04 J -22170277.34 -22170277.08 -22170276.82 0.0138 0.0011

Moon -65412-02-02 13:54 J -22170277.18 -22170276.92 -22170276.66 0.0138 0.0004 *

Moon	-65411-02-06 23:16 J	-22169907.67	-22169907.53	-22169907.33	0.0137	0.0103
Earth	-65411-02-07 03:06 J	-22169907.54	-22169907.37	-22169907.17	0.0137	0.0095 *
Mars	-65400-03-06 15:35 J	-22165862.10	-22165861.85	-22165861.57	0.0132	0.0068
Mars	-65398-02-05 00:28 J	-22165161.73	-22165161.48	-22165161.20	0.0132	0.0063
Venus	-65396-11-19 05:59 J	-22164143.35	-22164143.25	-22164143.11	0.0131	0.0108
Venus	-65395-07-03 09:49 J	-22163917.26	-22163917.09	-22163916.89	0.0131	0.0066
Venus	-65394-02-14 13:54 J	-22163691.13	-22163690.92	-22163690.71	0.0131	0.0023
Venus	-65394-09-28 17:16 J	-22163464.99	-22163464.78	-22163464.56	0.0131	0.0019
Venus	-65393-05-11 20:37 J	-22163238.83	-22163238.64	-22163238.44	0.0131	0.0061
Venus	-65393-12-23 23:45 J	-22163012.63	-22163012.51	-22163012.36	0.0131	0.0102
Mercury	-65382-01-22 15:49 J	-22159330.87	-22159330.84	-22159330.80	0.0133	0.0128
Mercury	-65382-04-20 18:42 J	-22159242.78	-22159242.72	-22159242.64	0.0133	0.0111
Mercury	-65382-07-17 21:49 J	-22159154.68	-22159154.59	-22159154.50	0.0133	0.0095
Mercury	-65382-10-14 00:42 J	-22159066.57	-22159066.47	-22159066.36	0.0133	0.0078
Mercury	-65381-01-10 03:35 J	-22158978.46	-22158978.35	-22158978.23	0.0133	0.0062
Mercury	-65381-04-07 06:42 J	-22158890.35	-22158890.22	-22158890.10	0.0134	0.0045
Mercury	-65381-07-04 09:35 J	-22158802.23	-22158802.10	-22158801.97	0.0134	0.0028
Mercury	-65381-09-30 12:28 J	-22158714.11	-22158713.98	-22158713.85	0.0134	0.0011
Mercury	-65381-12-27 15:21 J	-22158625.99	-22158625.86	-22158625.73	0.0134	0.0007
Mercury	-65380-03-25 18:13 J	-22158537.86	-22158537.74	-22158537.60	0.0134	0.0023
Mercury	-65380-06-21 21:21 J	-22158449.73	-22158449.61	-22158449.48	0.0134	0.0039
Mercury	-65380-09-18 00:13 J	-22158361.60	-22158361.49	-22158361.37	0.0134	0.0056
Mercury	-65380-12-15 03:06 J	-22158273.47	-22158273.37	-22158273.25	0.0134	0.0074
Mercury	-65379-03-13 06:13 J	-22158185.33	-22158185.24	-22158185.14	0.0134	0.0090
Mercury	-65379-06-09 09:06 J	-22158097.19	-22158097.12	-22158097.04	0.0134	0.0107
Mercury	-65379-09-05 11:59 J	-22158009.04	-22158009.00	-22158008.94	0.0135	0.0125
Moon	-65369-07-26 22:33 J	-22154396.64	-22154396.56	-22154396.46	0.0140	0.0131
Earth	-65369-07-26 23:01 J	-22154396.64	-22154396.54	-22154396.41	0.0140	0.0124 *
Moon	-65368-07-31 12:28 J	-22154027.21	-22154026.98	-22154026.74	0.0141	0.0032
Earth	-65368-07-31 12:28 J	-22154027.21	-22154026.98	-22154026.73	0.0141	0.0038 *

Earth -65367-08-05 02:52 J -22153657.60 -22153657.38 -22153657.14 0.0141 0.0051
 Moon -65367-08-05 03:21 J -22153657.59 -22153657.36 -22153657.11 0.0141 0.0047 *
 Moon -65366-08-09 17:45 J -22153287.78 -22153287.76 -22153287.71 0.0142 0.0140
 Earth -65366-08-09 18:13 J -22153287.76 -22153287.74 -22153287.68 0.0142 0.0140 *
 Mars -65356-04-02 18:28 J -22149764.04 -22149763.73 -22149763.42 0.0147 0.0019
 Venus -65353-08-17 12:13 J -22148531.13 -22148530.99 -22148530.82 0.0148 0.0104
 Venus -65352-04-01 02:52 J -22148304.59 -22148304.38 -22148304.17 0.0148 0.0043
 Venus -65352-11-13 17:01 J -22148078.00 -22148077.79 -22148077.57 0.0148 0.0018
 Venus -65351-06-28 07:25 J -22147851.36 -22147851.19 -22147850.99 0.0148 0.0080
 Venus -65350-02-09 22:04 J -22147624.63 -22147624.58 -22147624.50 0.0148 0.0141
 Mercury -65342-08-22 12:42 J -22144509.07 -22144508.97 -22144508.87 0.0145 0.0125
 Mercury -65342-11-18 21:21 J -22144420.75 -22144420.61 -22144420.45 0.0145 0.0093
 Mercury -65341-02-15 06:13 J -22144332.41 -22144332.24 -22144332.05 0.0145 0.0060
 Mercury -65341-05-13 15:21 J -22144244.05 -22144243.86 -22144243.67 0.0145 0.0028
 Mercury -65341-08-10 00:13 J -22144155.69 -22144155.49 -22144155.29 0.0145 0.0005
 Mercury -65341-11-06 08:52 J -22144067.31 -22144067.13 -22144066.93 0.0145 0.0037
 Mercury -65340-02-02 17:45 J -22143978.93 -22143978.76 -22143978.58 0.0145 0.0069
 Mercury -65340-05-02 02:37 J -22143890.53 -22143890.39 -22143890.25 0.0145 0.0101
 Mercury -65340-07-29 11:16 J -22143802.09 -22143802.03 -22143801.94 0.0144 0.0133
 Jupiter -65337-01-17 10:33 J -22142900.55 -22142900.06 -22142899.55 0.0143 0.0047
 Moon -65329-01-29 23:45 J -22139965.71 -22139965.51 -22139965.28 0.0138 0.0073
 Earth -65329-01-30 03:35 J -22139965.57 -22139965.35 -22139965.12 0.0138 0.0068 *
 Earth -65328-02-02 21:49 J -22139595.84 -22139595.59 -22139595.32 0.0138 0.0018
 Moon -65328-02-03 01:11 J -22139595.70 -22139595.45 -22139595.18 0.0138 0.0024 *
 Moon -65327-02-07 11:45 J -22139226.19 -22139226.01 -22139225.82 0.0137 0.0094
 Earth -65327-02-07 15:06 J -22139226.02 -22139225.87 -22139225.68 0.0137 0.0102 *
 Mars -65316-10-30 10:33 J -22134943.36 -22134943.06 -22134942.75 0.0132 0.0014
 Mars -65314-09-30 15:35 J -22134242.97 -22134242.85 -22134242.68 0.0132 0.0115
 Venus -65312-07-19 19:25 J -22133584.75 -22133584.69 -22133584.61 0.0131 0.0124
 Venus -65311-03-02 23:30 J -22133358.69 -22133358.52 -22133358.35 0.0131 0.0082

Venus	-65311-10-15 03:21 J	-22133132.57	-22133132.36	-22133132.16	0.0131	0.0040
Venus	-65310-05-29 06:57 J	-22132906.43	-22132906.21	-22132906.00	0.0131	0.0003
Venus	-65309-01-10 10:18 J	-22132680.27	-22132680.07	-22132679.86	0.0131	0.0044
Venus	-65309-08-23 13:40 J	-22132454.09	-22132453.93	-22132453.76	0.0131	0.0085
Venus	-65308-04-06 17:01 J	-22132227.84	-22132227.79	-22132227.73	0.0131	0.0127
Mercury	-65298-02-11 23:30 J	-22128629.56	-22128629.52	-22128629.45	0.0133	0.0122
Mercury	-65298-05-11 02:37 J	-22128541.46	-22128541.39	-22128541.30	0.0133	0.0104
Mercury	-65298-08-07 05:45 J	-22128453.36	-22128453.26	-22128453.16	0.0133	0.0088
Mercury	-65298-11-03 08:37 J	-22128365.25	-22128365.14	-22128365.03	0.0133	0.0071
Mercury	-65297-01-30 11:30 J	-22128277.13	-22128277.02	-22128276.90	0.0134	0.0055
Mercury	-65297-04-27 14:37 J	-22128189.02	-22128188.89	-22128188.77	0.0134	0.0038
Mercury	-65297-07-24 17:30 J	-22128100.90	-22128100.77	-22128100.64	0.0134	0.0021
Mercury	-65297-10-20 20:23 J	-22128012.78	-22128012.65	-22128012.52	0.0134	0.0005
Mercury	-65296-01-16 23:16 J	-22127924.65	-22127924.53	-22127924.39	0.0134	0.0014
Mercury	-65296-04-15 02:23 J	-22127836.53	-22127836.40	-22127836.27	0.0134	0.0030
Mercury	-65296-07-12 05:16 J	-22127748.40	-22127748.28	-22127748.16	0.0134	0.0047
Mercury	-65296-10-08 08:09 J	-22127660.27	-22127660.16	-22127660.04	0.0134	0.0064
Mercury	-65295-01-04 11:16 J	-22127572.13	-22127572.03	-22127571.93	0.0134	0.0081
Mercury	-65295-04-02 14:09 J	-22127483.99	-22127483.91	-22127483.82	0.0134	0.0098
Mercury	-65295-06-29 17:16 J	-22127395.85	-22127395.78	-22127395.72	0.0135	0.0115
Mercury	-65295-09-25 20:09 J	-22127307.68	-22127307.66	-22127307.64	0.0135	0.0132
Moon	-65285-07-27 14:52 J	-22123715.04	-22123714.88	-22123714.72	0.0140	0.0109
Earth	-65285-07-27 14:52 J	-22123715.00	-22123714.88	-22123714.72	0.0140	0.0116 *
Earth	-65284-08-01 04:47 J	-22123345.54	-22123345.30	-22123345.05	0.0141	0.0029
Moon	-65284-08-01 05:01 J	-22123345.51	-22123345.29	-22123345.05	0.0141	0.0036 *
Moon	-65283-08-05 19:11 J	-22122975.92	-22122975.70	-22122975.46	0.0141	0.0063
Earth	-65283-08-05 19:11 J	-22122975.91	-22122975.70	-22122975.46	0.0141	0.0060 *
Mars	-65274-12-24 15:35 J	-22119547.98	-22119547.85	-22119547.70	0.0146	0.0130
Mars	-65272-11-28 05:01 J	-22118843.57	-22118843.29	-22118842.99	0.0147	0.0058
Venus	-65269-04-16 21:35 J	-22117972.69	-22117972.60	-22117972.47	0.0147	0.0127

Venus -65269-11-29 11:45 J -22117746.19 -22117746.01 -22117745.80 0.0148 0.0067
 Venus -65268-07-14 02:23 J -22117519.62 -22117519.40 -22117519.18 0.0148 0.0006
 Venus -65267-02-25 16:47 J -22117293.00 -22117292.80 -22117292.59 0.0148 0.0056
 Venus -65267-10-10 07:11 J -22117066.32 -22117066.20 -22117066.05 0.0148 0.0117
 Mercury -65258-06-15 13:11 J -22113895.97 -22113895.95 -22113895.91 0.0146 0.0143
 Mercury -65258-09-11 22:04 J -22113807.70 -22113807.58 -22113807.45 0.0145 0.0111
 Mercury -65258-12-09 06:57 J -22113719.37 -22113719.21 -22113719.04 0.0145 0.0078
 Mercury -65257-03-06 15:49 J -22113631.02 -22113630.84 -22113630.65 0.0145 0.0046
 Mercury -65257-06-03 00:42 J -22113542.66 -22113542.47 -22113542.27 0.0145 0.0014
 Mercury -65257-08-30 09:35 J -22113454.29 -22113454.10 -22113453.90 0.0145 0.0019
 Mercury -65257-11-26 18:28 J -22113365.91 -22113365.73 -22113365.54 0.0145 0.0051
 Mercury -65256-02-23 03:21 J -22113277.52 -22113277.36 -22113277.20 0.0145 0.0083
 Mercury -65256-05-22 11:59 J -22113189.11 -22113189.00 -22113188.88 0.0145 0.0115
 Moon -65245-01-30 15:21 J -22109284.07 -22109283.86 -22109283.61 0.0138 0.0059
 Earth -65245-01-30 18:13 J -22109283.96 -22109283.74 -22109283.49 0.0138 0.0061 *
 Earth -65244-02-03 12:42 J -22108914.21 -22108913.97 -22108913.70 0.0138 0.0026
 Moon -65244-02-03 16:33 J -22108914.07 -22108913.81 -22108913.55 0.0138 0.0018 *
 Moon -65243-02-08 02:52 J -22108544.50 -22108544.38 -22108544.24 0.0137 0.0117
 Earth -65243-02-08 06:28 J -22108544.38 -22108544.23 -22108544.07 0.0137 0.0109 *
 Mars -65233-07-24 15:49 J -22104725.04 -22104724.84 -22104724.61 0.0132 0.0095
 Mars -65231-06-25 05:59 J -22104024.53 -22104024.25 -22104023.95 0.0132 0.0039
 Venus -65228-10-31 12:57 J -22102800.10 -22102799.96 -22102799.81 0.0131 0.0097
 Venus -65227-06-14 16:47 J -22102573.99 -22102573.80 -22102573.60 0.0131 0.0056
 Venus -65226-01-26 20:37 J -22102347.85 -22102347.64 -22102347.42 0.0131 0.0014
 Venus -65226-09-09 23:59 J -22102121.70 -22102121.50 -22102121.28 0.0131 0.0029
 Venus -65225-04-23 03:21 J -22101895.53 -22101895.36 -22101895.17 0.0131 0.0070
 Venus -65225-12-05 06:42 J -22101669.33 -22101669.22 -22101669.10 0.0131 0.0111
 Mercury -65215-12-06 04:47 J -22098016.32 -22098016.30 -22098016.27 0.0133 0.0130
 Mercury -65214-03-04 07:25 J -22097928.24 -22097928.19 -22097928.11 0.0133 0.0115
 Mercury -65214-05-31 10:33 J -22097840.14 -22097840.06 -22097839.96 0.0133 0.0097

Mercury -65214-08-27 13:40 J -22097752.03 -22097751.93 -22097751.83 0.0133 0.0081

Mercury -65214-11-23 16:33 J -22097663.92 -22097663.81 -22097663.69 0.0133 0.0064

Mercury -65213-02-19 19:25 J -22097575.81 -22097575.69 -22097575.56 0.0134 0.0047

Mercury -65213-05-17 22:18 J -22097487.69 -22097487.57 -22097487.44 0.0134 0.0031

Mercury -65213-08-14 01:25 J -22097399.57 -22097399.44 -22097399.31 0.0134 0.0014

Mercury -65213-11-10 04:18 J -22097311.45 -22097311.32 -22097311.19 0.0134 0.0004

Mercury -65212-02-06 07:25 J -22097223.32 -22097223.19 -22097223.06 0.0134 0.0020

Mercury -65212-05-05 10:18 J -22097135.20 -22097135.07 -22097134.95 0.0134 0.0037

Mercury -65212-08-01 13:11 J -22097047.07 -22097046.95 -22097046.83 0.0134 0.0054

Mercury -65212-10-28 16:04 J -22096958.93 -22096958.83 -22096958.71 0.0134 0.0071

Mercury -65211-01-24 18:57 J -22096870.80 -22096870.71 -22096870.60 0.0134 0.0089

Mercury -65211-04-22 21:49 J -22096782.66 -22096782.59 -22096782.50 0.0135 0.0106

Mercury -65211-07-20 00:57 J -22096694.50 -22096694.46 -22096694.40 0.0135 0.0122

Moon -65201-07-28 04:47 J -22093033.43 -22093033.30 -22093033.14 0.0140 0.0116

Earth -65201-07-28 06:13 J -22093033.38 -22093033.24 -22093033.07 0.0140 0.0108 *

Earth -65200-08-01 20:09 J -22092663.90 -22092663.66 -22092663.41 0.0141 0.0021

Moon -65200-08-01 20:37 J -22092663.87 -22092663.64 -22092663.39 0.0141 0.0016 *

Moon -65199-08-06 10:04 J -22092294.29 -22092294.08 -22092293.83 0.0141 0.0065

Earth -65199-08-06 10:47 J -22092294.27 -22092294.05 -22092293.83 0.0141 0.0068 *

Mars -65189-08-19 18:28 J -22088628.00 -22088627.73 -22088627.43 0.0147 0.0058

Mars -65187-07-25 14:37 J -22087922.99 -22087922.89 -22087922.75 0.0147 0.0136

Venus -65185-07-29 19:40 J -22087187.83 -22087187.68 -22087187.49 0.0147 0.0092

Venus -65184-03-13 10:04 J -22086961.29 -22086961.08 -22086960.86 0.0148 0.0031

Venus -65184-10-26 00:28 J -22086734.69 -22086734.48 -22086734.26 0.0148 0.0030

Venus -65183-06-09 14:37 J -22086508.05 -22086507.89 -22086507.70 0.0148 0.0091

Mercury -65174-07-05 22:04 J -22083194.66 -22083194.58 -22083194.49 0.0145 0.0131

Mercury -65174-10-02 06:57 J -22083106.35 -22083106.21 -22083106.06 0.0145 0.0098

Mercury -65174-12-29 15:49 J -22083018.01 -22083017.84 -22083017.66 0.0145 0.0066

Mercury -65173-03-27 00:42 J -22082929.66 -22082929.47 -22082929.27 0.0145 0.0034

Mercury -65173-06-23 09:35 J -22082841.29 -22082841.10 -22082840.90 0.0145 0.0003

Mercury -65173-09-19 18:28 J -22082752.92 -22082752.73 -22082752.54 0.0145 0.0031

Mercury -65173-12-17 03:21 J -22082664.53 -22082664.36 -22082664.18 0.0145 0.0063

Mercury -65172-03-15 12:13 J -22082576.14 -22082575.99 -22082575.84 0.0145 0.0095

Mercury -65172-06-11 20:52 J -22082487.72 -22082487.63 -22082487.53 0.0144 0.0127

Moon -65161-01-31 04:47 J -22078602.52 -22078602.30 -22078602.06 0.0138 0.0059

Earth -65161-01-31 07:54 J -22078602.40 -22078602.17 -22078601.92 0.0138 0.0054 *

Earth -65160-02-04 02:23 J -22078232.65 -22078232.40 -22078232.14 0.0138 0.0032

Moon -65160-02-04 05:16 J -22078232.53 -22078232.28 -22078232.02 0.0138 0.0039 *

Moon -65159-02-08 16:18 J -22077862.96 -22077862.82 -22077862.65 0.0137 0.0110

Earth -65159-02-08 19:40 J -22077862.80 -22077862.68 -22077862.53 0.0137 0.0117 *

Mars -65148-03-19 11:45 J -22073806.28 -22073806.01 -22073805.70 0.0132 0.0042

Mars -65146-02-17 21:21 J -22073105.80 -22073105.61 -22073105.37 0.0132 0.0092

Venus -65144-07-01 01:25 J -22072241.53 -22072241.44 -22072241.32 0.0131 0.0115

Venus -65143-02-12 05:45 J -22072015.44 -22072015.26 -22072015.08 0.0131 0.0073

Venus -65143-09-26 09:21 J -22071789.31 -22071789.11 -22071788.89 0.0131 0.0031

Venus -65142-05-10 12:57 J -22071563.17 -22071562.96 -22071562.74 0.0131 0.0011

Venus -65142-12-22 16:18 J -22071337.01 -22071336.82 -22071336.61 0.0131 0.0053

Venus -65141-08-04 19:40 J -22071110.82 -22071110.68 -22071110.52 0.0131 0.0094

Mercury -65131-12-26 12:28 J -22067315.02 -22067314.98 -22067314.94 0.0133 0.0124

Mercury -65130-03-24 15:06 J -22067226.93 -22067226.87 -22067226.78 0.0133 0.0109

Mercury -65130-06-20 18:13 J -22067138.83 -22067138.74 -22067138.64 0.0133 0.0091

Mercury -65130-09-16 21:06 J -22067050.72 -22067050.62 -22067050.51 0.0133 0.0075

Mercury -65130-12-13 23:59 J -22066962.61 -22066962.50 -22066962.37 0.0133 0.0059

Mercury -65129-03-11 03:06 J -22066874.49 -22066874.37 -22066874.24 0.0134 0.0041

Mercury -65129-06-07 05:59 J -22066786.38 -22066786.25 -22066786.12 0.0134 0.0025

Mercury -65129-09-03 09:06 J -22066698.26 -22066698.12 -22066697.99 0.0134 0.0009

Mercury -65129-11-30 11:59 J -22066610.13 -22066610.00 -22066609.87 0.0134 0.0009

Mercury -65128-02-26 14:52 J -22066522.01 -22066521.88 -22066521.75 0.0134 0.0026

Mercury -65128-05-25 17:45 J -22066433.88 -22066433.76 -22066433.63 0.0134 0.0043

Mercury -65128-08-21 20:37 J -22066345.75 -22066345.64 -22066345.52 0.0134 0.0060

Mercury -65128-11-17 23:45 J -22066257.62 -22066257.51 -22066257.40 0.0134 0.0077
 Mercury -65127-02-14 02:37 J -22066169.48 -22066169.39 -22066169.29 0.0134 0.0094
 Mercury -65127-05-13 05:45 J -22066081.33 -22066081.26 -22066081.19 0.0135 0.0111
 Mercury -65127-08-09 08:37 J -22065993.17 -22065993.14 -22065993.10 0.0135 0.0128
 Moon -65117-07-28 17:16 J -22062351.95 -22062351.78 -22062351.58 0.0140 0.0097
 Earth -65117-07-28 18:42 J -22062351.87 -22062351.72 -22062351.54 0.0140 0.0103 *
 Earth -65116-08-02 08:23 J -22061982.39 -22061982.15 -22061981.90 0.0141 0.0016
 Moon -65116-08-02 09:35 J -22061982.33 -22061982.10 -22061981.85 0.0141 0.0023 *
 Moon -65115-08-06 22:04 J -22061612.80 -22061612.58 -22061612.36 0.0142 0.0077
 Earth -65115-08-06 22:47 J -22061612.75 -22061612.55 -22061612.32 0.0142 0.0074 *
 Mars -65104-04-15 18:42 J -22057708.02 -22057707.72 -22057707.41 0.0147 0.0015
 Venus -65101-03-29 02:23 J -22056629.53 -22056629.40 -22056629.27 0.0147 0.0118
 Venus -65101-11-10 16:04 J -22056403.02 -22056402.83 -22056402.62 0.0147 0.0059
 Venus -65100-06-25 06:42 J -22056176.44 -22056176.22 -22056176.00 0.0148 0.0004
 Venus -65099-02-06 20:52 J -22055949.82 -22055949.63 -22055949.43 0.0148 0.0063
 Venus -65099-09-21 11:16 J -22055723.13 -22055723.03 -22055722.90 0.0148 0.0124
 Mercury -65090-07-26 06:13 J -22052493.33 -22052493.24 -22052493.12 0.0145 0.0120
 Mercury -65090-10-22 15:21 J -22052405.01 -22052404.86 -22052404.70 0.0145 0.0088
 Mercury -65089-01-19 00:13 J -22052316.67 -22052316.49 -22052316.30 0.0145 0.0055
 Mercury -65089-04-16 09:06 J -22052228.31 -22052228.12 -22052227.92 0.0145 0.0023
 Mercury -65089-07-13 17:59 J -22052139.94 -22052139.75 -22052139.55 0.0145 0.0010
 Mercury -65089-10-10 02:52 J -22052051.56 -22052051.38 -22052051.19 0.0145 0.0042
 Mercury -65088-01-06 11:45 J -22051963.18 -22051963.01 -22051962.84 0.0145 0.0074
 Mercury -65088-04-04 20:37 J -22051874.77 -22051874.64 -22051874.51 0.0145 0.0106
 Mercury -65088-07-02 05:16 J -22051786.33 -22051786.28 -22051786.22 0.0144 0.0138
 Earth -65078-01-27 02:09 J -22048290.46 -22048290.41 -22048290.34 0.0139 0.0135
 Moon -65078-01-27 04:04 J -22048290.37 -22048290.33 -22048290.24 0.0139 0.0135 *
 Moon -65077-01-31 19:40 J -22047920.92 -22047920.68 -22047920.44 0.0138 0.0045
 Earth -65077-01-31 21:35 J -22047920.83 -22047920.60 -22047920.34 0.0138 0.0048 *
 Earth -65076-02-04 16:18 J -22047551.06 -22047550.82 -22047550.57 0.0138 0.0040

Moon -65076-02-04 19:25 J -22047550.94 -22047550.69 -22047550.43 0.0138 0.0033 *
 Moon -65075-02-09 06:42 J -22047181.27 -22047181.22 -22047181.14 0.0137 0.0132
 Earth -65075-02-09 09:49 J -22047181.19 -22047181.09 -22047180.98 0.0137 0.0124 *
 Mars -65066-12-12 12:42 J -22043588.06 -22043587.97 -22043587.85 0.0132 0.0124
 Mars -65064-11-12 06:42 J -22042887.52 -22042887.22 -22042886.91 0.0132 0.0013
 Venus -65060-02-28 14:23 J -22041682.90 -22041682.90 -22041682.89 0.0131 0.0131
 Venus -65060-10-12 18:13 J -22041456.89 -22041456.74 -22041456.58 0.0131 0.0090
 Venus -65059-05-26 21:49 J -22041230.78 -22041230.59 -22041230.38 0.0131 0.0048
 Venus -65058-01-08 01:40 J -22041004.64 -22041004.43 -22041004.21 0.0131 0.0007
 Venus -65058-08-22 05:16 J -22040778.49 -22040778.28 -22040778.07 0.0131 0.0035
 Venus -65057-04-04 08:23 J -22040552.31 -22040552.15 -22040551.96 0.0131 0.0076
 Venus -65057-11-16 11:30 J -22040326.10 -22040326.02 -22040325.91 0.0131 0.0117
 Mercury -65046-01-15 19:54 J -22036613.73 -22036613.67 -22036613.61 0.0133 0.0119
 Mercury -65046-04-13 22:33 J -22036525.63 -22036525.56 -22036525.47 0.0133 0.0103
 Mercury -65046-07-11 01:40 J -22036437.52 -22036437.43 -22036437.33 0.0133 0.0086
 Mercury -65046-10-07 04:47 J -22036349.42 -22036349.30 -22036349.19 0.0133 0.0070
 Mercury -65045-01-03 07:25 J -22036261.30 -22036261.19 -22036261.06 0.0133 0.0053
 Mercury -65045-03-31 10:33 J -22036173.19 -22036173.06 -22036172.93 0.0133 0.0036
 Mercury -65045-06-27 13:25 J -22036085.07 -22036084.94 -22036084.81 0.0134 0.0020
 Mercury -65045-09-23 16:18 J -22035996.95 -22035996.82 -22035996.68 0.0134 0.0005
 Mercury -65045-12-20 19:25 J -22035908.82 -22035908.69 -22035908.56 0.0134 0.0014
 Mercury -65044-03-18 22:18 J -22035820.70 -22035820.57 -22035820.44 0.0134 0.0031
 Mercury -65044-06-15 01:11 J -22035732.57 -22035732.45 -22035732.33 0.0134 0.0048
 Mercury -65044-09-11 04:04 J -22035644.44 -22035644.33 -22035644.21 0.0134 0.0065
 Mercury -65044-12-08 07:11 J -22035556.30 -22035556.20 -22035556.10 0.0134 0.0082
 Mercury -65043-03-06 10:04 J -22035468.17 -22035468.08 -22035467.99 0.0134 0.0099
 Mercury -65043-06-02 12:57 J -22035380.02 -22035379.96 -22035379.89 0.0134 0.0116
 Mercury -65043-08-29 16:04 J -22035291.85 -22035291.83 -22035291.81 0.0135 0.0133
 Moon -65033-07-29 02:52 J -22031670.54 -22031670.38 -22031670.21 0.0140 0.0106
 Earth -65033-07-29 05:01 J -22031670.45 -22031670.29 -22031670.10 0.0140 0.0099 *

Earth	-65032-08-02 18:42 J	-22031300.97	-22031300.72	-22031300.47	0.0141	0.0012
Moon	-65032-08-02 20:23 J	-22031300.89	-22031300.65	-22031300.41	0.0141	0.0006 *
Moon	-65031-08-07 07:11 J	-22030931.40	-22030931.20	-22030930.96	0.0141	0.0074
Earth	-65031-08-07 08:52 J	-22030931.33	-22030931.13	-22030930.91	0.0141	0.0078 *
Mars	-65021-01-06 00:28 J	-22027492.69	-22027492.48	-22027492.26	0.0146	0.0105
Mars	-65020-12-10 11:45 J	-22026788.24	-22026788.01	-22026787.74	0.0147	0.0086
Venus	-65017-07-10 19:25 J	-22025844.85	-22025844.69	-22025844.50	0.0147	0.0090
Venus	-65016-02-22 09:49 J	-22025618.30	-22025618.09	-22025617.87	0.0147	0.0029
Venus	-65016-10-06 23:59 J	-22025391.71	-22025391.50	-22025391.28	0.0148	0.0031
Venus	-65015-05-21 14:09 J	-22025165.07	-22025164.91	-22025164.73	0.0148	0.0092
Mercury	-65006-08-15 12:42 J	-22021792.08	-22021791.97	-22021791.85	0.0145	0.0116
Mercury	-65006-11-11 21:21 J	-22021703.75	-22021703.61	-22021703.43	0.0145	0.0085
Mercury	-65005-02-08 06:28 J	-22021615.41	-22021615.23	-22021615.04	0.0145	0.0052
Mercury	-65005-05-06 15:21 J	-22021527.05	-22021526.86	-22021526.66	0.0145	0.0019
Mercury	-65005-08-03 00:13 J	-22021438.68	-22021438.49	-22021438.29	0.0145	0.0014
Mercury	-65005-10-30 09:06 J	-22021350.30	-22021350.12	-22021349.93	0.0145	0.0046
Mercury	-65004-01-26 17:59 J	-22021261.91	-22021261.75	-22021261.58	0.0145	0.0078
Mercury	-65004-04-25 02:37 J	-22021173.51	-22021173.39	-22021173.25	0.0145	0.0110
Mercury	-65004-07-22 11:30 J	-22021085.05	-22021085.02	-22021084.98	0.0144	0.0142

65TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 65th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Earth -64994-01-27 10:18 J -22017609.13 -22017609.07 -22017608.98 0.0139 0.0132
 Moon -64994-01-27 11:45 J -22017609.07 -22017609.01 -22017608.93 0.0139 0.0133 *
 Moon -64993-02-01 04:04 J -22017239.56 -22017239.33 -22017239.08 0.0138 0.0047
 Earth -64993-02-01 06:28 J -22017239.48 -22017239.23 -22017238.98 0.0138 0.0044 *
 Earth -64992-02-05 00:57 J -22016869.69 -22016869.46 -22016869.20 0.0138 0.0044
 Moon -64992-02-05 03:21 J -22016869.61 -22016869.36 -22016869.11 0.0138 0.0049 *
 Moon -64991-02-09 15:35 J -22016499.94 -22016499.85 -22016499.72 0.0137 0.0123
 Earth -64991-02-09 18:28 J -22016499.80 -22016499.73 -22016499.63 0.0137 0.0129 *
 Mars -64981-08-06 04:18 J -22012669.56 -22012669.32 -22012669.04 0.0132 0.0070
 Mars -64979-07-07 19:25 J -22011968.96 -22011968.69 -22011968.43 0.0132 0.0065
 Venus -64976-06-12 05:30 J -22010898.38 -22010898.27 -22010898.14 0.0131 0.0108
 Venus -64975-01-24 09:35 J -22010672.28 -22010672.10 -22010671.91 0.0131 0.0067
 Venus -64975-09-07 13:25 J -22010446.15 -22010445.94 -22010445.73 0.0131 0.0025
 Venus -64974-04-21 17:01 J -22010220.01 -22010219.79 -22010219.58 0.0131 0.0016
 Venus -64974-12-03 20:23 J -22009993.84 -22009993.65 -22009993.46 0.0131 0.0058
 Venus -64973-07-16 23:30 J -22009767.65 -22009767.52 -22009767.37 0.0131 0.0099
 Mercury -64963-11-09 00:13 J -22006000.50 -22006000.49 -22006000.46 0.0133 0.0131
 Mercury -64962-02-05 03:21 J -22005912.43 -22005912.36 -22005912.30 0.0133 0.0114
 Mercury -64962-05-04 05:59 J -22005824.33 -22005824.25 -22005824.15 0.0133 0.0098
 Mercury -64962-07-31 09:06 J -22005736.22 -22005736.12 -22005736.02 0.0133 0.0081
 Mercury -64962-10-27 11:59 J -22005648.11 -22005648.00 -22005647.88 0.0133 0.0065
 Mercury -64961-01-23 14:52 J -22005560.00 -22005559.88 -22005559.75 0.0133 0.0048
 Mercury -64961-04-20 17:59 J -22005471.88 -22005471.75 -22005471.63 0.0133 0.0032
 Mercury -64961-07-17 20:52 J -22005383.76 -22005383.63 -22005383.50 0.0134 0.0015
 Mercury -64961-10-13 23:45 J -22005295.64 -22005295.51 -22005295.38 0.0134 0.0002
 Mercury -64960-01-10 02:37 J -22005207.52 -22005207.39 -22005207.26 0.0134 0.0019
 Mercury -64960-04-08 05:30 J -22005119.39 -22005119.27 -22005119.14 0.0134 0.0036
 Mercury -64960-07-05 08:23 J -22005031.26 -22005031.15 -22005031.02 0.0134 0.0053
 Mercury -64960-10-01 11:30 J -22004943.13 -22004943.02 -22004942.91 0.0134 0.0069

Mercury -64960-12-28 14:23 J -22004855.00 -22004854.90 -22004854.80 0.0134 0.0086
 Mercury -64959-03-26 17:16 J -22004766.86 -22004766.78 -22004766.69 0.0134 0.0104
 Mercury -64959-06-22 20:09 J -22004678.71 -22004678.66 -22004678.59 0.0134 0.0121
 Moon -64949-07-29 13:11 J -22000989.13 -22000988.95 -22000988.74 0.0140 0.0088
 Earth -64949-07-29 15:35 J -22000989.02 -22000988.85 -22000988.66 0.0140 0.0095 *
 Earth -64948-08-03 04:47 J -22000619.55 -22000619.30 -22000619.05 0.0141 0.0008
 Moon -64948-08-03 06:57 J -22000619.44 -22000619.21 -22000618.96 0.0141 0.0015 *
 Moon -64947-08-07 16:33 J -22000250.00 -22000249.81 -22000249.60 0.0141 0.0087
 Earth -64947-08-07 18:57 J -22000249.91 -22000249.71 -22000249.51 0.0141 0.0082 *
 Mars -64937-08-31 13:54 J -21996573.21 -21996572.92 -21996572.61 0.0146 0.0037
 Venus -64933-03-09 22:47 J -21995286.66 -21995286.55 -21995286.41 0.0147 0.0121
 Venus -64933-10-22 12:42 J -21995060.16 -21995059.97 -21995059.76 0.0147 0.0061
 Venus -64932-06-06 02:52 J -21994833.60 -21994833.38 -21994833.16 0.0147 0.0002
 Venus -64931-01-18 17:01 J -21994606.99 -21994606.79 -21994606.58 0.0148 0.0059
 Venus -64931-09-02 07:11 J -21994380.31 -21994380.20 -21994380.05 0.0148 0.0120
 Mercury -64922-06-08 10:04 J -21991179.08 -21991179.08 -21991179.07 0.0146 0.0145
 Mercury -64922-09-04 19:11 J -21991090.82 -21991090.70 -21991090.58 0.0145 0.0113
 Mercury -64922-12-02 03:49 J -21991002.49 -21991002.34 -21991002.17 0.0145 0.0081
 Mercury -64921-02-28 12:42 J -21990914.15 -21990913.97 -21990913.78 0.0145 0.0048
 Mercury -64921-05-26 21:35 J -21990825.79 -21990825.60 -21990825.40 0.0145 0.0016
 Mercury -64921-08-23 06:28 J -21990737.42 -21990737.23 -21990737.03 0.0145 0.0017
 Mercury -64921-11-19 15:21 J -21990649.04 -21990648.86 -21990648.67 0.0145 0.0049
 Mercury -64920-02-15 23:59 J -21990560.65 -21990560.50 -21990560.33 0.0145 0.0082
 Mercury -64920-05-15 08:52 J -21990472.24 -21990472.13 -21990472.00 0.0145 0.0113
 Earth -64910-01-27 17:59 J -21986927.82 -21986927.75 -21986927.65 0.0139 0.0130
 Moon -64910-01-27 19:11 J -21986927.79 -21986927.70 -21986927.59 0.0139 0.0128 *
 Moon -64909-02-01 13:25 J -21986558.18 -21986557.94 -21986557.70 0.0138 0.0040
 Earth -64909-02-01 14:09 J -21986558.15 -21986557.91 -21986557.65 0.0138 0.0041 *
 Earth -64908-02-05 09:06 J -21986188.36 -21986188.12 -21986187.87 0.0138 0.0047
 Moon -64908-02-05 11:16 J -21986188.28 -21986188.03 -21986187.77 0.0138 0.0041 *

Earth	-64907-02-10 02:52 J	-21985818.43	-21985818.38	-21985818.30	0.0137	0.0132
Mars	-64896-03-31 18:28 J	-21981751.02	-21981750.73	-21981750.41	0.0132	0.0018
Mars	-64894-03-02 07:25 J	-21981050.32	-21981050.19	-21981050.04	0.0132	0.0117
Venus	-64892-02-09 16:33 J	-21980339.84	-21980339.81	-21980339.74	0.0132	0.0128
Venus	-64892-09-23 20:52 J	-21980113.79	-21980113.63	-21980113.46	0.0131	0.0086
Venus	-64891-05-08 00:28 J	-21979887.67	-21979887.48	-21979887.27	0.0131	0.0045
Venus	-64891-12-20 04:18 J	-21979661.54	-21979661.32	-21979661.10	0.0131	0.0003
Venus	-64890-08-03 07:54 J	-21979435.38	-21979435.17	-21979434.96	0.0131	0.0039
Venus	-64889-03-16 11:16 J	-21979209.20	-21979209.03	-21979208.85	0.0131	0.0080
Venus	-64889-10-28 14:23 J	-21978982.97	-21978982.90	-21978982.80	0.0131	0.0121
Mercury	-64879-11-29 07:40 J	-21975299.21	-21975299.18	-21975299.14	0.0133	0.0126
Mercury	-64878-02-25 10:47 J	-21975211.12	-21975211.05	-21975210.98	0.0133	0.0109
Mercury	-64878-05-24 13:25 J	-21975123.02	-21975122.94	-21975122.84	0.0133	0.0093
Mercury	-64878-08-20 16:33 J	-21975034.92	-21975034.81	-21975034.70	0.0133	0.0076
Mercury	-64878-11-16 19:25 J	-21974946.80	-21974946.69	-21974946.57	0.0133	0.0060
Mercury	-64877-02-12 22:18 J	-21974858.69	-21974858.57	-21974858.44	0.0133	0.0043
Mercury	-64877-05-11 01:25 J	-21974770.57	-21974770.44	-21974770.32	0.0134	0.0027
Mercury	-64877-08-07 04:18 J	-21974682.45	-21974682.32	-21974682.19	0.0134	0.0010
Mercury	-64877-11-03 07:11 J	-21974594.33	-21974594.20	-21974594.07	0.0134	0.0007
Mercury	-64876-01-30 10:04 J	-21974506.21	-21974506.08	-21974505.95	0.0134	0.0024
Mercury	-64876-04-28 12:57 J	-21974418.08	-21974417.96	-21974417.83	0.0134	0.0041
Mercury	-64876-07-25 15:49 J	-21974329.95	-21974329.84	-21974329.71	0.0134	0.0058
Mercury	-64876-10-21 18:42 J	-21974241.82	-21974241.72	-21974241.60	0.0134	0.0075
Mercury	-64875-01-17 21:35 J	-21974153.68	-21974153.60	-21974153.49	0.0134	0.0093
Mercury	-64875-04-16 00:57 J	-21974065.54	-21974065.46	-21974065.39	0.0134	0.0109
Mercury	-64875-07-13 03:49 J	-21973977.38	-21973977.34	-21973977.30	0.0134	0.0126
Moon	-64865-07-30 01:11 J	-21970307.62	-21970307.45	-21970307.26	0.0140	0.0096
Earth	-64865-07-30 04:04 J	-21970307.50	-21970307.33	-21970307.12	0.0140	0.0089 *
Earth	-64864-08-03 17:30 J	-21969938.02	-21969937.77	-21969937.52	0.0141	0.0003
Moon	-64864-08-03 19:54 J	-21969937.91	-21969937.67	-21969937.42	0.0141	0.0006 *

Moon -64863-08-08 04:47 J -21969568.49 -21969568.30 -21969568.08 0.0141 0.0083
 Earth -64863-08-08 07:11 J -21969568.38 -21969568.20 -21969568.00 0.0141 0.0088 *
 Mars -64852-04-27 09:21 J -21965653.40 -21965653.11 -21965652.80 0.0146 0.0036
 Venus -64849-06-21 17:30 J -21964501.93 -21964501.77 -21964501.59 0.0147 0.0090
 Venus -64848-02-03 07:25 J -21964275.40 -21964275.19 -21964274.97 0.0147 0.0031
 Venus -64848-09-17 21:35 J -21964048.81 -21964048.60 -21964048.38 0.0147 0.0029
 Venus -64847-05-02 11:30 J -21963822.18 -21963822.02 -21963821.83 0.0147 0.0089
 Mercury -64838-06-28 16:18 J -21960477.84 -21960477.82 -21960477.76 0.0145 0.0142
 Mercury -64838-09-25 01:25 J -21960389.56 -21960389.44 -21960389.30 0.0145 0.0109
 Mercury -64838-12-22 10:18 J -21960301.23 -21960301.07 -21960300.90 0.0145 0.0076
 Mercury -64837-03-19 19:11 J -21960212.88 -21960212.70 -21960212.51 0.0145 0.0044
 Mercury -64837-06-16 04:04 J -21960124.52 -21960124.33 -21960124.13 0.0145 0.0012
 Mercury -64837-09-12 12:57 J -21960036.15 -21960035.96 -21960035.76 0.0145 0.0021
 Mercury -64837-12-09 21:49 J -21959947.77 -21959947.59 -21959947.40 0.0145 0.0053
 Mercury -64836-03-08 06:28 J -21959859.38 -21959859.23 -21959859.06 0.0145 0.0086
 Mercury -64836-06-04 15:06 J -21959770.96 -21959770.87 -21959770.74 0.0145 0.0118
 Earth -64826-01-28 01:40 J -21956246.53 -21956246.43 -21956246.33 0.0139 0.0128
 Moon -64826-01-28 01:11 J -21956246.52 -21956246.45 -21956246.35 0.0139 0.0131 *
 Moon -64825-02-01 20:37 J -21955876.87 -21955876.64 -21955876.39 0.0138 0.0041
 Earth -64825-02-01 21:35 J -21955876.84 -21955876.60 -21955876.34 0.0138 0.0039 *
 Earth -64824-02-05 16:33 J -21955507.04 -21955506.81 -21955506.56 0.0138 0.0049
 Moon -64824-02-05 17:16 J -21955507.01 -21955506.78 -21955506.52 0.0138 0.0054 *
 Moon -64823-02-10 08:23 J -21955137.21 -21955137.15 -21955137.05 0.0137 0.0129
 Earth -64823-02-10 10:04 J -21955137.10 -21955137.08 -21955137.02 0.0137 0.0136 *
 Mars -64814-12-24 09:06 J -21951533.29 -21951533.12 -21951532.91 0.0133 0.0105
 Mars -64812-11-24 07:25 J -21950832.47 -21950832.19 -21950831.89 0.0132 0.0035
 Venus -64808-05-24 06:57 J -21949555.32 -21949555.21 -21949555.06 0.0132 0.0106
 Venus -64807-01-05 11:16 J -21949329.21 -21949329.03 -21949328.83 0.0132 0.0064
 Venus -64807-08-19 15:06 J -21949103.08 -21949102.87 -21949102.65 0.0132 0.0022
 Venus -64806-04-02 18:42 J -21948876.93 -21948876.72 -21948876.50 0.0131 0.0019

Venus -64806-11-14 22:04 J -21948650.76 -21948650.58 -21948650.38 0.0131 0.0061
 Venus -64805-06-28 01:25 J -21948424.56 -21948424.44 -21948424.29 0.0131 0.0102
 Mercury -64795-12-19 15:06 J -21944597.92 -21944597.87 -21944597.82 0.0133 0.0121
 Mercury -64794-03-17 17:59 J -21944509.82 -21944509.75 -21944509.67 0.0133 0.0105
 Mercury -64794-06-13 20:52 J -21944421.72 -21944421.63 -21944421.53 0.0133 0.0089
 Mercury -64794-09-09 23:59 J -21944333.61 -21944333.50 -21944333.39 0.0133 0.0072
 Mercury -64794-12-07 02:52 J -21944245.50 -21944245.38 -21944245.26 0.0133 0.0055
 Mercury -64793-03-04 05:45 J -21944157.38 -21944157.26 -21944157.13 0.0134 0.0038
 Mercury -64793-05-31 08:37 J -21944069.26 -21944069.14 -21944069.01 0.0134 0.0022
 Mercury -64793-08-27 11:45 J -21943981.14 -21943981.01 -21943980.88 0.0134 0.0005
 Mercury -64793-11-23 14:37 J -21943893.02 -21943892.89 -21943892.76 0.0134 0.0012
 Mercury -64792-02-19 17:30 J -21943804.90 -21943804.77 -21943804.64 0.0134 0.0029
 Mercury -64792-05-18 20:23 J -21943716.77 -21943716.65 -21943716.52 0.0134 0.0046
 Mercury -64792-08-14 23:16 J -21943628.64 -21943628.53 -21943628.41 0.0134 0.0063
 Mercury -64792-11-11 02:09 J -21943540.50 -21943540.41 -21943540.29 0.0134 0.0081
 Mercury -64791-02-07 05:16 J -21943452.37 -21943452.28 -21943452.19 0.0134 0.0097
 Mercury -64791-05-06 08:09 J -21943364.22 -21943364.16 -21943364.09 0.0134 0.0114
 Mercury -64791-08-02 11:16 J -21943276.05 -21943276.03 -21943276.00 0.0135 0.0131
 Moon -64781-07-30 14:23 J -21939626.11 -21939625.90 -21939625.68 0.0140 0.0076
 Earth -64781-07-30 17:16 J -21939625.97 -21939625.78 -21939625.57 0.0140 0.0083 *
 Earth -64780-08-04 06:28 J -21939256.48 -21939256.23 -21939255.98 0.0141 0.0005
 Moon -64780-08-04 09:21 J -21939256.35 -21939256.11 -21939255.86 0.0141 0.0003 *
 Moon -64779-08-08 17:16 J -21938886.94 -21938886.78 -21938886.59 0.0141 0.0100
 Earth -64779-08-08 20:23 J -21938886.83 -21938886.65 -21938886.46 0.0141 0.0095 *
 Mars -64769-01-18 04:18 J -21935437.57 -21935437.32 -21935437.06 0.0146 0.0080
 Mars -64768-12-22 10:47 J -21934733.23 -21934733.05 -21934732.84 0.0147 0.0112
 Venus -64765-02-20 00:28 J -21933943.60 -21933943.48 -21933943.33 0.0147 0.0116
 Venus -64765-10-03 14:23 J -21933717.10 -21933716.90 -21933716.70 0.0147 0.0057
 Venus -64764-05-18 04:04 J -21933490.54 -21933490.33 -21933490.11 0.0147 0.0003
 Venus -64764-12-30 17:59 J -21933263.94 -21933263.75 -21933263.54 0.0147 0.0061

Venus -64763-08-14 08:37 J -21933037.27 -21933037.14 -21933037.02 0.0147 0.0121

Mercury -64754-07-19 00:28 J -21929776.55 -21929776.48 -21929776.40 0.0145 0.0133

Mercury -64754-10-15 09:06 J -21929688.24 -21929688.12 -21929687.96 0.0145 0.0101

Mercury -64753-01-11 17:59 J -21929599.91 -21929599.75 -21929599.56 0.0145 0.0068

Mercury -64753-04-09 03:06 J -21929511.56 -21929511.37 -21929511.18 0.0145 0.0035

Mercury -64753-07-06 11:59 J -21929423.19 -21929423.00 -21929422.80 0.0145 0.0003

Mercury -64753-10-02 20:52 J -21929334.82 -21929334.63 -21929334.44 0.0145 0.0029

Mercury -64753-12-30 05:30 J -21929246.44 -21929246.27 -21929246.09 0.0145 0.0062

Mercury -64752-03-28 14:09 J -21929158.05 -21929157.91 -21929157.75 0.0145 0.0094

Mercury -64752-06-24 23:01 J -21929069.63 -21929069.54 -21929069.44 0.0145 0.0126

Moon -64742-01-28 11:45 J -21925565.11 -21925565.01 -21925564.86 0.0139 0.0122

Earth -64742-01-28 12:28 J -21925565.09 -21925564.98 -21925564.86 0.0139 0.0124 *

Earth -64741-02-02 08:37 J -21925195.39 -21925195.14 -21925194.89 0.0138 0.0035

Moon -64741-02-02 08:37 J -21925195.37 -21925195.14 -21925194.89 0.0138 0.0035 *

Earth -64740-02-06 03:06 J -21924825.60 -21924825.37 -21924825.12 0.0138 0.0054

Moon -64740-02-06 04:04 J -21924825.57 -21924825.33 -21924825.07 0.0138 0.0049 *

Mars -64729-08-18 03:49 J -21920614.61 -21920614.34 -21920614.04 0.0133 0.0051

Mars -64727-07-19 22:18 J -21919913.77 -21919913.57 -21919913.32 0.0132 0.0088

Venus -64724-01-21 18:28 J -21918996.79 -21918996.73 -21918996.64 0.0132 0.0124

Venus -64724-09-04 22:33 J -21918770.71 -21918770.56 -21918770.38 0.0132 0.0083

Venus -64723-04-19 02:37 J -21918544.59 -21918544.39 -21918544.18 0.0132 0.0041

Venus -64723-12-01 06:28 J -21918318.45 -21918318.23 -21918318.01 0.0132 0.0001

Venus -64722-07-15 10:04 J -21918092.28 -21918092.08 -21918091.87 0.0131 0.0042

Venus -64721-02-26 13:25 J -21917866.09 -21917865.94 -21917865.76 0.0131 0.0084

Venus -64721-10-09 17:01 J -21917639.85 -21917639.79 -21917639.71 0.0131 0.0124

Mercury -64711-10-12 19:40 J -21913984.68 -21913984.68 -21913984.68 0.0133 0.0133

Mercury -64710-01-08 22:33 J -21913896.62 -21913896.56 -21913896.49 0.0133 0.0117

Mercury -64710-04-07 01:25 J -21913808.52 -21913808.44 -21913808.35 0.0133 0.0100

Mercury -64710-07-04 04:18 J -21913720.41 -21913720.32 -21913720.21 0.0133 0.0084

Mercury -64710-09-30 07:25 J -21913632.30 -21913632.19 -21913632.08 0.0133 0.0067

Mercury -64710-12-27 10:18 J -21913544.19 -21913544.07 -21913543.95 0.0134 0.0050
 Mercury -64709-03-24 13:11 J -21913456.07 -21913455.95 -21913455.82 0.0134 0.0033
 Mercury -64709-06-20 16:18 J -21913367.95 -21913367.82 -21913367.69 0.0134 0.0017
 Mercury -64709-09-16 19:11 J -21913279.83 -21913279.70 -21913279.57 0.0134 0.0002
 Mercury -64709-12-13 22:04 J -21913191.71 -21913191.58 -21913191.45 0.0134 0.0017
 Mercury -64708-03-12 00:57 J -21913103.58 -21913103.46 -21913103.33 0.0134 0.0034
 Mercury -64708-06-08 03:49 J -21913015.45 -21913015.34 -21913015.21 0.0134 0.0052
 Mercury -64708-09-04 06:57 J -21912927.32 -21912927.21 -21912927.10 0.0134 0.0068
 Mercury -64708-12-01 09:49 J -21912839.19 -21912839.09 -21912838.99 0.0134 0.0085
 Mercury -64707-02-27 12:42 J -21912751.05 -21912750.97 -21912750.88 0.0134 0.0103
 Mercury -64707-05-26 15:35 J -21912662.90 -21912662.85 -21912662.78 0.0135 0.0120
 Moon -64697-07-31 03:21 J -21908944.56 -21908944.36 -21908944.16 0.0140 0.0084
 Earth -64697-07-31 06:42 J -21908944.42 -21908944.22 -21908944.00 0.0140 0.0077 *
 Earth -64696-08-04 19:54 J -21908574.92 -21908574.67 -21908574.42 0.0141 0.0012
 Moon -64696-08-04 23:01 J -21908574.78 -21908574.54 -21908574.29 0.0141 0.0019 *
 Moon -64695-08-09 06:42 J -21908205.39 -21908205.22 -21908205.02 0.0141 0.0097
 Earth -64695-08-09 09:49 J -21908205.25 -21908205.09 -21908204.91 0.0141 0.0102 *
 Mars -64685-09-13 03:35 J -21904517.65 -21904517.35 -21904517.04 0.0146 0.0008
 Venus -64682-10-20 07:54 J -21903385.21 -21903385.17 -21903385.09 0.0147 0.0141
 Venus -64681-06-02 21:49 J -21903158.77 -21903158.59 -21903158.41 0.0147 0.0083
 Venus -64680-01-15 11:30 J -21902932.23 -21902932.02 -21902931.80 0.0147 0.0024
 Venus -64680-08-30 01:25 J -21902705.65 -21902705.44 -21902705.22 0.0147 0.0036
 Venus -64679-04-13 15:21 J -21902479.02 -21902478.86 -21902478.68 0.0147 0.0095
 Mercury -64670-08-08 08:37 J -21899075.23 -21899075.14 -21899075.03 0.0145 0.0123
 Mercury -64670-11-04 17:30 J -21898986.92 -21898986.77 -21898986.61 0.0145 0.0090
 Mercury -64669-02-01 02:23 J -21898898.58 -21898898.40 -21898898.22 0.0145 0.0058
 Mercury -64669-04-29 11:16 J -21898810.22 -21898810.03 -21898809.84 0.0145 0.0026
 Mercury -64669-07-26 20:09 J -21898721.86 -21898721.66 -21898721.47 0.0145 0.0007
 Mercury -64669-10-23 04:47 J -21898633.48 -21898633.30 -21898633.11 0.0145 0.0039
 Mercury -64668-01-19 13:40 J -21898545.10 -21898544.93 -21898544.76 0.0145 0.0071

Mercury -64668-04-17 22:18 J -21898456.70 -21898456.57 -21898456.43 0.0145 0.0103

Mercury -64668-07-15 06:57 J -21898368.27 -21898368.21 -21898368.13 0.0144 0.0135

Moon -64658-01-28 21:35 J -21894883.70 -21894883.60 -21894883.46 0.0139 0.0124

Earth -64658-01-28 23:16 J -21894883.65 -21894883.53 -21894883.39 0.0139 0.0120 *

Earth -64657-02-02 18:57 J -21894513.95 -21894513.71 -21894513.44 0.0138 0.0031

Moon -64657-02-02 19:25 J -21894513.93 -21894513.69 -21894513.44 0.0138 0.0031 *

Moon -64656-02-06 13:25 J -21894144.17 -21894143.94 -21894143.69 0.0138 0.0062

Earth -64656-02-06 13:54 J -21894144.15 -21894143.92 -21894143.68 0.0138 0.0058 *

Mars -64644-04-12 20:09 J -21889695.96 -21889695.66 -21889695.35 0.0132 0.0004

Venus -64640-05-05 09:35 J -21888212.24 -21888212.10 -21888211.96 0.0132 0.0101

Venus -64640-12-17 13:25 J -21887986.12 -21887985.94 -21887985.74 0.0132 0.0060

Venus -64639-07-31 17:30 J -21887759.98 -21887759.77 -21887759.55 0.0132 0.0018

Venus -64638-03-14 21:21 J -21887533.82 -21887533.61 -21887533.40 0.0132 0.0023

Venus -64638-10-27 00:42 J -21887307.65 -21887307.47 -21887307.27 0.0131 0.0065

Venus -64637-06-09 04:04 J -21887081.44 -21887081.33 -21887081.18 0.0131 0.0106

Mercury -64627-11-02 02:37 J -21883283.40 -21883283.39 -21883283.35 0.0133 0.0130

Mercury -64626-01-29 05:45 J -21883195.32 -21883195.26 -21883195.18 0.0133 0.0112

Mercury -64626-04-27 08:52 J -21883107.22 -21883107.13 -21883107.04 0.0133 0.0096

Mercury -64626-07-24 11:30 J -21883019.11 -21883019.02 -21883018.90 0.0133 0.0080

Mercury -64626-10-20 14:37 J -21882931.00 -21882930.89 -21882930.77 0.0134 0.0062

Mercury -64625-01-16 17:30 J -21882842.89 -21882842.77 -21882842.64 0.0134 0.0046

Mercury -64625-04-13 20:37 J -21882754.77 -21882754.64 -21882754.51 0.0134 0.0029

Mercury -64625-07-10 23:30 J -21882666.65 -21882666.52 -21882666.39 0.0134 0.0012

Mercury -64625-10-07 02:23 J -21882578.53 -21882578.40 -21882578.27 0.0134 0.0005

Mercury -64624-01-03 05:16 J -21882490.40 -21882490.28 -21882490.15 0.0134 0.0022

Mercury -64624-04-01 08:09 J -21882402.28 -21882402.16 -21882402.03 0.0134 0.0040

Mercury -64624-06-28 11:16 J -21882314.15 -21882314.03 -21882313.91 0.0134 0.0056

Mercury -64624-09-24 14:09 J -21882226.02 -21882225.91 -21882225.80 0.0134 0.0073

Mercury -64624-12-21 17:01 J -21882137.88 -21882137.79 -21882137.69 0.0134 0.0090

Mercury -64623-03-19 20:09 J -21882049.74 -21882049.66 -21882049.58 0.0134 0.0107

Mercury -64623-06-15 22:47 J -21881961.58 -21881961.55 -21881961.49 0.0135 0.0125
 Moon -64613-07-31 14:52 J -21878263.08 -21878262.88 -21878262.64 0.0140 0.0066
 Earth -64613-07-31 18:28 J -21878262.94 -21878262.73 -21878262.51 0.0140 0.0072 *
 Earth -64612-08-05 07:40 J -21877893.43 -21877893.18 -21877892.93 0.0141 0.0016
 Moon -64612-08-05 11:01 J -21877893.28 -21877893.04 -21877892.79 0.0141 0.0009 *
 Moon -64611-08-09 18:13 J -21877523.88 -21877523.74 -21877523.58 0.0141 0.0113
 Earth -64611-08-09 21:35 J -21877523.75 -21877523.60 -21877523.43 0.0141 0.0107 *
 Mars -64602-06-06 00:57 J -21874301.60 -21874301.46 -21874301.28 0.0146 0.0124
 Mars -64600-05-10 01:25 J -21873597.71 -21873597.44 -21873597.16 0.0146 0.0067
 Venus -64597-02-01 03:49 J -21872600.47 -21872600.34 -21872600.18 0.0147 0.0109
 Venus -64597-09-14 17:45 J -21872373.96 -21872373.76 -21872373.55 0.0147 0.0050
 Venus -64596-04-29 07:40 J -21872147.40 -21872147.18 -21872146.96 0.0147 0.0009
 Venus -64596-12-11 21:21 J -21871920.79 -21871920.61 -21871920.40 0.0147 0.0069
 Venus -64595-07-26 11:45 J -21871694.10 -21871694.01 -21871693.89 0.0147 0.0128
 Mercury -64586-06-01 07:54 J -21868462.17 -21868462.17 -21868462.15 0.0145 0.0145
 Mercury -64586-08-28 16:47 J -21868373.91 -21868373.80 -21868373.67 0.0145 0.0113
 Mercury -64586-11-25 01:40 J -21868285.59 -21868285.43 -21868285.26 0.0145 0.0080
 Mercury -64585-02-21 10:33 J -21868197.24 -21868197.06 -21868196.87 0.0145 0.0048
 Mercury -64585-05-19 19:25 J -21868108.88 -21868108.69 -21868108.50 0.0145 0.0016
 Mercury -64585-08-16 04:04 J -21868020.52 -21868020.33 -21868020.13 0.0145 0.0017
 Mercury -64585-11-12 12:57 J -21867932.14 -21867931.96 -21867931.77 0.0145 0.0049
 Mercury -64584-02-08 21:35 J -21867843.75 -21867843.60 -21867843.43 0.0145 0.0081
 Mercury -64584-05-08 06:28 J -21867755.35 -21867755.23 -21867755.10 0.0145 0.0113
 Mercury -64584-08-04 15:21 J -21867666.86 -21867666.86 -21867666.86 0.0144 0.0144
 Moon -64574-01-29 10:04 J -21864202.23 -21864202.08 -21864201.91 0.0139 0.0111
 Earth -64574-01-29 11:01 J -21864202.16 -21864202.04 -21864201.87 0.0139 0.0115 *
 Earth -64573-02-03 07:11 J -21863832.45 -21863832.20 -21863831.94 0.0138 0.0025
 Moon -64573-02-03 08:23 J -21863832.39 -21863832.15 -21863831.89 0.0138 0.0026 *
 Moon -64572-02-07 01:11 J -21863462.68 -21863462.45 -21863462.20 0.0138 0.0060
 Earth -64572-02-07 01:40 J -21863462.65 -21863462.43 -21863462.20 0.0138 0.0064 *

Mars	-64561-01-05 13:11 J	-21859478.17	-21859477.95	-21859477.70	0.0133	0.0085
Mars	-64560-12-06 11:45 J	-21858777.27	-21858777.01	-21858776.71	0.0132	0.0057
Venus	-64556-01-02 20:09 J	-21857653.73	-21857653.66	-21857653.55	0.0132	0.0120
Venus	-64556-08-17 00:42 J	-21857427.64	-21857427.47	-21857427.29	0.0132	0.0078
Venus	-64555-03-31 04:33 J	-21857201.51	-21857201.31	-21857201.10	0.0131	0.0037
Venus	-64555-11-12 08:23 J	-21856975.36	-21856975.15	-21856974.93	0.0131	0.0005
Venus	-64554-06-26 12:13 J	-21856749.19	-21856748.99	-21856748.79	0.0131	0.0046
Venus	-64553-02-07 15:49 J	-21856523.00	-21856522.84	-21856522.67	0.0131	0.0087
Venus	-64553-09-20 19:11 J	-21856296.74	-21856296.70	-21856296.64	0.0131	0.0127
Mercury	-64543-11-22 10:04 J	-21852582.12	-21852582.08	-21852582.04	0.0133	0.0125
Mercury	-64542-02-18 12:57 J	-21852494.03	-21852493.96	-21852493.88	0.0133	0.0109
Mercury	-64542-05-17 15:49 J	-21852405.93	-21852405.84	-21852405.74	0.0133	0.0092
Mercury	-64542-08-13 18:42 J	-21852317.82	-21852317.72	-21852317.61	0.0133	0.0076
Mercury	-64542-11-09 21:49 J	-21852229.71	-21852229.59	-21852229.47	0.0133	0.0059
Mercury	-64541-02-06 00:42 J	-21852141.59	-21852141.47	-21852141.35	0.0134	0.0042
Mercury	-64541-05-04 03:35 J	-21852053.48	-21852053.35	-21852053.22	0.0134	0.0025
Mercury	-64541-07-31 06:28 J	-21851965.36	-21851965.23	-21851965.09	0.0134	0.0010
Mercury	-64541-10-27 09:35 J	-21851877.23	-21851877.10	-21851876.97	0.0134	0.0009
Mercury	-64540-01-23 12:28 J	-21851789.11	-21851788.98	-21851788.85	0.0134	0.0025
Mercury	-64540-04-21 15:21 J	-21851700.98	-21851700.86	-21851700.73	0.0134	0.0043
Mercury	-64540-07-18 18:28 J	-21851612.85	-21851612.73	-21851612.62	0.0134	0.0060
Mercury	-64540-10-14 21:21 J	-21851524.72	-21851524.61	-21851524.50	0.0134	0.0076
Mercury	-64539-01-11 00:13 J	-21851436.58	-21851436.49	-21851436.39	0.0134	0.0094
Mercury	-64539-04-09 03:06 J	-21851348.44	-21851348.37	-21851348.29	0.0134	0.0111
Mercury	-64539-07-06 06:13 J	-21851260.28	-21851260.24	-21851260.20	0.0135	0.0128
Jupiter	-64537-07-14 23:16 J	-21850520.89	-21850520.53	-21850520.17	0.0135	0.0095
Moon	-64529-07-31 23:59 J	-21847581.69	-21847581.50	-21847581.28	0.0140	0.0077
Earth	-64529-08-01 04:04 J	-21847581.55	-21847581.33	-21847581.12	0.0140	0.0070 *
Earth	-64528-08-05 16:47 J	-21847212.04	-21847211.80	-21847211.54	0.0141	0.0020
Moon	-64528-08-05 20:23 J	-21847211.89	-21847211.65	-21847211.40	0.0141	0.0027 *

Moon	-64527-08-10 03:21 J	-21846842.51	-21846842.36	-21846842.18	0.0141	0.0105
Earth	-64527-08-10 06:42 J	-21846842.36	-21846842.22	-21846842.05	0.0141	0.0110 *
Mars	-64517-01-30 13:11 J	-21843382.21	-21843381.95	-21843381.65	0.0146	0.0056
Mars	-64515-01-03 18:13 J	-21842677.82	-21842677.74	-21842677.62	0.0147	0.0139
Venus	-64514-10-01 08:37 J	-21842042.21	-21842042.14	-21842042.05	0.0147	0.0137
Venus	-64513-05-14 22:04 J	-21841815.75	-21841815.58	-21841815.39	0.0147	0.0079
Venus	-64513-12-27 11:59 J	-21841589.22	-21841589.00	-21841588.78	0.0147	0.0021
Venus	-64512-08-11 01:54 J	-21841362.63	-21841362.42	-21841362.20	0.0147	0.0039
Venus	-64511-03-25 16:04 J	-21841135.99	-21841135.83	-21841135.66	0.0147	0.0098
Mercury	-64502-06-21 14:37 J	-21837760.93	-21837760.89	-21837760.82	0.0145	0.0140
Mercury	-64502-09-17 23:30 J	-21837672.64	-21837672.52	-21837672.38	0.0145	0.0107
Mercury	-64502-12-15 08:37 J	-21837584.31	-21837584.14	-21837583.97	0.0145	0.0075
Mercury	-64501-03-12 17:16 J	-21837495.96	-21837495.78	-21837495.59	0.0145	0.0042
Mercury	-64501-06-09 02:09 J	-21837407.60	-21837407.41	-21837407.21	0.0145	0.0010
Mercury	-64501-09-05 11:01 J	-21837319.23	-21837319.04	-21837318.85	0.0145	0.0022
Mercury	-64501-12-02 19:40 J	-21837230.85	-21837230.68	-21837230.49	0.0145	0.0055
Mercury	-64500-03-01 04:33 J	-21837142.46	-21837142.31	-21837142.15	0.0145	0.0087
Mercury	-64500-05-28 13:11 J	-21837054.05	-21837053.95	-21837053.83	0.0144	0.0119
Moon	-64490-01-29 17:45 J	-21833520.88	-21833520.76	-21833520.59	0.0139	0.0116
Earth	-64490-01-29 20:37 J	-21833520.79	-21833520.64	-21833520.48	0.0139	0.0111 *
Earth	-64489-02-03 16:04 J	-21833151.08	-21833150.83	-21833150.57	0.0138	0.0021
Moon	-64489-02-03 17:30 J	-21833151.01	-21833150.77	-21833150.52	0.0138	0.0021 *
Moon	-64488-02-07 09:06 J	-21832781.34	-21832781.12	-21832780.88	0.0138	0.0071
Earth	-64488-02-07 10:33 J	-21832781.27	-21832781.06	-21832780.82	0.0138	0.0068 *
Mars	-64477-08-30 04:04 J	-21828559.63	-21828559.33	-21828559.03	0.0133	0.0031
Mars	-64475-07-31 22:18 J	-21827858.72	-21827858.57	-21827858.38	0.0132	0.0109
Venus	-64472-04-16 10:33 J	-21826869.19	-21826869.06	-21826868.91	0.0132	0.0098
Venus	-64472-11-28 14:23 J	-21826643.08	-21826642.90	-21826642.69	0.0131	0.0057
Venus	-64471-07-12 18:42 J	-21826416.94	-21826416.72	-21826416.50	0.0131	0.0015
Venus	-64470-02-23 22:33 J	-21826190.77	-21826190.56	-21826190.34	0.0131	0.0026

Venus -64470-10-08 02:09 J -21825964.59 -21825964.41 -21825964.22 0.0131 0.0067
 Venus -64469-05-21 05:59 J -21825738.37 -21825738.25 -21825738.13 0.0131 0.0108
 Mercury -64459-12-12 17:01 J -21821880.84 -21821880.79 -21821880.74 0.0133 0.0122
 Mercury -64458-03-10 19:40 J -21821792.75 -21821792.68 -21821792.59 0.0133 0.0106
 Mercury -64458-06-06 22:47 J -21821704.64 -21821704.55 -21821704.45 0.0133 0.0089
 Mercury -64458-09-03 01:40 J -21821616.54 -21821616.43 -21821616.32 0.0133 0.0073
 Mercury -64458-11-30 04:33 J -21821528.42 -21821528.31 -21821528.18 0.0133 0.0056
 Mercury -64457-02-26 07:25 J -21821440.31 -21821440.19 -21821440.06 0.0133 0.0040
 Mercury -64457-05-24 10:33 J -21821352.19 -21821352.06 -21821351.93 0.0134 0.0022
 Mercury -64457-08-20 13:25 J -21821264.07 -21821263.94 -21821263.81 0.0134 0.0006
 Mercury -64457-11-16 16:18 J -21821175.95 -21821175.82 -21821175.68 0.0134 0.0013
 Mercury -64456-02-12 19:25 J -21821087.82 -21821087.69 -21821087.56 0.0134 0.0028
 Mercury -64456-05-11 22:18 J -21820999.69 -21820999.57 -21820999.45 0.0134 0.0045
 Mercury -64456-08-08 01:11 J -21820911.56 -21820911.45 -21820911.33 0.0134 0.0062
 Mercury -64456-11-04 04:18 J -21820823.43 -21820823.32 -21820823.22 0.0134 0.0079
 Mercury -64455-01-31 07:11 J -21820735.29 -21820735.20 -21820735.11 0.0134 0.0096
 Mercury -64455-04-29 10:04 J -21820647.14 -21820647.08 -21820647.01 0.0134 0.0114
 Mercury -64455-07-26 12:57 J -21820558.98 -21820558.96 -21820558.92 0.0134 0.0131
 Moon -64445-08-01 07:54 J -21816900.38 -21816900.17 -21816899.94 0.0140 0.0062
 Earth -64445-08-01 11:16 J -21816900.24 -21816900.03 -21816899.81 0.0140 0.0068 *
 Earth -64444-08-06 00:13 J -21816530.73 -21816530.49 -21816530.24 0.0141 0.0021
 Moon -64444-08-06 03:49 J -21816530.58 -21816530.34 -21816530.09 0.0141 0.0014 *
 Moon -64443-08-10 10:33 J -21816161.19 -21816161.06 -21816160.92 0.0141 0.0119
 Earth -64443-08-10 13:40 J -21816161.06 -21816160.93 -21816160.76 0.0141 0.0112 *
 Mars -64433-09-24 20:52 J -21812462.93 -21812462.63 -21812462.32 0.0146 0.0011
 Venus -64429-01-13 00:13 J -21811257.62 -21811257.49 -21811257.33 0.0147 0.0111
 Venus -64429-08-26 13:54 J -21811031.11 -21811030.92 -21811030.70 0.0147 0.0053
 Venus -64428-04-10 04:04 J -21810804.55 -21810804.33 -21810804.11 0.0147 0.0006
 Venus -64428-11-22 17:45 J -21810577.95 -21810577.76 -21810577.55 0.0147 0.0065
 Venus -64427-07-07 07:54 J -21810351.27 -21810351.17 -21810351.04 0.0147 0.0124

Mercury -64418-07-11 20:37 J -21807059.70 -21807059.64 -21807059.58 0.0145 0.0138
 Mercury -64418-10-08 05:16 J -21806971.41 -21806971.28 -21806971.14 0.0145 0.0106
 Mercury -64417-01-04 13:54 J -21806883.08 -21806882.92 -21806882.74 0.0145 0.0074
 Mercury -64417-04-01 22:47 J -21806794.73 -21806794.55 -21806794.35 0.0145 0.0041
 Mercury -64417-06-29 07:54 J -21806706.37 -21806706.17 -21806705.98 0.0145 0.0008
 Mercury -64417-09-25 16:47 J -21806618.00 -21806617.80 -21806617.61 0.0145 0.0024
 Mercury -64417-12-23 01:11 J -21806529.62 -21806529.45 -21806529.26 0.0145 0.0057
 Mercury -64416-03-21 10:04 J -21806441.22 -21806441.08 -21806440.92 0.0145 0.0089
 Mercury -64416-06-17 18:42 J -21806352.81 -21806352.72 -21806352.60 0.0144 0.0121
 Moon -64406-01-30 00:28 J -21802839.64 -21802839.48 -21802839.29 0.0139 0.0105
 Earth -64406-01-30 02:52 J -21802839.52 -21802839.38 -21802839.20 0.0139 0.0110 *
 Earth -64405-02-03 23:01 J -21802469.80 -21802469.54 -21802469.28 0.0138 0.0019
 Moon -64405-02-04 01:25 J -21802469.68 -21802469.44 -21802469.18 0.0138 0.0021 *
 Moon -64404-02-07 15:35 J -21802100.07 -21802099.85 -21802099.60 0.0138 0.0068
 Earth -64404-02-07 17:45 J -21802099.98 -21802099.76 -21802099.54 0.0138 0.0070 *
 Mars -64394-05-24 11:30 J -21798342.12 -21798342.02 -21798341.88 0.0133 0.0123
 Mars -64392-04-24 16:04 J -21797641.12 -21797640.83 -21797640.51 0.0132 0.0024
 Venus -64389-12-14 20:23 J -21796310.73 -21796310.65 -21796310.54 0.0132 0.0118
 Venus -64388-07-29 00:28 J -21796084.64 -21796084.48 -21796084.29 0.0132 0.0077
 Venus -64387-03-12 05:01 J -21795858.50 -21795858.29 -21795858.08 0.0132 0.0035
 Venus -64387-10-24 08:52 J -21795632.35 -21795632.13 -21795631.91 0.0131 0.0007
 Venus -64386-06-07 12:28 J -21795406.17 -21795405.98 -21795405.77 0.0131 0.0048
 Venus -64385-01-19 16:04 J -21795179.97 -21795179.83 -21795179.65 0.0131 0.0089
 Venus -64385-09-01 19:54 J -21794953.70 -21794953.67 -21794953.62 0.0131 0.0129
 Mercury -64374-01-01 23:59 J -21791179.56 -21791179.50 -21791179.44 0.0133 0.0119
 Mercury -64374-03-31 02:37 J -21791091.46 -21791091.39 -21791091.30 0.0133 0.0103
 Mercury -64374-06-27 05:45 J -21791003.36 -21791003.26 -21791003.16 0.0133 0.0086
 Mercury -64374-09-23 08:37 J -21790915.25 -21790915.14 -21790915.02 0.0133 0.0070
 Mercury -64374-12-20 11:45 J -21790827.13 -21790827.01 -21790826.89 0.0133 0.0053
 Mercury -64373-03-17 14:37 J -21790739.02 -21790738.89 -21790738.76 0.0133 0.0036

Mercury -64373-06-13 17:30 J -21790650.90 -21790650.77 -21790650.64 0.0134 0.0019
 Mercury -64373-09-09 20:23 J -21790562.78 -21790562.65 -21790562.51 0.0134 0.0006
 Mercury -64373-12-06 23:30 J -21790474.65 -21790474.52 -21790474.39 0.0134 0.0015
 Mercury -64372-03-05 02:23 J -21790386.53 -21790386.40 -21790386.27 0.0134 0.0032
 Mercury -64372-06-01 05:16 J -21790298.40 -21790298.28 -21790298.15 0.0134 0.0049
 Mercury -64372-08-28 08:09 J -21790210.27 -21790210.16 -21790210.04 0.0134 0.0066
 Mercury -64372-11-24 11:01 J -21790122.13 -21790122.04 -21790121.93 0.0134 0.0083
 Mercury -64371-02-20 14:09 J -21790033.99 -21790033.91 -21790033.82 0.0134 0.0100
 Mercury -64371-05-19 17:01 J -21789945.84 -21789945.79 -21789945.72 0.0134 0.0117
 Mercury -64371-08-15 20:09 J -21789857.66 -21789857.66 -21789857.65 0.0134 0.0134
 Moon -64361-08-01 16:04 J -21786219.02 -21786218.83 -21786218.60 0.0140 0.0073
 Earth -64361-08-01 20:09 J -21786218.88 -21786218.66 -21786218.44 0.0140 0.0065 *
 Earth -64360-08-06 08:52 J -21785849.38 -21785849.13 -21785848.89 0.0140 0.0024
 Moon -64360-08-06 11:59 J -21785849.24 -21785849.00 -21785848.75 0.0140 0.0031 *
 Moon -64359-08-10 19:11 J -21785479.86 -21785479.70 -21785479.54 0.0141 0.0109
 Earth -64359-08-10 22:18 J -21785479.69 -21785479.57 -21785479.41 0.0141 0.0115 *
 Mars -64350-06-17 10:33 J -21782247.26 -21782247.06 -21782246.86 0.0146 0.0110
 Mars -64348-05-21 05:01 J -21781543.54 -21781543.29 -21781543.02 0.0146 0.0081
 Venus -64346-09-12 02:52 J -21780699.41 -21780699.38 -21780699.31 0.0147 0.0142
 Venus -64345-04-25 16:33 J -21780472.98 -21780472.81 -21780472.63 0.0147 0.0084
 Venus -64345-12-08 06:13 J -21780246.45 -21780246.24 -21780246.02 0.0147 0.0026
 Venus -64344-07-22 20:09 J -21780019.87 -21780019.66 -21780019.44 0.0147 0.0033
 Venus -64343-03-06 10:04 J -21779793.24 -21779793.08 -21779792.90 0.0147 0.0091
 Mercury -64334-08-01 01:40 J -21776358.48 -21776358.43 -21776358.36 0.0145 0.0137
 Mercury -64334-10-28 10:33 J -21776270.18 -21776270.06 -21776269.92 0.0145 0.0105
 Mercury -64333-01-24 19:25 J -21776181.85 -21776181.69 -21776181.51 0.0145 0.0073
 Mercury -64333-04-22 04:18 J -21776093.50 -21776093.32 -21776093.13 0.0145 0.0040
 Mercury -64333-07-19 13:11 J -21776005.14 -21776004.95 -21776004.75 0.0145 0.0008
 Mercury -64333-10-15 22:04 J -21775916.77 -21775916.58 -21775916.39 0.0145 0.0025
 Mercury -64332-01-12 06:57 J -21775828.39 -21775828.21 -21775828.03 0.0145 0.0057

Mercury -64332-04-10 15:21 J -21775740.00 -21775739.86 -21775739.69 0.0145 0.0090
 Mercury -64332-07-08 00:13 J -21775651.58 -21775651.49 -21775651.37 0.0144 0.0121
 Jupiter -64329-04-21 02:52 J -21774633.89 -21774633.38 -21774632.84 0.0143 0.0019
 Moon -64322-01-30 03:49 J -21772158.47 -21772158.34 -21772158.18 0.0139 0.0116
 Earth -64322-01-30 07:11 J -21772158.34 -21772158.20 -21772158.02 0.0139 0.0111 *
 Earth -64321-02-04 03:06 J -21771788.62 -21771788.37 -21771788.10 0.0139 0.0020
 Moon -64321-02-04 05:59 J -21771788.50 -21771788.25 -21771788.00 0.0139 0.0018 *
 Moon -64320-02-07 19:25 J -21771418.91 -21771418.69 -21771418.46 0.0138 0.0072
 Earth -64320-02-07 22:04 J -21771418.79 -21771418.58 -21771418.34 0.0138 0.0071 *
 Mars -64309-01-16 23:01 J -21767423.79 -21767423.54 -21767423.26 0.0133 0.0069
 Mars -64308-12-18 01:11 J -21766722.69 -21766722.45 -21766722.18 0.0132 0.0075
 Venus -64304-03-28 09:21 J -21765526.23 -21765526.11 -21765525.94 0.0132 0.0098
 Venus -64304-11-09 13:54 J -21765300.11 -21765299.92 -21765299.72 0.0132 0.0056
 Venus -64303-06-23 17:59 J -21765073.96 -21765073.75 -21765073.53 0.0132 0.0015
 Venus -64302-02-04 22:04 J -21764847.79 -21764847.58 -21764847.36 0.0132 0.0027
 Venus -64302-09-19 01:40 J -21764621.60 -21764621.43 -21764621.23 0.0131 0.0068
 Venus -64301-05-02 05:30 J -21764395.38 -21764395.27 -21764395.14 0.0131 0.0108
 Mercury -64291-10-26 04:04 J -21760566.33 -21760566.33 -21760566.33 0.0133 0.0133
 Mercury -64290-01-22 06:57 J -21760478.27 -21760478.21 -21760478.15 0.0133 0.0116
 Mercury -64290-04-20 09:35 J -21760390.17 -21760390.10 -21760390.00 0.0133 0.0100
 Mercury -64290-07-17 12:42 J -21760302.07 -21760301.97 -21760301.86 0.0133 0.0083
 Mercury -64290-10-13 15:35 J -21760213.96 -21760213.85 -21760213.73 0.0133 0.0067
 Mercury -64289-01-09 18:42 J -21760125.84 -21760125.72 -21760125.60 0.0133 0.0049
 Mercury -64289-04-06 21:35 J -21760037.72 -21760037.60 -21760037.47 0.0134 0.0033
 Mercury -64289-07-04 00:28 J -21759949.60 -21759949.48 -21759949.34 0.0134 0.0017
 Mercury -64289-09-30 03:35 J -21759861.48 -21759861.35 -21759861.22 0.0134 0.0002
 Mercury -64289-12-27 06:28 J -21759773.36 -21759773.23 -21759773.10 0.0134 0.0018
 Mercury -64288-03-25 09:21 J -21759685.23 -21759685.11 -21759684.98 0.0134 0.0035
 Mercury -64288-06-21 12:28 J -21759597.10 -21759596.98 -21759596.86 0.0134 0.0052
 Mercury -64288-09-17 15:21 J -21759508.97 -21759508.86 -21759508.75 0.0134 0.0069

Mercury -64288-12-14 18:13 J -21759420.83 -21759420.74 -21759420.64 0.0134 0.0086
 Mercury -64287-03-12 21:06 J -21759332.69 -21759332.62 -21759332.53 0.0134 0.0104
 Mercury -64287-06-09 00:13 J -21759244.54 -21759244.49 -21759244.43 0.0134 0.0120
 Moon -64277-08-02 03:06 J -21755537.58 -21755537.37 -21755537.13 0.0140 0.0056
 Earth -64277-08-02 05:59 J -21755537.46 -21755537.25 -21755537.02 0.0140 0.0062 *
 Earth -64276-08-06 18:57 J -21755167.95 -21755167.71 -21755167.46 0.0140 0.0029
 Moon -64276-08-06 22:33 J -21755167.81 -21755167.56 -21755167.31 0.0140 0.0021 *
 Moon -64275-08-11 05:16 J -21754798.36 -21754798.28 -21754798.15 0.0141 0.0127
 Earth -64275-08-11 08:52 J -21754798.25 -21754798.13 -21754797.99 0.0141 0.0119 *
 Mars -64265-02-10 20:37 J -21751327.93 -21751327.64 -21751327.35 0.0146 0.0041
 Venus -64262-12-24 21:06 J -21749914.75 -21749914.62 -21749914.48 0.0147 0.0113
 Venus -64261-08-07 10:33 J -21749688.25 -21749688.06 -21749687.85 0.0147 0.0056
 Venus -64260-03-22 00:28 J -21749461.70 -21749461.48 -21749461.26 0.0147 0.0003
 Venus -64260-11-03 13:54 J -21749235.11 -21749234.92 -21749234.71 0.0147 0.0061
 Venus -64259-06-18 04:04 J -21749008.45 -21749008.33 -21749008.20 0.0147 0.0119
 Mercury -64250-08-21 07:54 J -21745657.23 -21745657.17 -21745657.08 0.0145 0.0134
 Mercury -64250-11-17 17:01 J -21745568.93 -21745568.79 -21745568.65 0.0145 0.0101
 Mercury -64249-02-14 01:40 J -21745480.59 -21745480.43 -21745480.25 0.0145 0.0069
 Mercury -64249-05-12 10:33 J -21745392.24 -21745392.06 -21745391.86 0.0145 0.0037
 Mercury -64249-08-08 19:25 J -21745303.88 -21745303.69 -21745303.49 0.0145 0.0005
 Mercury -64249-11-05 04:18 J -21745215.51 -21745215.32 -21745215.13 0.0145 0.0028
 Mercury -64248-02-01 12:57 J -21745127.13 -21745126.96 -21745126.77 0.0145 0.0061
 Mercury -64248-04-30 21:49 J -21745038.73 -21745038.59 -21745038.43 0.0145 0.0093
 Mercury -64248-07-28 06:28 J -21744950.31 -21744950.23 -21744950.12 0.0144 0.0125
 Moon -64238-01-30 10:18 J -21741477.22 -21741477.07 -21741476.88 0.0139 0.0104
 Earth -64238-01-30 13:54 J -21741477.07 -21741476.92 -21741476.75 0.0139 0.0109 *
 Earth -64237-02-04 10:04 J -21741107.34 -21741107.08 -21741106.82 0.0139 0.0018
 Moon -64237-02-04 13:25 J -21741107.19 -21741106.94 -21741106.69 0.0139 0.0021 *
 Moon -64236-02-08 01:54 J -21740737.64 -21740737.42 -21740737.18 0.0138 0.0071
 Earth -64236-02-08 04:47 J -21740737.51 -21740737.30 -21740737.07 0.0138 0.0072 *

Mars	-64225-09-10 12:28 J	-21736505.28	-21736504.98	-21736504.67	0.0133	0.0016
Mars	-64223-08-12 11:45 J	-21735804.08	-21735804.01	-21735803.91	0.0132	0.0127
Venus	-64221-11-25 18:57 J	-21734967.79	-21734967.71	-21734967.59	0.0132	0.0118
Venus	-64220-07-09 23:45 J	-21734741.69	-21734741.51	-21734741.33	0.0132	0.0076
Venus	-64219-02-21 04:04 J	-21734515.54	-21734515.33	-21734515.12	0.0132	0.0035
Venus	-64219-10-05 08:09 J	-21734289.37	-21734289.16	-21734288.94	0.0132	0.0007
Venus	-64218-05-19 11:59 J	-21734063.20	-21734063.00	-21734062.79	0.0132	0.0047
Venus	-64218-12-31 16:04 J	-21733836.99	-21733836.83	-21733836.67	0.0132	0.0088
Venus	-64217-08-13 19:11 J	-21733610.72	-21733610.70	-21733610.64	0.0132	0.0129
Mercury	-64207-11-15 10:47 J	-21729865.06	-21729865.05	-21729865.01	0.0133	0.0130
Mercury	-64206-02-11 13:54 J	-21729776.98	-21729776.92	-21729776.85	0.0133	0.0113
Mercury	-64206-05-10 16:47 J	-21729688.88	-21729688.80	-21729688.70	0.0133	0.0097
Mercury	-64206-08-06 19:54 J	-21729600.77	-21729600.67	-21729600.56	0.0133	0.0080
Mercury	-64206-11-02 22:47 J	-21729512.66	-21729512.55	-21729512.43	0.0133	0.0063
Mercury	-64205-01-30 01:54 J	-21729424.55	-21729424.42	-21729424.30	0.0134	0.0046
Mercury	-64205-04-27 04:47 J	-21729336.43	-21729336.30	-21729336.17	0.0134	0.0029
Mercury	-64205-07-24 07:40 J	-21729248.31	-21729248.18	-21729248.05	0.0134	0.0013
Mercury	-64205-10-20 10:47 J	-21729160.18	-21729160.05	-21729159.92	0.0134	0.0006
Mercury	-64204-01-16 13:40 J	-21729072.06	-21729071.93	-21729071.80	0.0134	0.0022
Mercury	-64204-04-14 16:33 J	-21728983.93	-21728983.81	-21728983.68	0.0134	0.0039
Mercury	-64204-07-11 19:25 J	-21728895.80	-21728895.69	-21728895.56	0.0134	0.0056
Mercury	-64204-10-07 22:33 J	-21728807.67	-21728807.56	-21728807.45	0.0134	0.0073
Mercury	-64203-01-04 01:25 J	-21728719.53	-21728719.44	-21728719.34	0.0134	0.0090
Mercury	-64203-04-02 04:18 J	-21728631.39	-21728631.32	-21728631.23	0.0134	0.0108
Mercury	-64203-06-29 07:25 J	-21728543.23	-21728543.19	-21728543.14	0.0135	0.0124
Moon	-64193-08-02 14:23 J	-21724856.10	-21724855.90	-21724855.67	0.0140	0.0064
Earth	-64193-08-02 17:30 J	-21724855.99	-21724855.77	-21724855.53	0.0140	0.0057 *
Earth	-64192-08-07 06:28 J	-21724486.47	-21724486.23	-21724485.98	0.0140	0.0033
Moon	-64192-08-07 09:21 J	-21724486.35	-21724486.11	-21724485.86	0.0140	0.0040 *
Moon	-64191-08-11 17:16 J	-21724116.90	-21724116.78	-21724116.64	0.0141	0.0118

Earth -64191-08-11 20:09 J -21724116.75 -21724116.66 -21724116.52 0.0141 0.0125 *
 Mars -64181-10-06 13:25 J -21720408.23 -21720407.94 -21720407.63 0.0146 0.0032
 Venus -64178-08-24 03:35 J -21719356.40 -21719356.35 -21719356.27 0.0147 0.0139
 Venus -64177-04-06 17:01 J -21719129.96 -21719129.79 -21719129.60 0.0147 0.0082
 Venus -64177-11-19 06:42 J -21718903.44 -21718903.22 -21718903.01 0.0147 0.0024
 Venus -64176-07-03 20:09 J -21718676.86 -21718676.66 -21718676.44 0.0147 0.0034
 Venus -64175-02-15 10:04 J -21718450.24 -21718450.08 -21718449.90 0.0147 0.0092
 Mercury -64166-09-10 15:35 J -21714955.94 -21714955.85 -21714955.76 0.0145 0.0127
 Mercury -64166-12-08 00:13 J -21714867.63 -21714867.49 -21714867.33 0.0145 0.0094
 Mercury -64165-03-05 09:06 J -21714779.29 -21714779.12 -21714778.94 0.0145 0.0062
 Mercury -64165-06-01 17:59 J -21714690.94 -21714690.75 -21714690.56 0.0145 0.0030
 Mercury -64165-08-29 02:52 J -21714602.58 -21714602.38 -21714602.18 0.0145 0.0003
 Mercury -64165-11-25 11:30 J -21714514.20 -21714514.02 -21714513.82 0.0145 0.0035
 Mercury -64164-02-21 20:09 J -21714425.82 -21714425.66 -21714425.47 0.0145 0.0068
 Mercury -64164-05-21 05:01 J -21714337.42 -21714337.29 -21714337.14 0.0144 0.0100
 Mercury -64164-08-17 13:40 J -21714248.99 -21714248.93 -21714248.84 0.0144 0.0132
 Moon -64154-01-30 18:13 J -21710795.87 -21710795.74 -21710795.57 0.0139 0.0114
 Earth -64154-01-30 22:04 J -21710795.72 -21710795.58 -21710795.39 0.0139 0.0107 *
 Earth -64153-02-04 18:13 J -21710425.99 -21710425.74 -21710425.48 0.0138 0.0015
 Moon -64153-02-04 21:35 J -21710425.85 -21710425.60 -21710425.34 0.0138 0.0013 *
 Moon -64152-02-08 09:35 J -21710056.30 -21710056.10 -21710055.87 0.0138 0.0076
 Earth -64152-02-08 13:25 J -21710056.15 -21710055.94 -21710055.72 0.0138 0.0075 *
 Mars -64142-06-04 16:33 J -21706287.96 -21706287.81 -21706287.61 0.0133 0.0110
 Mars -64140-05-06 02:09 J -21705586.70 -21705586.41 -21705586.10 0.0133 0.0038
 Venus -64136-03-09 09:21 J -21704183.25 -21704183.11 -21704182.95 0.0132 0.0096
 Venus -64136-10-21 13:40 J -21703957.12 -21703956.93 -21703956.72 0.0132 0.0055
 Venus -64135-06-04 17:59 J -21703730.96 -21703730.75 -21703730.53 0.0132 0.0013
 Venus -64134-01-16 22:04 J -21703504.79 -21703504.58 -21703504.36 0.0132 0.0028
 Venus -64134-08-31 01:40 J -21703278.60 -21703278.43 -21703278.23 0.0132 0.0069
 Venus -64133-04-13 05:30 J -21703052.38 -21703052.27 -21703052.14 0.0132 0.0109

Mercury -64123-12-05 17:59 J -21699163.78 -21699163.75 -21699163.70 0.0133 0.0127
 Mercury -64122-03-03 21:06 J -21699075.69 -21699075.62 -21699075.54 0.0133 0.0110
 Mercury -64122-05-30 23:59 J -21698987.59 -21698987.50 -21698987.40 0.0133 0.0093
 Mercury -64122-08-27 02:52 J -21698899.48 -21698899.38 -21698899.27 0.0133 0.0076
 Mercury -64122-11-23 05:59 J -21698811.37 -21698811.25 -21698811.13 0.0134 0.0059
 Mercury -64121-02-19 08:52 J -21698723.25 -21698723.13 -21698723.00 0.0134 0.0043
 Mercury -64121-05-17 11:59 J -21698635.13 -21698635.00 -21698634.87 0.0134 0.0026
 Mercury -64121-08-13 14:52 J -21698547.01 -21698546.88 -21698546.75 0.0134 0.0009
 Mercury -64121-11-09 17:45 J -21698458.89 -21698458.76 -21698458.63 0.0134 0.0009
 Mercury -64120-02-05 20:37 J -21698370.76 -21698370.64 -21698370.50 0.0134 0.0026
 Mercury -64120-05-04 23:45 J -21698282.63 -21698282.51 -21698282.39 0.0134 0.0043
 Mercury -64120-08-01 02:37 J -21698194.50 -21698194.39 -21698194.27 0.0134 0.0060
 Mercury -64120-10-28 05:30 J -21698106.37 -21698106.27 -21698106.16 0.0134 0.0077
 Mercury -64119-01-24 08:37 J -21698018.23 -21698018.14 -21698018.05 0.0134 0.0094
 Mercury -64119-04-22 11:30 J -21697930.09 -21697930.02 -21697929.94 0.0135 0.0111
 Mercury -64119-07-19 14:23 J -21697841.93 -21697841.90 -21697841.85 0.0135 0.0129
 Moon -64109-08-03 02:37 J -21694174.61 -21694174.39 -21694174.16 0.0140 0.0047
 Earth -64109-08-03 04:33 J -21694174.52 -21694174.31 -21694174.06 0.0140 0.0053 *
 Earth -64108-08-07 17:45 J -21693804.99 -21693804.76 -21693804.51 0.0140 0.0039
 Moon -64108-08-07 20:52 J -21693804.87 -21693804.63 -21693804.37 0.0140 0.0031 *
 Moon -64107-08-12 05:16 J -21693435.32 -21693435.28 -21693435.22 0.0141 0.0137
 Earth -64107-08-12 07:40 J -21693435.25 -21693435.18 -21693435.06 0.0141 0.0130 *
 Mars -64098-06-29 15:06 J -21690192.10 -21690191.87 -21690191.62 0.0146 0.0088
 Mars -64096-06-02 08:37 J -21689488.33 -21689488.14 -21689487.91 0.0146 0.0107
 Venus -64094-12-05 23:30 J -21688571.65 -21688571.52 -21688571.36 0.0147 0.0108
 Venus -64093-07-19 13:11 J -21688345.15 -21688344.95 -21688344.74 0.0147 0.0050
 Venus -64092-03-03 02:52 J -21688118.60 -21688118.38 -21688118.16 0.0147 0.0008
 Venus -64092-10-15 16:18 J -21687892.00 -21687891.82 -21687891.61 0.0147 0.0066
 Venus -64091-05-30 06:28 J -21687665.35 -21687665.23 -21687665.11 0.0147 0.0124
 Mercury -64082-09-30 23:30 J -21684254.63 -21684254.52 -21684254.41 0.0145 0.0117

Mercury -64082-12-28 08:09 J -21684166.31 -21684166.16 -21684165.99 0.0145 0.0085

Mercury -64081-03-25 17:01 J -21684077.97 -21684077.79 -21684077.60 0.0145 0.0053

Mercury -64081-06-22 01:54 J -21683989.61 -21683989.42 -21683989.22 0.0145 0.0021

Mercury -64081-09-18 10:47 J -21683901.24 -21683901.05 -21683900.85 0.0145 0.0012

Mercury -64081-12-15 19:25 J -21683812.87 -21683812.69 -21683812.50 0.0145 0.0044

Mercury -64080-03-14 04:04 J -21683724.48 -21683724.33 -21683724.15 0.0144 0.0077

Mercury -64080-06-10 12:57 J -21683636.08 -21683635.96 -21683635.82 0.0144 0.0108

Mercury -64080-09-06 21:35 J -21683547.63 -21683547.60 -21683547.54 0.0144 0.0141

Moon -64070-01-31 04:47 J -21680114.46 -21680114.30 -21680114.09 0.0139 0.0097

Earth -64070-01-31 08:23 J -21680114.30 -21680114.15 -21680113.95 0.0139 0.0103 *

Earth -64069-02-05 04:47 J -21679744.56 -21679744.30 -21679744.04 0.0138 0.0011

Moon -64069-02-05 08:37 J -21679744.40 -21679744.14 -21679743.88 0.0138 0.0014 *

Moon -64068-02-08 19:54 J -21679374.86 -21679374.67 -21679374.44 0.0138 0.0080

Earth -64068-02-08 23:30 J -21679374.71 -21679374.52 -21679374.29 0.0138 0.0080 *

Mars -64057-01-28 12:13 J -21675369.27 -21675368.99 -21675368.70 0.0133 0.0054

Mars -64056-12-29 17:01 J -21674668.01 -21674667.79 -21674667.57 0.0132 0.0092

Venus -64053-11-06 19:25 J -21673624.79 -21673624.69 -21673624.58 0.0132 0.0115

Venus -64052-06-20 23:45 J -21673398.68 -21673398.51 -21673398.32 0.0132 0.0074

Venus -64051-02-02 04:18 J -21673172.52 -21673172.32 -21673172.10 0.0132 0.0033

Venus -64051-09-16 08:37 J -21672946.36 -21672946.14 -21672945.92 0.0132 0.0008

Venus -64050-04-30 12:28 J -21672720.18 -21672719.98 -21672719.78 0.0132 0.0049

Venus -64050-12-12 16:04 J -21672493.98 -21672493.83 -21672493.66 0.0132 0.0090

Venus -64049-07-25 19:40 J -21672267.70 -21672267.68 -21672267.63 0.0132 0.0130

Mercury -64039-12-26 01:11 J -21668462.49 -21668462.45 -21668462.40 0.0133 0.0123

Mercury -64038-03-24 04:04 J -21668374.40 -21668374.33 -21668374.25 0.0133 0.0107

Mercury -64038-06-20 07:11 J -21668286.30 -21668286.20 -21668286.10 0.0133 0.0090

Mercury -64038-09-16 10:04 J -21668198.19 -21668198.08 -21668197.97 0.0134 0.0073

Mercury -64038-12-13 12:57 J -21668110.07 -21668109.96 -21668109.84 0.0134 0.0056

Mercury -64037-03-10 16:04 J -21668021.96 -21668021.83 -21668021.71 0.0134 0.0039

Mercury -64037-06-06 18:57 J -21667933.84 -21667933.71 -21667933.58 0.0134 0.0022

Mercury -64037-09-02 21:49 J -21667845.72 -21667845.59 -21667845.46 0.0134 0.0006

Mercury -64037-11-30 00:42 J -21667757.59 -21667757.47 -21667757.33 0.0134 0.0013

Mercury -64036-02-26 03:49 J -21667669.47 -21667669.34 -21667669.21 0.0134 0.0029

Mercury -64036-05-25 06:42 J -21667581.34 -21667581.22 -21667581.09 0.0134 0.0046

Mercury -64036-08-21 09:35 J -21667493.21 -21667493.10 -21667492.98 0.0134 0.0063

Mercury -64036-11-17 12:28 J -21667405.08 -21667404.98 -21667404.87 0.0134 0.0081

Mercury -64035-02-13 15:35 J -21667316.94 -21667316.85 -21667316.76 0.0134 0.0097

Mercury -64035-05-12 18:28 J -21667228.79 -21667228.73 -21667228.66 0.0135 0.0115

Mercury -64035-08-08 21:21 J -21667140.62 -21667140.61 -21667140.57 0.0135 0.0132

Earth -64026-07-31 02:09 J -21663862.42 -21663862.41 -21663862.36 0.0139 0.0138

Moon -64026-07-31 03:49 J -21663862.38 -21663862.34 -21663862.27 0.0139 0.0136 *

Moon -64025-08-03 12:42 J -21663493.19 -21663492.97 -21663492.75 0.0140 0.0055

Earth -64025-08-03 14:52 J -21663493.11 -21663492.88 -21663492.65 0.0140 0.0049 *

Earth -64024-08-08 03:49 J -21663123.57 -21663123.34 -21663123.10 0.0141 0.0042

Moon -64024-08-08 05:45 J -21663123.49 -21663123.26 -21663123.01 0.0141 0.0049 *

Moon -64023-08-12 15:21 J -21662753.96 -21662753.86 -21662753.75 0.0141 0.0128

Earth -64023-08-12 17:30 J -21662753.82 -21662753.77 -21662753.67 0.0141 0.0135 *

Mars -64013-02-23 04:04 J -21659272.63 -21659272.33 -21659272.03 0.0146 0.0017

Venus -64010-08-05 05:30 J -21658013.35 -21658013.27 -21658013.17 0.0147 0.0134

Venus -64009-03-18 18:42 J -21657786.89 -21657786.72 -21657786.52 0.0147 0.0077

Venus -64009-10-31 08:23 J -21657560.37 -21657560.15 -21657559.93 0.0147 0.0020

Venus -64008-06-14 21:49 J -21657333.79 -21657333.59 -21657333.37 0.0147 0.0038

Venus -64007-01-27 11:30 J -21657107.17 -21657107.02 -21657106.84 0.0147 0.0096

64TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 64th millennium

BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-63998-07-24 22:04 J	-21653641.60	-21653641.58	-21653641.52	0.0145	0.0142		
Mercury	-63998-10-21 06:57 J	-21653553.32	-21653553.21	-21653553.07	0.0145	0.0109		
Mercury	-63997-01-17 16:04 J	-21653464.99	-21653464.83	-21653464.66	0.0145	0.0076		
Mercury	-63997-04-15 00:57 J	-21653376.65	-21653376.46	-21653376.28	0.0145	0.0044		
Mercury	-63997-07-12 09:49 J	-21653288.29	-21653288.09	-21653287.90	0.0145	0.0012		
Mercury	-63997-10-08 18:28 J	-21653199.92	-21653199.73	-21653199.53	0.0145	0.0021		
Mercury	-63996-01-05 03:21 J	-21653111.54	-21653111.36	-21653111.18	0.0145	0.0053		
Mercury	-63996-04-03 11:45 J	-21653023.15	-21653023.01	-21653022.84	0.0144	0.0086		
Mercury	-63996-06-30 20:37 J	-21652934.74	-21652934.64	-21652934.52	0.0144	0.0117		
Moon	-63986-01-31 15:06 J	-21649433.01	-21649432.87	-21649432.68	0.0139	0.0106		
Earth	-63986-01-31 19:11 J	-21649432.88	-21649432.70	-21649432.51	0.0139	0.0098	*	
Earth	-63985-02-05 15:06 J	-21649063.13	-21649062.87	-21649062.61	0.0138	0.0006		
Moon	-63985-02-05 18:42 J	-21649062.98	-21649062.72	-21649062.46	0.0138	0.0003	*	
Moon	-63984-02-09 05:45 J	-21648693.45	-21648693.26	-21648693.04	0.0138	0.0085		
Earth	-63984-02-09 10:04 J	-21648693.28	-21648693.08	-21648692.88	0.0138	0.0084	*	
Mars	-63973-09-22 04:04 J	-21644450.64	-21644450.33	-21644450.02	0.0133	0.0002		
Venus	-63968-02-18 09:21 J	-21642840.24	-21642840.11	-21642839.94	0.0132	0.0094		
Venus	-63968-10-02 13:54 J	-21642614.11	-21642613.92	-21642613.71	0.0132	0.0053		
Venus	-63967-05-16 18:13 J	-21642387.96	-21642387.74	-21642387.53	0.0132	0.0012		
Venus	-63967-12-28 22:04 J	-21642161.79	-21642161.58	-21642161.36	0.0132	0.0029		
Venus	-63966-08-12 01:54 J	-21641935.60	-21641935.42	-21641935.23	0.0132	0.0070		
Venus	-63965-03-25 05:45 J	-21641709.37	-21641709.26	-21641709.14	0.0132	0.0110		
Mercury	-63954-01-15 07:54 J	-21637761.22	-21637761.17	-21637761.11	0.0133	0.0121		
Mercury	-63954-04-13 10:47 J	-21637673.12	-21637673.05	-21637672.96	0.0133	0.0104		
Mercury	-63954-07-10 13:54 J	-21637585.02	-21637584.92	-21637584.82	0.0133	0.0087		

Mercury -63954-10-06 16:47 J -21637496.91 -21637496.80 -21637496.69 0.0133 0.0071

Mercury -63953-01-02 19:54 J -21637408.79 -21637408.67 -21637408.55 0.0134 0.0054

Mercury -63953-03-30 22:47 J -21637320.68 -21637320.55 -21637320.43 0.0134 0.0037

Mercury -63953-06-27 01:40 J -21637232.56 -21637232.43 -21637232.30 0.0134 0.0020

Mercury -63953-09-23 04:33 J -21637144.44 -21637144.31 -21637144.18 0.0134 0.0005

Mercury -63953-12-20 07:40 J -21637056.31 -21637056.18 -21637056.05 0.0134 0.0014

Mercury -63952-03-18 10:33 J -21636968.19 -21636968.06 -21636967.93 0.0134 0.0031

Mercury -63952-06-14 13:25 J -21636880.06 -21636879.94 -21636879.82 0.0134 0.0048

Mercury -63952-09-10 16:18 J -21636791.93 -21636791.82 -21636791.70 0.0134 0.0065

Mercury -63952-12-07 19:11 J -21636703.79 -21636703.70 -21636703.59 0.0134 0.0083

Mercury -63951-03-05 22:18 J -21636615.65 -21636615.57 -21636615.48 0.0134 0.0099

Mercury -63951-06-02 01:11 J -21636527.51 -21636527.45 -21636527.38 0.0135 0.0117

Mercury -63951-08-29 04:04 J -21636439.33 -21636439.33 -21636439.31 0.0135 0.0134

Earth -63942-07-31 10:04 J -21633181.12 -21633181.08 -21633181.04 0.0139 0.0137

Moon -63942-07-31 11:16 J -21633181.03 -21633181.03 -21633181.01 0.0139 0.0139

Moon -63941-08-03 20:52 J -21632811.85 -21632811.63 -21632811.39 0.0140 0.0044

Earth -63941-08-03 22:04 J -21632811.81 -21632811.58 -21632811.34 0.0140 0.0048 *

Earth -63940-08-08 11:01 J -21632442.27 -21632442.04 -21632441.79 0.0141 0.0044

Moon -63940-08-08 12:57 J -21632442.20 -21632441.96 -21632441.70 0.0141 0.0037 *

Earth -63939-08-13 01:11 J -21632072.51 -21632072.45 -21632072.38 0.0141 0.0135

Mars -63931-11-15 00:57 J -21629056.52 -21629056.46 -21629056.35 0.0145 0.0140

Mars -63929-10-18 12:13 J -21628353.27 -21628352.99 -21628352.70 0.0146 0.0052

Venus -63926-11-16 22:04 J -21627228.72 -21627228.58 -21627228.42 0.0147 0.0107

Venus -63925-06-30 11:30 J -21627002.22 -21627002.02 -21627001.81 0.0147 0.0050

Venus -63924-02-12 01:11 J -21626775.67 -21626775.45 -21626775.23 0.0147 0.0008

Venus -63924-09-26 14:52 J -21626549.07 -21626548.88 -21626548.68 0.0147 0.0065

Venus -63923-05-11 04:33 J -21626322.42 -21626322.31 -21626322.18 0.0147 0.0123

Mercury -63914-08-14 04:33 J -21622940.36 -21622940.31 -21622940.23 0.0145 0.0137

Mercury -63914-11-10 13:40 J -21622852.06 -21622851.93 -21622851.79 0.0145 0.0104

Mercury -63913-02-06 22:18 J -21622763.73 -21622763.57 -21622763.39 0.0145 0.0072

Mercury -63913-05-05 07:11 J -21622675.38 -21622675.20 -21622675.01 0.0145 0.0040
 Mercury -63913-08-01 16:04 J -21622587.02 -21622586.83 -21622586.63 0.0145 0.0008
 Mercury -63913-10-29 00:57 J -21622498.65 -21622498.46 -21622498.27 0.0145 0.0025
 Mercury -63912-01-25 09:35 J -21622410.27 -21622410.10 -21622409.91 0.0145 0.0058
 Mercury -63912-04-23 18:28 J -21622321.88 -21622321.73 -21622321.57 0.0144 0.0089
 Mercury -63912-07-21 03:06 J -21622233.46 -21622233.37 -21622233.26 0.0144 0.0122
 Moon -63902-02-01 00:13 J -21618751.67 -21618751.49 -21618751.28 0.0139 0.0089
 Earth -63902-02-01 03:49 J -21618751.53 -21618751.34 -21618751.15 0.0139 0.0095 *
 Earth -63901-02-05 23:45 J -21618381.77 -21618381.51 -21618381.25 0.0138 0.0003
 Moon -63901-02-06 03:35 J -21618381.61 -21618381.35 -21618381.09 0.0138 0.0007 *
 Moon -63900-02-09 15:06 J -21618012.06 -21618011.87 -21618011.66 0.0138 0.0089
 Earth -63900-02-09 18:28 J -21618011.91 -21618011.73 -21618011.51 0.0138 0.0088 *
 Mars -63890-06-16 08:23 J -21614233.37 -21614233.15 -21614232.92 0.0133 0.0094
 Mars -63888-05-17 17:45 J -21613532.02 -21613531.76 -21613531.46 0.0132 0.0057
 Venus -63885-10-18 19:11 J -21612281.80 -21612281.70 -21612281.58 0.0132 0.0113
 Venus -63884-06-01 23:45 J -21612055.69 -21612055.51 -21612055.33 0.0132 0.0072
 Venus -63883-01-14 03:49 J -21611829.54 -21611829.34 -21611829.12 0.0132 0.0032
 Venus -63883-08-28 07:54 J -21611603.38 -21611603.17 -21611602.95 0.0132 0.0010
 Venus -63882-04-11 11:45 J -21611377.20 -21611377.01 -21611376.80 0.0132 0.0050
 Venus -63882-11-23 15:35 J -21611151.00 -21611150.85 -21611150.69 0.0131 0.0090
 Venus -63881-07-06 18:57 J -21610924.73 -21610924.71 -21610924.66 0.0131 0.0130
 Mercury -63870-02-04 14:37 J -21607059.94 -21607059.89 -21607059.83 0.0133 0.0119
 Mercury -63870-05-03 17:30 J -21606971.84 -21606971.77 -21606971.68 0.0133 0.0102
 Mercury -63870-07-30 20:37 J -21606883.74 -21606883.64 -21606883.54 0.0133 0.0085
 Mercury -63870-10-26 23:30 J -21606795.63 -21606795.52 -21606795.40 0.0133 0.0069
 Mercury -63869-01-23 02:37 J -21606707.51 -21606707.39 -21606707.27 0.0133 0.0052
 Mercury -63869-04-20 05:30 J -21606619.40 -21606619.27 -21606619.14 0.0134 0.0035
 Mercury -63869-07-17 08:23 J -21606531.28 -21606531.15 -21606531.02 0.0134 0.0018
 Mercury -63869-10-13 11:16 J -21606443.16 -21606443.03 -21606442.90 0.0134 0.0003
 Mercury -63868-01-09 14:23 J -21606355.03 -21606354.90 -21606354.77 0.0134 0.0016

Mercury -63868-04-07 17:16 J -21606266.91 -21606266.78 -21606266.65 0.0134 0.0033

Mercury -63868-07-04 20:09 J -21606178.78 -21606178.66 -21606178.54 0.0134 0.0050

Mercury -63868-09-30 23:01 J -21606090.65 -21606090.54 -21606090.42 0.0134 0.0067

Mercury -63868-12-28 01:54 J -21606002.51 -21606002.42 -21606002.31 0.0134 0.0084

Mercury -63867-03-26 04:47 J -21605914.37 -21605914.30 -21605914.20 0.0134 0.0102

Mercury -63867-06-22 07:54 J -21605826.23 -21605826.17 -21605826.11 0.0134 0.0118

Earth -63858-07-31 16:04 J -21602499.86 -21602499.83 -21602499.76 0.0139 0.0137

Moon -63858-07-31 16:18 J -21602499.86 -21602499.82 -21602499.74 0.0139 0.0136 *

Moon -63857-08-04 03:21 J -21602130.58 -21602130.36 -21602130.13 0.0140 0.0052

Earth -63857-08-04 04:33 J -21602130.55 -21602130.31 -21602130.08 0.0140 0.0047 *

Earth -63856-08-08 17:16 J -21601761.01 -21601760.78 -21601760.54 0.0140 0.0044

Moon -63856-08-08 17:59 J -21601760.98 -21601760.75 -21601760.50 0.0140 0.0050 *

Moon -63855-08-13 05:16 J -21601391.35 -21601391.28 -21601391.17 0.0141 0.0131

Earth -63855-08-13 06:57 J -21601391.26 -21601391.21 -21601391.14 0.0141 0.0136 *

Mars -63846-07-11 01:40 J -21598137.67 -21598137.43 -21598137.16 0.0146 0.0075

Mars -63844-06-13 16:04 J -21597433.99 -21597433.83 -21597433.65 0.0146 0.0121

Venus -63842-07-17 00:13 J -21596670.55 -21596670.49 -21596670.41 0.0147 0.0138

Venus -63841-02-28 13:11 J -21596444.12 -21596443.95 -21596443.76 0.0147 0.0082

Venus -63841-10-12 02:37 J -21596217.60 -21596217.39 -21596217.17 0.0147 0.0025

Venus -63840-05-26 16:18 J -21595991.03 -21595990.82 -21595990.61 0.0147 0.0033

Venus -63839-01-08 05:45 J -21595764.42 -21595764.26 -21595764.08 0.0147 0.0090

Mercury -63830-09-03 10:04 J -21592239.13 -21592239.08 -21592239.00 0.0145 0.0136

Mercury -63830-11-30 18:42 J -21592150.84 -21592150.72 -21592150.57 0.0145 0.0105

Mercury -63829-02-27 03:49 J -21592062.50 -21592062.34 -21592062.16 0.0145 0.0071

Mercury -63829-05-25 12:42 J -21591974.16 -21591973.97 -21591973.78 0.0145 0.0039

Mercury -63829-08-21 21:35 J -21591885.80 -21591885.60 -21591885.41 0.0145 0.0006

Mercury -63829-11-18 06:28 J -21591797.43 -21591797.23 -21591797.04 0.0145 0.0026

Mercury -63828-02-14 14:52 J -21591709.05 -21591708.88 -21591708.69 0.0145 0.0059

Mercury -63828-05-13 23:45 J -21591620.65 -21591620.51 -21591620.35 0.0144 0.0090

Mercury -63828-08-10 08:23 J -21591532.24 -21591532.15 -21591532.03 0.0144 0.0123

Moon -63818-02-01 05:45 J -21588070.42 -21588070.26 -21588070.07 0.0139 0.0102
 Earth -63818-02-01 09:21 J -21588070.30 -21588070.11 -21588069.93 0.0139 0.0095 *
 Earth -63817-02-06 05:16 J -21587700.54 -21587700.28 -21587700.02 0.0138 0.0002
 Moon -63817-02-06 08:37 J -21587700.41 -21587700.14 -21587699.88 0.0138 0.0003 *
 Moon -63816-02-09 20:09 J -21587330.83 -21587330.66 -21587330.44 0.0138 0.0089
 Earth -63816-02-10 00:28 J -21587330.68 -21587330.48 -21587330.29 0.0138 0.0089 *
 Mars -63805-02-08 21:21 J -21583314.90 -21583314.61 -21583314.30 0.0133 0.0038
 Mars -63803-01-10 04:33 J -21582613.46 -21582613.31 -21582613.12 0.0132 0.0110
 Venus -63800-01-30 08:09 J -21581497.30 -21581497.16 -21581496.99 0.0132 0.0094
 Venus -63800-09-13 12:28 J -21581271.17 -21581270.98 -21581270.77 0.0132 0.0053
 Venus -63799-04-27 16:47 J -21581045.01 -21581044.80 -21581044.58 0.0132 0.0012
 Venus -63799-12-09 20:37 J -21580818.84 -21580818.64 -21580818.42 0.0132 0.0029
 Venus -63798-07-24 00:28 J -21580592.66 -21580592.48 -21580592.29 0.0132 0.0069
 Venus -63797-03-06 04:18 J -21580366.43 -21580366.32 -21580366.19 0.0132 0.0109
 Mercury -63786-02-24 21:21 J -21576358.66 -21576358.61 -21576358.54 0.0133 0.0117
 Mercury -63786-05-24 00:13 J -21576270.57 -21576270.49 -21576270.40 0.0133 0.0101
 Mercury -63786-08-20 03:21 J -21576182.46 -21576182.36 -21576182.26 0.0133 0.0083
 Mercury -63786-11-16 06:13 J -21576094.35 -21576094.24 -21576094.12 0.0133 0.0067
 Mercury -63785-02-12 09:06 J -21576006.24 -21576006.12 -21576005.99 0.0133 0.0050
 Mercury -63785-05-10 12:13 J -21575918.12 -21575917.99 -21575917.86 0.0134 0.0033
 Mercury -63785-08-06 15:06 J -21575830.00 -21575829.87 -21575829.74 0.0134 0.0016
 Mercury -63785-11-02 17:59 J -21575741.88 -21575741.75 -21575741.62 0.0134 0.0003
 Mercury -63784-01-29 21:06 J -21575653.75 -21575653.62 -21575653.49 0.0134 0.0018
 Mercury -63784-04-27 23:59 J -21575565.63 -21575565.50 -21575565.38 0.0134 0.0035
 Mercury -63784-07-25 02:52 J -21575477.50 -21575477.38 -21575477.26 0.0134 0.0052
 Mercury -63784-10-21 05:45 J -21575389.37 -21575389.26 -21575389.14 0.0134 0.0069
 Mercury -63783-01-17 08:37 J -21575301.23 -21575301.14 -21575301.03 0.0134 0.0086
 Mercury -63783-04-15 11:30 J -21575213.09 -21575213.02 -21575212.93 0.0134 0.0104
 Mercury -63783-07-12 14:37 J -21575124.94 -21575124.89 -21575124.83 0.0134 0.0120
 Earth -63774-07-31 23:45 J -21571818.56 -21571818.51 -21571818.43 0.0139 0.0135

Moon -63774-07-31 23:45 J -21571818.55 -21571818.51 -21571818.44 0.0139 0.0135 *
 Earth -63773-08-04 11:45 J -21571449.24 -21571449.01 -21571448.77 0.0140 0.0045
 Moon -63773-08-04 11:59 J -21571449.22 -21571449.00 -21571448.76 0.0140 0.0042 *
 Earth -63772-08-09 00:28 J -21571079.71 -21571079.48 -21571079.24 0.0140 0.0046
 Moon -63772-08-09 01:11 J -21571079.70 -21571079.45 -21571079.20 0.0140 0.0040 *
 Earth -63771-08-13 14:09 J -21570709.95 -21570709.91 -21570709.86 0.0141 0.0138
 Mars -63761-03-05 04:47 J -21567218.60 -21567218.30 -21567217.99 0.0146 0.0007
 Venus -63758-10-28 15:21 J -21565885.98 -21565885.86 -21565885.70 0.0147 0.0114
 Venus -63757-06-11 04:47 J -21565659.50 -21565659.30 -21565659.09 0.0147 0.0057
 Venus -63756-01-23 18:13 J -21565432.96 -21565432.74 -21565432.52 0.0147 0.0000
 Venus -63756-09-07 07:40 J -21565206.37 -21565206.18 -21565205.97 0.0147 0.0058
 Venus -63755-04-21 21:06 J -21564979.74 -21564979.62 -21564979.47 0.0147 0.0115
 Mercury -63746-09-23 15:35 J -21561537.91 -21561537.85 -21561537.78 0.0145 0.0136
 Mercury -63746-12-21 00:13 J -21561449.61 -21561449.49 -21561449.34 0.0145 0.0104
 Mercury -63745-03-18 09:06 J -21561361.28 -21561361.12 -21561360.94 0.0145 0.0071
 Mercury -63745-06-14 17:59 J -21561272.93 -21561272.75 -21561272.56 0.0145 0.0039
 Mercury -63745-09-11 02:52 J -21561184.57 -21561184.38 -21561184.18 0.0145 0.0006
 Mercury -63745-12-08 11:30 J -21561096.21 -21561096.02 -21561095.82 0.0145 0.0027
 Mercury -63744-03-06 20:23 J -21561007.83 -21561007.65 -21561007.47 0.0145 0.0059
 Mercury -63744-06-03 05:01 J -21560919.43 -21560919.29 -21560919.13 0.0144 0.0091
 Mercury -63744-08-30 13:54 J -21560831.02 -21560830.92 -21560830.81 0.0144 0.0123
 Moon -63734-02-01 11:01 J -21557389.21 -21557389.04 -21557388.82 0.0139 0.0089
 Earth -63734-02-01 13:40 J -21557389.11 -21557388.93 -21557388.73 0.0139 0.0095 *
 Earth -63733-02-06 10:04 J -21557019.34 -21557019.08 -21557018.82 0.0139 0.0002
 Moon -63733-02-06 13:11 J -21557019.21 -21557018.95 -21557018.68 0.0139 0.0007 *
 Moon -63732-02-10 02:23 J -21556649.59 -21556649.40 -21556649.21 0.0138 0.0092
 Earth -63732-02-10 05:01 J -21556649.47 -21556649.29 -21556649.08 0.0138 0.0090 *
 Mars -63721-10-03 10:04 J -21552396.39 -21552396.08 -21552395.77 0.0133 0.0017
 Venus -63717-09-29 16:33 J -21550938.89 -21550938.81 -21550938.68 0.0132 0.0115
 Venus -63716-05-13 21:06 J -21550712.79 -21550712.62 -21550712.43 0.0132 0.0074

Venus	-63716-12-26 01:40 J	-21550486.64	-21550486.43	-21550486.22	0.0132	0.0033
Venus	-63715-08-09 05:45 J	-21550260.47	-21550260.26	-21550260.04	0.0132	0.0008
Venus	-63714-03-23 09:49 J	-21550034.29	-21550034.09	-21550033.89	0.0132	0.0048
Venus	-63714-11-04 13:25 J	-21549808.09	-21549807.94	-21549807.77	0.0132	0.0088
Venus	-63713-06-17 17:01 J	-21549581.82	-21549581.79	-21549581.73	0.0132	0.0128
Mercury	-63703-12-19 01:11 J	-21545745.46	-21545745.45	-21545745.43	0.0133	0.0132
Mercury	-63702-03-17 04:18 J	-21545657.38	-21545657.32	-21545657.26	0.0133	0.0115
Mercury	-63702-06-13 06:57 J	-21545569.28	-21545569.21	-21545569.11	0.0133	0.0099
Mercury	-63702-09-09 10:04 J	-21545481.18	-21545481.08	-21545480.97	0.0133	0.0081
Mercury	-63702-12-06 12:57 J	-21545393.07	-21545392.96	-21545392.84	0.0133	0.0065
Mercury	-63701-03-03 16:04 J	-21545304.95	-21545304.83	-21545304.71	0.0134	0.0048
Mercury	-63701-05-30 18:57 J	-21545216.83	-21545216.71	-21545216.58	0.0134	0.0031
Mercury	-63701-08-26 21:49 J	-21545128.71	-21545128.59	-21545128.45	0.0134	0.0015
Mercury	-63701-11-23 00:57 J	-21545040.59	-21545040.46	-21545040.33	0.0134	0.0004
Mercury	-63700-02-19 03:49 J	-21544952.47	-21544952.34	-21544952.21	0.0134	0.0020
Mercury	-63700-05-18 06:42 J	-21544864.34	-21544864.22	-21544864.09	0.0134	0.0037
Mercury	-63700-08-14 09:49 J	-21544776.21	-21544776.09	-21544775.97	0.0134	0.0054
Mercury	-63700-11-10 12:42 J	-21544688.08	-21544687.97	-21544687.86	0.0134	0.0071
Mercury	-63699-02-06 15:35 J	-21544599.94	-21544599.85	-21544599.75	0.0134	0.0089
Mercury	-63699-05-05 18:42 J	-21544511.80	-21544511.72	-21544511.64	0.0134	0.0106
Mercury	-63699-08-01 21:35 J	-21544423.65	-21544423.60	-21544423.55	0.0134	0.0123
Moon	-63690-08-01 07:40 J	-21541137.25	-21541137.18	-21541137.09	0.0139	0.0132
Earth	-63690-08-01 08:37 J	-21541137.20	-21541137.14	-21541137.04	0.0139	0.0132 *
Earth	-63689-08-04 20:52 J	-21540767.86	-21540767.63	-21540767.39	0.0140	0.0042
Moon	-63689-08-04 21:06 J	-21540767.84	-21540767.62	-21540767.39	0.0140	0.0046 *
Moon	-63688-08-09 09:06 J	-21540398.35	-21540398.12	-21540397.88	0.0140	0.0055
Earth	-63688-08-09 09:21 J	-21540398.33	-21540398.11	-21540397.86	0.0140	0.0050 *
Moon	-63687-08-13 22:47 J	-21540028.59	-21540028.55	-21540028.47	0.0141	0.0136
Mars	-63679-11-26 08:09 J	-21537002.27	-21537002.16	-21537001.99	0.0145	0.0128
Mars	-63677-10-29 14:37 J	-21536299.16	-21536298.89	-21536298.62	0.0146	0.0066

Venus	-63674-06-27 19:54 J	-21535327.71	-21535327.67	-21535327.60	0.0147	0.0142
Venus	-63673-02-09 09:06 J	-21535101.29	-21535101.12	-21535100.94	0.0147	0.0086
Venus	-63673-09-22 22:33 J	-21534874.78	-21534874.56	-21534874.35	0.0147	0.0029
Venus	-63672-05-07 11:45 J	-21534648.22	-21534648.01	-21534647.79	0.0147	0.0028
Venus	-63672-12-20 00:57 J	-21534421.62	-21534421.46	-21534421.27	0.0147	0.0085
Venus	-63671-08-03 14:52 J	-21534194.92	-21534194.88	-21534194.81	0.0147	0.0142
Mercury	-63662-10-13 21:49 J	-21530836.66	-21530836.59	-21530836.50	0.0145	0.0132
Mercury	-63661-01-10 06:28 J	-21530748.36	-21530748.23	-21530748.08	0.0145	0.0100
Mercury	-63661-04-07 15:35 J	-21530660.02	-21530659.85	-21530659.68	0.0145	0.0067
Mercury	-63661-07-05 00:13 J	-21530571.67	-21530571.49	-21530571.30	0.0145	0.0035
Mercury	-63661-10-01 09:06 J	-21530483.31	-21530483.12	-21530482.92	0.0145	0.0003
Mercury	-63661-12-28 17:45 J	-21530394.95	-21530394.76	-21530394.56	0.0145	0.0030
Mercury	-63660-03-27 02:37 J	-21530306.56	-21530306.39	-21530306.21	0.0145	0.0062
Mercury	-63660-06-23 11:30 J	-21530218.17	-21530218.02	-21530217.88	0.0144	0.0094
Mercury	-63660-09-19 19:54 J	-21530129.75	-21530129.67	-21530129.56	0.0144	0.0126
Moon	-63650-02-01 18:28 J	-21526707.90	-21526707.73	-21526707.55	0.0139	0.0101
Earth	-63650-02-01 20:09 J	-21526707.83	-21526707.66	-21526707.45	0.0139	0.0094 *
Earth	-63649-02-06 16:47 J	-21526338.06	-21526337.80	-21526337.54	0.0139	0.0002
Moon	-63649-02-06 18:57 J	-21526337.98	-21526337.71	-21526337.44	0.0139	0.0005 *
Moon	-63648-02-10 08:23 J	-21525968.33	-21525968.15	-21525967.95	0.0138	0.0090
Earth	-63648-02-10 11:16 J	-21525968.20	-21525968.03	-21525967.82	0.0138	0.0092 *
Mars	-63638-06-27 07:54 J	-21522179.40	-21522179.17	-21522178.90	0.0133	0.0082
Mars	-63636-05-28 22:33 J	-21521477.81	-21521477.56	-21521477.29	0.0133	0.0072
Venus	-63632-01-11 05:45 J	-21520154.39	-21520154.26	-21520154.09	0.0132	0.0095
Venus	-63632-08-25 10:18 J	-21519928.26	-21519928.07	-21519927.86	0.0132	0.0054
Venus	-63631-04-08 14:37 J	-21519702.10	-21519701.89	-21519701.67	0.0132	0.0014
Venus	-63631-11-20 18:42 J	-21519475.93	-21519475.72	-21519475.51	0.0132	0.0027
Venus	-63630-07-04 22:47 J	-21519249.74	-21519249.55	-21519249.37	0.0132	0.0067
Venus	-63629-02-16 02:52 J	-21519023.51	-21519023.38	-21519023.26	0.0132	0.0107
Mercury	-63618-01-08 08:09 J	-21515044.19	-21515044.16	-21515044.13	0.0133	0.0129

Mercury -63618-04-06 11:01 J -21514956.10 -21514956.04 -21514955.97 0.0133 0.0113

Mercury -63618-07-03 14:09 J -21514868.00 -21514867.91 -21514867.82 0.0133 0.0096

Mercury -63618-09-29 17:01 J -21514779.89 -21514779.79 -21514779.68 0.0134 0.0079

Mercury -63618-12-26 19:54 J -21514691.78 -21514691.67 -21514691.55 0.0134 0.0062

Mercury -63617-03-23 22:47 J -21514603.67 -21514603.55 -21514603.42 0.0134 0.0046

Mercury -63617-06-20 01:54 J -21514515.55 -21514515.42 -21514515.29 0.0134 0.0028

Mercury -63617-09-16 04:47 J -21514427.43 -21514427.30 -21514427.17 0.0134 0.0011

Mercury -63617-12-13 07:40 J -21514339.31 -21514339.18 -21514339.04 0.0134 0.0007

Mercury -63616-03-11 10:47 J -21514251.18 -21514251.05 -21514250.92 0.0134 0.0023

Mercury -63616-06-07 13:40 J -21514163.05 -21514162.93 -21514162.80 0.0134 0.0040

Mercury -63616-09-03 16:33 J -21514074.92 -21514074.81 -21514074.69 0.0134 0.0057

Mercury -63616-11-30 19:25 J -21513986.79 -21513986.69 -21513986.57 0.0134 0.0074

Mercury -63615-02-26 22:33 J -21513898.65 -21513898.56 -21513898.46 0.0134 0.0091

Mercury -63615-05-26 01:25 J -21513810.51 -21513810.44 -21513810.36 0.0134 0.0109

Mercury -63615-08-22 04:18 J -21513722.35 -21513722.32 -21513722.27 0.0135 0.0126

Jupiter -63612-11-14 13:40 J -21512542.12 -21512541.93 -21512541.64 0.0136 0.0120

Moon -63606-08-01 17:16 J -21510455.86 -21510455.78 -21510455.66 0.0139 0.0129

Earth -63606-08-01 18:42 J -21510455.80 -21510455.72 -21510455.62 0.0139 0.0129 *

Earth -63605-08-05 06:42 J -21510086.45 -21510086.22 -21510085.97 0.0140 0.0039

Moon -63605-08-05 08:09 J -21510086.39 -21510086.16 -21510085.92 0.0140 0.0037 *

Moon -63604-08-09 18:42 J -21509716.95 -21509716.72 -21509716.47 0.0140 0.0048

Earth -63604-08-09 19:25 J -21509716.91 -21509716.69 -21509716.45 0.0140 0.0054 *

Mars -63594-07-22 18:13 J -21506083.00 -21506082.74 -21506082.45 0.0145 0.0056

Mars -63592-06-25 05:45 J -21505379.30 -21505379.26 -21505379.16 0.0146 0.0142

Venus -63590-10-09 15:06 J -21504543.00 -21504542.87 -21504542.72 0.0147 0.0112

Venus -63589-05-23 04:04 J -21504316.52 -21504316.33 -21504316.12 0.0147 0.0056

Venus -63588-01-04 17:30 J -21504089.99 -21504089.77 -21504089.55 0.0147 0.0002

Venus -63588-08-19 06:57 J -21503863.40 -21503863.21 -21503863.00 0.0147 0.0058

Venus -63587-04-02 20:23 J -21503636.77 -21503636.65 -21503636.50 0.0147 0.0115

Mercury -63578-11-03 05:01 J -21500135.38 -21500135.29 -21500135.18 0.0145 0.0126

Mercury -63577-01-30 13:54 J -21500047.06 -21500046.92 -21500046.77 0.0145 0.0093
 Mercury -63577-04-27 22:33 J -21499958.73 -21499958.56 -21499958.37 0.0145 0.0061
 Mercury -63577-07-25 07:25 J -21499870.38 -21499870.19 -21499869.99 0.0145 0.0029
 Mercury -63577-10-21 16:18 J -21499782.02 -21499781.82 -21499781.62 0.0145 0.0004
 Mercury -63576-01-18 00:57 J -21499693.64 -21499693.46 -21499693.27 0.0145 0.0036
 Mercury -63576-04-16 09:35 J -21499605.26 -21499605.10 -21499604.92 0.0145 0.0069
 Mercury -63576-07-13 18:13 J -21499516.87 -21499516.74 -21499516.59 0.0144 0.0101
 Mercury -63576-10-10 03:06 J -21499428.44 -21499428.37 -21499428.29 0.0144 0.0132
 Moon -63566-02-02 04:04 J -21496026.51 -21496026.33 -21496026.12 0.0139 0.0085
 Earth -63566-02-02 05:16 J -21496026.46 -21496026.28 -21496026.07 0.0139 0.0091 *
 Earth -63565-02-07 01:25 J -21495656.70 -21495656.44 -21495656.18 0.0139 0.0003
 Moon -63565-02-07 03:35 J -21495656.61 -21495656.35 -21495656.08 0.0139 0.0003 *
 Moon -63564-02-10 17:59 J -21495286.90 -21495286.75 -21495286.55 0.0138 0.0099
 Earth -63564-02-10 20:09 J -21495286.83 -21495286.66 -21495286.46 0.0138 0.0095 *
 Mars -63553-02-20 03:06 J -21491260.67 -21491260.37 -21491260.05 0.0133 0.0024
 Mars -63551-01-21 13:11 J -21490559.03 -21490558.95 -21490558.86 0.0133 0.0127
 Venus -63549-09-10 15:35 J -21489595.95 -21489595.85 -21489595.74 0.0132 0.0114
 Venus -63548-04-24 19:40 J -21489369.84 -21489369.68 -21489369.48 0.0132 0.0074
 Venus -63548-12-07 00:13 J -21489143.69 -21489143.49 -21489143.27 0.0132 0.0033
 Venus -63547-07-21 04:33 J -21488917.52 -21488917.31 -21488917.09 0.0132 0.0008
 Venus -63546-03-04 08:37 J -21488691.33 -21488691.14 -21488690.93 0.0132 0.0048
 Venus -63546-10-16 12:28 J -21488465.13 -21488464.98 -21488464.81 0.0132 0.0088
 Venus -63545-05-29 16:18 J -21488238.86 -21488238.82 -21488238.76 0.0132 0.0128
 Mercury -63534-01-28 15:06 J -21484342.91 -21484342.87 -21484342.83 0.0133 0.0127
 Mercury -63534-04-26 17:59 J -21484254.82 -21484254.75 -21484254.67 0.0133 0.0110
 Mercury -63534-07-23 21:06 J -21484166.71 -21484166.62 -21484166.53 0.0133 0.0093
 Mercury -63534-10-19 23:45 J -21484078.61 -21484078.51 -21484078.39 0.0134 0.0077
 Mercury -63533-01-16 02:52 J -21483990.49 -21483990.38 -21483990.26 0.0134 0.0059
 Mercury -63533-04-13 05:45 J -21483902.38 -21483902.26 -21483902.13 0.0134 0.0043
 Mercury -63533-07-10 08:52 J -21483814.26 -21483814.13 -21483814.00 0.0134 0.0025

Mercury -63533-10-06 11:45 J -21483726.14 -21483726.01 -21483725.88 0.0134 0.0008
 Mercury -63532-01-02 14:37 J -21483638.02 -21483637.89 -21483637.75 0.0134 0.0010
 Mercury -63532-03-31 17:45 J -21483549.89 -21483549.76 -21483549.63 0.0134 0.0026
 Mercury -63532-06-27 20:37 J -21483461.76 -21483461.64 -21483461.51 0.0134 0.0043
 Mercury -63532-09-23 23:30 J -21483373.63 -21483373.52 -21483373.40 0.0134 0.0060
 Mercury -63532-12-21 02:23 J -21483285.50 -21483285.40 -21483285.29 0.0134 0.0078
 Mercury -63531-03-19 05:30 J -21483197.36 -21483197.27 -21483197.18 0.0134 0.0095
 Mercury -63531-06-15 08:23 J -21483109.21 -21483109.15 -21483109.07 0.0135 0.0112
 Mercury -63531-09-11 11:30 J -21483021.05 -21483021.02 -21483020.98 0.0135 0.0129
 Jupiter -63529-10-07 00:42 J -21482264.71 -21482264.47 -21482264.20 0.0136 0.0117
 Moon -63522-08-02 02:09 J -21479774.50 -21479774.41 -21479774.30 0.0139 0.0128
 Earth -63522-08-02 04:33 J -21479774.40 -21479774.31 -21479774.20 0.0139 0.0126 *
 Earth -63521-08-05 16:47 J -21479405.04 -21479404.80 -21479404.56 0.0140 0.0035
 Moon -63521-08-05 18:13 J -21479404.97 -21479404.74 -21479404.51 0.0140 0.0038 *
 Moon -63520-08-10 04:04 J -21479035.56 -21479035.33 -21479035.10 0.0140 0.0062
 Earth -63520-08-10 05:30 J -21479035.49 -21479035.27 -21479035.03 0.0140 0.0057 *
 Saturn -63517-12-16 08:23 J -21477811.72 -21477811.15 -21477810.55 0.0142 0.0050
 Mars -63509-03-17 06:28 J -21475163.52 -21475163.23 -21475162.93 0.0146 0.0017
 Venus -63506-06-08 21:06 J -21473984.67 -21473984.62 -21473984.53 0.0147 0.0138
 Venus -63505-01-21 10:18 J -21473758.24 -21473758.07 -21473757.88 0.0147 0.0082
 Venus -63505-09-03 23:30 J -21473531.72 -21473531.52 -21473531.29 0.0147 0.0026
 Venus -63504-04-18 13:11 J -21473305.17 -21473304.95 -21473304.74 0.0147 0.0031
 Venus -63504-12-01 02:37 J -21473078.56 -21473078.39 -21473078.21 0.0147 0.0088
 Venus -63503-07-15 16:18 J -21472851.84 -21472851.82 -21472851.77 0.0147 0.0145
 Mercury -63494-11-23 12:42 J -21469434.07 -21469433.97 -21469433.84 0.0145 0.0117
 Mercury -63493-02-19 21:49 J -21469345.75 -21469345.59 -21469345.43 0.0145 0.0084
 Mercury -63493-05-18 06:28 J -21469257.41 -21469257.23 -21469257.04 0.0145 0.0052
 Mercury -63493-08-14 15:21 J -21469169.05 -21469168.86 -21469168.67 0.0145 0.0020
 Mercury -63493-11-10 23:59 J -21469080.69 -21469080.50 -21469080.30 0.0145 0.0013
 Mercury -63492-02-07 08:52 J -21468992.32 -21468992.13 -21468991.95 0.0145 0.0045

Mercury -63492-05-06 17:16 J -21468903.93 -21468903.78 -21468903.60 0.0144 0.0078
 Mercury -63492-08-03 01:54 J -21468815.53 -21468815.42 -21468815.27 0.0144 0.0110
 Mercury -63492-10-30 10:47 J -21468727.08 -21468727.05 -21468727.00 0.0144 0.0141
 Moon -63482-02-02 14:37 J -21465345.06 -21465344.89 -21465344.69 0.0139 0.0094
 Earth -63482-02-02 15:49 J -21465345.04 -21465344.84 -21465344.63 0.0139 0.0086 *
 Earth -63481-02-07 11:45 J -21464975.27 -21464975.01 -21464974.75 0.0138 0.0007
 Moon -63481-02-07 12:42 J -21464975.23 -21464974.97 -21464974.70 0.0138 0.0014 *
 Moon -63480-02-11 04:04 J -21464605.49 -21464605.33 -21464605.14 0.0138 0.0097
 Earth -63480-02-11 06:28 J -21464605.41 -21464605.23 -21464605.05 0.0138 0.0099 *
 Mars -63471-11-13 00:42 J -21461043.56 -21461043.47 -21461043.32 0.0133 0.0124
 Mars -63469-10-14 20:23 J -21460341.94 -21460341.65 -21460341.34 0.0133 0.0034
 Venus -63465-12-23 05:16 J -21458811.42 -21458811.28 -21458811.12 0.0132 0.0093
 Venus -63464-08-06 09:49 J -21458585.28 -21458585.09 -21458584.89 0.0132 0.0053
 Venus -63463-03-20 14:09 J -21458359.12 -21458358.91 -21458358.69 0.0132 0.0013
 Venus -63463-11-01 18:28 J -21458132.94 -21458132.73 -21458132.52 0.0132 0.0028
 Venus -63462-06-15 22:04 J -21457906.75 -21457906.58 -21457906.38 0.0132 0.0069
 Venus -63461-01-28 02:23 J -21457680.52 -21457680.40 -21457680.27 0.0132 0.0108
 Mercury -63450-02-17 21:49 J -21453641.63 -21453641.59 -21453641.54 0.0133 0.0124
 Mercury -63450-05-17 00:42 J -21453553.54 -21453553.47 -21453553.39 0.0133 0.0108
 Mercury -63450-08-13 03:49 J -21453465.43 -21453465.34 -21453465.24 0.0133 0.0091
 Mercury -63450-11-09 06:42 J -21453377.33 -21453377.22 -21453377.11 0.0134 0.0074
 Mercury -63449-02-05 09:49 J -21453289.21 -21453289.09 -21453288.98 0.0134 0.0057
 Mercury -63449-05-03 12:42 J -21453201.10 -21453200.97 -21453200.85 0.0134 0.0040
 Mercury -63449-07-30 15:35 J -21453112.98 -21453112.85 -21453112.72 0.0134 0.0023
 Mercury -63449-10-26 18:42 J -21453024.86 -21453024.72 -21453024.59 0.0134 0.0007
 Mercury -63448-01-22 21:35 J -21452936.73 -21452936.60 -21452936.47 0.0134 0.0011
 Mercury -63448-04-21 00:28 J -21452848.61 -21452848.48 -21452848.35 0.0134 0.0028
 Mercury -63448-07-18 03:35 J -21452760.48 -21452760.35 -21452760.23 0.0134 0.0046
 Mercury -63448-10-14 06:28 J -21452672.35 -21452672.23 -21452672.12 0.0134 0.0063
 Mercury -63447-01-10 09:21 J -21452584.21 -21452584.11 -21452584.00 0.0134 0.0080

Mercury -63447-04-08 12:13 J -21452496.07 -21452495.99 -21452495.89 0.0134 0.0097
 Mercury -63447-07-05 15:06 J -21452407.93 -21452407.87 -21452407.79 0.0135 0.0115
 Mercury -63447-10-01 18:13 J -21452319.76 -21452319.74 -21452319.71 0.0135 0.0132
 Moon -63438-08-02 10:18 J -21449093.17 -21449093.07 -21449092.93 0.0139 0.0123
 Earth -63438-08-02 12:28 J -21449093.07 -21449092.98 -21449092.85 0.0139 0.0125 *
 Earth -63437-08-06 00:57 J -21448723.70 -21448723.46 -21448723.21 0.0140 0.0033
 Moon -63437-08-06 03:21 J -21448723.59 -21448723.36 -21448723.11 0.0140 0.0032 *
 Moon -63436-08-10 11:59 J -21448354.23 -21448354.00 -21448353.76 0.0141 0.0055
 Earth -63436-08-10 13:54 J -21448354.14 -21448353.92 -21448353.69 0.0141 0.0059 *
 Mars -63427-12-08 11:45 J -21444947.19 -21444947.01 -21444946.79 0.0145 0.0107
 Mars -63425-11-10 17:16 J -21444244.00 -21444243.78 -21444243.53 0.0146 0.0090
 Venus -63422-09-20 15:21 J -21443199.99 -21443199.86 -21443199.70 0.0147 0.0109
 Venus -63421-05-04 04:33 J -21442973.50 -21442973.31 -21442973.10 0.0147 0.0053
 Venus -63421-12-16 17:59 J -21442746.96 -21442746.75 -21442746.53 0.0147 0.0005
 Venus -63420-07-31 07:25 J -21442520.37 -21442520.19 -21442519.98 0.0147 0.0061
 Venus -63419-03-14 21:21 J -21442293.73 -21442293.61 -21442293.47 0.0147 0.0117
 Mercury -63410-09-16 11:30 J -21438821.05 -21438821.02 -21438820.97 0.0145 0.0141
 Mercury -63410-12-13 20:09 J -21438732.77 -21438732.66 -21438732.52 0.0145 0.0109
 Mercury -63409-03-11 05:01 J -21438644.45 -21438644.29 -21438644.12 0.0145 0.0077
 Mercury -63409-06-07 13:54 J -21438556.10 -21438555.92 -21438555.73 0.0145 0.0044
 Mercury -63409-09-03 22:47 J -21438467.74 -21438467.55 -21438467.36 0.0145 0.0012
 Mercury -63409-12-01 07:25 J -21438379.38 -21438379.19 -21438378.99 0.0145 0.0021
 Mercury -63408-02-27 16:18 J -21438291.00 -21438290.82 -21438290.64 0.0145 0.0053
 Mercury -63408-05-27 01:11 J -21438202.61 -21438202.45 -21438202.30 0.0144 0.0085
 Mercury -63408-08-23 09:21 J -21438114.20 -21438114.11 -21438113.98 0.0144 0.0118
 Moon -63398-02-03 02:09 J -21434663.60 -21434663.41 -21434663.18 0.0139 0.0076
 Earth -63398-02-03 02:09 J -21434663.60 -21434663.41 -21434663.19 0.0139 0.0082 *
 Earth -63397-02-07 21:49 J -21434293.84 -21434293.59 -21434293.32 0.0138 0.0012
 Moon -63397-02-07 23:01 J -21434293.81 -21434293.54 -21434293.27 0.0138 0.0006 *
 Moon -63396-02-11 15:21 J -21433923.99 -21433923.86 -21433923.69 0.0138 0.0109

Earth -63396-02-11 16:18 J -21433923.97 -21433923.82 -21433923.63 0.0138 0.0104 *
 Mars -63386-07-08 22:33 J -21430124.82 -21430124.56 -21430124.26 0.0133 0.0064
 Mars -63384-06-09 12:42 J -21429423.18 -21429422.97 -21429422.72 0.0133 0.0091
 Venus -63381-08-22 15:06 J -21428252.98 -21428252.87 -21428252.75 0.0132 0.0112
 Venus -63380-04-05 19:25 J -21428026.86 -21428026.69 -21428026.50 0.0132 0.0072
 Venus -63380-11-17 23:59 J -21427800.71 -21427800.50 -21427800.29 0.0132 0.0031
 Venus -63379-07-02 04:18 J -21427574.54 -21427574.32 -21427574.10 0.0132 0.0009
 Venus -63378-02-13 08:37 J -21427348.34 -21427348.14 -21427347.94 0.0132 0.0049
 Venus -63378-09-27 12:28 J -21427122.14 -21427121.98 -21427121.82 0.0131 0.0089
 Venus -63377-05-10 15:49 J -21426895.86 -21426895.84 -21426895.77 0.0131 0.0129
 Mercury -63366-03-10 04:33 J -21422940.35 -21422940.31 -21422940.25 0.0133 0.0122
 Mercury -63366-06-06 07:25 J -21422852.26 -21422852.19 -21422852.10 0.0133 0.0106
 Mercury -63366-09-02 10:33 J -21422764.16 -21422764.06 -21422763.96 0.0133 0.0089
 Mercury -63366-11-29 13:25 J -21422676.05 -21422675.94 -21422675.82 0.0133 0.0072
 Mercury -63365-02-25 16:33 J -21422587.93 -21422587.81 -21422587.69 0.0134 0.0055
 Mercury -63365-05-23 19:25 J -21422499.82 -21422499.69 -21422499.56 0.0134 0.0038
 Mercury -63365-08-19 22:18 J -21422411.70 -21422411.57 -21422411.44 0.0134 0.0021
 Mercury -63365-11-16 01:25 J -21422323.57 -21422323.44 -21422323.31 0.0134 0.0005
 Mercury -63364-02-12 04:18 J -21422235.45 -21422235.32 -21422235.19 0.0134 0.0013
 Mercury -63364-05-11 07:11 J -21422147.32 -21422147.20 -21422147.07 0.0134 0.0030
 Mercury -63364-08-07 10:04 J -21422059.20 -21422059.08 -21422058.95 0.0134 0.0048
 Mercury -63364-11-03 13:11 J -21421971.06 -21421970.95 -21421970.84 0.0134 0.0065
 Mercury -63363-01-30 16:04 J -21421882.93 -21421882.83 -21421882.72 0.0134 0.0082
 Mercury -63363-04-28 18:57 J -21421794.79 -21421794.71 -21421794.61 0.0134 0.0099
 Mercury -63363-07-25 21:49 J -21421706.64 -21421706.59 -21421706.51 0.0134 0.0117
 Mercury -63363-10-22 00:57 J -21421618.47 -21421618.46 -21421618.44 0.0135 0.0134
 Moon -63354-08-02 16:18 J -21418411.92 -21418411.82 -21418411.71 0.0139 0.0127
 Earth -63354-08-02 19:25 J -21418411.79 -21418411.69 -21418411.57 0.0139 0.0124 *
 Earth -63353-08-06 07:25 J -21418042.42 -21418042.19 -21418041.94 0.0140 0.0033
 Moon -63353-08-06 10:04 J -21418042.31 -21418042.08 -21418041.84 0.0140 0.0034 *

Moon -63352-08-10 17:30 J -21417672.98 -21417672.77 -21417672.53 0.0140 0.0065
 Earth -63352-08-10 20:23 J -21417672.87 -21417672.65 -21417672.42 0.0140 0.0060 *
 Mars -63342-08-03 13:40 J -21414028.21 -21414027.93 -21414027.63 0.0146 0.0040
 Venus -63338-05-20 18:42 J -21412641.78 -21412641.72 -21412641.64 0.0147 0.0138
 Venus -63337-01-02 07:25 J -21412415.35 -21412415.19 -21412414.99 0.0147 0.0083
 Venus -63337-08-15 21:06 J -21412188.83 -21412188.62 -21412188.40 0.0147 0.0027
 Venus -63336-03-30 10:33 J -21411962.27 -21411962.06 -21411961.84 0.0147 0.0030
 Venus -63336-11-11 23:59 J -21411735.66 -21411735.50 -21411735.31 0.0147 0.0087
 Venus -63335-06-26 14:09 J -21411508.95 -21411508.91 -21411508.86 0.0147 0.0143
 Mercury -63326-10-06 17:59 J -21408119.81 -21408119.75 -21408119.69 0.0145 0.0138
 Mercury -63325-01-03 02:37 J -21408031.52 -21408031.39 -21408031.25 0.0145 0.0105
 Mercury -63325-03-31 11:16 J -21407943.19 -21407943.03 -21407942.85 0.0145 0.0073
 Mercury -63325-06-27 20:23 J -21407854.84 -21407854.65 -21407854.47 0.0145 0.0040
 Mercury -63325-09-24 05:01 J -21407766.48 -21407766.29 -21407766.09 0.0145 0.0008
 Mercury -63325-12-21 13:54 J -21407678.11 -21407677.92 -21407677.73 0.0145 0.0025
 Mercury -63324-03-19 22:33 J -21407589.74 -21407589.56 -21407589.38 0.0145 0.0057
 Mercury -63324-06-16 07:11 J -21407501.34 -21407501.20 -21407501.04 0.0144 0.0089
 Mercury -63324-09-12 15:49 J -21407412.93 -21407412.84 -21407412.72 0.0144 0.0122
 Jupiter -63321-07-11 11:16 J -21406380.50 -21406380.03 -21406379.53 0.0143 0.0057
 Earth -63314-02-03 10:18 J -21403982.27 -21403982.07 -21403981.84 0.0139 0.0079
 Moon -63314-02-03 10:33 J -21403982.24 -21403982.06 -21403981.85 0.0139 0.0087 *
 Moon -63313-02-08 05:59 J -21403612.51 -21403612.25 -21403611.98 0.0139 0.0022
 Earth -63313-02-08 06:13 J -21403612.49 -21403612.24 -21403611.98 0.0139 0.0016 *
 Moon -63312-02-11 23:45 J -21403242.65 -21403242.51 -21403242.32 0.0138 0.0105
 Earth -63312-02-12 00:42 J -21403242.61 -21403242.47 -21403242.29 0.0138 0.0108 *
 Mars -63301-03-02 16:33 J -21399206.13 -21399205.81 -21399205.50 0.0133 0.0005
 Venus -63297-12-04 04:47 J -21397468.45 -21397468.30 -21397468.13 0.0132 0.0092
 Venus -63296-07-18 09:06 J -21397242.30 -21397242.12 -21397241.90 0.0132 0.0052
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 Venus -63295-10-13 17:59 J -21396789.96 -21396789.75 -21396789.53 0.0131 0.0029

Venus -63294-05-27 22:04 J -21396563.76 -21396563.58 -21396563.39 0.0131 0.0069
 Venus -63293-01-09 01:40 J -21396337.53 -21396337.43 -21396337.29 0.0131 0.0109
 Mercury -63282-03-30 11:16 J -21392239.08 -21392239.03 -21392238.97 0.0133 0.0120
 Mercury -63282-06-26 14:09 J -21392150.99 -21392150.91 -21392150.82 0.0133 0.0104
 Mercury -63282-09-22 17:01 J -21392062.88 -21392062.79 -21392062.68 0.0133 0.0087
 Mercury -63282-12-19 19:54 J -21391974.77 -21391974.67 -21391974.55 0.0133 0.0071
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 Mercury -63281-06-13 01:54 J -21391798.54 -21391798.42 -21391798.29 0.0134 0.0037
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 Mercury -63280-05-31 13:54 J -21391446.05 -21391445.92 -21391445.79 0.0134 0.0032
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 Mercury -63280-11-23 19:54 J -21391269.79 -21391269.67 -21391269.56 0.0134 0.0066
 Mercury -63279-02-19 22:47 J -21391181.65 -21391181.55 -21391181.45 0.0134 0.0083
 Mercury -63279-05-19 01:40 J -21391093.51 -21391093.43 -21391093.34 0.0134 0.0101
 Mercury -63279-08-15 04:47 J -21391005.36 -21391005.30 -21391005.24 0.0134 0.0118
 Moon -63270-08-02 22:04 J -21387730.69 -21387730.58 -21387730.44 0.0139 0.0120
 Earth -63270-08-03 01:11 J -21387730.55 -21387730.45 -21387730.32 0.0139 0.0123 *
 Earth -63269-08-06 13:25 J -21387361.18 -21387360.94 -21387360.70 0.0140 0.0032
 Moon -63269-08-06 16:47 J -21387361.04 -21387360.80 -21387360.56 0.0140 0.0032 *
 Moon -63268-08-10 23:01 J -21386991.76 -21386991.54 -21386991.30 0.0140 0.0058
 Earth -63268-08-11 01:54 J -21386991.63 -21386991.42 -21386991.18 0.0140 0.0061 *
 Mars -63257-03-28 12:28 J -21383109.26 -21383108.98 -21383108.67 0.0146 0.0029
 Venus -63254-09-01 09:35 J -21381857.22 -21381857.10 -21381856.95 0.0147 0.0114
 Venus -63253-04-14 23:01 J -21381630.74 -21381630.54 -21381630.34 0.0147 0.0058
 Venus -63253-11-27 12:13 J -21381404.20 -21381403.99 -21381403.77 0.0147 0.0004
 Venus -63252-07-12 01:40 J -21381177.62 -21381177.43 -21381177.21 0.0147 0.0055
 Venus -63251-02-23 15:35 J -21380950.98 -21380950.85 -21380950.70 0.0147 0.0111
 Mercury -63242-10-26 23:01 J -21377418.59 -21377418.54 -21377418.46 0.0145 0.0137

Mercury -63241-01-23 08:09 J -21377330.29 -21377330.16 -21377330.02 0.0145 0.0104
 Mercury -63241-04-20 16:47 J -21377241.96 -21377241.80 -21377241.62 0.0145 0.0072
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 Mercury -63240-01-10 19:11 J -21376976.89 -21376976.70 -21376976.50 0.0145 0.0026
 Mercury -63240-04-09 04:04 J -21376888.51 -21376888.33 -21376888.15 0.0145 0.0058
 Mercury -63240-07-06 12:42 J -21376800.11 -21376799.97 -21376799.81 0.0144 0.0090
 Mercury -63240-10-02 21:21 J -21376711.70 -21376711.61 -21376711.49 0.0144 0.0123
 Earth -63230-02-03 16:04 J -21373301.04 -21373300.83 -21373300.61 0.0139 0.0078
 Moon -63230-02-03 17:30 J -21373300.97 -21373300.77 -21373300.55 0.0139 0.0072 *
 Moon -63229-02-08 11:30 J -21372931.28 -21372931.02 -21372930.75 0.0139 0.0010
 Earth -63229-02-08 11:59 J -21372931.25 -21372931.00 -21372930.74 0.0139 0.0017 *
 Earth -63228-02-12 06:57 J -21372561.36 -21372561.21 -21372561.05 0.0138 0.0110
 Moon -63228-02-12 07:25 J -21372561.32 -21372561.19 -21372561.05 0.0138 0.0115 *
 Mars -63219-11-24 10:47 J -21368989.23 -21368989.05 -21368988.85 0.0133 0.0106
 Mars -63217-10-26 07:40 J -21368287.46 -21368287.18 -21368286.88 0.0133 0.0052
 Venus -63213-08-03 13:54 J -21366910.02 -21366909.92 -21366909.79 0.0132 0.0112
 Venus -63212-03-17 18:28 J -21366683.90 -21366683.73 -21366683.53 0.0132 0.0072
 Venus -63212-10-29 23:16 J -21366457.74 -21366457.53 -21366457.32 0.0132 0.0031
 Venus -63211-06-13 03:35 J -21366231.57 -21366231.35 -21366231.13 0.0132 0.0009
 Venus -63210-01-25 07:40 J -21366005.38 -21366005.18 -21366004.97 0.0132 0.0049
 Venus -63210-09-08 11:30 J -21365779.17 -21365779.02 -21365778.85 0.0131 0.0089
 Venus -63209-04-21 15:21 J -21365552.89 -21365552.86 -21365552.80 0.0131 0.0128
 Mercury -63198-04-19 17:59 J -21361537.80 -21361537.75 -21361537.68 0.0133 0.0118
 Mercury -63198-07-16 21:06 J -21361449.70 -21361449.62 -21361449.53 0.0133 0.0101
 Mercury -63198-10-12 23:59 J -21361361.60 -21361361.50 -21361361.39 0.0133 0.0084
 Mercury -63197-01-09 02:52 J -21361273.48 -21361273.38 -21361273.26 0.0133 0.0068
 Mercury -63197-04-06 05:59 J -21361185.37 -21361185.25 -21361185.13 0.0133 0.0050
 Mercury -63197-07-03 08:52 J -21361097.25 -21361097.13 -21361097.00 0.0133 0.0034
 Mercury -63197-09-29 11:59 J -21361009.13 -21361009.00 -21361008.87 0.0134 0.0017

Mercury -63197-12-26 14:52 J -21360921.01 -21360920.88 -21360920.75 0.0134 0.0001
 Mercury -63196-03-24 17:45 J -21360832.89 -21360832.76 -21360832.63 0.0134 0.0018
 Mercury -63196-06-20 20:52 J -21360744.76 -21360744.63 -21360744.51 0.0134 0.0035
 Mercury -63196-09-16 23:45 J -21360656.63 -21360656.51 -21360656.39 0.0134 0.0052
 Mercury -63196-12-14 02:37 J -21360568.50 -21360568.39 -21360568.27 0.0134 0.0069
 Mercury -63195-03-12 05:30 J -21360480.36 -21360480.27 -21360480.16 0.0134 0.0087
 Mercury -63195-06-08 08:37 J -21360392.22 -21360392.14 -21360392.06 0.0134 0.0103
 Mercury -63195-09-04 11:30 J -21360304.07 -21360304.02 -21360303.96 0.0134 0.0121
 Moon -63186-08-03 05:45 J -21357049.36 -21357049.26 -21357049.15 0.0139 0.0126
 Earth -63186-08-03 09:06 J -21357049.22 -21357049.12 -21357048.98 0.0139 0.0121 *
 Earth -63185-08-06 21:21 J -21356679.85 -21356679.61 -21356679.37 0.0140 0.0030
 Moon -63185-08-07 00:28 J -21356679.71 -21356679.48 -21356679.23 0.0140 0.0030 *
 Moon -63184-08-11 06:42 J -21356310.44 -21356310.22 -21356310.00 0.0140 0.0067
 Earth -63184-08-11 10:04 J -21356310.29 -21356310.08 -21356309.85 0.0140 0.0063 *
 Mars -63175-12-19 15:06 J -21352893.07 -21352892.87 -21352892.63 0.0145 0.0097
 Mars -63173-11-21 15:35 J -21352190.05 -21352189.85 -21352189.61 0.0146 0.0100
 Venus -63170-05-01 12:42 J -21351299.00 -21351298.97 -21351298.92 0.0147 0.0144
 Venus -63170-12-14 01:40 J -21351072.59 -21351072.43 -21351072.25 0.0147 0.0089
 Venus -63169-07-27 15:06 J -21350846.08 -21350845.87 -21350845.66 0.0147 0.0033
 Venus -63168-03-11 04:33 J -21350619.53 -21350619.31 -21350619.10 0.0147 0.0023
 Venus -63168-10-23 17:59 J -21350392.93 -21350392.75 -21350392.56 0.0147 0.0079
 Venus -63167-06-07 07:25 J -21350166.26 -21350166.19 -21350166.10 0.0147 0.0136
 Mercury -63158-11-16 04:47 J -21346717.35 -21346717.30 -21346717.22 0.0145 0.0136
 Mercury -63157-02-12 13:40 J -21346629.06 -21346628.93 -21346628.78 0.0145 0.0103
 Mercury -63157-05-10 22:33 J -21346540.72 -21346540.56 -21346540.38 0.0145 0.0070
 Mercury -63157-08-07 07:25 J -21346452.38 -21346452.19 -21346452.00 0.0145 0.0038
 Mercury -63157-11-03 16:18 J -21346364.02 -21346363.82 -21346363.63 0.0145 0.0005
 Mercury -63156-01-31 00:57 J -21346275.65 -21346275.46 -21346275.26 0.0145 0.0028
 Mercury -63156-04-29 09:49 J -21346187.27 -21346187.09 -21346186.91 0.0145 0.0060
 Mercury -63156-07-26 18:13 J -21346098.87 -21346098.74 -21346098.57 0.0144 0.0093

Mercury -63156-10-23 03:06 J -21346010.45 -21346010.37 -21346010.26 0.0144 0.0125

Earth -63146-02-03 21:35 J -21342619.81 -21342619.60 -21342619.38 0.0139 0.0078

Moon -63146-02-03 23:16 J -21342619.73 -21342619.53 -21342619.33 0.0139 0.0085 *

Moon -63145-02-08 15:49 J -21342250.10 -21342249.84 -21342249.57 0.0139 0.0024

Earth -63145-02-08 17:45 J -21342250.02 -21342249.76 -21342249.50 0.0139 0.0017 *

Earth -63144-02-12 12:28 J -21341880.11 -21341879.98 -21341879.81 0.0138 0.0111

Moon -63144-02-12 13:25 J -21341880.09 -21341879.94 -21341879.77 0.0138 0.0106 *

Mars -63134-07-20 03:06 J -21338070.65 -21338070.37 -21338070.06 0.0133 0.0048

Mars -63132-06-20 21:06 J -21337368.77 -21337368.62 -21337368.41 0.0133 0.0109

Venus -63129-11-15 03:21 J -21336125.51 -21336125.36 -21336125.20 0.0132 0.0092

Venus -63128-06-29 07:54 J -21335899.36 -21335899.17 -21335898.96 0.0132 0.0052

Venus -63127-02-10 12:42 J -21335673.19 -21335672.97 -21335672.75 0.0132 0.0012

Venus -63127-09-24 16:47 J -21335447.00 -21335446.80 -21335446.58 0.0132 0.0029

Venus -63126-05-08 20:52 J -21335220.81 -21335220.63 -21335220.44 0.0132 0.0068

Venus -63126-12-21 00:42 J -21334994.58 -21334994.47 -21334994.33 0.0132 0.0108

Mercury -63114-02-10 22:04 J -21330924.59 -21330924.58 -21330924.57 0.0133 0.0132

Mercury -63114-05-10 00:42 J -21330836.52 -21330836.47 -21330836.39 0.0133 0.0116

Mercury -63114-08-06 03:49 J -21330748.42 -21330748.34 -21330748.24 0.0133 0.0099

Mercury -63114-11-02 06:42 J -21330660.31 -21330660.22 -21330660.11 0.0133 0.0083

Mercury -63113-01-29 09:49 J -21330572.20 -21330572.09 -21330571.97 0.0133 0.0065

Mercury -63113-04-26 12:42 J -21330484.08 -21330483.97 -21330483.84 0.0133 0.0049

Mercury -63113-07-23 15:49 J -21330395.97 -21330395.84 -21330395.71 0.0134 0.0031

Mercury -63113-10-19 18:42 J -21330307.85 -21330307.72 -21330307.59 0.0134 0.0015

Mercury -63112-01-15 21:49 J -21330219.72 -21330219.59 -21330219.46 0.0134 0.0004

Mercury -63112-04-14 00:42 J -21330131.60 -21330131.47 -21330131.34 0.0134 0.0020

Mercury -63112-07-11 03:35 J -21330043.47 -21330043.35 -21330043.22 0.0134 0.0037

Mercury -63112-10-07 06:42 J -21329955.34 -21329955.22 -21329955.10 0.0134 0.0055

Mercury -63111-01-03 09:35 J -21329867.21 -21329867.10 -21329866.99 0.0134 0.0072

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Mercury -63111-06-28 15:21 J -21329690.93 -21329690.86 -21329690.77 0.0134 0.0106

Mercury -63111-09-24 18:13 J -21329602.78 -21329602.74 -21329602.68 0.0134 0.0124
 Moon -63102-08-03 15:21 J -21326368.00 -21326367.86 -21326367.72 0.0139 0.0114
 Earth -63102-08-03 18:28 J -21326367.84 -21326367.73 -21326367.58 0.0139 0.0118 *
 Earth -63101-08-07 06:42 J -21325998.46 -21325998.22 -21325997.97 0.0140 0.0027
 Moon -63101-08-07 10:33 J -21325998.30 -21325998.06 -21325997.82 0.0140 0.0027 *
 Moon -63100-08-11 16:18 J -21325629.04 -21325628.82 -21325628.60 0.0140 0.0065
 Earth -63100-08-11 19:25 J -21325628.89 -21325628.69 -21325628.46 0.0140 0.0067 *
 Mars -63090-08-14 21:49 J -21321973.87 -21321973.59 -21321973.29 0.0146 0.0026
 Venus -63086-08-13 06:57 J -21320514.32 -21320514.21 -21320514.06 0.0147 0.0116
 Venus -63085-03-26 20:09 J -21320287.85 -21320287.66 -21320287.45 0.0147 0.0061
 Venus -63085-11-08 09:35 J -21320061.32 -21320061.10 -21320060.88 0.0147 0.0005
 Venus -63084-06-22 23:01 J -21319834.75 -21319834.54 -21319834.34 0.0147 0.0051
 Venus -63083-02-04 12:28 J -21319608.12 -21319607.98 -21319607.83 0.0147 0.0108
 Mercury -63074-12-06 11:45 J -21316016.08 -21316016.01 -21316015.91 0.0145 0.0130
 Mercury -63073-03-03 20:37 J -21315927.78 -21315927.64 -21315927.49 0.0145 0.0097
 Mercury -63073-05-31 05:16 J -21315839.44 -21315839.28 -21315839.09 0.0145 0.0065
 Mercury -63073-08-27 14:23 J -21315751.09 -21315750.90 -21315750.71 0.0145 0.0032
 Mercury -63073-11-23 23:16 J -21315662.73 -21315662.53 -21315662.34 0.0145 0.0003
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 Mercury -63072-05-19 16:33 J -21315485.98 -21315485.81 -21315485.63 0.0145 0.0065
 Mercury -63072-08-16 01:25 J -21315397.58 -21315397.44 -21315397.29 0.0144 0.0097
 Mercury -63072-11-12 10:04 J -21315309.15 -21315309.08 -21315308.99 0.0144 0.0130
 Earth -63062-02-04 05:45 J -21311938.47 -21311938.26 -21311938.04 0.0139 0.0076
 Moon -63062-02-04 08:23 J -21311938.36 -21311938.15 -21311937.92 0.0139 0.0070 *
 Moon -63061-02-08 23:59 J -21311568.76 -21311568.50 -21311568.23 0.0139 0.0014
 Earth -63061-02-09 01:54 J -21311568.67 -21311568.42 -21311568.16 0.0139 0.0020 *
 Earth -63060-02-12 20:52 J -21311198.76 -21311198.63 -21311198.47 0.0138 0.0114
 Moon -63060-02-12 22:47 J -21311198.66 -21311198.55 -21311198.42 0.0138 0.0120 *
 Mars -63049-03-13 23:16 J -21307151.84 -21307151.53 -21307151.21 0.0133 0.0011
 Venus -63045-07-15 12:57 J -21305567.06 -21305566.96 -21305566.83 0.0132 0.0111

Venus -63044-02-26 17:59 J -21305340.93 -21305340.75 -21305340.56 0.0132 0.0071
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 Venus -63043-05-25 03:06 J -21304888.59 -21304888.37 -21304888.15 0.0132 0.0009
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 Mercury -63030-03-03 05:01 J -21300223.31 -21300223.29 -21300223.25 0.0133 0.0129
 Mercury -63030-05-30 07:54 J -21300135.23 -21300135.17 -21300135.09 0.0133 0.0113
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 Mercury -63030-11-22 13:54 J -21299959.02 -21299958.92 -21299958.81 0.0133 0.0079
 Mercury -63029-02-18 17:01 J -21299870.90 -21299870.79 -21299870.67 0.0133 0.0061
 Mercury -63029-05-16 19:54 J -21299782.79 -21299782.67 -21299782.54 0.0134 0.0045
 Mercury -63029-08-12 23:01 J -21299694.67 -21299694.54 -21299694.41 0.0134 0.0027
 Mercury -63029-11-09 01:54 J -21299606.55 -21299606.42 -21299606.29 0.0134 0.0010
 Mercury -63028-02-05 04:47 J -21299518.43 -21299518.30 -21299518.16 0.0134 0.0008
 Mercury -63028-05-04 07:54 J -21299430.30 -21299430.17 -21299430.04 0.0134 0.0024
 Mercury -63028-07-31 10:47 J -21299342.17 -21299342.05 -21299341.92 0.0134 0.0041
 Mercury -63028-10-27 13:40 J -21299254.04 -21299253.93 -21299253.81 0.0134 0.0058
 Mercury -63027-01-23 16:33 J -21299165.91 -21299165.81 -21299165.69 0.0134 0.0076
 Mercury -63027-04-21 19:40 J -21299077.77 -21299077.68 -21299077.58 0.0134 0.0093
 Mercury -63027-07-18 22:47 J -21298989.63 -21298989.55 -21298989.48 0.0134 0.0110
 Mercury -63027-10-15 01:25 J -21298901.47 -21298901.44 -21298901.39 0.0135 0.0127
 Moon -63018-08-04 01:54 J -21295686.53 -21295686.42 -21295686.28 0.0139 0.0120
 Earth -63018-08-04 05:30 J -21295686.39 -21295686.27 -21295686.11 0.0139 0.0114 *
 Earth -63017-08-07 17:45 J -21295317.00 -21295316.76 -21295316.51 0.0140 0.0022
 Moon -63017-08-07 21:06 J -21295316.86 -21295316.62 -21295316.37 0.0140 0.0022 *
 Moon -63016-08-12 03:06 J -21294947.58 -21294947.37 -21294947.15 0.0140 0.0075
 Earth -63016-08-12 06:42 J -21294947.42 -21294947.22 -21294947.00 0.0140 0.0072 *
 Mars -63005-04-09 10:04 J -21291054.36 -21291054.08 -21291053.79 0.0146 0.0049
 Venus -63002-04-12 13:54 J -21289955.97 -21289955.92 -21289955.84 0.0147 0.0140

Venus -63002-11-25 03:06 J -21289729.55 -21289729.37 -21289729.19 0.0147 0.0085

Venus -63001-07-08 16:04 J -21289503.04 -21289502.83 -21289502.61 0.0147 0.0030

63RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 63rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-63000-02-20 05:30 J		-21289276.48	-21289276.27	-21289276.05	0.0147	0.0026	
Venus	-63000-10-04 18:42 J		-21289049.89	-21289049.72	-21289049.53	0.0147	0.0082	
Venus	-62999-05-19 08:09 J		-21288823.21	-21288823.16	-21288823.07	0.0147	0.0138	
Mercury	-62990-12-26 19:40 J		-21285314.77	-21285314.68	-21285314.56	0.0145	0.0121	
Mercury	-62989-03-24 04:33 J		-21285226.46	-21285226.31	-21285226.15	0.0145	0.0088	
Mercury	-62989-06-20 13:11 J		-21285138.12	-21285137.95	-21285137.76	0.0145	0.0056	
Mercury	-62989-09-16 22:18 J		-21285049.76	-21285049.57	-21285049.38	0.0145	0.0023	
Mercury	-62989-12-14 06:57 J		-21284961.40	-21284961.21	-21284961.01	0.0145	0.0010	
Mercury	-62988-03-12 15:49 J		-21284873.03	-21284872.84	-21284872.65	0.0145	0.0042	
Mercury	-62988-06-09 00:13 J		-21284784.64	-21284784.49	-21284784.31	0.0145	0.0075	
Mercury	-62988-09-05 09:06 J		-21284696.24	-21284696.12	-21284695.98	0.0144	0.0107	
Mercury	-62988-12-02 17:59 J		-21284607.80	-21284607.75	-21284607.69	0.0144	0.0139	
Earth	-62978-02-04 16:33 J		-21281257.03	-21281256.81	-21281256.58	0.0139	0.0071	
Moon	-62978-02-04 18:57 J		-21281256.91	-21281256.71	-21281256.49	0.0139	0.0078	*
Moon	-62977-02-09 09:35 J		-21280887.34	-21280887.10	-21280886.83	0.0139	0.0033	
Earth	-62977-02-09 12:57 J		-21280887.22	-21280886.96	-21280886.71	0.0139	0.0025	*

Earth -62976-02-13 07:40 J -21280517.29 -21280517.18 -21280517.03 0.0138 0.0119
 Moon -62976-02-13 09:21 J -21280517.22 -21280517.11 -21280516.94 0.0138 0.0114 *
 Mars -62967-12-05 19:54 J -21276934.89 -21276934.67 -21276934.42 0.0133 0.0091
 Mars -62965-11-06 20:23 J -21276232.91 -21276232.65 -21276232.38 0.0133 0.0070
 Venus -62961-03-14 23:16 J -21275008.56 -21275008.53 -21275008.48 0.0132 0.0129
 Venus -62961-10-27 04:04 J -21274782.48 -21274782.33 -21274782.16 0.0132 0.0089
 Venus -62960-06-10 08:52 J -21274556.33 -21274556.13 -21274555.93 0.0132 0.0049
 Venus -62959-01-22 13:25 J -21274330.16 -21274329.94 -21274329.72 0.0132 0.0009
 Venus -62959-09-05 17:30 J -21274103.97 -21274103.77 -21274103.55 0.0132 0.0031
 Venus -62958-04-19 21:35 J -21273877.77 -21273877.60 -21273877.41 0.0132 0.0070
 Venus -62958-12-02 01:40 J -21273651.55 -21273651.43 -21273651.31 0.0132 0.0109
 Mercury -62946-03-23 12:13 J -21269522.03 -21269521.99 -21269521.95 0.0133 0.0126
 Mercury -62946-06-19 15:06 J -21269433.94 -21269433.87 -21269433.79 0.0133 0.0109
 Mercury -62946-09-15 17:59 J -21269345.83 -21269345.75 -21269345.65 0.0133 0.0092
 Mercury -62946-12-12 21:06 J -21269257.73 -21269257.62 -21269257.51 0.0133 0.0075
 Mercury -62945-03-09 23:59 J -21269169.61 -21269169.50 -21269169.38 0.0134 0.0058
 Mercury -62945-06-06 03:06 J -21269081.50 -21269081.37 -21269081.25 0.0134 0.0041
 Mercury -62945-09-02 05:59 J -21268993.38 -21268993.25 -21268993.12 0.0134 0.0024
 Mercury -62945-11-29 08:52 J -21268905.26 -21268905.13 -21268904.99 0.0134 0.0008
 Mercury -62944-02-25 11:59 J -21268817.13 -21268817.00 -21268816.87 0.0134 0.0010
 Mercury -62944-05-24 14:52 J -21268729.01 -21268728.88 -21268728.75 0.0134 0.0027
 Mercury -62944-08-20 17:45 J -21268640.88 -21268640.76 -21268640.63 0.0134 0.0045
 Mercury -62944-11-16 20:52 J -21268552.75 -21268552.63 -21268552.52 0.0134 0.0062
 Mercury -62943-02-12 23:45 J -21268464.61 -21268464.51 -21268464.40 0.0134 0.0079
 Mercury -62943-05-12 02:37 J -21268376.48 -21268376.39 -21268376.30 0.0134 0.0096
 Mercury -62943-08-08 05:30 J -21268288.33 -21268288.27 -21268288.19 0.0135 0.0114
 Mercury -62943-11-04 08:23 J -21268200.17 -21268200.15 -21268200.11 0.0135 0.0131
 Moon -62934-08-04 12:42 J -21265005.12 -21265004.97 -21265004.80 0.0139 0.0107
 Earth -62934-08-04 16:04 J -21265004.97 -21265004.83 -21265004.68 0.0139 0.0111 *
 Earth -62933-08-08 04:18 J -21264635.57 -21264635.32 -21264635.07 0.0140 0.0018

Moon -62933-08-08 07:40 J -21264635.42 -21264635.18 -21264634.92 0.0140 0.0020 *
 Moon -62932-08-12 13:54 J -21264266.12 -21264265.92 -21264265.71 0.0140 0.0075
 Earth -62932-08-12 17:01 J -21264265.98 -21264265.79 -21264265.57 0.0140 0.0076 *
 Mars -62923-12-31 23:30 J -21260837.76 -21260837.52 -21260837.26 0.0145 0.0075
 Mars -62921-12-03 23:59 J -21260134.63 -21260134.50 -21260134.33 0.0146 0.0126
 Venus -62918-07-25 09:49 J -21259171.22 -21259171.09 -21259170.93 0.0147 0.0110
 Venus -62917-03-07 23:01 J -21258944.73 -21258944.54 -21258944.33 0.0147 0.0055
 Venus -62917-10-20 12:13 J -21258718.20 -21258717.99 -21258717.77 0.0147 0.0003
 Venus -62916-06-04 01:40 J -21258491.63 -21258491.43 -21258491.23 0.0147 0.0056
 Venus -62915-01-16 15:06 J -21258265.00 -21258264.87 -21258264.72 0.0147 0.0112
 Mercury -62906-10-19 19:25 J -21254701.72 -21254701.69 -21254701.64 0.0145 0.0142
 Mercury -62905-01-16 04:18 J -21254613.44 -21254613.32 -21254613.19 0.0145 0.0110
 Mercury -62905-04-13 12:57 J -21254525.11 -21254524.96 -21254524.78 0.0145 0.0078
 Mercury -62905-07-10 22:04 J -21254436.77 -21254436.58 -21254436.40 0.0145 0.0044
 Mercury -62905-10-07 06:42 J -21254348.41 -21254348.22 -21254348.02 0.0145 0.0012
 Mercury -62904-01-03 15:35 J -21254260.04 -21254259.85 -21254259.66 0.0145 0.0021
 Mercury -62904-04-02 00:13 J -21254171.67 -21254171.49 -21254171.30 0.0145 0.0053
 Mercury -62904-06-29 08:52 J -21254083.28 -21254083.13 -21254082.96 0.0145 0.0086
 Mercury -62904-09-25 17:45 J -21253994.87 -21253994.76 -21253994.64 0.0144 0.0118
 Earth -62894-02-05 05:16 J -21250575.50 -21250575.28 -21250575.04 0.0139 0.0065
 Moon -62894-02-05 08:37 J -21250575.36 -21250575.14 -21250574.90 0.0139 0.0059 *
 Moon -62893-02-09 22:33 J -21250205.81 -21250205.56 -21250205.29 0.0139 0.0025
 Earth -62893-02-10 01:25 J -21250205.69 -21250205.44 -21250205.18 0.0139 0.0032 *
 Earth -62892-02-13 20:23 J -21249835.75 -21249835.65 -21249835.54 0.0138 0.0125
 Moon -62892-02-13 23:01 J -21249835.60 -21249835.54 -21249835.46 0.0138 0.0132 *
 Mars -62882-07-31 22:33 J -21246015.87 -21246015.56 -21246015.24 0.0133 0.0028
 Mars -62880-07-02 17:30 J -21245313.82 -21245313.77 -21245313.70 0.0132 0.0130
 Venus -62877-06-26 14:37 J -21244224.00 -21244223.89 -21244223.74 0.0132 0.0107
 Venus -62876-02-07 19:40 J -21243997.86 -21243997.68 -21243997.48 0.0132 0.0067
 Venus -62876-09-22 00:13 J -21243771.70 -21243771.49 -21243771.27 0.0132 0.0027

Venus -62875-05-06 04:33 J -21243545.52 -21243545.31 -21243545.09 0.0132 0.0013
 Venus -62875-12-18 08:23 J -21243319.33 -21243319.15 -21243318.94 0.0132 0.0053
 Venus -62874-08-01 12:28 J -21243093.12 -21243092.98 -21243092.81 0.0132 0.0091
 Venus -62873-03-14 16:47 J -21242866.83 -21242866.80 -21242866.77 0.0131 0.0130
 Mercury -62862-04-12 19:11 J -21238820.74 -21238820.70 -21238820.64 0.0133 0.0122
 Mercury -62862-07-09 22:18 J -21238732.65 -21238732.57 -21238732.49 0.0133 0.0105
 Mercury -62862-10-06 01:11 J -21238644.54 -21238644.45 -21238644.35 0.0133 0.0088
 Mercury -62861-01-02 04:04 J -21238556.43 -21238556.33 -21238556.21 0.0133 0.0072
 Mercury -62861-03-30 07:11 J -21238468.32 -21238468.20 -21238468.08 0.0134 0.0054
 Mercury -62861-06-26 10:04 J -21238380.20 -21238380.08 -21238379.95 0.0134 0.0038
 Mercury -62861-09-22 13:11 J -21238292.08 -21238291.95 -21238291.82 0.0134 0.0020
 Mercury -62861-12-19 16:04 J -21238203.96 -21238203.83 -21238203.70 0.0134 0.0003
 Mercury -62860-03-17 18:57 J -21238115.84 -21238115.71 -21238115.58 0.0134 0.0014
 Mercury -62860-06-13 21:49 J -21238027.71 -21238027.59 -21238027.46 0.0134 0.0032
 Mercury -62860-09-10 00:57 J -21237939.58 -21237939.46 -21237939.34 0.0134 0.0048
 Mercury -62860-12-07 03:49 J -21237851.45 -21237851.34 -21237851.22 0.0134 0.0065
 Mercury -62859-03-05 06:42 J -21237763.32 -21237763.22 -21237763.11 0.0134 0.0083
 Mercury -62859-06-01 09:49 J -21237675.18 -21237675.09 -21237675.00 0.0134 0.0100
 Mercury -62859-08-28 12:42 J -21237587.03 -21237586.97 -21237586.90 0.0135 0.0117
 Mercury -62859-11-24 15:35 J -21237498.85 -21237498.85 -21237498.84 0.0135 0.0134
 Moon -62850-08-04 22:33 J -21234323.68 -21234323.56 -21234323.40 0.0139 0.0113
 Earth -62850-08-05 01:54 J -21234323.57 -21234323.42 -21234323.25 0.0139 0.0107 *
 Earth -62849-08-08 13:54 J -21233954.16 -21233953.92 -21233953.67 0.0140 0.0015
 Moon -62849-08-08 17:01 J -21233954.04 -21233953.79 -21233953.53 0.0140 0.0013 *
 Moon -62848-08-12 23:16 J -21233584.72 -21233584.53 -21233584.32 0.0140 0.0082
 Earth -62848-08-13 02:52 J -21233584.57 -21233584.38 -21233584.17 0.0140 0.0080 *
 Mars -62838-08-27 08:09 J -21229918.46 -21229918.16 -21229917.87 0.0146 0.0002
 Venus -62834-03-24 15:49 J -21228612.91 -21228612.84 -21228612.75 0.0147 0.0135
 Venus -62834-11-06 04:33 J -21228386.48 -21228386.31 -21228386.12 0.0147 0.0081
 Venus -62833-06-19 17:45 J -21228159.97 -21228159.76 -21228159.54 0.0147 0.0026

Venus -62832-02-01 06:57 J -21227933.41 -21227933.21 -21227932.99 0.0147 0.0031
 Venus -62832-09-15 20:37 J -21227706.81 -21227706.64 -21227706.46 0.0147 0.0086
 Venus -62831-04-30 10:04 J -21227480.13 -21227480.08 -21227480.01 0.0147 0.0142
 Mercury -62822-11-09 03:35 J -21224000.43 -21224000.35 -21224000.27 0.0145 0.0133
 Mercury -62821-02-05 12:13 J -21223912.12 -21223911.99 -21223911.84 0.0145 0.0100
 Mercury -62821-05-03 20:52 J -21223823.79 -21223823.63 -21223823.45 0.0145 0.0068
 Mercury -62821-07-31 05:45 J -21223735.44 -21223735.26 -21223735.06 0.0145 0.0035
 Mercury -62821-10-27 14:37 J -21223647.08 -21223646.89 -21223646.69 0.0145 0.0004
 Mercury -62820-01-23 23:30 J -21223558.71 -21223558.52 -21223558.33 0.0145 0.0030
 Mercury -62820-04-22 08:09 J -21223470.33 -21223470.16 -21223469.98 0.0145 0.0063
 Mercury -62820-07-19 17:01 J -21223381.94 -21223381.79 -21223381.64 0.0145 0.0095
 Mercury -62820-10-16 01:25 J -21223293.51 -21223293.44 -21223293.33 0.0144 0.0128
 Earth -62810-02-05 17:30 J -21219893.99 -21219893.77 -21219893.52 0.0139 0.0058
 Moon -62810-02-05 20:52 J -21219893.84 -21219893.63 -21219893.39 0.0139 0.0064 *
 Moon -62809-02-10 10:18 J -21219524.31 -21219524.07 -21219523.81 0.0139 0.0046
 Earth -62809-02-10 13:54 J -21219524.16 -21219523.92 -21219523.66 0.0139 0.0038 *
 Earth -62808-02-14 08:52 J -21219154.19 -21219154.13 -21219154.05 0.0138 0.0132
 Moon -62808-02-14 11:16 J -21219154.11 -21219154.03 -21219153.91 0.0138 0.0127 *
 Mars -62799-04-23 17:45 J -21215798.80 -21215798.76 -21215798.67 0.0133 0.0131
 Mars -62797-03-25 23:01 J -21215096.84 -21215096.54 -21215096.22 0.0133 0.0034
 Venus -62793-02-25 01:40 J -21213665.49 -21213665.43 -21213665.35 0.0132 0.0124
 Venus -62793-10-08 06:13 J -21213439.39 -21213439.24 -21213439.06 0.0132 0.0085
 Venus -62792-05-22 11:01 J -21213213.24 -21213213.04 -21213212.83 0.0132 0.0045
 Venus -62791-01-03 15:21 J -21212987.08 -21212986.86 -21212986.64 0.0132 0.0005
 Venus -62791-08-17 19:25 J -21212760.89 -21212760.69 -21212760.47 0.0131 0.0034
 Venus -62790-03-31 23:16 J -21212534.70 -21212534.53 -21212534.34 0.0131 0.0074
 Venus -62790-11-13 03:21 J -21212308.47 -21212308.36 -21212308.24 0.0131 0.0112
 Mercury -62778-05-03 02:09 J -21208119.46 -21208119.41 -21208119.35 0.0133 0.0119
 Mercury -62778-07-30 05:01 J -21208031.36 -21208031.29 -21208031.20 0.0133 0.0103
 Mercury -62778-10-26 08:09 J -21207943.26 -21207943.16 -21207943.06 0.0133 0.0085

Mercury -62777-01-22 11:01 J -21207855.15 -21207855.04 -21207854.92 0.0133 0.0069

Mercury -62777-04-19 14:09 J -21207767.03 -21207766.91 -21207766.79 0.0133 0.0052

Mercury -62777-07-16 17:01 J -21207678.92 -21207678.79 -21207678.66 0.0134 0.0035

Mercury -62777-10-12 19:54 J -21207590.80 -21207590.67 -21207590.54 0.0134 0.0018

Mercury -62776-01-08 23:01 J -21207502.68 -21207502.54 -21207502.41 0.0134 0.0004

Mercury -62776-04-07 01:54 J -21207414.55 -21207414.42 -21207414.29 0.0134 0.0016

Mercury -62776-07-04 04:47 J -21207326.43 -21207326.30 -21207326.17 0.0134 0.0034

Mercury -62776-09-30 07:40 J -21207238.30 -21207238.18 -21207238.05 0.0134 0.0051

Mercury -62776-12-27 10:33 J -21207150.17 -21207150.06 -21207149.94 0.0134 0.0068

Mercury -62775-03-25 13:25 J -21207062.03 -21207061.94 -21207061.83 0.0134 0.0086

Mercury -62775-06-21 16:33 J -21206973.89 -21206973.81 -21206973.72 0.0134 0.0102

Mercury -62775-09-17 19:25 J -21206885.74 -21206885.69 -21206885.63 0.0134 0.0119

Moon -62766-08-05 06:28 J -21203642.38 -21203642.23 -21203642.05 0.0139 0.0101

Earth -62766-08-05 09:06 J -21203642.27 -21203642.12 -21203641.95 0.0139 0.0106 *

Earth -62765-08-08 21:21 J -21203272.86 -21203272.61 -21203272.36 0.0140 0.0013

Moon -62765-08-09 00:28 J -21203272.73 -21203272.48 -21203272.23 0.0140 0.0015 *

Moon -62764-08-13 07:11 J -21202903.39 -21202903.20 -21202902.99 0.0140 0.0081

Earth -62764-08-13 09:49 J -21202903.28 -21202903.09 -21202902.87 0.0140 0.0082 *

Mars -62755-05-19 17:30 J -21199701.89 -21199701.77 -21199701.62 0.0145 0.0128

Mars -62753-04-21 10:47 J -21198999.30 -21198999.05 -21198998.78 0.0146 0.0070

Venus -62750-07-06 08:37 J -21197828.28 -21197828.14 -21197827.99 0.0147 0.0109

Venus -62749-02-17 21:35 J -21197601.79 -21197601.60 -21197601.39 0.0147 0.0054

Venus -62749-10-01 10:47 J -21197375.26 -21197375.05 -21197374.83 0.0147 0.0004

Venus -62748-05-16 00:13 J -21197148.69 -21197148.49 -21197148.29 0.0147 0.0056

Venus -62748-12-28 13:25 J -21196922.06 -21196921.94 -21196921.78 0.0147 0.0113

Mercury -62738-11-29 10:33 J -21193299.15 -21193299.06 -21193298.97 0.0145 0.0127

Mercury -62737-02-25 19:11 J -21193210.84 -21193210.70 -21193210.55 0.0145 0.0094

Mercury -62737-05-24 04:04 J -21193122.51 -21193122.33 -21193122.15 0.0145 0.0062

Mercury -62737-08-20 12:42 J -21193034.16 -21193033.97 -21193033.77 0.0145 0.0029

Mercury -62737-11-16 21:35 J -21192945.79 -21192945.60 -21192945.40 0.0145 0.0004

Mercury -62736-02-13 06:28 J -21192857.42 -21192857.23 -21192857.04 0.0145 0.0036

Mercury -62736-05-12 15:06 J -21192769.04 -21192768.87 -21192768.69 0.0145 0.0069

Mercury -62736-08-08 23:59 J -21192680.64 -21192680.50 -21192680.36 0.0145 0.0101

Mercury -62736-11-05 08:23 J -21192592.21 -21192592.15 -21192592.06 0.0145 0.0134

Earth -62726-02-06 04:18 J -21189212.55 -21189212.32 -21189212.07 0.0139 0.0053

Moon -62726-02-06 08:23 J -21189212.39 -21189212.15 -21189211.91 0.0139 0.0048 *

Moon -62725-02-10 21:21 J -21188842.86 -21188842.61 -21188842.35 0.0139 0.0037

Earth -62725-02-11 00:42 J -21188842.71 -21188842.47 -21188842.22 0.0139 0.0044 *

Mars -62715-12-17 21:21 J -21184879.87 -21184879.61 -21184879.31 0.0133 0.0067

Mars -62713-11-18 22:18 J -21184177.76 -21184177.57 -21184177.33 0.0133 0.0096

Venus -62709-06-07 17:16 J -21182880.91 -21182880.78 -21182880.64 0.0132 0.0102

Venus -62708-01-19 21:49 J -21182654.77 -21182654.59 -21182654.39 0.0132 0.0063

Venus -62708-09-03 02:23 J -21182428.61 -21182428.40 -21182428.19 0.0132 0.0023

Venus -62707-04-17 06:28 J -21182202.44 -21182202.23 -21182202.01 0.0132 0.0016

Venus -62707-11-29 10:18 J -21181976.25 -21181976.07 -21181975.86 0.0131 0.0056

Venus -62706-07-13 14:09 J -21181750.04 -21181749.91 -21181749.74 0.0131 0.0095

Mercury -62694-02-24 06:13 J -21177506.24 -21177506.24 -21177506.22 0.0133 0.0132

Mercury -62694-05-23 09:21 J -21177418.17 -21177418.11 -21177418.04 0.0133 0.0115

Mercury -62694-08-19 11:59 J -21177330.07 -21177330.00 -21177329.90 0.0133 0.0100

Mercury -62694-11-15 15:06 J -21177241.97 -21177241.87 -21177241.76 0.0133 0.0082

Mercury -62693-02-11 17:59 J -21177153.86 -21177153.75 -21177153.63 0.0133 0.0065

Mercury -62693-05-09 21:06 J -21177065.74 -21177065.62 -21177065.50 0.0133 0.0048

Mercury -62693-08-05 23:59 J -21176977.62 -21176977.50 -21176977.37 0.0133 0.0031

Mercury -62693-11-02 03:06 J -21176889.50 -21176889.37 -21176889.24 0.0134 0.0014

Mercury -62692-01-29 05:59 J -21176801.38 -21176801.25 -21176801.12 0.0134 0.0003

Mercury -62692-04-27 08:52 J -21176713.26 -21176713.13 -21176713.00 0.0134 0.0020

Mercury -62692-07-24 11:59 J -21176625.13 -21176625.00 -21176624.88 0.0134 0.0037

Mercury -62692-10-20 14:52 J -21176537.00 -21176536.88 -21176536.76 0.0134 0.0054

Mercury -62691-01-16 17:45 J -21176448.87 -21176448.76 -21176448.65 0.0134 0.0071

Mercury -62691-04-14 20:37 J -21176360.73 -21176360.64 -21176360.54 0.0134 0.0089

Mercury -62691-07-11 23:45 J -21176272.59 -21176272.51 -21176272.43 0.0134 0.0106

Mercury -62691-10-08 02:37 J -21176184.44 -21176184.39 -21176184.34 0.0134 0.0123

Moon -62682-08-05 15:35 J -21172960.99 -21172960.85 -21172960.70 0.0139 0.0109

Earth -62682-08-05 17:45 J -21172960.91 -21172960.76 -21172960.58 0.0139 0.0103 *

Earth -62681-08-09 05:45 J -21172591.51 -21172591.26 -21172591.01 0.0140 0.0010

Moon -62681-08-09 07:54 J -21172591.42 -21172591.17 -21172590.91 0.0140 0.0007 *

Moon -62680-08-13 15:21 J -21172222.04 -21172221.86 -21172221.66 0.0140 0.0086

Earth -62680-08-13 17:59 J -21172221.93 -21172221.75 -21172221.53 0.0140 0.0085 *

Mars -62670-01-12 16:47 J -21168783.05 -21168782.80 -21168782.52 0.0145 0.0060

Mars -62669-12-15 14:09 J -21168079.96 -21168079.91 -21168079.85 0.0146 0.0144

Venus -62666-03-05 11:59 J -21167270.07 -21167270.00 -21167269.92 0.0147 0.0138

Venus -62666-10-18 00:42 J -21167043.64 -21167043.47 -21167043.29 0.0147 0.0084

Venus -62665-05-31 13:40 J -21166817.14 -21166816.93 -21166816.71 0.0147 0.0029

Venus -62664-01-13 02:52 J -21166590.59 -21166590.38 -21166590.16 0.0147 0.0026

Venus -62664-08-27 16:33 J -21166363.99 -21166363.81 -21166363.63 0.0147 0.0082

Venus -62663-04-11 05:45 J -21166137.32 -21166137.26 -21166137.16 0.0147 0.0138

Mercury -62654-12-19 16:33 J -21162597.90 -21162597.81 -21162597.71 0.0145 0.0124

Mercury -62653-03-17 01:11 J -21162509.59 -21162509.45 -21162509.29 0.0145 0.0091

Mercury -62653-06-13 10:04 J -21162421.25 -21162421.08 -21162420.90 0.0145 0.0059

Mercury -62653-09-09 18:57 J -21162332.90 -21162332.71 -21162332.52 0.0145 0.0026

Mercury -62653-12-07 03:49 J -21162244.54 -21162244.34 -21162244.15 0.0145 0.0007

Mercury -62652-03-05 12:28 J -21162156.17 -21162155.98 -21162155.79 0.0145 0.0039

Mercury -62652-06-01 21:06 J -21162067.78 -21162067.62 -21162067.44 0.0145 0.0072

Mercury -62652-08-29 05:45 J -21161979.38 -21161979.26 -21161979.11 0.0145 0.0105

Mercury -62652-11-25 14:37 J -21161890.94 -21161890.89 -21161890.82 0.0145 0.0137

Earth -62642-02-06 12:13 J -21158531.22 -21158530.99 -21158530.73 0.0139 0.0051

Moon -62642-02-06 16:04 J -21158531.06 -21158530.83 -21158530.59 0.0139 0.0056 *

Moon -62641-02-11 05:01 J -21158161.53 -21158161.29 -21158161.05 0.0139 0.0054

Earth -62641-02-11 08:52 J -21158161.37 -21158161.13 -21158160.88 0.0139 0.0047 *

Moon -62640-02-15 07:11 J -21157791.24 -21157791.20 -21157791.14 0.0138 0.0135

Mars	-62630-08-12 21:06 J	-21153960.94	-21153960.62	-21153960.30	0.0133	0.0004
Venus	-62625-02-06 03:06 J	-21152322.44	-21152322.37	-21152322.27	0.0132	0.0121
Venus	-62625-09-19 08:09 J	-21152096.33	-21152096.16	-21152095.99	0.0132	0.0081
Venus	-62624-05-03 12:28 J	-21151870.18	-21151869.98	-21151869.77	0.0132	0.0042
Venus	-62624-12-15 17:01 J	-21151644.01	-21151643.79	-21151643.58	0.0132	0.0003
Venus	-62623-07-29 21:06 J	-21151417.83	-21151417.62	-21151417.41	0.0132	0.0037
Venus	-62622-03-13 01:11 J	-21151191.62	-21151191.45	-21151191.27	0.0131	0.0076
Venus	-62622-10-25 04:47 J	-21150965.39	-21150965.30	-21150965.18	0.0131	0.0115
Mercury	-62610-03-16 13:11 J	-21146804.97	-21146804.95	-21146804.91	0.0133	0.0129
Mercury	-62610-06-12 16:18 J	-21146716.88	-21146716.82	-21146716.75	0.0133	0.0112
Mercury	-62610-09-08 19:11 J	-21146628.78	-21146628.70	-21146628.60	0.0133	0.0095
Mercury	-62610-12-05 22:18 J	-21146540.67	-21146540.57	-21146540.46	0.0133	0.0078
Mercury	-62609-03-03 01:11 J	-21146452.56	-21146452.45	-21146452.33	0.0133	0.0061
Mercury	-62609-05-30 04:04 J	-21146364.45	-21146364.33	-21146364.20	0.0133	0.0045
Mercury	-62609-08-26 07:11 J	-21146276.33	-21146276.20	-21146276.07	0.0133	0.0028
Mercury	-62609-11-22 10:04 J	-21146188.21	-21146188.08	-21146187.95	0.0134	0.0011
Mercury	-62608-02-18 12:57 J	-21146100.09	-21146099.96	-21146099.83	0.0134	0.0007
Mercury	-62608-05-17 15:49 J	-21146011.96	-21146011.84	-21146011.70	0.0134	0.0024
Mercury	-62608-08-13 18:57 J	-21145923.84	-21145923.71	-21145923.59	0.0134	0.0041
Mercury	-62608-11-09 21:49 J	-21145835.71	-21145835.59	-21145835.47	0.0134	0.0058
Mercury	-62607-02-06 00:42 J	-21145747.57	-21145747.47	-21145747.36	0.0134	0.0075
Mercury	-62607-05-05 03:35 J	-21145659.44	-21145659.35	-21145659.25	0.0134	0.0092
Mercury	-62607-08-01 06:42 J	-21145571.29	-21145571.22	-21145571.14	0.0134	0.0109
Mercury	-62607-10-28 09:35 J	-21145483.14	-21145483.10	-21145483.05	0.0134	0.0126
Jupiter	-62603-02-06 05:01 J	-21144286.70	-21144286.29	-21144285.83	0.0136	0.0070
Moon	-62598-08-06 01:40 J	-21142279.60	-21142279.43	-21142279.25	0.0139	0.0094
Earth	-62598-08-06 02:52 J	-21142279.53	-21142279.38	-21142279.19	0.0139	0.0100 *
Earth	-62597-08-09 14:52 J	-21141910.13	-21141909.88	-21141909.63	0.0140	0.0007
Moon	-62597-08-09 17:16 J	-21141910.04	-21141909.78	-21141909.53	0.0140	0.0010 *
Moon	-62596-08-14 01:25 J	-21141540.61	-21141540.44	-21141540.24	0.0140	0.0089

Earth -62596-08-14 03:06 J -21141540.54 -21141540.37 -21141540.16 0.0140 0.0088 *
 Mars -62586-09-07 20:37 J -21137863.93 -21137863.64 -21137863.34 0.0146 0.0014
 Venus -62582-06-17 05:01 J -21136485.42 -21136485.29 -21136485.14 0.0147 0.0112
 Venus -62581-01-29 18:13 J -21136258.94 -21136258.74 -21136258.54 0.0147 0.0058
 Venus -62581-09-12 07:11 J -21136032.41 -21136032.20 -21136031.98 0.0147 0.0004
 Venus -62580-04-26 20:37 J -21135805.85 -21135805.64 -21135805.44 0.0147 0.0053
 Venus -62580-12-09 09:49 J -21135579.23 -21135579.09 -21135578.93 0.0147 0.0108
 Mercury -62569-01-08 23:16 J -21131896.64 -21131896.53 -21131896.42 0.0146 0.0119
 Mercury -62569-04-06 07:54 J -21131808.32 -21131808.17 -21131808.00 0.0145 0.0086
 Mercury -62569-07-03 16:47 J -21131719.98 -21131719.80 -21131719.61 0.0145 0.0054
 Mercury -62569-09-30 01:40 J -21131631.62 -21131631.43 -21131631.24 0.0145 0.0021
 Mercury -62569-12-27 10:33 J -21131543.26 -21131543.06 -21131542.87 0.0145 0.0012
 Mercury -62568-03-25 18:57 J -21131454.88 -21131454.71 -21131454.51 0.0145 0.0045
 Mercury -62568-06-22 03:49 J -21131366.50 -21131366.34 -21131366.17 0.0145 0.0077
 Mercury -62568-09-18 12:28 J -21131278.09 -21131277.98 -21131277.84 0.0145 0.0110
 Mercury -62568-12-15 21:21 J -21131189.63 -21131189.61 -21131189.57 0.0145 0.0142
 Earth -62558-02-06 21:35 J -21127849.84 -21127849.60 -21127849.35 0.0139 0.0046
 Moon -62558-02-07 01:25 J -21127849.69 -21127849.44 -21127849.19 0.0139 0.0042 *
 Moon -62557-02-11 14:37 J -21127480.14 -21127479.89 -21127479.65 0.0139 0.0044
 Earth -62557-02-11 17:59 J -21127479.99 -21127479.75 -21127479.50 0.0139 0.0051 *
 Mars -62547-05-05 11:59 J -21123744.17 -21123744.00 -21123743.79 0.0134 0.0109
 Mars -62545-04-06 20:52 J -21123041.91 -21123041.63 -21123041.34 0.0133 0.0058
 Venus -62541-05-19 18:42 J -21121537.86 -21121537.72 -21121537.58 0.0132 0.0099
 Venus -62541-12-31 23:01 J -21121311.72 -21121311.54 -21121311.33 0.0132 0.0060
 Venus -62540-08-15 03:49 J -21121085.56 -21121085.34 -21121085.12 0.0132 0.0020
 Venus -62539-03-29 08:09 J -21120859.37 -21120859.16 -21120858.94 0.0132 0.0019
 Venus -62539-11-10 12:13 J -21120633.18 -21120632.99 -21120632.79 0.0132 0.0058
 Venus -62538-06-24 16:04 J -21120406.96 -21120406.83 -21120406.67 0.0131 0.0097
 Mercury -62526-04-05 20:37 J -21116103.67 -21116103.64 -21116103.59 0.0133 0.0125
 Mercury -62526-07-02 23:45 J -21116015.58 -21116015.51 -21116015.43 0.0133 0.0107

Mercury -62526-09-29 02:37 J -21115927.48 -21115927.39 -21115927.29 0.0133 0.0091

Mercury -62526-12-26 05:45 J -21115839.37 -21115839.26 -21115839.15 0.0133 0.0074

Mercury -62525-03-23 08:37 J -21115751.26 -21115751.14 -21115751.02 0.0133 0.0057

Mercury -62525-06-19 11:30 J -21115663.14 -21115663.02 -21115662.89 0.0133 0.0040

Mercury -62525-09-15 14:23 J -21115575.02 -21115574.90 -21115574.77 0.0133 0.0023

Mercury -62525-12-12 17:30 J -21115486.90 -21115486.77 -21115486.64 0.0134 0.0006

Mercury -62524-03-10 20:23 J -21115398.78 -21115398.65 -21115398.52 0.0134 0.0011

Mercury -62524-06-06 23:16 J -21115310.65 -21115310.53 -21115310.40 0.0134 0.0029

Mercury -62524-09-03 02:09 J -21115222.53 -21115222.41 -21115222.28 0.0134 0.0046

Mercury -62524-11-30 05:01 J -21115134.40 -21115134.29 -21115134.17 0.0134 0.0063

Mercury -62523-02-26 08:09 J -21115046.26 -21115046.16 -21115046.05 0.0134 0.0080

Mercury -62523-05-25 11:01 J -21114958.12 -21114958.04 -21114957.94 0.0134 0.0097

Mercury -62523-08-21 13:54 J -21114869.98 -21114869.92 -21114869.84 0.0134 0.0115

Mercury -62523-11-17 17:01 J -21114781.81 -21114781.79 -21114781.76 0.0134 0.0132

Moon -62514-08-06 13:40 J -21111598.07 -21111597.93 -21111597.74 0.0139 0.0101

Earth -62514-08-06 15:21 J -21111598.03 -21111597.86 -21111597.67 0.0139 0.0094 *

Earth -62513-08-10 03:21 J -21111228.61 -21111228.36 -21111228.11 0.0140 0.0001

Moon -62513-08-10 04:33 J -21111228.57 -21111228.31 -21111228.05 0.0140 0.0003 *

Moon -62512-08-14 13:40 J -21110859.10 -21110858.93 -21110858.74 0.0140 0.0095

Earth -62512-08-14 15:35 J -21110859.02 -21110858.85 -21110858.65 0.0140 0.0094 *

Mars -62503-05-31 17:59 J -21107646.92 -21107646.75 -21107646.53 0.0145 0.0109

Mars -62501-05-03 08:52 J -21106944.34 -21106944.13 -21106943.88 0.0146 0.0092

Venus -62498-02-14 12:13 J -21105927.06 -21105926.99 -21105926.90 0.0147 0.0136

Venus -62498-09-29 00:57 J -21105700.63 -21105700.46 -21105700.27 0.0147 0.0082

Venus -62497-05-12 14:09 J -21105474.12 -21105473.91 -21105473.70 0.0147 0.0027

Venus -62497-12-25 03:21 J -21105247.58 -21105247.36 -21105247.15 0.0147 0.0027

Venus -62496-08-08 16:47 J -21105020.98 -21105020.80 -21105020.62 0.0147 0.0083

Venus -62495-03-23 05:59 J -21104794.30 -21104794.25 -21104794.16 0.0147 0.0139

Mercury -62486-11-01 22:18 J -21101283.60 -21101283.57 -21101283.54 0.0146 0.0143

Mercury -62485-01-29 06:57 J -21101195.33 -21101195.21 -21101195.08 0.0146 0.0111

Mercury -62485-04-26 15:49 J -21101107.00 -21101106.84 -21101106.68 0.0145 0.0078
 Mercury -62485-07-24 00:28 J -21101018.66 -21101018.48 -21101018.29 0.0145 0.0045
 Mercury -62485-10-20 09:21 J -21100930.30 -21100930.11 -21100929.91 0.0145 0.0012
 Mercury -62484-01-16 18:13 J -21100841.94 -21100841.74 -21100841.55 0.0145 0.0020
 Mercury -62484-04-15 02:52 J -21100753.56 -21100753.38 -21100753.20 0.0145 0.0053
 Mercury -62484-07-12 11:30 J -21100665.17 -21100665.02 -21100664.85 0.0145 0.0086
 Mercury -62484-10-08 20:23 J -21100576.76 -21100576.65 -21100576.53 0.0145 0.0118
 Earth -62474-02-07 08:52 J -21097168.37 -21097168.13 -21097167.87 0.0139 0.0041
 Moon -62474-02-07 12:13 J -21097168.22 -21097167.99 -21097167.73 0.0139 0.0046 *
 Moon -62473-02-12 01:11 J -21096798.66 -21096798.45 -21096798.21 0.0139 0.0064
 Earth -62473-02-12 05:16 J -21096798.52 -21096798.28 -21096798.04 0.0139 0.0056 *
 Mars -62463-12-29 18:13 J -21092825.02 -21092824.74 -21092824.42 0.0133 0.0045
 Mars -62461-11-30 21:35 J -21092122.71 -21092122.60 -21092122.45 0.0133 0.0121
 Venus -62457-01-18 05:30 J -21090979.36 -21090979.27 -21090979.15 0.0132 0.0116
 Venus -62457-08-31 10:18 J -21090753.23 -21090753.07 -21090752.88 0.0132 0.0077
 Venus -62456-04-14 14:52 J -21090527.08 -21090526.88 -21090526.66 0.0132 0.0038
 Venus -62456-11-26 19:25 J -21090300.90 -21090300.69 -21090300.47 0.0132 0.0003
 Venus -62455-07-10 23:45 J -21090074.71 -21090074.51 -21090074.30 0.0132 0.0041
 Venus -62454-02-22 03:49 J -21089848.50 -21089848.34 -21089848.15 0.0132 0.0080
 Venus -62454-10-06 08:09 J -21089622.25 -21089622.16 -21089622.07 0.0131 0.0118
 Mercury -62442-04-26 04:18 J -21085402.38 -21085402.32 -21085402.27 0.0133 0.0120
 Mercury -62442-07-23 06:57 J -21085314.28 -21085314.21 -21085314.12 0.0133 0.0103
 Mercury -62442-10-19 09:49 J -21085226.18 -21085226.09 -21085225.98 0.0133 0.0086
 Mercury -62441-01-15 12:57 J -21085138.07 -21085137.96 -21085137.84 0.0133 0.0069
 Mercury -62441-04-12 15:49 J -21085049.95 -21085049.84 -21085049.71 0.0133 0.0052
 Mercury -62441-07-09 18:57 J -21084961.84 -21084961.71 -21084961.58 0.0133 0.0035
 Mercury -62441-10-05 21:49 J -21084873.72 -21084873.59 -21084873.46 0.0134 0.0018
 Mercury -62440-01-02 00:42 J -21084785.60 -21084785.47 -21084785.33 0.0134 0.0005
 Mercury -62440-03-31 03:49 J -21084697.47 -21084697.34 -21084697.21 0.0134 0.0016
 Mercury -62440-06-27 06:42 J -21084609.35 -21084609.22 -21084609.09 0.0134 0.0033

Mercury -62440-09-23 09:35 J -21084521.22 -21084521.10 -21084520.97 0.0134 0.0051
 Mercury -62440-12-20 12:28 J -21084433.09 -21084432.98 -21084432.86 0.0134 0.0068
 Mercury -62439-03-18 15:21 J -21084344.95 -21084344.86 -21084344.75 0.0134 0.0086
 Mercury -62439-06-14 18:28 J -21084256.81 -21084256.73 -21084256.64 0.0134 0.0102
 Mercury -62439-09-10 21:21 J -21084168.66 -21084168.61 -21084168.54 0.0134 0.0120
 Moon -62430-08-07 02:52 J -21080916.56 -21080916.38 -21080916.18 0.0139 0.0083
 Earth -62430-08-07 03:21 J -21080916.54 -21080916.36 -21080916.16 0.0139 0.0089 *
 Earth -62429-08-10 15:21 J -21080547.11 -21080546.86 -21080546.61 0.0140 0.0005
 Moon -62429-08-10 16:33 J -21080547.06 -21080546.81 -21080546.55 0.0140 0.0002 *
 Moon -62428-08-15 03:06 J -21080177.53 -21080177.37 -21080177.20 0.0140 0.0102
 Earth -62428-08-15 03:35 J -21080177.50 -21080177.35 -21080177.16 0.0140 0.0100 *
 Mars -62418-01-25 04:04 J -21076727.61 -21076727.33 -21076727.04 0.0145 0.0034
 Venus -62414-05-29 08:52 J -21075142.27 -21075142.13 -21075141.97 0.0147 0.0105
 Venus -62413-01-10 21:49 J -21074915.79 -21074915.59 -21074915.38 0.0147 0.0051
 Venus -62413-08-24 11:16 J -21074689.25 -21074689.03 -21074688.81 0.0147 0.0004
 Venus -62412-04-08 00:28 J -21074462.67 -21074462.48 -21074462.28 0.0147 0.0059
 Venus -62412-11-20 13:54 J -21074236.05 -21074235.92 -21074235.77 0.0147 0.0114
 Mercury -62402-11-22 06:57 J -21070582.28 -21070582.21 -21070582.12 0.0146 0.0131
 Mercury -62401-02-18 15:35 J -21070493.98 -21070493.85 -21070493.69 0.0146 0.0099
 Mercury -62401-05-17 00:28 J -21070405.64 -21070405.48 -21070405.30 0.0145 0.0066
 Mercury -62401-08-13 09:21 J -21070317.29 -21070317.11 -21070316.91 0.0145 0.0033
 Mercury -62401-11-09 18:13 J -21070228.93 -21070228.74 -21070228.54 0.0145 0.0001
 Mercury -62400-02-06 02:52 J -21070140.56 -21070140.38 -21070140.18 0.0145 0.0033
 Mercury -62400-05-05 11:30 J -21070052.18 -21070052.02 -21070051.83 0.0145 0.0066
 Mercury -62400-08-01 20:23 J -21069963.78 -21069963.65 -21069963.50 0.0145 0.0098
 Mercury -62400-10-29 05:01 J -21069875.36 -21069875.29 -21069875.19 0.0145 0.0131
 Moon -62391-02-02 22:33 J -21066856.60 -21066856.56 -21066856.46 0.0140 0.0134
 Earth -62391-02-03 02:09 J -21066856.48 -21066856.41 -21066856.32 0.0140 0.0132 *
 Earth -62390-02-07 23:01 J -21066486.78 -21066486.54 -21066486.28 0.0139 0.0034
 Moon -62390-02-08 02:23 J -21066486.65 -21066486.40 -21066486.13 0.0139 0.0029 *

Moon -62389-02-12 15:49 J -21066117.06 -21066116.84 -21066116.60 0.0139 0.0058
 Earth -62389-02-12 18:57 J -21066116.92 -21066116.71 -21066116.46 0.0139 0.0065 *
 Mars -62378-08-25 01:25 J -21061905.74 -21061905.44 -21061905.11 0.0133 0.0022
 Venus -62374-09-17 17:45 J -21060420.76 -21060420.76 -21060420.74 0.0132 0.0132
 Venus -62373-04-30 22:18 J -21060194.71 -21060194.57 -21060194.40 0.0132 0.0093
 Venus -62373-12-13 03:21 J -21059968.56 -21059968.36 -21059968.16 0.0132 0.0053
 Venus -62372-07-27 07:54 J -21059742.39 -21059742.17 -21059741.95 0.0132 0.0014
 Venus -62371-03-10 12:13 J -21059516.20 -21059515.99 -21059515.77 0.0132 0.0025
 Venus -62371-10-22 16:33 J -21059290.00 -21059289.81 -21059289.62 0.0131 0.0064
 Venus -62370-06-05 20:23 J -21059063.77 -21059063.65 -21059063.50 0.0131 0.0103
 Mercury -62358-02-17 08:52 J -21054789.15 -21054789.13 -21054789.11 0.0133 0.0130
 Mercury -62358-05-16 11:30 J -21054701.07 -21054701.02 -21054700.94 0.0133 0.0114
 Mercury -62358-08-12 14:37 J -21054612.97 -21054612.89 -21054612.79 0.0133 0.0097
 Mercury -62358-11-08 17:30 J -21054524.87 -21054524.77 -21054524.66 0.0133 0.0080
 Mercury -62357-02-04 20:37 J -21054436.75 -21054436.64 -21054436.52 0.0133 0.0063
 Mercury -62357-05-02 23:30 J -21054348.64 -21054348.52 -21054348.39 0.0133 0.0046
 Mercury -62357-07-30 02:37 J -21054260.52 -21054260.39 -21054260.26 0.0133 0.0029
 Mercury -62357-10-26 05:30 J -21054172.40 -21054172.27 -21054172.14 0.0134 0.0012
 Mercury -62356-01-22 08:23 J -21054084.28 -21054084.15 -21054084.02 0.0134 0.0006
 Mercury -62356-04-20 11:16 J -21053996.15 -21053996.03 -21053995.89 0.0134 0.0023
 Mercury -62356-07-17 14:23 J -21053908.03 -21053907.90 -21053907.78 0.0134 0.0040
 Mercury -62356-10-13 17:16 J -21053819.90 -21053819.78 -21053819.66 0.0134 0.0057
 Mercury -62355-01-09 20:09 J -21053731.76 -21053731.66 -21053731.55 0.0134 0.0074
 Mercury -62355-04-07 23:01 J -21053643.63 -21053643.54 -21053643.44 0.0134 0.0092
 Mercury -62355-07-05 02:09 J -21053555.48 -21053555.41 -21053555.33 0.0134 0.0108
 Mercury -62355-10-01 05:01 J -21053467.33 -21053467.29 -21053467.24 0.0134 0.0126
 Moon -62346-08-07 16:18 J -21050234.99 -21050234.82 -21050234.63 0.0139 0.0089
 Earth -62346-08-07 16:47 J -21050234.99 -21050234.80 -21050234.59 0.0139 0.0083 *
 Earth -62345-08-11 04:47 J -21049865.55 -21049865.30 -21049865.05 0.0140 0.0012
 Moon -62345-08-11 05:01 J -21049865.55 -21049865.29 -21049865.03 0.0140 0.0016 *

Moon	-62344-08-15 16:04 J	-21049495.96	-21049495.83	-21049495.66	0.0140	0.0108
Earth	-62344-08-15 17:16 J	-21049495.93	-21049495.78	-21049495.61	0.0140	0.0107 *
Mars	-62334-09-20 18:57 J	-21045807.99	-21045807.71	-21045807.43	0.0146	0.0044
Venus	-62330-01-26 17:45 J	-21044583.87	-21044583.76	-21044583.65	0.0147	0.0126
Venus	-62330-09-10 06:13 J	-21044357.41	-21044357.24	-21044357.04	0.0147	0.0073
Venus	-62329-04-23 19:40 J	-21044130.90	-21044130.68	-21044130.47	0.0147	0.0018
Venus	-62329-12-06 08:52 J	-21043904.34	-21043904.13	-21043903.92	0.0147	0.0036
Venus	-62328-07-20 22:18 J	-21043677.73	-21043677.57	-21043677.39	0.0147	0.0092
Venus	-62327-03-04 11:59 J	-21043451.01	-21043451.00	-21043450.97	0.0147	0.0147
Mercury	-62318-12-12 16:18 J	-21039880.93	-21039880.82	-21039880.70	0.0146	0.0117
Mercury	-62317-03-10 00:57 J	-21039792.61	-21039792.46	-21039792.29	0.0145	0.0084
Mercury	-62317-06-06 09:49 J	-21039704.27	-21039704.09	-21039703.90	0.0145	0.0052
Mercury	-62317-09-02 18:42 J	-21039615.91	-21039615.72	-21039615.53	0.0145	0.0019
Mercury	-62317-11-30 03:35 J	-21039527.55	-21039527.35	-21039527.16	0.0145	0.0014
Mercury	-62316-02-26 12:13 J	-21039439.17	-21039438.99	-21039438.80	0.0145	0.0047
Mercury	-62316-05-25 20:52 J	-21039350.78	-21039350.63	-21039350.46	0.0145	0.0080
Mercury	-62316-08-22 05:45 J	-21039262.38	-21039262.26	-21039262.13	0.0145	0.0112
Mercury	-62316-11-18 14:23 J	-21039173.90	-21039173.90	-21039173.88	0.0145	0.0145
Jupiter	-62313-10-14 19:25 J	-21038113.15	-21038112.69	-21038112.21	0.0143	0.0065
Moon	-62307-02-03 14:37 J	-21036174.98	-21036174.89	-21036174.76	0.0140	0.0125
Earth	-62307-02-03 17:01 J	-21036174.89	-21036174.79	-21036174.65	0.0140	0.0124 *
Earth	-62306-02-08 14:23 J	-21035805.15	-21035804.90	-21035804.64	0.0139	0.0024
Moon	-62306-02-08 17:30 J	-21035805.03	-21035804.77	-21035804.51	0.0139	0.0029 *
Moon	-62305-02-13 06:57 J	-21035435.42	-21035435.21	-21035435.00	0.0139	0.0080
Earth	-62305-02-13 10:18 J	-21035435.29	-21035435.07	-21035434.85	0.0139	0.0073 *
Mars	-62295-05-17 23:45 J	-21031688.75	-21031688.51	-21031688.24	0.0133	0.0081
Mars	-62293-04-19 07:54 J	-21030986.41	-21030986.17	-21030985.93	0.0133	0.0087
Venus	-62290-12-30 10:33 J	-21029636.17	-21029636.06	-21029635.92	0.0132	0.0108
Venus	-62289-08-12 15:21 J	-21029410.03	-21029409.86	-21029409.66	0.0132	0.0069
Venus	-62288-03-26 20:09 J	-21029183.86	-21029183.66	-21029183.44	0.0132	0.0030

Venus	-62288-11-08 00:42 J	-21028957.69	-21028957.47	-21028957.25	0.0131	0.0010
Venus	-62287-06-22 04:47 J	-21028731.49	-21028731.30	-21028731.09	0.0131	0.0049
Venus	-62286-02-03 09:21 J	-21028505.27	-21028505.11	-21028504.95	0.0131	0.0087
Venus	-62286-09-17 12:57 J	-21028279.00	-21028278.96	-21028278.88	0.0131	0.0125
Mercury	-62274-03-09 16:04 J	-21024087.86	-21024087.83	-21024087.78	0.0133	0.0125
Mercury	-62274-06-05 19:11 J	-21023999.77	-21023999.70	-21023999.63	0.0133	0.0108
Mercury	-62274-09-01 22:04 J	-21023911.67	-21023911.58	-21023911.48	0.0133	0.0092
Mercury	-62274-11-29 00:57 J	-21023823.56	-21023823.46	-21023823.34	0.0133	0.0075
Mercury	-62273-02-25 04:04 J	-21023735.45	-21023735.33	-21023735.21	0.0133	0.0058
Mercury	-62273-05-23 06:57 J	-21023647.33	-21023647.21	-21023647.08	0.0133	0.0041
Mercury	-62273-08-19 09:49 J	-21023559.21	-21023559.09	-21023558.96	0.0133	0.0024
Mercury	-62273-11-15 12:57 J	-21023471.09	-21023470.96	-21023470.83	0.0133	0.0007
Mercury	-62272-02-11 15:49 J	-21023382.97	-21023382.84	-21023382.71	0.0134	0.0011
Mercury	-62272-05-10 18:42 J	-21023294.84	-21023294.72	-21023294.59	0.0134	0.0028
Mercury	-62272-08-06 21:35 J	-21023206.72	-21023206.60	-21023206.47	0.0134	0.0045
Mercury	-62272-11-03 00:42 J	-21023118.59	-21023118.47	-21023118.35	0.0134	0.0062
Mercury	-62271-01-30 03:35 J	-21023030.45	-21023030.35	-21023030.24	0.0134	0.0079
Mercury	-62271-04-28 06:28 J	-21022942.31	-21022942.23	-21022942.13	0.0134	0.0096
Mercury	-62271-07-25 09:35 J	-21022854.17	-21022854.10	-21022854.03	0.0134	0.0113
Mercury	-62271-10-21 12:28 J	-21022766.00	-21022765.98	-21022765.95	0.0134	0.0131
Earth	-62262-08-08 03:21 J	-21019553.56	-21019553.36	-21019553.14	0.0139	0.0079
Moon	-62262-08-08 04:04 J	-21019553.53	-21019553.33	-21019553.12	0.0139	0.0072 *
Earth	-62261-08-11 15:21 J	-21019184.11	-21019183.86	-21019183.61	0.0140	0.0016
Moon	-62261-08-11 15:35 J	-21019184.11	-21019183.85	-21019183.59	0.0140	0.0012 *
Earth	-62260-08-16 03:49 J	-21018814.47	-21018814.34	-21018814.18	0.0140	0.0112
Moon	-62260-08-16 04:04 J	-21018814.46	-21018814.33	-21018814.18	0.0140	0.0115 *
Mars	-62251-06-13 13:11 J	-21015591.18	-21015590.95	-21015590.70	0.0145	0.0083
Mars	-62249-05-16 02:37 J	-21014888.53	-21014888.39	-21014888.20	0.0146	0.0121
Venus	-62246-05-10 12:42 J	-21013799.12	-21013798.97	-21013798.80	0.0147	0.0097
Venus	-62246-12-23 01:54 J	-21013572.62	-21013572.42	-21013572.21	0.0147	0.0043

Venus -62245-08-05 15:21 J -21013346.08 -21013345.86 -21013345.64 0.0147 0.0011
 Venus -62244-03-20 04:33 J -21013119.49 -21013119.31 -21013119.10 0.0147 0.0067
 Venus -62244-11-01 17:59 J -21012892.85 -21012892.75 -21012892.61 0.0147 0.0122
 Mercury -62234-10-05 16:04 J -21009267.89 -21009267.83 -21009267.77 0.0146 0.0138
 Mercury -62233-01-02 00:28 J -21009179.60 -21009179.48 -21009179.33 0.0146 0.0106
 Mercury -62233-03-30 09:35 J -21009091.26 -21009091.10 -21009090.93 0.0146 0.0073
 Mercury -62233-06-26 18:28 J -21009002.92 -21009002.73 -21009002.54 0.0145 0.0040
 Mercury -62233-09-23 03:21 J -21008914.56 -21008914.36 -21008914.17 0.0145 0.0007
 Mercury -62233-12-20 11:59 J -21008826.19 -21008826.00 -21008825.80 0.0145 0.0026
 Mercury -62232-03-18 20:52 J -21008737.81 -21008737.63 -21008737.45 0.0145 0.0059
 Mercury -62232-06-15 05:30 J -21008649.41 -21008649.27 -21008649.11 0.0145 0.0092
 Mercury -62232-09-11 14:09 J -21008560.99 -21008560.91 -21008560.80 0.0145 0.0125
 Moon -62223-02-04 05:59 J -21005493.38 -21005493.25 -21005493.10 0.0140 0.0116
 Earth -62223-02-04 08:09 J -21005493.28 -21005493.16 -21005492.99 0.0140 0.0115 *
 Earth -62222-02-09 05:16 J -21005123.53 -21005123.28 -21005123.01 0.0139 0.0016
 Moon -62222-02-09 08:09 J -21005123.42 -21005123.16 -21005122.89 0.0139 0.0011 *
 Moon -62221-02-13 22:33 J -21004753.76 -21004753.56 -21004753.34 0.0139 0.0077
 Earth -62221-02-14 01:11 J -21004753.64 -21004753.45 -21004753.23 0.0139 0.0083 *
 Mars -62210-01-11 11:01 J -21000769.36 -21000769.04 -21000768.72 0.0133 0.0012
 Venus -62206-08-29 23:16 J -20999077.59 -20999077.53 -20999077.44 0.0132 0.0123
 Venus -62205-04-12 04:04 J -20998851.48 -20998851.33 -20998851.15 0.0132 0.0084
 Venus -62205-11-24 08:52 J -20998625.33 -20998625.13 -20998624.92 0.0132 0.0045
 Venus -62204-07-08 13:25 J -20998399.15 -20998398.94 -20998398.72 0.0131 0.0006
 Venus -62203-02-19 17:59 J -20998172.96 -20998172.75 -20998172.54 0.0131 0.0033
 Venus -62203-10-03 22:04 J -20997946.75 -20997946.58 -20997946.39 0.0131 0.0072
 Venus -62202-05-18 02:09 J -20997720.52 -20997720.41 -20997720.28 0.0131 0.0110
 Mercury -62190-03-29 23:30 J -20993386.56 -20993386.52 -20993386.46 0.0133 0.0120
 Mercury -62190-06-26 02:37 J -20993298.47 -20993298.39 -20993298.31 0.0133 0.0103
 Mercury -62190-09-22 05:30 J -20993210.36 -20993210.27 -20993210.17 0.0133 0.0086
 Mercury -62190-12-19 08:23 J -20993122.25 -20993122.15 -20993122.03 0.0133 0.0069

Mercury -62189-03-16 11:30 J -20993034.14 -20993034.02 -20993033.90 0.0133 0.0052

Mercury -62189-06-12 14:23 J -20992946.02 -20992945.90 -20992945.77 0.0133 0.0035

Mercury -62189-09-08 17:30 J -20992857.90 -20992857.77 -20992857.64 0.0133 0.0018

Mercury -62189-12-05 20:23 J -20992769.78 -20992769.65 -20992769.52 0.0133 0.0001

Mercury -62188-03-03 23:16 J -20992681.66 -20992681.53 -20992681.40 0.0133 0.0016

Mercury -62188-05-31 02:09 J -20992593.53 -20992593.41 -20992593.28 0.0134 0.0034

Mercury -62188-08-27 05:16 J -20992505.40 -20992505.28 -20992505.16 0.0134 0.0050

Mercury -62188-11-23 08:09 J -20992417.27 -20992417.16 -20992417.05 0.0134 0.0067

Mercury -62187-02-19 11:01 J -20992329.14 -20992329.04 -20992328.93 0.0134 0.0085

Mercury -62187-05-18 13:54 J -20992241.00 -20992240.92 -20992240.83 0.0134 0.0102

Mercury -62187-08-14 16:47 J -20992152.85 -20992152.80 -20992152.73 0.0134 0.0119

Earth -62178-08-08 14:23 J -20988872.11 -20988871.90 -20988871.69 0.0139 0.0073

Moon -62178-08-08 14:52 J -20988872.07 -20988871.88 -20988871.67 0.0139 0.0080 *

Moon -62177-08-12 00:57 J -20988502.70 -20988502.46 -20988502.20 0.0140 0.0027

Earth -62177-08-12 02:09 J -20988502.65 -20988502.41 -20988502.16 0.0140 0.0021 *

Earth -62176-08-16 14:23 J -20988133.01 -20988132.90 -20988132.74 0.0140 0.0118

Moon -62176-08-16 14:37 J -20988133.00 -20988132.89 -20988132.74 0.0140 0.0116 *

Mars -62166-02-06 16:33 J -20984672.10 -20984671.81 -20984671.51 0.0146 0.0010

Venus -62162-01-07 18:13 J -20983240.84 -20983240.74 -20983240.61 0.0147 0.0123

Venus -62162-08-22 07:25 J -20983014.38 -20983014.19 -20983014.00 0.0147 0.0069

Venus -62161-04-04 20:37 J -20982787.86 -20982787.64 -20982787.42 0.0147 0.0015

Venus -62161-11-17 09:49 J -20982561.30 -20982561.09 -20982560.88 0.0147 0.0039

Venus -62160-07-01 23:16 J -20982334.69 -20982334.53 -20982334.35 0.0147 0.0095

Mercury -62150-10-25 23:16 J -20978566.60 -20978566.53 -20978566.44 0.0146 0.0131

Mercury -62149-01-22 08:09 J -20978478.30 -20978478.16 -20978478.01 0.0146 0.0098

Mercury -62149-04-19 17:01 J -20978389.96 -20978389.79 -20978389.61 0.0146 0.0065

Mercury -62149-07-17 01:54 J -20978301.61 -20978301.42 -20978301.23 0.0145 0.0032

Mercury -62149-10-13 10:47 J -20978213.25 -20978213.05 -20978212.86 0.0145 0.0002

Mercury -62148-01-09 19:25 J -20978124.87 -20978124.69 -20978124.49 0.0145 0.0035

Mercury -62148-04-08 04:18 J -20978036.49 -20978036.32 -20978036.14 0.0145 0.0067

Mercury -62148-07-05 12:57 J -20977948.09 -20977947.96 -20977947.81 0.0145 0.0100

Mercury -62148-10-01 21:35 J -20977859.66 -20977859.60 -20977859.50 0.0145 0.0133

Moon -62139-02-04 18:13 J -20974811.88 -20974811.74 -20974811.57 0.0140 0.0110

Earth -62139-02-04 20:09 J -20974811.82 -20974811.66 -20974811.49 0.0140 0.0109 *

Earth -62138-02-09 17:30 J -20974442.03 -20974441.77 -20974441.51 0.0139 0.0009

Moon -62138-02-09 19:40 J -20974441.94 -20974441.68 -20974441.41 0.0139 0.0012 *

Moon -62137-02-14 10:18 J -20974072.23 -20974072.07 -20974071.87 0.0139 0.0097

Earth -62137-02-14 13:11 J -20974072.13 -20974071.95 -20974071.73 0.0139 0.0090 *

Mars -62128-10-04 02:52 J -20970552.52 -20970552.38 -20970552.20 0.0134 0.0117

Mars -62126-09-06 16:33 J -20969850.08 -20969849.81 -20969849.50 0.0133 0.0055

Venus -62122-12-11 16:04 J -20968292.95 -20968292.83 -20968292.67 0.0132 0.0100

Venus -62121-07-24 21:06 J -20968066.80 -20968066.62 -20968066.42 0.0132 0.0061

Venus -62120-03-08 01:54 J -20967840.63 -20967840.42 -20967840.20 0.0131 0.0022

Venus -62120-10-20 06:28 J -20967614.44 -20967614.23 -20967614.01 0.0131 0.0017

Venus -62119-06-03 10:47 J -20967388.25 -20967388.05 -20967387.85 0.0131 0.0056

Venus -62118-01-15 14:37 J -20967162.03 -20967161.89 -20967161.72 0.0131 0.0094

Mercury -62106-01-21 04:04 J -20962773.34 -20962773.33 -20962773.30 0.0133 0.0131

Mercury -62106-04-19 07:11 J -20962685.26 -20962685.20 -20962685.13 0.0133 0.0114

Mercury -62106-07-16 10:04 J -20962597.16 -20962597.08 -20962596.99 0.0133 0.0097

Mercury -62106-10-12 12:57 J -20962509.06 -20962508.96 -20962508.85 0.0133 0.0081

Mercury -62105-01-08 15:49 J -20962420.95 -20962420.84 -20962420.72 0.0133 0.0064

Mercury -62105-04-05 18:57 J -20962332.83 -20962332.71 -20962332.59 0.0133 0.0047

Mercury -62105-07-02 21:49 J -20962244.71 -20962244.59 -20962244.46 0.0133 0.0030

Mercury -62105-09-29 00:57 J -20962156.59 -20962156.46 -20962156.33 0.0133 0.0013

Mercury -62105-12-26 03:49 J -20962068.47 -20962068.34 -20962068.21 0.0133 0.0004

Mercury -62104-03-24 06:42 J -20961980.35 -20961980.22 -20961980.09 0.0133 0.0021

Mercury -62104-06-20 09:35 J -20961892.22 -20961892.10 -20961891.97 0.0133 0.0038

Mercury -62104-09-16 12:28 J -20961804.09 -20961803.98 -20961803.85 0.0134 0.0056

Mercury -62104-12-13 15:21 J -20961715.96 -20961715.86 -20961715.74 0.0134 0.0073

Mercury -62103-03-11 18:28 J -20961627.82 -20961627.73 -20961627.63 0.0134 0.0090

Mercury -62103-06-07 21:21 J -20961539.68 -20961539.61 -20961539.53 0.0134 0.0107

Mercury -62103-09-04 00:13 J -20961451.53 -20961451.49 -20961451.44 0.0134 0.0124

Earth -62094-08-09 00:13 J -20958190.70 -20958190.49 -20958190.26 0.0139 0.0069

Moon -62094-08-09 02:09 J -20958190.62 -20958190.41 -20958190.19 0.0139 0.0062 *

Moon -62093-08-12 11:01 J -20957821.30 -20957821.04 -20957820.79 0.0139 0.0021

Earth -62093-08-12 11:59 J -20957821.24 -20957821.00 -20957820.75 0.0139 0.0026 *

Earth -62092-08-17 00:42 J -20957451.59 -20957451.47 -20957451.35 0.0140 0.0121

Moon -62092-08-17 01:25 J -20957451.53 -20957451.44 -20957451.31 0.0140 0.0125 *

Mars -62084-10-30 10:47 J -20954455.12 -20954455.05 -20954454.92 0.0145 0.0136

Mars -62082-10-02 17:16 J -20953753.03 -20953752.78 -20953752.50 0.0146 0.0065

Venus -62078-04-21 11:16 J -20952456.18 -20952456.03 -20952455.86 0.0147 0.0097

Venus -62078-12-04 00:28 J -20952229.69 -20952229.48 -20952229.27 0.0147 0.0044

Venus -62077-07-17 13:40 J -20952003.14 -20952002.93 -20952002.71 0.0147 0.0011

Venus -62076-03-01 02:52 J -20951776.56 -20951776.38 -20951776.17 0.0147 0.0066

Venus -62076-10-13 16:18 J -20951549.93 -20951549.82 -20951549.68 0.0148 0.0121

Mercury -62066-11-15 05:59 J -20947865.33 -20947865.25 -20947865.14 0.0146 0.0125

Mercury -62065-02-11 15:06 J -20947777.02 -20947776.87 -20947776.72 0.0146 0.0092

Mercury -62065-05-09 23:59 J -20947688.68 -20947688.50 -20947688.32 0.0146 0.0059

Mercury -62065-08-06 08:52 J -20947600.33 -20947600.13 -20947599.94 0.0146 0.0026

Mercury -62065-11-02 17:30 J -20947511.96 -20947511.77 -20947511.57 0.0145 0.0008

Mercury -62064-01-30 02:23 J -20947423.59 -20947423.40 -20947423.21 0.0145 0.0040

Mercury -62064-04-28 11:01 J -20947335.20 -20947335.04 -20947334.86 0.0145 0.0074

Mercury -62064-07-25 19:54 J -20947246.79 -20947246.67 -20947246.53 0.0145 0.0106

Mercury -62064-10-22 04:33 J -20947158.35 -20947158.31 -20947158.24 0.0145 0.0139

Moon -62055-02-05 04:47 J -20944130.46 -20944130.30 -20944130.12 0.0140 0.0104

Earth -62055-02-05 05:45 J -20944130.41 -20944130.26 -20944130.07 0.0140 0.0104 *

Earth -62054-02-10 03:35 J -20943760.61 -20943760.35 -20943760.09 0.0140 0.0004

Moon -62054-02-10 05:16 J -20943760.54 -20943760.28 -20943760.01 0.0140 0.0002 *

Moon -62053-02-14 22:04 J -20943390.77 -20943390.58 -20943390.39 0.0139 0.0090

Earth -62053-02-14 23:45 J -20943390.68 -20943390.51 -20943390.31 0.0139 0.0096 *

Mars	-62043-05-30 10:47 J	-20939633.35	-20939633.05	-20939632.74	0.0134	0.0049
Mars	-62041-05-01 20:52 J	-20938930.74	-20938930.63	-20938930.48	0.0133	0.0120
Venus	-62038-08-11 04:04 J	-20937734.42	-20937734.33	-20937734.21	0.0132	0.0116
Venus	-62037-03-24 09:06 J	-20937508.29	-20937508.12	-20937507.93	0.0132	0.0077
Venus	-62037-11-05 13:54 J	-20937282.12	-20937281.92	-20937281.70	0.0132	0.0038
Venus	-62036-06-19 18:42 J	-20937055.94	-20937055.72	-20937055.50	0.0132	0.0001
Venus	-62035-01-31 23:01 J	-20936829.74	-20936829.54	-20936829.32	0.0131	0.0040
Venus	-62035-09-15 03:21 J	-20936603.53	-20936603.36	-20936603.18	0.0131	0.0078
Venus	-62034-04-29 07:25 J	-20936377.29	-20936377.19	-20936377.09	0.0131	0.0116
Mercury	-62022-02-10 11:45 J	-20932072.04	-20932072.01	-20932071.96	0.0133	0.0125
Mercury	-62022-05-09 14:52 J	-20931983.95	-20931983.88	-20931983.80	0.0133	0.0108
Mercury	-62022-08-05 17:45 J	-20931895.85	-20931895.76	-20931895.66	0.0133	0.0091
Mercury	-62022-11-01 20:37 J	-20931807.74	-20931807.64	-20931807.52	0.0133	0.0074
Mercury	-62021-01-28 23:45 J	-20931719.63	-20931719.51	-20931719.39	0.0133	0.0057
Mercury	-62021-04-26 02:37 J	-20931631.51	-20931631.39	-20931631.26	0.0133	0.0040
Mercury	-62021-07-23 05:30 J	-20931543.40	-20931543.27	-20931543.14	0.0133	0.0024
Mercury	-62021-10-19 08:37 J	-20931455.28	-20931455.14	-20931455.01	0.0133	0.0008
Mercury	-62020-01-15 11:30 J	-20931367.15	-20931367.02	-20931366.89	0.0133	0.0011
Mercury	-62020-04-13 14:23 J	-20931279.03	-20931278.90	-20931278.77	0.0133	0.0028
Mercury	-62020-07-10 17:16 J	-20931190.90	-20931190.78	-20931190.65	0.0133	0.0045
Mercury	-62020-10-06 20:09 J	-20931102.77	-20931102.66	-20931102.54	0.0134	0.0062
Mercury	-62019-01-02 23:16 J	-20931014.64	-20931014.53	-20931014.43	0.0134	0.0079
Mercury	-62019-04-01 02:09 J	-20930926.50	-20930926.41	-20930926.32	0.0134	0.0096
Mercury	-62019-06-28 05:01 J	-20930838.35	-20930838.29	-20930838.22	0.0134	0.0113
Mercury	-62019-09-24 07:54 J	-20930750.19	-20930750.17	-20930750.14	0.0134	0.0130
Earth	-62010-08-09 13:54 J	-20927509.14	-20927508.92	-20927508.69	0.0139	0.0062
Moon	-62010-08-09 15:35 J	-20927509.05	-20927508.85	-20927508.63	0.0139	0.0069 *
Moon	-62009-08-12 23:30 J	-20927139.76	-20927139.52	-20927139.27	0.0139	0.0039
Earth	-62009-08-13 01:40 J	-20927139.67	-20927139.43	-20927139.18	0.0139	0.0033 *
Earth	-62008-08-17 13:54 J	-20926770.00	-20926769.92	-20926769.81	0.0140	0.0129

Moon -62008-08-17 15:21 J -20926769.95 -20926769.86 -20926769.75 0.0140 0.0127 *

62ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 62nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-61999-06-25 16:47 J	-20923536.04	-20923535.80	-20923535.51	0.0145	0.0062		
Mars	-61997-05-28 04:47 J	-20922833.33	-20922833.30	-20922833.24	0.0146	0.0144		
Venus	-61995-12-19 18:28 J	-20921897.84	-20921897.73	-20921897.60	0.0147	0.0121		
Venus	-61994-08-03 07:25 J	-20921671.38	-20921671.19	-20921670.99	0.0147	0.0068		
Venus	-61993-03-16 20:23 J	-20921444.86	-20921444.65	-20921444.43	0.0147	0.0015		
Venus	-61993-10-29 09:21 J	-20921218.31	-20921218.11	-20921217.89	0.0147	0.0041		
Venus	-61992-06-12 22:47 J	-20920991.71	-20920991.55	-20920991.37	0.0147	0.0094		
Mercury	-61982-12-05 13:40 J	-20917164.03	-20917163.93	-20917163.80	0.0146	0.0117		
Mercury	-61981-03-02 22:33 J	-20917075.71	-20917075.56	-20917075.39	0.0146	0.0084		
Mercury	-61981-05-30 07:25 J	-20916987.36	-20916987.19	-20916987.00	0.0146	0.0051		
Mercury	-61981-08-26 16:18 J	-20916899.01	-20916898.82	-20916898.62	0.0146	0.0018		
Mercury	-61981-11-23 01:11 J	-20916810.64	-20916810.45	-20916810.25	0.0145	0.0016		
Mercury	-61980-02-19 10:04 J	-20916722.26	-20916722.08	-20916721.89	0.0145	0.0049		
Mercury	-61980-05-18 18:57 J	-20916633.87	-20916633.71	-20916633.55	0.0145	0.0082		
Mercury	-61980-08-15 03:49 J	-20916545.46	-20916545.34	-20916545.22	0.0145	0.0114		
Moon	-61971-02-05 16:47 J	-20913448.97	-20913448.80	-20913448.62	0.0140	0.0101		
Earth	-61971-02-05 16:47 J	-20913448.96	-20913448.80	-20913448.59	0.0140	0.0099	*	

Earth	-61970-02-10 14:52 J	-20913079.14	-20913078.88	-20913078.62	0.0140	0.0002
Moon	-61970-02-10 16:04 J	-20913079.10	-20913078.83	-20913078.56	0.0140	0.0002 *
Moon	-61969-02-15 09:06 J	-20912709.25	-20912709.12	-20912708.94	0.0139	0.0108
Earth	-61969-02-15 11:30 J	-20912709.19	-20912709.02	-20912708.84	0.0139	0.0101 *
Mars	-61958-01-23 18:13 J	-20908714.05	-20908713.74	-20908713.41	0.0133	0.0018
Venus	-61954-04-10 16:18 J	-20907175.84	-20907175.82	-20907175.80	0.0132	0.0131
Venus	-61954-11-22 20:52 J	-20906949.77	-20906949.63	-20906949.46	0.0132	0.0093
Venus	-61953-07-06 01:54 J	-20906723.61	-20906723.42	-20906723.21	0.0132	0.0054
Venus	-61952-02-17 06:57 J	-20906497.42	-20906497.21	-20906496.99	0.0132	0.0015
Venus	-61952-10-01 11:30 J	-20906271.23	-20906271.02	-20906270.80	0.0132	0.0024
Venus	-61951-05-15 15:35 J	-20906045.03	-20906044.85	-20906044.65	0.0131	0.0062
Venus	-61951-12-27 19:40 J	-20905818.81	-20905818.68	-20905818.53	0.0131	0.0100
Mercury	-61938-03-02 19:25 J	-20901370.74	-20901370.69	-20901370.62	0.0133	0.0119
Mercury	-61938-05-29 22:18 J	-20901282.64	-20901282.57	-20901282.47	0.0133	0.0102
Mercury	-61938-08-26 01:25 J	-20901194.54	-20901194.44	-20901194.34	0.0133	0.0085
Mercury	-61938-11-22 04:18 J	-20901106.43	-20901106.32	-20901106.20	0.0133	0.0068
Mercury	-61937-02-18 07:25 J	-20901018.31	-20901018.19	-20901018.07	0.0133	0.0051
Mercury	-61937-05-16 10:18 J	-20900930.20	-20900930.07	-20900929.94	0.0133	0.0034
Mercury	-61937-08-12 13:11 J	-20900842.08	-20900841.95	-20900841.82	0.0133	0.0017
Mercury	-61937-11-08 16:18 J	-20900753.96	-20900753.82	-20900753.69	0.0133	0.0005
Mercury	-61936-02-04 19:11 J	-20900665.83	-20900665.70	-20900665.57	0.0133	0.0017
Mercury	-61936-05-03 22:04 J	-20900577.71	-20900577.58	-20900577.45	0.0133	0.0034
Mercury	-61936-07-31 00:57 J	-20900489.58	-20900489.46	-20900489.34	0.0134	0.0051
Mercury	-61936-10-27 03:49 J	-20900401.45	-20900401.34	-20900401.22	0.0134	0.0068
Mercury	-61935-01-23 06:42 J	-20900313.31	-20900313.22	-20900313.11	0.0134	0.0085
Mercury	-61935-04-21 09:49 J	-20900225.17	-20900225.09	-20900225.01	0.0134	0.0102
Mercury	-61935-07-18 12:42 J	-20900137.02	-20900136.97	-20900136.91	0.0134	0.0119
Earth	-61926-08-10 03:21 J	-20896827.57	-20896827.36	-20896827.11	0.0139	0.0055
Moon	-61926-08-10 06:13 J	-20896827.46	-20896827.24	-20896827.00	0.0139	0.0047 *
Moon	-61925-08-13 13:11 J	-20896458.19	-20896457.95	-20896457.70	0.0139	0.0035

Earth	-61925-08-13 15:21 J	-20896458.10	-20896457.86	-20896457.62	0.0139	0.0041 *
Earth	-61924-08-18 03:21 J	-20896088.39	-20896088.36	-20896088.29	0.0140	0.0137
Mars	-61914-02-19 02:37 J	-20892616.68	-20892616.39	-20892616.10	0.0145	0.0017
Venus	-61911-08-19 02:23 J	-20891339.43	-20891339.40	-20891339.34	0.0147	0.0144
Venus	-61910-04-02 15:06 J	-20891113.03	-20891112.87	-20891112.69	0.0147	0.0091
Venus	-61910-11-15 03:49 J	-20890886.54	-20890886.34	-20890886.12	0.0147	0.0038
Venus	-61909-06-28 17:01 J	-20890660.00	-20890659.79	-20890659.57	0.0147	0.0016
Venus	-61908-02-10 06:13 J	-20890433.42	-20890433.24	-20890433.04	0.0147	0.0070
Venus	-61908-09-24 19:40 J	-20890206.78	-20890206.68	-20890206.55	0.0147	0.0125
Mercury	-61898-09-28 13:40 J	-20886550.99	-20886550.93	-20886550.87	0.0146	0.0138
Mercury	-61898-12-25 22:04 J	-20886462.70	-20886462.58	-20886462.43	0.0146	0.0106
Mercury	-61897-03-23 06:57 J	-20886374.36	-20886374.21	-20886374.03	0.0146	0.0073
Mercury	-61897-06-19 15:49 J	-20886286.02	-20886285.84	-20886285.64	0.0146	0.0040
Mercury	-61897-09-16 00:57 J	-20886197.66	-20886197.46	-20886197.27	0.0146	0.0006
Mercury	-61897-12-13 09:35 J	-20886109.29	-20886109.10	-20886108.90	0.0145	0.0027
Mercury	-61896-03-11 18:28 J	-20886020.90	-20886020.73	-20886020.55	0.0145	0.0060
Mercury	-61896-06-08 03:06 J	-20885932.51	-20885932.37	-20885932.21	0.0145	0.0093
Mercury	-61896-09-04 11:59 J	-20885844.08	-20885844.00	-20885843.89	0.0145	0.0126
Moon	-61887-02-06 06:57 J	-20882767.40	-20882767.21	-20882767.01	0.0140	0.0090
Earth	-61887-02-06 06:42 J	-20882767.40	-20882767.22	-20882767.01	0.0140	0.0091 *
Earth	-61886-02-11 04:33 J	-20882397.56	-20882397.31	-20882397.04	0.0140	0.0011
Moon	-61886-02-11 05:30 J	-20882397.54	-20882397.27	-20882397.00	0.0140	0.0013 *
Moon	-61885-02-16 00:28 J	-20882027.64	-20882027.48	-20882027.31	0.0139	0.0105
Earth	-61885-02-16 01:11 J	-20882027.59	-20882027.45	-20882027.28	0.0139	0.0110 *
Mars	-61876-10-16 10:33 J	-20878497.28	-20878497.06	-20878496.79	0.0134	0.0089
Mars	-61874-09-19 03:49 J	-20877794.56	-20877794.34	-20877794.07	0.0133	0.0086
Venus	-61870-07-23 10:04 J	-20876391.20	-20876391.08	-20876390.95	0.0132	0.0107
Venus	-61869-03-05 15:06 J	-20876165.05	-20876164.87	-20876164.68	0.0132	0.0068
Venus	-61869-10-17 19:54 J	-20875938.88	-20875938.67	-20875938.45	0.0132	0.0030
Venus	-61868-06-01 00:42 J	-20875712.69	-20875712.47	-20875712.25	0.0132	0.0009

Venus -61867-01-13 05:01 J -20875486.49 -20875486.29 -20875486.08 0.0132 0.0047
 Venus -61867-08-27 09:06 J -20875260.27 -20875260.12 -20875259.94 0.0131 0.0086
 Venus -61866-04-10 12:57 J -20875034.01 -20875033.96 -20875033.86 0.0131 0.0124
 Mercury -61855-12-25 00:28 J -20870757.51 -20870757.48 -20870757.44 0.0133 0.0128
 Mercury -61854-03-23 03:35 J -20870669.42 -20870669.35 -20870669.28 0.0133 0.0111
 Mercury -61854-06-19 06:28 J -20870581.32 -20870581.23 -20870581.14 0.0133 0.0094
 Mercury -61854-09-15 09:21 J -20870493.21 -20870493.11 -20870493.00 0.0133 0.0077
 Mercury -61854-12-12 12:13 J -20870405.10 -20870404.99 -20870404.87 0.0133 0.0061
 Mercury -61853-03-09 15:21 J -20870316.99 -20870316.86 -20870316.74 0.0133 0.0044
 Mercury -61853-06-05 18:13 J -20870228.87 -20870228.74 -20870228.61 0.0133 0.0027
 Mercury -61853-09-01 21:06 J -20870140.75 -20870140.62 -20870140.49 0.0133 0.0010
 Mercury -61853-11-29 00:13 J -20870052.63 -20870052.49 -20870052.36 0.0133 0.0009
 Mercury -61852-02-25 03:06 J -20869964.50 -20869964.37 -20869964.24 0.0133 0.0025
 Mercury -61852-05-24 05:59 J -20869876.38 -20869876.25 -20869876.13 0.0134 0.0041
 Mercury -61852-08-20 08:52 J -20869788.25 -20869788.13 -20869788.01 0.0134 0.0058
 Mercury -61852-11-16 11:45 J -20869700.11 -20869700.01 -20869699.90 0.0134 0.0076
 Mercury -61851-02-12 14:37 J -20869611.98 -20869611.89 -20869611.79 0.0134 0.0093
 Mercury -61851-05-11 17:30 J -20869523.83 -20869523.77 -20869523.69 0.0134 0.0110
 Mercury -61851-08-07 20:23 J -20869435.68 -20869435.65 -20869435.60 0.0134 0.0127
 Moon -61843-08-06 05:30 J -20866515.33 -20866515.27 -20866515.19 0.0138 0.0133
 Earth -61842-08-10 19:25 J -20866145.92 -20866145.69 -20866145.45 0.0139 0.0045
 Moon -61842-08-10 22:04 J -20866145.81 -20866145.58 -20866145.36 0.0139 0.0052 *
 Moon -61841-08-14 04:04 J -20865776.55 -20865776.33 -20865776.08 0.0139 0.0057
 Earth -61841-08-14 07:11 J -20865776.43 -20865776.20 -20865775.97 0.0139 0.0050 *
 Mars -61832-11-12 12:42 J -20862399.15 -20862398.97 -20862398.75 0.0145 0.0105
 Mars -61830-10-15 19:54 J -20861696.87 -20861696.67 -20861696.44 0.0146 0.0099
 Venus -61827-12-01 00:57 J -20860554.58 -20860554.46 -20860554.30 0.0147 0.0111
 Venus -61826-07-15 13:54 J -20860328.11 -20860327.92 -20860327.71 0.0147 0.0058
 Venus -61825-02-27 03:06 J -20860101.59 -20860101.37 -20860101.16 0.0147 0.0005
 Venus -61825-10-10 16:04 J -20859875.03 -20859874.83 -20859874.62 0.0147 0.0050

Venus -61824-05-25 05:16 J -20859648.43 -20859648.28 -20859648.12 0.0147 0.0104
 Mercury -61814-10-18 23:16 J -20855849.62 -20855849.53 -20855849.42 0.0146 0.0123
 Mercury -61813-01-15 08:09 J -20855761.31 -20855761.16 -20855761.00 0.0146 0.0090
 Mercury -61813-04-12 17:01 J -20855672.97 -20855672.79 -20855672.61 0.0146 0.0057
 Mercury -61813-07-10 01:54 J -20855584.61 -20855584.42 -20855584.23 0.0146 0.0024
 Mercury -61813-10-06 10:33 J -20855496.25 -20855496.06 -20855495.86 0.0146 0.0010
 Mercury -61812-01-02 19:25 J -20855407.87 -20855407.69 -20855407.50 0.0145 0.0043
 Mercury -61812-04-01 04:04 J -20855319.49 -20855319.33 -20855319.15 0.0145 0.0076
 Mercury -61812-06-28 12:57 J -20855231.08 -20855230.96 -20855230.82 0.0145 0.0108
 Mercury -61812-09-24 21:35 J -20855142.63 -20855142.60 -20855142.54 0.0145 0.0142
 Earth -61803-02-06 23:01 J -20852085.74 -20852085.54 -20852085.32 0.0140 0.0081
 Moon -61803-02-06 23:30 J -20852085.71 -20852085.52 -20852085.31 0.0140 0.0084 *
 Moon -61802-02-11 20:52 J -20851715.89 -20851715.63 -20851715.36 0.0140 0.0019
 Earth -61802-02-11 20:52 J -20851715.88 -20851715.63 -20851715.37 0.0140 0.0020 *
 Moon -61801-02-16 16:18 J -20851345.91 -20851345.82 -20851345.70 0.0139 0.0126
 Earth -61801-02-16 17:16 J -20851345.89 -20851345.78 -20851345.63 0.0139 0.0120 *
 Mars -61791-06-12 02:37 J -20847577.71 -20847577.39 -20847577.07 0.0134 0.0018
 Venus -61786-03-22 23:01 J -20845832.61 -20845832.54 -20845832.44 0.0132 0.0121
 Venus -61786-11-04 04:18 J -20845606.48 -20845606.32 -20845606.14 0.0132 0.0082
 Venus -61785-06-17 09:06 J -20845380.32 -20845380.12 -20845379.90 0.0132 0.0044
 Venus -61784-01-29 14:09 J -20845154.13 -20845153.91 -20845153.69 0.0132 0.0005
 Venus -61784-09-12 18:28 J -20844927.93 -20844927.73 -20844927.51 0.0132 0.0034
 Venus -61783-04-26 22:33 J -20844701.73 -20844701.56 -20844701.36 0.0131 0.0072
 Venus -61783-12-09 02:52 J -20844475.49 -20844475.38 -20844475.25 0.0131 0.0109
 Mercury -61770-01-14 08:23 J -20840056.20 -20840056.15 -20840056.09 0.0133 0.0121
 Mercury -61770-04-12 11:16 J -20839968.10 -20839968.03 -20839967.94 0.0133 0.0104
 Mercury -61770-07-09 14:09 J -20839880.00 -20839879.91 -20839879.80 0.0133 0.0087
 Mercury -61770-10-05 17:16 J -20839791.89 -20839791.78 -20839791.67 0.0133 0.0070
 Mercury -61769-01-01 20:09 J -20839703.78 -20839703.66 -20839703.54 0.0133 0.0053
 Mercury -61769-03-29 23:01 J -20839615.66 -20839615.54 -20839615.41 0.0133 0.0037

Mercury -61769-06-26 02:09 J -20839527.54 -20839527.41 -20839527.28 0.0133 0.0020
 Mercury -61769-09-22 05:01 J -20839439.42 -20839439.29 -20839439.16 0.0133 0.0002
 Mercury -61769-12-19 07:54 J -20839351.30 -20839351.17 -20839351.04 0.0133 0.0015
 Mercury -61768-03-17 10:47 J -20839263.17 -20839263.05 -20839262.92 0.0133 0.0032
 Mercury -61768-06-13 13:40 J -20839175.05 -20839174.93 -20839174.80 0.0134 0.0049
 Mercury -61768-09-09 16:33 J -20839086.92 -20839086.81 -20839086.69 0.0134 0.0066
 Mercury -61768-12-06 19:40 J -20838998.78 -20838998.68 -20838998.58 0.0134 0.0083
 Mercury -61767-03-04 22:33 J -20838910.64 -20838910.56 -20838910.47 0.0134 0.0100
 Mercury -61767-06-01 01:25 J -20838822.50 -20838822.44 -20838822.37 0.0134 0.0117
 Moon -61759-08-06 19:54 J -20835833.69 -20835833.67 -20835833.64 0.0138 0.0137
 Earth -61759-08-06 23:01 J -20835833.61 -20835833.54 -20835833.46 0.0138 0.0131
 Earth -61758-08-11 09:35 J -20835464.33 -20835464.10 -20835463.85 0.0139 0.0037
 Moon -61758-08-11 12:57 J -20835464.20 -20835463.96 -20835463.72 0.0139 0.0030 *
 Moon -61757-08-14 18:28 J -20835094.96 -20835094.73 -20835094.49 0.0139 0.0053
 Earth -61757-08-14 21:06 J -20835094.84 -20835094.62 -20835094.39 0.0139 0.0059 *
 Mars -61747-07-08 23:01 J -20831479.82 -20831479.54 -20831479.25 0.0145 0.0027
 Venus -61743-07-31 09:49 J -20829996.18 -20829996.09 -20829996.00 0.0147 0.0132
 Venus -61742-03-14 22:04 J -20829769.75 -20829769.58 -20829769.39 0.0147 0.0080
 Venus -61742-10-27 11:01 J -20829543.25 -20829543.04 -20829542.82 0.0147 0.0027
 Venus -61741-06-09 23:59 J -20829316.71 -20829316.50 -20829316.28 0.0147 0.0027
 Venus -61740-01-22 13:11 J -20829090.12 -20829089.95 -20829089.76 0.0147 0.0081
 Venus -61740-09-06 02:37 J -20828863.46 -20828863.39 -20828863.29 0.0148 0.0135
 Mercury -61730-08-11 23:59 J -20825236.55 -20825236.50 -20825236.46 0.0146 0.0142
 Mercury -61730-11-08 08:23 J -20825148.26 -20825148.15 -20825148.01 0.0146 0.0109
 Mercury -61729-02-04 17:30 J -20825059.94 -20825059.77 -20825059.60 0.0146 0.0075
 Mercury -61729-05-03 02:09 J -20824971.59 -20824971.41 -20824971.22 0.0146 0.0043
 Mercury -61729-07-30 11:01 J -20824883.23 -20824883.04 -20824882.84 0.0146 0.0010
 Mercury -61729-10-26 19:54 J -20824794.86 -20824794.67 -20824794.48 0.0146 0.0024
 Mercury -61728-01-23 04:33 J -20824706.48 -20824706.31 -20824706.12 0.0145 0.0058
 Mercury -61728-04-21 13:25 J -20824618.08 -20824617.94 -20824617.78 0.0145 0.0090

Mercury -61728-07-18 22:04 J -20824529.67 -20824529.58 -20824529.46 0.0145 0.0123
 Earth -61719-02-07 15:49 J -20821404.05 -20821403.84 -20821403.61 0.0140 0.0071
 Moon -61719-02-07 16:47 J -20821404.01 -20821403.80 -20821403.57 0.0140 0.0069 *
 Moon -61718-02-12 13:40 J -20821034.19 -20821033.93 -20821033.67 0.0140 0.0034
 Earth -61718-02-12 13:40 J -20821034.18 -20821033.93 -20821033.67 0.0140 0.0031 *
 Moon -61717-02-17 09:49 J -20820664.17 -20820664.09 -20820663.97 0.0139 0.0127
 Earth -61717-02-17 10:04 J -20820664.15 -20820664.08 -20820663.98 0.0139 0.0131 *
 Mars -61708-03-04 18:42 J -20817360.81 -20817360.72 -20817360.57 0.0134 0.0125
 Mars -61706-02-05 17:16 J -20816658.06 -20816657.78 -20816657.47 0.0133 0.0055
 Venus -61702-07-04 17:45 J -20815047.90 -20815047.76 -20815047.60 0.0132 0.0096
 Venus -61701-02-15 22:47 J -20814821.74 -20814821.55 -20814821.34 0.0132 0.0058
 Venus -61701-09-29 03:49 J -20814595.56 -20814595.34 -20814595.13 0.0132 0.0019
 Venus -61700-05-13 08:09 J -20814369.37 -20814369.16 -20814368.94 0.0132 0.0019
 Venus -61700-12-25 12:13 J -20814143.17 -20814142.99 -20814142.78 0.0131 0.0058
 Venus -61699-08-08 16:33 J -20813916.95 -20813916.81 -20813916.65 0.0131 0.0095
 Mercury -61687-11-07 13:11 J -20809442.96 -20809442.95 -20809442.92 0.0133 0.0130
 Mercury -61686-02-03 16:04 J -20809354.89 -20809354.83 -20809354.75 0.0133 0.0114
 Mercury -61686-05-02 19:11 J -20809266.79 -20809266.70 -20809266.61 0.0133 0.0097
 Mercury -61686-07-29 22:04 J -20809178.68 -20809178.58 -20809178.47 0.0133 0.0080
 Mercury -61686-10-26 00:57 J -20809090.57 -20809090.46 -20809090.34 0.0133 0.0063
 Mercury -61685-01-22 04:04 J -20809002.46 -20809002.33 -20809002.21 0.0133 0.0046
 Mercury -61685-04-19 06:57 J -20808914.34 -20808914.21 -20808914.08 0.0133 0.0029
 Mercury -61685-07-16 09:49 J -20808826.22 -20808826.09 -20808825.96 0.0133 0.0012
 Mercury -61685-10-12 12:42 J -20808738.10 -20808737.97 -20808737.84 0.0133 0.0005
 Mercury -61684-01-08 15:35 J -20808649.97 -20808649.85 -20808649.72 0.0133 0.0022
 Mercury -61684-04-06 18:42 J -20808561.85 -20808561.72 -20808561.60 0.0133 0.0039
 Mercury -61684-07-03 21:35 J -20808473.72 -20808473.60 -20808473.48 0.0134 0.0056
 Mercury -61684-09-30 00:28 J -20808385.59 -20808385.48 -20808385.37 0.0134 0.0073
 Mercury -61684-12-27 03:21 J -20808297.45 -20808297.36 -20808297.26 0.0134 0.0090
 Mercury -61683-03-25 06:13 J -20808209.31 -20808209.24 -20808209.16 0.0134 0.0107

Mercury -61683-06-21 09:06 J -20808121.16 -20808121.12 -20808121.06 0.0134 0.0124

Moon -61675-08-07 09:21 J -20805152.23 -20805152.11 -20805151.97 0.0138 0.0118

Earth -61675-08-07 12:57 J -20805152.06 -20805151.96 -20805151.85 0.0138 0.0124 *

Earth -61674-08-11 23:16 J -20804782.77 -20804782.53 -20804782.28 0.0139 0.0030

Moon -61674-08-12 02:23 J -20804782.63 -20804782.40 -20804782.16 0.0139 0.0037 *

Moon -61673-08-15 07:25 J -20804413.40 -20804413.19 -20804412.97 0.0139 0.0073

Earth -61673-08-15 11:01 J -20804413.26 -20804413.04 -20804412.82 0.0139 0.0066 *

Mars -61662-03-04 08:23 J -20800560.41 -20800560.15 -20800559.86 0.0145 0.0052

Venus -61659-11-12 06:13 J -20799211.38 -20799211.24 -20799211.08 0.0147 0.0102

Venus -61658-06-26 19:11 J -20798984.91 -20798984.70 -20798984.50 0.0147 0.0050

Venus -61657-02-08 07:54 J -20798758.38 -20798758.17 -20798757.95 0.0147 0.0004

Venus -61657-09-21 20:52 J -20798531.82 -20798531.63 -20798531.42 0.0147 0.0058

Venus -61656-05-06 10:04 J -20798305.21 -20798305.08 -20798304.92 0.0148 0.0112

Mercury -61646-09-01 08:52 J -20794535.22 -20794535.13 -20794535.04 0.0146 0.0129

Mercury -61646-11-28 17:16 J -20794446.91 -20794446.78 -20794446.62 0.0146 0.0096

Mercury -61645-02-25 02:23 J -20794358.57 -20794358.40 -20794358.22 0.0146 0.0062

Mercury -61645-05-23 11:16 J -20794270.22 -20794270.03 -20794269.84 0.0146 0.0029

Mercury -61645-08-19 20:09 J -20794181.86 -20794181.66 -20794181.47 0.0146 0.0005

Mercury -61645-11-16 04:47 J -20794093.48 -20794093.30 -20794093.11 0.0146 0.0037

Mercury -61644-02-12 13:25 J -20794005.10 -20794004.94 -20794004.76 0.0146 0.0071

Mercury -61644-05-11 22:18 J -20793916.70 -20793916.57 -20793916.42 0.0145 0.0103

Mercury -61644-08-08 06:57 J -20793828.26 -20793828.21 -20793828.13 0.0145 0.0137

Earth -61635-02-08 07:40 J -20790722.40 -20790722.18 -20790721.93 0.0140 0.0061

Moon -61635-02-08 09:06 J -20790722.34 -20790722.12 -20790721.89 0.0140 0.0063 *

Moon -61634-02-13 04:33 J -20790352.56 -20790352.31 -20790352.04 0.0140 0.0041

Earth -61634-02-13 05:30 J -20790352.51 -20790352.27 -20790352.01 0.0140 0.0042 *

Mars -61624-10-29 12:57 J -20786441.25 -20786440.96 -20786440.65 0.0134 0.0051

Mars -61622-10-02 05:59 J -20785738.34 -20785738.25 -20785738.12 0.0133 0.0124

Venus -61618-03-04 07:11 J -20784489.31 -20784489.20 -20784489.07 0.0132 0.0110

Venus -61618-10-16 12:13 J -20784263.17 -20784262.99 -20784262.80 0.0132 0.0072

Venus	-61617-05-29 17:01 J	-20784037.00	-20784036.79	-20784036.57	0.0132	0.0033
Venus	-61616-01-10 21:49 J	-20783810.81	-20783810.59	-20783810.38	0.0132	0.0005
Venus	-61616-08-25 02:09 J	-20783584.62	-20783584.41	-20783584.20	0.0131	0.0043
Venus	-61615-04-08 06:13 J	-20783358.40	-20783358.24	-20783358.06	0.0131	0.0081
Venus	-61615-11-20 10:04 J	-20783132.16	-20783132.08	-20783131.97	0.0131	0.0118
Mercury	-61603-11-27 20:52 J	-20778741.67	-20778741.63	-20778741.58	0.0132	0.0124
Mercury	-61602-02-23 23:59 J	-20778653.58	-20778653.50	-20778653.42	0.0133	0.0107
Mercury	-61602-05-23 02:52 J	-20778565.47	-20778565.38	-20778565.28	0.0133	0.0090
Mercury	-61602-08-19 05:45 J	-20778477.37	-20778477.26	-20778477.15	0.0133	0.0073
Mercury	-61602-11-15 08:37 J	-20778389.25	-20778389.14	-20778389.02	0.0133	0.0057
Mercury	-61601-02-11 11:30 J	-20778301.14	-20778301.02	-20778300.89	0.0133	0.0040
Mercury	-61601-05-09 14:37 J	-20778213.02	-20778212.89	-20778212.76	0.0133	0.0023
Mercury	-61601-08-05 17:30 J	-20778124.90	-20778124.77	-20778124.64	0.0133	0.0006
Mercury	-61601-11-01 20:23 J	-20778036.78	-20778036.65	-20778036.52	0.0133	0.0011
Mercury	-61600-01-28 23:16 J	-20777948.65	-20777948.53	-20777948.40	0.0133	0.0028
Mercury	-61600-04-27 02:09 J	-20777860.53	-20777860.41	-20777860.28	0.0133	0.0045
Mercury	-61600-07-24 05:01 J	-20777772.40	-20777772.29	-20777772.17	0.0133	0.0063
Mercury	-61600-10-20 07:54 J	-20777684.26	-20777684.17	-20777684.06	0.0133	0.0080
Mercury	-61599-01-16 11:01 J	-20777596.13	-20777596.04	-20777595.95	0.0134	0.0096
Mercury	-61599-04-14 13:54 J	-20777507.98	-20777507.92	-20777507.85	0.0134	0.0113
Mercury	-61599-07-11 17:01 J	-20777419.82	-20777419.79	-20777419.77	0.0134	0.0130
Jupiter	-61595-05-24 16:18 J	-20776007.01	-20776006.82	-20776006.54	0.0136	0.0120
Moon	-61591-08-07 20:37 J	-20774470.73	-20774470.64	-20774470.51	0.0138	0.0124
Earth	-61591-08-08 00:13 J	-20774470.60	-20774470.49	-20774470.34	0.0138	0.0117 *
Earth	-61590-08-12 10:47 J	-20774101.29	-20774101.05	-20774100.80	0.0139	0.0024
Moon	-61590-08-12 14:23 J	-20774101.14	-20774100.90	-20774100.65	0.0139	0.0016 *
Moon	-61589-08-15 18:28 J	-20773731.93	-20773731.73	-20773731.49	0.0139	0.0067
Earth	-61589-08-15 21:49 J	-20773731.79	-20773731.59	-20773731.36	0.0139	0.0073 *
Mars	-61580-11-25 07:11 J	-20770343.43	-20770343.20	-20770342.94	0.0145	0.0077
Mars	-61578-10-28 11:01 J	-20769641.15	-20769641.04	-20769640.88	0.0146	0.0129

Venus	-61575-07-12 11:30 J	-20768653.12	-20768653.02	-20768652.92	0.0147	0.0128
Venus	-61574-02-23 23:45 J	-20768426.68	-20768426.51	-20768426.32	0.0147	0.0077
Venus	-61574-10-08 12:42 J	-20768200.19	-20768199.97	-20768199.76	0.0147	0.0024
Venus	-61573-05-22 01:25 J	-20767973.65	-20767973.44	-20767973.22	0.0147	0.0030
Venus	-61572-01-03 14:23 J	-20767747.06	-20767746.90	-20767746.71	0.0147	0.0084
Venus	-61572-08-18 03:49 J	-20767520.40	-20767520.34	-20767520.24	0.0148	0.0138
Mercury	-61562-09-21 15:35 J	-20763833.94	-20763833.85	-20763833.74	0.0146	0.0122
Mercury	-61562-12-19 00:28 J	-20763745.63	-20763745.48	-20763745.32	0.0146	0.0089
Mercury	-61561-03-16 09:21 J	-20763657.29	-20763657.11	-20763656.93	0.0146	0.0056
Mercury	-61561-06-12 18:13 J	-20763568.93	-20763568.74	-20763568.55	0.0146	0.0023
Mercury	-61561-09-09 03:06 J	-20763480.57	-20763480.37	-20763480.18	0.0146	0.0011
Mercury	-61561-12-06 11:45 J	-20763392.19	-20763392.01	-20763391.82	0.0146	0.0044
Mercury	-61560-03-04 20:37 J	-20763303.80	-20763303.64	-20763303.47	0.0146	0.0077
Mercury	-61560-06-01 05:16 J	-20763215.39	-20763215.28	-20763215.14	0.0145	0.0110
Mercury	-61560-08-28 13:54 J	-20763126.93	-20763126.92	-20763126.87	0.0145	0.0144
Earth	-61551-02-08 19:25 J	-20760040.92	-20760040.69	-20760040.44	0.0140	0.0054
Moon	-61551-02-08 21:21 J	-20760040.84	-20760040.61	-20760040.37	0.0140	0.0051 *
Moon	-61550-02-13 16:18 J	-20759671.07	-20759670.82	-20759670.57	0.0140	0.0051
Earth	-61550-02-13 17:30 J	-20759671.01	-20759670.77	-20759670.53	0.0140	0.0049 *
Mars	-61539-06-25 01:25 J	-20755521.75	-20755521.44	-20755521.11	0.0134	0.0022
Venus	-61535-11-01 19:25 J	-20753930.73	-20753930.69	-20753930.61	0.0132	0.0126
Venus	-61534-06-16 00:42 J	-20753704.62	-20753704.47	-20753704.29	0.0132	0.0087
Venus	-61533-01-28 05:45 J	-20753478.45	-20753478.26	-20753478.05	0.0132	0.0049
Venus	-61533-09-10 10:33 J	-20753252.27	-20753252.06	-20753251.84	0.0132	0.0011
Venus	-61532-04-24 15:06 J	-20753026.08	-20753025.87	-20753025.65	0.0132	0.0028
Venus	-61532-12-06 19:11 J	-20752799.88	-20752799.70	-20752799.50	0.0131	0.0066
Venus	-61531-07-20 23:30 J	-20752573.65	-20752573.52	-20752573.38	0.0131	0.0103
Mercury	-61519-12-18 04:47 J	-20748040.36	-20748040.30	-20748040.24	0.0132	0.0117
Mercury	-61518-03-16 07:40 J	-20747952.26	-20747952.18	-20747952.09	0.0132	0.0100
Mercury	-61518-06-12 10:33 J	-20747864.16	-20747864.06	-20747863.95	0.0133	0.0083

Mercury -61518-09-08 13:25 J -20747776.05 -20747775.94 -20747775.82 0.0133 0.0067
 Mercury -61518-12-05 16:33 J -20747687.93 -20747687.81 -20747687.69 0.0133 0.0050
 Mercury -61517-03-02 19:25 J -20747599.82 -20747599.69 -20747599.56 0.0133 0.0033
 Mercury -61517-05-29 22:18 J -20747511.70 -20747511.57 -20747511.44 0.0133 0.0016
 Mercury -61517-08-26 01:11 J -20747423.58 -20747423.45 -20747423.31 0.0133 0.0004
 Mercury -61517-11-22 04:18 J -20747335.45 -20747335.32 -20747335.19 0.0133 0.0018
 Mercury -61516-02-18 06:57 J -20747247.33 -20747247.21 -20747247.08 0.0133 0.0036
 Mercury -61516-05-17 09:49 J -20747159.20 -20747159.09 -20747158.96 0.0133 0.0053
 Mercury -61516-08-13 12:42 J -20747071.07 -20747070.97 -20747070.85 0.0133 0.0070
 Mercury -61516-11-09 15:49 J -20746982.94 -20746982.84 -20746982.74 0.0133 0.0086
 Mercury -61515-02-05 18:42 J -20746894.80 -20746894.72 -20746894.63 0.0133 0.0103
 Mercury -61515-05-04 21:49 J -20746806.65 -20746806.59 -20746806.54 0.0134 0.0120
 Jupiter -61512-04-16 14:23 J -20745729.27 -20745728.90 -20745728.48 0.0135 0.0084
 Moon -61507-08-08 10:18 J -20743789.22 -20743789.07 -20743788.90 0.0138 0.0104
 Earth -61507-08-08 13:40 J -20743789.06 -20743788.93 -20743788.76 0.0138 0.0110 *
 Earth -61506-08-12 23:59 J -20743419.74 -20743419.50 -20743419.25 0.0139 0.0016
 Moon -61506-08-13 03:21 J -20743419.60 -20743419.36 -20743419.11 0.0139 0.0023 *
 Moon -61505-08-16 07:25 J -20743050.38 -20743050.19 -20743049.99 0.0139 0.0086
 Earth -61505-08-16 11:01 J -20743050.23 -20743050.04 -20743049.82 0.0139 0.0080 *
 Mars -61495-07-21 11:30 J -20739424.31 -20739424.02 -20739423.73 0.0145 0.0002
 Venus -61491-10-24 06:13 J -20737868.39 -20737868.24 -20737868.08 0.0147 0.0101
 Venus -61490-06-07 18:28 J -20737641.92 -20737641.73 -20737641.52 0.0147 0.0049
 Venus -61489-01-20 07:25 J -20737415.41 -20737415.19 -20737414.97 0.0147 0.0004
 Venus -61489-09-02 20:23 J -20737188.84 -20737188.65 -20737188.44 0.0147 0.0057
 Venus -61488-04-17 09:49 J -20736962.23 -20736962.09 -20736961.95 0.0147 0.0111
 Mercury -61478-10-11 22:47 J -20733132.65 -20733132.55 -20733132.42 0.0146 0.0115
 Mercury -61477-01-08 07:40 J -20733044.33 -20733044.18 -20733044.01 0.0146 0.0082
 Mercury -61477-04-05 16:47 J -20732955.98 -20732955.80 -20732955.62 0.0146 0.0048
 Mercury -61477-07-03 01:40 J -20732867.63 -20732867.43 -20732867.24 0.0146 0.0015
 Mercury -61477-09-29 10:18 J -20732779.26 -20732779.07 -20732778.87 0.0146 0.0018

Mercury -61477-12-26 18:57 J -20732690.88 -20732690.71 -20732690.52 0.0146 0.0052

Mercury -61476-03-25 03:49 J -20732602.49 -20732602.34 -20732602.17 0.0146 0.0085

Mercury -61476-06-21 12:42 J -20732514.07 -20732513.97 -20732513.85 0.0145 0.0118

Earth -61467-02-09 06:13 J -20729359.47 -20729359.24 -20729358.98 0.0141 0.0048

Moon -61467-02-09 08:37 J -20729359.37 -20729359.14 -20729358.90 0.0141 0.0051 *

Moon -61466-02-14 01:54 J -20728989.65 -20728989.42 -20728989.16 0.0140 0.0055

Earth -61466-02-14 04:18 J -20728989.55 -20728989.32 -20728989.08 0.0140 0.0055 *

Mars -61456-03-17 09:49 J -20725305.32 -20725305.09 -20725304.83 0.0134 0.0090

Mars -61454-02-18 11:01 J -20724602.26 -20724602.04 -20724601.79 0.0133 0.0091

Venus -61450-02-13 12:42 J -20723146.09 -20723145.97 -20723145.82 0.0132 0.0103

Venus -61450-09-27 17:45 J -20722919.94 -20722919.76 -20722919.56 0.0132 0.0065

Venus -61449-05-10 22:47 J -20722693.76 -20722693.55 -20722693.33 0.0132 0.0026

Venus -61449-12-23 03:35 J -20722467.57 -20722467.35 -20722467.14 0.0132 0.0012

Venus -61448-08-06 07:54 J -20722241.37 -20722241.17 -20722240.96 0.0132 0.0050

Venus -61447-03-20 12:13 J -20722015.14 -20722014.99 -20722014.82 0.0132 0.0088

Venus -61447-11-01 16:18 J -20721788.87 -20721788.82 -20721788.74 0.0131 0.0125

Mercury -61435-10-11 09:35 J -20717427.13 -20717427.10 -20717427.06 0.0132 0.0127

Mercury -61434-01-07 12:42 J -20717339.04 -20717338.97 -20717338.90 0.0132 0.0110

Mercury -61434-04-05 15:35 J -20717250.94 -20717250.85 -20717250.76 0.0133 0.0093

Mercury -61434-07-02 18:13 J -20717162.84 -20717162.74 -20717162.62 0.0133 0.0077

Mercury -61434-09-28 21:21 J -20717074.72 -20717074.61 -20717074.49 0.0133 0.0059

Mercury -61434-12-26 00:13 J -20716986.61 -20716986.49 -20716986.36 0.0133 0.0043

Mercury -61433-03-23 03:21 J -20716898.49 -20716898.36 -20716898.23 0.0133 0.0026

Mercury -61433-06-19 06:13 J -20716810.37 -20716810.24 -20716810.11 0.0133 0.0009

Mercury -61433-09-15 09:06 J -20716722.25 -20716722.12 -20716721.99 0.0133 0.0008

Mercury -61433-12-12 11:59 J -20716634.13 -20716634.00 -20716633.87 0.0133 0.0025

Mercury -61432-03-10 14:52 J -20716546.00 -20716545.88 -20716545.75 0.0133 0.0042

Mercury -61432-06-06 17:45 J -20716457.87 -20716457.76 -20716457.64 0.0133 0.0059

Mercury -61432-09-02 20:37 J -20716369.74 -20716369.64 -20716369.53 0.0133 0.0076

Mercury -61432-11-29 23:30 J -20716281.60 -20716281.52 -20716281.42 0.0133 0.0094

Mercury -61431-02-26 02:23 J -20716193.46 -20716193.40 -20716193.32 0.0133 0.0111
 Mercury -61431-05-25 05:16 J -20716105.30 -20716105.28 -20716105.23 0.0134 0.0128
 Moon -61423-08-09 00:28 J -20713107.62 -20713107.48 -20713107.31 0.0138 0.0108
 Earth -61423-08-09 04:18 J -20713107.49 -20713107.32 -20713107.15 0.0138 0.0101 *
 Earth -61422-08-13 14:23 J -20712738.15 -20712737.90 -20712737.65 0.0138 0.0008
 Moon -61422-08-13 17:59 J -20712738.00 -20712737.75 -20712737.50 0.0138 0.0001 *
 Moon -61421-08-16 21:35 J -20712368.78 -20712368.60 -20712368.38 0.0139 0.0082
 Earth -61421-08-17 01:11 J -20712368.63 -20712368.45 -20712368.25 0.0139 0.0088 *
 Mars -61412-04-13 21:49 J -20709206.73 -20709206.59 -20709206.43 0.0144 0.0123
 Mars -61410-03-16 18:28 J -20708504.96 -20708504.73 -20708504.47 0.0145 0.0080
 Venus -61407-06-23 13:11 J -20707310.05 -20707309.95 -20707309.83 0.0147 0.0125
 Venus -61406-02-05 01:25 J -20707083.62 -20707083.44 -20707083.24 0.0147 0.0073
 Venus -61406-09-19 14:09 J -20706857.12 -20706856.91 -20706856.69 0.0147 0.0021
 Venus -61405-05-03 02:52 J -20706630.59 -20706630.38 -20706630.16 0.0147 0.0032
 Venus -61405-12-15 15:49 J -20706404.01 -20706403.84 -20706403.65 0.0147 0.0085
 Venus -61404-07-30 05:16 J -20706177.34 -20706177.28 -20706177.20 0.0147 0.0139
 Mercury -61394-08-04 21:21 J -20702519.65 -20702519.61 -20702519.55 0.0146 0.0141
 Mercury -61394-11-01 06:28 J -20702431.36 -20702431.23 -20702431.10 0.0146 0.0108
 Mercury -61393-01-28 15:06 J -20702343.03 -20702342.87 -20702342.70 0.0146 0.0075
 Mercury -61393-04-25 23:59 J -20702254.68 -20702254.50 -20702254.31 0.0146 0.0041
 Mercury -61393-07-23 08:52 J -20702166.33 -20702166.13 -20702165.94 0.0146 0.0008
 Mercury -61393-10-19 17:30 J -20702077.96 -20702077.77 -20702077.57 0.0146 0.0026
 Mercury -61392-01-16 02:23 J -20701989.57 -20701989.40 -20701989.22 0.0146 0.0059
 Mercury -61392-04-14 11:16 J -20701901.18 -20701901.03 -20701900.88 0.0146 0.0092
 Mercury -61392-07-11 19:54 J -20701812.76 -20701812.67 -20701812.56 0.0145 0.0125
 Earth -61383-02-09 17:01 J -20698678.02 -20698677.79 -20698677.53 0.0141 0.0043
 Moon -61383-02-09 20:09 J -20698677.90 -20698677.66 -20698677.41 0.0141 0.0039 *
 Moon -61382-02-14 12:57 J -20698308.19 -20698307.96 -20698307.72 0.0140 0.0062
 Earth -61382-02-14 15:06 J -20698308.09 -20698307.87 -20698307.62 0.0140 0.0061 *
 Mars -61372-11-10 23:01 J -20694385.86 -20694385.54 -20694385.21 0.0134 0.0018

Venus	-61367-10-14 00:28 J	-20692587.56	-20692587.48	-20692587.37	0.0132	0.0119
Venus	-61366-05-28 05:59 J	-20692361.42	-20692361.25	-20692361.07	0.0132	0.0080
Venus	-61365-01-09 11:01 J	-20692135.24	-20692135.04	-20692134.83	0.0132	0.0042
Venus	-61365-08-22 16:04 J	-20691909.05	-20691908.83	-20691908.61	0.0132	0.0004
Venus	-61364-04-05 20:23 J	-20691682.85	-20691682.65	-20691682.43	0.0132	0.0035
Venus	-61364-11-18 01:11 J	-20691456.63	-20691456.45	-20691456.27	0.0132	0.0072
Venus	-61363-07-02 05:16 J	-20691230.39	-20691230.28	-20691230.15	0.0132	0.0110
Mercury	-61351-10-31 17:30 J	-20686725.82	-20686725.77	-20686725.71	0.0132	0.0119
Mercury	-61350-01-27 20:23 J	-20686637.73	-20686637.65	-20686637.56	0.0133	0.0103
Mercury	-61350-04-25 23:30 J	-20686549.62	-20686549.52	-20686549.42	0.0133	0.0086
Mercury	-61350-07-23 02:23 J	-20686461.51	-20686461.40	-20686461.29	0.0133	0.0069
Mercury	-61350-10-19 05:16 J	-20686373.40	-20686373.28	-20686373.16	0.0133	0.0052
Mercury	-61349-01-15 08:09 J	-20686285.28	-20686285.16	-20686285.03	0.0133	0.0035
Mercury	-61349-04-12 11:01 J	-20686197.16	-20686197.04	-20686196.90	0.0133	0.0019
Mercury	-61349-07-09 14:09 J	-20686109.04	-20686108.91	-20686108.78	0.0133	0.0002
Mercury	-61349-10-05 17:01 J	-20686020.92	-20686020.79	-20686020.66	0.0133	0.0016
Mercury	-61348-01-01 19:54 J	-20685932.80	-20685932.67	-20685932.54	0.0133	0.0033
Mercury	-61348-03-30 22:47 J	-20685844.67	-20685844.55	-20685844.42	0.0133	0.0050
Mercury	-61348-06-27 01:54 J	-20685756.54	-20685756.42	-20685756.31	0.0133	0.0067
Mercury	-61348-09-23 04:47 J	-20685668.40	-20685668.30	-20685668.20	0.0133	0.0084
Mercury	-61348-12-20 07:40 J	-20685580.26	-20685580.18	-20685580.09	0.0133	0.0101
Mercury	-61347-03-18 10:33 J	-20685492.12	-20685492.06	-20685492.00	0.0134	0.0118
Moon	-61339-08-09 16:33 J	-20682426.00	-20682425.81	-20682425.62	0.0138	0.0087
Earth	-61339-08-09 19:40 J	-20682425.85	-20682425.68	-20682425.48	0.0138	0.0093 *
Earth	-61338-08-14 05:59 J	-20682056.49	-20682056.25	-20682056.00	0.0138	0.0003
Moon	-61338-08-14 09:35 J	-20682056.35	-20682056.10	-20682055.85	0.0138	0.0005 *
Moon	-61337-08-17 12:57 J	-20681687.10	-20681686.96	-20681686.77	0.0139	0.0106
Earth	-61337-08-17 17:16 J	-20681686.96	-20681686.78	-20681686.61	0.0139	0.0098 *
Mars	-61328-12-08 07:25 J	-20678287.45	-20678287.19	-20678286.90	0.0145	0.0045
Venus	-61323-02-20 23:16 J	-20676751.56	-20676751.53	-20676751.48	0.0146	0.0144

Venus -61323-10-05 11:30 J -20676525.18 -20676525.02 -20676524.85 0.0147 0.0093
 Venus -61322-05-19 23:59 J -20676298.71 -20676298.50 -20676298.29 0.0147 0.0041
 Venus -61321-01-01 12:28 J -20676072.19 -20676071.98 -20676071.76 0.0147 0.0012
 Venus -61321-08-15 01:40 J -20675845.62 -20675845.43 -20675845.23 0.0147 0.0064
 Venus -61320-03-29 14:37 J -20675619.00 -20675618.89 -20675618.74 0.0147 0.0118
 Mercury -61310-08-25 06:42 J -20671818.31 -20671818.22 -20671818.12 0.0146 0.0127
 Mercury -61310-11-21 15:21 J -20671730.00 -20671729.86 -20671729.70 0.0146 0.0094
 Mercury -61309-02-18 00:13 J -20671641.66 -20671641.49 -20671641.31 0.0146 0.0061
 Mercury -61309-05-16 09:06 J -20671553.31 -20671553.12 -20671552.93 0.0146 0.0028
 Mercury -61309-08-12 17:59 J -20671464.94 -20671464.75 -20671464.56 0.0146 0.0006
 Mercury -61309-11-09 02:52 J -20671376.57 -20671376.38 -20671376.20 0.0146 0.0039
 Mercury -61308-02-05 11:16 J -20671288.18 -20671288.03 -20671287.85 0.0146 0.0073
 Mercury -61308-05-04 20:09 J -20671199.78 -20671199.66 -20671199.51 0.0146 0.0106
 Mercury -61308-08-01 05:01 J -20671111.33 -20671111.29 -20671111.22 0.0145 0.0139
 Jupiter -61304-02-06 09:49 J -20669826.61 -20669826.09 -20669825.56 0.0144 0.0015
 Moon -61300-02-05 05:16 J -20668366.35 -20668366.28 -20668366.18 0.0141 0.0133
 Earth -61300-02-05 08:37 J -20668366.16 -20668366.14 -20668366.08 0.0141 0.0140
 Earth -61299-02-10 07:54 J -20667996.42 -20667996.17 -20667995.92 0.0141 0.0034
 Moon -61299-02-10 11:01 J -20667996.29 -20667996.04 -20667995.79 0.0141 0.0037 *
 Moon -61298-02-15 02:37 J -20667626.62 -20667626.39 -20667626.16 0.0140 0.0070
 Earth -61298-02-15 05:30 J -20667626.48 -20667626.27 -20667626.03 0.0140 0.0070 *
 Mars -61289-08-03 06:13 J -20664169.30 -20664169.24 -20664169.16 0.0135 0.0131
 Mars -61287-07-07 14:09 J -20663466.20 -20663465.91 -20663465.61 0.0134 0.0054
 Venus -61282-01-25 18:42 J -20661802.87 -20661802.72 -20661802.56 0.0132 0.0095
 Venus -61282-09-08 23:45 J -20661576.70 -20661576.51 -20661576.30 0.0132 0.0057
 Venus -61281-04-22 04:47 J -20661350.51 -20661350.30 -20661350.08 0.0132 0.0018
 Venus -61281-12-04 09:35 J -20661124.31 -20661124.10 -20661123.88 0.0132 0.0020
 Venus -61280-07-18 14:09 J -20660898.10 -20660897.91 -20660897.70 0.0132 0.0058
 Venus -61279-03-01 18:42 J -20660671.86 -20660671.72 -20660671.56 0.0132 0.0096
 Mercury -61267-08-24 22:33 J -20656112.58 -20656112.56 -20656112.53 0.0132 0.0128

Mercury -61267-11-21 01:25 J -20656024.50 -20656024.44 -20656024.36 0.0133 0.0112

Mercury -61266-02-17 04:33 J -20655936.40 -20655936.31 -20655936.22 0.0133 0.0095

Mercury -61266-05-16 07:25 J -20655848.29 -20655848.19 -20655848.08 0.0133 0.0078

Mercury -61266-08-12 10:18 J -20655760.18 -20655760.07 -20655759.95 0.0133 0.0061

Mercury -61266-11-08 13:25 J -20655672.07 -20655671.94 -20655671.82 0.0133 0.0044

Mercury -61265-02-04 16:18 J -20655583.95 -20655583.82 -20655583.69 0.0133 0.0027

Mercury -61265-05-02 19:11 J -20655495.83 -20655495.70 -20655495.57 0.0133 0.0010

Mercury -61265-07-29 22:04 J -20655407.71 -20655407.58 -20655407.45 0.0133 0.0007

Mercury -61265-10-26 00:57 J -20655319.58 -20655319.46 -20655319.32 0.0133 0.0024

Mercury -61264-01-22 03:49 J -20655231.46 -20655231.34 -20655231.21 0.0133 0.0042

Mercury -61264-04-20 06:42 J -20655143.33 -20655143.22 -20655143.09 0.0133 0.0059

Mercury -61264-07-17 09:35 J -20655055.20 -20655055.10 -20655054.98 0.0133 0.0076

Mercury -61264-10-13 12:42 J -20654967.06 -20654966.97 -20654966.87 0.0133 0.0092

Mercury -61263-01-09 15:35 J -20654878.92 -20654878.85 -20654878.77 0.0134 0.0109

Mercury -61263-04-07 18:42 J -20654790.76 -20654790.72 -20654790.68 0.0134 0.0126

Moon -61255-08-10 08:37 J -20651744.33 -20651744.14 -20651743.96 0.0138 0.0089

Earth -61255-08-10 11:45 J -20651744.20 -20651744.01 -20651743.81 0.0138 0.0083 *

Earth -61254-08-14 22:04 J -20651374.83 -20651374.58 -20651374.33 0.0138 0.0012

Moon -61254-08-15 01:25 J -20651374.69 -20651374.44 -20651374.19 0.0138 0.0019 *

Moon -61253-08-18 05:45 J -20651005.42 -20651005.26 -20651005.08 0.0139 0.0102

Earth -61253-08-18 08:52 J -20651005.27 -20651005.13 -20651004.96 0.0139 0.0108 *

Mars -61243-08-03 19:25 J -20647367.96 -20647367.69 -20647367.39 0.0145 0.0037

Venus -61239-06-04 21:06 J -20645966.76 -20645966.62 -20645966.49 0.0146 0.0113

Venus -61238-01-17 09:06 J -20645740.30 -20645740.12 -20645739.91 0.0147 0.0062

Venus -61238-08-31 22:04 J -20645513.80 -20645513.58 -20645513.37 0.0147 0.0010

Venus -61237-04-14 10:47 J -20645287.25 -20645287.05 -20645286.84 0.0147 0.0043

Venus -61237-11-26 23:59 J -20645060.67 -20645060.50 -20645060.34 0.0147 0.0096

Mercury -61226-09-14 15:35 J -20641116.96 -20641116.85 -20641116.72 0.0146 0.0114

Mercury -61226-12-12 00:28 J -20641028.63 -20641028.48 -20641028.31 0.0146 0.0081

Mercury -61225-03-09 09:21 J -20640940.29 -20640940.11 -20640939.92 0.0146 0.0047

Mercury -61225-06-05 18:13 J -20640851.93 -20640851.74 -20640851.55 0.0146 0.0014
 Mercury -61225-09-02 03:06 J -20640763.56 -20640763.37 -20640763.18 0.0146 0.0019
 Mercury -61225-11-29 11:45 J -20640675.18 -20640675.01 -20640674.82 0.0146 0.0053
 Mercury -61224-02-25 20:37 J -20640586.79 -20640586.64 -20640586.48 0.0146 0.0086
 Mercury -61224-05-25 05:16 J -20640498.38 -20640498.28 -20640498.16 0.0145 0.0119
 Moon -61216-02-05 19:40 J -20637684.72 -20637684.68 -20637684.60 0.0141 0.0137
 Earth -61216-02-05 23:30 J -20637684.60 -20637684.52 -20637684.41 0.0141 0.0130 *
 Earth -61215-02-10 22:33 J -20637314.82 -20637314.56 -20637314.31 0.0141 0.0025
 Moon -61215-02-11 01:54 J -20637314.67 -20637314.42 -20637314.16 0.0141 0.0020 *
 Moon -61214-02-15 17:16 J -20636944.99 -20636944.78 -20636944.56 0.0140 0.0079
 Earth -61214-02-15 20:09 J -20636944.86 -20636944.66 -20636944.43 0.0140 0.0079 *
 Mars -61204-03-30 01:11 J -20633249.73 -20633249.45 -20633249.14 0.0134 0.0056
 Mars -61202-03-03 03:21 J -20632546.46 -20632546.36 -20632546.25 0.0134 0.0126
 Venus -61199-09-25 07:11 J -20631244.31 -20631244.20 -20631244.06 0.0132 0.0110
 Venus -61198-05-09 12:28 J -20631018.15 -20631017.98 -20631017.78 0.0132 0.0071
 Venus -61198-12-21 17:59 J -20630791.97 -20630791.75 -20630791.54 0.0132 0.0032
 Venus -61197-08-03 22:47 J -20630565.77 -20630565.55 -20630565.33 0.0132 0.0006
 Venus -61196-03-18 03:35 J -20630339.55 -20630339.35 -20630339.14 0.0132 0.0044
 Venus -61196-10-30 07:54 J -20630113.32 -20630113.17 -20630112.98 0.0132 0.0082
 Venus -61195-06-13 12:28 J -20629887.06 -20629886.98 -20629886.87 0.0132 0.0119
 Mercury -61183-09-14 06:13 J -20625411.28 -20625411.24 -20625411.17 0.0132 0.0122
 Mercury -61183-12-11 09:21 J -20625323.18 -20625323.11 -20625323.02 0.0133 0.0104
 Mercury -61182-03-09 12:13 J -20625235.08 -20625234.99 -20625234.88 0.0133 0.0088
 Mercury -61182-06-05 15:21 J -20625146.97 -20625146.86 -20625146.75 0.0133 0.0070
 Mercury -61182-09-01 18:13 J -20625058.86 -20625058.74 -20625058.62 0.0133 0.0054
 Mercury -61182-11-28 21:06 J -20624970.74 -20624970.62 -20624970.49 0.0133 0.0037
 Mercury -61181-02-25 00:13 J -20624882.62 -20624882.49 -20624882.36 0.0133 0.0019
 Mercury -61181-05-23 03:06 J -20624794.50 -20624794.37 -20624794.24 0.0133 0.0003
 Mercury -61181-08-19 05:59 J -20624706.38 -20624706.25 -20624706.12 0.0133 0.0015
 Mercury -61181-11-15 08:52 J -20624618.25 -20624618.13 -20624618.00 0.0133 0.0032

Mercury -61180-02-11 11:59 J -20624530.12 -20624530.00 -20624529.88 0.0133 0.0049
 Mercury -61180-05-10 14:52 J -20624441.99 -20624441.88 -20624441.76 0.0133 0.0066
 Mercury -61180-08-06 17:45 J -20624353.86 -20624353.76 -20624353.65 0.0133 0.0083
 Mercury -61180-11-02 20:37 J -20624265.72 -20624265.64 -20624265.55 0.0133 0.0100
 Mercury -61179-01-29 23:45 J -20624177.57 -20624177.51 -20624177.45 0.0134 0.0117
 Moon -61171-08-10 23:59 J -20621062.71 -20621062.50 -20621062.29 0.0138 0.0069
 Earth -61171-08-11 02:37 J -20621062.58 -20621062.39 -20621062.16 0.0138 0.0075 *
 Earth -61170-08-15 13:11 J -20620693.19 -20620692.95 -20620692.70 0.0139 0.0021
 Moon -61170-08-15 16:18 J -20620693.07 -20620692.82 -20620692.56 0.0139 0.0014 *
 Moon -61169-08-18 20:37 J -20620323.73 -20620323.64 -20620323.52 0.0139 0.0124
 Earth -61169-08-18 23:59 J -20620323.61 -20620323.50 -20620323.35 0.0139 0.0117 *
 Mars -61160-04-27 11:16 J -20617150.25 -20617150.03 -20617149.79 0.0144 0.0087
 Mars -61158-03-30 07:11 J -20616448.34 -20616448.20 -20616448.00 0.0145 0.0119
 Venus -61155-02-02 06:42 J -20615408.30 -20615408.22 -20615408.12 0.0146 0.0132
 Venus -61155-09-16 18:57 J -20615181.88 -20615181.71 -20615181.52 0.0147 0.0082
 Venus -61154-05-01 07:25 J -20614955.40 -20614955.19 -20614954.97 0.0147 0.0030
 Venus -61154-12-13 20:09 J -20614728.87 -20614728.66 -20614728.44 0.0147 0.0022
 Venus -61153-07-27 09:06 J -20614502.30 -20614502.12 -20614501.92 0.0147 0.0075
 Venus -61152-03-10 22:33 J -20614275.66 -20614275.56 -20614275.45 0.0147 0.0128
 Mercury -61142-07-08 16:33 J -20610503.89 -20610503.81 -20610503.72 0.0146 0.0132
 Mercury -61142-10-05 01:25 J -20610415.58 -20610415.44 -20610415.30 0.0146 0.0098
 Mercury -61141-01-01 10:04 J -20610327.24 -20610327.08 -20610326.90 0.0146 0.0065
 Mercury -61141-03-29 18:57 J -20610238.89 -20610238.71 -20610238.51 0.0146 0.0032
 Mercury -61141-06-26 03:49 J -20610150.53 -20610150.34 -20610150.14 0.0146 0.0003
 Mercury -61141-09-22 12:42 J -20610062.16 -20610061.97 -20610061.78 0.0146 0.0035
 Mercury -61141-12-19 21:21 J -20609973.77 -20609973.61 -20609973.43 0.0146 0.0069
 Mercury -61140-03-18 06:13 J -20609885.37 -20609885.24 -20609885.09 0.0146 0.0102
 Mercury -61140-06-14 15:06 J -20609796.93 -20609796.87 -20609796.79 0.0145 0.0135
 Moon -61132-02-06 12:42 J -20607003.11 -20607002.97 -20607002.80 0.0141 0.0113
 Earth -61132-02-06 16:18 J -20607002.94 -20607002.82 -20607002.67 0.0141 0.0120 *

Earth -61131-02-11 15:06 J -20606633.12 -20606632.87 -20606632.61 0.0141 0.0014
 Moon -61131-02-11 18:42 J -20606632.97 -20606632.72 -20606632.47 0.0141 0.0017 *
 Moon -61130-02-16 08:52 J -20606263.31 -20606263.13 -20606262.91 0.0140 0.0091
 Earth -61130-02-16 12:42 J -20606263.16 -20606262.97 -20606262.76 0.0140 0.0090 *
 Mars -61120-11-23 20:37 J -20602329.96 -20602329.64 -20602329.31 0.0134 0.0019
 Venus -61115-05-25 20:09 J -20600685.72 -20600685.66 -20600685.57 0.0132 0.0124
 Venus -61114-01-07 01:54 J -20600459.59 -20600459.42 -20600459.25 0.0132 0.0085
 Venus -61114-08-21 07:11 J -20600233.41 -20600233.20 -20600233.00 0.0132 0.0046
 Venus -61113-04-03 12:13 J -20600007.21 -20600006.99 -20600006.77 0.0132 0.0008
 Venus -61113-11-15 17:01 J -20599781.00 -20599780.79 -20599780.58 0.0132 0.0030
 Venus -61112-06-29 21:21 J -20599554.78 -20599554.61 -20599554.41 0.0132 0.0068
 Venus -61111-02-11 02:09 J -20599328.53 -20599328.41 -20599328.27 0.0132 0.0105
 Mercury -61099-07-08 11:16 J -20594798.04 -20594798.03 -20594798.00 0.0132 0.0131
 Mercury -61099-10-04 14:23 J -20594709.97 -20594709.90 -20594709.83 0.0132 0.0114
 Mercury -61099-12-31 17:16 J -20594621.87 -20594621.78 -20594621.69 0.0132 0.0097
 Mercury -61098-03-29 20:09 J -20594533.76 -20594533.66 -20594533.55 0.0133 0.0080
 Mercury -61098-06-25 23:01 J -20594445.65 -20594445.54 -20594445.42 0.0133 0.0064
 Mercury -61098-09-22 02:09 J -20594357.53 -20594357.41 -20594357.29 0.0133 0.0046
 Mercury -61098-12-19 05:01 J -20594269.42 -20594269.29 -20594269.16 0.0133 0.0029
 Mercury -61097-03-16 08:09 J -20594181.30 -20594181.16 -20594181.03 0.0133 0.0013
 Mercury -61097-06-12 11:01 J -20594093.17 -20594093.04 -20594092.91 0.0133 0.0005
 Mercury -61097-09-08 13:54 J -20594005.05 -20594004.92 -20594004.79 0.0133 0.0022
 Mercury -61097-12-05 16:47 J -20593916.92 -20593916.80 -20593916.67 0.0133 0.0039
 Mercury -61096-03-03 19:40 J -20593828.80 -20593828.68 -20593828.56 0.0133 0.0056
 Mercury -61096-05-30 22:47 J -20593740.66 -20593740.55 -20593740.44 0.0133 0.0073
 Mercury -61096-08-27 01:40 J -20593652.53 -20593652.43 -20593652.34 0.0133 0.0090
 Mercury -61096-11-23 04:33 J -20593564.39 -20593564.31 -20593564.23 0.0133 0.0107
 Mercury -61095-02-19 07:25 J -20593476.23 -20593476.19 -20593476.14 0.0134 0.0124
 Moon -61087-08-11 13:25 J -20590381.14 -20590380.94 -20590380.72 0.0138 0.0073
 Earth -61087-08-11 16:18 J -20590381.03 -20590380.82 -20590380.60 0.0138 0.0067 *

Earth -61086-08-16 02:23 J -20590011.64 -20590011.40 -20590011.15 0.0138 0.0028
 Moon -61086-08-16 05:30 J -20590011.51 -20590011.27 -20590011.02 0.0138 0.0035 *
 Moon -61085-08-19 10:47 J -20589642.17 -20589642.05 -20589641.92 0.0139 0.0118
 Earth -61085-08-19 13:25 J -20589642.03 -20589641.94 -20589641.82 0.0139 0.0125 *
 Mars -61076-12-21 13:54 J -20586231.20 -20586230.92 -20586230.63 0.0145 0.0011
 Venus -61071-05-17 02:09 J -20584623.56 -20584623.41 -20584623.26 0.0146 0.0105
 Venus -61071-12-29 14:23 J -20584397.10 -20584396.90 -20584396.70 0.0147 0.0054
 Venus -61070-08-13 03:06 J -20584170.58 -20584170.37 -20584170.15 0.0147 0.0002
 Venus -61069-03-26 15:49 J -20583944.04 -20583943.84 -20583943.63 0.0147 0.0050
 Venus -61069-11-08 04:33 J -20583717.45 -20583717.31 -20583717.14 0.0147 0.0103
 Mercury -61058-07-29 00:13 J -20579802.58 -20579802.49 -20579802.38 0.0146 0.0123
 Mercury -61058-10-25 09:06 J -20579714.27 -20579714.12 -20579713.96 0.0146 0.0089
 Mercury -61057-01-21 17:45 J -20579625.93 -20579625.76 -20579625.57 0.0146 0.0056
 Mercury -61057-04-19 02:52 J -20579537.57 -20579537.38 -20579537.19 0.0146 0.0022
 Mercury -61057-07-16 11:45 J -20579449.21 -20579449.01 -20579448.82 0.0146 0.0011
 Mercury -61057-10-12 20:23 J -20579360.83 -20579360.65 -20579360.46 0.0146 0.0045
 Mercury -61056-01-09 05:16 J -20579272.44 -20579272.28 -20579272.11 0.0146 0.0078
 Mercury -61056-04-07 13:54 J -20579184.03 -20579183.92 -20579183.78 0.0146 0.0111
 Mercury -61056-07-04 22:47 J -20579095.56 -20579095.55 -20579095.52 0.0145 0.0144
 Moon -61048-02-07 00:42 J -20576321.60 -20576321.47 -20576321.32 0.0141 0.0119
 Earth -61048-02-07 04:18 J -20576321.46 -20576321.32 -20576321.15 0.0141 0.0113 *
 Earth -61047-02-12 03:21 J -20575951.62 -20575951.36 -20575951.10 0.0141 0.0007
 Moon -61047-02-12 07:11 J -20575951.46 -20575951.20 -20575950.94 0.0141 0.0002 *
 Moon -61046-02-16 21:35 J -20575581.77 -20575581.60 -20575581.39 0.0140 0.0098
 Earth -61046-02-17 00:57 J -20575581.62 -20575581.46 -20575581.25 0.0140 0.0098 *
 Mars -61037-08-16 00:42 J -20572113.67 -20572113.47 -20572113.20 0.0135 0.0095
 Mars -61035-07-20 08:37 J -20571410.35 -20571410.14 -20571409.88 0.0134 0.0092
 Venus -61031-09-06 13:40 J -20569901.05 -20569900.93 -20569900.77 0.0132 0.0101
 Venus -61030-04-20 19:11 J -20569674.88 -20569674.70 -20569674.50 0.0132 0.0062
 Venus -61030-12-03 00:28 J -20569448.69 -20569448.48 -20569448.26 0.0132 0.0024

Venus	-61029-07-16 05:30 J	-20569222.48	-20569222.27	-20569222.05	0.0132	0.0014
Venus	-61028-02-27 10:33 J	-20568996.26	-20568996.06	-20568995.86	0.0132	0.0052
Venus	-61028-10-11 14:52 J	-20568770.03	-20568769.88	-20568769.71	0.0132	0.0090
Venus	-61027-05-25 19:11 J	-20568543.74	-20568543.70	-20568543.62	0.0131	0.0127
Mercury	-61015-07-28 18:57 J	-20564096.74	-20564096.71	-20564096.66	0.0132	0.0124
Mercury	-61015-10-24 21:49 J	-20564008.65	-20564008.59	-20564008.50	0.0132	0.0108
Mercury	-61014-01-21 00:57 J	-20563920.55	-20563920.46	-20563920.36	0.0132	0.0090
Mercury	-61014-04-19 03:49 J	-20563832.44	-20563832.34	-20563832.22	0.0132	0.0074
Mercury	-61014-07-16 06:57 J	-20563744.33	-20563744.21	-20563744.09	0.0133	0.0057
Mercury	-61014-10-12 09:49 J	-20563656.21	-20563656.09	-20563655.96	0.0133	0.0040
Mercury	-61013-01-08 12:42 J	-20563568.10	-20563567.97	-20563567.84	0.0133	0.0023
Mercury	-61013-04-05 15:35 J	-20563479.98	-20563479.85	-20563479.71	0.0133	0.0007
Mercury	-61013-07-02 18:42 J	-20563391.85	-20563391.72	-20563391.59	0.0133	0.0012
Mercury	-61013-09-28 21:35 J	-20563303.73	-20563303.60	-20563303.47	0.0133	0.0028
Mercury	-61013-12-26 00:28 J	-20563215.60	-20563215.48	-20563215.36	0.0133	0.0045
Mercury	-61012-03-24 03:21 J	-20563127.47	-20563127.36	-20563127.24	0.0133	0.0062
Mercury	-61012-06-20 06:13 J	-20563039.34	-20563039.24	-20563039.13	0.0133	0.0079
Mercury	-61012-09-16 09:06 J	-20562951.20	-20562951.12	-20562951.02	0.0133	0.0096
Mercury	-61012-12-13 11:59 J	-20562863.06	-20562863.00	-20562862.92	0.0133	0.0113
Mercury	-61011-03-11 14:52 J	-20562774.90	-20562774.88	-20562774.84	0.0133	0.0130
Moon	-61003-08-12 02:09 J	-20559699.62	-20559699.41	-20559699.18	0.0138	0.0056
Earth	-61003-08-12 04:33 J	-20559699.53	-20559699.31	-20559699.08	0.0138	0.0061 *
Earth	-61002-08-16 14:37 J	-20559330.12	-20559329.89	-20559329.64	0.0138	0.0035
Moon	-61002-08-16 17:01 J	-20559330.03	-20559329.79	-20559329.53	0.0138	0.0028 *
Moon	-61001-08-19 22:33 J	-20558960.56	-20558960.56	-20558960.53	0.0139	0.0139
Earth	-61001-08-20 01:40 J	-20558960.50	-20558960.43	-20558960.35	0.0139	0.0131

61ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 61st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-60993-09-14 01:25 J		-20556013.50	-20556013.44	-20556013.31	0.0144	0.0136	
Mars	-60991-08-16 14:37 J		-20555312.14	-20555311.89	-20555311.62	0.0145	0.0066	
Venus	-60987-01-14 08:23 J		-20554065.25	-20554065.15	-20554065.05	0.0146	0.0129	
Venus	-60987-08-28 20:23 J		-20553838.82	-20553838.65	-20553838.46	0.0146	0.0078	
Venus	-60986-04-12 08:52 J		-20553612.34	-20553612.13	-20553611.92	0.0147	0.0027	
Venus	-60986-11-24 21:21 J		-20553385.82	-20553385.61	-20553385.39	0.0147	0.0025	
Venus	-60985-07-08 10:04 J		-20553159.25	-20553159.08	-20553158.88	0.0147	0.0077	
Venus	-60984-02-19 23:16 J		-20552932.62	-20552932.53	-20552932.42	0.0147	0.0129	
Mercury	-60974-08-18 07:25 J		-20549101.29	-20549101.19	-20549101.06	0.0146	0.0116	
Mercury	-60974-11-14 16:18 J		-20549012.97	-20549012.82	-20549012.65	0.0146	0.0082	
Mercury	-60973-02-11 01:11 J		-20548924.63	-20548924.45	-20548924.26	0.0146	0.0049	
Mercury	-60973-05-09 10:04 J		-20548836.27	-20548836.08	-20548835.88	0.0146	0.0015	
Mercury	-60973-08-05 18:57 J		-20548747.90	-20548747.71	-20548747.52	0.0146	0.0018	
Mercury	-60973-11-02 03:49 J		-20548659.52	-20548659.34	-20548659.16	0.0146	0.0052	
Mercury	-60972-01-29 12:28 J		-20548571.13	-20548570.98	-20548570.81	0.0146	0.0085	
Mercury	-60972-04-27 21:21 J		-20548482.71	-20548482.61	-20548482.49	0.0146	0.0119	
Moon	-60964-02-07 11:16 J		-20545640.19	-20545640.03	-20545639.83	0.0141	0.0101	
Earth	-60964-02-07 14:52 J		-20545640.04	-20545639.88	-20545639.71	0.0141	0.0108	*
Earth	-60963-02-12 14:09 J		-20545270.17	-20545269.91	-20545269.65	0.0141	0.0002	
Moon	-60963-02-12 17:45 J		-20545270.02	-20545269.76	-20545269.50	0.0141	0.0005	*
Moon	-60962-02-17 08:23 J		-20544900.31	-20544900.15	-20544899.98	0.0140	0.0105	

Earth	-60962-02-17 11:45 J	-20544900.16	-20544900.01	-20544899.81	0.0140	0.0104	*
Mars	-60952-04-11 14:52 J	-20541194.20	-20541193.88	-20541193.55	0.0135	0.0021	
Venus	-60947-05-07 01:11 J	-20539342.54	-20539342.45	-20539342.33	0.0133	0.0117	
Venus	-60947-12-19 07:11 J	-20539116.38	-20539116.20	-20539116.03	0.0132	0.0078	
Venus	-60946-08-02 12:28 J	-20538890.19	-20538889.98	-20538889.77	0.0132	0.0040	
Venus	-60945-03-15 17:45 J	-20538663.98	-20538663.76	-20538663.54	0.0132	0.0002	
Venus	-60945-10-27 22:33 J	-20538437.77	-20538437.56	-20538437.35	0.0132	0.0036	
Venus	-60944-06-11 03:06 J	-20538211.54	-20538211.37	-20538211.18	0.0132	0.0074	
Venus	-60943-01-23 07:40 J	-20537985.28	-20537985.18	-20537985.05	0.0132	0.0111	
Mercury	-60931-08-18 02:52 J	-20533395.44	-20533395.38	-20533395.32	0.0132	0.0118	
Mercury	-60931-11-14 05:45 J	-20533307.34	-20533307.26	-20533307.17	0.0132	0.0101	
Mercury	-60930-02-10 08:37 J	-20533219.24	-20533219.14	-20533219.03	0.0132	0.0084	
Mercury	-60930-05-09 11:30 J	-20533131.13	-20533131.02	-20533130.90	0.0132	0.0067	
Mercury	-60930-08-05 14:23 J	-20533043.01	-20533042.90	-20533042.77	0.0133	0.0051	
Mercury	-60930-11-01 17:30 J	-20532954.90	-20532954.77	-20532954.64	0.0133	0.0033	
Mercury	-60929-01-28 20:23 J	-20532866.78	-20532866.65	-20532866.52	0.0133	0.0017	
Mercury	-60929-04-25 23:16 J	-20532778.66	-20532778.53	-20532778.39	0.0133	0.0005	
Mercury	-60929-07-23 02:23 J	-20532690.53	-20532690.40	-20532690.27	0.0133	0.0018	
Mercury	-60929-10-19 05:01 J	-20532602.41	-20532602.29	-20532602.15	0.0133	0.0035	
Mercury	-60928-01-15 08:09 J	-20532514.28	-20532514.16	-20532514.04	0.0133	0.0051	
Mercury	-60928-04-13 11:01 J	-20532426.15	-20532426.04	-20532425.93	0.0133	0.0068	
Mercury	-60928-07-10 13:54 J	-20532338.02	-20532337.92	-20532337.82	0.0133	0.0085	
Mercury	-60928-10-06 16:47 J	-20532249.88	-20532249.80	-20532249.71	0.0133	0.0102	
Mercury	-60927-01-02 19:40 J	-20532161.73	-20532161.68	-20532161.62	0.0133	0.0120	
Moon	-60919-08-12 15:49 J	-20529018.05	-20529017.84	-20529017.61	0.0138	0.0059	
Earth	-60919-08-12 17:30 J	-20529017.98	-20529017.77	-20529017.52	0.0138	0.0054	*
Earth	-60918-08-17 03:35 J	-20528648.58	-20528648.35	-20528648.10	0.0138	0.0042	
Moon	-60918-08-17 05:45 J	-20528648.48	-20528648.26	-20528648.01	0.0138	0.0050	*
Moon	-60917-08-20 12:13 J	-20528279.03	-20528278.99	-20528278.90	0.0139	0.0133	
Mars	-60908-05-09 23:45 J	-20525094.76	-20525094.51	-20525094.24	0.0144	0.0061	

Mars	-60906-04-11 17:30 J	-20524392.79	-20524392.77	-20524392.75	0.0145	0.0144
Venus	-60903-04-28 02:09 J	-20523280.55	-20523280.41	-20523280.24	0.0146	0.0103
Venus	-60903-12-10 14:23 J	-20523054.09	-20523053.90	-20523053.69	0.0146	0.0053
Venus	-60902-07-25 03:06 J	-20522827.59	-20522827.37	-20522827.16	0.0147	0.0002
Venus	-60901-03-07 15:21 J	-20522601.05	-20522600.86	-20522600.64	0.0147	0.0051
Venus	-60901-10-20 04:18 J	-20522374.47	-20522374.32	-20522374.16	0.0147	0.0102
Mercury	-60890-06-11 05:01 J	-20518488.30	-20518488.29	-20518488.24	0.0146	0.0145
Mercury	-60890-09-07 13:54 J	-20518400.03	-20518399.92	-20518399.78	0.0146	0.0111
Mercury	-60890-12-04 23:01 J	-20518311.70	-20518311.54	-20518311.38	0.0146	0.0078
Mercury	-60889-03-02 07:40 J	-20518223.36	-20518223.18	-20518222.99	0.0146	0.0044
Mercury	-60889-05-29 16:33 J	-20518135.00	-20518134.81	-20518134.61	0.0146	0.0011
Mercury	-60889-08-26 01:25 J	-20518046.63	-20518046.44	-20518046.25	0.0146	0.0023
Mercury	-60889-11-22 10:18 J	-20517958.25	-20517958.07	-20517957.89	0.0146	0.0056
Mercury	-60888-02-18 18:57 J	-20517869.86	-20517869.71	-20517869.55	0.0146	0.0090
Mercury	-60888-05-18 03:49 J	-20517781.44	-20517781.34	-20517781.23	0.0146	0.0123
Moon	-60880-02-07 18:42 J	-20514958.86	-20514958.72	-20514958.56	0.0141	0.0113
Earth	-60880-02-07 22:04 J	-20514958.74	-20514958.58	-20514958.40	0.0141	0.0106 *
Earth	-60879-02-12 21:21 J	-20514588.87	-20514588.61	-20514588.35	0.0141	0.0002
Moon	-60879-02-13 00:57 J	-20514588.72	-20514588.46	-20514588.20	0.0141	0.0007 *
Moon	-60878-02-17 15:49 J	-20514218.99	-20514218.84	-20514218.65	0.0140	0.0106
Earth	-60878-02-17 19:54 J	-20514218.84	-20514218.67	-20514218.50	0.0140	0.0107 *
Mars	-60868-12-05 21:49 J	-20510274.87	-20510274.59	-20510274.26	0.0134	0.0050
Venus	-60863-08-18 17:01 J	-20508557.93	-20508557.79	-20508557.62	0.0133	0.0096
Venus	-60862-04-01 23:01 J	-20508331.74	-20508331.54	-20508331.35	0.0132	0.0057
Venus	-60862-11-14 04:04 J	-20508105.54	-20508105.33	-20508105.11	0.0132	0.0019
Venus	-60861-06-27 09:21 J	-20507879.33	-20507879.11	-20507878.89	0.0132	0.0019
Venus	-60860-02-08 14:09 J	-20507653.10	-20507652.91	-20507652.70	0.0132	0.0057
Venus	-60860-09-22 18:57 J	-20507426.85	-20507426.71	-20507426.55	0.0132	0.0094
Venus	-60859-05-06 23:16 J	-20507200.54	-20507200.53	-20507200.49	0.0132	0.0131
Mercury	-60847-06-11 07:25 J	-20502782.21	-20502782.19	-20502782.16	0.0132	0.0129

Mercury -60847-09-07 10:04 J -20502694.13 -20502694.08 -20502694.00 0.0132 0.0113
 Mercury -60847-12-04 13:11 J -20502606.03 -20502605.95 -20502605.85 0.0132 0.0095
 Mercury -60846-03-02 16:04 J -20502517.92 -20502517.83 -20502517.71 0.0132 0.0079
 Mercury -60846-05-29 19:11 J -20502429.81 -20502429.70 -20502429.58 0.0133 0.0061
 Mercury -60846-08-25 22:04 J -20502341.70 -20502341.58 -20502341.45 0.0133 0.0045
 Mercury -60846-11-22 01:11 J -20502253.58 -20502253.45 -20502253.32 0.0133 0.0027
 Mercury -60845-02-18 04:04 J -20502165.46 -20502165.33 -20502165.20 0.0133 0.0010
 Mercury -60845-05-16 06:57 J -20502077.34 -20502077.21 -20502077.08 0.0133 0.0007
 Mercury -60845-08-12 09:49 J -20501989.22 -20501989.09 -20501988.96 0.0133 0.0024
 Mercury -60845-11-08 12:42 J -20501901.09 -20501900.97 -20501900.84 0.0133 0.0041
 Mercury -60844-02-04 15:49 J -20501812.96 -20501812.84 -20501812.73 0.0133 0.0058
 Mercury -60844-05-03 18:42 J -20501724.83 -20501724.72 -20501724.61 0.0133 0.0074
 Mercury -60844-07-30 21:35 J -20501636.69 -20501636.60 -20501636.51 0.0133 0.0091
 Mercury -60844-10-27 00:28 J -20501548.55 -20501548.48 -20501548.40 0.0133 0.0108
 Mercury -60843-01-23 03:21 J -20501460.40 -20501460.36 -20501460.32 0.0133 0.0126
 Moon -60835-08-13 05:59 J -20498336.47 -20498336.25 -20498336.01 0.0138 0.0042
 Earth -60835-08-13 07:11 J -20498336.42 -20498336.20 -20498335.95 0.0138 0.0047 *
 Earth -60834-08-17 17:30 J -20497967.00 -20497966.77 -20497966.53 0.0138 0.0050
 Moon -60834-08-17 18:57 J -20497966.95 -20497966.71 -20497966.46 0.0138 0.0043 *
 Mars -60823-01-03 03:35 J -20494175.63 -20494175.35 -20494175.06 0.0144 0.0016
 Venus -60820-12-26 10:33 J -20492722.17 -20492722.06 -20492721.95 0.0146 0.0124
 Venus -60819-08-09 22:33 J -20492495.74 -20492495.56 -20492495.37 0.0146 0.0075
 Venus -60818-03-24 10:33 J -20492269.27 -20492269.06 -20492268.84 0.0146 0.0024
 Venus -60818-11-05 23:01 J -20492042.75 -20492042.54 -20492042.33 0.0147 0.0027
 Venus -60817-06-19 11:16 J -20491816.20 -20491816.03 -20491815.83 0.0147 0.0079
 Venus -60816-02-01 00:13 J -20491589.58 -20491589.49 -20491589.38 0.0147 0.0130
 Mercury -60806-07-01 13:11 J -20487787.02 -20487786.95 -20487786.88 0.0146 0.0136
 Mercury -60806-09-27 21:49 J -20487698.72 -20487698.59 -20487698.45 0.0146 0.0102
 Mercury -60806-12-25 06:28 J -20487610.39 -20487610.23 -20487610.05 0.0146 0.0069
 Mercury -60805-03-22 15:21 J -20487522.04 -20487521.86 -20487521.67 0.0146 0.0036

Mercury -60805-06-19 00:13 J -20487433.68 -20487433.49 -20487433.29 0.0146 0.0003
 Mercury -60805-09-15 09:06 J -20487345.31 -20487345.12 -20487344.93 0.0146 0.0031
 Mercury -60805-12-12 17:45 J -20487256.93 -20487256.76 -20487256.58 0.0146 0.0065
 Mercury -60804-03-11 02:37 J -20487168.53 -20487168.39 -20487168.24 0.0146 0.0098
 Mercury -60804-06-07 11:16 J -20487080.10 -20487080.03 -20487079.93 0.0146 0.0131
 Moon -60796-02-08 05:59 J -20484277.43 -20484277.25 -20484277.05 0.0141 0.0094
 Earth -60796-02-08 08:52 J -20484277.31 -20484277.13 -20484276.95 0.0141 0.0101 *
 Earth -60795-02-13 08:09 J -20483907.41 -20483907.16 -20483906.90 0.0141 0.0007
 Moon -60795-02-13 11:45 J -20483907.27 -20483907.01 -20483906.75 0.0141 0.0002 *
 Moon -60794-02-18 03:06 J -20483537.51 -20483537.37 -20483537.22 0.0140 0.0115
 Earth -60794-02-18 06:13 J -20483537.37 -20483537.24 -20483537.06 0.0140 0.0113 *
 Mars -60785-08-27 19:25 J -20480058.96 -20480058.69 -20480058.40 0.0135 0.0070
 Mars -60783-08-01 07:40 J -20479355.31 -20479355.18 -20479355.02 0.0134 0.0119
 Venus -60779-04-18 03:49 J -20477999.44 -20477999.34 -20477999.21 0.0133 0.0112
 Venus -60779-11-30 09:49 J -20477773.27 -20477773.09 -20477772.91 0.0133 0.0073
 Venus -60778-07-14 15:21 J -20477547.07 -20477546.86 -20477546.65 0.0132 0.0035
 Venus -60777-02-25 20:37 J -20477320.85 -20477320.64 -20477320.42 0.0132 0.0004
 Venus -60777-10-09 01:40 J -20477094.63 -20477094.43 -20477094.22 0.0132 0.0041
 Venus -60776-05-23 06:13 J -20476868.40 -20476868.24 -20476868.05 0.0132 0.0078
 Venus -60775-01-04 10:47 J -20476642.14 -20476642.05 -20476641.93 0.0132 0.0115
 Mercury -60763-07-01 15:06 J -20472080.92 -20472080.87 -20472080.82 0.0132 0.0123
 Mercury -60763-09-27 17:59 J -20471992.82 -20471992.75 -20471992.67 0.0132 0.0106
 Mercury -60763-12-24 21:06 J -20471904.72 -20471904.62 -20471904.53 0.0133 0.0089
 Mercury -60762-03-22 23:59 J -20471816.61 -20471816.50 -20471816.39 0.0133 0.0072
 Mercury -60762-06-19 02:52 J -20471728.50 -20471728.38 -20471728.26 0.0133 0.0055
 Mercury -60762-09-15 05:45 J -20471640.38 -20471640.26 -20471640.13 0.0133 0.0038
 Mercury -60762-12-12 08:37 J -20471552.26 -20471552.14 -20471552.00 0.0133 0.0022
 Mercury -60761-03-09 11:45 J -20471464.14 -20471464.01 -20471463.88 0.0133 0.0005
 Mercury -60761-06-05 14:37 J -20471376.02 -20471375.89 -20471375.76 0.0133 0.0013
 Mercury -60761-09-01 17:30 J -20471287.90 -20471287.77 -20471287.64 0.0133 0.0030

Mercury -60761-11-28 20:23 J -20471199.77 -20471199.65 -20471199.52 0.0133 0.0047

Mercury -60760-02-24 23:16 J -20471111.64 -20471111.53 -20471111.41 0.0133 0.0064

Mercury -60760-05-24 02:09 J -20471023.51 -20471023.41 -20471023.30 0.0133 0.0081

Mercury -60760-08-20 05:16 J -20470935.37 -20470935.28 -20470935.19 0.0133 0.0098

Mercury -60760-11-16 08:09 J -20470847.22 -20470847.16 -20470847.09 0.0133 0.0115

Mercury -60759-02-12 11:01 J -20470759.05 -20470759.04 -20470759.02 0.0134 0.0132

Earth -60752-08-09 12:28 J -20468024.03 -20468023.98 -20468023.90 0.0137 0.0132

Moon -60752-08-09 13:11 J -20468024.01 -20468023.95 -20468023.86 0.0137 0.0130 *

Moon -60751-08-13 21:06 J -20467654.84 -20467654.62 -20467654.38 0.0138 0.0043

Earth -60751-08-13 22:04 J -20467654.81 -20467654.58 -20467654.33 0.0138 0.0038 *

Earth -60750-08-18 07:54 J -20467285.39 -20467285.17 -20467284.93 0.0138 0.0058

Moon -60750-08-18 09:06 J -20467285.33 -20467285.12 -20467284.88 0.0138 0.0065 *

Mars -60741-09-26 23:45 J -20463957.69 -20463957.51 -20463957.31 0.0144 0.0107

Mars -60739-08-29 11:59 J -20463256.19 -20463256.00 -20463255.76 0.0144 0.0097

Venus -60736-08-25 19:25 J -20462163.70 -20462163.69 -20462163.65 0.0146 0.0145

Venus -60735-04-09 07:11 J -20461937.35 -20461937.20 -20461937.03 0.0146 0.0095

Venus -60735-11-21 19:11 J -20461710.90 -20461710.70 -20461710.49 0.0146 0.0045

Venus -60734-07-06 07:25 J -20461484.40 -20461484.19 -20461483.97 0.0146 0.0007

Venus -60733-02-17 19:54 J -20461257.87 -20461257.67 -20461257.47 0.0147 0.0057

Venus -60733-10-01 08:23 J -20461031.28 -20461031.15 -20461030.99 0.0147 0.0108

Mercury -60722-07-21 21:06 J -20457085.71 -20457085.62 -20457085.52 0.0146 0.0126

Mercury -60722-10-18 05:59 J -20456997.40 -20456997.25 -20456997.10 0.0146 0.0092

Mercury -60721-01-14 14:37 J -20456909.06 -20456908.89 -20456908.71 0.0146 0.0059

Mercury -60721-04-11 23:30 J -20456820.71 -20456820.52 -20456820.33 0.0146 0.0026

Mercury -60721-07-09 08:23 J -20456732.35 -20456732.15 -20456731.96 0.0146 0.0008

Mercury -60721-10-05 17:01 J -20456643.97 -20456643.79 -20456643.60 0.0146 0.0041

Mercury -60720-01-02 01:40 J -20456555.59 -20456555.43 -20456555.25 0.0146 0.0075

Mercury -60720-03-31 10:33 J -20456467.18 -20456467.06 -20456466.92 0.0146 0.0108

Mercury -60720-06-27 19:25 J -20456378.73 -20456378.69 -20456378.64 0.0145 0.0141

Moon -60712-02-08 17:01 J -20453595.95 -20453595.79 -20453595.61 0.0141 0.0103

Earth -60712-02-08 19:40 J -20453595.86 -20453595.68 -20453595.48 0.0141 0.0096 *
 Earth -60711-02-13 19:11 J -20453225.96 -20453225.70 -20453225.44 0.0141 0.0012
 Moon -60711-02-13 22:04 J -20453225.84 -20453225.58 -20453225.32 0.0141 0.0018 *
 Moon -60710-02-18 13:54 J -20452856.04 -20452855.92 -20452855.75 0.0140 0.0117
 Earth -60710-02-18 17:45 J -20452855.90 -20452855.76 -20452855.62 0.0140 0.0118 *
 Mars -60700-04-23 08:23 J -20449139.48 -20449139.15 -20449138.82 0.0135 0.0003
 Venus -60696-12-16 14:09 J -20447440.95 -20447440.91 -20447440.83 0.0133 0.0128
 Venus -60695-07-30 20:09 J -20447214.81 -20447214.66 -20447214.49 0.0133 0.0090
 Venus -60694-03-14 01:54 J -20446988.61 -20446988.42 -20446988.21 0.0133 0.0052
 Venus -60694-10-26 07:25 J -20446762.40 -20446762.19 -20446761.97 0.0132 0.0014
 Venus -60693-06-08 12:42 J -20446536.18 -20446535.97 -20446535.75 0.0132 0.0024
 Venus -60692-01-20 17:30 J -20446309.95 -20446309.77 -20446309.57 0.0132 0.0062
 Venus -60692-09-03 22:18 J -20446083.70 -20446083.57 -20446083.42 0.0132 0.0099
 Mercury -60679-07-21 22:47 J -20441379.61 -20441379.55 -20441379.49 0.0133 0.0117
 Mercury -60679-10-18 01:40 J -20441291.51 -20441291.43 -20441291.34 0.0133 0.0100
 Mercury -60678-01-14 04:33 J -20441203.41 -20441203.31 -20441203.20 0.0133 0.0083
 Mercury -60678-04-12 07:40 J -20441115.30 -20441115.18 -20441115.07 0.0133 0.0066
 Mercury -60678-07-09 10:33 J -20441027.18 -20441027.06 -20441026.94 0.0133 0.0049
 Mercury -60678-10-05 13:25 J -20440939.07 -20440938.94 -20440938.81 0.0133 0.0032
 Mercury -60677-01-01 16:18 J -20440850.95 -20440850.82 -20440850.69 0.0133 0.0015
 Mercury -60677-03-29 19:11 J -20440762.83 -20440762.70 -20440762.56 0.0133 0.0005
 Mercury -60677-06-25 22:18 J -20440674.70 -20440674.57 -20440674.44 0.0133 0.0019
 Mercury -60677-09-22 01:11 J -20440586.58 -20440586.45 -20440586.33 0.0133 0.0036
 Mercury -60677-12-19 04:04 J -20440498.45 -20440498.33 -20440498.21 0.0133 0.0053
 Mercury -60676-03-17 06:57 J -20440410.32 -20440410.21 -20440410.10 0.0133 0.0070
 Mercury -60676-06-13 09:49 J -20440322.18 -20440322.09 -20440321.99 0.0133 0.0087
 Mercury -60676-09-09 12:42 J -20440234.04 -20440233.97 -20440233.88 0.0133 0.0104
 Mercury -60676-12-06 15:49 J -20440145.89 -20440145.84 -20440145.79 0.0134 0.0121
 Earth -60668-08-10 02:23 J -20437342.48 -20437342.40 -20437342.28 0.0137 0.0125
 Moon -60668-08-10 03:06 J -20437342.46 -20437342.37 -20437342.27 0.0137 0.0127 *

Moon -60667-08-14 11:30 J -20436973.25 -20436973.02 -20436972.78 0.0138 0.0026
 Earth -60667-08-14 11:59 J -20436973.24 -20436973.00 -20436972.75 0.0138 0.0031 *
 Earth -60666-08-18 21:49 J -20436603.80 -20436603.59 -20436603.36 0.0138 0.0066
 Moon -60666-08-18 22:33 J -20436603.79 -20436603.56 -20436603.33 0.0138 0.0060 *
 Mars -60656-05-23 04:33 J -20433038.59 -20433038.31 -20433038.02 0.0144 0.0030
 Venus -60652-12-07 16:18 J -20431378.94 -20431378.82 -20431378.68 0.0146 0.0115
 Venus -60651-07-22 04:18 J -20431152.51 -20431152.32 -20431152.12 0.0146 0.0065
 Venus -60650-03-05 16:18 J -20430926.03 -20430925.82 -20430925.60 0.0146 0.0016
 Venus -60650-10-18 04:33 J -20430699.51 -20430699.31 -20430699.09 0.0147 0.0036
 Venus -60649-05-31 16:47 J -20430472.96 -20430472.80 -20430472.61 0.0147 0.0087
 Venus -60648-01-13 05:30 J -20430246.33 -20430246.27 -20430246.18 0.0147 0.0138
 Mercury -60638-05-14 21:21 J -20426472.62 -20426472.61 -20426472.59 0.0146 0.0146
 Mercury -60638-08-11 06:13 J -20426384.36 -20426384.24 -20426384.12 0.0146 0.0112
 Mercury -60638-11-07 14:52 J -20426296.04 -20426295.88 -20426295.71 0.0146 0.0079
 Mercury -60637-02-03 23:30 J -20426207.70 -20426207.52 -20426207.33 0.0146 0.0046
 Mercury -60637-05-02 08:23 J -20426119.34 -20426119.15 -20426118.95 0.0146 0.0013
 Mercury -60637-07-29 17:16 J -20426030.97 -20426030.78 -20426030.59 0.0146 0.0021
 Mercury -60637-10-26 01:54 J -20425942.60 -20425942.42 -20425942.23 0.0146 0.0054
 Mercury -60636-01-22 10:33 J -20425854.20 -20425854.06 -20425853.89 0.0146 0.0088
 Mercury -60636-04-20 19:25 J -20425765.79 -20425765.69 -20425765.57 0.0145 0.0120
 Moon -60628-02-09 07:54 J -20422914.36 -20422914.17 -20422913.95 0.0141 0.0081
 Earth -60628-02-09 09:49 J -20422914.28 -20422914.09 -20422913.88 0.0141 0.0088 *
 Earth -60627-02-14 09:06 J -20422544.37 -20422544.12 -20422543.85 0.0141 0.0021
 Moon -60627-02-14 11:59 J -20422544.26 -20422544.00 -20422543.73 0.0141 0.0016 *
 Moon -60626-02-19 04:18 J -20422174.40 -20422174.32 -20422174.21 0.0140 0.0129
 Earth -60626-02-19 07:11 J -20422174.29 -20422174.20 -20422174.06 0.0140 0.0126 *
 Mars -60617-01-14 04:18 J -20418923.45 -20418923.32 -20418923.13 0.0135 0.0119
 Mars -60616-12-17 23:01 J -20418219.79 -20418219.54 -20418219.25 0.0134 0.0077
 Venus -60611-03-30 07:40 J -20416656.31 -20416656.18 -20416656.04 0.0133 0.0105
 Venus -60611-11-11 13:11 J -20416430.13 -20416429.95 -20416429.75 0.0133 0.0067

Venus	-60610-06-25 18:57 J	-20416203.92	-20416203.71	-20416203.49	0.0132	0.0029
Venus	-60609-02-07 00:13 J	-20415977.70	-20415977.49	-20415977.27	0.0132	0.0009
Venus	-60609-09-20 05:16 J	-20415751.48	-20415751.28	-20415751.07	0.0132	0.0046
Venus	-60608-05-04 10:04 J	-20415525.24	-20415525.08	-20415524.91	0.0132	0.0083
Venus	-60608-12-16 14:37 J	-20415298.97	-20415298.89	-20415298.79	0.0132	0.0120
Mercury	-60595-05-15 03:06 J	-20410766.39	-20410766.37	-20410766.33	0.0132	0.0128
Mercury	-60595-08-11 05:59 J	-20410678.31	-20410678.25	-20410678.17	0.0133	0.0112
Mercury	-60595-11-07 08:52 J	-20410590.21	-20410590.13	-20410590.02	0.0133	0.0095
Mercury	-60594-02-03 11:59 J	-20410502.10	-20410502.00	-20410501.89	0.0133	0.0078
Mercury	-60594-05-02 14:52 J	-20410413.99	-20410413.88	-20410413.75	0.0133	0.0061
Mercury	-60594-07-29 17:59 J	-20410325.87	-20410325.75	-20410325.62	0.0133	0.0043
Mercury	-60594-10-25 20:52 J	-20410237.76	-20410237.63	-20410237.50	0.0133	0.0027
Mercury	-60593-01-21 23:59 J	-20410149.64	-20410149.50	-20410149.37	0.0133	0.0010
Mercury	-60593-04-19 02:52 J	-20410061.51	-20410061.38	-20410061.25	0.0133	0.0008
Mercury	-60593-07-16 05:45 J	-20409973.39	-20409973.26	-20409973.13	0.0133	0.0025
Mercury	-60593-10-12 08:37 J	-20409885.26	-20409885.14	-20409885.01	0.0133	0.0042
Mercury	-60592-01-08 11:30 J	-20409797.13	-20409797.02	-20409796.90	0.0133	0.0059
Mercury	-60592-04-06 14:37 J	-20409709.00	-20409708.89	-20409708.79	0.0133	0.0076
Mercury	-60592-07-03 17:30 J	-20409620.86	-20409620.77	-20409620.68	0.0133	0.0093
Mercury	-60592-09-29 20:23 J	-20409532.72	-20409532.65	-20409532.58	0.0134	0.0110
Mercury	-60592-12-26 23:16 J	-20409444.57	-20409444.53	-20409444.49	0.0134	0.0127
Moon	-60584-08-10 14:52 J	-20406660.99	-20406660.88	-20406660.73	0.0137	0.0118
Earth	-60584-08-10 15:06 J	-20406660.97	-20406660.87	-20406660.72	0.0137	0.0119 *
Earth	-60583-08-15 00:57 J	-20406291.71	-20406291.46	-20406291.21	0.0138	0.0024
Moon	-60583-08-15 00:57 J	-20406291.69	-20406291.46	-20406291.21	0.0138	0.0028 *
Earth	-60582-08-19 10:47 J	-20405922.26	-20405922.05	-20405921.83	0.0138	0.0073
Moon	-60582-08-19 10:47 J	-20405922.24	-20405922.05	-20405921.82	0.0138	0.0080 *
Mars	-60571-01-16 07:40 J	-20402119.44	-20402119.18	-20402118.90	0.0144	0.0048
Venus	-60568-08-07 00:28 J	-20400820.54	-20400820.48	-20400820.39	0.0146	0.0136
Venus	-60567-03-21 12:13 J	-20400594.16	-20400593.99	-20400593.81	0.0146	0.0087

Venus -60567-11-02 23:59 J -20400367.70 -20400367.50 -20400367.28 0.0146 0.0038
 Venus -60566-06-17 12:13 J -20400141.21 -20400140.99 -20400140.78 0.0146 0.0013
 Venus -60565-01-30 00:28 J -20399914.67 -20399914.48 -20399914.28 0.0147 0.0064
 Venus -60565-09-12 12:57 J -20399688.08 -20399687.96 -20399687.81 0.0147 0.0115
 Mercury -60554-06-04 05:16 J -20395771.34 -20395771.28 -20395771.20 0.0146 0.0136
 Mercury -60554-08-31 14:09 J -20395683.04 -20395682.91 -20395682.77 0.0146 0.0102
 Mercury -60554-11-27 22:47 J -20395594.71 -20395594.55 -20395594.37 0.0146 0.0069
 Mercury -60553-02-24 07:40 J -20395506.36 -20395506.18 -20395505.99 0.0146 0.0036
 Mercury -60553-05-22 16:33 J -20395418.00 -20395417.81 -20395417.62 0.0146 0.0003
 Mercury -60553-08-19 01:11 J -20395329.64 -20395329.45 -20395329.26 0.0146 0.0031
 Mercury -60553-11-15 10:04 J -20395241.25 -20395241.08 -20395240.91 0.0146 0.0064
 Mercury -60552-02-11 18:28 J -20395152.86 -20395152.73 -20395152.57 0.0146 0.0098
 Mercury -60552-05-11 03:21 J -20395064.43 -20395064.36 -20395064.26 0.0145 0.0131
 Moon -60544-02-09 20:23 J -20392232.84 -20392232.65 -20392232.45 0.0141 0.0088
 Earth -60544-02-09 22:18 J -20392232.78 -20392232.57 -20392232.35 0.0141 0.0081 *
 Earth -60543-02-14 21:35 J -20391862.86 -20391862.60 -20391862.35 0.0141 0.0027
 Moon -60543-02-14 23:30 J -20391862.77 -20391862.52 -20391862.25 0.0141 0.0034 *
 Moon -60542-02-19 16:33 J -20391492.87 -20391492.81 -20391492.70 0.0140 0.0131
 Earth -60542-02-19 19:11 J -20391492.75 -20391492.70 -20391492.60 0.0140 0.0134 *
 Mars -60533-09-08 19:54 J -20388003.97 -20388003.67 -20388003.34 0.0135 0.0043
 Venus -60528-11-27 17:30 J -20386097.83 -20386097.77 -20386097.66 0.0133 0.0122
 Venus -60527-07-11 23:30 J -20385871.67 -20385871.52 -20385871.33 0.0133 0.0084
 Venus -60526-02-23 05:30 J -20385645.47 -20385645.27 -20385645.06 0.0132 0.0045
 Venus -60526-10-07 11:01 J -20385419.26 -20385419.04 -20385418.82 0.0132 0.0008
 Venus -60525-05-20 15:49 J -20385193.04 -20385192.84 -20385192.62 0.0132 0.0030
 Venus -60524-01-01 20:37 J -20384966.81 -20384966.64 -20384966.44 0.0132 0.0068
 Venus -60524-08-16 01:25 J -20384740.56 -20384740.44 -20384740.29 0.0132 0.0104
 Mercury -60511-06-04 10:18 J -20380065.10 -20380065.07 -20380065.01 0.0132 0.0124
 Mercury -60511-08-31 13:25 J -20379977.01 -20379976.94 -20379976.86 0.0132 0.0107
 Mercury -60511-11-27 16:18 J -20379888.91 -20379888.82 -20379888.72 0.0133 0.0090

Mercury -60510-02-23 19:25 J -20379800.80 -20379800.69 -20379800.58 0.0133 0.0073
 Mercury -60510-05-22 22:18 J -20379712.69 -20379712.57 -20379712.45 0.0133 0.0056
 Mercury -60510-08-19 01:11 J -20379624.57 -20379624.45 -20379624.32 0.0133 0.0039
 Mercury -60510-11-15 04:18 J -20379536.45 -20379536.32 -20379536.19 0.0133 0.0022
 Mercury -60509-02-11 07:11 J -20379448.33 -20379448.20 -20379448.07 0.0133 0.0005
 Mercury -60509-05-09 10:04 J -20379360.21 -20379360.08 -20379359.95 0.0133 0.0012
 Mercury -60509-08-05 12:57 J -20379272.09 -20379271.96 -20379271.83 0.0133 0.0029
 Mercury -60509-11-01 15:49 J -20379183.96 -20379183.84 -20379183.71 0.0133 0.0046
 Mercury -60508-01-28 18:42 J -20379095.83 -20379095.72 -20379095.60 0.0133 0.0063
 Mercury -60508-04-26 21:35 J -20379007.70 -20379007.60 -20379007.49 0.0133 0.0081
 Mercury -60508-07-24 00:28 J -20378919.56 -20378919.48 -20378919.38 0.0133 0.0098
 Mercury -60508-10-20 03:35 J -20378831.41 -20378831.35 -20378831.28 0.0133 0.0114
 Mercury -60507-01-16 06:28 J -20378743.24 -20378743.23 -20378743.21 0.0134 0.0132
 Jupiter -60504-08-05 10:47 J -20377446.54 -20377446.05 -20377445.55 0.0135 0.0031
 Moon -60500-08-11 01:11 J -20375979.58 -20375979.45 -20375979.30 0.0137 0.0114
 Earth -60500-08-11 01:54 J -20375979.54 -20375979.42 -20375979.27 0.0137 0.0114 *
 Earth -60499-08-15 11:16 J -20375610.27 -20375610.03 -20375609.78 0.0138 0.0019
 Moon -60499-08-15 11:59 J -20375610.24 -20375610.00 -20375609.76 0.0138 0.0015 *
 Moon -60498-08-19 20:09 J -20375240.87 -20375240.66 -20375240.43 0.0138 0.0072
 Earth -60498-08-19 21:06 J -20375240.82 -20375240.62 -20375240.41 0.0138 0.0078 *
 Mars -60489-10-09 20:09 J -20371901.90 -20371901.66 -20371901.43 0.0144 0.0081
 Mars -60487-09-11 05:45 J -20371200.39 -20371200.26 -20371200.10 0.0145 0.0125
 Venus -60484-11-18 17:59 J -20370035.88 -20370035.75 -20370035.60 0.0146 0.0111
 Venus -60483-07-03 05:59 J -20369809.45 -20369809.25 -20369809.06 0.0146 0.0062
 Venus -60482-02-14 17:45 J -20369582.97 -20369582.76 -20369582.54 0.0146 0.0012
 Venus -60482-09-29 05:59 J -20369356.46 -20369356.25 -20369356.04 0.0147 0.0039
 Venus -60481-05-12 18:13 J -20369129.90 -20369129.74 -20369129.56 0.0147 0.0089
 Venus -60481-12-25 06:57 J -20368903.26 -20368903.21 -20368903.14 0.0147 0.0140
 Mercury -60470-06-24 12:28 J -20365070.06 -20365069.98 -20365069.88 0.0146 0.0129
 Mercury -60470-09-20 21:21 J -20364981.75 -20364981.61 -20364981.46 0.0146 0.0095

Mercury -60470-12-18 05:59 J -20364893.42 -20364893.25 -20364893.07 0.0146 0.0062

Mercury -60469-03-15 14:52 J -20364805.07 -20364804.88 -20364804.69 0.0146 0.0029

Mercury -60469-06-11 23:30 J -20364716.71 -20364716.52 -20364716.32 0.0146 0.0005

Mercury -60469-09-08 08:23 J -20364628.34 -20364628.15 -20364627.96 0.0146 0.0038

Mercury -60469-12-05 17:01 J -20364539.95 -20364539.79 -20364539.62 0.0146 0.0071

Mercury -60468-03-04 01:40 J -20364451.55 -20364451.43 -20364451.28 0.0146 0.0105

Mercury -60468-05-31 10:33 J -20364363.11 -20364363.06 -20364362.99 0.0145 0.0138

Moon -60460-02-10 07:54 J -20361551.37 -20361551.17 -20361550.94 0.0141 0.0069

Earth -60460-02-10 08:37 J -20361551.34 -20361551.14 -20361550.91 0.0141 0.0076 *

Earth -60459-02-15 08:09 J -20361181.41 -20361181.16 -20361180.90 0.0141 0.0033

Moon -60459-02-15 09:49 J -20361181.34 -20361181.09 -20361180.82 0.0141 0.0028 *

Earth -60458-02-20 05:59 J -20360811.25 -20360811.25 -20360811.20 0.0140 0.0140

Mars -60448-05-05 09:06 J -20357084.43 -20357084.12 -20357083.79 0.0135 0.0032

Venus -60443-03-11 10:18 J -20355313.21 -20355313.07 -20355312.92 0.0133 0.0100

Venus -60443-10-23 16:04 J -20355087.02 -20355086.83 -20355086.63 0.0133 0.0062

Venus -60442-06-06 21:21 J -20354860.82 -20354860.61 -20354860.39 0.0132 0.0025

Venus -60441-01-19 02:52 J -20354634.60 -20354634.38 -20354634.16 0.0132 0.0013

Venus -60441-09-01 07:40 J -20354408.37 -20354408.18 -20354407.97 0.0132 0.0051

Venus -60440-04-15 12:28 J -20354182.13 -20354181.98 -20354181.80 0.0132 0.0088

Venus -60440-11-27 17:01 J -20353955.84 -20353955.79 -20353955.70 0.0132 0.0124

Mercury -60427-06-24 17:30 J -20349363.81 -20349363.77 -20349363.70 0.0132 0.0119

Mercury -60427-09-20 20:37 J -20349275.72 -20349275.64 -20349275.55 0.0132 0.0102

Mercury -60427-12-17 23:30 J -20349187.61 -20349187.52 -20349187.41 0.0132 0.0085

Mercury -60426-03-16 02:23 J -20349099.50 -20349099.40 -20349099.28 0.0133 0.0069

Mercury -60426-06-12 05:30 J -20349011.39 -20349011.27 -20349011.15 0.0133 0.0051

Mercury -60426-09-08 08:23 J -20348923.27 -20348923.15 -20348923.02 0.0133 0.0035

Mercury -60426-12-05 11:30 J -20348835.15 -20348835.02 -20348834.89 0.0133 0.0018

Mercury -60425-03-02 14:23 J -20348747.03 -20348746.90 -20348746.77 0.0133 0.0002

Mercury -60425-05-29 17:16 J -20348658.91 -20348658.78 -20348658.65 0.0133 0.0017

Mercury -60425-08-25 20:09 J -20348570.79 -20348570.66 -20348570.53 0.0133 0.0034

Mercury -60425-11-21 23:01 J -20348482.66 -20348482.54 -20348482.41 0.0133 0.0051

Mercury -60424-02-18 01:54 J -20348394.53 -20348394.42 -20348394.30 0.0133 0.0068

Mercury -60424-05-17 05:01 J -20348306.39 -20348306.29 -20348306.19 0.0133 0.0085

Mercury -60424-08-13 07:54 J -20348218.25 -20348218.17 -20348218.09 0.0133 0.0102

Mercury -60424-11-09 10:47 J -20348130.10 -20348130.05 -20348129.99 0.0133 0.0119

Moon -60416-08-11 10:33 J -20345298.21 -20345298.06 -20345297.90 0.0137 0.0109

Earth -60416-08-11 11:45 J -20345298.14 -20345298.01 -20345297.84 0.0137 0.0110 *

Earth -60415-08-15 21:06 J -20344928.87 -20344928.62 -20344928.37 0.0138 0.0015

Moon -60415-08-15 22:33 J -20344928.80 -20344928.56 -20344928.32 0.0138 0.0018 *

Moon -60414-08-20 05:59 J -20344559.44 -20344559.25 -20344559.05 0.0138 0.0087

Earth -60414-08-20 06:57 J -20344559.41 -20344559.21 -20344559.01 0.0138 0.0082 *

Mars -60404-06-04 12:42 J -20340983.25 -20340982.97 -20340982.68 0.0144 0.0009

Venus -60400-07-18 22:47 J -20339477.61 -20339477.55 -20339477.46 0.0146 0.0136

Venus -60399-03-02 10:33 J -20339251.23 -20339251.06 -20339250.89 0.0146 0.0087

Venus -60399-10-14 22:04 J -20339024.78 -20339024.58 -20339024.37 0.0146 0.0038

Venus -60398-05-29 10:04 J -20338798.29 -20338798.08 -20338797.86 0.0146 0.0012

Venus -60397-01-10 22:04 J -20338571.76 -20338571.58 -20338571.37 0.0147 0.0062

Venus -60397-08-24 10:47 J -20338345.18 -20338345.05 -20338344.90 0.0147 0.0113

Mercury -60386-07-14 18:13 J -20334368.82 -20334368.74 -20334368.63 0.0146 0.0127

Mercury -60386-10-11 03:06 J -20334280.51 -20334280.37 -20334280.22 0.0146 0.0093

Mercury -60385-01-07 11:45 J -20334192.18 -20334192.01 -20334191.83 0.0146 0.0060

Mercury -60385-04-04 20:37 J -20334103.83 -20334103.64 -20334103.45 0.0146 0.0027

Mercury -60385-07-02 05:16 J -20334015.47 -20334015.28 -20334015.08 0.0146 0.0008

Mercury -60385-09-28 14:09 J -20333927.10 -20333926.91 -20333926.72 0.0146 0.0040

Mercury -60385-12-25 22:47 J -20333838.71 -20333838.55 -20333838.38 0.0146 0.0073

Mercury -60384-03-24 07:25 J -20333750.31 -20333750.19 -20333750.05 0.0145 0.0107

Mercury -60384-06-20 16:18 J -20333661.86 -20333661.82 -20333661.76 0.0145 0.0140

Moon -60376-02-10 14:09 J -20330870.10 -20330869.91 -20330869.69 0.0141 0.0081

Earth -60376-02-10 14:37 J -20330870.10 -20330869.89 -20330869.66 0.0141 0.0074 *

Earth -60375-02-15 14:09 J -20330500.16 -20330499.91 -20330499.66 0.0141 0.0034

Moon	-60375-02-15 14:52 J	-20330500.13	-20330499.88	-20330499.62	0.0141	0.0041 *
Moon	-60374-02-20 10:33 J	-20330130.09	-20330130.06	-20330129.99	0.0140	0.0138
Mars	-60365-01-25 17:01 J	-20326869.02	-20326868.79	-20326868.55	0.0135	0.0095
Mars	-60364-12-29 13:54 J	-20326165.10	-20326164.92	-20326164.68	0.0134	0.0103
Venus	-60360-11-08 18:28 J	-20324754.81	-20324754.73	-20324754.62	0.0133	0.0119
Venus	-60359-06-23 00:28 J	-20324528.65	-20324528.48	-20324528.30	0.0133	0.0081
Venus	-60358-02-04 06:28 J	-20324302.44	-20324302.23	-20324302.03	0.0133	0.0043
Venus	-60358-09-18 11:45 J	-20324076.23	-20324076.01	-20324075.79	0.0132	0.0006
Venus	-60357-05-01 16:47 J	-20323850.00	-20323849.80	-20323849.58	0.0132	0.0032
Venus	-60357-12-13 21:35 J	-20323623.77	-20323623.60	-20323623.40	0.0132	0.0070
Venus	-60356-07-28 02:52 J	-20323397.51	-20323397.38	-20323397.25	0.0132	0.0105
Mercury	-60343-04-17 21:49 J	-20318750.59	-20318750.59	-20318750.59	0.0132	0.0132
Mercury	-60343-07-15 00:42 J	-20318662.53	-20318662.47	-20318662.40	0.0132	0.0115
Mercury	-60343-10-11 03:35 J	-20318574.43	-20318574.35	-20318574.25	0.0132	0.0099
Mercury	-60342-01-07 06:42 J	-20318486.32	-20318486.22	-20318486.11	0.0133	0.0081
Mercury	-60342-04-05 09:35 J	-20318398.21	-20318398.10	-20318397.98	0.0133	0.0065
Mercury	-60342-07-02 12:28 J	-20318310.10	-20318309.98	-20318309.85	0.0133	0.0048
Mercury	-60342-09-28 15:35 J	-20318221.98	-20318221.85	-20318221.72	0.0133	0.0031
Mercury	-60342-12-25 18:28 J	-20318133.86	-20318133.73	-20318133.60	0.0133	0.0014
Mercury	-60341-03-22 21:21 J	-20318045.74	-20318045.61	-20318045.47	0.0133	0.0006
Mercury	-60341-06-19 00:28 J	-20317957.61	-20317957.48	-20317957.35	0.0133	0.0021
Mercury	-60341-09-15 03:21 J	-20317869.49	-20317869.36	-20317869.23	0.0133	0.0038
Mercury	-60341-12-12 06:13 J	-20317781.36	-20317781.24	-20317781.12	0.0133	0.0055
Mercury	-60340-03-10 09:06 J	-20317693.23	-20317693.12	-20317693.01	0.0133	0.0072
Mercury	-60340-06-06 11:59 J	-20317605.09	-20317605.00	-20317604.90	0.0133	0.0089
Mercury	-60340-09-02 14:52 J	-20317516.95	-20317516.88	-20317516.79	0.0133	0.0106
Mercury	-60340-11-29 17:45 J	-20317428.80	-20317428.76	-20317428.70	0.0133	0.0123
Moon	-60332-08-11 19:40 J	-20314616.82	-20314616.68	-20314616.49	0.0137	0.0105
Earth	-60332-08-11 21:49 J	-20314616.72	-20314616.59	-20314616.41	0.0137	0.0106 *
Earth	-60331-08-16 07:11 J	-20314247.45	-20314247.20	-20314246.95	0.0138	0.0011

Moon	-60331-08-16 08:52 J	-20314247.37	-20314247.13	-20314246.88	0.0138	0.0007 *
Moon	-60330-08-20 14:37 J	-20313878.08	-20313877.89	-20313877.67	0.0138	0.0082
Earth	-60330-08-20 16:47 J	-20313877.98	-20313877.80	-20313877.60	0.0138	0.0086 *
Mars	-60321-02-27 04:04 J	-20310765.42	-20310765.33	-20310765.24	0.0143	0.0135
Mars	-60319-01-28 06:42 J	-20310064.45	-20310064.22	-20310063.94	0.0144	0.0068
Venus	-60316-10-30 15:06 J	-20308692.98	-20308692.87	-20308692.71	0.0146	0.0113
Venus	-60315-06-14 02:52 J	-20308466.57	-20308466.38	-20308466.18	0.0146	0.0064
Venus	-60314-01-26 14:52 J	-20308240.10	-20308239.88	-20308239.67	0.0146	0.0015
Venus	-60314-09-10 02:52 J	-20308013.59	-20308013.38	-20308013.17	0.0146	0.0036
Venus	-60313-04-23 15:06 J	-20307787.04	-20307786.87	-20307786.69	0.0146	0.0086
Venus	-60313-12-06 03:49 J	-20307560.42	-20307560.34	-20307560.26	0.0147	0.0136
Mercury	-60302-08-04 00:13 J	-20303667.58	-20303667.49	-20303667.38	0.0146	0.0124
Mercury	-60302-10-31 08:52 J	-20303579.27	-20303579.13	-20303578.97	0.0146	0.0091
Mercury	-60301-01-27 17:45 J	-20303490.93	-20303490.76	-20303490.58	0.0146	0.0058
Mercury	-60301-04-25 02:37 J	-20303402.58	-20303402.39	-20303402.20	0.0146	0.0024
Mercury	-60301-07-22 11:16 J	-20303314.22	-20303314.03	-20303313.83	0.0146	0.0009
Mercury	-60301-10-18 19:54 J	-20303225.85	-20303225.67	-20303225.48	0.0146	0.0043
Mercury	-60300-01-15 04:47 J	-20303137.46	-20303137.30	-20303137.13	0.0146	0.0076
Mercury	-60300-04-13 13:11 J	-20303049.06	-20303048.95	-20303048.80	0.0145	0.0110
Mercury	-60300-07-10 22:04 J	-20302960.60	-20302960.58	-20302960.53	0.0145	0.0143
Jupiter	-60296-05-15 00:13 J	-20301557.01	-20301556.49	-20301555.96	0.0144	0.0006
Earth	-60292-02-10 20:52 J	-20300188.84	-20300188.63	-20300188.40	0.0141	0.0074
Moon	-60292-02-10 21:49 J	-20300188.81	-20300188.59	-20300188.37	0.0141	0.0067 *
Moon	-60291-02-15 20:09 J	-20299818.91	-20299818.66	-20299818.39	0.0141	0.0029
Earth	-60291-02-15 20:09 J	-20299818.91	-20299818.66	-20299818.40	0.0141	0.0035 *
Mars	-60281-09-20 00:42 J	-20295949.79	-20295949.47	-20295949.13	0.0135	0.0024
Venus	-60275-02-20 09:06 J	-20293970.26	-20293970.12	-20293969.97	0.0133	0.0099
Venus	-60275-10-04 14:37 J	-20293744.07	-20293743.89	-20293743.68	0.0133	0.0062
Venus	-60274-05-18 20:37 J	-20293517.86	-20293517.64	-20293517.43	0.0133	0.0024
Venus	-60274-12-31 01:54 J	-20293291.64	-20293291.42	-20293291.20	0.0133	0.0014

Venus -60273-08-13 07:11 J -20293065.40 -20293065.20 -20293065.00 0.0132 0.0051
 Venus -60272-03-27 11:59 J -20292839.15 -20292839.00 -20292838.82 0.0132 0.0088
 Venus -60272-11-08 17:01 J -20292612.85 -20292612.79 -20292612.71 0.0132 0.0124
 Mercury -60259-05-08 05:01 J -20288049.32 -20288049.29 -20288049.26 0.0132 0.0129
 Mercury -60259-08-04 07:54 J -20287961.24 -20287961.17 -20287961.10 0.0132 0.0112
 Mercury -60259-10-31 10:47 J -20287873.14 -20287873.05 -20287872.95 0.0133 0.0095
 Mercury -60258-01-27 13:54 J -20287785.03 -20287784.92 -20287784.81 0.0133 0.0078
 Mercury -60258-04-25 16:47 J -20287696.91 -20287696.80 -20287696.68 0.0133 0.0061
 Mercury -60258-07-22 19:40 J -20287608.80 -20287608.68 -20287608.55 0.0133 0.0044
 Mercury -60258-10-18 22:47 J -20287520.68 -20287520.55 -20287520.42 0.0133 0.0027
 Mercury -60257-01-15 01:40 J -20287432.56 -20287432.43 -20287432.30 0.0133 0.0010
 Mercury -60257-04-12 04:33 J -20287344.44 -20287344.31 -20287344.17 0.0133 0.0008
 Mercury -60257-07-09 07:40 J -20287256.31 -20287256.18 -20287256.05 0.0133 0.0025
 Mercury -60257-10-05 10:33 J -20287168.19 -20287168.06 -20287167.94 0.0133 0.0042
 Mercury -60256-01-01 13:25 J -20287080.06 -20287079.94 -20287079.82 0.0133 0.0059
 Mercury -60256-03-30 16:18 J -20286991.92 -20286991.82 -20286991.71 0.0133 0.0076
 Mercury -60256-06-26 19:11 J -20286903.79 -20286903.70 -20286903.60 0.0133 0.0093
 Mercury -60256-09-22 22:04 J -20286815.64 -20286815.58 -20286815.50 0.0133 0.0111
 Mercury -60256-12-20 00:57 J -20286727.48 -20286727.46 -20286727.41 0.0133 0.0128
 Moon -60248-08-12 06:42 J -20283935.39 -20283935.22 -20283935.05 0.0137 0.0101
 Earth -60248-08-12 09:06 J -20283935.28 -20283935.12 -20283934.94 0.0137 0.0101 *
 Earth -60247-08-16 18:13 J -20283565.98 -20283565.74 -20283565.49 0.0138 0.0006
 Moon -60247-08-16 20:52 J -20283565.87 -20283565.63 -20283565.39 0.0138 0.0007 *
 Moon -60246-08-21 02:09 J -20283196.59 -20283196.41 -20283196.23 0.0138 0.0096
 Earth -60246-08-21 04:04 J -20283196.51 -20283196.33 -20283196.14 0.0138 0.0091 *
 Mars -60237-10-21 23:30 J -20279846.76 -20279846.52 -20279846.24 0.0143 0.0063
 Venus -60232-06-29 22:18 J -20278134.64 -20278134.57 -20278134.47 0.0145 0.0134
 Venus -60231-02-11 09:49 J -20277908.26 -20277908.09 -20277907.91 0.0146 0.0086
 Venus -60231-09-25 21:35 J -20277681.81 -20277681.60 -20277681.39 0.0146 0.0037
 Venus -60230-05-10 09:21 J -20277455.32 -20277455.11 -20277454.89 0.0146 0.0012

Venus -60230-12-22 21:06 J -20277228.80 -20277228.62 -20277228.41 0.0146 0.0063
 Venus -60229-08-05 10:04 J -20277002.22 -20277002.08 -20277001.95 0.0146 0.0112
 Mercury -60218-08-24 06:42 J -20272966.31 -20272966.22 -20272966.09 0.0146 0.0119
 Mercury -60218-11-20 15:35 J -20272878.00 -20272877.85 -20272877.69 0.0146 0.0086
 Mercury -60217-02-17 00:13 J -20272789.66 -20272789.49 -20272789.30 0.0146 0.0053
 Mercury -60217-05-15 09:06 J -20272701.31 -20272701.12 -20272700.92 0.0146 0.0020
 Mercury -60217-08-11 17:59 J -20272612.94 -20272612.75 -20272612.56 0.0146 0.0014
 Mercury -60217-11-08 02:37 J -20272524.57 -20272524.39 -20272524.20 0.0146 0.0047
 Mercury -60216-02-04 11:16 J -20272436.18 -20272436.03 -20272435.86 0.0145 0.0081
 Mercury -60216-05-03 20:09 J -20272347.78 -20272347.66 -20272347.54 0.0145 0.0114
 Earth -60208-02-11 03:35 J -20269507.56 -20269507.35 -20269507.11 0.0141 0.0072
 Moon -60208-02-11 04:47 J -20269507.50 -20269507.30 -20269507.08 0.0141 0.0079 *
 Moon -60207-02-16 02:23 J -20269137.65 -20269137.40 -20269137.14 0.0141 0.0044
 Earth -60207-02-16 02:52 J -20269137.62 -20269137.38 -20269137.12 0.0141 0.0037 *
 Moon -60206-02-21 00:57 J -20268767.47 -20268767.46 -20268767.41 0.0140 0.0139
 Mars -60196-05-16 06:13 J -20265030.53 -20265030.24 -20265029.91 0.0135 0.0048
 Venus -60192-10-20 16:47 J -20263411.89 -20263411.80 -20263411.69 0.0133 0.0118
 Venus -60191-06-03 22:47 J -20263185.71 -20263185.55 -20263185.36 0.0133 0.0080
 Venus -60190-01-16 04:47 J -20262959.50 -20262959.30 -20262959.09 0.0133 0.0042
 Venus -60190-08-30 10:33 J -20262733.28 -20262733.06 -20262732.84 0.0133 0.0005
 Venus -60189-04-12 15:49 J -20262507.05 -20262506.84 -20262506.62 0.0132 0.0033
 Venus -60189-11-24 21:06 J -20262280.80 -20262280.62 -20262280.43 0.0132 0.0070
 Venus -60188-07-09 01:54 J -20262054.53 -20262054.42 -20262054.28 0.0132 0.0107
 Mercury -60175-05-28 11:45 J -20257348.04 -20257348.01 -20257347.95 0.0133 0.0126
 Mercury -60175-08-24 15:06 J -20257259.95 -20257259.87 -20257259.80 0.0133 0.0108
 Mercury -60175-11-20 17:59 J -20257171.84 -20257171.75 -20257171.65 0.0133 0.0091
 Mercury -60174-02-16 20:52 J -20257083.73 -20257083.63 -20257083.52 0.0133 0.0074
 Mercury -60174-05-15 23:59 J -20256995.62 -20256995.50 -20256995.38 0.0133 0.0057
 Mercury -60174-08-12 02:52 J -20256907.50 -20256907.38 -20256907.25 0.0133 0.0040
 Mercury -60174-11-08 05:45 J -20256819.38 -20256819.26 -20256819.12 0.0133 0.0023

Mercury -60173-02-04 08:52 J -20256731.26 -20256731.13 -20256731.00 0.0133 0.0006

Mercury -60173-05-02 11:45 J -20256643.14 -20256643.01 -20256642.88 0.0133 0.0012

Mercury -60173-07-29 14:37 J -20256555.01 -20256554.89 -20256554.76 0.0133 0.0029

Mercury -60173-10-25 17:30 J -20256466.89 -20256466.77 -20256466.64 0.0133 0.0046

Mercury -60172-01-21 20:37 J -20256378.75 -20256378.64 -20256378.52 0.0133 0.0063

Mercury -60172-04-19 23:30 J -20256290.62 -20256290.52 -20256290.41 0.0133 0.0080

Mercury -60172-07-17 02:23 J -20256202.48 -20256202.40 -20256202.31 0.0133 0.0097

Mercury -60172-10-13 05:16 J -20256114.34 -20256114.28 -20256114.21 0.0133 0.0115

Mercury -60171-01-09 08:09 J -20256026.17 -20256026.16 -20256026.13 0.0134 0.0132

Moon -60164-08-12 17:16 J -20253253.95 -20253253.78 -20253253.59 0.0137 0.0094

Earth -60164-08-12 20:23 J -20253253.82 -20253253.65 -20253253.47 0.0137 0.0096 *

Earth -60163-08-17 05:30 J -20252884.52 -20252884.27 -20252884.02 0.0138 0.0002

Moon -60163-08-17 08:09 J -20252884.40 -20252884.16 -20252883.91 0.0138 0.0003 *

Moon -60162-08-21 12:28 J -20252515.16 -20252514.98 -20252514.79 0.0138 0.0092

Earth -60162-08-21 15:06 J -20252515.03 -20252514.87 -20252514.67 0.0138 0.0097 *

Mars -60152-06-16 22:47 J -20248927.83 -20248927.55 -20248927.26 0.0144 0.0014

Venus -60148-10-11 17:16 J -20247349.91 -20247349.78 -20247349.62 0.0146 0.0108

Venus -60147-05-26 04:47 J -20247123.49 -20247123.30 -20247123.09 0.0146 0.0059

Venus -60146-01-07 16:47 J -20246897.02 -20246896.80 -20246896.59 0.0146 0.0010

Venus -60146-08-22 04:47 J -20246670.50 -20246670.30 -20246670.09 0.0146 0.0039

Venus -60145-04-04 16:47 J -20246443.96 -20246443.80 -20246443.62 0.0146 0.0090

Venus -60145-11-17 05:30 J -20246217.33 -20246217.27 -20246217.20 0.0146 0.0139

Mercury -60134-06-17 05:59 J -20242353.28 -20242353.25 -20242353.21 0.0146 0.0143

Mercury -60134-09-13 14:37 J -20242265.01 -20242264.89 -20242264.76 0.0146 0.0110

Mercury -60134-12-10 23:16 J -20242176.69 -20242176.53 -20242176.36 0.0146 0.0077

Mercury -60133-03-08 08:09 J -20242088.34 -20242088.16 -20242087.98 0.0146 0.0044

Mercury -60133-06-04 16:47 J -20241999.99 -20241999.80 -20241999.60 0.0146 0.0011

Mercury -60133-09-01 01:25 J -20241911.62 -20241911.44 -20241911.24 0.0146 0.0023

Mercury -60133-11-28 10:18 J -20241823.25 -20241823.07 -20241822.89 0.0145 0.0056

Mercury -60132-02-24 18:42 J -20241734.86 -20241734.72 -20241734.55 0.0145 0.0090

Mercury -60132-05-24 03:35 J -20241646.44 -20241646.35 -20241646.24 0.0145 0.0122

Earth -60124-02-11 13:25 J -20238826.15 -20238825.94 -20238825.70 0.0141 0.0069

Moon -60124-02-11 15:35 J -20238826.07 -20238825.85 -20238825.62 0.0141 0.0062 *

Moon -60123-02-16 11:16 J -20238456.29 -20238456.03 -20238455.77 0.0141 0.0034

Earth -60123-02-16 12:42 J -20238456.22 -20238455.97 -20238455.72 0.0141 0.0041 *

Mars -60113-02-05 15:49 J -20234815.09 -20234814.84 -20234814.55 0.0135 0.0081

Mars -60111-01-09 15:06 J -20234111.00 -20234110.87 -20234110.70 0.0135 0.0120

Venus -60107-02-01 08:09 J -20232627.30 -20232627.16 -20232627.01 0.0133 0.0097

Venus -60107-09-15 13:54 J -20232401.10 -20232400.92 -20232400.71 0.0133 0.0060

Venus -60106-04-29 19:54 J -20232174.89 -20232174.67 -20232174.45 0.0133 0.0022

Venus -60106-12-12 01:25 J -20231948.66 -20231948.44 -20231948.22 0.0133 0.0016

Venus -60105-07-25 06:42 J -20231722.41 -20231722.22 -20231722.01 0.0132 0.0053

Venus -60104-03-08 11:59 J -20231496.15 -20231496.00 -20231495.83 0.0132 0.0090

Venus -60104-10-20 17:16 J -20231269.84 -20231269.78 -20231269.71 0.0132 0.0126

Mercury -60091-06-17 19:11 J -20226646.75 -20226646.70 -20226646.64 0.0133 0.0121

Mercury -60091-09-13 22:18 J -20226558.65 -20226558.57 -20226558.49 0.0133 0.0104

Mercury -60091-12-11 01:11 J -20226470.55 -20226470.45 -20226470.35 0.0133 0.0087

Mercury -60090-03-09 04:04 J -20226382.44 -20226382.33 -20226382.21 0.0133 0.0070

Mercury -60090-06-05 06:57 J -20226294.32 -20226294.21 -20226294.08 0.0133 0.0053

Mercury -60090-09-01 10:04 J -20226206.21 -20226206.08 -20226205.95 0.0133 0.0036

Mercury -60090-11-28 12:57 J -20226118.09 -20226117.96 -20226117.82 0.0133 0.0019

Mercury -60089-02-24 16:04 J -20226029.96 -20226029.83 -20226029.70 0.0133 0.0001

Mercury -60089-05-22 18:57 J -20225941.84 -20225941.71 -20225941.58 0.0133 0.0016

Mercury -60089-08-18 21:49 J -20225853.71 -20225853.59 -20225853.46 0.0133 0.0033

Mercury -60089-11-15 00:57 J -20225765.58 -20225765.46 -20225765.34 0.0133 0.0050

Mercury -60088-02-11 03:49 J -20225677.45 -20225677.34 -20225677.23 0.0133 0.0067

Mercury -60088-05-10 06:42 J -20225589.32 -20225589.22 -20225589.11 0.0133 0.0085

Mercury -60088-08-06 09:35 J -20225501.18 -20225501.10 -20225501.01 0.0133 0.0102

Mercury -60088-11-02 12:42 J -20225413.03 -20225412.97 -20225412.91 0.0134 0.0119

Moon -60080-08-13 03:49 J -20222572.50 -20222572.34 -20222572.13 0.0137 0.0094

Earth -60080-08-13 07:11 J -20222572.37 -20222572.20 -20222572.00 0.0137 0.0092 *
 Earth -60079-08-17 16:47 J -20222203.05 -20222202.80 -20222202.55 0.0138 0.0005
 Moon -60079-08-17 19:54 J -20222202.91 -20222202.67 -20222202.42 0.0138 0.0004 *
 Moon -60078-08-21 23:30 J -20221833.66 -20221833.52 -20221833.34 0.0138 0.0107
 Earth -60078-08-22 02:23 J -20221833.55 -20221833.40 -20221833.21 0.0138 0.0103 *
 Mars -60069-03-10 19:25 J -20218709.84 -20218709.69 -20218709.50 0.0143 0.0113
 Mars -60067-02-09 22:33 J -20218008.76 -20218008.56 -20218008.32 0.0144 0.0091
 Venus -60064-06-11 01:25 J -20216791.54 -20216791.44 -20216791.34 0.0145 0.0128
 Venus -60063-01-23 12:42 J -20216565.14 -20216564.97 -20216564.79 0.0146 0.0080
 Venus -60063-09-07 00:28 J -20216338.69 -20216338.48 -20216338.27 0.0146 0.0031
 Venus -60062-04-21 12:13 J -20216112.20 -20216111.99 -20216111.77 0.0146 0.0018
 Venus -60062-12-04 00:13 J -20215885.67 -20215885.49 -20215885.29 0.0146 0.0067
 Venus -60061-07-17 12:42 J -20215659.09 -20215658.97 -20215658.83 0.0146 0.0117
 Mercury -60050-07-07 13:54 J -20211651.99 -20211651.92 -20211651.84 0.0146 0.0133
 Mercury -60050-10-03 22:47 J -20211563.69 -20211563.55 -20211563.41 0.0146 0.0100
 Mercury -60050-12-31 07:25 J -20211475.36 -20211475.19 -20211475.02 0.0146 0.0067
 Mercury -60049-03-28 16:04 J -20211387.02 -20211386.83 -20211386.64 0.0146 0.0034
 Mercury -60049-06-25 00:57 J -20211298.66 -20211298.46 -20211298.27 0.0146 0.0003
 Mercury -60049-09-21 09:35 J -20211210.29 -20211210.10 -20211209.91 0.0145 0.0033
 Mercury -60049-12-18 18:13 J -20211121.91 -20211121.74 -20211121.56 0.0145 0.0066
 Mercury -60048-03-17 02:52 J -20211033.51 -20211033.38 -20211033.23 0.0145 0.0099
 Mercury -60048-06-13 11:30 J -20210945.08 -20210945.02 -20210944.93 0.0145 0.0132
 Earth -60040-02-12 00:13 J -20208144.72 -20208144.49 -20208144.25 0.0141 0.0063
 Moon -60040-02-12 02:23 J -20208144.61 -20208144.40 -20208144.17 0.0141 0.0069 *
 Moon -60039-02-16 21:06 J -20207774.85 -20207774.62 -20207774.36 0.0141 0.0054
 Earth -60039-02-16 23:16 J -20207774.77 -20207774.53 -20207774.28 0.0141 0.0046 *
 Mars -60029-10-01 04:04 J -20203895.66 -20203895.33 -20203895.00 0.0135 0.0006
 Venus -60024-10-01 16:33 J -20202068.90 -20202068.81 -20202068.68 0.0133 0.0115
 Venus -60023-05-15 22:47 J -20201842.72 -20201842.55 -20201842.36 0.0133 0.0077
 Venus -60023-12-28 04:47 J -20201616.50 -20201616.30 -20201616.08 0.0133 0.0040

Venus	-60022-08-11 10:33 J	-20201390.27	-20201390.06	-20201389.83	0.0133	0.0004
Venus	-60021-03-24 16:04 J	-20201164.03	-20201163.83	-20201163.61	0.0132	0.0036
Venus	-60021-11-05 21:21 J	-20200937.78	-20200937.61	-20200937.42	0.0132	0.0072
Venus	-60020-06-20 02:37 J	-20200711.51	-20200711.39	-20200711.26	0.0132	0.0108
Mercury	-60007-07-08 02:09 J	-20195945.46	-20195945.41	-20195945.34	0.0133	0.0118
Mercury	-60007-10-04 05:01 J	-20195857.36	-20195857.29	-20195857.19	0.0133	0.0101
Mercury	-60007-12-31 08:09 J	-20195769.26	-20195769.16	-20195769.05	0.0133	0.0083
Mercury	-60006-03-29 11:16 J	-20195681.15	-20195681.03	-20195680.92	0.0133	0.0066
Mercury	-60006-06-25 14:09 J	-20195593.03	-20195592.91	-20195592.79	0.0133	0.0049
Mercury	-60006-09-21 17:01 J	-20195504.91	-20195504.79	-20195504.66	0.0133	0.0032
Mercury	-60006-12-18 20:09 J	-20195416.79	-20195416.66	-20195416.53	0.0133	0.0015
Mercury	-60005-03-15 23:01 J	-20195328.67	-20195328.54	-20195328.41	0.0133	0.0003
Mercury	-60005-06-12 01:54 J	-20195240.55	-20195240.42	-20195240.28	0.0133	0.0020
Mercury	-60005-09-08 04:47 J	-20195152.42	-20195152.30	-20195152.17	0.0133	0.0038
Mercury	-60005-12-05 07:54 J	-20195064.29	-20195064.17	-20195064.05	0.0133	0.0054
Mercury	-60004-03-03 10:47 J	-20194976.16	-20194976.05	-20194975.94	0.0133	0.0071
Mercury	-60004-05-30 13:40 J	-20194888.02	-20194887.93	-20194887.83	0.0133	0.0088
Mercury	-60004-08-26 16:33 J	-20194799.88	-20194799.81	-20194799.72	0.0134	0.0106
Mercury	-60004-11-22 19:25 J	-20194711.73	-20194711.69	-20194711.63	0.0134	0.0123

60TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 60th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Moon	-59996-08-13 13:25 J	-20191891.12	-20191890.94	-20191890.73	0.0137	0.0085
Earth	-59996-08-13 16:47 J	-20191890.97	-20191890.80	-20191890.59	0.0137	0.0089 *
Earth	-59995-08-18 02:23 J	-20191521.65	-20191521.40	-20191521.15	0.0138	0.0009
Moon	-59995-08-18 05:45 J	-20191521.51	-20191521.26	-20191521.02	0.0138	0.0011 *
Moon	-59994-08-22 09:06 J	-20191152.29	-20191152.12	-20191151.95	0.0138	0.0103
Earth	-59994-08-22 12:28 J	-20191152.13	-20191151.98	-20191151.82	0.0138	0.0106 *
Mars	-59985-11-03 13:25 J	-20187791.20	-20187790.94	-20187790.66	0.0143	0.0041
Venus	-59980-09-22 19:11 J	-20186006.84	-20186006.70	-20186006.54	0.0145	0.0103
Venus	-59979-05-07 06:42 J	-20185780.41	-20185780.22	-20185780.01	0.0146	0.0055
Venus	-59979-12-19 18:28 J	-20185553.94	-20185553.73	-20185553.51	0.0146	0.0006
Venus	-59978-08-03 06:28 J	-20185327.43	-20185327.23	-20185327.02	0.0146	0.0044
Venus	-59977-03-16 18:42 J	-20185100.88	-20185100.72	-20185100.55	0.0146	0.0093
Venus	-59977-10-29 06:57 J	-20184874.24	-20184874.21	-20184874.15	0.0146	0.0142
Mercury	-59966-07-27 21:21 J	-20180950.70	-20180950.61	-20180950.51	0.0146	0.0125
Mercury	-59966-10-24 06:13 J	-20180862.39	-20180862.24	-20180862.09	0.0146	0.0092
Mercury	-59965-01-20 14:52 J	-20180774.06	-20180773.88	-20180773.70	0.0146	0.0059
Mercury	-59965-04-17 23:30 J	-20180685.71	-20180685.52	-20180685.33	0.0146	0.0026
Mercury	-59965-07-15 08:23 J	-20180597.35	-20180597.15	-20180596.96	0.0146	0.0008
Mercury	-59965-10-11 17:01 J	-20180508.98	-20180508.79	-20180508.60	0.0145	0.0041
Mercury	-59964-01-08 01:25 J	-20180420.59	-20180420.44	-20180420.26	0.0145	0.0075
Mercury	-59964-04-06 10:18 J	-20180332.19	-20180332.07	-20180331.93	0.0145	0.0107
Mercury	-59964-07-03 18:57 J	-20180243.74	-20180243.71	-20180243.65	0.0145	0.0141
Earth	-59956-02-12 10:47 J	-20177463.28	-20177463.05	-20177462.81	0.0141	0.0058
Moon	-59956-02-12 13:25 J	-20177463.16	-20177462.94	-20177462.69	0.0141	0.0052 *
Moon	-59955-02-17 06:57 J	-20177093.45	-20177093.21	-20177092.95	0.0141	0.0045
Earth	-59955-02-17 09:35 J	-20177093.33	-20177093.10	-20177092.85	0.0141	0.0052 *
Mars	-59946-06-23 10:33 J	-20173680.07	-20173680.06	-20173680.01	0.0136	0.0135
Mars	-59944-05-27 15:21 J	-20172976.13	-20172975.86	-20172975.56	0.0135	0.0069
Venus	-59940-06-01 01:54 J	-20171510.43	-20171510.42	-20171510.38	0.0133	0.0132

Venus	-59939-01-13 08:09 J	-20171284.30	-20171284.16	-20171283.99	0.0133	0.0094
Venus	-59939-08-27 14:09 J	-20171058.09	-20171057.91	-20171057.69	0.0133	0.0057
Venus	-59938-04-10 20:23 J	-20170831.87	-20170831.65	-20170831.43	0.0133	0.0019
Venus	-59938-11-23 01:54 J	-20170605.64	-20170605.42	-20170605.20	0.0132	0.0018
Venus	-59937-07-06 07:11 J	-20170379.39	-20170379.20	-20170378.99	0.0132	0.0055
Venus	-59936-02-17 12:42 J	-20170153.12	-20170152.97	-20170152.81	0.0132	0.0091
Venus	-59936-10-01 17:45 J	-20169926.81	-20169926.76	-20169926.70	0.0132	0.0127
Mercury	-59923-05-01 05:59 J	-20165332.25	-20165332.25	-20165332.22	0.0132	0.0132
Mercury	-59923-07-28 09:06 J	-20165244.18	-20165244.12	-20165244.05	0.0132	0.0114
Mercury	-59923-10-24 11:59 J	-20165156.08	-20165156.00	-20165155.90	0.0133	0.0098
Mercury	-59922-01-20 15:06 J	-20165067.97	-20165067.87	-20165067.76	0.0133	0.0080
Mercury	-59922-04-18 18:13 J	-20164979.86	-20164979.74	-20164979.63	0.0133	0.0063
Mercury	-59922-07-15 21:06 J	-20164891.74	-20164891.62	-20164891.49	0.0133	0.0046
Mercury	-59922-10-11 23:59 J	-20164803.62	-20164803.50	-20164803.37	0.0133	0.0029
Mercury	-59921-01-08 03:06 J	-20164715.50	-20164715.37	-20164715.24	0.0133	0.0012
Mercury	-59921-04-05 05:59 J	-20164627.38	-20164627.25	-20164627.12	0.0133	0.0006
Mercury	-59921-07-02 08:52 J	-20164539.26	-20164539.13	-20164539.00	0.0133	0.0023
Mercury	-59921-09-28 11:45 J	-20164451.13	-20164451.01	-20164450.88	0.0133	0.0040
Mercury	-59921-12-25 14:52 J	-20164363.00	-20164362.88	-20164362.76	0.0133	0.0057
Mercury	-59920-03-23 17:45 J	-20164274.87	-20164274.76	-20164274.65	0.0133	0.0074
Mercury	-59920-06-19 20:37 J	-20164186.73	-20164186.64	-20164186.54	0.0133	0.0091
Mercury	-59920-09-15 23:30 J	-20164098.59	-20164098.52	-20164098.44	0.0133	0.0109
Mercury	-59920-12-13 02:23 J	-20164010.43	-20164010.40	-20164010.35	0.0134	0.0126
Moon	-59912-08-13 21:35 J	-20161209.77	-20161209.60	-20161209.39	0.0137	0.0088
Earth	-59912-08-14 01:40 J	-20161209.63	-20161209.43	-20161209.24	0.0137	0.0085 *
Earth	-59911-08-18 10:47 J	-20160840.30	-20160840.05	-20160839.80	0.0138	0.0011
Moon	-59911-08-18 14:23 J	-20160840.15	-20160839.90	-20160839.65	0.0138	0.0011 *
Moon	-59910-08-22 17:16 J	-20160470.91	-20160470.78	-20160470.62	0.0138	0.0113
Earth	-59910-08-22 20:37 J	-20160470.78	-20160470.64	-20160470.47	0.0138	0.0109 *
Mars	-59900-06-29 03:49 J	-20156872.62	-20156872.34	-20156872.06	0.0144	0.0032

Venus	-59896-05-23 00:13 J	-20155448.58	-20155448.49	-20155448.38	0.0145	0.0127
Venus	-59895-01-04 11:16 J	-20155222.19	-20155222.03	-20155221.83	0.0146	0.0080
Venus	-59895-08-18 23:16 J	-20154995.74	-20154995.53	-20154995.32	0.0146	0.0031
Venus	-59894-04-02 11:01 J	-20154769.25	-20154769.04	-20154768.82	0.0146	0.0018
Venus	-59894-11-14 22:47 J	-20154542.73	-20154542.55	-20154542.34	0.0146	0.0068
Venus	-59893-06-28 11:01 J	-20154316.15	-20154316.04	-20154315.89	0.0146	0.0117
Mercury	-59882-08-17 03:35 J	-20150249.44	-20150249.35	-20150249.23	0.0146	0.0121
Mercury	-59882-11-13 12:28 J	-20150161.13	-20150160.98	-20150160.82	0.0146	0.0088
Mercury	-59881-02-09 21:06 J	-20150072.79	-20150072.62	-20150072.44	0.0146	0.0055
Mercury	-59881-05-08 05:59 J	-20149984.44	-20149984.25	-20149984.06	0.0146	0.0021
Mercury	-59881-08-04 14:37 J	-20149896.08	-20149895.89	-20149895.70	0.0146	0.0012
Mercury	-59881-10-31 23:16 J	-20149807.71	-20149807.53	-20149807.34	0.0145	0.0045
Mercury	-59880-01-28 07:54 J	-20149719.32	-20149719.17	-20149719.00	0.0145	0.0079
Mercury	-59880-04-26 16:47 J	-20149630.92	-20149630.80	-20149630.67	0.0145	0.0112
Mercury	-59880-07-24 01:40 J	-20149542.44	-20149542.43	-20149542.42	0.0145	0.0145
Earth	-59872-02-12 17:45 J	-20146781.99	-20146781.76	-20146781.51	0.0141	0.0055
Moon	-59872-02-12 20:52 J	-20146781.84	-20146781.63	-20146781.38	0.0141	0.0061 *
Moon	-59871-02-17 14:09 J	-20146412.14	-20146411.91	-20146411.66	0.0141	0.0062
Earth	-59871-02-17 17:01 J	-20146412.02	-20146411.79	-20146411.54	0.0141	0.0055 *
Mars	-59861-02-16 20:52 J	-20142760.93	-20142760.63	-20142760.33	0.0135	0.0060
Venus	-59856-09-12 16:47 J	-20140725.91	-20140725.80	-20140725.68	0.0133	0.0113
Venus	-59855-04-26 22:47 J	-20140499.73	-20140499.55	-20140499.36	0.0133	0.0075
Venus	-59855-12-09 04:33 J	-20140273.51	-20140273.31	-20140273.09	0.0133	0.0038
Venus	-59854-07-23 10:33 J	-20140047.28	-20140047.06	-20140046.84	0.0133	0.0002
Venus	-59853-03-05 16:18 J	-20139821.03	-20139820.82	-20139820.61	0.0132	0.0037
Venus	-59853-10-17 21:21 J	-20139594.78	-20139594.61	-20139594.41	0.0132	0.0074
Venus	-59852-06-01 02:37 J	-20139368.50	-20139368.39	-20139368.26	0.0132	0.0109
Mercury	-59839-05-21 12:57 J	-20134630.98	-20134630.96	-20134630.93	0.0132	0.0129
Mercury	-59839-08-17 15:49 J	-20134542.90	-20134542.84	-20134542.76	0.0132	0.0112
Mercury	-59839-11-13 18:57 J	-20134454.80	-20134454.71	-20134454.61	0.0133	0.0095

Mercury -59838-02-09 21:49 J -20134366.69 -20134366.59 -20134366.47 0.0133 0.0078
 Mercury -59838-05-09 00:57 J -20134278.58 -20134278.46 -20134278.34 0.0133 0.0060
 Mercury -59838-08-05 03:49 J -20134190.46 -20134190.34 -20134190.21 0.0133 0.0043
 Mercury -59838-11-01 06:57 J -20134102.34 -20134102.21 -20134102.08 0.0133 0.0026
 Mercury -59837-01-28 09:49 J -20134014.22 -20134014.09 -20134013.96 0.0133 0.0009
 Mercury -59837-04-25 12:57 J -20133926.10 -20133925.96 -20133925.83 0.0133 0.0009
 Mercury -59837-07-22 15:49 J -20133837.97 -20133837.84 -20133837.71 0.0133 0.0025
 Mercury -59837-10-18 18:42 J -20133749.84 -20133749.72 -20133749.60 0.0133 0.0042
 Mercury -59836-01-14 21:35 J -20133661.71 -20133661.60 -20133661.48 0.0133 0.0060
 Mercury -59836-04-13 00:42 J -20133573.58 -20133573.47 -20133573.37 0.0133 0.0077
 Mercury -59836-07-10 03:35 J -20133485.44 -20133485.35 -20133485.26 0.0133 0.0094
 Mercury -59836-10-06 06:28 J -20133397.30 -20133397.23 -20133397.16 0.0133 0.0111
 Mercury -59835-01-02 09:21 J -20133309.14 -20133309.11 -20133309.07 0.0134 0.0128
 Moon -59828-08-14 05:45 J -20130528.45 -20130528.26 -20130528.04 0.0137 0.0079
 Earth -59828-08-14 09:21 J -20130528.30 -20130528.11 -20130527.91 0.0137 0.0083 *
 Earth -59827-08-18 18:42 J -20130158.97 -20130158.72 -20130158.47 0.0137 0.0014
 Moon -59827-08-18 22:18 J -20130158.82 -20130158.57 -20130158.32 0.0137 0.0015 *
 Moon -59826-08-23 00:42 J -20129789.61 -20129789.47 -20129789.31 0.0138 0.0109
 Earth -59826-08-23 04:04 J -20129789.45 -20129789.33 -20129789.16 0.0138 0.0112 *
 Mars -59817-03-22 16:47 J -20126654.99 -20126654.80 -20126654.59 0.0143 0.0100
 Mars -59815-02-21 17:01 J -20125953.96 -20125953.79 -20125953.57 0.0144 0.0106
 Venus -59812-09-03 15:21 J -20124663.99 -20124663.86 -20124663.70 0.0145 0.0105
 Venus -59811-04-18 02:52 J -20124437.57 -20124437.38 -20124437.18 0.0146 0.0058
 Venus -59811-11-30 14:23 J -20124211.11 -20124210.90 -20124210.68 0.0146 0.0010
 Venus -59810-07-15 02:23 J -20123984.61 -20123984.40 -20123984.19 0.0146 0.0039
 Venus -59809-02-26 14:09 J -20123758.07 -20123757.91 -20123757.73 0.0146 0.0089
 Venus -59809-10-10 02:23 J -20123531.46 -20123531.40 -20123531.31 0.0146 0.0138
 Mercury -59798-09-06 09:06 J -20119548.21 -20119548.12 -20119548.00 0.0146 0.0120
 Mercury -59798-12-03 17:59 J -20119459.90 -20119459.75 -20119459.59 0.0146 0.0087
 Mercury -59797-03-01 02:37 J -20119371.56 -20119371.39 -20119371.20 0.0146 0.0054

Mercury -59797-05-28 11:30 J -20119283.21 -20119283.02 -20119282.83 0.0146 0.0020
 Mercury -59797-08-24 20:09 J -20119194.85 -20119194.66 -20119194.47 0.0146 0.0013
 Mercury -59797-11-21 04:47 J -20119106.48 -20119106.30 -20119106.11 0.0145 0.0046
 Mercury -59796-02-17 13:25 J -20119018.09 -20119017.94 -20119017.77 0.0145 0.0080
 Mercury -59796-05-16 22:18 J -20118929.69 -20118929.57 -20118929.45 0.0145 0.0113
 Earth -59788-02-12 22:47 J -20116100.78 -20116100.55 -20116100.30 0.0141 0.0056
 Moon -59788-02-13 02:37 J -20116100.63 -20116100.39 -20116100.15 0.0141 0.0050 *
 Moon -59787-02-17 18:42 J -20115730.96 -20115730.72 -20115730.47 0.0141 0.0048
 Earth -59787-02-17 22:04 J -20115730.81 -20115730.58 -20115730.33 0.0141 0.0055 *
 Mars -59777-10-12 03:35 J -20111841.68 -20111841.35 -20111841.01 0.0135 0.0013
 Venus -59772-05-13 00:13 J -20110167.51 -20110167.49 -20110167.45 0.0133 0.0132
 Venus -59772-12-25 06:28 J -20109941.37 -20109941.23 -20109941.06 0.0133 0.0094
 Venus -59771-08-08 12:57 J -20109715.16 -20109714.96 -20109714.76 0.0133 0.0056
 Venus -59770-03-22 18:57 J -20109488.93 -20109488.71 -20109488.49 0.0133 0.0019
 Venus -59770-11-04 00:28 J -20109262.69 -20109262.48 -20109262.26 0.0133 0.0018
 Venus -59769-06-17 05:59 J -20109036.45 -20109036.25 -20109036.05 0.0132 0.0055
 Venus -59768-01-29 11:01 J -20108810.18 -20108810.04 -20108809.86 0.0132 0.0092
 Venus -59768-09-12 16:04 J -20108583.87 -20108583.83 -20108583.75 0.0132 0.0127
 Mercury -59755-06-10 19:54 J -20103929.71 -20103929.67 -20103929.63 0.0132 0.0126
 Mercury -59755-09-06 23:01 J -20103841.62 -20103841.54 -20103841.47 0.0133 0.0109
 Mercury -59755-12-04 01:54 J -20103753.51 -20103753.42 -20103753.32 0.0133 0.0092
 Mercury -59754-03-02 04:47 J -20103665.40 -20103665.30 -20103665.19 0.0133 0.0075
 Mercury -59754-05-29 07:40 J -20103577.29 -20103577.18 -20103577.05 0.0133 0.0058
 Mercury -59754-08-25 10:47 J -20103489.17 -20103489.05 -20103488.92 0.0133 0.0041
 Mercury -59754-11-21 13:40 J -20103401.06 -20103400.93 -20103400.80 0.0133 0.0024
 Mercury -59753-02-17 16:47 J -20103312.93 -20103312.80 -20103312.67 0.0133 0.0007
 Mercury -59753-05-15 19:40 J -20103224.81 -20103224.68 -20103224.55 0.0133 0.0011
 Mercury -59753-08-11 22:33 J -20103136.68 -20103136.56 -20103136.43 0.0133 0.0028
 Mercury -59753-11-08 01:25 J -20103048.56 -20103048.44 -20103048.31 0.0133 0.0046
 Mercury -59752-02-04 04:33 J -20102960.43 -20102960.31 -20102960.20 0.0133 0.0062

Mercury -59752-05-03 07:25 J -20102872.29 -20102872.19 -20102872.08 0.0133 0.0079
 Mercury -59752-07-30 10:18 J -20102784.15 -20102784.07 -20102783.98 0.0133 0.0097
 Mercury -59752-10-26 13:11 J -20102696.01 -20102695.95 -20102695.88 0.0133 0.0114
 Mercury -59751-01-22 16:04 J -20102607.84 -20102607.83 -20102607.80 0.0134 0.0131
 Moon -59744-08-14 14:23 J -20099847.08 -20099846.90 -20099846.69 0.0137 0.0084
 Earth -59744-08-14 18:13 J -20099846.94 -20099846.74 -20099846.53 0.0137 0.0080 *
 Earth -59743-08-19 03:21 J -20099477.61 -20099477.36 -20099477.11 0.0137 0.0016
 Moon -59743-08-19 06:57 J -20099477.46 -20099477.21 -20099476.96 0.0137 0.0018 *
 Moon -59742-08-23 09:35 J -20099108.21 -20099108.10 -20099107.96 0.0138 0.0118
 Earth -59742-08-23 12:57 J -20099108.08 -20099107.96 -20099107.81 0.0138 0.0115 *
 Mars -59733-11-15 06:13 J -20095736.51 -20095736.24 -20095735.96 0.0143 0.0028
 Venus -59728-05-03 20:23 J -20094105.73 -20094105.65 -20094105.54 0.0145 0.0129
 Venus -59728-12-16 07:25 J -20093879.35 -20093879.19 -20093879.00 0.0145 0.0083
 Venus -59727-07-30 19:11 J -20093652.91 -20093652.70 -20093652.49 0.0146 0.0035
 Venus -59726-03-14 06:42 J -20093426.43 -20093426.22 -20093426.00 0.0146 0.0014
 Venus -59726-10-26 18:28 J -20093199.92 -20093199.73 -20093199.53 0.0146 0.0062
 Venus -59725-06-09 06:42 J -20092973.36 -20092973.22 -20092973.08 0.0146 0.0111
 Mercury -59714-09-26 14:52 J -20088846.97 -20088846.88 -20088846.75 0.0146 0.0118
 Mercury -59714-12-23 23:45 J -20088758.66 -20088758.51 -20088758.35 0.0146 0.0085
 Mercury -59713-03-21 08:23 J -20088670.32 -20088670.15 -20088669.96 0.0146 0.0052
 Mercury -59713-06-17 17:16 J -20088581.97 -20088581.78 -20088581.59 0.0146 0.0018
 Mercury -59713-09-14 01:54 J -20088493.61 -20088493.42 -20088493.23 0.0146 0.0015
 Mercury -59713-12-11 10:33 J -20088405.24 -20088405.06 -20088404.87 0.0145 0.0048
 Mercury -59712-03-09 19:11 J -20088316.85 -20088316.70 -20088316.53 0.0145 0.0081
 Mercury -59712-06-06 03:49 J -20088228.45 -20088228.34 -20088228.21 0.0145 0.0115
 Earth -59704-02-13 03:35 J -20085419.57 -20085419.35 -20085419.10 0.0141 0.0056
 Moon -59704-02-13 07:11 J -20085419.42 -20085419.20 -20085418.95 0.0141 0.0059 *
 Moon -59703-02-17 23:45 J -20085049.74 -20085049.51 -20085049.27 0.0141 0.0062
 Earth -59703-02-18 03:06 J -20085049.60 -20085049.37 -20085049.12 0.0141 0.0055 *
 Mars -59694-07-03 21:35 J -20081626.72 -20081626.60 -20081626.45 0.0136 0.0124

Mars	-59692-06-07 06:57 J	-20080922.46	-20080922.21	-20080921.94	0.0135	0.0083
Venus	-59688-08-24 13:25 J	-20079383.04	-20079382.94	-20079382.81	0.0133	0.0114
Venus	-59687-04-07 19:40 J	-20079156.84	-20079156.68	-20079156.48	0.0133	0.0076
Venus	-59687-11-20 02:09 J	-20078930.62	-20078930.41	-20078930.20	0.0133	0.0038
Venus	-59686-07-04 07:54 J	-20078704.39	-20078704.17	-20078703.94	0.0133	0.0003
Venus	-59685-02-15 13:40 J	-20078478.14	-20078477.93	-20078477.71	0.0133	0.0036
Venus	-59685-09-28 19:11 J	-20078251.88	-20078251.70	-20078251.52	0.0132	0.0072
Venus	-59684-05-12 23:59 J	-20078025.61	-20078025.50	-20078025.36	0.0132	0.0108
Mercury	-59671-07-01 02:37 J	-20073228.43	-20073228.39	-20073228.34	0.0133	0.0124
Mercury	-59671-09-27 05:30 J	-20073140.34	-20073140.27	-20073140.18	0.0133	0.0107
Mercury	-59671-12-24 08:37 J	-20073052.23	-20073052.14	-20073052.04	0.0133	0.0090
Mercury	-59670-03-22 11:30 J	-20072964.12	-20072964.02	-20072963.90	0.0133	0.0073
Mercury	-59670-06-18 14:37 J	-20072876.01	-20072875.89	-20072875.77	0.0133	0.0055
Mercury	-59670-09-14 17:30 J	-20072787.89	-20072787.77	-20072787.64	0.0133	0.0038
Mercury	-59670-12-11 20:37 J	-20072699.77	-20072699.64	-20072699.51	0.0133	0.0021
Mercury	-59669-03-08 23:30 J	-20072611.65	-20072611.52	-20072611.39	0.0133	0.0004
Mercury	-59669-06-05 02:23 J	-20072523.53	-20072523.40	-20072523.27	0.0133	0.0014
Mercury	-59669-09-01 05:30 J	-20072435.40	-20072435.27	-20072435.14	0.0133	0.0031
Mercury	-59669-11-28 08:23 J	-20072347.27	-20072347.15	-20072347.03	0.0133	0.0048
Mercury	-59668-02-24 11:16 J	-20072259.14	-20072259.03	-20072258.91	0.0133	0.0065
Mercury	-59668-05-23 14:09 J	-20072171.01	-20072170.91	-20072170.80	0.0133	0.0082
Mercury	-59668-08-19 17:01 J	-20072082.87	-20072082.79	-20072082.70	0.0133	0.0099
Mercury	-59668-11-15 19:54 J	-20071994.72	-20071994.67	-20071994.60	0.0134	0.0117
Mercury	-59667-02-11 23:01 J	-20071906.54	-20071906.54	-20071906.53	0.0134	0.0133
Moon	-59660-08-15 00:42 J	-20069165.68	-20069165.47	-20069165.26	0.0137	0.0072
Earth	-59660-08-15 03:35 J	-20069165.55	-20069165.35	-20069165.14	0.0137	0.0077 *
Earth	-59659-08-19 12:42 J	-20068796.21	-20068795.97	-20068795.72	0.0137	0.0020
Moon	-59659-08-19 16:04 J	-20068796.08	-20068795.83	-20068795.58	0.0137	0.0020 *
Moon	-59658-08-23 18:57 J	-20068426.82	-20068426.71	-20068426.56	0.0138	0.0117
Earth	-59658-08-23 22:18 J	-20068426.68	-20068426.57	-20068426.43	0.0138	0.0119 *

Mars -59648-07-11 01:25 J -20064817.70 -20064817.44 -20064817.16 0.0143 0.0047
 Venus -59644-08-15 14:09 J -20063321.05 -20063320.91 -20063320.76 0.0145 0.0105
 Venus -59643-03-30 01:11 J -20063094.64 -20063094.45 -20063094.24 0.0146 0.0058
 Venus -59643-11-11 12:42 J -20062868.18 -20062867.97 -20062867.75 0.0146 0.0010
 Venus -59642-06-26 00:13 J -20062641.69 -20062641.49 -20062641.28 0.0146 0.0038
 Venus -59641-02-07 12:13 J -20062415.16 -20062414.99 -20062414.82 0.0146 0.0086
 Venus -59641-09-20 23:59 J -20062188.56 -20062188.50 -20062188.40 0.0146 0.0136
 Mercury -59630-07-20 13:11 J -20058233.95 -20058233.95 -20058233.95 0.0146 0.0146
 Mercury -59630-10-16 21:35 J -20058145.71 -20058145.60 -20058145.47 0.0146 0.0113
 Mercury -59629-01-13 06:28 J -20058057.39 -20058057.23 -20058057.07 0.0146 0.0080
 Mercury -59629-04-10 15:06 J -20057969.05 -20057968.87 -20057968.69 0.0146 0.0047
 Mercury -59629-07-07 23:45 J -20057880.70 -20057880.51 -20057880.32 0.0146 0.0014
 Mercury -59629-10-04 08:23 J -20057792.34 -20057792.15 -20057791.96 0.0146 0.0019
 Mercury -59629-12-31 17:01 J -20057703.97 -20057703.79 -20057703.61 0.0145 0.0052
 Mercury -59628-03-30 01:40 J -20057615.58 -20057615.43 -20057615.27 0.0145 0.0086
 Mercury -59628-06-26 10:33 J -20057527.17 -20057527.06 -20057526.95 0.0145 0.0119
 Earth -59620-02-13 10:47 J -20054738.28 -20054738.05 -20054737.80 0.0141 0.0055
 Moon -59620-02-13 14:37 J -20054738.12 -20054737.89 -20054737.63 0.0141 0.0050 *
 Moon -59619-02-18 06:42 J -20054368.45 -20054368.22 -20054367.97 0.0141 0.0051
 Earth -59619-02-18 10:18 J -20054368.30 -20054368.07 -20054367.82 0.0141 0.0057 *
 Mars -59609-02-27 08:23 J -20050707.46 -20050707.15 -20050706.84 0.0135 0.0050
 Venus -59604-04-23 21:06 J -20048824.64 -20048824.62 -20048824.57 0.0133 0.0132
 Venus -59604-12-06 03:35 J -20048598.49 -20048598.35 -20048598.18 0.0133 0.0094
 Venus -59603-07-20 09:49 J -20048372.27 -20048372.09 -20048371.88 0.0133 0.0057
 Venus -59602-03-03 16:04 J -20048146.04 -20048145.83 -20048145.60 0.0133 0.0020
 Venus -59602-10-15 22:04 J -20047919.80 -20047919.58 -20047919.36 0.0133 0.0017
 Venus -59601-05-29 03:35 J -20047693.55 -20047693.35 -20047693.15 0.0133 0.0054
 Venus -59600-01-10 08:37 J -20047467.29 -20047467.14 -20047466.97 0.0132 0.0090
 Venus -59600-08-24 14:09 J -20047240.98 -20047240.91 -20047240.85 0.0132 0.0126
 Mercury -59587-07-21 09:35 J -20042527.15 -20042527.10 -20042527.05 0.0133 0.0121

Mercury -59587-10-17 12:28 J -20042439.05 -20042438.98 -20042438.89 0.0133 0.0104

Mercury -59586-01-13 15:35 J -20042350.95 -20042350.85 -20042350.75 0.0133 0.0087

Mercury -59586-04-11 18:28 J -20042262.84 -20042262.73 -20042262.61 0.0133 0.0070

Mercury -59586-07-08 21:21 J -20042174.72 -20042174.61 -20042174.48 0.0133 0.0053

Mercury -59586-10-05 00:28 J -20042086.60 -20042086.48 -20042086.35 0.0133 0.0035

Mercury -59585-01-01 03:35 J -20041998.48 -20041998.35 -20041998.22 0.0133 0.0018

Mercury -59585-03-29 06:28 J -20041910.36 -20041910.23 -20041910.10 0.0133 0.0001

Mercury -59585-06-25 09:21 J -20041822.24 -20041822.11 -20041821.98 0.0133 0.0016

Mercury -59585-09-21 12:28 J -20041734.11 -20041733.98 -20041733.86 0.0133 0.0034

Mercury -59585-12-18 15:21 J -20041645.98 -20041645.86 -20041645.74 0.0133 0.0051

Mercury -59584-03-16 18:13 J -20041557.85 -20041557.74 -20041557.63 0.0133 0.0068

Mercury -59584-06-12 21:06 J -20041469.72 -20041469.62 -20041469.51 0.0133 0.0085

Mercury -59584-09-08 23:59 J -20041381.58 -20041381.50 -20041381.41 0.0134 0.0102

Mercury -59584-12-06 02:52 J -20041293.43 -20041293.38 -20041293.31 0.0134 0.0120

Jupiter -59579-12-12 13:11 J -20039461.22 -20039460.95 -20039460.60 0.0136 0.0108

Moon -59576-08-15 10:33 J -20038484.26 -20038484.06 -20038483.85 0.0137 0.0077

Earth -59576-08-15 13:40 J -20038484.14 -20038483.93 -20038483.72 0.0137 0.0073 *

Earth -59575-08-19 22:33 J -20038114.80 -20038114.56 -20038114.31 0.0138 0.0024

Moon -59575-08-20 01:40 J -20038114.68 -20038114.43 -20038114.18 0.0138 0.0026 *

Moon -59574-08-24 05:16 J -20037745.36 -20037745.28 -20037745.16 0.0138 0.0125

Earth -59574-08-24 08:09 J -20037745.25 -20037745.16 -20037745.03 0.0138 0.0123 *

Mars -59565-04-03 22:47 J -20034599.78 -20034599.55 -20034599.32 0.0143 0.0083

Mars -59563-03-05 22:33 J -20033898.69 -20033898.56 -20033898.40 0.0144 0.0124

Venus -59560-04-14 21:21 J -20032762.70 -20032762.61 -20032762.49 0.0145 0.0126

Venus -59560-11-27 08:09 J -20032536.32 -20032536.16 -20032535.96 0.0145 0.0080

Venus -59559-07-11 19:40 J -20032309.88 -20032309.68 -20032309.46 0.0146 0.0032

Venus -59558-02-23 07:11 J -20032083.41 -20032083.20 -20032082.98 0.0146 0.0016

Venus -59558-10-07 18:57 J -20031856.90 -20031856.71 -20031856.51 0.0146 0.0064

Venus -59557-05-21 06:42 J -20031630.35 -20031630.22 -20031630.07 0.0146 0.0112

Mercury -59546-08-09 20:23 J -20027532.69 -20027532.65 -20027532.57 0.0146 0.0138

Mercury -59546-11-06 05:16 J -20027444.41 -20027444.28 -20027444.14 0.0146 0.0105
 Mercury -59545-02-02 13:54 J -20027356.08 -20027355.92 -20027355.75 0.0146 0.0072
 Mercury -59545-04-30 22:33 J -20027267.74 -20027267.56 -20027267.37 0.0146 0.0039
 Mercury -59545-07-28 07:11 J -20027179.39 -20027179.20 -20027179.01 0.0146 0.0006
 Mercury -59545-10-24 15:49 J -20027091.03 -20027090.84 -20027090.65 0.0145 0.0027
 Mercury -59544-01-21 00:28 J -20027002.65 -20027002.48 -20027002.30 0.0145 0.0060
 Mercury -59544-04-19 09:06 J -20026914.26 -20026914.12 -20026913.97 0.0145 0.0094
 Mercury -59544-07-16 17:45 J -20026825.85 -20026825.76 -20026825.66 0.0145 0.0127
 Earth -59536-02-13 20:37 J -20024056.88 -20024056.64 -20024056.40 0.0141 0.0050
 Moon -59536-02-13 23:45 J -20024056.74 -20024056.51 -20024056.26 0.0141 0.0053 *
 Moon -59535-02-18 15:49 J -20023687.05 -20023686.84 -20023686.60 0.0141 0.0068
 Earth -59535-02-18 19:40 J -20023686.90 -20023686.68 -20023686.43 0.0141 0.0061 *
 Mars -59525-10-22 19:40 J -20019788.00 -20019787.68 -20019787.35 0.0135 0.0025
 Venus -59520-08-05 11:30 J -20018040.12 -20018040.02 -20018039.88 0.0133 0.0113
 Venus -59519-03-19 18:13 J -20017813.91 -20017813.74 -20017813.55 0.0133 0.0075
 Venus -59519-11-01 00:28 J -20017587.69 -20017587.48 -20017587.27 0.0133 0.0037
 Venus -59518-06-15 06:13 J -20017361.46 -20017361.24 -20017361.02 0.0133 0.0002
 Venus -59517-01-27 11:59 J -20017135.21 -20017135.00 -20017134.79 0.0133 0.0036
 Venus -59517-09-09 17:16 J -20016908.95 -20016908.78 -20016908.59 0.0133 0.0072
 Venus -59516-04-23 22:18 J -20016682.68 -20016682.57 -20016682.43 0.0132 0.0109
 Mercury -59503-08-10 16:18 J -20011825.87 -20011825.82 -20011825.75 0.0133 0.0119
 Mercury -59503-11-06 19:25 J -20011737.77 -20011737.69 -20011737.60 0.0133 0.0101
 Mercury -59502-02-02 22:18 J -20011649.66 -20011649.57 -20011649.46 0.0133 0.0084
 Mercury -59502-05-02 01:25 J -20011561.55 -20011561.44 -20011561.32 0.0133 0.0067
 Mercury -59502-07-29 04:18 J -20011473.44 -20011473.32 -20011473.19 0.0133 0.0050
 Mercury -59502-10-25 07:11 J -20011385.32 -20011385.20 -20011385.06 0.0133 0.0034
 Mercury -59501-01-21 10:18 J -20011297.20 -20011297.07 -20011296.94 0.0133 0.0015
 Mercury -59501-04-18 13:25 J -20011209.08 -20011208.94 -20011208.81 0.0133 0.0005
 Mercury -59501-07-15 16:18 J -20011120.95 -20011120.82 -20011120.69 0.0133 0.0019
 Mercury -59501-10-11 19:11 J -20011032.82 -20011032.70 -20011032.57 0.0133 0.0036

Mercury -59500-01-07 22:04 J -20010944.70 -20010944.58 -20010944.45 0.0133 0.0054
 Mercury -59500-04-06 01:11 J -20010856.56 -20010856.45 -20010856.34 0.0133 0.0071
 Mercury -59500-07-03 04:04 J -20010768.43 -20010768.33 -20010768.23 0.0134 0.0088
 Mercury -59500-09-29 06:57 J -20010680.28 -20010680.21 -20010680.13 0.0134 0.0105
 Mercury -59500-12-26 09:49 J -20010592.13 -20010592.09 -20010592.03 0.0134 0.0123
 Jupiter -59496-10-30 08:23 J -20009188.48 -20009188.15 -20009187.78 0.0135 0.0097
 Moon -59492-08-15 20:23 J -20007802.85 -20007802.65 -20007802.42 0.0137 0.0065
 Earth -59492-08-15 22:33 J -20007802.76 -20007802.56 -20007802.33 0.0137 0.0070 *
 Earth -59491-08-20 07:54 J -20007433.41 -20007433.17 -20007432.92 0.0138 0.0028
 Moon -59491-08-20 10:47 J -20007433.30 -20007433.05 -20007432.80 0.0138 0.0027 *
 Moon -59490-08-24 14:52 J -20007063.95 -20007063.88 -20007063.76 0.0138 0.0127
 Earth -59490-08-24 17:30 J -20007063.84 -20007063.77 -20007063.65 0.0138 0.0128 *
 Mars -59481-11-27 17:16 J -20003681.07 -20003680.78 -20003680.50 0.0143 0.0009
 Venus -59476-07-27 15:35 J -20001978.00 -20001977.85 -20001977.69 0.0145 0.0101
 Venus -59475-03-11 02:37 J -20001751.58 -20001751.39 -20001751.18 0.0146 0.0054
 Venus -59475-10-23 14:09 J -20001525.13 -20001524.91 -20001524.70 0.0146 0.0007
 Venus -59474-06-07 01:40 J -20001298.64 -20001298.43 -20001298.22 0.0146 0.0041
 Venus -59473-01-19 13:25 J -20001072.11 -20001071.94 -20001071.77 0.0146 0.0089
 Venus -59473-09-02 01:40 J -20000845.50 -20000845.43 -20000845.36 0.0146 0.0138
 Mercury -59462-08-30 04:18 J -19996831.40 -19996831.32 -19996831.23 0.0146 0.0129
 Mercury -59462-11-26 12:57 J -19996743.10 -19996742.96 -19996742.81 0.0146 0.0096
 Mercury -59461-02-22 21:35 J -19996654.77 -19996654.60 -19996654.42 0.0146 0.0063
 Mercury -59461-05-21 06:13 J -19996566.43 -19996566.24 -19996566.05 0.0146 0.0030
 Mercury -59461-08-17 14:52 J -19996478.07 -19996477.88 -19996477.69 0.0146 0.0003
 Mercury -59461-11-13 23:16 J -19996389.71 -19996389.53 -19996389.33 0.0145 0.0037
 Mercury -59460-02-10 07:54 J -19996301.33 -19996301.17 -19996300.99 0.0145 0.0070
 Mercury -59460-05-09 16:33 J -19996212.93 -19996212.81 -19996212.66 0.0145 0.0103
 Mercury -59460-08-06 01:25 J -19996124.50 -19996124.44 -19996124.37 0.0145 0.0135
 Earth -59452-02-14 07:25 J -19993375.43 -19993375.19 -19993374.94 0.0141 0.0045
 Moon -59452-02-14 11:01 J -19993375.29 -19993375.04 -19993374.78 0.0141 0.0041 *

Moon -59451-02-19 03:06 J -19993005.59 -19993005.37 -19993005.13 0.0141 0.0061
 Earth -59451-02-19 06:28 J -19993005.44 -19993005.23 -19993004.99 0.0141 0.0067 *
 Mars -59442-07-14 22:18 J -19989572.77 -19989572.57 -19989572.37 0.0136 0.0108
 Mars -59440-06-18 07:54 J -19988868.37 -19988868.17 -19988867.93 0.0135 0.0101
 Venus -59436-04-04 20:52 J -19987481.69 -19987481.63 -19987481.58 0.0133 0.0129
 Venus -59436-11-17 03:06 J -19987255.53 -19987255.37 -19987255.21 0.0133 0.0092
 Venus -59435-07-01 09:06 J -19987029.31 -19987029.12 -19987028.91 0.0133 0.0055
 Venus -59434-02-12 15:21 J -19986803.08 -19986802.86 -19986802.64 0.0133 0.0018
 Venus -59434-09-26 21:06 J -19986576.84 -19986576.62 -19986576.40 0.0133 0.0019
 Venus -59433-05-10 02:37 J -19986350.59 -19986350.39 -19986350.19 0.0133 0.0055
 Venus -59433-12-22 07:54 J -19986124.33 -19986124.17 -19986124.01 0.0132 0.0091
 Venus -59432-08-05 12:57 J -19985898.01 -19985897.96 -19985897.89 0.0132 0.0126
 Mercury -59419-06-03 20:23 J -19981212.65 -19981212.65 -19981212.65 0.0133 0.0133
 Mercury -59419-08-30 23:16 J -19981124.59 -19981124.53 -19981124.46 0.0133 0.0116
 Mercury -59419-11-27 02:09 J -19981036.49 -19981036.41 -19981036.31 0.0133 0.0099
 Mercury -59418-02-23 05:16 J -19980948.38 -19980948.28 -19980948.17 0.0133 0.0081
 Mercury -59418-05-22 08:23 J -19980860.27 -19980860.15 -19980860.04 0.0133 0.0064
 Mercury -59418-08-18 11:16 J -19980772.15 -19980772.03 -19980771.90 0.0133 0.0047
 Mercury -59418-11-14 14:09 J -19980684.03 -19980683.91 -19980683.78 0.0133 0.0030
 Mercury -59417-02-10 17:16 J -19980595.91 -19980595.78 -19980595.65 0.0133 0.0013
 Mercury -59417-05-08 20:09 J -19980507.79 -19980507.66 -19980507.53 0.0133 0.0005
 Mercury -59417-08-04 23:01 J -19980419.66 -19980419.54 -19980419.40 0.0133 0.0023
 Mercury -59417-11-01 02:09 J -19980331.54 -19980331.41 -19980331.29 0.0133 0.0039
 Mercury -59416-01-28 05:01 J -19980243.41 -19980243.29 -19980243.17 0.0133 0.0056
 Mercury -59416-04-26 07:54 J -19980155.27 -19980155.17 -19980155.06 0.0133 0.0074
 Mercury -59416-07-23 11:01 J -19980067.14 -19980067.04 -19980066.95 0.0134 0.0091
 Mercury -59416-10-19 13:40 J -19979978.99 -19979978.93 -19979978.84 0.0134 0.0109
 Mercury -59415-01-15 16:33 J -19979890.84 -19979890.81 -19979890.75 0.0134 0.0126
 Moon -59408-08-16 05:01 J -19977121.48 -19977121.29 -19977121.07 0.0137 0.0072
 Earth -59408-08-16 07:11 J -19977121.41 -19977121.20 -19977120.98 0.0137 0.0068 *

Earth -59407-08-20 16:18 J -19976752.06 -19976751.82 -19976751.57 0.0138 0.0031
 Moon -59407-08-20 18:13 J -19976751.98 -19976751.74 -19976751.48 0.0138 0.0034 *
 Moon -59406-08-24 23:45 J -19976382.56 -19976382.51 -19976382.41 0.0138 0.0132
 Earth -59406-08-25 02:23 J -19976382.48 -19976382.40 -19976382.31 0.0138 0.0130 *
 Mars -59398-08-22 14:23 J -19973462.95 -19973462.90 -19973462.83 0.0143 0.0139
 Mars -59396-07-23 08:52 J -19972762.36 -19972762.13 -19972761.86 0.0144 0.0067
 Venus -59392-03-26 21:21 J -19971419.71 -19971419.61 -19971419.48 0.0145 0.0124
 Venus -59392-11-08 08:37 J -19971193.32 -19971193.14 -19971192.96 0.0146 0.0077
 Venus -59391-06-22 19:40 J -19970966.89 -19970966.68 -19970966.47 0.0146 0.0030
 Venus -59390-02-04 07:11 J -19970740.41 -19970740.20 -19970739.98 0.0146 0.0018
 Venus -59390-09-18 18:57 J -19970513.90 -19970513.71 -19970513.51 0.0146 0.0065
 Venus -59389-05-02 06:57 J -19970287.34 -19970287.21 -19970287.07 0.0146 0.0114
 Mercury -59378-09-19 11:16 J -19966130.12 -19966130.03 -19966129.91 0.0146 0.0122
 Mercury -59378-12-16 20:09 J -19966041.81 -19966041.66 -19966041.51 0.0146 0.0089
 Mercury -59377-03-14 04:47 J -19965953.48 -19965953.30 -19965953.12 0.0146 0.0056
 Mercury -59377-06-10 13:25 J -19965865.13 -19965864.94 -19965864.75 0.0146 0.0023
 Mercury -59377-09-06 22:04 J -19965776.78 -19965776.58 -19965776.39 0.0146 0.0010
 Mercury -59377-12-04 06:28 J -19965688.41 -19965688.23 -19965688.04 0.0145 0.0044
 Mercury -59376-03-02 15:06 J -19965600.03 -19965599.87 -19965599.70 0.0145 0.0077
 Mercury -59376-05-29 23:59 J -19965511.62 -19965511.50 -19965511.37 0.0145 0.0110
 Mercury -59376-08-26 08:37 J -19965423.17 -19965423.14 -19965423.10 0.0145 0.0143
 Earth -59368-02-14 17:30 J -19962694.00 -19962693.77 -19962693.51 0.0141 0.0040
 Moon -59368-02-14 20:37 J -19962693.89 -19962693.64 -19962693.39 0.0141 0.0041 *
 Moon -59367-02-19 13:11 J -19962324.15 -19962323.95 -19962323.72 0.0141 0.0079
 Earth -59367-02-19 16:47 J -19962324.02 -19962323.80 -19962323.57 0.0141 0.0072 *
 Mars -59357-03-09 13:40 J -19958653.26 -19958652.93 -19958652.60 0.0135 0.0029
 Venus -59352-07-17 11:30 J -19956697.14 -19956697.02 -19956696.89 0.0133 0.0110
 Venus -59351-02-28 17:59 J -19956470.93 -19956470.75 -19956470.56 0.0133 0.0072
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 Earth -59324-08-16 13:54 J -19946440.13 -19946439.92 -19946439.69 0.0137 0.0066 *
 Earth -59323-08-20 23:16 J -19946070.77 -19946070.53 -19946070.29 0.0138 0.0032
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 Moon -59322-08-25 07:25 J -19945701.25 -19945701.19 -19945701.11 0.0138 0.0132
 Earth -59322-08-25 08:52 J -19945701.19 -19945701.13 -19945701.04 0.0138 0.0132 *
 Mars -59313-04-16 00:13 J -19942544.73 -19942544.49 -19942544.24 0.0143 0.0068
 Mars -59311-03-17 22:04 J -19941843.62 -19941843.58 -19941843.51 0.0144 0.0141
 Venus -59308-07-08 12:42 J -19940635.11 -19940634.97 -19940634.81 0.0145 0.0102
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 Mercury -59293-09-27 04:04 J -19935075.52 -19935075.33 -19935075.14 0.0145 0.0013
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 Mercury -59292-03-22 21:21 J -19934898.77 -19934898.61 -19934898.45 0.0145 0.0080
 Mercury -59292-06-19 05:45 J -19934810.37 -19934810.26 -19934810.13 0.0145 0.0113
 Jupiter -59288-08-07 11:16 J -19933300.42 -19933300.03 -19933299.56 0.0143 0.0084
 Earth -59284-02-15 00:57 J -19932012.71 -19932012.46 -19932012.21 0.0141 0.0037
 Moon -59284-02-15 03:49 J -19932012.60 -19932012.34 -19932012.08 0.0141 0.0034 *
 Moon -59283-02-19 21:06 J -19931642.82 -19931642.62 -19931642.38 0.0141 0.0070
 Earth -59283-02-19 23:45 J -19931642.71 -19931642.51 -19931642.27 0.0141 0.0075 *
 Mars -59273-11-03 01:40 J -19927733.74 -19927733.43 -19927733.11 0.0135 0.0047
 Venus -59268-03-16 19:40 J -19926138.73 -19926138.68 -19926138.60 0.0133 0.0128
 Venus -59268-10-29 02:09 J -19925912.56 -19925912.41 -19925912.24 0.0133 0.0091
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 Venus -59266-09-07 20:09 J -19925233.87 -19925233.66 -19925233.44 0.0133 0.0020
 Venus -59265-04-21 01:40 J -19925007.62 -19925007.43 -19925007.22 0.0133 0.0055
 Venus -59265-12-03 06:42 J -19924781.36 -19924781.22 -19924781.04 0.0132 0.0092
 Venus -59264-07-17 12:13 J -19924555.04 -19924554.99 -19924554.92 0.0132 0.0126
 Mercury -59251-07-14 09:35 J -19919810.12 -19919810.10 -19919810.06 0.0132 0.0128
 Mercury -59251-10-10 12:42 J -19919722.04 -19919721.97 -19919721.89 0.0133 0.0111
 Mercury -59250-01-06 15:49 J -19919633.93 -19919633.84 -19919633.75 0.0133 0.0094
 Mercury -59250-04-04 18:42 J -19919545.82 -19919545.72 -19919545.61 0.0133 0.0077
 Mercury -59250-07-01 21:35 J -19919457.71 -19919457.60 -19919457.47 0.0133 0.0060

Mercury -59250-09-28 00:42 J -19919369.59 -19919369.47 -19919369.34 0.0133 0.0042

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Mercury -59249-12-11 15:35 J -19918928.97 -19918928.85 -19918928.73 0.0133 0.0044

Mercury -59248-03-09 18:28 J -19918840.84 -19918840.73 -19918840.61 0.0133 0.0061

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Mercury -59248-09-02 00:28 J -19918664.57 -19918664.48 -19918664.39 0.0133 0.0096

Mercury -59248-11-29 03:21 J -19918576.42 -19918576.36 -19918576.29 0.0133 0.0113

Mercury -59247-02-25 06:28 J -19918488.26 -19918488.23 -19918488.21 0.0134 0.0130

Moon -59240-08-16 20:23 J -19915758.85 -19915758.65 -19915758.44 0.0137 0.0070

Earth -59240-08-16 21:21 J -19915758.83 -19915758.61 -19915758.39 0.0137 0.0064 *

Earth -59239-08-21 06:28 J -19915389.47 -19915389.23 -19915388.99 0.0137 0.0034

Moon -59239-08-21 07:11 J -19915389.44 -19915389.20 -19915388.95 0.0137 0.0038 *

Moon -59238-08-25 14:52 J -19915019.92 -19915019.88 -19915019.79 0.0138 0.0133

Earth -59238-08-25 15:49 J -19915019.88 -19915019.84 -19915019.76 0.0138 0.0133 *

Mars -59229-12-09 09:49 J -19911626.37 -19911626.09 -19911625.80 0.0143 0.0005

Venus -59224-03-07 16:18 J -19910076.90 -19910076.82 -19910076.70 0.0145 0.0128

Venus -59224-10-20 03:21 J -19909850.53 -19909850.36 -19909850.17 0.0145 0.0081

Venus -59223-06-03 14:37 J -19909624.10 -19909623.89 -19909623.68 0.0146 0.0034

Venus -59222-01-16 02:09 J -19909397.63 -19909397.41 -19909397.20 0.0146 0.0013

Venus -59222-08-30 13:54 J -19909171.11 -19909170.92 -19909170.72 0.0146 0.0060

Venus -59221-04-13 01:40 J -19908944.56 -19908944.43 -19908944.28 0.0146 0.0108

Mercury -59210-10-29 22:47 J -19904727.65 -19904727.55 -19904727.42 0.0146 0.0118

Mercury -59209-01-26 07:25 J -19904639.33 -19904639.19 -19904639.02 0.0146 0.0085

Mercury -59209-04-23 16:18 J -19904551.00 -19904550.82 -19904550.64 0.0146 0.0052

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Earth -59200-02-15 05:59 J -19901331.50 -19901331.25 -19901331.00 0.0141 0.0037

Moon -59200-02-15 07:40 J -19901331.44 -19901331.18 -19901330.92 0.0141 0.0037 *

Moon -59199-02-20 02:23 J -19900961.60 -19900961.40 -19900961.18 0.0141 0.0080

Earth -59199-02-20 04:47 J -19900961.50 -19900961.30 -19900961.07 0.0141 0.0075 *

Mars -59190-07-25 19:11 J -19897518.93 -19897518.70 -19897518.43 0.0136 0.0091

Mars -59188-06-29 08:09 J -19896814.29 -19896814.16 -19896814.00 0.0135 0.0121

Venus -59184-06-28 09:21 J -19895354.23 -19895354.11 -19895353.98 0.0133 0.0110

Venus -59183-02-09 15:35 J -19895128.02 -19895127.85 -19895127.65 0.0133 0.0073

Venus -59183-09-23 21:49 J -19894901.80 -19894901.59 -19894901.37 0.0133 0.0036

Venus -59182-05-08 03:49 J -19894675.56 -19894675.34 -19894675.12 0.0133 0.0000

Venus -59182-12-20 09:21 J -19894449.31 -19894449.11 -19894448.89 0.0133 0.0037

Venus -59181-08-02 14:52 J -19894223.05 -19894222.88 -19894222.69 0.0132 0.0073

Venus -59180-03-16 20:37 J -19893996.76 -19893996.64 -19893996.51 0.0132 0.0108

Mercury -59167-08-03 16:18 J -19889108.85 -19889108.82 -19889108.77 0.0133 0.0126

Mercury -59167-10-30 19:25 J -19889020.76 -19889020.69 -19889020.61 0.0133 0.0109

Mercury -59166-01-26 22:33 J -19888932.66 -19888932.56 -19888932.47 0.0133 0.0092

Mercury -59166-04-25 01:25 J -19888844.55 -19888844.44 -19888844.33 0.0133 0.0075

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Mercury -59166-10-18 07:25 J -19888668.31 -19888668.19 -19888668.06 0.0133 0.0040

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Mercury -59165-07-08 16:18 J -19888403.95 -19888403.82 -19888403.68 0.0133 0.0013

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 Moon -59156-08-17 05:16 J -19885077.50 -19885077.28 -19885077.06 0.0137 0.0056
 Earth -59156-08-17 04:47 J -19885077.50 -19885077.30 -19885077.06 0.0137 0.0063 *
 Earth -59155-08-21 14:23 J -19884708.14 -19884707.90 -19884707.66 0.0137 0.0036
 Moon -59155-08-21 14:23 J -19884708.14 -19884707.90 -19884707.64 0.0137 0.0032 *
 Moon -59154-08-25 23:16 J -19884338.54 -19884338.53 -19884338.49 0.0138 0.0137
 Earth -59154-08-25 23:59 J -19884338.54 -19884338.50 -19884338.45 0.0138 0.0135 *
 Mars -59146-09-03 07:11 J -19881408.30 -19881408.20 -19881408.07 0.0143 0.0129
 Mars -59144-08-04 01:11 J -19880707.69 -19880707.45 -19880707.21 0.0144 0.0078
 Venus -59140-06-19 08:37 J -19879292.28 -19879292.14 -19879291.99 0.0145 0.0105
 Venus -59139-01-31 19:40 J -19879065.87 -19879065.68 -19879065.48 0.0145 0.0059
 Venus -59139-09-15 06:57 J -19878839.42 -19878839.21 -19878838.99 0.0146 0.0012
 Venus -59138-04-29 18:28 J -19878612.94 -19878612.73 -19878612.52 0.0146 0.0035
 Venus -59138-12-12 05:59 J -19878386.41 -19878386.25 -19878386.06 0.0146 0.0083
 Venus -59137-07-25 18:13 J -19878159.83 -19878159.74 -19878159.64 0.0146 0.0130
 Mercury -59126-11-19 04:47 J -19874026.40 -19874026.30 -19874026.17 0.0146 0.0116
 Mercury -59125-02-15 13:25 J -19873938.09 -19873937.94 -19873937.77 0.0146 0.0083
 Mercury -59125-05-13 22:04 J -19873849.75 -19873849.58 -19873849.39 0.0146 0.0050
 Mercury -59125-08-10 06:42 J -19873761.41 -19873761.22 -19873761.02 0.0146 0.0017
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 Mercury -59124-02-02 23:59 J -19873584.67 -19873584.50 -19873584.31 0.0145 0.0050
 Mercury -59124-05-02 08:37 J -19873496.29 -19873496.14 -19873495.97 0.0145 0.0084
 Mercury -59124-07-29 17:30 J -19873407.88 -19873407.77 -19873407.65 0.0145 0.0117
 Earth -59116-02-15 11:30 J -19870650.26 -19870650.02 -19870649.76 0.0142 0.0037
 Moon -59116-02-15 12:57 J -19870650.21 -19870649.96 -19870649.69 0.0142 0.0036 *
 Moon -59115-02-20 08:52 J -19870280.33 -19870280.13 -19870279.90 0.0141 0.0072
 Earth -59115-02-20 10:47 J -19870280.27 -19870280.05 -19870279.83 0.0141 0.0075 *
 Mars -59105-03-20 05:16 J -19866599.61 -19866599.28 -19866598.94 0.0135 0.0016
 Venus -59100-02-25 16:18 J -19864795.86 -19864795.82 -19864795.74 0.0134 0.0129
 Venus -59100-10-09 23:01 J -19864569.69 -19864569.54 -19864569.37 0.0133 0.0091

Venus	-59099-05-24 05:30 J	-19864343.47	-19864343.27	-19864343.07	0.0133	0.0055
Venus	-59098-01-05 11:30 J	-19864117.24	-19864117.02	-19864116.80	0.0133	0.0018
Venus	-59098-08-19 17:30 J	-19863890.99	-19863890.77	-19863890.55	0.0133	0.0018
Venus	-59097-04-01 23:01 J	-19863664.73	-19863664.54	-19863664.33	0.0133	0.0055
Venus	-59097-11-14 04:33 J	-19863438.46	-19863438.31	-19863438.14	0.0132	0.0090
Venus	-59096-06-28 09:49 J	-19863212.14	-19863212.09	-19863212.00	0.0132	0.0126
Mercury	-59083-08-23 23:16 J	-19858407.57	-19858407.53	-19858407.48	0.0133	0.0124
Mercury	-59083-11-20 02:09 J	-19858319.48	-19858319.41	-19858319.32	0.0133	0.0107
Mercury	-59082-02-16 05:30 J	-19858231.37	-19858231.27	-19858231.18	0.0133	0.0089
Mercury	-59082-05-15 08:23 J	-19858143.26	-19858143.15	-19858143.04	0.0133	0.0072
Mercury	-59082-08-11 11:16 J	-19858055.15	-19858055.03	-19858054.90	0.0133	0.0055
Mercury	-59082-11-07 14:23 J	-19857967.03	-19857966.90	-19857966.77	0.0133	0.0037
Mercury	-59081-02-03 17:16 J	-19857878.91	-19857878.78	-19857878.64	0.0133	0.0021
Mercury	-59081-05-01 20:23 J	-19857790.78	-19857790.65	-19857790.52	0.0133	0.0003
Mercury	-59081-07-28 23:16 J	-19857702.66	-19857702.53	-19857702.40	0.0133	0.0015
Mercury	-59081-10-25 02:09 J	-19857614.53	-19857614.41	-19857614.28	0.0133	0.0032
Mercury	-59080-01-21 05:16 J	-19857526.40	-19857526.28	-19857526.16	0.0133	0.0049
Mercury	-59080-04-19 08:09 J	-19857438.27	-19857438.16	-19857438.04	0.0133	0.0066
Mercury	-59080-07-16 11:16 J	-19857350.13	-19857350.03	-19857349.93	0.0133	0.0084
Mercury	-59080-10-12 14:09 J	-19857261.99	-19857261.91	-19857261.82	0.0133	0.0101
Mercury	-59079-01-08 16:47 J	-19857173.84	-19857173.80	-19857173.73	0.0134	0.0119
Earth	-59072-08-17 13:54 J	-19854396.13	-19854395.92	-19854395.68	0.0137	0.0060
Moon	-59072-08-17 14:23 J	-19854396.10	-19854395.90	-19854395.68	0.0137	0.0066 *
Moon	-59071-08-21 23:01 J	-19854026.78	-19854026.54	-19854026.29	0.0137	0.0044
Earth	-59071-08-21 23:16 J	-19854026.76	-19854026.53	-19854026.28	0.0137	0.0039 *
Moon	-59070-08-26 09:21 J	-19853657.12	-19853657.11	-19853657.08	0.0138	0.0137
Mars	-59061-04-27 22:04 J	-19850489.83	-19850489.58	-19850489.31	0.0143	0.0056
Venus	-59056-02-16 15:06 J	-19848733.96	-19848733.87	-19848733.76	0.0145	0.0126
Venus	-59056-10-01 02:09 J	-19848507.59	-19848507.41	-19848507.23	0.0145	0.0080
Venus	-59055-05-15 13:11 J	-19848281.16	-19848280.95	-19848280.74	0.0146	0.0034

Venus -59055-12-28 00:28 J -19848054.69 -19848054.48 -19848054.26 0.0146 0.0013

Venus -59054-08-11 11:59 J -19847828.18 -19847828.00 -19847827.79 0.0146 0.0060

Venus -59053-03-24 23:59 J -19847601.63 -19847601.50 -19847601.34 0.0146 0.0107

Mercury -59042-09-12 03:06 J -19843413.40 -19843413.37 -19843413.32 0.0146 0.0143

Mercury -59042-12-09 11:45 J -19843325.13 -19843325.01 -19843324.88 0.0146 0.0110

Mercury -59041-03-06 20:23 J -19843236.81 -19843236.65 -19843236.48 0.0146 0.0077

Mercury -59041-06-03 05:01 J -19843148.47 -19843148.29 -19843148.10 0.0146 0.0044

Mercury -59041-08-30 13:40 J -19843060.12 -19843059.93 -19843059.74 0.0146 0.0011

Mercury -59041-11-26 22:18 J -19842971.76 -19842971.57 -19842971.38 0.0145 0.0023

Mercury -59040-02-23 06:42 J -19842883.39 -19842883.22 -19842883.03 0.0145 0.0057

Mercury -59040-05-22 15:21 J -19842795.00 -19842794.86 -19842794.69 0.0145 0.0090

Mercury -59040-08-19 00:13 J -19842706.59 -19842706.49 -19842706.38 0.0145 0.0122

Earth -59032-02-15 19:25 J -19839968.93 -19839968.69 -19839968.43 0.0142 0.0034

Moon -59032-02-15 19:40 J -19839968.93 -19839968.68 -19839968.41 0.0142 0.0033 *

Moon -59031-02-20 16:47 J -19839598.99 -19839598.80 -19839598.58 0.0141 0.0082

Earth -59031-02-20 18:13 J -19839598.94 -19839598.74 -19839598.51 0.0141 0.0078 *

Mars -59021-11-13 16:04 J -19835680.11 -19835679.83 -19835679.51 0.0135 0.0062

Venus -59016-06-09 06:28 J -19834011.34 -19834011.23 -19834011.09 0.0133 0.0109

Venus -59015-01-21 13:11 J -19833785.13 -19833784.95 -19833784.76 0.0133 0.0072

Venus -59015-09-04 19:25 J -19833558.89 -19833558.69 -19833558.47 0.0133 0.0036

Venus -59014-04-19 01:40 J -19833332.65 -19833332.43 -19833332.21 0.0133 0.0001

Venus -59014-12-01 07:25 J -19833106.40 -19833106.19 -19833105.97 0.0133 0.0037

Venus -59013-07-14 12:57 J -19832880.13 -19832879.96 -19832879.76 0.0133 0.0073

Venus -59012-02-25 18:42 J -19832653.84 -19832653.72 -19832653.59 0.0132 0.0108

59TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 59th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-58999-09-13 06:13 J	-19827706.29	-19827706.24	-19827706.19	0.0133	0.0121		
Mercury	-58999-12-10 09:06 J	-19827618.19	-19827618.12	-19827618.03	0.0133	0.0104		
Mercury	-58998-03-08 12:13 J	-19827530.09	-19827529.99	-19827529.89	0.0133	0.0086		
Mercury	-58998-06-04 15:21 J	-19827441.97	-19827441.86	-19827441.75	0.0133	0.0069		
Mercury	-58998-08-31 18:13 J	-19827353.86	-19827353.74	-19827353.62	0.0133	0.0052		
Mercury	-58998-11-27 21:06 J	-19827265.74	-19827265.62	-19827265.49	0.0133	0.0035		
Mercury	-58997-02-24 00:13 J	-19827177.62	-19827177.49	-19827177.36	0.0133	0.0017		
Mercury	-58997-05-22 03:21 J	-19827089.50	-19827089.36	-19827089.23	0.0133	0.0004		
Mercury	-58997-08-18 06:13 J	-19827001.37	-19827001.24	-19827001.11	0.0133	0.0017		
Mercury	-58997-11-14 09:06 J	-19826913.24	-19826913.12	-19826912.99	0.0133	0.0035		
Mercury	-58996-02-10 11:59 J	-19826825.11	-19826825.00	-19826824.87	0.0133	0.0052		
Mercury	-58996-05-09 15:06 J	-19826736.98	-19826736.87	-19826736.76	0.0133	0.0069		
Mercury	-58996-08-05 17:59 J	-19826648.84	-19826648.75	-19826648.65	0.0133	0.0087		
Mercury	-58996-11-01 20:52 J	-19826560.70	-19826560.63	-19826560.54	0.0134	0.0104		
Mercury	-58995-01-28 23:59 J	-19826472.55	-19826472.50	-19826472.45	0.0134	0.0121		
Earth	-58988-08-17 23:01 J	-19823714.75	-19823714.54	-19823714.30	0.0137	0.0057		
Moon	-58988-08-18 00:28 J	-19823714.70	-19823714.48	-19823714.25	0.0137	0.0050	*	
Moon	-58987-08-22 07:25 J	-19823345.43	-19823345.19	-19823344.93	0.0137	0.0038		
Earth	-58987-08-22 08:37 J	-19823345.37	-19823345.14	-19823344.90	0.0137	0.0043	*	
Mars	-58977-12-21 15:35 J	-19819571.12	-19819570.85	-19819570.56	0.0143	0.0020		
Venus	-58972-05-31 09:21 J	-19817949.25	-19817949.11	-19817948.95	0.0145	0.0101		
Venus	-58971-01-12 20:23 J	-19817722.84	-19817722.65	-19817722.45	0.0145	0.0056		
Venus	-58971-08-27 07:54 J	-19817496.39	-19817496.17	-19817495.96	0.0146	0.0009		
Venus	-58970-04-10 19:11 J	-19817269.90	-19817269.70	-19817269.48	0.0146	0.0038		

Venus -58970-11-23 06:57 J -19817043.38 -19817043.21 -19817043.03 0.0146 0.0085
 Venus -58969-07-06 18:42 J -19816816.79 -19816816.72 -19816816.61 0.0146 0.0133
 Mercury -58958-10-02 10:47 J -19812712.11 -19812712.05 -19812711.96 0.0146 0.0134
 Mercury -58958-12-29 19:25 J -19812623.82 -19812623.69 -19812623.54 0.0146 0.0101
 Mercury -58957-03-27 04:04 J -19812535.49 -19812535.33 -19812535.15 0.0146 0.0068
 Mercury -58957-06-23 12:42 J -19812447.15 -19812446.97 -19812446.78 0.0146 0.0035
 Mercury -58957-09-19 21:35 J -19812358.80 -19812358.60 -19812358.41 0.0145 0.0003
 Mercury -58957-12-17 05:59 J -19812270.43 -19812270.25 -19812270.06 0.0145 0.0032
 Mercury -58956-03-15 14:37 J -19812182.06 -19812181.89 -19812181.71 0.0145 0.0065
 Mercury -58956-06-11 23:16 J -19812093.66 -19812093.53 -19812093.38 0.0145 0.0098
 Mercury -58956-09-08 07:54 J -19812005.24 -19812005.17 -19812005.08 0.0145 0.0132
 Moon -58949-02-12 06:42 J -19809657.26 -19809657.22 -19809657.15 0.0142 0.0138
 Earth -58948-02-16 05:30 J -19809287.51 -19809287.27 -19809287.01 0.0142 0.0030
 Moon -58948-02-16 05:59 J -19809287.51 -19809287.25 -19809286.99 0.0142 0.0030 *
 Moon -58947-02-21 04:04 J -19808917.52 -19808917.33 -19808917.11 0.0141 0.0080
 Earth -58947-02-21 04:18 J -19808917.51 -19808917.32 -19808917.09 0.0141 0.0083 *
 Mars -58938-08-05 15:49 J -19805465.11 -19805464.84 -19805464.56 0.0136 0.0076
 Venus -58932-02-06 15:21 J -19803452.92 -19803452.86 -19803452.78 0.0133 0.0126
 Venus -58932-09-20 21:49 J -19803226.74 -19803226.59 -19803226.41 0.0133 0.0089
 Venus -58931-05-05 04:33 J -19803000.51 -19803000.31 -19803000.11 0.0133 0.0053
 Venus -58931-12-17 10:33 J -19802774.27 -19802774.06 -19802773.84 0.0133 0.0016
 Venus -58930-07-31 16:47 J -19802548.02 -19802547.80 -19802547.59 0.0133 0.0020
 Venus -58929-03-13 22:33 J -19802321.75 -19802321.56 -19802321.36 0.0133 0.0056
 Venus -58929-10-26 03:49 J -19802095.48 -19802095.34 -19802095.16 0.0132 0.0092
 Venus -58928-06-09 09:21 J -19801869.16 -19801869.11 -19801869.03 0.0132 0.0126
 Mercury -58915-10-03 13:11 J -19797005.00 -19797004.95 -19797004.89 0.0133 0.0117
 Mercury -58915-12-30 16:18 J -19796916.91 -19796916.82 -19796916.73 0.0133 0.0100
 Mercury -58914-03-28 19:11 J -19796828.80 -19796828.70 -19796828.59 0.0133 0.0083
 Mercury -58914-06-24 22:18 J -19796740.68 -19796740.57 -19796740.45 0.0133 0.0066
 Mercury -58914-09-21 01:25 J -19796652.57 -19796652.44 -19796652.32 0.0133 0.0048

Mercury -58914-12-18 04:18 J -19796564.45 -19796564.32 -19796564.19 0.0133 0.0031

Mercury -58913-03-15 07:11 J -19796476.33 -19796476.20 -19796476.06 0.0133 0.0014

Mercury -58913-06-11 10:18 J -19796388.20 -19796388.07 -19796387.94 0.0133 0.0004

Mercury -58913-09-07 13:11 J -19796300.08 -19796299.95 -19796299.82 0.0133 0.0021

Mercury -58913-12-04 16:04 J -19796211.95 -19796211.83 -19796211.70 0.0133 0.0039

Mercury -58912-03-02 19:11 J -19796123.82 -19796123.70 -19796123.58 0.0133 0.0055

Mercury -58912-05-29 22:04 J -19796035.69 -19796035.58 -19796035.47 0.0133 0.0073

Mercury -58912-08-26 00:57 J -19795947.55 -19795947.46 -19795947.36 0.0134 0.0090

Mercury -58912-11-22 03:49 J -19795859.41 -19795859.34 -19795859.25 0.0134 0.0108

Mercury -58911-02-18 06:57 J -19795771.25 -19795771.21 -19795771.16 0.0134 0.0125

Earth -58904-08-18 08:37 J -19793033.35 -19793033.14 -19793032.89 0.0137 0.0053

Moon -58904-08-18 10:33 J -19793033.28 -19793033.06 -19793032.84 0.0137 0.0059 *

Moon -58903-08-22 17:01 J -19792664.03 -19792663.79 -19792663.56 0.0138 0.0052

Earth -58903-08-22 18:13 J -19792663.96 -19792663.74 -19792663.49 0.0138 0.0047 *

Mars -58894-09-15 17:16 J -19789352.94 -19789352.78 -19789352.60 0.0143 0.0112

Mars -58892-08-16 09:21 J -19788652.31 -19788652.11 -19788651.89 0.0144 0.0097

Venus -58888-01-28 16:18 J -19787390.92 -19787390.82 -19787390.69 0.0145 0.0123

Venus -58888-09-12 03:35 J -19787164.53 -19787164.35 -19787164.16 0.0145 0.0077

Venus -58887-04-26 14:37 J -19786938.09 -19786937.89 -19786937.67 0.0146 0.0031

Venus -58887-12-09 02:09 J -19786711.62 -19786711.41 -19786711.20 0.0146 0.0016

Venus -58886-07-23 13:40 J -19786485.12 -19786484.93 -19786484.73 0.0146 0.0063

Venus -58885-03-06 01:25 J -19786258.57 -19786258.44 -19786258.29 0.0146 0.0110

Mercury -58874-10-22 18:42 J -19782010.80 -19782010.72 -19782010.61 0.0146 0.0124

Mercury -58873-01-19 03:21 J -19781922.50 -19781922.36 -19781922.20 0.0146 0.0091

Mercury -58873-04-16 11:59 J -19781834.17 -19781834.00 -19781833.82 0.0146 0.0058

Mercury -58873-07-13 20:52 J -19781745.82 -19781745.63 -19781745.44 0.0146 0.0025

Mercury -58873-10-10 05:16 J -19781657.47 -19781657.28 -19781657.08 0.0145 0.0009

Mercury -58872-01-06 13:54 J -19781569.10 -19781568.92 -19781568.73 0.0145 0.0042

Mercury -58872-04-04 22:18 J -19781480.72 -19781480.57 -19781480.39 0.0145 0.0076

Mercury -58872-07-02 07:11 J -19781392.32 -19781392.20 -19781392.06 0.0145 0.0108

Mercury -58872-09-28 15:49 J -19781303.87 -19781303.84 -19781303.79 0.0145 0.0141

Earth -58865-02-12 17:01 J -19778975.83 -19778975.79 -19778975.70 0.0142 0.0137

Moon -58865-02-12 18:13 J -19778975.74 -19778975.74 -19778975.71 0.0142 0.0142 *

Moon -58864-02-16 16:33 J -19778606.08 -19778605.81 -19778605.55 0.0141 0.0021

Earth -58864-02-16 17:16 J -19778606.03 -19778605.78 -19778605.52 0.0141 0.0023 *

Moon -58863-02-21 15:35 J -19778236.02 -19778235.85 -19778235.64 0.0141 0.0093

Earth -58863-02-21 16:18 J -19778236.02 -19778235.82 -19778235.62 0.0141 0.0089 *

Mars -58853-03-31 10:04 J -19774545.42 -19774545.08 -19774544.74 0.0135 0.0005

Venus -58848-05-21 06:57 J -19772668.33 -19772668.21 -19772668.07 0.0133 0.0106

Venus -58847-01-02 13:25 J -19772442.12 -19772441.94 -19772441.74 0.0133 0.0069

Venus -58847-08-16 19:54 J -19772215.88 -19772215.67 -19772215.45 0.0133 0.0033

Venus -58846-03-31 02:09 J -19771989.63 -19771989.41 -19771989.19 0.0133 0.0003

Venus -58846-11-12 07:54 J -19771763.37 -19771763.17 -19771762.95 0.0133 0.0039

Venus -58845-06-25 13:25 J -19771537.11 -19771536.94 -19771536.75 0.0132 0.0075

Venus -58844-02-06 19:11 J -19771310.82 -19771310.70 -19771310.57 0.0132 0.0110

Mercury -58831-07-27 17:01 J -19766391.80 -19766391.79 -19766391.77 0.0133 0.0132

Mercury -58831-10-23 19:54 J -19766303.72 -19766303.67 -19766303.59 0.0133 0.0115

Mercury -58830-01-19 23:01 J -19766215.62 -19766215.54 -19766215.44 0.0133 0.0097

Mercury -58830-04-18 02:09 J -19766127.51 -19766127.41 -19766127.30 0.0133 0.0080

Mercury -58830-07-15 05:01 J -19766039.40 -19766039.29 -19766039.17 0.0133 0.0063

Mercury -58830-10-11 08:09 J -19765951.28 -19765951.16 -19765951.03 0.0133 0.0045

Mercury -58829-01-07 11:01 J -19765863.16 -19765863.04 -19765862.90 0.0133 0.0029

Mercury -58829-04-04 14:09 J -19765775.04 -19765774.91 -19765774.78 0.0133 0.0011

Mercury -58829-07-01 17:01 J -19765686.92 -19765686.79 -19765686.65 0.0133 0.0007

Mercury -58829-09-27 19:54 J -19765598.79 -19765598.67 -19765598.53 0.0133 0.0025

Mercury -58829-12-24 23:01 J -19765510.66 -19765510.54 -19765510.41 0.0133 0.0041

Mercury -58828-03-23 01:54 J -19765422.53 -19765422.42 -19765422.30 0.0133 0.0058

Mercury -58828-06-19 04:47 J -19765334.40 -19765334.30 -19765334.18 0.0133 0.0076

Mercury -58828-09-15 07:54 J -19765246.26 -19765246.17 -19765246.08 0.0133 0.0093

Mercury -58828-12-12 10:47 J -19765158.12 -19765158.05 -19765157.97 0.0134 0.0110

Mercury -58827-03-10 13:54 J -19765069.96 -19765069.92 -19765069.89 0.0134 0.0127
 Earth -58820-08-18 16:47 J -19762352.02 -19762351.80 -19762351.55 0.0137 0.0051
 Moon -58820-08-18 19:25 J -19762351.92 -19762351.69 -19762351.46 0.0137 0.0043 *
 Moon -58819-08-23 00:28 J -19761982.73 -19761982.48 -19761982.24 0.0138 0.0043
 Earth -58819-08-23 02:37 J -19761982.62 -19761982.39 -19761982.16 0.0138 0.0049 *
 Mars -58809-05-10 04:47 J -19758434.56 -19758434.30 -19758434.02 0.0143 0.0039
 Venus -58805-09-27 22:33 J -19756832.57 -19756832.56 -19756832.52 0.0145 0.0144
 Venus -58804-05-12 09:21 J -19756606.25 -19756606.11 -19756605.94 0.0145 0.0099
 Venus -58804-12-24 20:23 J -19756379.84 -19756379.65 -19756379.44 0.0146 0.0054
 Venus -58803-08-08 07:54 J -19756153.38 -19756153.17 -19756152.95 0.0146 0.0008
 Venus -58802-03-22 19:25 J -19755926.89 -19755926.69 -19755926.48 0.0146 0.0039
 Venus -58802-11-04 06:57 J -19755700.37 -19755700.21 -19755700.02 0.0146 0.0087
 Venus -58801-06-17 18:42 J -19755473.79 -19755473.72 -19755473.61 0.0146 0.0134
 Mercury -58790-11-12 02:09 J -19751309.51 -19751309.41 -19751309.29 0.0146 0.0116
 Mercury -58789-02-08 10:47 J -19751221.20 -19751221.05 -19751220.89 0.0146 0.0083
 Mercury -58789-05-06 19:25 J -19751132.87 -19751132.69 -19751132.51 0.0146 0.0050
 Mercury -58789-08-03 04:04 J -19751044.52 -19751044.33 -19751044.14 0.0146 0.0017
 Mercury -58789-10-30 12:42 J -19750956.16 -19750955.97 -19750955.78 0.0146 0.0017
 Mercury -58788-01-26 21:21 J -19750867.79 -19750867.61 -19750867.43 0.0145 0.0050
 Mercury -58788-04-25 05:45 J -19750779.40 -19750779.26 -19750779.09 0.0145 0.0083
 Mercury -58788-07-22 14:23 J -19750691.00 -19750690.90 -19750690.77 0.0145 0.0117
 Earth -58781-02-13 04:04 J -19748294.41 -19748294.33 -19748294.22 0.0142 0.0131
 Moon -58781-02-13 06:13 J -19748294.35 -19748294.24 -19748294.12 0.0142 0.0125 *
 Moon -58780-02-17 03:06 J -19747924.63 -19747924.37 -19747924.10 0.0141 0.0019
 Earth -58780-02-17 04:04 J -19747924.58 -19747924.33 -19747924.07 0.0141 0.0017 *
 Earth -58779-02-22 02:52 J -19747554.55 -19747554.38 -19747554.18 0.0141 0.0096
 Moon -58779-02-22 03:21 J -19747554.52 -19747554.36 -19747554.15 0.0141 0.0094 *
 Mars -58771-12-21 07:54 J -19744330.21 -19744330.17 -19744330.07 0.0136 0.0133
 Mars -58769-11-25 03:21 J -19743625.62 -19743625.36 -19743625.09 0.0135 0.0085
 Venus -58764-01-18 16:33 J -19742109.89 -19742109.81 -19742109.72 0.0133 0.0122

Venus -58764-09-01 23:01 J -19741883.70 -19741883.54 -19741883.36 0.0133 0.0085
 Venus -58763-04-16 05:30 J -19741657.47 -19741657.27 -19741657.06 0.0133 0.0049
 Venus -58763-11-28 11:45 J -19741431.23 -19741431.01 -19741430.79 0.0133 0.0013
 Venus -58762-07-12 17:45 J -19741204.98 -19741204.76 -19741204.54 0.0133 0.0023
 Venus -58761-02-23 23:30 J -19740978.71 -19740978.52 -19740978.31 0.0132 0.0058
 Venus -58761-10-07 05:01 J -19740752.43 -19740752.29 -19740752.12 0.0132 0.0093
 Venus -58760-05-21 10:04 J -19740526.11 -19740526.08 -19740526.01 0.0132 0.0129
 Mercury -58747-08-16 23:59 J -19735690.52 -19735690.50 -19735690.47 0.0132 0.0128
 Mercury -58747-11-13 02:52 J -19735602.44 -19735602.38 -19735602.30 0.0132 0.0112
 Mercury -58746-02-09 06:13 J -19735514.34 -19735514.24 -19735514.15 0.0133 0.0094
 Mercury -58746-05-08 09:06 J -19735426.23 -19735426.12 -19735426.01 0.0133 0.0077
 Mercury -58746-08-04 11:59 J -19735338.11 -19735338.00 -19735337.88 0.0133 0.0060
 Mercury -58746-10-31 14:52 J -19735250.00 -19735249.88 -19735249.75 0.0133 0.0043
 Mercury -58745-01-27 17:59 J -19735161.88 -19735161.75 -19735161.62 0.0133 0.0025
 Mercury -58745-04-24 21:06 J -19735073.76 -19735073.62 -19735073.49 0.0133 0.0008
 Mercury -58745-07-21 23:59 J -19734985.63 -19734985.50 -19734985.37 0.0133 0.0009
 Mercury -58745-10-18 02:52 J -19734897.51 -19734897.38 -19734897.25 0.0133 0.0027
 Mercury -58744-01-14 05:45 J -19734809.38 -19734809.26 -19734809.13 0.0133 0.0045
 Mercury -58744-04-12 08:52 J -19734721.25 -19734721.13 -19734721.01 0.0133 0.0061
 Mercury -58744-07-09 11:45 J -19734633.11 -19734633.01 -19734632.90 0.0133 0.0078
 Mercury -58744-10-05 14:37 J -19734544.97 -19734544.89 -19734544.79 0.0133 0.0096
 Mercury -58743-01-01 17:45 J -19734456.83 -19734456.76 -19734456.69 0.0133 0.0113
 Mercury -58743-03-30 20:37 J -19734368.66 -19734368.64 -19734368.61 0.0134 0.0130
 Earth -58736-08-19 00:57 J -19731670.68 -19731670.46 -19731670.21 0.0137 0.0048
 Moon -58736-08-19 03:35 J -19731670.57 -19731670.35 -19731670.12 0.0137 0.0055 *
 Moon -58735-08-23 07:54 J -19731301.40 -19731301.17 -19731300.93 0.0137 0.0058
 Earth -58735-08-23 10:18 J -19731301.29 -19731301.07 -19731300.83 0.0137 0.0052 *
 Mars -58724-01-02 15:35 J -19727516.13 -19727515.85 -19727515.58 0.0143 0.0035
 Venus -58720-01-09 14:23 J -19726048.01 -19726047.90 -19726047.79 0.0145 0.0123
 Venus -58720-08-24 01:11 J -19725821.62 -19725821.45 -19725821.26 0.0145 0.0078

Venus -58719-04-07 12:28 J -19725595.19 -19725594.98 -19725594.77 0.0146 0.0032
 Venus -58719-11-19 23:45 J -19725368.73 -19725368.51 -19725368.30 0.0146 0.0014
 Venus -58718-07-04 11:01 J -19725142.23 -19725142.04 -19725141.84 0.0146 0.0061
 Venus -58717-02-15 22:47 J -19724915.68 -19724915.55 -19724915.39 0.0146 0.0108
 Mercury -58706-09-04 23:59 J -19720696.51 -19720696.50 -19720696.48 0.0146 0.0145
 Mercury -58706-12-02 08:37 J -19720608.26 -19720608.14 -19720608.02 0.0146 0.0112
 Mercury -58705-02-28 17:16 J -19720519.94 -19720519.78 -19720519.62 0.0146 0.0079
 Mercury -58705-05-27 01:54 J -19720431.60 -19720431.42 -19720431.24 0.0146 0.0046
 Mercury -58705-08-23 10:18 J -19720343.26 -19720343.07 -19720342.87 0.0146 0.0014
 Mercury -58705-11-19 18:57 J -19720254.90 -19720254.71 -19720254.51 0.0146 0.0021
 Mercury -58704-02-16 03:35 J -19720166.52 -19720166.35 -19720166.17 0.0145 0.0054
 Mercury -58704-05-15 11:59 J -19720078.14 -19720078.00 -19720077.83 0.0145 0.0088
 Mercury -58704-08-11 20:52 J -19719989.73 -19719989.63 -19719989.52 0.0145 0.0120
 Earth -58697-02-13 11:45 J -19717613.11 -19717613.01 -19717612.89 0.0142 0.0129
 Moon -58697-02-13 13:54 J -19717612.99 -19717612.92 -19717612.84 0.0142 0.0134 *
 Moon -58696-02-17 10:04 J -19717243.35 -19717243.08 -19717242.81 0.0142 0.0011
 Earth -58696-02-17 12:13 J -19717243.25 -19717242.99 -19717242.74 0.0142 0.0014 *
 Earth -58695-02-22 11:16 J -19716873.21 -19716873.03 -19716872.84 0.0141 0.0099
 Moon -58695-02-22 12:13 J -19716873.15 -19716872.99 -19716872.81 0.0141 0.0101 *
 Mars -58686-08-17 01:11 J -19713410.76 -19713410.45 -19713410.13 0.0136 0.0052
 Venus -58680-05-02 07:54 J -19711325.31 -19711325.17 -19711325.03 0.0133 0.0103
 Venus -58680-12-14 14:23 J -19711099.09 -19711098.90 -19711098.70 0.0133 0.0066
 Venus -58679-07-28 20:52 J -19710872.85 -19710872.63 -19710872.42 0.0133 0.0030
 Venus -58678-03-12 03:06 J -19710646.59 -19710646.37 -19710646.15 0.0133 0.0006
 Venus -58678-10-24 08:37 J -19710420.34 -19710420.14 -19710419.92 0.0133 0.0042
 Venus -58677-06-06 14:09 J -19710194.07 -19710193.91 -19710193.71 0.0132 0.0077
 Venus -58676-01-18 19:40 J -19709967.78 -19709967.68 -19709967.55 0.0132 0.0111
 Mercury -58663-09-06 06:57 J -19704989.25 -19704989.21 -19704989.17 0.0132 0.0126
 Mercury -58663-12-03 09:49 J -19704901.16 -19704901.09 -19704901.01 0.0132 0.0109
 Mercury -58662-03-01 12:42 J -19704813.06 -19704812.97 -19704812.86 0.0133 0.0092

Mercury -58662-05-28 15:49 J -19704724.95 -19704724.84 -19704724.73 0.0133 0.0074

Mercury -58662-08-24 18:57 J -19704636.83 -19704636.71 -19704636.59 0.0133 0.0057

Mercury -58662-11-20 21:49 J -19704548.71 -19704548.59 -19704548.46 0.0133 0.0040

Mercury -58661-02-17 00:42 J -19704460.59 -19704460.47 -19704460.33 0.0133 0.0023

Mercury -58661-05-15 03:49 J -19704372.47 -19704372.34 -19704372.21 0.0133 0.0005

Mercury -58661-08-11 06:42 J -19704284.35 -19704284.22 -19704284.08 0.0133 0.0013

Mercury -58661-11-07 09:49 J -19704196.22 -19704196.09 -19704195.96 0.0133 0.0029

Mercury -58660-02-03 12:42 J -19704108.09 -19704107.97 -19704107.85 0.0133 0.0046

Mercury -58660-05-02 15:35 J -19704019.96 -19704019.85 -19704019.73 0.0133 0.0064

Mercury -58660-07-29 18:28 J -19703931.83 -19703931.73 -19703931.62 0.0133 0.0081

Mercury -58660-10-25 21:21 J -19703843.69 -19703843.61 -19703843.51 0.0133 0.0099

Mercury -58659-01-22 00:28 J -19703755.54 -19703755.48 -19703755.41 0.0133 0.0115

Mercury -58659-04-20 03:21 J -19703667.37 -19703667.36 -19703667.34 0.0134 0.0133

Earth -58652-08-19 08:52 J -19700989.36 -19700989.13 -19700988.88 0.0137 0.0046

Moon -58652-08-19 12:13 J -19700989.23 -19700988.99 -19700988.75 0.0137 0.0038 *

Moon -58651-08-23 14:52 J -19700620.11 -19700619.88 -19700619.63 0.0137 0.0047

Earth -58651-08-23 18:13 J -19700619.97 -19700619.74 -19700619.51 0.0137 0.0054 *

Mars -58642-09-27 11:45 J -19697298.19 -19697298.01 -19697297.80 0.0143 0.0101

Mars -58640-08-28 04:04 J -19696597.50 -19696597.33 -19696597.13 0.0144 0.0110

Venus -58636-04-23 05:45 J -19695263.41 -19695263.26 -19695263.10 0.0145 0.0102

Venus -58636-12-05 16:33 J -19695037.00 -19695036.81 -19695036.61 0.0146 0.0057

Venus -58635-07-20 03:49 J -19694810.55 -19694810.34 -19694810.12 0.0146 0.0011

Venus -58634-03-03 15:06 J -19694584.07 -19694583.87 -19694583.66 0.0146 0.0035

Venus -58634-10-16 02:52 J -19694357.56 -19694357.38 -19694357.20 0.0146 0.0082

Venus -58633-05-29 14:23 J -19694130.99 -19694130.90 -19694130.79 0.0146 0.0128

Mercury -58622-09-25 05:59 J -19689995.28 -19689995.25 -19689995.20 0.0146 0.0142

Mercury -58622-12-22 14:37 J -19689907.01 -19689906.89 -19689906.76 0.0146 0.0109

Mercury -58621-03-19 23:16 J -19689818.69 -19689818.53 -19689818.36 0.0146 0.0076

Mercury -58621-06-16 07:54 J -19689730.35 -19689730.17 -19689729.99 0.0146 0.0043

Mercury -58621-09-12 16:33 J -19689642.00 -19689641.81 -19689641.62 0.0146 0.0010

Mercury -58621-12-10 00:57 J -19689553.64 -19689553.46 -19689553.26 0.0146 0.0024
 Mercury -58620-03-08 09:35 J -19689465.27 -19689465.10 -19689464.91 0.0146 0.0057
 Mercury -58620-06-04 18:13 J -19689376.88 -19689376.74 -19689376.58 0.0145 0.0090
 Mercury -58620-09-01 02:52 J -19689288.47 -19689288.38 -19689288.27 0.0145 0.0123
 Earth -58613-02-13 18:28 J -19686931.83 -19686931.73 -19686931.60 0.0142 0.0128
 Moon -58613-02-13 21:49 J -19686931.72 -19686931.59 -19686931.46 0.0142 0.0121 *
 Moon -58612-02-17 16:47 J -19686562.06 -19686561.80 -19686561.54 0.0142 0.0015
 Earth -58612-02-17 18:57 J -19686561.97 -19686561.71 -19686561.45 0.0142 0.0012 *
 Earth -58611-02-22 18:13 J -19686191.91 -19686191.74 -19686191.55 0.0141 0.0101
 Moon -58611-02-22 20:09 J -19686191.83 -19686191.66 -19686191.48 0.0141 0.0100 *
 Mars -58601-04-11 14:37 J -19682491.21 -19682490.89 -19682490.55 0.0135 0.0027
 Venus -58597-12-30 16:04 J -19680766.92 -19680766.83 -19680766.73 0.0133 0.0120
 Venus -58596-08-13 22:47 J -19680540.71 -19680540.55 -19680540.37 0.0133 0.0084
 Venus -58595-03-28 05:30 J -19680314.48 -19680314.27 -19680314.06 0.0133 0.0047
 Venus -58595-11-09 11:45 J -19680088.23 -19680088.01 -19680087.79 0.0133 0.0011
 Venus -58594-06-23 17:45 J -19679861.98 -19679861.76 -19679861.54 0.0133 0.0024
 Venus -58593-02-04 23:16 J -19679635.71 -19679635.53 -19679635.32 0.0133 0.0060
 Venus -58593-09-18 04:47 J -19679409.44 -19679409.30 -19679409.13 0.0132 0.0094
 Venus -58592-05-02 10:04 J -19679183.11 -19679183.08 -19679183.01 0.0132 0.0129
 Mercury -58579-09-26 13:40 J -19674287.97 -19674287.93 -19674287.87 0.0132 0.0123
 Mercury -58579-12-23 16:47 J -19674199.87 -19674199.80 -19674199.71 0.0133 0.0105
 Mercury -58578-03-21 19:54 J -19674111.77 -19674111.67 -19674111.57 0.0133 0.0088
 Mercury -58578-06-17 22:47 J -19674023.66 -19674023.55 -19674023.43 0.0133 0.0071
 Mercury -58578-09-14 01:54 J -19673935.54 -19673935.42 -19673935.30 0.0133 0.0053
 Mercury -58578-12-11 04:47 J -19673847.42 -19673847.30 -19673847.17 0.0133 0.0037
 Mercury -58577-03-08 07:54 J -19673759.30 -19673759.17 -19673759.04 0.0133 0.0019
 Mercury -58577-06-04 10:47 J -19673671.18 -19673671.05 -19673670.91 0.0133 0.0003
 Mercury -58577-08-31 13:54 J -19673583.05 -19673582.92 -19673582.79 0.0133 0.0016
 Mercury -58577-11-27 16:47 J -19673494.93 -19673494.80 -19673494.67 0.0133 0.0033
 Mercury -58576-02-23 19:40 J -19673406.80 -19673406.68 -19673406.55 0.0133 0.0050

Mercury -58576-05-22 22:33 J -19673318.67 -19673318.56 -19673318.44 0.0133 0.0067
 Mercury -58576-08-19 01:40 J -19673230.53 -19673230.43 -19673230.33 0.0133 0.0084
 Mercury -58576-11-15 04:33 J -19673142.39 -19673142.31 -19673142.22 0.0133 0.0102
 Mercury -58575-02-11 07:40 J -19673054.24 -19673054.18 -19673054.13 0.0133 0.0119
 Jupiter -58570-02-28 01:11 J -19671211.95 -19671211.45 -19671210.94 0.0135 0.0004
 Moon -58569-08-15 06:57 J -19670677.26 -19670677.21 -19670677.16 0.0136 0.0134
 Earth -58568-08-19 18:42 J -19670307.95 -19670307.72 -19670307.48 0.0137 0.0042
 Moon -58568-08-19 21:49 J -19670307.81 -19670307.59 -19670307.35 0.0137 0.0049 *
 Moon -58567-08-24 00:28 J -19669938.69 -19669938.48 -19669938.25 0.0137 0.0065
 Earth -58567-08-24 03:49 J -19669938.56 -19669938.34 -19669938.11 0.0137 0.0058 *
 Mars -58557-05-22 02:23 J -19666379.68 -19666379.40 -19666379.12 0.0143 0.0026
 Venus -58553-12-21 11:45 J -19664705.11 -19664705.01 -19664704.89 0.0145 0.0124
 Venus -58552-08-04 22:47 J -19664478.73 -19664478.55 -19664478.37 0.0145 0.0079
 Venus -58551-03-19 09:35 J -19664252.30 -19664252.10 -19664251.89 0.0146 0.0034
 Venus -58551-10-31 20:52 J -19664025.84 -19664025.63 -19664025.42 0.0146 0.0012
 Venus -58550-06-15 07:54 J -19663799.35 -19663799.17 -19663798.96 0.0146 0.0059
 Venus -58549-01-27 19:40 J -19663572.82 -19663572.68 -19663572.52 0.0146 0.0104
 Mercury -58538-10-15 12:28 J -19659294.03 -19659293.98 -19659293.91 0.0146 0.0138
 Mercury -58537-01-11 21:06 J -19659205.75 -19659205.62 -19659205.48 0.0146 0.0105
 Mercury -58537-04-09 05:45 J -19659117.43 -19659117.26 -19659117.09 0.0146 0.0072
 Mercury -58537-07-06 14:09 J -19659029.09 -19659028.91 -19659028.72 0.0146 0.0039
 Mercury -58537-10-02 22:47 J -19658940.74 -19658940.55 -19658940.35 0.0146 0.0007
 Mercury -58537-12-30 07:25 J -19658852.38 -19658852.19 -19658852.00 0.0146 0.0028
 Mercury -58536-03-28 16:04 J -19658764.00 -19658763.83 -19658763.65 0.0146 0.0061
 Mercury -58536-06-25 00:28 J -19658675.61 -19658675.48 -19658675.32 0.0146 0.0095
 Mercury -58536-09-21 09:06 J -19658587.20 -19658587.12 -19658587.01 0.0145 0.0128
 Earth -58529-02-14 02:09 J -19656250.51 -19656250.41 -19656250.27 0.0142 0.0126
 Moon -58529-02-14 05:01 J -19656250.36 -19656250.29 -19656250.18 0.0142 0.0132 *
 Moon -58528-02-17 23:45 J -19655880.77 -19655880.51 -19655880.24 0.0142 0.0006
 Earth -58528-02-18 02:52 J -19655880.63 -19655880.38 -19655880.12 0.0142 0.0010 *

Earth	-58527-02-23 01:54 J	-19655510.57	-19655510.42	-19655510.22	0.0141	0.0104
Moon	-58527-02-23 04:33 J	-19655510.47	-19655510.31	-19655510.14	0.0141	0.0104 *
Mars	-58518-01-01 05:01 J	-19652276.43	-19652276.29	-19652276.08	0.0136	0.0118
Mars	-58517-12-06 03:49 J	-19651571.54	-19651571.34	-19651571.11	0.0135	0.0105
Venus	-58512-04-13 06:57 J	-19649982.34	-19649982.21	-19649982.05	0.0133	0.0101
Venus	-58512-11-25 13:40 J	-19649756.11	-19649755.93	-19649755.73	0.0133	0.0064
Venus	-58511-07-09 20:09 J	-19649529.87	-19649529.66	-19649529.44	0.0133	0.0029
Venus	-58510-02-21 02:23 J	-19649303.62	-19649303.40	-19649303.17	0.0133	0.0008
Venus	-58510-10-05 08:09 J	-19649077.36	-19649077.16	-19649076.94	0.0133	0.0043
Venus	-58509-05-18 13:40 J	-19648851.09	-19648850.93	-19648850.74	0.0133	0.0078
Venus	-58509-12-30 19:25 J	-19648624.80	-19648624.69	-19648624.57	0.0132	0.0112
Mercury	-58495-10-16 20:37 J	-19643586.68	-19643586.64	-19643586.57	0.0133	0.0120
Mercury	-58494-01-12 23:59 J	-19643498.59	-19643498.50	-19643498.42	0.0133	0.0102
Mercury	-58494-04-11 02:52 J	-19643410.48	-19643410.38	-19643410.28	0.0133	0.0085
Mercury	-58494-07-08 05:45 J	-19643322.37	-19643322.26	-19643322.14	0.0133	0.0068
Mercury	-58494-10-04 08:52 J	-19643234.25	-19643234.13	-19643234.01	0.0133	0.0050
Mercury	-58494-12-31 11:59 J	-19643146.13	-19643146.00	-19643145.88	0.0133	0.0033
Mercury	-58493-03-28 14:52 J	-19643058.01	-19643057.88	-19643057.75	0.0133	0.0016
Mercury	-58493-06-24 17:45 J	-19642969.89	-19642969.76	-19642969.62	0.0133	0.0004
Mercury	-58493-09-20 20:52 J	-19642881.76	-19642881.63	-19642881.50	0.0133	0.0019
Mercury	-58493-12-17 23:45 J	-19642793.64	-19642793.51	-19642793.38	0.0133	0.0036
Mercury	-58492-03-16 02:37 J	-19642705.51	-19642705.39	-19642705.26	0.0133	0.0053
Mercury	-58492-06-12 05:45 J	-19642617.37	-19642617.26	-19642617.15	0.0133	0.0071
Mercury	-58492-09-08 08:37 J	-19642529.24	-19642529.14	-19642529.04	0.0133	0.0088
Mercury	-58492-12-05 11:30 J	-19642441.09	-19642441.02	-19642440.94	0.0133	0.0105
Mercury	-58491-03-03 14:23 J	-19642352.94	-19642352.90	-19642352.84	0.0133	0.0122
Earth	-58484-08-20 04:18 J	-19639626.55	-19639626.32	-19639626.07	0.0137	0.0039
Moon	-58484-08-20 07:54 J	-19639626.40	-19639626.17	-19639625.92	0.0137	0.0031 *
Moon	-58483-08-24 10:04 J	-19639257.30	-19639257.08	-19639256.84	0.0137	0.0055
Earth	-58483-08-24 13:40 J	-19639257.15	-19639256.93	-19639256.71	0.0137	0.0062 *

Mars	-58472-01-14 19:11 J	-19635460.95	-19635460.70	-19635460.43	0.0143	0.0051
Venus	-58469-08-20 19:25 J	-19634146.71	-19634146.69	-19634146.65	0.0145	0.0143
Venus	-58468-04-04 05:59 J	-19633920.40	-19633920.25	-19633920.09	0.0145	0.0099
Venus	-58468-11-16 16:47 J	-19633693.99	-19633693.80	-19633693.60	0.0146	0.0055
Venus	-58467-07-01 03:49 J	-19633467.55	-19633467.34	-19633467.12	0.0146	0.0009
Venus	-58466-02-12 15:06 J	-19633241.08	-19633240.87	-19633240.66	0.0146	0.0036
Venus	-58466-09-27 02:37 J	-19633014.56	-19633014.39	-19633014.21	0.0146	0.0083
Venus	-58465-05-10 14:23 J	-19632787.99	-19632787.90	-19632787.79	0.0146	0.0129
Mercury	-58454-11-04 19:54 J	-19628592.74	-19628592.67	-19628592.57	0.0146	0.0130
Mercury	-58453-02-01 04:33 J	-19628504.44	-19628504.31	-19628504.16	0.0146	0.0097
Mercury	-58453-04-29 13:11 J	-19628416.12	-19628415.95	-19628415.77	0.0146	0.0064
Mercury	-58453-07-26 21:49 J	-19628327.77	-19628327.59	-19628327.40	0.0146	0.0031
Mercury	-58453-10-23 06:28 J	-19628239.42	-19628239.23	-19628239.04	0.0146	0.0003
Mercury	-58452-01-19 15:06 J	-19628151.06	-19628150.87	-19628150.68	0.0146	0.0036
Mercury	-58452-04-17 23:30 J	-19628062.68	-19628062.52	-19628062.34	0.0146	0.0069
Mercury	-58452-07-15 08:09 J	-19627974.29	-19627974.16	-19627974.02	0.0145	0.0103
Mercury	-58452-10-11 16:47 J	-19627885.86	-19627885.80	-19627885.72	0.0145	0.0136
Earth	-58445-02-14 13:11 J	-19625569.08	-19625568.95	-19625568.81	0.0142	0.0121
Moon	-58445-02-14 16:33 J	-19625568.94	-19625568.81	-19625568.64	0.0142	0.0114 *
Moon	-58444-02-18 10:33 J	-19625199.32	-19625199.06	-19625198.79	0.0142	0.0009
Earth	-58444-02-18 13:40 J	-19625199.19	-19625198.93	-19625198.67	0.0142	0.0005 *
Earth	-58443-02-23 12:42 J	-19624829.12	-19624828.97	-19624828.79	0.0141	0.0109
Moon	-58443-02-23 15:35 J	-19624829.00	-19624828.85	-19624828.68	0.0141	0.0109 *
Mars	-58434-08-28 02:52 J	-19621356.71	-19621356.38	-19621356.06	0.0136	0.0034
Venus	-58429-12-11 16:04 J	-19619423.92	-19619423.83	-19619423.70	0.0134	0.0117
Venus	-58428-07-25 23:01 J	-19619197.71	-19619197.54	-19619197.35	0.0133	0.0080
Venus	-58427-03-09 05:45 J	-19618971.46	-19618971.26	-19618971.05	0.0133	0.0044
Venus	-58427-10-21 11:59 J	-19618745.22	-19618745.00	-19618744.78	0.0133	0.0009
Venus	-58426-06-04 17:59 J	-19618518.96	-19618518.75	-19618518.53	0.0133	0.0027
Venus	-58425-01-16 23:45 J	-19618292.70	-19618292.51	-19618292.31	0.0133	0.0062

Venus -58425-08-30 05:01 J -19618066.42 -19618066.29 -19618066.12 0.0132 0.0097
 Venus -58424-04-13 10:33 J -19617840.07 -19617840.06 -19617840.01 0.0132 0.0131
 Mercury -58411-08-10 01:11 J -19612973.46 -19612973.45 -19612973.44 0.0133 0.0132
 Mercury -58411-11-06 04:04 J -19612885.39 -19612885.33 -19612885.26 0.0133 0.0115
 Mercury -58410-02-02 06:57 J -19612797.29 -19612797.21 -19612797.11 0.0133 0.0098
 Mercury -58410-05-01 10:04 J -19612709.18 -19612709.08 -19612708.97 0.0133 0.0080
 Mercury -58410-07-28 13:11 J -19612621.07 -19612620.95 -19612620.83 0.0133 0.0063
 Mercury -58410-10-24 16:04 J -19612532.95 -19612532.83 -19612532.70 0.0133 0.0046
 Mercury -58409-01-20 19:11 J -19612444.83 -19612444.70 -19612444.57 0.0133 0.0028
 Mercury -58409-04-17 22:04 J -19612356.71 -19612356.58 -19612356.44 0.0133 0.0012
 Mercury -58409-07-15 01:11 J -19612268.59 -19612268.45 -19612268.32 0.0133 0.0007
 Mercury -58409-10-11 04:04 J -19612180.46 -19612180.33 -19612180.20 0.0133 0.0023
 Mercury -58408-01-07 06:57 J -19612092.33 -19612092.21 -19612092.08 0.0133 0.0041
 Mercury -58408-04-05 09:49 J -19612004.20 -19612004.09 -19612003.96 0.0133 0.0059
 Mercury -58408-07-02 12:57 J -19611916.07 -19611915.96 -19611915.85 0.0133 0.0075
 Mercury -58408-09-28 15:49 J -19611827.93 -19611827.84 -19611827.74 0.0133 0.0093
 Mercury -58408-12-25 18:57 J -19611739.78 -19611739.71 -19611739.64 0.0133 0.0110
 Mercury -58407-03-23 21:35 J -19611651.63 -19611651.60 -19611651.55 0.0134 0.0128
 Moon -58401-08-16 03:35 J -19609314.42 -19609314.35 -19609314.23 0.0136 0.0126
 Earth -58401-08-16 07:25 J -19609314.24 -19609314.19 -19609314.11 0.0136 0.0131 *
 Earth -58400-08-20 15:49 J -19608945.08 -19608944.84 -19608944.59 0.0137 0.0033
 Moon -58400-08-20 19:11 J -19608944.93 -19608944.70 -19608944.45 0.0137 0.0040 *
 Moon -58399-08-24 21:21 J -19608575.81 -19608575.61 -19608575.39 0.0137 0.0075
 Earth -58399-08-25 00:57 J -19608575.67 -19608575.46 -19608575.23 0.0137 0.0068 *
 Mars -58390-10-10 00:57 J -19605242.67 -19605242.46 -19605242.21 0.0143 0.0082
 Mars -58388-09-09 15:35 J -19604541.93 -19604541.85 -19604541.71 0.0144 0.0132
 Venus -58385-12-02 14:09 J -19603362.02 -19603361.91 -19603361.77 0.0145 0.0119
 Venus -58384-07-17 01:11 J -19603135.63 -19603135.45 -19603135.26 0.0145 0.0074
 Venus -58383-02-28 12:13 J -19602909.20 -19602908.99 -19602908.78 0.0146 0.0029
 Venus -58383-10-12 23:16 J -19602682.74 -19602682.53 -19602682.32 0.0146 0.0016

Venus -58382-05-27 10:33 J -19602456.25 -19602456.06 -19602455.86 0.0146 0.0062
 Venus -58381-01-08 22:04 J -19602229.71 -19602229.58 -19602229.43 0.0146 0.0108
 Mercury -58370-11-25 04:18 J -19597891.42 -19597891.32 -19597891.20 0.0146 0.0119
 Mercury -58369-02-21 12:57 J -19597803.11 -19597802.96 -19597802.80 0.0146 0.0086
 Mercury -58369-05-19 21:35 J -19597714.78 -19597714.60 -19597714.42 0.0146 0.0053
 Mercury -58369-08-16 06:13 J -19597626.43 -19597626.24 -19597626.05 0.0146 0.0019
 Mercury -58369-11-12 14:52 J -19597538.08 -19597537.88 -19597537.69 0.0146 0.0014
 Mercury -58368-02-08 23:16 J -19597449.71 -19597449.53 -19597449.34 0.0146 0.0047
 Mercury -58368-05-08 07:40 J -19597361.33 -19597361.18 -19597361.01 0.0146 0.0081
 Mercury -58368-08-04 16:33 J -19597272.92 -19597272.81 -19597272.69 0.0145 0.0114
 Jupiter -58363-12-28 14:09 J -19595301.37 -19595300.91 -19595300.42 0.0143 0.0063
 Earth -58361-02-15 01:54 J -19594887.56 -19594887.42 -19594887.24 0.0142 0.0113
 Moon -58361-02-15 05:30 J -19594887.39 -19594887.27 -19594887.12 0.0142 0.0120 *
 Moon -58360-02-18 23:01 J -19594517.80 -19594517.54 -19594517.28 0.0142 0.0008
 Earth -58360-02-19 02:37 J -19594517.65 -19594517.39 -19594517.13 0.0142 0.0003 *
 Earth -58359-02-24 01:25 J -19594147.56 -19594147.44 -19594147.28 0.0141 0.0117
 Moon -58359-02-24 04:18 J -19594147.44 -19594147.32 -19594147.16 0.0141 0.0117 *
 Mars -58349-04-23 00:57 J -19590436.76 -19590436.46 -19590436.13 0.0135 0.0050
 Venus -58345-08-11 01:54 J -19588865.43 -19588865.42 -19588865.36 0.0134 0.0132
 Venus -58344-03-25 08:52 J -19588639.26 -19588639.13 -19588638.96 0.0133 0.0096
 Venus -58344-11-06 15:49 J -19588413.04 -19588412.84 -19588412.64 0.0133 0.0059
 Venus -58343-06-20 22:04 J -19588186.79 -19588186.58 -19588186.36 0.0133 0.0024
 Venus -58342-02-02 04:18 J -19587960.54 -19587960.32 -19587960.10 0.0133 0.0012
 Venus -58342-09-16 10:04 J -19587734.28 -19587734.08 -19587733.87 0.0133 0.0047
 Venus -58341-04-29 15:35 J -19587508.01 -19587507.85 -19587507.66 0.0132 0.0081
 Venus -58341-12-11 21:06 J -19587281.71 -19587281.62 -19587281.50 0.0132 0.0115
 Mercury -58327-08-30 08:09 J -19582272.18 -19582272.16 -19582272.12 0.0132 0.0128
 Mercury -58327-11-26 11:16 J -19582184.10 -19582184.03 -19582183.95 0.0133 0.0110
 Mercury -58326-02-22 14:23 J -19582095.99 -19582095.90 -19582095.81 0.0133 0.0093
 Mercury -58326-05-21 17:16 J -19582007.88 -19582007.78 -19582007.67 0.0133 0.0076

Mercury -58326-08-17 20:23 J -19581919.77 -19581919.65 -19581919.53 0.0133 0.0059

Mercury -58326-11-13 23:16 J -19581831.65 -19581831.53 -19581831.40 0.0133 0.0041

Mercury -58325-02-10 02:23 J -19581743.53 -19581743.40 -19581743.27 0.0133 0.0024

Mercury -58325-05-08 05:16 J -19581655.41 -19581655.28 -19581655.15 0.0133 0.0007

Mercury -58325-08-04 08:23 J -19581567.29 -19581567.15 -19581567.02 0.0133 0.0011

Mercury -58325-10-31 11:16 J -19581479.16 -19581479.03 -19581478.90 0.0133 0.0028

Mercury -58324-01-27 14:09 J -19581391.03 -19581390.91 -19581390.78 0.0133 0.0045

Mercury -58324-04-25 17:16 J -19581302.90 -19581302.78 -19581302.67 0.0133 0.0062

Mercury -58324-07-22 20:09 J -19581214.76 -19581214.66 -19581214.55 0.0133 0.0080

Mercury -58324-10-18 23:01 J -19581126.62 -19581126.54 -19581126.45 0.0133 0.0097

Mercury -58323-01-15 01:54 J -19581038.48 -19581038.42 -19581038.35 0.0133 0.0115

Mercury -58323-04-13 04:47 J -19580950.31 -19580950.30 -19580950.27 0.0134 0.0132

Moon -58317-08-16 14:09 J -19578632.95 -19578632.91 -19578632.83 0.0136 0.0133

Earth -58317-08-16 17:59 J -19578632.84 -19578632.75 -19578632.66 0.0136 0.0127 *

Earth -58316-08-21 02:23 J -19578263.65 -19578263.40 -19578263.16 0.0137 0.0028

Moon -58316-08-21 05:59 J -19578263.50 -19578263.25 -19578263.00 0.0137 0.0021 *

Moon -58315-08-25 07:54 J -19577894.38 -19577894.17 -19577893.95 0.0137 0.0065

Earth -58315-08-25 11:01 J -19577894.23 -19577894.04 -19577893.81 0.0137 0.0073 *

Mars -58305-06-03 17:16 J -19574324.06 -19574323.78 -19574323.50 0.0143 0.0005

Venus -58301-08-01 22:33 J -19572803.63 -19572803.56 -19572803.50 0.0145 0.0138

Venus -58300-03-16 08:52 J -19572577.29 -19572577.13 -19572576.96 0.0145 0.0094

Venus -58300-10-28 19:25 J -19572350.88 -19572350.69 -19572350.48 0.0146 0.0050

Venus -58299-06-12 06:42 J -19572124.43 -19572124.22 -19572124.00 0.0146 0.0004

Venus -58298-01-24 17:59 J -19571897.95 -19571897.75 -19571897.54 0.0146 0.0041

Venus -58298-09-08 05:30 J -19571671.43 -19571671.27 -19571671.09 0.0146 0.0087

Venus -58297-04-21 17:16 J -19571444.85 -19571444.78 -19571444.68 0.0146 0.0134

Mercury -58286-09-18 04:04 J -19567278.36 -19567278.33 -19567278.26 0.0146 0.0141

Mercury -58286-12-15 12:42 J -19567190.08 -19567189.97 -19567189.83 0.0146 0.0107

Mercury -58285-03-12 21:21 J -19567101.76 -19567101.61 -19567101.44 0.0146 0.0074

Mercury -58285-06-09 05:59 J -19567013.43 -19567013.25 -19567013.06 0.0146 0.0041

Mercury -58285-09-05 14:37 J -19566925.08 -19566924.89 -19566924.69 0.0146 0.0008

Mercury -58285-12-02 23:16 J -19566836.72 -19566836.53 -19566836.34 0.0146 0.0026

Mercury -58284-03-01 07:40 J -19566748.35 -19566748.18 -19566747.99 0.0146 0.0060

Mercury -58284-05-28 16:18 J -19566659.96 -19566659.82 -19566659.66 0.0146 0.0093

Mercury -58284-08-25 01:11 J -19566571.54 -19566571.45 -19566571.35 0.0145 0.0126

Earth -58277-02-15 16:47 J -19564205.97 -19564205.80 -19564205.61 0.0142 0.0104

Moon -58277-02-15 20:23 J -19564205.82 -19564205.65 -19564205.44 0.0142 0.0096 *

Moon -58276-02-19 13:40 J -19563836.19 -19563835.93 -19563835.66 0.0142 0.0008

Earth -58276-02-19 17:16 J -19563836.04 -19563835.78 -19563835.52 0.0142 0.0013 *

Earth -58275-02-24 16:18 J -19563465.94 -19563465.82 -19563465.71 0.0141 0.0127

Moon -58275-02-24 18:57 J -19563465.79 -19563465.71 -19563465.57 0.0141 0.0127 *

Mars -58266-01-13 03:06 J -19560221.60 -19560221.37 -19560221.09 0.0136 0.0088

Mars -58265-12-18 01:40 J -19559516.44 -19559516.43 -19559516.36 0.0135 0.0134

Venus -58261-11-22 19:40 J -19558080.79 -19558080.68 -19558080.54 0.0133 0.0110

Venus -58260-07-07 02:23 J -19557854.57 -19557854.40 -19557854.21 0.0133 0.0074

Venus -58259-02-18 09:06 J -19557628.33 -19557628.12 -19557627.90 0.0133 0.0038

Venus -58259-10-02 15:21 J -19557402.08 -19557401.86 -19557401.64 0.0133 0.0003

Venus -58258-05-16 21:06 J -19557175.83 -19557175.62 -19557175.40 0.0133 0.0032

Venus -58258-12-29 02:52 J -19556949.56 -19556949.38 -19556949.18 0.0132 0.0067

Venus -58257-08-11 08:37 J -19556723.28 -19556723.14 -19556723.00 0.0132 0.0101

Mercury -58243-09-19 15:35 J -19551570.89 -19551570.85 -19551570.80 0.0132 0.0122

Mercury -58243-12-16 18:28 J -19551482.80 -19551482.73 -19551482.64 0.0132 0.0105

Mercury -58242-03-14 21:35 J -19551394.69 -19551394.60 -19551394.50 0.0133 0.0088

Mercury -58242-06-11 00:42 J -19551306.58 -19551306.47 -19551306.36 0.0133 0.0071

Mercury -58242-09-07 03:35 J -19551218.47 -19551218.35 -19551218.22 0.0133 0.0054

Mercury -58242-12-04 06:42 J -19551130.35 -19551130.22 -19551130.09 0.0133 0.0036

Mercury -58241-03-01 09:35 J -19551042.23 -19551042.10 -19551041.97 0.0133 0.0019

Mercury -58241-05-28 12:42 J -19550954.11 -19550953.97 -19550953.84 0.0133 0.0003

Mercury -58241-08-24 15:35 J -19550865.98 -19550865.85 -19550865.72 0.0133 0.0016

Mercury -58241-11-20 18:28 J -19550777.85 -19550777.73 -19550777.60 0.0133 0.0033

Mercury -58240-02-16 21:35 J -19550689.72 -19550689.60 -19550689.48 0.0133 0.0050

Mercury -58240-05-16 00:28 J -19550601.59 -19550601.48 -19550601.36 0.0133 0.0068

Mercury -58240-08-12 03:21 J -19550513.45 -19550513.36 -19550513.25 0.0133 0.0085

Mercury -58240-11-08 06:13 J -19550425.31 -19550425.24 -19550425.15 0.0133 0.0102

Mercury -58239-02-04 09:21 J -19550337.16 -19550337.11 -19550337.05 0.0133 0.0119

Moon -58233-08-17 01:11 J -19547951.57 -19547951.45 -19547951.32 0.0136 0.0117

Earth -58233-08-17 04:18 J -19547951.41 -19547951.32 -19547951.19 0.0136 0.0122 *

Earth -58232-08-21 12:57 J -19547582.21 -19547581.96 -19547581.71 0.0137 0.0023

Moon -58232-08-21 16:04 J -19547582.07 -19547581.83 -19547581.58 0.0137 0.0030 *

Moon -58231-08-25 18:13 J -19547212.92 -19547212.74 -19547212.53 0.0137 0.0085

Earth -58231-08-25 21:49 J -19547212.78 -19547212.59 -19547212.37 0.0137 0.0077 *

Mars -58222-02-26 22:04 J -19544105.64 -19544105.58 -19544105.49 0.0142 0.0137

Mars -58220-01-27 08:37 J -19543405.36 -19543405.14 -19543404.88 0.0143 0.0075

Venus -58217-11-13 15:49 J -19542018.96 -19542018.84 -19542018.70 0.0145 0.0115

Venus -58216-06-28 02:23 J -19541792.57 -19541792.40 -19541792.20 0.0146 0.0071

Venus -58215-02-09 13:40 J -19541566.14 -19541565.93 -19541565.72 0.0146 0.0026

Venus -58215-09-24 00:57 J -19541339.67 -19541339.46 -19541339.25 0.0146 0.0020

Venus -58214-05-08 12:28 J -19541113.17 -19541112.98 -19541112.79 0.0146 0.0065

Venus -58214-12-20 23:59 J -19540886.63 -19540886.50 -19540886.35 0.0146 0.0111

Mercury -58202-10-08 12:13 J -19536577.07 -19536576.99 -19536576.90 0.0146 0.0131

Mercury -58201-01-04 20:23 J -19536488.77 -19536488.65 -19536488.49 0.0146 0.0098

Mercury -58201-04-02 05:16 J -19536400.45 -19536400.28 -19536400.11 0.0146 0.0065

Mercury -58201-06-29 13:54 J -19536312.11 -19536311.92 -19536311.73 0.0146 0.0031

Mercury -58201-09-25 22:33 J -19536223.75 -19536223.56 -19536223.37 0.0146 0.0003

Mercury -58201-12-23 06:57 J -19536135.39 -19536135.21 -19536135.02 0.0146 0.0036

Mercury -58200-03-21 15:35 J -19536047.01 -19536046.85 -19536046.67 0.0146 0.0069

Mercury -58200-06-17 23:59 J -19535958.62 -19535958.50 -19535958.35 0.0146 0.0103

Mercury -58200-09-14 08:52 J -19535870.19 -19535870.13 -19535870.05 0.0145 0.0136

Earth -58193-02-16 05:30 J -19533524.46 -19533524.27 -19533524.08 0.0142 0.0096

Moon -58193-02-16 08:52 J -19533524.30 -19533524.13 -19533523.94 0.0142 0.0103 *

Moon -58192-02-20 01:40 J -19533154.68 -19533154.43 -19533154.17 0.0142 0.0026
 Earth -58192-02-20 05:30 J -19533154.52 -19533154.27 -19533154.01 0.0142 0.0021 *
 Earth -58191-02-25 04:18 J -19532784.37 -19532784.32 -19532784.22 0.0141 0.0135
 Moon -58191-02-25 07:40 J -19532784.23 -19532784.18 -19532784.08 0.0141 0.0135 *
 Mars -58182-09-09 06:13 J -19529301.58 -19529301.24 -19529300.90 0.0136 0.0002
 Venus -58177-07-23 06:13 J -19527522.30 -19527522.24 -19527522.14 0.0134 0.0125
 Venus -58176-03-06 13:25 J -19527296.10 -19527295.94 -19527295.77 0.0133 0.0089
 Venus -58176-10-18 19:54 J -19527069.87 -19527069.67 -19527069.46 0.0133 0.0053
 Venus -58175-06-02 02:09 J -19526843.63 -19526843.41 -19526843.19 0.0133 0.0018
 Venus -58174-01-14 08:09 J -19526617.37 -19526617.16 -19526616.93 0.0133 0.0018
 Venus -58174-08-28 14:09 J -19526391.11 -19526390.91 -19526390.70 0.0133 0.0052
 Venus -58173-04-10 19:40 J -19526164.83 -19526164.68 -19526164.50 0.0132 0.0087
 Venus -58173-11-23 01:11 J -19525938.53 -19525938.45 -19525938.35 0.0132 0.0120
 Mercury -58159-10-09 22:47 J -19520869.60 -19520869.55 -19520869.49 0.0132 0.0118
 Mercury -58158-01-06 01:54 J -19520781.51 -19520781.42 -19520781.34 0.0132 0.0100
 Mercury -58158-04-04 04:47 J -19520693.40 -19520693.30 -19520693.19 0.0132 0.0083
 Mercury -58158-07-01 07:40 J -19520605.29 -19520605.18 -19520605.06 0.0132 0.0067
 Mercury -58158-09-27 10:47 J -19520517.17 -19520517.05 -19520516.92 0.0132 0.0049
 Mercury -58158-12-24 13:54 J -19520429.05 -19520428.92 -19520428.79 0.0133 0.0032
 Mercury -58157-03-21 16:47 J -19520340.93 -19520340.80 -19520340.67 0.0133 0.0015
 Mercury -58157-06-17 19:54 J -19520252.81 -19520252.67 -19520252.54 0.0133 0.0004
 Mercury -58157-09-13 22:47 J -19520164.68 -19520164.55 -19520164.42 0.0133 0.0020
 Mercury -58157-12-11 01:40 J -19520076.55 -19520076.43 -19520076.30 0.0133 0.0038
 Mercury -58156-03-09 04:33 J -19519988.42 -19519988.31 -19519988.18 0.0133 0.0055
 Mercury -58156-06-05 07:40 J -19519900.29 -19519900.18 -19519900.07 0.0133 0.0072
 Mercury -58156-09-01 10:33 J -19519812.15 -19519812.06 -19519811.96 0.0133 0.0089
 Mercury -58156-11-28 13:40 J -19519724.01 -19519723.93 -19519723.85 0.0133 0.0106
 Mercury -58155-02-24 16:33 J -19519635.85 -19519635.81 -19519635.76 0.0133 0.0124
 Moon -58149-08-17 10:18 J -19517270.15 -19517270.07 -19517269.94 0.0136 0.0124
 Earth -58149-08-17 13:25 J -19517270.04 -19517269.94 -19517269.80 0.0136 0.0118 *

Earth	-58148-08-21 22:04 J	-19516900.83	-19516900.58	-19516900.33	0.0137	0.0020
Moon	-58148-08-22 01:25 J	-19516900.69	-19516900.44	-19516900.18	0.0137	0.0013 *
Moon	-58147-08-26 04:04 J	-19516531.54	-19516531.33	-19516531.12	0.0137	0.0074
Earth	-58147-08-26 06:42 J	-19516531.40	-19516531.22	-19516531.00	0.0137	0.0081 *
Mars	-58138-10-22 08:09 J	-19513187.40	-19513187.16	-19513186.90	0.0143	0.0063
Venus	-58133-07-13 21:35 J	-19511460.66	-19511460.60	-19511460.52	0.0145	0.0136
Venus	-58132-02-25 08:09 J	-19511234.32	-19511234.16	-19511233.99	0.0145	0.0093
Venus	-58132-10-09 18:57 J	-19511007.91	-19511007.71	-19511007.50	0.0146	0.0049
Venus	-58131-05-24 05:59 J	-19510781.46	-19510781.25	-19510781.03	0.0146	0.0004
Venus	-58130-01-05 17:16 J	-19510554.98	-19510554.78	-19510554.57	0.0146	0.0042
Venus	-58130-08-20 05:01 J	-19510328.45	-19510328.29	-19510328.11	0.0146	0.0087
Venus	-58129-04-02 16:47 J	-19510101.87	-19510101.80	-19510101.70	0.0146	0.0133
Mercury	-58118-10-28 18:57 J	-19505875.79	-19505875.71	-19505875.60	0.0146	0.0125
Mercury	-58117-01-25 03:35 J	-19505787.49	-19505787.35	-19505787.19	0.0146	0.0091
Mercury	-58117-04-22 12:13 J	-19505699.16	-19505698.99	-19505698.81	0.0146	0.0058
Mercury	-58117-07-19 20:52 J	-19505610.82	-19505610.63	-19505610.44	0.0146	0.0025
Mercury	-58117-10-16 05:30 J	-19505522.46	-19505522.27	-19505522.08	0.0146	0.0009
Mercury	-58116-01-12 13:54 J	-19505434.09	-19505433.92	-19505433.72	0.0146	0.0043
Mercury	-58116-04-10 22:47 J	-19505345.71	-19505345.55	-19505345.38	0.0146	0.0076
Mercury	-58116-07-08 07:11 J	-19505257.31	-19505257.20	-19505257.06	0.0146	0.0110
Mercury	-58116-10-04 16:04 J	-19505168.86	-19505168.83	-19505168.79	0.0146	0.0143
Earth	-58109-02-16 15:35 J	-19502843.04	-19502842.85	-19502842.64	0.0142	0.0091
Moon	-58109-02-16 19:25 J	-19502842.90	-19502842.69	-19502842.47	0.0142	0.0083 *
Moon	-58108-02-20 12:42 J	-19502473.23	-19502472.97	-19502472.72	0.0142	0.0021
Earth	-58108-02-20 16:04 J	-19502473.08	-19502472.83	-19502472.57	0.0142	0.0026 *
Earth	-58107-02-25 14:52 J	-19502102.88	-19502102.88	-19502102.84	0.0141	0.0141
Mars	-58097-05-05 05:16 J	-19498381.53	-19498381.28	-19498381.00	0.0135	0.0085
Venus	-58093-11-03 23:30 J	-19496737.65	-19496737.52	-19496737.37	0.0134	0.0104
Venus	-58092-06-18 06:13 J	-19496511.42	-19496511.24	-19496511.04	0.0133	0.0068
Venus	-58091-01-30 12:42 J	-19496285.18	-19496284.97	-19496284.75	0.0133	0.0033

Venus	-58091-09-13 19:11 J	-19496058.92	-19496058.70	-19496058.48	0.0133	0.0003
Venus	-58090-04-28 01:11 J	-19495832.67	-19495832.45	-19495832.24	0.0133	0.0037
Venus	-58090-12-10 06:42 J	-19495606.40	-19495606.22	-19495606.03	0.0132	0.0072
Venus	-58089-07-23 12:13 J	-19495380.11	-19495379.99	-19495379.84	0.0132	0.0106
Mercury	-58075-08-03 03:06 J	-19490256.38	-19490256.37	-19490256.34	0.0132	0.0130
Mercury	-58075-10-30 06:13 J	-19490168.30	-19490168.24	-19490168.17	0.0132	0.0112
Mercury	-58074-01-26 09:06 J	-19490080.20	-19490080.12	-19490080.02	0.0132	0.0095
Mercury	-58074-04-24 12:13 J	-19489992.09	-19489991.99	-19489991.88	0.0132	0.0078
Mercury	-58074-07-21 15:21 J	-19489903.98	-19489903.86	-19489903.74	0.0132	0.0060
Mercury	-58074-10-17 18:13 J	-19489815.86	-19489815.74	-19489815.61	0.0132	0.0043
Mercury	-58073-01-13 21:21 J	-19489727.74	-19489727.61	-19489727.48	0.0133	0.0026
Mercury	-58073-04-11 00:13 J	-19489639.62	-19489639.49	-19489639.35	0.0133	0.0009
Mercury	-58073-07-08 03:21 J	-19489551.50	-19489551.36	-19489551.23	0.0133	0.0009
Mercury	-58073-10-04 06:13 J	-19489463.37	-19489463.24	-19489463.11	0.0133	0.0026
Mercury	-58073-12-31 09:06 J	-19489375.24	-19489375.12	-19489374.99	0.0133	0.0043
Mercury	-58072-03-29 12:13 J	-19489287.11	-19489286.99	-19489286.87	0.0133	0.0060
Mercury	-58072-06-25 15:06 J	-19489198.97	-19489198.87	-19489198.76	0.0133	0.0077
Mercury	-58072-09-21 17:59 J	-19489110.84	-19489110.75	-19489110.65	0.0133	0.0095
Mercury	-58072-12-18 20:52 J	-19489022.69	-19489022.63	-19489022.55	0.0133	0.0112
Mercury	-58071-03-16 23:45 J	-19488934.53	-19488934.51	-19488934.47	0.0133	0.0130
Moon	-58065-08-17 22:04 J	-19486588.71	-19486588.58	-19486588.42	0.0136	0.0108
Earth	-58065-08-18 00:42 J	-19486588.58	-19486588.47	-19486588.30	0.0136	0.0114 *
Earth	-58064-08-22 09:21 J	-19486219.36	-19486219.11	-19486218.86	0.0137	0.0014
Moon	-58064-08-22 12:13 J	-19486219.24	-19486218.99	-19486218.74	0.0137	0.0020 *
Moon	-58063-08-26 14:52 J	-19485850.04	-19485849.88	-19485849.69	0.0137	0.0094
Earth	-58063-08-26 18:13 J	-19485849.93	-19485849.74	-19485849.54	0.0137	0.0087 *
Mars	-58053-06-15 23:30 J	-19482268.80	-19482268.52	-19482268.24	0.0143	0.0015
Venus	-58049-10-25 15:06 J	-19480676.00	-19480675.87	-19480675.74	0.0145	0.0114
Venus	-58048-06-09 01:11 J	-19480449.62	-19480449.45	-19480449.25	0.0145	0.0071
Venus	-58047-01-21 12:28 J	-19480223.19	-19480222.98	-19480222.77	0.0146	0.0026

Venus -58047-09-04 23:45 J -19479996.72 -19479996.51 -19479996.30 0.0146 0.0019

Venus -58046-04-19 11:16 J -19479770.22 -19479770.03 -19479769.84 0.0146 0.0065

Venus -58046-12-01 22:33 J -19479543.68 -19479543.56 -19479543.40 0.0146 0.0110

Mercury -58034-11-18 01:54 J -19475174.52 -19475174.42 -19475174.30 0.0146 0.0119

Mercury -58033-02-14 10:33 J -19475086.21 -19475086.06 -19475085.90 0.0146 0.0085

Mercury -58033-05-12 19:11 J -19474997.88 -19474997.70 -19474997.52 0.0146 0.0052

Mercury -58033-08-09 03:49 J -19474909.53 -19474909.34 -19474909.15 0.0146 0.0019

Mercury -58033-11-05 12:28 J -19474821.17 -19474820.98 -19474820.79 0.0146 0.0015

Mercury -58032-02-01 20:52 J -19474732.80 -19474732.63 -19474732.44 0.0146 0.0049

Mercury -58032-05-01 05:45 J -19474644.42 -19474644.26 -19474644.10 0.0146 0.0082

Mercury -58032-07-28 14:09 J -19474556.01 -19474555.91 -19474555.78 0.0146 0.0116

Earth -58025-02-17 00:57 J -19472161.66 -19472161.46 -19472161.25 0.0142 0.0087

Moon -58025-02-17 04:18 J -19472161.51 -19472161.32 -19472161.12 0.0142 0.0094 *

Moon -58024-02-20 21:21 J -19471791.85 -19471791.61 -19471791.36 0.0142 0.0036

Earth -58024-02-21 01:11 J -19471791.70 -19471791.45 -19471791.19 0.0142 0.0030 *

Mars -58014-01-24 23:45 J -19468166.80 -19468166.51 -19468166.19 0.0136 0.0058

Venus -58009-07-04 09:21 J -19466179.21 -19466179.11 -19466179.02 0.0134 0.0119

Venus -58008-02-15 16:04 J -19465953.00 -19465952.83 -19465952.65 0.0133 0.0084

Venus -58008-09-29 22:33 J -19465726.76 -19465726.56 -19465726.34 0.0133 0.0049

Venus -58007-05-14 05:01 J -19465500.51 -19465500.29 -19465500.06 0.0133 0.0013

Venus -58007-12-26 11:16 J -19465274.25 -19465274.03 -19465273.81 0.0133 0.0022

Venus -58006-08-09 17:01 J -19465047.98 -19465047.79 -19465047.58 0.0133 0.0057

Venus -58005-03-22 23:01 J -19464821.69 -19464821.54 -19464821.37 0.0132 0.0091

Venus -58005-11-04 04:33 J -19464595.37 -19464595.31 -19464595.22 0.0132 0.0125

58TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 58th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-57991-08-23 10:33 J	-19459555.10	-19459555.06	-19459555.01	0.0132	0.0124		
Mercury	-57991-11-19 13:25 J	-19459467.00	-19459466.94	-19459466.85	0.0132	0.0108		
Mercury	-57990-02-15 16:47 J	-19459378.90	-19459378.80	-19459378.71	0.0132	0.0090		
Mercury	-57990-05-14 19:40 J	-19459290.79	-19459290.68	-19459290.57	0.0132	0.0073		
Mercury	-57990-08-10 22:33 J	-19459202.67	-19459202.56	-19459202.43	0.0132	0.0056		
Mercury	-57990-11-07 01:40 J	-19459114.56	-19459114.43	-19459114.30	0.0132	0.0038		
Mercury	-57989-02-03 04:47 J	-19459026.43	-19459026.30	-19459026.17	0.0133	0.0021		
Mercury	-57989-05-01 07:40 J	-19458938.31	-19458938.18	-19458938.05	0.0133	0.0004		
Mercury	-57989-07-28 10:33 J	-19458850.19	-19458850.06	-19458849.92	0.0133	0.0014		
Mercury	-57989-10-24 13:40 J	-19458762.06	-19458761.93	-19458761.80	0.0133	0.0031		
Mercury	-57988-01-20 16:33 J	-19458673.93	-19458673.81	-19458673.68	0.0133	0.0048		
Mercury	-57988-04-18 19:25 J	-19458585.80	-19458585.69	-19458585.57	0.0133	0.0066		
Mercury	-57988-07-15 22:18 J	-19458497.66	-19458497.57	-19458497.46	0.0133	0.0083		
Mercury	-57988-10-12 01:11 J	-19458409.52	-19458409.45	-19458409.35	0.0133	0.0100		
Mercury	-57987-01-08 04:18 J	-19458321.37	-19458321.32	-19458321.25	0.0133	0.0117		
Moon	-57981-08-18 09:49 J	-19455907.22	-19455907.09	-19455906.94	0.0136	0.0111		
Earth	-57981-08-18 12:13 J	-19455907.13	-19455906.99	-19455906.83	0.0136	0.0107	*	
Earth	-57980-08-22 20:37 J	-19455537.89	-19455537.64	-19455537.39	0.0137	0.0008		
Moon	-57980-08-22 23:30 J	-19455537.78	-19455537.52	-19455537.26	0.0137	0.0001	*	
Moon	-57979-08-27 02:52 J	-19455168.56	-19455168.38	-19455168.18	0.0137	0.0085		
Earth	-57979-08-27 05:16 J	-19455168.45	-19455168.28	-19455168.09	0.0137	0.0093	*	
Mars	-57970-03-11 05:45 J	-19452050.39	-19452050.26	-19452050.09	0.0142	0.0119		
Mars	-57968-02-08 16:33 J	-19451350.01	-19451349.81	-19451349.58	0.0143	0.0094		
Venus	-57965-06-24 22:18 J	-19450117.64	-19450117.57	-19450117.48	0.0145	0.0133		

Venus -57964-02-06 08:37 J -19449891.29 -19449891.14 -19449890.96 0.0145 0.0091
 Venus -57964-09-20 19:40 J -19449664.88 -19449664.68 -19449664.47 0.0146 0.0046
 Venus -57963-05-05 06:42 J -19449438.43 -19449438.22 -19449438.00 0.0146 0.0003
 Venus -57963-12-17 17:59 J -19449211.95 -19449211.75 -19449211.54 0.0146 0.0043
 Venus -57962-08-01 05:30 J -19448985.43 -19448985.27 -19448985.09 0.0146 0.0089
 Venus -57961-03-14 17:30 J -19448758.85 -19448758.77 -19448758.68 0.0146 0.0134
 Mercury -57950-09-11 00:57 J -19444561.49 -19444561.46 -19444561.42 0.0146 0.0144
 Mercury -57950-12-08 09:21 J -19444473.22 -19444473.11 -19444472.97 0.0146 0.0111
 Mercury -57949-03-05 17:59 J -19444384.90 -19444384.75 -19444384.58 0.0146 0.0077
 Mercury -57949-06-02 02:37 J -19444296.57 -19444296.39 -19444296.20 0.0146 0.0044
 Mercury -57949-08-29 11:16 J -19444208.22 -19444208.03 -19444207.84 0.0146 0.0011
 Mercury -57949-11-25 19:54 J -19444119.86 -19444119.67 -19444119.48 0.0146 0.0023
 Mercury -57948-02-22 04:33 J -19444031.48 -19444031.31 -19444031.13 0.0146 0.0057
 Mercury -57948-05-21 12:57 J -19443943.10 -19443942.96 -19443942.80 0.0146 0.0091
 Mercury -57948-08-17 21:49 J -19443854.68 -19443854.59 -19443854.49 0.0146 0.0124
 Earth -57941-02-17 11:30 J -19441480.22 -19441480.02 -19441479.80 0.0143 0.0082
 Moon -57941-02-17 14:52 J -19441480.09 -19441479.88 -19441479.64 0.0143 0.0074 *
 Moon -57940-02-21 08:37 J -19441110.37 -19441110.14 -19441109.88 0.0142 0.0031
 Earth -57940-02-21 12:13 J -19441110.24 -19441109.99 -19441109.74 0.0142 0.0036 *
 Mars -57930-09-21 00:13 J -19437246.82 -19437246.49 -19437246.15 0.0136 0.0028
 Venus -57925-03-03 19:25 J -19435620.69 -19435620.69 -19435620.69 0.0134 0.0134
 Venus -57925-10-16 01:54 J -19435394.55 -19435394.42 -19435394.25 0.0134 0.0099
 Venus -57924-05-30 09:06 J -19435168.31 -19435168.12 -19435167.92 0.0133 0.0063
 Venus -57923-01-11 15:49 J -19434942.06 -19434941.84 -19434941.63 0.0133 0.0028
 Venus -57923-08-25 22:04 J -19434715.80 -19434715.58 -19434715.36 0.0133 0.0008
 Venus -57922-04-09 04:18 J -19434489.53 -19434489.32 -19434489.11 0.0133 0.0042
 Venus -57922-11-21 10:04 J -19434263.25 -19434263.08 -19434262.89 0.0133 0.0077
 Venus -57921-07-04 15:49 J -19434036.95 -19434036.84 -19434036.71 0.0132 0.0110
 Mercury -57907-09-12 18:13 J -19428853.79 -19428853.74 -19428853.68 0.0132 0.0118
 Mercury -57907-12-09 21:21 J -19428765.69 -19428765.61 -19428765.52 0.0132 0.0101

Mercury -57906-03-08 00:13 J -19428677.59 -19428677.49 -19428677.38 0.0132 0.0084

Mercury -57906-06-04 03:21 J -19428589.47 -19428589.36 -19428589.24 0.0132 0.0066

Mercury -57906-08-31 06:13 J -19428501.36 -19428501.24 -19428501.11 0.0132 0.0049

Mercury -57906-11-27 09:21 J -19428413.24 -19428413.11 -19428412.98 0.0133 0.0032

Mercury -57905-02-23 12:28 J -19428325.12 -19428324.98 -19428324.85 0.0133 0.0015

Mercury -57905-05-21 15:21 J -19428236.99 -19428236.86 -19428236.73 0.0133 0.0003

Mercury -57905-08-17 18:13 J -19428148.87 -19428148.74 -19428148.61 0.0133 0.0020

Mercury -57905-11-13 21:06 J -19428060.74 -19428060.62 -19428060.49 0.0133 0.0038

Mercury -57904-02-10 00:13 J -19427972.61 -19427972.49 -19427972.37 0.0133 0.0055

Mercury -57904-05-09 03:06 J -19427884.48 -19427884.37 -19427884.25 0.0133 0.0072

Mercury -57904-08-05 05:59 J -19427796.34 -19427796.25 -19427796.15 0.0133 0.0089

Mercury -57904-11-01 08:52 J -19427708.20 -19427708.13 -19427708.04 0.0133 0.0107

Mercury -57903-01-28 11:59 J -19427620.04 -19427620.00 -19427619.95 0.0133 0.0123

Moon -57897-08-18 23:16 J -19425225.68 -19425225.53 -19425225.34 0.0136 0.0096

Earth -57897-08-19 01:25 J -19425225.59 -19425225.44 -19425225.25 0.0136 0.0101 *

Earth -57896-08-23 10:18 J -19424856.32 -19424856.07 -19424855.82 0.0137 0.0002

Moon -57896-08-23 12:13 J -19424856.24 -19424855.99 -19424855.73 0.0137 0.0007 *

Moon -57895-08-27 16:33 J -19424486.96 -19424486.81 -19424486.66 0.0137 0.0108

Earth -57895-08-27 18:57 J -19424486.87 -19424486.71 -19424486.53 0.0137 0.0100 *

Mars -57886-11-04 02:23 J -19421131.66 -19421131.40 -19421131.12 0.0143 0.0040

Venus -57881-10-06 18:28 J -19419332.86 -19419332.73 -19419332.57 0.0145 0.0107

Venus -57880-05-21 05:16 J -19419106.47 -19419106.28 -19419106.09 0.0145 0.0064

Venus -57879-01-02 16:04 J -19418880.04 -19418879.83 -19418879.61 0.0146 0.0020

Venus -57879-08-17 03:21 J -19418653.57 -19418653.36 -19418653.14 0.0146 0.0025

Venus -57878-03-31 14:37 J -19418427.07 -19418426.89 -19418426.69 0.0146 0.0070

Venus -57878-11-13 02:09 J -19418200.53 -19418200.41 -19418200.26 0.0146 0.0115

Mercury -57866-10-01 09:35 J -19413860.17 -19413860.10 -19413860.01 0.0146 0.0131

Mercury -57866-12-28 17:59 J -19413771.88 -19413771.75 -19413771.60 0.0146 0.0099

Mercury -57865-03-26 02:37 J -19413683.55 -19413683.39 -19413683.21 0.0146 0.0065

Mercury -57865-06-22 11:30 J -19413595.21 -19413595.02 -19413594.84 0.0146 0.0032

Mercury -57865-09-18 19:54 J -19413506.86 -19413506.67 -19413506.47 0.0146 0.0004
 Mercury -57865-12-16 04:33 J -19413418.49 -19413418.31 -19413418.12 0.0146 0.0036
 Mercury -57864-03-14 13:11 J -19413330.12 -19413329.95 -19413329.78 0.0146 0.0069
 Mercury -57864-06-10 21:35 J -19413241.72 -19413241.60 -19413241.45 0.0146 0.0103
 Mercury -57864-09-07 06:13 J -19413153.29 -19413153.24 -19413153.16 0.0146 0.0137
 Earth -57857-02-18 00:42 J -19410798.67 -19410798.47 -19410798.23 0.0143 0.0074
 Moon -57857-02-18 03:35 J -19410798.55 -19410798.35 -19410798.12 0.0143 0.0081 *
 Moon -57856-02-21 21:49 J -19410428.82 -19410428.59 -19410428.34 0.0142 0.0050
 Earth -57856-02-22 01:11 J -19410428.69 -19410428.45 -19410428.19 0.0142 0.0044 *
 Mars -57847-06-11 20:23 J -19407031.80 -19407031.65 -19407031.43 0.0137 0.0116
 Mars -57845-05-17 01:40 J -19406326.60 -19406326.43 -19406326.24 0.0136 0.0114
 Venus -57841-06-15 12:57 J -19404836.07 -19404835.96 -19404835.83 0.0134 0.0112
 Venus -57840-01-27 19:54 J -19404609.84 -19404609.67 -19404609.48 0.0133 0.0077
 Venus -57840-09-11 02:52 J -19404383.59 -19404383.38 -19404383.17 0.0133 0.0041
 Venus -57839-04-25 09:21 J -19404157.33 -19404157.11 -19404156.89 0.0133 0.0006
 Venus -57839-12-07 15:35 J -19403931.06 -19403930.85 -19403930.63 0.0133 0.0029
 Venus -57838-07-21 21:35 J -19403704.79 -19403704.60 -19403704.40 0.0133 0.0063
 Venus -57837-03-04 03:49 J -19403478.49 -19403478.34 -19403478.19 0.0132 0.0097
 Venus -57837-10-16 09:06 J -19403252.14 -19403252.12 -19403252.07 0.0132 0.0131
 Mercury -57823-07-06 23:01 J -19398240.57 -19398240.54 -19398240.51 0.0132 0.0129
 Mercury -57823-10-03 01:54 J -19398152.49 -19398152.42 -19398152.35 0.0132 0.0111
 Mercury -57823-12-30 04:47 J -19398064.38 -19398064.30 -19398064.20 0.0132 0.0095
 Mercury -57822-03-28 07:54 J -19397976.27 -19397976.17 -19397976.06 0.0132 0.0077
 Mercury -57822-06-24 11:01 J -19397888.16 -19397888.04 -19397887.92 0.0132 0.0060
 Mercury -57822-09-20 13:54 J -19397800.04 -19397799.92 -19397799.79 0.0133 0.0043
 Mercury -57822-12-17 17:01 J -19397711.92 -19397711.79 -19397711.66 0.0133 0.0025
 Mercury -57821-03-14 19:54 J -19397623.80 -19397623.67 -19397623.53 0.0133 0.0009
 Mercury -57821-06-10 23:01 J -19397535.67 -19397535.54 -19397535.41 0.0133 0.0010
 Mercury -57821-09-07 01:54 J -19397447.55 -19397447.42 -19397447.29 0.0133 0.0027
 Mercury -57821-12-04 04:47 J -19397359.42 -19397359.30 -19397359.17 0.0133 0.0044

Mercury -57820-03-02 07:54 J -19397271.29 -19397271.17 -19397271.05 0.0133 0.0061

Mercury -57820-05-29 10:47 J -19397183.15 -19397183.05 -19397182.94 0.0133 0.0078

Mercury -57820-08-25 13:40 J -19397095.02 -19397094.93 -19397094.83 0.0133 0.0095

Mercury -57820-11-21 16:47 J -19397006.87 -19397006.80 -19397006.73 0.0133 0.0113

Mercury -57819-02-17 19:40 J -19396918.71 -19396918.68 -19396918.65 0.0133 0.0130

Moon -57813-08-19 13:11 J -19394544.11 -19394543.95 -19394543.77 0.0136 0.0096

Earth -57813-08-19 14:52 J -19394544.06 -19394543.88 -19394543.69 0.0136 0.0092 *

Earth -57812-08-23 23:16 J -19394174.78 -19394174.53 -19394174.28 0.0137 0.0007

Moon -57812-08-24 01:25 J -19394174.69 -19394174.44 -19394174.18 0.0137 0.0014 *

Moon -57811-08-28 06:28 J -19393805.38 -19393805.23 -19393805.06 0.0137 0.0102

Earth -57811-08-28 08:09 J -19393805.30 -19393805.16 -19393805.00 0.0137 0.0108 *

Mars -57801-06-28 22:04 J -19390212.85 -19390212.58 -19390212.31 0.0143 0.0041

Venus -57797-06-06 03:35 J -19388774.44 -19388774.35 -19388774.23 0.0145 0.0125

Venus -57796-01-18 14:23 J -19388548.07 -19388547.90 -19388547.72 0.0145 0.0082

Venus -57796-09-02 01:11 J -19388321.65 -19388321.45 -19388321.24 0.0145 0.0038

Venus -57795-04-16 12:13 J -19388095.20 -19388094.99 -19388094.77 0.0146 0.0007

Venus -57795-11-28 23:30 J -19387868.72 -19387868.52 -19387868.32 0.0146 0.0051

Venus -57794-07-13 10:47 J -19387642.20 -19387642.05 -19387641.87 0.0146 0.0096

Venus -57793-02-24 22:47 J -19387415.60 -19387415.55 -19387415.49 0.0146 0.0141

Mercury -57782-10-21 18:28 J -19383158.82 -19383158.73 -19383158.60 0.0146 0.0118

Mercury -57781-01-18 03:06 J -19383070.51 -19383070.37 -19383070.20 0.0146 0.0084

Mercury -57781-04-15 11:59 J -19382982.18 -19382982.00 -19382981.82 0.0146 0.0051

Mercury -57781-07-12 20:37 J -19382893.83 -19382893.64 -19382893.45 0.0146 0.0017

Mercury -57781-10-09 05:01 J -19382805.48 -19382805.29 -19382805.09 0.0146 0.0017

Mercury -57780-01-05 13:40 J -19382717.11 -19382716.93 -19382716.75 0.0146 0.0050

Mercury -57780-04-03 22:04 J -19382628.72 -19382628.58 -19382628.41 0.0146 0.0084

Mercury -57780-07-01 06:57 J -19382540.32 -19382540.21 -19382540.09 0.0146 0.0117

Earth -57773-02-18 16:33 J -19380117.04 -19380116.81 -19380116.57 0.0143 0.0063

Moon -57773-02-18 19:11 J -19380116.94 -19380116.70 -19380116.45 0.0143 0.0055 *

Moon -57772-02-22 14:23 J -19379747.14 -19379746.90 -19379746.67 0.0142 0.0049

Earth -57772-02-22 17:01 J -19379747.02 -19379746.79 -19379746.55 0.0142 0.0055 *
 Mars -57762-02-06 05:59 J -19376111.57 -19376111.25 -19376110.90 0.0136 0.0024
 Venus -57757-02-14 00:42 J -19374277.53 -19374277.47 -19374277.38 0.0134 0.0125
 Venus -57757-09-27 07:54 J -19374051.32 -19374051.17 -19374051.00 0.0134 0.0090
 Venus -57756-05-11 14:52 J -19373825.08 -19373824.88 -19373824.67 0.0133 0.0054
 Venus -57756-12-23 21:35 J -19373598.82 -19373598.60 -19373598.38 0.0133 0.0019
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 Mercury -57739-07-27 06:42 J -19367539.27 -19367539.22 -19367539.17 0.0132 0.0121
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 Mercury -57738-01-19 12:42 J -19367363.07 -19367362.97 -19367362.87 0.0132 0.0087
 Mercury -57738-04-17 15:49 J -19367274.95 -19367274.84 -19367274.73 0.0132 0.0070
 Mercury -57738-07-14 18:42 J -19367186.84 -19367186.72 -19367186.59 0.0132 0.0053
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 Mercury -57737-01-07 00:42 J -19367010.60 -19367010.47 -19367010.34 0.0133 0.0018
 Mercury -57737-04-04 03:49 J -19366922.48 -19366922.34 -19366922.21 0.0133 0.0003
 Mercury -57737-07-01 06:42 J -19366834.35 -19366834.22 -19366834.09 0.0133 0.0016
 Mercury -57737-09-27 09:35 J -19366746.22 -19366746.10 -19366745.97 0.0133 0.0034
 Mercury -57737-12-24 12:42 J -19366658.09 -19366657.97 -19366657.85 0.0133 0.0051
 Mercury -57736-03-22 15:35 J -19366569.96 -19366569.85 -19366569.74 0.0133 0.0068
 Mercury -57736-06-18 18:28 J -19366481.83 -19366481.73 -19366481.63 0.0133 0.0085
 Mercury -57736-09-14 21:21 J -19366393.69 -19366393.61 -19366393.52 0.0133 0.0103
 Mercury -57736-12-12 00:28 J -19366305.54 -19366305.48 -19366305.42 0.0133 0.0120
 Moon -57729-08-20 03:35 J -19363862.54 -19363862.35 -19363862.15 0.0136 0.0080
 Earth -57729-08-20 04:47 J -19363862.48 -19363862.30 -19363862.09 0.0136 0.0085 *
 Earth -57728-08-24 13:40 J -19363493.18 -19363492.93 -19363492.69 0.0137 0.0016
 Moon -57728-08-24 14:37 J -19363493.14 -19363492.89 -19363492.63 0.0137 0.0011 *
 Moon -57727-08-28 20:09 J -19363123.74 -19363123.66 -19363123.54 0.0137 0.0125

Earth -57727-08-28 22:04 J -19363123.69 -19363123.58 -19363123.43 0.0137 0.0117 *
 Mars -57718-03-24 10:33 J -19359994.27 -19359994.06 -19359993.84 0.0142 0.0089
 Mars -57716-02-21 19:25 J -19359293.80 -19359293.69 -19359293.53 0.0143 0.0125
 Venus -57713-02-04 14:09 J -19358215.95 -19358215.91 -19358215.87 0.0145 0.0141
 Venus -57713-09-18 00:13 J -19357989.63 -19357989.49 -19357989.32 0.0145 0.0099
 Venus -57712-05-02 11:01 J -19357763.23 -19357763.04 -19357762.84 0.0145 0.0056
 Venus -57712-12-14 22:04 J -19357536.80 -19357536.58 -19357536.37 0.0146 0.0012
 Venus -57711-07-29 09:06 J -19357310.33 -19357310.12 -19357309.91 0.0146 0.0033
 Venus -57710-03-12 20:23 J -19357083.82 -19357083.65 -19357083.46 0.0146 0.0077
 Venus -57710-10-25 07:54 J -19356857.27 -19356857.17 -19356857.04 0.0146 0.0122
 Mercury -57698-08-14 19:25 J -19352545.75 -19352545.69 -19352545.61 0.0146 0.0136
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 Mercury -57697-08-02 05:45 J -19352192.45 -19352192.26 -19352192.07 0.0146 0.0003
 Mercury -57697-10-29 14:23 J -19352104.09 -19352103.90 -19352103.71 0.0146 0.0031
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 Mercury -57696-07-21 16:18 J -19351838.90 -19351838.82 -19351838.74 0.0146 0.0132
 Earth -57689-02-19 08:52 J -19349435.37 -19349435.13 -19349434.88 0.0143 0.0051
 Moon -57689-02-19 11:01 J -19349435.27 -19349435.04 -19349434.79 0.0143 0.0058 *
 Moon -57688-02-23 06:13 J -19349065.45 -19349065.24 -19349065.01 0.0142 0.0073
 Earth -57688-02-23 09:06 J -19349065.34 -19349065.12 -19349064.88 0.0142 0.0067 *
 Mars -57678-10-03 15:06 J -19345191.16 -19345190.87 -19345190.57 0.0136 0.0067
 Venus -57673-05-27 19:54 J -19343492.79 -19343492.67 -19343492.51 0.0134 0.0103
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 Venus -57671-04-06 16:33 J -19342814.03 -19342813.81 -19342813.59 0.0133 0.0003
 Venus -57671-11-18 22:33 J -19342587.76 -19342587.56 -19342587.33 0.0133 0.0038
 Venus -57670-07-03 04:33 J -19342361.48 -19342361.31 -19342361.11 0.0133 0.0072

Venus -57669-02-14 10:47 J -19342135.18 -19342135.05 -19342134.91 0.0132 0.0105
 Mercury -57655-05-20 11:16 J -19336926.03 -19336926.03 -19336926.02 0.0132 0.0132
 Mercury -57655-08-16 14:23 J -19336837.96 -19336837.90 -19336837.83 0.0132 0.0114
 Mercury -57655-11-12 17:16 J -19336749.86 -19336749.78 -19336749.68 0.0132 0.0098
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 Mercury -57654-05-07 23:16 J -19336573.64 -19336573.53 -19336573.41 0.0132 0.0063
 Mercury -57654-08-04 02:23 J -19336485.52 -19336485.40 -19336485.27 0.0132 0.0046
 Mercury -57654-10-31 05:30 J -19336397.40 -19336397.27 -19336397.14 0.0132 0.0029
 Mercury -57653-01-27 08:23 J -19336309.28 -19336309.15 -19336309.02 0.0132 0.0011
 Mercury -57653-04-24 11:16 J -19336221.16 -19336221.03 -19336220.89 0.0133 0.0007
 Mercury -57653-07-21 14:23 J -19336133.03 -19336132.90 -19336132.77 0.0133 0.0023
 Mercury -57653-10-17 17:16 J -19336044.91 -19336044.78 -19336044.65 0.0133 0.0040
 Mercury -57652-01-13 20:09 J -19335956.78 -19335956.66 -19335956.54 0.0133 0.0057
 Mercury -57652-04-11 23:01 J -19335868.64 -19335868.54 -19335868.42 0.0133 0.0075
 Mercury -57652-07-09 01:54 J -19335780.50 -19335780.42 -19335780.32 0.0133 0.0092
 Mercury -57652-10-05 04:47 J -19335692.36 -19335692.30 -19335692.21 0.0133 0.0109
 Mercury -57651-01-01 07:54 J -19335604.20 -19335604.17 -19335604.12 0.0133 0.0126
 Moon -57645-08-20 16:33 J -19333180.99 -19333180.81 -19333180.60 0.0136 0.0080
 Earth -57645-08-20 17:16 J -19333180.97 -19333180.78 -19333180.56 0.0136 0.0077 *
 Earth -57644-08-25 01:40 J -19332811.68 -19332811.43 -19332811.18 0.0137 0.0023
 Moon -57644-08-25 02:52 J -19332811.63 -19332811.38 -19332811.12 0.0137 0.0029 *
 Moon -57643-08-29 09:06 J -19332442.22 -19332442.12 -19332441.97 0.0137 0.0118
 Earth -57643-08-29 10:18 J -19332442.16 -19332442.07 -19332441.96 0.0137 0.0124 *
 Mars -57634-11-17 00:28 J -19329075.75 -19329075.48 -19329075.20 0.0143 0.0011
 Venus -57629-05-18 07:40 J -19327431.29 -19327431.18 -19327431.04 0.0145 0.0119
 Venus -57629-12-30 18:28 J -19327204.91 -19327204.73 -19327204.55 0.0145 0.0076
 Venus -57628-08-14 05:01 J -19326978.49 -19326978.29 -19326978.07 0.0146 0.0033
 Venus -57627-03-28 16:18 J -19326752.04 -19326751.82 -19326751.61 0.0146 0.0012
 Venus -57627-11-10 03:06 J -19326525.55 -19326525.37 -19326525.16 0.0146 0.0056
 Venus -57626-06-24 14:37 J -19326299.04 -19326298.89 -19326298.73 0.0146 0.0101

Venus -57625-02-06 02:09 J -19326072.42 -19326072.41 -19326072.37 0.0147 0.0146
 Mercury -57614-09-04 03:21 J -19321844.45 -19321844.36 -19321844.25 0.0147 0.0126
 Mercury -57614-12-01 11:45 J -19321756.14 -19321756.01 -19321755.85 0.0147 0.0093
 Mercury -57613-02-27 20:37 J -19321667.81 -19321667.64 -19321667.47 0.0146 0.0059
 Mercury -57613-05-26 05:16 J -19321579.47 -19321579.28 -19321579.09 0.0146 0.0025
 Mercury -57613-08-22 13:40 J -19321491.12 -19321490.93 -19321490.73 0.0146 0.0009
 Mercury -57613-11-18 22:18 J -19321402.75 -19321402.57 -19321402.38 0.0146 0.0042
 Mercury -57612-02-15 06:42 J -19321314.37 -19321314.22 -19321314.04 0.0146 0.0076
 Mercury -57612-05-14 15:35 J -19321225.97 -19321225.85 -19321225.72 0.0146 0.0109
 Mercury -57612-08-11 00:13 J -19321137.52 -19321137.49 -19321137.45 0.0146 0.0143
 Earth -57605-02-19 22:18 J -19318753.80 -19318753.57 -19318753.31 0.0143 0.0042
 Moon -57605-02-20 00:28 J -19318753.73 -19318753.48 -19318753.21 0.0143 0.0034 *
 Moon -57604-02-23 21:06 J -19318383.83 -19318383.62 -19318383.40 0.0142 0.0072
 Earth -57604-02-23 23:16 J -19318383.74 -19318383.53 -19318383.30 0.0142 0.0077 *
 Mars -57595-06-24 16:33 J -19314976.10 -19314975.81 -19314975.52 0.0137 0.0072
 Venus -57589-01-26 08:09 J -19312934.25 -19312934.16 -19312934.03 0.0134 0.0116
 Venus -57589-09-08 15:21 J -19312708.03 -19312707.86 -19312707.67 0.0134 0.0080
 Venus -57588-04-22 22:18 J -19312481.77 -19312481.57 -19312481.36 0.0133 0.0045
 Venus -57588-12-05 05:01 J -19312255.51 -19312255.29 -19312255.07 0.0133 0.0010
 Venus -57587-07-19 11:30 J -19312029.24 -19312029.02 -19312028.81 0.0133 0.0024
 Venus -57586-03-02 17:45 J -19311802.96 -19311802.76 -19311802.56 0.0133 0.0058
 Venus -57586-10-14 23:30 J -19311576.67 -19311576.52 -19311576.36 0.0132 0.0092
 Venus -57585-05-28 04:47 J -19311350.35 -19311350.30 -19311350.21 0.0132 0.0126
 Mercury -57571-06-09 18:57 J -19306224.74 -19306224.71 -19306224.66 0.0132 0.0125
 Mercury -57571-09-05 21:49 J -19306136.65 -19306136.59 -19306136.50 0.0132 0.0108
 Mercury -57571-12-03 01:11 J -19306048.55 -19306048.45 -19306048.35 0.0132 0.0090
 Mercury -57570-03-01 04:04 J -19305960.44 -19305960.33 -19305960.21 0.0132 0.0073
 Mercury -57570-05-28 07:11 J -19305872.32 -19305872.20 -19305872.08 0.0132 0.0056
 Mercury -57570-08-24 10:04 J -19305784.20 -19305784.08 -19305783.95 0.0132 0.0039
 Mercury -57570-11-20 12:57 J -19305696.08 -19305695.96 -19305695.82 0.0132 0.0023

Mercury -57569-02-16 16:04 J -19305607.96 -19305607.83 -19305607.70 0.0132 0.0005
 Mercury -57569-05-14 18:57 J -19305519.84 -19305519.71 -19305519.57 0.0132 0.0013
 Mercury -57569-08-10 22:04 J -19305431.71 -19305431.58 -19305431.45 0.0133 0.0030
 Mercury -57569-11-07 00:57 J -19305343.58 -19305343.46 -19305343.34 0.0133 0.0047
 Mercury -57568-02-03 03:49 J -19305255.45 -19305255.34 -19305255.22 0.0133 0.0064
 Mercury -57568-05-02 06:57 J -19305167.32 -19305167.21 -19305167.11 0.0133 0.0081
 Mercury -57568-07-29 09:49 J -19305079.18 -19305079.09 -19305079.00 0.0133 0.0098
 Mercury -57568-10-25 12:42 J -19304991.03 -19304990.97 -19304990.90 0.0133 0.0115
 Mercury -57567-01-21 15:35 J -19304902.85 -19304902.85 -19304902.84 0.0133 0.0132
 Jupiter -57562-06-05 03:35 J -19302942.81 -19302942.35 -19302941.84 0.0135 0.0042
 Moon -57561-08-21 05:59 J -19302499.45 -19302499.25 -19302499.03 0.0136 0.0066
 Earth -57561-08-21 06:28 J -19302499.43 -19302499.23 -19302499.00 0.0136 0.0069 *
 Earth -57560-08-25 14:37 J -19302130.13 -19302129.89 -19302129.64 0.0136 0.0031
 Moon -57560-08-25 14:52 J -19302130.13 -19302129.88 -19302129.62 0.0136 0.0026 *
 Earth -57559-08-29 22:47 J -19301760.59 -19301760.55 -19301760.46 0.0137 0.0132
 Mars -57549-07-11 18:42 J -19298156.96 -19298156.72 -19298156.48 0.0143 0.0069
 Venus -57545-01-16 15:35 J -19296872.90 -19296872.85 -19296872.77 0.0145 0.0138
 Venus -57545-08-30 02:09 J -19296646.56 -19296646.41 -19296646.24 0.0145 0.0096
 Venus -57544-04-13 12:42 J -19296420.16 -19296419.97 -19296419.77 0.0145 0.0053
 Venus -57544-11-25 23:30 J -19296193.73 -19296193.52 -19296193.31 0.0146 0.0009
 Venus -57543-07-10 10:18 J -19295967.27 -19295967.07 -19295966.85 0.0146 0.0035
 Venus -57542-02-21 21:35 J -19295740.77 -19295740.60 -19295740.41 0.0146 0.0079
 Venus -57542-10-06 09:06 J -19295514.22 -19295514.12 -19295513.99 0.0146 0.0124
 Mercury -57530-09-24 11:01 J -19291143.14 -19291143.04 -19291142.92 0.0147 0.0117
 Mercury -57530-12-21 19:40 J -19291054.83 -19291054.68 -19291054.52 0.0147 0.0084
 Mercury -57529-03-19 04:04 J -19290966.50 -19290966.33 -19290966.14 0.0146 0.0051
 Mercury -57529-06-15 12:42 J -19290878.15 -19290877.97 -19290877.77 0.0146 0.0017
 Mercury -57529-09-11 21:21 J -19290789.80 -19290789.61 -19290789.42 0.0146 0.0017
 Mercury -57529-12-09 05:59 J -19290701.43 -19290701.25 -19290701.07 0.0146 0.0051
 Mercury -57528-03-07 14:37 J -19290613.04 -19290612.89 -19290612.73 0.0146 0.0084

Mercury -57528-06-03 23:01 J -19290524.64 -19290524.54 -19290524.42 0.0146 0.0118
 Earth -57521-02-20 10:18 J -19288072.32 -19288072.07 -19288071.82 0.0143 0.0035
 Moon -57521-02-20 11:30 J -19288072.27 -19288072.02 -19288071.76 0.0143 0.0042 *
 Moon -57520-02-24 08:52 J -19287702.31 -19287702.13 -19287701.93 0.0142 0.0090
 Earth -57520-02-24 11:01 J -19287702.24 -19287702.04 -19287701.82 0.0142 0.0084 *
 Mars -57510-02-18 21:21 J -19284055.94 -19284055.61 -19284055.26 0.0136 0.0018
 Venus -57506-09-25 19:25 J -19282375.74 -19282375.69 -19282375.63 0.0134 0.0129
 Venus -57505-05-09 02:37 J -19282149.54 -19282149.39 -19282149.23 0.0134 0.0094
 Venus -57505-12-21 09:21 J -19281923.29 -19281923.11 -19281922.89 0.0133 0.0060
 Venus -57504-08-04 16:33 J -19281697.03 -19281696.81 -19281696.59 0.0133 0.0024
 Venus -57503-03-18 23:16 J -19281470.75 -19281470.53 -19281470.31 0.0133 0.0011
 Venus -57503-10-31 05:16 J -19281244.48 -19281244.28 -19281244.06 0.0133 0.0045
 Venus -57502-06-14 11:30 J -19281018.20 -19281018.02 -19281017.84 0.0133 0.0078
 Venus -57501-01-26 17:01 J -19280791.90 -19280791.79 -19280791.66 0.0132 0.0112
 Mercury -57487-06-30 02:37 J -19275523.44 -19275523.39 -19275523.32 0.0132 0.0118
 Mercury -57487-09-26 05:45 J -19275435.34 -19275435.26 -19275435.17 0.0132 0.0101
 Mercury -57487-12-23 08:52 J -19275347.23 -19275347.13 -19275347.03 0.0132 0.0083
 Mercury -57486-03-21 11:45 J -19275259.12 -19275259.01 -19275258.89 0.0132 0.0067
 Mercury -57486-06-17 14:52 J -19275171.00 -19275170.88 -19275170.76 0.0132 0.0049
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 Mercury -57485-03-07 23:45 J -19274906.64 -19274906.51 -19274906.38 0.0132 0.0003
 Mercury -57485-06-04 02:37 J -19274818.52 -19274818.39 -19274818.25 0.0132 0.0020
 Mercury -57485-08-31 05:45 J -19274730.39 -19274730.26 -19274730.13 0.0132 0.0037
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 Earth -57477-08-21 19:40 J -19271817.90 -19271817.68 -19271817.45 0.0136 0.0061

Moon -57477-08-21 19:54 J -19271817.87 -19271817.67 -19271817.45 0.0136 0.0064 *
 Earth -57476-08-26 03:21 J -19271448.60 -19271448.36 -19271448.12 0.0136 0.0039
 Moon -57476-08-26 03:35 J -19271448.59 -19271448.35 -19271448.10 0.0136 0.0044 *
 Moon -57475-08-30 11:45 J -19271079.05 -19271079.01 -19271078.95 0.0137 0.0133
 Mars -57466-04-06 02:23 J -19267938.63 -19267938.40 -19267938.14 0.0142 0.0065
 Venus -57461-04-29 09:35 J -19266088.23 -19266088.10 -19266087.97 0.0145 0.0115
 Venus -57461-12-11 19:40 J -19265861.86 -19265861.68 -19265861.49 0.0145 0.0073
 Venus -57460-07-26 06:13 J -19265635.44 -19265635.24 -19265635.02 0.0145 0.0031
 Venus -57459-03-09 17:01 J -19265409.00 -19265408.79 -19265408.57 0.0146 0.0014
 Venus -57459-10-22 04:04 J -19265182.52 -19265182.33 -19265182.13 0.0146 0.0057
 Venus -57458-06-05 15:06 J -19264956.01 -19264955.87 -19264955.70 0.0146 0.0101
 Venus -57457-01-18 02:37 J -19264729.40 -19264729.39 -19264729.35 0.0146 0.0146
 Mercury -57446-07-18 09:35 J -19260530.13 -19260530.10 -19260530.06 0.0147 0.0144
 Mercury -57446-10-14 17:59 J -19260441.87 -19260441.75 -19260441.62 0.0147 0.0111
 Mercury -57445-01-11 02:23 J -19260353.55 -19260353.40 -19260353.23 0.0147 0.0078
 Mercury -57445-04-08 11:16 J -19260265.22 -19260265.03 -19260264.85 0.0147 0.0044
 Mercury -57445-07-05 19:40 J -19260176.87 -19260176.68 -19260176.49 0.0146 0.0011
 Mercury -57445-10-02 04:18 J -19260088.51 -19260088.32 -19260088.13 0.0146 0.0023
 Mercury -57445-12-29 12:42 J -19260000.14 -19259999.97 -19259999.78 0.0146 0.0058
 Mercury -57444-03-27 21:21 J -19259911.75 -19259911.61 -19259911.45 0.0146 0.0091
 Mercury -57444-06-24 06:13 J -19259823.34 -19259823.24 -19259823.14 0.0146 0.0125
 Earth -57437-02-20 20:23 J -19257390.90 -19257390.65 -19257390.39 0.0143 0.0029
 Moon -57437-02-20 21:21 J -19257390.87 -19257390.61 -19257390.34 0.0143 0.0022 *
 Moon -57436-02-24 20:09 J -19257020.85 -19257020.66 -19257020.45 0.0142 0.0084
 Earth -57436-02-24 21:21 J -19257020.79 -19257020.61 -19257020.40 0.0142 0.0090 *
 Mars -57428-11-09 11:01 J -19253841.13 -19253841.04 -19253840.93 0.0137 0.0130
 Mars -57426-10-15 22:33 J -19253135.74 -19253135.56 -19253135.31 0.0136 0.0106
 Venus -57421-01-07 13:11 J -19251591.07 -19251590.95 -19251590.82 0.0134 0.0108
 Venus -57421-08-20 20:09 J -19251364.83 -19251364.66 -19251364.46 0.0134 0.0074
 Venus -57420-04-04 03:21 J -19251138.57 -19251138.36 -19251138.14 0.0133 0.0039

Venus -57420-11-16 10:04 J -19250912.30 -19250912.08 -19250911.85 0.0133 0.0005
 Venus -57419-06-30 16:33 J -19250686.02 -19250685.81 -19250685.59 0.0133 0.0030
 Venus -57418-02-11 22:47 J -19250459.74 -19250459.55 -19250459.35 0.0133 0.0064
 Venus -57418-09-26 04:33 J -19250233.45 -19250233.31 -19250233.15 0.0133 0.0098
 Venus -57417-05-09 10:18 J -19250007.09 -19250007.07 -19250007.03 0.0133 0.0131
 Mercury -57403-04-23 07:25 J -19244910.21 -19244910.19 -19244910.15 0.0132 0.0128
 Mercury -57403-07-20 10:33 J -19244822.13 -19244822.06 -19244821.98 0.0132 0.0111
 Mercury -57403-10-16 13:25 J -19244734.02 -19244733.94 -19244733.84 0.0132 0.0094
 Mercury -57402-01-12 16:33 J -19244645.91 -19244645.81 -19244645.70 0.0132 0.0077
 Mercury -57402-04-10 19:40 J -19244557.80 -19244557.68 -19244557.56 0.0132 0.0059
 Mercury -57402-07-07 22:33 J -19244469.68 -19244469.56 -19244469.43 0.0132 0.0042
 Mercury -57402-10-04 01:40 J -19244381.56 -19244381.43 -19244381.30 0.0132 0.0025
 Mercury -57402-12-31 04:33 J -19244293.44 -19244293.31 -19244293.17 0.0132 0.0008
 Mercury -57401-03-28 07:40 J -19244205.32 -19244205.18 -19244205.05 0.0132 0.0010
 Mercury -57401-06-24 10:33 J -19244117.19 -19244117.06 -19244116.93 0.0132 0.0026
 Mercury -57401-09-20 13:25 J -19244029.06 -19244028.94 -19244028.81 0.0133 0.0044
 Mercury -57401-12-17 16:18 J -19243940.93 -19243940.82 -19243940.70 0.0133 0.0061
 Mercury -57400-03-15 19:25 J -19243852.80 -19243852.69 -19243852.58 0.0133 0.0078
 Mercury -57400-06-11 22:18 J -19243764.66 -19243764.57 -19243764.48 0.0133 0.0095
 Mercury -57400-09-08 01:11 J -19243676.51 -19243676.45 -19243676.38 0.0133 0.0112
 Mercury -57400-12-05 04:04 J -19243588.35 -19243588.33 -19243588.30 0.0133 0.0129
 Earth -57393-08-22 09:49 J -19241136.31 -19241136.09 -19241135.84 0.0136 0.0053
 Moon -57393-08-22 10:18 J -19241136.29 -19241136.07 -19241135.84 0.0136 0.0050 *
 Moon -57392-08-26 17:01 J -19240767.03 -19240766.79 -19240766.54 0.0136 0.0043
 Earth -57392-08-26 17:45 J -19240766.99 -19240766.76 -19240766.52 0.0136 0.0048 *
 Mars -57382-11-29 23:45 J -19237019.78 -19237019.51 -19237019.23 0.0142 0.0017
 Venus -57378-12-28 19:11 J -19235529.77 -19235529.70 -19235529.60 0.0145 0.0132
 Venus -57377-08-11 05:30 J -19235303.43 -19235303.27 -19235303.09 0.0145 0.0090
 Venus -57376-03-25 15:49 J -19235077.03 -19235076.84 -19235076.63 0.0145 0.0048
 Venus -57376-11-07 02:37 J -19234850.61 -19234850.39 -19234850.18 0.0146 0.0005

Venus -57375-06-21 13:11 J -19234624.15 -19234623.95 -19234623.74 0.0146 0.0039
 Venus -57374-02-03 00:28 J -19234397.65 -19234397.48 -19234397.30 0.0146 0.0082
 Venus -57374-09-17 11:45 J -19234171.10 -19234171.01 -19234170.89 0.0146 0.0126
 Mercury -57362-08-07 17:30 J -19229828.83 -19229828.77 -19229828.68 0.0147 0.0134
 Mercury -57362-11-04 02:23 J -19229740.54 -19229740.40 -19229740.26 0.0147 0.0100
 Mercury -57361-01-31 10:47 J -19229652.21 -19229652.05 -19229651.88 0.0147 0.0067
 Mercury -57361-04-28 19:11 J -19229563.88 -19229563.70 -19229563.50 0.0147 0.0034
 Mercury -57361-07-26 04:04 J -19229475.53 -19229475.33 -19229475.14 0.0146 0.0003
 Mercury -57361-10-22 12:28 J -19229387.16 -19229386.98 -19229386.79 0.0146 0.0034
 Mercury -57360-01-18 20:52 J -19229298.79 -19229298.63 -19229298.45 0.0146 0.0069
 Mercury -57360-04-17 05:45 J -19229210.39 -19229210.26 -19229210.12 0.0146 0.0102
 Mercury -57360-07-14 14:23 J -19229121.97 -19229121.90 -19229121.83 0.0146 0.0135
 Moon -57354-02-16 07:40 J -19227079.23 -19227079.18 -19227079.10 0.0143 0.0138
 Earth -57354-02-16 07:11 J -19227079.20 -19227079.20 -19227079.17 0.0143 0.0143 *
 Jupiter -57354-04-20 14:37 J -19227016.38 -19227015.89 -19227015.38 0.0143 0.0049
 Earth -57353-02-21 09:21 J -19226709.36 -19226709.11 -19226708.85 0.0143 0.0022
 Moon -57353-02-21 09:21 J -19226709.36 -19226709.11 -19226708.83 0.0143 0.0029 *
 Moon -57352-02-25 09:06 J -19226339.28 -19226339.12 -19226338.94 0.0142 0.0104
 Earth -57352-02-25 10:33 J -19226339.24 -19226339.06 -19226338.87 0.0142 0.0098 *
 Mars -57343-07-06 17:59 J -19222921.06 -19222920.75 -19222920.41 0.0137 0.0040
 Venus -57338-09-06 23:30 J -19221032.59 -19221032.52 -19221032.41 0.0134 0.0123
 Venus -57337-04-20 07:11 J -19220806.36 -19220806.20 -19220806.02 0.0134 0.0087
 Venus -57337-12-02 14:23 J -19220580.10 -19220579.90 -19220579.69 0.0134 0.0052
 Venus -57336-07-16 21:06 J -19220353.83 -19220353.62 -19220353.39 0.0133 0.0018
 Venus -57335-02-28 03:49 J -19220127.55 -19220127.34 -19220127.11 0.0133 0.0017
 Venus -57335-10-12 10:04 J -19219901.27 -19219901.08 -19219900.87 0.0133 0.0051
 Venus -57334-05-26 16:04 J -19219674.99 -19219674.83 -19219674.65 0.0133 0.0085
 Venus -57333-01-07 21:49 J -19219448.67 -19219448.59 -19219448.47 0.0133 0.0118
 Mercury -57319-05-13 15:21 J -19214208.90 -19214208.86 -19214208.80 0.0132 0.0121
 Mercury -57319-08-09 18:28 J -19214120.81 -19214120.73 -19214120.65 0.0132 0.0104

Mercury -57319-11-05 21:21 J -19214032.70 -19214032.61 -19214032.50 0.0132 0.0087
 Mercury -57318-02-02 00:28 J -19213944.59 -19213944.48 -19213944.36 0.0132 0.0069
 Mercury -57318-05-01 03:21 J -19213856.48 -19213856.36 -19213856.23 0.0132 0.0052
 Mercury -57318-07-28 06:28 J -19213768.36 -19213768.23 -19213768.10 0.0132 0.0035
 Mercury -57318-10-24 09:21 J -19213680.24 -19213680.11 -19213679.97 0.0132 0.0018
 Mercury -57317-01-20 12:28 J -19213592.11 -19213591.98 -19213591.85 0.0132 0.0001
 Mercury -57317-04-17 15:21 J -19213503.99 -19213503.86 -19213503.73 0.0132 0.0017
 Mercury -57317-07-14 18:13 J -19213415.86 -19213415.74 -19213415.60 0.0133 0.0035
 Mercury -57317-10-10 21:06 J -19213327.73 -19213327.62 -19213327.49 0.0133 0.0052
 Mercury -57316-01-07 00:13 J -19213239.60 -19213239.49 -19213239.37 0.0133 0.0068
 Mercury -57316-04-05 03:06 J -19213151.46 -19213151.37 -19213151.26 0.0133 0.0086
 Mercury -57316-07-02 05:59 J -19213063.32 -19213063.25 -19213063.16 0.0133 0.0103
 Mercury -57316-09-28 08:52 J -19212975.17 -19212975.13 -19212975.06 0.0133 0.0120
 Earth -57309-08-23 00:42 J -19210454.70 -19210454.47 -19210454.23 0.0136 0.0043
 Moon -57309-08-23 01:54 J -19210454.64 -19210454.42 -19210454.18 0.0136 0.0045 *
 Moon -57308-08-27 07:40 J -19210085.40 -19210085.18 -19210084.94 0.0136 0.0062
 Earth -57308-08-27 08:09 J -19210085.37 -19210085.16 -19210084.92 0.0136 0.0058 *
 Mars -57299-08-24 16:04 J -19206800.98 -19206800.83 -19206800.65 0.0142 0.0113
 Mars -57297-07-24 20:37 J -19206100.81 -19206100.64 -19206100.42 0.0143 0.0101
 Venus -57293-04-10 15:21 J -19204745.00 -19204744.86 -19204744.71 0.0145 0.0107
 Venus -57293-11-23 01:25 J -19204518.63 -19204518.44 -19204518.25 0.0145 0.0065
 Venus -57292-07-07 11:59 J -19204292.21 -19204292.00 -19204291.79 0.0145 0.0023
 Venus -57291-02-18 22:33 J -19204065.77 -19204065.56 -19204065.34 0.0146 0.0020
 Venus -57291-10-03 09:21 J -19203839.29 -19203839.11 -19203838.91 0.0146 0.0064
 Venus -57290-05-17 20:37 J -19203612.77 -19203612.64 -19203612.49 0.0146 0.0108
 Mercury -57278-08-28 02:09 J -19199127.50 -19199127.41 -19199127.30 0.0147 0.0122
 Mercury -57278-11-24 10:47 J -19199039.20 -19199039.05 -19199038.90 0.0147 0.0088
 Mercury -57277-02-20 19:11 J -19198950.87 -19198950.70 -19198950.52 0.0147 0.0055
 Mercury -57277-05-19 03:49 J -19198862.53 -19198862.34 -19198862.15 0.0147 0.0021
 Mercury -57277-08-15 12:28 J -19198774.17 -19198773.98 -19198773.79 0.0146 0.0013

Mercury -57277-11-11 20:52 J -19198685.80 -19198685.63 -19198685.44 0.0146 0.0047

Mercury -57276-02-08 05:30 J -19198597.42 -19198597.27 -19198597.10 0.0146 0.0080

Mercury -57276-05-07 13:54 J -19198509.02 -19198508.92 -19198508.78 0.0146 0.0114

Earth -57270-02-16 21:21 J -19196397.69 -19196397.61 -19196397.51 0.0143 0.0134

Moon -57270-02-16 22:18 J -19196397.62 -19196397.57 -19196397.51 0.0143 0.0139 *

Moon -57269-02-21 23:16 J -19196027.80 -19196027.53 -19196027.26 0.0143 0.0005

Earth -57269-02-21 23:16 J -19196027.79 -19196027.53 -19196027.27 0.0143 0.0013 *

Moon -57268-02-25 23:45 J -19195657.67 -19195657.51 -19195657.32 0.0142 0.0102

Earth -57268-02-25 23:59 J -19195657.65 -19195657.50 -19195657.32 0.0142 0.0108 *

Mars -57258-03-03 02:23 J -19192000.70 -19192000.40 -19192000.07 0.0136 0.0053

Venus -57254-12-19 18:28 J -19190247.86 -19190247.73 -19190247.57 0.0134 0.0100

Venus -57253-08-02 01:40 J -19190021.61 -19190021.43 -19190021.22 0.0134 0.0066

Venus -57252-03-16 08:52 J -19189795.34 -19189795.13 -19189794.91 0.0134 0.0031

Venus -57252-10-28 15:49 J -19189569.06 -19189568.84 -19189568.62 0.0133 0.0004

Venus -57251-06-11 22:04 J -19189342.79 -19189342.58 -19189342.36 0.0133 0.0038

Venus -57250-01-24 04:33 J -19189116.50 -19189116.31 -19189116.13 0.0133 0.0071

Venus -57250-09-07 10:18 J -19188890.19 -19188890.07 -19188889.93 0.0133 0.0105

Mercury -57235-03-06 20:23 J -19183595.67 -19183595.65 -19183595.63 0.0132 0.0130

Mercury -57235-06-02 23:16 J -19183507.59 -19183507.53 -19183507.46 0.0132 0.0113

Mercury -57235-08-30 02:09 J -19183419.49 -19183419.41 -19183419.31 0.0132 0.0096

Mercury -57235-11-26 05:30 J -19183331.38 -19183331.27 -19183331.17 0.0132 0.0079

Mercury -57234-02-22 08:23 J -19183243.27 -19183243.15 -19183243.03 0.0132 0.0061

Mercury -57234-05-21 11:16 J -19183155.15 -19183155.03 -19183154.90 0.0132 0.0045

Mercury -57234-08-17 14:23 J -19183067.03 -19183066.90 -19183066.77 0.0132 0.0027

Mercury -57234-11-13 17:30 J -19182978.91 -19182978.77 -19182978.64 0.0132 0.0010

Mercury -57233-02-09 20:23 J -19182890.78 -19182890.65 -19182890.52 0.0132 0.0008

Mercury -57233-05-07 23:16 J -19182802.66 -19182802.53 -19182802.40 0.0132 0.0025

Mercury -57233-08-04 02:23 J -19182714.53 -19182714.40 -19182714.28 0.0133 0.0042

Mercury -57233-10-31 05:16 J -19182626.40 -19182626.28 -19182626.16 0.0133 0.0059

Mercury -57232-01-27 08:09 J -19182538.26 -19182538.16 -19182538.05 0.0133 0.0076

Mercury -57232-04-25 11:01 J -19182450.12 -19182450.04 -19182449.94 0.0133 0.0094
 Mercury -57232-07-22 13:54 J -19182361.98 -19182361.92 -19182361.84 0.0133 0.0111
 Mercury -57232-10-18 17:01 J -19182273.82 -19182273.79 -19182273.75 0.0133 0.0128
 Moon -57226-08-20 07:11 J -19180142.25 -19180142.20 -19180142.12 0.0135 0.0131
 Earth -57226-08-20 08:37 J -19180142.17 -19180142.14 -19180142.06 0.0135 0.0133 *
 Earth -57225-08-23 15:49 J -19179773.07 -19179772.84 -19179772.58 0.0136 0.0034
 Moon -57225-08-23 17:01 J -19179773.02 -19179772.79 -19179772.54 0.0136 0.0031 *
 Moon -57224-08-27 22:04 J -19179403.80 -19179403.58 -19179403.34 0.0136 0.0063
 Earth -57224-08-27 23:30 J -19179403.72 -19179403.52 -19179403.28 0.0136 0.0068 *
 Mars -57214-04-19 13:54 J -19175882.19 -19175881.92 -19175881.64 0.0142 0.0030
 Venus -57210-12-10 02:09 J -19174186.51 -19174186.41 -19174186.28 0.0145 0.0123
 Venus -57209-07-23 12:28 J -19173960.15 -19173959.98 -19173959.80 0.0145 0.0081
 Venus -57208-03-06 22:47 J -19173733.75 -19173733.55 -19173733.34 0.0145 0.0039
 Venus -57208-10-19 09:21 J -19173507.32 -19173507.11 -19173506.89 0.0145 0.0004
 Venus -57207-06-02 20:09 J -19173280.86 -19173280.66 -19173280.46 0.0146 0.0047
 Venus -57206-01-15 06:57 J -19173054.36 -19173054.21 -19173054.03 0.0146 0.0091
 Venus -57206-08-29 18:42 J -19172827.79 -19172827.72 -19172827.63 0.0146 0.0134
 Mercury -57194-06-21 03:06 J -19168514.41 -19168514.37 -19168514.29 0.0147 0.0139
 Mercury -57194-09-17 11:45 J -19168426.13 -19168426.01 -19168425.87 0.0147 0.0106
 Mercury -57194-12-14 20:23 J -19168337.81 -19168337.65 -19168337.48 0.0147 0.0072
 Mercury -57193-03-12 04:47 J -19168249.48 -19168249.30 -19168249.11 0.0147 0.0039
 Mercury -57193-06-08 13:25 J -19168161.13 -19168160.94 -19168160.74 0.0146 0.0006
 Mercury -57193-09-04 22:04 J -19168072.77 -19168072.58 -19168072.39 0.0146 0.0029
 Mercury -57193-12-02 06:42 J -19167984.39 -19167984.22 -19167984.05 0.0146 0.0063
 Mercury -57192-02-28 15:06 J -19167896.00 -19167895.87 -19167895.72 0.0146 0.0097
 Mercury -57192-05-27 23:45 J -19167807.58 -19167807.51 -19167807.41 0.0146 0.0130
 Earth -57186-02-17 14:23 J -19165716.03 -19165715.90 -19165715.76 0.0143 0.0122
 Moon -57186-02-17 15:21 J -19165715.99 -19165715.86 -19165715.70 0.0143 0.0117 *
 Moon -57185-02-22 15:35 J -19165346.12 -19165345.85 -19165345.58 0.0143 0.0007
 Earth -57185-02-22 16:18 J -19165346.08 -19165345.82 -19165345.56 0.0143 0.0001 *

Earth	-57184-02-26 17:01 J	-19164975.92	-19164975.79	-19164975.64	0.0142	0.0120
Moon	-57184-02-26 16:18 J	-19164975.91	-19164975.82	-19164975.69	0.0142	0.0127 *
Mars	-57176-11-22 00:28 J	-19161785.71	-19161785.48	-19161785.20	0.0137	0.0092
Venus	-57170-08-19 06:42 J	-19159689.33	-19159689.22	-19159689.10	0.0134	0.0113
Venus	-57169-04-01 13:54 J	-19159463.09	-19159462.92	-19159462.73	0.0134	0.0078
Venus	-57169-11-13 21:06 J	-19159236.83	-19159236.62	-19159236.40	0.0134	0.0043
Venus	-57168-06-28 04:04 J	-19159010.55	-19159010.33	-19159010.11	0.0133	0.0009
Venus	-57167-02-09 10:33 J	-19158784.27	-19158784.06	-19158783.84	0.0133	0.0026
Venus	-57167-09-23 16:47 J	-19158557.99	-19158557.80	-19158557.59	0.0133	0.0059
Venus	-57166-05-07 22:47 J	-19158331.69	-19158331.55	-19158331.38	0.0133	0.0093
Venus	-57166-12-20 04:33 J	-19158105.36	-19158105.31	-19158105.22	0.0133	0.0126
Mercury	-57151-03-27 04:18 J	-19152894.37	-19152894.32	-19152894.27	0.0132	0.0122
Mercury	-57151-06-23 07:11 J	-19152806.27	-19152806.20	-19152806.11	0.0132	0.0105
Mercury	-57151-09-19 10:04 J	-19152718.17	-19152718.08	-19152717.97	0.0132	0.0089
Mercury	-57151-12-16 13:25 J	-19152630.05	-19152629.94	-19152629.83	0.0132	0.0071
Mercury	-57150-03-14 16:18 J	-19152541.94	-19152541.82	-19152541.70	0.0132	0.0053
Mercury	-57150-06-10 19:11 J	-19152453.82	-19152453.70	-19152453.56	0.0132	0.0037
Mercury	-57150-09-06 22:18 J	-19152365.70	-19152365.57	-19152365.44	0.0132	0.0019
Mercury	-57150-12-04 01:25 J	-19152277.58	-19152277.44	-19152277.31	0.0132	0.0004
Mercury	-57149-03-01 04:18 J	-19152189.45	-19152189.32	-19152189.19	0.0132	0.0016
Mercury	-57149-05-28 07:11 J	-19152101.32	-19152101.20	-19152101.07	0.0132	0.0033
Mercury	-57149-08-24 10:18 J	-19152013.20	-19152013.07	-19152012.95	0.0133	0.0050
Mercury	-57149-11-20 12:57 J	-19151925.06	-19151924.96	-19151924.84	0.0133	0.0068
Mercury	-57148-02-16 16:04 J	-19151836.93	-19151836.83	-19151836.72	0.0133	0.0084
Mercury	-57148-05-15 18:57 J	-19151748.78	-19151748.71	-19151748.62	0.0133	0.0102
Mercury	-57148-08-11 21:49 J	-19151660.64	-19151660.59	-19151660.52	0.0133	0.0119
Moon	-57142-08-20 21:21 J	-19149460.69	-19149460.61	-19149460.48	0.0135	0.0123
Earth	-57142-08-20 23:30 J	-19149460.62	-19149460.52	-19149460.41	0.0135	0.0123 *
Earth	-57141-08-24 06:28 J	-19149091.47	-19149091.23	-19149090.98	0.0136	0.0024
Moon	-57141-08-24 08:23 J	-19149091.38	-19149091.15	-19149090.90	0.0136	0.0026 *

Moon -57140-08-28 12:42 J -19148722.17 -19148721.97 -19148721.76 0.0136 0.0081
 Earth -57140-08-28 14:09 J -19148722.11 -19148721.91 -19148721.69 0.0136 0.0077 *
 Mars -57130-12-13 08:09 J -19144963.42 -19144963.16 -19144962.90 0.0142 0.0053
 Venus -57126-08-09 11:59 J -19143628.04 -19143628.00 -19143627.94 0.0144 0.0140
 Venus -57125-03-22 21:35 J -19143401.74 -19143401.60 -19143401.43 0.0145 0.0099
 Venus -57125-11-04 07:54 J -19143175.36 -19143175.17 -19143174.97 0.0145 0.0057
 Venus -57124-06-18 18:28 J -19142948.94 -19142948.73 -19142948.52 0.0145 0.0015
 Venus -57123-01-31 05:01 J -19142722.50 -19142722.29 -19142722.08 0.0146 0.0028
 Venus -57123-09-14 16:04 J -19142496.01 -19142495.83 -19142495.64 0.0146 0.0072
 Venus -57122-04-29 03:06 J -19142269.48 -19142269.37 -19142269.22 0.0146 0.0115
 Mercury -57110-07-11 11:45 J -19137813.09 -19137813.01 -19137812.91 0.0147 0.0127
 Mercury -57110-10-07 20:09 J -19137724.79 -19137724.66 -19137724.50 0.0147 0.0094
 Mercury -57109-01-04 04:47 J -19137636.47 -19137636.30 -19137636.12 0.0147 0.0060
 Mercury -57109-04-01 13:25 J -19137548.13 -19137547.94 -19137547.75 0.0147 0.0026
 Mercury -57109-06-28 22:04 J -19137459.77 -19137459.58 -19137459.39 0.0146 0.0008
 Mercury -57109-09-25 06:28 J -19137371.41 -19137371.23 -19137371.04 0.0146 0.0042
 Mercury -57109-12-22 15:06 J -19137283.03 -19137282.87 -19137282.70 0.0146 0.0075
 Mercury -57108-03-20 23:45 J -19137194.63 -19137194.51 -19137194.38 0.0146 0.0109
 Mercury -57108-06-17 08:09 J -19137106.18 -19137106.16 -19137106.10 0.0146 0.0144
 Earth -57102-02-18 04:47 J -19135034.44 -19135034.30 -19135034.12 0.0143 0.0112
 Moon -57102-02-18 06:42 J -19135034.36 -19135034.22 -19135034.07 0.0143 0.0116 *
 Moon -57101-02-23 06:13 J -19134664.51 -19134664.24 -19134663.98 0.0143 0.0018
 Earth -57101-02-23 06:57 J -19134664.46 -19134664.21 -19134663.95 0.0143 0.0011 *
 Earth -57100-02-27 07:40 J -19134294.27 -19134294.18 -19134294.07 0.0142 0.0131
 Moon -57100-02-27 08:09 J -19134294.27 -19134294.16 -19134294.03 0.0142 0.0125 *
 Mars -57091-07-19 13:25 J -19130865.28 -19130864.94 -19130864.60 0.0137 0.0004
 Venus -57086-04-18 18:42 J -19129130.80 -19129130.72 -19129130.65 0.0134 0.0126
 Venus -57086-12-01 01:40 J -19128904.58 -19128904.43 -19128904.25 0.0134 0.0091
 Venus -57085-07-14 08:52 J -19128678.32 -19128678.13 -19128677.91 0.0134 0.0057
 Venus -57084-02-25 16:18 J -19128452.04 -19128451.82 -19128451.60 0.0134 0.0022

Venus -57084-10-09 23:01 J -19128225.76 -19128225.54 -19128225.32 0.0133 0.0012
 Venus -57083-05-24 05:16 J -19127999.48 -19127999.28 -19127999.06 0.0133 0.0046
 Venus -57082-01-05 11:16 J -19127773.19 -19127773.03 -19127772.83 0.0133 0.0080
 Venus -57082-08-19 17:30 J -19127546.87 -19127546.77 -19127546.64 0.0133 0.0113
 Mercury -57067-01-18 09:06 J -19122281.12 -19122281.12 -19122281.12 0.0132 0.0132
 Mercury -57067-04-16 11:59 J -19122193.06 -19122193.00 -19122192.93 0.0132 0.0115
 Mercury -57067-07-13 15:06 J -19122104.95 -19122104.87 -19122104.78 0.0132 0.0097
 Mercury -57067-10-09 18:13 J -19122016.85 -19122016.74 -19122016.63 0.0132 0.0080
 Mercury -57066-01-05 21:06 J -19121928.73 -19121928.62 -19121928.50 0.0132 0.0063
 Mercury -57066-04-04 00:13 J -19121840.62 -19121840.49 -19121840.36 0.0132 0.0046
 Mercury -57066-07-01 03:06 J -19121752.50 -19121752.37 -19121752.23 0.0132 0.0029
 Mercury -57066-09-27 06:13 J -19121664.37 -19121664.24 -19121664.11 0.0132 0.0011
 Mercury -57066-12-24 09:06 J -19121576.25 -19121576.12 -19121575.98 0.0132 0.0006
 Mercury -57065-03-21 12:13 J -19121488.12 -19121487.99 -19121487.86 0.0132 0.0023
 Mercury -57065-06-17 15:06 J -19121400.00 -19121399.87 -19121399.74 0.0132 0.0040
 Mercury -57065-09-13 17:59 J -19121311.86 -19121311.75 -19121311.63 0.0132 0.0058
 Mercury -57065-12-10 20:52 J -19121223.73 -19121223.63 -19121223.51 0.0133 0.0075
 Mercury -57064-03-08 23:59 J -19121135.59 -19121135.50 -19121135.40 0.0133 0.0092
 Mercury -57064-06-05 02:52 J -19121047.45 -19121047.38 -19121047.30 0.0133 0.0109
 Mercury -57064-09-01 05:45 J -19120959.29 -19120959.26 -19120959.21 0.0133 0.0126
 Moon -57058-08-21 10:47 J -19118779.18 -19118779.05 -19118778.90 0.0135 0.0112
 Earth -57058-08-21 13:11 J -19118779.07 -19118778.95 -19118778.80 0.0135 0.0115 *
 Earth -57057-08-24 20:09 J -19118409.90 -19118409.66 -19118409.40 0.0136 0.0016
 Moon -57057-08-24 22:18 J -19118409.81 -19118409.57 -19118409.33 0.0136 0.0013 *
 Moon -57056-08-29 01:25 J -19118040.64 -19118040.44 -19118040.22 0.0136 0.0081
 Earth -57056-08-29 03:35 J -19118040.52 -19118040.35 -19118040.13 0.0136 0.0086 *
 Mars -57047-09-06 22:47 J -19114744.77 -19114744.55 -19114744.31 0.0142 0.0080
 Mars -57045-08-07 02:52 J -19114044.44 -19114044.38 -19114044.27 0.0143 0.0136
 Venus -57042-11-21 06:42 J -19112843.33 -19112843.22 -19112843.08 0.0145 0.0117
 Venus -57041-07-04 16:47 J -19112616.97 -19112616.80 -19112616.61 0.0145 0.0075

Venus	-57040-02-16 03:06 J	-19112390.57	-19112390.37	-19112390.16	0.0145	0.0033
Venus	-57040-09-30 13:54 J	-19112164.14	-19112163.92	-19112163.71	0.0145	0.0010
Venus	-57039-05-15 00:28 J	-19111937.67	-19111937.48	-19111937.27	0.0146	0.0053
Venus	-57039-12-27 11:30 J	-19111711.17	-19111711.02	-19111710.85	0.0146	0.0096
Venus	-57038-08-10 23:01 J	-19111484.59	-19111484.54	-19111484.46	0.0146	0.0139
Mercury	-57026-07-31 20:23 J	-19107111.77	-19107111.65	-19107111.54	0.0147	0.0115
Mercury	-57026-10-28 04:33 J	-19107023.46	-19107023.31	-19107023.14	0.0147	0.0082
Mercury	-57025-01-24 13:11 J	-19106935.13	-19106934.95	-19106934.77	0.0147	0.0048
Mercury	-57025-04-21 21:49 J	-19106846.78	-19106846.59	-19106846.40	0.0147	0.0015
Mercury	-57025-07-19 06:28 J	-19106758.42	-19106758.23	-19106758.04	0.0146	0.0019
Mercury	-57025-10-15 14:52 J	-19106670.05	-19106669.88	-19106669.69	0.0146	0.0053
Mercury	-57024-01-11 23:16 J	-19106581.67	-19106581.53	-19106581.36	0.0146	0.0088
Mercury	-57024-04-10 07:54 J	-19106493.26	-19106493.17	-19106493.05	0.0146	0.0121
Earth	-57018-02-18 18:28 J	-19104352.89	-19104352.73	-19104352.53	0.0144	0.0103
Moon	-57018-02-18 20:52 J	-19104352.81	-19104352.63	-19104352.44	0.0144	0.0097 *
Moon	-57017-02-23 18:57 J	-19103982.97	-19103982.71	-19103982.44	0.0143	0.0014
Earth	-57017-02-23 20:37 J	-19103982.89	-19103982.64	-19103982.38	0.0143	0.0020 *
Earth	-57016-02-27 21:06 J	-19103612.64	-19103612.62	-19103612.55	0.0142	0.0141
Mars	-57006-03-15 22:47 J	-19099944.76	-19099944.55	-19099944.29	0.0136	0.0099
Venus	-57002-07-31 13:25 J	-19098346.07	-19098345.94	-19098345.79	0.0134	0.0104
Venus	-57001-03-13 20:37 J	-19098119.81	-19098119.64	-19098119.43	0.0134	0.0070
Venus	-57001-10-26 04:04 J	-19097893.54	-19097893.33	-19097893.11	0.0134	0.0035

57TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 57th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-57000-06-09 11:01 J	-19097667.26	-19097667.04	-19097666.82	0.0134	0.0001		
Venus	-56999-01-21 17:30 J	-19097440.98	-19097440.77	-19097440.55	0.0133	0.0033		
Venus	-56999-09-05 00:13 J	-19097214.69	-19097214.49	-19097214.30	0.0133	0.0067		
Venus	-56998-04-19 05:59 J	-19096988.38	-19096988.25	-19096988.09	0.0133	0.0100		
Venus	-56998-12-01 11:59 J	-19096762.00	-19096762.00	-19096761.97	0.0133	0.0133		
Mercury	-56983-02-07 17:01 J	-19091579.83	-19091579.79	-19091579.75	0.0132	0.0124		
Mercury	-56983-05-06 19:54 J	-19091491.74	-19091491.67	-19091491.59	0.0132	0.0107		
Mercury	-56983-08-02 23:01 J	-19091403.64	-19091403.54	-19091403.44	0.0132	0.0090		
Mercury	-56983-10-30 01:54 J	-19091315.52	-19091315.42	-19091315.30	0.0132	0.0073		
Mercury	-56982-01-26 05:01 J	-19091227.41	-19091227.29	-19091227.17	0.0132	0.0055		
Mercury	-56982-04-24 08:09 J	-19091139.29	-19091139.16	-19091139.04	0.0132	0.0038		
Mercury	-56982-07-21 11:01 J	-19091051.17	-19091051.04	-19091050.91	0.0132	0.0021		
Mercury	-56982-10-17 14:09 J	-19090963.05	-19090962.91	-19090962.78	0.0132	0.0005		
Mercury	-56981-01-13 17:01 J	-19090874.92	-19090874.79	-19090874.66	0.0132	0.0013		
Mercury	-56981-04-10 19:54 J	-19090786.80	-19090786.67	-19090786.54	0.0132	0.0031		
Mercury	-56981-07-07 23:01 J	-19090698.67	-19090698.54	-19090698.42	0.0132	0.0048		
Mercury	-56981-10-04 01:54 J	-19090610.53	-19090610.42	-19090610.30	0.0132	0.0065		
Mercury	-56981-12-31 04:47 J	-19090522.40	-19090522.30	-19090522.19	0.0132	0.0082		
Mercury	-56980-03-29 07:40 J	-19090434.26	-19090434.18	-19090434.09	0.0133	0.0099		
Mercury	-56980-06-25 10:33 J	-19090346.11	-19090346.06	-19090345.99	0.0133	0.0117		
Moon	-56974-08-21 23:59 J	-19088097.64	-19088097.50	-19088097.33	0.0135	0.0107		
Earth	-56974-08-22 02:37 J	-19088097.53	-19088097.39	-19088097.22	0.0135	0.0106	*	
Earth	-56973-08-25 09:49 J	-19087728.34	-19087728.09	-19087727.84	0.0136	0.0007		
Moon	-56973-08-25 12:28 J	-19087728.22	-19087727.98	-19087727.73	0.0136	0.0008	*	
Moon	-56972-08-29 14:52 J	-19087359.04	-19087358.88	-19087358.69	0.0136	0.0098		
Earth	-56972-08-29 17:16 J	-19087358.95	-19087358.78	-19087358.59	0.0136	0.0093	*	

Mars	-56962-05-02 13:11 J	-19083826.23	-19083825.95	-19083825.67	0.0142	0.0000
Venus	-56958-07-21 14:23 J	-19082284.95	-19082284.90	-19082284.81	0.0144	0.0136
Venus	-56957-03-04 00:28 J	-19082058.63	-19082058.48	-19082058.31	0.0145	0.0095
Venus	-56957-10-16 10:33 J	-19081832.25	-19081832.06	-19081831.86	0.0145	0.0053
Venus	-56956-05-30 20:52 J	-19081605.84	-19081605.63	-19081605.42	0.0145	0.0011
Venus	-56955-01-12 07:25 J	-19081379.40	-19081379.19	-19081378.98	0.0145	0.0031
Venus	-56955-08-26 18:28 J	-19081152.91	-19081152.73	-19081152.54	0.0146	0.0074
Venus	-56954-04-10 05:30 J	-19080926.39	-19080926.27	-19080926.13	0.0146	0.0117
Mercury	-56942-05-24 18:28 J	-19076498.76	-19076498.73	-19076498.68	0.0147	0.0143
Mercury	-56942-08-21 02:52 J	-19076410.49	-19076410.38	-19076410.24	0.0147	0.0110
Mercury	-56942-11-17 11:30 J	-19076322.18	-19076322.02	-19076321.85	0.0147	0.0076
Mercury	-56941-02-13 19:54 J	-19076233.84	-19076233.67	-19076233.48	0.0147	0.0043
Mercury	-56941-05-12 04:47 J	-19076145.49	-19076145.30	-19076145.11	0.0147	0.0009
Mercury	-56941-08-08 13:11 J	-19076057.13	-19076056.95	-19076056.76	0.0146	0.0026
Mercury	-56941-11-04 21:49 J	-19075968.76	-19075968.59	-19075968.41	0.0146	0.0059
Mercury	-56940-02-01 06:13 J	-19075880.37	-19075880.24	-19075880.08	0.0146	0.0094
Mercury	-56940-04-30 14:52 J	-19075791.96	-19075791.88	-19075791.77	0.0146	0.0127
Earth	-56934-02-19 03:49 J	-19073671.53	-19073671.34	-19073671.16	0.0144	0.0098
Moon	-56934-02-19 05:45 J	-19073671.41	-19073671.26	-19073671.06	0.0144	0.0103 *
Moon	-56933-02-24 03:35 J	-19073301.60	-19073301.35	-19073301.08	0.0143	0.0032
Earth	-56933-02-24 05:45 J	-19073301.52	-19073301.26	-19073301.01	0.0143	0.0024 *
Moon	-56932-02-28 07:54 J	-19072931.21	-19072931.17	-19072931.10	0.0142	0.0139
Mars	-56924-12-04 09:49 J	-19069730.39	-19069730.09	-19069729.76	0.0137	0.0053
Venus	-56918-03-30 23:01 J	-19067787.62	-19067787.54	-19067787.42	0.0135	0.0120
Venus	-56918-11-12 06:42 J	-19067561.38	-19067561.22	-19067561.04	0.0134	0.0085
Venus	-56917-06-25 14:09 J	-19067335.11	-19067334.91	-19067334.70	0.0134	0.0050
Venus	-56916-02-06 21:21 J	-19067108.83	-19067108.61	-19067108.38	0.0134	0.0016
Venus	-56916-09-21 04:18 J	-19066882.54	-19066882.32	-19066882.10	0.0134	0.0019
Venus	-56915-05-05 10:47 J	-19066656.25	-19066656.05	-19066655.84	0.0133	0.0052
Venus	-56915-12-17 17:16 J	-19066429.95	-19066429.78	-19066429.61	0.0133	0.0085

Venus -56914-07-31 23:30 J -19066203.61 -19066203.52 -19066203.42 0.0133 0.0118
 Mercury -56899-02-28 00:42 J -19060878.52 -19060878.47 -19060878.41 0.0132 0.0117
 Mercury -56899-05-27 03:49 J -19060790.43 -19060790.34 -19060790.25 0.0132 0.0100
 Mercury -56899-08-23 06:42 J -19060702.32 -19060702.22 -19060702.11 0.0132 0.0083
 Mercury -56899-11-19 09:49 J -19060614.20 -19060614.09 -19060613.97 0.0132 0.0066
 Mercury -56898-02-15 12:57 J -19060526.09 -19060525.96 -19060525.84 0.0132 0.0048
 Mercury -56898-05-14 15:49 J -19060437.97 -19060437.84 -19060437.71 0.0132 0.0031
 Mercury -56898-08-10 18:57 J -19060349.85 -19060349.71 -19060349.58 0.0132 0.0014
 Mercury -56898-11-06 21:49 J -19060261.72 -19060261.59 -19060261.46 0.0132 0.0004
 Mercury -56897-02-03 00:42 J -19060173.60 -19060173.47 -19060173.33 0.0132 0.0021
 Mercury -56897-05-01 03:49 J -19060085.47 -19060085.34 -19060085.21 0.0132 0.0038
 Mercury -56897-07-28 06:42 J -19059997.34 -19059997.22 -19059997.10 0.0132 0.0055
 Mercury -56897-10-24 09:35 J -19059909.20 -19059909.10 -19059908.98 0.0132 0.0072
 Mercury -56896-01-20 12:28 J -19059821.07 -19059820.98 -19059820.87 0.0132 0.0089
 Mercury -56896-04-18 15:21 J -19059732.93 -19059732.86 -19059732.77 0.0133 0.0107
 Mercury -56896-07-15 18:13 J -19059644.77 -19059644.74 -19059644.68 0.0133 0.0124
 Moon -56890-08-22 13:40 J -19057416.10 -19057415.93 -19057415.74 0.0135 0.0096
 Earth -56890-08-22 16:33 J -19057415.97 -19057415.81 -19057415.62 0.0135 0.0098 *
 Earth -56889-08-25 23:45 J -19057046.76 -19057046.51 -19057046.26 0.0136 0.0002
 Moon -56889-08-26 02:09 J -19057046.65 -19057046.41 -19057046.16 0.0136 0.0005 *
 Moon -56888-08-30 03:49 J -19056677.50 -19056677.34 -19056677.15 0.0136 0.0098
 Earth -56888-08-30 06:57 J -19056677.36 -19056677.21 -19056677.03 0.0136 0.0102 *
 Mars -56879-01-25 05:45 J -19053607.35 -19053607.26 -19053607.14 0.0141 0.0130
 Mars -56878-12-26 06:57 J -19052907.43 -19052907.21 -19052906.97 0.0142 0.0081
 Venus -56874-11-02 09:35 J -19051500.23 -19051500.10 -19051499.96 0.0144 0.0112
 Venus -56873-06-15 19:25 J -19051273.87 -19051273.69 -19051273.50 0.0145 0.0071
 Venus -56872-01-28 05:30 J -19051047.47 -19051047.27 -19051047.06 0.0145 0.0030
 Venus -56872-09-11 16:04 J -19050821.04 -19050820.83 -19050820.61 0.0145 0.0013
 Venus -56871-04-26 02:52 J -19050594.58 -19050594.38 -19050594.18 0.0145 0.0055
 Venus -56871-12-08 13:25 J -19050368.08 -19050367.94 -19050367.76 0.0146 0.0098

Venus -56870-07-23 00:57 J -19050141.51 -19050141.46 -19050141.40 0.0146 0.0140
 Mercury -56858-06-14 02:09 J -19045797.48 -19045797.41 -19045797.33 0.0147 0.0134
 Mercury -56858-09-10 10:33 J -19045709.19 -19045709.06 -19045708.91 0.0147 0.0101
 Mercury -56858-12-07 18:57 J -19045620.86 -19045620.71 -19045620.53 0.0147 0.0068
 Mercury -56857-03-05 03:49 J -19045532.53 -19045532.34 -19045532.16 0.0147 0.0034
 Mercury -56857-06-01 12:13 J -19045444.18 -19045443.99 -19045443.79 0.0147 0.0003
 Mercury -56857-08-28 20:52 J -19045355.81 -19045355.63 -19045355.44 0.0146 0.0034
 Mercury -56857-11-25 05:30 J -19045267.44 -19045267.27 -19045267.10 0.0146 0.0068
 Mercury -56856-02-21 14:09 J -19045179.05 -19045178.91 -19045178.77 0.0146 0.0102
 Mercury -56856-05-20 22:47 J -19045090.62 -19045090.55 -19045090.48 0.0146 0.0136
 Earth -56850-02-19 14:23 J -19042990.09 -19042989.90 -19042989.70 0.0144 0.0093
 Moon -56850-02-19 17:01 J -19042989.97 -19042989.79 -19042989.58 0.0144 0.0089 *
 Moon -56849-02-24 13:40 J -19042620.19 -19042619.93 -19042619.67 0.0143 0.0023
 Earth -56849-02-24 16:18 J -19042620.07 -19042619.82 -19042619.56 0.0143 0.0030 *
 Mars -56839-07-31 14:09 J -19038810.24 -19038809.91 -19038809.58 0.0137 0.0038
 Venus -56835-11-28 08:37 J -19037229.15 -19037229.14 -19037229.10 0.0135 0.0134
 Venus -56834-07-12 16:33 J -19037002.95 -19037002.81 -19037002.65 0.0134 0.0099
 Venus -56833-02-24 00:13 J -19036776.68 -19036776.49 -19036776.29 0.0134 0.0064
 Venus -56833-10-07 07:25 J -19036550.40 -19036550.19 -19036549.96 0.0134 0.0030
 Venus -56832-05-21 14:37 J -19036324.11 -19036323.89 -19036323.67 0.0134 0.0005
 Venus -56831-01-02 21:21 J -19036097.82 -19036097.61 -19036097.39 0.0133 0.0038
 Venus -56831-08-17 04:04 J -19035871.51 -19035871.33 -19035871.14 0.0133 0.0072
 Venus -56830-03-31 10:18 J -19035645.19 -19035645.07 -19035644.92 0.0133 0.0105
 Mercury -56816-12-22 05:16 J -19030265.30 -19030265.28 -19030265.24 0.0132 0.0128
 Mercury -56815-03-20 08:37 J -19030177.21 -19030177.14 -19030177.07 0.0132 0.0110
 Mercury -56815-06-16 11:30 J -19030089.11 -19030089.02 -19030088.92 0.0132 0.0093
 Mercury -56815-09-12 14:23 J -19030001.00 -19030000.90 -19030000.78 0.0132 0.0076
 Mercury -56815-12-09 17:45 J -19029912.88 -19029912.76 -19029912.64 0.0132 0.0058
 Mercury -56814-03-07 20:37 J -19029824.76 -19029824.64 -19029824.51 0.0132 0.0041
 Mercury -56814-06-03 23:45 J -19029736.64 -19029736.51 -19029736.38 0.0132 0.0024

Mercury -56814-08-31 02:37 J -19029648.52 -19029648.39 -19029648.26 0.0132 0.0007
 Mercury -56814-11-27 05:45 J -19029560.40 -19029560.26 -19029560.13 0.0132 0.0011
 Mercury -56813-02-23 08:37 J -19029472.27 -19029472.14 -19029472.01 0.0132 0.0028
 Mercury -56813-05-21 11:30 J -19029384.14 -19029384.02 -19029383.89 0.0132 0.0045
 Mercury -56813-08-17 14:23 J -19029296.01 -19029295.90 -19029295.78 0.0132 0.0062
 Mercury -56813-11-13 17:16 J -19029207.88 -19029207.78 -19029207.66 0.0133 0.0080
 Mercury -56812-02-09 20:09 J -19029119.74 -19029119.66 -19029119.56 0.0133 0.0097
 Mercury -56812-05-08 23:16 J -19029031.59 -19029031.53 -19029031.46 0.0133 0.0113
 Mercury -56812-08-05 02:09 J -19028943.42 -19028943.41 -19028943.38 0.0133 0.0131
 Moon -56806-08-23 04:04 J -19026734.51 -19026734.33 -19026734.13 0.0135 0.0090
 Earth -56806-08-23 06:57 J -19026734.38 -19026734.21 -19026734.01 0.0135 0.0089 *
 Earth -56805-08-26 14:09 J -19026365.15 -19026364.91 -19026364.65 0.0136 0.0011
 Moon -56805-08-26 17:30 J -19026365.02 -19026364.77 -19026364.52 0.0136 0.0010 *
 Moon -56804-08-30 19:11 J -19025995.84 -19025995.70 -19025995.57 0.0136 0.0116
 Earth -56804-08-30 21:35 J -19025995.72 -19025995.60 -19025995.44 0.0136 0.0111 *
 Mars -56795-09-20 00:28 J -19022688.73 -19022688.48 -19022688.21 0.0141 0.0050
 Venus -56790-07-02 19:11 J -19020941.78 -19020941.70 -19020941.58 0.0144 0.0128
 Venus -56789-02-14 05:16 J -19020715.45 -19020715.28 -19020715.11 0.0144 0.0087
 Venus -56789-09-27 15:06 J -19020489.06 -19020488.87 -19020488.66 0.0145 0.0047
 Venus -56788-05-12 01:25 J -19020262.65 -19020262.44 -19020262.23 0.0145 0.0005
 Venus -56788-12-24 11:59 J -19020036.21 -19020036.00 -19020035.80 0.0145 0.0037
 Venus -56787-08-07 22:47 J -19019809.73 -19019809.55 -19019809.37 0.0145 0.0079
 Venus -56786-03-22 09:49 J -19019583.21 -19019583.09 -19019582.97 0.0146 0.0121
 Mercury -56774-07-04 09:35 J -19015096.18 -19015096.10 -19015095.99 0.0147 0.0126
 Mercury -56774-09-30 18:28 J -19015007.88 -19015007.73 -19015007.58 0.0147 0.0092
 Mercury -56774-12-28 02:52 J -19014919.55 -19014919.38 -19014919.20 0.0147 0.0058
 Mercury -56773-03-25 11:30 J -19014831.21 -19014831.02 -19014830.84 0.0147 0.0025
 Mercury -56773-06-21 19:54 J -19014742.86 -19014742.67 -19014742.48 0.0146 0.0009
 Mercury -56773-09-18 04:33 J -19014654.49 -19014654.31 -19014654.13 0.0146 0.0043
 Mercury -56773-12-15 12:57 J -19014566.12 -19014565.96 -19014565.79 0.0146 0.0077

Mercury -56772-03-13 21:35 J -19014477.72 -19014477.60 -19014477.47 0.0146 0.0110
 Mercury -56772-06-10 06:13 J -19014389.26 -19014389.24 -19014389.20 0.0146 0.0144
 Earth -56766-02-20 00:28 J -19012308.68 -19012308.48 -19012308.28 0.0144 0.0088
 Moon -56766-02-20 03:21 J -19012308.54 -19012308.36 -19012308.15 0.0144 0.0092 *
 Moon -56765-02-24 23:30 J -19011938.77 -19011938.52 -19011938.26 0.0143 0.0042
 Earth -56765-02-25 02:09 J -19011938.65 -19011938.41 -19011938.15 0.0143 0.0035 *
 Mars -56756-04-20 19:40 J -19008595.85 -19008595.68 -19008595.49 0.0138 0.0117
 Mars -56754-03-27 14:52 J -19007889.98 -19007889.88 -19007889.74 0.0137 0.0128
 Venus -56750-03-12 01:40 J -19006444.53 -19006444.43 -19006444.29 0.0135 0.0114
 Venus -56750-10-24 09:49 J -19006218.27 -19006218.09 -19006217.91 0.0134 0.0079
 Venus -56749-06-06 17:16 J -19005991.99 -19005991.78 -19005991.57 0.0134 0.0044
 Venus -56748-01-19 00:42 J -19005765.70 -19005765.47 -19005765.25 0.0134 0.0010
 Venus -56748-09-02 07:40 J -19005539.40 -19005539.18 -19005538.96 0.0134 0.0024
 Venus -56747-04-16 14:23 J -19005313.09 -19005312.90 -19005312.69 0.0133 0.0058
 Venus -56747-11-28 20:37 J -19005086.78 -19005086.64 -19005086.46 0.0133 0.0092
 Venus -56746-07-13 03:21 J -19004860.43 -19004860.36 -19004860.27 0.0133 0.0123
 Mercury -56731-01-11 13:11 J -18999564.00 -18999563.95 -18999563.89 0.0132 0.0121
 Mercury -56731-04-09 16:18 J -18999475.90 -18999475.82 -18999475.73 0.0132 0.0103
 Mercury -56731-07-06 19:11 J -18999387.79 -18999387.70 -18999387.59 0.0132 0.0086
 Mercury -56731-10-02 22:18 J -18999299.68 -18999299.57 -18999299.45 0.0132 0.0069
 Mercury -56731-12-30 01:25 J -18999211.56 -18999211.44 -18999211.32 0.0132 0.0051
 Mercury -56730-03-28 04:18 J -18999123.44 -18999123.32 -18999123.19 0.0132 0.0034
 Mercury -56730-06-24 07:25 J -18999035.32 -18999035.19 -18999035.06 0.0132 0.0017
 Mercury -56730-09-20 10:33 J -18998947.20 -18998947.06 -18998946.93 0.0132 0.0004
 Mercury -56730-12-17 13:25 J -18998859.07 -18998858.94 -18998858.81 0.0132 0.0018
 Mercury -56729-03-14 16:18 J -18998770.95 -18998770.82 -18998770.69 0.0132 0.0035
 Mercury -56729-06-10 19:11 J -18998682.82 -18998682.70 -18998682.57 0.0132 0.0052
 Mercury -56729-09-06 22:04 J -18998594.68 -18998594.58 -18998594.46 0.0133 0.0070
 Mercury -56729-12-04 01:11 J -18998506.55 -18998506.45 -18998506.35 0.0133 0.0086
 Mercury -56728-03-02 04:04 J -18998418.40 -18998418.33 -18998418.24 0.0133 0.0104

Mercury -56728-05-29 06:57 J -18998330.25 -18998330.21 -18998330.15 0.0133 0.0121
 Moon -56722-08-23 18:28 J -18996052.93 -18996052.73 -18996052.52 0.0135 0.0078
 Earth -56722-08-23 21:49 J -18996052.78 -18996052.59 -18996052.38 0.0135 0.0080 *
 Earth -56721-08-27 05:01 J -18995683.54 -18995683.29 -18995683.04 0.0136 0.0019
 Moon -56721-08-27 08:09 J -18995683.40 -18995683.16 -18995682.92 0.0136 0.0022 *
 Moon -56720-08-31 08:52 J -18995314.24 -18995314.13 -18995313.98 0.0136 0.0117
 Earth -56720-08-31 12:42 J -18995314.08 -18995313.97 -18995313.85 0.0136 0.0121 *
 Mars -56710-05-15 19:40 J -18991769.94 -18991769.68 -18991769.40 0.0142 0.0032
 Venus -56706-03-02 06:42 J -18990383.25 -18990383.22 -18990383.19 0.0144 0.0142
 Venus -56706-10-14 16:04 J -18990156.97 -18990156.83 -18990156.68 0.0144 0.0103
 Venus -56705-05-28 01:40 J -18989930.61 -18989930.43 -18989930.23 0.0144 0.0063
 Venus -56704-01-09 11:45 J -18989704.21 -18989704.01 -18989703.79 0.0145 0.0022
 Venus -56704-08-23 22:18 J -18989477.78 -18989477.57 -18989477.35 0.0145 0.0020
 Venus -56703-04-07 08:52 J -18989251.32 -18989251.13 -18989250.93 0.0145 0.0062
 Venus -56703-11-19 19:25 J -18989024.82 -18989024.69 -18989024.52 0.0146 0.0105
 Mercury -56690-04-27 10:18 J -18984483.09 -18984483.07 -18984483.03 0.0147 0.0145
 Mercury -56690-07-24 18:42 J -18984394.83 -18984394.72 -18984394.58 0.0147 0.0112
 Mercury -56690-10-21 03:21 J -18984306.51 -18984306.36 -18984306.19 0.0147 0.0078
 Mercury -56689-01-17 11:45 J -18984218.18 -18984218.01 -18984217.82 0.0147 0.0045
 Mercury -56689-04-14 20:23 J -18984129.84 -18984129.65 -18984129.46 0.0146 0.0011
 Mercury -56689-07-12 05:01 J -18984041.48 -18984041.29 -18984041.10 0.0146 0.0023
 Mercury -56689-10-08 13:25 J -18983953.11 -18983952.94 -18983952.76 0.0146 0.0057
 Mercury -56688-01-04 22:04 J -18983864.73 -18983864.58 -18983864.43 0.0146 0.0090
 Mercury -56688-04-03 06:28 J -18983776.32 -18983776.23 -18983776.12 0.0146 0.0125
 Earth -56682-02-20 14:37 J -18981627.10 -18981626.89 -18981626.67 0.0144 0.0079
 Moon -56682-02-20 17:59 J -18981626.95 -18981626.75 -18981626.52 0.0144 0.0075 *
 Moon -56681-02-25 13:11 J -18981257.20 -18981256.95 -18981256.69 0.0143 0.0038
 Earth -56681-02-25 16:33 J -18981257.05 -18981256.81 -18981256.56 0.0143 0.0045 *
 Mars -56672-12-16 05:59 J -18977675.58 -18977675.25 -18977674.91 0.0137 0.0023
 Venus -56667-11-09 12:13 J -18975886.05 -18975885.99 -18975885.91 0.0135 0.0127

Venus -56666-06-23 19:54 J -18975659.81 -18975659.67 -18975659.49 0.0135 0.0093
 Venus -56665-02-05 04:04 J -18975433.53 -18975433.33 -18975433.12 0.0134 0.0058
 Venus -56665-09-18 11:30 J -18975207.24 -18975207.02 -18975206.80 0.0134 0.0023
 Venus -56664-05-02 18:42 J -18974980.94 -18974980.72 -18974980.50 0.0134 0.0011
 Venus -56664-12-15 01:25 J -18974754.64 -18974754.44 -18974754.22 0.0134 0.0045
 Venus -56663-07-29 08:23 J -18974528.33 -18974528.15 -18974527.97 0.0133 0.0078
 Venus -56662-03-12 15:06 J -18974301.99 -18974301.87 -18974301.75 0.0133 0.0110
 Mercury -56648-11-04 17:45 J -18968950.76 -18968950.76 -18968950.73 0.0132 0.0131
 Mercury -56647-01-31 21:06 J -18968862.68 -18968862.62 -18968862.55 0.0132 0.0113
 Mercury -56647-04-29 23:59 J -18968774.58 -18968774.50 -18968774.40 0.0132 0.0096
 Mercury -56647-07-27 03:06 J -18968686.47 -18968686.37 -18968686.26 0.0132 0.0079
 Mercury -56647-10-23 06:13 J -18968598.36 -18968598.24 -18968598.12 0.0132 0.0061
 Mercury -56646-01-19 09:06 J -18968510.24 -18968510.12 -18968509.99 0.0132 0.0044
 Mercury -56646-04-17 12:13 J -18968422.12 -18968421.99 -18968421.86 0.0132 0.0027
 Mercury -56646-07-14 15:06 J -18968334.00 -18968333.87 -18968333.73 0.0132 0.0011
 Mercury -56646-10-10 18:13 J -18968245.87 -18968245.74 -18968245.61 0.0132 0.0008
 Mercury -56645-01-06 21:06 J -18968157.75 -18968157.62 -18968157.49 0.0132 0.0025
 Mercury -56645-04-03 23:59 J -18968069.62 -18968069.50 -18968069.37 0.0132 0.0043
 Mercury -56645-07-01 03:06 J -18967981.49 -18967981.37 -18967981.25 0.0133 0.0059
 Mercury -56645-09-27 05:59 J -18967893.35 -18967893.25 -18967893.14 0.0133 0.0077
 Mercury -56645-12-24 08:52 J -18967805.21 -18967805.13 -18967805.03 0.0133 0.0094
 Mercury -56644-03-22 11:45 J -18967717.07 -18967717.01 -18967716.93 0.0133 0.0111
 Mercury -56644-06-18 14:52 J -18967628.91 -18967628.88 -18967628.84 0.0133 0.0128
 Moon -56638-08-24 09:06 J -18965371.32 -18965371.12 -18965370.90 0.0135 0.0073
 Earth -56638-08-24 12:28 J -18965371.18 -18965370.98 -18965370.75 0.0135 0.0071 *
 Earth -56637-08-27 19:54 J -18965001.91 -18965001.67 -18965001.42 0.0136 0.0029
 Moon -56637-08-27 23:16 J -18965001.77 -18965001.53 -18965001.28 0.0136 0.0029 *
 Moon -56636-09-01 00:28 J -18964632.51 -18964632.48 -18964632.44 0.0136 0.0135
 Earth -56636-09-01 03:21 J -18964632.41 -18964632.36 -18964632.27 0.0136 0.0131
 Mars -56627-02-07 15:21 J -18961551.04 -18961550.86 -18961550.64 0.0141 0.0098

Mars	-56625-01-08 14:23 J	-18960851.03	-18960850.90	-18960850.71	0.0142	0.0116
Venus	-56622-06-14 02:37 J	-18959598.50	-18959598.39	-18959598.26	0.0144	0.0118
Venus	-56621-01-26 12:13 J	-18959372.16	-18959371.99	-18959371.80	0.0144	0.0078
Venus	-56621-09-08 22:18 J	-18959145.77	-18959145.57	-18959145.36	0.0145	0.0038
Venus	-56620-04-23 08:23 J	-18958919.36	-18958919.15	-18958918.93	0.0145	0.0005
Venus	-56620-12-05 18:42 J	-18958692.92	-18958692.72	-18958692.51	0.0145	0.0045
Venus	-56619-07-20 05:30 J	-18958466.44	-18958466.27	-18958466.10	0.0145	0.0087
Venus	-56618-03-03 16:18 J	-18958239.91	-18958239.82	-18958239.71	0.0146	0.0129
Mercury	-56606-05-17 19:11 J	-18953781.78	-18953781.70	-18953781.62	0.0147	0.0132
Mercury	-56606-08-14 03:35 J	-18953693.49	-18953693.35	-18953693.21	0.0147	0.0099
Mercury	-56606-11-10 11:59 J	-18953605.16	-18953605.00	-18953604.83	0.0147	0.0065
Mercury	-56605-02-06 20:37 J	-18953516.83	-18953516.64	-18953516.46	0.0146	0.0032
Mercury	-56605-05-05 05:01 J	-18953428.48	-18953428.29	-18953428.10	0.0146	0.0002
Mercury	-56605-08-01 13:40 J	-18953340.12	-18953339.93	-18953339.75	0.0146	0.0035
Mercury	-56605-10-28 22:04 J	-18953251.74	-18953251.58	-18953251.41	0.0146	0.0069
Mercury	-56604-01-25 06:28 J	-18953163.35	-18953163.23	-18953163.08	0.0146	0.0103
Mercury	-56604-04-23 14:52 J	-18953074.92	-18953074.88	-18953074.79	0.0146	0.0138
Earth	-56598-02-21 04:04 J	-18950945.54	-18950945.33	-18950945.09	0.0144	0.0070
Moon	-56598-02-21 07:40 J	-18950945.39	-18950945.18	-18950944.95	0.0144	0.0073 *
Moon	-56597-02-26 02:37 J	-18950575.61	-18950575.39	-18950575.14	0.0143	0.0061
Earth	-56597-02-26 06:13 J	-18950575.48	-18950575.24	-18950575.00	0.0143	0.0053 *
Mars	-56587-08-12 12:28 J	-18946755.26	-18946754.98	-18946754.67	0.0137	0.0071
Venus	-56582-02-21 06:42 J	-18945101.36	-18945101.22	-18945101.08	0.0135	0.0106
Venus	-56582-10-05 14:23 J	-18944875.08	-18944874.90	-18944874.71	0.0134	0.0072
Venus	-56581-05-18 22:04 J	-18944648.79	-18944648.58	-18944648.37	0.0134	0.0037
Venus	-56581-12-31 05:30 J	-18944422.50	-18944422.27	-18944422.05	0.0134	0.0004
Venus	-56580-08-14 12:28 J	-18944196.19	-18944195.98	-18944195.76	0.0134	0.0031
Venus	-56579-03-28 19:11 J	-18943969.88	-18943969.70	-18943969.49	0.0133	0.0065
Venus	-56579-11-10 01:40 J	-18943743.56	-18943743.43	-18943743.26	0.0133	0.0098
Venus	-56578-06-24 08:23 J	-18943517.19	-18943517.15	-18943517.09	0.0133	0.0129

Mercury -56564-11-25 01:40 J -18938249.47 -18938249.43 -18938249.38 0.0132 0.0124
 Mercury -56563-02-21 04:33 J -18938161.38 -18938161.31 -18938161.22 0.0132 0.0107
 Mercury -56563-05-20 07:54 J -18938073.27 -18938073.17 -18938073.07 0.0132 0.0089
 Mercury -56563-08-16 10:47 J -18937985.16 -18937985.05 -18937984.93 0.0132 0.0072
 Mercury -56563-11-12 13:40 J -18937897.04 -18937896.93 -18937896.80 0.0132 0.0055
 Mercury -56562-02-08 16:47 J -18937808.92 -18937808.80 -18937808.67 0.0132 0.0038
 Mercury -56562-05-07 19:54 J -18937720.80 -18937720.67 -18937720.54 0.0132 0.0020
 Mercury -56562-08-03 22:47 J -18937632.68 -18937632.55 -18937632.41 0.0132 0.0004
 Mercury -56562-10-31 01:54 J -18937544.56 -18937544.42 -18937544.29 0.0132 0.0014
 Mercury -56561-01-27 04:47 J -18937456.43 -18937456.30 -18937456.17 0.0132 0.0032
 Mercury -56561-04-24 07:40 J -18937368.30 -18937368.18 -18937368.05 0.0133 0.0049
 Mercury -56561-07-21 10:47 J -18937280.17 -18937280.05 -18937279.94 0.0133 0.0066
 Mercury -56561-10-17 13:40 J -18937192.03 -18937191.93 -18937191.83 0.0133 0.0083
 Mercury -56560-01-13 16:47 J -18937103.89 -18937103.80 -18937103.72 0.0133 0.0100
 Mercury -56560-04-11 19:40 J -18937015.74 -18937015.68 -18937015.62 0.0133 0.0117
 Moon -56554-08-24 22:33 J -18934689.77 -18934689.56 -18934689.32 0.0135 0.0060
 Earth -56554-08-25 02:09 J -18934689.62 -18934689.41 -18934689.18 0.0135 0.0063 *
 Jupiter -56554-09-28 14:37 J -18934655.38 -18934654.89 -18934654.39 0.0135 0.0033
 Earth -56553-08-28 09:21 J -18934320.34 -18934320.11 -18934319.86 0.0136 0.0037
 Moon -56553-08-28 12:42 J -18934320.20 -18934319.97 -18934319.72 0.0136 0.0040 *
 Moon -56552-09-01 12:57 J -18933950.96 -18933950.96 -18933950.90 0.0136 0.0136
 Mars -56543-10-03 06:28 J -18930632.50 -18930632.23 -18930631.94 0.0141 0.0019
 Venus -56538-02-11 12:28 J -18929040.05 -18929039.98 -18929039.90 0.0144 0.0134
 Venus -56538-09-25 21:49 J -18928813.74 -18928813.59 -18928813.42 0.0144 0.0095
 Venus -56537-05-09 07:40 J -18928587.37 -18928587.18 -18928586.98 0.0144 0.0055
 Venus -56537-12-21 17:45 J -18928360.97 -18928360.76 -18928360.55 0.0145 0.0014
 Venus -56536-08-05 04:04 J -18928134.54 -18928134.33 -18928134.12 0.0145 0.0027
 Venus -56535-03-19 14:37 J -18927908.08 -18927907.89 -18927907.70 0.0145 0.0069
 Venus -56535-11-01 00:57 J -18927681.58 -18927681.46 -18927681.31 0.0146 0.0111
 Mercury -56522-06-07 03:35 J -18923080.45 -18923080.35 -18923080.23 0.0147 0.0120

Mercury -56522-09-03 11:59 J -18922992.14 -18922992.00 -18922991.84 0.0147 0.0087
 Mercury -56522-11-30 20:37 J -18922903.82 -18922903.64 -18922903.46 0.0147 0.0053
 Mercury -56521-02-27 05:01 J -18922815.47 -18922815.29 -18922815.10 0.0146 0.0020
 Mercury -56521-05-25 13:40 J -18922727.12 -18922726.93 -18922726.74 0.0146 0.0014
 Mercury -56521-08-21 21:49 J -18922638.76 -18922638.59 -18922638.40 0.0146 0.0049
 Mercury -56521-11-18 06:42 J -18922550.38 -18922550.22 -18922550.06 0.0146 0.0082
 Mercury -56520-02-14 15:06 J -18922461.98 -18922461.87 -18922461.75 0.0146 0.0115
 Earth -56514-02-21 18:42 J -18920263.96 -18920263.72 -18920263.49 0.0144 0.0060
 Moon -56514-02-21 22:04 J -18920263.80 -18920263.58 -18920263.33 0.0144 0.0056 *
 Moon -56513-02-26 17:01 J -18919894.03 -18919893.79 -18919893.55 0.0143 0.0057
 Earth -56513-02-26 20:23 J -18919893.87 -18919893.65 -18919893.41 0.0143 0.0064 *
 Mars -56504-05-03 01:40 J -18916540.68 -18916540.43 -18916540.13 0.0138 0.0081
 Venus -56499-10-21 17:01 J -18914542.87 -18914542.79 -18914542.67 0.0135 0.0120
 Venus -56498-06-05 01:25 J -18914316.61 -18914316.44 -18914316.27 0.0135 0.0085
 Venus -56497-01-17 09:06 J -18914090.32 -18914090.12 -18914089.91 0.0134 0.0051
 Venus -56497-08-30 16:33 J -18913864.02 -18913863.81 -18913863.58 0.0134 0.0017
 Venus -56496-04-13 23:45 J -18913637.72 -18913637.51 -18913637.28 0.0134 0.0018
 Venus -56496-11-26 06:42 J -18913411.42 -18913411.22 -18913411.01 0.0134 0.0051
 Venus -56495-07-10 13:25 J -18913185.10 -18913184.94 -18913184.76 0.0133 0.0084
 Venus -56494-02-21 19:54 J -18912958.76 -18912958.67 -18912958.55 0.0133 0.0116
 Mercury -56480-12-15 09:06 J -18907548.17 -18907548.12 -18907548.05 0.0132 0.0118
 Mercury -56479-03-13 12:13 J -18907460.07 -18907459.99 -18907459.90 0.0132 0.0100
 Mercury -56479-06-09 15:21 J -18907371.96 -18907371.86 -18907371.75 0.0132 0.0083
 Mercury -56479-09-05 18:13 J -18907283.85 -18907283.74 -18907283.61 0.0132 0.0066
 Mercury -56479-12-02 21:21 J -18907195.73 -18907195.61 -18907195.48 0.0132 0.0049
 Mercury -56478-03-01 00:28 J -18907107.61 -18907107.48 -18907107.35 0.0132 0.0031
 Mercury -56478-05-28 03:21 J -18907019.49 -18907019.36 -18907019.22 0.0132 0.0014
 Mercury -56478-08-24 06:28 J -18906931.36 -18906931.23 -18906931.10 0.0132 0.0003
 Mercury -56478-11-20 09:21 J -18906843.24 -18906843.11 -18906842.98 0.0132 0.0021
 Mercury -56477-02-16 12:28 J -18906755.11 -18906754.98 -18906754.86 0.0132 0.0038

Mercury -56477-05-14 15:21 J -18906666.98 -18906666.86 -18906666.74 0.0132 0.0055
 Mercury -56477-08-10 18:13 J -18906578.85 -18906578.74 -18906578.63 0.0133 0.0072
 Mercury -56477-11-06 21:06 J -18906490.71 -18906490.62 -18906490.52 0.0133 0.0089
 Mercury -56476-02-02 23:59 J -18906402.57 -18906402.50 -18906402.41 0.0133 0.0107
 Mercury -56476-05-02 02:52 J -18906314.41 -18906314.38 -18906314.32 0.0133 0.0124
 Moon -56470-08-25 11:30 J -18904008.24 -18904008.02 -18904007.79 0.0135 0.0057
 Earth -56470-08-25 14:52 J -18904008.09 -18904007.88 -18904007.63 0.0135 0.0056 *
 Earth -56469-08-28 22:04 J -18903638.81 -18903638.58 -18903638.34 0.0136 0.0045
 Moon -56469-08-29 01:40 J -18903638.66 -18903638.43 -18903638.19 0.0136 0.0045 *
 Mars -56458-05-28 20:23 J -18899713.89 -18899713.65 -18899713.39 0.0142 0.0063
 Venus -56454-05-26 05:59 J -18898255.36 -18898255.25 -18898255.10 0.0144 0.0113
 Venus -56453-01-07 15:35 J -18898029.02 -18898028.85 -18898028.66 0.0144 0.0073
 Venus -56453-08-21 01:25 J -18897802.64 -18897802.44 -18897802.22 0.0144 0.0034
 Venus -56452-04-04 11:45 J -18897576.22 -18897576.01 -18897575.80 0.0145 0.0008
 Venus -56452-11-16 21:49 J -18897349.79 -18897349.59 -18897349.38 0.0145 0.0049
 Venus -56451-07-01 08:09 J -18897123.31 -18897123.16 -18897122.98 0.0145 0.0090
 Venus -56450-02-12 18:57 J -18896896.79 -18896896.71 -18896896.61 0.0146 0.0132
 Mercury -56438-03-31 02:23 J -18892467.41 -18892467.40 -18892467.38 0.0147 0.0146
 Mercury -56438-06-27 10:47 J -18892379.16 -18892379.05 -18892378.93 0.0147 0.0113
 Mercury -56438-09-23 19:11 J -18892290.85 -18892290.70 -18892290.54 0.0147 0.0080
 Mercury -56438-12-21 03:35 J -18892202.52 -18892202.35 -18892202.16 0.0147 0.0046
 Mercury -56437-03-18 12:13 J -18892114.18 -18892113.99 -18892113.80 0.0146 0.0013
 Mercury -56437-06-14 20:37 J -18892025.83 -18892025.64 -18892025.45 0.0146 0.0021
 Mercury -56437-09-11 05:01 J -18891937.46 -18891937.29 -18891937.11 0.0146 0.0055
 Mercury -56437-12-08 13:40 J -18891849.08 -18891848.93 -18891848.78 0.0146 0.0088
 Mercury -56436-03-06 22:04 J -18891760.67 -18891760.58 -18891760.47 0.0146 0.0122
 Earth -56430-02-22 03:49 J -18889582.57 -18889582.34 -18889582.09 0.0144 0.0055
 Moon -56430-02-22 07:25 J -18889582.42 -18889582.19 -18889581.95 0.0144 0.0058 *
 Moon -56429-02-27 02:23 J -18889212.61 -18889212.40 -18889212.17 0.0143 0.0075
 Earth -56429-02-27 06:13 J -18889212.47 -18889212.24 -18889212.01 0.0143 0.0068 *

Mars	-56420-12-28 05:16 J	-18885620.62	-18885620.28	-18885619.94	0.0137	0.0012
Venus	-56415-06-21 02:09 J	-18883984.41	-18883984.41	-18883984.39	0.0135	0.0135
Venus	-56414-02-02 10:33 J	-18883758.20	-18883758.06	-18883757.91	0.0135	0.0100
Venus	-56414-09-16 18:28 J	-18883531.92	-18883531.73	-18883531.53	0.0135	0.0066
Venus	-56413-04-30 02:09 J	-18883305.63	-18883305.41	-18883305.19	0.0134	0.0032
Venus	-56413-12-12 09:21 J	-18883079.33	-18883079.11	-18883078.88	0.0134	0.0004
Venus	-56412-07-26 16:33 J	-18882853.02	-18882852.81	-18882852.59	0.0134	0.0036
Venus	-56411-03-09 23:30 J	-18882626.70	-18882626.52	-18882626.33	0.0134	0.0069
Venus	-56411-10-22 05:59 J	-18882400.38	-18882400.25	-18882400.10	0.0133	0.0102
Mercury	-56396-10-08 13:40 J	-18876934.95	-18876934.93	-18876934.90	0.0132	0.0129
Mercury	-56395-01-04 16:33 J	-18876846.87	-18876846.81	-18876846.73	0.0132	0.0112
Mercury	-56395-04-02 19:40 J	-18876758.77	-18876758.68	-18876758.58	0.0132	0.0095
Mercury	-56395-06-29 22:47 J	-18876670.66	-18876670.55	-18876670.44	0.0132	0.0077
Mercury	-56395-09-26 01:54 J	-18876582.54	-18876582.42	-18876582.30	0.0132	0.0060
Mercury	-56395-12-23 04:47 J	-18876494.42	-18876494.30	-18876494.17	0.0132	0.0043
Mercury	-56394-03-21 07:54 J	-18876406.30	-18876406.17	-18876406.04	0.0132	0.0026
Mercury	-56394-06-17 10:47 J	-18876318.18	-18876318.05	-18876317.91	0.0132	0.0009
Mercury	-56394-09-13 13:54 J	-18876230.06	-18876229.92	-18876229.79	0.0132	0.0009
Mercury	-56394-12-10 16:47 J	-18876141.93	-18876141.80	-18876141.67	0.0132	0.0026
Mercury	-56393-03-07 19:40 J	-18876053.80	-18876053.68	-18876053.55	0.0132	0.0044
Mercury	-56393-06-03 22:47 J	-18875965.67	-18875965.55	-18875965.43	0.0132	0.0060
Mercury	-56393-08-31 01:40 J	-18875877.53	-18875877.43	-18875877.32	0.0132	0.0078
Mercury	-56393-11-27 04:33 J	-18875789.39	-18875789.31	-18875789.21	0.0133	0.0095
Mercury	-56392-02-23 07:40 J	-18875701.25	-18875701.18	-18875701.11	0.0133	0.0112
Mercury	-56392-05-22 10:33 J	-18875613.09	-18875613.06	-18875613.03	0.0133	0.0129
Moon	-56386-08-25 23:30 J	-18873326.74	-18873326.52	-18873326.27	0.0135	0.0046
Earth	-56386-08-26 03:06 J	-18873326.60	-18873326.37	-18873326.13	0.0135	0.0049 *
Earth	-56385-08-29 09:49 J	-18872957.31	-18872957.09	-18872956.85	0.0135	0.0051
Moon	-56385-08-29 13:40 J	-18872957.16	-18872956.93	-18872956.70	0.0135	0.0053 *
Mars	-56375-02-20 09:35 J	-18869495.32	-18869495.10	-18869494.85	0.0141	0.0073

Venus -56370-01-23 13:54 J -18867696.99 -18867696.92 -18867696.82 0.0144 0.0131
 Venus -56370-09-06 23:16 J -18867470.68 -18867470.53 -18867470.36 0.0144 0.0092
 Venus -56369-04-20 08:52 J -18867244.32 -18867244.13 -18867243.93 0.0144 0.0052
 Venus -56369-12-02 18:42 J -18867017.93 -18867017.72 -18867017.51 0.0145 0.0012
 Venus -56368-07-17 04:33 J -18866791.51 -18866791.31 -18866791.09 0.0145 0.0029
 Venus -56367-02-28 15:06 J -18866565.06 -18866564.87 -18866564.68 0.0145 0.0069
 Venus -56367-10-13 01:25 J -18866338.57 -18866338.44 -18866338.29 0.0145 0.0111
 Mercury -56354-04-20 08:52 J -18861766.16 -18861766.13 -18861766.06 0.0147 0.0141
 Mercury -56354-07-17 17:16 J -18861677.89 -18861677.78 -18861677.64 0.0147 0.0108
 Mercury -56354-10-14 01:40 J -18861589.58 -18861589.43 -18861589.25 0.0147 0.0075
 Mercury -56353-01-10 10:18 J -18861501.25 -18861501.07 -18861500.88 0.0147 0.0041
 Mercury -56353-04-07 18:57 J -18861412.90 -18861412.71 -18861412.52 0.0146 0.0007
 Mercury -56353-07-05 03:21 J -18861324.55 -18861324.36 -18861324.17 0.0146 0.0026
 Mercury -56353-10-01 11:45 J -18861236.18 -18861236.01 -18861235.83 0.0146 0.0060
 Mercury -56353-12-28 20:09 J -18861147.79 -18861147.66 -18861147.50 0.0146 0.0094
 Mercury -56352-03-27 05:01 J -18861059.38 -18861059.29 -18861059.20 0.0146 0.0128
 Earth -56346-02-22 12:28 J -18858901.21 -18858900.98 -18858900.73 0.0144 0.0053
 Moon -56346-02-22 16:18 J -18858901.05 -18858900.82 -18858900.57 0.0144 0.0049 *
 Jupiter -56346-08-10 06:28 J -18858732.74 -18858732.23 -18858731.69 0.0143 0.0016
 Moon -56345-02-27 11:01 J -18858531.25 -18858531.04 -18858530.80 0.0143 0.0067
 Earth -56345-02-27 14:52 J -18858531.10 -18858530.88 -18858530.65 0.0143 0.0072 *
 Mars -56335-08-24 05:16 J -18854700.48 -18854700.28 -18854700.02 0.0137 0.0102
 Venus -56331-10-02 18:57 J -18853199.82 -18853199.71 -18853199.59 0.0135 0.0115
 Venus -56330-05-17 02:52 J -18852973.55 -18852973.38 -18852973.19 0.0135 0.0081
 Venus -56330-12-29 10:47 J -18852747.25 -18852747.05 -18852746.83 0.0134 0.0047
 Venus -56329-08-11 18:28 J -18852520.95 -18852520.73 -18852520.51 0.0134 0.0013
 Venus -56328-03-26 01:54 J -18852294.64 -18852294.42 -18852294.20 0.0134 0.0021
 Venus -56328-11-07 08:52 J -18852068.33 -18852068.13 -18852067.92 0.0134 0.0054
 Venus -56327-06-21 15:21 J -18851842.01 -18851841.86 -18851841.68 0.0134 0.0087
 Venus -56326-02-02 21:49 J -18851615.67 -18851615.59 -18851615.47 0.0133 0.0119

Mercury -56312-10-28 21:06 J -18846233.66 -18846233.62 -18846233.58 0.0132 0.0124

Mercury -56311-01-24 23:59 J -18846145.57 -18846145.50 -18846145.42 0.0132 0.0107

Mercury -56311-04-23 03:06 J -18846057.46 -18846057.37 -18846057.27 0.0132 0.0090

Mercury -56311-07-20 06:13 J -18845969.35 -18845969.24 -18845969.13 0.0132 0.0072

Mercury -56311-10-16 09:06 J -18845881.24 -18845881.12 -18845880.99 0.0132 0.0055

Mercury -56310-01-12 12:13 J -18845793.12 -18845792.99 -18845792.86 0.0132 0.0038

Mercury -56310-04-10 15:21 J -18845705.00 -18845704.86 -18845704.73 0.0132 0.0020

Mercury -56310-07-07 18:13 J -18845616.87 -18845616.74 -18845616.60 0.0132 0.0003

Mercury -56310-10-03 21:21 J -18845528.75 -18845528.61 -18845528.48 0.0132 0.0015

Mercury -56310-12-31 00:13 J -18845440.62 -18845440.49 -18845440.36 0.0132 0.0031

Mercury -56309-03-28 03:21 J -18845352.49 -18845352.36 -18845352.24 0.0132 0.0049

Mercury -56309-06-24 06:13 J -18845264.36 -18845264.24 -18845264.13 0.0132 0.0066

Mercury -56309-09-20 08:52 J -18845176.22 -18845176.13 -18845176.01 0.0133 0.0084

Mercury -56309-12-17 11:59 J -18845088.08 -18845088.00 -18845087.91 0.0133 0.0100

Mercury -56308-03-15 14:52 J -18844999.93 -18844999.88 -18844999.81 0.0133 0.0118

Moon -56302-08-26 11:45 J -18842645.23 -18842645.01 -18842644.76 0.0135 0.0045

Earth -56302-08-26 15:21 J -18842645.09 -18842644.86 -18842644.61 0.0135 0.0043 *

Earth -56301-08-29 22:04 J -18842275.80 -18842275.58 -18842275.35 0.0135 0.0058

Moon -56301-08-30 01:40 J -18842275.66 -18842275.43 -18842275.20 0.0135 0.0058 *

Mars -56291-10-15 23:59 J -18838576.78 -18838576.50 -18838576.22 0.0141 0.0006

Venus -56286-05-07 07:54 J -18836912.30 -18836912.17 -18836912.03 0.0144 0.0109

Venus -56286-12-19 17:01 J -18836685.97 -18836685.79 -18836685.60 0.0144 0.0070

Venus -56285-08-02 02:52 J -18836459.59 -18836459.38 -18836459.17 0.0144 0.0030

Venus -56284-03-16 12:42 J -18836233.18 -18836232.97 -18836232.76 0.0145 0.0010

Venus -56284-10-28 22:33 J -18836006.75 -18836006.56 -18836006.35 0.0145 0.0050

Venus -56283-06-12 08:37 J -18835780.29 -18835780.14 -18835779.96 0.0145 0.0091

Venus -56282-01-24 19:40 J -18835553.77 -18835553.68 -18835553.59 0.0145 0.0132

Mercury -56270-05-10 15:35 J -18831064.91 -18831064.85 -18831064.77 0.0147 0.0136

Mercury -56270-08-06 23:59 J -18830976.62 -18830976.50 -18830976.36 0.0147 0.0103

Mercury -56270-11-03 08:23 J -18830888.31 -18830888.15 -18830887.98 0.0147 0.0070

Mercury -56269-01-30 16:47 J -18830799.98 -18830799.80 -18830799.61 0.0146 0.0036

Mercury -56269-04-28 01:25 J -18830711.63 -18830711.44 -18830711.25 0.0146 0.0003

Mercury -56269-07-25 09:49 J -18830623.27 -18830623.09 -18830622.90 0.0146 0.0031

Mercury -56269-10-21 18:13 J -18830534.91 -18830534.74 -18830534.56 0.0146 0.0065

Mercury -56268-01-18 02:37 J -18830446.52 -18830446.39 -18830446.24 0.0146 0.0099

Mercury -56268-04-16 11:16 J -18830358.10 -18830358.03 -18830357.94 0.0146 0.0132

Earth -56262-02-22 19:40 J -18828219.91 -18828219.68 -18828219.42 0.0144 0.0051

Moon -56262-02-22 23:01 J -18828219.78 -18828219.54 -18828219.29 0.0144 0.0052 *

Moon -56261-02-27 18:28 J -18827849.93 -18827849.73 -18827849.51 0.0143 0.0080

Earth -56261-02-27 22:04 J -18827849.79 -18827849.58 -18827849.35 0.0143 0.0074 *

Mars -56252-05-14 01:54 J -18824486.72 -18824486.42 -18824486.10 0.0138 0.0061

Venus -56247-06-02 01:40 J -18822641.47 -18822641.43 -18822641.37 0.0135 0.0132

Venus -56246-01-14 10:04 J -18822415.23 -18822415.08 -18822414.92 0.0135 0.0097

Venus -56246-08-28 17:59 J -18822188.93 -18822188.75 -18822188.54 0.0135 0.0063

Venus -56245-04-11 02:09 J -18821962.63 -18821962.41 -18821962.20 0.0134 0.0029

Venus -56245-11-23 09:35 J -18821736.33 -18821736.10 -18821735.88 0.0134 0.0005

Venus -56244-07-07 16:33 J -18821510.02 -18821509.81 -18821509.59 0.0134 0.0038

Venus -56243-02-18 23:45 J -18821283.70 -18821283.51 -18821283.32 0.0134 0.0071

Venus -56243-10-03 06:13 J -18821057.37 -18821057.24 -18821057.09 0.0134 0.0104

Mercury -56228-11-18 04:04 J -18815532.37 -18815532.33 -18815532.26 0.0132 0.0120

Mercury -56227-02-14 07:11 J -18815444.27 -18815444.20 -18815444.11 0.0132 0.0103

Mercury -56227-05-13 10:18 J -18815356.17 -18815356.07 -18815355.96 0.0132 0.0085

Mercury -56227-08-09 13:25 J -18815268.05 -18815267.94 -18815267.82 0.0132 0.0068

Mercury -56227-11-05 16:33 J -18815179.94 -18815179.81 -18815179.69 0.0132 0.0050

Mercury -56226-02-01 19:25 J -18815091.82 -18815091.69 -18815091.56 0.0132 0.0033

Mercury -56226-04-30 22:33 J -18815003.69 -18815003.56 -18815003.43 0.0132 0.0015

Mercury -56226-07-28 01:25 J -18814915.57 -18814915.44 -18814915.30 0.0132 0.0005

Mercury -56226-10-24 04:33 J -18814827.44 -18814827.31 -18814827.18 0.0132 0.0019

Mercury -56225-01-20 07:25 J -18814739.31 -18814739.19 -18814739.06 0.0132 0.0037

Mercury -56225-04-17 10:33 J -18814651.18 -18814651.06 -18814650.94 0.0132 0.0054

Mercury -56225-07-14 13:25 J -18814563.05 -18814562.94 -18814562.82 0.0133 0.0071
 Mercury -56225-10-10 16:33 J -18814474.91 -18814474.81 -18814474.71 0.0133 0.0088
 Mercury -56224-01-06 19:11 J -18814386.77 -18814386.70 -18814386.61 0.0133 0.0106
 Mercury -56224-04-04 22:04 J -18814298.61 -18814298.58 -18814298.52 0.0133 0.0123
 Moon -56218-08-27 00:13 J -18811963.72 -18811963.49 -18811963.24 0.0135 0.0033
 Earth -56218-08-27 03:21 J -18811963.60 -18811963.36 -18811963.12 0.0135 0.0036 *
 Earth -56217-08-30 09:49 J -18811594.30 -18811594.09 -18811593.86 0.0136 0.0065
 Moon -56217-08-30 13:11 J -18811594.16 -18811593.95 -18811593.72 0.0136 0.0066 *
 Mars -56208-07-10 17:30 J -18808357.86 -18808357.77 -18808357.63 0.0140 0.0127
 Mars -56206-06-10 14:37 J -18807658.11 -18807657.89 -18807657.67 0.0141 0.0086
 Venus -56202-01-04 16:33 J -18806353.89 -18806353.81 -18806353.69 0.0143 0.0126
 Venus -56202-08-19 01:54 J -18806127.57 -18806127.42 -18806127.24 0.0144 0.0087
 Venus -56201-04-01 11:16 J -18805901.22 -18805901.03 -18805900.82 0.0144 0.0048
 Venus -56201-11-13 21:06 J -18805674.83 -18805674.62 -18805674.40 0.0144 0.0008
 Venus -56200-06-28 06:57 J -18805448.41 -18805448.21 -18805448.00 0.0145 0.0032
 Venus -56199-02-09 17:01 J -18805221.97 -18805221.79 -18805221.60 0.0145 0.0073
 Venus -56199-09-24 03:35 J -18804995.47 -18804995.35 -18804995.21 0.0145 0.0113
 Mercury -56186-05-30 23:01 J -18800363.62 -18800363.54 -18800363.44 0.0147 0.0128
 Mercury -56186-08-27 07:25 J -18800275.32 -18800275.19 -18800275.04 0.0147 0.0095
 Mercury -56186-11-23 15:49 J -18800187.00 -18800186.84 -18800186.66 0.0146 0.0061
 Mercury -56185-02-20 00:13 J -18800098.67 -18800098.49 -18800098.30 0.0146 0.0028
 Mercury -56185-05-18 08:52 J -18800010.32 -18800010.13 -18800009.94 0.0146 0.0006
 Mercury -56185-08-14 17:16 J -18799921.96 -18799921.78 -18799921.60 0.0146 0.0039
 Mercury -56185-11-11 01:25 J -18799833.59 -18799833.44 -18799833.26 0.0146 0.0074
 Mercury -56184-02-07 10:18 J -18799745.20 -18799745.07 -18799744.94 0.0146 0.0106
 Mercury -56184-05-06 18:42 J -18799656.76 -18799656.72 -18799656.66 0.0146 0.0140
 Earth -56178-02-23 05:59 J -18797538.49 -18797538.25 -18797538.00 0.0144 0.0046
 Moon -56178-02-23 09:21 J -18797538.36 -18797538.11 -18797537.86 0.0144 0.0043 *
 Moon -56177-02-28 04:33 J -18797168.51 -18797168.31 -18797168.08 0.0143 0.0074
 Earth -56177-02-28 07:54 J -18797168.37 -18797168.17 -18797167.94 0.0143 0.0079 *

Mars -56167-01-08 04:18 J -18793566.64 -18793566.32 -18793565.97 0.0137 0.0031
 Venus -56163-09-13 17:59 J -18791856.86 -18791856.75 -18791856.61 0.0135 0.0112
 Venus -56162-04-28 02:09 J -18791630.58 -18791630.41 -18791630.22 0.0135 0.0078
 Venus -56162-12-10 10:18 J -18791404.28 -18791404.07 -18791403.86 0.0135 0.0044
 Venus -56161-07-23 17:59 J -18791177.98 -18791177.75 -18791177.53 0.0134 0.0010
 Venus -56160-03-07 01:25 J -18790951.66 -18790951.44 -18790951.22 0.0134 0.0023
 Venus -56160-10-19 08:23 J -18790725.34 -18790725.15 -18790724.94 0.0134 0.0056
 Venus -56159-06-02 15:06 J -18790499.02 -18790498.87 -18790498.69 0.0134 0.0089
 Venus -56158-01-14 21:49 J -18790272.67 -18790272.59 -18790272.49 0.0133 0.0121
 Mercury -56144-09-11 08:37 J -18784919.14 -18784919.14 -18784919.14 0.0132 0.0132
 Mercury -56144-12-08 11:45 J -18784831.08 -18784831.01 -18784830.95 0.0132 0.0115
 Mercury -56143-03-06 14:37 J -18784742.98 -18784742.89 -18784742.80 0.0132 0.0097
 Mercury -56143-06-02 17:30 J -18784654.86 -18784654.77 -18784654.65 0.0132 0.0080
 Mercury -56143-08-29 20:52 J -18784566.75 -18784566.63 -18784566.51 0.0132 0.0062
 Mercury -56143-11-25 23:45 J -18784478.63 -18784478.51 -18784478.38 0.0132 0.0045
 Mercury -56142-02-22 02:52 J -18784390.51 -18784390.38 -18784390.25 0.0132 0.0028
 Mercury -56142-05-21 05:45 J -18784302.39 -18784302.26 -18784302.12 0.0132 0.0012
 Mercury -56142-08-17 08:52 J -18784214.26 -18784214.13 -18784213.99 0.0132 0.0007
 Mercury -56142-11-13 11:59 J -18784126.13 -18784126.00 -18784125.87 0.0132 0.0025
 Mercury -56141-02-09 14:52 J -18784038.00 -18784037.88 -18784037.75 0.0133 0.0042
 Mercury -56141-05-07 17:45 J -18783949.87 -18783949.76 -18783949.64 0.0133 0.0059
 Mercury -56141-08-03 20:37 J -18783861.74 -18783861.64 -18783861.52 0.0133 0.0077
 Mercury -56141-10-30 23:45 J -18783773.60 -18783773.51 -18783773.41 0.0133 0.0094
 Mercury -56140-01-27 02:37 J -18783685.45 -18783685.39 -18783685.31 0.0133 0.0111
 Mercury -56140-04-25 05:45 J -18783597.29 -18783597.26 -18783597.22 0.0133 0.0128
 Earth -56135-08-23 08:37 J -18781651.19 -18781651.14 -18781651.05 0.0135 0.0130
 Moon -56135-08-23 11:16 J -18781651.11 -18781651.03 -18781650.91 0.0135 0.0124 *
 Moon -56134-08-27 12:28 J -18781282.22 -18781281.98 -18781281.74 0.0135 0.0033
 Earth -56134-08-27 15:21 J -18781282.10 -18781281.86 -18781281.61 0.0135 0.0030 *
 Earth -56133-08-30 22:04 J -18780912.79 -18780912.58 -18780912.36 0.0136 0.0071

Moon -56133-08-31 00:57 J -18780912.67 -18780912.46 -18780912.23 0.0136 0.0072 *
 Mars -56123-03-05 08:09 J -18777439.42 -18777439.16 -18777438.90 0.0141 0.0048
 Venus -56119-09-04 02:37 J -18775795.42 -18775795.39 -18775795.34 0.0143 0.0141
 Venus -56118-04-18 11:30 J -18775569.15 -18775569.02 -18775568.86 0.0144 0.0103
 Venus -56118-11-30 20:52 J -18775342.81 -18775342.63 -18775342.43 0.0144 0.0064
 Venus -56117-07-14 06:28 J -18775116.44 -18775116.23 -18775116.02 0.0144 0.0025
 Venus -56116-02-25 16:04 J -18774890.03 -18774889.83 -18774889.61 0.0144 0.0016
 Venus -56116-10-10 02:09 J -18774663.60 -18774663.41 -18774663.21 0.0145 0.0056
 Venus -56115-05-24 12:13 J -18774437.13 -18774436.99 -18774436.82 0.0145 0.0096
 Venus -56114-01-05 23:01 J -18774210.60 -18774210.54 -18774210.46 0.0145 0.0136
 Mercury -56102-06-20 06:57 J -18769662.31 -18769662.21 -18769662.09 0.0146 0.0118
 Mercury -56102-09-16 15:21 J -18769574.01 -18769573.86 -18769573.70 0.0146 0.0085
 Mercury -56102-12-13 23:45 J -18769485.68 -18769485.51 -18769485.33 0.0146 0.0051
 Mercury -56101-03-11 08:09 J -18769397.34 -18769397.16 -18769396.97 0.0146 0.0018
 Mercury -56101-06-07 16:33 J -18769308.99 -18769308.81 -18769308.61 0.0146 0.0017
 Mercury -56101-09-04 01:11 J -18769220.63 -18769220.45 -18769220.27 0.0146 0.0049
 Mercury -56101-12-01 09:21 J -18769132.25 -18769132.11 -18769131.94 0.0146 0.0083
 Mercury -56100-02-27 18:13 J -18769043.85 -18769043.74 -18769043.63 0.0146 0.0116
 Earth -56094-02-23 16:47 J -18766857.04 -18766856.80 -18766856.55 0.0144 0.0040
 Moon -56094-02-23 18:57 J -18766856.95 -18766856.71 -18766856.44 0.0144 0.0041 *
 Moon -56093-02-28 15:21 J -18766487.05 -18766486.86 -18766486.66 0.0143 0.0090
 Earth -56093-02-28 18:13 J -18766486.93 -18766486.74 -18766486.51 0.0143 0.0085 *
 Mars -56085-09-28 02:09 J -18763352.47 -18763352.41 -18763352.29 0.0138 0.0133
 Mars -56083-09-04 04:33 J -18762646.44 -18762646.31 -18762646.12 0.0137 0.0122
 Venus -56079-05-14 01:40 J -18761298.49 -18761298.43 -18761298.34 0.0135 0.0128
 Venus -56079-12-26 10:04 J -18761072.23 -18761072.08 -18761071.91 0.0135 0.0093
 Venus -56078-08-09 17:59 J -18760845.94 -18760845.75 -18760845.54 0.0135 0.0060
 Venus -56077-03-23 02:09 J -18760619.63 -18760619.41 -18760619.19 0.0135 0.0026
 Venus -56077-11-04 09:35 J -18760393.32 -18760393.10 -18760392.88 0.0134 0.0008
 Venus -56076-06-18 16:47 J -18760167.01 -18760166.80 -18760166.58 0.0134 0.0041

Venus -56075-01-30 23:45 J -18759940.69 -18759940.51 -18759940.32 0.0134 0.0074
 Venus -56075-09-14 06:42 J -18759714.35 -18759714.22 -18759714.08 0.0134 0.0106
 Mercury -56060-10-01 15:49 J -18754217.87 -18754217.84 -18754217.81 0.0132 0.0127
 Mercury -56060-12-28 18:42 J -18754129.78 -18754129.72 -18754129.64 0.0132 0.0110
 Mercury -56059-03-26 21:49 J -18754041.68 -18754041.59 -18754041.49 0.0132 0.0093
 Mercury -56059-06-23 00:57 J -18753953.57 -18753953.46 -18753953.35 0.0132 0.0075
 Mercury -56059-09-19 04:04 J -18753865.45 -18753865.33 -18753865.21 0.0132 0.0058
 Mercury -56059-12-16 06:57 J -18753777.33 -18753777.21 -18753777.08 0.0132 0.0041
 Mercury -56058-03-14 10:04 J -18753689.21 -18753689.08 -18753688.95 0.0132 0.0023
 Mercury -56058-06-10 13:11 J -18753601.09 -18753600.95 -18753600.82 0.0132 0.0006
 Mercury -56058-09-06 16:04 J -18753512.96 -18753512.83 -18753512.69 0.0132 0.0013
 Mercury -56058-12-03 19:11 J -18753424.83 -18753424.70 -18753424.57 0.0132 0.0029
 Mercury -56057-02-29 22:04 J -18753336.70 -18753336.58 -18753336.45 0.0133 0.0047
 Mercury -56057-05-28 01:11 J -18753248.57 -18753248.45 -18753248.33 0.0133 0.0064
 Mercury -56057-08-24 04:04 J -18753160.43 -18753160.33 -18753160.22 0.0133 0.0081
 Mercury -56057-11-20 06:57 J -18753072.29 -18753072.21 -18753072.11 0.0133 0.0099
 Mercury -56056-02-16 10:04 J -18752984.14 -18752984.08 -18752984.01 0.0133 0.0116
 Earth -56051-08-23 19:54 J -18750969.75 -18750969.67 -18750969.55 0.0135 0.0124
 Moon -56051-08-23 22:47 J -18750969.60 -18750969.55 -18750969.46 0.0135 0.0129 *
 Moon -56050-08-28 00:13 J -18750600.72 -18750600.49 -18750600.24 0.0135 0.0020
 Earth -56050-08-28 02:37 J -18750600.63 -18750600.39 -18750600.14 0.0135 0.0024 *
 Earth -56049-08-31 09:35 J -18750231.30 -18750231.10 -18750230.89 0.0136 0.0077
 Moon -56049-08-31 11:59 J -18750231.19 -18750231.00 -18750230.77 0.0136 0.0078 *
 Mars -56039-10-28 20:52 J -18746520.91 -18746520.63 -18746520.36 0.0141 0.0032
 Venus -56035-12-16 20:37 J -18745010.75 -18745010.64 -18745010.51 0.0143 0.0119
 Venus -56034-07-31 05:45 J -18744784.42 -18744784.26 -18744784.07 0.0144 0.0081
 Venus -56033-03-13 15:06 J -18744558.06 -18744557.87 -18744557.66 0.0144 0.0042
 Venus -56033-10-26 00:57 J -18744331.67 -18744331.46 -18744331.25 0.0144 0.0002
 Venus -56032-06-09 10:47 J -18744105.26 -18744105.05 -18744104.84 0.0145 0.0038
 Venus -56031-01-21 20:37 J -18743878.81 -18743878.64 -18743878.45 0.0145 0.0078

Venus -56031-09-05 07:25 J -18743652.31 -18743652.19 -18743652.06 0.0145 0.0118

Mercury -56018-04-13 06:42 J -18739049.26 -18739049.22 -18739049.16 0.0146 0.0140

Mercury -56018-07-10 15:06 J -18738960.99 -18738960.87 -18738960.74 0.0146 0.0107

Mercury -56018-10-06 23:30 J -18738872.68 -18738872.52 -18738872.35 0.0146 0.0074

Mercury -56017-01-03 07:54 J -18738784.35 -18738784.17 -18738783.99 0.0146 0.0041

Mercury -56017-03-31 16:18 J -18738696.01 -18738695.82 -18738695.63 0.0146 0.0007

Mercury -56017-06-28 00:42 J -18738607.65 -18738607.47 -18738607.28 0.0146 0.0026

Mercury -56017-09-24 09:06 J -18738519.29 -18738519.12 -18738518.94 0.0146 0.0060

Mercury -56017-12-21 17:45 J -18738430.90 -18738430.76 -18738430.61 0.0146 0.0093

Mercury -56016-03-20 02:09 J -18738342.49 -18738342.41 -18738342.31 0.0146 0.0127

Earth -56010-02-24 05:16 J -18736175.53 -18736175.28 -18736175.03 0.0144 0.0032

Moon -56010-02-24 07:40 J -18736175.43 -18736175.18 -18736174.92 0.0144 0.0030 *

Moon -56009-02-29 04:18 J -18735805.51 -18735805.32 -18735805.12 0.0143 0.0088

Earth -56009-02-29 06:57 J -18735805.40 -18735805.21 -18735805.01 0.0143 0.0092 *

56TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 56th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-56000-05-25 10:47 J	-18732432.37	-18732432.05	-18732431.71	0.0138	0.0037		
Venus	-55995-08-25 18:42 J	-18730513.84	-18730513.72	-18730513.57	0.0135	0.0108		
Venus	-55994-04-09 03:06 J	-18730287.55	-18730287.37	-18730287.18	0.0135	0.0074		
Venus	-55994-11-21 10:47 J	-18730061.25	-18730061.05	-18730060.82	0.0135	0.0041		

Venus	-55993-07-04 18:42 J	-18729834.94	-18729834.72	-18729834.50	0.0134	0.0007
Venus	-55992-02-16 02:09 J	-18729608.62	-18729608.41	-18729608.19	0.0134	0.0026
Venus	-55992-09-30 09:21 J	-18729382.31	-18729382.11	-18729381.91	0.0134	0.0059
Venus	-55991-05-14 16:04 J	-18729155.98	-18729155.83	-18729155.66	0.0134	0.0092
Venus	-55991-12-26 22:47 J	-18728929.62	-18728929.55	-18728929.46	0.0133	0.0124
Mercury	-55976-10-21 22:47 J	-18723516.59	-18723516.55	-18723516.49	0.0132	0.0123
Mercury	-55975-01-18 01:54 J	-18723428.49	-18723428.42	-18723428.33	0.0132	0.0105
Mercury	-55975-04-16 05:01 J	-18723340.38	-18723340.29	-18723340.18	0.0132	0.0088
Mercury	-55975-07-13 08:09 J	-18723252.27	-18723252.16	-18723252.04	0.0132	0.0070
Mercury	-55975-10-09 11:01 J	-18723164.15	-18723164.04	-18723163.91	0.0132	0.0054
Mercury	-55974-01-05 14:23 J	-18723076.03	-18723075.90	-18723075.77	0.0132	0.0035
Mercury	-55974-04-03 17:16 J	-18722987.91	-18722987.78	-18722987.64	0.0132	0.0018
Mercury	-55974-06-30 20:23 J	-18722899.78	-18722899.65	-18722899.52	0.0132	0.0001
Mercury	-55974-09-26 23:16 J	-18722811.66	-18722811.53	-18722811.39	0.0132	0.0018
Mercury	-55974-12-24 02:23 J	-18722723.53	-18722723.40	-18722723.27	0.0132	0.0034
Mercury	-55973-03-21 05:16 J	-18722635.40	-18722635.28	-18722635.15	0.0133	0.0052
Mercury	-55973-06-17 08:23 J	-18722547.26	-18722547.15	-18722547.04	0.0133	0.0069
Mercury	-55973-09-13 11:30 J	-18722459.12	-18722459.02	-18722458.92	0.0133	0.0086
Mercury	-55973-12-10 14:09 J	-18722370.98	-18722370.91	-18722370.82	0.0133	0.0104
Mercury	-55972-03-08 17:01 J	-18722282.83	-18722282.79	-18722282.72	0.0133	0.0121
Earth	-55967-08-24 06:42 J	-18720288.33	-18720288.22	-18720288.10	0.0135	0.0119
Moon	-55967-08-24 08:23 J	-18720288.28	-18720288.15	-18720288.00	0.0135	0.0113 *
Moon	-55966-08-28 11:01 J	-18719919.28	-18719919.04	-18719918.80	0.0135	0.0022
Earth	-55966-08-28 13:11 J	-18719919.19	-18719918.95	-18719918.70	0.0135	0.0019 *
Earth	-55965-08-31 19:54 J	-18719549.85	-18719549.67	-18719549.46	0.0136	0.0083
Moon	-55965-08-31 22:04 J	-18719549.77	-18719549.58	-18719549.36	0.0136	0.0084 *
Mars	-55956-07-23 11:59 J	-18716302.17	-18716302.00	-18716301.79	0.0140	0.0104
Mars	-55954-06-23 07:54 J	-18715602.32	-18715602.17	-18715601.98	0.0142	0.0112
Venus	-55951-08-16 04:47 J	-18714452.35	-18714452.30	-18714452.22	0.0143	0.0136
Venus	-55950-03-30 13:40 J	-18714226.06	-18714225.93	-18714225.76	0.0144	0.0099

Venus -55950-11-11 23:01 J -18713999.72 -18713999.54 -18713999.34 0.0144 0.0060

Venus -55949-06-25 08:37 J -18713773.35 -18713773.14 -18713772.93 0.0144 0.0021

Venus -55948-02-06 18:28 J -18713546.94 -18713546.73 -18713546.52 0.0144 0.0019

Venus -55948-09-21 04:33 J -18713320.50 -18713320.31 -18713320.11 0.0145 0.0059

Venus -55947-05-05 14:52 J -18713094.03 -18713093.88 -18713093.72 0.0145 0.0099

Venus -55947-12-18 01:25 J -18712867.49 -18712867.44 -18712867.38 0.0145 0.0139

Mercury -55934-05-03 14:09 J -18708347.98 -18708347.91 -18708347.82 0.0146 0.0132

Mercury -55934-07-30 22:33 J -18708259.69 -18708259.56 -18708259.42 0.0146 0.0099

Mercury -55934-10-27 06:57 J -18708171.38 -18708171.21 -18708171.04 0.0146 0.0066

Mercury -55933-01-23 15:21 J -18708083.05 -18708082.86 -18708082.68 0.0146 0.0032

Mercury -55933-04-20 23:45 J -18707994.70 -18707994.51 -18707994.32 0.0146 0.0001

Mercury -55933-07-18 08:09 J -18707906.34 -18707906.16 -18707905.97 0.0146 0.0035

Mercury -55933-10-14 16:33 J -18707817.97 -18707817.81 -18707817.64 0.0146 0.0068

Mercury -55932-01-11 00:57 J -18707729.59 -18707729.46 -18707729.32 0.0146 0.0102

Mercury -55932-04-09 09:35 J -18707641.16 -18707641.10 -18707641.03 0.0146 0.0135

Earth -55926-02-24 15:06 J -18705494.12 -18705493.87 -18705493.61 0.0144 0.0027

Moon -55926-02-24 16:47 J -18705494.06 -18705493.80 -18705493.54 0.0144 0.0026 *

Moon -55925-02-29 13:54 J -18705124.07 -18705123.92 -18705123.73 0.0143 0.0103

Earth -55925-02-29 16:33 J -18705123.98 -18705123.81 -18705123.61 0.0143 0.0098 *

Mars -55915-01-19 13:40 J -18701512.23 -18701511.93 -18701511.60 0.0137 0.0057

Venus -55911-04-25 02:37 J -18699955.47 -18699955.39 -18699955.29 0.0135 0.0124

Venus -55911-12-07 10:47 J -18699729.20 -18699729.05 -18699728.87 0.0135 0.0090

Venus -55910-07-21 18:57 J -18699502.90 -18699502.71 -18699502.50 0.0135 0.0056

Venus -55909-03-04 02:52 J -18699276.59 -18699276.38 -18699276.15 0.0135 0.0023

Venus -55909-10-16 10:33 J -18699050.28 -18699050.06 -18699049.84 0.0134 0.0011

Venus -55908-05-30 17:45 J -18698823.97 -18698823.76 -18698823.54 0.0134 0.0044

Venus -55907-01-12 00:57 J -18698597.64 -18698597.46 -18698597.28 0.0134 0.0076

Venus -55907-08-26 07:25 J -18698371.30 -18698371.19 -18698371.04 0.0134 0.0109

Mercury -55892-11-11 05:45 J -18692815.30 -18692815.26 -18692815.19 0.0132 0.0119

Mercury -55891-02-07 09:06 J -18692727.20 -18692727.12 -18692727.03 0.0132 0.0101

Mercury -55891-05-06 11:59 J -18692639.09 -18692639.00 -18692638.89 0.0132 0.0084
 Mercury -55891-08-02 15:06 J -18692550.98 -18692550.87 -18692550.75 0.0132 0.0067
 Mercury -55891-10-29 18:13 J -18692462.86 -18692462.74 -18692462.61 0.0132 0.0049
 Mercury -55890-01-25 21:21 J -18692374.74 -18692374.61 -18692374.48 0.0132 0.0031
 Mercury -55890-04-24 00:28 J -18692286.62 -18692286.48 -18692286.35 0.0132 0.0014
 Mercury -55890-07-21 03:21 J -18692198.49 -18692198.36 -18692198.22 0.0132 0.0005
 Mercury -55890-10-17 06:28 J -18692110.36 -18692110.23 -18692110.10 0.0132 0.0021
 Mercury -55889-01-13 09:21 J -18692022.23 -18692022.11 -18692021.98 0.0132 0.0038
 Mercury -55889-04-10 12:28 J -18691934.10 -18691933.98 -18691933.86 0.0132 0.0055
 Mercury -55889-07-07 15:21 J -18691845.97 -18691845.86 -18691845.74 0.0133 0.0073
 Mercury -55889-10-03 18:28 J -18691757.83 -18691757.73 -18691757.63 0.0133 0.0090
 Mercury -55889-12-30 21:06 J -18691669.68 -18691669.62 -18691669.53 0.0133 0.0108
 Mercury -55888-03-29 00:13 J -18691581.53 -18691581.49 -18691581.44 0.0133 0.0125
 Earth -55883-08-24 15:49 J -18689606.95 -18689606.84 -18689606.70 0.0135 0.0115
 Moon -55883-08-24 17:30 J -18689606.86 -18689606.77 -18689606.63 0.0135 0.0121 *
 Moon -55882-08-28 21:06 J -18689237.86 -18689237.62 -18689237.37 0.0135 0.0010
 Earth -55882-08-28 22:33 J -18689237.81 -18689237.56 -18689237.31 0.0135 0.0015 *
 Earth -55881-09-01 05:01 J -18688868.46 -18688868.29 -18688868.08 0.0136 0.0087
 Moon -55881-09-01 07:11 J -18688868.39 -18688868.20 -18688867.99 0.0136 0.0086 *
 Mars -55871-03-17 19:11 J -18685383.97 -18685383.70 -18685383.42 0.0141 0.0028
 Venus -55867-11-27 20:52 J -18683667.75 -18683667.63 -18683667.51 0.0143 0.0117
 Venus -55866-07-12 05:45 J -18683441.43 -18683441.26 -18683441.08 0.0144 0.0079
 Venus -55865-02-23 15:06 J -18683215.07 -18683214.87 -18683214.66 0.0144 0.0040
 Venus -55865-10-07 00:42 J -18682988.68 -18682988.47 -18682988.25 0.0144 0.0003
 Venus -55864-05-21 10:33 J -18682762.26 -18682762.06 -18682761.85 0.0144 0.0038
 Venus -55863-01-02 20:52 J -18682535.81 -18682535.63 -18682535.45 0.0145 0.0078
 Venus -55863-08-17 07:11 J -18682309.31 -18682309.20 -18682309.07 0.0145 0.0118
 Mercury -55850-05-23 20:23 J -18677646.72 -18677646.65 -18677646.54 0.0146 0.0128
 Mercury -55850-08-20 04:47 J -18677558.43 -18677558.30 -18677558.14 0.0146 0.0095
 Mercury -55850-11-16 13:11 J -18677470.11 -18677469.95 -18677469.77 0.0146 0.0061

Mercury -55849-02-12 21:49 J -18677381.78 -18677381.59 -18677381.40 0.0146 0.0028

Mercury -55849-05-11 06:13 J -18677293.43 -18677293.24 -18677293.05 0.0146 0.0006

Mercury -55849-08-07 14:37 J -18677205.07 -18677204.89 -18677204.71 0.0146 0.0039

Mercury -55849-11-03 23:01 J -18677116.70 -18677116.54 -18677116.37 0.0146 0.0073

Mercury -55848-01-31 07:40 J -18677028.31 -18677028.18 -18677028.05 0.0146 0.0106

Mercury -55848-04-29 16:04 J -18676939.88 -18676939.83 -18676939.78 0.0146 0.0140

Earth -55842-02-24 22:33 J -18674812.81 -18674812.56 -18674812.30 0.0144 0.0024

Moon -55842-02-24 23:59 J -18674812.76 -18674812.50 -18674812.24 0.0144 0.0024 *

Moon -55841-02-29 22:33 J -18674442.73 -18674442.56 -18674442.37 0.0143 0.0097

Earth -55841-02-29 23:45 J -18674442.67 -18674442.51 -18674442.30 0.0143 0.0101 *

Mars -55833-10-09 10:18 J -18671298.27 -18671298.07 -18671297.84 0.0138 0.0109

Venus -55827-08-06 18:28 J -18669170.86 -18669170.73 -18669170.58 0.0135 0.0106

Venus -55826-03-21 02:37 J -18668944.56 -18668944.39 -18668944.19 0.0135 0.0072

Venus -55826-11-02 11:01 J -18668718.26 -18668718.04 -18668717.83 0.0135 0.0038

Venus -55825-06-15 18:42 J -18668491.95 -18668491.72 -18668491.50 0.0134 0.0005

Venus -55824-01-28 02:09 J -18668265.63 -18668265.41 -18668265.19 0.0134 0.0028

Venus -55824-09-11 09:21 J -18668039.30 -18668039.11 -18668038.91 0.0134 0.0061

Venus -55823-04-25 16:33 J -18667812.97 -18667812.81 -18667812.65 0.0134 0.0093

Venus -55823-12-07 23:16 J -18667586.60 -18667586.53 -18667586.45 0.0133 0.0125

Mercury -55808-12-01 12:57 J -18662114.02 -18662113.96 -18662113.89 0.0132 0.0115

Mercury -55807-02-27 16:04 J -18662025.91 -18662025.83 -18662025.73 0.0132 0.0097

Mercury -55807-05-26 19:11 J -18661937.80 -18661937.70 -18661937.59 0.0132 0.0080

Mercury -55807-08-22 22:18 J -18661849.69 -18661849.57 -18661849.45 0.0132 0.0062

Mercury -55807-11-19 01:11 J -18661761.57 -18661761.45 -18661761.31 0.0132 0.0046

Mercury -55806-02-15 04:18 J -18661673.45 -18661673.32 -18661673.18 0.0132 0.0028

Mercury -55806-05-14 07:25 J -18661585.32 -18661585.19 -18661585.05 0.0132 0.0010

Mercury -55806-08-10 10:33 J -18661497.20 -18661497.06 -18661496.93 0.0132 0.0008

Mercury -55806-11-06 13:25 J -18661409.07 -18661408.94 -18661408.81 0.0132 0.0025

Mercury -55805-02-02 16:33 J -18661320.94 -18661320.81 -18661320.68 0.0132 0.0042

Mercury -55805-04-30 19:25 J -18661232.80 -18661232.69 -18661232.57 0.0132 0.0059

Mercury -55805-07-27 22:18 J -18661144.67 -18661144.57 -18661144.45 0.0133 0.0077
 Mercury -55805-10-24 01:25 J -18661056.53 -18661056.44 -18661056.34 0.0133 0.0094
 Mercury -55804-01-20 04:33 J -18660968.38 -18660968.31 -18660968.24 0.0133 0.0111
 Mercury -55804-04-18 07:25 J -18660880.22 -18660880.19 -18660880.16 0.0133 0.0128
 Earth -55799-08-25 00:57 J -18658925.58 -18658925.46 -18658925.30 0.0135 0.0112
 Moon -55799-08-25 01:40 J -18658925.57 -18658925.43 -18658925.25 0.0135 0.0105 *
 Moon -55798-08-29 06:28 J -18658556.47 -18658556.23 -18658555.99 0.0135 0.0015
 Earth -55798-08-29 07:54 J -18658556.42 -18658556.17 -18658555.92 0.0135 0.0011 *
 Earth -55797-09-01 14:23 J -18658187.07 -18658186.90 -18658186.70 0.0135 0.0091
 Moon -55797-09-01 15:35 J -18658187.02 -18658186.85 -18658186.64 0.0135 0.0093 *
 Mars -55787-11-10 03:35 J -18654465.61 -18654465.35 -18654465.09 0.0141 0.0048
 Venus -55783-07-28 03:21 J -18653109.41 -18653109.36 -18653109.27 0.0143 0.0135
 Venus -55782-03-11 12:28 J -18652883.13 -18652882.98 -18652882.82 0.0143 0.0098
 Venus -55782-10-23 21:35 J -18652656.79 -18652656.60 -18652656.40 0.0144 0.0060
 Venus -55781-06-06 06:57 J -18652430.41 -18652430.21 -18652429.99 0.0144 0.0021
 Venus -55780-01-18 16:47 J -18652204.01 -18652203.80 -18652203.59 0.0144 0.0018
 Venus -55780-09-02 02:37 J -18651977.58 -18651977.39 -18651977.19 0.0145 0.0058
 Venus -55779-04-16 12:57 J -18651751.11 -18651750.96 -18651750.80 0.0145 0.0097
 Venus -55779-11-28 23:16 J -18651524.59 -18651524.53 -18651524.45 0.0145 0.0137
 Mercury -55766-06-13 02:23 J -18646945.48 -18646945.40 -18646945.28 0.0146 0.0125
 Mercury -55766-09-09 10:47 J -18646857.18 -18646857.05 -18646856.89 0.0146 0.0092
 Mercury -55766-12-06 19:11 J -18646768.86 -18646768.70 -18646768.52 0.0146 0.0059
 Mercury -55765-03-04 03:49 J -18646680.53 -18646680.34 -18646680.15 0.0146 0.0025
 Mercury -55765-05-31 12:13 J -18646592.18 -18646591.99 -18646591.80 0.0146 0.0009
 Mercury -55765-08-27 20:37 J -18646503.82 -18646503.64 -18646503.46 0.0146 0.0042
 Mercury -55765-11-24 04:47 J -18646415.45 -18646415.30 -18646415.12 0.0146 0.0076
 Mercury -55764-02-20 13:25 J -18646327.06 -18646326.94 -18646326.81 0.0146 0.0109
 Mercury -55764-05-19 21:49 J -18646238.61 -18646238.59 -18646238.54 0.0146 0.0143
 Moon -55758-02-25 03:49 J -18644131.60 -18644131.34 -18644131.07 0.0144 0.0022
 Earth -55758-02-25 03:49 J -18644131.59 -18644131.34 -18644131.08 0.0144 0.0024 *

Moon	-55757-03-01 04:04 J	-18643761.49	-18643761.33	-18643761.15	0.0143	0.0104
Earth	-55757-03-01 05:01 J	-18643761.45	-18643761.29	-18643761.09	0.0143	0.0101 *
Mars	-55748-06-05 05:30 J	-18640378.60	-18640378.27	-18640377.92	0.0138	0.0020
Venus	-55743-04-05 23:59 J	-18638612.58	-18638612.50	-18638612.39	0.0135	0.0123
Venus	-55743-11-18 08:37 J	-18638386.30	-18638386.14	-18638385.97	0.0135	0.0089
Venus	-55742-07-02 16:47 J	-18638160.00	-18638159.80	-18638159.59	0.0135	0.0055
Venus	-55741-02-14 00:57 J	-18637933.68	-18637933.46	-18637933.24	0.0135	0.0022
Venus	-55741-09-27 08:37 J	-18637707.36	-18637707.14	-18637706.91	0.0134	0.0012
Venus	-55740-05-11 16:04 J	-18637481.04	-18637480.83	-18637480.62	0.0134	0.0044
Venus	-55740-12-23 23:01 J	-18637254.71	-18637254.54	-18637254.34	0.0134	0.0077
Venus	-55739-08-07 06:13 J	-18637028.36	-18637028.24	-18637028.10	0.0134	0.0109
Mercury	-55724-09-24 16:47 J	-18631500.82	-18631500.80	-18631500.77	0.0132	0.0129
Mercury	-55724-12-21 19:40 J	-18631412.74	-18631412.68	-18631412.60	0.0132	0.0113
Mercury	-55723-03-19 23:01 J	-18631324.63	-18631324.54	-18631324.44	0.0132	0.0094
Mercury	-55723-06-16 01:54 J	-18631236.52	-18631236.42	-18631236.30	0.0132	0.0077
Mercury	-55723-09-12 05:16 J	-18631148.40	-18631148.28	-18631148.16	0.0132	0.0059
Mercury	-55723-12-09 08:09 J	-18631060.28	-18631060.16	-18631060.03	0.0132	0.0042
Mercury	-55722-03-07 11:16 J	-18630972.16	-18630972.03	-18630971.90	0.0132	0.0024
Mercury	-55722-06-03 14:23 J	-18630884.03	-18630883.90	-18630883.77	0.0132	0.0007
Mercury	-55722-08-30 17:16 J	-18630795.91	-18630795.78	-18630795.64	0.0132	0.0012
Mercury	-55722-11-26 20:23 J	-18630707.78	-18630707.65	-18630707.52	0.0132	0.0028
Mercury	-55721-02-22 23:16 J	-18630619.65	-18630619.53	-18630619.40	0.0133	0.0046
Mercury	-55721-05-21 02:23 J	-18630531.52	-18630531.40	-18630531.28	0.0133	0.0062
Mercury	-55721-08-17 05:16 J	-18630443.38	-18630443.28	-18630443.17	0.0133	0.0080
Mercury	-55721-11-13 08:23 J	-18630355.24	-18630355.15	-18630355.06	0.0133	0.0097
Mercury	-55720-02-09 11:01 J	-18630267.09	-18630267.04	-18630266.96	0.0133	0.0115
Mercury	-55720-05-08 14:09 J	-18630178.92	-18630178.91	-18630178.89	0.0133	0.0132
Earth	-55715-08-25 10:18 J	-18628244.21	-18628244.07	-18628243.91	0.0135	0.0108
Moon	-55715-08-25 11:01 J	-18628244.16	-18628244.04	-18628243.89	0.0135	0.0114 *
Moon	-55714-08-29 16:47 J	-18627875.04	-18627874.80	-18627874.55	0.0135	0.0002

Earth	-55714-08-29 17:01 J	-18627875.04	-18627874.79	-18627874.54	0.0135	0.0008 *
Earth	-55713-09-01 23:45 J	-18627505.67	-18627505.51	-18627505.31	0.0135	0.0095
Moon	-55713-09-02 00:28 J	-18627505.65	-18627505.48	-18627505.27	0.0135	0.0092 *
Mars	-55704-08-04 17:30 J	-18624246.96	-18624246.77	-18624246.54	0.0140	0.0090
Mars	-55702-07-05 13:40 J	-18623547.05	-18623546.93	-18623546.80	0.0141	0.0126
Venus	-55699-11-08 19:40 J	-18622324.79	-18622324.68	-18622324.54	0.0143	0.0115
Venus	-55698-06-23 04:47 J	-18622098.47	-18622098.30	-18622098.12	0.0143	0.0078
Venus	-55697-02-04 13:54 J	-18621872.12	-18621871.92	-18621871.71	0.0144	0.0040
Venus	-55697-09-17 23:45 J	-18621645.73	-18621645.51	-18621645.30	0.0144	0.0002
Venus	-55696-05-02 09:21 J	-18621419.31	-18621419.11	-18621418.90	0.0144	0.0038
Venus	-55696-12-14 19:11 J	-18621192.87	-18621192.70	-18621192.51	0.0145	0.0077
Venus	-55695-07-29 05:30 J	-18620966.39	-18620966.27	-18620966.14	0.0145	0.0117
Mercury	-55682-07-03 08:52 J	-18616244.23	-18616244.13	-18616244.02	0.0146	0.0121
Mercury	-55682-09-29 17:16 J	-18616155.93	-18616155.78	-18616155.63	0.0146	0.0088
Mercury	-55682-12-27 01:40 J	-18616067.61	-18616067.43	-18616067.26	0.0146	0.0055
Mercury	-55681-03-24 10:04 J	-18615979.27	-18615979.08	-18615978.90	0.0146	0.0022
Mercury	-55681-06-20 18:13 J	-18615890.92	-18615890.74	-18615890.55	0.0146	0.0013
Mercury	-55681-09-17 02:37 J	-18615802.57	-18615802.39	-18615802.20	0.0146	0.0046
Mercury	-55681-12-14 11:01 J	-18615714.19	-18615714.04	-18615713.87	0.0146	0.0079
Mercury	-55680-03-12 19:40 J	-18615625.80	-18615625.68	-18615625.56	0.0146	0.0112
Moon	-55674-02-25 09:21 J	-18613450.37	-18613450.11	-18613449.84	0.0144	0.0026
Earth	-55674-02-25 09:35 J	-18613450.35	-18613450.10	-18613449.84	0.0144	0.0024 *
Moon	-55673-03-01 11:01 J	-18613080.21	-18613080.04	-18613079.85	0.0143	0.0099
Earth	-55673-03-01 11:16 J	-18613080.20	-18613080.03	-18613079.84	0.0143	0.0101 *
Mars	-55663-01-30 00:13 J	-18609458.77	-18609458.49	-18609458.18	0.0138	0.0069
Venus	-55659-07-18 14:23 J	-18607828.02	-18607827.90	-18607827.75	0.0135	0.0105
Venus	-55658-03-01 23:16 J	-18607601.72	-18607601.53	-18607601.34	0.0135	0.0071
Venus	-55658-10-14 07:11 J	-18607375.40	-18607375.20	-18607374.98	0.0135	0.0038
Venus	-55657-05-27 15:21 J	-18607149.09	-18607148.86	-18607148.64	0.0135	0.0005
Venus	-55656-01-08 22:47 J	-18606922.76	-18606922.55	-18606922.32	0.0134	0.0029

Venus -55656-08-23 06:13 J -18606696.43 -18606696.24 -18606696.03 0.0134 0.0061

Venus -55655-04-06 13:40 J -18606470.08 -18606469.93 -18606469.76 0.0134 0.0093

Venus -55655-11-18 20:23 J -18606243.71 -18606243.65 -18606243.55 0.0134 0.0125

Mercury -55640-10-14 23:45 J -18600799.54 -18600799.51 -18600799.47 0.0132 0.0126

Mercury -55639-01-11 02:52 J -18600711.45 -18600711.38 -18600711.30 0.0132 0.0109

Mercury -55639-04-09 05:59 J -18600623.34 -18600623.25 -18600623.15 0.0132 0.0091

Mercury -55639-07-06 09:06 J -18600535.23 -18600535.12 -18600535.01 0.0132 0.0073

Mercury -55639-10-02 11:59 J -18600447.11 -18600447.00 -18600446.87 0.0132 0.0057

Mercury -55639-12-29 15:06 J -18600358.99 -18600358.87 -18600358.74 0.0132 0.0039

Mercury -55638-03-27 18:13 J -18600270.87 -18600270.74 -18600270.61 0.0132 0.0021

Mercury -55638-06-23 21:21 J -18600182.75 -18600182.61 -18600182.48 0.0132 0.0004

Mercury -55638-09-20 00:13 J -18600094.62 -18600094.49 -18600094.35 0.0133 0.0014

Mercury -55638-12-17 03:21 J -18600006.49 -18600006.36 -18600006.23 0.0133 0.0031

Mercury -55637-03-14 06:13 J -18599918.36 -18599918.24 -18599918.11 0.0133 0.0049

Mercury -55637-06-10 09:21 J -18599830.23 -18599830.11 -18599829.99 0.0133 0.0066

Mercury -55637-09-06 12:13 J -18599742.09 -18599741.99 -18599741.88 0.0133 0.0083

Mercury -55637-12-03 15:06 J -18599653.95 -18599653.87 -18599653.77 0.0133 0.0101

Mercury -55636-03-01 17:59 J -18599565.80 -18599565.75 -18599565.68 0.0133 0.0118

Moon -55631-08-25 18:57 J -18597562.86 -18597562.71 -18597562.51 0.0135 0.0098

Earth -55631-08-25 19:40 J -18597562.82 -18597562.68 -18597562.50 0.0135 0.0105 *

Moon -55630-08-30 02:37 J -18597193.63 -18597193.39 -18597193.15 0.0135 0.0008

Earth -55630-08-30 02:52 J -18597193.63 -18597193.38 -18597193.13 0.0135 0.0004 *

Moon -55629-09-02 09:35 J -18596824.25 -18596824.10 -18596823.91 0.0135 0.0102

Earth -55629-09-02 09:35 J -18596824.25 -18596824.10 -18596823.91 0.0135 0.0099 *

Jupiter -55628-02-12 03:49 J -18596661.75 -18596661.34 -18596660.86 0.0136 0.0065

Mars -55619-03-30 03:49 J -18593328.61 -18593328.34 -18593328.06 0.0141 0.0013

Venus -55615-07-09 04:04 J -18591766.40 -18591766.33 -18591766.24 0.0143 0.0131

Venus -55614-02-20 12:57 J -18591540.11 -18591539.96 -18591539.79 0.0143 0.0094

Venus -55614-10-04 22:04 J -18591313.77 -18591313.58 -18591313.38 0.0143 0.0057

Venus -55613-05-18 07:25 J -18591087.40 -18591087.19 -18591086.98 0.0144 0.0018

Venus -55613-12-30 17:01 J -18590861.00 -18590860.79 -18590860.58 0.0144 0.0020
 Venus -55612-08-14 02:37 J -18590634.57 -18590634.39 -18590634.18 0.0144 0.0060
 Venus -55611-03-28 12:42 J -18590408.11 -18590407.97 -18590407.80 0.0145 0.0099
 Venus -55611-11-09 22:47 J -18590181.59 -18590181.55 -18590181.46 0.0145 0.0138
 Mercury -55598-07-23 16:04 J -18585542.94 -18585542.83 -18585542.71 0.0146 0.0114
 Mercury -55598-10-19 23:59 J -18585454.64 -18585454.50 -18585454.33 0.0146 0.0082
 Mercury -55597-01-16 08:23 J -18585366.32 -18585366.15 -18585365.96 0.0146 0.0049
 Mercury -55597-04-13 17:01 J -18585277.98 -18585277.79 -18585277.60 0.0146 0.0015
 Mercury -55597-07-11 01:11 J -18585189.63 -18585189.45 -18585189.26 0.0146 0.0019
 Mercury -55597-10-07 09:35 J -18585101.27 -18585101.10 -18585100.92 0.0146 0.0052
 Mercury -55596-01-03 17:59 J -18585012.90 -18585012.75 -18585012.59 0.0146 0.0085
 Mercury -55596-04-02 02:23 J -18584924.50 -18584924.40 -18584924.28 0.0146 0.0119
 Moon -55590-02-25 16:04 J -18582769.09 -18582768.83 -18582768.57 0.0144 0.0018
 Earth -55590-02-25 17:16 J -18582769.03 -18582768.78 -18582768.52 0.0144 0.0022 *
 Earth -55589-03-01 18:28 J -18582398.89 -18582398.73 -18582398.53 0.0143 0.0104
 Moon -55589-03-01 18:42 J -18582398.87 -18582398.72 -18582398.53 0.0143 0.0106 *
 Mars -55581-10-19 16:18 J -18579245.04 -18579244.82 -18579244.56 0.0138 0.0100
 Venus -55575-03-17 20:23 J -18577269.73 -18577269.65 -18577269.53 0.0136 0.0122
 Venus -55575-10-30 05:01 J -18577043.44 -18577043.29 -18577043.11 0.0135 0.0088
 Venus -55574-06-13 13:40 J -18576817.13 -18576816.93 -18576816.73 0.0135 0.0054
 Venus -55573-01-25 21:49 J -18576590.81 -18576590.59 -18576590.37 0.0135 0.0021
 Venus -55573-09-08 05:30 J -18576364.48 -18576364.27 -18576364.04 0.0134 0.0013
 Venus -55572-04-22 13:11 J -18576138.15 -18576137.95 -18576137.73 0.0134 0.0045
 Venus -55572-12-04 20:23 J -18575911.82 -18575911.65 -18575911.46 0.0134 0.0077
 Venus -55571-07-19 03:35 J -18575685.47 -18575685.35 -18575685.21 0.0134 0.0109
 Mercury -55556-11-04 06:28 J -18570098.27 -18570098.23 -18570098.17 0.0132 0.0124
 Mercury -55555-01-31 09:49 J -18570010.17 -18570010.09 -18570010.01 0.0132 0.0106
 Mercury -55555-04-29 12:42 J -18569922.06 -18569921.97 -18569921.86 0.0132 0.0088
 Mercury -55555-07-26 15:49 J -18569833.95 -18569833.84 -18569833.72 0.0132 0.0071
 Mercury -55555-10-22 18:57 J -18569745.83 -18569745.71 -18569745.58 0.0132 0.0053

Mercury -55554-01-18 22:04 J -18569657.71 -18569657.58 -18569657.45 0.0132 0.0035
 Mercury -55554-04-17 01:11 J -18569569.59 -18569569.45 -18569569.32 0.0133 0.0018
 Mercury -55554-07-14 04:04 J -18569481.46 -18569481.33 -18569481.19 0.0133 0.0003
 Mercury -55554-10-10 07:11 J -18569393.33 -18569393.20 -18569393.07 0.0133 0.0017
 Mercury -55553-01-06 10:04 J -18569305.20 -18569305.08 -18569304.95 0.0133 0.0035
 Mercury -55553-04-03 13:11 J -18569217.07 -18569216.95 -18569216.83 0.0133 0.0052
 Mercury -55553-06-30 16:04 J -18569128.94 -18569128.83 -18569128.71 0.0133 0.0069
 Mercury -55553-09-26 19:11 J -18569040.80 -18569040.70 -18569040.60 0.0133 0.0086
 Mercury -55553-12-23 22:04 J -18568952.66 -18568952.58 -18568952.49 0.0133 0.0104
 Mercury -55552-03-22 00:57 J -18568864.50 -18568864.46 -18568864.40 0.0133 0.0121
 Moon -55547-08-26 04:33 J -18566881.45 -18566881.31 -18566881.14 0.0135 0.0107
 Earth -55547-08-26 05:01 J -18566881.44 -18566881.29 -18566881.10 0.0135 0.0101 *
 Earth -55546-08-30 12:13 J -18566512.24 -18566511.99 -18566511.73 0.0135 0.0003
 Moon -55546-08-30 13:11 J -18566512.19 -18566511.95 -18566511.71 0.0135 0.0007 *
 Jupiter -55545-01-01 14:37 J -18566388.09 -18566387.89 -18566387.62 0.0135 0.0120
 Moon -55545-09-02 18:42 J -18566142.88 -18566142.72 -18566142.53 0.0136 0.0100
 Earth -55545-09-02 19:25 J -18566142.84 -18566142.69 -18566142.52 0.0136 0.0103 *
 Mars -55535-11-22 13:11 J -18562410.18 -18562409.95 -18562409.69 0.0141 0.0066
 Venus -55531-10-20 21:06 J -18560981.73 -18560981.62 -18560981.47 0.0143 0.0111
 Venus -55530-06-04 06:13 J -18560755.41 -18560755.24 -18560755.05 0.0143 0.0074
 Venus -55529-01-16 15:35 J -18560529.06 -18560528.85 -18560528.64 0.0144 0.0036
 Venus -55529-08-30 01:11 J -18560302.66 -18560302.45 -18560302.24 0.0144 0.0003
 Venus -55528-04-13 10:33 J -18560076.25 -18560076.06 -18560075.85 0.0144 0.0042
 Venus -55528-11-25 20:37 J -18559849.81 -18559849.64 -18559849.46 0.0145 0.0080
 Venus -55527-07-10 06:42 J -18559623.34 -18559623.22 -18559623.10 0.0145 0.0119
 Mercury -55514-05-16 15:06 J -18554929.92 -18554929.87 -18554929.80 0.0146 0.0138
 Mercury -55514-08-12 23:30 J -18554841.65 -18554841.52 -18554841.39 0.0146 0.0105
 Mercury -55514-11-09 07:25 J -18554753.34 -18554753.19 -18554753.01 0.0146 0.0073
 Mercury -55513-02-05 16:04 J -18554665.01 -18554664.83 -18554664.65 0.0146 0.0040
 Mercury -55513-05-04 00:28 J -18554576.67 -18554576.48 -18554576.29 0.0146 0.0007

Mercury -55513-07-31 08:37 J -18554488.32 -18554488.14 -18554487.95 0.0146 0.0027

Mercury -55513-10-27 17:01 J -18554399.96 -18554399.79 -18554399.61 0.0146 0.0060

Mercury -55512-01-24 01:11 J -18554311.58 -18554311.45 -18554311.29 0.0146 0.0094

Mercury -55512-04-22 09:49 J -18554223.18 -18554223.09 -18554222.99 0.0146 0.0127

Earth -55507-02-21 00:42 J -18552457.48 -18552457.47 -18552457.43 0.0144 0.0143

Moon -55507-02-21 03:21 J -18552457.43 -18552457.36 -18552457.27 0.0144 0.0136 *

Moon -55506-02-26 01:40 J -18552087.69 -18552087.43 -18552087.16 0.0143 0.0019

Earth -55506-02-26 03:06 J -18552087.62 -18552087.37 -18552087.11 0.0143 0.0017 *

Earth -55505-03-02 04:33 J -18551717.46 -18551717.31 -18551717.13 0.0143 0.0109

Moon -55505-03-02 05:30 J -18551717.42 -18551717.27 -18551717.09 0.0143 0.0108 *

Mars -55496-06-15 17:59 J -18548325.09 -18548324.75 -18548324.40 0.0138 0.0008

Venus -55491-06-29 12:13 J -18546485.12 -18546484.99 -18546484.83 0.0135 0.0103

Venus -55490-02-10 21:06 J -18546258.81 -18546258.62 -18546258.43 0.0135 0.0070

Venus -55490-09-25 05:01 J -18546032.49 -18546032.29 -18546032.06 0.0135 0.0037

Venus -55489-05-08 13:11 J -18545806.17 -18545805.95 -18545805.72 0.0135 0.0005

Venus -55489-12-20 20:52 J -18545579.84 -18545579.63 -18545579.40 0.0134 0.0030

Venus -55488-08-04 04:18 J -18545353.50 -18545353.32 -18545353.11 0.0134 0.0062

Venus -55487-03-18 11:45 J -18545127.16 -18545127.01 -18545126.84 0.0134 0.0094

Venus -55487-10-30 18:57 J -18544900.78 -18544900.71 -18544900.63 0.0134 0.0125

Mercury -55472-11-24 13:40 J -18539396.99 -18539396.93 -18539396.88 0.0132 0.0120

Mercury -55471-02-20 16:33 J -18539308.89 -18539308.81 -18539308.72 0.0132 0.0102

Mercury -55471-05-19 19:40 J -18539220.78 -18539220.68 -18539220.57 0.0132 0.0085

Mercury -55471-08-15 22:47 J -18539132.66 -18539132.55 -18539132.43 0.0132 0.0067

Mercury -55471-11-12 01:54 J -18539044.54 -18539044.42 -18539044.29 0.0132 0.0050

Mercury -55470-02-08 05:01 J -18538956.42 -18538956.29 -18538956.16 0.0132 0.0032

Mercury -55470-05-07 08:09 J -18538868.30 -18538868.16 -18538868.03 0.0133 0.0015

Mercury -55470-08-03 11:01 J -18538780.17 -18538780.04 -18538779.90 0.0133 0.0004

Mercury -55470-10-30 14:09 J -18538692.04 -18538691.91 -18538691.78 0.0133 0.0020

Mercury -55469-01-26 17:01 J -18538603.91 -18538603.79 -18538603.66 0.0133 0.0038

Mercury -55469-04-23 20:09 J -18538515.78 -18538515.66 -18538515.54 0.0133 0.0055

Mercury -55469-07-20 23:01 J -18538427.65 -18538427.54 -18538427.42 0.0133 0.0073

Mercury -55469-10-17 01:54 J -18538339.51 -18538339.42 -18538339.31 0.0133 0.0090

Mercury -55468-01-13 05:01 J -18538251.36 -18538251.29 -18538251.21 0.0133 0.0107

Mercury -55468-04-11 08:09 J -18538163.20 -18538163.16 -18538163.12 0.0133 0.0124

Moon -55463-08-26 12:57 J -18536200.14 -18536199.96 -18536199.75 0.0135 0.0090

Earth -55463-08-26 14:37 J -18536200.05 -18536199.89 -18536199.70 0.0135 0.0097 *

Earth -55462-08-30 21:49 J -18535830.84 -18535830.59 -18535830.33 0.0135 0.0005

Moon -55462-08-30 23:01 J -18535830.78 -18535830.54 -18535830.30 0.0135 0.0001 *

Moon -55461-09-03 03:49 J -18535461.48 -18535461.34 -18535461.18 0.0136 0.0111

Earth -55461-09-03 05:01 J -18535461.43 -18535461.29 -18535461.13 0.0136 0.0107 *

Mars -55452-08-17 04:33 J -18532191.53 -18532191.31 -18532191.06 0.0140 0.0073

Venus -55447-06-20 05:30 J -18530423.35 -18530423.27 -18530423.17 0.0143 0.0127

Venus -55446-02-01 14:23 J -18530197.06 -18530196.90 -18530196.73 0.0143 0.0091

Venus -55446-09-15 23:16 J -18529970.71 -18529970.53 -18529970.32 0.0144 0.0054

Venus -55445-04-29 08:52 J -18529744.34 -18529744.13 -18529743.92 0.0144 0.0015

Venus -55445-12-11 18:13 J -18529517.95 -18529517.74 -18529517.53 0.0144 0.0023

Venus -55444-07-26 04:04 J -18529291.52 -18529291.33 -18529291.14 0.0144 0.0062

Venus -55443-03-09 13:54 J -18529065.06 -18529064.92 -18529064.76 0.0145 0.0101

Venus -55443-10-21 23:59 J -18528838.54 -18528838.50 -18528838.43 0.0145 0.0140

Mercury -55430-06-05 22:47 J -18524228.63 -18524228.55 -18524228.46 0.0146 0.0129

Mercury -55430-09-02 06:42 J -18524140.35 -18524140.22 -18524140.07 0.0146 0.0097

Mercury -55430-11-29 15:06 J -18524052.03 -18524051.87 -18524051.70 0.0146 0.0064

Mercury -55429-02-25 23:30 J -18523963.70 -18523963.52 -18523963.33 0.0146 0.0031

Mercury -55429-05-24 07:54 J -18523875.36 -18523875.17 -18523874.98 0.0146 0.0003

Mercury -55429-08-20 16:04 J -18523787.01 -18523786.83 -18523786.64 0.0146 0.0035

Mercury -55429-11-17 00:13 J -18523698.64 -18523698.49 -18523698.31 0.0146 0.0069

Mercury -55428-02-13 08:52 J -18523610.26 -18523610.13 -18523609.99 0.0146 0.0102

Mercury -55428-05-12 17:01 J -18523521.84 -18523521.79 -18523521.71 0.0146 0.0136

Earth -55423-02-21 11:01 J -18521776.09 -18521776.04 -18521775.94 0.0144 0.0137

Moon -55423-02-21 13:40 J -18521775.93 -18521775.93 -18521775.90 0.0144 0.0144

Moon	-55422-02-26 11:30 J	-18521406.29	-18521406.02	-18521405.76	0.0143	0.0006
Earth	-55422-02-26 13:54 J	-18521406.18	-18521405.92	-18521405.66	0.0143	0.0010 *
Earth	-55421-03-02 15:21 J	-18521036.01	-18521035.86	-18521035.71	0.0143	0.0115
Moon	-55421-03-02 16:33 J	-18521035.94	-18521035.81	-18521035.66	0.0143	0.0116 *
Jupiter	-55421-12-30 03:35 J	-18520733.61	-18520733.35	-18520733.03	0.0142	0.0119
Mars	-55411-02-09 19:25 J	-18517404.93	-18517404.69	-18517404.40	0.0138	0.0087
Venus	-55407-02-26 19:40 J	-18515926.77	-18515926.68	-18515926.56	0.0135	0.0119
Venus	-55407-10-11 04:18 J	-18515700.48	-18515700.32	-18515700.14	0.0135	0.0085
Venus	-55406-05-25 12:42 J	-18515474.17	-18515473.97	-18515473.76	0.0135	0.0052
Venus	-55405-01-06 20:52 J	-18515247.85	-18515247.63	-18515247.41	0.0135	0.0019
Venus	-55405-08-20 04:47 J	-18515021.52	-18515021.30	-18515021.08	0.0134	0.0014
Venus	-55404-04-03 12:28 J	-18514795.19	-18514794.98	-18514794.77	0.0134	0.0046
Venus	-55404-11-15 19:40 J	-18514568.85	-18514568.68	-18514568.49	0.0134	0.0078
Venus	-55403-06-30 02:37 J	-18514342.50	-18514342.39	-18514342.25	0.0134	0.0110
Mercury	-55388-12-14 20:09 J	-18508695.71	-18508695.66	-18508695.59	0.0132	0.0117
Mercury	-55387-03-12 23:16 J	-18508607.61	-18508607.53	-18508607.43	0.0132	0.0100
Mercury	-55387-06-09 02:23 J	-18508519.50	-18508519.40	-18508519.29	0.0132	0.0082
Mercury	-55387-09-05 05:30 J	-18508431.38	-18508431.27	-18508431.15	0.0132	0.0065
Mercury	-55387-12-02 08:37 J	-18508343.26	-18508343.14	-18508343.01	0.0132	0.0047
Mercury	-55386-02-28 11:45 J	-18508255.14	-18508255.01	-18508254.88	0.0132	0.0029
Mercury	-55386-05-27 14:52 J	-18508167.02	-18508166.88	-18508166.75	0.0133	0.0012
Mercury	-55386-08-23 17:45 J	-18508078.89	-18508078.76	-18508078.62	0.0133	0.0007
Mercury	-55386-11-19 20:52 J	-18507990.76	-18507990.63	-18507990.50	0.0133	0.0023
Mercury	-55385-02-15 23:45 J	-18507902.63	-18507902.51	-18507902.38	0.0133	0.0041
Mercury	-55385-05-14 02:52 J	-18507814.50	-18507814.38	-18507814.26	0.0133	0.0058
Mercury	-55385-08-10 05:59 J	-18507726.36	-18507726.25	-18507726.14	0.0133	0.0075
Mercury	-55385-11-06 08:37 J	-18507638.22	-18507638.14	-18507638.03	0.0133	0.0093
Mercury	-55384-02-02 11:45 J	-18507550.08	-18507550.01	-18507549.93	0.0133	0.0110
Mercury	-55384-05-01 14:52 J	-18507461.91	-18507461.88	-18507461.84	0.0133	0.0127
Moon	-55379-08-26 21:35 J	-18505518.76	-18505518.60	-18505518.42	0.0135	0.0100

Earth -55379-08-26 23:01 J -18505518.70 -18505518.54 -18505518.34 0.0135 0.0094 *
 Earth -55378-08-31 06:13 J -18505149.49 -18505149.24 -18505148.99 0.0135 0.0008
 Moon -55378-08-31 08:23 J -18505149.40 -18505149.15 -18505148.91 0.0135 0.0015 *
 Moon -55377-09-03 11:16 J -18504780.18 -18504780.03 -18504779.85 0.0136 0.0106
 Earth -55377-09-03 12:57 J -18504780.08 -18504779.96 -18504779.79 0.0136 0.0111 *
 Mars -55367-04-11 11:30 J -18501273.30 -18501273.02 -18501272.74 0.0141 0.0004
 Venus -55363-10-01 21:35 J -18499638.74 -18499638.60 -18499638.46 0.0143 0.0109
 Venus -55362-05-16 06:13 J -18499412.42 -18499412.24 -18499412.05 0.0143 0.0072
 Venus -55362-12-28 15:21 J -18499186.06 -18499185.86 -18499185.65 0.0144 0.0034
 Venus -55361-08-11 00:57 J -18498959.67 -18498959.46 -18498959.25 0.0144 0.0004
 Venus -55360-03-25 10:18 J -18498733.26 -18498733.07 -18498732.86 0.0144 0.0042
 Venus -55360-11-06 20:09 J -18498506.83 -18498506.66 -18498506.48 0.0145 0.0081
 Venus -55359-06-21 06:13 J -18498280.35 -18498280.24 -18498280.11 0.0145 0.0119
 Mercury -55346-06-26 05:16 J -18493527.36 -18493527.28 -18493527.17 0.0146 0.0124
 Mercury -55346-09-22 13:40 J -18493439.07 -18493438.93 -18493438.78 0.0146 0.0091
 Mercury -55346-12-19 21:49 J -18493350.76 -18493350.59 -18493350.41 0.0146 0.0059
 Mercury -55345-03-17 06:13 J -18493262.42 -18493262.24 -18493262.05 0.0146 0.0025
 Mercury -55345-06-13 14:37 J -18493174.08 -18493173.89 -18493173.70 0.0146 0.0008
 Mercury -55345-09-09 22:47 J -18493085.73 -18493085.55 -18493085.36 0.0146 0.0041
 Mercury -55345-12-07 07:11 J -18492997.36 -18492997.20 -18492997.03 0.0146 0.0074
 Mercury -55344-03-05 15:21 J -18492908.97 -18492908.86 -18492908.72 0.0146 0.0108
 Mercury -55344-06-01 23:59 J -18492820.54 -18492820.50 -18492820.45 0.0146 0.0141
 Earth -55339-02-21 20:09 J -18491094.75 -18491094.66 -18491094.56 0.0144 0.0133
 Moon -55339-02-21 23:16 J -18491094.63 -18491094.53 -18491094.39 0.0144 0.0126 *
 Moon -55338-02-26 20:09 J -18490724.92 -18490724.66 -18490724.40 0.0143 0.0010
 Earth -55338-02-26 22:33 J -18490724.81 -18490724.56 -18490724.30 0.0143 0.0007 *
 Jupiter -55338-11-06 19:11 J -18490471.87 -18490471.70 -18490471.42 0.0143 0.0131
 Earth -55337-03-02 23:59 J -18490354.62 -18490354.50 -18490354.34 0.0143 0.0120
 Moon -55337-03-03 01:54 J -18490354.53 -18490354.42 -18490354.26 0.0143 0.0120 *
 Mars -55329-10-30 17:30 J -18487191.04 -18487190.77 -18487190.48 0.0138 0.0080

Venus	-55324-10-27 03:06 J	-18485368.39	-18485368.37	-18485368.33	0.0136	0.0134
Venus	-55323-06-10 11:45 J	-18485142.14	-18485142.01	-18485141.85	0.0135	0.0101
Venus	-55322-01-22 20:23 J	-18484915.83	-18484915.65	-18484915.45	0.0135	0.0067
Venus	-55322-09-06 04:47 J	-18484689.51	-18484689.30	-18484689.08	0.0135	0.0034
Venus	-55321-04-19 12:42 J	-18484463.19	-18484462.97	-18484462.74	0.0135	0.0003
Venus	-55321-12-01 20:23 J	-18484236.86	-18484236.65	-18484236.43	0.0134	0.0031
Venus	-55320-07-16 03:35 J	-18484010.53	-18484010.35	-18484010.14	0.0134	0.0063
Venus	-55319-02-27 11:16 J	-18483784.18	-18483784.03	-18483783.87	0.0134	0.0094
Venus	-55319-10-11 17:45 J	-18483557.81	-18483557.76	-18483557.66	0.0134	0.0126
Mercury	-55304-10-07 23:59 J	-18478082.50	-18478082.50	-18478082.49	0.0132	0.0132
Mercury	-55303-01-04 03:06 J	-18477994.43	-18477994.37	-18477994.30	0.0132	0.0114
Mercury	-55303-04-02 06:13 J	-18477906.33	-18477906.24	-18477906.15	0.0132	0.0097
Mercury	-55303-06-29 09:06 J	-18477818.22	-18477818.12	-18477818.00	0.0132	0.0080
Mercury	-55303-09-25 12:28 J	-18477730.10	-18477729.98	-18477729.86	0.0132	0.0061
Mercury	-55303-12-22 15:21 J	-18477641.98	-18477641.86	-18477641.73	0.0132	0.0044
Mercury	-55302-03-20 18:28 J	-18477553.86	-18477553.73	-18477553.59	0.0132	0.0027
Mercury	-55302-06-16 21:35 J	-18477465.73	-18477465.60	-18477465.46	0.0132	0.0009
Mercury	-55302-09-13 00:42 J	-18477377.61	-18477377.47	-18477377.34	0.0132	0.0009
Mercury	-55302-12-10 03:35 J	-18477289.48	-18477289.35	-18477289.21	0.0133	0.0026
Mercury	-55301-03-07 06:42 J	-18477201.35	-18477201.22	-18477201.09	0.0133	0.0043
Mercury	-55301-06-03 09:35 J	-18477113.21	-18477113.10	-18477112.98	0.0133	0.0061
Mercury	-55301-08-30 12:42 J	-18477025.08	-18477024.97	-18477024.86	0.0133	0.0078
Mercury	-55301-11-26 15:35 J	-18476936.93	-18476936.85	-18476936.75	0.0133	0.0095
Mercury	-55300-02-22 18:28 J	-18476848.79	-18476848.73	-18476848.65	0.0133	0.0113
Mercury	-55300-05-21 21:35 J	-18476760.62	-18476760.60	-18476760.57	0.0133	0.0130
Moon	-55295-08-27 04:33 J	-18474837.50	-18474837.31	-18474837.09	0.0135	0.0084
Earth	-55295-08-27 07:40 J	-18474837.36	-18474837.18	-18474837.00	0.0135	0.0091 *
Earth	-55294-08-31 14:09 J	-18474468.16	-18474467.91	-18474467.66	0.0135	0.0011
Moon	-55294-08-31 16:18 J	-18474468.06	-18474467.82	-18474467.57	0.0135	0.0005 *
Moon	-55293-09-03 18:42 J	-18474098.83	-18474098.72	-18474098.58	0.0136	0.0118

Earth	-55293-09-03 21:06 J	-18474098.75	-18474098.62	-18474098.47	0.0136	0.0113	*
Mars	-55284-01-03 22:47 J	-18471054.60	-18471054.55	-18471054.46	0.0140	0.0135	
Mars	-55283-12-04 17:59 J	-18470354.98	-18470354.75	-18470354.52	0.0141	0.0080	
Venus	-55279-06-01 03:35 J	-18469080.44	-18469080.35	-18469080.25	0.0143	0.0127	
Venus	-55278-01-13 11:59 J	-18468854.14	-18468854.00	-18468853.82	0.0143	0.0092	
Venus	-55278-08-27 21:21 J	-18468627.80	-18468627.61	-18468627.41	0.0144	0.0054	
Venus	-55277-04-10 06:28 J	-18468401.44	-18468401.23	-18468401.01	0.0144	0.0017	
Venus	-55277-11-22 16:04 J	-18468175.04	-18468174.83	-18468174.62	0.0144	0.0022	
Venus	-55276-07-07 01:25 J	-18467948.63	-18467948.44	-18467948.24	0.0144	0.0060	
Venus	-55275-02-18 11:30 J	-18467722.18	-18467722.02	-18467721.86	0.0145	0.0098	
Venus	-55275-10-02 21:21 J	-18467495.66	-18467495.61	-18467495.52	0.0145	0.0137	
Mercury	-55262-07-16 11:30 J	-18462826.12	-18462826.02	-18462825.91	0.0146	0.0121	
Mercury	-55262-10-12 19:40 J	-18462737.82	-18462737.68	-18462737.52	0.0146	0.0088	
Mercury	-55261-01-09 03:49 J	-18462649.50	-18462649.34	-18462649.16	0.0146	0.0056	
Mercury	-55261-04-06 12:13 J	-18462561.17	-18462560.99	-18462560.80	0.0146	0.0022	
Mercury	-55261-07-03 20:37 J	-18462472.83	-18462472.64	-18462472.45	0.0146	0.0011	
Mercury	-55261-09-30 05:01 J	-18462384.47	-18462384.29	-18462384.11	0.0146	0.0044	
Mercury	-55261-12-27 13:11 J	-18462296.10	-18462295.95	-18462295.78	0.0146	0.0078	
Mercury	-55260-03-25 21:35 J	-18462207.71	-18462207.60	-18462207.47	0.0146	0.0111	
Mercury	-55260-06-22 05:45 J	-18462119.26	-18462119.26	-18462119.22	0.0146	0.0145	
Earth	-55255-02-22 02:23 J	-18460413.48	-18460413.40	-18460413.28	0.0144	0.0132	
Moon	-55255-02-22 05:45 J	-18460413.31	-18460413.26	-18460413.18	0.0144	0.0139	*
Moon	-55254-02-27 02:09 J	-18460043.67	-18460043.41	-18460043.15	0.0143	0.0002	
Earth	-55254-02-27 05:16 J	-18460043.53	-18460043.28	-18460043.02	0.0143	0.0005	*
Earth	-55253-03-03 07:11 J	-18459673.34	-18459673.20	-18459673.07	0.0143	0.0121	
Moon	-55253-03-03 09:06 J	-18459673.23	-18459673.12	-18459672.97	0.0143	0.0121	*
Mars	-55244-06-26 15:35 J	-18456271.19	-18456270.85	-18456270.50	0.0138	0.0013	
Venus	-55239-02-07 18:13 J	-18454583.84	-18454583.74	-18454583.62	0.0136	0.0117	
Venus	-55239-09-22 03:06 J	-18454357.55	-18454357.37	-18454357.20	0.0135	0.0084	
Venus	-55238-05-06 11:16 J	-18454131.23	-18454131.03	-18454130.82	0.0135	0.0051	

Venus	-55238-12-18 19:25 J	-18453904.91	-18453904.69	-18453904.47	0.0135	0.0018
Venus	-55237-08-01 03:21 J	-18453678.58	-18453678.36	-18453678.14	0.0135	0.0014
Venus	-55236-03-15 11:01 J	-18453452.25	-18453452.04	-18453451.83	0.0134	0.0047
Venus	-55236-10-27 18:13 J	-18453225.91	-18453225.74	-18453225.55	0.0134	0.0078
Venus	-55235-06-11 01:25 J	-18452999.56	-18452999.44	-18452999.31	0.0134	0.0109
Mercury	-55220-10-28 06:42 J	-18447381.24	-18447381.22	-18447381.19	0.0132	0.0129
Mercury	-55219-01-24 09:35 J	-18447293.16	-18447293.10	-18447293.02	0.0132	0.0113
Mercury	-55219-04-22 12:57 J	-18447205.05	-18447204.96	-18447204.86	0.0132	0.0094
Mercury	-55219-07-19 16:04 J	-18447116.94	-18447116.83	-18447116.72	0.0132	0.0077
Mercury	-55219-10-15 18:57 J	-18447028.82	-18447028.71	-18447028.58	0.0132	0.0060
Mercury	-55218-01-11 22:18 J	-18446940.70	-18446940.57	-18446940.45	0.0132	0.0042
Mercury	-55218-04-10 01:11 J	-18446852.58	-18446852.45	-18446852.31	0.0132	0.0024
Mercury	-55218-07-07 04:18 J	-18446764.45	-18446764.32	-18446764.18	0.0132	0.0007
Mercury	-55218-10-03 07:25 J	-18446676.33	-18446676.19	-18446676.06	0.0132	0.0011
Mercury	-55218-12-30 10:18 J	-18446588.20	-18446588.07	-18446587.94	0.0133	0.0028
Mercury	-55217-03-27 13:25 J	-18446500.06	-18446499.94	-18446499.81	0.0133	0.0046
Mercury	-55217-06-23 16:33 J	-18446411.93	-18446411.81	-18446411.70	0.0133	0.0063
Mercury	-55217-09-19 19:11 J	-18446323.79	-18446323.70	-18446323.58	0.0133	0.0081
Mercury	-55217-12-16 22:18 J	-18446235.65	-18446235.57	-18446235.47	0.0133	0.0098
Mercury	-55216-03-15 01:25 J	-18446147.50	-18446147.44	-18446147.37	0.0133	0.0115
Mercury	-55216-06-11 04:33 J	-18446059.32	-18446059.31	-18446059.30	0.0133	0.0132
Moon	-55211-08-27 12:13 J	-18444156.15	-18444155.99	-18444155.79	0.0135	0.0096
Earth	-55211-08-27 15:06 J	-18444156.04	-18444155.87	-18444155.67	0.0135	0.0089 *
Earth	-55210-08-31 21:49 J	-18443786.83	-18443786.59	-18443786.33	0.0135	0.0013
Moon	-55210-09-01 00:42 J	-18443786.70	-18443786.47	-18443786.22	0.0135	0.0020 *
Moon	-55209-09-04 01:40 J	-18443417.56	-18443417.43	-18443417.26	0.0136	0.0110
Earth	-55209-09-04 04:33 J	-18443417.42	-18443417.31	-18443417.16	0.0136	0.0116 *
Mars	-55200-08-29 05:16 J	-18440136.52	-18440136.28	-18440136.02	0.0140	0.0061
Venus	-55195-09-12 18:42 J	-18438295.85	-18438295.72	-18438295.58	0.0143	0.0109
Venus	-55194-04-27 03:06 J	-18438069.54	-18438069.37	-18438069.17	0.0143	0.0074

Venus	-55194-12-09 12:28 J	-18437843.19	-18437842.98	-18437842.78	0.0144	0.0036
Venus	-55193-07-22 21:35 J	-18437616.81	-18437616.60	-18437616.38	0.0144	0.0002
Venus	-55192-03-06 06:57 J	-18437390.41	-18437390.21	-18437390.00	0.0144	0.0039
Venus	-55192-10-18 16:33 J	-18437163.98	-18437163.81	-18437163.62	0.0144	0.0078
Venus	-55191-06-02 02:37 J	-18436937.51	-18436937.39	-18436937.26	0.0145	0.0116
Mercury	-55178-08-05 17:01 J	-18432124.88	-18432124.79	-18432124.67	0.0146	0.0119
Mercury	-55178-11-02 01:25 J	-18432036.58	-18432036.44	-18432036.28	0.0146	0.0086
Mercury	-55177-01-29 09:49 J	-18431948.27	-18431948.09	-18431947.92	0.0146	0.0053
Mercury	-55177-04-26 17:59 J	-18431859.93	-18431859.75	-18431859.56	0.0146	0.0020
Mercury	-55177-07-24 02:23 J	-18431771.59	-18431771.40	-18431771.21	0.0146	0.0013
Mercury	-55177-10-20 10:33 J	-18431683.23	-18431683.06	-18431682.87	0.0146	0.0046
Mercury	-55176-01-16 18:42 J	-18431594.86	-18431594.72	-18431594.55	0.0146	0.0080
Mercury	-55176-04-15 03:21 J	-18431506.47	-18431506.36	-18431506.24	0.0146	0.0113
Earth	-55171-02-22 08:09 J	-18429732.25	-18429732.16	-18429732.05	0.0144	0.0132
Moon	-55171-02-22 11:59 J	-18429732.12	-18429732.00	-18429731.86	0.0144	0.0124 *
Moon	-55170-02-27 07:25 J	-18429362.45	-18429362.19	-18429361.93	0.0143	0.0010
Earth	-55170-02-27 10:47 J	-18429362.31	-18429362.05	-18429361.79	0.0143	0.0005 *
Earth	-55169-03-03 11:59 J	-18428992.11	-18428992.00	-18428991.84	0.0143	0.0122
Moon	-55169-03-03 15:06 J	-18428991.98	-18428991.87	-18428991.72	0.0143	0.0123 *
Mars	-55159-02-20 09:35 J	-18425351.31	-18425351.10	-18425350.84	0.0138	0.0102
Venus	-55156-10-07 23:59 J	-18424025.54	-18424025.50	-18424025.46	0.0136	0.0133
Venus	-55155-05-22 08:52 J	-18423799.28	-18423799.13	-18423798.98	0.0135	0.0100
Venus	-55154-01-03 17:01 J	-18423572.97	-18423572.79	-18423572.58	0.0135	0.0067
Venus	-55154-08-18 01:40 J	-18423346.65	-18423346.43	-18423346.22	0.0135	0.0034
Venus	-55153-03-31 09:49 J	-18423120.32	-18423120.09	-18423119.87	0.0135	0.0003
Venus	-55153-11-12 17:16 J	-18422893.99	-18422893.78	-18422893.55	0.0134	0.0031
Venus	-55152-06-27 00:42 J	-18422667.66	-18422667.47	-18422667.26	0.0134	0.0062
Venus	-55151-02-08 08:23 J	-18422441.31	-18422441.15	-18422440.99	0.0134	0.0094
Venus	-55151-09-22 14:52 J	-18422214.94	-18422214.88	-18422214.78	0.0134	0.0125
Mercury	-55136-11-17 13:25 J	-18416679.97	-18416679.94	-18416679.90	0.0132	0.0127

Mercury -55135-02-13 16:33 J -18416591.88 -18416591.81 -18416591.73 0.0132 0.0109

Mercury -55135-05-12 19:25 J -18416503.77 -18416503.69 -18416503.58 0.0132 0.0093

Mercury -55135-08-08 22:47 J -18416415.66 -18416415.55 -18416415.44 0.0132 0.0074

Mercury -55135-11-05 01:54 J -18416327.54 -18416327.42 -18416327.30 0.0132 0.0057

Mercury -55134-02-01 05:01 J -18416239.42 -18416239.29 -18416239.16 0.0132 0.0039

Mercury -55134-04-30 08:09 J -18416151.30 -18416151.16 -18416151.03 0.0132 0.0022

Mercury -55134-07-27 11:01 J -18416063.17 -18416063.04 -18416062.90 0.0132 0.0006

Mercury -55134-10-23 14:09 J -18415975.04 -18415974.91 -18415974.78 0.0133 0.0014

Mercury -55133-01-19 17:01 J -18415886.91 -18415886.79 -18415886.65 0.0133 0.0032

Mercury -55133-04-16 20:09 J -18415798.78 -18415798.66 -18415798.53 0.0133 0.0049

Mercury -55133-07-13 23:16 J -18415710.65 -18415710.53 -18415710.41 0.0133 0.0066

Mercury -55133-10-10 02:09 J -18415622.51 -18415622.41 -18415622.30 0.0133 0.0083

Mercury -55132-01-06 05:01 J -18415534.36 -18415534.29 -18415534.19 0.0133 0.0101

Mercury -55132-04-04 08:09 J -18415446.21 -18415446.16 -18415446.09 0.0133 0.0118

Moon -55127-08-27 19:54 J -18413474.85 -18413474.67 -18413474.44 0.0135 0.0080

Earth -55127-08-27 23:30 J -18413474.69 -18413474.52 -18413474.31 0.0135 0.0087 *

Earth -55126-09-01 06:13 J -18413105.49 -18413105.24 -18413104.99 0.0135 0.0015

Moon -55126-09-01 09:06 J -18413105.36 -18413105.12 -18413104.87 0.0135 0.0009 *

Moon -55125-09-04 09:49 J -18412736.18 -18412736.09 -18412735.97 0.0136 0.0124

Earth -55125-09-04 13:11 J -18412736.06 -18412735.95 -18412735.82 0.0136 0.0118 *

Mars -55115-04-23 12:28 J -18409218.25 -18409217.98 -18409217.70 0.0141 0.0015

Venus -55111-05-13 01:54 J -18407737.52 -18407737.42 -18407737.33 0.0143 0.0126

Venus -55111-12-25 10:18 J -18407511.23 -18407511.07 -18407510.90 0.0143 0.0090

Venus -55110-08-08 18:57 J -18407284.89 -18407284.71 -18407284.50 0.0143 0.0055

Venus -55109-03-22 04:18 J -18407058.53 -18407058.32 -18407058.11 0.0144 0.0017

Venus -55109-11-03 13:25 J -18406832.15 -18406831.94 -18406831.73 0.0144 0.0021

Venus -55108-06-17 22:47 J -18406605.73 -18406605.55 -18406605.35 0.0144 0.0059

Venus -55107-01-30 08:23 J -18406379.29 -18406379.15 -18406378.97 0.0145 0.0097

Venus -55107-09-13 18:42 J -18406152.78 -18406152.72 -18406152.63 0.0145 0.0135

Mercury -55094-08-25 23:30 J -18401423.63 -18401423.52 -18401423.40 0.0146 0.0115

Mercury -55094-11-22 07:40 J -18401335.33 -18401335.18 -18401335.02 0.0146 0.0083
 Mercury -55093-02-18 15:49 J -18401247.01 -18401246.84 -18401246.66 0.0146 0.0050
 Mercury -55093-05-17 00:13 J -18401158.68 -18401158.49 -18401158.30 0.0146 0.0017
 Mercury -55093-08-13 08:23 J -18401070.33 -18401070.15 -18401069.96 0.0146 0.0017
 Mercury -55093-11-09 16:47 J -18400981.97 -18400981.80 -18400981.62 0.0146 0.0050
 Mercury -55092-02-06 01:11 J -18400893.60 -18400893.45 -18400893.29 0.0146 0.0083
 Mercury -55092-05-05 09:21 J -18400805.21 -18400805.11 -18400804.98 0.0146 0.0117
 Earth -55087-02-22 14:23 J -18399050.99 -18399050.90 -18399050.78 0.0144 0.0131
 Moon -55087-02-22 17:45 J -18399050.80 -18399050.76 -18399050.67 0.0144 0.0139 *
 Moon -55086-02-27 13:25 J -18398681.20 -18398680.94 -18398680.68 0.0143 0.0003
 Earth -55086-02-27 17:16 J -18398681.04 -18398680.78 -18398680.53 0.0143 0.0004 *
 Earth -55085-03-03 18:13 J -18398310.85 -18398310.74 -18398310.59 0.0143 0.0123
 Moon -55085-03-03 22:04 J -18398310.71 -18398310.58 -18398310.44 0.0143 0.0120 *
 Mars -55077-11-09 23:45 J -18395137.79 -18395137.51 -18395137.20 0.0138 0.0071
 Venus -55071-01-19 13:54 J -18393241.02 -18393240.92 -18393240.79 0.0136 0.0117
 Venus -55071-09-02 22:47 J -18393014.72 -18393014.55 -18393014.37 0.0135 0.0084
 Venus -55070-04-17 07:25 J -18392788.40 -18392788.19 -18392787.98 0.0135 0.0051
 Venus -55070-11-29 15:35 J -18392562.07 -18392561.85 -18392561.63 0.0135 0.0018
 Venus -55069-07-12 23:30 J -18392335.74 -18392335.52 -18392335.30 0.0135 0.0014
 Venus -55068-02-24 06:57 J -18392109.41 -18392109.21 -18392108.99 0.0134 0.0047
 Venus -55068-10-08 14:37 J -18391883.07 -18391882.89 -18391882.70 0.0134 0.0077
 Venus -55067-05-22 21:49 J -18391656.72 -18391656.59 -18391656.46 0.0134 0.0108
 Mercury -55052-12-07 19:54 J -18385978.70 -18385978.67 -18385978.61 0.0132 0.0126
 Mercury -55051-03-05 23:16 J -18385890.60 -18385890.53 -18385890.45 0.0132 0.0107
 Mercury -55051-06-02 02:23 J -18385802.50 -18385802.40 -18385802.30 0.0132 0.0089
 Mercury -55051-08-29 05:30 J -18385714.38 -18385714.27 -18385714.15 0.0132 0.0072
 Mercury -55051-11-25 08:37 J -18385626.26 -18385626.14 -18385626.02 0.0132 0.0054
 Mercury -55050-02-21 11:45 J -18385538.14 -18385538.01 -18385537.88 0.0132 0.0037
 Mercury -55050-05-20 14:52 J -18385450.02 -18385449.88 -18385449.75 0.0132 0.0019
 Mercury -55050-08-16 17:45 J -18385361.89 -18385361.76 -18385361.62 0.0133 0.0005

Mercury -55050-11-12 20:52 J -18385273.76 -18385273.63 -18385273.49 0.0133 0.0016

Mercury -55049-02-08 23:59 J -18385185.63 -18385185.50 -18385185.37 0.0133 0.0034

Mercury -55049-05-07 02:52 J -18385097.50 -18385097.38 -18385097.25 0.0133 0.0051

Mercury -55049-08-03 05:59 J -18385009.36 -18385009.25 -18385009.13 0.0133 0.0068

Mercury -55049-10-30 08:52 J -18384921.22 -18384921.13 -18384921.02 0.0133 0.0086

Mercury -55048-01-26 11:59 J -18384833.08 -18384833.00 -18384832.91 0.0133 0.0103

Mercury -55048-04-24 14:52 J -18384744.92 -18384744.88 -18384744.82 0.0133 0.0121

Moon -55043-08-28 04:33 J -18382793.49 -18382793.31 -18382793.11 0.0135 0.0090

Earth -55043-08-28 07:40 J -18382793.36 -18382793.18 -18382792.97 0.0135 0.0084 *

Earth -55042-09-01 14:23 J -18382424.14 -18382423.90 -18382423.65 0.0135 0.0018

Moon -55042-09-01 17:59 J -18382423.99 -18382423.75 -18382423.50 0.0135 0.0026 *

Moon -55041-09-04 17:45 J -18382054.87 -18382054.76 -18382054.61 0.0136 0.0115

Earth -55041-09-04 21:35 J -18382054.71 -18382054.60 -18382054.49 0.0136 0.0121 *

Mars -55032-01-16 03:06 J -18378999.49 -18378999.37 -18378999.23 0.0140 0.0123

Mars -55031-12-16 19:54 J -18378299.85 -18378299.67 -18378299.44 0.0141 0.0094

Venus -55027-01-10 09:35 J -18377179.10 -18377179.10 -18377179.09 0.0143 0.0142

Venus -55027-08-24 17:59 J -18376952.88 -18376952.75 -18376952.60 0.0143 0.0107

Venus -55026-04-08 02:37 J -18376726.56 -18376726.39 -18376726.20 0.0143 0.0071

Venus -55026-11-20 11:45 J -18376500.22 -18376500.01 -18376499.80 0.0144 0.0034

Venus -55025-07-03 20:52 J -18376273.84 -18376273.63 -18376273.42 0.0144 0.0003

Venus -55024-02-15 06:13 J -18376047.44 -18376047.24 -18376047.03 0.0144 0.0040

Venus -55024-09-29 15:49 J -18375821.01 -18375820.84 -18375820.65 0.0144 0.0078

Venus -55023-05-14 01:54 J -18375594.54 -18375594.42 -18375594.29 0.0145 0.0116

Mercury -55010-06-18 22:18 J -18370810.61 -18370810.57 -18370810.52 0.0146 0.0141

Mercury -55010-09-15 06:42 J -18370722.35 -18370722.22 -18370722.10 0.0146 0.0109

Mercury -55010-12-12 14:37 J -18370634.04 -18370633.89 -18370633.72 0.0146 0.0076

Mercury -55009-03-09 23:01 J -18370545.72 -18370545.54 -18370545.36 0.0146 0.0043

Mercury -55009-06-06 07:11 J -18370457.39 -18370457.20 -18370457.01 0.0146 0.0010

Mercury -55009-09-02 15:35 J -18370369.04 -18370368.85 -18370368.67 0.0146 0.0023

Mercury -55009-11-29 23:45 J -18370280.68 -18370280.51 -18370280.33 0.0146 0.0056

Mercury -55008-02-26 07:54 J -18370192.31 -18370192.17 -18370192.01 0.0146 0.0090

Mercury -55008-05-25 16:33 J -18370103.91 -18370103.81 -18370103.71 0.0146 0.0123

Earth -55003-02-22 23:16 J -18368369.64 -18368369.53 -18368369.42 0.0144 0.0128

Moon -55003-02-23 02:52 J -18368369.51 -18368369.38 -18368369.23 0.0144 0.0120 *

Moon -55002-02-27 21:49 J -18367999.84 -18367999.59 -18367999.33 0.0143 0.0008

Earth -55002-02-28 01:25 J -18367999.69 -18367999.44 -18367999.18 0.0143 0.0002 *

Earth -55001-03-04 02:23 J -18367629.50 -18367629.40 -18367629.26 0.0143 0.0126

Moon -55001-03-04 06:13 J -18367629.34 -18367629.24 -18367629.12 0.0143 0.0128 *

55TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 55th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-54992-07-06 23:45 J	-18364217.85	-18364217.51	-18364217.17	0.0138	0.0022		
Venus	-54988-09-18 20:09 J	-18362682.69	-18362682.66	-18362682.59	0.0136	0.0132		
Venus	-54987-05-03 05:16 J	-18362456.43	-18362456.28	-18362456.12	0.0136	0.0099		
Venus	-54987-12-15 13:40 J	-18362230.12	-18362229.93	-18362229.73	0.0135	0.0066		
Venus	-54986-07-29 22:04 J	-18362003.79	-18362003.58	-18362003.36	0.0135	0.0034		
Venus	-54985-03-12 06:28 J	-18361777.46	-18361777.23	-18361777.01	0.0135	0.0003		
Venus	-54985-10-24 14:09 J	-18361551.13	-18361550.91	-18361550.69	0.0134	0.0030		
Venus	-54984-06-07 21:21 J	-18361324.79	-18361324.61	-18361324.40	0.0134	0.0063		
Venus	-54983-01-20 05:01 J	-18361098.44	-18361098.29	-18361098.13	0.0134	0.0093		
Venus	-54983-09-03 11:59 J	-18360872.07	-18360872.00	-18360871.90	0.0134	0.0124		

Mercury -54968-12-28 03:06 J -18355277.42 -18355277.37 -18355277.32 0.0132 0.0122

Mercury -54967-03-26 05:59 J -18355189.32 -18355189.25 -18355189.16 0.0132 0.0104

Mercury -54967-06-22 09:06 J -18355101.21 -18355101.12 -18355101.01 0.0132 0.0087

Mercury -54967-09-18 12:28 J -18355013.10 -18355012.98 -18355012.87 0.0132 0.0069

Mercury -54967-12-15 15:35 J -18354924.98 -18354924.85 -18354924.73 0.0132 0.0051

Mercury -54966-03-13 18:42 J -18354836.85 -18354836.72 -18354836.59 0.0132 0.0033

Mercury -54966-06-09 21:35 J -18354748.73 -18354748.60 -18354748.46 0.0133 0.0017

Mercury -54966-09-06 00:42 J -18354660.60 -18354660.47 -18354660.33 0.0133 0.0004

Mercury -54966-12-03 03:49 J -18354572.47 -18354572.34 -18354572.21 0.0133 0.0019

Mercury -54965-02-29 06:57 J -18354484.34 -18354484.21 -18354484.08 0.0133 0.0037

Mercury -54965-05-27 09:49 J -18354396.21 -18354396.09 -18354395.96 0.0133 0.0055

Mercury -54965-08-23 12:57 J -18354308.07 -18354307.96 -18354307.85 0.0133 0.0072

Mercury -54965-11-19 15:49 J -18354219.93 -18354219.84 -18354219.74 0.0133 0.0090

Mercury -54964-02-15 18:57 J -18354131.78 -18354131.71 -18354131.63 0.0133 0.0107

Mercury -54964-05-14 21:49 J -18354043.63 -18354043.59 -18354043.54 0.0133 0.0124

Moon -54959-08-28 12:57 J -18352112.15 -18352111.96 -18352111.73 0.0135 0.0074

Earth -54959-08-28 16:33 J -18352111.99 -18352111.81 -18352111.59 0.0135 0.0081 *

Earth -54958-09-01 23:30 J -18351742.77 -18351742.52 -18351742.27 0.0135 0.0022

Moon -54958-09-02 02:52 J -18351742.63 -18351742.38 -18351742.13 0.0135 0.0015 *

Moon -54957-09-05 02:52 J -18351373.43 -18351373.38 -18351373.30 0.0136 0.0131

Earth -54957-09-05 06:28 J -18351373.31 -18351373.23 -18351373.12 0.0136 0.0125 *

Mars -54948-09-10 11:16 J -18348081.28 -18348081.03 -18348080.76 0.0140 0.0047

Venus -54943-04-24 02:09 J -18346394.51 -18346394.41 -18346394.30 0.0143 0.0123

Venus -54943-12-06 10:47 J -18346168.21 -18346168.05 -18346167.88 0.0143 0.0088

Venus -54942-07-20 19:25 J -18345941.88 -18345941.69 -18345941.48 0.0143 0.0052

Venus -54941-03-03 04:33 J -18345715.52 -18345715.31 -18345715.09 0.0144 0.0015

Venus -54941-10-15 13:54 J -18345489.13 -18345488.92 -18345488.71 0.0144 0.0023

Venus -54940-05-29 23:30 J -18345262.71 -18345262.52 -18345262.32 0.0144 0.0060

Venus -54939-01-11 09:06 J -18345036.26 -18345036.12 -18345035.95 0.0144 0.0098

Venus -54939-08-25 19:40 J -18344809.75 -18344809.68 -18344809.61 0.0145 0.0136

Mercury -54926-07-09 05:59 J -18340109.32 -18340109.25 -18340109.17 0.0146 0.0132

Mercury -54926-10-05 13:54 J -18340021.04 -18340020.92 -18340020.77 0.0146 0.0100

Mercury -54925-01-01 22:18 J -18339932.73 -18339932.57 -18339932.40 0.0146 0.0067

Mercury -54925-03-30 06:28 J -18339844.41 -18339844.23 -18339844.04 0.0146 0.0034

Mercury -54925-06-26 14:52 J -18339756.07 -18339755.88 -18339755.69 0.0146 0.0002

Mercury -54925-09-22 23:01 J -18339667.72 -18339667.54 -18339667.35 0.0146 0.0032

Mercury -54925-12-20 07:25 J -18339579.36 -18339579.19 -18339579.02 0.0146 0.0065

Mercury -54924-03-18 15:35 J -18339490.98 -18339490.85 -18339490.70 0.0146 0.0099

Mercury -54924-06-14 23:59 J -18339402.57 -18339402.50 -18339402.41 0.0146 0.0132

Earth -54919-02-23 09:35 J -18337688.22 -18337688.10 -18337687.96 0.0144 0.0122

Moon -54919-02-23 12:42 J -18337688.06 -18337687.97 -18337687.84 0.0144 0.0130 *

Moon -54918-02-28 07:54 J -18337318.42 -18337318.17 -18337317.91 0.0143 0.0013

Earth -54918-02-28 11:59 J -18337318.26 -18337318.00 -18337317.75 0.0143 0.0006 *

Earth -54917-03-04 13:11 J -18336948.05 -18336947.95 -18336947.85 0.0143 0.0131

Moon -54917-03-04 16:18 J -18336947.91 -18336947.82 -18336947.69 0.0143 0.0128 *

Mars -54907-03-03 01:11 J -18333297.61 -18333297.45 -18333297.25 0.0138 0.0117

Venus -54904-12-31 11:45 J -18331898.10 -18331898.01 -18331897.87 0.0136 0.0115

Venus -54903-08-14 20:52 J -18331671.80 -18331671.63 -18331671.45 0.0135 0.0082

Venus -54902-03-29 05:16 J -18331445.48 -18331445.28 -18331445.06 0.0135 0.0049

Venus -54902-11-10 13:40 J -18331219.15 -18331218.93 -18331218.71 0.0135 0.0017

Venus -54901-06-23 21:35 J -18330992.82 -18330992.60 -18330992.38 0.0135 0.0015

Venus -54900-02-05 05:01 J -18330766.48 -18330766.29 -18330766.07 0.0134 0.0048

Venus -54900-09-19 12:42 J -18330540.14 -18330539.97 -18330539.78 0.0134 0.0078

Venus -54899-05-03 19:54 J -18330313.78 -18330313.67 -18330313.53 0.0134 0.0109

Mercury -54883-01-17 09:49 J -18324576.14 -18324576.09 -18324576.03 0.0132 0.0119

Mercury -54883-04-15 12:57 J -18324488.04 -18324487.96 -18324487.87 0.0132 0.0101

Mercury -54883-07-12 16:04 J -18324399.93 -18324399.83 -18324399.72 0.0132 0.0083

Mercury -54883-10-08 19:11 J -18324311.81 -18324311.70 -18324311.58 0.0132 0.0066

Mercury -54882-01-04 22:18 J -18324223.69 -18324223.57 -18324223.44 0.0132 0.0048

Mercury -54882-04-03 01:25 J -18324135.57 -18324135.44 -18324135.31 0.0132 0.0030

Mercury -54882-06-30 04:33 J -18324047.44 -18324047.31 -18324047.18 0.0133 0.0013
 Mercury -54882-09-26 07:40 J -18323959.32 -18323959.18 -18323959.05 0.0133 0.0005
 Mercury -54882-12-23 10:33 J -18323871.19 -18323871.06 -18323870.92 0.0133 0.0023
 Mercury -54881-03-20 13:40 J -18323783.05 -18323782.93 -18323782.80 0.0133 0.0040
 Mercury -54881-06-16 16:33 J -18323694.92 -18323694.81 -18323694.68 0.0133 0.0058
 Mercury -54881-09-12 19:40 J -18323606.78 -18323606.68 -18323606.56 0.0133 0.0075
 Mercury -54881-12-09 22:47 J -18323518.64 -18323518.55 -18323518.45 0.0133 0.0092
 Mercury -54880-03-08 01:40 J -18323430.49 -18323430.43 -18323430.35 0.0133 0.0110
 Mercury -54880-06-04 04:47 J -18323342.33 -18323342.30 -18323342.26 0.0133 0.0127
 Moon -54875-08-28 21:35 J -18321430.79 -18321430.60 -18321430.40 0.0135 0.0084
 Earth -54875-08-29 00:57 J -18321430.65 -18321430.46 -18321430.24 0.0135 0.0078 *
 Earth -54874-09-02 07:40 J -18321061.42 -18321061.18 -18321060.93 0.0135 0.0025
 Moon -54874-09-02 11:16 J -18321061.26 -18321061.03 -18321060.77 0.0135 0.0033 *
 Moon -54873-09-05 11:30 J -18320692.12 -18320692.02 -18320691.90 0.0136 0.0121
 Earth -54873-09-05 14:52 J -18320691.95 -18320691.88 -18320691.79 0.0136 0.0128 *
 Mars -54863-05-05 18:28 J -18317162.99 -18317162.73 -18317162.45 0.0141 0.0032
 Venus -54860-12-22 09:49 J -18315836.12 -18315836.09 -18315836.04 0.0143 0.0140
 Venus -54859-08-05 18:42 J -18315609.87 -18315609.72 -18315609.58 0.0143 0.0104
 Venus -54858-03-20 03:21 J -18315383.55 -18315383.36 -18315383.18 0.0143 0.0069
 Venus -54858-11-01 12:13 J -18315157.20 -18315156.99 -18315156.78 0.0144 0.0032
 Venus -54857-06-14 21:21 J -18314930.82 -18314930.61 -18314930.39 0.0144 0.0005
 Venus -54856-01-27 06:42 J -18314704.41 -18314704.22 -18314704.01 0.0144 0.0043
 Venus -54856-09-10 16:47 J -18314477.97 -18314477.80 -18314477.62 0.0144 0.0080
 Venus -54855-04-25 02:37 J -18314251.50 -18314251.39 -18314251.26 0.0145 0.0118
 Mercury -54842-07-29 13:11 J -18309408.03 -18309407.95 -18309407.84 0.0146 0.0124
 Mercury -54842-10-25 21:35 J -18309319.74 -18309319.60 -18309319.45 0.0146 0.0091
 Mercury -54841-01-22 05:30 J -18309231.43 -18309231.27 -18309231.08 0.0146 0.0060
 Mercury -54841-04-19 13:54 J -18309143.10 -18309142.92 -18309142.73 0.0146 0.0026
 Mercury -54841-07-16 22:18 J -18309054.76 -18309054.57 -18309054.38 0.0146 0.0008
 Mercury -54841-10-13 06:28 J -18308966.40 -18308966.23 -18308966.04 0.0146 0.0041

Mercury -54840-01-09 14:52 J -18308878.04 -18308877.88 -18308877.71 0.0146 0.0074
 Mercury -54840-04-07 23:01 J -18308789.65 -18308789.54 -18308789.40 0.0146 0.0108
 Mercury -54840-07-05 07:25 J -18308701.22 -18308701.19 -18308701.13 0.0146 0.0141
 Earth -54835-02-23 20:23 J -18307006.79 -18307006.65 -18307006.49 0.0144 0.0116
 Moon -54835-02-23 23:45 J -18307006.67 -18307006.51 -18307006.33 0.0144 0.0108 *
 Moon -54834-02-28 19:11 J -18306636.95 -18306636.70 -18306636.44 0.0143 0.0006
 Earth -54834-02-28 22:33 J -18306636.81 -18306636.56 -18306636.30 0.0143 0.0012 *
 Earth -54833-03-04 23:16 J -18306266.58 -18306266.53 -18306266.44 0.0143 0.0138
 Moon -54833-03-05 03:35 J -18306266.39 -18306266.35 -18306266.30 0.0143 0.0140
 Mars -54825-11-21 00:57 J -18303083.76 -18303083.46 -18303083.11 0.0138 0.0051
 Venus -54820-08-30 19:40 J -18301339.73 -18301339.68 -18301339.59 0.0136 0.0129
 Venus -54819-04-14 04:33 J -18301113.45 -18301113.31 -18301113.14 0.0136 0.0096
 Venus -54819-11-26 12:57 J -18300887.14 -18300886.96 -18300886.75 0.0135 0.0064
 Venus -54818-07-10 21:21 J -18300660.82 -18300660.61 -18300660.38 0.0135 0.0032
 Venus -54817-02-22 05:45 J -18300434.48 -18300434.26 -18300434.03 0.0135 0.0001
 Venus -54817-10-05 13:25 J -18300208.15 -18300207.94 -18300207.71 0.0134 0.0033
 Venus -54816-05-19 21:06 J -18299981.81 -18299981.62 -18299981.42 0.0134 0.0064
 Venus -54815-01-01 04:04 J -18299755.46 -18299755.33 -18299755.15 0.0134 0.0095
 Venus -54815-08-15 11:45 J -18299529.08 -18299529.01 -18299528.93 0.0134 0.0125
 Mercury -54799-02-06 16:33 J -18293874.86 -18293874.81 -18293874.73 0.0132 0.0116
 Mercury -54799-05-05 19:54 J -18293786.76 -18293786.67 -18293786.58 0.0132 0.0097
 Mercury -54799-08-01 22:47 J -18293698.65 -18293698.55 -18293698.43 0.0132 0.0081
 Mercury -54799-10-29 02:09 J -18293610.53 -18293610.41 -18293610.29 0.0132 0.0062
 Mercury -54798-01-25 05:16 J -18293522.41 -18293522.28 -18293522.15 0.0132 0.0045
 Mercury -54798-04-23 08:23 J -18293434.28 -18293434.15 -18293434.02 0.0132 0.0027
 Mercury -54798-07-20 11:30 J -18293346.16 -18293346.02 -18293345.89 0.0132 0.0010
 Mercury -54798-10-16 14:37 J -18293258.03 -18293257.89 -18293257.76 0.0133 0.0009
 Mercury -54797-01-12 17:30 J -18293169.90 -18293169.77 -18293169.63 0.0133 0.0026
 Mercury -54797-04-09 20:37 J -18293081.77 -18293081.64 -18293081.51 0.0133 0.0043
 Mercury -54797-07-06 23:30 J -18292993.63 -18292993.52 -18292993.39 0.0133 0.0061

Mercury -54797-10-03 02:37 J -18292905.49 -18292905.39 -18292905.28 0.0133 0.0078

Mercury -54797-12-30 05:30 J -18292817.35 -18292817.27 -18292817.17 0.0133 0.0096

Mercury -54796-03-28 08:37 J -18292729.20 -18292729.14 -18292729.07 0.0133 0.0113

Mercury -54796-06-24 11:45 J -18292641.03 -18292641.01 -18292640.99 0.0133 0.0130

Moon -54791-08-29 05:45 J -18290749.46 -18290749.26 -18290749.04 0.0135 0.0069

Earth -54791-08-29 09:21 J -18290749.31 -18290749.11 -18290748.89 0.0135 0.0075 *

Earth -54790-09-02 16:04 J -18290380.08 -18290379.83 -18290379.58 0.0135 0.0028

Moon -54790-09-02 19:11 J -18290379.94 -18290379.70 -18290379.44 0.0135 0.0021 *

Earth -54789-09-05 23:16 J -18290010.58 -18290010.53 -18290010.46 0.0136 0.0131

Mars -54780-01-28 06:42 J -18286944.38 -18286944.22 -18286944.03 0.0140 0.0109

Mars -54779-12-29 01:11 J -18286244.61 -18286244.45 -18286244.26 0.0141 0.0110

Venus -54775-04-05 01:11 J -18285051.54 -18285051.45 -18285051.33 0.0143 0.0122

Venus -54775-11-17 10:04 J -18284825.25 -18284825.08 -18284824.91 0.0143 0.0086

Venus -54774-07-01 18:42 J -18284598.91 -18284598.72 -18284598.51 0.0143 0.0051

Venus -54773-02-13 04:04 J -18284372.55 -18284372.33 -18284372.12 0.0144 0.0014

Venus -54773-09-26 13:25 J -18284146.15 -18284145.94 -18284145.73 0.0144 0.0023

Venus -54772-05-10 23:01 J -18283919.73 -18283919.54 -18283919.35 0.0144 0.0061

Venus -54772-12-23 08:52 J -18283693.28 -18283693.13 -18283692.97 0.0145 0.0098

Venus -54771-08-06 18:42 J -18283466.77 -18283466.72 -18283466.63 0.0145 0.0136

Mercury -54758-08-18 20:09 J -18278706.76 -18278706.66 -18278706.54 0.0146 0.0118

Mercury -54758-11-15 04:18 J -18278618.46 -18278618.32 -18278618.16 0.0146 0.0085

Mercury -54757-02-11 12:42 J -18278530.14 -18278529.97 -18278529.79 0.0146 0.0052

Mercury -54757-05-09 20:52 J -18278441.81 -18278441.63 -18278441.44 0.0146 0.0020

Mercury -54757-08-06 05:16 J -18278353.47 -18278353.28 -18278353.09 0.0146 0.0014

Mercury -54757-11-02 13:25 J -18278265.11 -18278264.94 -18278264.76 0.0146 0.0047

Mercury -54756-01-29 21:35 J -18278176.75 -18278176.60 -18278176.43 0.0146 0.0081

Mercury -54756-04-28 05:59 J -18278088.36 -18278088.25 -18278088.12 0.0146 0.0114

Earth -54751-02-24 05:16 J -18276325.43 -18276325.28 -18276325.11 0.0144 0.0112

Moon -54751-02-24 07:54 J -18276325.30 -18276325.17 -18276325.01 0.0144 0.0119 *

Moon -54750-03-01 04:04 J -18275955.58 -18275955.33 -18275955.08 0.0144 0.0023

Earth -54750-03-01 07:40 J -18275955.44 -18275955.18 -18275954.93 0.0144 0.0016 *
 Earth -54749-03-05 08:37 J -18275585.15 -18275585.14 -18275585.11 0.0143 0.0142
 Moon -54749-03-05 11:59 J -18275585.05 -18275585.00 -18275584.92 0.0143 0.0138
 Mars -54740-07-18 05:01 J -18272163.60 -18272163.29 -18272162.96 0.0138 0.0047
 Venus -54736-12-12 11:45 J -18270555.12 -18270555.01 -18270554.86 0.0136 0.0112
 Venus -54735-07-26 20:52 J -18270328.81 -18270328.63 -18270328.45 0.0135 0.0079
 Venus -54734-03-10 05:30 J -18270102.48 -18270102.27 -18270102.06 0.0135 0.0047
 Venus -54734-10-22 13:40 J -18269876.15 -18269875.93 -18269875.71 0.0135 0.0015
 Venus -54733-06-04 21:35 J -18269649.82 -18269649.60 -18269649.38 0.0135 0.0017
 Venus -54732-01-17 05:16 J -18269423.48 -18269423.28 -18269423.07 0.0134 0.0049
 Venus -54732-08-31 12:28 J -18269197.14 -18269196.98 -18269196.78 0.0134 0.0080
 Venus -54731-04-14 20:23 J -18268970.77 -18268970.65 -18268970.53 0.0134 0.0110
 Mercury -54716-11-30 20:23 J -18263261.67 -18263261.65 -18263261.63 0.0132 0.0130
 Mercury -54715-02-26 23:30 J -18263173.58 -18263173.52 -18263173.44 0.0132 0.0112
 Mercury -54715-05-26 02:37 J -18263085.48 -18263085.39 -18263085.29 0.0132 0.0095
 Mercury -54715-08-22 05:45 J -18262997.36 -18262997.26 -18262997.15 0.0132 0.0077
 Mercury -54715-11-18 08:52 J -18262909.25 -18262909.13 -18262909.00 0.0132 0.0059
 Mercury -54714-02-14 11:59 J -18262821.12 -18262821.00 -18262820.87 0.0132 0.0042
 Mercury -54714-05-13 15:06 J -18262733.00 -18262732.87 -18262732.74 0.0132 0.0024
 Mercury -54714-08-09 18:13 J -18262644.87 -18262644.74 -18262644.61 0.0132 0.0007
 Mercury -54714-11-05 21:21 J -18262556.75 -18262556.61 -18262556.48 0.0132 0.0011
 Mercury -54713-02-02 00:13 J -18262468.62 -18262468.49 -18262468.35 0.0133 0.0029
 Mercury -54713-04-30 03:21 J -18262380.48 -18262380.36 -18262380.23 0.0133 0.0046
 Mercury -54713-07-27 06:13 J -18262292.35 -18262292.24 -18262292.11 0.0133 0.0064
 Mercury -54713-10-23 09:21 J -18262204.21 -18262204.11 -18262204.00 0.0133 0.0081
 Mercury -54712-01-19 12:28 J -18262116.07 -18262115.98 -18262115.89 0.0133 0.0098
 Mercury -54712-04-17 15:21 J -18262027.92 -18262027.86 -18262027.79 0.0133 0.0116
 Mercury -54712-07-14 18:28 J -18261939.73 -18261939.73 -18261939.73 0.0133 0.0133
 Moon -54707-08-29 13:25 J -18260068.12 -18260067.94 -18260067.72 0.0135 0.0079
 Earth -54707-08-29 16:47 J -18260068.00 -18260067.80 -18260067.58 0.0135 0.0073 *

Earth	-54706-09-02 23:30 J	-18259698.76	-18259698.52	-18259698.27	0.0135	0.0030
Moon	-54706-09-03 03:06 J	-18259698.61	-18259698.37	-18259698.12	0.0135	0.0037 *
Moon	-54705-09-06 03:21 J	-18259329.42	-18259329.36	-18259329.25	0.0136	0.0127
Earth	-54705-09-06 06:28 J	-18259329.25	-18259329.23	-18259329.17	0.0136	0.0134 *
Jupiter	-54703-06-16 03:49 J	-18258681.57	-18258681.34	-18258681.03	0.0136	0.0116
Mars	-54696-09-22 11:30 J	-18256026.28	-18256026.02	-18256025.74	0.0140	0.0035
Venus	-54692-12-03 07:40 J	-18254493.21	-18254493.18	-18254493.13	0.0143	0.0140
Venus	-54691-07-17 16:04 J	-18254266.96	-18254266.83	-18254266.67	0.0143	0.0105
Venus	-54690-03-01 00:42 J	-18254040.64	-18254040.47	-18254040.27	0.0143	0.0070
Venus	-54690-10-13 10:04 J	-18253814.29	-18253814.08	-18253813.88	0.0144	0.0033
Venus	-54689-05-26 19:11 J	-18253587.91	-18253587.70	-18253587.49	0.0144	0.0004
Venus	-54688-01-08 04:18 J	-18253361.51	-18253361.32	-18253361.10	0.0144	0.0041
Venus	-54688-08-22 14:23 J	-18253135.08	-18253134.90	-18253134.72	0.0144	0.0078
Venus	-54687-04-05 23:59 J	-18252908.61	-18252908.50	-18252908.35	0.0145	0.0116
Mercury	-54674-06-11 18:42 J	-18248093.72	-18248093.72	-18248093.72	0.0146	0.0146
Mercury	-54674-09-08 02:23 J	-18248005.50	-18248005.40	-18248005.27	0.0146	0.0114
Mercury	-54674-12-05 10:47 J	-18247917.20	-18247917.05	-18247916.89	0.0146	0.0081
Mercury	-54673-03-02 18:57 J	-18247828.88	-18247828.71	-18247828.53	0.0146	0.0048
Mercury	-54673-05-30 03:21 J	-18247740.55	-18247740.36	-18247740.17	0.0146	0.0015
Mercury	-54673-08-26 11:30 J	-18247652.20	-18247652.02	-18247651.83	0.0146	0.0018
Mercury	-54673-11-22 19:54 J	-18247563.85	-18247563.67	-18247563.49	0.0146	0.0051
Mercury	-54672-02-19 04:04 J	-18247475.48	-18247475.33	-18247475.17	0.0146	0.0085
Mercury	-54672-05-18 12:28 J	-18247387.08	-18247386.98	-18247386.87	0.0146	0.0118
Earth	-54667-02-24 11:59 J	-18245644.14	-18245644.00	-18245643.82	0.0144	0.0111
Moon	-54667-02-24 14:37 J	-18245644.06	-18245643.89	-18245643.69	0.0144	0.0103 *
Moon	-54666-03-01 11:59 J	-18245274.25	-18245274.00	-18245273.75	0.0144	0.0011
Earth	-54666-03-01 14:37 J	-18245274.15	-18245273.89	-18245273.63	0.0144	0.0018 *
Mars	-54657-04-06 21:21 J	-18241949.73	-18241949.61	-18241949.45	0.0139	0.0126
Venus	-54652-08-11 18:57 J	-18239996.79	-18239996.71	-18239996.63	0.0136	0.0126
Venus	-54651-03-26 03:49 J	-18239770.50	-18239770.34	-18239770.18	0.0136	0.0094

Venus	-54651-11-07 12:28 J	-18239544.18	-18239543.98	-18239543.78	0.0135	0.0062
Venus	-54650-06-21 20:37 J	-18239317.85	-18239317.64	-18239317.41	0.0135	0.0030
Venus	-54649-02-03 05:01 J	-18239091.51	-18239091.29	-18239091.06	0.0135	0.0003
Venus	-54649-09-16 12:57 J	-18238865.17	-18238864.96	-18238864.74	0.0134	0.0034
Venus	-54648-04-30 20:23 J	-18238638.83	-18238638.65	-18238638.44	0.0134	0.0066
Venus	-54648-12-13 03:49 J	-18238412.48	-18238412.34	-18238412.17	0.0134	0.0096
Venus	-54647-07-27 11:16 J	-18238186.09	-18238186.03	-18238185.95	0.0134	0.0126
Mercury	-54632-12-21 03:06 J	-18232560.39	-18232560.37	-18232560.32	0.0132	0.0127
Mercury	-54631-03-19 06:28 J	-18232472.30	-18232472.23	-18232472.15	0.0132	0.0109
Mercury	-54631-06-15 09:35 J	-18232384.19	-18232384.10	-18232384.00	0.0132	0.0091
Mercury	-54631-09-11 12:42 J	-18232296.08	-18232295.97	-18232295.85	0.0132	0.0074
Mercury	-54631-12-08 15:49 J	-18232207.96	-18232207.84	-18232207.71	0.0132	0.0056
Mercury	-54630-03-06 18:57 J	-18232119.84	-18232119.71	-18232119.58	0.0132	0.0038
Mercury	-54630-06-02 22:04 J	-18232031.71	-18232031.58	-18232031.45	0.0132	0.0021
Mercury	-54630-08-30 01:11 J	-18231943.59	-18231943.45	-18231943.32	0.0132	0.0004
Mercury	-54630-11-26 04:18 J	-18231855.46	-18231855.32	-18231855.19	0.0132	0.0015
Mercury	-54629-02-22 07:11 J	-18231767.33	-18231767.20	-18231767.07	0.0133	0.0032
Mercury	-54629-05-20 10:04 J	-18231679.19	-18231679.08	-18231678.95	0.0133	0.0050
Mercury	-54629-08-16 13:11 J	-18231591.06	-18231590.95	-18231590.83	0.0133	0.0067
Mercury	-54629-11-12 16:18 J	-18231502.92	-18231502.82	-18231502.72	0.0133	0.0084
Mercury	-54628-02-08 19:11 J	-18231414.78	-18231414.70	-18231414.61	0.0133	0.0101
Mercury	-54628-05-07 22:04 J	-18231326.62	-18231326.58	-18231326.51	0.0133	0.0119
Moon	-54623-08-29 22:18 J	-18229386.77	-18229386.57	-18229386.34	0.0135	0.0065
Earth	-54623-08-30 01:25 J	-18229386.65	-18229386.44	-18229386.22	0.0135	0.0070 *
Earth	-54622-09-03 08:09 J	-18229017.40	-18229017.16	-18229016.91	0.0135	0.0033
Moon	-54622-09-03 11:01 J	-18229017.29	-18229017.04	-18229016.79	0.0135	0.0026 *
Jupiter	-54620-05-03 10:18 J	-18228409.47	-18228409.07	-18228408.63	0.0136	0.0075
Mars	-54611-05-17 17:45 J	-18225108.01	-18225107.76	-18225107.48	0.0141	0.0043
Venus	-54607-03-16 22:47 J	-18223708.64	-18223708.55	-18223708.42	0.0143	0.0122
Venus	-54607-10-29 07:40 J	-18223482.35	-18223482.18	-18223482.01	0.0143	0.0087

Venus -54606-06-12 16:18 J -18223256.01 -18223255.82 -18223255.62 0.0143 0.0051
 Venus -54605-01-25 01:25 J -18223029.65 -18223029.44 -18223029.23 0.0144 0.0015
 Venus -54605-09-07 10:47 J -18222803.26 -18222803.05 -18222802.84 0.0144 0.0022
 Venus -54604-04-21 20:23 J -18222576.85 -18222576.65 -18222576.46 0.0144 0.0059
 Venus -54604-12-04 05:45 J -18222350.41 -18222350.26 -18222350.09 0.0145 0.0096
 Venus -54603-07-18 15:49 J -18222123.91 -18222123.84 -18222123.75 0.0145 0.0133
 Mercury -54590-07-02 00:28 J -18217392.50 -18217392.48 -18217392.43 0.0146 0.0144
 Mercury -54590-09-28 08:52 J -18217304.25 -18217304.13 -18217304.01 0.0146 0.0111
 Mercury -54590-12-25 16:47 J -18217215.95 -18217215.80 -18217215.63 0.0146 0.0078
 Mercury -54589-03-23 00:57 J -18217127.63 -18217127.46 -18217127.27 0.0146 0.0046
 Mercury -54589-06-19 09:21 J -18217039.30 -18217039.11 -18217038.92 0.0146 0.0012
 Mercury -54589-09-15 17:30 J -18216950.95 -18216950.77 -18216950.58 0.0146 0.0021
 Mercury -54589-12-13 01:54 J -18216862.59 -18216862.42 -18216862.24 0.0146 0.0054
 Mercury -54588-03-11 10:04 J -18216774.22 -18216774.08 -18216773.92 0.0146 0.0088
 Mercury -54588-06-07 18:28 J -18216685.83 -18216685.73 -18216685.62 0.0146 0.0121
 Earth -54583-02-24 18:28 J -18214962.88 -18214962.73 -18214962.56 0.0144 0.0110
 Moon -54583-02-24 20:23 J -18214962.81 -18214962.65 -18214962.50 0.0144 0.0117 *
 Moon -54582-03-01 18:13 J -18214592.98 -18214592.74 -18214592.49 0.0144 0.0026
 Earth -54582-03-01 20:52 J -18214592.89 -18214592.63 -18214592.37 0.0144 0.0018 *
 Moon -54581-03-06 00:42 J -18214222.50 -18214222.47 -18214222.40 0.0143 0.0140
 Mars -54573-12-01 19:40 J -18211030.01 -18211029.68 -18211029.34 0.0138 0.0033
 Venus -54568-11-23 09:21 J -18209212.22 -18209212.11 -18209211.95 0.0136 0.0110
 Venus -54567-07-07 18:28 J -18208985.90 -18208985.73 -18208985.54 0.0135 0.0077
 Venus -54566-02-19 03:06 J -18208759.57 -18208759.37 -18208759.15 0.0135 0.0046
 Venus -54566-10-03 11:45 J -18208533.23 -18208533.01 -18208532.79 0.0135 0.0013
 Venus -54565-05-16 19:40 J -18208306.89 -18208306.68 -18208306.45 0.0135 0.0019
 Venus -54565-12-29 03:35 J -18208080.55 -18208080.35 -18208080.14 0.0134 0.0050
 Venus -54564-08-12 11:16 J -18207854.20 -18207854.03 -18207853.85 0.0134 0.0080
 Venus -54563-03-26 18:42 J -18207627.83 -18207627.72 -18207627.58 0.0134 0.0111
 Mercury -54547-01-10 10:04 J -18201859.12 -18201859.08 -18201859.03 0.0132 0.0124

Mercury -54547-04-08 13:11 J -18201771.02 -18201770.95 -18201770.86 0.0132 0.0107
 Mercury -54547-07-05 16:33 J -18201682.91 -18201682.81 -18201682.71 0.0132 0.0089
 Mercury -54547-10-01 19:25 J -18201594.80 -18201594.69 -18201594.57 0.0132 0.0071
 Mercury -54547-12-28 22:33 J -18201506.68 -18201506.56 -18201506.43 0.0132 0.0054
 Mercury -54546-03-27 01:40 J -18201418.56 -18201418.43 -18201418.30 0.0132 0.0036
 Mercury -54546-06-23 04:47 J -18201330.43 -18201330.30 -18201330.16 0.0132 0.0018
 Mercury -54546-09-19 07:54 J -18201242.30 -18201242.17 -18201242.03 0.0132 0.0001
 Mercury -54546-12-16 11:01 J -18201154.18 -18201154.04 -18201153.91 0.0133 0.0017
 Mercury -54545-03-13 13:54 J -18201066.04 -18201065.92 -18201065.79 0.0133 0.0035
 Mercury -54545-06-09 17:01 J -18200977.91 -18200977.79 -18200977.67 0.0133 0.0052
 Mercury -54545-09-05 19:54 J -18200889.78 -18200889.67 -18200889.55 0.0133 0.0070
 Mercury -54545-12-02 23:01 J -18200801.64 -18200801.54 -18200801.44 0.0133 0.0087
 Mercury -54544-03-01 01:54 J -18200713.49 -18200713.42 -18200713.33 0.0133 0.0104
 Mercury -54544-05-28 05:01 J -18200625.34 -18200625.29 -18200625.23 0.0133 0.0121
 Moon -54539-08-30 07:40 J -18198705.39 -18198705.18 -18198704.97 0.0135 0.0072
 Earth -54539-08-30 09:35 J -18198705.30 -18198705.10 -18198704.87 0.0135 0.0068 *
 Earth -54538-09-03 16:47 J -18198336.04 -18198335.80 -18198335.56 0.0135 0.0035
 Moon -54538-09-03 19:40 J -18198335.93 -18198335.68 -18198335.44 0.0135 0.0042 *
 Moon -54537-09-06 21:21 J -18197966.64 -18197966.61 -18197966.54 0.0135 0.0133
 Mars -54528-02-09 07:40 J -18194889.37 -18194889.18 -18194888.98 0.0140 0.0099
 Mars -54526-01-10 00:28 J -18194189.61 -18194189.48 -18194189.32 0.0141 0.0120
 Venus -54524-11-14 06:28 J -18193150.27 -18193150.23 -18193150.16 0.0142 0.0138
 Venus -54523-06-28 14:52 J -18192924.01 -18192923.88 -18192923.72 0.0143 0.0103
 Venus -54522-02-09 23:30 J -18192697.69 -18192697.52 -18192697.32 0.0143 0.0068
 Venus -54522-09-24 08:37 J -18192471.34 -18192471.14 -18192470.93 0.0143 0.0032
 Venus -54521-05-07 17:45 J -18192244.97 -18192244.76 -18192244.55 0.0144 0.0004
 Venus -54521-12-20 03:06 J -18192018.57 -18192018.37 -18192018.17 0.0144 0.0041
 Venus -54520-08-03 12:28 J -18191792.15 -18191791.98 -18191791.79 0.0144 0.0078
 Venus -54519-03-17 22:18 J -18191565.69 -18191565.57 -18191565.43 0.0145 0.0115
 Mercury -54506-07-22 07:25 J -18186691.25 -18186691.19 -18186691.13 0.0146 0.0138

Mercury -54506-10-18 15:21 J -18186602.98 -18186602.86 -18186602.72 0.0146 0.0106

Mercury -54505-01-14 23:45 J -18186514.67 -18186514.51 -18186514.35 0.0146 0.0073

Mercury -54505-04-12 07:40 J -18186426.35 -18186426.18 -18186425.99 0.0146 0.0040

Mercury -54505-07-09 16:04 J -18186338.02 -18186337.83 -18186337.64 0.0146 0.0007

Mercury -54505-10-06 00:13 J -18186249.67 -18186249.49 -18186249.30 0.0146 0.0026

Mercury -54504-01-02 08:23 J -18186161.31 -18186161.15 -18186160.97 0.0146 0.0060

Mercury -54504-03-31 16:47 J -18186072.94 -18186072.80 -18186072.65 0.0146 0.0093

Mercury -54504-06-28 01:11 J -18185984.54 -18185984.45 -18185984.36 0.0146 0.0126

Earth -54499-02-25 02:09 J -18184281.57 -18184281.41 -18184281.23 0.0144 0.0108

Moon -54499-02-25 03:21 J -18184281.53 -18184281.36 -18184281.16 0.0144 0.0101 *

Moon -54498-03-02 03:06 J -18183911.61 -18183911.37 -18183911.12 0.0144 0.0014

Earth -54498-03-02 04:33 J -18183911.56 -18183911.31 -18183911.05 0.0144 0.0021 *

Mars -54488-07-28 18:13 J -18180110.04 -18180109.74 -18180109.42 0.0138 0.0060

Venus -54484-07-23 16:04 J -18178653.91 -18178653.83 -18178653.73 0.0136 0.0124

Venus -54483-03-07 01:11 J -18178427.60 -18178427.45 -18178427.28 0.0136 0.0092

Venus -54483-10-19 09:49 J -18178201.28 -18178201.09 -18178200.87 0.0135 0.0060

Venus -54482-06-02 18:28 J -18177974.94 -18177974.73 -18177974.50 0.0135 0.0028

Venus -54481-01-15 02:52 J -18177748.60 -18177748.38 -18177748.15 0.0135 0.0004

Venus -54481-08-28 11:01 J -18177522.25 -18177522.04 -18177521.82 0.0134 0.0035

Venus -54480-04-11 18:42 J -18177295.90 -18177295.72 -18177295.51 0.0134 0.0066

Venus -54480-11-24 02:23 J -18177069.55 -18177069.40 -18177069.24 0.0134 0.0096

Venus -54479-07-08 09:21 J -18176843.16 -18176843.11 -18176843.02 0.0134 0.0127

Mercury -54463-01-30 17:01 J -18171157.84 -18171157.79 -18171157.73 0.0132 0.0121

Mercury -54463-04-28 20:09 J -18171069.74 -18171069.66 -18171069.57 0.0132 0.0103

Mercury -54463-07-25 23:16 J -18170981.63 -18170981.53 -18170981.42 0.0132 0.0085

Mercury -54463-10-22 02:23 J -18170893.51 -18170893.40 -18170893.28 0.0132 0.0068

Mercury -54462-01-18 05:45 J -18170805.39 -18170805.26 -18170805.14 0.0132 0.0050

Mercury -54462-04-16 08:37 J -18170717.27 -18170717.14 -18170717.00 0.0132 0.0033

Mercury -54462-07-13 11:45 J -18170629.14 -18170629.01 -18170628.87 0.0132 0.0015

Mercury -54462-10-09 14:52 J -18170541.01 -18170540.88 -18170540.74 0.0133 0.0003

Mercury -54461-01-05 17:59 J -18170452.88 -18170452.75 -18170452.62 0.0133 0.0020
 Mercury -54461-04-02 21:06 J -18170364.75 -18170364.62 -18170364.50 0.0133 0.0038
 Mercury -54461-06-29 23:59 J -18170276.62 -18170276.50 -18170276.38 0.0133 0.0055
 Mercury -54461-09-26 03:06 J -18170188.48 -18170188.37 -18170188.26 0.0133 0.0073
 Mercury -54461-12-23 05:59 J -18170100.34 -18170100.25 -18170100.15 0.0133 0.0090
 Mercury -54460-03-21 08:52 J -18170012.20 -18170012.13 -18170012.04 0.0133 0.0108
 Mercury -54460-06-17 11:59 J -18169924.04 -18169924.00 -18169923.95 0.0133 0.0125
 Moon -54455-08-30 17:30 J -18168023.98 -18168023.77 -18168023.54 0.0135 0.0059
 Earth -54455-08-30 19:25 J -18168023.89 -18168023.69 -18168023.45 0.0135 0.0064 *
 Earth -54454-09-04 02:23 J -18167654.63 -18167654.40 -18167654.15 0.0135 0.0040
 Moon -54454-09-04 04:18 J -18167654.56 -18167654.32 -18167654.06 0.0135 0.0034 *
 Mars -54444-10-04 15:35 J -18163971.12 -18163970.85 -18163970.57 0.0140 0.0021
 Venus -54439-02-25 23:30 J -18162365.63 -18162365.52 -18162365.40 0.0143 0.0118
 Venus -54439-10-10 08:09 J -18162139.33 -18162139.16 -18162138.99 0.0143 0.0083
 Venus -54438-05-24 16:33 J -18161913.00 -18161912.81 -18161912.60 0.0143 0.0048
 Venus -54437-01-06 01:40 J -18161686.64 -18161686.43 -18161686.22 0.0144 0.0012
 Venus -54437-08-19 11:01 J -18161460.25 -18161460.04 -18161459.83 0.0144 0.0024
 Venus -54436-04-02 20:23 J -18161233.84 -18161233.65 -18161233.45 0.0144 0.0060
 Venus -54436-11-15 05:59 J -18161007.40 -18161007.25 -18161007.09 0.0144 0.0097
 Venus -54435-06-29 15:35 J -18160780.91 -18160780.85 -18160780.76 0.0145 0.0134
 Mercury -54422-08-11 14:23 J -18155989.96 -18155989.90 -18155989.80 0.0146 0.0131
 Mercury -54422-11-07 22:47 J -18155901.68 -18155901.55 -18155901.41 0.0146 0.0098
 Mercury -54421-02-04 06:42 J -18155813.37 -18155813.22 -18155813.04 0.0146 0.0066
 Mercury -54421-05-02 15:06 J -18155725.05 -18155724.87 -18155724.68 0.0146 0.0032
 Mercury -54421-07-29 23:16 J -18155636.71 -18155636.53 -18155636.34 0.0146 0.0004
 Mercury -54421-10-26 07:40 J -18155548.37 -18155548.18 -18155548.00 0.0146 0.0034
 Mercury -54420-01-22 15:49 J -18155460.00 -18155459.84 -18155459.67 0.0146 0.0067
 Mercury -54420-04-20 23:59 J -18155371.63 -18155371.50 -18155371.36 0.0146 0.0101
 Mercury -54420-07-18 08:23 J -18155283.22 -18155283.15 -18155283.07 0.0146 0.0134
 Earth -54415-02-25 11:59 J -18153600.16 -18153600.00 -18153599.81 0.0144 0.0104

Moon -54415-02-25 12:42 J -18153600.14 -18153599.97 -18153599.80 0.0144 0.0109 *
 Moon -54414-03-02 12:57 J -18153230.20 -18153229.96 -18153229.71 0.0144 0.0033
 Earth -54414-03-02 14:37 J -18153230.15 -18153229.89 -18153229.64 0.0144 0.0026 *
 Jupiter -54412-03-24 02:23 J -18152477.87 -18152477.40 -18152476.90 0.0143 0.0057
 Mars -54405-04-17 13:54 J -18149896.11 -18149895.92 -18149895.70 0.0139 0.0112
 Venus -54400-11-04 08:37 J -18147869.27 -18147869.14 -18147869.00 0.0136 0.0106
 Venus -54399-06-18 17:16 J -18147642.95 -18147642.78 -18147642.58 0.0135 0.0074
 Venus -54398-01-31 02:09 J -18147416.62 -18147416.41 -18147416.19 0.0135 0.0042
 Venus -54398-09-14 10:47 J -18147190.27 -18147190.05 -18147189.83 0.0135 0.0011
 Venus -54397-04-27 18:57 J -18146963.93 -18146963.71 -18146963.49 0.0135 0.0021
 Venus -54397-12-10 02:52 J -18146737.59 -18146737.38 -18146737.18 0.0134 0.0052
 Venus -54396-07-24 10:18 J -18146511.24 -18146511.07 -18146510.89 0.0134 0.0082
 Venus -54395-03-07 17:59 J -18146284.86 -18146284.75 -18146284.63 0.0134 0.0112
 Mercury -54379-02-19 23:59 J -18140456.56 -18140456.50 -18140456.43 0.0132 0.0117
 Mercury -54379-05-19 03:06 J -18140368.45 -18140368.37 -18140368.28 0.0132 0.0099
 Mercury -54379-08-15 06:28 J -18140280.34 -18140280.23 -18140280.13 0.0132 0.0082
 Mercury -54379-11-11 09:21 J -18140192.22 -18140192.11 -18140191.99 0.0132 0.0064
 Mercury -54378-02-07 12:28 J -18140104.10 -18140103.98 -18140103.85 0.0132 0.0047
 Mercury -54378-05-06 15:35 J -18140015.98 -18140015.85 -18140015.71 0.0132 0.0029
 Mercury -54378-08-02 18:42 J -18139927.85 -18139927.72 -18139927.58 0.0132 0.0011
 Mercury -54378-10-29 21:49 J -18139839.73 -18139839.59 -18139839.46 0.0133 0.0006
 Mercury -54377-01-26 00:57 J -18139751.60 -18139751.46 -18139751.33 0.0133 0.0024
 Mercury -54377-04-23 03:49 J -18139663.46 -18139663.34 -18139663.21 0.0133 0.0042
 Mercury -54377-07-20 06:57 J -18139575.33 -18139575.21 -18139575.09 0.0133 0.0059
 Mercury -54377-10-16 10:04 J -18139487.19 -18139487.08 -18139486.97 0.0133 0.0076
 Mercury -54376-01-12 12:57 J -18139399.05 -18139398.96 -18139398.86 0.0133 0.0094
 Mercury -54376-04-10 16:04 J -18139310.90 -18139310.83 -18139310.76 0.0133 0.0111
 Mercury -54376-07-07 18:57 J -18139222.74 -18139222.71 -18139222.67 0.0133 0.0128
 Moon -54371-08-31 03:35 J -18137342.55 -18137342.35 -18137342.12 0.0135 0.0064
 Earth -54371-08-31 04:47 J -18137342.51 -18137342.30 -18137342.06 0.0135 0.0060 *

Earth	-54370-09-04 11:45 J	-18136973.24	-18136973.01	-18136972.76	0.0135	0.0044
Moon	-54370-09-04 13:54 J	-18136973.16	-18136972.92	-18136972.68	0.0135	0.0050 *
Mars	-54359-05-30 00:13 J	-18133052.73	-18133052.49	-18133052.22	0.0141	0.0059
Venus	-54356-10-26 07:40 J	-18131807.23	-18131807.18	-18131807.09	0.0143	0.0134
Venus	-54355-06-09 16:18 J	-18131580.96	-18131580.82	-18131580.66	0.0143	0.0099
Venus	-54354-01-22 00:57 J	-18131354.64	-18131354.46	-18131354.27	0.0143	0.0064
Venus	-54354-09-05 10:04 J	-18131128.29	-18131128.08	-18131127.87	0.0144	0.0029
Venus	-54353-04-18 18:57 J	-18130901.92	-18130901.71	-18130901.49	0.0144	0.0008
Venus	-54353-12-01 04:18 J	-18130675.52	-18130675.32	-18130675.12	0.0144	0.0043
Venus	-54352-07-15 13:54 J	-18130449.10	-18130448.92	-18130448.75	0.0144	0.0080
Venus	-54351-02-26 23:16 J	-18130222.64	-18130222.53	-18130222.39	0.0145	0.0117
Mercury	-54338-08-31 22:18 J	-18125288.66	-18125288.57	-18125288.45	0.0146	0.0121
Mercury	-54338-11-28 06:42 J	-18125200.36	-18125200.22	-18125200.07	0.0146	0.0088
Mercury	-54337-02-24 14:52 J	-18125112.05	-18125111.88	-18125111.70	0.0146	0.0055
Mercury	-54337-05-22 23:01 J	-18125023.72	-18125023.54	-18125023.35	0.0146	0.0022
Mercury	-54337-08-19 07:11 J	-18124935.38	-18124935.20	-18124935.01	0.0146	0.0011
Mercury	-54337-11-15 15:21 J	-18124847.03	-18124846.86	-18124846.67	0.0146	0.0045
Mercury	-54336-02-11 23:45 J	-18124758.67	-18124758.51	-18124758.35	0.0146	0.0078
Mercury	-54336-05-11 07:54 J	-18124670.28	-18124670.17	-18124670.04	0.0146	0.0111
Mercury	-54336-08-07 16:18 J	-18124581.84	-18124581.82	-18124581.79	0.0146	0.0144
Earth	-54331-02-26 00:13 J	-18122918.67	-18122918.49	-18122918.28	0.0144	0.0096
Moon	-54331-02-26 00:28 J	-18122918.67	-18122918.48	-18122918.26	0.0144	0.0089 *
Moon	-54330-03-03 02:23 J	-18122548.64	-18122548.40	-18122548.15	0.0144	0.0027
Earth	-54330-03-03 02:52 J	-18122548.63	-18122548.38	-18122548.13	0.0144	0.0034 *
Mars	-54321-12-12 21:49 J	-18118975.93	-18118975.59	-18118975.25	0.0138	0.0012
Venus	-54316-07-04 16:33 J	-18117310.90	-18117310.81	-18117310.69	0.0136	0.0120
Venus	-54315-02-16 01:54 J	-18117084.58	-18117084.42	-18117084.24	0.0136	0.0088
Venus	-54315-09-30 10:33 J	-18116858.25	-18116858.06	-18116857.84	0.0135	0.0056
Venus	-54314-05-14 19:25 J	-18116631.91	-18116631.69	-18116631.47	0.0135	0.0024
Venus	-54314-12-27 03:35 J	-18116405.57	-18116405.35	-18116405.13	0.0135	0.0007

Venus -54313-08-09 11:30 J -18116179.23 -18116179.02 -18116178.80 0.0134 0.0038
 Venus -54312-03-23 19:40 J -18115952.87 -18115952.68 -18115952.49 0.0134 0.0069
 Venus -54312-11-05 02:37 J -18115726.52 -18115726.39 -18115726.22 0.0134 0.0099
 Venus -54311-06-19 09:49 J -18115500.13 -18115500.09 -18115500.01 0.0134 0.0129
 Mercury -54296-12-14 04:04 J -18109843.35 -18109843.33 -18109843.31 0.0132 0.0130
 Mercury -54295-03-12 06:57 J -18109755.27 -18109755.21 -18109755.13 0.0132 0.0113
 Mercury -54295-06-08 10:04 J -18109667.16 -18109667.08 -18109666.98 0.0132 0.0096
 Mercury -54295-09-04 13:25 J -18109579.05 -18109578.94 -18109578.83 0.0132 0.0077
 Mercury -54295-12-01 16:33 J -18109490.93 -18109490.81 -18109490.69 0.0132 0.0060
 Mercury -54294-02-27 19:40 J -18109402.81 -18109402.68 -18109402.55 0.0132 0.0042
 Mercury -54294-05-26 22:47 J -18109314.68 -18109314.55 -18109314.42 0.0132 0.0025
 Mercury -54294-08-23 01:54 J -18109226.56 -18109226.42 -18109226.29 0.0132 0.0007
 Mercury -54294-11-19 04:47 J -18109138.43 -18109138.30 -18109138.16 0.0133 0.0012
 Mercury -54293-02-15 07:54 J -18109050.30 -18109050.17 -18109050.04 0.0133 0.0028
 Mercury -54293-05-13 11:01 J -18108962.17 -18108962.04 -18108961.91 0.0133 0.0046
 Mercury -54293-08-09 14:09 J -18108874.03 -18108873.91 -18108873.80 0.0133 0.0063
 Mercury -54293-11-05 17:01 J -18108785.89 -18108785.79 -18108785.68 0.0133 0.0081
 Mercury -54292-02-01 20:09 J -18108697.75 -18108697.66 -18108697.57 0.0133 0.0098
 Mercury -54292-04-30 23:16 J -18108609.60 -18108609.53 -18108609.47 0.0133 0.0115
 Mercury -54292-07-28 02:09 J -18108521.41 -18108521.41 -18108521.40 0.0133 0.0133
 Moon -54287-08-31 14:09 J -18106661.13 -18106660.91 -18106660.68 0.0135 0.0051
 Earth -54287-08-31 15:06 J -18106661.09 -18106660.87 -18106660.63 0.0135 0.0055 *
 Earth -54286-09-04 21:49 J -18106291.81 -18106291.59 -18106291.34 0.0135 0.0049
 Moon -54286-09-04 22:47 J -18106291.79 -18106291.55 -18106291.30 0.0135 0.0043 *
 Mars -54276-02-21 15:35 J -18102834.06 -18102833.85 -18102833.61 0.0140 0.0082
 Mars -54274-01-22 11:01 J -18102134.06 -18102134.04 -18102133.98 0.0141 0.0140
 Venus -54271-02-07 00:28 J -18101022.59 -18101022.48 -18101022.34 0.0143 0.0115
 Venus -54271-09-21 09:06 J -18100796.28 -18100796.12 -18100795.93 0.0143 0.0080
 Venus -54270-05-05 17:59 J -18100569.95 -18100569.75 -18100569.55 0.0143 0.0045
 Venus -54270-12-18 02:52 J -18100343.59 -18100343.38 -18100343.17 0.0144 0.0010

Venus -54269-07-31 12:13 J -18100117.20 -18100116.99 -18100116.78 0.0144 0.0026

Venus -54268-03-14 21:21 J -18099890.79 -18099890.61 -18099890.41 0.0144 0.0063

Venus -54268-10-27 07:11 J -18099664.35 -18099664.20 -18099664.04 0.0145 0.0099

Venus -54267-06-10 17:01 J -18099437.86 -18099437.79 -18099437.71 0.0145 0.0135

Mercury -54254-06-24 22:04 J -18094675.60 -18094675.58 -18094675.54 0.0146 0.0144

Mercury -54254-09-21 05:59 J -18094587.35 -18094587.25 -18094587.12 0.0146 0.0112

Mercury -54254-12-18 14:23 J -18094499.06 -18094498.90 -18094498.74 0.0146 0.0078

Mercury -54253-03-15 22:33 J -18094410.74 -18094410.56 -18094410.38 0.0146 0.0046

Mercury -54253-06-12 06:42 J -18094322.41 -18094322.22 -18094322.03 0.0146 0.0013

Mercury -54253-09-08 14:52 J -18094234.07 -18094233.88 -18094233.69 0.0146 0.0020

Mercury -54253-12-05 23:01 J -18094145.71 -18094145.54 -18094145.36 0.0146 0.0054

Mercury -54252-03-04 07:11 J -18094057.34 -18094057.20 -18094057.04 0.0146 0.0087

Mercury -54252-05-31 15:35 J -18093968.95 -18093968.85 -18093968.74 0.0146 0.0120

Moon -54247-02-26 11:16 J -18092237.21 -18092237.03 -18092236.80 0.0144 0.0094

Earth -54247-02-26 12:13 J -18092237.18 -18092236.99 -18092236.77 0.0144 0.0088 *

Moon -54246-03-03 14:23 J -18091867.13 -18091866.90 -18091866.67 0.0144 0.0049

Earth -54246-03-03 14:37 J -18091867.12 -18091866.89 -18091866.63 0.0144 0.0042 *

Mars -54236-08-09 05:59 J -18088055.49 -18088055.25 -18088054.96 0.0138 0.0088

Venus -54232-03-04 01:25 J -18086752.47 -18086752.44 -18086752.38 0.0136 0.0133

Venus -54232-10-16 10:47 J -18086526.19 -18086526.05 -18086525.90 0.0136 0.0101

Venus -54231-05-30 19:25 J -18086299.87 -18086299.69 -18086299.49 0.0135 0.0070

Venus -54230-01-12 04:04 J -18086073.53 -18086073.33 -18086073.10 0.0135 0.0038

Venus -54230-08-26 12:42 J -18085847.19 -18085846.97 -18085846.74 0.0135 0.0006

Venus -54229-04-08 20:52 J -18085620.85 -18085620.63 -18085620.41 0.0135 0.0025

Venus -54229-11-21 04:33 J -18085394.50 -18085394.31 -18085394.10 0.0134 0.0055

Venus -54228-07-05 12:13 J -18085168.16 -18085167.99 -18085167.81 0.0134 0.0085

Venus -54227-02-16 19:25 J -18084941.79 -18084941.69 -18084941.56 0.0134 0.0115

Mercury -54211-01-03 10:47 J -18079142.07 -18079142.05 -18079142.00 0.0132 0.0127

Mercury -54211-04-01 13:54 J -18079053.98 -18079053.92 -18079053.83 0.0132 0.0109

Mercury -54211-06-28 17:16 J -18078965.88 -18078965.78 -18078965.68 0.0132 0.0091

Mercury -54211-09-24 20:23 J -18078877.76 -18078877.65 -18078877.54 0.0132 0.0074
 Mercury -54211-12-21 23:30 J -18078789.64 -18078789.52 -18078789.40 0.0132 0.0056
 Mercury -54210-03-20 02:37 J -18078701.52 -18078701.39 -18078701.26 0.0132 0.0038
 Mercury -54210-06-16 05:45 J -18078613.39 -18078613.26 -18078613.13 0.0132 0.0021
 Mercury -54210-09-12 08:52 J -18078525.27 -18078525.13 -18078525.00 0.0132 0.0004
 Mercury -54210-12-09 11:45 J -18078437.14 -18078437.01 -18078436.87 0.0132 0.0015
 Mercury -54209-03-06 14:52 J -18078349.01 -18078348.88 -18078348.75 0.0132 0.0032
 Mercury -54209-06-02 17:59 J -18078260.87 -18078260.75 -18078260.63 0.0133 0.0049
 Mercury -54209-08-29 21:06 J -18078172.74 -18078172.62 -18078172.51 0.0133 0.0067
 Mercury -54209-11-25 23:59 J -18078084.60 -18078084.50 -18078084.39 0.0133 0.0084
 Mercury -54208-02-22 02:52 J -18077996.45 -18077996.38 -18077996.28 0.0133 0.0102
 Mercury -54208-05-21 05:59 J -18077908.30 -18077908.25 -18077908.19 0.0133 0.0119
 Earth -54203-09-01 00:13 J -18075979.72 -18075979.49 -18075979.25 0.0135 0.0051
 Moon -54203-08-31 23:59 J -18075979.71 -18075979.50 -18075979.27 0.0135 0.0054 *
 Earth -54202-09-05 06:42 J -18075610.45 -18075610.22 -18075609.98 0.0135 0.0052
 Moon -54202-09-05 07:25 J -18075610.42 -18075610.19 -18075609.95 0.0135 0.0058 *
 Mars -54192-10-16 23:01 J -18071915.82 -18071915.54 -18071915.26 0.0140 0.0004
 Venus -54188-10-07 08:09 J -18070464.24 -18070464.16 -18070464.08 0.0143 0.0131
 Venus -54187-05-21 16:18 J -18070237.97 -18070237.82 -18070237.66 0.0143 0.0097
 Venus -54186-01-03 00:57 J -18070011.65 -18070011.46 -18070011.27 0.0143 0.0063
 Venus -54186-08-17 09:49 J -18069785.30 -18069785.09 -18069784.88 0.0144 0.0028
 Venus -54185-03-30 18:57 J -18069558.92 -18069558.71 -18069558.50 0.0144 0.0008
 Venus -54185-11-12 03:49 J -18069332.53 -18069332.34 -18069332.13 0.0144 0.0045
 Venus -54184-06-26 13:11 J -18069106.11 -18069105.95 -18069105.76 0.0145 0.0081
 Venus -54183-02-07 23:01 J -18068879.65 -18068879.54 -18068879.40 0.0145 0.0117
 Mercury -54170-07-15 05:16 J -18063974.34 -18063974.28 -18063974.21 0.0147 0.0136
 Mercury -54170-10-11 13:25 J -18063886.07 -18063885.94 -18063885.81 0.0146 0.0104
 Mercury -54169-01-07 21:21 J -18063797.76 -18063797.61 -18063797.44 0.0146 0.0072
 Mercury -54169-04-05 05:45 J -18063709.44 -18063709.26 -18063709.08 0.0146 0.0038
 Mercury -54169-07-02 13:54 J -18063621.11 -18063620.92 -18063620.73 0.0146 0.0005

Mercury -54169-09-28 22:04 J -18063532.76 -18063532.58 -18063532.39 0.0146 0.0028

Mercury -54169-12-26 06:13 J -18063444.41 -18063444.24 -18063444.06 0.0146 0.0061

Mercury -54168-03-24 14:37 J -18063356.03 -18063355.89 -18063355.75 0.0146 0.0095

Mercury -54168-06-20 22:47 J -18063267.63 -18063267.55 -18063267.45 0.0146 0.0128

Moon -54163-02-26 22:04 J -18061555.80 -18061555.58 -18061555.34 0.0144 0.0076

Earth -54163-02-26 23:01 J -18061555.74 -18061555.54 -18061555.32 0.0144 0.0082 *

Earth -54162-03-04 01:40 J -18061185.67 -18061185.43 -18061185.18 0.0144 0.0048

Moon -54162-03-04 02:23 J -18061185.64 -18061185.40 -18061185.16 0.0144 0.0041 *

Mars -54153-04-29 07:11 J -18057841.45 -18057841.20 -18057840.90 0.0139 0.0082

Venus -54148-06-15 19:25 J -18055967.80 -18055967.69 -18055967.56 0.0136 0.0114

Venus -54147-01-28 04:18 J -18055741.48 -18055741.32 -18055741.13 0.0136 0.0083

Venus -54147-09-11 13:11 J -18055515.15 -18055514.95 -18055514.73 0.0135 0.0051

Venus -54146-04-25 21:49 J -18055288.81 -18055288.59 -18055288.37 0.0135 0.0020

Venus -54146-12-08 05:59 J -18055062.47 -18055062.25 -18055062.02 0.0135 0.0011

Venus -54145-07-21 13:54 J -18054836.13 -18054835.92 -18054835.70 0.0135 0.0042

Venus -54144-03-04 21:35 J -18054609.78 -18054609.60 -18054609.40 0.0134 0.0072

Venus -54144-10-17 04:47 J -18054383.42 -18054383.30 -18054383.13 0.0134 0.0102

Venus -54143-05-31 12:13 J -18054157.02 -18054156.99 -18054156.94 0.0134 0.0131

Mercury -54127-01-23 17:59 J -18048440.79 -18048440.75 -18048440.69 0.0132 0.0122

Mercury -54127-04-21 21:21 J -18048352.69 -18048352.61 -18048352.53 0.0132 0.0104

Mercury -54127-07-19 00:28 J -18048264.58 -18048264.48 -18048264.38 0.0132 0.0087

Mercury -54127-10-15 03:35 J -18048176.46 -18048176.35 -18048176.23 0.0132 0.0069

Mercury -54126-01-11 06:42 J -18048088.34 -18048088.22 -18048088.09 0.0132 0.0051

Mercury -54126-04-09 09:49 J -18048000.22 -18048000.09 -18047999.96 0.0132 0.0034

Mercury -54126-07-06 12:57 J -18047912.10 -18047911.96 -18047911.83 0.0132 0.0016

Mercury -54126-10-02 16:04 J -18047823.97 -18047823.83 -18047823.70 0.0132 0.0004

Mercury -54126-12-29 18:57 J -18047735.84 -18047735.71 -18047735.57 0.0132 0.0019

Mercury -54125-03-26 22:04 J -18047647.71 -18047647.58 -18047647.45 0.0132 0.0036

Mercury -54125-06-23 01:11 J -18047559.57 -18047559.45 -18047559.33 0.0132 0.0054

Mercury -54125-09-19 04:04 J -18047471.44 -18047471.33 -18047471.21 0.0132 0.0072

Mercury -54125-12-16 07:11 J -18047383.30 -18047383.20 -18047383.10 0.0133 0.0089
 Mercury -54124-03-14 10:18 J -18047295.15 -18047295.07 -18047294.99 0.0133 0.0106
 Mercury -54124-06-10 13:11 J -18047206.99 -18047206.95 -18047206.90 0.0133 0.0123
 Earth -54119-09-01 10:04 J -18045298.31 -18045298.08 -18045297.84 0.0134 0.0047
 Moon -54119-09-01 10:04 J -18045298.30 -18045298.08 -18045297.84 0.0134 0.0043 *
 Moon -54118-09-05 16:04 J -18044929.06 -18044928.83 -18044928.58 0.0135 0.0052
 Earth -54118-09-05 16:18 J -18044929.03 -18044928.82 -18044928.58 0.0135 0.0057 *
 Mars -54107-06-11 07:25 J -18040997.42 -18040997.19 -18040996.95 0.0141 0.0075
 Venus -54103-01-18 23:30 J -18039679.63 -18039679.52 -18039679.38 0.0143 0.0114
 Venus -54103-09-02 08:23 J -18039453.33 -18039453.15 -18039452.98 0.0143 0.0079
 Venus -54102-04-16 16:47 J -18039227.00 -18039226.80 -18039226.59 0.0143 0.0045
 Venus -54102-11-29 01:40 J -18039000.64 -18039000.43 -18039000.22 0.0144 0.0010
 Venus -54101-07-12 10:33 J -18038774.26 -18038774.06 -18038773.84 0.0144 0.0026
 Venus -54100-02-23 19:54 J -18038547.85 -18038547.67 -18038547.47 0.0144 0.0062
 Venus -54100-10-08 05:30 J -18038321.41 -18038321.27 -18038321.10 0.0145 0.0098
 Venus -54099-05-22 15:21 J -18038094.92 -18038094.86 -18038094.77 0.0145 0.0134
 Mercury -54086-08-04 11:45 J -18033273.08 -18033273.01 -18033272.92 0.0147 0.0132
 Mercury -54086-10-31 20:09 J -18033184.80 -18033184.66 -18033184.53 0.0146 0.0099
 Mercury -54085-01-28 04:04 J -18033096.49 -18033096.33 -18033096.16 0.0146 0.0066
 Mercury -54085-04-25 12:13 J -18033008.17 -18033007.99 -18033007.80 0.0146 0.0033
 Mercury -54085-07-22 20:37 J -18032919.83 -18032919.64 -18032919.46 0.0146 0.0003
 Mercury -54085-10-19 04:47 J -18032831.48 -18032831.30 -18032831.12 0.0146 0.0033
 Mercury -54084-01-15 12:57 J -18032743.12 -18032742.96 -18032742.79 0.0146 0.0067
 Mercury -54084-04-13 21:06 J -18032654.75 -18032654.62 -18032654.47 0.0146 0.0100
 Mercury -54084-07-11 05:45 J -18032566.34 -18032566.26 -18032566.19 0.0146 0.0133
 Moon -54079-02-27 05:30 J -18030874.47 -18030874.27 -18030874.04 0.0144 0.0083
 Earth -54079-02-27 07:25 J -18030874.38 -18030874.19 -18030873.95 0.0144 0.0080 *
 Earth -54078-03-04 10:04 J -18030504.31 -18030504.08 -18030503.83 0.0144 0.0052
 Moon -54078-03-04 10:47 J -18030504.27 -18030504.05 -18030503.81 0.0144 0.0059 *
 Mars -54069-12-24 11:59 J -18026921.34 -18026921.00 -18026920.65 0.0138 0.0016

Venus	-54064-02-13 02:52 J	-18025409.43	-18025409.38	-18025409.29	0.0136	0.0128
Venus	-54064-09-27 12:28 J	-18025183.14	-18025182.98	-18025182.82	0.0136	0.0096
Venus	-54063-05-11 21:21 J	-18024956.81	-18024956.61	-18024956.41	0.0136	0.0065
Venus	-54063-12-24 05:59 J	-18024730.47	-18024730.25	-18024730.04	0.0135	0.0034
Venus	-54062-08-07 14:09 J	-18024504.13	-18024503.91	-18024503.68	0.0135	0.0004
Venus	-54061-03-20 22:33 J	-18024277.78	-18024277.56	-18024277.34	0.0135	0.0028
Venus	-54061-11-02 06:13 J	-18024051.43	-18024051.24	-18024051.03	0.0134	0.0058
Venus	-54060-06-16 13:40 J	-18023825.09	-18023824.93	-18023824.75	0.0134	0.0088
Venus	-54059-01-28 20:52 J	-18023598.71	-18023598.63	-18023598.50	0.0134	0.0118
Mercury	-54043-02-13 01:11 J	-18017739.50	-18017739.45	-18017739.38	0.0132	0.0118
Mercury	-54043-05-12 04:18 J	-18017651.40	-18017651.32	-18017651.23	0.0132	0.0100
Mercury	-54043-08-08 07:40 J	-18017563.29	-18017563.18	-18017563.08	0.0132	0.0082
Mercury	-54043-11-04 10:33 J	-18017475.17	-18017475.06	-18017474.93	0.0132	0.0065
Mercury	-54042-01-31 13:40 J	-18017387.05	-18017386.93	-18017386.80	0.0132	0.0047
Mercury	-54042-04-29 16:47 J	-18017298.93	-18017298.80	-18017298.66	0.0132	0.0030
Mercury	-54042-07-26 19:54 J	-18017210.80	-18017210.67	-18017210.53	0.0132	0.0013
Mercury	-54042-10-22 23:01 J	-18017122.67	-18017122.54	-18017122.40	0.0132	0.0006
Mercury	-54041-01-19 02:09 J	-18017034.54	-18017034.41	-18017034.28	0.0132	0.0023
Mercury	-54041-04-16 05:16 J	-18016946.41	-18016946.28	-18016946.15	0.0132	0.0041
Mercury	-54041-07-13 08:09 J	-18016858.28	-18016858.16	-18016858.03	0.0132	0.0058
Mercury	-54041-10-09 11:16 J	-18016770.14	-18016770.03	-18016769.92	0.0132	0.0076
Mercury	-54040-01-05 14:23 J	-18016682.00	-18016681.90	-18016681.81	0.0132	0.0093
Mercury	-54040-04-03 17:16 J	-18016593.85	-18016593.78	-18016593.70	0.0133	0.0110
Mercury	-54040-06-30 20:09 J	-18016505.68	-18016505.66	-18016505.62	0.0133	0.0128
Earth	-54035-09-01 19:25 J	-18014616.92	-18014616.69	-18014616.44	0.0134	0.0043
Moon	-54035-09-01 20:23 J	-18014616.87	-18014616.65	-18014616.41	0.0134	0.0045 *
Moon	-54034-09-06 01:11 J	-18014247.66	-18014247.45	-18014247.21	0.0135	0.0066
Earth	-54034-09-06 01:25 J	-18014247.64	-18014247.44	-18014247.20	0.0135	0.0061 *
Mars	-54024-03-05 21:06 J	-18010778.86	-18010778.62	-18010778.37	0.0140	0.0068
Venus	-54020-09-18 06:57 J	-18009121.27	-18009121.21	-18009121.10	0.0143	0.0130

Venus	-54019-05-02 15:21 J	-18008895.00	-18008894.86	-18008894.69	0.0143	0.0096
Venus	-54019-12-14 23:59 J	-18008668.69	-18008668.50	-18008668.31	0.0143	0.0062
Venus	-54018-07-29 08:52 J	-18008442.34	-18008442.13	-18008441.93	0.0144	0.0027
Venus	-54017-03-11 17:45 J	-18008215.97	-18008215.76	-18008215.55	0.0144	0.0009
Venus	-54017-10-24 02:37 J	-18007989.58	-18007989.39	-18007989.18	0.0144	0.0044
Venus	-54016-06-07 12:13 J	-18007763.16	-18007762.99	-18007762.81	0.0144	0.0080
Venus	-54015-01-19 21:35 J	-18007536.71	-18007536.60	-18007536.46	0.0145	0.0116
Mercury	-54002-08-24 18:42 J	-18002571.81	-18002571.72	-18002571.62	0.0147	0.0126
Mercury	-54002-11-21 02:37 J	-18002483.52	-18002483.39	-18002483.24	0.0147	0.0094
Mercury	-54001-02-17 10:47 J	-18002395.21	-18002395.05	-18002394.87	0.0146	0.0061
Mercury	-54001-05-15 18:57 J	-18002306.89	-18002306.71	-18002306.52	0.0146	0.0028
Mercury	-54001-08-12 03:21 J	-18002218.55	-18002218.36	-18002218.17	0.0146	0.0006
Mercury	-54001-11-08 11:30 J	-18002130.20	-18002130.02	-18002129.84	0.0146	0.0039

54TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 54th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-54000-02-04 19:40 J	-18002041.84	-18002041.68	-18002041.51	0.0146	0.0073		
Mercury	-54000-05-04 03:49 J	-18001953.46	-18001953.34	-18001953.20	0.0146	0.0106		
Mercury	-54000-07-31 12:28 J	-18001865.03	-18001864.98	-18001864.93	0.0146	0.0139		
Moon	-53995-02-27 14:23 J	-18000193.12	-18000192.90	-18000192.66	0.0144	0.0070		
Earth	-53995-02-27 16:33 J	-18000193.02	-18000192.81	-18000192.58	0.0144	0.0075	*	

Earth	-53994-03-04 18:57 J	-17999822.93	-17999822.71	-17999822.46	0.0144	0.0056
Moon	-53994-03-04 20:52 J	-17999822.85	-17999822.63	-17999822.38	0.0144	0.0049 *
Mars	-53984-08-20 15:06 J	-17996001.04	-17996000.87	-17996000.65	0.0138	0.0113
Venus	-53980-05-27 19:40 J	-17994624.80	-17994624.68	-17994624.54	0.0136	0.0110
Venus	-53979-01-09 04:47 J	-17994398.47	-17994398.30	-17994398.11	0.0136	0.0079
Venus	-53979-08-23 13:40 J	-17994172.13	-17994171.93	-17994171.71	0.0135	0.0047
Venus	-53978-04-06 22:18 J	-17993945.79	-17993945.57	-17993945.34	0.0135	0.0016
Venus	-53978-11-19 06:28 J	-17993719.44	-17993719.23	-17993719.00	0.0135	0.0015
Venus	-53977-07-02 14:37 J	-17993493.10	-17993492.89	-17993492.68	0.0135	0.0045
Venus	-53976-02-13 22:33 J	-17993266.75	-17993266.56	-17993266.38	0.0134	0.0075
Venus	-53976-09-28 05:59 J	-17993040.38	-17993040.25	-17993040.11	0.0134	0.0104
Venus	-53975-05-12 13:11 J	-17992813.95	-17992813.95	-17992813.92	0.0134	0.0134
Mercury	-53960-12-07 05:30 J	-17987126.29	-17987126.27	-17987126.25	0.0132	0.0130
Mercury	-53959-03-05 08:23 J	-17987038.21	-17987038.15	-17987038.07	0.0132	0.0113
Mercury	-53959-06-01 11:30 J	-17986950.10	-17986950.02	-17986949.92	0.0132	0.0095
Mercury	-53959-08-28 14:52 J	-17986861.99	-17986861.88	-17986861.77	0.0132	0.0077
Mercury	-53959-11-24 17:59 J	-17986773.87	-17986773.75	-17986773.63	0.0132	0.0060
Mercury	-53958-02-20 21:06 J	-17986685.75	-17986685.62	-17986685.49	0.0132	0.0042
Mercury	-53958-05-20 00:13 J	-17986597.62	-17986597.49	-17986597.36	0.0132	0.0024
Mercury	-53958-08-16 03:21 J	-17986509.50	-17986509.36	-17986509.23	0.0132	0.0007
Mercury	-53958-11-12 06:28 J	-17986421.37	-17986421.23	-17986421.10	0.0132	0.0011
Mercury	-53957-02-08 09:35 J	-17986333.24	-17986333.10	-17986332.97	0.0132	0.0029
Mercury	-53957-05-06 12:28 J	-17986245.10	-17986244.98	-17986244.85	0.0132	0.0046
Mercury	-53957-08-02 15:35 J	-17986156.97	-17986156.85	-17986156.73	0.0132	0.0063
Mercury	-53957-10-29 18:42 J	-17986068.83	-17986068.72	-17986068.62	0.0132	0.0081
Mercury	-53956-01-25 21:35 J	-17985980.68	-17985980.60	-17985980.51	0.0133	0.0098
Mercury	-53956-04-24 00:28 J	-17985892.53	-17985892.48	-17985892.41	0.0133	0.0116
Earth	-53951-09-02 06:42 J	-17983935.46	-17983935.22	-17983934.98	0.0134	0.0037
Moon	-53951-09-02 07:40 J	-17983935.41	-17983935.18	-17983934.94	0.0134	0.0034 *
Moon	-53950-09-06 11:16 J	-17983566.25	-17983566.03	-17983565.79	0.0135	0.0062

Earth	-53950-09-06 12:57 J	-17983566.17	-17983565.96	-17983565.73	0.0135	0.0066 *
Mars	-53940-10-29 07:54 J	-17979860.45	-17979860.17	-17979859.89	0.0140	0.0012
Venus	-53936-12-31 00:28 J	-17978336.61	-17978336.48	-17978336.34	0.0143	0.0110
Venus	-53935-08-14 08:52 J	-17978110.30	-17978110.13	-17978109.95	0.0143	0.0076
Venus	-53934-03-28 17:16 J	-17977883.97	-17977883.78	-17977883.57	0.0143	0.0043
Venus	-53934-11-10 02:09 J	-17977657.62	-17977657.41	-17977657.19	0.0144	0.0008
Venus	-53933-06-23 11:16 J	-17977431.24	-17977431.03	-17977430.82	0.0144	0.0028
Venus	-53932-02-04 20:37 J	-17977204.83	-17977204.64	-17977204.45	0.0144	0.0063
Venus	-53932-09-19 05:59 J	-17976978.39	-17976978.25	-17976978.08	0.0144	0.0100
Venus	-53931-05-03 16:04 J	-17976751.90	-17976751.83	-17976751.75	0.0145	0.0135
Mercury	-53918-09-14 02:09 J	-17971870.51	-17971870.41	-17971870.30	0.0147	0.0118
Mercury	-53918-12-11 10:04 J	-17971782.22	-17971782.08	-17971781.92	0.0147	0.0085
Mercury	-53917-03-08 18:13 J	-17971693.91	-17971693.74	-17971693.56	0.0146	0.0053
Mercury	-53917-06-05 02:23 J	-17971605.58	-17971605.40	-17971605.21	0.0146	0.0020
Mercury	-53917-09-01 10:47 J	-17971517.24	-17971517.05	-17971516.87	0.0146	0.0014
Mercury	-53917-11-28 18:57 J	-17971428.89	-17971428.71	-17971428.53	0.0146	0.0047
Mercury	-53916-02-25 03:06 J	-17971340.52	-17971340.37	-17971340.21	0.0146	0.0081
Mercury	-53916-05-24 11:16 J	-17971252.13	-17971252.03	-17971251.90	0.0146	0.0114
Moon	-53911-02-27 23:45 J	-17969511.73	-17969511.51	-17969511.28	0.0144	0.0073
Earth	-53911-02-28 02:37 J	-17969511.61	-17969511.39	-17969511.16	0.0144	0.0070 *
Earth	-53910-03-05 05:16 J	-17969141.51	-17969141.28	-17969141.04	0.0144	0.0060
Moon	-53910-03-05 06:42 J	-17969141.42	-17969141.22	-17969140.98	0.0144	0.0068 *
Mars	-53901-05-10 14:09 J	-17965787.21	-17965786.91	-17965786.59	0.0139	0.0060
Venus	-53896-01-25 03:21 J	-17964066.43	-17964066.36	-17964066.25	0.0136	0.0124
Venus	-53896-09-08 12:42 J	-17963840.12	-17963839.97	-17963839.79	0.0136	0.0092
Venus	-53895-04-22 21:35 J	-17963613.79	-17963613.60	-17963613.39	0.0136	0.0061
Venus	-53895-12-05 06:28 J	-17963387.45	-17963387.23	-17963387.01	0.0135	0.0030
Venus	-53894-07-19 14:52 J	-17963161.10	-17963160.88	-17963160.65	0.0135	0.0002
Venus	-53893-03-01 23:01 J	-17962934.75	-17962934.54	-17962934.31	0.0135	0.0032
Venus	-53893-10-14 07:11 J	-17962708.40	-17962708.20	-17962708.00	0.0134	0.0062

Venus -53892-05-28 14:37 J -17962482.04 -17962481.89 -17962481.72 0.0134 0.0092
 Venus -53891-01-09 22:04 J -17962255.66 -17962255.58 -17962255.47 0.0134 0.0121
 Mercury -53876-12-27 12:42 J -17956425.01 -17956424.97 -17956424.93 0.0132 0.0125
 Mercury -53875-03-25 15:49 J -17956336.91 -17956336.84 -17956336.76 0.0132 0.0107
 Mercury -53875-06-21 18:57 J -17956248.80 -17956248.71 -17956248.61 0.0132 0.0090
 Mercury -53875-09-17 22:04 J -17956160.69 -17956160.58 -17956160.46 0.0132 0.0072
 Mercury -53875-12-15 01:11 J -17956072.57 -17956072.45 -17956072.32 0.0132 0.0055
 Mercury -53874-03-13 04:18 J -17955984.44 -17955984.32 -17955984.18 0.0132 0.0037
 Mercury -53874-06-09 07:25 J -17955896.32 -17955896.19 -17955896.05 0.0132 0.0020
 Mercury -53874-09-05 10:33 J -17955808.19 -17955808.06 -17955807.92 0.0132 0.0004
 Mercury -53874-12-02 13:40 J -17955720.06 -17955719.93 -17955719.79 0.0132 0.0016
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 Mercury -53873-05-26 19:40 J -17955543.80 -17955543.68 -17955543.55 0.0132 0.0052
 Mercury -53873-08-22 22:47 J -17955455.66 -17955455.55 -17955455.43 0.0132 0.0069
 Mercury -53873-11-19 01:54 J -17955367.52 -17955367.42 -17955367.32 0.0133 0.0086
 Mercury -53872-02-15 04:47 J -17955279.37 -17955279.30 -17955279.21 0.0133 0.0104
 Mercury -53872-05-14 07:54 J -17955191.22 -17955191.17 -17955191.11 0.0133 0.0121
 Moon -53868-08-29 09:49 J -17953623.09 -17953623.09 -17953623.08 0.0134 0.0134
 Earth -53868-08-29 11:16 J -17953623.04 -17953623.03 -17953622.98 0.0134 0.0133
 Earth -53867-09-02 17:16 J -17953254.01 -17953253.78 -17953253.52 0.0134 0.0032
 Moon -53867-09-02 19:25 J -17953253.92 -17953253.69 -17953253.45 0.0134 0.0032 *
 Moon -53866-09-06 22:18 J -17952884.78 -17952884.57 -17952884.35 0.0135 0.0076
 Earth -53866-09-06 23:30 J -17952884.72 -17952884.52 -17952884.29 0.0135 0.0072 *
 Mars -53857-07-24 02:09 J -17949641.52 -17949641.41 -17949641.29 0.0139 0.0127
 Mars -53855-06-23 18:42 J -17948941.92 -17948941.72 -17948941.51 0.0141 0.0094
 Venus -53852-08-30 09:49 J -17947778.19 -17947778.09 -17947777.99 0.0142 0.0124
 Venus -53851-04-13 17:45 J -17947551.91 -17947551.76 -17947551.59 0.0143 0.0091
 Venus -53851-11-26 02:09 J -17947325.59 -17947325.41 -17947325.21 0.0143 0.0057
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Venus -53849-10-05 05:01 J -17946646.48 -17946646.29 -17946646.08 0.0144 0.0048
 Venus -53848-05-19 14:37 J -17946420.06 -17946419.89 -17946419.71 0.0144 0.0083
 Venus -53847-01-01 00:28 J -17946193.60 -17946193.48 -17946193.36 0.0145 0.0119
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 Mercury -53834-10-04 10:18 J -17941169.19 -17941169.07 -17941168.94 0.0147 0.0107
 Mercury -53834-12-31 18:28 J -17941080.89 -17941080.73 -17941080.57 0.0147 0.0074
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 Mercury -53833-12-19 03:06 J -17940727.54 -17940727.37 -17940727.20 0.0146 0.0059
 Mercury -53832-03-17 11:16 J -17940639.17 -17940639.03 -17940638.88 0.0146 0.0092
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 Moon -53827-02-28 12:28 J -17938830.21 -17938829.98 -17938829.72 0.0144 0.0058
 Earth -53827-02-28 15:35 J -17938830.08 -17938829.85 -17938829.61 0.0144 0.0062 *
 Earth -53826-03-05 17:45 J -17938459.97 -17938459.76 -17938459.52 0.0144 0.0069
 Moon -53826-03-05 20:23 J -17938459.86 -17938459.65 -17938459.41 0.0144 0.0063 *
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 Venus -53812-12-21 06:57 J -17933055.40 -17933055.21 -17933055.02 0.0136 0.0073
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 Venus -53810-10-31 08:52 J -17932376.35 -17932376.13 -17932375.91 0.0135 0.0019
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 Venus -53808-01-26 00:28 J -17931923.65 -17931923.48 -17931923.29 0.0134 0.0079
 Venus -53808-09-09 08:23 J -17931697.28 -17931697.15 -17931697.02 0.0134 0.0108
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 Mercury -53791-07-12 02:37 J -17925547.50 -17925547.39 -17925547.29 0.0132 0.0083
 Mercury -53791-10-08 05:30 J -17925459.38 -17925459.27 -17925459.14 0.0132 0.0066

Mercury -53790-01-04 08:52 J -17925371.26 -17925371.13 -17925371.00 0.0132 0.0048

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Mercury -53790-09-25 18:13 J -17925106.88 -17925106.74 -17925106.61 0.0132 0.0005

Mercury -53790-12-22 21:21 J -17925018.75 -17925018.61 -17925018.48 0.0132 0.0023

Mercury -53789-03-20 00:13 J -17924930.61 -17924930.49 -17924930.36 0.0132 0.0040

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Mercury -53789-09-12 06:28 J -17924754.34 -17924754.23 -17924754.12 0.0132 0.0075

Mercury -53789-12-09 09:21 J -17924666.20 -17924666.11 -17924666.01 0.0133 0.0092

Mercury -53788-03-07 12:28 J -17924578.05 -17924577.98 -17924577.90 0.0133 0.0110

Mercury -53788-06-03 15:21 J -17924489.89 -17924489.86 -17924489.82 0.0133 0.0127

Moon -53784-08-29 21:35 J -17922941.69 -17922941.60 -17922941.49 0.0134 0.0123

Earth -53784-08-29 23:45 J -17922941.57 -17922941.51 -17922941.41 0.0134 0.0126 *

Earth -53783-09-03 05:59 J -17922572.50 -17922572.25 -17922572.00 0.0134 0.0024

Moon -53783-09-03 07:54 J -17922572.41 -17922572.17 -17922571.93 0.0134 0.0022 *

Moon -53782-09-07 09:35 J -17922203.30 -17922203.10 -17922202.87 0.0135 0.0076

Earth -53782-09-07 12:28 J -17922203.18 -17922202.98 -17922202.78 0.0135 0.0079 *

Mars -53772-03-18 14:37 J -17918723.14 -17918722.89 -17918722.61 0.0140 0.0045

Venus -53768-04-29 19:40 J -17917219.71 -17917219.68 -17917219.61 0.0142 0.0138

Venus -53768-12-12 03:49 J -17916993.47 -17916993.34 -17916993.18 0.0143 0.0105

Venus -53767-07-26 12:13 J -17916767.16 -17916766.99 -17916766.79 0.0143 0.0071

Venus -53766-03-09 21:06 J -17916540.82 -17916540.62 -17916540.42 0.0143 0.0036

Venus -53766-10-22 05:59 J -17916314.46 -17916314.25 -17916314.04 0.0144 0.0002

Venus -53765-06-04 15:06 J -17916088.08 -17916087.87 -17916087.67 0.0144 0.0033

Venus -53764-01-17 00:13 J -17915861.67 -17915861.49 -17915861.30 0.0144 0.0069

Venus -53764-08-31 10:04 J -17915635.22 -17915635.08 -17915634.93 0.0144 0.0104

Venus -53763-04-14 19:40 J -17915408.71 -17915408.68 -17915408.61 0.0145 0.0140

Mercury -53750-07-28 10:47 J -17910556.13 -17910556.05 -17910555.95 0.0147 0.0127

Mercury -53750-10-24 18:57 J -17910467.85 -17910467.71 -17910467.57 0.0147 0.0094

Mercury -53749-01-21 02:52 J -17910379.54 -17910379.38 -17910379.20 0.0147 0.0062

Mercury -53749-04-18 11:01 J -17910291.21 -17910291.04 -17910290.85 0.0146 0.0029
 Mercury -53749-07-15 19:25 J -17910202.88 -17910202.69 -17910202.50 0.0146 0.0005
 Mercury -53749-10-12 03:35 J -17910114.53 -17910114.35 -17910114.17 0.0146 0.0038
 Mercury -53748-01-08 11:30 J -17910026.17 -17910026.02 -17910025.84 0.0146 0.0073
 Mercury -53748-04-06 19:54 J -17909937.79 -17909937.67 -17909937.53 0.0146 0.0105
 Mercury -53748-07-04 04:04 J -17909849.37 -17909849.33 -17909849.26 0.0146 0.0139
 Moon -53743-03-01 02:09 J -17908148.64 -17908148.41 -17908148.16 0.0144 0.0055
 Earth -53743-03-01 05:45 J -17908148.49 -17908148.26 -17908148.01 0.0144 0.0052 *
 Earth -53742-03-06 08:09 J -17907778.37 -17907778.16 -17907777.94 0.0144 0.0079
 Moon -53742-03-06 10:18 J -17907778.25 -17907778.07 -17907777.85 0.0144 0.0087 *
 Mars -53734-09-26 06:28 J -17904652.33 -17904652.23 -17904652.06 0.0139 0.0127
 Venus -53728-01-06 07:25 J -17902723.30 -17902723.19 -17902723.07 0.0136 0.0116
 Venus -53728-08-20 16:47 J -17902496.97 -17902496.80 -17902496.62 0.0136 0.0085
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 Venus -53727-11-16 10:18 J -17902044.28 -17902044.07 -17902043.84 0.0135 0.0024
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 Venus -53725-02-12 03:06 J -17901591.58 -17901591.37 -17901591.15 0.0135 0.0038
 Venus -53725-09-25 11:01 J -17901365.22 -17901365.04 -17901364.84 0.0134 0.0068
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 Venus -53724-12-22 02:09 J -17900912.47 -17900912.41 -17900912.32 0.0134 0.0126
 Mercury -53708-11-10 00:42 J -17895110.49 -17895110.47 -17895110.46 0.0132 0.0130
 Mercury -53707-02-06 03:35 J -17895022.41 -17895022.35 -17895022.27 0.0132 0.0113
 Mercury -53707-05-05 06:42 J -17894934.30 -17894934.22 -17894934.12 0.0132 0.0095
 Mercury -53707-08-01 10:04 J -17894846.19 -17894846.08 -17894845.97 0.0132 0.0077
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 Mercury -53706-01-24 16:18 J -17894669.95 -17894669.82 -17894669.69 0.0132 0.0042
 Mercury -53706-04-22 19:25 J -17894581.82 -17894581.69 -17894581.56 0.0132 0.0024
 Mercury -53706-07-19 22:33 J -17894493.70 -17894493.56 -17894493.43 0.0132 0.0007
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 Mercury -53705-01-12 04:47 J -17894317.44 -17894317.30 -17894317.17 0.0132 0.0029

Mercury -53705-04-09 07:40 J -17894229.30 -17894229.18 -17894229.05 0.0132 0.0046
 Mercury -53705-07-06 10:47 J -17894141.17 -17894141.05 -17894140.93 0.0132 0.0063
 Mercury -53705-10-02 13:54 J -17894053.03 -17894052.92 -17894052.82 0.0132 0.0081
 Mercury -53705-12-29 16:47 J -17893964.88 -17893964.80 -17893964.71 0.0133 0.0098
 Mercury -53704-03-27 19:40 J -17893876.73 -17893876.68 -17893876.61 0.0133 0.0116
 Mercury -53704-06-23 23:01 J -17893788.54 -17893788.54 -17893788.54 0.0133 0.0133
 Moon -53700-08-30 08:37 J -17892260.24 -17892260.14 -17892260.02 0.0134 0.0121
 Earth -53700-08-30 11:30 J -17892260.13 -17892260.02 -17892259.91 0.0134 0.0119 *
 Earth -53699-09-03 17:16 J -17891891.03 -17891890.78 -17891890.53 0.0134 0.0017
 Moon -53699-09-03 20:09 J -17891890.90 -17891890.66 -17891890.42 0.0134 0.0018 *
 Moon -53698-09-07 21:06 J -17891521.80 -17891521.62 -17891521.41 0.0135 0.0090
 Earth -53698-09-07 23:30 J -17891521.70 -17891521.52 -17891521.31 0.0135 0.0086 *
 Jupiter -53695-09-14 09:06 J -17890419.62 -17890419.12 -17890418.61 0.0136 0.0006
 Mars -53688-11-11 01:25 J -17887804.69 -17887804.44 -17887804.16 0.0140 0.0038
 Venus -53684-08-11 12:57 J -17886435.06 -17886434.96 -17886434.83 0.0142 0.0119
 Venus -53683-03-25 21:06 J -17886208.77 -17886208.62 -17886208.44 0.0143 0.0086
 Venus -53683-11-07 05:45 J -17885982.45 -17885982.26 -17885982.06 0.0143 0.0052
 Venus -53682-06-21 14:37 J -17885756.10 -17885755.89 -17885755.68 0.0143 0.0018
 Venus -53681-02-02 23:30 J -17885529.73 -17885529.52 -17885529.31 0.0144 0.0017
 Venus -53681-09-16 08:52 J -17885303.32 -17885303.13 -17885302.93 0.0144 0.0052
 Venus -53680-04-30 18:13 J -17885076.90 -17885076.74 -17885076.56 0.0144 0.0088
 Venus -53680-12-13 04:04 J -17884850.43 -17884850.33 -17884850.21 0.0145 0.0123
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 Mercury -53666-11-14 03:06 J -17879766.52 -17879766.37 -17879766.21 0.0147 0.0083
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 Mercury -53665-05-08 19:25 J -17879589.87 -17879589.69 -17879589.50 0.0147 0.0017
 Mercury -53665-08-05 03:35 J -17879501.53 -17879501.35 -17879501.16 0.0146 0.0017
 Mercury -53665-11-01 11:45 J -17879413.18 -17879413.01 -17879412.83 0.0146 0.0051
 Mercury -53664-01-28 20:09 J -17879324.81 -17879324.66 -17879324.50 0.0146 0.0084
 Mercury -53664-04-27 04:18 J -17879236.42 -17879236.32 -17879236.20 0.0146 0.0117

Moon -53659-03-01 16:18 J -17877467.06 -17877466.82 -17877466.56 0.0144 0.0037
 Earth -53659-03-01 19:40 J -17877466.92 -17877466.68 -17877466.43 0.0144 0.0042 *
 Earth -53658-03-06 21:49 J -17877096.77 -17877096.59 -17877096.37 0.0144 0.0090
 Moon -53658-03-07 01:25 J -17877096.64 -17877096.44 -17877096.23 0.0144 0.0083 *
 Mars -53649-05-23 00:28 J -17873731.81 -17873731.48 -17873731.13 0.0139 0.0020
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 Venus -53643-07-16 21:06 J -17871485.83 -17871485.62 -17871485.40 0.0135 0.0035
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 Mercury -53622-08-09 06:13 J -17863792.38 -17863792.24 -17863792.11 0.0132 0.0004
 Mercury -53622-11-05 09:06 J -17863704.25 -17863704.12 -17863703.98 0.0132 0.0018
 Mercury -53621-02-01 12:13 J -17863616.12 -17863615.99 -17863615.86 0.0132 0.0035
 Mercury -53621-04-29 15:21 J -17863527.98 -17863527.86 -17863527.74 0.0132 0.0052
 Mercury -53621-07-26 18:28 J -17863439.85 -17863439.73 -17863439.62 0.0132 0.0070
 Mercury -53621-10-22 21:06 J -17863351.71 -17863351.62 -17863351.51 0.0132 0.0088
 Mercury -53620-01-19 00:13 J -17863263.56 -17863263.49 -17863263.40 0.0132 0.0105
 Mercury -53620-04-17 03:21 J -17863175.41 -17863175.36 -17863175.30 0.0133 0.0122
 Moon -53616-08-30 20:37 J -17861578.77 -17861578.64 -17861578.48 0.0134 0.0109

Earth -53616-08-30 23:45 J -17861578.63 -17861578.51 -17861578.36 0.0134 0.0112 *
 Earth -53615-09-04 05:45 J -17861209.51 -17861209.26 -17861209.01 0.0134 0.0010
 Moon -53615-09-04 08:37 J -17861209.39 -17861209.14 -17861208.90 0.0134 0.0009 *
 Moon -53614-09-08 08:52 J -17860840.31 -17860840.13 -17860839.93 0.0135 0.0091
 Earth -53614-09-08 11:59 J -17860840.17 -17860840.00 -17860839.81 0.0135 0.0094 *
 Mars -53605-08-05 20:37 J -17857585.80 -17857585.64 -17857585.42 0.0140 0.0103
 Mars -53603-07-06 15:21 J -17856885.99 -17856885.86 -17856885.71 0.0141 0.0120
 Venus -53600-04-10 22:33 J -17855876.62 -17855876.56 -17855876.48 0.0142 0.0133
 Venus -53600-11-23 06:42 J -17855650.36 -17855650.22 -17855650.07 0.0143 0.0100
 Venus -53599-07-07 14:52 J -17855424.06 -17855423.88 -17855423.68 0.0143 0.0067
 Venus -53598-02-18 23:45 J -17855197.72 -17855197.51 -17855197.31 0.0143 0.0033
 Venus -53598-10-03 08:37 J -17854971.35 -17854971.14 -17854970.93 0.0144 0.0002
 Venus -53597-05-16 17:45 J -17854744.97 -17854744.76 -17854744.56 0.0144 0.0036
 Venus -53597-12-29 02:52 J -17854518.56 -17854518.38 -17854518.19 0.0144 0.0071
 Venus -53596-08-12 12:28 J -17854292.11 -17854291.98 -17854291.83 0.0145 0.0107
 Venus -53595-03-26 22:04 J -17854065.60 -17854065.58 -17854065.52 0.0145 0.0142
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 Mercury -53582-09-07 03:06 J -17849153.50 -17849153.37 -17849153.24 0.0147 0.0105
 Mercury -53582-12-04 11:01 J -17849065.19 -17849065.04 -17849064.87 0.0147 0.0073
 Mercury -53581-03-01 19:11 J -17848976.87 -17848976.70 -17848976.52 0.0147 0.0039
 Mercury -53581-05-29 03:21 J -17848888.54 -17848888.36 -17848888.17 0.0147 0.0007
 Mercury -53581-08-25 11:30 J -17848800.20 -17848800.02 -17848799.83 0.0147 0.0027
 Mercury -53581-11-21 19:40 J -17848711.84 -17848711.68 -17848711.50 0.0146 0.0061
 Mercury -53580-02-18 03:49 J -17848623.47 -17848623.34 -17848623.18 0.0146 0.0095
 Mercury -53580-05-17 12:13 J -17848535.07 -17848534.99 -17848534.89 0.0146 0.0128
 Moon -53575-03-02 04:04 J -17846785.57 -17846785.33 -17846785.07 0.0145 0.0037
 Earth -53575-03-02 07:54 J -17846785.42 -17846785.17 -17846784.92 0.0145 0.0034 *
 Earth -53574-03-07 10:04 J -17846415.25 -17846415.08 -17846414.87 0.0144 0.0098
 Moon -53574-03-07 13:25 J -17846415.10 -17846414.94 -17846414.76 0.0144 0.0105 *
 Mars -53564-01-17 13:11 J -17842811.20 -17842810.95 -17842810.66 0.0138 0.0085

Venus -53561-12-18 12:42 J -17841380.09 -17841379.97 -17841379.82 0.0136 0.0109
 Venus -53560-08-01 22:04 J -17841153.75 -17841153.58 -17841153.39 0.0136 0.0078
 Venus -53559-03-16 07:25 J -17840927.40 -17840927.19 -17840926.98 0.0136 0.0047
 Venus -53559-10-28 16:18 J -17840701.05 -17840700.82 -17840700.60 0.0135 0.0017
 Venus -53558-06-12 00:42 J -17840474.69 -17840474.47 -17840474.25 0.0135 0.0014
 Venus -53557-01-24 08:52 J -17840248.34 -17840248.13 -17840247.91 0.0135 0.0044
 Venus -53557-09-06 16:47 J -17840021.97 -17840021.80 -17840021.60 0.0134 0.0074
 Venus -53556-04-21 00:57 J -17839795.60 -17839795.46 -17839795.32 0.0134 0.0103
 Venus -53556-12-03 08:23 J -17839569.18 -17839569.15 -17839569.10 0.0134 0.0131
 Mercury -53540-12-20 15:35 J -17833707.90 -17833707.85 -17833707.78 0.0132 0.0117
 Mercury -53539-03-18 18:57 J -17833619.80 -17833619.71 -17833619.62 0.0132 0.0099
 Mercury -53539-06-14 22:04 J -17833531.68 -17833531.58 -17833531.47 0.0132 0.0082
 Mercury -53539-09-11 01:11 J -17833443.56 -17833443.45 -17833443.33 0.0132 0.0064
 Mercury -53539-12-08 04:18 J -17833355.44 -17833355.32 -17833355.19 0.0132 0.0046
 Mercury -53538-03-06 07:25 J -17833267.32 -17833267.19 -17833267.05 0.0132 0.0029
 Mercury -53538-06-02 10:33 J -17833179.19 -17833179.06 -17833178.92 0.0132 0.0011
 Mercury -53538-08-29 13:40 J -17833091.07 -17833090.93 -17833090.79 0.0132 0.0006
 Mercury -53538-11-25 16:47 J -17833002.94 -17833002.80 -17833002.67 0.0132 0.0024
 Mercury -53537-02-21 19:40 J -17832914.80 -17832914.68 -17832914.55 0.0132 0.0041
 Mercury -53537-05-19 22:47 J -17832826.67 -17832826.55 -17832826.43 0.0132 0.0059
 Mercury -53537-08-16 01:40 J -17832738.53 -17832738.43 -17832738.31 0.0132 0.0076
 Mercury -53537-11-12 04:47 J -17832650.39 -17832650.30 -17832650.20 0.0132 0.0093
 Mercury -53536-02-08 07:40 J -17832562.24 -17832562.18 -17832562.10 0.0132 0.0111
 Mercury -53536-05-07 10:47 J -17832474.08 -17832474.05 -17832474.01 0.0132 0.0128
 Moon -53532-08-31 08:37 J -17830897.29 -17830897.14 -17830896.99 0.0134 0.0107
 Earth -53532-08-31 11:30 J -17830897.16 -17830897.02 -17830896.85 0.0134 0.0105 *
 Earth -53531-09-04 17:45 J -17830528.02 -17830527.76 -17830527.51 0.0134 0.0003
 Moon -53531-09-04 21:06 J -17830527.87 -17830527.62 -17830527.38 0.0134 0.0003 *
 Moon -53530-09-08 20:52 J -17830158.78 -17830158.63 -17830158.46 0.0135 0.0104
 Earth -53530-09-08 23:45 J -17830158.66 -17830158.51 -17830158.33 0.0135 0.0101 *

Mars	-53520-03-31 07:11 J	-17826667.47	-17826667.20	-17826666.92	0.0140	0.0022
Venus	-53516-07-23 15:06 J	-17825091.99	-17825091.87	-17825091.74	0.0142	0.0115
Venus	-53515-03-06 23:16 J	-17824865.70	-17824865.53	-17824865.35	0.0143	0.0082
Venus	-53515-10-19 07:40 J	-17824639.37	-17824639.18	-17824638.98	0.0143	0.0049
Venus	-53514-06-02 16:18 J	-17824413.03	-17824412.82	-17824412.61	0.0143	0.0015
Venus	-53513-01-15 01:11 J	-17824186.66	-17824186.45	-17824186.24	0.0144	0.0020
Venus	-53513-08-28 10:33 J	-17823960.26	-17823960.06	-17823959.86	0.0144	0.0054
Venus	-53512-04-11 19:40 J	-17823733.83	-17823733.68	-17823733.50	0.0144	0.0089
Venus	-53512-11-24 05:16 J	-17823507.37	-17823507.28	-17823507.16	0.0145	0.0124
Mercury	-53498-07-01 01:54 J	-17818540.49	-17818540.42	-17818540.32	0.0147	0.0131
Mercury	-53498-09-27 10:04 J	-17818452.21	-17818452.08	-17818451.93	0.0147	0.0098
Mercury	-53498-12-24 18:13 J	-17818363.90	-17818363.74	-17818363.57	0.0147	0.0065
Mercury	-53497-03-22 02:23 J	-17818275.58	-17818275.40	-17818275.21	0.0147	0.0032
Mercury	-53497-06-18 10:33 J	-17818187.24	-17818187.06	-17818186.87	0.0147	0.0003
Mercury	-53497-09-14 18:42 J	-17818098.90	-17818098.72	-17818098.53	0.0147	0.0035
Mercury	-53497-12-12 02:52 J	-17818010.54	-17818010.38	-17818010.21	0.0147	0.0068
Mercury	-53496-03-10 11:16 J	-17817922.16	-17817922.03	-17817921.89	0.0147	0.0102
Mercury	-53496-06-06 19:25 J	-17817833.75	-17817833.69	-17817833.61	0.0146	0.0136
Moon	-53491-03-02 14:52 J	-17816104.14	-17816103.88	-17816103.63	0.0145	0.0024
Earth	-53491-03-02 18:28 J	-17816103.98	-17816103.73	-17816103.48	0.0145	0.0028 *
Earth	-53490-03-07 21:06 J	-17815733.79	-17815733.62	-17815733.44	0.0144	0.0104
Moon	-53490-03-08 00:28 J	-17815733.65	-17815733.48	-17815733.28	0.0144	0.0098 *
Jupiter	-53487-08-31 21:35 J	-17814460.90	-17814460.60	-17814460.21	0.0142	0.0108
Mars	-53482-10-08 14:52 J	-17812597.12	-17812596.88	-17812596.59	0.0139	0.0089
Venus	-53477-08-17 21:49 J	-17810821.67	-17810821.59	-17810821.47	0.0136	0.0121
Venus	-53476-04-01 07:25 J	-17810595.34	-17810595.19	-17810595.01	0.0136	0.0090
Venus	-53476-11-13 16:47 J	-17810369.00	-17810368.80	-17810368.59	0.0136	0.0059
Venus	-53475-06-28 01:40 J	-17810142.64	-17810142.43	-17810142.20	0.0136	0.0029
Venus	-53474-02-09 10:33 J	-17809916.28	-17809916.06	-17809915.83	0.0135	0.0003
Venus	-53474-09-23 18:57 J	-17809689.92	-17809689.71	-17809689.48	0.0135	0.0032

Venus -53473-05-07 03:06 J -17809463.56 -17809463.37 -17809463.16 0.0135 0.0062
 Venus -53473-12-19 11:16 J -17809237.19 -17809237.03 -17809236.86 0.0134 0.0091
 Venus -53472-08-02 18:57 J -17809010.80 -17809010.71 -17809010.60 0.0134 0.0120
 Mercury -53456-10-13 20:09 J -17803094.68 -17803094.66 -17803094.62 0.0132 0.0128
 Mercury -53455-01-09 23:30 J -17803006.59 -17803006.52 -17803006.44 0.0132 0.0110
 Mercury -53455-04-08 02:37 J -17802918.48 -17802918.39 -17802918.29 0.0132 0.0092
 Mercury -53455-07-05 05:45 J -17802830.37 -17802830.26 -17802830.14 0.0132 0.0075
 Mercury -53455-10-01 08:52 J -17802742.25 -17802742.13 -17802742.00 0.0132 0.0057
 Mercury -53455-12-28 11:59 J -17802654.13 -17802654.00 -17802653.87 0.0132 0.0040
 Mercury -53454-03-26 15:06 J -17802566.00 -17802565.87 -17802565.73 0.0132 0.0022
 Mercury -53454-06-22 18:13 J -17802477.87 -17802477.74 -17802477.60 0.0132 0.0004
 Mercury -53454-09-18 21:21 J -17802389.75 -17802389.61 -17802389.48 0.0132 0.0013
 Mercury -53454-12-16 00:13 J -17802301.61 -17802301.49 -17802301.35 0.0132 0.0031
 Mercury -53453-03-13 03:21 J -17802213.48 -17802213.36 -17802213.23 0.0132 0.0048
 Mercury -53453-06-09 06:28 J -17802125.35 -17802125.23 -17802125.11 0.0132 0.0065
 Mercury -53453-09-05 09:35 J -17802037.21 -17802037.10 -17802037.00 0.0132 0.0083
 Mercury -53453-12-02 12:28 J -17801949.06 -17801948.98 -17801948.89 0.0132 0.0100
 Mercury -53452-02-28 15:21 J -17801860.91 -17801860.86 -17801860.79 0.0132 0.0117
 Moon -53448-08-31 21:49 J -17800215.77 -17800215.59 -17800215.41 0.0134 0.0093
 Earth -53448-09-01 01:11 J -17800215.62 -17800215.45 -17800215.27 0.0134 0.0097 *
 Earth -53447-09-05 07:11 J -17799846.45 -17799846.20 -17799845.95 0.0134 0.0006
 Moon -53447-09-05 10:18 J -17799846.32 -17799846.07 -17799845.82 0.0134 0.0007 *
 Moon -53446-09-09 09:21 J -17799477.24 -17799477.11 -17799476.93 0.0135 0.0107
 Earth -53446-09-09 13:11 J -17799477.08 -17799476.95 -17799476.79 0.0135 0.0109 *
 Mars -53436-11-23 20:09 J -17795748.90 -17795748.66 -17795748.40 0.0140 0.0061
 Venus -53432-03-23 01:25 J -17794533.52 -17794533.44 -17794533.34 0.0142 0.0127
 Venus -53432-11-04 09:35 J -17794307.26 -17794307.10 -17794306.94 0.0142 0.0095
 Venus -53431-06-18 17:45 J -17794080.95 -17794080.76 -17794080.57 0.0143 0.0062
 Venus -53430-01-31 02:09 J -17793854.62 -17793854.41 -17793854.20 0.0143 0.0029
 Venus -53430-09-14 11:01 J -17793628.25 -17793628.04 -17793627.83 0.0143 0.0005

Venus -53429-04-27 19:40 J -17793401.87 -17793401.68 -17793401.46 0.0144 0.0040

Venus -53429-12-10 04:47 J -17793175.47 -17793175.30 -17793175.10 0.0144 0.0074

Venus -53428-07-24 14:23 J -17792949.03 -17792948.90 -17792948.75 0.0144 0.0109

Venus -53427-03-08 00:13 J -17792722.51 -17792722.49 -17792722.46 0.0145 0.0143

Mercury -53414-07-21 09:35 J -17787839.18 -17787839.10 -17787838.98 0.0147 0.0122

Mercury -53414-10-17 17:45 J -17787750.90 -17787750.76 -17787750.60 0.0147 0.0089

Mercury -53413-01-14 01:54 J -17787662.58 -17787662.42 -17787662.24 0.0147 0.0056

Mercury -53413-04-11 10:04 J -17787574.26 -17787574.08 -17787573.89 0.0147 0.0023

Mercury -53413-07-08 18:13 J -17787485.92 -17787485.74 -17787485.55 0.0147 0.0011

Mercury -53413-10-05 02:23 J -17787397.57 -17787397.40 -17787397.22 0.0147 0.0044

Mercury -53412-01-01 10:33 J -17787309.21 -17787309.06 -17787308.89 0.0147 0.0077

Mercury -53412-03-30 18:42 J -17787220.83 -17787220.72 -17787220.59 0.0147 0.0111

Mercury -53412-06-27 02:52 J -17787132.39 -17787132.38 -17787132.33 0.0146 0.0145

Moon -53407-03-03 01:54 J -17785422.67 -17785422.42 -17785422.16 0.0145 0.0023

Earth -53407-03-03 05:30 J -17785422.52 -17785422.27 -17785422.01 0.0145 0.0022 *

Earth -53406-03-08 08:09 J -17785052.30 -17785052.16 -17785051.98 0.0144 0.0111

Moon -53406-03-08 11:30 J -17785052.14 -17785052.02 -17785051.85 0.0144 0.0119 *

Jupiter -53404-07-09 18:42 J -17784197.78 -17784197.72 -17784197.56 0.0143 0.0140

Mars -53397-06-04 00:42 J -17781676.81 -17781676.47 -17781676.13 0.0139 0.0014

Venus -53393-04-17 06:57 J -17780263.26 -17780263.21 -17780263.17 0.0137 0.0133

Venus -53393-11-29 16:04 J -17780036.96 -17780036.83 -17780036.67 0.0136 0.0103

Venus -53392-07-14 01:40 J -17779810.61 -17779810.43 -17779810.23 0.0136 0.0071

Venus -53391-02-25 11:01 J -17779584.25 -17779584.04 -17779583.82 0.0136 0.0041

Venus -53391-10-09 20:09 J -17779357.89 -17779357.66 -17779357.44 0.0135 0.0010

Venus -53390-05-24 04:33 J -17779131.53 -17779131.31 -17779131.08 0.0135 0.0020

Venus -53389-01-05 12:57 J -17778905.16 -17778904.96 -17778904.75 0.0135 0.0050

Venus -53389-08-18 21:21 J -17778678.79 -17778678.61 -17778678.43 0.0135 0.0079

Venus -53388-04-02 05:01 J -17778452.41 -17778452.29 -17778452.14 0.0134 0.0108

Mercury -53372-11-03 03:49 J -17772393.38 -17772393.34 -17772393.28 0.0132 0.0121

Mercury -53371-01-30 07:11 J -17772305.28 -17772305.20 -17772305.12 0.0132 0.0103

Mercury -53371-04-28 10:18 J -17772217.17 -17772217.07 -17772216.97 0.0132 0.0085
 Mercury -53371-07-25 13:25 J -17772129.05 -17772128.94 -17772128.82 0.0132 0.0068
 Mercury -53371-10-21 16:33 J -17772040.93 -17772040.81 -17772040.68 0.0132 0.0050
 Mercury -53370-01-17 19:40 J -17771952.81 -17771952.68 -17771952.55 0.0132 0.0033
 Mercury -53370-04-15 22:47 J -17771864.68 -17771864.55 -17771864.41 0.0132 0.0015
 Mercury -53370-07-13 01:54 J -17771776.56 -17771776.42 -17771776.29 0.0132 0.0003
 Mercury -53370-10-09 05:01 J -17771688.43 -17771688.29 -17771688.16 0.0132 0.0020
 Mercury -53369-01-05 07:54 J -17771600.29 -17771600.17 -17771600.04 0.0132 0.0038
 Mercury -53369-04-02 11:01 J -17771512.16 -17771512.04 -17771511.92 0.0132 0.0055
 Mercury -53369-06-29 13:54 J -17771424.02 -17771423.92 -17771423.80 0.0132 0.0072
 Mercury -53369-09-25 17:01 J -17771335.88 -17771335.79 -17771335.69 0.0132 0.0089
 Mercury -53369-12-22 20:09 J -17771247.74 -17771247.66 -17771247.58 0.0132 0.0107
 Mercury -53368-03-20 23:16 J -17771159.58 -17771159.53 -17771159.49 0.0132 0.0124
 Moon -53364-09-01 11:01 J -17769534.22 -17769534.04 -17769533.86 0.0134 0.0091
 Earth -53364-09-01 14:09 J -17769534.08 -17769533.91 -17769533.70 0.0134 0.0089 *
 Earth -53363-09-05 20:23 J -17769164.90 -17769164.65 -17769164.40 0.0134 0.0014
 Moon -53363-09-05 23:59 J -17769164.75 -17769164.50 -17769164.25 0.0134 0.0015 *
 Moon -53362-09-09 23:01 J -17768795.63 -17768795.54 -17768795.41 0.0135 0.0121
 Earth -53362-09-10 02:23 J -17768795.50 -17768795.40 -17768795.26 0.0135 0.0118 *
 Mars -53353-08-18 17:16 J -17765530.01 -17765529.78 -17765529.54 0.0139 0.0078
 Venus -53349-11-20 11:30 J -17763975.04 -17763975.02 -17763974.98 0.0142 0.0140
 Venus -53348-07-04 19:11 J -17763748.82 -17763748.70 -17763748.55 0.0142 0.0108
 Venus -53347-02-16 03:21 J -17763522.53 -17763522.36 -17763522.17 0.0143 0.0076
 Venus -53347-09-30 11:45 J -17763296.21 -17763296.01 -17763295.80 0.0143 0.0043
 Venus -53346-05-14 20:23 J -17763069.86 -17763069.65 -17763069.44 0.0143 0.0009
 Venus -53346-12-27 05:01 J -17762843.49 -17762843.29 -17762843.08 0.0144 0.0025
 Venus -53345-08-09 13:54 J -17762617.10 -17762616.92 -17762616.71 0.0144 0.0059
 Venus -53344-03-23 23:16 J -17762390.68 -17762390.53 -17762390.36 0.0144 0.0093
 Venus -53344-11-05 08:37 J -17762164.22 -17762164.14 -17762164.03 0.0145 0.0128
 Mercury -53330-05-14 09:35 J -17757226.12 -17757226.10 -17757226.05 0.0147 0.0144

Mercury -53330-08-10 17:30 J -17757137.87 -17757137.77 -17757137.64 0.0147 0.0112

Mercury -53330-11-07 01:40 J -17757049.58 -17757049.43 -17757049.27 0.0147 0.0079

Mercury -53329-02-03 09:49 J -17756961.26 -17756961.09 -17756960.91 0.0147 0.0046

Mercury -53329-05-01 17:59 J -17756872.93 -17756872.75 -17756872.56 0.0147 0.0013

Mercury -53329-07-29 02:09 J -17756784.59 -17756784.41 -17756784.22 0.0147 0.0020

Mercury -53329-10-25 10:18 J -17756696.24 -17756696.07 -17756695.89 0.0147 0.0054

Mercury -53328-01-21 18:13 J -17756607.88 -17756607.74 -17756607.58 0.0147 0.0088

Mercury -53328-04-20 02:37 J -17756519.49 -17756519.39 -17756519.28 0.0147 0.0121

Moon -53324-02-26 16:47 J -17755110.81 -17755110.80 -17755110.75 0.0145 0.0145

Moon -53323-03-03 14:09 J -17754741.16 -17754740.91 -17754740.65 0.0145 0.0010

Earth -53323-03-03 17:45 J -17754741.01 -17754740.76 -17754740.50 0.0145 0.0014 *

Earth -53322-03-08 20:37 J -17754370.77 -17754370.64 -17754370.49 0.0144 0.0119

Moon -53322-03-09 00:13 J -17754370.63 -17754370.49 -17754370.31 0.0144 0.0113 *

Mars -53312-01-29 11:45 J -17750756.17 -17750756.01 -17750755.81 0.0139 0.0118

Venus -53309-07-30 01:25 J -17749478.54 -17749478.44 -17749478.30 0.0137 0.0115

Venus -53308-03-13 11:16 J -17749252.19 -17749252.03 -17749251.84 0.0136 0.0084

Venus -53308-10-25 20:37 J -17749025.84 -17749025.64 -17749025.42 0.0136 0.0053

Venus -53307-06-09 05:59 J -17748799.47 -17748799.25 -17748799.03 0.0136 0.0022

Venus -53306-01-21 14:52 J -17748573.11 -17748572.88 -17748572.66 0.0135 0.0008

Venus -53306-09-04 23:16 J -17748346.74 -17748346.53 -17748346.31 0.0135 0.0038

Venus -53305-04-18 07:25 J -17748120.37 -17748120.19 -17748119.98 0.0135 0.0068

Venus -53305-11-30 15:35 J -17747893.99 -17747893.85 -17747893.68 0.0134 0.0097

Venus -53304-07-14 23:16 J -17747667.59 -17747667.53 -17747667.44 0.0134 0.0125

Mercury -53288-08-27 08:37 J -17741780.15 -17741780.14 -17741780.13 0.0132 0.0131

Mercury -53288-11-23 11:45 J -17741692.07 -17741692.01 -17741691.94 0.0132 0.0113

Mercury -53287-02-19 14:52 J -17741603.97 -17741603.88 -17741603.78 0.0132 0.0096

Mercury -53287-05-18 17:59 J -17741515.85 -17741515.75 -17741515.63 0.0132 0.0078

Mercury -53287-08-14 21:21 J -17741427.73 -17741427.61 -17741427.49 0.0132 0.0060

Mercury -53287-11-11 00:13 J -17741339.61 -17741339.49 -17741339.35 0.0132 0.0043

Mercury -53286-02-07 03:35 J -17741251.49 -17741251.35 -17741251.22 0.0132 0.0025

Mercury -53286-05-06 06:28 J -17741163.36 -17741163.23 -17741163.09 0.0132 0.0009
 Mercury -53286-08-02 09:35 J -17741075.23 -17741075.10 -17741074.96 0.0132 0.0011
 Mercury -53286-10-29 12:42 J -17740987.10 -17740986.97 -17740986.84 0.0132 0.0027
 Mercury -53285-01-25 15:49 J -17740898.97 -17740898.84 -17740898.71 0.0132 0.0045
 Mercury -53285-04-22 18:42 J -17740810.83 -17740810.72 -17740810.59 0.0132 0.0063
 Mercury -53285-07-19 21:49 J -17740722.69 -17740722.59 -17740722.48 0.0132 0.0080
 Mercury -53285-10-16 00:57 J -17740634.55 -17740634.46 -17740634.37 0.0132 0.0097
 Mercury -53284-01-12 03:49 J -17740546.40 -17740546.34 -17740546.27 0.0132 0.0114
 Mercury -53284-04-10 06:42 J -17740458.22 -17740458.22 -17740458.19 0.0132 0.0132
 Moon -53280-09-02 01:40 J -17738852.63 -17738852.43 -17738852.22 0.0134 0.0075
 Earth -53280-09-02 05:16 J -17738852.48 -17738852.28 -17738852.07 0.0134 0.0079 *
 Earth -53279-09-06 11:01 J -17738483.28 -17738483.04 -17738482.79 0.0134 0.0024
 Moon -53279-09-06 14:37 J -17738483.13 -17738482.89 -17738482.64 0.0134 0.0024 *
 Moon -53278-09-10 13:25 J -17738114.02 -17738113.94 -17738113.84 0.0135 0.0125
 Earth -53278-09-10 17:16 J -17738113.86 -17738113.78 -17738113.70 0.0135 0.0127 *
 Mars -53268-04-13 08:52 J -17734611.40 -17734611.13 -17734610.85 0.0140 0.0008
 Venus -53264-03-04 07:11 J -17733190.31 -17733190.20 -17733190.09 0.0142 0.0119
 Venus -53264-10-16 14:52 J -17732964.04 -17732963.88 -17732963.70 0.0142 0.0088
 Venus -53263-05-30 23:01 J -17732737.73 -17732737.54 -17732737.34 0.0143 0.0055
 Venus -53262-01-12 07:25 J -17732511.39 -17732511.19 -17732510.98 0.0143 0.0022
 Venus -53262-08-26 16:18 J -17732285.03 -17732284.82 -17732284.61 0.0143 0.0012
 Venus -53261-04-09 00:57 J -17732058.65 -17732058.46 -17732058.25 0.0144 0.0046
 Venus -53261-11-21 10:18 J -17731832.25 -17731832.07 -17731831.89 0.0144 0.0079
 Venus -53260-07-05 19:25 J -17731605.81 -17731605.69 -17731605.55 0.0144 0.0114
 Mercury -53246-06-03 18:42 J -17726524.80 -17726524.72 -17726524.63 0.0147 0.0130
 Mercury -53246-08-31 02:37 J -17726436.52 -17726436.39 -17726436.25 0.0147 0.0098
 Mercury -53246-11-27 10:33 J -17726348.21 -17726348.06 -17726347.88 0.0147 0.0065
 Mercury -53245-02-23 18:42 J -17726259.89 -17726259.72 -17726259.53 0.0147 0.0032
 Mercury -53245-05-22 02:52 J -17726171.56 -17726171.38 -17726171.19 0.0147 0.0004
 Mercury -53245-08-18 11:01 J -17726083.22 -17726083.04 -17726082.85 0.0147 0.0035

Mercury -53245-11-14 19:25 J -17725994.86 -17725994.69 -17725994.53 0.0147 0.0068
 Mercury -53244-02-11 03:21 J -17725906.49 -17725906.36 -17725906.22 0.0147 0.0102
 Mercury -53244-05-10 11:30 J -17725818.08 -17725818.02 -17725817.94 0.0147 0.0136
 Earth -53240-02-27 05:01 J -17724429.35 -17724429.29 -17724429.18 0.0145 0.0136
 Moon -53240-02-27 08:23 J -17724429.21 -17724429.15 -17724429.04 0.0145 0.0137 *
 Moon -53239-03-04 05:59 J -17724059.51 -17724059.25 -17724059.00 0.0145 0.0004
 Earth -53239-03-04 09:21 J -17724059.37 -17724059.11 -17724058.86 0.0145 0.0003 *
 Earth -53238-03-09 12:13 J -17723689.09 -17723688.99 -17723688.88 0.0144 0.0131
 Moon -53238-03-09 15:35 J -17723688.91 -17723688.85 -17723688.76 0.0144 0.0138 *
 Mars -53230-10-20 18:57 J -17720542.01 -17720541.71 -17720541.38 0.0139 0.0054
 Venus -53225-03-29 11:59 J -17718920.08 -17718920.00 -17718919.91 0.0137 0.0125
 Venus -53225-11-10 21:35 J -17718693.75 -17718693.60 -17718693.43 0.0136 0.0094
 Venus -53224-06-25 06:57 J -17718467.40 -17718467.21 -17718467.00 0.0136 0.0064
 Venus -53223-02-06 16:33 J -17718241.03 -17718240.81 -17718240.59 0.0136 0.0033
 Venus -53223-09-21 01:25 J -17718014.66 -17718014.44 -17718014.21 0.0135 0.0004
 Venus -53222-05-05 10:04 J -17717788.29 -17717788.08 -17717787.85 0.0135 0.0027
 Venus -53222-12-17 18:13 J -17717561.93 -17717561.74 -17717561.52 0.0135 0.0057
 Venus -53221-07-31 02:23 J -17717335.55 -17717335.40 -17717335.21 0.0135 0.0086
 Venus -53220-03-14 10:18 J -17717109.16 -17717109.07 -17717108.93 0.0134 0.0115
 Mercury -53204-09-16 16:33 J -17711078.86 -17711078.81 -17711078.76 0.0132 0.0123
 Mercury -53204-12-13 19:40 J -17710990.76 -17710990.68 -17710990.60 0.0132 0.0105
 Mercury -53203-03-11 22:33 J -17710902.65 -17710902.56 -17710902.45 0.0132 0.0088
 Mercury -53203-06-08 01:54 J -17710814.53 -17710814.42 -17710814.30 0.0132 0.0070
 Mercury -53203-09-04 05:01 J -17710726.41 -17710726.29 -17710726.16 0.0132 0.0052
 Mercury -53203-12-01 08:09 J -17710638.29 -17710638.16 -17710638.03 0.0132 0.0035
 Mercury -53202-02-27 11:16 J -17710550.16 -17710550.03 -17710549.89 0.0132 0.0017
 Mercury -53202-05-26 14:23 J -17710462.04 -17710461.90 -17710461.76 0.0132 0.0001
 Mercury -53202-08-22 17:30 J -17710373.90 -17710373.77 -17710373.64 0.0132 0.0018
 Mercury -53202-11-18 20:37 J -17710285.77 -17710285.64 -17710285.51 0.0132 0.0035
 Mercury -53201-02-14 23:30 J -17710197.64 -17710197.52 -17710197.39 0.0132 0.0053

Mercury -53201-05-13 02:37 J -17710109.50 -17710109.39 -17710109.27 0.0132 0.0070
 Mercury -53201-08-09 05:30 J -17710021.36 -17710021.27 -17710021.16 0.0132 0.0088
 Mercury -53201-11-05 08:37 J -17709933.21 -17709933.14 -17709933.05 0.0132 0.0105
 Mercury -53200-02-01 11:45 J -17709845.06 -17709845.01 -17709844.96 0.0132 0.0122
 Moon -53196-09-02 16:04 J -17708171.04 -17708170.83 -17708170.62 0.0134 0.0072
 Earth -53196-09-02 19:40 J -17708170.89 -17708170.68 -17708170.46 0.0134 0.0069 *
 Earth -53195-09-07 01:25 J -17707801.69 -17707801.44 -17707801.20 0.0134 0.0033
 Moon -53195-09-07 05:01 J -17707801.54 -17707801.29 -17707801.05 0.0134 0.0034 *
 Mars -53185-01-07 07:11 J -17704392.29 -17704392.20 -17704392.08 0.0139 0.0128
 Mars -53184-12-07 00:28 J -17703692.68 -17703692.48 -17703692.27 0.0140 0.0094
 Venus -53181-11-01 17:59 J -17702631.82 -17702631.75 -17702631.67 0.0142 0.0132
 Venus -53180-06-16 01:40 J -17702405.57 -17702405.43 -17702405.28 0.0142 0.0101
 Venus -53179-01-28 09:35 J -17702179.28 -17702179.10 -17702178.91 0.0143 0.0069
 Venus -53179-09-11 17:59 J -17701952.95 -17701952.75 -17701952.54 0.0143 0.0036
 Venus -53178-04-26 02:23 J -17701726.61 -17701726.40 -17701726.18 0.0143 0.0005
 Venus -53178-12-08 11:16 J -17701500.24 -17701500.03 -17701499.83 0.0144 0.0031
 Venus -53177-07-21 19:54 J -17701273.85 -17701273.67 -17701273.47 0.0144 0.0065
 Venus -53176-03-05 05:16 J -17701047.43 -17701047.28 -17701047.12 0.0144 0.0099
 Venus -53176-10-17 14:52 J -17700820.96 -17700820.88 -17700820.80 0.0145 0.0133
 Mercury -53162-06-24 03:06 J -17695823.47 -17695823.37 -17695823.25 0.0147 0.0118
 Mercury -53162-09-20 11:01 J -17695735.18 -17695735.04 -17695734.88 0.0147 0.0085
 Mercury -53162-12-17 19:11 J -17695646.87 -17695646.70 -17695646.52 0.0147 0.0052
 Mercury -53161-03-15 03:21 J -17695558.54 -17695558.36 -17695558.17 0.0147 0.0019
 Mercury -53161-06-11 11:30 J -17695470.20 -17695470.02 -17695469.83 0.0147 0.0014
 Mercury -53161-09-07 19:40 J -17695381.85 -17695381.68 -17695381.50 0.0147 0.0048
 Mercury -53161-12-05 03:35 J -17695293.49 -17695293.35 -17695293.18 0.0147 0.0082
 Mercury -53160-03-03 11:59 J -17695205.11 -17695205.00 -17695204.88 0.0147 0.0115
 Earth -53156-02-27 20:09 J -17693747.77 -17693747.66 -17693747.51 0.0145 0.0125
 Moon -53156-02-27 22:47 J -17693747.67 -17693747.55 -17693747.39 0.0145 0.0121 *
 Moon -53155-03-04 21:06 J -17693377.87 -17693377.62 -17693377.37 0.0145 0.0013

Earth	-53155-03-05 00:28 J	-17693377.74	-17693377.48	-17693377.22	0.0145	0.0010	*
Earth	-53154-03-10 03:06 J	-17693007.38	-17693007.37	-17693007.32	0.0144	0.0144	
Moon	-53154-03-10 07:11 J	-17693007.28	-17693007.20	-17693007.12	0.0144	0.0137	
Mars	-53145-06-16 13:25 J	-17689621.24	-17689620.94	-17689620.61	0.0139	0.0057	
Venus	-53142-11-27 22:47 J	-17688361.57	-17688361.55	-17688361.53	0.0137	0.0136	
Venus	-53141-07-11 08:23 J	-17688135.28	-17688135.15	-17688135.00	0.0137	0.0106	
Venus	-53140-02-22 17:59 J	-17687908.92	-17687908.75	-17687908.55	0.0136	0.0075	
Venus	-53140-10-07 03:21 J	-17687682.56	-17687682.36	-17687682.13	0.0136	0.0045	
Venus	-53139-05-21 12:42 J	-17687456.19	-17687455.97	-17687455.75	0.0136	0.0014	
Venus	-53138-01-02 21:35 J	-17687229.83	-17687229.60	-17687229.38	0.0135	0.0016	
Venus	-53138-08-17 05:59 J	-17687003.46	-17687003.25	-17687003.03	0.0135	0.0045	
Venus	-53137-03-30 14:09 J	-17686777.08	-17686776.91	-17686776.71	0.0135	0.0075	
Venus	-53137-11-11 22:33 J	-17686550.70	-17686550.56	-17686550.42	0.0135	0.0103	
Venus	-53136-06-26 05:45 J	-17686324.28	-17686324.26	-17686324.19	0.0134	0.0132	
Mercury	-53120-10-07 00:28 J	-17680377.55	-17680377.48	-17680377.42	0.0132	0.0115	
Mercury	-53119-01-03 03:21 J	-17680289.44	-17680289.36	-17680289.26	0.0132	0.0098	
Mercury	-53119-04-01 06:28 J	-17680201.33	-17680201.23	-17680201.11	0.0132	0.0080	
Mercury	-53119-06-28 09:49 J	-17680113.21	-17680113.09	-17680112.97	0.0132	0.0062	
Mercury	-53119-09-24 12:57 J	-17680025.09	-17680024.96	-17680024.83	0.0132	0.0044	
Mercury	-53119-12-21 16:04 J	-17679936.96	-17679936.83	-17679936.70	0.0132	0.0027	
Mercury	-53118-03-19 19:11 J	-17679848.84	-17679848.70	-17679848.56	0.0132	0.0009	
Mercury	-53118-06-15 22:18 J	-17679760.71	-17679760.57	-17679760.44	0.0132	0.0008	
Mercury	-53118-09-12 01:25 J	-17679672.58	-17679672.44	-17679672.31	0.0132	0.0026	
Mercury	-53118-12-09 04:18 J	-17679584.44	-17679584.32	-17679584.19	0.0132	0.0043	
Mercury	-53117-03-06 07:25 J	-17679496.31	-17679496.19	-17679496.07	0.0132	0.0061	
Mercury	-53117-06-02 10:18 J	-17679408.17	-17679408.07	-17679407.95	0.0132	0.0078	
Mercury	-53117-08-29 13:25 J	-17679320.02	-17679319.94	-17679319.84	0.0132	0.0095	
Mercury	-53117-11-25 16:33 J	-17679231.87	-17679231.81	-17679231.74	0.0132	0.0112	
Mercury	-53116-02-21 19:40 J	-17679143.70	-17679143.68	-17679143.66	0.0132	0.0130	
Moon	-53112-09-03 06:42 J	-17677489.43	-17677489.22	-17677488.98	0.0134	0.0056	

Earth -53112-09-03 10:04 J -17677489.29 -17677489.08 -17677488.84 0.0134 0.0060 *
 Earth -53111-09-07 15:49 J -17677120.07 -17677119.84 -17677119.60 0.0134 0.0043
 Moon -53111-09-07 19:11 J -17677119.93 -17677119.70 -17677119.45 0.0134 0.0044 *
 Mars -53101-08-31 23:30 J -17673473.78 -17673473.52 -17673473.25 0.0139 0.0044
 Venus -53096-02-13 12:42 J -17671847.09 -17671846.97 -17671846.83 0.0142 0.0113
 Venus -53096-09-27 20:37 J -17671620.80 -17671620.64 -17671620.46 0.0142 0.0081
 Venus -53095-05-12 04:47 J -17671394.49 -17671394.30 -17671394.10 0.0143 0.0049
 Venus -53095-12-24 13:11 J -17671168.16 -17671167.95 -17671167.74 0.0143 0.0016
 Venus -53094-08-07 21:49 J -17670941.80 -17670941.59 -17670941.38 0.0143 0.0017
 Venus -53093-03-21 06:28 J -17670715.42 -17670715.23 -17670715.03 0.0144 0.0051
 Venus -53093-11-02 15:35 J -17670489.02 -17670488.85 -17670488.67 0.0144 0.0084
 Venus -53092-06-17 00:42 J -17670262.58 -17670262.47 -17670262.34 0.0144 0.0119
 Mercury -53078-04-17 03:49 J -17665210.39 -17665210.34 -17665210.26 0.0147 0.0137
 Mercury -53078-07-14 11:59 J -17665122.12 -17665122.00 -17665121.87 0.0147 0.0104
 Mercury -53078-10-10 20:09 J -17665033.82 -17665033.66 -17665033.50 0.0147 0.0071
 Mercury -53077-01-07 04:04 J -17664945.51 -17664945.33 -17664945.15 0.0147 0.0038
 Mercury -53077-04-04 12:13 J -17664857.17 -17664856.99 -17664856.80 0.0147 0.0005
 Mercury -53077-07-01 20:23 J -17664768.83 -17664768.65 -17664768.47 0.0147 0.0028
 Mercury -53077-09-28 04:18 J -17664680.48 -17664680.32 -17664680.14 0.0147 0.0062
 Mercury -53077-12-25 12:28 J -17664592.11 -17664591.98 -17664591.82 0.0147 0.0096
 Mercury -53076-03-23 21:06 J -17664503.71 -17664503.62 -17664503.53 0.0147 0.0129
 Earth -53072-02-28 11:59 J -17663066.15 -17663066.00 -17663065.83 0.0145 0.0113
 Moon -53072-02-28 15:06 J -17663066.03 -17663065.87 -17663065.71 0.0145 0.0114 *
 Moon -53071-03-05 13:11 J -17662696.20 -17662695.95 -17662695.70 0.0145 0.0021
 Earth -53071-03-05 16:04 J -17662696.08 -17662695.83 -17662695.58 0.0145 0.0022 *
 Mars -53062-03-07 22:33 J -17659406.73 -17659406.56 -17659406.34 0.0140 0.0114
 Venus -53057-03-10 19:40 J -17657576.79 -17657576.68 -17657576.56 0.0137 0.0116
 Venus -53057-10-23 05:16 J -17657350.44 -17657350.28 -17657350.10 0.0136 0.0086
 Venus -53056-06-06 14:52 J -17657124.08 -17657123.88 -17657123.67 0.0136 0.0055
 Venus -53055-01-18 23:59 J -17656897.72 -17656897.50 -17656897.28 0.0136 0.0025

Venus -53055-09-02 09:06 J -17656671.35 -17656671.12 -17656670.90 0.0136 0.0005
 Venus -53054-04-16 17:45 J -17656444.98 -17656444.76 -17656444.54 0.0135 0.0034
 Venus -53054-11-29 01:40 J -17656218.61 -17656218.43 -17656218.22 0.0135 0.0064
 Venus -53053-07-12 09:49 J -17655992.24 -17655992.09 -17655991.91 0.0135 0.0093
 Venus -53052-02-23 17:45 J -17655765.84 -17655765.76 -17655765.65 0.0134 0.0121
 Mercury -53036-07-31 05:01 J -17649764.33 -17649764.29 -17649764.25 0.0132 0.0125
 Mercury -53036-10-27 08:09 J -17649676.23 -17649676.16 -17649676.08 0.0132 0.0107
 Mercury -53035-01-23 11:16 J -17649588.12 -17649588.03 -17649587.92 0.0132 0.0090
 Mercury -53035-04-21 14:23 J -17649500.00 -17649499.90 -17649499.78 0.0132 0.0072
 Mercury -53035-07-18 17:45 J -17649411.88 -17649411.76 -17649411.64 0.0132 0.0054
 Mercury -53035-10-14 20:52 J -17649323.76 -17649323.63 -17649323.50 0.0132 0.0036
 Mercury -53034-01-10 23:59 J -17649235.64 -17649235.50 -17649235.37 0.0132 0.0019
 Mercury -53034-04-09 03:06 J -17649147.51 -17649147.37 -17649147.24 0.0132 0.0002
 Mercury -53034-07-06 06:13 J -17649059.38 -17649059.24 -17649059.11 0.0132 0.0016
 Mercury -53034-10-02 09:06 J -17648971.25 -17648971.12 -17648970.98 0.0132 0.0034
 Mercury -53034-12-29 12:13 J -17648883.11 -17648882.99 -17648882.86 0.0132 0.0051
 Mercury -53033-03-26 15:21 J -17648794.97 -17648794.86 -17648794.74 0.0132 0.0068
 Mercury -53033-06-22 18:13 J -17648706.83 -17648706.74 -17648706.63 0.0132 0.0086
 Mercury -53033-09-18 21:21 J -17648618.69 -17648618.61 -17648618.52 0.0132 0.0103
 Mercury -53033-12-16 00:13 J -17648530.53 -17648530.49 -17648530.43 0.0132 0.0120
 Moon -53028-09-03 20:52 J -17646807.86 -17646807.63 -17646807.40 0.0134 0.0053
 Earth -53028-09-04 00:13 J -17646807.72 -17646807.49 -17646807.25 0.0134 0.0050 *
 Earth -53027-09-08 05:30 J -17646438.50 -17646438.27 -17646438.03 0.0134 0.0053
 Moon -53027-09-08 08:37 J -17646438.36 -17646438.14 -17646437.89 0.0134 0.0054 *
 Mars -53016-04-26 12:13 J -17642555.25 -17642554.99 -17642554.71 0.0140 0.0041
 Venus -53013-10-13 22:18 J -17641288.65 -17641288.57 -17641288.46 0.0142 0.0127
 Venus -53012-05-28 05:59 J -17641062.39 -17641062.25 -17641062.08 0.0142 0.0096
 Venus -53011-01-09 13:54 J -17640836.10 -17640835.92 -17640835.72 0.0142 0.0064
 Venus -53011-08-23 22:18 J -17640609.77 -17640609.57 -17640609.36 0.0143 0.0031
 Venus -53010-04-07 06:42 J -17640383.43 -17640383.22 -17640383.01 0.0143 0.0002

Venus -53010-11-19 15:21 J -17640157.07 -17640156.86 -17640156.66 0.0144 0.0035

Venus -53009-07-02 23:59 J -17639930.68 -17639930.50 -17639930.31 0.0144 0.0068

Venus -53008-02-14 08:52 J -17639704.26 -17639704.13 -17639703.96 0.0144 0.0103

Venus -53008-09-28 18:42 J -17639477.78 -17639477.72 -17639477.64 0.0144 0.0136

53RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 53rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-52994-05-07 11:30 J	-17634509.10	-17634509.02	-17634508.93	0.0147	0.0128		
Mercury	-52994-08-03 19:25 J	-17634420.82	-17634420.69	-17634420.54	0.0147	0.0096		
Mercury	-52994-10-31 03:21 J	-17634332.52	-17634332.36	-17634332.18	0.0147	0.0063		
Mercury	-52993-01-27 11:30 J	-17634244.19	-17634244.02	-17634243.83	0.0147	0.0030		
Mercury	-52993-04-24 19:54 J	-17634155.86	-17634155.67	-17634155.49	0.0147	0.0005		
Mercury	-52993-07-22 04:04 J	-17634067.51	-17634067.33	-17634067.15	0.0147	0.0037		
Mercury	-52993-10-18 11:59 J	-17633979.16	-17633979.00	-17633978.83	0.0147	0.0071		
Mercury	-52992-01-14 20:09 J	-17633890.78	-17633890.66	-17633890.52	0.0147	0.0105		
Mercury	-52992-04-13 04:47 J	-17633802.36	-17633802.30	-17633802.24	0.0147	0.0138		
Earth	-52988-02-28 23:16 J	-17632384.69	-17632384.53	-17632384.34	0.0145	0.0106		
Moon	-52988-03-01 00:57 J	-17632384.62	-17632384.46	-17632384.25	0.0145	0.0103	*	
Moon	-52987-03-06 00:28 J	-17632014.71	-17632014.48	-17632014.22	0.0145	0.0033		
Earth	-52987-03-06 03:35 J	-17632014.60	-17632014.35	-17632014.09	0.0145	0.0030	*	
Mars	-52978-11-02 12:42 J	-17628486.31	-17628485.97	-17628485.62	0.0139	0.0007		

Venus	-52974-11-09 05:01 J	-17627018.35	-17627018.29	-17627018.20	0.0137	0.0129
Venus	-52973-06-22 14:52 J	-17626792.02	-17626791.88	-17626791.70	0.0137	0.0098
Venus	-52972-02-04 00:42 J	-17626565.65	-17626565.47	-17626565.26	0.0136	0.0068
Venus	-52972-09-18 10:18 J	-17626339.28	-17626339.07	-17626338.85	0.0136	0.0037
Venus	-52971-05-02 19:25 J	-17626112.91	-17626112.69	-17626112.46	0.0136	0.0007
Venus	-52971-12-15 04:04 J	-17625886.54	-17625886.33	-17625886.10	0.0136	0.0023
Venus	-52970-07-29 12:28 J	-17625660.17	-17625659.98	-17625659.76	0.0135	0.0052
Venus	-52969-03-11 20:52 J	-17625433.79	-17625433.63	-17625433.44	0.0135	0.0081
Venus	-52969-10-24 05:01 J	-17625207.41	-17625207.29	-17625207.15	0.0135	0.0109
Mercury	-52952-08-20 12:57 J	-17619063.02	-17619062.96	-17619062.90	0.0132	0.0117
Mercury	-52952-11-16 15:49 J	-17618974.91	-17618974.84	-17618974.74	0.0132	0.0100
Mercury	-52951-02-12 19:11 J	-17618886.80	-17618886.70	-17618886.59	0.0132	0.0082
Mercury	-52951-05-11 22:18 J	-17618798.68	-17618798.57	-17618798.44	0.0132	0.0064
Mercury	-52951-08-08 01:40 J	-17618710.56	-17618710.43	-17618710.30	0.0132	0.0046
Mercury	-52951-11-04 04:47 J	-17618622.43	-17618622.30	-17618622.17	0.0132	0.0029
Mercury	-52950-01-31 07:54 J	-17618534.31	-17618534.17	-17618534.04	0.0132	0.0011
Mercury	-52950-04-29 11:01 J	-17618446.18	-17618446.04	-17618445.91	0.0132	0.0007
Mercury	-52950-07-26 14:09 J	-17618358.05	-17618357.91	-17618357.78	0.0132	0.0024
Mercury	-52950-10-22 17:01 J	-17618269.91	-17618269.79	-17618269.66	0.0132	0.0042
Mercury	-52949-01-18 20:09 J	-17618181.78	-17618181.66	-17618181.54	0.0132	0.0059
Mercury	-52949-04-15 23:16 J	-17618093.64	-17618093.53	-17618093.42	0.0132	0.0076
Mercury	-52949-07-13 02:23 J	-17618005.50	-17618005.40	-17618005.31	0.0132	0.0093
Mercury	-52949-10-09 05:01 J	-17617917.35	-17617917.29	-17617917.21	0.0132	0.0111
Mercury	-52948-01-05 08:09 J	-17617829.18	-17617829.16	-17617829.12	0.0132	0.0128
Moon	-52944-09-04 11:30 J	-17616126.26	-17616126.02	-17616125.78	0.0134	0.0037
Earth	-52944-09-04 14:23 J	-17616126.13	-17616125.90	-17616125.66	0.0134	0.0041 *
Earth	-52943-09-08 19:40 J	-17615756.90	-17615756.68	-17615756.46	0.0134	0.0061
Moon	-52943-09-08 22:47 J	-17615756.76	-17615756.55	-17615756.31	0.0134	0.0062 *
Mars	-52933-01-20 10:18 J	-17612336.26	-17612336.07	-17612335.86	0.0139	0.0097
Mars	-52932-12-20 01:54 J	-17611636.53	-17611636.42	-17611636.29	0.0140	0.0125

Venus	-52929-06-13 08:52 J	-17610730.15	-17610730.13	-17610730.07	0.0141	0.0139
Venus	-52928-01-25 16:33 J	-17610503.94	-17610503.81	-17610503.66	0.0142	0.0108
Venus	-52928-09-09 00:28 J	-17610277.65	-17610277.48	-17610277.30	0.0142	0.0076
Venus	-52927-04-23 08:23 J	-17610051.35	-17610051.15	-17610050.94	0.0143	0.0045
Venus	-52927-12-05 16:33 J	-17609825.02	-17609824.81	-17609824.59	0.0143	0.0013
Venus	-52926-07-20 01:11 J	-17609598.66	-17609598.45	-17609598.24	0.0143	0.0021
Venus	-52925-03-02 09:35 J	-17609372.29	-17609372.10	-17609371.90	0.0144	0.0054
Venus	-52925-10-14 18:42 J	-17609145.88	-17609145.72	-17609145.55	0.0144	0.0087
Venus	-52924-05-29 04:04 J	-17608919.44	-17608919.33	-17608919.21	0.0144	0.0121
Mercury	-52910-05-27 19:11 J	-17603807.80	-17603807.70	-17603807.58	0.0147	0.0119
Mercury	-52910-08-24 03:21 J	-17603719.50	-17603719.36	-17603719.21	0.0147	0.0086
Mercury	-52910-11-20 11:16 J	-17603631.19	-17603631.03	-17603630.85	0.0147	0.0053
Mercury	-52909-02-16 19:25 J	-17603542.87	-17603542.69	-17603542.50	0.0147	0.0020
Mercury	-52909-05-15 03:35 J	-17603454.53	-17603454.35	-17603454.16	0.0147	0.0014
Mercury	-52909-08-11 11:45 J	-17603366.18	-17603366.01	-17603365.83	0.0147	0.0047
Mercury	-52909-11-07 19:54 J	-17603277.82	-17603277.67	-17603277.51	0.0147	0.0081
Mercury	-52908-02-04 03:49 J	-17603189.44	-17603189.34	-17603189.21	0.0147	0.0115
Earth	-52904-03-01 11:16 J	-17601703.20	-17601703.03	-17601702.83	0.0145	0.0099
Moon	-52904-03-01 13:25 J	-17601703.12	-17601702.94	-17601702.74	0.0145	0.0100 *
Moon	-52903-03-06 13:25 J	-17601333.18	-17601332.94	-17601332.70	0.0145	0.0036
Earth	-52903-03-06 15:35 J	-17601333.10	-17601332.85	-17601332.60	0.0145	0.0037 *
Mars	-52893-06-28 23:59 J	-17597565.72	-17597565.50	-17597565.24	0.0139	0.0098
Venus	-52889-02-21 00:13 J	-17596233.62	-17596233.49	-17596233.35	0.0137	0.0109
Venus	-52889-10-04 10:04 J	-17596007.26	-17596007.08	-17596006.89	0.0137	0.0079
Venus	-52888-05-18 19:40 J	-17595780.89	-17595780.68	-17595780.47	0.0136	0.0049
Venus	-52888-12-31 04:47 J	-17595554.52	-17595554.30	-17595554.07	0.0136	0.0019
Venus	-52887-08-14 13:54 J	-17595328.14	-17595327.92	-17595327.70	0.0136	0.0011
Venus	-52886-03-28 22:33 J	-17595101.76	-17595101.56	-17595101.34	0.0135	0.0041
Venus	-52886-11-10 06:57 J	-17594875.39	-17594875.21	-17594875.01	0.0135	0.0070
Venus	-52885-06-23 15:06 J	-17594649.01	-17594648.87	-17594648.70	0.0135	0.0098

Venus -52884-02-04 23:16 J -17594422.60 -17594422.53 -17594422.44 0.0135 0.0126
 Mercury -52868-06-13 17:30 J -17588449.80 -17588449.77 -17588449.73 0.0132 0.0127
 Mercury -52868-09-09 20:52 J -17588361.70 -17588361.63 -17588361.55 0.0132 0.0109
 Mercury -52868-12-06 23:45 J -17588273.59 -17588273.51 -17588273.40 0.0132 0.0092
 Mercury -52867-03-05 03:06 J -17588185.48 -17588185.37 -17588185.25 0.0132 0.0074
 Mercury -52867-06-01 06:13 J -17588097.36 -17588097.24 -17588097.11 0.0132 0.0056
 Mercury -52867-08-28 09:21 J -17588009.23 -17588009.11 -17588008.97 0.0132 0.0039
 Mercury -52867-11-24 12:42 J -17587921.11 -17587920.97 -17587920.84 0.0132 0.0021
 Mercury -52866-02-20 15:49 J -17587832.98 -17587832.84 -17587832.71 0.0132 0.0005
 Mercury -52866-05-19 18:42 J -17587744.85 -17587744.72 -17587744.58 0.0132 0.0015
 Mercury -52866-08-15 21:49 J -17587656.72 -17587656.59 -17587656.46 0.0132 0.0032
 Mercury -52866-11-12 00:57 J -17587568.58 -17587568.46 -17587568.33 0.0132 0.0049
 Mercury -52865-02-08 03:49 J -17587480.45 -17587480.34 -17587480.21 0.0132 0.0067
 Mercury -52865-05-06 06:57 J -17587392.31 -17587392.21 -17587392.10 0.0132 0.0084
 Mercury -52865-08-02 10:04 J -17587304.16 -17587304.08 -17587303.99 0.0132 0.0101
 Mercury -52865-10-29 13:11 J -17587216.01 -17587215.95 -17587215.89 0.0132 0.0118
 Earth -52861-08-31 23:30 J -17585813.52 -17585813.52 -17585813.49 0.0133 0.0133
 Moon -52861-09-01 02:09 J -17585813.46 -17585813.41 -17585813.31 0.0133 0.0127
 Moon -52860-09-05 01:25 J -17585444.67 -17585444.44 -17585444.19 0.0134 0.0035
 Earth -52860-09-05 04:33 J -17585444.54 -17585444.31 -17585444.05 0.0134 0.0032 *
 Earth -52859-09-09 09:35 J -17585075.30 -17585075.10 -17585074.88 0.0134 0.0071
 Moon -52859-09-09 12:42 J -17585075.18 -17585074.97 -17585074.75 0.0134 0.0072 *
 Mars -52849-09-14 00:13 J -17581417.76 -17581417.49 -17581417.21 0.0139 0.0013
 Venus -52845-09-25 03:06 J -17579945.47 -17579945.37 -17579945.25 0.0142 0.0120
 Venus -52844-05-09 10:47 J -17579719.21 -17579719.05 -17579718.88 0.0142 0.0089
 Venus -52844-12-21 18:13 J -17579492.92 -17579492.74 -17579492.53 0.0142 0.0058
 Venus -52843-08-05 02:37 J -17579266.60 -17579266.39 -17579266.18 0.0143 0.0026
 Venus -52842-03-19 10:47 J -17579040.26 -17579040.05 -17579039.84 0.0143 0.0007
 Venus -52842-10-31 19:11 J -17578813.90 -17578813.70 -17578813.49 0.0143 0.0039
 Venus -52841-06-14 03:49 J -17578587.51 -17578587.34 -17578587.15 0.0144 0.0073

Venus -52840-01-26 13:11 J -17578361.09 -17578360.95 -17578360.81 0.0144 0.0105
 Venus -52840-09-09 22:47 J -17578134.61 -17578134.55 -17578134.50 0.0144 0.0139
 Mercury -52826-03-20 18:42 J -17573194.75 -17573194.72 -17573194.68 0.0147 0.0144
 Mercury -52826-06-17 02:37 J -17573106.50 -17573106.39 -17573106.26 0.0147 0.0111
 Mercury -52826-09-13 10:33 J -17573018.21 -17573018.06 -17573017.90 0.0147 0.0078
 Mercury -52826-12-10 18:42 J -17572929.89 -17572929.72 -17572929.54 0.0147 0.0045
 Mercury -52825-03-08 02:52 J -17572841.57 -17572841.38 -17572841.20 0.0147 0.0012
 Mercury -52825-06-04 10:47 J -17572753.23 -17572753.05 -17572752.86 0.0147 0.0022
 Mercury -52825-08-31 18:57 J -17572664.88 -17572664.71 -17572664.53 0.0147 0.0055
 Mercury -52825-11-28 03:06 J -17572576.51 -17572576.37 -17572576.21 0.0147 0.0089
 Mercury -52824-02-24 11:16 J -17572488.12 -17572488.03 -17572487.91 0.0147 0.0123
 Earth -52820-03-01 21:06 J -17571021.80 -17571021.62 -17571021.41 0.0145 0.0094
 Moon -52820-03-01 22:18 J -17571021.78 -17571021.57 -17571021.36 0.0145 0.0089 *
 Moon -52819-03-06 23:16 J -17570651.76 -17570651.53 -17570651.29 0.0145 0.0044
 Earth -52819-03-07 01:25 J -17570651.68 -17570651.44 -17570651.19 0.0145 0.0042 *
 Mars -52810-03-19 22:04 J -17567351.85 -17567351.58 -17567351.29 0.0140 0.0080
 Venus -52806-10-21 07:54 J -17565675.25 -17565675.17 -17565675.05 0.0137 0.0123
 Venus -52805-06-03 17:59 J -17565448.90 -17565448.75 -17565448.57 0.0137 0.0092
 Venus -52804-01-16 03:49 J -17565222.53 -17565222.34 -17565222.13 0.0137 0.0062
 Venus -52804-08-30 13:25 J -17564996.15 -17564995.94 -17564995.71 0.0136 0.0031
 Venus -52803-04-13 22:47 J -17564769.77 -17564769.55 -17564769.32 0.0136 0.0002
 Venus -52803-11-26 07:40 J -17564543.40 -17564543.18 -17564542.96 0.0136 0.0028
 Venus -52802-07-10 16:04 J -17564317.02 -17564316.83 -17564316.61 0.0135 0.0058
 Venus -52801-02-22 00:28 J -17564090.63 -17564090.48 -17564090.29 0.0135 0.0087
 Venus -52801-10-05 08:52 J -17563864.23 -17563864.13 -17563864.00 0.0135 0.0114
 Mercury -52784-07-04 01:25 J -17557748.49 -17557748.44 -17557748.38 0.0132 0.0119
 Mercury -52784-09-30 04:33 J -17557660.39 -17557660.31 -17557660.22 0.0132 0.0101
 Mercury -52784-12-27 07:40 J -17557572.28 -17557572.18 -17557572.06 0.0132 0.0084
 Mercury -52783-03-25 11:01 J -17557484.16 -17557484.04 -17557483.92 0.0132 0.0066
 Mercury -52783-06-21 14:09 J -17557396.03 -17557395.91 -17557395.78 0.0132 0.0048

Mercury -52783-09-17 17:16 J -17557307.91 -17557307.78 -17557307.64 0.0132 0.0031

Mercury -52783-12-14 20:23 J -17557219.78 -17557219.65 -17557219.51 0.0132 0.0013

Mercury -52782-03-12 23:30 J -17557131.65 -17557131.52 -17557131.38 0.0132 0.0006

Mercury -52782-06-09 02:37 J -17557043.52 -17557043.39 -17557043.25 0.0132 0.0022

Mercury -52782-09-05 05:45 J -17556955.39 -17556955.26 -17556955.13 0.0132 0.0040

Mercury -52782-12-02 08:52 J -17556867.25 -17556867.13 -17556867.01 0.0132 0.0057

Mercury -52781-02-28 11:59 J -17556779.11 -17556779.00 -17556778.89 0.0132 0.0074

Mercury -52781-05-26 14:52 J -17556690.97 -17556690.88 -17556690.78 0.0132 0.0092

Mercury -52781-08-22 17:45 J -17556602.82 -17556602.76 -17556602.67 0.0132 0.0110

Mercury -52781-11-18 20:52 J -17556514.66 -17556514.63 -17556514.58 0.0132 0.0126

Earth -52777-09-01 14:23 J -17555131.99 -17555131.90 -17555131.81 0.0133 0.0124

Moon -52777-09-01 16:47 J -17555131.84 -17555131.80 -17555131.72 0.0133 0.0130 *

Moon -52776-09-05 16:47 J -17554763.05 -17554762.80 -17554762.56 0.0134 0.0018

Earth -52776-09-05 18:57 J -17554762.95 -17554762.71 -17554762.45 0.0134 0.0023 *

Earth -52775-09-10 00:13 J -17554393.68 -17554393.49 -17554393.28 0.0134 0.0080

Moon -52775-09-10 03:21 J -17554393.56 -17554393.36 -17554393.15 0.0134 0.0080 *

Mars -52764-05-09 15:06 J -17550499.10 -17550498.87 -17550498.62 0.0139 0.0072

Venus -52761-05-25 14:52 J -17549386.95 -17549386.88 -17549386.80 0.0141 0.0131

Venus -52760-01-06 21:49 J -17549160.72 -17549160.59 -17549160.42 0.0142 0.0101

Venus -52760-08-21 05:59 J -17548934.43 -17548934.25 -17548934.06 0.0142 0.0069

Venus -52759-04-04 13:54 J -17548708.12 -17548707.92 -17548707.72 0.0142 0.0038

Venus -52759-11-16 22:04 J -17548481.79 -17548481.58 -17548481.37 0.0143 0.0006

Venus -52758-07-01 06:13 J -17548255.44 -17548255.24 -17548255.03 0.0143 0.0027

Venus -52757-02-12 14:52 J -17548029.07 -17548028.88 -17548028.68 0.0143 0.0060

Venus -52757-09-25 23:45 J -17547802.66 -17547802.51 -17547802.33 0.0144 0.0093

Venus -52756-05-10 09:21 J -17547576.21 -17547576.11 -17547576.01 0.0144 0.0125

Mercury -52742-04-10 03:06 J -17542493.43 -17542493.37 -17542493.27 0.0147 0.0131

Mercury -52742-07-07 11:16 J -17542405.16 -17542405.03 -17542404.89 0.0147 0.0098

Mercury -52742-10-03 19:25 J -17542316.86 -17542316.69 -17542316.53 0.0147 0.0065

Mercury -52742-12-31 03:21 J -17542228.54 -17542228.36 -17542228.18 0.0147 0.0032

Mercury -52741-03-28 11:30 J -17542140.21 -17542140.02 -17542139.83 0.0147 0.0001

Mercury -52741-06-24 19:25 J -17542051.86 -17542051.69 -17542051.50 0.0147 0.0035

Mercury -52741-09-21 03:35 J -17541963.51 -17541963.35 -17541963.18 0.0147 0.0068

Mercury -52741-12-18 11:45 J -17541875.13 -17541875.01 -17541874.87 0.0147 0.0102

Mercury -52740-03-16 19:54 J -17541786.73 -17541786.67 -17541786.59 0.0147 0.0136

Earth -52736-03-02 11:01 J -17540340.24 -17540340.04 -17540339.82 0.0145 0.0084

Moon -52736-03-02 11:59 J -17540340.20 -17540340.00 -17540339.77 0.0145 0.0087 *

Moon -52735-03-07 13:54 J -17539970.15 -17539969.92 -17539969.69 0.0145 0.0051

Earth -52735-03-07 14:52 J -17539970.11 -17539969.88 -17539969.63 0.0145 0.0052 *

Mars -52726-11-14 11:59 J -17536431.32 -17536431.00 -17536430.65 0.0140 0.0027

Venus -52722-06-20 17:01 J -17535116.83 -17535116.79 -17535116.72 0.0138 0.0134

Venus -52721-02-02 03:06 J -17534890.50 -17534890.37 -17534890.20 0.0137 0.0104

Venus -52721-09-15 13:11 J -17534664.13 -17534663.95 -17534663.75 0.0137 0.0073

Venus -52720-04-29 23:01 J -17534437.75 -17534437.54 -17534437.33 0.0137 0.0043

Venus -52720-12-12 08:23 J -17534211.38 -17534211.15 -17534210.93 0.0136 0.0013

Venus -52719-07-26 17:16 J -17533985.00 -17533984.78 -17533984.55 0.0136 0.0017

Venus -52718-03-10 02:23 J -17533758.61 -17533758.40 -17533758.19 0.0136 0.0046

Venus -52718-10-22 10:47 J -17533532.23 -17533532.05 -17533531.85 0.0135 0.0075

Venus -52717-06-04 18:57 J -17533305.83 -17533305.71 -17533305.55 0.0135 0.0103

Venus -52716-01-17 03:06 J -17533079.40 -17533079.37 -17533079.30 0.0135 0.0131

Mercury -52700-04-27 05:59 J -17527135.26 -17527135.25 -17527135.21 0.0132 0.0129

Mercury -52700-07-24 09:21 J -17527047.18 -17527047.11 -17527047.03 0.0132 0.0111

Mercury -52700-10-20 12:42 J -17526959.07 -17526958.97 -17526958.88 0.0132 0.0093

Mercury -52699-01-16 15:35 J -17526870.95 -17526870.85 -17526870.73 0.0132 0.0076

Mercury -52699-04-14 18:57 J -17526782.83 -17526782.71 -17526782.59 0.0132 0.0058

Mercury -52699-07-11 22:04 J -17526694.71 -17526694.58 -17526694.45 0.0132 0.0040

Mercury -52699-10-08 01:11 J -17526606.58 -17526606.45 -17526606.31 0.0132 0.0023

Mercury -52698-01-04 04:18 J -17526518.45 -17526518.32 -17526518.18 0.0132 0.0006

Mercury -52698-04-02 07:25 J -17526430.32 -17526430.19 -17526430.05 0.0132 0.0013

Mercury -52698-06-29 10:33 J -17526342.19 -17526342.06 -17526341.93 0.0132 0.0030

Mercury -52698-09-25 13:40 J -17526254.05 -17526253.93 -17526253.80 0.0132 0.0048

Mercury -52698-12-22 16:47 J -17526165.92 -17526165.80 -17526165.68 0.0132 0.0065

Mercury -52697-03-19 19:54 J -17526077.78 -17526077.67 -17526077.57 0.0132 0.0082

Mercury -52697-06-15 22:33 J -17525989.63 -17525989.56 -17525989.46 0.0132 0.0101

Mercury -52697-09-12 01:40 J -17525901.48 -17525901.43 -17525901.36 0.0132 0.0117

Earth -52693-09-02 04:33 J -17524450.42 -17524450.31 -17524450.16 0.0133 0.0115

Moon -52693-09-02 06:42 J -17524450.35 -17524450.22 -17524450.05 0.0133 0.0109 *

Moon -52692-09-06 07:11 J -17524081.44 -17524081.20 -17524080.95 0.0134 0.0016

Earth -52692-09-06 09:49 J -17524081.33 -17524081.09 -17524080.83 0.0134 0.0013 *

Earth -52691-09-10 14:52 J -17523712.05 -17523711.88 -17523711.68 0.0134 0.0091

Moon -52691-09-10 17:16 J -17523711.95 -17523711.78 -17523711.58 0.0134 0.0092 *

Jupiter -52686-01-07 07:11 J -17522132.68 -17522132.20 -17522131.69 0.0136 0.0026

Mars -52681-02-02 15:35 J -17520280.10 -17520279.85 -17520279.60 0.0139 0.0063

Venus -52677-09-06 10:04 J -17518602.21 -17518602.08 -17518601.95 0.0141 0.0112

Venus -52676-04-20 17:30 J -17518375.94 -17518375.77 -17518375.60 0.0142 0.0081

Venus -52676-12-03 01:11 J -17518149.65 -17518149.45 -17518149.25 0.0142 0.0050

Venus -52675-07-17 09:06 J -17517923.33 -17517923.12 -17517922.91 0.0142 0.0018

Venus -52674-02-28 17:30 J -17517696.98 -17517696.77 -17517696.56 0.0143 0.0014

Venus -52674-10-13 01:54 J -17517470.61 -17517470.42 -17517470.21 0.0143 0.0046

Venus -52673-05-26 10:47 J -17517244.23 -17517244.05 -17517243.87 0.0143 0.0079

Venus -52672-01-07 19:25 J -17517017.80 -17517017.69 -17517017.54 0.0144 0.0112

Mercury -52658-04-30 11:30 J -17511792.11 -17511792.02 -17511791.90 0.0147 0.0119

Mercury -52658-07-27 19:40 J -17511703.82 -17511703.68 -17511703.53 0.0147 0.0086

Mercury -52658-10-24 03:49 J -17511615.51 -17511615.34 -17511615.17 0.0147 0.0053

Mercury -52657-01-20 11:45 J -17511527.19 -17511527.01 -17511526.82 0.0147 0.0020

Mercury -52657-04-17 19:54 J -17511438.86 -17511438.67 -17511438.49 0.0147 0.0013

Mercury -52657-07-15 03:49 J -17511350.51 -17511350.34 -17511350.16 0.0147 0.0047

Mercury -52657-10-11 12:13 J -17511262.15 -17511261.99 -17511261.84 0.0147 0.0080

Mercury -52656-01-07 20:09 J -17511173.77 -17511173.66 -17511173.53 0.0147 0.0114

Moon -52652-03-03 00:13 J -17509658.72 -17509658.49 -17509658.26 0.0145 0.0070

Earth	-52652-03-03 00:13 J	-17509658.70	-17509658.49	-17509658.27	0.0145	0.0075	*
Moon	-52651-03-08 02:52 J	-17509288.60	-17509288.38	-17509288.15	0.0145	0.0062	
Earth	-52651-03-08 03:49 J	-17509288.56	-17509288.34	-17509288.10	0.0145	0.0061	*
Mars	-52641-07-10 23:59 J	-17505510.55	-17505510.50	-17505510.37	0.0139	0.0135	
Venus	-52638-10-02 12:13 J	-17504332.10	-17504331.99	-17504331.86	0.0137	0.0115	
Venus	-52637-05-15 22:18 J	-17504105.74	-17504105.57	-17504105.39	0.0137	0.0085	
Venus	-52637-12-28 08:09 J	-17503879.36	-17503879.16	-17503878.95	0.0137	0.0055	
Venus	-52636-08-11 17:30 J	-17503652.98	-17503652.77	-17503652.54	0.0136	0.0026	
Venus	-52635-03-26 03:06 J	-17503426.59	-17503426.37	-17503426.14	0.0136	0.0005	
Venus	-52635-11-07 11:59 J	-17503200.21	-17503200.00	-17503199.77	0.0136	0.0034	
Venus	-52634-06-21 20:52 J	-17502973.82	-17502973.63	-17502973.43	0.0135	0.0063	
Venus	-52633-02-03 05:16 J	-17502747.43	-17502747.28	-17502747.10	0.0135	0.0091	
Venus	-52633-09-16 13:40 J	-17502521.02	-17502520.93	-17502520.82	0.0135	0.0119	
Mercury	-52616-05-17 13:54 J	-17496433.96	-17496433.92	-17496433.86	0.0132	0.0121	
Mercury	-52616-08-13 17:16 J	-17496345.86	-17496345.78	-17496345.69	0.0132	0.0103	
Mercury	-52616-11-09 20:23 J	-17496257.75	-17496257.65	-17496257.54	0.0132	0.0085	
Mercury	-52615-02-05 23:30 J	-17496169.63	-17496169.52	-17496169.39	0.0132	0.0068	
Mercury	-52615-05-05 02:52 J	-17496081.51	-17496081.38	-17496081.25	0.0132	0.0050	
Mercury	-52615-08-01 05:59 J	-17495993.38	-17495993.25	-17495993.12	0.0132	0.0032	
Mercury	-52615-10-28 09:06 J	-17495905.25	-17495905.12	-17495904.98	0.0132	0.0015	
Mercury	-52614-01-24 12:13 J	-17495817.12	-17495816.99	-17495816.85	0.0132	0.0003	
Mercury	-52614-04-22 15:21 J	-17495728.99	-17495728.86	-17495728.73	0.0132	0.0021	
Mercury	-52614-07-19 18:28 J	-17495640.86	-17495640.73	-17495640.60	0.0132	0.0038	
Mercury	-52614-10-15 21:35 J	-17495552.72	-17495552.60	-17495552.48	0.0132	0.0056	
Mercury	-52613-01-12 00:28 J	-17495464.59	-17495464.48	-17495464.36	0.0132	0.0073	
Mercury	-52613-04-09 03:35 J	-17495376.44	-17495376.35	-17495376.25	0.0132	0.0090	
Mercury	-52613-07-06 06:42 J	-17495288.30	-17495288.22	-17495288.14	0.0132	0.0107	
Mercury	-52613-10-02 09:49 J	-17495200.14	-17495200.09	-17495200.05	0.0132	0.0125	
Earth	-52609-09-02 19:11 J	-17493768.84	-17493768.70	-17493768.53	0.0133	0.0105	
Moon	-52609-09-02 21:21 J	-17493768.73	-17493768.61	-17493768.44	0.0133	0.0111	*

Moon -52608-09-06 22:33 J -17493399.80 -17493399.56 -17493399.31 0.0134 0.0003
 Earth -52608-09-07 00:28 J -17493399.73 -17493399.48 -17493399.23 0.0134 0.0003 *
 Earth -52607-09-11 05:16 J -17493030.42 -17493030.28 -17493030.09 0.0134 0.0101
 Moon -52607-09-11 08:09 J -17493030.32 -17493030.16 -17493029.98 0.0134 0.0100 *
 Mars -52597-09-27 07:11 J -17489361.47 -17489361.20 -17489360.91 0.0139 0.0023
 Venus -52593-05-06 21:49 J -17488043.69 -17488043.59 -17488043.49 0.0141 0.0123
 Venus -52593-12-19 04:47 J -17487817.44 -17487817.30 -17487817.13 0.0142 0.0093
 Venus -52592-08-02 12:42 J -17487591.15 -17487590.97 -17487590.77 0.0142 0.0062
 Venus -52591-03-16 20:37 J -17487364.84 -17487364.64 -17487364.43 0.0142 0.0030
 Venus -52591-10-29 04:47 J -17487138.51 -17487138.30 -17487138.09 0.0143 0.0002
 Venus -52590-06-12 12:57 J -17486912.15 -17486911.96 -17486911.74 0.0143 0.0034
 Venus -52589-01-24 21:35 J -17486685.78 -17486685.60 -17486685.40 0.0143 0.0066
 Venus -52589-09-07 06:42 J -17486459.36 -17486459.22 -17486459.06 0.0144 0.0099
 Venus -52588-04-21 15:49 J -17486232.91 -17486232.84 -17486232.74 0.0144 0.0131
 Mercury -52574-02-21 12:42 J -17481179.02 -17481178.97 -17481178.89 0.0147 0.0137
 Mercury -52574-05-20 20:52 J -17481090.76 -17481090.63 -17481090.50 0.0147 0.0104
 Mercury -52574-08-17 04:33 J -17481002.46 -17481002.31 -17481002.14 0.0147 0.0072
 Mercury -52574-11-13 12:42 J -17480914.14 -17480913.97 -17480913.79 0.0147 0.0039
 Mercury -52573-02-09 20:52 J -17480825.82 -17480825.63 -17480825.45 0.0147 0.0005
 Mercury -52573-05-08 04:47 J -17480737.48 -17480737.30 -17480737.11 0.0147 0.0028
 Mercury -52573-08-04 12:57 J -17480649.12 -17480648.96 -17480648.79 0.0147 0.0061
 Mercury -52573-10-31 21:06 J -17480560.76 -17480560.62 -17480560.47 0.0147 0.0095
 Mercury -52572-01-28 05:01 J -17480472.36 -17480472.29 -17480472.18 0.0147 0.0129
 Moon -52568-03-03 16:04 J -17478977.07 -17478976.83 -17478976.60 0.0145 0.0066
 Earth -52568-03-03 15:49 J -17478977.07 -17478976.84 -17478976.61 0.0145 0.0063 *
 Moon -52567-03-08 19:11 J -17478606.91 -17478606.70 -17478606.48 0.0145 0.0073
 Earth -52567-03-08 19:25 J -17478606.90 -17478606.69 -17478606.46 0.0145 0.0073 *
 Mars -52558-04-01 08:52 J -17475296.45 -17475296.13 -17475295.80 0.0140 0.0039
 Venus -52554-06-01 22:04 J -17473773.65 -17473773.58 -17473773.47 0.0138 0.0127
 Venus -52553-01-14 08:23 J -17473547.30 -17473547.15 -17473546.98 0.0137 0.0096

Venus	-52553-08-27 18:28 J	-17473320.92	-17473320.73	-17473320.53	0.0137	0.0066
Venus	-52552-04-11 04:04 J	-17473094.54	-17473094.33	-17473094.10	0.0137	0.0037
Venus	-52552-11-23 13:40 J	-17472868.15	-17472867.93	-17472867.70	0.0136	0.0007
Venus	-52551-07-07 22:47 J	-17472641.77	-17472641.55	-17472641.33	0.0136	0.0023
Venus	-52550-02-19 07:40 J	-17472415.38	-17472415.18	-17472414.96	0.0136	0.0052
Venus	-52550-10-03 16:18 J	-17472188.99	-17472188.82	-17472188.63	0.0135	0.0081
Venus	-52549-05-17 00:57 J	-17471962.59	-17471962.46	-17471962.32	0.0135	0.0108
Mercury	-52532-03-10 18:42 J	-17465820.73	-17465820.72	-17465820.71	0.0132	0.0131
Mercury	-52532-06-06 21:49 J	-17465732.65	-17465732.59	-17465732.51	0.0132	0.0113
Mercury	-52532-09-03 01:11 J	-17465644.54	-17465644.45	-17465644.36	0.0132	0.0095
Mercury	-52532-11-30 04:18 J	-17465556.43	-17465556.32	-17465556.21	0.0132	0.0077
Mercury	-52531-02-26 07:25 J	-17465468.31	-17465468.19	-17465468.06	0.0132	0.0060
Mercury	-52531-05-25 10:47 J	-17465380.18	-17465380.05	-17465379.92	0.0132	0.0042
Mercury	-52531-08-21 13:40 J	-17465292.06	-17465291.93	-17465291.79	0.0132	0.0025
Mercury	-52531-11-17 17:01 J	-17465203.93	-17465203.79	-17465203.66	0.0132	0.0007
Mercury	-52530-02-13 20:09 J	-17465115.80	-17465115.66	-17465115.53	0.0132	0.0011
Mercury	-52530-05-12 23:01 J	-17465027.67	-17465027.54	-17465027.40	0.0132	0.0029
Mercury	-52530-08-09 02:09 J	-17464939.53	-17464939.41	-17464939.28	0.0132	0.0046
Mercury	-52530-11-05 05:16 J	-17464851.40	-17464851.28	-17464851.16	0.0132	0.0063
Mercury	-52529-02-01 08:23 J	-17464763.26	-17464763.15	-17464763.04	0.0132	0.0080
Mercury	-52529-04-29 11:16 J	-17464675.11	-17464675.03	-17464674.93	0.0132	0.0098
Mercury	-52529-07-26 14:09 J	-17464586.96	-17464586.91	-17464586.83	0.0132	0.0116
Mercury	-52529-10-22 17:30 J	-17464498.77	-17464498.77	-17464498.77	0.0132	0.0132
Earth	-52525-09-03 09:21 J	-17463087.27	-17463087.11	-17463086.92	0.0133	0.0095
Moon	-52525-09-03 10:47 J	-17463087.23	-17463087.05	-17463086.84	0.0133	0.0089 *
Moon	-52524-09-07 12:42 J	-17462718.22	-17462717.97	-17462717.73	0.0134	0.0004
Earth	-52524-09-07 14:37 J	-17462718.14	-17462717.89	-17462717.64	0.0134	0.0007 *
Earth	-52523-09-11 19:54 J	-17462348.80	-17462348.67	-17462348.52	0.0134	0.0110
Moon	-52523-09-11 21:21 J	-17462348.73	-17462348.61	-17462348.45	0.0134	0.0112 *
Mars	-52514-06-23 05:59 J	-17459142.40	-17459142.25	-17459142.09	0.0138	0.0114

Mars -52512-05-22 21:49 J -17458442.75 -17458442.59 -17458442.40 0.0139 0.0108
 Venus -52509-01-05 08:52 J -17457485.19 -17457485.13 -17457485.07 0.0141 0.0134
 Venus -52509-08-18 16:04 J -17457258.97 -17457258.83 -17457258.69 0.0141 0.0105
 Venus -52508-04-01 23:16 J -17457032.69 -17457032.53 -17457032.34 0.0142 0.0075
 Venus -52508-11-14 06:57 J -17456806.40 -17456806.21 -17456805.99 0.0142 0.0045
 Venus -52507-06-28 15:06 J -17456580.08 -17456579.87 -17456579.65 0.0142 0.0012
 Venus -52506-02-09 23:16 J -17456353.73 -17456353.53 -17456353.31 0.0143 0.0020
 Venus -52506-09-24 07:54 J -17456127.36 -17456127.17 -17456126.97 0.0143 0.0052
 Venus -52505-05-07 16:18 J -17455900.97 -17455900.82 -17455900.63 0.0143 0.0085
 Venus -52505-12-20 01:25 J -17455674.55 -17455674.44 -17455674.31 0.0144 0.0117
 Mercury -52490-03-13 20:37 J -17450477.72 -17450477.64 -17450477.54 0.0147 0.0127
 Mercury -52490-06-10 04:47 J -17450389.44 -17450389.30 -17450389.16 0.0147 0.0094
 Mercury -52490-09-06 12:28 J -17450301.14 -17450300.98 -17450300.80 0.0147 0.0062
 Mercury -52490-12-03 20:37 J -17450212.82 -17450212.64 -17450212.46 0.0147 0.0029
 Mercury -52489-03-01 04:47 J -17450124.49 -17450124.30 -17450124.12 0.0147 0.0005
 Mercury -52489-05-28 12:42 J -17450036.15 -17450035.97 -17450035.79 0.0147 0.0038
 Mercury -52489-08-24 20:37 J -17449947.79 -17449947.64 -17449947.47 0.0147 0.0072
 Mercury -52489-11-21 05:01 J -17449859.42 -17449859.29 -17449859.16 0.0147 0.0105
 Mercury -52488-02-17 12:57 J -17449771.00 -17449770.96 -17449770.89 0.0147 0.0139
 Moon -52484-03-04 02:23 J -17448295.64 -17448295.40 -17448295.14 0.0145 0.0050
 Earth -52484-03-04 03:21 J -17448295.59 -17448295.36 -17448295.11 0.0145 0.0056 *
 Moon -52483-03-09 06:57 J -17447925.41 -17447925.21 -17447925.00 0.0145 0.0081
 Earth -52483-03-09 06:57 J -17447925.41 -17447925.21 -17447924.98 0.0145 0.0081 *
 Jupiter -52479-12-30 03:21 J -17446168.75 -17446168.36 -17446167.90 0.0142 0.0085
 Mars -52474-11-26 21:06 J -17444375.90 -17444375.62 -17444375.31 0.0140 0.0069
 Venus -52470-09-13 17:16 J -17442988.90 -17442988.78 -17442988.63 0.0137 0.0109
 Venus -52469-04-27 03:21 J -17442762.53 -17442762.36 -17442762.16 0.0137 0.0079
 Venus -52469-12-09 13:11 J -17442536.15 -17442535.95 -17442535.73 0.0137 0.0049
 Venus -52468-07-23 23:01 J -17442309.76 -17442309.54 -17442309.31 0.0136 0.0019
 Venus -52467-03-07 08:37 J -17442083.36 -17442083.14 -17442082.92 0.0136 0.0011

Venus -52467-10-19 17:30 J -17441856.98 -17441856.77 -17441856.55 0.0136 0.0040
 Venus -52466-06-03 02:23 J -17441630.59 -17441630.40 -17441630.20 0.0135 0.0068
 Venus -52465-01-15 11:01 J -17441404.19 -17441404.04 -17441403.88 0.0135 0.0097
 Venus -52465-08-28 19:25 J -17441177.77 -17441177.69 -17441177.60 0.0135 0.0124
 Mercury -52448-03-31 02:23 J -17435119.44 -17435119.40 -17435119.35 0.0132 0.0124
 Mercury -52448-06-27 05:30 J -17435031.34 -17435031.27 -17435031.18 0.0132 0.0106
 Mercury -52448-09-23 08:52 J -17434943.23 -17434943.13 -17434943.03 0.0132 0.0088
 Mercury -52448-12-20 11:59 J -17434855.11 -17434855.00 -17434854.88 0.0132 0.0070
 Mercury -52447-03-18 15:06 J -17434766.99 -17434766.87 -17434766.74 0.0132 0.0053
 Mercury -52447-06-14 18:28 J -17434678.86 -17434678.73 -17434678.60 0.0132 0.0035
 Mercury -52447-09-10 21:35 J -17434590.74 -17434590.60 -17434590.47 0.0132 0.0017
 Mercury -52447-12-08 00:42 J -17434502.61 -17434502.47 -17434502.34 0.0132 0.0002
 Mercury -52446-03-06 03:49 J -17434414.48 -17434414.34 -17434414.21 0.0132 0.0018
 Mercury -52446-06-02 06:42 J -17434326.34 -17434326.22 -17434326.08 0.0132 0.0036
 Mercury -52446-08-29 09:49 J -17434238.21 -17434238.09 -17434237.96 0.0132 0.0053
 Mercury -52446-11-25 12:57 J -17434150.07 -17434149.96 -17434149.84 0.0132 0.0070
 Mercury -52445-02-21 16:04 J -17434061.93 -17434061.83 -17434061.73 0.0132 0.0087
 Mercury -52445-05-19 19:11 J -17433973.78 -17433973.70 -17433973.62 0.0132 0.0105
 Mercury -52445-08-15 21:49 J -17433885.63 -17433885.59 -17433885.53 0.0132 0.0122
 Earth -52441-09-03 22:33 J -17432405.73 -17432405.56 -17432405.35 0.0133 0.0088
 Moon -52441-09-04 00:28 J -17432405.66 -17432405.48 -17432405.28 0.0133 0.0092 *
 Moon -52440-09-08 02:52 J -17432036.61 -17432036.38 -17432036.13 0.0134 0.0021
 Earth -52440-09-08 04:04 J -17432036.58 -17432036.33 -17432036.08 0.0134 0.0016 *
 Earth -52439-09-12 09:06 J -17431667.21 -17431667.12 -17431666.99 0.0134 0.0119
 Moon -52439-09-12 10:47 J -17431667.15 -17431667.05 -17431666.91 0.0134 0.0118 *
 Mars -52429-02-15 18:42 J -17428223.98 -17428223.72 -17428223.44 0.0139 0.0032
 Venus -52425-04-18 02:09 J -17426700.51 -17426700.41 -17426700.27 0.0141 0.0117
 Venus -52425-11-30 09:49 J -17426474.25 -17426474.09 -17426473.92 0.0141 0.0087
 Venus -52424-07-14 17:16 J -17426247.97 -17426247.78 -17426247.58 0.0142 0.0056
 Venus -52423-02-26 01:11 J -17426021.66 -17426021.45 -17426021.24 0.0142 0.0025

Venus -52423-10-10 09:21 J -17425795.32 -17425795.11 -17425794.90 0.0142 0.0006
 Venus -52422-05-24 17:30 J -17425568.97 -17425568.77 -17425568.56 0.0143 0.0038
 Venus -52421-01-06 02:09 J -17425342.60 -17425342.41 -17425342.23 0.0143 0.0070
 Venus -52421-08-19 10:47 J -17425116.19 -17425116.05 -17425115.89 0.0144 0.0102
 Venus -52420-04-02 19:40 J -17424889.74 -17424889.68 -17424889.59 0.0144 0.0134
 Mercury -52406-04-03 04:33 J -17419776.41 -17419776.31 -17419776.20 0.0147 0.0117
 Mercury -52406-06-30 12:13 J -17419688.13 -17419687.99 -17419687.83 0.0147 0.0085
 Mercury -52406-09-26 20:23 J -17419599.82 -17419599.65 -17419599.47 0.0147 0.0052
 Mercury -52406-12-24 04:33 J -17419511.50 -17419511.31 -17419511.13 0.0147 0.0019
 Mercury -52405-03-21 12:28 J -17419423.16 -17419422.98 -17419422.79 0.0147 0.0014
 Mercury -52405-06-17 20:23 J -17419334.82 -17419334.65 -17419334.47 0.0147 0.0048
 Mercury -52405-09-14 04:33 J -17419246.46 -17419246.31 -17419246.15 0.0147 0.0081
 Mercury -52405-12-11 12:28 J -17419158.08 -17419157.98 -17419157.85 0.0147 0.0115
 Moon -52400-03-04 13:54 J -17417614.16 -17417613.92 -17417613.66 0.0145 0.0053
 Earth -52400-03-04 14:52 J -17417614.11 -17417613.88 -17417613.63 0.0145 0.0049 *
 Earth -52399-03-09 18:42 J -17417243.91 -17417243.72 -17417243.50 0.0145 0.0088
 Moon -52399-03-09 19:11 J -17417243.88 -17417243.70 -17417243.48 0.0145 0.0089 *
 Mars -52391-08-16 21:49 J -17414161.79 -17414161.59 -17414161.39 0.0140 0.0112
 Venus -52386-05-14 01:54 J -17412430.52 -17412430.42 -17412430.30 0.0138 0.0120
 Venus -52386-12-26 12:28 J -17412204.15 -17412203.98 -17412203.81 0.0137 0.0090
 Venus -52385-08-08 22:18 J -17411977.77 -17411977.57 -17411977.36 0.0137 0.0060
 Venus -52384-03-23 08:09 J -17411751.37 -17411751.16 -17411750.93 0.0137 0.0031
 Venus -52384-11-04 17:59 J -17411524.98 -17411524.75 -17411524.53 0.0136 0.0001
 Venus -52383-06-19 03:06 J -17411298.59 -17411298.37 -17411298.15 0.0136 0.0028
 Venus -52382-01-31 12:13 J -17411072.19 -17411071.99 -17411071.78 0.0136 0.0057
 Venus -52382-09-14 20:52 J -17410845.79 -17410845.63 -17410845.44 0.0135 0.0086
 Venus -52381-04-28 05:30 J -17410619.38 -17410619.27 -17410619.14 0.0135 0.0113
 Mercury -52364-04-20 10:04 J -17404418.14 -17404418.08 -17404418.01 0.0132 0.0117
 Mercury -52364-07-17 13:11 J -17404330.03 -17404329.95 -17404329.85 0.0132 0.0099
 Mercury -52364-10-13 16:33 J -17404241.91 -17404241.81 -17404241.70 0.0132 0.0081

Mercury -52363-01-09 19:40 J -17404153.80 -17404153.68 -17404153.56 0.0132 0.0063

Mercury -52363-04-07 22:47 J -17404065.67 -17404065.55 -17404065.42 0.0132 0.0046

Mercury -52363-07-05 02:09 J -17403977.55 -17403977.41 -17403977.28 0.0132 0.0028

Mercury -52363-10-01 05:16 J -17403889.42 -17403889.28 -17403889.15 0.0132 0.0010

Mercury -52363-12-28 08:23 J -17403801.29 -17403801.15 -17403801.02 0.0132 0.0008

Mercury -52362-03-26 11:30 J -17403713.16 -17403713.02 -17403712.89 0.0132 0.0025

Mercury -52362-06-22 14:37 J -17403625.02 -17403624.89 -17403624.77 0.0132 0.0042

Mercury -52362-09-18 17:30 J -17403536.89 -17403536.77 -17403536.65 0.0132 0.0060

Mercury -52362-12-15 20:37 J -17403448.75 -17403448.64 -17403448.53 0.0132 0.0077

Mercury -52361-03-12 23:45 J -17403360.60 -17403360.51 -17403360.42 0.0132 0.0094

Mercury -52361-06-09 02:37 J -17403272.45 -17403272.39 -17403272.31 0.0132 0.0112

Mercury -52361-09-05 05:45 J -17403184.28 -17403184.26 -17403184.23 0.0132 0.0129

Earth -52357-09-04 12:28 J -17401724.18 -17401723.98 -17401723.77 0.0133 0.0078

Moon -52357-09-04 12:57 J -17401724.17 -17401723.96 -17401723.73 0.0133 0.0072 *

Moon -52356-09-08 16:33 J -17401355.05 -17401354.81 -17401354.57 0.0133 0.0020

Earth -52356-09-08 17:30 J -17401355.01 -17401354.77 -17401354.51 0.0133 0.0025 *

Earth -52355-09-12 23:16 J -17400985.60 -17400985.53 -17400985.45 0.0134 0.0127

Moon -52355-09-12 23:45 J -17400985.56 -17400985.51 -17400985.43 0.0134 0.0129 *

Mars -52345-10-10 07:11 J -17397305.44 -17397305.20 -17397304.92 0.0139 0.0052

Venus -52342-12-17 12:57 J -17396142.04 -17396141.96 -17396141.87 0.0141 0.0128

Venus -52341-07-30 20:23 J -17395915.80 -17395915.65 -17395915.50 0.0141 0.0099

Venus -52340-03-14 03:35 J -17395689.53 -17395689.35 -17395689.16 0.0141 0.0069

Venus -52340-10-26 11:16 J -17395463.23 -17395463.03 -17395462.83 0.0142 0.0038

Venus -52339-06-09 18:57 J -17395236.92 -17395236.71 -17395236.49 0.0142 0.0008

Venus -52338-01-22 03:06 J -17395010.58 -17395010.37 -17395010.16 0.0143 0.0024

Venus -52338-09-05 11:30 J -17394784.21 -17394784.02 -17394783.82 0.0143 0.0055

Venus -52337-04-18 19:54 J -17394557.83 -17394557.67 -17394557.49 0.0143 0.0087

Venus -52337-12-01 04:47 J -17394331.41 -17394331.30 -17394331.18 0.0144 0.0119

Mercury -52322-01-25 03:35 J -17389163.38 -17389163.35 -17389163.31 0.0147 0.0143

Mercury -52322-04-23 11:30 J -17389075.14 -17389075.02 -17389074.90 0.0147 0.0111

Mercury -52322-07-20 19:11 J -17388986.84 -17388986.70 -17388986.53 0.0147 0.0079
 Mercury -52322-10-17 03:21 J -17388898.53 -17388898.36 -17388898.18 0.0147 0.0046
 Mercury -52321-01-13 11:16 J -17388810.21 -17388810.03 -17388809.84 0.0147 0.0013
 Mercury -52321-04-10 19:11 J -17388721.88 -17388721.70 -17388721.51 0.0147 0.0021
 Mercury -52321-07-08 03:06 J -17388633.53 -17388633.37 -17388633.19 0.0147 0.0054
 Mercury -52321-10-04 11:16 J -17388545.17 -17388545.03 -17388544.87 0.0147 0.0087
 Mercury -52321-12-31 19:25 J -17388456.78 -17388456.69 -17388456.58 0.0147 0.0121
 Moon -52316-03-04 21:06 J -17386932.86 -17386932.62 -17386932.35 0.0145 0.0040
 Earth -52316-03-04 23:16 J -17386932.76 -17386932.53 -17386932.27 0.0145 0.0046 *
 Earth -52315-03-10 03:21 J -17386562.56 -17386562.36 -17386562.16 0.0145 0.0091
 Moon -52315-03-10 04:04 J -17386562.51 -17386562.33 -17386562.13 0.0145 0.0091 *
 Mars -52306-04-13 01:25 J -17383241.78 -17383241.44 -17383241.10 0.0140 0.0010
 Venus -52302-01-11 08:09 J -17381872.20 -17381872.16 -17381872.09 0.0138 0.0133
 Venus -52302-08-25 18:57 J -17381645.86 -17381645.71 -17381645.56 0.0138 0.0103
 Venus -52301-04-08 05:01 J -17381419.47 -17381419.29 -17381419.09 0.0137 0.0073
 Venus -52301-11-20 15:21 J -17381193.07 -17381192.86 -17381192.65 0.0137 0.0043
 Venus -52300-07-05 01:11 J -17380966.68 -17380966.45 -17380966.23 0.0137 0.0014
 Venus -52299-02-16 10:47 J -17380740.28 -17380740.05 -17380739.83 0.0136 0.0016
 Venus -52299-09-30 19:54 J -17380513.88 -17380513.67 -17380513.45 0.0136 0.0044
 Venus -52298-05-15 04:47 J -17380287.48 -17380287.30 -17380287.10 0.0136 0.0073
 Venus -52298-12-27 13:40 J -17380061.07 -17380060.93 -17380060.78 0.0135 0.0101
 Venus -52297-08-09 22:04 J -17379834.64 -17379834.58 -17379834.50 0.0135 0.0128
 Mercury -52280-02-11 14:09 J -17373804.92 -17373804.91 -17373804.87 0.0132 0.0129
 Mercury -52280-05-10 17:30 J -17373716.83 -17373716.77 -17373716.69 0.0132 0.0111
 Mercury -52280-08-06 20:52 J -17373628.72 -17373628.63 -17373628.53 0.0132 0.0093
 Mercury -52280-11-02 23:59 J -17373540.61 -17373540.50 -17373540.38 0.0132 0.0075
 Mercury -52279-01-30 03:21 J -17373452.49 -17373452.36 -17373452.24 0.0132 0.0057
 Mercury -52279-04-28 06:13 J -17373364.36 -17373364.24 -17373364.10 0.0132 0.0040
 Mercury -52279-07-25 09:35 J -17373276.24 -17373276.10 -17373275.97 0.0132 0.0022
 Mercury -52279-10-21 12:42 J -17373188.11 -17373187.97 -17373187.83 0.0132 0.0004

Mercury -52278-01-17 15:49 J -17373099.97 -17373099.84 -17373099.70 0.0132 0.0013
 Mercury -52278-04-15 18:57 J -17373011.84 -17373011.71 -17373011.58 0.0132 0.0031
 Mercury -52278-07-12 22:04 J -17372923.71 -17372923.58 -17372923.46 0.0132 0.0048
 Mercury -52278-10-09 00:57 J -17372835.57 -17372835.46 -17372835.34 0.0132 0.0066
 Mercury -52277-01-05 04:04 J -17372747.43 -17372747.33 -17372747.22 0.0132 0.0083
 Mercury -52277-04-02 07:11 J -17372659.28 -17372659.20 -17372659.11 0.0132 0.0100
 Mercury -52277-06-29 10:18 J -17372571.13 -17372571.07 -17372571.01 0.0132 0.0118
 Earth -52273-09-05 01:40 J -17371042.64 -17371042.43 -17371042.21 0.0133 0.0071
 Moon -52273-09-05 02:09 J -17371042.61 -17371042.41 -17371042.19 0.0133 0.0077 *
 Moon -52272-09-09 06:28 J -17370673.45 -17370673.23 -17370672.98 0.0133 0.0038
 Earth -52272-09-09 06:57 J -17370673.45 -17370673.21 -17370672.97 0.0133 0.0032 *
 Moon -52271-09-13 12:57 J -17370303.96 -17370303.96 -17370303.94 0.0134 0.0134
 Mars -52262-07-06 05:16 J -17367086.48 -17367086.28 -17367086.05 0.0138 0.0087
 Mars -52260-06-04 19:40 J -17366386.73 -17366386.68 -17366386.60 0.0139 0.0135
 Venus -52258-08-16 23:59 J -17365583.52 -17365583.50 -17365583.46 0.0140 0.0139
 Venus -52257-03-30 06:57 J -17365357.33 -17365357.21 -17365357.07 0.0141 0.0110
 Venus -52257-11-11 14:09 J -17365131.08 -17365130.91 -17365130.73 0.0141 0.0080
 Venus -52256-06-25 21:21 J -17364904.79 -17364904.61 -17364904.40 0.0142 0.0051
 Venus -52255-02-07 05:16 J -17364678.49 -17364678.28 -17364678.07 0.0142 0.0020
 Venus -52255-09-21 13:11 J -17364452.16 -17364451.95 -17364451.73 0.0142 0.0011
 Venus -52254-05-05 21:06 J -17364225.81 -17364225.62 -17364225.40 0.0143 0.0043
 Venus -52254-12-18 05:30 J -17363999.44 -17363999.27 -17363999.08 0.0143 0.0074
 Venus -52253-07-31 14:09 J -17363773.04 -17363772.91 -17363772.76 0.0143 0.0105
 Venus -52252-03-14 23:01 J -17363546.59 -17363546.54 -17363546.47 0.0144 0.0137
 Mercury -52238-02-14 11:01 J -17358462.10 -17358462.04 -17358461.96 0.0147 0.0135
 Mercury -52238-05-13 18:42 J -17358373.83 -17358373.72 -17358373.57 0.0147 0.0103
 Mercury -52238-08-10 02:52 J -17358285.54 -17358285.38 -17358285.21 0.0147 0.0070
 Mercury -52238-11-06 10:47 J -17358197.22 -17358197.05 -17358196.87 0.0147 0.0037
 Mercury -52237-02-02 18:42 J -17358108.90 -17358108.72 -17358108.53 0.0147 0.0006
 Mercury -52237-05-01 02:52 J -17358020.56 -17358020.38 -17358020.20 0.0147 0.0029

Mercury -52237-07-28 10:47 J -17357932.21 -17357932.05 -17357931.88 0.0147 0.0062

Mercury -52237-10-24 18:42 J -17357843.85 -17357843.72 -17357843.57 0.0147 0.0096

Mercury -52236-01-21 02:52 J -17357755.46 -17357755.38 -17357755.28 0.0147 0.0129

Moon -52232-03-05 07:40 J -17356251.42 -17356251.18 -17356250.92 0.0145 0.0045

Earth -52232-03-05 09:49 J -17356251.33 -17356251.09 -17356250.83 0.0145 0.0040 *

Earth -52231-03-10 13:40 J -17355881.11 -17355880.93 -17355880.73 0.0145 0.0097

Moon -52231-03-10 15:21 J -17355881.02 -17355880.86 -17355880.66 0.0145 0.0099 *

Mars -52222-12-08 08:23 J -17352321.40 -17352321.15 -17352320.89 0.0140 0.0093

Venus -52218-04-25 02:09 J -17351087.52 -17351087.41 -17351087.28 0.0138 0.0115

Venus -52218-12-07 12:28 J -17350861.14 -17350860.98 -17350860.79 0.0137 0.0086

Venus -52217-07-20 23:01 J -17350634.75 -17350634.54 -17350634.34 0.0137 0.0056

Venus -52216-03-04 09:06 J -17350408.34 -17350408.12 -17350407.90 0.0137 0.0026

Venus -52216-10-16 18:42 J -17350181.94 -17350181.72 -17350181.49 0.0136 0.0003

Venus -52215-05-31 04:04 J -17349955.54 -17349955.33 -17349955.11 0.0136 0.0032

Venus -52214-01-12 13:11 J -17349729.14 -17349728.95 -17349728.74 0.0136 0.0061

Venus -52214-08-26 22:04 J -17349502.74 -17349502.58 -17349502.40 0.0136 0.0089

Venus -52213-04-09 06:57 J -17349276.31 -17349276.21 -17349276.09 0.0135 0.0116

Mercury -52196-03-03 21:49 J -17343103.63 -17343103.59 -17343103.53 0.0132 0.0122

Mercury -52196-05-31 01:11 J -17343015.53 -17343015.45 -17343015.36 0.0132 0.0104

Mercury -52196-08-27 04:33 J -17342927.42 -17342927.31 -17342927.21 0.0132 0.0086

Mercury -52196-11-23 07:25 J -17342839.30 -17342839.19 -17342839.06 0.0132 0.0069

Mercury -52195-02-19 10:47 J -17342751.18 -17342751.05 -17342750.92 0.0132 0.0051

Mercury -52195-05-18 13:54 J -17342663.05 -17342662.92 -17342662.78 0.0132 0.0033

Mercury -52195-08-14 17:01 J -17342574.92 -17342574.79 -17342574.65 0.0132 0.0016

Mercury -52195-11-10 20:09 J -17342486.79 -17342486.66 -17342486.52 0.0132 0.0005

Mercury -52194-02-06 23:16 J -17342398.66 -17342398.53 -17342398.39 0.0132 0.0020

Mercury -52194-05-06 02:23 J -17342310.53 -17342310.40 -17342310.27 0.0132 0.0038

Mercury -52194-08-02 05:30 J -17342222.39 -17342222.27 -17342222.14 0.0132 0.0055

Mercury -52194-10-29 08:37 J -17342134.25 -17342134.14 -17342134.03 0.0132 0.0072

Mercury -52193-01-25 11:45 J -17342046.11 -17342046.01 -17342045.91 0.0132 0.0090

Mercury -52193-04-22 14:37 J -17341957.96 -17341957.89 -17341957.80 0.0132 0.0107
 Mercury -52193-07-19 17:45 J -17341869.80 -17341869.76 -17341869.71 0.0132 0.0124
 Moon -52189-09-05 14:23 J -17340361.13 -17340360.90 -17340360.65 0.0133 0.0056
 Earth -52189-09-05 14:52 J -17340361.09 -17340360.88 -17340360.65 0.0133 0.0063 *
 Moon -52188-09-09 19:54 J -17339991.90 -17339991.67 -17339991.43 0.0134 0.0037
 Earth -52188-09-09 20:09 J -17339991.89 -17339991.66 -17339991.41 0.0134 0.0041 *
 Mars -52177-02-28 18:13 J -17336168.02 -17336167.74 -17336167.46 0.0138 0.0004
 Venus -52174-11-28 17:59 J -17334798.84 -17334798.75 -17334798.63 0.0141 0.0121
 Venus -52173-07-12 01:25 J -17334572.60 -17334572.44 -17334572.28 0.0141 0.0091
 Venus -52172-02-23 08:37 J -17334346.33 -17334346.14 -17334345.95 0.0141 0.0062
 Venus -52172-10-07 16:04 J -17334120.03 -17334119.83 -17334119.62 0.0142 0.0032
 Venus -52171-05-21 23:59 J -17333893.71 -17333893.50 -17333893.29 0.0142 0.0003
 Venus -52170-01-03 07:40 J -17333667.38 -17333667.18 -17333666.97 0.0142 0.0030
 Venus -52170-08-17 15:49 J -17333441.02 -17333440.84 -17333440.64 0.0143 0.0061
 Venus -52169-03-31 00:13 J -17333214.64 -17333214.49 -17333214.32 0.0143 0.0092
 Venus -52169-11-12 08:52 J -17332988.22 -17332988.13 -17332988.01 0.0143 0.0124
 Mercury -52154-03-06 18:57 J -17327760.80 -17327760.71 -17327760.61 0.0147 0.0125
 Mercury -52154-06-03 02:37 J -17327672.52 -17327672.39 -17327672.24 0.0147 0.0093
 Mercury -52154-08-30 10:33 J -17327584.22 -17327584.06 -17327583.89 0.0147 0.0061
 Mercury -52154-11-26 18:28 J -17327495.91 -17327495.73 -17327495.55 0.0147 0.0028
 Mercury -52153-02-23 02:23 J -17327407.58 -17327407.40 -17327407.21 0.0147 0.0006
 Mercury -52153-05-21 10:33 J -17327319.24 -17327319.06 -17327318.88 0.0147 0.0038
 Mercury -52153-08-17 18:13 J -17327230.89 -17327230.74 -17327230.57 0.0147 0.0072
 Mercury -52153-11-14 02:23 J -17327142.52 -17327142.40 -17327142.26 0.0147 0.0105
 Mercury -52152-02-10 10:47 J -17327054.11 -17327054.05 -17327053.99 0.0147 0.0138
 Moon -52148-03-05 17:30 J -17325570.02 -17325569.77 -17325569.51 0.0145 0.0027
 Earth -52148-03-05 20:37 J -17325569.89 -17325569.64 -17325569.39 0.0145 0.0033 *
 Earth -52147-03-11 00:13 J -17325199.66 -17325199.49 -17325199.30 0.0145 0.0103
 Moon -52147-03-11 01:54 J -17325199.58 -17325199.42 -17325199.22 0.0145 0.0102 *
 Mars -52139-08-28 02:52 J -17322107.62 -17322107.38 -17322107.10 0.0141 0.0092

Venus	-52135-12-23 08:23 J	-17320529.21	-17320529.15	-17320529.05	0.0138	0.0128
Venus	-52134-08-06 19:25 J	-17320302.84	-17320302.69	-17320302.53	0.0138	0.0098
Venus	-52133-03-20 05:45 J	-17320076.45	-17320076.26	-17320076.06	0.0137	0.0069
Venus	-52133-11-01 15:49 J	-17319850.04	-17319849.84	-17319849.61	0.0137	0.0039
Venus	-52132-06-16 01:54 J	-17319623.64	-17319623.42	-17319623.19	0.0137	0.0010
Venus	-52131-01-28 11:30 J	-17319397.24	-17319397.02	-17319396.79	0.0136	0.0019
Venus	-52131-09-11 20:52 J	-17319170.84	-17319170.63	-17319170.42	0.0136	0.0048
Venus	-52130-04-26 05:59 J	-17318944.43	-17318944.25	-17318944.06	0.0136	0.0076
Venus	-52130-12-08 14:52 J	-17318718.02	-17318717.88	-17318717.74	0.0135	0.0104
Venus	-52129-07-21 23:01 J	-17318491.57	-17318491.54	-17318491.47	0.0135	0.0131
Mercury	-52112-03-24 05:16 J	-17312402.33	-17312402.28	-17312402.21	0.0132	0.0116
Mercury	-52112-06-20 08:37 J	-17312314.23	-17312314.14	-17312314.05	0.0132	0.0098
Mercury	-52112-09-16 11:45 J	-17312226.11	-17312226.01	-17312225.90	0.0132	0.0081
Mercury	-52112-12-13 14:52 J	-17312137.99	-17312137.88	-17312137.75	0.0132	0.0063
Mercury	-52111-03-11 18:13 J	-17312049.87	-17312049.74	-17312049.61	0.0132	0.0045
Mercury	-52111-06-07 21:21 J	-17311961.74	-17311961.61	-17311961.47	0.0132	0.0027
Mercury	-52111-09-04 00:28 J	-17311873.61	-17311873.48	-17311873.34	0.0132	0.0010
Mercury	-52111-12-01 03:35 J	-17311785.48	-17311785.35	-17311785.21	0.0132	0.0010
Mercury	-52110-02-27 06:42 J	-17311697.35	-17311697.22	-17311697.08	0.0132	0.0026
Mercury	-52110-05-26 09:49 J	-17311609.21	-17311609.09	-17311608.96	0.0132	0.0044
Mercury	-52110-08-22 12:57 J	-17311521.08	-17311520.96	-17311520.84	0.0132	0.0061
Mercury	-52110-11-18 16:04 J	-17311432.94	-17311432.83	-17311432.72	0.0132	0.0078
Mercury	-52109-02-14 18:57 J	-17311344.79	-17311344.71	-17311344.61	0.0132	0.0096
Mercury	-52109-05-12 22:04 J	-17311256.64	-17311256.58	-17311256.50	0.0132	0.0113
Mercury	-52109-08-09 01:11 J	-17311168.46	-17311168.45	-17311168.42	0.0132	0.0130
Moon	-52105-09-06 03:35 J	-17309679.58	-17309679.35	-17309679.12	0.0133	0.0061
Earth	-52105-09-06 03:49 J	-17309679.57	-17309679.34	-17309679.11	0.0133	0.0055 *
Earth	-52104-09-10 08:52 J	-17309310.35	-17309310.13	-17309309.88	0.0134	0.0049
Moon	-52104-09-10 09:49 J	-17309310.31	-17309310.09	-17309309.86	0.0134	0.0054 *
Mars	-52093-10-23 08:09 J	-17305249.38	-17305249.16	-17305248.93	0.0139	0.0081

Venus -52090-07-29 05:16 J -17304240.34 -17304240.28 -17304240.19 0.0140 0.0132
 Venus -52089-03-11 12:13 J -17304014.12 -17304013.99 -17304013.83 0.0141 0.0103
 Venus -52089-10-23 19:25 J -17303787.86 -17303787.69 -17303787.50 0.0141 0.0074
 Venus -52088-06-07 02:52 J -17303561.58 -17303561.38 -17303561.18 0.0142 0.0044
 Venus -52087-01-19 10:18 J -17303335.27 -17303335.07 -17303334.85 0.0142 0.0014
 Venus -52087-09-02 18:13 J -17303108.94 -17303108.74 -17303108.52 0.0142 0.0018
 Venus -52086-04-17 02:23 J -17302882.60 -17302882.40 -17302882.20 0.0143 0.0048
 Venus -52086-11-29 10:18 J -17302656.23 -17302656.07 -17302655.88 0.0143 0.0079
 Venus -52085-07-12 18:42 J -17302429.84 -17302429.72 -17302429.57 0.0143 0.0111
 Venus -52084-02-24 03:21 J -17302203.37 -17302203.36 -17302203.30 0.0144 0.0142
 Mercury -52071-12-28 19:11 J -17297147.71 -17297147.70 -17297147.67 0.0147 0.0146
 Mercury -52070-03-27 02:52 J -17297059.48 -17297059.38 -17297059.25 0.0147 0.0114
 Mercury -52070-06-23 10:47 J -17296971.19 -17296971.05 -17296970.89 0.0147 0.0082
 Mercury -52070-09-19 18:57 J -17296882.89 -17296882.71 -17296882.54 0.0147 0.0049
 Mercury -52070-12-17 02:37 J -17296794.57 -17296794.39 -17296794.20 0.0147 0.0017
 Mercury -52069-03-14 10:47 J -17296706.24 -17296706.05 -17296705.87 0.0147 0.0017
 Mercury -52069-06-10 18:42 J -17296617.89 -17296617.72 -17296617.54 0.0147 0.0050
 Mercury -52069-09-07 02:52 J -17296529.53 -17296529.38 -17296529.23 0.0147 0.0083
 Mercury -52069-12-04 10:33 J -17296441.16 -17296441.06 -17296440.93 0.0147 0.0117
 Moon -52064-03-06 06:57 J -17294888.46 -17294888.21 -17294887.95 0.0145 0.0030
 Earth -52064-03-06 09:49 J -17294888.34 -17294888.09 -17294887.83 0.0145 0.0024 *
 Earth -52063-03-11 13:40 J -17294518.09 -17294517.93 -17294517.76 0.0145 0.0112
 Moon -52063-03-11 16:04 J -17294517.97 -17294517.83 -17294517.66 0.0145 0.0115 *
 Mars -52054-04-24 15:21 J -17291187.20 -17291186.86 -17291186.52 0.0140 0.0016
 Venus -52050-04-06 03:35 J -17289744.48 -17289744.35 -17289744.21 0.0138 0.0110
 Venus -52050-11-18 13:54 J -17289518.09 -17289517.92 -17289517.72 0.0138 0.0081
 Venus -52049-07-02 00:13 J -17289291.69 -17289291.49 -17289291.27 0.0137 0.0051
 Venus -52048-02-13 10:33 J -17289065.28 -17289065.06 -17289064.84 0.0137 0.0022
 Venus -52048-09-27 20:23 J -17288838.88 -17288838.65 -17288838.43 0.0137 0.0008
 Venus -52047-05-12 05:30 J -17288612.48 -17288612.27 -17288612.04 0.0136 0.0037

Venus -52047-12-24 14:52 J -17288386.07 -17288385.88 -17288385.68 0.0136 0.0064
 Venus -52046-08-07 23:45 J -17288159.67 -17288159.51 -17288159.34 0.0136 0.0092
 Venus -52045-03-21 08:23 J -17287933.24 -17287933.15 -17287933.03 0.0135 0.0120
 Mercury -52028-01-15 09:35 J -17281789.13 -17281789.10 -17281789.07 0.0132 0.0128
 Mercury -52028-04-13 12:42 J -17281701.04 -17281700.97 -17281700.89 0.0132 0.0110
 Mercury -52028-07-10 16:04 J -17281612.92 -17281612.83 -17281612.73 0.0132 0.0092
 Mercury -52028-10-06 19:25 J -17281524.81 -17281524.69 -17281524.58 0.0132 0.0074
 Mercury -52027-01-02 22:33 J -17281436.68 -17281436.56 -17281436.44 0.0132 0.0056
 Mercury -52027-04-01 01:40 J -17281348.56 -17281348.43 -17281348.30 0.0132 0.0039
 Mercury -52027-06-28 04:47 J -17281260.43 -17281260.30 -17281260.16 0.0132 0.0021
 Mercury -52027-09-24 08:09 J -17281172.30 -17281172.16 -17281172.03 0.0132 0.0005
 Mercury -52027-12-21 11:16 J -17281084.17 -17281084.03 -17281083.90 0.0132 0.0015
 Mercury -52026-03-19 14:23 J -17280996.04 -17280995.90 -17280995.77 0.0132 0.0032
 Mercury -52026-06-15 17:16 J -17280907.90 -17280907.78 -17280907.65 0.0132 0.0050
 Mercury -52026-09-11 20:23 J -17280819.76 -17280819.65 -17280819.53 0.0132 0.0067
 Mercury -52026-12-08 23:30 J -17280731.62 -17280731.52 -17280731.41 0.0132 0.0085
 Mercury -52025-03-06 02:23 J -17280643.47 -17280643.40 -17280643.30 0.0132 0.0103
 Mercury -52025-06-02 05:30 J -17280555.31 -17280555.27 -17280555.20 0.0132 0.0120
 Moon -52021-09-06 14:52 J -17278998.12 -17278997.88 -17278997.62 0.0133 0.0041
 Earth -52021-09-06 16:18 J -17278998.04 -17278997.82 -17278997.57 0.0133 0.0047 *
 Earth -52020-09-10 21:21 J -17278628.82 -17278628.61 -17278628.37 0.0134 0.0057
 Moon -52020-09-10 22:18 J -17278628.79 -17278628.57 -17278628.34 0.0134 0.0052 *
 Mars -52010-07-19 05:45 J -17275030.51 -17275030.26 -17275030.00 0.0138 0.0057
 Venus -52006-11-09 23:16 J -17273455.65 -17273455.53 -17273455.40 0.0141 0.0114
 Venus -52005-06-23 06:13 J -17273229.40 -17273229.24 -17273229.07 0.0141 0.0085
 Venus -52004-02-04 13:11 J -17273003.13 -17273002.95 -17273002.74 0.0141 0.0057
 Venus -52004-09-18 21:06 J -17272776.83 -17272776.62 -17272776.41 0.0142 0.0026
 Venus -52003-05-03 04:47 J -17272550.51 -17272550.30 -17272550.09 0.0142 0.0005
 Venus -52003-12-15 12:28 J -17272324.18 -17272323.98 -17272323.77 0.0142 0.0035
 Venus -52002-07-29 20:23 J -17272097.82 -17272097.65 -17272097.45 0.0143 0.0066

Venus -52001-03-12 05:01 J -17271871.44 -17271871.29 -17271871.13 0.0143 0.0096

Venus -52001-10-24 13:25 J -17271645.02 -17271644.94 -17271644.83 0.0143 0.0128

52ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 52nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-51986-01-18 03:06 J	-17266446.43	-17266446.37	-17266446.29	0.0147	0.0136		
Mercury	-51986-04-16 10:47 J	-17266358.16	-17266358.05	-17266357.91	0.0147	0.0104		
Mercury	-51986-07-13 18:57 J	-17266269.87	-17266269.71	-17266269.55	0.0147	0.0071		
Mercury	-51986-10-10 02:37 J	-17266181.56	-17266181.39	-17266181.21	0.0147	0.0039		
Mercury	-51985-01-06 10:47 J	-17266093.24	-17266093.05	-17266092.87	0.0147	0.0006		
Mercury	-51985-04-03 18:28 J	-17266004.90	-17266004.73	-17266004.54	0.0147	0.0028		
Mercury	-51985-07-01 02:23 J	-17265916.56	-17265916.40	-17265916.22	0.0147	0.0061		
Mercury	-51985-09-27 10:33 J	-17265828.19	-17265828.06	-17265827.91	0.0146	0.0094		
Mercury	-51985-12-24 18:57 J	-17265739.80	-17265739.71	-17265739.62	0.0146	0.0127		
Moon	-51980-03-06 18:28 J	-17264206.99	-17264206.73	-17264206.47	0.0145	0.0009		
Earth	-51980-03-06 22:04 J	-17264206.84	-17264206.58	-17264206.33	0.0145	0.0016	*	
Earth	-51979-03-12 01:40 J	-17263836.57	-17263836.43	-17263836.29	0.0145	0.0120		
Moon	-51979-03-12 04:18 J	-17263836.46	-17263836.32	-17263836.17	0.0145	0.0118	*	
Mars	-51970-12-19 23:59 J	-17260266.63	-17260266.50	-17260266.31	0.0140	0.0123		
Venus	-51967-12-04 11:01 J	-17259186.13	-17259186.04	-17259185.93	0.0138	0.0122		
Venus	-51966-07-18 21:35 J	-17258959.76	-17258959.60	-17258959.42	0.0138	0.0093		

Venus	-51965-03-01 08:09 J	-17258733.35	-17258733.16	-17258732.95	0.0137	0.0063
Venus	-51965-10-13 18:13 J	-17258506.95	-17258506.74	-17258506.51	0.0137	0.0034
Venus	-51964-05-28 04:04 J	-17258280.55	-17258280.33	-17258280.10	0.0137	0.0006
Venus	-51963-01-09 13:40 J	-17258054.15	-17258053.93	-17258053.71	0.0136	0.0023
Venus	-51963-08-23 22:47 J	-17257827.75	-17257827.55	-17257827.33	0.0136	0.0052
Venus	-51962-04-07 07:54 J	-17257601.34	-17257601.17	-17257600.97	0.0136	0.0080
Venus	-51962-11-19 16:47 J	-17257374.93	-17257374.80	-17257374.65	0.0136	0.0107
Venus	-51961-07-03 01:25 J	-17257148.47	-17257148.44	-17257148.41	0.0135	0.0134
Mercury	-51944-02-04 16:47 J	-17251087.84	-17251087.80	-17251087.75	0.0132	0.0123
Mercury	-51944-05-03 19:54 J	-17250999.74	-17250999.67	-17250999.58	0.0132	0.0105
Mercury	-51944-07-30 23:16 J	-17250911.63	-17250911.53	-17250911.42	0.0132	0.0087
Mercury	-51944-10-27 02:37 J	-17250823.51	-17250823.39	-17250823.27	0.0132	0.0069
Mercury	-51943-01-23 05:45 J	-17250735.38	-17250735.26	-17250735.13	0.0132	0.0051
Mercury	-51943-04-21 09:06 J	-17250647.26	-17250647.12	-17250646.99	0.0132	0.0033
Mercury	-51943-07-18 12:13 J	-17250559.13	-17250558.99	-17250558.86	0.0132	0.0016
Mercury	-51943-10-14 15:21 J	-17250471.00	-17250470.86	-17250470.72	0.0132	0.0002
Mercury	-51942-01-10 18:28 J	-17250382.86	-17250382.73	-17250382.59	0.0132	0.0020
Mercury	-51942-04-08 21:35 J	-17250294.73	-17250294.60	-17250294.47	0.0132	0.0038
Mercury	-51942-07-06 00:42 J	-17250206.59	-17250206.47	-17250206.35	0.0132	0.0055
Mercury	-51942-10-02 03:49 J	-17250118.45	-17250118.34	-17250118.23	0.0132	0.0073
Mercury	-51942-12-29 06:42 J	-17250030.31	-17250030.22	-17250030.11	0.0132	0.0090
Mercury	-51941-03-26 10:04 J	-17249942.16	-17249942.08	-17249942.00	0.0132	0.0107
Mercury	-51941-06-22 12:57 J	-17249853.99	-17249853.96	-17249853.91	0.0132	0.0125
Moon	-51937-09-07 02:23 J	-17248316.63	-17248316.40	-17248316.14	0.0133	0.0047
Earth	-51937-09-07 03:49 J	-17248316.57	-17248316.34	-17248316.09	0.0133	0.0041 *
Earth	-51936-09-11 08:52 J	-17247947.34	-17247947.13	-17247946.90	0.0134	0.0063
Moon	-51936-09-11 10:33 J	-17247947.26	-17247947.06	-17247946.84	0.0134	0.0069 *
Mars	-51925-03-12 16:47 J	-17244112.07	-17244111.80	-17244111.52	0.0139	0.0025
Venus	-51922-07-10 09:21 J	-17242897.20	-17242897.11	-17242897.02	0.0140	0.0126
Venus	-51921-02-21 15:49 J	-17242670.98	-17242670.84	-17242670.68	0.0141	0.0098

Venus	-51921-10-04 23:16 J	-17242444.72	-17242444.53	-17242444.35	0.0141	0.0069
Venus	-51920-05-19 06:13 J	-17242218.43	-17242218.24	-17242218.03	0.0142	0.0040
Venus	-51920-12-31 13:54 J	-17241992.13	-17241991.92	-17241991.71	0.0142	0.0010
Venus	-51919-08-14 21:35 J	-17241765.80	-17241765.60	-17241765.39	0.0142	0.0021
Venus	-51918-03-29 05:30 J	-17241539.46	-17241539.27	-17241539.06	0.0143	0.0051
Venus	-51918-11-10 13:40 J	-17241313.09	-17241312.93	-17241312.75	0.0143	0.0082
Venus	-51917-06-23 22:18 J	-17241086.70	-17241086.57	-17241086.44	0.0143	0.0113
Mercury	-51902-02-07 10:47 J	-17235745.13	-17235745.05	-17235744.96	0.0147	0.0127
Mercury	-51902-05-06 18:28 J	-17235656.86	-17235656.73	-17235656.58	0.0147	0.0095
Mercury	-51902-08-03 02:23 J	-17235568.56	-17235568.40	-17235568.23	0.0147	0.0062
Mercury	-51902-10-30 10:18 J	-17235480.25	-17235480.07	-17235479.89	0.0147	0.0030
Mercury	-51901-01-26 18:13 J	-17235391.92	-17235391.74	-17235391.55	0.0147	0.0003
Mercury	-51901-04-24 02:09 J	-17235303.59	-17235303.41	-17235303.23	0.0147	0.0036
Mercury	-51901-07-21 10:04 J	-17235215.24	-17235215.08	-17235214.91	0.0146	0.0069
Mercury	-51901-10-17 18:13 J	-17235126.87	-17235126.74	-17235126.60	0.0146	0.0102
Mercury	-51900-01-14 02:23 J	-17235038.46	-17235038.40	-17235038.33	0.0146	0.0136
Moon	-51897-03-02 08:23 J	-17233895.22	-17233895.15	-17233895.07	0.0146	0.0139
Moon	-51896-03-07 05:30 J	-17233525.53	-17233525.27	-17233525.01	0.0145	0.0016
Earth	-51896-03-07 08:52 J	-17233525.38	-17233525.13	-17233524.87	0.0145	0.0009 *
Earth	-51895-03-12 12:13 J	-17233155.10	-17233154.99	-17233154.85	0.0145	0.0127
Moon	-51895-03-12 15:35 J	-17233154.95	-17233154.85	-17233154.73	0.0145	0.0130 *
Mars	-51887-09-09 00:42 J	-17230052.77	-17230052.47	-17230052.15	0.0140	0.0060
Venus	-51883-08-03 18:42 J	-17228627.76	-17228627.72	-17228627.66	0.0138	0.0134
Venus	-51882-03-18 05:30 J	-17228401.40	-17228401.27	-17228401.11	0.0138	0.0105
Venus	-51882-10-30 16:04 J	-17228175.01	-17228174.83	-17228174.63	0.0138	0.0076
Venus	-51881-06-13 02:23 J	-17227948.61	-17227948.40	-17227948.18	0.0137	0.0046
Venus	-51880-01-25 12:28 J	-17227722.20	-17227721.98	-17227721.76	0.0137	0.0017
Venus	-51880-09-08 22:04 J	-17227495.80	-17227495.58	-17227495.35	0.0137	0.0012
Venus	-51879-04-23 07:40 J	-17227269.39	-17227269.18	-17227268.96	0.0136	0.0040
Venus	-51879-12-05 16:47 J	-17227042.99	-17227042.80	-17227042.60	0.0136	0.0067

Venus -51878-07-20 01:25 J -17226816.59 -17226816.44 -17226816.27 0.0136 0.0095
 Venus -51877-03-02 10:33 J -17226590.16 -17226590.06 -17226589.97 0.0135 0.0122
 Mercury -51860-02-25 00:13 J -17220386.55 -17220386.49 -17220386.43 0.0132 0.0117
 Mercury -51860-05-24 03:35 J -17220298.44 -17220298.35 -17220298.26 0.0132 0.0099
 Mercury -51860-08-20 06:42 J -17220210.33 -17220210.22 -17220210.11 0.0132 0.0081
 Mercury -51860-11-16 09:49 J -17220122.20 -17220122.09 -17220121.96 0.0132 0.0063
 Mercury -51859-02-12 12:57 J -17220034.08 -17220033.96 -17220033.82 0.0132 0.0046
 Mercury -51859-05-11 16:18 J -17219945.95 -17219945.82 -17219945.68 0.0132 0.0028
 Mercury -51859-08-07 19:25 J -17219857.82 -17219857.69 -17219857.55 0.0132 0.0011
 Mercury -51859-11-03 22:47 J -17219769.69 -17219769.55 -17219769.42 0.0132 0.0009
 Mercury -51858-01-31 01:40 J -17219681.56 -17219681.43 -17219681.29 0.0132 0.0026
 Mercury -51858-04-29 05:01 J -17219593.42 -17219593.29 -17219593.16 0.0132 0.0043
 Mercury -51858-07-26 07:54 J -17219505.28 -17219505.17 -17219505.04 0.0132 0.0061
 Mercury -51858-10-22 11:01 J -17219417.14 -17219417.04 -17219416.92 0.0132 0.0078
 Mercury -51857-01-18 14:23 J -17219329.00 -17219328.90 -17219328.81 0.0132 0.0096
 Mercury -51857-04-15 17:16 J -17219240.84 -17219240.78 -17219240.71 0.0132 0.0113
 Mercury -51857-07-12 20:23 J -17219152.67 -17219152.65 -17219152.63 0.0132 0.0130
 Moon -51853-09-07 12:28 J -17217635.22 -17217634.98 -17217634.71 0.0133 0.0029
 Earth -51853-09-07 15:06 J -17217635.11 -17217634.87 -17217634.62 0.0133 0.0035 *
 Earth -51852-09-11 19:54 J -17217265.88 -17217265.67 -17217265.45 0.0134 0.0069
 Moon -51852-09-11 21:35 J -17217265.81 -17217265.60 -17217265.38 0.0134 0.0064 *
 Mars -51843-12-06 10:33 J -17213893.20 -17213893.06 -17213892.90 0.0138 0.0116
 Mars -51841-11-05 02:09 J -17213193.57 -17213193.41 -17213193.21 0.0139 0.0107
 Venus -51838-03-09 18:42 J -17212338.75 -17212338.72 -17212338.67 0.0140 0.0138
 Venus -51838-10-22 01:25 J -17212112.56 -17212112.44 -17212112.30 0.0141 0.0110
 Venus -51837-06-04 08:23 J -17211886.32 -17211886.15 -17211885.98 0.0141 0.0081
 Venus -51836-01-16 15:21 J -17211660.05 -17211659.86 -17211659.66 0.0141 0.0052
 Venus -51836-08-30 22:47 J -17211433.75 -17211433.55 -17211433.34 0.0142 0.0023
 Venus -51835-04-14 06:28 J -17211207.44 -17211207.23 -17211207.02 0.0142 0.0007
 Venus -51835-11-26 14:09 J -17210981.11 -17210980.91 -17210980.70 0.0142 0.0037

Venus -51834-07-10 22:04 J -17210754.76 -17210754.58 -17210754.38 0.0143 0.0068
 Venus -51833-02-22 06:13 J -17210528.38 -17210528.24 -17210528.07 0.0143 0.0098
 Venus -51833-10-05 15:06 J -17210301.95 -17210301.87 -17210301.77 0.0143 0.0129
 Mercury -51818-02-27 17:30 J -17205043.86 -17205043.77 -17205043.66 0.0147 0.0121
 Mercury -51818-05-27 01:25 J -17204955.58 -17204955.44 -17204955.29 0.0147 0.0089
 Mercury -51818-08-23 09:06 J -17204867.28 -17204867.12 -17204866.94 0.0147 0.0057
 Mercury -51818-11-19 17:16 J -17204778.96 -17204778.78 -17204778.60 0.0147 0.0024
 Mercury -51817-02-16 01:11 J -17204690.64 -17204690.45 -17204690.27 0.0147 0.0010
 Mercury -51817-05-14 08:52 J -17204602.30 -17204602.13 -17204601.95 0.0146 0.0043
 Mercury -51817-08-10 16:47 J -17204513.95 -17204513.80 -17204513.63 0.0146 0.0076
 Mercury -51817-11-07 00:57 J -17204425.57 -17204425.46 -17204425.33 0.0146 0.0109
 Mercury -51816-02-03 08:52 J -17204337.16 -17204337.13 -17204337.07 0.0146 0.0142
 Earth -51813-03-02 12:42 J -17203214.00 -17203213.97 -17203213.92 0.0146 0.0144
 Moon -51812-03-07 13:11 J -17202844.20 -17202843.95 -17202843.69 0.0145 0.0002
 Earth -51812-03-07 17:01 J -17202844.04 -17202843.79 -17202843.53 0.0145 0.0007 *
 Earth -51811-03-12 20:23 J -17202473.75 -17202473.65 -17202473.53 0.0145 0.0130
 Moon -51811-03-12 23:30 J -17202473.62 -17202473.52 -17202473.38 0.0145 0.0127 *
 Mars -51802-05-06 03:06 J -17199132.68 -17199132.37 -17199132.03 0.0140 0.0042
 Venus -51799-11-15 11:01 J -17197843.14 -17197843.04 -17197842.91 0.0138 0.0118
 Venus -51798-06-29 21:49 J -17197616.75 -17197616.59 -17197616.41 0.0138 0.0089
 Venus -51797-02-11 08:23 J -17197390.35 -17197390.15 -17197389.94 0.0137 0.0060
 Venus -51797-09-24 18:42 J -17197163.94 -17197163.72 -17197163.50 0.0137 0.0031
 Venus -51796-05-09 04:33 J -17196937.54 -17196937.31 -17196937.09 0.0137 0.0002
 Venus -51796-12-21 13:54 J -17196711.13 -17196710.92 -17196710.69 0.0137 0.0027
 Venus -51795-08-04 23:16 J -17196484.73 -17196484.53 -17196484.32 0.0136 0.0054
 Venus -51794-03-19 08:23 J -17196258.32 -17196258.15 -17196257.96 0.0136 0.0082
 Venus -51794-10-31 17:30 J -17196031.90 -17196031.77 -17196031.64 0.0136 0.0109
 Mercury -51777-12-19 03:49 J -17189773.34 -17189773.34 -17189773.31 0.0132 0.0131
 Mercury -51776-03-17 07:11 J -17189685.26 -17189685.20 -17189685.12 0.0132 0.0113
 Mercury -51776-06-13 10:33 J -17189597.15 -17189597.06 -17189596.96 0.0132 0.0095

Mercury -51776-09-09 13:40 J -17189509.03 -17189508.93 -17189508.81 0.0132 0.0077

Mercury -51776-12-06 17:01 J -17189420.91 -17189420.79 -17189420.66 0.0132 0.0059

Mercury -51775-03-04 20:09 J -17189332.78 -17189332.66 -17189332.52 0.0132 0.0041

Mercury -51775-05-31 23:30 J -17189244.66 -17189244.52 -17189244.39 0.0132 0.0023

Mercury -51775-08-28 02:37 J -17189156.53 -17189156.39 -17189156.25 0.0132 0.0005

Mercury -51775-11-24 05:45 J -17189068.39 -17189068.26 -17189068.12 0.0132 0.0013

Mercury -51774-02-20 09:06 J -17188980.26 -17188980.12 -17188979.99 0.0132 0.0030

Mercury -51774-05-19 11:59 J -17188892.12 -17188892.00 -17188891.87 0.0132 0.0048

Mercury -51774-08-15 15:21 J -17188803.98 -17188803.86 -17188803.75 0.0132 0.0065

Mercury -51774-11-11 18:13 J -17188715.84 -17188715.74 -17188715.63 0.0132 0.0083

Mercury -51773-02-07 21:21 J -17188627.69 -17188627.61 -17188627.52 0.0132 0.0100

Mercury -51773-05-06 00:28 J -17188539.53 -17188539.48 -17188539.42 0.0132 0.0118

Earth -51770-09-04 20:09 J -17187322.67 -17187322.66 -17187322.61 0.0133 0.0132

Moon -51770-09-04 22:47 J -17187322.60 -17187322.55 -17187322.45 0.0133 0.0126

Moon -51769-09-07 23:01 J -17186953.78 -17186953.54 -17186953.28 0.0133 0.0036

Earth -51769-09-08 01:25 J -17186953.68 -17186953.44 -17186953.19 0.0133 0.0029 *

Earth -51768-09-12 06:13 J -17186584.44 -17186584.24 -17186584.02 0.0134 0.0074

Moon -51768-09-12 08:37 J -17186584.31 -17186584.14 -17186583.92 0.0134 0.0081 *

Jupiter -51761-06-06 08:23 J -17184125.36 -17184125.15 -17184124.83 0.0136 0.0117

Mars -51758-07-31 19:54 J -17182974.93 -17182974.67 -17182974.39 0.0138 0.0036

Venus -51754-06-21 10:33 J -17181554.15 -17181554.06 -17181553.95 0.0140 0.0122

Venus -51753-02-02 17:16 J -17181327.93 -17181327.78 -17181327.62 0.0141 0.0094

Venus -51753-09-16 00:28 J -17181101.66 -17181101.48 -17181101.29 0.0141 0.0065

Venus -51752-04-30 07:40 J -17180875.38 -17180875.18 -17180874.97 0.0141 0.0036

Venus -51752-12-12 15:06 J -17180649.08 -17180648.87 -17180648.66 0.0142 0.0007

Venus -51751-07-26 22:47 J -17180422.76 -17180422.55 -17180422.34 0.0142 0.0023

Venus -51750-03-10 06:28 J -17180196.42 -17180196.23 -17180196.03 0.0142 0.0053

Venus -51750-10-22 14:37 J -17179970.05 -17179969.89 -17179969.71 0.0143 0.0084

Venus -51749-06-04 23:01 J -17179743.66 -17179743.54 -17179743.40 0.0143 0.0114

Mercury -51734-03-20 00:13 J -17174342.59 -17174342.49 -17174342.37 0.0147 0.0116

Mercury -51734-06-16 07:54 J -17174254.31 -17174254.17 -17174254.01 0.0147 0.0084
 Mercury -51734-09-12 15:49 J -17174166.01 -17174165.84 -17174165.66 0.0147 0.0051
 Mercury -51734-12-09 23:45 J -17174077.69 -17174077.51 -17174077.32 0.0147 0.0019
 Mercury -51733-03-07 07:40 J -17173989.36 -17173989.18 -17173988.99 0.0147 0.0014
 Mercury -51733-06-03 15:35 J -17173901.02 -17173900.85 -17173900.67 0.0146 0.0047
 Mercury -51733-08-30 23:30 J -17173812.67 -17173812.52 -17173812.36 0.0146 0.0081
 Mercury -51733-11-27 07:40 J -17173724.29 -17173724.18 -17173724.06 0.0146 0.0114
 Earth -51729-03-02 20:23 J -17172532.70 -17172532.65 -17172532.59 0.0146 0.0142
 Moon -51729-03-02 23:59 J -17172532.59 -17172532.50 -17172532.39 0.0146 0.0134 *
 Moon -51728-03-07 21:06 J -17172162.88 -17172162.62 -17172162.37 0.0145 0.0011
 Earth -51728-03-08 00:28 J -17172162.73 -17172162.48 -17172162.22 0.0145 0.0005 *
 Earth -51727-03-13 03:49 J -17171792.43 -17171792.34 -17171792.23 0.0145 0.0132
 Moon -51727-03-13 07:25 J -17171792.26 -17171792.19 -17171792.09 0.0145 0.0136 *
 Venus -51715-07-15 16:47 J -17167284.87 -17167284.80 -17167284.73 0.0138 0.0131
 Venus -51714-02-27 03:21 J -17167058.50 -17167058.36 -17167058.19 0.0138 0.0102
 Venus -51714-10-11 13:54 J -17166832.10 -17166831.92 -17166831.72 0.0138 0.0073
 Venus -51713-05-25 00:28 J -17166605.69 -17166605.48 -17166605.27 0.0137 0.0044
 Venus -51712-01-06 10:18 J -17166379.29 -17166379.07 -17166378.84 0.0137 0.0016
 Venus -51712-08-20 20:09 J -17166152.88 -17166152.66 -17166152.43 0.0137 0.0014
 Venus -51711-04-04 05:45 J -17165926.47 -17165926.26 -17165926.04 0.0136 0.0042
 Venus -51711-11-16 15:06 J -17165700.06 -17165699.87 -17165699.67 0.0136 0.0069
 Venus -51710-06-30 23:45 J -17165473.65 -17165473.51 -17165473.33 0.0136 0.0097
 Venus -51709-02-12 08:37 J -17165247.21 -17165247.14 -17165247.03 0.0136 0.0124
 Mercury -51692-01-08 11:16 J -17159072.07 -17159072.03 -17159071.99 0.0132 0.0126
 Mercury -51692-04-06 14:23 J -17158983.97 -17158983.90 -17158983.81 0.0132 0.0108
 Mercury -51692-07-03 17:45 J -17158895.86 -17158895.76 -17158895.66 0.0132 0.0090
 Mercury -51692-09-29 20:52 J -17158807.74 -17158807.63 -17158807.51 0.0132 0.0072
 Mercury -51692-12-27 00:13 J -17158719.61 -17158719.49 -17158719.36 0.0132 0.0054
 Mercury -51691-03-25 03:35 J -17158631.49 -17158631.35 -17158631.22 0.0132 0.0036
 Mercury -51691-06-21 06:42 J -17158543.36 -17158543.22 -17158543.08 0.0132 0.0018

Mercury -51691-09-17 09:49 J -17158455.23 -17158455.09 -17158454.95 0.0132 0.0001

Mercury -51691-12-14 12:57 J -17158367.09 -17158366.96 -17158366.82 0.0132 0.0017

Mercury -51690-03-12 16:04 J -17158278.96 -17158278.83 -17158278.69 0.0132 0.0035

Mercury -51690-06-08 19:11 J -17158190.82 -17158190.70 -17158190.57 0.0132 0.0053

Mercury -51690-09-04 22:18 J -17158102.68 -17158102.57 -17158102.45 0.0132 0.0070

Mercury -51690-12-02 01:25 J -17158014.54 -17158014.44 -17158014.33 0.0132 0.0088

Mercury -51689-02-28 04:33 J -17157926.39 -17157926.31 -17157926.23 0.0132 0.0105

Mercury -51689-05-26 07:40 J -17157838.22 -17157838.18 -17157838.13 0.0132 0.0122

Earth -51686-09-05 06:28 J -17156641.28 -17156641.23 -17156641.13 0.0133 0.0127

Moon -51685-09-08 08:52 J -17156272.39 -17156272.13 -17156271.88 0.0133 0.0017

Earth -51685-09-08 11:59 J -17156272.25 -17156272.00 -17156271.75 0.0133 0.0025 *

Earth -51684-09-12 16:47 J -17155903.00 -17155902.80 -17155902.59 0.0134 0.0079

Moon -51684-09-12 18:57 J -17155902.90 -17155902.71 -17155902.49 0.0134 0.0074 *

Jupiter -51678-04-27 07:11 J -17153850.59 -17153850.20 -17153849.79 0.0136 0.0082

Mars -51673-03-25 04:47 J -17152056.56 -17152056.30 -17152056.03 0.0138 0.0045

Venus -51670-02-18 20:09 J -17150995.71 -17150995.66 -17150995.58 0.0140 0.0133

Venus -51670-10-03 02:52 J -17150769.51 -17150769.38 -17150769.23 0.0140 0.0105

Venus -51669-05-16 09:49 J -17150543.26 -17150543.09 -17150542.91 0.0141 0.0077

Venus -51669-12-28 17:01 J -17150316.99 -17150316.79 -17150316.59 0.0141 0.0048

Venus -51668-08-12 00:13 J -17150090.69 -17150090.49 -17150090.28 0.0141 0.0020

Venus -51667-03-26 07:54 J -17149864.38 -17149864.17 -17149863.96 0.0142 0.0010

Venus -51667-11-07 15:35 J -17149638.05 -17149637.85 -17149637.65 0.0142 0.0040

Venus -51666-06-21 23:16 J -17149411.70 -17149411.53 -17149411.33 0.0142 0.0071

Venus -51665-02-03 07:54 J -17149185.32 -17149185.17 -17149185.02 0.0143 0.0100

Venus -51665-09-16 16:33 J -17148958.89 -17148958.81 -17148958.72 0.0143 0.0130

Mercury -51650-01-10 23:30 J -17143729.56 -17143729.52 -17143729.47 0.0147 0.0141

Mercury -51650-04-09 07:11 J -17143641.31 -17143641.20 -17143641.07 0.0147 0.0109

Mercury -51650-07-06 15:06 J -17143553.03 -17143552.87 -17143552.72 0.0147 0.0077

Mercury -51650-10-02 22:47 J -17143464.72 -17143464.55 -17143464.37 0.0146 0.0045

Mercury -51650-12-30 06:42 J -17143376.40 -17143376.22 -17143376.04 0.0146 0.0012

Mercury -51649-03-27 14:37 J -17143288.07 -17143287.89 -17143287.71 0.0146 0.0021

Mercury -51649-06-23 22:33 J -17143199.73 -17143199.56 -17143199.39 0.0146 0.0054

Mercury -51649-09-20 06:13 J -17143111.37 -17143111.24 -17143111.08 0.0146 0.0088

Mercury -51649-12-17 14:23 J -17143022.99 -17143022.90 -17143022.79 0.0146 0.0120

Earth -51645-03-03 04:04 J -17141851.40 -17141851.33 -17141851.25 0.0146 0.0139

Moon -51644-03-08 04:33 J -17141481.57 -17141481.31 -17141481.06 0.0145 0.0007

Earth -51644-03-08 08:09 J -17141481.42 -17141481.16 -17141480.90 0.0145 0.0002 *

Earth -51643-03-13 11:01 J -17141111.11 -17141111.04 -17141110.93 0.0145 0.0135

Moon -51643-03-13 15:06 J -17141110.98 -17141110.87 -17141110.76 0.0145 0.0130 *

Mars -51635-09-19 19:54 J -17137998.98 -17137998.67 -17137998.34 0.0140 0.0047

Venus -51631-10-27 08:09 J -17136500.27 -17136500.16 -17136500.03 0.0138 0.0115

Venus -51630-06-10 18:57 J -17136273.88 -17136273.71 -17136273.53 0.0138 0.0086

Venus -51629-01-23 05:16 J -17136047.48 -17136047.28 -17136047.07 0.0138 0.0058

Venus -51629-09-05 15:21 J -17135821.07 -17135820.86 -17135820.63 0.0137 0.0030

Venus -51628-04-20 01:40 J -17135594.66 -17135594.43 -17135594.21 0.0137 0.0001

Venus -51628-12-02 11:16 J -17135368.25 -17135368.03 -17135367.81 0.0137 0.0028

Venus -51627-07-16 20:37 J -17135141.84 -17135141.64 -17135141.43 0.0136 0.0056

Venus -51626-02-28 05:59 J -17134915.42 -17134915.25 -17134915.07 0.0136 0.0083

Venus -51626-10-12 15:06 J -17134689.00 -17134688.87 -17134688.74 0.0136 0.0110

Mercury -51608-01-28 18:13 J -17128370.79 -17128370.74 -17128370.69 0.0132 0.0122

Mercury -51608-04-26 21:21 J -17128282.68 -17128282.61 -17128282.52 0.0132 0.0104

Mercury -51608-07-24 00:42 J -17128194.57 -17128194.47 -17128194.36 0.0132 0.0086

Mercury -51608-10-20 03:49 J -17128106.45 -17128106.34 -17128106.21 0.0132 0.0068

Mercury -51607-01-16 07:11 J -17128018.32 -17128018.20 -17128018.07 0.0132 0.0050

Mercury -51607-04-14 10:33 J -17127930.19 -17127930.06 -17127929.93 0.0132 0.0032

Mercury -51607-07-11 13:40 J -17127842.06 -17127841.93 -17127841.79 0.0132 0.0014

Mercury -51607-10-07 16:47 J -17127753.93 -17127753.80 -17127753.66 0.0132 0.0006

Mercury -51606-01-03 19:54 J -17127665.80 -17127665.67 -17127665.53 0.0132 0.0022

Mercury -51606-04-01 23:01 J -17127577.66 -17127577.54 -17127577.40 0.0132 0.0040

Mercury -51606-06-29 02:09 J -17127489.52 -17127489.41 -17127489.28 0.0132 0.0057

Mercury -51606-09-25 05:16 J -17127401.38 -17127401.28 -17127401.16 0.0132 0.0075
 Mercury -51606-12-22 08:37 J -17127313.24 -17127313.14 -17127313.05 0.0132 0.0092
 Mercury -51605-03-19 11:30 J -17127225.09 -17127225.02 -17127224.94 0.0132 0.0109
 Mercury -51605-06-15 14:37 J -17127136.92 -17127136.89 -17127136.85 0.0132 0.0127
 Earth -51602-09-05 16:33 J -17125959.89 -17125959.81 -17125959.70 0.0133 0.0123
 Moon -51602-09-05 19:54 J -17125959.78 -17125959.67 -17125959.54 0.0133 0.0117 *
 Moon -51601-09-08 18:42 J -17125590.97 -17125590.72 -17125590.47 0.0133 0.0027
 Earth -51601-09-08 21:35 J -17125590.84 -17125590.60 -17125590.34 0.0133 0.0020 *
 Earth -51600-09-13 02:37 J -17125221.58 -17125221.39 -17125221.19 0.0134 0.0084
 Moon -51600-09-13 05:59 J -17125221.42 -17125221.25 -17125221.06 0.0134 0.0091 *
 Mars -51591-12-18 21:49 J -17121837.77 -17121837.59 -17121837.37 0.0138 0.0097
 Mars -51589-11-17 13:40 J -17121138.02 -17121137.93 -17121137.79 0.0139 0.0127
 Venus -51586-06-02 12:42 J -17120211.08 -17120210.97 -17120210.85 0.0140 0.0117
 Venus -51585-01-14 19:25 J -17119984.85 -17119984.69 -17119984.53 0.0141 0.0089
 Venus -51585-08-28 02:23 J -17119758.58 -17119758.40 -17119758.20 0.0141 0.0061
 Venus -51584-04-11 09:35 J -17119532.30 -17119532.10 -17119531.89 0.0141 0.0032
 Venus -51584-11-23 17:01 J -17119306.00 -17119305.79 -17119305.57 0.0142 0.0004
 Venus -51583-07-08 00:42 J -17119079.68 -17119079.47 -17119079.26 0.0142 0.0027
 Venus -51582-02-19 08:37 J -17118853.33 -17118853.14 -17118852.95 0.0142 0.0057
 Venus -51582-10-03 16:47 J -17118626.96 -17118626.80 -17118626.63 0.0142 0.0087
 Venus -51581-05-17 00:57 J -17118400.56 -17118400.46 -17118400.32 0.0143 0.0117
 Mercury -51566-01-31 06:57 J -17113028.28 -17113028.21 -17113028.13 0.0147 0.0133
 Mercury -51566-04-29 14:37 J -17112940.02 -17112939.89 -17112939.76 0.0146 0.0101
 Mercury -51566-07-26 22:18 J -17112851.73 -17112851.57 -17112851.40 0.0146 0.0069
 Mercury -51566-10-23 06:13 J -17112763.42 -17112763.24 -17112763.06 0.0146 0.0036
 Mercury -51565-01-19 14:09 J -17112675.10 -17112674.91 -17112674.73 0.0146 0.0005
 Mercury -51565-04-16 21:49 J -17112586.77 -17112586.59 -17112586.40 0.0146 0.0029
 Mercury -51565-07-14 05:45 J -17112498.42 -17112498.26 -17112498.09 0.0146 0.0062
 Mercury -51565-10-10 13:40 J -17112410.06 -17112409.93 -17112409.78 0.0146 0.0095
 Mercury -51564-01-06 21:35 J -17112321.67 -17112321.60 -17112321.50 0.0146 0.0128

Earth -51561-03-03 13:11 J -17111170.02 -17111169.95 -17111169.83 0.0146 0.0135
 Moon -51561-03-03 16:33 J -17111169.92 -17111169.81 -17111169.67 0.0146 0.0127 *
 Moon -51560-03-08 14:23 J -17110800.15 -17110799.90 -17110799.65 0.0145 0.0004
 Earth -51560-03-08 17:30 J -17110800.02 -17110799.77 -17110799.51 0.0145 0.0004 *
 Earth -51559-03-13 20:37 J -17110429.70 -17110429.64 -17110429.57 0.0145 0.0139
 Moon -51559-03-14 00:13 J -17110429.50 -17110429.49 -17110429.45 0.0145 0.0144
 Mars -51550-05-16 23:30 J -17107078.83 -17107078.52 -17107078.21 0.0140 0.0056
 Venus -51547-06-26 13:25 J -17105942.00 -17105941.94 -17105941.84 0.0138 0.0129
 Venus -51546-02-08 00:42 J -17105715.62 -17105715.47 -17105715.31 0.0138 0.0099
 Venus -51546-09-22 11:01 J -17105489.22 -17105489.04 -17105488.83 0.0138 0.0071
 Venus -51545-05-05 21:35 J -17105262.81 -17105262.60 -17105262.38 0.0137 0.0042
 Venus -51545-12-18 07:40 J -17105036.40 -17105036.18 -17105035.95 0.0137 0.0014
 Venus -51544-08-01 17:30 J -17104809.99 -17104809.77 -17104809.54 0.0137 0.0015
 Venus -51543-03-16 03:21 J -17104583.57 -17104583.36 -17104583.14 0.0136 0.0043
 Venus -51543-10-28 12:42 J -17104357.16 -17104356.97 -17104356.77 0.0136 0.0070
 Venus -51542-06-11 21:35 J -17104130.74 -17104130.60 -17104130.43 0.0136 0.0098
 Venus -51541-01-24 06:28 J -17103904.30 -17103904.23 -17103904.12 0.0136 0.0125
 Mercury -51524-02-18 01:25 J -17097669.50 -17097669.44 -17097669.38 0.0132 0.0117
 Mercury -51524-05-17 04:33 J -17097581.40 -17097581.31 -17097581.22 0.0132 0.0099
 Mercury -51524-08-13 07:54 J -17097493.28 -17097493.17 -17097493.06 0.0132 0.0081
 Mercury -51524-11-09 11:16 J -17097405.15 -17097405.03 -17097404.91 0.0132 0.0063
 Mercury -51523-02-05 14:23 J -17097317.03 -17097316.90 -17097316.77 0.0132 0.0045
 Mercury -51523-05-04 17:30 J -17097228.90 -17097228.77 -17097228.63 0.0132 0.0028
 Mercury -51523-07-31 20:52 J -17097140.77 -17097140.63 -17097140.50 0.0132 0.0010
 Mercury -51523-10-27 23:59 J -17097052.64 -17097052.50 -17097052.36 0.0132 0.0008
 Mercury -51522-01-24 03:06 J -17096964.50 -17096964.37 -17096964.23 0.0132 0.0026
 Mercury -51522-04-22 06:13 J -17096876.37 -17096876.24 -17096876.11 0.0132 0.0044
 Mercury -51522-07-19 09:21 J -17096788.23 -17096788.11 -17096787.99 0.0132 0.0061
 Mercury -51522-10-15 12:28 J -17096700.09 -17096699.98 -17096699.87 0.0132 0.0079
 Mercury -51521-01-11 15:35 J -17096611.94 -17096611.85 -17096611.76 0.0132 0.0096

Mercury -51521-04-08 18:42 J -17096523.78 -17096523.72 -17096523.65 0.0132 0.0114
 Mercury -51521-07-05 21:49 J -17096435.61 -17096435.59 -17096435.57 0.0132 0.0131
 Earth -51518-09-06 02:37 J -17095278.50 -17095278.39 -17095278.26 0.0133 0.0118
 Moon -51518-09-06 05:59 J -17095278.33 -17095278.25 -17095278.16 0.0133 0.0124 *
 Moon -51517-09-09 04:18 J -17094909.57 -17094909.32 -17094909.07 0.0133 0.0008
 Earth -51517-09-09 07:54 J -17094909.42 -17094909.17 -17094908.92 0.0133 0.0015 *
 Earth -51516-09-13 12:28 J -17094540.14 -17094539.98 -17094539.77 0.0134 0.0090
 Moon -51516-09-13 16:04 J -17094540.02 -17094539.83 -17094539.63 0.0134 0.0083 *
 Mars -51506-08-13 07:40 J -17090919.45 -17090919.18 -17090918.89 0.0138 0.0016
 Venus -51502-01-30 22:18 J -17089652.64 -17089652.57 -17089652.47 0.0140 0.0128
 Venus -51502-09-14 05:16 J -17089426.42 -17089426.28 -17089426.13 0.0140 0.0101
 Venus -51501-04-27 11:59 J -17089200.17 -17089200.00 -17089199.81 0.0141 0.0073
 Venus -51501-12-09 19:11 J -17088973.89 -17088973.70 -17088973.49 0.0141 0.0044
 Venus -51500-07-24 02:37 J -17088747.60 -17088747.39 -17088747.18 0.0141 0.0015
 Venus -51499-03-07 10:04 J -17088521.28 -17088521.08 -17088520.86 0.0142 0.0015
 Venus -51499-10-19 17:45 J -17088294.95 -17088294.76 -17088294.55 0.0142 0.0044
 Venus -51498-06-03 01:54 J -17088068.59 -17088068.42 -17088068.23 0.0142 0.0073
 Venus -51497-01-15 10:18 J -17087842.21 -17087842.07 -17087841.92 0.0143 0.0103
 Venus -51497-08-28 18:42 J -17087615.78 -17087615.72 -17087615.64 0.0143 0.0133
 Mercury -51482-02-20 14:23 J -17082326.99 -17082326.90 -17082326.80 0.0146 0.0124
 Mercury -51482-05-19 22:04 J -17082238.71 -17082238.58 -17082238.43 0.0146 0.0092
 Mercury -51482-08-16 05:59 J -17082150.42 -17082150.25 -17082150.08 0.0146 0.0059
 Mercury -51482-11-12 13:40 J -17082062.10 -17082061.93 -17082061.74 0.0146 0.0027
 Mercury -51481-02-08 21:35 J -17081973.78 -17081973.60 -17081973.41 0.0146 0.0006
 Mercury -51481-05-07 05:30 J -17081885.45 -17081885.27 -17081885.09 0.0146 0.0038
 Mercury -51481-08-03 13:11 J -17081797.10 -17081796.95 -17081796.78 0.0146 0.0071
 Mercury -51481-10-30 21:06 J -17081708.74 -17081708.62 -17081708.48 0.0146 0.0104
 Mercury -51480-01-27 05:16 J -17081620.33 -17081620.28 -17081620.21 0.0146 0.0137
 Earth -51477-03-03 23:59 J -17080488.61 -17080488.50 -17080488.37 0.0145 0.0128
 Moon -51477-03-04 02:23 J -17080488.48 -17080488.40 -17080488.28 0.0145 0.0135 *

Moon -51476-03-09 00:42 J -17080118.72 -17080118.47 -17080118.22 0.0145 0.0017
 Earth -51476-03-09 03:49 J -17080118.59 -17080118.34 -17080118.08 0.0145 0.0009 *
 Moon -51475-03-14 09:49 J -17079748.13 -17079748.09 -17079748.01 0.0145 0.0141
 Jupiter -51470-04-05 01:40 J -17077900.93 -17077900.43 -17077899.89 0.0142 0.0031
 Mars -51467-02-03 20:23 J -17076864.75 -17076864.65 -17076864.50 0.0141 0.0130
 Venus -51463-10-08 06:28 J -17075157.35 -17075157.23 -17075157.09 0.0138 0.0113
 Venus -51462-05-22 17:01 J -17074930.96 -17074930.79 -17074930.60 0.0138 0.0084
 Venus -51461-01-04 03:21 J -17074704.55 -17074704.36 -17074704.14 0.0138 0.0056
 Venus -51461-08-17 13:54 J -17074478.14 -17074477.92 -17074477.70 0.0137 0.0027
 Venus -51460-03-31 23:59 J -17074251.72 -17074251.50 -17074251.27 0.0137 0.0003
 Venus -51460-11-13 09:49 J -17074025.31 -17074025.09 -17074024.87 0.0137 0.0030
 Venus -51459-06-27 19:11 J -17073798.90 -17073798.70 -17073798.49 0.0136 0.0057
 Venus -51458-02-09 04:18 J -17073572.48 -17073572.32 -17073572.13 0.0136 0.0085
 Venus -51458-09-23 13:25 J -17073346.05 -17073345.94 -17073345.80 0.0136 0.0112
 Mercury -51441-12-12 05:01 J -17067056.29 -17067056.29 -17067056.29 0.0132 0.0132
 Mercury -51440-03-10 08:09 J -17066968.22 -17066968.16 -17066968.09 0.0132 0.0114
 Mercury -51440-06-06 11:16 J -17066880.11 -17066880.03 -17066879.92 0.0132 0.0096
 Mercury -51440-09-02 14:37 J -17066791.99 -17066791.89 -17066791.77 0.0132 0.0078
 Mercury -51440-11-29 17:59 J -17066703.87 -17066703.75 -17066703.63 0.0132 0.0060
 Mercury -51439-02-25 21:06 J -17066615.74 -17066615.62 -17066615.48 0.0132 0.0042
 Mercury -51439-05-25 00:28 J -17066527.61 -17066527.48 -17066527.34 0.0132 0.0024
 Mercury -51439-08-21 03:35 J -17066439.48 -17066439.35 -17066439.21 0.0132 0.0007
 Mercury -51439-11-17 06:57 J -17066351.35 -17066351.21 -17066351.08 0.0132 0.0012
 Mercury -51438-02-13 10:04 J -17066263.22 -17066263.08 -17066262.95 0.0132 0.0030
 Mercury -51438-05-12 13:11 J -17066175.08 -17066174.95 -17066174.82 0.0132 0.0047
 Mercury -51438-08-08 16:18 J -17066086.94 -17066086.82 -17066086.70 0.0132 0.0065
 Mercury -51438-11-04 19:25 J -17065998.79 -17065998.69 -17065998.58 0.0132 0.0082
 Mercury -51437-01-31 22:33 J -17065910.65 -17065910.56 -17065910.47 0.0132 0.0100
 Mercury -51437-04-29 01:25 J -17065822.49 -17065822.44 -17065822.37 0.0132 0.0118
 Earth -51434-09-06 11:45 J -17064597.13 -17064597.01 -17064596.87 0.0133 0.0114

Moon	-51434-09-06 15:06 J	-17064596.99	-17064596.87	-17064596.70	0.0133	0.0108	*
Moon	-51433-09-09 13:25 J	-17064228.18	-17064227.94	-17064227.68	0.0133	0.0018	
Earth	-51433-09-09 17:01 J	-17064228.04	-17064227.79	-17064227.54	0.0133	0.0010	*
Earth	-51432-09-13 22:04 J	-17063858.74	-17063858.58	-17063858.39	0.0134	0.0094	
Moon	-51432-09-14 01:54 J	-17063858.57	-17063858.42	-17063858.25	0.0134	0.0101	*
Mars	-51421-04-06 16:04 J	-17060001.06	-17060000.83	-17060000.56	0.0139	0.0066	
Venus	-51419-09-30 07:54 J	-17059094.17	-17059094.17	-17059094.16	0.0140	0.0140	
Venus	-51418-05-14 14:37 J	-17058868.02	-17058867.89	-17058867.77	0.0140	0.0113	
Venus	-51418-12-26 21:21 J	-17058641.78	-17058641.61	-17058641.44	0.0141	0.0085	
Venus	-51417-08-09 04:18 J	-17058415.51	-17058415.32	-17058415.12	0.0141	0.0057	
Venus	-51416-03-23 11:30 J	-17058189.22	-17058189.02	-17058188.81	0.0141	0.0029	
Venus	-51416-11-04 18:57 J	-17057962.92	-17057962.71	-17057962.50	0.0142	0.0002	
Venus	-51415-06-19 02:37 J	-17057736.60	-17057736.39	-17057736.18	0.0142	0.0030	
Venus	-51414-01-31 10:18 J	-17057510.25	-17057510.07	-17057509.87	0.0142	0.0059	
Venus	-51414-09-14 18:42 J	-17057283.88	-17057283.72	-17057283.55	0.0143	0.0089	
Venus	-51413-04-28 02:52 J	-17057057.48	-17057057.38	-17057057.25	0.0143	0.0119	
Mercury	-51398-03-12 21:49 J	-17051625.70	-17051625.59	-17051625.48	0.0146	0.0116	
Mercury	-51398-06-09 05:30 J	-17051537.42	-17051537.27	-17051537.12	0.0146	0.0084	
Mercury	-51398-09-05 13:11 J	-17051449.12	-17051448.95	-17051448.78	0.0146	0.0052	
Mercury	-51398-12-02 21:06 J	-17051360.80	-17051360.62	-17051360.44	0.0146	0.0019	
Mercury	-51397-02-29 04:47 J	-17051272.48	-17051272.30	-17051272.11	0.0146	0.0014	
Mercury	-51397-05-27 12:42 J	-17051184.14	-17051183.97	-17051183.79	0.0146	0.0046	
Mercury	-51397-08-23 20:37 J	-17051095.79	-17051095.64	-17051095.48	0.0146	0.0079	
Mercury	-51397-11-20 04:18 J	-17051007.42	-17051007.32	-17051007.19	0.0146	0.0112	
Mercury	-51396-02-16 12:13 J	-17050918.99	-17050918.99	-17050918.95	0.0146	0.0145	
Earth	-51393-03-04 09:49 J	-17049807.22	-17049807.09	-17049806.95	0.0145	0.0123	
Moon	-51393-03-04 11:45 J	-17049807.15	-17049807.01	-17049806.83	0.0145	0.0116	*
Moon	-51392-03-09 11:16 J	-17049437.28	-17049437.03	-17049436.78	0.0145	0.0008	
Earth	-51392-03-09 13:40 J	-17049437.18	-17049436.93	-17049436.67	0.0145	0.0015	*
Mars	-51383-10-01 02:52 J	-17045944.70	-17045944.38	-17045944.03	0.0140	0.0025	

Venus	-51379-06-07 13:11 J	-17044599.05	-17044598.95	-17044598.86	0.0138	0.0125
Venus	-51378-01-19 23:45 J	-17044372.66	-17044372.51	-17044372.34	0.0138	0.0096
Venus	-51378-09-03 10:18 J	-17044146.26	-17044146.07	-17044145.86	0.0138	0.0068
Venus	-51377-04-16 20:37 J	-17043919.84	-17043919.64	-17043919.41	0.0137	0.0040
Venus	-51377-11-29 06:57 J	-17043693.43	-17043693.21	-17043692.98	0.0137	0.0011
Venus	-51376-07-13 17:01 J	-17043467.02	-17043466.79	-17043466.57	0.0137	0.0017
Venus	-51375-02-25 02:37 J	-17043240.60	-17043240.39	-17043240.17	0.0136	0.0045
Venus	-51375-10-09 11:59 J	-17043014.18	-17043014.00	-17043013.80	0.0136	0.0072
Venus	-51374-05-23 21:06 J	-17042787.76	-17042787.62	-17042787.45	0.0136	0.0099
Venus	-51373-01-05 05:59 J	-17042561.32	-17042561.25	-17042561.15	0.0136	0.0126
Mercury	-51356-01-01 11:45 J	-17036355.03	-17036355.01	-17036354.97	0.0132	0.0128
Mercury	-51356-03-30 15:06 J	-17036266.94	-17036266.87	-17036266.79	0.0132	0.0110
Mercury	-51356-06-26 18:13 J	-17036178.83	-17036178.74	-17036178.63	0.0132	0.0092
Mercury	-51356-09-22 21:35 J	-17036090.71	-17036090.60	-17036090.48	0.0132	0.0074
Mercury	-51356-12-20 00:57 J	-17036002.58	-17036002.46	-17036002.33	0.0132	0.0056
Mercury	-51355-03-18 04:04 J	-17035914.46	-17035914.33	-17035914.19	0.0132	0.0038
Mercury	-51355-06-14 07:25 J	-17035826.33	-17035826.19	-17035826.05	0.0132	0.0020
Mercury	-51355-09-10 10:33 J	-17035738.19	-17035738.06	-17035737.92	0.0132	0.0003
Mercury	-51355-12-07 13:40 J	-17035650.06	-17035649.93	-17035649.79	0.0132	0.0016
Mercury	-51354-03-05 17:01 J	-17035561.93	-17035561.79	-17035561.66	0.0132	0.0033
Mercury	-51354-06-01 19:54 J	-17035473.79	-17035473.67	-17035473.54	0.0132	0.0051
Mercury	-51354-08-28 23:16 J	-17035385.65	-17035385.53	-17035385.41	0.0132	0.0068
Mercury	-51354-11-25 02:09 J	-17035297.50	-17035297.41	-17035297.30	0.0132	0.0086
Mercury	-51353-02-21 05:16 J	-17035209.35	-17035209.28	-17035209.19	0.0132	0.0104
Mercury	-51353-05-19 08:37 J	-17035121.19	-17035121.14	-17035121.09	0.0132	0.0121
Earth	-51350-09-06 20:52 J	-17033915.76	-17033915.63	-17033915.48	0.0133	0.0109
Moon	-51350-09-07 00:13 J	-17033915.60	-17033915.49	-17033915.35	0.0133	0.0116 *
Moon	-51349-09-09 22:33 J	-17033546.81	-17033546.56	-17033546.31	0.0133	0.0001
Earth	-51349-09-10 02:09 J	-17033546.66	-17033546.41	-17033546.15	0.0133	0.0007 *
Earth	-51348-09-14 07:25 J	-17033177.35	-17033177.19	-17033177.01	0.0134	0.0098

Moon -51348-09-14 10:33 J -17033177.22 -17033177.06 -17033176.86 0.0134 0.0092 *
 Mars -51339-12-31 05:45 J -17029782.48 -17029782.26 -17029782.02 0.0138 0.0079
 Venus -51334-01-11 22:47 J -17028309.62 -17028309.55 -17028309.44 0.0140 0.0125
 Venus -51334-08-26 05:59 J -17028083.40 -17028083.25 -17028083.10 0.0140 0.0098
 Venus -51333-04-08 12:42 J -17027857.14 -17027856.97 -17027856.78 0.0141 0.0070
 Venus -51333-11-20 19:40 J -17027630.87 -17027630.68 -17027630.47 0.0141 0.0043
 Venus -51332-07-05 03:06 J -17027404.58 -17027404.37 -17027404.16 0.0141 0.0014
 Venus -51331-02-16 10:47 J -17027178.26 -17027178.05 -17027177.84 0.0142 0.0016
 Venus -51331-09-30 18:28 J -17026951.93 -17026951.73 -17026951.52 0.0142 0.0045
 Venus -51330-05-15 02:23 J -17026725.57 -17026725.40 -17026725.21 0.0142 0.0074
 Venus -51330-12-27 10:33 J -17026499.20 -17026499.06 -17026498.91 0.0143 0.0104
 Venus -51329-08-09 18:57 J -17026272.78 -17026272.71 -17026272.63 0.0143 0.0133
 Mercury -51314-01-03 20:52 J -17021012.66 -17021012.63 -17021012.57 0.0146 0.0141
 Mercury -51314-04-02 04:33 J -17020924.42 -17020924.31 -17020924.18 0.0146 0.0110
 Mercury -51314-06-29 12:13 J -17020836.14 -17020835.99 -17020835.83 0.0146 0.0078
 Mercury -51314-09-25 20:09 J -17020747.83 -17020747.66 -17020747.49 0.0146 0.0046
 Mercury -51314-12-23 03:49 J -17020659.52 -17020659.34 -17020659.16 0.0146 0.0013
 Mercury -51313-03-20 11:45 J -17020571.19 -17020571.01 -17020570.83 0.0146 0.0019
 Mercury -51313-06-16 19:25 J -17020482.86 -17020482.69 -17020482.51 0.0146 0.0052
 Mercury -51313-09-13 03:06 J -17020394.50 -17020394.37 -17020394.20 0.0146 0.0086
 Mercury -51313-12-10 11:01 J -17020306.13 -17020306.04 -17020305.91 0.0146 0.0118
 Earth -51309-03-04 17:45 J -17019125.88 -17019125.76 -17019125.59 0.0145 0.0120
 Moon -51309-03-04 19:40 J -17019125.80 -17019125.68 -17019125.54 0.0145 0.0125 *
 Moon -51308-03-09 19:40 J -17018755.93 -17018755.68 -17018755.44 0.0145 0.0026
 Earth -51308-03-09 21:49 J -17018755.84 -17018755.59 -17018755.33 0.0145 0.0019 *
 Mars -51298-05-28 04:04 J -17015024.58 -17015024.33 -17015024.02 0.0140 0.0079
 Venus -51295-02-04 18:13 J -17014040.74 -17014040.74 -17014040.70 0.0139 0.0138
 Venus -51295-09-19 05:16 J -17013814.40 -17013814.28 -17013814.13 0.0138 0.0110
 Venus -51294-05-03 16:04 J -17013588.00 -17013587.83 -17013587.64 0.0138 0.0081
 Venus -51294-12-16 02:37 J -17013361.59 -17013361.39 -17013361.17 0.0138 0.0052

Venus -51293-07-29 12:57 J -17013135.18 -17013134.96 -17013134.73 0.0137 0.0024
 Venus -51292-03-12 23:16 J -17012908.75 -17012908.53 -17012908.30 0.0137 0.0004
 Venus -51292-10-25 09:06 J -17012682.34 -17012682.12 -17012681.90 0.0137 0.0032
 Venus -51291-06-08 18:28 J -17012455.92 -17012455.73 -17012455.52 0.0136 0.0059
 Venus -51290-01-21 03:49 J -17012229.50 -17012229.34 -17012229.16 0.0136 0.0086
 Venus -51290-09-04 12:42 J -17012003.07 -17012002.97 -17012002.82 0.0136 0.0113
 Mercury -51272-01-21 18:28 J -17005653.76 -17005653.73 -17005653.68 0.0132 0.0125
 Mercury -51272-04-19 21:49 J -17005565.66 -17005565.59 -17005565.50 0.0132 0.0107
 Mercury -51272-07-17 01:11 J -17005477.55 -17005477.45 -17005477.34 0.0132 0.0089
 Mercury -51272-10-13 04:18 J -17005389.43 -17005389.32 -17005389.19 0.0132 0.0071
 Mercury -51271-01-09 07:40 J -17005301.30 -17005301.18 -17005301.05 0.0132 0.0053
 Mercury -51271-04-07 11:01 J -17005213.17 -17005213.04 -17005212.91 0.0132 0.0035
 Mercury -51271-07-04 14:09 J -17005125.04 -17005124.91 -17005124.77 0.0132 0.0017
 Mercury -51271-09-30 17:30 J -17005036.91 -17005036.77 -17005036.64 0.0132 0.0005
 Mercury -51271-12-27 20:37 J -17004948.78 -17004948.64 -17004948.51 0.0132 0.0019
 Mercury -51270-03-25 23:45 J -17004860.64 -17004860.51 -17004860.38 0.0132 0.0036
 Mercury -51270-06-22 02:52 J -17004772.50 -17004772.38 -17004772.26 0.0132 0.0054
 Mercury -51270-09-18 05:59 J -17004684.36 -17004684.25 -17004684.13 0.0132 0.0072
 Mercury -51270-12-15 09:06 J -17004596.22 -17004596.12 -17004596.02 0.0132 0.0089
 Mercury -51269-03-12 12:13 J -17004508.07 -17004507.99 -17004507.91 0.0132 0.0107
 Mercury -51269-06-08 15:06 J -17004419.90 -17004419.87 -17004419.81 0.0132 0.0124
 Earth -51266-09-07 05:16 J -17003234.42 -17003234.28 -17003234.12 0.0133 0.0106
 Moon -51266-09-07 08:37 J -17003234.29 -17003234.14 -17003233.96 0.0133 0.0101 *
 Moon -51265-09-10 07:11 J -17002865.45 -17002865.20 -17002864.95 0.0133 0.0010
 Earth -51265-09-10 10:47 J -17002865.31 -17002865.05 -17002864.80 0.0133 0.0003 *
 Earth -51264-09-14 15:35 J -17002495.99 -17002495.85 -17002495.66 0.0134 0.0102
 Moon -51264-09-14 19:25 J -17002495.82 -17002495.69 -17002495.52 0.0134 0.0109 *
 Mars -51254-08-25 12:28 J -16998864.26 -16998863.98 -16998863.70 0.0138 0.0001
 Venus -51251-09-11 07:25 J -16997751.22 -16997751.19 -16997751.14 0.0140 0.0137
 Venus -51250-04-25 13:54 J -16997525.03 -16997524.92 -16997524.78 0.0140 0.0111

Venus	-51250-12-07 20:52 J	-16997298.79	-16997298.63	-16997298.46	0.0140	0.0083
Venus	-51249-07-21 03:49 J	-16997072.53	-16997072.34	-16997072.14	0.0141	0.0055
Venus	-51248-03-04 11:01 J	-16996846.25	-16996846.04	-16996845.83	0.0141	0.0027
Venus	-51248-10-16 18:28 J	-16996619.94	-16996619.73	-16996619.52	0.0141	0.0002
Venus	-51247-05-31 01:54 J	-16996393.62	-16996393.42	-16996393.21	0.0142	0.0030
Venus	-51246-01-12 09:35 J	-16996167.29	-16996167.10	-16996166.90	0.0142	0.0060
Venus	-51246-08-26 17:45 J	-16995940.92	-16995940.76	-16995940.59	0.0142	0.0089
Venus	-51245-04-09 01:54 J	-16995714.53	-16995714.42	-16995714.30	0.0143	0.0118
Mercury	-51230-01-24 03:06 J	-16990311.42	-16990311.37	-16990311.30	0.0147	0.0138
Mercury	-51230-04-22 10:33 J	-16990223.17	-16990223.06	-16990222.92	0.0146	0.0107
Mercury	-51230-07-19 18:28 J	-16990134.88	-16990134.73	-16990134.57	0.0146	0.0074
Mercury	-51230-10-16 02:09 J	-16990046.58	-16990046.41	-16990046.23	0.0146	0.0042
Mercury	-51229-01-12 10:04 J	-16989958.26	-16989958.08	-16989957.90	0.0146	0.0010
Mercury	-51229-04-09 17:45 J	-16989869.94	-16989869.76	-16989869.57	0.0146	0.0023
Mercury	-51229-07-07 01:40 J	-16989781.60	-16989781.43	-16989781.26	0.0146	0.0055
Mercury	-51229-10-03 09:21 J	-16989693.24	-16989693.11	-16989692.95	0.0146	0.0089
Mercury	-51229-12-30 17:16 J	-16989604.87	-16989604.78	-16989604.67	0.0146	0.0122
Earth	-51225-03-05 00:28 J	-16988444.61	-16988444.48	-16988444.32	0.0145	0.0118
Moon	-51225-03-05 01:40 J	-16988444.59	-16988444.43	-16988444.26	0.0145	0.0112 *
Moon	-51224-03-10 03:06 J	-16988074.61	-16988074.37	-16988074.12	0.0145	0.0013
Earth	-51224-03-10 04:33 J	-16988074.56	-16988074.31	-16988074.05	0.0145	0.0020 *
Mars	-51215-02-14 21:21 J	-16984810.78	-16984810.61	-16984810.38	0.0141	0.0113
Venus	-51211-05-19 09:49 J	-16983256.17	-16983256.09	-16983255.96	0.0138	0.0123
Venus	-51211-12-31 20:52 J	-16983029.78	-16983029.63	-16983029.45	0.0138	0.0094
Venus	-51210-08-15 07:40 J	-16982803.36	-16982803.18	-16982802.97	0.0138	0.0066
Venus	-51209-03-28 18:28 J	-16982576.94	-16982576.73	-16982576.51	0.0137	0.0037
Venus	-51209-11-10 04:47 J	-16982350.52	-16982350.30	-16982350.07	0.0137	0.0009
Venus	-51208-06-24 14:37 J	-16982124.10	-16982123.89	-16982123.66	0.0137	0.0019
Venus	-51207-02-06 00:28 J	-16981897.68	-16981897.48	-16981897.26	0.0137	0.0046
Venus	-51207-09-20 10:04 J	-16981671.26	-16981671.08	-16981670.88	0.0136	0.0073

Venus -51206-05-04 19:11 J -16981444.83 -16981444.70 -16981444.53 0.0136 0.0100
 Venus -51206-12-17 04:18 J -16981218.39 -16981218.32 -16981218.23 0.0136 0.0126
 Mercury -51188-02-11 01:25 J -16974952.48 -16974952.44 -16974952.38 0.0132 0.0122
 Mercury -51188-05-10 04:33 J -16974864.38 -16974864.31 -16974864.21 0.0132 0.0104
 Mercury -51188-08-06 08:09 J -16974776.27 -16974776.16 -16974776.06 0.0132 0.0086
 Mercury -51188-11-02 11:16 J -16974688.14 -16974688.03 -16974687.91 0.0132 0.0068
 Mercury -51187-01-29 14:37 J -16974600.02 -16974599.89 -16974599.76 0.0132 0.0049
 Mercury -51187-04-27 17:45 J -16974511.89 -16974511.76 -16974511.62 0.0132 0.0032
 Mercury -51187-07-24 21:06 J -16974423.76 -16974423.62 -16974423.49 0.0132 0.0014
 Mercury -51187-10-21 00:13 J -16974335.63 -16974335.49 -16974335.35 0.0132 0.0004
 Mercury -51186-01-17 03:21 J -16974247.49 -16974247.36 -16974247.22 0.0132 0.0022
 Mercury -51186-04-15 06:28 J -16974159.36 -16974159.23 -16974159.09 0.0132 0.0040
 Mercury -51186-07-12 09:35 J -16974071.22 -16974071.10 -16974070.97 0.0132 0.0058
 Mercury -51186-10-08 12:42 J -16973983.07 -16973982.97 -16973982.85 0.0132 0.0075
 Mercury -51185-01-04 15:49 J -16973894.93 -16973894.84 -16973894.74 0.0132 0.0093
 Mercury -51185-04-01 19:11 J -16973806.78 -16973806.70 -16973806.63 0.0132 0.0110
 Mercury -51185-06-28 22:04 J -16973718.61 -16973718.58 -16973718.54 0.0132 0.0127
 Earth -51182-09-07 13:54 J -16972553.06 -16972552.92 -16972552.75 0.0133 0.0103
 Moon -51182-09-07 17:16 J -16972552.91 -16972552.78 -16972552.62 0.0133 0.0109 *
 Moon -51181-09-10 16:18 J -16972184.07 -16972183.82 -16972183.57 0.0133 0.0007
 Earth -51181-09-10 19:40 J -16972183.93 -16972183.68 -16972183.43 0.0133 0.0001 *
 Earth -51180-09-15 00:42 J -16971814.61 -16971814.47 -16971814.30 0.0134 0.0105
 Moon -51180-09-15 04:18 J -16971814.49 -16971814.32 -16971814.14 0.0134 0.0098 *
 Mars -51169-04-18 17:16 J -16967946.00 -16967945.78 -16967945.54 0.0138 0.0079
 Venus -51167-12-23 22:18 J -16966966.66 -16966966.57 -16966966.45 0.0140 0.0122
 Venus -51166-08-07 05:01 J -16966740.43 -16966740.29 -16966740.12 0.0140 0.0095
 Venus -51165-03-20 11:59 J -16966514.18 -16966514.00 -16966513.81 0.0141 0.0068
 Venus -51165-11-01 18:57 J -16966287.91 -16966287.71 -16966287.50 0.0141 0.0040
 Venus -51164-06-16 02:09 J -16966061.62 -16966061.41 -16966061.20 0.0141 0.0012
 Venus -51163-01-28 09:35 J -16965835.31 -16965835.10 -16965834.89 0.0142 0.0017

Venus -51163-09-11 17:01 J -16965608.98 -16965608.79 -16965608.58 0.0142 0.0046
 Venus -51162-04-26 00:57 J -16965382.63 -16965382.46 -16965382.27 0.0142 0.0075
 Venus -51162-12-08 08:52 J -16965156.26 -16965156.13 -16965155.97 0.0143 0.0104
 Venus -51161-07-21 17:16 J -16964929.85 -16964929.78 -16964929.70 0.0143 0.0132
 Mercury -51146-02-13 09:06 J -16959610.17 -16959610.12 -16959610.03 0.0146 0.0135
 Mercury -51146-05-12 17:01 J -16959521.91 -16959521.79 -16959521.66 0.0146 0.0103
 Mercury -51146-08-09 00:42 J -16959433.63 -16959433.47 -16959433.31 0.0146 0.0071
 Mercury -51146-11-05 08:23 J -16959345.32 -16959345.15 -16959344.97 0.0146 0.0039
 Mercury -51145-02-01 16:18 J -16959257.01 -16959256.82 -16959256.64 0.0146 0.0007
 Mercury -51145-04-29 23:59 J -16959168.68 -16959168.50 -16959168.32 0.0146 0.0026
 Mercury -51145-07-27 07:40 J -16959080.34 -16959080.18 -16959080.00 0.0146 0.0059
 Mercury -51145-10-23 15:49 J -16958991.99 -16958991.84 -16958991.70 0.0146 0.0092
 Mercury -51144-01-19 23:45 J -16958903.61 -16958903.51 -16958903.42 0.0146 0.0125
 Moon -51141-03-05 06:42 J -16957763.35 -16957763.22 -16957763.06 0.0145 0.0122
 Earth -51141-03-05 06:42 J -16957763.35 -16957763.22 -16957763.05 0.0145 0.0117 *
 Moon -51140-03-10 09:35 J -16957393.34 -16957393.10 -16957392.85 0.0145 0.0028
 Earth -51140-03-10 10:33 J -16957393.30 -16957393.06 -16957392.80 0.0145 0.0022 *
 Mars -51131-10-11 17:16 J -16953891.11 -16953890.78 -16953890.44 0.0140 0.0013
 Venus -51127-01-16 13:54 J -16952697.95 -16952697.92 -16952697.86 0.0139 0.0136
 Venus -51127-08-31 01:11 J -16952471.58 -16952471.45 -16952471.30 0.0138 0.0107
 Venus -51126-04-14 11:59 J -16952245.17 -16952245.00 -16952244.80 0.0138 0.0079
 Venus -51126-11-26 22:47 J -16952018.75 -16952018.55 -16952018.33 0.0138 0.0051
 Venus -51125-07-10 09:21 J -16951792.33 -16951792.11 -16951791.89 0.0137 0.0023
 Venus -51124-02-21 19:40 J -16951565.91 -16951565.68 -16951565.46 0.0137 0.0005
 Venus -51124-10-06 05:30 J -16951339.48 -16951339.27 -16951339.05 0.0137 0.0033
 Venus -51123-05-20 15:06 J -16951113.06 -16951112.87 -16951112.66 0.0136 0.0060
 Venus -51122-01-02 00:28 J -16950886.64 -16950886.48 -16950886.30 0.0136 0.0086
 Venus -51122-08-16 09:35 J -16950660.21 -16950660.10 -16950659.96 0.0136 0.0113
 Mercury -51104-03-03 08:09 J -16944251.21 -16944251.16 -16944251.10 0.0132 0.0119
 Mercury -51104-05-30 11:16 J -16944163.11 -16944163.03 -16944162.93 0.0132 0.0102

Mercury -51104-08-26 14:37 J -16944074.99 -16944074.89 -16944074.78 0.0132 0.0083

Mercury -51104-11-22 17:59 J -16943986.87 -16943986.75 -16943986.63 0.0132 0.0065

Mercury -51103-02-18 21:06 J -16943898.74 -16943898.62 -16943898.48 0.0132 0.0047

Mercury -51103-05-18 00:28 J -16943810.61 -16943810.48 -16943810.34 0.0132 0.0029

Mercury -51103-08-14 03:35 J -16943722.48 -16943722.35 -16943722.21 0.0132 0.0012

Mercury -51103-11-10 06:57 J -16943634.35 -16943634.21 -16943634.07 0.0132 0.0007

Mercury -51102-02-06 10:04 J -16943546.21 -16943546.08 -16943545.94 0.0132 0.0025

Mercury -51102-05-05 13:11 J -16943458.08 -16943457.95 -16943457.82 0.0132 0.0042

Mercury -51102-08-01 16:18 J -16943369.94 -16943369.82 -16943369.69 0.0132 0.0060

Mercury -51102-10-28 19:40 J -16943281.79 -16943281.68 -16943281.57 0.0132 0.0078

Mercury -51101-01-24 22:33 J -16943193.65 -16943193.56 -16943193.46 0.0132 0.0095

Mercury -51101-04-22 01:40 J -16943105.49 -16943105.43 -16943105.35 0.0132 0.0113

Mercury -51101-07-19 04:47 J -16943017.31 -16943017.30 -16943017.27 0.0132 0.0130

Earth -51098-09-07 22:18 J -16941871.72 -16941871.57 -16941871.39 0.0133 0.0100

Moon -51098-09-08 00:57 J -16941871.61 -16941871.46 -16941871.26 0.0133 0.0096 *

Moon -51097-09-11 00:57 J -16941502.71 -16941502.46 -16941502.21 0.0133 0.0003

Earth -51097-09-11 03:49 J -16941502.59 -16941502.34 -16941502.08 0.0133 0.0005 *

Earth -51096-09-15 09:06 J -16941133.25 -16941133.12 -16941132.96 0.0134 0.0108

Moon -51096-09-15 12:42 J -16941133.10 -16941132.97 -16941132.84 0.0134 0.0115 *

Mars -51086-01-12 05:45 J -16937727.50 -16937727.26 -16937727.00 0.0138 0.0067

Venus -51083-08-23 07:25 J -16936408.24 -16936408.19 -16936408.12 0.0140 0.0133

Venus -51082-04-06 13:40 J -16936182.05 -16936181.93 -16936181.78 0.0140 0.0107

Venus -51082-11-18 20:37 J -16935955.81 -16935955.64 -16935955.47 0.0140 0.0080

Venus -51081-07-02 03:06 J -16935729.55 -16935729.37 -16935729.16 0.0141 0.0053

Venus -51080-02-13 10:18 J -16935503.27 -16935503.07 -16935502.86 0.0141 0.0025

Venus -51080-09-27 17:45 J -16935276.97 -16935276.76 -16935276.55 0.0141 0.0004

Venus -51079-05-12 01:11 J -16935050.65 -16935050.45 -16935050.24 0.0142 0.0032

Venus -51079-12-24 08:52 J -16934824.32 -16934824.13 -16934823.94 0.0142 0.0060

Venus -51078-08-07 16:33 J -16934597.96 -16934597.81 -16934597.63 0.0142 0.0090

Venus -51077-03-21 00:57 J -16934371.58 -16934371.46 -16934371.34 0.0143 0.0118

Mercury -51062-03-05 15:49 J -16928908.91 -16928908.84 -16928908.75 0.0146 0.0130
 Mercury -51062-06-01 23:30 J -16928820.65 -16928820.52 -16928820.38 0.0146 0.0098
 Mercury -51062-08-29 06:57 J -16928732.36 -16928732.21 -16928732.04 0.0146 0.0067
 Mercury -51062-11-25 14:52 J -16928644.05 -16928643.88 -16928643.70 0.0146 0.0034
 Mercury -51061-02-21 22:33 J -16928555.74 -16928555.56 -16928555.37 0.0146 0.0004
 Mercury -51061-05-20 06:13 J -16928467.41 -16928467.24 -16928467.05 0.0146 0.0032
 Mercury -51061-08-16 14:09 J -16928379.07 -16928378.91 -16928378.74 0.0146 0.0064
 Mercury -51061-11-12 22:04 J -16928290.71 -16928290.58 -16928290.44 0.0146 0.0096
 Mercury -51060-02-09 05:59 J -16928202.33 -16928202.25 -16928202.16 0.0146 0.0129
 Moon -51057-03-05 13:25 J -16927082.10 -16927081.94 -16927081.76 0.0145 0.0110
 Earth -51057-03-05 13:54 J -16927082.06 -16927081.92 -16927081.76 0.0145 0.0116 *
 Earth -51056-03-10 17:45 J -16926712.01 -16926711.76 -16926711.50 0.0145 0.0023
 Moon -51056-03-10 17:45 J -16926712.00 -16926711.76 -16926711.51 0.0145 0.0016 *
 Mars -51046-06-07 14:09 J -16922971.16 -16922970.91 -16922970.63 0.0140 0.0086
 Venus -51043-04-30 05:30 J -16921913.36 -16921913.27 -16921913.14 0.0138 0.0121
 Venus -51043-12-12 16:33 J -16921686.96 -16921686.81 -16921686.63 0.0138 0.0092
 Venus -51042-07-27 03:35 J -16921460.55 -16921460.35 -16921460.15 0.0138 0.0064
 Venus -51041-03-09 14:23 J -16921234.12 -16921233.90 -16921233.68 0.0138 0.0036
 Venus -51041-10-22 00:42 J -16921007.69 -16921007.47 -16921007.25 0.0137 0.0008
 Venus -51040-06-05 10:47 J -16920781.27 -16920781.05 -16920780.83 0.0137 0.0019
 Venus -51039-01-17 20:23 J -16920554.85 -16920554.65 -16920554.43 0.0137 0.0047
 Venus -51039-09-01 05:59 J -16920328.43 -16920328.25 -16920328.05 0.0136 0.0073
 Venus -51038-04-15 15:21 J -16920102.00 -16920101.86 -16920101.70 0.0136 0.0100
 Venus -51038-11-28 00:13 J -16919875.55 -16919875.49 -16919875.39 0.0136 0.0126
 Mercury -51020-03-23 14:52 J -16913549.94 -16913549.88 -16913549.81 0.0132 0.0116
 Mercury -51020-06-19 17:59 J -16913461.83 -16913461.75 -16913461.65 0.0132 0.0099
 Mercury -51020-09-15 21:21 J -16913373.71 -16913373.61 -16913373.49 0.0132 0.0080
 Mercury -51020-12-13 00:42 J -16913285.59 -16913285.47 -16913285.34 0.0132 0.0062
 Mercury -51019-03-11 04:04 J -16913197.46 -16913197.33 -16913197.20 0.0132 0.0044
 Mercury -51019-06-07 07:11 J -16913109.33 -16913109.20 -16913109.06 0.0132 0.0026

Mercury	-51019-09-03 10:33 J	-16913021.20	-16913021.06	-16913020.92	0.0132	0.0008
Mercury	-51019-11-30 13:40 J	-16912933.06	-16912932.93	-16912932.79	0.0132	0.0010
Mercury	-51018-02-26 16:47 J	-16912844.93	-16912844.80	-16912844.66	0.0132	0.0028
Mercury	-51018-05-25 20:09 J	-16912756.79	-16912756.66	-16912756.53	0.0132	0.0046
Mercury	-51018-08-21 23:16 J	-16912668.65	-16912668.53	-16912668.41	0.0132	0.0063
Mercury	-51018-11-18 02:09 J	-16912580.51	-16912580.41	-16912580.29	0.0132	0.0082
Mercury	-51017-02-14 05:30 J	-16912492.36	-16912492.27	-16912492.18	0.0132	0.0099
Mercury	-51017-05-12 08:23 J	-16912404.20	-16912404.15	-16912404.07	0.0132	0.0117
Earth	-51014-09-08 07:25 J	-16911190.36	-16911190.19	-16911190.02	0.0133	0.0097
Moon	-51014-09-08 10:04 J	-16911190.24	-16911190.08	-16911189.90	0.0133	0.0101 *
Moon	-51013-09-11 10:04 J	-16910821.32	-16910821.08	-16910820.83	0.0133	0.0014
Earth	-51013-09-11 12:42 J	-16910821.22	-16910820.97	-16910820.71	0.0133	0.0008 *
Earth	-51012-09-15 17:45 J	-16910451.87	-16910451.76	-16910451.60	0.0134	0.0112
Moon	-51012-09-15 20:37 J	-16910451.78	-16910451.64	-16910451.47	0.0134	0.0105 *
Mars	-51002-09-06 13:40 J	-16906809.21	-16906808.93	-16906808.65	0.0138	0.0013

51ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 51st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-50999-12-04 22:47 J	-16905623.65	-16905623.55	-16905623.43	0.0140	0.0118		
Venus	-50998-07-19 05:30 J	-16905397.43	-16905397.27	-16905397.11	0.0140	0.0092		
Venus	-50997-03-01 11:59 J	-16905171.18	-16905171.00	-16905170.80	0.0141	0.0065		

Venus	-50997-10-13 19:11 J	-16904944.90	-16904944.70	-16904944.50	0.0141	0.0037
Venus	-50996-05-28 02:09 J	-16904718.62	-16904718.41	-16904718.20	0.0141	0.0010
Venus	-50995-01-09 09:35 J	-16904492.31	-16904492.10	-16904491.89	0.0142	0.0019
Venus	-50995-08-23 17:16 J	-16904265.98	-16904265.78	-16904265.58	0.0142	0.0047
Venus	-50994-04-07 00:57 J	-16904039.64	-16904039.46	-16904039.28	0.0142	0.0076
Venus	-50994-11-19 08:37 J	-16903813.27	-16903813.14	-16903812.98	0.0143	0.0105
Venus	-50993-07-02 16:47 J	-16903586.86	-16903586.80	-16903586.71	0.0143	0.0133
Mercury	-50978-03-25 22:47 J	-16898207.63	-16898207.55	-16898207.44	0.0146	0.0123
Mercury	-50978-06-22 06:42 J	-16898119.36	-16898119.22	-16898119.08	0.0146	0.0091
Mercury	-50978-09-18 14:09 J	-16898031.07	-16898030.91	-16898030.74	0.0146	0.0059
Mercury	-50978-12-15 21:49 J	-16897942.76	-16897942.59	-16897942.40	0.0146	0.0027
Mercury	-50977-03-13 05:45 J	-16897854.44	-16897854.26	-16897854.08	0.0146	0.0006
Mercury	-50977-06-09 13:25 J	-16897766.11	-16897765.94	-16897765.76	0.0146	0.0038
Mercury	-50977-09-05 21:21 J	-16897677.77	-16897677.61	-16897677.45	0.0146	0.0071
Mercury	-50977-12-03 05:16 J	-16897589.41	-16897589.28	-16897589.15	0.0146	0.0104
Mercury	-50976-03-01 13:11 J	-16897501.01	-16897500.95	-16897500.89	0.0146	0.0136
Moon	-50973-03-05 22:04 J	-16896400.74	-16896400.58	-16896400.41	0.0145	0.0114
Earth	-50973-03-05 23:16 J	-16896400.69	-16896400.53	-16896400.36	0.0145	0.0111 *
Earth	-50972-03-11 02:52 J	-16896030.63	-16896030.38	-16896030.13	0.0145	0.0027
Moon	-50972-03-11 02:52 J	-16896030.61	-16896030.38	-16896030.13	0.0145	0.0035 *
Mars	-50963-02-25 10:18 J	-16892757.27	-16892757.07	-16892756.81	0.0141	0.0103
Venus	-50960-12-28 10:47 J	-16891355.11	-16891355.05	-16891354.99	0.0139	0.0133
Venus	-50959-08-11 21:35 J	-16891128.73	-16891128.60	-16891128.44	0.0138	0.0105
Venus	-50958-03-26 08:37 J	-16890902.31	-16890902.14	-16890901.94	0.0138	0.0077
Venus	-50958-11-07 19:40 J	-16890675.89	-16890675.68	-16890675.47	0.0138	0.0049
Venus	-50957-06-21 05:59 J	-16890449.47	-16890449.25	-16890449.03	0.0137	0.0021
Venus	-50956-02-02 16:18 J	-16890223.05	-16890222.82	-16890222.60	0.0137	0.0006
Venus	-50956-09-17 01:54 J	-16889996.63	-16889996.42	-16889996.19	0.0137	0.0034
Venus	-50955-05-01 11:45 J	-16889770.20	-16889770.01	-16889769.80	0.0136	0.0060
Venus	-50955-12-13 21:21 J	-16889543.78	-16889543.61	-16889543.44	0.0136	0.0087

Venus -50954-07-28 05:59 J -16889317.35 -16889317.25 -16889317.11 0.0136 0.0113
 Mercury -50936-01-14 18:13 J -16882936.74 -16882936.74 -16882936.73 0.0132 0.0132
 Mercury -50936-04-12 21:35 J -16882848.67 -16882848.60 -16882848.53 0.0132 0.0113
 Mercury -50936-07-10 00:42 J -16882760.56 -16882760.47 -16882760.37 0.0132 0.0096
 Mercury -50936-10-06 04:04 J -16882672.44 -16882672.33 -16882672.21 0.0132 0.0077
 Mercury -50935-01-02 07:25 J -16882584.31 -16882584.19 -16882584.06 0.0132 0.0059
 Mercury -50935-03-31 10:47 J -16882496.18 -16882496.05 -16882495.92 0.0132 0.0041
 Mercury -50935-06-27 13:54 J -16882408.05 -16882407.92 -16882407.78 0.0132 0.0023
 Mercury -50935-09-23 17:16 J -16882319.92 -16882319.78 -16882319.64 0.0132 0.0005
 Mercury -50935-12-20 20:23 J -16882231.78 -16882231.65 -16882231.51 0.0132 0.0013
 Mercury -50934-03-18 23:30 J -16882143.65 -16882143.52 -16882143.38 0.0132 0.0031
 Mercury -50934-06-15 02:52 J -16882055.51 -16882055.38 -16882055.25 0.0132 0.0049
 Mercury -50934-09-11 05:59 J -16881967.37 -16881967.25 -16881967.13 0.0132 0.0066
 Mercury -50934-12-08 08:52 J -16881879.22 -16881879.13 -16881879.01 0.0132 0.0085
 Mercury -50933-03-05 12:13 J -16881791.07 -16881790.99 -16881790.90 0.0132 0.0102
 Mercury -50933-06-01 15:06 J -16881702.91 -16881702.87 -16881702.80 0.0132 0.0120
 Earth -50930-09-08 15:06 J -16880509.02 -16880508.87 -16880508.67 0.0133 0.0095
 Moon -50930-09-08 17:30 J -16880508.95 -16880508.77 -16880508.57 0.0133 0.0090 *
 Moon -50929-09-11 18:57 J -16880139.96 -16880139.71 -16880139.47 0.0133 0.0005
 Earth -50929-09-11 21:06 J -16880139.87 -16880139.62 -16880139.37 0.0133 0.0010 *
 Earth -50928-09-16 02:09 J -16879770.52 -16879770.41 -16879770.27 0.0134 0.0115
 Moon -50928-09-16 04:33 J -16879770.40 -16879770.31 -16879770.19 0.0134 0.0122 *
 Mars -50919-06-01 00:57 J -16876590.52 -16876590.46 -16876590.35 0.0137 0.0132
 Mars -50917-04-30 21:06 J -16875890.80 -16875890.62 -16875890.39 0.0138 0.0095
 Venus -50915-08-04 07:40 J -16875065.24 -16875065.18 -16875065.09 0.0140 0.0130
 Venus -50914-03-18 13:54 J -16874839.04 -16874838.92 -16874838.76 0.0140 0.0104
 Venus -50914-10-30 20:37 J -16874612.80 -16874612.64 -16874612.45 0.0140 0.0077
 Venus -50913-06-13 03:35 J -16874386.54 -16874386.35 -16874386.15 0.0141 0.0050
 Venus -50912-01-25 10:47 J -16874160.26 -16874160.05 -16874159.84 0.0141 0.0022
 Venus -50912-09-08 17:59 J -16873933.96 -16873933.75 -16873933.53 0.0141 0.0006

Venus -50911-04-23 01:25 J -16873707.64 -16873707.44 -16873707.23 0.0142 0.0034
 Venus -50911-12-05 08:52 J -16873481.31 -16873481.13 -16873480.93 0.0142 0.0062
 Venus -50910-07-19 16:47 J -16873254.95 -16873254.80 -16873254.63 0.0142 0.0091
 Venus -50909-03-02 00:57 J -16873028.57 -16873028.46 -16873028.34 0.0143 0.0119
 Mercury -50894-01-16 22:33 J -16867594.56 -16867594.56 -16867594.55 0.0146 0.0146
 Mercury -50894-04-15 06:13 J -16867506.35 -16867506.24 -16867506.13 0.0146 0.0115
 Mercury -50894-07-12 13:40 J -16867418.07 -16867417.93 -16867417.77 0.0146 0.0083
 Mercury -50894-10-08 21:21 J -16867329.77 -16867329.61 -16867329.43 0.0146 0.0051
 Mercury -50893-01-05 05:01 J -16867241.46 -16867241.29 -16867241.10 0.0146 0.0020
 Mercury -50893-04-02 12:57 J -16867153.14 -16867152.96 -16867152.78 0.0146 0.0013
 Mercury -50893-06-29 20:37 J -16867064.81 -16867064.64 -16867064.46 0.0146 0.0046
 Mercury -50893-09-26 04:33 J -16866976.46 -16866976.31 -16866976.15 0.0146 0.0078
 Mercury -50893-12-23 12:13 J -16866888.10 -16866887.99 -16866887.86 0.0146 0.0112
 Mercury -50892-03-21 20:09 J -16866799.67 -16866799.66 -16866799.62 0.0146 0.0144
 Moon -50889-03-06 07:11 J -16865719.37 -16865719.20 -16865718.99 0.0145 0.0102
 Earth -50889-03-06 09:06 J -16865719.29 -16865719.12 -16865718.94 0.0145 0.0105 *
 Earth -50888-03-11 12:42 J -16865349.21 -16865348.97 -16865348.71 0.0145 0.0033
 Moon -50888-03-11 13:54 J -16865349.16 -16865348.92 -16865348.67 0.0145 0.0027 *
 Mars -50879-10-22 13:40 J -16861837.26 -16861836.93 -16861836.59 0.0140 0.0002
 Venus -50875-04-11 03:35 J -16860570.45 -16860570.35 -16860570.22 0.0139 0.0118
 Venus -50875-11-23 14:37 J -16860344.05 -16860343.89 -16860343.71 0.0138 0.0090
 Venus -50874-07-08 01:25 J -16860117.63 -16860117.44 -16860117.23 0.0138 0.0062
 Venus -50873-02-19 12:13 J -16859891.21 -16859890.99 -16859890.77 0.0138 0.0034
 Venus -50873-10-02 22:33 J -16859664.78 -16859664.56 -16859664.34 0.0137 0.0006
 Venus -50872-05-17 08:23 J -16859438.37 -16859438.15 -16859437.92 0.0137 0.0021
 Venus -50872-12-29 17:59 J -16859211.95 -16859211.75 -16859211.53 0.0137 0.0048
 Venus -50871-08-13 03:21 J -16858985.53 -16858985.36 -16858985.15 0.0136 0.0075
 Venus -50870-03-27 12:57 J -16858759.10 -16858758.96 -16858758.80 0.0136 0.0100
 Venus -50870-11-08 21:49 J -16858532.65 -16858532.59 -16858532.49 0.0136 0.0126
 Mercury -50852-02-04 00:57 J -16852235.48 -16852235.46 -16852235.42 0.0132 0.0129

Mercury -50852-05-03 04:18 J -16852147.39 -16852147.32 -16852147.24 0.0132 0.0110

Mercury -50852-07-30 07:40 J -16852059.28 -16852059.18 -16852059.08 0.0132 0.0092

Mercury -50852-10-26 10:47 J -16851971.15 -16851971.05 -16851970.93 0.0132 0.0074

Mercury -50851-01-22 14:09 J -16851883.03 -16851882.91 -16851882.78 0.0132 0.0056

Mercury -50851-04-20 17:30 J -16851794.90 -16851794.77 -16851794.63 0.0132 0.0038

Mercury -50851-07-17 20:52 J -16851706.77 -16851706.63 -16851706.49 0.0132 0.0020

Mercury -50851-10-13 23:59 J -16851618.63 -16851618.50 -16851618.36 0.0132 0.0003

Mercury -50850-01-10 03:21 J -16851530.50 -16851530.36 -16851530.23 0.0132 0.0017

Mercury -50850-04-08 06:28 J -16851442.36 -16851442.23 -16851442.10 0.0132 0.0034

Mercury -50850-07-05 09:35 J -16851354.22 -16851354.10 -16851353.97 0.0132 0.0052

Mercury -50850-10-01 12:57 J -16851266.08 -16851265.96 -16851265.85 0.0132 0.0070

Mercury -50850-12-28 15:49 J -16851177.93 -16851177.84 -16851177.73 0.0132 0.0088

Mercury -50849-03-25 18:57 J -16851089.78 -16851089.71 -16851089.62 0.0132 0.0105

Mercury -50849-06-21 22:04 J -16851001.62 -16851001.58 -16851001.52 0.0132 0.0123

Earth -50846-09-08 23:59 J -16849827.67 -16849827.50 -16849827.30 0.0133 0.0090

Moon -50846-09-09 01:40 J -16849827.59 -16849827.43 -16849827.23 0.0133 0.0094 *

Moon -50845-09-12 03:49 J -16849458.58 -16849458.34 -16849458.09 0.0133 0.0019

Earth -50845-09-12 05:30 J -16849458.52 -16849458.27 -16849458.02 0.0133 0.0014 *

Earth -50844-09-16 10:47 J -16849089.16 -16849089.05 -16849088.93 0.0134 0.0118

Moon -50844-09-16 12:13 J -16849089.12 -16849088.99 -16849088.83 0.0134 0.0112 *

Mars -50834-01-24 08:23 J -16845672.40 -16845672.15 -16845671.88 0.0138 0.0052

Venus -50831-11-15 22:33 J -16844280.66 -16844280.56 -16844280.43 0.0140 0.0116

Venus -50830-06-30 05:01 J -16844054.44 -16844054.29 -16844054.12 0.0140 0.0090

Venus -50829-02-11 11:45 J -16843828.19 -16843828.01 -16843827.81 0.0141 0.0063

Venus -50829-09-24 18:42 J -16843601.91 -16843601.72 -16843601.50 0.0141 0.0036

Venus -50828-05-09 02:09 J -16843375.62 -16843375.41 -16843375.20 0.0141 0.0008

Venus -50828-12-21 09:21 J -16843149.32 -16843149.11 -16843148.90 0.0142 0.0020

Venus -50827-08-04 16:47 J -16842922.99 -16842922.80 -16842922.59 0.0142 0.0048

Venus -50826-03-19 00:28 J -16842696.65 -16842696.48 -16842696.29 0.0142 0.0077

Venus -50826-10-31 08:37 J -16842470.28 -16842470.14 -16842469.99 0.0143 0.0105

Venus -50825-06-13 16:47 J -16842243.86 -16842243.80 -16842243.72 0.0143 0.0133
 Mercury -50810-02-06 05:30 J -16836893.31 -16836893.27 -16836893.20 0.0146 0.0140
 Mercury -50810-05-05 13:25 J -16836805.06 -16836804.94 -16836804.82 0.0146 0.0108
 Mercury -50810-08-01 20:37 J -16836716.78 -16836716.64 -16836716.47 0.0146 0.0077
 Mercury -50810-10-29 04:33 J -16836628.48 -16836628.31 -16836628.14 0.0146 0.0044
 Mercury -50809-01-25 12:13 J -16836540.17 -16836539.99 -16836539.81 0.0146 0.0012
 Mercury -50809-04-22 19:54 J -16836451.85 -16836451.67 -16836451.48 0.0146 0.0021
 Mercury -50809-07-20 03:49 J -16836363.51 -16836363.34 -16836363.17 0.0146 0.0053
 Mercury -50809-10-16 11:30 J -16836275.16 -16836275.02 -16836274.86 0.0146 0.0086
 Mercury -50808-01-12 19:11 J -16836186.79 -16836186.70 -16836186.58 0.0146 0.0119
 Moon -50805-03-06 16:04 J -16835038.00 -16835037.83 -16835037.63 0.0145 0.0103
 Earth -50805-03-06 18:28 J -16835037.90 -16835037.73 -16835037.53 0.0145 0.0101 *
 Earth -50804-03-11 22:04 J -16834667.82 -16834667.58 -16834667.32 0.0145 0.0038
 Moon -50804-03-11 23:16 J -16834667.75 -16834667.53 -16834667.28 0.0145 0.0045 *
 Mars -50794-06-18 16:47 J -16830917.00 -16830916.80 -16830916.57 0.0140 0.0107
 Venus -50792-12-09 09:35 J -16830012.16 -16830012.10 -16830012.00 0.0139 0.0130
 Venus -50791-07-23 21:06 J -16829785.77 -16829785.62 -16829785.47 0.0138 0.0102
 Venus -50790-03-07 07:54 J -16829559.35 -16829559.17 -16829558.97 0.0138 0.0074
 Venus -50790-10-19 18:28 J -16829332.93 -16829332.73 -16829332.51 0.0138 0.0047
 Venus -50789-06-02 04:47 J -16829106.52 -16829106.30 -16829106.07 0.0137 0.0019
 Venus -50788-01-14 15:06 J -16828880.10 -16828879.87 -16828879.65 0.0137 0.0008
 Venus -50788-08-29 00:42 J -16828653.68 -16828653.47 -16828653.25 0.0137 0.0035
 Venus -50787-04-12 10:18 J -16828427.26 -16828427.07 -16828426.86 0.0136 0.0062
 Venus -50787-11-24 19:40 J -16828200.84 -16828200.68 -16828200.50 0.0136 0.0088
 Venus -50786-07-09 04:47 J -16827974.41 -16827974.30 -16827974.16 0.0136 0.0113
 Mercury -50768-02-24 07:54 J -16821534.21 -16821534.17 -16821534.13 0.0132 0.0125
 Mercury -50768-05-23 11:01 J -16821446.11 -16821446.04 -16821445.96 0.0132 0.0107
 Mercury -50768-08-19 14:23 J -16821358.00 -16821357.90 -16821357.80 0.0132 0.0089
 Mercury -50768-11-15 17:30 J -16821269.88 -16821269.77 -16821269.64 0.0132 0.0071
 Mercury -50767-02-11 20:52 J -16821181.75 -16821181.63 -16821181.50 0.0132 0.0053

Mercury -50767-05-11 00:13 J -16821093.62 -16821093.49 -16821093.35 0.0132 0.0035
 Mercury -50767-08-07 03:35 J -16821005.49 -16821005.35 -16821005.21 0.0132 0.0017
 Mercury -50767-11-03 06:42 J -16820917.35 -16820917.22 -16820917.08 0.0132 0.0004
 Mercury -50766-01-30 10:04 J -16820829.22 -16820829.08 -16820828.95 0.0132 0.0019
 Mercury -50766-04-28 13:11 J -16820741.08 -16820740.95 -16820740.82 0.0132 0.0037
 Mercury -50766-07-25 16:18 J -16820652.94 -16820652.82 -16820652.69 0.0132 0.0055
 Mercury -50766-10-21 19:40 J -16820564.80 -16820564.68 -16820564.57 0.0132 0.0073
 Mercury -50765-01-17 22:33 J -16820476.65 -16820476.56 -16820476.45 0.0132 0.0091
 Mercury -50765-04-15 01:54 J -16820388.50 -16820388.42 -16820388.34 0.0132 0.0108
 Mercury -50765-07-12 04:47 J -16820300.33 -16820300.30 -16820300.25 0.0132 0.0126
 Earth -50762-09-09 07:40 J -16819146.36 -16819146.18 -16819145.98 0.0133 0.0088
 Moon -50762-09-09 08:37 J -16819146.33 -16819146.14 -16819145.93 0.0133 0.0086 *
 Moon -50761-09-12 11:59 J -16818777.24 -16818777.00 -16818776.76 0.0133 0.0011
 Earth -50761-09-12 12:57 J -16818777.20 -16818776.96 -16818776.70 0.0133 0.0016 *
 Earth -50760-09-16 17:45 J -16818407.84 -16818407.76 -16818407.63 0.0134 0.0121
 Moon -50760-09-16 19:25 J -16818407.76 -16818407.69 -16818407.60 0.0134 0.0127 *
 Jupiter -50753-09-01 04:18 J -16815866.82 -16815866.32 -16815865.82 0.0137 0.0000
 Mars -50750-09-18 14:09 J -16814754.18 -16814753.91 -16814753.63 0.0138 0.0028
 Venus -50747-07-16 06:42 J -16813722.29 -16813722.22 -16813722.13 0.0140 0.0128
 Venus -50746-02-27 12:57 J -16813496.09 -16813495.96 -16813495.80 0.0140 0.0102
 Venus -50746-10-11 19:40 J -16813269.85 -16813269.68 -16813269.49 0.0140 0.0076
 Venus -50745-05-25 02:37 J -16813043.59 -16813043.39 -16813043.19 0.0141 0.0049
 Venus -50744-01-06 09:35 J -16812817.31 -16812817.10 -16812816.89 0.0141 0.0022
 Venus -50744-08-20 17:01 J -16812591.00 -16812590.79 -16812590.58 0.0141 0.0006
 Venus -50743-04-04 00:13 J -16812364.69 -16812364.49 -16812364.28 0.0142 0.0034
 Venus -50743-11-16 07:40 J -16812138.36 -16812138.18 -16812137.98 0.0142 0.0062
 Venus -50742-06-30 15:21 J -16811912.00 -16811911.86 -16811911.68 0.0142 0.0091
 Venus -50741-02-11 23:30 J -16811685.62 -16811685.52 -16811685.38 0.0143 0.0119
 Mercury -50726-02-26 12:28 J -16806192.05 -16806191.98 -16806191.91 0.0146 0.0134
 Mercury -50726-05-25 19:54 J -16806103.79 -16806103.67 -16806103.54 0.0146 0.0102

Mercury -50726-08-22 03:35 J -16806015.51 -16806015.35 -16806015.19 0.0146 0.0071

Mercury -50726-11-18 11:16 J -16805927.20 -16805927.03 -16805926.85 0.0146 0.0039

Mercury -50725-02-14 18:57 J -16805838.89 -16805838.71 -16805838.53 0.0146 0.0006

Mercury -50725-05-13 02:37 J -16805750.57 -16805750.39 -16805750.21 0.0146 0.0026

Mercury -50725-08-09 10:33 J -16805662.23 -16805662.06 -16805661.89 0.0146 0.0059

Mercury -50725-11-05 18:13 J -16805573.88 -16805573.74 -16805573.59 0.0146 0.0091

Mercury -50724-02-02 02:09 J -16805485.50 -16805485.41 -16805485.31 0.0146 0.0124

Moon -50721-03-06 23:45 J -16804356.69 -16804356.51 -16804356.30 0.0145 0.0095

Earth -50721-03-07 02:37 J -16804356.57 -16804356.39 -16804356.20 0.0145 0.0098 *

Earth -50720-03-12 05:59 J -16803986.49 -16803986.25 -16803985.99 0.0145 0.0041

Moon -50720-03-12 08:23 J -16803986.39 -16803986.15 -16803985.90 0.0145 0.0035 *

Mars -50711-03-08 16:04 J -16800703.09 -16800702.83 -16800702.54 0.0141 0.0082

Venus -50707-03-23 02:37 J -16799227.51 -16799227.39 -16799227.26 0.0139 0.0114

Venus -50707-11-04 13:25 J -16799001.10 -16799000.94 -16799000.75 0.0138 0.0087

Venus -50706-06-19 00:13 J -16798774.68 -16798774.49 -16798774.28 0.0138 0.0059

Venus -50705-01-31 10:47 J -16798548.26 -16798548.05 -16798547.82 0.0138 0.0032

Venus -50705-09-13 21:06 J -16798321.84 -16798321.62 -16798321.39 0.0137 0.0005

Venus -50704-04-28 07:11 J -16798095.42 -16798095.20 -16798094.98 0.0137 0.0022

Venus -50704-12-10 16:47 J -16797869.00 -16797868.80 -16797868.58 0.0137 0.0049

Venus -50703-07-25 02:09 J -16797642.58 -16797642.41 -16797642.21 0.0136 0.0075

Venus -50702-03-08 11:30 J -16797416.15 -16797416.02 -16797415.85 0.0136 0.0101

Venus -50702-10-20 20:37 J -16797189.71 -16797189.64 -16797189.54 0.0136 0.0126

Mercury -50684-03-16 14:37 J -16790832.94 -16790832.89 -16790832.84 0.0132 0.0122

Mercury -50684-06-12 17:45 J -16790744.83 -16790744.76 -16790744.66 0.0132 0.0104

Mercury -50684-09-08 21:21 J -16790656.72 -16790656.61 -16790656.51 0.0132 0.0085

Mercury -50684-12-06 00:42 J -16790568.59 -16790568.47 -16790568.35 0.0132 0.0067

Mercury -50683-03-04 03:49 J -16790480.46 -16790480.34 -16790480.21 0.0132 0.0049

Mercury -50683-05-31 07:11 J -16790392.33 -16790392.20 -16790392.07 0.0132 0.0031

Mercury -50683-08-27 10:18 J -16790304.20 -16790304.07 -16790303.93 0.0132 0.0014

Mercury -50683-11-23 13:40 J -16790216.07 -16790215.93 -16790215.79 0.0132 0.0005

Mercury -50682-02-19 16:47 J -16790127.93 -16790127.80 -16790127.66 0.0132 0.0023
 Mercury -50682-05-18 20:09 J -16790039.79 -16790039.66 -16790039.53 0.0132 0.0041
 Mercury -50682-08-14 23:16 J -16789951.65 -16789951.53 -16789951.41 0.0132 0.0058
 Mercury -50682-11-11 02:23 J -16789863.51 -16789863.40 -16789863.29 0.0132 0.0076
 Mercury -50681-02-07 05:30 J -16789775.36 -16789775.27 -16789775.17 0.0132 0.0094
 Mercury -50681-05-05 08:37 J -16789687.20 -16789687.14 -16789687.06 0.0132 0.0111
 Mercury -50681-08-01 11:45 J -16789599.03 -16789599.01 -16789598.97 0.0132 0.0129
 Earth -50678-09-09 16:04 J -16788465.02 -16788464.83 -16788464.63 0.0133 0.0085
 Moon -50678-09-09 16:47 J -16788464.99 -16788464.80 -16788464.60 0.0133 0.0087 *
 Moon -50677-09-12 20:37 J -16788095.87 -16788095.64 -16788095.39 0.0133 0.0023
 Earth -50677-09-12 21:06 J -16788095.86 -16788095.62 -16788095.36 0.0133 0.0019 *
 Moon -50676-09-17 02:52 J -16787726.50 -16787726.38 -16787726.25 0.0134 0.0117
 Earth -50676-09-17 02:23 J -16787726.49 -16787726.40 -16787726.30 0.0134 0.0123 *
 Mars -50667-06-12 23:30 J -16784535.65 -16784535.52 -16784535.38 0.0137 0.0120
 Mars -50665-05-12 18:57 J -16783835.88 -16783835.71 -16783835.53 0.0138 0.0107
 Venus -50663-03-15 14:52 J -16783163.88 -16783163.88 -16783163.86 0.0140 0.0139
 Venus -50663-10-27 20:52 J -16782937.73 -16782937.63 -16782937.49 0.0140 0.0114
 Venus -50662-06-11 03:21 J -16782711.51 -16782711.36 -16782711.18 0.0140 0.0088
 Venus -50661-01-23 10:04 J -16782485.26 -16782485.08 -16782484.88 0.0141 0.0062
 Venus -50661-09-05 17:01 J -16782258.98 -16782258.79 -16782258.58 0.0141 0.0035
 Venus -50660-04-20 00:13 J -16782032.70 -16782032.49 -16782032.28 0.0141 0.0008
 Venus -50660-12-02 07:25 J -16781806.39 -16781806.19 -16781805.97 0.0142 0.0020
 Venus -50659-07-16 14:52 J -16781580.07 -16781579.88 -16781579.67 0.0142 0.0048
 Venus -50658-02-27 22:33 J -16781353.73 -16781353.56 -16781353.37 0.0142 0.0076
 Venus -50658-10-12 06:57 J -16781127.35 -16781127.21 -16781127.07 0.0142 0.0104
 Venus -50657-05-25 15:06 J -16780900.94 -16780900.87 -16780900.79 0.0143 0.0132
 Mercury -50642-03-18 18:28 J -16775490.80 -16775490.73 -16775490.63 0.0146 0.0130
 Mercury -50642-06-15 02:09 J -16775402.53 -16775402.41 -16775402.27 0.0146 0.0099
 Mercury -50642-09-11 09:49 J -16775314.25 -16775314.09 -16775313.92 0.0146 0.0067
 Mercury -50642-12-08 17:30 J -16775225.94 -16775225.77 -16775225.59 0.0146 0.0035

Mercury -50641-03-06 01:11 J -16775137.63 -16775137.45 -16775137.26 0.0146 0.0004
 Mercury -50641-06-02 08:52 J -16775049.30 -16775049.13 -16775048.94 0.0146 0.0031
 Mercury -50641-08-29 16:47 J -16774960.96 -16774960.80 -16774960.63 0.0146 0.0063
 Mercury -50641-11-26 00:28 J -16774872.61 -16774872.48 -16774872.33 0.0146 0.0096
 Mercury -50640-02-22 08:23 J -16774784.23 -16774784.15 -16774784.06 0.0146 0.0128
 Moon -50637-03-07 05:45 J -16773675.43 -16773675.26 -16773675.04 0.0145 0.0098
 Earth -50637-03-07 09:21 J -16773675.29 -16773675.11 -16773674.91 0.0145 0.0097 *
 Earth -50636-03-12 12:57 J -16773305.20 -16773304.96 -16773304.71 0.0145 0.0042
 Moon -50636-03-12 15:06 J -16773305.09 -16773304.87 -16773304.62 0.0145 0.0049 *
 Mars -50627-11-02 14:09 J -16769783.24 -16769782.91 -16769782.57 0.0140 0.0019
 Venus -50624-11-20 06:57 J -16768669.28 -16768669.21 -16768669.10 0.0139 0.0127
 Venus -50623-07-04 18:28 J -16768442.89 -16768442.73 -16768442.57 0.0138 0.0099
 Venus -50622-02-16 05:16 J -16768216.47 -16768216.28 -16768216.08 0.0138 0.0072
 Venus -50622-09-30 16:04 J -16767990.04 -16767989.83 -16767989.62 0.0138 0.0044
 Venus -50621-05-14 02:23 J -16767763.62 -16767763.40 -16767763.18 0.0137 0.0017
 Venus -50621-12-26 12:28 J -16767537.20 -16767536.98 -16767536.75 0.0137 0.0010
 Venus -50620-08-09 22:18 J -16767310.78 -16767310.57 -16767310.35 0.0137 0.0036
 Venus -50619-03-24 07:54 J -16767084.36 -16767084.17 -16767083.96 0.0137 0.0063
 Venus -50619-11-05 17:30 J -16766857.93 -16766857.77 -16766857.59 0.0136 0.0088
 Venus -50618-06-20 02:52 J -16766631.50 -16766631.38 -16766631.26 0.0136 0.0113
 Mercury -50600-04-05 21:21 J -16760131.66 -16760131.61 -16760131.55 0.0132 0.0119
 Mercury -50600-07-03 00:28 J -16760043.56 -16760043.48 -16760043.38 0.0132 0.0102
 Mercury -50600-09-29 03:49 J -16759955.44 -16759955.34 -16759955.22 0.0132 0.0083
 Mercury -50600-12-26 07:25 J -16759867.31 -16759867.19 -16759867.07 0.0132 0.0064
 Mercury -50599-03-24 10:33 J -16759779.18 -16759779.06 -16759778.93 0.0132 0.0047
 Mercury -50599-06-20 13:54 J -16759691.05 -16759690.92 -16759690.78 0.0132 0.0028
 Mercury -50599-09-16 17:16 J -16759602.92 -16759602.78 -16759602.65 0.0132 0.0011
 Mercury -50599-12-13 20:23 J -16759514.79 -16759514.65 -16759514.51 0.0132 0.0008
 Mercury -50598-03-11 23:30 J -16759426.65 -16759426.52 -16759426.38 0.0132 0.0026
 Mercury -50598-06-08 02:52 J -16759338.51 -16759338.38 -16759338.25 0.0132 0.0043

Mercury -50598-09-04 05:59 J -16759250.37 -16759250.25 -16759250.13 0.0132 0.0061
 Mercury -50598-12-01 09:06 J -16759162.23 -16759162.12 -16759162.01 0.0132 0.0079
 Mercury -50597-02-27 12:13 J -16759074.08 -16759073.99 -16759073.89 0.0132 0.0096
 Mercury -50597-05-25 15:35 J -16758985.92 -16758985.85 -16758985.79 0.0132 0.0114
 Mercury -50597-08-21 18:28 J -16758897.74 -16758897.73 -16758897.71 0.0132 0.0131
 Moon -50594-09-09 23:01 J -16757783.72 -16757783.54 -16757783.31 0.0133 0.0083
 Earth -50594-09-09 23:45 J -16757783.70 -16757783.51 -16757783.31 0.0133 0.0083 *
 Earth -50593-09-13 05:01 J -16757414.54 -16757414.29 -16757414.04 0.0133 0.0021
 Moon -50593-09-13 05:01 J -16757414.53 -16757414.29 -16757414.04 0.0133 0.0017 *
 Earth -50592-09-17 09:35 J -16757045.16 -16757045.10 -16757044.99 0.0134 0.0126
 Moon -50592-09-17 09:49 J -16757045.11 -16757045.09 -16757045.02 0.0134 0.0132 *
 Mars -50582-02-05 04:04 J -16753617.59 -16753617.33 -16753617.05 0.0138 0.0042
 Venus -50579-06-27 05:01 J -16752379.37 -16752379.29 -16752379.18 0.0140 0.0125
 Venus -50578-02-08 11:16 J -16752153.16 -16752153.03 -16752152.87 0.0140 0.0100
 Venus -50578-09-22 18:13 J -16751926.91 -16751926.74 -16751926.56 0.0140 0.0074
 Venus -50577-05-06 00:57 J -16751700.65 -16751700.46 -16751700.26 0.0141 0.0047
 Venus -50577-12-18 07:54 J -16751474.37 -16751474.17 -16751473.96 0.0141 0.0021
 Venus -50576-08-01 15:06 J -16751248.08 -16751247.87 -16751247.65 0.0141 0.0008
 Venus -50575-03-15 22:33 J -16751021.76 -16751021.56 -16751021.35 0.0142 0.0035
 Venus -50575-10-28 06:13 J -16750795.42 -16750795.24 -16750795.05 0.0142 0.0062
 Venus -50574-06-11 13:54 J -16750569.07 -16750568.92 -16750568.74 0.0142 0.0090
 Venus -50573-01-23 22:18 J -16750342.69 -16750342.57 -16750342.45 0.0143 0.0118
 Mercury -50558-04-08 01:11 J -16744789.54 -16744789.45 -16744789.36 0.0146 0.0126
 Mercury -50558-07-05 08:37 J -16744701.27 -16744701.14 -16744701.00 0.0146 0.0094
 Mercury -50558-10-01 16:18 J -16744612.98 -16744612.82 -16744612.65 0.0146 0.0062
 Mercury -50558-12-28 23:59 J -16744524.68 -16744524.50 -16744524.32 0.0146 0.0030
 Mercury -50557-03-26 07:40 J -16744436.36 -16744436.18 -16744436.00 0.0146 0.0002
 Mercury -50557-06-22 15:21 J -16744348.03 -16744347.86 -16744347.68 0.0146 0.0035
 Mercury -50557-09-18 23:01 J -16744259.69 -16744259.54 -16744259.37 0.0146 0.0067
 Mercury -50557-12-16 06:42 J -16744171.34 -16744171.22 -16744171.07 0.0146 0.0100

Mercury -50556-03-14 14:52 J -16744082.95 -16744082.88 -16744082.80 0.0146 0.0133
 Moon -50553-03-07 12:28 J -16742994.16 -16742993.98 -16742993.77 0.0145 0.0094
 Earth -50553-03-07 15:49 J -16742994.02 -16742993.84 -16742993.63 0.0145 0.0096 *
 Earth -50552-03-12 19:25 J -16742623.93 -16742623.69 -16742623.44 0.0145 0.0043
 Moon -50552-03-12 22:47 J -16742623.79 -16742623.55 -16742623.31 0.0145 0.0038 *
 Jupiter -50545-08-17 20:37 J -16739909.09 -16739908.64 -16739908.15 0.0142 0.0068
 Mars -50542-06-29 10:18 J -16738863.21 -16738863.07 -16738862.86 0.0140 0.0120
 Venus -50540-07-20 11:30 J -16738111.02 -16738111.02 -16738111.00 0.0139 0.0139
 Venus -50539-03-03 22:47 J -16737884.67 -16737884.55 -16737884.40 0.0139 0.0112
 Venus -50539-10-16 09:49 J -16737658.26 -16737658.09 -16737657.90 0.0138 0.0084
 Venus -50538-05-30 20:37 J -16737431.84 -16737431.64 -16737431.43 0.0138 0.0057
 Venus -50537-01-12 07:11 J -16737205.42 -16737205.20 -16737204.98 0.0138 0.0030
 Venus -50537-08-25 17:30 J -16736978.99 -16736978.77 -16736978.54 0.0137 0.0004
 Venus -50536-04-09 03:35 J -16736752.56 -16736752.35 -16736752.12 0.0137 0.0024
 Venus -50536-11-21 13:25 J -16736526.14 -16736525.94 -16736525.72 0.0137 0.0050
 Venus -50535-07-05 23:16 J -16736299.72 -16736299.53 -16736299.34 0.0136 0.0076
 Venus -50534-02-17 08:37 J -16736073.28 -16736073.14 -16736072.99 0.0136 0.0101
 Venus -50534-10-01 17:30 J -16735846.83 -16735846.77 -16735846.67 0.0136 0.0127
 Mercury -50516-04-26 04:04 J -16729430.39 -16729430.33 -16729430.26 0.0132 0.0116
 Mercury -50516-07-23 07:40 J -16729342.27 -16729342.18 -16729342.09 0.0132 0.0097
 Mercury -50516-10-19 10:47 J -16729254.15 -16729254.05 -16729253.93 0.0132 0.0079
 Mercury -50515-01-15 14:09 J -16729166.03 -16729165.91 -16729165.78 0.0132 0.0061
 Mercury -50515-04-13 17:30 J -16729077.90 -16729077.77 -16729077.64 0.0132 0.0043
 Mercury -50515-07-10 20:37 J -16728989.77 -16728989.64 -16728989.50 0.0132 0.0026
 Mercury -50515-10-06 23:59 J -16728901.64 -16728901.50 -16728901.36 0.0132 0.0007
 Mercury -50514-01-03 03:21 J -16728813.50 -16728813.36 -16728813.23 0.0132 0.0011
 Mercury -50514-04-01 06:28 J -16728725.36 -16728725.23 -16728725.10 0.0132 0.0029
 Mercury -50514-06-28 09:35 J -16728637.22 -16728637.10 -16728636.97 0.0132 0.0047
 Mercury -50514-09-24 12:42 J -16728549.08 -16728548.97 -16728548.84 0.0132 0.0065
 Mercury -50514-12-21 15:49 J -16728460.94 -16728460.84 -16728460.72 0.0132 0.0083

Mercury -50513-03-18 19:11 J -16728372.79 -16728372.70 -16728372.61 0.0132 0.0100
 Mercury -50513-06-14 22:04 J -16728284.63 -16728284.58 -16728284.51 0.0132 0.0118
 Moon -50510-09-10 07:11 J -16727102.38 -16727102.20 -16727101.97 0.0133 0.0082
 Earth -50510-09-10 08:09 J -16727102.35 -16727102.16 -16727101.95 0.0133 0.0080 *
 Earth -50509-09-13 13:25 J -16726733.19 -16726732.94 -16726732.69 0.0133 0.0024
 Moon -50509-09-13 14:09 J -16726733.15 -16726732.91 -16726732.67 0.0133 0.0028 *
 Moon -50508-09-17 17:30 J -16726363.85 -16726363.77 -16726363.65 0.0134 0.0124
 Earth -50508-09-17 18:28 J -16726363.78 -16726363.73 -16726363.65 0.0134 0.0129 *
 Mars -50498-09-30 11:16 J -16722699.30 -16722699.03 -16722698.75 0.0138 0.0038
 Venus -50495-02-24 14:09 J -16721820.95 -16721820.91 -16721820.87 0.0139 0.0136
 Venus -50495-10-08 20:09 J -16721594.78 -16721594.66 -16721594.52 0.0140 0.0111
 Venus -50494-05-23 02:37 J -16721368.55 -16721368.39 -16721368.22 0.0140 0.0085
 Venus -50493-01-04 09:21 J -16721142.30 -16721142.11 -16721141.92 0.0140 0.0059
 Venus -50493-08-17 16:18 J -16720916.02 -16720915.82 -16720915.61 0.0141 0.0032
 Venus -50492-03-31 23:30 J -16720689.73 -16720689.52 -16720689.31 0.0141 0.0005
 Venus -50492-11-13 06:42 J -16720463.43 -16720463.22 -16720463.01 0.0141 0.0022
 Venus -50491-06-27 14:09 J -16720237.10 -16720236.91 -16720236.71 0.0142 0.0049
 Venus -50490-02-08 21:49 J -16720010.76 -16720010.59 -16720010.40 0.0142 0.0077
 Venus -50490-09-23 05:59 J -16719784.38 -16719784.25 -16719784.10 0.0142 0.0105
 Venus -50489-05-06 13:54 J -16719557.97 -16719557.92 -16719557.82 0.0143 0.0133
 Mercury -50474-04-28 07:54 J -16714088.26 -16714088.17 -16714088.06 0.0146 0.0120
 Mercury -50474-07-25 15:21 J -16713999.99 -16713999.86 -16713999.71 0.0146 0.0088
 Mercury -50474-10-21 23:01 J -16713911.70 -16713911.54 -16713911.37 0.0146 0.0056
 Mercury -50473-01-18 06:42 J -16713823.39 -16713823.22 -16713823.04 0.0146 0.0024
 Mercury -50473-04-15 14:23 J -16713735.08 -16713734.90 -16713734.71 0.0146 0.0009
 Mercury -50473-07-12 22:04 J -16713646.75 -16713646.58 -16713646.40 0.0146 0.0041
 Mercury -50473-10-09 05:45 J -16713558.41 -16713558.26 -16713558.09 0.0146 0.0073
 Mercury -50472-01-05 13:25 J -16713470.05 -16713469.94 -16713469.80 0.0146 0.0106
 Mercury -50472-04-03 21:35 J -16713381.65 -16713381.60 -16713381.54 0.0146 0.0139
 Moon -50469-03-07 20:23 J -16712312.84 -16712312.65 -16712312.45 0.0145 0.0092

Earth	-50469-03-07 23:45 J	-16712312.69	-16712312.51	-16712312.30	0.0145	0.0093	*
Earth	-50468-03-13 03:21 J	-16711942.60	-16711942.36	-16711942.11	0.0145	0.0046	
Moon	-50468-03-13 06:28 J	-16711942.46	-16711942.23	-16711941.99	0.0145	0.0052	*
Mars	-50459-03-19 09:49 J	-16708649.35	-16708649.09	-16708648.77	0.0141	0.0071	
Venus	-50456-11-01 03:35 J	-16707326.43	-16707326.35	-16707326.24	0.0139	0.0124	
Venus	-50455-06-15 14:52 J	-16707100.03	-16707099.88	-16707099.71	0.0139	0.0097	
Venus	-50454-01-28 01:40 J	-16706873.61	-16706873.43	-16706873.23	0.0138	0.0070	
Venus	-50454-09-11 12:28 J	-16706647.19	-16706646.98	-16706646.76	0.0138	0.0043	
Venus	-50453-04-24 23:01 J	-16706420.76	-16706420.54	-16706420.31	0.0138	0.0016	
Venus	-50453-12-07 09:21 J	-16706194.34	-16706194.11	-16706193.89	0.0137	0.0011	
Venus	-50452-07-21 18:57 J	-16705967.91	-16705967.71	-16705967.48	0.0137	0.0038	
Venus	-50451-03-05 05:01 J	-16705741.48	-16705741.29	-16705741.08	0.0137	0.0064	
Venus	-50451-10-17 14:23 J	-16705515.05	-16705514.90	-16705514.71	0.0136	0.0090	
Venus	-50450-05-31 23:59 J	-16705288.61	-16705288.50	-16705288.37	0.0136	0.0114	
Mercury	-50432-02-17 07:25 J	-16698817.19	-16698817.19	-16698817.16	0.0132	0.0131	
Mercury	-50432-05-16 11:01 J	-16698729.11	-16698729.04	-16698728.97	0.0132	0.0113	
Mercury	-50432-08-12 14:23 J	-16698641.00	-16698640.90	-16698640.80	0.0132	0.0094	
Mercury	-50432-11-08 17:30 J	-16698552.87	-16698552.77	-16698552.65	0.0132	0.0076	
Mercury	-50431-02-04 20:52 J	-16698464.75	-16698464.63	-16698464.50	0.0132	0.0058	
Mercury	-50431-05-04 00:13 J	-16698376.62	-16698376.49	-16698376.36	0.0132	0.0040	
Mercury	-50431-07-31 03:35 J	-16698288.49	-16698288.35	-16698288.22	0.0132	0.0022	
Mercury	-50431-10-27 06:42 J	-16698200.35	-16698200.22	-16698200.08	0.0132	0.0005	
Mercury	-50430-01-23 10:04 J	-16698112.22	-16698112.08	-16698111.94	0.0132	0.0014	
Mercury	-50430-04-21 13:11 J	-16698024.08	-16698023.95	-16698023.81	0.0132	0.0032	
Mercury	-50430-07-18 16:18 J	-16697935.94	-16697935.82	-16697935.69	0.0132	0.0050	
Mercury	-50430-10-14 19:40 J	-16697847.80	-16697847.68	-16697847.56	0.0132	0.0068	
Mercury	-50429-01-10 22:33 J	-16697759.65	-16697759.56	-16697759.45	0.0132	0.0086	
Mercury	-50429-04-08 01:54 J	-16697671.50	-16697671.42	-16697671.33	0.0132	0.0103	
Mercury	-50429-07-05 04:47 J	-16697583.34	-16697583.30	-16697583.23	0.0132	0.0121	
Moon	-50426-09-10 14:37 J	-16696421.09	-16696420.89	-16696420.66	0.0133	0.0078	

Earth	-50426-09-10 16:18 J	-16696421.01	-16696420.82	-16696420.60	0.0133	0.0078	*
Earth	-50425-09-13 21:35 J	-16696051.84	-16696051.60	-16696051.35	0.0133	0.0027	
Moon	-50425-09-13 23:01 J	-16696051.77	-16696051.54	-16696051.29	0.0133	0.0025	*
Earth	-50424-09-18 03:06 J	-16695682.40	-16695682.37	-16695682.33	0.0134	0.0132	
Mars	-50415-06-24 20:52 J	-16692480.78	-16692480.63	-16692480.43	0.0138	0.0109	
Mars	-50413-05-24 18:42 J	-16691780.84	-16691780.72	-16691780.56	0.0139	0.0120	
Venus	-50411-06-08 05:01 J	-16691036.38	-16691036.29	-16691036.18	0.0140	0.0122	
Venus	-50410-01-20 11:30 J	-16690810.17	-16690810.02	-16690809.87	0.0140	0.0096	
Venus	-50410-09-03 18:13 J	-16690583.92	-16690583.74	-16690583.56	0.0140	0.0071	
Venus	-50409-04-17 00:57 J	-16690357.65	-16690357.46	-16690357.25	0.0141	0.0044	
Venus	-50409-11-29 07:54 J	-16690131.37	-16690131.17	-16690130.95	0.0141	0.0018	
Venus	-50408-07-13 15:21 J	-16689905.07	-16689904.86	-16689904.65	0.0141	0.0010	
Venus	-50407-02-24 22:33 J	-16689678.76	-16689678.56	-16689678.35	0.0142	0.0037	
Venus	-50407-10-09 06:13 J	-16689452.42	-16689452.24	-16689452.04	0.0142	0.0064	
Venus	-50406-05-23 14:09 J	-16689226.06	-16689225.91	-16689225.74	0.0142	0.0092	
Venus	-50405-01-04 22:04 J	-16688999.68	-16688999.58	-16688999.45	0.0143	0.0119	
Mercury	-50390-02-19 07:54 J	-16683475.20	-16683475.17	-16683475.13	0.0146	0.0143	
Mercury	-50390-05-18 15:21 J	-16683386.97	-16683386.86	-16683386.74	0.0146	0.0112	
Mercury	-50390-08-14 22:47 J	-16683298.69	-16683298.55	-16683298.39	0.0146	0.0080	
Mercury	-50390-11-11 06:28 J	-16683210.40	-16683210.23	-16683210.06	0.0146	0.0048	
Mercury	-50389-02-07 14:09 J	-16683122.09	-16683121.91	-16683121.73	0.0146	0.0016	
Mercury	-50389-05-05 21:49 J	-16683033.77	-16683033.59	-16683033.41	0.0146	0.0016	
Mercury	-50389-08-02 05:30 J	-16682945.44	-16682945.27	-16682945.10	0.0146	0.0048	
Mercury	-50389-10-29 12:57 J	-16682857.10	-16682856.96	-16682856.79	0.0146	0.0082	
Mercury	-50388-01-25 21:06 J	-16682768.73	-16682768.62	-16682768.51	0.0146	0.0114	
Moon	-50385-03-08 05:59 J	-16681631.44	-16681631.25	-16681631.03	0.0145	0.0087	
Earth	-50385-03-08 09:35 J	-16681631.29	-16681631.10	-16681630.88	0.0145	0.0088	*
Earth	-50384-03-13 13:11 J	-16681261.19	-16681260.95	-16681260.71	0.0145	0.0052	
Moon	-50384-03-13 16:47 J	-16681261.03	-16681260.80	-16681260.55	0.0145	0.0047	*
Mars	-50375-11-13 12:13 J	-16677729.31	-16677728.99	-16677728.66	0.0140	0.0035	

Venus	-50372-07-01 09:35 J	-16676768.15	-16676768.10	-16676768.06	0.0139	0.0135
Venus	-50371-02-12 20:23 J	-16676541.77	-16676541.65	-16676541.49	0.0139	0.0109
Venus	-50371-09-27 07:40 J	-16676315.35	-16676315.18	-16676314.99	0.0138	0.0081
Venus	-50370-05-11 18:28 J	-16676088.93	-16676088.73	-16676088.52	0.0138	0.0054
Venus	-50370-12-24 05:01 J	-16675862.51	-16675862.29	-16675862.07	0.0138	0.0028
Venus	-50369-08-06 15:35 J	-16675636.08	-16675635.85	-16675635.63	0.0137	0.0003
Venus	-50368-03-21 01:40 J	-16675409.65	-16675409.43	-16675409.20	0.0137	0.0026
Venus	-50368-11-02 11:30 J	-16675183.22	-16675183.02	-16675182.80	0.0137	0.0052
Venus	-50367-06-16 21:06 J	-16674956.79	-16674956.62	-16674956.42	0.0136	0.0077
Venus	-50366-01-29 06:42 J	-16674730.36	-16674730.22	-16674730.07	0.0136	0.0103
Venus	-50366-09-12 16:18 J	-16674503.90	-16674503.82	-16674503.75	0.0136	0.0127
Mercury	-50348-03-09 14:23 J	-16668115.93	-16668115.90	-16668115.85	0.0132	0.0127
Mercury	-50348-06-05 17:45 J	-16668027.83	-16668027.76	-16668027.67	0.0132	0.0109
Mercury	-50348-09-01 21:21 J	-16667939.71	-16667939.61	-16667939.51	0.0132	0.0090
Mercury	-50348-11-29 00:28 J	-16667851.59	-16667851.48	-16667851.36	0.0132	0.0072
Mercury	-50347-02-25 03:49 J	-16667763.46	-16667763.34	-16667763.21	0.0132	0.0054
Mercury	-50347-05-24 07:11 J	-16667675.33	-16667675.20	-16667675.07	0.0132	0.0036
Mercury	-50347-08-20 10:33 J	-16667587.20	-16667587.06	-16667586.93	0.0132	0.0018
Mercury	-50347-11-16 13:40 J	-16667499.07	-16667498.93	-16667498.79	0.0132	0.0001
Mercury	-50346-02-12 16:47 J	-16667410.93	-16667410.80	-16667410.66	0.0132	0.0019
Mercury	-50346-05-11 20:09 J	-16667322.79	-16667322.66	-16667322.53	0.0132	0.0036
Mercury	-50346-08-07 23:16 J	-16667234.65	-16667234.53	-16667234.40	0.0132	0.0054
Mercury	-50346-11-04 02:23 J	-16667146.51	-16667146.40	-16667146.28	0.0132	0.0072
Mercury	-50345-01-31 05:45 J	-16667058.36	-16667058.26	-16667058.16	0.0132	0.0089
Mercury	-50345-04-28 08:52 J	-16666970.21	-16666970.13	-16666970.05	0.0132	0.0106
Mercury	-50345-07-25 11:59 J	-16666882.04	-16666882.00	-16666881.95	0.0133	0.0124
Moon	-50342-09-10 23:45 J	-16665739.72	-16665739.51	-16665739.29	0.0133	0.0072
Earth	-50342-09-11 01:25 J	-16665739.63	-16665739.44	-16665739.21	0.0133	0.0074 *
Earth	-50341-09-14 06:42 J	-16665370.46	-16665370.22	-16665369.97	0.0133	0.0032
Moon	-50341-09-14 08:37 J	-16665370.37	-16665370.14	-16665369.90	0.0133	0.0035 *

Moon	-50340-09-18 10:18 J	-16665001.10	-16665001.07	-16665001.03	0.0134	0.0132
Mars	-50330-02-17 06:13 J	-16661562.52	-16661562.24	-16661561.96	0.0138	0.0027
Venus	-50327-02-05 14:09 J	-16660477.96	-16660477.91	-16660477.84	0.0139	0.0133
Venus	-50327-09-19 20:23 J	-16660251.76	-16660251.65	-16660251.50	0.0140	0.0108
Venus	-50326-05-04 03:06 J	-16660025.53	-16660025.37	-16660025.19	0.0140	0.0082
Venus	-50326-12-16 09:49 J	-16659799.27	-16659799.09	-16659798.89	0.0140	0.0056
Venus	-50325-07-29 16:47 J	-16659573.00	-16659572.80	-16659572.59	0.0141	0.0030
Venus	-50324-03-12 23:59 J	-16659346.71	-16659346.50	-16659346.28	0.0141	0.0004
Venus	-50324-10-25 07:25 J	-16659120.40	-16659120.19	-16659119.98	0.0141	0.0024
Venus	-50323-06-08 14:52 J	-16658894.07	-16658893.88	-16658893.68	0.0142	0.0051
Venus	-50322-01-20 22:47 J	-16658667.73	-16658667.55	-16658667.38	0.0142	0.0079
Venus	-50322-09-04 06:28 J	-16658441.36	-16658441.23	-16658441.08	0.0142	0.0106
Venus	-50321-04-17 14:37 J	-16658214.95	-16658214.89	-16658214.80	0.0143	0.0134
Mercury	-50306-03-11 15:06 J	-16652773.93	-16652773.87	-16652773.79	0.0146	0.0135
Mercury	-50306-06-07 22:33 J	-16652685.68	-16652685.56	-16652685.42	0.0146	0.0104
Mercury	-50306-09-04 06:13 J	-16652597.39	-16652597.24	-16652597.08	0.0146	0.0072
Mercury	-50306-12-01 13:40 J	-16652509.10	-16652508.93	-16652508.75	0.0146	0.0040
Mercury	-50305-02-27 21:35 J	-16652420.79	-16652420.60	-16652420.42	0.0146	0.0009
Mercury	-50305-05-26 05:01 J	-16652332.46	-16652332.29	-16652332.11	0.0146	0.0025
Mercury	-50305-08-22 12:57 J	-16652244.13	-16652243.96	-16652243.80	0.0146	0.0057
Mercury	-50305-11-18 20:23 J	-16652155.78	-16652155.65	-16652155.50	0.0146	0.0090
Mercury	-50304-02-15 04:04 J	-16652067.41	-16652067.33	-16652067.22	0.0146	0.0123
Moon	-50301-03-08 16:33 J	-16650950.01	-16650949.81	-16650949.58	0.0145	0.0080
Earth	-50301-03-08 20:23 J	-16650949.86	-16650949.65	-16650949.44	0.0145	0.0081 *
Earth	-50300-03-13 23:30 J	-16650579.74	-16650579.52	-16650579.27	0.0145	0.0058
Moon	-50300-03-14 03:06 J	-16650579.59	-16650579.37	-16650579.13	0.0145	0.0064 *
Venus	-50288-10-13 03:06 J	-16645983.47	-16645983.37	-16645983.25	0.0139	0.0120
Venus	-50287-05-27 14:23 J	-16645757.06	-16645756.90	-16645756.73	0.0139	0.0093
Venus	-50286-01-09 00:57 J	-16645530.64	-16645530.46	-16645530.25	0.0138	0.0067
Venus	-50286-08-23 11:59 J	-16645304.21	-16645304.00	-16645303.78	0.0138	0.0039

Venus	-50285-04-05 22:33 J	-16645077.78	-16645077.56	-16645077.33	0.0137	0.0013
Venus	-50285-11-18 08:52 J	-16644851.36	-16644851.13	-16644850.91	0.0137	0.0014
Venus	-50284-07-02 18:42 J	-16644624.93	-16644624.72	-16644624.50	0.0137	0.0040
Venus	-50283-02-14 04:33 J	-16644398.50	-16644398.31	-16644398.10	0.0137	0.0066
Venus	-50283-09-28 13:54 J	-16644172.07	-16644171.92	-16644171.73	0.0136	0.0092
Venus	-50282-05-12 23:30 J	-16643945.62	-16643945.52	-16643945.39	0.0136	0.0116
Mercury	-50264-03-29 21:06 J	-16637414.65	-16637414.62	-16637414.56	0.0132	0.0124
Mercury	-50264-06-26 00:42 J	-16637326.55	-16637326.47	-16637326.38	0.0132	0.0105
Mercury	-50264-09-22 04:04 J	-16637238.43	-16637238.33	-16637238.22	0.0132	0.0087
Mercury	-50264-12-19 07:11 J	-16637150.31	-16637150.20	-16637150.07	0.0132	0.0069
Mercury	-50263-03-17 10:33 J	-16637062.18	-16637062.06	-16637061.93	0.0132	0.0051
Mercury	-50263-06-13 13:54 J	-16636974.05	-16636973.92	-16636973.78	0.0132	0.0033
Mercury	-50263-09-09 17:16 J	-16636885.92	-16636885.78	-16636885.64	0.0132	0.0015
Mercury	-50263-12-06 20:23 J	-16636797.78	-16636797.65	-16636797.51	0.0132	0.0005
Mercury	-50262-03-04 23:45 J	-16636709.65	-16636709.51	-16636709.38	0.0132	0.0021
Mercury	-50262-06-01 02:52 J	-16636621.51	-16636621.38	-16636621.25	0.0132	0.0039
Mercury	-50262-08-28 05:59 J	-16636533.37	-16636533.25	-16636533.12	0.0132	0.0057
Mercury	-50262-11-24 09:21 J	-16636445.22	-16636445.11	-16636445.00	0.0132	0.0074
Mercury	-50261-02-20 12:13 J	-16636357.07	-16636356.99	-16636356.88	0.0132	0.0093
Mercury	-50261-05-18 15:35 J	-16636268.92	-16636268.85	-16636268.77	0.0132	0.0110
Mercury	-50261-08-14 18:42 J	-16636180.75	-16636180.72	-16636180.68	0.0132	0.0127
Moon	-50258-09-11 07:11 J	-16635058.41	-16635058.20	-16635057.97	0.0133	0.0071
Earth	-50258-09-11 09:49 J	-16635058.29	-16635058.09	-16635057.86	0.0133	0.0070 *
Earth	-50257-09-14 15:21 J	-16634689.10	-16634688.86	-16634688.61	0.0133	0.0035
Moon	-50257-09-14 17:45 J	-16634688.99	-16634688.76	-16634688.52	0.0133	0.0033 *
Mars	-50246-10-12 13:40 J	-16630644.18	-16630643.93	-16630643.66	0.0138	0.0054
Venus	-50243-05-20 05:01 J	-16629693.38	-16629693.29	-16629693.16	0.0140	0.0119
Venus	-50242-01-01 11:30 J	-16629467.16	-16629467.02	-16629466.85	0.0140	0.0094
Venus	-50242-08-15 18:13 J	-16629240.91	-16629240.74	-16629240.54	0.0140	0.0069
Venus	-50241-03-29 01:25 J	-16629014.64	-16629014.44	-16629014.24	0.0141	0.0042

Venus	-50241-11-10 08:23 J	-16628788.36	-16628788.15	-16628787.94	0.0141	0.0016
Venus	-50240-06-24 15:35 J	-16628562.06	-16628561.85	-16628561.64	0.0141	0.0011
Venus	-50239-02-05 23:01 J	-16628335.75	-16628335.54	-16628335.34	0.0142	0.0038
Venus	-50239-09-20 06:28 J	-16628109.41	-16628109.23	-16628109.03	0.0142	0.0065
Venus	-50238-05-04 14:23 J	-16627883.05	-16627882.90	-16627882.73	0.0142	0.0092
Venus	-50238-12-16 22:18 J	-16627656.67	-16627656.57	-16627656.44	0.0143	0.0120
Mercury	-50222-03-31 22:18 J	-16622072.65	-16622072.57	-16622072.47	0.0146	0.0127
Mercury	-50222-06-28 05:59 J	-16621984.38	-16621984.25	-16621984.11	0.0146	0.0096
Mercury	-50222-09-24 13:25 J	-16621896.10	-16621895.94	-16621895.77	0.0146	0.0064
Mercury	-50222-12-21 21:06 J	-16621807.80	-16621807.62	-16621807.44	0.0146	0.0032
Mercury	-50221-03-19 04:47 J	-16621719.48	-16621719.30	-16621719.12	0.0146	0.0002
Mercury	-50221-06-15 12:13 J	-16621631.16	-16621630.99	-16621630.81	0.0146	0.0033
Mercury	-50221-09-11 20:09 J	-16621542.82	-16621542.66	-16621542.50	0.0146	0.0064
Mercury	-50221-12-09 03:35 J	-16621454.47	-16621454.35	-16621454.20	0.0146	0.0098
Mercury	-50220-03-07 11:16 J	-16621366.09	-16621366.03	-16621365.93	0.0146	0.0131
Moon	-50217-03-09 02:52 J	-16620268.58	-16620268.38	-16620268.15	0.0145	0.0076
Earth	-50217-03-09 06:28 J	-16620268.44	-16620268.23	-16620268.00	0.0145	0.0075 *
Earth	-50216-03-14 09:49 J	-16619898.30	-16619898.09	-16619897.84	0.0145	0.0065
Moon	-50216-03-14 13:54 J	-16619898.15	-16619897.92	-16619897.69	0.0145	0.0060 *
Mars	-50207-03-31 00:28 J	-16616594.78	-16616594.48	-16616594.15	0.0141	0.0045
Venus	-50204-06-12 09:35 J	-16615425.15	-16615425.10	-16615425.00	0.0139	0.0132
Venus	-50203-01-24 21:06 J	-16615198.75	-16615198.62	-16615198.46	0.0139	0.0104
Venus	-50203-09-08 08:09 J	-16614972.33	-16614972.16	-16614971.96	0.0138	0.0078
Venus	-50202-04-22 19:11 J	-16614745.90	-16614745.70	-16614745.48	0.0138	0.0050
Venus	-50202-12-05 05:45 J	-16614519.48	-16614519.26	-16614519.03	0.0138	0.0024
Venus	-50201-07-18 16:18 J	-16614293.05	-16614292.82	-16614292.60	0.0137	0.0003
Venus	-50200-03-02 02:23 J	-16614066.61	-16614066.40	-16614066.17	0.0137	0.0029
Venus	-50200-10-14 12:13 J	-16613840.18	-16613839.99	-16613839.77	0.0137	0.0055
Venus	-50199-05-28 22:04 J	-16613613.76	-16613613.58	-16613613.39	0.0136	0.0080
Venus	-50198-01-10 07:40 J	-16613387.32	-16613387.18	-16613387.04	0.0136	0.0105

Venus -50198-08-24 16:47 J -16613160.86 -16613160.80 -16613160.73 0.0136 0.0129
 Mercury -50180-04-19 04:18 J -16606713.37 -16606713.32 -16606713.26 0.0132 0.0119
 Mercury -50180-07-16 07:40 J -16606625.26 -16606625.18 -16606625.09 0.0132 0.0101
 Mercury -50180-10-12 11:01 J -16606537.14 -16606537.04 -16606536.93 0.0132 0.0083
 Mercury -50179-01-08 14:09 J -16606449.02 -16606448.91 -16606448.78 0.0132 0.0065
 Mercury -50179-04-06 17:30 J -16606360.89 -16606360.77 -16606360.63 0.0132 0.0047
 Mercury -50179-07-03 20:52 J -16606272.76 -16606272.63 -16606272.49 0.0132 0.0029
 Mercury -50179-09-30 00:13 J -16606184.63 -16606184.49 -16606184.35 0.0132 0.0011
 Mercury -50179-12-27 03:35 J -16606096.49 -16606096.35 -16606096.22 0.0132 0.0008
 Mercury -50178-03-25 06:42 J -16606008.36 -16606008.22 -16606008.08 0.0132 0.0025
 Mercury -50178-06-21 09:49 J -16605920.22 -16605920.09 -16605919.96 0.0132 0.0043
 Mercury -50178-09-17 12:57 J -16605832.07 -16605831.96 -16605831.83 0.0132 0.0061
 Mercury -50178-12-14 16:18 J -16605743.93 -16605743.82 -16605743.71 0.0132 0.0078
 Mercury -50177-03-11 19:11 J -16605655.78 -16605655.70 -16605655.59 0.0132 0.0097
 Mercury -50177-06-07 22:33 J -16605567.62 -16605567.56 -16605567.49 0.0132 0.0114
 Mercury -50177-09-04 01:25 J -16605479.44 -16605479.44 -16605479.41 0.0132 0.0132
 Moon -50174-09-11 16:18 J -16604377.03 -16604376.82 -16604376.58 0.0133 0.0064
 Earth -50174-09-11 19:11 J -16604376.90 -16604376.70 -16604376.47 0.0133 0.0066 *
 Earth -50173-09-15 00:28 J -16604007.71 -16604007.48 -16604007.22 0.0133 0.0039
 Moon -50173-09-15 03:21 J -16604007.59 -16604007.36 -16604007.12 0.0133 0.0041 *
 Mars -50163-07-06 23:30 J -16600425.73 -16600425.52 -16600425.31 0.0138 0.0094
 Mars -50161-06-05 20:37 J -16599725.67 -16599725.64 -16599725.55 0.0139 0.0136
 Venus -50159-01-17 13:54 J -16599134.99 -16599134.92 -16599134.83 0.0139 0.0129
 Venus -50159-08-31 20:23 J -16598908.78 -16598908.65 -16598908.50 0.0140 0.0105
 Venus -50158-04-15 03:06 J -16598682.54 -16598682.37 -16598682.20 0.0140 0.0079
 Venus -50158-11-27 09:49 J -16598456.29 -16598456.09 -16598455.90 0.0140 0.0054
 Venus -50157-07-10 16:33 J -16598230.01 -16598229.81 -16598229.60 0.0141 0.0028
 Venus -50156-02-21 23:45 J -16598003.72 -16598003.51 -16598003.30 0.0141 0.0003
 Venus -50156-10-06 06:57 J -16597777.41 -16597777.21 -16597777.00 0.0141 0.0025
 Venus -50155-05-20 14:23 J -16597551.09 -16597550.90 -16597550.70 0.0142 0.0052

Venus -50154-01-01 21:49 J -16597324.75 -16597324.59 -16597324.40 0.0142 0.0079
 Venus -50154-08-16 05:59 J -16597098.39 -16597098.25 -16597098.11 0.0142 0.0106
 Venus -50153-03-29 13:54 J -16596871.98 -16596871.92 -16596871.83 0.0143 0.0133
 Mercury -50138-04-21 05:01 J -16591371.37 -16591371.29 -16591371.18 0.0147 0.0122
 Mercury -50138-07-18 12:28 J -16591283.11 -16591282.98 -16591282.83 0.0147 0.0091
 Mercury -50138-10-14 20:09 J -16591194.82 -16591194.66 -16591194.49 0.0147 0.0059
 Mercury -50137-01-11 03:49 J -16591106.52 -16591106.34 -16591106.16 0.0146 0.0027
 Mercury -50137-04-08 11:30 J -16591018.20 -16591018.02 -16591017.84 0.0146 0.0006
 Mercury -50137-07-05 18:57 J -16590929.88 -16590929.71 -16590929.53 0.0146 0.0039
 Mercury -50137-10-02 02:52 J -16590841.54 -16590841.38 -16590841.22 0.0146 0.0070
 Mercury -50137-12-29 10:18 J -16590753.18 -16590753.07 -16590752.93 0.0146 0.0104
 Mercury -50136-03-27 18:13 J -16590664.79 -16590664.74 -16590664.66 0.0146 0.0136
 Moon -50133-03-09 12:13 J -16589587.20 -16589586.99 -16589586.76 0.0145 0.0069
 Earth -50133-03-09 15:06 J -16589587.08 -16589586.87 -16589586.63 0.0145 0.0072 *
 Earth -50132-03-14 18:57 J -16589216.93 -16589216.71 -16589216.47 0.0145 0.0068
 Moon -50132-03-14 22:47 J -16589216.77 -16589216.55 -16589216.33 0.0145 0.0072 *
 Mars -50123-11-25 01:40 J -16585674.72 -16585674.43 -16585674.11 0.0140 0.0060
 Venus -50120-09-24 03:35 J -16584640.47 -16584640.35 -16584640.22 0.0139 0.0115
 Venus -50119-05-08 14:37 J -16584414.05 -16584413.89 -16584413.70 0.0139 0.0089
 Venus -50119-12-21 01:54 J -16584187.62 -16584187.42 -16584187.22 0.0138 0.0062
 Venus -50118-08-04 12:42 J -16583961.19 -16583960.97 -16583960.75 0.0138 0.0035
 Venus -50117-03-17 23:16 J -16583734.75 -16583734.53 -16583734.30 0.0138 0.0009
 Venus -50117-10-30 09:35 J -16583508.32 -16583508.10 -16583507.87 0.0137 0.0017
 Venus -50116-06-13 19:40 J -16583281.89 -16583281.68 -16583281.46 0.0137 0.0043
 Venus -50115-01-26 05:16 J -16583055.46 -16583055.28 -16583055.07 0.0137 0.0069
 Venus -50115-09-09 15:06 J -16582829.03 -16582828.87 -16582828.70 0.0136 0.0093
 Venus -50114-04-24 00:28 J -16582602.58 -16582602.48 -16582602.36 0.0136 0.0118
 Mercury -50096-05-09 11:01 J -16576012.09 -16576012.04 -16576011.96 0.0132 0.0116
 Mercury -50096-08-05 14:37 J -16575923.98 -16575923.89 -16575923.79 0.0132 0.0097
 Mercury -50096-11-01 17:59 J -16575835.86 -16575835.75 -16575835.64 0.0132 0.0079

Mercury -50095-01-28 21:21 J -16575747.73 -16575747.61 -16575747.49 0.0132 0.0061

Mercury -50095-04-27 00:28 J -16575659.60 -16575659.48 -16575659.34 0.0132 0.0043

Mercury -50095-07-24 03:49 J -16575571.47 -16575571.34 -16575571.20 0.0132 0.0025

Mercury -50095-10-20 07:11 J -16575483.34 -16575483.20 -16575483.06 0.0132 0.0007

Mercury -50094-01-16 10:18 J -16575395.20 -16575395.07 -16575394.93 0.0132 0.0011

Mercury -50094-04-14 13:40 J -16575307.07 -16575306.93 -16575306.80 0.0132 0.0029

Mercury -50094-07-11 16:47 J -16575218.93 -16575218.80 -16575218.67 0.0132 0.0047

Mercury -50094-10-07 19:54 J -16575130.78 -16575130.67 -16575130.55 0.0132 0.0064

Mercury -50093-01-03 23:01 J -16575042.64 -16575042.54 -16575042.43 0.0132 0.0082

Mercury -50093-04-01 02:23 J -16574954.49 -16574954.40 -16574954.31 0.0132 0.0100

Mercury -50093-06-28 05:16 J -16574866.33 -16574866.28 -16574866.21 0.0132 0.0118

Moon -50090-09-12 00:57 J -16573695.68 -16573695.46 -16573695.23 0.0133 0.0064

Earth -50090-09-12 04:18 J -16573695.54 -16573695.32 -16573695.09 0.0133 0.0062 *

Earth -50089-09-15 09:21 J -16573326.34 -16573326.11 -16573325.86 0.0133 0.0043

Moon -50089-09-15 12:28 J -16573326.20 -16573325.98 -16573325.73 0.0133 0.0043 *

Mars -50078-03-01 05:30 J -16569507.55 -16569507.27 -16569506.98 0.0138 0.0014

Venus -50075-05-01 04:47 J -16568350.41 -16568350.30 -16568350.17 0.0139 0.0115

Venus -50075-12-13 11:01 J -16568124.19 -16568124.04 -16568123.87 0.0140 0.0091

Venus -50074-07-27 17:45 J -16567897.94 -16567897.76 -16567897.57 0.0140 0.0065

Venus -50073-03-10 00:28 J -16567671.67 -16567671.48 -16567671.27 0.0141 0.0040

Venus -50073-10-22 07:25 J -16567445.39 -16567445.19 -16567444.97 0.0141 0.0014

Venus -50072-06-05 14:37 J -16567219.10 -16567218.89 -16567218.68 0.0141 0.0012

Venus -50071-01-17 21:49 J -16566992.79 -16566992.59 -16566992.38 0.0142 0.0039

Venus -50071-09-01 05:16 J -16566766.45 -16566766.28 -16566766.08 0.0142 0.0066

Venus -50070-04-15 13:11 J -16566540.10 -16566539.95 -16566539.78 0.0142 0.0092

Venus -50070-11-27 21:21 J -16566313.73 -16566313.61 -16566313.50 0.0143 0.0119

Mercury -50054-05-11 11:45 J -16560670.11 -16560670.01 -16560669.89 0.0147 0.0117

Mercury -50054-08-07 19:11 J -16560581.84 -16560581.70 -16560581.55 0.0147 0.0085

Mercury -50054-11-04 02:52 J -16560493.55 -16560493.38 -16560493.21 0.0147 0.0053

Mercury -50053-01-31 10:33 J -16560405.24 -16560405.06 -16560404.88 0.0147 0.0022

Mercury -50053-04-28 17:59 J -16560316.93 -16560316.75 -16560316.56 0.0147 0.0012
 Mercury -50053-07-26 01:40 J -16560228.60 -16560228.43 -16560228.25 0.0146 0.0043
 Mercury -50053-10-22 09:35 J -16560140.26 -16560140.10 -16560139.95 0.0146 0.0076
 Mercury -50052-01-18 17:01 J -16560051.90 -16560051.79 -16560051.66 0.0146 0.0109
 Mercury -50052-04-17 00:57 J -16559963.50 -16559963.46 -16559963.41 0.0146 0.0141
 Moon -50049-03-09 20:37 J -16558905.85 -16558905.64 -16558905.41 0.0146 0.0069
 Earth -50049-03-09 23:30 J -16558905.73 -16558905.52 -16558905.28 0.0146 0.0069 *
 Earth -50048-03-15 03:21 J -16558535.57 -16558535.36 -16558535.13 0.0145 0.0072
 Moon -50048-03-15 06:28 J -16558535.44 -16558535.23 -16558534.98 0.0145 0.0070 *
 Mars -50040-08-15 06:42 J -16555460.33 -16555460.22 -16555460.08 0.0141 0.0131
 Venus -50036-05-24 09:06 J -16554082.20 -16554082.12 -16554082.01 0.0139 0.0126
 Venus -50035-01-05 20:23 J -16553855.79 -16553855.65 -16553855.48 0.0139 0.0100
 Venus -50035-08-20 07:54 J -16553629.36 -16553629.17 -16553628.98 0.0138 0.0073
 Venus -50034-04-03 18:57 J -16553402.92 -16553402.71 -16553402.50 0.0138 0.0046
 Venus -50034-11-16 05:45 J -16553176.49 -16553176.26 -16553176.04 0.0138 0.0020
 Venus -50033-06-29 16:04 J -16552950.05 -16552949.83 -16552949.60 0.0137 0.0006
 Venus -50032-02-11 02:23 J -16552723.62 -16552723.40 -16552723.18 0.0137 0.0032
 Venus -50032-09-25 12:13 J -16552497.18 -16552496.99 -16552496.77 0.0137 0.0058
 Venus -50031-05-09 22:04 J -16552270.75 -16552270.58 -16552270.39 0.0136 0.0083
 Venus -50031-12-22 07:25 J -16552044.31 -16552044.19 -16552044.04 0.0136 0.0107
 Venus -50030-08-05 16:47 J -16551817.84 -16551817.80 -16551817.73 0.0136 0.0131
 Mercury -50012-03-02 14:37 J -16545398.90 -16545398.89 -16545398.85 0.0132 0.0130
 Mercury -50012-05-29 18:13 J -16545310.81 -16545310.74 -16545310.66 0.0132 0.0111
 Mercury -50012-08-25 21:35 J -16545222.69 -16545222.60 -16545222.49 0.0132 0.0093
 Mercury -50012-11-22 00:57 J -16545134.57 -16545134.46 -16545134.34 0.0132 0.0075
 Mercury -50011-02-18 04:18 J -16545046.44 -16545046.32 -16545046.19 0.0132 0.0057
 Mercury -50011-05-17 07:40 J -16544958.31 -16544958.18 -16544958.05 0.0132 0.0039
 Mercury -50011-08-13 11:01 J -16544870.18 -16544870.04 -16544869.91 0.0132 0.0021
 Mercury -50011-11-09 14:09 J -16544782.05 -16544781.91 -16544781.77 0.0132 0.0004
 Mercury -50010-02-05 17:30 J -16544693.91 -16544693.77 -16544693.63 0.0132 0.0016

Mercury	-50010-05-04 20:37 J	-16544605.77	-16544605.64	-16544605.50	0.0132	0.0033
Mercury	-50010-07-31 23:45 J	-16544517.63	-16544517.51	-16544517.38	0.0132	0.0051
Mercury	-50010-10-28 02:52 J	-16544429.49	-16544429.38	-16544429.25	0.0132	0.0069
Mercury	-50009-01-24 06:13 J	-16544341.34	-16544341.24	-16544341.13	0.0132	0.0086
Mercury	-50009-04-21 09:21 J	-16544253.19	-16544253.11	-16544253.02	0.0132	0.0104
Mercury	-50009-07-18 12:28 J	-16544165.02	-16544164.98	-16544164.92	0.0132	0.0122
Moon	-50006-09-12 10:47 J	-16543014.27	-16543014.05	-16543013.80	0.0133	0.0055
Earth	-50006-09-12 14:09 J	-16543014.12	-16543013.91	-16543013.67	0.0133	0.0058 *
Earth	-50005-09-15 19:25 J	-16542644.92	-16542644.69	-16542644.44	0.0133	0.0047
Moon	-50005-09-15 22:47 J	-16542644.77	-16542644.55	-16542644.31	0.0133	0.0049 *

50TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 50th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-49994-10-24 14:52 J	-16538589.12	-16538588.88	-16538588.63	0.0138	0.0067		
Venus	-49992-12-29 13:54 J	-16537792.00	-16537791.92	-16537791.82	0.0139	0.0125		
Venus	-49991-08-12 20:23 J	-16537565.79	-16537565.65	-16537565.50	0.0140	0.0101		
Venus	-49990-03-27 02:37 J	-16537339.55	-16537339.39	-16537339.20	0.0140	0.0076		
Venus	-49990-11-08 09:35 J	-16537113.30	-16537113.10	-16537112.91	0.0140	0.0051		
Venus	-49989-06-21 16:04 J	-16536887.03	-16536886.83	-16536886.62	0.0141	0.0025		
Venus	-49988-02-02 23:16 J	-16536660.74	-16536660.53	-16536660.32	0.0141	0.0002		
Venus	-49988-09-17 06:28 J	-16536434.44	-16536434.23	-16536434.02	0.0141	0.0027		

Venus -49987-05-01 13:40 J -16536208.12 -16536207.93 -16536207.73 0.0142 0.0054
 Venus -49987-12-13 21:06 J -16535981.78 -16535981.62 -16535981.43 0.0142 0.0080
 Venus -49986-07-28 05:01 J -16535755.42 -16535755.29 -16535755.14 0.0142 0.0107
 Venus -49985-03-10 13:11 J -16535529.02 -16535528.95 -16535528.87 0.0143 0.0133
 Mercury -49970-03-04 11:01 J -16530057.07 -16530057.04 -16530056.99 0.0147 0.0143
 Mercury -49970-05-31 18:42 J -16529968.84 -16529968.72 -16529968.61 0.0147 0.0111
 Mercury -49970-08-28 01:54 J -16529880.56 -16529880.42 -16529880.26 0.0147 0.0080
 Mercury -49970-11-24 09:35 J -16529792.27 -16529792.10 -16529791.93 0.0147 0.0048
 Mercury -49969-02-20 17:16 J -16529703.96 -16529703.78 -16529703.60 0.0147 0.0016
 Mercury -49969-05-19 00:57 J -16529615.64 -16529615.46 -16529615.28 0.0146 0.0017
 Mercury -49969-08-15 08:23 J -16529527.32 -16529527.15 -16529526.97 0.0146 0.0049
 Mercury -49969-11-11 16:04 J -16529438.97 -16529438.83 -16529438.67 0.0146 0.0082
 Mercury -49968-02-07 23:45 J -16529350.61 -16529350.51 -16529350.39 0.0146 0.0115
 Moon -49965-03-10 05:59 J -16528224.48 -16528224.25 -16528224.03 0.0146 0.0062
 Earth -49965-03-10 07:40 J -16528224.39 -16528224.18 -16528223.93 0.0146 0.0066 *
 Earth -49964-03-15 11:59 J -16527854.22 -16527854.00 -16527853.78 0.0145 0.0075
 Moon -49964-03-15 14:52 J -16527854.09 -16527853.88 -16527853.65 0.0145 0.0078 *
 Mars -49955-04-11 06:28 J -16524540.55 -16524540.23 -16524539.90 0.0141 0.0027
 Venus -49952-01-21 14:37 J -16523523.91 -16523523.89 -16523523.84 0.0139 0.0137
 Venus -49952-09-05 02:37 J -16523297.53 -16523297.39 -16523297.26 0.0139 0.0110
 Venus -49951-04-19 13:40 J -16523071.10 -16523070.93 -16523070.74 0.0139 0.0084
 Venus -49951-12-02 00:42 J -16522844.67 -16522844.47 -16522844.26 0.0138 0.0058
 Venus -49950-07-16 11:45 J -16522618.23 -16522618.01 -16522617.79 0.0138 0.0031
 Venus -49949-02-27 22:33 J -16522391.79 -16522391.56 -16522391.34 0.0138 0.0005
 Venus -49949-10-11 08:52 J -16522165.35 -16522165.13 -16522164.91 0.0137 0.0021
 Venus -49948-05-25 18:57 J -16521938.92 -16521938.71 -16521938.50 0.0137 0.0046
 Venus -49947-01-07 04:33 J -16521712.49 -16521712.31 -16521712.11 0.0137 0.0072
 Venus -49947-08-21 14:09 J -16521486.05 -16521485.91 -16521485.74 0.0136 0.0096
 Venus -49946-04-04 23:45 J -16521259.60 -16521259.51 -16521259.39 0.0136 0.0120
 Mercury -49928-03-22 22:04 J -16514697.62 -16514697.58 -16514697.54 0.0132 0.0125

Mercury -49928-06-19 01:11 J -16514609.52 -16514609.45 -16514609.36 0.0132 0.0107
 Mercury -49928-09-15 04:33 J -16514521.40 -16514521.31 -16514521.20 0.0132 0.0089
 Mercury -49928-12-12 07:54 J -16514433.28 -16514433.17 -16514433.05 0.0132 0.0071
 Mercury -49927-03-10 11:16 J -16514345.15 -16514345.03 -16514344.90 0.0132 0.0053
 Mercury -49927-06-06 14:37 J -16514257.02 -16514256.89 -16514256.75 0.0132 0.0034
 Mercury -49927-09-02 17:59 J -16514168.89 -16514168.75 -16514168.61 0.0132 0.0016
 Mercury -49927-11-29 21:06 J -16514080.75 -16514080.62 -16514080.48 0.0132 0.0005
 Mercury -49926-02-26 00:28 J -16513992.62 -16513992.48 -16513992.34 0.0132 0.0020
 Mercury -49926-05-25 03:35 J -16513904.48 -16513904.35 -16513904.21 0.0132 0.0038
 Mercury -49926-08-21 06:57 J -16513816.34 -16513816.21 -16513816.09 0.0132 0.0055
 Mercury -49926-11-17 10:04 J -16513728.19 -16513728.08 -16513727.96 0.0132 0.0073
 Mercury -49925-02-13 13:25 J -16513640.04 -16513639.94 -16513639.85 0.0132 0.0091
 Mercury -49925-05-11 16:18 J -16513551.89 -16513551.82 -16513551.74 0.0132 0.0108
 Mercury -49925-08-07 19:40 J -16513463.72 -16513463.68 -16513463.64 0.0132 0.0126
 Moon -49922-09-12 20:09 J -16512332.88 -16512332.66 -16512332.42 0.0133 0.0056
 Earth -49922-09-12 23:59 J -16512332.73 -16512332.50 -16512332.27 0.0133 0.0053 *
 Earth -49921-09-16 04:47 J -16511963.52 -16511963.30 -16511963.06 0.0133 0.0052
 Moon -49921-09-16 08:37 J -16511963.37 -16511963.14 -16511962.91 0.0133 0.0052 *
 Mars -49911-07-19 00:13 J -16508370.70 -16508370.49 -16508370.24 0.0137 0.0081
 Venus -49908-08-28 23:16 J -16507233.56 -16507233.53 -16507233.47 0.0139 0.0135
 Venus -49907-04-12 05:16 J -16507007.39 -16507007.28 -16507007.14 0.0139 0.0112
 Venus -49907-11-24 11:30 J -16506781.17 -16506781.02 -16506780.84 0.0140 0.0087
 Venus -49906-07-08 17:59 J -16506554.92 -16506554.75 -16506554.55 0.0140 0.0062
 Venus -49905-02-20 00:57 J -16506328.66 -16506328.46 -16506328.26 0.0140 0.0036
 Venus -49905-10-03 07:54 J -16506102.38 -16506102.17 -16506101.96 0.0141 0.0011
 Venus -49904-05-17 14:52 J -16505876.09 -16505875.88 -16505875.67 0.0141 0.0015
 Venus -49904-12-29 22:04 J -16505649.78 -16505649.58 -16505649.37 0.0142 0.0041
 Venus -49903-08-13 05:30 J -16505423.45 -16505423.27 -16505423.08 0.0142 0.0068
 Venus -49902-03-27 13:11 J -16505197.10 -16505196.95 -16505196.78 0.0142 0.0094
 Venus -49902-11-08 21:06 J -16504970.72 -16504970.62 -16504970.50 0.0143 0.0121

Mercury -49886-03-24 18:13 J -16499355.79 -16499355.74 -16499355.66 0.0147 0.0135

Mercury -49886-06-21 01:54 J -16499267.54 -16499267.42 -16499267.29 0.0147 0.0103

Mercury -49886-09-17 09:21 J -16499179.26 -16499179.11 -16499178.95 0.0147 0.0072

Mercury -49886-12-14 17:01 J -16499090.96 -16499090.79 -16499090.62 0.0147 0.0040

Mercury -49885-03-12 00:28 J -16499002.66 -16499002.48 -16499002.30 0.0147 0.0008

Mercury -49885-06-08 08:09 J -16498914.34 -16498914.16 -16498913.98 0.0147 0.0025

Mercury -49885-09-04 15:49 J -16498826.01 -16498825.84 -16498825.67 0.0146 0.0057

Mercury -49885-12-01 23:16 J -16498737.66 -16498737.53 -16498737.37 0.0146 0.0091

Mercury -49884-02-28 07:11 J -16498649.29 -16498649.20 -16498649.09 0.0146 0.0123

Moon -49881-03-10 16:04 J -16497543.04 -16497542.83 -16497542.59 0.0146 0.0062

Earth -49881-03-10 18:13 J -16497542.96 -16497542.74 -16497542.49 0.0146 0.0060 *

Earth -49880-03-15 22:18 J -16497172.78 -16497172.57 -16497172.36 0.0145 0.0081

Moon -49880-03-16 00:28 J -16497172.68 -16497172.48 -16497172.24 0.0145 0.0080 *

Mars -49871-12-06 09:21 J -16493620.37 -16493620.11 -16493619.82 0.0141 0.0079

Venus -49868-05-05 08:37 J -16492739.23 -16492739.14 -16492739.02 0.0139 0.0121

Venus -49868-12-17 19:54 J -16492512.82 -16492512.67 -16492512.49 0.0139 0.0095

Venus -49867-08-01 07:11 J -16492286.38 -16492286.20 -16492285.99 0.0138 0.0069

Venus -49866-03-15 18:28 J -16492059.94 -16492059.73 -16492059.51 0.0138 0.0042

Venus -49866-10-28 05:16 J -16491833.50 -16491833.28 -16491833.05 0.0138 0.0016

Venus -49865-06-10 15:49 J -16491607.06 -16491606.84 -16491606.62 0.0137 0.0010

Venus -49864-01-23 01:54 J -16491380.63 -16491380.42 -16491380.20 0.0137 0.0035

Venus -49864-09-06 11:45 J -16491154.20 -16491154.01 -16491153.79 0.0137 0.0061

Venus -49863-04-20 21:35 J -16490927.76 -16490927.60 -16490927.41 0.0137 0.0086

Venus -49863-12-03 07:11 J -16490701.32 -16490701.20 -16490701.06 0.0136 0.0110

Venus -49862-07-17 16:33 J -16490474.85 -16490474.81 -16490474.76 0.0136 0.0133

Mercury -49844-04-12 05:01 J -16483996.34 -16483996.29 -16483996.23 0.0132 0.0120

Mercury -49844-07-09 08:23 J -16483908.23 -16483908.15 -16483908.05 0.0132 0.0102

Mercury -49844-10-05 11:45 J -16483820.11 -16483820.01 -16483819.89 0.0132 0.0084

Mercury -49843-01-01 15:21 J -16483731.98 -16483731.86 -16483731.74 0.0132 0.0065

Mercury -49843-03-30 18:28 J -16483643.85 -16483643.73 -16483643.59 0.0132 0.0047

Mercury -49843-06-26 21:49 J -16483555.72 -16483555.59 -16483555.45 0.0132 0.0029
 Mercury -49843-09-23 01:11 J -16483467.59 -16483467.45 -16483467.31 0.0132 0.0011
 Mercury -49843-12-20 04:18 J -16483379.45 -16483379.32 -16483379.18 0.0132 0.0008
 Mercury -49842-03-18 07:40 J -16483291.31 -16483291.18 -16483291.04 0.0132 0.0025
 Mercury -49842-06-14 10:47 J -16483203.17 -16483203.05 -16483202.91 0.0132 0.0043
 Mercury -49842-09-10 14:09 J -16483115.03 -16483114.91 -16483114.79 0.0132 0.0061
 Mercury -49842-12-07 17:16 J -16483026.89 -16483026.78 -16483026.67 0.0132 0.0078
 Mercury -49841-03-04 20:23 J -16482938.74 -16482938.65 -16482938.55 0.0132 0.0096
 Mercury -49841-05-31 23:45 J -16482850.58 -16482850.51 -16482850.44 0.0132 0.0113
 Mercury -49841-08-28 02:37 J -16482762.39 -16482762.39 -16482762.36 0.0132 0.0131
 Moon -49838-09-13 07:11 J -16481651.43 -16481651.20 -16481650.95 0.0133 0.0044
 Earth -49838-09-13 10:47 J -16481651.28 -16481651.05 -16481650.81 0.0133 0.0047 *
 Earth -49837-09-16 15:35 J -16481282.07 -16481281.85 -16481281.61 0.0133 0.0057
 Moon -49837-09-16 19:11 J -16481281.91 -16481281.70 -16481281.46 0.0133 0.0058 *
 Jupiter -49827-01-08 11:45 J -16477881.37 -16477881.01 -16477880.59 0.0137 0.0086
 Mars -49826-03-13 13:25 J -16477452.23 -16477451.94 -16477451.66 0.0138 0.0004
 Venus -49824-12-10 15:35 J -16476448.94 -16476448.85 -16476448.74 0.0139 0.0121
 Venus -49823-07-24 21:35 J -16476222.73 -16476222.60 -16476222.43 0.0140 0.0097
 Venus -49822-03-08 04:04 J -16475996.50 -16475996.33 -16475996.14 0.0140 0.0072
 Venus -49822-10-20 10:33 J -16475770.24 -16475770.06 -16475769.85 0.0140 0.0048
 Venus -49821-06-02 17:30 J -16475543.98 -16475543.77 -16475543.56 0.0141 0.0022
 Venus -49820-01-15 00:28 J -16475317.69 -16475317.48 -16475317.27 0.0141 0.0004
 Venus -49820-08-29 07:40 J -16475091.38 -16475091.18 -16475090.97 0.0141 0.0030
 Venus -49819-04-12 15:06 J -16474865.06 -16474864.87 -16474864.68 0.0142 0.0056
 Venus -49819-11-24 22:33 J -16474638.73 -16474638.56 -16474638.38 0.0142 0.0082
 Venus -49818-07-09 06:13 J -16474412.37 -16474412.24 -16474412.10 0.0142 0.0109
 Venus -49817-02-20 14:09 J -16474185.96 -16474185.91 -16474185.83 0.0143 0.0135
 Mercury -49802-04-14 02:09 J -16468654.50 -16468654.41 -16468654.31 0.0147 0.0125
 Mercury -49802-07-11 09:35 J -16468566.23 -16468566.10 -16468565.96 0.0147 0.0093
 Mercury -49802-10-07 17:01 J -16468477.95 -16468477.79 -16468477.62 0.0147 0.0062

Mercury -49801-01-04 00:42 J -16468389.65 -16468389.47 -16468389.29 0.0147 0.0030
 Mercury -49801-04-01 08:23 J -16468301.33 -16468301.15 -16468300.97 0.0147 0.0003
 Mercury -49801-06-28 15:49 J -16468213.01 -16468212.84 -16468212.66 0.0146 0.0035
 Mercury -49801-09-24 23:30 J -16468124.68 -16468124.52 -16468124.35 0.0146 0.0067
 Mercury -49801-12-22 07:25 J -16468036.32 -16468036.19 -16468036.06 0.0146 0.0100
 Mercury -49800-03-20 15:06 J -16467947.94 -16467947.87 -16467947.79 0.0146 0.0133
 Moon -49797-03-11 04:33 J -16466861.53 -16466861.31 -16466861.07 0.0146 0.0048
 Earth -49797-03-11 05:59 J -16466861.49 -16466861.25 -16466861.01 0.0146 0.0052 *
 Earth -49796-03-16 09:35 J -16466491.29 -16466491.10 -16466490.89 0.0145 0.0089
 Moon -49796-03-16 12:13 J -16466491.19 -16466490.99 -16466490.78 0.0145 0.0091 *
 Mars -49788-08-26 20:23 J -16463405.84 -16463405.65 -16463405.41 0.0141 0.0108
 Venus -49784-01-02 15:49 J -16462180.91 -16462180.84 -16462180.76 0.0139 0.0132
 Venus -49784-08-17 03:21 J -16461954.50 -16461954.36 -16461954.21 0.0139 0.0105
 Venus -49783-03-31 14:52 J -16461728.06 -16461727.88 -16461727.69 0.0139 0.0079
 Venus -49783-11-13 01:54 J -16461501.63 -16461501.42 -16461501.21 0.0138 0.0053
 Venus -49782-06-27 12:42 J -16461275.19 -16461274.97 -16461274.75 0.0138 0.0027
 Venus -49781-02-08 23:30 J -16461048.75 -16461048.52 -16461048.30 0.0138 0.0003
 Venus -49781-09-22 09:49 J -16460822.31 -16460822.09 -16460821.87 0.0137 0.0024
 Venus -49780-05-06 19:40 J -16460595.88 -16460595.68 -16460595.46 0.0137 0.0050
 Venus -49780-12-19 05:16 J -16460369.45 -16460369.28 -16460369.07 0.0137 0.0075
 Venus -49779-08-02 15:06 J -16460143.02 -16460142.87 -16460142.71 0.0136 0.0099
 Venus -49778-03-17 00:42 J -16459916.56 -16459916.47 -16459916.37 0.0136 0.0123
 Mercury -49760-05-02 12:13 J -16453295.05 -16453294.99 -16453294.92 0.0132 0.0115
 Mercury -49760-07-29 15:35 J -16453206.94 -16453206.85 -16453206.75 0.0132 0.0097
 Mercury -49760-10-25 19:11 J -16453118.82 -16453118.70 -16453118.59 0.0132 0.0078
 Mercury -49759-01-21 22:18 J -16453030.69 -16453030.57 -16453030.44 0.0132 0.0060
 Mercury -49759-04-20 01:40 J -16452942.56 -16452942.43 -16452942.29 0.0132 0.0042
 Mercury -49759-07-17 05:01 J -16452854.43 -16452854.29 -16452854.15 0.0132 0.0024
 Mercury -49759-10-13 08:23 J -16452766.29 -16452766.15 -16452766.01 0.0132 0.0006
 Mercury -49758-01-09 11:30 J -16452678.15 -16452678.02 -16452677.88 0.0132 0.0013

Mercury -49758-04-07 14:52 J -16452590.01 -16452589.88 -16452589.75 0.0132 0.0030
 Mercury -49758-07-04 17:59 J -16452501.87 -16452501.75 -16452501.62 0.0132 0.0048
 Mercury -49758-09-30 21:21 J -16452413.73 -16452413.61 -16452413.49 0.0132 0.0066
 Mercury -49758-12-28 00:28 J -16452325.58 -16452325.48 -16452325.37 0.0132 0.0083
 Mercury -49757-03-25 03:35 J -16452237.43 -16452237.35 -16452237.26 0.0132 0.0101
 Mercury -49757-06-21 06:42 J -16452149.27 -16452149.22 -16452149.15 0.0132 0.0119
 Moon -49754-09-13 17:01 J -16450970.01 -16450969.79 -16450969.54 0.0133 0.0046
 Earth -49754-09-13 20:52 J -16450969.86 -16450969.63 -16450969.38 0.0133 0.0042 *
 Earth -49753-09-17 01:40 J -16450600.65 -16450600.43 -16450600.20 0.0133 0.0063
 Moon -49753-09-17 05:16 J -16450600.50 -16450600.28 -16450600.06 0.0133 0.0064 *
 Jupiter -49745-11-30 18:42 J -16447603.94 -16447603.72 -16447603.40 0.0137 0.0116
 Mars -49742-11-05 23:45 J -16446533.72 -16446533.51 -16446533.28 0.0138 0.0087
 Venus -49740-08-10 01:11 J -16445890.51 -16445890.45 -16445890.37 0.0139 0.0131
 Venus -49739-03-24 07:25 J -16445664.32 -16445664.19 -16445664.05 0.0139 0.0107
 Venus -49739-11-05 13:25 J -16445438.10 -16445437.94 -16445437.76 0.0140 0.0083
 Venus -49738-06-19 19:54 J -16445211.86 -16445211.67 -16445211.47 0.0140 0.0058
 Venus -49737-02-01 02:23 J -16444985.59 -16444985.40 -16444985.18 0.0141 0.0034
 Venus -49737-09-14 09:35 J -16444759.31 -16444759.10 -16444758.89 0.0141 0.0008
 Venus -49736-04-28 16:33 J -16444533.01 -16444532.81 -16444532.59 0.0141 0.0019
 Venus -49736-12-10 23:59 J -16444306.70 -16444306.50 -16444306.30 0.0142 0.0044
 Venus -49735-07-25 07:11 J -16444080.37 -16444080.20 -16444080.01 0.0142 0.0070
 Venus -49734-03-08 14:52 J -16443854.02 -16443853.88 -16443853.72 0.0142 0.0096
 Venus -49734-10-20 22:47 J -16443627.64 -16443627.55 -16443627.43 0.0143 0.0123
 Mercury -49718-02-05 02:37 J -16438041.40 -16438041.39 -16438041.37 0.0147 0.0146
 Mercury -49718-05-04 10:04 J -16437953.19 -16437953.08 -16437952.97 0.0147 0.0115
 Mercury -49718-07-31 17:16 J -16437864.91 -16437864.78 -16437864.62 0.0147 0.0084
 Mercury -49718-10-28 00:57 J -16437776.62 -16437776.46 -16437776.29 0.0147 0.0052
 Mercury -49717-01-24 08:37 J -16437688.32 -16437688.14 -16437687.96 0.0147 0.0020
 Mercury -49717-04-21 16:04 J -16437600.00 -16437599.83 -16437599.64 0.0147 0.0013
 Mercury -49717-07-18 23:45 J -16437511.68 -16437511.51 -16437511.33 0.0147 0.0045

Mercury -49717-10-15 07:25 J -16437423.34 -16437423.19 -16437423.03 0.0146 0.0078

Mercury -49716-01-11 15:06 J -16437334.98 -16437334.87 -16437334.74 0.0146 0.0111

Mercury -49716-04-09 22:47 J -16437246.57 -16437246.55 -16437246.50 0.0146 0.0144

Moon -49713-03-11 17:01 J -16436180.01 -16436179.79 -16436179.54 0.0146 0.0046

Earth -49713-03-11 18:28 J -16436179.97 -16436179.73 -16436179.48 0.0146 0.0043 *

Earth -49712-03-16 22:04 J -16435809.75 -16435809.58 -16435809.37 0.0145 0.0098

Moon -49712-03-16 23:59 J -16435809.69 -16435809.50 -16435809.29 0.0145 0.0096 *

Mars -49703-04-23 06:28 J -16432485.56 -16432485.23 -16432484.89 0.0141 0.0004

Venus -49700-04-16 11:30 J -16431396.13 -16431396.02 -16431395.88 0.0139 0.0115

Venus -49700-11-28 22:47 J -16431169.71 -16431169.55 -16431169.36 0.0139 0.0089

Venus -49699-07-13 10:04 J -16430943.27 -16430943.08 -16430942.87 0.0139 0.0063

Venus -49698-02-24 21:06 J -16430716.83 -16430716.62 -16430716.40 0.0138 0.0037

Venus -49698-10-09 07:54 J -16430490.39 -16430490.17 -16430489.94 0.0138 0.0011

Venus -49697-05-22 18:13 J -16430263.96 -16430263.74 -16430263.51 0.0138 0.0014

Venus -49696-01-04 04:18 J -16430037.53 -16430037.32 -16430037.10 0.0137 0.0039

Venus -49696-08-18 14:09 J -16429811.10 -16429810.91 -16429810.70 0.0137 0.0064

Venus -49695-04-01 23:59 J -16429584.66 -16429584.50 -16429584.32 0.0137 0.0089

Venus -49695-11-14 09:35 J -16429358.22 -16429358.10 -16429357.97 0.0136 0.0112

Venus -49694-06-28 18:57 J -16429131.71 -16429131.71 -16429131.70 0.0136 0.0136

Mercury -49676-02-23 16:18 J -16422681.85 -16422681.82 -16422681.78 0.0132 0.0127

Mercury -49676-05-22 19:40 J -16422593.75 -16422593.68 -16422593.60 0.0132 0.0109

Mercury -49676-08-18 23:01 J -16422505.64 -16422505.54 -16422505.43 0.0132 0.0091

Mercury -49676-11-15 02:23 J -16422417.51 -16422417.40 -16422417.28 0.0132 0.0072

Mercury -49675-02-11 05:45 J -16422329.38 -16422329.26 -16422329.13 0.0132 0.0054

Mercury -49675-05-10 09:06 J -16422241.25 -16422241.12 -16422240.99 0.0132 0.0036

Mercury -49675-08-06 12:28 J -16422153.12 -16422152.98 -16422152.84 0.0132 0.0018

Mercury -49675-11-02 15:49 J -16422064.98 -16422064.84 -16422064.71 0.0132 0.0004

Mercury -49674-01-29 18:57 J -16421976.85 -16421976.71 -16421976.57 0.0132 0.0018

Mercury -49674-04-27 22:04 J -16421888.71 -16421888.58 -16421888.44 0.0132 0.0036

Mercury -49674-07-25 01:25 J -16421800.56 -16421800.44 -16421800.31 0.0132 0.0054

Mercury -49674-10-21 04:33 J -16421712.42 -16421712.31 -16421712.19 0.0132 0.0072

Mercury -49673-01-17 07:40 J -16421624.27 -16421624.18 -16421624.07 0.0132 0.0089

Mercury -49673-04-14 11:01 J -16421536.12 -16421536.04 -16421535.96 0.0132 0.0107

Mercury -49673-07-11 14:09 J -16421447.95 -16421447.91 -16421447.86 0.0132 0.0124

Moon -49670-09-14 04:47 J -16420288.53 -16420288.30 -16420288.05 0.0133 0.0032

Earth -49670-09-14 07:54 J -16420288.40 -16420288.17 -16420287.91 0.0133 0.0036 *

Earth -49669-09-17 12:57 J -16419919.17 -16419918.96 -16419918.74 0.0133 0.0069

Moon -49669-09-17 16:33 J -16419919.02 -16419918.81 -16419918.59 0.0133 0.0069 *

Mars -49659-07-31 11:30 J -16416315.27 -16416315.02 -16416314.75 0.0137 0.0059

Venus -49656-11-21 17:16 J -16415105.88 -16415105.78 -16415105.65 0.0139 0.0117

Venus -49655-07-05 23:30 J -16414879.67 -16414879.52 -16414879.36 0.0140 0.0093

Venus -49654-02-17 05:59 J -16414653.43 -16414653.25 -16414653.07 0.0140 0.0068

Venus -49654-10-01 12:28 J -16414427.18 -16414426.98 -16414426.78 0.0140 0.0044

Venus -49653-05-14 19:11 J -16414200.91 -16414200.70 -16414200.49 0.0141 0.0019

Venus -49653-12-27 02:09 J -16413974.62 -16413974.41 -16413974.20 0.0141 0.0007

Venus -49652-08-10 09:21 J -16413748.32 -16413748.11 -16413747.90 0.0141 0.0032

Venus -49651-03-24 16:47 J -16413521.99 -16413521.80 -16413521.61 0.0142 0.0058

Venus -49651-11-06 00:13 J -16413295.65 -16413295.49 -16413295.32 0.0142 0.0084

Venus -49650-06-20 07:54 J -16413069.29 -16413069.17 -16413069.03 0.0142 0.0110

Venus -49649-02-01 15:49 J -16412842.88 -16412842.84 -16412842.76 0.0143 0.0137

Mercury -49634-02-25 10:18 J -16407340.13 -16407340.07 -16407340.00 0.0147 0.0137

Mercury -49634-05-24 17:30 J -16407251.88 -16407251.77 -16407251.63 0.0147 0.0106

Mercury -49634-08-21 01:11 J -16407163.60 -16407163.45 -16407163.29 0.0147 0.0074

Mercury -49634-11-17 08:52 J -16407075.31 -16407075.13 -16407074.96 0.0147 0.0042

Mercury -49633-02-13 16:18 J -16406987.00 -16406986.82 -16406986.64 0.0147 0.0010

Mercury -49633-05-11 23:59 J -16406898.68 -16406898.50 -16406898.32 0.0147 0.0022

Mercury -49633-08-08 07:40 J -16406810.35 -16406810.18 -16406810.01 0.0147 0.0055

Mercury -49633-11-04 15:06 J -16406722.01 -16406721.87 -16406721.72 0.0146 0.0088

Mercury -49632-01-31 22:47 J -16406633.64 -16406633.55 -16406633.43 0.0146 0.0121

Moon -49629-03-12 05:45 J -16405498.50 -16405498.26 -16405498.01 0.0146 0.0031

Earth	-49629-03-12 05:59 J	-16405498.49	-16405498.25	-16405497.99	0.0146	0.0036 *
Earth	-49628-03-17 10:04 J	-16405128.26	-16405128.08	-16405127.90	0.0145	0.0105
Moon	-49628-03-17 11:16 J	-16405128.19	-16405128.03	-16405127.83	0.0145	0.0106 *
Mars	-49619-12-18 13:54 J	-16401565.11	-16401564.92	-16401564.71	0.0141	0.0113
Venus	-49617-12-14 19:25 J	-16400837.78	-16400837.69	-16400837.58	0.0139	0.0125
Venus	-49616-07-29 06:42 J	-16400611.36	-16400611.22	-16400611.05	0.0139	0.0099
Venus	-49615-03-12 18:13 J	-16400384.92	-16400384.74	-16400384.54	0.0139	0.0073
Venus	-49615-10-25 05:16 J	-16400158.48	-16400158.28	-16400158.06	0.0138	0.0047
Venus	-49614-06-08 16:18 J	-16399932.05	-16399931.82	-16399931.60	0.0138	0.0022
Venus	-49613-01-21 02:37 J	-16399705.61	-16399705.39	-16399705.16	0.0138	0.0005
Venus	-49613-09-03 12:57 J	-16399479.17	-16399478.96	-16399478.73	0.0137	0.0029
Venus	-49612-04-17 23:01 J	-16399252.74	-16399252.54	-16399252.32	0.0137	0.0054
Venus	-49612-11-30 08:37 J	-16399026.30	-16399026.14	-16399025.94	0.0137	0.0079
Venus	-49611-07-14 18:28 J	-16398799.87	-16398799.73	-16398799.57	0.0136	0.0103
Venus	-49610-02-26 03:49 J	-16398573.41	-16398573.34	-16398573.24	0.0136	0.0126
Mercury	-49592-03-15 23:30 J	-16391980.56	-16391980.52	-16391980.46	0.0132	0.0122
Mercury	-49592-06-12 03:06 J	-16391892.46	-16391892.37	-16391892.28	0.0132	0.0103
Mercury	-49592-09-08 06:28 J	-16391804.34	-16391804.23	-16391804.12	0.0132	0.0085
Mercury	-49592-12-05 09:35 J	-16391716.21	-16391716.10	-16391715.97	0.0132	0.0067
Mercury	-49591-03-03 12:57 J	-16391628.08	-16391627.96	-16391627.82	0.0132	0.0049
Mercury	-49591-05-30 16:18 J	-16391539.95	-16391539.82	-16391539.68	0.0132	0.0031
Mercury	-49591-08-26 19:40 J	-16391451.81	-16391451.68	-16391451.54	0.0132	0.0013
Mercury	-49591-11-22 23:01 J	-16391363.68	-16391363.54	-16391363.40	0.0132	0.0006
Mercury	-49590-02-19 02:09 J	-16391275.54	-16391275.41	-16391275.27	0.0132	0.0024
Mercury	-49590-05-18 05:30 J	-16391187.40	-16391187.27	-16391187.14	0.0132	0.0041
Mercury	-49590-08-14 08:37 J	-16391099.26	-16391099.14	-16391099.01	0.0132	0.0059
Mercury	-49590-11-10 11:45 J	-16391011.11	-16391011.01	-16391010.89	0.0132	0.0077
Mercury	-49589-02-06 15:06 J	-16390922.96	-16390922.87	-16390922.77	0.0132	0.0094
Mercury	-49589-05-04 18:13 J	-16390834.80	-16390834.74	-16390834.66	0.0132	0.0112
Mercury	-49589-07-31 21:21 J	-16390746.63	-16390746.61	-16390746.58	0.0132	0.0130

Moon	-49587-09-10 16:47 J	-16389975.85	-16389975.80	-16389975.72	0.0133	0.0128
Moon	-49586-09-14 15:21 J	-16389607.10	-16389606.86	-16389606.62	0.0133	0.0034
Earth	-49586-09-14 18:42 J	-16389606.96	-16389606.72	-16389606.47	0.0133	0.0030 *
Earth	-49585-09-17 23:01 J	-16389237.74	-16389237.54	-16389237.32	0.0133	0.0074
Moon	-49585-09-18 01:54 J	-16389237.61	-16389237.42	-16389237.19	0.0133	0.0077 *
Mars	-49574-03-25 21:06 J	-16385396.90	-16385396.62	-16385396.34	0.0138	0.0024
Venus	-49572-07-22 02:37 J	-16384547.47	-16384547.39	-16384547.29	0.0139	0.0126
Venus	-49571-03-05 08:52 J	-16384321.27	-16384321.13	-16384320.99	0.0139	0.0103
Venus	-49571-10-17 14:52 J	-16384095.05	-16384094.88	-16384094.70	0.0140	0.0079
Venus	-49570-05-31 21:06 J	-16383868.80	-16383868.62	-16383868.41	0.0140	0.0055
Venus	-49569-01-13 03:49 J	-16383642.54	-16383642.34	-16383642.13	0.0140	0.0030
Venus	-49569-08-26 10:47 J	-16383416.26	-16383416.05	-16383415.83	0.0141	0.0006
Venus	-49568-04-09 17:59 J	-16383189.96	-16383189.75	-16383189.54	0.0141	0.0020
Venus	-49568-11-22 01:11 J	-16382963.65	-16382963.45	-16382963.25	0.0141	0.0046
Venus	-49567-07-06 08:23 J	-16382737.32	-16382737.15	-16382736.96	0.0142	0.0072
Venus	-49566-02-17 16:18 J	-16382510.97	-16382510.82	-16382510.67	0.0142	0.0098
Venus	-49566-10-02 00:13 J	-16382284.58	-16382284.49	-16382284.38	0.0143	0.0124
Mercury	-49550-03-17 17:30 J	-16376638.84	-16376638.77	-16376638.68	0.0147	0.0129
Mercury	-49550-06-14 00:57 J	-16376550.58	-16376550.46	-16376550.32	0.0147	0.0098
Mercury	-49550-09-10 08:23 J	-16376462.30	-16376462.15	-16376461.98	0.0147	0.0066
Mercury	-49550-12-07 16:04 J	-16376374.00	-16376373.83	-16376373.65	0.0147	0.0034
Mercury	-49549-03-04 23:45 J	-16376285.69	-16376285.51	-16376285.33	0.0147	0.0003
Mercury	-49549-06-01 07:11 J	-16376197.37	-16376197.20	-16376197.02	0.0147	0.0031
Mercury	-49549-08-28 14:52 J	-16376109.04	-16376108.88	-16376108.71	0.0147	0.0063
Mercury	-49549-11-24 22:33 J	-16376020.69	-16376020.56	-16376020.42	0.0147	0.0096
Mercury	-49548-02-21 06:13 J	-16375932.31	-16375932.24	-16375932.14	0.0147	0.0129
Moon	-49545-03-12 16:18 J	-16374817.05	-16374816.82	-16374816.57	0.0146	0.0033
Earth	-49545-03-12 16:47 J	-16374817.05	-16374816.80	-16374816.55	0.0146	0.0029 *
Earth	-49544-03-17 20:23 J	-16374446.80	-16374446.65	-16374446.47	0.0145	0.0111
Moon	-49544-03-17 21:21 J	-16374446.77	-16374446.61	-16374446.43	0.0145	0.0111 *

Jupiter -49537-11-26 20:09 J -16371636.19 -16371635.66 -16371635.12 0.0142 0.0002
 Mars -49536-09-08 03:06 J -16371350.64 -16371350.37 -16371350.07 0.0141 0.0073
 Venus -49533-08-14 02:37 J -16370279.43 -16370279.39 -16370279.31 0.0140 0.0135
 Venus -49532-03-28 14:37 J -16370053.02 -16370052.89 -16370052.74 0.0139 0.0109
 Venus -49532-11-10 01:54 J -16369826.59 -16369826.42 -16369826.23 0.0139 0.0083
 Venus -49531-06-24 13:11 J -16369600.15 -16369599.95 -16369599.74 0.0139 0.0057
 Venus -49530-02-06 00:13 J -16369373.71 -16369373.49 -16369373.27 0.0138 0.0031
 Venus -49530-09-20 11:01 J -16369147.27 -16369147.04 -16369146.82 0.0138 0.0006
 Venus -49529-05-03 21:21 J -16368920.83 -16368920.61 -16368920.38 0.0138 0.0020
 Venus -49529-12-16 07:25 J -16368694.39 -16368694.19 -16368693.97 0.0137 0.0044
 Venus -49528-07-30 17:16 J -16368467.96 -16368467.78 -16368467.57 0.0137 0.0069
 Venus -49527-03-14 03:21 J -16368241.51 -16368241.36 -16368241.18 0.0137 0.0093
 Venus -49527-10-26 12:57 J -16368015.06 -16368014.96 -16368014.83 0.0136 0.0116
 Mercury -49508-04-05 07:11 J -16361279.26 -16361279.20 -16361279.13 0.0132 0.0115
 Mercury -49508-07-02 10:33 J -16361191.15 -16361191.06 -16361190.96 0.0132 0.0097
 Mercury -49508-09-28 13:54 J -16361103.03 -16361102.92 -16361102.80 0.0132 0.0078
 Mercury -49508-12-25 17:16 J -16361014.90 -16361014.78 -16361014.65 0.0132 0.0060
 Mercury -49507-03-23 20:37 J -16360926.77 -16360926.64 -16360926.51 0.0132 0.0042
 Mercury -49507-06-19 23:59 J -16360838.64 -16360838.50 -16360838.36 0.0132 0.0024
 Mercury -49507-09-16 03:21 J -16360750.50 -16360750.36 -16360750.22 0.0132 0.0007
 Mercury -49507-12-13 06:28 J -16360662.37 -16360662.23 -16360662.09 0.0132 0.0012
 Mercury -49506-03-11 09:49 J -16360574.23 -16360574.09 -16360573.96 0.0132 0.0030
 Mercury -49506-06-07 12:57 J -16360486.09 -16360485.96 -16360485.83 0.0132 0.0048
 Mercury -49506-09-03 16:18 J -16360397.94 -16360397.82 -16360397.70 0.0132 0.0065
 Mercury -49506-11-30 19:25 J -16360309.79 -16360309.69 -16360309.58 0.0132 0.0083
 Mercury -49505-02-26 22:33 J -16360221.64 -16360221.56 -16360221.47 0.0132 0.0100
 Mercury -49505-05-25 01:40 J -16360133.48 -16360133.43 -16360133.36 0.0132 0.0118
 Earth -49503-09-11 01:40 J -16359294.49 -16359294.43 -16359294.35 0.0133 0.0127
 Moon -49502-09-15 03:49 J -16358925.58 -16358925.34 -16358925.09 0.0133 0.0019
 Earth -49502-09-15 06:13 J -16358925.48 -16358925.24 -16358924.98 0.0133 0.0024 *

Earth	-49501-09-18 10:47 J	-16358556.23	-16358556.05	-16358555.83	0.0133	0.0081
Moon	-49501-09-18 14:09 J	-16358556.10	-16358555.91	-16358555.69	0.0133	0.0080 *
Mars	-49492-12-18 08:09 J	-16355178.28	-16355178.16	-16355178.02	0.0137	0.0121
Mars	-49490-11-18 08:52 J	-16354478.30	-16354478.13	-16354477.95	0.0138	0.0109
Venus	-49488-03-21 12:57 J	-16353988.99	-16353988.96	-16353988.90	0.0139	0.0135
Venus	-49488-11-02 19:11 J	-16353762.83	-16353762.70	-16353762.58	0.0139	0.0112
Venus	-49487-06-17 00:57 J	-16353536.61	-16353536.46	-16353536.29	0.0139	0.0088
Venus	-49486-01-29 07:25 J	-16353310.38	-16353310.19	-16353310.00	0.0140	0.0064
Venus	-49486-09-12 13:54 J	-16353084.12	-16353083.92	-16353083.71	0.0140	0.0040
Venus	-49485-04-25 20:37 J	-16352857.84	-16352857.64	-16352857.43	0.0141	0.0015
Venus	-49485-12-08 03:35 J	-16352631.56	-16352631.35	-16352631.14	0.0141	0.0010
Venus	-49484-07-22 10:33 J	-16352405.26	-16352405.06	-16352404.85	0.0141	0.0035
Venus	-49483-03-05 17:59 J	-16352178.94	-16352178.75	-16352178.56	0.0142	0.0061
Venus	-49483-10-18 01:40 J	-16351952.59	-16351952.43	-16351952.26	0.0142	0.0086
Venus	-49482-06-01 09:06 J	-16351726.23	-16351726.12	-16351725.97	0.0142	0.0113
Venus	-49481-01-13 17:16 J	-16351499.82	-16351499.78	-16351499.71	0.0143	0.0138
Mercury	-49466-04-07 00:57 J	-16345937.55	-16345937.46	-16345937.36	0.0147	0.0121
Mercury	-49466-07-04 08:23 J	-16345849.29	-16345849.15	-16345849.01	0.0147	0.0090
Mercury	-49466-09-30 15:49 J	-16345761.00	-16345760.84	-16345760.67	0.0147	0.0058
Mercury	-49466-12-27 23:30 J	-16345672.70	-16345672.52	-16345672.35	0.0147	0.0026
Mercury	-49465-03-25 06:57 J	-16345584.39	-16345584.21	-16345584.03	0.0147	0.0006
Mercury	-49465-06-21 14:37 J	-16345496.06	-16345495.89	-16345495.72	0.0147	0.0038
Mercury	-49465-09-17 22:18 J	-16345407.73	-16345407.57	-16345407.41	0.0147	0.0071
Mercury	-49465-12-15 05:45 J	-16345319.38	-16345319.26	-16345319.12	0.0147	0.0104
Mercury	-49464-03-13 13:40 J	-16345230.99	-16345230.93	-16345230.86	0.0147	0.0137
Earth	-49461-03-13 02:52 J	-16344135.64	-16344135.38	-16344135.13	0.0146	0.0024
Moon	-49461-03-13 03:35 J	-16344135.60	-16344135.35	-16344135.11	0.0146	0.0019 *
Earth	-49460-03-18 06:28 J	-16343765.37	-16343765.23	-16343765.06	0.0146	0.0117
Moon	-49460-03-18 06:42 J	-16343765.36	-16343765.22	-16343765.04	0.0146	0.0117 *
Mars	-49451-05-05 07:11 J	-16340430.52	-16340430.20	-16340429.87	0.0141	0.0034

Venus	-49449-11-25 21:06 J	-16339494.72	-16339494.62	-16339494.49	0.0140	0.0119
Venus	-49448-07-10 08:37 J	-16339268.29	-16339268.14	-16339267.96	0.0139	0.0093
Venus	-49447-02-21 20:09 J	-16339041.85	-16339041.66	-16339041.45	0.0139	0.0067
Venus	-49447-10-06 07:25 J	-16338815.40	-16338815.19	-16338814.97	0.0139	0.0041
Venus	-49446-05-20 18:13 J	-16338588.96	-16338588.74	-16338588.51	0.0138	0.0016
Venus	-49445-01-02 04:47 J	-16338362.52	-16338362.30	-16338362.07	0.0138	0.0010
Venus	-49445-08-15 15:06 J	-16338136.08	-16338135.87	-16338135.64	0.0137	0.0034
Venus	-49444-03-30 01:40 J	-16337909.63	-16337909.43	-16337909.23	0.0137	0.0059
Venus	-49444-11-11 11:30 J	-16337683.19	-16337683.02	-16337682.84	0.0137	0.0083
Venus	-49443-06-25 21:06 J	-16337456.75	-16337456.62	-16337456.47	0.0136	0.0107
Venus	-49442-02-07 06:28 J	-16337230.27	-16337230.23	-16337230.15	0.0136	0.0131
Mercury	-49424-01-27 11:16 J	-16330666.06	-16330666.03	-16330665.99	0.0132	0.0127
Mercury	-49424-04-25 14:23 J	-16330577.96	-16330577.90	-16330577.81	0.0132	0.0109
Mercury	-49424-07-22 17:45 J	-16330489.85	-16330489.76	-16330489.64	0.0132	0.0091
Mercury	-49424-10-18 21:21 J	-16330401.72	-16330401.61	-16330401.49	0.0132	0.0072
Mercury	-49423-01-15 00:42 J	-16330313.59	-16330313.47	-16330313.34	0.0132	0.0054
Mercury	-49423-04-13 04:04 J	-16330225.46	-16330225.33	-16330225.19	0.0132	0.0036
Mercury	-49423-07-10 07:25 J	-16330137.33	-16330137.19	-16330137.05	0.0132	0.0018
Mercury	-49423-10-06 10:47 J	-16330049.19	-16330049.05	-16330048.91	0.0132	0.0003
Mercury	-49422-01-02 13:54 J	-16329961.06	-16329960.92	-16329960.78	0.0132	0.0018
Mercury	-49422-03-31 17:16 J	-16329872.92	-16329872.78	-16329872.65	0.0132	0.0036
Mercury	-49422-06-27 20:23 J	-16329784.77	-16329784.65	-16329784.52	0.0132	0.0054
Mercury	-49422-09-23 23:30 J	-16329696.63	-16329696.52	-16329696.40	0.0132	0.0071
Mercury	-49422-12-21 02:37 J	-16329608.48	-16329608.39	-16329608.28	0.0132	0.0089
Mercury	-49421-03-18 05:59 J	-16329520.33	-16329520.25	-16329520.17	0.0132	0.0106
Mercury	-49421-06-14 08:52 J	-16329432.16	-16329432.13	-16329432.07	0.0132	0.0124
Earth	-49419-09-11 12:57 J	-16328613.04	-16328612.96	-16328612.83	0.0133	0.0121
Moon	-49419-09-11 16:04 J	-16328612.96	-16328612.83	-16328612.70	0.0133	0.0114 *
Moon	-49418-09-15 15:21 J	-16328244.11	-16328243.86	-16328243.62	0.0133	0.0021
Earth	-49418-09-15 17:59 J	-16328244.00	-16328243.75	-16328243.50	0.0133	0.0017 *

Earth	-49417-09-18 22:04 J	-16327874.75	-16327874.58	-16327874.37	0.0133	0.0088
Moon	-49417-09-19 00:42 J	-16327874.65	-16327874.47	-16327874.27	0.0133	0.0090 *
Mars	-49407-08-12 19:40 J	-16324259.94	-16324259.68	-16324259.39	0.0137	0.0039
Venus	-49404-07-03 04:47 J	-16323204.39	-16323204.30	-16323204.19	0.0139	0.0121
Venus	-49403-02-14 11:01 J	-16322978.19	-16322978.04	-16322977.89	0.0139	0.0098
Venus	-49403-09-28 17:16 J	-16322751.96	-16322751.78	-16322751.60	0.0140	0.0074
Venus	-49402-05-12 23:30 J	-16322525.71	-16322525.52	-16322525.32	0.0140	0.0050
Venus	-49402-12-25 06:13 J	-16322299.45	-16322299.24	-16322299.03	0.0140	0.0025
Venus	-49401-08-07 12:57 J	-16322073.17	-16322072.96	-16322072.75	0.0141	0.0002
Venus	-49400-03-21 19:54 J	-16321846.87	-16321846.67	-16321846.46	0.0141	0.0025
Venus	-49400-11-03 03:06 J	-16321620.56	-16321620.37	-16321620.17	0.0141	0.0050
Venus	-49399-06-17 10:33 J	-16321394.23	-16321394.06	-16321393.87	0.0142	0.0075
Venus	-49398-01-29 18:13 J	-16321167.88	-16321167.74	-16321167.59	0.0142	0.0100
Venus	-49398-09-13 01:54 J	-16320941.49	-16320941.42	-16320941.30	0.0142	0.0127
Mercury	-49382-01-29 00:57 J	-16315324.48	-16315324.46	-16315324.42	0.0147	0.0144
Mercury	-49382-04-27 08:23 J	-16315236.26	-16315236.15	-16315236.04	0.0147	0.0113
Mercury	-49382-07-24 15:35 J	-16315147.99	-16315147.85	-16315147.69	0.0147	0.0082
Mercury	-49382-10-20 23:16 J	-16315059.70	-16315059.53	-16315059.36	0.0147	0.0050
Mercury	-49381-01-17 06:42 J	-16314971.39	-16314971.22	-16314971.04	0.0147	0.0018
Mercury	-49381-04-14 14:23 J	-16314883.08	-16314882.90	-16314882.72	0.0147	0.0015
Mercury	-49381-07-11 21:49 J	-16314794.75	-16314794.59	-16314794.41	0.0147	0.0047
Mercury	-49381-10-08 05:30 J	-16314706.41	-16314706.27	-16314706.11	0.0147	0.0080
Mercury	-49380-01-04 13:11 J	-16314618.06	-16314617.95	-16314617.82	0.0147	0.0113
Mercury	-49380-04-02 21:06 J	-16314529.64	-16314529.62	-16314529.59	0.0147	0.0145
Earth	-49377-03-13 13:11 J	-16313454.21	-16313453.95	-16313453.70	0.0146	0.0018
Moon	-49377-03-13 13:54 J	-16313454.16	-16313453.92	-16313453.67	0.0146	0.0023 *
Moon	-49376-03-18 16:18 J	-16313083.93	-16313083.82	-16313083.66	0.0146	0.0124
Earth	-49376-03-18 17:01 J	-16313083.91	-16313083.79	-16313083.64	0.0146	0.0123 *
Venus	-49365-07-26 04:04 J	-16308936.39	-16308936.33	-16308936.22	0.0140	0.0129
Venus	-49364-03-09 16:18 J	-16308709.97	-16308709.82	-16308709.67	0.0139	0.0103

Venus	-49364-10-22 03:35 J	-16308483.53	-16308483.35	-16308483.15	0.0139	0.0077
Venus	-49363-06-05 14:52 J	-16308257.08	-16308256.88	-16308256.67	0.0139	0.0052
Venus	-49362-01-18 01:54 J	-16308030.64	-16308030.42	-16308030.19	0.0138	0.0026
Venus	-49362-09-01 12:42 J	-16307804.19	-16307803.97	-16307803.74	0.0138	0.0003
Venus	-49361-04-14 23:30 J	-16307577.74	-16307577.52	-16307577.30	0.0138	0.0024
Venus	-49361-11-27 09:49 J	-16307351.30	-16307351.09	-16307350.88	0.0137	0.0049
Venus	-49360-07-11 19:40 J	-16307124.86	-16307124.68	-16307124.48	0.0137	0.0073
Venus	-49359-02-23 05:59 J	-16306898.41	-16306898.25	-16306898.09	0.0137	0.0097
Venus	-49359-10-07 15:21 J	-16306671.95	-16306671.86	-16306671.74	0.0136	0.0121
Mercury	-49340-02-16 18:42 J	-16299964.77	-16299964.72	-16299964.65	0.0132	0.0120
Mercury	-49340-05-15 22:04 J	-16299876.66	-16299876.58	-16299876.48	0.0132	0.0102
Mercury	-49340-08-12 01:40 J	-16299788.54	-16299788.43	-16299788.32	0.0132	0.0083
Mercury	-49340-11-08 05:01 J	-16299700.41	-16299700.29	-16299700.17	0.0132	0.0065
Mercury	-49339-02-04 08:23 J	-16299612.28	-16299612.15	-16299612.02	0.0132	0.0047
Mercury	-49339-05-03 11:45 J	-16299524.15	-16299524.01	-16299523.88	0.0132	0.0029
Mercury	-49339-07-30 14:52 J	-16299436.01	-16299435.88	-16299435.74	0.0132	0.0012
Mercury	-49339-10-26 18:13 J	-16299347.88	-16299347.74	-16299347.60	0.0132	0.0007
Mercury	-49338-01-22 21:35 J	-16299259.74	-16299259.60	-16299259.47	0.0132	0.0025
Mercury	-49338-04-21 00:42 J	-16299171.60	-16299171.47	-16299171.34	0.0132	0.0043
Mercury	-49338-07-18 04:04 J	-16299083.46	-16299083.33	-16299083.21	0.0132	0.0060
Mercury	-49338-10-14 07:11 J	-16298995.31	-16298995.20	-16298995.09	0.0132	0.0078
Mercury	-49337-01-10 10:04 J	-16298907.16	-16298907.08	-16298906.97	0.0132	0.0096
Mercury	-49337-04-07 13:25 J	-16298819.00	-16298818.94	-16298818.86	0.0132	0.0113
Mercury	-49337-07-04 16:47 J	-16298730.82	-16298730.80	-16298730.78	0.0132	0.0130
Earth	-49335-09-12 01:40 J	-16297931.53	-16297931.43	-16297931.27	0.0133	0.0113
Moon	-49335-09-12 04:18 J	-16297931.42	-16297931.32	-16297931.19	0.0133	0.0119 *
Moon	-49334-09-16 04:47 J	-16297562.54	-16297562.30	-16297562.05	0.0133	0.0004
Earth	-49334-09-16 06:42 J	-16297562.47	-16297562.22	-16297561.96	0.0133	0.0009 *
Earth	-49333-09-19 11:01 J	-16297193.19	-16297193.04	-16297192.85	0.0133	0.0096
Moon	-49333-09-19 13:54 J	-16297193.09	-16297192.92	-16297192.73	0.0133	0.0094 *

Mars	-49322-04-07 11:16 J	-16293341.30	-16293341.03	-16293340.76	0.0138	0.0048
Venus	-49320-03-02 16:18 J	-16292645.88	-16292645.82	-16292645.73	0.0139	0.0129
Venus	-49320-10-14 22:04 J	-16292419.70	-16292419.58	-16292419.43	0.0139	0.0106
Venus	-49319-05-29 04:18 J	-16292193.48	-16292193.32	-16292193.14	0.0139	0.0083
Venus	-49318-01-10 10:33 J	-16291967.24	-16291967.06	-16291966.86	0.0140	0.0059
Venus	-49318-08-24 17:16 J	-16291740.98	-16291740.78	-16291740.57	0.0140	0.0035
Venus	-49317-04-06 23:59 J	-16291514.71	-16291514.50	-16291514.29	0.0140	0.0010
Venus	-49317-11-19 06:57 J	-16291288.42	-16291288.21	-16291288.00	0.0141	0.0015
Venus	-49316-07-03 13:54 J	-16291062.12	-16291061.92	-16291061.71	0.0141	0.0040
Venus	-49315-02-14 21:21 J	-16290835.80	-16290835.61	-16290835.42	0.0141	0.0065
Venus	-49315-09-29 04:47 J	-16290609.45	-16290609.30	-16290609.13	0.0142	0.0090
Venus	-49314-05-13 12:42 J	-16290383.09	-16290382.97	-16290382.84	0.0142	0.0115
Venus	-49314-12-25 20:37 J	-16290156.66	-16290156.64	-16290156.60	0.0143	0.0141
Mercury	-49298-02-18 09:06 J	-16284623.19	-16284623.12	-16284623.04	0.0147	0.0133
Mercury	-49298-05-17 16:18 J	-16284534.94	-16284534.82	-16284534.68	0.0147	0.0102
Mercury	-49298-08-13 23:59 J	-16284446.66	-16284446.50	-16284446.34	0.0147	0.0070
Mercury	-49298-11-10 07:25 J	-16284358.36	-16284358.19	-16284358.02	0.0147	0.0039
Mercury	-49297-02-06 14:52 J	-16284270.06	-16284269.88	-16284269.70	0.0147	0.0007
Mercury	-49297-05-04 22:33 J	-16284181.74	-16284181.56	-16284181.38	0.0147	0.0026
Mercury	-49297-08-01 05:59 J	-16284093.41	-16284093.25	-16284093.08	0.0147	0.0058
Mercury	-49297-10-28 13:40 J	-16284005.07	-16284004.93	-16284004.78	0.0147	0.0091
Mercury	-49296-01-24 21:06 J	-16283916.70	-16283916.62	-16283916.51	0.0147	0.0124
Earth	-49293-03-14 01:40 J	-16282772.68	-16282772.43	-16282772.17	0.0146	0.0010
Moon	-49293-03-14 03:35 J	-16282772.60	-16282772.35	-16282772.10	0.0146	0.0004 *
Moon	-49292-03-19 04:33 J	-16282402.41	-16282402.31	-16282402.17	0.0146	0.0131
Earth	-49292-03-19 05:30 J	-16282402.36	-16282402.27	-16282402.15	0.0146	0.0132 *
Mars	-49284-09-20 03:21 J	-16279295.66	-16279295.36	-16279295.03	0.0141	0.0043
Venus	-49281-03-25 11:45 J	-16278378.03	-16278378.01	-16278377.96	0.0140	0.0138
Venus	-49281-11-06 23:30 J	-16278151.64	-16278151.52	-16278151.37	0.0140	0.0113
Venus	-49280-06-21 11:01 J	-16277925.20	-16277925.04	-16277924.85	0.0139	0.0087

Venus -49279-02-02 22:47 J -16277698.75 -16277698.55 -16277698.35 0.0139 0.0061
 Venus -49279-09-17 10:04 J -16277472.30 -16277472.08 -16277471.86 0.0139 0.0036
 Venus -49278-05-01 20:52 J -16277245.85 -16277245.63 -16277245.40 0.0138 0.0011
 Venus -49278-12-14 07:40 J -16277019.40 -16277019.18 -16277018.95 0.0138 0.0014
 Venus -49277-07-27 17:59 J -16276792.95 -16276792.75 -16276792.52 0.0138 0.0040
 Venus -49276-03-11 04:33 J -16276566.50 -16276566.31 -16276566.10 0.0137 0.0064
 Venus -49276-10-23 14:23 J -16276340.05 -16276339.90 -16276339.71 0.0137 0.0088
 Venus -49275-06-07 00:42 J -16276113.60 -16276113.47 -16276113.34 0.0137 0.0111
 Venus -49274-01-19 09:49 J -16275887.11 -16275887.09 -16275887.04 0.0136 0.0134
 Mercury -49257-12-10 23:01 J -16269351.55 -16269351.54 -16269351.52 0.0132 0.0131
 Mercury -49256-03-09 02:23 J -16269263.46 -16269263.40 -16269263.32 0.0132 0.0113
 Mercury -49256-06-05 05:45 J -16269175.35 -16269175.26 -16269175.15 0.0132 0.0095
 Mercury -49256-09-01 09:21 J -16269087.23 -16269087.11 -16269087.00 0.0132 0.0076
 Mercury -49256-11-28 12:28 J -16268999.10 -16268998.98 -16268998.85 0.0132 0.0058
 Mercury -49255-02-24 15:49 J -16268910.97 -16268910.84 -16268910.70 0.0132 0.0040
 Mercury -49255-05-23 19:11 J -16268822.83 -16268822.70 -16268822.56 0.0132 0.0022
 Mercury -49255-08-19 22:33 J -16268734.70 -16268734.56 -16268734.42 0.0132 0.0004
 Mercury -49255-11-16 01:40 J -16268646.56 -16268646.43 -16268646.29 0.0132 0.0015
 Mercury -49254-02-12 05:01 J -16268558.42 -16268558.29 -16268558.15 0.0132 0.0032
 Mercury -49254-05-11 08:09 J -16268470.28 -16268470.16 -16268470.02 0.0132 0.0050
 Mercury -49254-08-07 11:30 J -16268382.14 -16268382.02 -16268381.90 0.0132 0.0067
 Mercury -49254-11-03 14:37 J -16268293.99 -16268293.89 -16268293.78 0.0132 0.0085
 Mercury -49253-01-30 17:59 J -16268205.84 -16268205.75 -16268205.67 0.0132 0.0102
 Mercury -49253-04-27 20:52 J -16268117.67 -16268117.63 -16268117.56 0.0132 0.0120
 Earth -49251-09-12 14:37 J -16267250.03 -16267249.89 -16267249.72 0.0133 0.0104
 Moon -49251-09-12 16:18 J -16267249.98 -16267249.82 -16267249.63 0.0133 0.0098 *
 Moon -49250-09-16 17:30 J -16266881.01 -16266880.77 -16266880.52 0.0133 0.0005
 Earth -49250-09-16 19:25 J -16266880.94 -16266880.69 -16266880.43 0.0133 0.0003 *
 Earth -49249-09-20 00:13 J -16266511.64 -16266511.49 -16266511.33 0.0133 0.0104
 Moon -49249-09-20 01:40 J -16266511.57 -16266511.43 -16266511.27 0.0133 0.0107 *

Mars	-49240-12-30 23:01 J	-16263122.75	-16263122.54	-16263122.33	0.0137	0.0095
Mars	-49238-12-01 01:25 J	-16262422.48	-16262422.44	-16262422.36	0.0138	0.0135
Venus	-49237-10-31 03:06 J	-16262087.37	-16262087.37	-16262087.32	0.0138	0.0138
Venus	-49236-06-14 09:06 J	-16261861.23	-16261861.12	-16261860.99	0.0139	0.0115
Venus	-49235-01-26 15:21 J	-16261635.02	-16261634.86	-16261634.70	0.0139	0.0092
Venus	-49235-09-09 21:21 J	-16261408.78	-16261408.61	-16261408.41	0.0139	0.0069
Venus	-49234-04-24 03:49 J	-16261182.53	-16261182.34	-16261182.13	0.0140	0.0045
Venus	-49234-12-06 10:33 J	-16260956.27	-16260956.06	-16260955.85	0.0140	0.0020
Venus	-49233-07-19 17:16 J	-16260729.99	-16260729.78	-16260729.57	0.0141	0.0005
Venus	-49232-03-03 00:13 J	-16260503.69	-16260503.49	-16260503.28	0.0141	0.0029
Venus	-49232-10-15 07:25 J	-16260277.38	-16260277.19	-16260276.99	0.0141	0.0054
Venus	-49231-05-29 15:06 J	-16260051.05	-16260050.87	-16260050.70	0.0142	0.0079
Venus	-49230-01-10 22:33 J	-16259824.70	-16259824.56	-16259824.41	0.0142	0.0104
Venus	-49230-08-25 06:13 J	-16259598.31	-16259598.24	-16259598.14	0.0142	0.0130
Mercury	-49214-03-10 17:16 J	-16253921.88	-16253921.78	-16253921.68	0.0147	0.0122
Mercury	-49214-06-07 00:28 J	-16253833.61	-16253833.48	-16253833.33	0.0147	0.0091
Mercury	-49214-09-03 07:54 J	-16253745.33	-16253745.17	-16253745.00	0.0147	0.0059
Mercury	-49214-11-30 15:35 J	-16253657.03	-16253656.85	-16253656.68	0.0147	0.0027
Mercury	-49213-02-26 23:01 J	-16253568.72	-16253568.54	-16253568.36	0.0147	0.0005
Mercury	-49213-05-25 06:42 J	-16253480.40	-16253480.22	-16253480.05	0.0147	0.0037
Mercury	-49213-08-21 14:09 J	-16253392.06	-16253391.91	-16253391.75	0.0147	0.0070
Mercury	-49213-11-17 21:49 J	-16253303.72	-16253303.59	-16253303.46	0.0147	0.0102
Mercury	-49212-02-14 05:30 J	-16253215.33	-16253215.27	-16253215.20	0.0147	0.0135
Moon	-49210-03-10 07:11 J	-16252461.29	-16252461.20	-16252461.08	0.0146	0.0133
Earth	-49210-03-10 10:04 J	-16252461.12	-16252461.08	-16252460.99	0.0146	0.0142 *
Earth	-49209-03-14 15:06 J	-16252091.13	-16252090.87	-16252090.62	0.0146	0.0001
Moon	-49209-03-14 16:47 J	-16252091.05	-16252090.80	-16252090.55	0.0146	0.0004 *
Moon	-49208-03-19 17:30 J	-16251720.79	-16251720.77	-16251720.71	0.0146	0.0144
Earth	-49208-03-19 18:57 J	-16251720.74	-16251720.71	-16251720.64	0.0146	0.0143 *
Mars	-49199-05-17 13:54 J	-16248375.20	-16248374.92	-16248374.62	0.0141	0.0070

Venus	-49197-07-07 08:09 J	-16247593.26	-16247593.16	-16247593.04	0.0140	0.0122
Venus	-49196-02-18 19:54 J	-16247366.82	-16247366.67	-16247366.49	0.0140	0.0097
Venus	-49196-10-03 07:25 J	-16247140.37	-16247140.19	-16247139.98	0.0139	0.0071
Venus	-49195-05-17 18:42 J	-16246913.92	-16246913.72	-16246913.49	0.0139	0.0046
Venus	-49195-12-30 05:59 J	-16246687.47	-16246687.25	-16246687.02	0.0138	0.0020
Venus	-49194-08-13 17:01 J	-16246461.02	-16246460.79	-16246460.57	0.0138	0.0005
Venus	-49193-03-27 03:35 J	-16246234.56	-16246234.35	-16246234.12	0.0138	0.0030
Venus	-49193-11-08 13:54 J	-16246008.11	-16246007.92	-16246007.70	0.0137	0.0055
Venus	-49192-06-23 00:13 J	-16245781.67	-16245781.49	-16245781.30	0.0137	0.0078
Venus	-49191-02-04 10:04 J	-16245555.21	-16245555.08	-16245554.91	0.0137	0.0102
Venus	-49191-09-18 20:09 J	-16245328.74	-16245328.66	-16245328.57	0.0136	0.0125
Mercury	-49173-12-31 06:42 J	-16238650.26	-16238650.22	-16238650.17	0.0132	0.0124
Mercury	-49172-03-29 10:18 J	-16238562.15	-16238562.07	-16238561.99	0.0132	0.0105
Mercury	-49172-06-25 13:25 J	-16238474.03	-16238473.94	-16238473.82	0.0132	0.0087
Mercury	-49172-09-21 16:47 J	-16238385.91	-16238385.80	-16238385.67	0.0132	0.0069
Mercury	-49172-12-18 20:09 J	-16238297.78	-16238297.66	-16238297.52	0.0132	0.0051
Mercury	-49171-03-16 23:30 J	-16238209.65	-16238209.52	-16238209.38	0.0132	0.0033
Mercury	-49171-06-13 02:52 J	-16238121.51	-16238121.38	-16238121.24	0.0132	0.0015
Mercury	-49171-09-09 06:13 J	-16238033.38	-16238033.24	-16238033.10	0.0132	0.0004
Mercury	-49171-12-06 09:35 J	-16237945.24	-16237945.10	-16237944.97	0.0132	0.0022
Mercury	-49170-03-04 12:42 J	-16237857.10	-16237856.97	-16237856.83	0.0132	0.0039
Mercury	-49170-05-31 15:49 J	-16237768.96	-16237768.84	-16237768.71	0.0132	0.0057
Mercury	-49170-08-27 19:11 J	-16237680.81	-16237680.70	-16237680.58	0.0132	0.0075
Mercury	-49170-11-23 22:18 J	-16237592.66	-16237592.57	-16237592.47	0.0132	0.0092
Mercury	-49169-02-20 01:25 J	-16237504.50	-16237504.44	-16237504.36	0.0132	0.0110
Mercury	-49169-05-18 04:47 J	-16237416.33	-16237416.30	-16237416.26	0.0132	0.0127
Earth	-49167-09-13 04:18 J	-16236568.47	-16236568.32	-16236568.12	0.0132	0.0095
Moon	-49167-09-13 06:13 J	-16236568.40	-16236568.24	-16236568.07	0.0132	0.0101 *
Moon	-49166-09-17 08:09 J	-16236199.40	-16236199.16	-16236198.91	0.0133	0.0015
Earth	-49166-09-17 09:21 J	-16236199.36	-16236199.11	-16236198.86	0.0133	0.0009 *

Earth	-49165-09-20 13:40 J	-16235830.04	-16235829.93	-16235829.78	0.0133	0.0114
Moon	-49165-09-20 15:35 J	-16235829.97	-16235829.85	-16235829.69	0.0133	0.0112 *
Mars	-49155-08-25 17:01 J	-16232204.08	-16232203.79	-16232203.50	0.0137	0.0008
Venus	-49152-02-11 21:06 J	-16231302.71	-16231302.62	-16231302.51	0.0139	0.0123
Venus	-49152-09-26 03:06 J	-16231076.50	-16231076.37	-16231076.21	0.0139	0.0100
Venus	-49151-05-10 09:21 J	-16230850.28	-16230850.11	-16230849.93	0.0139	0.0077
Venus	-49151-12-22 15:49 J	-16230624.04	-16230623.84	-16230623.65	0.0140	0.0053
Venus	-49150-08-05 22:18 J	-16230397.78	-16230397.57	-16230397.37	0.0140	0.0029
Venus	-49149-03-19 05:01 J	-16230171.50	-16230171.29	-16230171.08	0.0140	0.0006
Venus	-49149-10-31 11:45 J	-16229945.22	-16229945.01	-16229944.80	0.0141	0.0020
Venus	-49148-06-14 18:42 J	-16229718.91	-16229718.72	-16229718.51	0.0141	0.0044
Venus	-49147-01-27 02:09 J	-16229492.60	-16229492.41	-16229492.23	0.0141	0.0069
Venus	-49147-09-10 09:35 J	-16229266.25	-16229266.10	-16229265.94	0.0142	0.0094
Venus	-49146-04-24 17:01 J	-16229039.89	-16229039.79	-16229039.66	0.0142	0.0119
Mercury	-49130-01-01 18:13 J	-16223308.78	-16223308.74	-16223308.68	0.0147	0.0141
Mercury	-49130-03-31 01:25 J	-16223220.54	-16223220.44	-16223220.31	0.0147	0.0110
Mercury	-49130-06-27 09:06 J	-16223132.27	-16223132.12	-16223131.97	0.0147	0.0078
Mercury	-49130-09-23 16:18 J	-16223043.98	-16223043.82	-16223043.64	0.0147	0.0047
Mercury	-49130-12-20 23:59 J	-16222955.68	-16222955.50	-16222955.32	0.0147	0.0015
Mercury	-49129-03-18 07:25 J	-16222867.36	-16222867.19	-16222867.01	0.0147	0.0018
Mercury	-49129-06-14 15:06 J	-16222779.04	-16222778.87	-16222778.70	0.0147	0.0050
Mercury	-49129-09-10 22:33 J	-16222690.70	-16222690.56	-16222690.40	0.0147	0.0083
Mercury	-49129-12-08 06:28 J	-16222602.34	-16222602.23	-16222602.12	0.0147	0.0115
Moon	-49126-03-10 22:04 J	-16221779.65	-16221779.58	-16221779.48	0.0146	0.0137
Earth	-49126-03-11 00:42 J	-16221779.57	-16221779.47	-16221779.34	0.0146	0.0130 *
Earth	-49125-03-15 05:45 J	-16221409.51	-16221409.26	-16221409.00	0.0146	0.0012
Moon	-49125-03-15 08:09 J	-16221409.40	-16221409.16	-16221408.90	0.0146	0.0019 *
Mars	-49116-02-05 12:13 J	-16218160.18	-16218159.99	-16218159.78	0.0142	0.0112
Venus	-49113-03-06 17:30 J	-16217034.84	-16217034.77	-16217034.69	0.0140	0.0130
Venus	-49113-10-19 05:16 J	-16216808.42	-16216808.28	-16216808.12	0.0140	0.0105

Venus	-49112-06-02 17:01 J	-16216581.97	-16216581.79	-16216581.60	0.0139	0.0080
Venus	-49111-01-15 04:18 J	-16216355.52	-16216355.32	-16216355.11	0.0139	0.0054
Venus	-49111-08-29 15:35 J	-16216129.06	-16216128.85	-16216128.62	0.0139	0.0029
Venus	-49110-04-13 02:52 J	-16215902.61	-16215902.38	-16215902.16	0.0138	0.0004
Venus	-49110-11-25 13:25 J	-16215676.15	-16215675.94	-16215675.71	0.0138	0.0021
Venus	-49109-07-09 00:13 J	-16215449.71	-16215449.49	-16215449.28	0.0138	0.0045
Venus	-49108-02-20 10:18 J	-16215223.25	-16215223.07	-16215222.86	0.0137	0.0070
Venus	-49108-10-04 20:23 J	-16214996.80	-16214996.65	-16214996.47	0.0137	0.0093
Venus	-49107-05-19 06:28 J	-16214770.34	-16214770.23	-16214770.11	0.0137	0.0116
Mercury	-49088-01-20 14:23 J	-16207948.95	-16207948.90	-16207948.82	0.0132	0.0116
Mercury	-49088-04-18 17:45 J	-16207860.84	-16207860.76	-16207860.65	0.0132	0.0098
Mercury	-49088-07-15 21:21 J	-16207772.72	-16207772.61	-16207772.50	0.0132	0.0079
Mercury	-49088-10-12 00:42 J	-16207684.59	-16207684.47	-16207684.34	0.0132	0.0061
Mercury	-49087-01-08 04:04 J	-16207596.46	-16207596.33	-16207596.20	0.0132	0.0043
Mercury	-49087-04-06 07:25 J	-16207508.33	-16207508.19	-16207508.05	0.0132	0.0025
Mercury	-49087-07-03 10:47 J	-16207420.19	-16207420.05	-16207419.91	0.0132	0.0008
Mercury	-49087-09-29 13:54 J	-16207332.06	-16207331.92	-16207331.78	0.0132	0.0011
Mercury	-49087-12-26 17:16 J	-16207243.92	-16207243.78	-16207243.65	0.0132	0.0029
Mercury	-49086-03-24 20:23 J	-16207155.78	-16207155.65	-16207155.52	0.0132	0.0047
Mercury	-49086-06-20 23:45 J	-16207067.63	-16207067.51	-16207067.39	0.0132	0.0064
Mercury	-49086-09-17 02:52 J	-16206979.48	-16206979.38	-16206979.27	0.0132	0.0082
Mercury	-49086-12-14 05:59 J	-16206891.33	-16206891.25	-16206891.15	0.0132	0.0100
Mercury	-49085-03-11 09:06 J	-16206803.17	-16206803.12	-16206803.05	0.0132	0.0117
Earth	-49083-09-13 17:45 J	-16205886.93	-16205886.76	-16205886.55	0.0132	0.0086
Moon	-49083-09-13 18:28 J	-16205886.92	-16205886.73	-16205886.50	0.0132	0.0080 *
Moon	-49082-09-17 21:35 J	-16205517.84	-16205517.60	-16205517.36	0.0133	0.0014
Earth	-49082-09-17 22:47 J	-16205517.80	-16205517.55	-16205517.30	0.0133	0.0018 *
Earth	-49081-09-21 03:06 J	-16205148.44	-16205148.37	-16205148.25	0.0133	0.0123
Moon	-49081-09-21 03:49 J	-16205148.40	-16205148.34	-16205148.24	0.0133	0.0126 *
Mars	-49070-04-20 05:59 J	-16201285.46	-16201285.25	-16201284.99	0.0138	0.0080

Venus	-49069-10-12 08:23 J	-16200744.21	-16200744.15	-16200744.08	0.0138	0.0131
Venus	-49068-05-26 13:54 J	-16200518.03	-16200517.92	-16200517.77	0.0139	0.0109
Venus	-49067-01-07 19:54 J	-16200291.82	-16200291.67	-16200291.49	0.0139	0.0086
Venus	-49067-08-22 02:23 J	-16200065.58	-16200065.40	-16200065.20	0.0139	0.0063
Venus	-49066-04-05 08:52 J	-16199839.33	-16199839.13	-16199838.93	0.0140	0.0039
Venus	-49066-11-17 15:21 J	-16199613.07	-16199612.86	-16199612.65	0.0140	0.0015
Venus	-49065-06-30 22:04 J	-16199386.79	-16199386.58	-16199386.37	0.0141	0.0009
Venus	-49064-02-12 04:47 J	-16199160.50	-16199160.30	-16199160.09	0.0141	0.0033
Venus	-49064-09-26 12:13 J	-16198934.18	-16198933.99	-16198933.80	0.0141	0.0058
Venus	-49063-05-10 19:11 J	-16198707.86	-16198707.70	-16198707.52	0.0142	0.0083
Venus	-49063-12-23 02:52 J	-16198481.51	-16198481.38	-16198481.24	0.0142	0.0107
Venus	-49062-08-06 10:18 J	-16198255.13	-16198255.07	-16198254.98	0.0142	0.0132
Mercury	-49046-01-22 02:09 J	-16192607.48	-16192607.41	-16192607.33	0.0147	0.0131
Mercury	-49046-04-20 09:21 J	-16192519.23	-16192519.11	-16192518.97	0.0147	0.0100
Mercury	-49046-07-17 16:47 J	-16192430.95	-16192430.80	-16192430.64	0.0147	0.0069
Mercury	-49046-10-14 00:13 J	-16192342.66	-16192342.49	-16192342.31	0.0147	0.0037
Mercury	-49045-01-10 07:54 J	-16192254.35	-16192254.17	-16192253.99	0.0147	0.0005
Mercury	-49045-04-07 15:21 J	-16192166.03	-16192165.86	-16192165.68	0.0147	0.0028
Mercury	-49045-07-04 23:01 J	-16192077.71	-16192077.54	-16192077.38	0.0147	0.0060
Mercury	-49045-10-01 06:28 J	-16191989.36	-16191989.23	-16191989.08	0.0147	0.0093
Mercury	-49045-12-28 14:09 J	-16191900.99	-16191900.91	-16191900.81	0.0147	0.0126
Moon	-49042-03-11 09:49 J	-16191098.24	-16191098.09	-16191097.91	0.0146	0.0114
Earth	-49042-03-11 13:11 J	-16191098.07	-16191097.95	-16191097.79	0.0146	0.0122 *
Earth	-49041-03-15 18:13 J	-16190727.99	-16190727.74	-16190727.48	0.0146	0.0022
Moon	-49041-03-15 20:52 J	-16190727.88	-16190727.63	-16190727.38	0.0146	0.0016 *
Mars	-49032-10-02 21:06 J	-16187239.95	-16187239.62	-16187239.29	0.0142	0.0001
Venus	-49030-11-05 01:54 J	-16186476.43	-16186476.42	-16186476.38	0.0140	0.0140
Venus	-49029-06-18 13:54 J	-16186250.03	-16186249.92	-16186249.78	0.0140	0.0114
Venus	-49028-01-31 01:54 J	-16186023.58	-16186023.42	-16186023.24	0.0140	0.0089
Venus	-49028-09-14 13:40 J	-16185797.12	-16185796.93	-16185796.72	0.0139	0.0063

Venus -49027-04-29 01:11 J -16185570.66 -16185570.45 -16185570.23 0.0139 0.0038

Venus -49027-12-11 12:13 J -16185344.21 -16185343.99 -16185343.76 0.0139 0.0014

Venus -49026-07-25 23:16 J -16185117.75 -16185117.53 -16185117.30 0.0138 0.0012

Venus -49025-03-08 10:04 J -16184891.29 -16184891.08 -16184890.86 0.0138 0.0036

Venus -49025-10-20 20:23 J -16184664.84 -16184664.65 -16184664.43 0.0137 0.0061

Venus -49024-06-04 06:42 J -16184438.39 -16184438.22 -16184438.03 0.0137 0.0084

Venus -49023-01-16 16:47 J -16184211.93 -16184211.80 -16184211.65 0.0137 0.0107

Venus -49023-08-31 02:37 J -16183985.45 -16183985.39 -16183985.32 0.0137 0.0130

Mercury -49005-11-13 18:57 J -16177335.74 -16177335.71 -16177335.67 0.0132 0.0126

Mercury -49004-02-09 22:18 J -16177247.64 -16177247.57 -16177247.48 0.0132 0.0108

Mercury -49004-05-09 01:40 J -16177159.52 -16177159.43 -16177159.32 0.0132 0.0090

Mercury -49004-08-05 05:16 J -16177071.40 -16177071.28 -16177071.16 0.0132 0.0071

Mercury -49004-11-01 08:37 J -16176983.27 -16176983.14 -16176983.01 0.0132 0.0053

Mercury -49003-01-28 11:59 J -16176895.14 -16176895.00 -16176894.87 0.0132 0.0035

Mercury -49003-04-26 15:06 J -16176807.00 -16176806.87 -16176806.73 0.0132 0.0018

Mercury -49003-07-23 18:28 J -16176718.87 -16176718.73 -16176718.59 0.0132 0.0003

Mercury -49003-10-19 21:49 J -16176630.73 -16176630.59 -16176630.45 0.0132 0.0019

Mercury -49002-01-16 00:57 J -16176542.59 -16176542.46 -16176542.32 0.0132 0.0037

Mercury -49002-04-14 04:18 J -16176454.45 -16176454.32 -16176454.19 0.0132 0.0054

Mercury -49002-07-11 07:25 J -16176366.30 -16176366.19 -16176366.07 0.0132 0.0072

Mercury -49002-10-07 10:33 J -16176278.15 -16176278.06 -16176277.95 0.0132 0.0090

Mercury -49001-01-03 13:54 J -16176190.00 -16176189.92 -16176189.84 0.0132 0.0107

Mercury -49001-03-31 17:01 J -16176101.83 -16176101.79 -16176101.74 0.0132 0.0125

49TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 49th millennium

BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-48999-09-14 07:54 J	-16175205.35	-16175205.17	-16175204.94	0.0132	0.0077		
Moon	-48999-09-14 08:52 J	-16175205.32	-16175205.13	-16175204.92	0.0132	0.0082	*	
Earth	-48998-09-18 12:57 J	-16174836.21	-16174835.96	-16174835.71	0.0133	0.0028		
Moon	-48998-09-18 12:28 J	-16174836.20	-16174835.98	-16174835.73	0.0133	0.0034	*	
Earth	-48997-09-21 17:30 J	-16174466.78	-16174466.77	-16174466.74	0.0133	0.0132		
Moon	-48997-09-21 18:42 J	-16174466.78	-16174466.72	-16174466.67	0.0133	0.0129	*	
Mars	-48987-01-12 20:09 J	-16171066.91	-16171066.66	-16171066.40	0.0137	0.0064		
Venus	-48985-06-11 20:23 J	-16170185.65	-16170185.65	-16170185.64	0.0138	0.0138		
Venus	-48984-01-24 01:40 J	-16169959.52	-16169959.43	-16169959.30	0.0138	0.0117		
Venus	-48984-09-07 07:54 J	-16169733.31	-16169733.17	-16169733.00	0.0139	0.0094		
Venus	-48983-04-21 13:54 J	-16169507.09	-16169506.92	-16169506.73	0.0139	0.0071		
Venus	-48983-12-03 20:09 J	-16169280.85	-16169280.66	-16169280.45	0.0140	0.0048		
Venus	-48982-07-18 02:37 J	-16169054.60	-16169054.39	-16169054.18	0.0140	0.0024		
Venus	-48981-02-29 09:06 J	-16168828.33	-16168828.12	-16168827.90	0.0140	0.0003		
Venus	-48981-10-12 16:04 J	-16168602.04	-16168601.83	-16168601.62	0.0141	0.0024		
Venus	-48980-05-26 22:47 J	-16168375.74	-16168375.55	-16168375.34	0.0141	0.0048		
Venus	-48979-01-08 05:59 J	-16168149.42	-16168149.25	-16168149.06	0.0141	0.0072		
Venus	-48979-08-22 13:11 J	-16167923.09	-16167922.95	-16167922.78	0.0142	0.0097		
Venus	-48978-04-05 20:52 J	-16167696.73	-16167696.63	-16167696.51	0.0142	0.0122		
Mercury	-48962-02-11 10:04 J	-16161906.17	-16161906.08	-16161905.97	0.0147	0.0121		
Mercury	-48962-05-10 17:30 J	-16161817.91	-16161817.77	-16161817.63	0.0147	0.0090		
Mercury	-48962-08-07 00:42 J	-16161729.62	-16161729.47	-16161729.30	0.0147	0.0058		
Mercury	-48962-11-03 08:23 J	-16161641.33	-16161641.15	-16161640.98	0.0147	0.0026		
Mercury	-48961-01-30 15:49 J	-16161553.02	-16161552.84	-16161552.66	0.0147	0.0006		
Mercury	-48961-04-27 23:16 J	-16161464.70	-16161464.53	-16161464.35	0.0147	0.0039		

Mercury -48961-07-25 06:57 J -16161376.36 -16161376.21 -16161376.05 0.0147 0.0071

Mercury -48961-10-21 14:23 J -16161288.01 -16161287.90 -16161287.76 0.0147 0.0104

Mercury -48960-01-17 22:04 J -16161199.63 -16161199.58 -16161199.50 0.0147 0.0137

Moon -48958-03-11 22:47 J -16160416.67 -16160416.55 -16160416.38 0.0146 0.0121

Earth -48958-03-12 02:23 J -16160416.55 -16160416.40 -16160416.23 0.0146 0.0113 *

Earth -48957-03-16 07:25 J -16160046.44 -16160046.19 -16160045.94 0.0146 0.0030

Moon -48957-03-16 10:33 J -16160046.30 -16160046.06 -16160045.81 0.0146 0.0037 *

Mars -48947-05-30 04:47 J -16156319.49 -16156319.30 -16156319.09 0.0141 0.0111

Venus -48945-02-16 22:33 J -16155691.67 -16155691.56 -16155691.45 0.0140 0.0123

Venus -48945-09-30 10:33 J -16155465.22 -16155465.06 -16155464.90 0.0140 0.0097

Venus -48944-05-14 22:04 J -16155238.76 -16155238.58 -16155238.38 0.0139 0.0072

Venus -48944-12-27 09:35 J -16155012.30 -16155012.10 -16155011.88 0.0139 0.0048

Venus -48943-08-10 21:21 J -16154785.84 -16154785.61 -16154785.39 0.0139 0.0022

Venus -48942-03-25 08:23 J -16154559.37 -16154559.15 -16154558.92 0.0138 0.0004

Venus -48942-11-06 19:25 J -16154332.91 -16154332.69 -16154332.47 0.0138 0.0027

Venus -48941-06-20 05:45 J -16154106.46 -16154106.26 -16154106.04 0.0138 0.0052

Venus -48940-02-01 16:04 J -16153880.00 -16153879.83 -16153879.63 0.0137 0.0076

Venus -48940-09-16 02:37 J -16153653.54 -16153653.39 -16153653.23 0.0137 0.0098

Venus -48939-04-30 12:13 J -16153427.07 -16153426.99 -16153426.87 0.0137 0.0122

Mercury -48921-12-04 02:52 J -16146634.44 -16146634.38 -16146634.32 0.0132 0.0118

Mercury -48920-03-02 06:13 J -16146546.33 -16146546.24 -16146546.15 0.0132 0.0100

Mercury -48920-05-29 09:35 J -16146458.20 -16146458.10 -16146457.98 0.0132 0.0081

Mercury -48920-08-25 12:57 J -16146370.08 -16146369.96 -16146369.83 0.0132 0.0063

Mercury -48920-11-21 16:18 J -16146281.95 -16146281.82 -16146281.68 0.0132 0.0045

Mercury -48919-02-17 19:40 J -16146193.81 -16146193.68 -16146193.54 0.0132 0.0027

Mercury -48919-05-16 23:01 J -16146105.68 -16146105.54 -16146105.40 0.0132 0.0009

Mercury -48919-08-13 02:23 J -16146017.54 -16146017.40 -16146017.26 0.0132 0.0009

Mercury -48919-11-09 05:30 J -16145929.40 -16145929.27 -16145929.13 0.0132 0.0027

Mercury -48918-02-05 08:52 J -16145841.26 -16145841.13 -16145841.00 0.0132 0.0045

Mercury -48918-05-04 11:59 J -16145753.12 -16145753.00 -16145752.87 0.0132 0.0063

Mercury -48918-07-31 15:21 J -16145664.97 -16145664.86 -16145664.75 0.0132 0.0080

Mercury -48918-10-27 18:28 J -16145576.82 -16145576.73 -16145576.63 0.0132 0.0098

Mercury -48917-01-23 21:35 J -16145488.66 -16145488.60 -16145488.53 0.0132 0.0115

Moon -48915-09-14 22:04 J -16144523.80 -16144523.58 -16144523.33 0.0132 0.0061

Earth -48915-09-14 22:18 J -16144523.78 -16144523.57 -16144523.34 0.0132 0.0067 *

Moon -48914-09-19 02:37 J -16144154.62 -16144154.39 -16144154.15 0.0133 0.0033

Earth -48914-09-19 02:52 J -16144154.61 -16144154.38 -16144154.13 0.0133 0.0038 *

Mars -48903-09-07 11:16 J -16140148.30 -16140148.03 -16140147.73 0.0137 0.0023

Venus -48901-09-23 13:40 J -16139401.02 -16139400.93 -16139400.84 0.0138 0.0124

Venus -48900-05-07 19:11 J -16139174.83 -16139174.70 -16139174.55 0.0139 0.0102

Venus -48900-12-20 01:11 J -16138948.62 -16138948.45 -16138948.28 0.0139 0.0079

Venus -48899-08-03 07:11 J -16138722.39 -16138722.20 -16138722.00 0.0139 0.0057

Venus -48898-03-17 13:25 J -16138496.14 -16138495.94 -16138495.73 0.0140 0.0033

Venus -48898-10-29 19:54 J -16138269.88 -16138269.67 -16138269.46 0.0140 0.0010

Venus -48897-06-12 02:23 J -16138043.61 -16138043.40 -16138043.19 0.0140 0.0014

Venus -48896-01-24 09:06 J -16137817.32 -16137817.12 -16137816.92 0.0141 0.0038

Venus -48896-09-07 16:04 J -16137591.01 -16137590.83 -16137590.63 0.0141 0.0062

Venus -48895-04-21 23:30 J -16137364.69 -16137364.52 -16137364.36 0.0141 0.0086

Venus -48895-12-04 06:42 J -16137138.35 -16137138.22 -16137138.08 0.0142 0.0110

Venus -48894-07-18 14:09 J -16136911.96 -16136911.91 -16136911.83 0.0142 0.0135

Mercury -48879-12-05 10:04 J -16131293.10 -16131293.08 -16131293.04 0.0147 0.0144

Mercury -48878-03-03 17:16 J -16131204.88 -16131204.78 -16131204.66 0.0147 0.0113

Mercury -48878-05-31 00:57 J -16131116.61 -16131116.46 -16131116.32 0.0147 0.0081

Mercury -48878-08-27 08:09 J -16131028.32 -16131028.16 -16131027.99 0.0147 0.0050

Mercury -48878-11-23 15:35 J -16130940.02 -16130939.85 -16130939.67 0.0147 0.0018

Mercury -48877-02-19 23:16 J -16130851.71 -16130851.53 -16130851.35 0.0147 0.0015

Mercury -48877-05-18 06:42 J -16130763.39 -16130763.22 -16130763.05 0.0147 0.0047

Mercury -48877-08-14 14:09 J -16130675.05 -16130674.91 -16130674.75 0.0147 0.0080

Mercury -48877-11-10 22:04 J -16130586.69 -16130586.58 -16130586.46 0.0147 0.0112

Mercury -48876-02-07 05:45 J -16130498.28 -16130498.26 -16130498.23 0.0147 0.0145

Moon	-48874-03-12 09:06 J	-16129735.29	-16129735.12	-16129734.91	0.0146	0.0099
Earth	-48874-03-12 12:57 J	-16129735.12	-16129734.96	-16129734.77	0.0146	0.0107 *
Earth	-48873-03-16 17:59 J	-16129364.99	-16129364.75	-16129364.50	0.0146	0.0037
Moon	-48873-03-16 21:06 J	-16129364.86	-16129364.62	-16129364.37	0.0146	0.0031 *
Mars	-48864-02-17 20:37 J	-16126104.89	-16126104.64	-16126104.34	0.0142	0.0077
Venus	-48862-10-17 05:30 J	-16125133.33	-16125133.27	-16125133.18	0.0140	0.0133
Venus	-48861-05-30 17:45 J	-16124906.89	-16124906.76	-16124906.60	0.0140	0.0107
Venus	-48860-01-12 05:45 J	-16124680.43	-16124680.26	-16124680.07	0.0140	0.0082
Venus	-48860-08-26 17:45 J	-16124453.96	-16124453.76	-16124453.55	0.0139	0.0057
Venus	-48859-04-10 05:16 J	-16124227.49	-16124227.28	-16124227.05	0.0139	0.0032
Venus	-48859-11-22 16:47 J	-16124001.03	-16124000.80	-16124000.58	0.0139	0.0007
Venus	-48858-07-07 03:49 J	-16123774.57	-16123774.34	-16123774.12	0.0138	0.0018
Venus	-48857-02-18 14:37 J	-16123548.10	-16123547.89	-16123547.67	0.0138	0.0042
Venus	-48857-10-02 01:11 J	-16123321.64	-16123321.45	-16123321.25	0.0138	0.0066
Venus	-48856-05-16 11:16 J	-16123095.18	-16123095.03	-16123094.84	0.0137	0.0090
Venus	-48856-12-28 21:21 J	-16122868.72	-16122868.61	-16122868.47	0.0137	0.0112
Venus	-48855-08-12 07:11 J	-16122642.22	-16122642.20	-16122642.15	0.0137	0.0135
Mercury	-48837-09-27 07:25 J	-16116021.22	-16116021.19	-16116021.16	0.0132	0.0128
Mercury	-48837-12-24 10:33 J	-16115933.12	-16115933.06	-16115932.97	0.0132	0.0110
Mercury	-48836-03-22 13:54 J	-16115845.01	-16115844.92	-16115844.81	0.0132	0.0092
Mercury	-48836-06-18 17:30 J	-16115756.88	-16115756.77	-16115756.65	0.0132	0.0073
Mercury	-48836-09-14 20:52 J	-16115668.75	-16115668.63	-16115668.50	0.0132	0.0055
Mercury	-48836-12-12 00:13 J	-16115580.62	-16115580.49	-16115580.35	0.0132	0.0037
Mercury	-48835-03-10 03:35 J	-16115492.49	-16115492.35	-16115492.21	0.0132	0.0019
Mercury	-48835-06-06 06:57 J	-16115404.35	-16115404.21	-16115404.07	0.0132	0.0001
Mercury	-48835-09-02 10:04 J	-16115316.21	-16115316.08	-16115315.94	0.0132	0.0018
Mercury	-48835-11-29 13:25 J	-16115228.07	-16115227.94	-16115227.80	0.0132	0.0035
Mercury	-48834-02-25 16:47 J	-16115139.93	-16115139.80	-16115139.67	0.0132	0.0053
Mercury	-48834-05-24 19:54 J	-16115051.78	-16115051.67	-16115051.55	0.0132	0.0071
Mercury	-48834-08-20 23:16 J	-16114963.63	-16114963.53	-16114963.43	0.0132	0.0088

Mercury -48834-11-17 02:09 J -16114875.48 -16114875.41 -16114875.32 0.0132 0.0106

Mercury -48833-02-13 05:30 J -16114787.31 -16114787.27 -16114787.22 0.0132 0.0123

Moon -48831-09-15 12:42 J -16113842.19 -16113841.97 -16113841.73 0.0132 0.0063

Earth -48831-09-15 13:11 J -16113842.18 -16113841.95 -16113841.72 0.0132 0.0056 *

Earth -48830-09-19 17:16 J -16113473.00 -16113472.78 -16113472.53 0.0133 0.0048

Moon -48830-09-19 18:13 J -16113472.96 -16113472.74 -16113472.52 0.0133 0.0053 *

Mars -48820-06-02 01:11 J -16109929.57 -16109929.45 -16109929.29 0.0136 0.0119

Jupiter -48819-04-28 01:40 J -16109599.84 -16109599.43 -16109599.00 0.0137 0.0075

Mars -48818-05-03 05:59 J -16109229.42 -16109229.25 -16109229.08 0.0137 0.0111

Venus -48817-05-24 01:54 J -16108842.48 -16108842.42 -16108842.35 0.0138 0.0130

Venus -48816-01-05 07:40 J -16108616.31 -16108616.18 -16108616.05 0.0138 0.0109

Venus -48816-08-19 13:11 J -16108390.10 -16108389.95 -16108389.77 0.0139 0.0087

Venus -48815-04-02 19:11 J -16108163.88 -16108163.70 -16108163.50 0.0139 0.0064

Venus -48815-11-15 01:11 J -16107937.64 -16107937.45 -16107937.24 0.0139 0.0042

Venus -48814-06-29 07:40 J -16107711.39 -16107711.18 -16107710.97 0.0140 0.0018

Venus -48813-02-10 14:09 J -16107485.12 -16107484.91 -16107484.70 0.0140 0.0006

Venus -48813-09-23 20:52 J -16107258.84 -16107258.63 -16107258.42 0.0141 0.0029

Venus -48812-05-08 03:35 J -16107032.54 -16107032.35 -16107032.15 0.0141 0.0053

Venus -48812-12-20 10:47 J -16106806.23 -16106806.05 -16106805.88 0.0141 0.0077

Venus -48811-08-03 17:45 J -16106579.90 -16106579.76 -16106579.60 0.0142 0.0101

Venus -48810-03-18 01:11 J -16106353.53 -16106353.45 -16106353.34 0.0142 0.0125

Mercury -48795-12-25 18:28 J -16100591.80 -16100591.73 -16100591.65 0.0147 0.0132

Mercury -48794-03-24 01:40 J -16100503.55 -16100503.43 -16100503.30 0.0147 0.0101

Mercury -48794-06-20 08:52 J -16100415.27 -16100415.13 -16100414.96 0.0147 0.0070

Mercury -48794-09-16 16:33 J -16100326.98 -16100326.81 -16100326.64 0.0147 0.0038

Mercury -48794-12-13 23:59 J -16100238.68 -16100238.50 -16100238.32 0.0147 0.0006

Mercury -48793-03-11 07:25 J -16100150.36 -16100150.19 -16100150.01 0.0147 0.0027

Mercury -48793-06-07 15:06 J -16100062.03 -16100061.87 -16100061.70 0.0147 0.0059

Mercury -48793-09-03 22:33 J -16099973.69 -16099973.56 -16099973.41 0.0147 0.0092

Mercury -48793-12-01 05:59 J -16099885.32 -16099885.25 -16099885.14 0.0147 0.0125

Moon	-48790-03-12 22:47 J	-16099053.72	-16099053.55	-16099053.36	0.0146	0.0105
Earth	-48790-03-13 02:23 J	-16099053.58	-16099053.40	-16099053.20	0.0146	0.0097 *
Earth	-48789-03-17 07:25 J	-16098683.43	-16098683.19	-16098682.94	0.0146	0.0046
Moon	-48789-03-17 11:01 J	-16098683.27	-16098683.04	-16098682.80	0.0146	0.0053 *
Mars	-48780-10-15 04:18 J	-16095184.63	-16095184.32	-16095183.99	0.0142	0.0036
Venus	-48778-06-16 13:40 J	-16094574.93	-16094574.93	-16094574.93	0.0141	0.0141
Venus	-48777-01-29 01:54 J	-16094348.54	-16094348.42	-16094348.29	0.0140	0.0116
Venus	-48777-09-11 13:54 J	-16094122.08	-16094121.92	-16094121.74	0.0140	0.0091
Venus	-48776-04-26 01:54 J	-16093895.61	-16093895.42	-16093895.21	0.0140	0.0066
Venus	-48776-12-08 13:40 J	-16093669.14	-16093668.93	-16093668.71	0.0139	0.0041
Venus	-48775-07-23 01:11 J	-16093442.67	-16093442.45	-16093442.23	0.0139	0.0016
Venus	-48774-03-06 12:28 J	-16093216.20	-16093215.98	-16093215.75	0.0139	0.0009
Venus	-48774-10-18 23:16 J	-16092989.74	-16092989.53	-16092989.30	0.0138	0.0033
Venus	-48773-06-01 09:49 J	-16092763.28	-16092763.09	-16092762.87	0.0138	0.0057
Venus	-48772-01-13 20:09 J	-16092536.82	-16092536.66	-16092536.46	0.0138	0.0081
Venus	-48772-08-28 06:28 J	-16092310.36	-16092310.23	-16092310.07	0.0137	0.0104
Venus	-48771-04-11 16:33 J	-16092083.88	-16092083.81	-16092083.71	0.0137	0.0126
Mercury	-48753-10-17 15:06 J	-16085319.92	-16085319.87	-16085319.80	0.0132	0.0120
Mercury	-48752-01-13 18:42 J	-16085231.81	-16085231.72	-16085231.63	0.0132	0.0101
Mercury	-48752-04-11 22:04 J	-16085143.69	-16085143.58	-16085143.47	0.0132	0.0083
Mercury	-48752-07-09 01:25 J	-16085055.56	-16085055.44	-16085055.31	0.0132	0.0065
Mercury	-48752-10-05 04:47 J	-16084967.43	-16084967.30	-16084967.17	0.0132	0.0046
Mercury	-48751-01-01 08:09 J	-16084879.29	-16084879.16	-16084879.02	0.0132	0.0028
Mercury	-48751-03-30 11:30 J	-16084791.16	-16084791.02	-16084790.88	0.0132	0.0010
Mercury	-48751-06-26 14:52 J	-16084703.02	-16084702.88	-16084702.74	0.0132	0.0008
Mercury	-48751-09-22 17:59 J	-16084614.88	-16084614.75	-16084614.61	0.0132	0.0026
Mercury	-48751-12-19 21:21 J	-16084526.74	-16084526.61	-16084526.48	0.0132	0.0043
Mercury	-48750-03-18 00:42 J	-16084438.59	-16084438.47	-16084438.35	0.0132	0.0061
Mercury	-48750-06-14 03:49 J	-16084350.45	-16084350.34	-16084350.23	0.0132	0.0079
Mercury	-48750-09-10 06:57 J	-16084262.29	-16084262.21	-16084262.11	0.0132	0.0097

Mercury -48750-12-07 10:18 J -16084174.13 -16084174.07 -16084174.00 0.0132 0.0114
 Mercury -48749-03-04 13:25 J -16084085.94 -16084085.94 -16084085.93 0.0132 0.0131
 Moon -48747-09-16 02:52 J -16083160.63 -16083160.38 -16083160.13 0.0132 0.0040
 Earth -48747-09-16 03:35 J -16083160.58 -16083160.35 -16083160.10 0.0132 0.0047 *
 Earth -48746-09-20 07:54 J -16082791.39 -16082791.17 -16082790.93 0.0133 0.0058
 Moon -48746-09-20 08:23 J -16082791.36 -16082791.15 -16082790.92 0.0133 0.0053 *
 Jupiter -48736-03-20 16:33 J -16079322.04 -16079321.81 -16079321.55 0.0136 0.0119
 Mars -48735-01-25 19:54 J -16079010.95 -16079010.67 -16079010.38 0.0137 0.0031
 Venus -48733-01-22 14:23 J -16078283.90 -16078283.90 -16078283.89 0.0138 0.0138
 Venus -48733-09-04 19:54 J -16078057.78 -16078057.67 -16078057.55 0.0138 0.0116
 Venus -48732-04-19 01:25 J -16077831.59 -16077831.44 -16077831.28 0.0138 0.0095
 Venus -48732-12-01 06:57 J -16077605.37 -16077605.21 -16077605.02 0.0139 0.0073
 Venus -48731-07-15 12:57 J -16077379.15 -16077378.96 -16077378.75 0.0139 0.0050
 Venus -48730-02-26 19:11 J -16077152.90 -16077152.70 -16077152.49 0.0140 0.0027
 Venus -48730-10-11 01:40 J -16076926.64 -16076926.43 -16076926.22 0.0140 0.0004
 Venus -48729-05-24 08:09 J -16076700.37 -16076700.16 -16076699.95 0.0140 0.0019
 Venus -48728-01-05 14:52 J -16076474.08 -16076473.88 -16076473.68 0.0141 0.0043
 Venus -48728-08-19 21:35 J -16076247.78 -16076247.60 -16076247.41 0.0141 0.0067
 Venus -48727-04-03 04:47 J -16076021.46 -16076021.30 -16076021.13 0.0141 0.0091
 Venus -48727-11-15 11:59 J -16075795.11 -16075795.00 -16075794.87 0.0142 0.0115
 Venus -48726-06-29 19:54 J -16075568.72 -16075568.67 -16075568.63 0.0142 0.0138
 Mercury -48710-01-15 02:09 J -16069890.49 -16069890.41 -16069890.30 0.0147 0.0122
 Mercury -48710-04-13 09:49 J -16069802.23 -16069802.09 -16069801.95 0.0147 0.0090
 Mercury -48710-07-10 17:01 J -16069713.95 -16069713.79 -16069713.62 0.0147 0.0059
 Mercury -48710-10-07 00:28 J -16069625.65 -16069625.48 -16069625.30 0.0147 0.0027
 Mercury -48709-01-03 08:09 J -16069537.34 -16069537.16 -16069536.98 0.0147 0.0006
 Mercury -48709-03-31 15:21 J -16069449.02 -16069448.86 -16069448.68 0.0147 0.0038
 Mercury -48709-06-27 23:01 J -16069360.69 -16069360.54 -16069360.38 0.0147 0.0070
 Mercury -48709-09-24 06:28 J -16069272.34 -16069272.23 -16069272.09 0.0147 0.0103
 Mercury -48709-12-21 14:09 J -16069183.96 -16069183.91 -16069183.83 0.0147 0.0136

Moon	-48706-03-13 11:30 J	-16068372.23	-16068372.02	-16068371.81	0.0146	0.0080
Earth	-48706-03-13 15:06 J	-16068372.07	-16068371.87	-16068371.66	0.0146	0.0088 *
Earth	-48705-03-17 19:40 J	-16068001.90	-16068001.68	-16068001.43	0.0146	0.0056
Moon	-48705-03-17 23:16 J	-16068001.76	-16068001.53	-16068001.28	0.0146	0.0050 *
Venus	-48694-09-28 09:49 J	-16063790.19	-16063790.09	-16063789.99	0.0141	0.0125
Venus	-48693-05-11 21:49 J	-16063563.73	-16063563.59	-16063563.42	0.0140	0.0100
Venus	-48693-12-24 09:49 J	-16063337.27	-16063337.09	-16063336.89	0.0140	0.0075
Venus	-48692-08-07 21:35 J	-16063110.80	-16063110.60	-16063110.38	0.0140	0.0051
Venus	-48691-03-22 09:35 J	-16062884.32	-16062884.10	-16062883.88	0.0139	0.0025
Venus	-48691-11-03 20:52 J	-16062657.85	-16062657.63	-16062657.40	0.0139	0.0002
Venus	-48690-06-18 07:54 J	-16062431.39	-16062431.17	-16062430.94	0.0138	0.0023
Venus	-48689-01-30 18:42 J	-16062204.92	-16062204.72	-16062204.50	0.0138	0.0047
Venus	-48689-09-13 05:16 J	-16061978.46	-16061978.28	-16061978.08	0.0138	0.0071
Venus	-48688-04-27 15:49 J	-16061752.00	-16061751.84	-16061751.67	0.0137	0.0094
Venus	-48688-12-10 01:54 J	-16061525.53	-16061525.42	-16061525.30	0.0137	0.0117
Mercury	-48669-08-10 19:40 J	-16054706.70	-16054706.68	-16054706.65	0.0132	0.0129
Mercury	-48669-11-06 23:16 J	-16054618.60	-16054618.53	-16054618.46	0.0132	0.0111
Mercury	-48668-02-03 02:23 J	-16054530.49	-16054530.40	-16054530.29	0.0132	0.0093
Mercury	-48668-05-02 05:59 J	-16054442.36	-16054442.25	-16054442.13	0.0132	0.0074
Mercury	-48668-07-29 09:21 J	-16054354.23	-16054354.11	-16054353.98	0.0132	0.0056
Mercury	-48668-10-25 12:42 J	-16054266.10	-16054265.97	-16054265.83	0.0132	0.0038
Mercury	-48667-01-21 16:04 J	-16054177.97	-16054177.83	-16054177.69	0.0132	0.0020
Mercury	-48667-04-19 19:25 J	-16054089.83	-16054089.69	-16054089.55	0.0132	0.0003
Mercury	-48667-07-16 22:47 J	-16054001.69	-16054001.55	-16054001.41	0.0132	0.0016
Mercury	-48667-10-13 01:54 J	-16053913.55	-16053913.42	-16053913.28	0.0132	0.0035
Mercury	-48666-01-09 05:16 J	-16053825.40	-16053825.28	-16053825.15	0.0132	0.0052
Mercury	-48666-04-07 08:23 J	-16053737.26	-16053737.15	-16053737.02	0.0132	0.0070
Mercury	-48666-07-04 11:45 J	-16053649.11	-16053649.01	-16053648.90	0.0132	0.0087
Mercury	-48666-09-30 14:52 J	-16053560.95	-16053560.88	-16053560.79	0.0132	0.0105
Mercury	-48666-12-27 17:59 J	-16053472.78	-16053472.75	-16053472.69	0.0132	0.0123

Moon	-48663-09-16 17:30 J	-16052479.01	-16052478.77	-16052478.52	0.0132	0.0043
Earth	-48663-09-16 18:42 J	-16052478.96	-16052478.72	-16052478.47	0.0132	0.0036 *
Earth	-48662-09-20 22:47 J	-16052109.76	-16052109.55	-16052109.33	0.0133	0.0068
Moon	-48662-09-21 00:13 J	-16052109.68	-16052109.49	-16052109.28	0.0133	0.0074 *
Mars	-48651-09-20 15:49 J	-16048092.09	-16048091.84	-16048091.57	0.0137	0.0059
Venus	-48649-05-05 08:37 J	-16047499.22	-16047499.14	-16047499.04	0.0138	0.0123
Venus	-48649-12-17 14:09 J	-16047273.04	-16047272.91	-16047272.76	0.0138	0.0102
Venus	-48648-07-31 19:54 J	-16047046.84	-16047046.67	-16047046.49	0.0139	0.0080
Venus	-48647-03-15 01:40 J	-16046820.62	-16046820.43	-16046820.23	0.0139	0.0058
Venus	-48647-10-27 07:40 J	-16046594.38	-16046594.18	-16046593.97	0.0139	0.0035
Venus	-48646-06-10 13:54 J	-16046368.13	-16046367.92	-16046367.71	0.0140	0.0012
Venus	-48645-01-22 20:23 J	-16046141.86	-16046141.65	-16046141.44	0.0140	0.0011
Venus	-48645-09-05 02:52 J	-16045915.58	-16045915.38	-16045915.17	0.0140	0.0035
Venus	-48644-04-19 09:49 J	-16045689.28	-16045689.09	-16045688.90	0.0141	0.0058
Venus	-48644-12-01 16:47 J	-16045462.97	-16045462.80	-16045462.63	0.0141	0.0081
Venus	-48643-07-15 23:45 J	-16045236.64	-16045236.51	-16045236.36	0.0141	0.0106
Venus	-48642-02-27 07:25 J	-16045010.27	-16045010.19	-16045010.10	0.0142	0.0129
Mercury	-48627-11-08 03:49 J	-16039277.38	-16039277.34	-16039277.27	0.0147	0.0139
Mercury	-48626-02-04 11:01 J	-16039189.14	-16039189.04	-16039188.91	0.0147	0.0108
Mercury	-48626-05-03 18:42 J	-16039100.87	-16039100.72	-16039100.57	0.0147	0.0076
Mercury	-48626-07-31 01:54 J	-16039012.58	-16039012.42	-16039012.24	0.0147	0.0045
Mercury	-48626-10-27 09:21 J	-16038924.28	-16038924.11	-16038923.93	0.0147	0.0013
Mercury	-48625-01-23 17:01 J	-16038835.97	-16038835.79	-16038835.61	0.0147	0.0020
Mercury	-48625-04-21 00:28 J	-16038747.65	-16038747.48	-16038747.31	0.0147	0.0052
Mercury	-48625-07-18 07:54 J	-16038659.31	-16038659.17	-16038659.01	0.0147	0.0085
Mercury	-48625-10-14 15:49 J	-16038570.95	-16038570.84	-16038570.74	0.0147	0.0117
Moon	-48622-03-14 03:06 J	-16037690.57	-16037690.37	-16037690.15	0.0146	0.0083
Earth	-48622-03-14 06:28 J	-16037690.44	-16037690.23	-16037690.00	0.0146	0.0076 *
Earth	-48621-03-18 11:16 J	-16037320.24	-16037320.03	-16037319.79	0.0146	0.0068
Moon	-48621-03-18 15:06 J	-16037320.07	-16037319.87	-16037319.64	0.0146	0.0076 *

Mars	-48612-03-02 11:59 J	-16034049.31	-16034049.00	-16034048.68	0.0142	0.0035
Venus	-48610-05-28 18:57 J	-16033231.78	-16033231.71	-16033231.64	0.0141	0.0133
Venus	-48609-01-10 06:57 J	-16033005.34	-16033005.21	-16033005.05	0.0140	0.0109
Venus	-48609-08-23 19:25 J	-16032778.87	-16032778.69	-16032778.51	0.0140	0.0084
Venus	-48608-04-07 07:11 J	-16032552.39	-16032552.20	-16032551.99	0.0140	0.0059
Venus	-48608-11-19 18:57 J	-16032325.92	-16032325.71	-16032325.49	0.0139	0.0034
Venus	-48607-07-04 06:28 J	-16032099.46	-16032099.23	-16032099.01	0.0139	0.0010
Venus	-48606-02-15 17:45 J	-16031872.99	-16031872.76	-16031872.54	0.0139	0.0015
Venus	-48606-09-30 04:33 J	-16031646.52	-16031646.31	-16031646.09	0.0138	0.0039
Venus	-48605-05-13 15:06 J	-16031420.06	-16031419.87	-16031419.66	0.0138	0.0062
Venus	-48605-12-26 01:40 J	-16031193.60	-16031193.43	-16031193.25	0.0138	0.0085
Venus	-48604-08-09 11:59 J	-16030967.14	-16030967.00	-16030966.86	0.0137	0.0108
Venus	-48603-03-23 21:49 J	-16030740.65	-16030740.59	-16030740.51	0.0137	0.0130
Mercury	-48585-08-31 03:35 J	-16024005.40	-16024005.35	-16024005.29	0.0132	0.0121
Mercury	-48585-11-27 06:57 J	-16023917.29	-16023917.21	-16023917.11	0.0132	0.0103
Mercury	-48584-02-23 10:33 J	-16023829.16	-16023829.06	-16023828.95	0.0132	0.0084
Mercury	-48584-05-22 13:54 J	-16023741.04	-16023740.92	-16023740.79	0.0132	0.0066
Mercury	-48584-08-18 17:16 J	-16023652.91	-16023652.78	-16023652.64	0.0132	0.0048
Mercury	-48584-11-14 20:37 J	-16023564.77	-16023564.64	-16023564.50	0.0132	0.0030
Mercury	-48583-02-11 00:13 J	-16023476.63	-16023476.49	-16023476.35	0.0132	0.0012
Mercury	-48583-05-10 03:21 J	-16023388.50	-16023388.36	-16023388.22	0.0132	0.0008
Mercury	-48583-08-06 06:42 J	-16023300.36	-16023300.22	-16023300.08	0.0132	0.0025
Mercury	-48583-11-02 10:04 J	-16023212.21	-16023212.08	-16023211.95	0.0132	0.0043
Mercury	-48582-01-29 13:11 J	-16023124.07	-16023123.95	-16023123.82	0.0132	0.0061
Mercury	-48582-04-27 16:33 J	-16023035.92	-16023035.81	-16023035.70	0.0132	0.0078
Mercury	-48582-07-24 19:40 J	-16022947.77	-16022947.68	-16022947.58	0.0132	0.0096
Mercury	-48582-10-20 23:01 J	-16022859.61	-16022859.54	-16022859.47	0.0132	0.0113
Mercury	-48581-01-17 01:54 J	-16022771.42	-16022771.42	-16022771.39	0.0132	0.0131
Earth	-48580-09-13 05:01 J	-16022166.33	-16022166.29	-16022166.22	0.0132	0.0129
Moon	-48579-09-17 07:25 J	-16021797.44	-16021797.19	-16021796.93	0.0132	0.0019

Earth -48579-09-17 09:21 J -16021797.35 -16021797.11 -16021796.86 0.0132 0.0026 *
 Earth -48578-09-21 13:11 J -16021428.14 -16021427.95 -16021427.73 0.0133 0.0079
 Moon -48578-09-21 14:52 J -16021428.09 -16021427.88 -16021427.68 0.0133 0.0073 *
 Mars -48568-06-15 05:45 J -16017873.48 -16017873.26 -16017873.02 0.0136 0.0082
 Venus -48565-01-03 20:52 J -16016940.68 -16016940.63 -16016940.55 0.0138 0.0131
 Venus -48565-08-17 02:37 J -16016714.51 -16016714.39 -16016714.26 0.0138 0.0109
 Venus -48564-03-31 08:09 J -16016488.32 -16016488.16 -16016487.99 0.0138 0.0088
 Venus -48564-11-12 13:40 J -16016262.11 -16016261.93 -16016261.74 0.0139 0.0066
 Venus -48563-06-26 19:25 J -16016035.88 -16016035.69 -16016035.48 0.0139 0.0044
 Venus -48562-02-08 01:40 J -16015809.63 -16015809.43 -16015809.22 0.0139 0.0021
 Venus -48562-09-22 08:09 J -16015583.37 -16015583.16 -16015582.95 0.0140 0.0002
 Venus -48561-05-05 14:37 J -16015357.10 -16015356.89 -16015356.68 0.0140 0.0025
 Venus -48561-12-17 21:21 J -16015130.81 -16015130.61 -16015130.42 0.0141 0.0048
 Venus -48560-08-01 03:49 J -16014904.51 -16014904.34 -16014904.15 0.0141 0.0072
 Venus -48559-03-15 11:01 J -16014678.19 -16014678.04 -16014677.88 0.0141 0.0095
 Venus -48559-10-27 18:28 J -16014451.83 -16014451.73 -16014451.61 0.0142 0.0119
 Mercury -48543-11-28 11:59 J -16008576.07 -16008576.00 -16008575.90 0.0147 0.0128
 Mercury -48542-02-24 19:11 J -16008487.82 -16008487.70 -16008487.56 0.0147 0.0097
 Mercury -48542-05-24 02:37 J -16008399.54 -16008399.39 -16008399.22 0.0147 0.0065
 Mercury -48542-08-20 10:04 J -16008311.25 -16008311.08 -16008310.90 0.0147 0.0034
 Mercury -48542-11-16 17:30 J -16008222.94 -16008222.77 -16008222.59 0.0147 0.0004
 Mercury -48541-02-13 00:57 J -16008134.63 -16008134.46 -16008134.28 0.0147 0.0031
 Mercury -48541-05-11 08:37 J -16008046.30 -16008046.14 -16008045.98 0.0147 0.0063
 Mercury -48541-08-07 16:04 J -16007957.96 -16007957.83 -16007957.69 0.0147 0.0096
 Mercury -48541-11-03 23:45 J -16007869.59 -16007869.51 -16007869.42 0.0147 0.0129
 Moon -48538-03-14 15:49 J -16007009.06 -16007008.84 -16007008.60 0.0147 0.0059
 Earth -48538-03-14 19:25 J -16007008.91 -16007008.69 -16007008.45 0.0147 0.0066 *
 Earth -48537-03-19 00:13 J -16006638.70 -16006638.49 -16006638.26 0.0146 0.0078
 Moon -48537-03-19 03:35 J -16006638.56 -16006638.35 -16006638.11 0.0146 0.0072 *
 Jupiter -48528-03-24 09:35 J -16003346.60 -16003346.10 -16003345.57 0.0142 0.0035

Mars	-48528-10-27 20:52 J	-16003128.88	-16003128.63	-16003128.34	0.0142	0.0079
Venus	-48526-09-09 15:21 J	-16002446.96	-16002446.86	-16002446.72	0.0141	0.0118
Venus	-48525-04-23 03:49 J	-16002220.50	-16002220.34	-16002220.16	0.0140	0.0093
Venus	-48525-12-05 15:49 J	-16001994.03	-16001993.84	-16001993.64	0.0140	0.0068
Venus	-48524-07-20 03:35 J	-16001767.56	-16001767.35	-16001767.13	0.0140	0.0044
Venus	-48523-03-03 15:21 J	-16001541.08	-16001540.86	-16001540.63	0.0139	0.0019
Venus	-48523-10-16 02:37 J	-16001314.61	-16001314.39	-16001314.16	0.0139	0.0006
Venus	-48522-05-30 13:40 J	-16001088.14	-16001087.93	-16001087.70	0.0139	0.0029
Venus	-48521-01-12 00:28 J	-16000861.68	-16000861.48	-16000861.27	0.0138	0.0053
Venus	-48521-08-25 11:01 J	-16000635.22	-16000635.04	-16000634.84	0.0138	0.0076
Venus	-48520-04-08 21:21 J	-16000408.75	-16000408.61	-16000408.44	0.0138	0.0099
Venus	-48520-11-21 07:25 J	-16000182.27	-16000182.19	-16000182.07	0.0137	0.0121
Mercury	-48501-06-24 08:09 J	-15993392.17	-15993392.16	-15993392.14	0.0132	0.0131
Mercury	-48501-09-20 11:45 J	-15993304.08	-15993304.01	-15993303.94	0.0132	0.0112
Mercury	-48501-12-17 15:06 J	-15993215.97	-15993215.87	-15993215.77	0.0132	0.0094
Mercury	-48500-03-15 18:28 J	-15993127.84	-15993127.73	-15993127.61	0.0132	0.0075
Mercury	-48500-06-11 21:49 J	-15993039.71	-15993039.59	-15993039.46	0.0132	0.0057
Mercury	-48500-09-08 01:25 J	-15992951.58	-15992951.44	-15992951.31	0.0132	0.0039
Mercury	-48500-12-05 04:47 J	-15992863.44	-15992863.30	-15992863.16	0.0132	0.0021
Mercury	-48499-03-03 08:09 J	-15992775.30	-15992775.16	-15992775.02	0.0132	0.0004
Mercury	-48499-05-30 11:16 J	-15992687.16	-15992687.03	-15992686.89	0.0132	0.0016
Mercury	-48499-08-26 14:37 J	-15992599.02	-15992598.89	-15992598.75	0.0132	0.0033
Mercury	-48499-11-22 17:59 J	-15992510.88	-15992510.75	-15992510.62	0.0132	0.0051
Mercury	-48498-02-18 21:06 J	-15992422.73	-15992422.62	-15992422.50	0.0132	0.0069
Mercury	-48498-05-18 00:13 J	-15992334.58	-15992334.49	-15992334.38	0.0132	0.0087
Mercury	-48498-08-14 03:35 J	-15992246.43	-15992246.35	-15992246.26	0.0132	0.0104
Mercury	-48498-11-10 06:57 J	-15992158.26	-15992158.21	-15992158.16	0.0132	0.0121
Earth	-48496-09-13 19:11 J	-15991484.79	-15991484.70	-15991484.57	0.0132	0.0119
Moon	-48496-09-13 21:21 J	-15991484.72	-15991484.61	-15991484.47	0.0132	0.0113 *
Moon	-48495-09-17 21:49 J	-15991115.84	-15991115.59	-15991115.33	0.0132	0.0023

Earth	-48495-09-17 23:45 J	-15991115.76	-15991115.51	-15991115.26	0.0132	0.0016	*
Earth	-48494-09-22 03:35 J	-15990746.53	-15990746.35	-15990746.15	0.0133	0.0088	
Moon	-48494-09-22 05:30 J	-15990746.42	-15990746.27	-15990746.08	0.0133	0.0095	*
Mars	-48483-02-07 23:45 J	-15986954.80	-15986954.51	-15986954.22	0.0137	0.0006	
Venus	-48482-09-03 09:35 J	-15986382.11	-15986382.10	-15986382.07	0.0138	0.0137	
Venus	-48481-04-16 14:52 J	-15986155.98	-15986155.88	-15986155.76	0.0138	0.0116	
Venus	-48481-11-28 20:09 J	-15985929.80	-15985929.66	-15985929.49	0.0138	0.0095	
Venus	-48480-07-13 01:54 J	-15985703.59	-15985703.42	-15985703.24	0.0139	0.0074	
Venus	-48479-02-24 07:40 J	-15985477.37	-15985477.18	-15985476.98	0.0139	0.0052	
Venus	-48479-10-08 13:40 J	-15985251.13	-15985250.93	-15985250.72	0.0139	0.0030	
Venus	-48478-05-22 19:54 J	-15985024.88	-15985024.67	-15985024.46	0.0140	0.0007	
Venus	-48477-01-04 02:09 J	-15984798.61	-15984798.41	-15984798.20	0.0140	0.0016	
Venus	-48477-08-17 08:37 J	-15984572.33	-15984572.14	-15984571.93	0.0140	0.0040	
Venus	-48476-03-31 15:21 J	-15984346.04	-15984345.86	-15984345.66	0.0141	0.0063	
Venus	-48476-11-12 22:18 J	-15984119.72	-15984119.57	-15984119.39	0.0141	0.0086	
Venus	-48475-06-27 05:30 J	-15983893.39	-15983893.27	-15983893.12	0.0141	0.0109	
Venus	-48474-02-08 12:57 J	-15983667.01	-15983666.96	-15983666.87	0.0142	0.0133	
Mercury	-48459-09-21 13:11 J	-15977962.95	-15977962.95	-15977962.93	0.0147	0.0147	
Mercury	-48459-12-18 20:23 J	-15977874.75	-15977874.65	-15977874.53	0.0147	0.0116	
Mercury	-48458-03-17 03:49 J	-15977786.48	-15977786.34	-15977786.19	0.0147	0.0084	
Mercury	-48458-06-13 11:01 J	-15977698.20	-15977698.04	-15977697.87	0.0147	0.0053	
Mercury	-48458-09-09 18:42 J	-15977609.90	-15977609.72	-15977609.55	0.0147	0.0021	
Mercury	-48458-12-07 02:09 J	-15977521.59	-15977521.41	-15977521.24	0.0147	0.0011	
Mercury	-48457-03-04 09:35 J	-15977433.27	-15977433.10	-15977432.93	0.0147	0.0043	
Mercury	-48457-05-31 17:01 J	-15977344.94	-15977344.79	-15977344.63	0.0147	0.0076	
Mercury	-48457-08-28 00:28 J	-15977256.59	-15977256.48	-15977256.35	0.0147	0.0109	
Mercury	-48457-11-24 08:23 J	-15977168.20	-15977168.15	-15977168.10	0.0147	0.0141	
Moon	-48454-03-15 05:59 J	-15976327.47	-15976327.25	-15976327.01	0.0147	0.0064	
Earth	-48454-03-15 09:21 J	-15976327.34	-15976327.11	-15976326.87	0.0147	0.0056	*
Earth	-48453-03-19 14:09 J	-15975957.11	-15975956.91	-15975956.70	0.0146	0.0087	

Moon	-48453-03-19 17:59 J	-15975956.94	-15975956.75	-15975956.55	0.0146	0.0095 *
Mars	-48445-07-18 20:23 J	-15972913.85	-15972913.65	-15972913.43	0.0143	0.0108
Venus	-48442-05-10 00:13 J	-15971888.58	-15971888.49	-15971888.38	0.0141	0.0125
Venus	-48442-12-22 12:28 J	-15971662.13	-15971661.98	-15971661.82	0.0141	0.0101
Venus	-48441-08-05 00:28 J	-15971435.65	-15971435.48	-15971435.28	0.0140	0.0077
Venus	-48440-03-19 12:42 J	-15971209.17	-15971208.97	-15971208.76	0.0140	0.0052
Venus	-48440-11-01 00:28 J	-15970982.70	-15970982.48	-15970982.26	0.0140	0.0027
Venus	-48439-06-15 11:59 J	-15970756.23	-15970756.00	-15970755.78	0.0139	0.0004
Venus	-48438-01-27 23:01 J	-15970529.76	-15970529.54	-15970529.31	0.0139	0.0021
Venus	-48438-09-11 09:49 J	-15970303.29	-15970303.09	-15970302.86	0.0138	0.0045
Venus	-48437-04-24 20:52 J	-15970076.82	-15970076.63	-15970076.43	0.0138	0.0067
Venus	-48437-12-07 07:25 J	-15969850.36	-15969850.19	-15969850.02	0.0138	0.0090
Venus	-48436-07-21 17:30 J	-15969623.89	-15969623.77	-15969623.63	0.0137	0.0113
Venus	-48435-03-05 03:21 J	-15969397.37	-15969397.36	-15969397.30	0.0137	0.0135
Mercury	-48417-07-14 16:18 J	-15962690.87	-15962690.82	-15962690.77	0.0132	0.0122
Mercury	-48417-10-10 19:25 J	-15962602.76	-15962602.69	-15962602.59	0.0132	0.0104
Mercury	-48416-01-06 22:47 J	-15962514.64	-15962514.55	-15962514.43	0.0132	0.0086
Mercury	-48416-04-05 02:23 J	-15962426.51	-15962426.40	-15962426.27	0.0132	0.0067
Mercury	-48416-07-02 05:59 J	-15962338.38	-15962338.25	-15962338.12	0.0132	0.0049
Mercury	-48416-09-28 09:21 J	-15962250.25	-15962250.11	-15962249.98	0.0132	0.0030
Mercury	-48416-12-25 12:42 J	-15962162.11	-15962161.97	-15962161.83	0.0132	0.0013
Mercury	-48415-03-23 16:04 J	-15962073.97	-15962073.83	-15962073.69	0.0132	0.0007
Mercury	-48415-06-19 19:11 J	-15961985.83	-15961985.70	-15961985.56	0.0132	0.0024
Mercury	-48415-09-15 22:33 J	-15961897.69	-15961897.56	-15961897.43	0.0132	0.0041
Mercury	-48415-12-13 01:54 J	-15961809.55	-15961809.42	-15961809.30	0.0132	0.0059
Mercury	-48414-03-11 05:01 J	-15961721.40	-15961721.29	-15961721.17	0.0132	0.0077
Mercury	-48414-06-07 08:09 J	-15961633.25	-15961633.16	-15961633.06	0.0132	0.0095
Mercury	-48414-09-03 11:30 J	-15961545.09	-15961545.02	-15961544.95	0.0132	0.0112
Mercury	-48414-11-30 14:52 J	-15961456.91	-15961456.88	-15961456.86	0.0132	0.0129
Earth	-48412-09-14 09:49 J	-15960803.22	-15960803.09	-15960802.94	0.0132	0.0109

Moon	-48412-09-14 12:13 J	-15960803.09	-15960802.99	-15960802.86	0.0132	0.0116	*
Moon	-48411-09-18 11:30 J	-15960434.28	-15960434.02	-15960433.76	0.0132	0.0002	
Earth	-48411-09-18 14:09 J	-15960434.16	-15960433.91	-15960433.66	0.0132	0.0006	*
Earth	-48410-09-22 17:45 J	-15960064.91	-15960064.76	-15960064.58	0.0132	0.0098	
Moon	-48410-09-22 19:40 J	-15960064.84	-15960064.68	-15960064.48	0.0132	0.0093	*
Mars	-48401-11-02 12:28 J	-15956736.00	-15956735.98	-15956735.96	0.0136	0.0135	
Mars	-48399-10-03 16:47 J	-15956036.01	-15956035.80	-15956035.59	0.0137	0.0094	
Venus	-48398-12-16 03:06 J	-15955597.46	-15955597.37	-15955597.27	0.0138	0.0123	
Venus	-48397-07-29 08:23 J	-15955371.28	-15955371.15	-15955371.00	0.0138	0.0102	
Venus	-48396-03-12 13:40 J	-15955145.09	-15955144.93	-15955144.75	0.0138	0.0081	
Venus	-48396-10-24 19:25 J	-15954918.87	-15954918.69	-15954918.49	0.0139	0.0060	
Venus	-48395-06-08 01:11 J	-15954692.65	-15954692.45	-15954692.24	0.0139	0.0038	
Venus	-48394-01-20 07:25 J	-15954466.40	-15954466.19	-15954465.98	0.0139	0.0015	
Venus	-48394-09-03 13:40 J	-15954240.14	-15954239.93	-15954239.72	0.0140	0.0007	
Venus	-48393-04-16 19:54 J	-15954013.87	-15954013.67	-15954013.46	0.0140	0.0030	
Venus	-48393-11-29 02:37 J	-15953787.58	-15953787.39	-15953787.19	0.0140	0.0053	
Venus	-48392-07-13 09:21 J	-15953561.28	-15953561.11	-15953560.93	0.0141	0.0076	
Venus	-48391-02-24 16:18 J	-15953334.96	-15953334.82	-15953334.66	0.0141	0.0099	
Venus	-48391-10-08 23:45 J	-15953108.60	-15953108.51	-15953108.39	0.0141	0.0123	
Mercury	-48375-10-11 20:23 J	-15947261.69	-15947261.65	-15947261.57	0.0147	0.0140	
Mercury	-48374-01-08 04:04 J	-15947173.45	-15947173.33	-15947173.21	0.0147	0.0108	
Mercury	-48374-04-06 11:16 J	-15947085.18	-15947085.03	-15947084.88	0.0147	0.0076	
Mercury	-48374-07-03 18:28 J	-15946996.89	-15946996.73	-15946996.55	0.0147	0.0045	
Mercury	-48374-09-30 01:54 J	-15946908.59	-15946908.42	-15946908.24	0.0147	0.0013	
Mercury	-48374-12-27 09:21 J	-15946820.28	-15946820.11	-15946819.93	0.0147	0.0020	
Mercury	-48373-03-24 16:47 J	-15946731.96	-15946731.80	-15946731.63	0.0147	0.0052	
Mercury	-48373-06-21 00:28 J	-15946643.62	-15946643.48	-15946643.33	0.0147	0.0084	
Mercury	-48373-09-17 07:54 J	-15946555.27	-15946555.17	-15946555.05	0.0147	0.0117	
Moon	-48370-03-15 16:18 J	-15945646.05	-15945645.82	-15945645.57	0.0147	0.0044	
Earth	-48370-03-15 19:25 J	-15945645.92	-15945645.69	-15945645.44	0.0147	0.0051	*

Earth	-48369-03-19 23:59 J	-15945275.68	-15945275.50	-15945275.28	0.0146	0.0094
Moon	-48369-03-20 03:35 J	-15945275.55	-15945275.35	-15945275.13	0.0146	0.0086 *
Mars	-48360-03-14 23:16 J	-15941993.86	-15941993.53	-15941993.21	0.0142	0.0002
Venus	-48358-01-07 06:42 J	-15941330.28	-15941330.22	-15941330.16	0.0141	0.0135
Venus	-48358-08-21 19:11 J	-15941103.84	-15941103.70	-15941103.56	0.0141	0.0110
Venus	-48357-04-04 07:25 J	-15940877.36	-15940877.19	-15940877.01	0.0141	0.0086
Venus	-48357-11-16 19:25 J	-15940650.89	-15940650.69	-15940650.48	0.0140	0.0062
Venus	-48356-07-01 07:25 J	-15940424.41	-15940424.19	-15940423.98	0.0140	0.0037
Venus	-48355-02-12 18:57 J	-15940197.93	-15940197.71	-15940197.48	0.0139	0.0013
Venus	-48355-09-27 06:28 J	-15939971.45	-15939971.23	-15939971.00	0.0139	0.0011
Venus	-48354-05-11 17:30 J	-15939744.98	-15939744.77	-15939744.54	0.0139	0.0035
Venus	-48354-12-24 04:18 J	-15939518.51	-15939518.32	-15939518.10	0.0138	0.0058
Venus	-48353-08-06 15:06 J	-15939292.04	-15939291.87	-15939291.68	0.0138	0.0081
Venus	-48352-03-21 01:40 J	-15939065.56	-15939065.43	-15939065.27	0.0138	0.0104
Venus	-48352-11-02 12:13 J	-15938839.07	-15938838.99	-15938838.89	0.0137	0.0125
Mercury	-48333-08-03 23:59 J	-15931989.56	-15931989.50	-15931989.43	0.0132	0.0114
Mercury	-48333-10-31 03:21 J	-15931901.45	-15931901.36	-15931901.25	0.0132	0.0096
Mercury	-48332-01-27 06:42 J	-15931813.32	-15931813.22	-15931813.09	0.0132	0.0078
Mercury	-48332-04-25 10:18 J	-15931725.19	-15931725.07	-15931724.94	0.0132	0.0059
Mercury	-48332-07-22 13:40 J	-15931637.06	-15931636.93	-15931636.79	0.0132	0.0041
Mercury	-48332-10-18 17:01 J	-15931548.92	-15931548.79	-15931548.65	0.0132	0.0023
Mercury	-48331-01-14 20:23 J	-15931460.79	-15931460.65	-15931460.51	0.0132	0.0005
Mercury	-48331-04-12 23:45 J	-15931372.65	-15931372.51	-15931372.37	0.0132	0.0013
Mercury	-48331-07-10 03:06 J	-15931284.51	-15931284.37	-15931284.24	0.0132	0.0031
Mercury	-48331-10-06 06:13 J	-15931196.36	-15931196.24	-15931196.10	0.0132	0.0049
Mercury	-48330-01-02 09:35 J	-15931108.22	-15931108.10	-15931107.98	0.0132	0.0067
Mercury	-48330-03-31 12:42 J	-15931020.07	-15931019.97	-15931019.86	0.0132	0.0085
Mercury	-48330-06-27 16:04 J	-15930931.91	-15930931.83	-15930931.74	0.0132	0.0102
Mercury	-48330-09-23 19:11 J	-15930843.75	-15930843.70	-15930843.64	0.0132	0.0120
Earth	-48328-09-14 23:59 J	-15930121.66	-15930121.50	-15930121.33	0.0132	0.0100

Moon	-48328-09-15 02:37 J	-15930121.56	-15930121.39	-15930121.21	0.0132	0.0095 *
Moon	-48327-09-19 01:25 J	-15929752.70	-15929752.44	-15929752.18	0.0132	0.0004
Earth	-48327-09-19 04:04 J	-15929752.58	-15929752.33	-15929752.08	0.0132	0.0003 *
Earth	-48326-09-23 07:54 J	-15929383.31	-15929383.17	-15929383.01	0.0132	0.0107
Moon	-48326-09-23 10:33 J	-15929383.17	-15929383.06	-15929382.92	0.0132	0.0114 *
Mars	-48316-06-28 05:30 J	-15925817.53	-15925817.27	-15925816.99	0.0136	0.0049
Venus	-48314-08-15 15:06 J	-15925038.92	-15925038.87	-15925038.78	0.0137	0.0130
Venus	-48313-03-28 20:23 J	-15924812.76	-15924812.65	-15924812.51	0.0138	0.0109
Venus	-48313-11-10 01:40 J	-15924586.58	-15924586.43	-15924586.25	0.0138	0.0088
Venus	-48312-06-24 07:25 J	-15924360.37	-15924360.19	-15924360.00	0.0138	0.0067
Venus	-48311-02-05 13:11 J	-15924134.15	-15924133.95	-15924133.75	0.0139	0.0045
Venus	-48311-09-19 19:11 J	-15923907.91	-15923907.70	-15923907.49	0.0139	0.0023
Venus	-48310-05-04 01:25 J	-15923681.65	-15923681.44	-15923681.23	0.0139	0.0002
Venus	-48310-12-16 07:40 J	-15923455.39	-15923455.18	-15923454.97	0.0140	0.0022
Venus	-48309-07-29 14:09 J	-15923229.11	-15923228.91	-15923228.71	0.0140	0.0044
Venus	-48308-03-12 20:37 J	-15923002.81	-15923002.64	-15923002.44	0.0140	0.0068
Venus	-48308-10-25 03:49 J	-15922776.50	-15922776.34	-15922776.18	0.0141	0.0090
Venus	-48307-06-08 10:47 J	-15922550.16	-15922550.05	-15922549.91	0.0141	0.0113
Venus	-48306-01-20 18:28 J	-15922323.79	-15922323.73	-15922323.68	0.0142	0.0136
Mercury	-48291-11-01 04:47 J	-15916560.38	-15916560.30	-15916560.22	0.0147	0.0128
Mercury	-48290-01-28 11:59 J	-15916472.13	-15916472.00	-15916471.87	0.0147	0.0097
Mercury	-48290-04-26 19:11 J	-15916383.86	-15916383.70	-15916383.54	0.0147	0.0066
Mercury	-48290-07-24 02:37 J	-15916295.57	-15916295.39	-15916295.22	0.0147	0.0034
Mercury	-48290-10-20 09:49 J	-15916207.26	-15916207.09	-15916206.91	0.0147	0.0004
Mercury	-48289-01-16 17:16 J	-15916118.95	-15916118.78	-15916118.60	0.0147	0.0030
Mercury	-48289-04-14 00:42 J	-15916030.63	-15916030.47	-15916030.30	0.0147	0.0062
Mercury	-48289-07-11 08:23 J	-15915942.29	-15915942.15	-15915942.01	0.0147	0.0094
Mercury	-48289-10-07 15:49 J	-15915853.92	-15915853.84	-15915853.74	0.0147	0.0127
Moon	-48286-03-16 04:33 J	-15914964.53	-15914964.31	-15914964.07	0.0147	0.0051
Earth	-48286-03-16 07:11 J	-15914964.44	-15914964.20	-15914963.95	0.0147	0.0043 *

Earth	-48285-03-20 11:59 J	-15914594.18	-15914594.00	-15914593.81	0.0146	0.0101
Moon	-48285-03-20 15:06 J	-15914594.02	-15914593.87	-15914593.68	0.0146	0.0108 *
Mars	-48276-11-09 04:04 J	-15911073.52	-15911073.33	-15911073.12	0.0142	0.0112
Venus	-48274-04-21 01:54 J	-15910545.52	-15910545.42	-15910545.29	0.0141	0.0119
Venus	-48274-12-03 14:23 J	-15910319.06	-15910318.90	-15910318.73	0.0141	0.0095
Venus	-48273-07-17 02:37 J	-15910092.58	-15910092.39	-15910092.19	0.0140	0.0070
Venus	-48272-02-28 14:52 J	-15909866.09	-15909865.88	-15909865.67	0.0140	0.0046
Venus	-48272-10-13 02:37 J	-15909639.61	-15909639.39	-15909639.17	0.0140	0.0022
Venus	-48271-05-27 14:09 J	-15909413.14	-15909412.91	-15909412.68	0.0139	0.0002
Venus	-48270-01-09 01:11 J	-15909186.66	-15909186.45	-15909186.22	0.0139	0.0026
Venus	-48270-08-23 12:28 J	-15908960.18	-15908959.98	-15908959.76	0.0139	0.0049
Venus	-48269-04-05 23:16 J	-15908733.70	-15908733.53	-15908733.32	0.0138	0.0073
Venus	-48269-11-18 10:04 J	-15908507.23	-15908507.08	-15908506.90	0.0138	0.0095
Venus	-48268-07-02 20:37 J	-15908280.75	-15908280.64	-15908280.51	0.0138	0.0117
Mercury	-48249-05-28 04:18 J	-15901376.36	-15901376.32	-15901376.27	0.0132	0.0125
Mercury	-48249-08-24 07:54 J	-15901288.25	-15901288.17	-15901288.09	0.0132	0.0106
Mercury	-48249-11-20 11:16 J	-15901200.13	-15901200.03	-15901199.92	0.0132	0.0088
Mercury	-48248-02-16 14:37 J	-15901112.00	-15901111.89	-15901111.76	0.0132	0.0070
Mercury	-48248-05-15 18:13 J	-15901023.87	-15901023.74	-15901023.61	0.0132	0.0051
Mercury	-48248-08-11 21:35 J	-15900935.74	-15900935.60	-15900935.47	0.0132	0.0033
Mercury	-48248-11-08 00:57 J	-15900847.60	-15900847.46	-15900847.32	0.0132	0.0015
Mercury	-48247-02-04 04:18 J	-15900759.46	-15900759.32	-15900759.18	0.0132	0.0005
Mercury	-48247-05-03 07:25 J	-15900671.32	-15900671.19	-15900671.05	0.0132	0.0022
Mercury	-48247-07-30 10:47 J	-15900583.18	-15900583.05	-15900582.91	0.0132	0.0039
Mercury	-48247-10-26 14:09 J	-15900495.04	-15900494.91	-15900494.79	0.0132	0.0057
Mercury	-48246-01-22 17:16 J	-15900406.89	-15900406.78	-15900406.66	0.0132	0.0075
Mercury	-48246-04-20 20:37 J	-15900318.74	-15900318.64	-15900318.54	0.0132	0.0092
Mercury	-48246-07-17 23:45 J	-15900230.58	-15900230.51	-15900230.43	0.0132	0.0110
Mercury	-48246-10-14 02:52 J	-15900142.40	-15900142.38	-15900142.34	0.0132	0.0127
Earth	-48244-09-15 13:40 J	-15899440.10	-15899439.93	-15899439.73	0.0132	0.0091

Moon	-48244-09-15 16:33 J	-15899439.95	-15899439.81	-15899439.62	0.0132	0.0098	*
Moon	-48243-09-19 14:52 J	-15899071.13	-15899070.88	-15899070.62	0.0132	0.0019	
Earth	-48243-09-19 17:59 J	-15899071.00	-15899070.75	-15899070.49	0.0132	0.0013	*
Earth	-48242-09-23 21:35 J	-15898701.70	-15898701.60	-15898701.46	0.0132	0.0117	
Moon	-48242-09-24 00:28 J	-15898701.60	-15898701.48	-15898701.33	0.0132	0.0111	*
Mars	-48231-02-20 23:30 J	-15894898.78	-15894898.52	-15894898.23	0.0136	0.0040	
Venus	-48230-04-15 03:50 J	-15894480.36	-15894480.34	-15894480.31	0.0137	0.0136	
Venus	-48230-11-27 08:38 J	-15894254.24	-15894254.14	-15894254.01	0.0137	0.0116	
Venus	-48229-07-10 13:54 J	-15894028.06	-15894027.92	-15894027.75	0.0138	0.0095	
Venus	-48228-02-21 19:26 J	-15893801.86	-15893801.69	-15893801.50	0.0138	0.0074	
Venus	-48228-10-06 01:11 J	-15893575.64	-15893575.45	-15893575.25	0.0138	0.0053	
Venus	-48227-05-20 07:11 J	-15893349.41	-15893349.20	-15893348.99	0.0139	0.0031	
Venus	-48226-01-01 13:11 J	-15893123.16	-15893122.95	-15893122.74	0.0139	0.0009	
Venus	-48226-08-15 19:26 J	-15892896.90	-15892896.69	-15892896.48	0.0139	0.0013	
Venus	-48225-03-29 01:40 J	-15892670.63	-15892670.43	-15892670.22	0.0140	0.0036	
Venus	-48225-11-10 08:23 J	-15892444.34	-15892444.15	-15892443.96	0.0140	0.0058	
Venus	-48224-06-24 14:52 J	-15892218.04	-15892217.88	-15892217.70	0.0141	0.0081	
Venus	-48223-02-05 21:50 J	-15891991.72	-15891991.59	-15891991.44	0.0141	0.0104	
Venus	-48223-09-20 05:16 J	-15891765.36	-15891765.28	-15891765.18	0.0141	0.0127	
Mercury	-48207-11-21 12:14 J	-15885859.08	-15885858.99	-15885858.88	0.0147	0.0119	
Mercury	-48206-02-17 19:26 J	-15885770.82	-15885770.69	-15885770.54	0.0147	0.0088	
Mercury	-48206-05-17 02:38 J	-15885682.55	-15885682.39	-15885682.22	0.0147	0.0057	
Mercury	-48206-08-13 10:04 J	-15885594.25	-15885594.08	-15885593.90	0.0147	0.0025	
Mercury	-48206-11-09 17:30 J	-15885505.95	-15885505.77	-15885505.59	0.0147	0.0006	
Mercury	-48205-02-06 00:57 J	-15885417.63	-15885417.46	-15885417.29	0.0147	0.0038	
Mercury	-48205-05-04 08:09 J	-15885329.31	-15885329.16	-15885328.99	0.0147	0.0071	
Mercury	-48205-07-31 15:50 J	-15885240.96	-15885240.84	-15885240.71	0.0147	0.0103	
Mercury	-48205-10-27 23:16 J	-15885152.59	-15885152.53	-15885152.46	0.0147	0.0136	
Moon	-48202-03-16 15:21 J	-15884283.10	-15884282.86	-15884282.61	0.0147	0.0030	
Earth	-48202-03-16 17:30 J	-15884283.01	-15884282.77	-15884282.51	0.0147	0.0038	*

Earth	-48201-03-20 22:18 J	-15883912.74	-15883912.57	-15883912.39	0.0146	0.0107
Moon	-48201-03-21 01:11 J	-15883912.64	-15883912.45	-15883912.25	0.0146	0.0100 *
Mars	-48193-07-30 19:11 J	-15880858.95	-15880858.70	-15880858.41	0.0143	0.0081
Venus	-48191-12-19 07:54 J	-15879987.26	-15879987.17	-15879987.08	0.0141	0.0129
Venus	-48190-08-02 19:54 J	-15879760.80	-15879760.67	-15879760.50	0.0141	0.0105
Venus	-48189-03-16 08:23 J	-15879534.32	-15879534.15	-15879533.95	0.0141	0.0081
Venus	-48189-10-28 20:38 J	-15879307.84	-15879307.64	-15879307.42	0.0140	0.0057
Venus	-48188-06-12 08:38 J	-15879081.35	-15879081.14	-15879080.91	0.0140	0.0032
Venus	-48187-01-24 20:23 J	-15878854.87	-15878854.65	-15878854.42	0.0140	0.0009
Venus	-48187-09-08 08:09 J	-15878628.39	-15878628.16	-15878627.94	0.0139	0.0016
Venus	-48186-04-22 19:26 J	-15878401.90	-15878401.69	-15878401.47	0.0139	0.0039
Venus	-48186-12-05 06:14 J	-15878175.43	-15878175.24	-15878175.02	0.0138	0.0063
Venus	-48185-07-18 17:16 J	-15877948.95	-15877948.78	-15877948.60	0.0138	0.0085
Venus	-48184-03-02 03:50 J	-15877722.46	-15877722.34	-15877722.18	0.0138	0.0108
Venus	-48184-10-14 14:23 J	-15877495.96	-15877495.90	-15877495.81	0.0137	0.0129
Mercury	-48165-06-17 11:45 J	-15870675.06	-15870675.01	-15870674.93	0.0132	0.0118
Mercury	-48165-09-13 15:21 J	-15870586.94	-15870586.86	-15870586.76	0.0132	0.0099
Mercury	-48165-12-10 18:42 J	-15870498.82	-15870498.72	-15870498.60	0.0132	0.0081
Mercury	-48164-03-08 22:18 J	-15870410.69	-15870410.57	-15870410.44	0.0132	0.0062
Mercury	-48164-06-05 01:40 J	-15870322.56	-15870322.43	-15870322.29	0.0132	0.0044
Mercury	-48164-09-01 05:16 J	-15870234.42	-15870234.28	-15870234.14	0.0132	0.0026
Mercury	-48164-11-28 08:38 J	-15870146.28	-15870146.14	-15870146.00	0.0132	0.0008
Mercury	-48163-02-24 11:59 J	-15870058.14	-15870058.00	-15870057.86	0.0132	0.0011
Mercury	-48163-05-23 15:06 J	-15869970.00	-15869969.87	-15869969.73	0.0132	0.0029
Mercury	-48163-08-19 18:28 J	-15869881.86	-15869881.73	-15869881.60	0.0132	0.0046
Mercury	-48163-11-15 21:50 J	-15869793.71	-15869793.59	-15869793.47	0.0132	0.0064
Mercury	-48162-02-12 00:57 J	-15869705.56	-15869705.46	-15869705.35	0.0132	0.0082
Mercury	-48162-05-11 04:18 J	-15869617.41	-15869617.32	-15869617.23	0.0132	0.0099
Mercury	-48162-08-07 07:26 J	-15869529.25	-15869529.19	-15869529.12	0.0132	0.0117
Earth	-48160-09-16 03:21 J	-15868758.55	-15868758.36	-15868758.15	0.0132	0.0082

Moon	-48160-09-16 06:28 J	-15868758.42	-15868758.23	-15868758.02	0.0132	0.0076 *
Moon	-48159-09-20 04:33 J	-15868389.57	-15868389.31	-15868389.06	0.0132	0.0014
Earth	-48159-09-20 07:40 J	-15868389.43	-15868389.18	-15868388.93	0.0132	0.0022 *
Earth	-48158-09-24 11:30 J	-15868020.08	-15868020.02	-15868019.93	0.0133	0.0126
Moon	-48158-09-24 15:06 J	-15868019.87	-15868019.87	-15868019.86	0.0133	0.0132
Mars	-48149-11-15 11:30 J	-15864680.20	-15864680.02	-15864679.82	0.0136	0.0103
Mars	-48147-10-16 17:59 J	-15863979.84	-15863979.75	-15863979.63	0.0137	0.0127
Venus	-48146-07-27 21:06 J	-15863695.70	-15863695.62	-15863695.51	0.0137	0.0122
Venus	-48145-03-10 02:23 J	-15863469.53	-15863469.40	-15863469.25	0.0138	0.0102
Venus	-48145-10-22 07:40 J	-15863243.33	-15863243.18	-15863242.99	0.0138	0.0081
Venus	-48144-06-05 13:26 J	-15863017.12	-15863016.94	-15863016.75	0.0138	0.0060
Venus	-48143-01-17 19:11 J	-15862790.90	-15862790.70	-15862790.49	0.0139	0.0038
Venus	-48143-09-01 01:11 J	-15862564.65	-15862564.45	-15862564.23	0.0139	0.0017
Venus	-48142-04-15 07:26 J	-15862338.40	-15862338.19	-15862337.98	0.0139	0.0005
Venus	-48142-11-27 13:40 J	-15862112.14	-15862111.93	-15862111.72	0.0140	0.0028
Venus	-48141-07-10 19:54 J	-15861885.86	-15861885.67	-15861885.47	0.0140	0.0050
Venus	-48140-02-22 02:38 J	-15861659.56	-15861659.39	-15861659.20	0.0140	0.0072
Venus	-48140-10-06 09:35 J	-15861433.25	-15861433.10	-15861432.94	0.0141	0.0095
Venus	-48139-05-20 16:47 J	-15861206.91	-15861206.80	-15861206.68	0.0141	0.0117
Venus	-48138-01-01 23:30 J	-15860980.52	-15860980.52	-15860980.47	0.0141	0.0141
Mercury	-48123-09-14 13:26 J	-15855245.99	-15855245.94	-15855245.88	0.0147	0.0138
Mercury	-48123-12-11 20:23 J	-15855157.76	-15855157.65	-15855157.52	0.0147	0.0108
Mercury	-48122-03-10 03:35 J	-15855069.49	-15855069.35	-15855069.19	0.0147	0.0077
Mercury	-48122-06-06 11:02 J	-15854981.21	-15854981.04	-15854980.87	0.0147	0.0045
Mercury	-48122-09-02 18:14 J	-15854892.91	-15854892.74	-15854892.56	0.0147	0.0014
Mercury	-48122-11-30 01:40 J	-15854804.60	-15854804.43	-15854804.25	0.0147	0.0018
Mercury	-48121-02-26 09:06 J	-15854716.29	-15854716.12	-15854715.95	0.0147	0.0050
Mercury	-48121-05-24 16:18 J	-15854627.95	-15854627.82	-15854627.66	0.0147	0.0083
Mercury	-48121-08-20 23:59 J	-15854539.60	-15854539.50	-15854539.38	0.0147	0.0115
Moon	-48118-03-17 05:16 J	-15853601.52	-15853601.28	-15853601.04	0.0146	0.0034

Earth	-48118-03-17 06:57 J	-15853601.45	-15853601.21	-15853600.95	0.0146	0.0028 *
Earth	-48117-03-21 11:45 J	-15853231.16	-15853231.01	-15853230.85	0.0146	0.0116
Moon	-48117-03-21 14:09 J	-15853231.03	-15853230.91	-15853230.75	0.0146	0.0124 *
Mars	-48108-03-27 02:38 J	-15849938.70	-15849938.39	-15849938.06	0.0142	0.0033
Venus	-48107-08-18 14:52 J	-15849428.92	-15849428.88	-15849428.82	0.0142	0.0138
Venus	-48106-04-02 03:35 J	-15849202.47	-15849202.35	-15849202.21	0.0141	0.0114
Venus	-48106-11-14 16:04 J	-15848976.00	-15848975.83	-15848975.65	0.0141	0.0089
Venus	-48105-06-28 04:04 J	-15848749.52	-15848749.33	-15848749.12	0.0140	0.0066
Venus	-48104-02-09 16:18 J	-15848523.03	-15848522.82	-15848522.60	0.0140	0.0041
Venus	-48104-09-24 04:18 J	-15848296.54	-15848296.32	-15848296.09	0.0140	0.0017
Venus	-48103-05-08 16:04 J	-15848070.06	-15848069.83	-15848069.60	0.0139	0.0007
Venus	-48103-12-21 03:21 J	-15847843.57	-15847843.36	-15847843.13	0.0139	0.0030
Venus	-48102-08-04 14:23 J	-15847617.09	-15847616.90	-15847616.68	0.0139	0.0054
Venus	-48101-03-18 01:40 J	-15847390.61	-15847390.43	-15847390.23	0.0138	0.0076
Venus	-48101-10-30 12:42 J	-15847164.13	-15847163.97	-15847163.81	0.0138	0.0098
Venus	-48100-06-13 22:47 J	-15846937.64	-15846937.55	-15846937.42	0.0138	0.0121
Mercury	-48081-04-10 16:04 J	-15840061.85	-15840061.83	-15840061.79	0.0132	0.0129
Mercury	-48081-07-07 19:40 J	-15839973.75	-15839973.68	-15839973.60	0.0132	0.0110
Mercury	-48081-10-03 23:02 J	-15839885.63	-15839885.54	-15839885.43	0.0132	0.0092
Mercury	-48081-12-31 02:38 J	-15839797.51	-15839797.39	-15839797.27	0.0132	0.0073
Mercury	-48080-03-29 05:59 J	-15839709.37	-15839709.25	-15839709.12	0.0132	0.0055
Mercury	-48080-06-25 09:21 J	-15839621.24	-15839621.11	-15839620.97	0.0132	0.0037
Mercury	-48080-09-21 12:42 J	-15839533.10	-15839532.97	-15839532.82	0.0132	0.0019
Mercury	-48080-12-18 16:18 J	-15839444.96	-15839444.82	-15839444.68	0.0132	0.0003
Mercury	-48079-03-16 19:26 J	-15839356.82	-15839356.69	-15839356.55	0.0132	0.0018
Mercury	-48079-06-12 22:47 J	-15839268.68	-15839268.55	-15839268.41	0.0132	0.0036
Mercury	-48079-09-09 02:09 J	-15839180.54	-15839180.41	-15839180.28	0.0132	0.0054
Mercury	-48079-12-06 05:16 J	-15839092.39	-15839092.28	-15839092.16	0.0132	0.0072
Mercury	-48078-03-04 08:38 J	-15839004.24	-15839004.14	-15839004.03	0.0132	0.0089
Mercury	-48078-05-31 11:45 J	-15838916.08	-15838916.01	-15838915.92	0.0132	0.0107

Mercury -48078-08-27 15:06 J -15838827.91 -15838827.87 -15838827.82 0.0132 0.0124

Earth -48076-09-16 16:47 J -15838076.99 -15838076.80 -15838076.57 0.0132 0.0073

Moon -48076-09-16 20:38 J -15838076.84 -15838076.64 -15838076.44 0.0132 0.0080 *

Moon -48075-09-20 17:59 J -15837707.99 -15837707.75 -15837707.50 0.0132 0.0038

Earth -48075-09-20 21:21 J -15837707.85 -15837707.61 -15837707.36 0.0132 0.0031 *

Moon -48074-09-25 04:33 J -15837338.34 -15837338.31 -15837338.24 0.0133 0.0130

Mars -48064-07-11 07:26 J -15833761.47 -15833761.19 -15833760.89 0.0136 0.0015

Venus -48062-03-27 09:50 J -15833137.15 -15833137.09 -15833137.01 0.0137 0.0128

Venus -48062-11-08 14:52 J -15832911.00 -15832910.88 -15832910.74 0.0137 0.0108

Venus -48061-06-21 20:09 J -15832684.81 -15832684.66 -15832684.49 0.0138 0.0088

Venus -48060-02-03 01:40 J -15832458.60 -15832458.43 -15832458.24 0.0138 0.0067

Venus -48060-09-17 07:40 J -15832232.38 -15832232.18 -15832231.98 0.0138 0.0046

Venus -48059-05-01 13:26 J -15832006.14 -15832005.94 -15832005.73 0.0139 0.0025

Venus -48059-12-13 19:26 J -15831779.90 -15831779.69 -15831779.48 0.0139 0.0003

Venus -48058-07-28 01:40 J -15831553.64 -15831553.43 -15831553.22 0.0139 0.0019

Venus -48057-03-10 07:40 J -15831327.37 -15831327.18 -15831326.97 0.0140 0.0042

Venus -48057-10-22 14:09 J -15831101.08 -15831100.91 -15831100.71 0.0140 0.0065

Venus -48056-06-05 21:21 J -15830874.78 -15830874.61 -15830874.45 0.0140 0.0086

Venus -48055-01-18 04:04 J -15830648.46 -15830648.33 -15830648.19 0.0141 0.0108

Venus -48055-09-01 11:16 J -15830422.10 -15830422.03 -15830421.95 0.0141 0.0131

Mercury -48039-10-04 21:21 J -15824544.69 -15824544.61 -15824544.52 0.0147 0.0128

Mercury -48038-01-01 04:33 J -15824456.44 -15824456.31 -15824456.18 0.0147 0.0097

Mercury -48038-03-30 11:45 J -15824368.17 -15824368.01 -15824367.85 0.0147 0.0066

Mercury -48038-06-26 18:57 J -15824279.88 -15824279.71 -15824279.54 0.0147 0.0035

Mercury -48038-09-23 02:09 J -15824191.58 -15824191.41 -15824191.23 0.0147 0.0005

Mercury -48038-12-20 09:35 J -15824103.27 -15824103.10 -15824102.92 0.0147 0.0029

Mercury -48037-03-17 17:02 J -15824014.95 -15824014.79 -15824014.63 0.0147 0.0061

Mercury -48037-06-14 00:28 J -15823926.62 -15823926.48 -15823926.34 0.0147 0.0093

Mercury -48037-09-10 07:40 J -15823838.25 -15823838.18 -15823838.07 0.0147 0.0126

Moon -48034-03-17 17:45 J -15822920.00 -15822919.76 -15822919.51 0.0146 0.0012

Earth	-48034-03-17 19:11 J	-15822919.95	-15822919.70	-15822919.44	0.0146	0.0019	*
Earth	-48033-03-21 23:30 J	-15822549.63	-15822549.52	-15822549.37	0.0146	0.0126	
Moon	-48033-03-22 01:40 J	-15822549.57	-15822549.43	-15822549.26	0.0146	0.0118	*
Venus	-48023-11-30 10:04 J	-15818644.18	-15818644.08	-15818643.96	0.0141	0.0123	
Venus	-48022-07-14 22:18 J	-15818417.71	-15818417.57	-15818417.39	0.0141	0.0099	
Venus	-48021-02-26 11:02 J	-15818191.22	-15818191.04	-15818190.84	0.0141	0.0075	
Venus	-48021-10-09 23:30 J	-15817964.73	-15817964.52	-15817964.31	0.0140	0.0051	
Venus	-48020-05-24 11:16 J	-15817738.25	-15817738.03	-15817737.80	0.0140	0.0027	
Venus	-48019-01-05 23:02 J	-15817511.76	-15817511.54	-15817511.31	0.0140	0.0005	
Venus	-48019-08-20 10:47 J	-15817285.27	-15817285.05	-15817284.83	0.0139	0.0020	
Venus	-48018-04-03 22:04 J	-15817058.78	-15817058.58	-15817058.36	0.0139	0.0044	
Venus	-48018-11-16 09:06 J	-15816832.30	-15816832.12	-15816831.91	0.0139	0.0067	
Venus	-48017-06-29 19:54 J	-15816605.82	-15816605.67	-15816605.48	0.0138	0.0089	
Venus	-48016-02-11 06:42 J	-15816379.34	-15816379.22	-15816379.07	0.0138	0.0111	
Venus	-48016-09-25 17:16 J	-15816152.82	-15816152.78	-15816152.71	0.0138	0.0133	

48TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 48th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-47997-04-30 23:30 J	-15809360.56	-15809360.52	-15809360.46	0.0132	0.0122		
Mercury	-47997-07-28 03:21 J	-15809272.45	-15809272.36	-15809272.28	0.0132	0.0103		
Mercury	-47997-10-24 06:42 J	-15809184.33	-15809184.22	-15809184.11	0.0132	0.0085		

Mercury -47996-01-20 10:04 J -15809096.20 -15809096.08 -15809095.95 0.0132 0.0066

Mercury -47996-04-18 13:40 J -15809008.06 -15809007.93 -15809007.80 0.0132 0.0048

Mercury -47996-07-15 17:02 J -15808919.93 -15808919.79 -15808919.65 0.0132 0.0030

Mercury -47996-10-11 20:23 J -15808831.79 -15808831.65 -15808831.51 0.0132 0.0012

Mercury -47995-01-07 23:45 J -15808743.65 -15808743.51 -15808743.37 0.0132 0.0007

Mercury -47995-04-06 03:06 J -15808655.51 -15808655.37 -15808655.23 0.0132 0.0025

Mercury -47995-07-03 06:14 J -15808567.36 -15808567.24 -15808567.10 0.0132 0.0043

Mercury -47995-09-29 09:35 J -15808479.22 -15808479.10 -15808478.97 0.0132 0.0061

Mercury -47995-12-26 12:57 J -15808391.07 -15808390.96 -15808390.85 0.0132 0.0078

Mercury -47994-03-24 16:04 J -15808302.91 -15808302.83 -15808302.73 0.0132 0.0096

Mercury -47994-06-20 19:11 J -15808214.75 -15808214.70 -15808214.62 0.0132 0.0114

Mercury -47994-09-16 22:33 J -15808126.56 -15808126.56 -15808126.54 0.0132 0.0131

Earth -47992-09-17 06:14 J -15807395.46 -15807395.24 -15807395.02 0.0132 0.0065

Moon -47992-09-17 09:06 J -15807395.33 -15807395.12 -15807394.88 0.0132 0.0060 *

Moon -47991-09-21 06:42 J -15807026.46 -15807026.22 -15807025.96 0.0132 0.0033

Earth -47991-09-21 10:18 J -15807026.30 -15807026.07 -15807025.82 0.0132 0.0040 *

Mars -47979-03-06 00:14 J -15802842.73 -15802842.49 -15802842.24 0.0137 0.0073

Venus -47979-11-24 21:50 J -15802578.61 -15802578.59 -15802578.54 0.0137 0.0135

Venus -47978-07-09 02:52 J -15802352.48 -15802352.38 -15802352.25 0.0137 0.0115

Venus -47977-02-20 08:23 J -15802126.30 -15802126.15 -15802126.00 0.0138 0.0095

Venus -47977-10-03 13:54 J -15801900.10 -15801899.92 -15801899.74 0.0138 0.0074

Venus -47976-05-17 19:26 J -15801673.88 -15801673.69 -15801673.49 0.0138 0.0053

Venus -47976-12-30 00:57 J -15801447.66 -15801447.46 -15801447.25 0.0139 0.0033

Venus -47975-08-13 06:57 J -15801221.42 -15801221.21 -15801220.99 0.0139 0.0011

Venus -47974-03-27 12:57 J -15800995.16 -15800994.96 -15800994.74 0.0139 0.0012

Venus -47974-11-08 19:11 J -15800768.90 -15800768.70 -15800768.49 0.0140 0.0033

Venus -47973-06-22 01:26 J -15800542.62 -15800542.44 -15800542.24 0.0140 0.0055

Venus -47972-02-03 08:09 J -15800316.33 -15800316.16 -15800315.98 0.0140 0.0077

Venus -47972-09-17 14:52 J -15800090.02 -15800089.88 -15800089.72 0.0141 0.0099

Venus -47971-05-01 21:50 J -15799863.68 -15799863.59 -15799863.47 0.0141 0.0121

Mercury -47955-10-25 05:30 J -15793843.38 -15793843.27 -15793843.17 0.0147 0.0117
 Mercury -47954-01-21 12:14 J -15793755.12 -15793754.99 -15793754.83 0.0147 0.0087
 Mercury -47954-04-19 19:40 J -15793666.84 -15793666.68 -15793666.51 0.0147 0.0055
 Mercury -47954-07-17 02:52 J -15793578.55 -15793578.38 -15793578.20 0.0147 0.0024
 Mercury -47954-10-13 10:18 J -15793490.25 -15793490.07 -15793489.89 0.0147 0.0008
 Mercury -47953-01-09 17:30 J -15793401.93 -15793401.77 -15793401.59 0.0147 0.0040
 Mercury -47953-04-07 00:57 J -15793313.61 -15793313.46 -15793313.30 0.0147 0.0072
 Mercury -47953-07-04 08:38 J -15793225.27 -15793225.14 -15793225.02 0.0147 0.0104
 Mercury -47953-09-30 15:50 J -15793136.89 -15793136.84 -15793136.76 0.0147 0.0137
 Moon -47950-03-18 07:11 J -15792238.44 -15792238.20 -15792237.95 0.0146 0.0016
 Earth -47950-03-18 08:09 J -15792238.41 -15792238.16 -15792237.90 0.0146 0.0010 *
 Earth -47949-03-22 12:42 J -15791868.06 -15791867.97 -15791867.86 0.0146 0.0134
 Moon -47949-03-22 14:52 J -15791867.94 -15791867.88 -15791867.81 0.0146 0.0141 *
 Mars -47941-08-12 05:30 J -15788803.57 -15788803.27 -15788802.96 0.0143 0.0046
 Venus -47939-07-30 17:45 J -15788085.84 -15788085.76 -15788085.67 0.0142 0.0131
 Venus -47938-03-14 06:14 J -15787859.37 -15787859.24 -15787859.08 0.0141 0.0108
 Venus -47938-10-26 18:57 J -15787632.88 -15787632.71 -15787632.52 0.0141 0.0083
 Venus -47937-06-09 07:11 J -15787406.40 -15787406.20 -15787405.99 0.0140 0.0060
 Venus -47936-01-21 19:26 J -15787179.91 -15787179.69 -15787179.47 0.0140 0.0036
 Venus -47936-09-05 07:26 J -15786953.41 -15786953.19 -15786952.97 0.0140 0.0012
 Venus -47935-04-19 19:11 J -15786726.92 -15786726.70 -15786726.47 0.0139 0.0012
 Venus -47935-12-02 06:28 J -15786500.44 -15786500.23 -15786500.00 0.0139 0.0035
 Venus -47934-07-16 17:45 J -15786273.96 -15786273.76 -15786273.55 0.0139 0.0058
 Venus -47933-02-28 04:47 J -15786047.47 -15786047.30 -15786047.10 0.0138 0.0080
 Venus -47933-10-11 15:50 J -15785820.98 -15785820.84 -15785820.68 0.0138 0.0102
 Venus -47932-05-26 02:09 J -15785594.49 -15785594.41 -15785594.29 0.0138 0.0124
 Mercury -47913-05-21 07:11 J -15778659.26 -15778659.20 -15778659.12 0.0132 0.0115
 Mercury -47913-08-17 10:47 J -15778571.14 -15778571.05 -15778570.95 0.0132 0.0096
 Mercury -47913-11-13 14:09 J -15778483.02 -15778482.91 -15778482.79 0.0132 0.0078
 Mercury -47912-02-09 17:30 J -15778394.89 -15778394.77 -15778394.63 0.0132 0.0060

Mercury -47912-05-08 21:06 J -15778306.75 -15778306.62 -15778306.48 0.0132 0.0041

Mercury -47912-08-05 00:28 J -15778218.61 -15778218.48 -15778218.34 0.0132 0.0023

Mercury -47912-11-01 03:50 J -15778130.48 -15778130.34 -15778130.19 0.0132 0.0007

Mercury -47911-01-28 07:11 J -15778042.33 -15778042.20 -15778042.06 0.0132 0.0014

Mercury -47911-04-26 10:33 J -15777954.19 -15777954.06 -15777953.92 0.0132 0.0032

Mercury -47911-07-23 13:54 J -15777866.05 -15777865.92 -15777865.79 0.0132 0.0049

Mercury -47911-10-19 17:16 J -15777777.90 -15777777.78 -15777777.66 0.0132 0.0067

Mercury -47910-01-15 20:23 J -15777689.75 -15777689.65 -15777689.54 0.0132 0.0085

Mercury -47910-04-13 23:45 J -15777601.59 -15777601.51 -15777601.42 0.0132 0.0103

Mercury -47910-07-11 03:06 J -15777513.42 -15777513.37 -15777513.32 0.0132 0.0120

Earth -47908-09-17 18:57 J -15776713.94 -15776713.71 -15776713.48 0.0132 0.0056

Moon -47908-09-17 22:33 J -15776713.78 -15776713.56 -15776713.33 0.0132 0.0063 *

Moon -47907-09-21 19:40 J -15776344.90 -15776344.68 -15776344.44 0.0132 0.0055

Earth -47907-09-21 23:16 J -15776344.76 -15776344.53 -15776344.28 0.0132 0.0048 *

Mars -47897-11-28 09:21 J -15772624.34 -15772624.11 -15772623.84 0.0136 0.0072

Venus -47894-03-08 14:52 J -15771793.96 -15771793.88 -15771793.77 0.0137 0.0121

Venus -47894-10-20 20:09 J -15771567.79 -15771567.66 -15771567.51 0.0137 0.0101

Venus -47893-06-03 01:11 J -15771341.60 -15771341.45 -15771341.26 0.0138 0.0082

Venus -47892-01-15 06:42 J -15771115.40 -15771115.22 -15771115.02 0.0138 0.0061

Venus -47892-08-29 12:28 J -15770889.17 -15770888.98 -15770888.77 0.0138 0.0041

Venus -47891-04-12 18:28 J -15770662.94 -15770662.73 -15770662.52 0.0139 0.0019

Venus -47891-11-25 00:14 J -15770436.70 -15770436.49 -15770436.27 0.0139 0.0004

Venus -47890-07-09 06:14 J -15770210.44 -15770210.24 -15770210.03 0.0139 0.0024

Venus -47889-02-20 12:28 J -15769984.17 -15769983.98 -15769983.77 0.0140 0.0046

Venus -47889-10-03 19:11 J -15769757.88 -15769757.70 -15769757.52 0.0140 0.0068

Venus -47888-05-18 01:40 J -15769531.59 -15769531.43 -15769531.26 0.0140 0.0090

Venus -47888-12-30 08:38 J -15769305.27 -15769305.14 -15769305.01 0.0141 0.0111

Venus -47887-08-13 15:21 J -15769078.92 -15769078.86 -15769078.78 0.0141 0.0133

Mercury -47871-08-18 05:30 J -15763230.31 -15763230.27 -15763230.21 0.0147 0.0140

Mercury -47871-11-14 12:42 J -15763142.08 -15763141.97 -15763141.85 0.0147 0.0109

Mercury -47870-02-10 19:54 J -15763053.81 -15763053.67 -15763053.52 0.0147 0.0078

Mercury -47870-05-10 03:06 J -15762965.53 -15762965.37 -15762965.20 0.0147 0.0047

Mercury -47870-08-06 10:18 J -15762877.24 -15762877.07 -15762876.89 0.0147 0.0016

Mercury -47870-11-02 17:45 J -15762788.94 -15762788.76 -15762788.58 0.0147 0.0016

Mercury -47869-01-30 00:57 J -15762700.62 -15762700.46 -15762700.28 0.0147 0.0049

Mercury -47869-04-27 08:23 J -15762612.29 -15762612.15 -15762611.99 0.0147 0.0081

Mercury -47869-07-24 15:50 J -15762523.94 -15762523.84 -15762523.72 0.0147 0.0113

Mercury -47869-10-20 23:16 J -15762435.54 -15762435.53 -15762435.49 0.0147 0.0146

Moon -47866-03-18 18:14 J -15761556.99 -15761556.74 -15761556.49 0.0146 0.0003

Earth -47866-03-18 18:42 J -15761556.98 -15761556.72 -15761556.47 0.0146 0.0004 *

Earth -47865-03-22 23:02 J -15761186.59 -15761186.54 -15761186.45 0.0146 0.0140

Moon -47865-03-22 23:59 J -15761186.58 -15761186.50 -15761186.37 0.0146 0.0133 *

Mars -47856-04-08 04:18 J -15757883.59 -15757883.32 -15757883.00 0.0142 0.0063

Venus -47855-03-29 23:16 J -15757527.55 -15757527.53 -15757527.49 0.0142 0.0140

Venus -47855-11-11 11:45 J -15757301.12 -15757301.01 -15757300.86 0.0141 0.0117

Venus -47854-06-26 00:42 J -15757074.63 -15757074.47 -15757074.30 0.0141 0.0092

Venus -47853-02-07 13:11 J -15756848.14 -15756847.95 -15756847.75 0.0141 0.0069

Venus -47853-09-21 01:26 J -15756621.64 -15756621.44 -15756621.22 0.0140 0.0045

Venus -47852-05-05 13:40 J -15756395.15 -15756394.93 -15756394.71 0.0140 0.0021

Venus -47852-12-18 01:26 J -15756168.66 -15756168.44 -15756168.21 0.0140 0.0003

Venus -47851-08-01 13:11 J -15755942.17 -15755941.95 -15755941.73 0.0139 0.0025

Venus -47850-03-16 00:42 J -15755715.68 -15755715.47 -15755715.26 0.0139 0.0048

Venus -47850-10-28 11:45 J -15755489.19 -15755489.01 -15755488.81 0.0139 0.0071

Venus -47849-06-10 22:47 J -15755262.71 -15755262.55 -15755262.38 0.0138 0.0093

Venus -47848-01-23 09:35 J -15755036.22 -15755036.10 -15755035.97 0.0138 0.0114

Venus -47848-09-06 19:40 J -15754809.69 -15754809.68 -15754809.62 0.0138 0.0136

Mercury -47829-03-14 11:02 J -15748046.06 -15748046.04 -15748046.00 0.0132 0.0128

Mercury -47829-06-10 14:38 J -15747957.96 -15747957.89 -15747957.80 0.0132 0.0109

Mercury -47829-09-06 18:14 J -15747869.84 -15747869.74 -15747869.64 0.0132 0.0090

Mercury -47829-12-03 21:35 J -15747781.71 -15747781.60 -15747781.48 0.0132 0.0072

Mercury -47828-03-02 01:11 J -15747693.58 -15747693.45 -15747693.32 0.0132 0.0053

Mercury -47828-05-29 04:33 J -15747605.44 -15747605.31 -15747605.17 0.0132 0.0035

Mercury -47828-08-25 07:54 J -15747517.31 -15747517.17 -15747517.03 0.0132 0.0017

Mercury -47828-11-21 11:16 J -15747429.17 -15747429.03 -15747428.89 0.0132 0.0004

Mercury -47827-02-17 14:38 J -15747341.03 -15747340.89 -15747340.75 0.0132 0.0020

Mercury -47827-05-16 17:59 J -15747252.88 -15747252.75 -15747252.61 0.0132 0.0038

Mercury -47827-08-12 21:21 J -15747164.73 -15747164.61 -15747164.48 0.0132 0.0056

Mercury -47827-11-09 00:42 J -15747076.58 -15747076.47 -15747076.35 0.0132 0.0073

Mercury -47826-02-05 03:50 J -15746988.43 -15746988.34 -15746988.23 0.0132 0.0091

Mercury -47826-05-04 07:11 J -15746900.27 -15746900.20 -15746900.12 0.0132 0.0109

Mercury -47826-07-31 10:33 J -15746812.10 -15746812.06 -15746812.02 0.0132 0.0126

Earth -47824-09-18 07:11 J -15746032.43 -15746032.20 -15746031.96 0.0132 0.0049

Moon -47824-09-18 10:47 J -15746032.29 -15746032.05 -15746031.81 0.0132 0.0044 *

Moon -47823-09-22 07:54 J -15745663.40 -15745663.17 -15745662.93 0.0132 0.0048

Earth -47823-09-22 11:45 J -15745663.24 -15745663.01 -15745662.78 0.0132 0.0055 *

Mars -47812-07-24 00:57 J -15741705.75 -15741705.46 -15741705.17 0.0136 0.0014

Jupiter -47811-08-25 13:40 J -15741308.06 -15741307.93 -15741307.70 0.0137 0.0128

Venus -47811-11-06 02:09 J -15741235.47 -15741235.41 -15741235.32 0.0137 0.0128

Venus -47810-06-20 07:11 J -15741009.31 -15741009.20 -15741009.06 0.0137 0.0108

Venus -47809-02-01 12:28 J -15740783.13 -15740782.98 -15740782.81 0.0137 0.0089

Venus -47809-09-14 18:14 J -15740556.92 -15740556.74 -15740556.55 0.0138 0.0068

Venus -47808-04-28 23:45 J -15740330.71 -15740330.51 -15740330.31 0.0138 0.0047

Venus -47808-12-11 05:16 J -15740104.48 -15740104.28 -15740104.07 0.0138 0.0027

Venus -47807-07-25 11:02 J -15739878.25 -15739878.04 -15739877.83 0.0139 0.0006

Venus -47806-03-08 17:02 J -15739652.00 -15739651.79 -15739651.58 0.0139 0.0016

Venus -47806-10-20 23:02 J -15739425.74 -15739425.54 -15739425.33 0.0140 0.0037

Venus -47805-06-03 05:16 J -15739199.46 -15739199.28 -15739199.08 0.0140 0.0059

Venus -47804-01-15 11:45 J -15738973.17 -15738973.01 -15738972.83 0.0140 0.0080

Venus -47804-08-29 18:42 J -15738746.87 -15738746.72 -15738746.58 0.0141 0.0102

Venus -47803-04-13 01:11 J -15738520.53 -15738520.45 -15738520.34 0.0141 0.0124

Mercury -47787-09-07 12:57 J -15732529.03 -15732528.96 -15732528.88 0.0147 0.0132

Mercury -47787-12-04 20:09 J -15732440.78 -15732440.66 -15732440.53 0.0147 0.0101

Mercury -47786-03-03 03:21 J -15732352.52 -15732352.36 -15732352.21 0.0147 0.0070

Mercury -47786-05-30 10:33 J -15732264.23 -15732264.06 -15732263.89 0.0147 0.0039

Mercury -47786-08-26 17:45 J -15732175.94 -15732175.76 -15732175.58 0.0147 0.0008

Mercury -47786-11-23 00:57 J -15732087.63 -15732087.46 -15732087.28 0.0147 0.0025

Mercury -47785-02-19 08:09 J -15731999.31 -15731999.16 -15731998.98 0.0147 0.0057

Mercury -47785-05-17 15:35 J -15731910.98 -15731910.85 -15731910.70 0.0147 0.0089

Mercury -47785-08-13 23:16 J -15731822.62 -15731822.53 -15731822.42 0.0147 0.0121

Moon -47783-03-13 22:33 J -15731245.62 -15731245.56 -15731245.47 0.0146 0.0140

Earth -47783-03-13 23:30 J -15731245.56 -15731245.52 -15731245.44 0.0146 0.0143 *

Earth -47782-03-19 04:47 J -15730875.55 -15730875.30 -15730875.04 0.0146 0.0003

Moon -47782-03-19 05:02 J -15730875.53 -15730875.29 -15730875.04 0.0146 0.0004 *

Earth -47781-03-23 09:21 J -15730505.12 -15730505.11 -15730505.08 0.0146 0.0146

Mars -47774-12-29 00:28 J -15727668.58 -15727668.48 -15727668.33 0.0143 0.0131

Venus -47771-07-11 17:45 J -15726742.85 -15726742.76 -15726742.65 0.0142 0.0125

Venus -47770-02-23 06:28 J -15726516.37 -15726516.23 -15726516.06 0.0141 0.0102

Venus -47770-10-07 19:11 J -15726289.88 -15726289.70 -15726289.50 0.0141 0.0078

Venus -47769-05-21 07:26 J -15726063.38 -15726063.19 -15726062.97 0.0141 0.0055

Venus -47768-01-02 19:54 J -15725836.89 -15725836.67 -15725836.45 0.0140 0.0030

Venus -47768-08-17 07:54 J -15725610.39 -15725610.17 -15725609.94 0.0140 0.0007

Venus -47767-03-31 19:54 J -15725383.89 -15725383.67 -15725383.45 0.0139 0.0016

Venus -47767-11-13 07:11 J -15725157.40 -15725157.20 -15725156.97 0.0139 0.0040

Venus -47766-06-27 18:28 J -15724930.92 -15724930.73 -15724930.52 0.0139 0.0062

Venus -47765-02-09 05:45 J -15724704.43 -15724704.26 -15724704.07 0.0138 0.0084

Venus -47765-09-22 16:33 J -15724477.94 -15724477.81 -15724477.65 0.0138 0.0106

Venus -47764-05-07 03:06 J -15724251.44 -15724251.37 -15724251.27 0.0138 0.0127

Mercury -47745-04-03 18:42 J -15717344.77 -15717344.72 -15717344.67 0.0132 0.0121

Mercury -47745-06-30 22:04 J -15717256.66 -15717256.58 -15717256.49 0.0132 0.0103

Mercury -47745-09-27 01:40 J -15717168.54 -15717168.43 -15717168.32 0.0132 0.0084

Mercury -47745-12-24 05:02 J -15717080.41 -15717080.29 -15717080.16 0.0132 0.0066
 Mercury -47744-03-22 08:38 J -15716992.27 -15716992.14 -15716992.01 0.0132 0.0047
 Mercury -47744-06-18 11:59 J -15716904.14 -15716904.00 -15716903.86 0.0132 0.0029
 Mercury -47744-09-14 15:21 J -15716816.00 -15716815.86 -15716815.72 0.0132 0.0011
 Mercury -47744-12-11 18:42 J -15716727.86 -15716727.72 -15716727.58 0.0132 0.0008
 Mercury -47743-03-09 22:04 J -15716639.71 -15716639.58 -15716639.44 0.0132 0.0026
 Mercury -47743-06-06 01:26 J -15716551.57 -15716551.44 -15716551.31 0.0132 0.0044
 Mercury -47743-09-02 04:47 J -15716463.42 -15716463.30 -15716463.18 0.0132 0.0062
 Mercury -47743-11-29 07:54 J -15716375.27 -15716375.17 -15716375.05 0.0132 0.0080
 Mercury -47742-02-25 11:30 J -15716287.12 -15716287.02 -15716286.93 0.0132 0.0097
 Mercury -47742-05-24 14:38 J -15716198.95 -15716198.89 -15716198.82 0.0132 0.0115
 Earth -47740-09-18 19:11 J -15715350.93 -15715350.70 -15715350.45 0.0132 0.0042
 Moon -47740-09-18 23:02 J -15715350.78 -15715350.54 -15715350.30 0.0132 0.0049 *
 Moon -47739-09-22 20:09 J -15714981.86 -15714981.66 -15714981.43 0.0132 0.0069
 Earth -47739-09-22 23:45 J -15714981.73 -15714981.51 -15714981.28 0.0132 0.0062 *
 Mars -47729-04-17 07:11 J -15711487.25 -15711487.20 -15711487.11 0.0135 0.0132
 Jupiter -47728-07-21 03:35 J -15711027.72 -15711027.35 -15711026.90 0.0136 0.0078
 Mars -47727-03-18 16:33 J -15710786.99 -15710786.81 -15710786.60 0.0136 0.0100
 Venus -47727-07-06 13:40 J -15710676.95 -15710676.93 -15710676.87 0.0137 0.0134
 Venus -47726-02-17 18:42 J -15710450.82 -15710450.72 -15710450.59 0.0137 0.0115
 Venus -47726-10-01 23:59 J -15710224.64 -15710224.50 -15710224.34 0.0137 0.0095
 Venus -47725-05-15 05:30 J -15709998.45 -15709998.27 -15709998.09 0.0138 0.0075
 Venus -47725-12-27 10:33 J -15709772.24 -15709772.06 -15709771.85 0.0138 0.0055
 Venus -47724-08-10 16:18 J -15709546.02 -15709545.82 -15709545.61 0.0138 0.0034
 Venus -47723-03-24 22:04 J -15709319.79 -15709319.58 -15709319.37 0.0139 0.0013
 Venus -47723-11-06 03:50 J -15709093.55 -15709093.34 -15709093.13 0.0139 0.0008
 Venus -47722-06-20 09:35 J -15708867.30 -15708867.10 -15708866.89 0.0139 0.0029
 Venus -47721-02-01 15:50 J -15708641.03 -15708640.84 -15708640.64 0.0140 0.0050
 Venus -47721-09-14 22:04 J -15708414.74 -15708414.58 -15708414.38 0.0140 0.0072
 Venus -47720-04-29 04:33 J -15708188.45 -15708188.31 -15708188.13 0.0140 0.0094

Venus -47720-12-11 11:16 J -15707962.13 -15707962.03 -15707961.89 0.0141 0.0115
 Venus -47719-07-25 18:14 J -15707735.78 -15707735.74 -15707735.67 0.0141 0.0136
 Mercury -47703-09-27 19:54 J -15701827.75 -15701827.67 -15701827.57 0.0147 0.0125
 Mercury -47703-12-25 03:06 J -15701739.49 -15701739.37 -15701739.23 0.0147 0.0094
 Mercury -47702-03-23 10:18 J -15701651.22 -15701651.07 -15701650.90 0.0147 0.0063
 Mercury -47702-06-19 17:30 J -15701562.94 -15701562.77 -15701562.59 0.0147 0.0032
 Mercury -47702-09-16 00:57 J -15701474.64 -15701474.46 -15701474.28 0.0147 0.0001
 Mercury -47702-12-13 08:09 J -15701386.33 -15701386.16 -15701385.98 0.0147 0.0032
 Mercury -47701-03-10 15:35 J -15701298.01 -15701297.85 -15701297.69 0.0147 0.0064
 Mercury -47701-06-06 23:02 J -15701209.67 -15701209.54 -15701209.40 0.0147 0.0096
 Mercury -47701-09-03 06:14 J -15701121.31 -15701121.24 -15701121.14 0.0147 0.0128
 Moon -47699-03-14 07:11 J -15700564.27 -15700564.20 -15700564.10 0.0146 0.0139
 Earth -47699-03-14 08:52 J -15700564.20 -15700564.13 -15700564.03 0.0146 0.0138 *
 Earth -47698-03-19 13:40 J -15700194.18 -15700193.93 -15700193.67 0.0146 0.0007
 Moon -47698-03-19 14:23 J -15700194.14 -15700193.90 -15700193.65 0.0146 0.0013 *
 Moon -47697-03-23 17:59 J -15699823.80 -15699823.75 -15699823.68 0.0146 0.0142
 Mars -47689-08-23 19:26 J -15696749.00 -15696748.69 -15696748.37 0.0143 0.0026
 Venus -47687-03-10 22:04 J -15696184.63 -15696184.58 -15696184.49 0.0142 0.0135
 Venus -47687-10-23 11:16 J -15695958.17 -15695958.03 -15695957.89 0.0141 0.0111
 Venus -47686-06-06 23:45 J -15695731.68 -15695731.51 -15695731.33 0.0141 0.0088
 Venus -47685-01-19 12:14 J -15695505.18 -15695504.99 -15695504.78 0.0141 0.0064
 Venus -47685-09-02 00:42 J -15695278.68 -15695278.47 -15695278.25 0.0140 0.0040
 Venus -47684-04-16 12:57 J -15695052.18 -15695051.96 -15695051.73 0.0140 0.0017
 Venus -47684-11-29 00:57 J -15694825.69 -15694825.46 -15694825.24 0.0140 0.0006
 Venus -47683-07-13 12:28 J -15694599.20 -15694598.98 -15694598.76 0.0139 0.0029
 Venus -47682-02-24 23:45 J -15694372.70 -15694372.51 -15694372.29 0.0139 0.0052
 Venus -47682-10-09 11:02 J -15694146.22 -15694146.04 -15694145.84 0.0139 0.0074
 Venus -47681-05-22 22:04 J -15693919.73 -15693919.58 -15693919.41 0.0138 0.0096
 Venus -47680-01-04 08:38 J -15693693.24 -15693693.14 -15693693.00 0.0138 0.0117
 Venus -47680-08-18 19:26 J -15693466.69 -15693466.69 -15693466.68 0.0138 0.0138

Mercury -47661-04-24 01:40 J -15686643.49 -15686643.43 -15686643.35 0.0132 0.0116

Mercury -47661-07-21 05:16 J -15686555.37 -15686555.28 -15686555.18 0.0132 0.0097

Mercury -47661-10-17 08:38 J -15686467.24 -15686467.14 -15686467.01 0.0132 0.0079

Mercury -47660-01-13 12:14 J -15686379.11 -15686378.99 -15686378.86 0.0132 0.0060

Mercury -47660-04-11 15:50 J -15686290.97 -15686290.84 -15686290.71 0.0132 0.0041

Mercury -47660-07-08 19:11 J -15686202.84 -15686202.70 -15686202.56 0.0132 0.0023

Mercury -47660-10-04 22:33 J -15686114.70 -15686114.56 -15686114.41 0.0132 0.0006

Mercury -47659-01-01 01:54 J -15686026.55 -15686026.42 -15686026.27 0.0132 0.0014

Mercury -47659-03-30 05:16 J -15685938.41 -15685938.28 -15685938.14 0.0132 0.0032

Mercury -47659-06-26 08:38 J -15685850.26 -15685850.14 -15685850.00 0.0132 0.0050

Mercury -47659-09-22 11:59 J -15685762.12 -15685762.00 -15685761.88 0.0132 0.0067

Mercury -47659-12-19 15:21 J -15685673.96 -15685673.86 -15685673.75 0.0132 0.0085

Mercury -47658-03-17 18:28 J -15685585.81 -15685585.73 -15685585.63 0.0132 0.0103

Mercury -47658-06-13 21:50 J -15685497.64 -15685497.59 -15685497.53 0.0132 0.0121

Earth -47656-09-19 06:14 J -15684669.47 -15684669.24 -15684668.99 0.0132 0.0036

Moon -47656-09-19 09:35 J -15684669.34 -15684669.10 -15684668.85 0.0132 0.0031 *

Moon -47655-09-23 07:11 J -15684300.41 -15684300.20 -15684299.97 0.0132 0.0062

Earth -47655-09-23 10:47 J -15684300.26 -15684300.05 -15684299.83 0.0132 0.0069 *

Mars -47645-12-10 23:02 J -15680568.81 -15680568.54 -15680568.26 0.0136 0.0046

Venus -47643-10-18 05:59 J -15679892.33 -15679892.25 -15679892.14 0.0137 0.0121

Venus -47642-06-01 11:02 J -15679666.17 -15679666.04 -15679665.89 0.0137 0.0102

Venus -47641-01-13 16:04 J -15679439.98 -15679439.83 -15679439.64 0.0137 0.0083

Venus -47641-08-26 21:50 J -15679213.78 -15679213.59 -15679213.40 0.0138 0.0062

Venus -47640-04-10 03:06 J -15678987.56 -15678987.37 -15678987.16 0.0138 0.0042

Venus -47640-11-22 08:38 J -15678761.34 -15678761.14 -15678760.93 0.0138 0.0021

Venus -47639-07-06 14:23 J -15678535.11 -15678534.90 -15678534.69 0.0139 0.0001

Venus -47638-02-17 20:09 J -15678308.86 -15678308.66 -15678308.45 0.0139 0.0021

Venus -47638-10-02 02:23 J -15678082.60 -15678082.40 -15678082.20 0.0139 0.0042

Venus -47637-05-15 08:38 J -15677856.32 -15677856.14 -15677855.95 0.0140 0.0063

Venus -47637-12-27 14:52 J -15677630.04 -15677629.88 -15677629.70 0.0140 0.0084

Venus -47636-08-10 21:21 J -15677403.73 -15677403.61 -15677403.46 0.0140 0.0106
 Venus -47635-03-25 04:18 J -15677177.40 -15677177.32 -15677177.22 0.0141 0.0127
 Mercury -47619-07-21 20:23 J -15671214.65 -15671214.65 -15671214.63 0.0147 0.0147
 Mercury -47619-10-18 03:35 J -15671126.45 -15671126.35 -15671126.24 0.0147 0.0116
 Mercury -47618-01-14 10:47 J -15671038.19 -15671038.05 -15671037.91 0.0147 0.0085
 Mercury -47618-04-12 17:59 J -15670949.92 -15670949.75 -15670949.59 0.0147 0.0054
 Mercury -47618-07-10 01:11 J -15670861.63 -15670861.45 -15670861.28 0.0147 0.0023
 Mercury -47618-10-06 08:23 J -15670773.33 -15670773.15 -15670772.97 0.0147 0.0009
 Mercury -47617-01-02 15:35 J -15670685.02 -15670684.85 -15670684.67 0.0147 0.0041
 Mercury -47617-03-30 22:47 J -15670596.69 -15670596.55 -15670596.38 0.0147 0.0073
 Mercury -47617-06-27 06:14 J -15670508.35 -15670508.24 -15670508.10 0.0147 0.0105
 Mercury -47617-09-23 13:54 J -15670419.98 -15670419.92 -15670419.86 0.0147 0.0137
 Moon -47615-03-14 16:47 J -15669882.90 -15669882.80 -15669882.66 0.0146 0.0131
 Earth -47615-03-14 19:11 J -15669882.80 -15669882.70 -15669882.58 0.0146 0.0132 *
 Earth -47614-03-19 23:59 J -15669512.75 -15669512.50 -15669512.24 0.0146 0.0012
 Moon -47614-03-20 01:26 J -15669512.68 -15669512.44 -15669512.19 0.0146 0.0008 *
 Mars -47604-04-19 18:28 J -15665828.99 -15665828.73 -15665828.46 0.0142 0.0082
 Venus -47603-06-22 16:33 J -15665399.93 -15665399.81 -15665399.69 0.0142 0.0120
 Venus -47602-02-04 05:16 J -15665173.44 -15665173.28 -15665173.11 0.0141 0.0097
 Venus -47602-09-18 17:59 J -15664946.94 -15664946.75 -15664946.56 0.0141 0.0073
 Venus -47601-05-02 06:28 J -15664720.44 -15664720.23 -15664720.02 0.0141 0.0050
 Venus -47601-12-14 18:42 J -15664493.94 -15664493.72 -15664493.50 0.0140 0.0027
 Venus -47600-07-29 06:42 J -15664267.45 -15664267.22 -15664267.00 0.0140 0.0004
 Venus -47599-03-12 18:28 J -15664040.95 -15664040.73 -15664040.50 0.0140 0.0020
 Venus -47599-10-25 05:59 J -15663814.46 -15663814.25 -15663814.03 0.0139 0.0042
 Venus -47598-06-08 17:16 J -15663587.97 -15663587.78 -15663587.57 0.0139 0.0064
 Venus -47597-01-21 04:33 J -15663361.49 -15663361.31 -15663361.13 0.0139 0.0086
 Venus -47597-09-03 15:06 J -15663135.00 -15663134.87 -15663134.72 0.0138 0.0108
 Venus -47596-04-18 02:09 J -15662908.49 -15662908.41 -15662908.33 0.0138 0.0128
 Mercury -47577-02-16 05:16 J -15656030.29 -15656030.28 -15656030.24 0.0132 0.0129

Mercury -47577-05-14 09:06 J -15655942.19 -15655942.12 -15655942.04 0.0132 0.0110

Mercury -47577-08-10 12:42 J -15655854.07 -15655853.97 -15655853.87 0.0132 0.0091

Mercury -47577-11-06 16:04 J -15655765.94 -15655765.83 -15655765.71 0.0132 0.0073

Mercury -47576-02-02 19:40 J -15655677.81 -15655677.68 -15655677.55 0.0132 0.0054

Mercury -47576-05-01 23:02 J -15655589.67 -15655589.54 -15655589.40 0.0132 0.0036

Mercury -47576-07-29 02:38 J -15655501.53 -15655501.39 -15655501.25 0.0132 0.0017

Mercury -47576-10-25 05:59 J -15655413.39 -15655413.25 -15655413.11 0.0132 0.0001

Mercury -47575-01-21 09:21 J -15655325.25 -15655325.11 -15655324.97 0.0132 0.0019

Mercury -47575-04-19 12:42 J -15655237.10 -15655236.97 -15655236.83 0.0132 0.0037

Mercury -47575-07-16 16:04 J -15655148.96 -15655148.83 -15655148.70 0.0132 0.0055

Mercury -47575-10-12 19:26 J -15655060.81 -15655060.69 -15655060.57 0.0132 0.0073

Mercury -47574-01-08 22:33 J -15654972.65 -15654972.56 -15654972.45 0.0132 0.0091

Mercury -47574-04-07 01:54 J -15654884.49 -15654884.42 -15654884.34 0.0132 0.0109

Mercury -47574-07-04 05:16 J -15654796.31 -15654796.28 -15654796.24 0.0132 0.0126

Moon -47573-09-15 10:33 J -15654357.09 -15654357.06 -15654357.02 0.0132 0.0130

Earth -47572-09-19 17:45 J -15653988.00 -15653987.76 -15653987.51 0.0132 0.0029

Moon -47572-09-19 21:06 J -15653987.86 -15653987.62 -15653987.37 0.0132 0.0035 *

Moon -47571-09-23 19:11 J -15653618.89 -15653618.70 -15653618.50 0.0132 0.0082

Earth -47571-09-23 22:18 J -15653618.78 -15653618.57 -15653618.36 0.0132 0.0075 *

Mars -47560-08-05 15:06 J -15649650.14 -15649649.87 -15649649.58 0.0136 0.0040

Venus -47559-06-17 17:16 J -15649333.84 -15649333.78 -15649333.69 0.0137 0.0128

Venus -47558-01-29 22:33 J -15649107.69 -15649107.56 -15649107.43 0.0137 0.0108

Venus -47558-09-13 03:35 J -15648881.50 -15648881.35 -15648881.18 0.0137 0.0089

Venus -47557-04-26 08:38 J -15648655.31 -15648655.14 -15648654.94 0.0138 0.0070

Venus -47557-12-08 13:54 J -15648429.10 -15648428.92 -15648428.71 0.0138 0.0050

Venus -47556-07-22 19:40 J -15648202.88 -15648202.68 -15648202.47 0.0138 0.0029

Venus -47555-03-06 01:11 J -15647976.65 -15647976.45 -15647976.23 0.0139 0.0009

Venus -47555-10-18 07:11 J -15647750.41 -15647750.20 -15647749.99 0.0139 0.0012

Venus -47554-06-01 12:57 J -15647524.16 -15647523.96 -15647523.75 0.0139 0.0033

Venus -47553-01-13 18:57 J -15647297.89 -15647297.71 -15647297.50 0.0140 0.0055

Venus -47553-08-27 01:40 J -15647071.61 -15647071.43 -15647071.25 0.0140 0.0075
 Venus -47552-04-10 08:09 J -15646845.31 -15646845.16 -15646845.01 0.0140 0.0096
 Venus -47552-11-22 14:38 J -15646618.99 -15646618.89 -15646618.76 0.0141 0.0118
 Venus -47551-07-06 21:35 J -15646392.62 -15646392.60 -15646392.56 0.0141 0.0139
 Mercury -47535-08-11 04:18 J -15640513.38 -15640513.32 -15640513.26 0.0147 0.0137
 Mercury -47535-11-07 11:02 J -15640425.15 -15640425.04 -15640424.91 0.0147 0.0107
 Mercury -47534-02-03 18:14 J -15640336.88 -15640336.74 -15640336.58 0.0147 0.0076
 Mercury -47534-05-03 01:26 J -15640248.60 -15640248.44 -15640248.27 0.0147 0.0045
 Mercury -47534-07-30 08:38 J -15640160.31 -15640160.14 -15640159.96 0.0147 0.0014
 Mercury -47534-10-26 15:50 J -15640072.01 -15640071.84 -15640071.66 0.0147 0.0019
 Mercury -47533-01-22 23:16 J -15639983.70 -15639983.53 -15639983.36 0.0147 0.0050
 Mercury -47533-04-20 06:28 J -15639895.37 -15639895.23 -15639895.08 0.0147 0.0082
 Mercury -47533-07-17 13:54 J -15639807.02 -15639806.92 -15639806.80 0.0146 0.0114
 Mercury -47533-10-13 21:21 J -15639718.61 -15639718.61 -15639718.59 0.0146 0.0146
 Moon -47531-03-15 03:21 J -15639201.48 -15639201.36 -15639201.21 0.0146 0.0125
 Earth -47531-03-15 05:59 J -15639201.37 -15639201.25 -15639201.10 0.0146 0.0125 *
 Earth -47530-03-20 10:33 J -15638831.31 -15638831.06 -15638830.80 0.0146 0.0019
 Moon -47530-03-20 12:14 J -15638831.23 -15638830.99 -15638830.74 0.0146 0.0025 *
 Mars -47521-01-09 13:54 J -15635614.10 -15635613.92 -15635613.70 0.0143 0.0111
 Jupiter -47520-07-06 18:57 J -15635070.24 -15635069.71 -15635069.17 0.0142 0.0012
 Venus -47519-02-19 21:21 J -15634841.68 -15634841.61 -15634841.50 0.0142 0.0130
 Venus -47519-10-04 10:18 J -15634615.21 -15634615.07 -15634614.91 0.0141 0.0106
 Venus -47518-05-18 22:47 J -15634388.72 -15634388.55 -15634388.35 0.0141 0.0084
 Venus -47518-12-31 11:30 J -15634162.22 -15634162.02 -15634161.81 0.0141 0.0060
 Venus -47517-08-13 23:45 J -15633935.72 -15633935.51 -15633935.29 0.0140 0.0037
 Venus -47516-03-28 11:59 J -15633709.22 -15633709.00 -15633708.77 0.0140 0.0014
 Venus -47516-11-09 23:45 J -15633482.73 -15633482.51 -15633482.28 0.0140 0.0010
 Venus -47515-06-24 11:30 J -15633256.24 -15633256.02 -15633255.80 0.0139 0.0032
 Venus -47514-02-05 22:47 J -15633029.75 -15633029.55 -15633029.34 0.0139 0.0054
 Venus -47514-09-20 09:50 J -15632803.26 -15632803.09 -15632802.89 0.0139 0.0076

Venus -47513-05-03 20:52 J -15632576.77 -15632576.63 -15632576.46 0.0138 0.0098
 Venus -47513-12-16 07:40 J -15632350.28 -15632350.18 -15632350.06 0.0138 0.0119
 Mercury -47493-03-07 12:28 J -15625329.02 -15625328.98 -15625328.92 0.0132 0.0124
 Mercury -47493-06-03 16:04 J -15625240.91 -15625240.83 -15625240.74 0.0132 0.0105
 Mercury -47493-08-30 19:40 J -15625152.78 -15625152.68 -15625152.57 0.0132 0.0086
 Mercury -47493-11-26 23:02 J -15625064.65 -15625064.54 -15625064.41 0.0132 0.0068
 Mercury -47492-02-23 02:38 J -15624976.52 -15624976.39 -15624976.25 0.0132 0.0049
 Mercury -47492-05-22 06:14 J -15624888.38 -15624888.24 -15624888.10 0.0132 0.0031
 Mercury -47492-08-18 09:35 J -15624800.24 -15624800.10 -15624799.96 0.0132 0.0013
 Mercury -47492-11-14 13:11 J -15624712.10 -15624711.95 -15624711.81 0.0132 0.0007
 Mercury -47491-02-10 16:33 J -15624623.95 -15624623.81 -15624623.67 0.0132 0.0024
 Mercury -47491-05-09 19:54 J -15624535.81 -15624535.67 -15624535.54 0.0132 0.0042
 Mercury -47491-08-05 23:16 J -15624447.66 -15624447.53 -15624447.41 0.0132 0.0060
 Mercury -47491-11-02 02:23 J -15624359.50 -15624359.40 -15624359.28 0.0132 0.0078
 Mercury -47490-01-29 05:45 J -15624271.35 -15624271.26 -15624271.16 0.0132 0.0096
 Mercury -47490-04-27 08:52 J -15624183.19 -15624183.13 -15624183.05 0.0132 0.0114
 Mercury -47490-07-24 12:28 J -15624094.99 -15624094.98 -15624094.97 0.0132 0.0131
 Moon -47489-09-15 20:38 J -15623675.66 -15623675.64 -15623675.59 0.0132 0.0131
 Earth -47489-09-15 23:30 J -15623675.57 -15623675.52 -15623675.44 0.0132 0.0128
 Earth -47488-09-20 04:04 J -15623306.57 -15623306.33 -15623306.08 0.0132 0.0024
 Moon -47488-09-20 06:42 J -15623306.47 -15623306.22 -15623305.96 0.0132 0.0019 *
 Moon -47487-09-24 05:16 J -15622937.47 -15622937.28 -15622937.06 0.0133 0.0075
 Earth -47487-09-24 08:23 J -15622937.34 -15622937.15 -15622936.94 0.0133 0.0081 *
 Mars -47477-04-29 18:42 J -15619431.88 -15619431.72 -15619431.52 0.0136 0.0107
 Venus -47475-02-15 04:18 J -15618775.34 -15618775.32 -15618775.27 0.0136 0.0134
 Mars -47475-03-31 04:47 J -15618731.40 -15618731.30 -15618731.17 0.0137 0.0126
 Venus -47475-09-29 09:06 J -15618549.21 -15618549.12 -15618548.99 0.0137 0.0116
 Venus -47474-05-13 14:23 J -15618323.04 -15618322.90 -15618322.74 0.0137 0.0096
 Venus -47474-12-25 19:40 J -15618096.85 -15618096.68 -15618096.51 0.0137 0.0077
 Venus -47473-08-08 00:57 J -15617870.65 -15617870.46 -15617870.27 0.0138 0.0057

Venus	-47472-03-22 06:14 J	-15617644.44	-15617644.24	-15617644.03	0.0138	0.0037
Venus	-47472-11-03 11:45 J	-15617418.22	-15617418.01	-15617417.80	0.0138	0.0017
Venus	-47471-06-17 17:30 J	-15617191.98	-15617191.77	-15617191.56	0.0139	0.0004
Venus	-47470-01-29 23:16 J	-15616965.73	-15616965.53	-15616965.32	0.0139	0.0024
Venus	-47470-09-13 05:16 J	-15616739.47	-15616739.28	-15616739.07	0.0139	0.0046
Venus	-47469-04-26 11:45 J	-15616513.19	-15616513.01	-15616512.82	0.0140	0.0066
Venus	-47469-12-08 17:59 J	-15616286.90	-15616286.75	-15616286.58	0.0140	0.0087
Venus	-47468-07-23 00:28 J	-15616060.60	-15616060.48	-15616060.33	0.0140	0.0109
Venus	-47467-03-06 07:11 J	-15615834.26	-15615834.20	-15615834.10	0.0141	0.0130
Mercury	-47451-08-31 11:45 J	-15609812.09	-15609812.01	-15609811.92	0.0146	0.0128
Mercury	-47451-11-27 18:42 J	-15609723.84	-15609723.72	-15609723.58	0.0146	0.0098
Mercury	-47450-02-24 01:54 J	-15609635.57	-15609635.42	-15609635.26	0.0146	0.0067
Mercury	-47450-05-23 09:06 J	-15609547.29	-15609547.12	-15609546.95	0.0146	0.0036
Mercury	-47450-08-19 16:18 J	-15609459.00	-15609458.82	-15609458.64	0.0146	0.0004
Mercury	-47450-11-15 23:30 J	-15609370.69	-15609370.52	-15609370.34	0.0146	0.0027
Mercury	-47449-02-12 06:57 J	-15609282.38	-15609282.21	-15609282.05	0.0146	0.0059
Mercury	-47449-05-10 14:09 J	-15609194.05	-15609193.91	-15609193.77	0.0146	0.0091
Mercury	-47449-08-06 21:35 J	-15609105.69	-15609105.60	-15609105.50	0.0146	0.0123
Moon	-47447-03-15 13:54 J	-15608520.07	-15608519.92	-15608519.76	0.0146	0.0118
Earth	-47447-03-15 17:02 J	-15608519.94	-15608519.79	-15608519.64	0.0146	0.0118 *
Earth	-47446-03-20 21:06 J	-15608149.86	-15608149.62	-15608149.36	0.0146	0.0027
Moon	-47446-03-20 23:45 J	-15608149.75	-15608149.51	-15608149.26	0.0146	0.0022 *
Mars	-47437-09-04 14:09 J	-15604694.23	-15604693.91	-15604693.58	0.0143	0.0002
Venus	-47436-10-20 03:21 J	-15604283.39	-15604283.36	-15604283.29	0.0142	0.0138
Venus	-47435-06-03 16:33 J	-15604056.94	-15604056.81	-15604056.68	0.0142	0.0115
Venus	-47434-01-16 05:02 J	-15603830.45	-15603830.29	-15603830.11	0.0141	0.0092
Venus	-47434-08-30 17:45 J	-15603603.95	-15603603.76	-15603603.56	0.0141	0.0069
Venus	-47433-04-13 06:14 J	-15603377.45	-15603377.24	-15603377.03	0.0141	0.0046
Venus	-47433-11-25 18:14 J	-15603150.96	-15603150.74	-15603150.51	0.0140	0.0023
Venus	-47432-07-10 06:14 J	-15602924.46	-15602924.24	-15602924.01	0.0140	0.0001

Venus	-47431-02-21 17:59 J	-15602697.97	-15602697.75	-15602697.52	0.0140	0.0022
Venus	-47431-10-06 05:30 J	-15602471.48	-15602471.27	-15602471.05	0.0139	0.0044
Venus	-47430-05-20 16:47 J	-15602244.99	-15602244.80	-15602244.60	0.0139	0.0066
Venus	-47429-01-02 03:50 J	-15602018.51	-15602018.34	-15602018.16	0.0139	0.0088
Venus	-47429-08-15 14:23 J	-15601792.02	-15601791.90	-15601791.75	0.0138	0.0109
Venus	-47428-03-30 01:11 J	-15601565.51	-15601565.45	-15601565.36	0.0138	0.0130
Mercury	-47409-03-27 19:40 J	-15594627.73	-15594627.68	-15594627.61	0.0132	0.0119
Mercury	-47409-06-23 23:16 J	-15594539.62	-15594539.53	-15594539.43	0.0132	0.0100
Mercury	-47409-09-20 02:52 J	-15594451.49	-15594451.38	-15594451.27	0.0132	0.0081
Mercury	-47409-12-17 06:28 J	-15594363.36	-15594363.23	-15594363.11	0.0132	0.0062
Mercury	-47408-03-15 09:50 J	-15594275.22	-15594275.09	-15594274.95	0.0132	0.0044
Mercury	-47408-06-11 13:26 J	-15594187.08	-15594186.94	-15594186.80	0.0132	0.0025
Mercury	-47408-09-07 16:47 J	-15594098.94	-15594098.80	-15594098.66	0.0132	0.0007
Mercury	-47408-12-04 20:09 J	-15594010.80	-15594010.66	-15594010.52	0.0132	0.0012
Mercury	-47407-03-02 23:30 J	-15593922.65	-15593922.52	-15593922.38	0.0132	0.0030
Mercury	-47407-05-30 02:52 J	-15593834.50	-15593834.38	-15593834.24	0.0132	0.0048
Mercury	-47407-08-26 06:28 J	-15593746.36	-15593746.23	-15593746.11	0.0132	0.0065
Mercury	-47407-11-22 09:35 J	-15593658.20	-15593658.10	-15593657.99	0.0132	0.0083
Mercury	-47406-02-18 12:57 J	-15593570.04	-15593569.96	-15593569.87	0.0132	0.0101
Mercury	-47406-05-17 16:04 J	-15593481.88	-15593481.83	-15593481.76	0.0132	0.0119
Moon	-47405-09-16 07:54 J	-15592994.26	-15592994.17	-15592994.06	0.0132	0.0121
Earth	-47405-09-16 09:50 J	-15592994.17	-15592994.09	-15592993.98	0.0132	0.0123 *
Earth	-47404-09-20 14:23 J	-15592625.15	-15592624.90	-15592624.64	0.0132	0.0018
Moon	-47404-09-20 17:16 J	-15592625.04	-15592624.78	-15592624.53	0.0132	0.0024 *
Moon	-47403-09-24 16:18 J	-15592255.97	-15592255.82	-15592255.62	0.0133	0.0093
Earth	-47403-09-24 18:28 J	-15592255.90	-15592255.73	-15592255.52	0.0133	0.0087 *
Mars	-47393-12-23 08:23 J	-15588513.43	-15588513.15	-15588512.85	0.0136	0.0022
Venus	-47391-05-29 20:09 J	-15587990.75	-15587990.66	-15587990.56	0.0137	0.0122
Venus	-47390-01-11 01:11 J	-15587764.59	-15587764.45	-15587764.32	0.0137	0.0103
Venus	-47390-08-25 05:59 J	-15587538.40	-15587538.25	-15587538.07	0.0137	0.0085

Venus	-47389-04-07 11:16 J	-15587312.21	-15587312.03	-15587311.84	0.0138	0.0065
Venus	-47389-11-19 16:33 J	-15587086.00	-15587085.81	-15587085.60	0.0138	0.0045
Venus	-47388-07-03 22:04 J	-15586859.79	-15586859.58	-15586859.37	0.0138	0.0025
Venus	-47387-02-15 03:50 J	-15586633.55	-15586633.34	-15586633.13	0.0139	0.0006
Venus	-47387-09-29 09:35 J	-15586407.31	-15586407.10	-15586406.89	0.0139	0.0016
Venus	-47386-05-13 15:35 J	-15586181.05	-15586180.85	-15586180.64	0.0139	0.0036
Venus	-47386-12-25 21:50 J	-15585954.78	-15585954.59	-15585954.40	0.0140	0.0057
Venus	-47385-08-08 03:50 J	-15585728.50	-15585728.34	-15585728.15	0.0140	0.0078
Venus	-47384-03-22 10:18 J	-15585502.20	-15585502.07	-15585501.90	0.0140	0.0099
Venus	-47384-11-03 17:30 J	-15585275.88	-15585275.77	-15585275.66	0.0141	0.0120
Venus	-47383-06-18 00:28 J	-15585049.48	-15585049.48	-15585049.47	0.0141	0.0141
Mercury	-47367-09-20 19:11 J	-15579110.79	-15579110.70	-15579110.60	0.0146	0.0120
Mercury	-47367-12-18 02:09 J	-15579022.54	-15579022.41	-15579022.26	0.0146	0.0089
Mercury	-47366-03-16 09:21 J	-15578934.27	-15578934.11	-15578933.95	0.0146	0.0058
Mercury	-47366-06-12 16:33 J	-15578845.98	-15578845.81	-15578845.64	0.0146	0.0027
Mercury	-47366-09-08 23:45 J	-15578757.69	-15578757.51	-15578757.34	0.0146	0.0004
Mercury	-47366-12-06 06:57 J	-15578669.38	-15578669.21	-15578669.04	0.0146	0.0035
Mercury	-47365-03-03 14:09 J	-15578581.06	-15578580.91	-15578580.75	0.0146	0.0067
Mercury	-47365-05-30 21:21 J	-15578492.73	-15578492.61	-15578492.47	0.0146	0.0100
Mercury	-47365-08-27 04:47 J	-15578404.37	-15578404.30	-15578404.21	0.0146	0.0131
Moon	-47363-03-15 23:30 J	-15577838.67	-15577838.52	-15577838.33	0.0146	0.0112
Earth	-47363-03-16 02:52 J	-15577838.53	-15577838.38	-15577838.20	0.0146	0.0112 *
Earth	-47362-03-21 07:11 J	-15577468.44	-15577468.20	-15577467.94	0.0146	0.0031
Moon	-47362-03-21 10:04 J	-15577468.32	-15577468.08	-15577467.84	0.0146	0.0037 *
Mars	-47352-05-01 11:16 J	-15573774.23	-15573774.03	-15573773.80	0.0142	0.0106
Venus	-47351-01-31 21:35 J	-15573498.69	-15573498.60	-15573498.48	0.0142	0.0124
Venus	-47351-09-15 10:47 J	-15573272.21	-15573272.05	-15573271.90	0.0141	0.0101
Venus	-47350-04-29 23:02 J	-15573045.71	-15573045.54	-15573045.34	0.0141	0.0078
Venus	-47350-12-12 11:16 J	-15572819.22	-15572819.03	-15572818.81	0.0141	0.0056
Venus	-47349-07-25 23:45 J	-15572592.73	-15572592.51	-15572592.29	0.0140	0.0033

Venus	-47348-03-09 11:59 J	-15572366.23	-15572366.00	-15572365.78	0.0140	0.0010
Venus	-47348-10-21 23:45 J	-15572139.73	-15572139.51	-15572139.29	0.0140	0.0012
Venus	-47347-06-05 11:16 J	-15571913.25	-15571913.03	-15571912.81	0.0139	0.0035
Venus	-47346-01-17 22:33 J	-15571686.76	-15571686.56	-15571686.35	0.0139	0.0057
Venus	-47346-09-01 09:50 J	-15571460.27	-15571460.09	-15571459.90	0.0139	0.0078
Venus	-47345-04-14 20:38 J	-15571233.78	-15571233.64	-15571233.47	0.0138	0.0100
Venus	-47345-11-27 07:26 J	-15571007.28	-15571007.19	-15571007.06	0.0138	0.0120
Mercury	-47325-04-17 02:38 J	-15563926.45	-15563926.39	-15563926.31	0.0132	0.0114
Mercury	-47325-07-14 06:28 J	-15563838.33	-15563838.23	-15563838.13	0.0132	0.0095
Mercury	-47325-10-10 09:50 J	-15563750.20	-15563750.09	-15563749.97	0.0132	0.0077
Mercury	-47324-01-06 13:26 J	-15563662.07	-15563661.94	-15563661.81	0.0132	0.0058
Mercury	-47324-04-04 16:47 J	-15563573.93	-15563573.80	-15563573.66	0.0132	0.0040
Mercury	-47324-07-01 20:23 J	-15563485.79	-15563485.65	-15563485.51	0.0132	0.0021
Mercury	-47324-09-27 23:45 J	-15563397.65	-15563397.51	-15563397.37	0.0132	0.0004
Mercury	-47324-12-25 03:06 J	-15563309.51	-15563309.37	-15563309.23	0.0132	0.0016
Mercury	-47323-03-23 06:28 J	-15563221.36	-15563221.23	-15563221.09	0.0132	0.0034
Mercury	-47323-06-19 09:50 J	-15563133.21	-15563133.09	-15563132.95	0.0132	0.0052
Mercury	-47323-09-15 13:11 J	-15563045.06	-15563044.95	-15563044.83	0.0132	0.0070
Mercury	-47323-12-12 16:33 J	-15562956.91	-15562956.81	-15562956.70	0.0132	0.0088
Mercury	-47322-03-10 19:54 J	-15562868.75	-15562868.67	-15562868.58	0.0132	0.0105
Mercury	-47322-06-06 23:02 J	-15562780.58	-15562780.54	-15562780.48	0.0132	0.0123
Moon	-47321-09-16 17:02 J	-15562312.87	-15562312.79	-15562312.67	0.0132	0.0121
Earth	-47321-09-16 18:57 J	-15562312.79	-15562312.71	-15562312.57	0.0132	0.0119 *
Earth	-47320-09-20 23:59 J	-15561943.75	-15561943.50	-15561943.25	0.0132	0.0014
Moon	-47320-09-21 01:40 J	-15561943.69	-15561943.43	-15561943.17	0.0132	0.0010 *
Moon	-47319-09-25 01:54 J	-15561574.59	-15561574.42	-15561574.22	0.0133	0.0085
Earth	-47319-09-25 04:18 J	-15561574.50	-15561574.32	-15561574.13	0.0133	0.0091 *
Mars	-47308-08-17 20:09 J	-15557594.90	-15557594.66	-15557594.38	0.0136	0.0063
Venus	-47307-01-27 06:14 J	-15557432.30	-15557432.24	-15557432.17	0.0136	0.0129
Venus	-47307-09-10 11:02 J	-15557206.15	-15557206.04	-15557205.90	0.0137	0.0111

Venus	-47306-04-24 15:50 J	-15556979.98	-15556979.84	-15556979.66	0.0137	0.0092
Venus	-47306-12-06 21:06 J	-15556753.79	-15556753.62	-15556753.43	0.0137	0.0073
Venus	-47305-07-20 02:23 J	-15556527.59	-15556527.40	-15556527.20	0.0138	0.0053
Venus	-47304-03-03 07:54 J	-15556301.37	-15556301.17	-15556300.96	0.0138	0.0033
Venus	-47304-10-15 13:26 J	-15556075.15	-15556074.94	-15556074.73	0.0138	0.0014
Venus	-47303-05-29 19:11 J	-15555848.91	-15555848.70	-15555848.49	0.0139	0.0007
Venus	-47302-01-11 01:11 J	-15555622.66	-15555622.45	-15555622.25	0.0139	0.0027
Venus	-47302-08-25 06:57 J	-15555396.39	-15555396.21	-15555396.00	0.0139	0.0049
Venus	-47301-04-07 13:26 J	-15555170.12	-15555169.94	-15555169.75	0.0140	0.0069
Venus	-47301-11-19 19:54 J	-15554943.83	-15554943.67	-15554943.50	0.0140	0.0089
Venus	-47300-07-04 02:23 J	-15554717.52	-15554717.40	-15554717.26	0.0140	0.0110
Venus	-47299-02-15 09:21 J	-15554491.18	-15554491.11	-15554491.03	0.0141	0.0131
Mercury	-47283-07-14 18:57 J	-15548497.73	-15548497.71	-15548497.66	0.0146	0.0144
Mercury	-47283-10-11 01:54 J	-15548409.51	-15548409.42	-15548409.30	0.0146	0.0114
Mercury	-47282-01-07 09:06 J	-15548321.26	-15548321.12	-15548320.97	0.0146	0.0083
Mercury	-47282-04-05 16:18 J	-15548232.98	-15548232.82	-15548232.65	0.0146	0.0052
Mercury	-47282-07-02 23:30 J	-15548144.70	-15548144.52	-15548144.35	0.0146	0.0021
Mercury	-47282-09-29 06:42 J	-15548056.40	-15548056.22	-15548056.05	0.0146	0.0011
Mercury	-47282-12-26 13:54 J	-15547968.09	-15547967.92	-15547967.75	0.0146	0.0042
Mercury	-47281-03-23 21:06 J	-15547879.77	-15547879.62	-15547879.46	0.0146	0.0074
Mercury	-47281-06-20 04:18 J	-15547791.43	-15547791.32	-15547791.19	0.0146	0.0106
Mercury	-47281-09-16 11:45 J	-15547703.06	-15547703.01	-15547702.94	0.0146	0.0138
Moon	-47279-03-16 07:54 J	-15547157.33	-15547157.17	-15547156.99	0.0146	0.0110
Earth	-47279-03-16 11:30 J	-15547157.18	-15547157.02	-15547156.84	0.0146	0.0109 *
Earth	-47278-03-21 15:50 J	-15546787.08	-15546786.84	-15546786.59	0.0146	0.0035
Moon	-47278-03-21 18:57 J	-15546786.95	-15546786.71	-15546786.46	0.0146	0.0032 *
Mars	-47269-01-21 07:40 J	-15543559.41	-15543559.18	-15543558.91	0.0143	0.0089
Venus	-47268-10-01 02:23 J	-15542940.46	-15542940.40	-15542940.31	0.0142	0.0133
Venus	-47267-05-15 15:21 J	-15542713.99	-15542713.86	-15542713.71	0.0142	0.0110
Venus	-47267-12-28 03:50 J	-15542487.50	-15542487.34	-15542487.15	0.0141	0.0088

Venus	-47266-08-11 16:47 J	-15542261.00	-15542260.80	-15542260.61	0.0141	0.0065
Venus	-47265-03-25 05:02 J	-15542034.50	-15542034.29	-15542034.07	0.0141	0.0042
Venus	-47265-11-06 17:02 J	-15541808.01	-15541807.79	-15541807.56	0.0140	0.0020
Venus	-47264-06-21 05:02 J	-15541581.51	-15541581.29	-15541581.06	0.0140	0.0003
Venus	-47263-02-02 16:47 J	-15541355.02	-15541354.80	-15541354.58	0.0140	0.0025
Venus	-47263-09-17 04:18 J	-15541128.53	-15541128.32	-15541128.10	0.0139	0.0047
Venus	-47262-05-01 15:35 J	-15540902.03	-15540901.85	-15540901.64	0.0139	0.0069
Venus	-47262-12-14 02:38 J	-15540675.54	-15540675.39	-15540675.20	0.0139	0.0091
Venus	-47261-07-27 13:26 J	-15540449.05	-15540448.94	-15540448.79	0.0138	0.0112
Venus	-47260-03-11 00:42 J	-15540222.53	-15540222.47	-15540222.40	0.0138	0.0131
Mercury	-47241-02-09 06:14 J	-15533313.26	-15533313.24	-15533313.20	0.0132	0.0128
Mercury	-47241-05-07 09:50 J	-15533225.16	-15533225.09	-15533225.01	0.0132	0.0109
Mercury	-47241-08-03 13:11 J	-15533137.04	-15533136.95	-15533136.83	0.0132	0.0091
Mercury	-47241-10-30 16:47 J	-15533048.91	-15533048.80	-15533048.67	0.0132	0.0072
Mercury	-47240-01-26 20:23 J	-15532960.78	-15532960.65	-15532960.51	0.0132	0.0054
Mercury	-47240-04-24 23:59 J	-15532872.64	-15532872.50	-15532872.36	0.0132	0.0035
Mercury	-47240-07-22 03:21 J	-15532784.50	-15532784.36	-15532784.22	0.0132	0.0017
Mercury	-47240-10-18 06:57 J	-15532696.36	-15532696.21	-15532696.07	0.0132	0.0004
Mercury	-47239-01-14 10:18 J	-15532608.21	-15532608.07	-15532607.93	0.0132	0.0020
Mercury	-47239-04-12 13:40 J	-15532520.07	-15532519.93	-15532519.80	0.0132	0.0038
Mercury	-47239-07-09 17:02 J	-15532431.92	-15532431.79	-15532431.66	0.0132	0.0056
Mercury	-47239-10-05 20:23 J	-15532343.77	-15532343.65	-15532343.54	0.0132	0.0074
Mercury	-47238-01-01 23:30 J	-15532255.61	-15532255.52	-15532255.41	0.0132	0.0092
Mercury	-47238-03-31 02:52 J	-15532167.45	-15532167.38	-15532167.30	0.0132	0.0110
Mercury	-47238-06-27 06:14 J	-15532079.27	-15532079.24	-15532079.20	0.0132	0.0127
Moon	-47237-09-17 03:35 J	-15531631.45	-15531631.35	-15531631.20	0.0132	0.0114
Earth	-47237-09-17 05:16 J	-15531631.40	-15531631.28	-15531631.15	0.0132	0.0114 *
Earth	-47236-09-21 09:50 J	-15531262.35	-15531262.09	-15531261.84	0.0132	0.0010
Moon	-47236-09-21 11:16 J	-15531262.28	-15531262.03	-15531261.76	0.0132	0.0015 *
Moon	-47235-09-25 12:42 J	-15530893.12	-15530892.97	-15530892.80	0.0133	0.0101

Earth	-47235-09-25 14:09 J	-15530893.09	-15530892.91	-15530892.74	0.0133	0.0095 *
Mars	-47225-05-11 20:23 J	-15527376.87	-15527376.65	-15527376.43	0.0136	0.0088
Venus	-47224-09-26 16:04 J	-15526873.84	-15526873.83	-15526873.79	0.0136	0.0136
Venus	-47223-05-10 21:06 J	-15526647.72	-15526647.62	-15526647.51	0.0137	0.0117
Venus	-47223-12-23 01:40 J	-15526421.56	-15526421.43	-15526421.26	0.0137	0.0099
Venus	-47222-08-06 07:11 J	-15526195.37	-15526195.20	-15526195.03	0.0137	0.0080
Venus	-47221-03-19 12:14 J	-15525969.17	-15525968.99	-15525968.79	0.0137	0.0060
Venus	-47221-10-31 17:30 J	-15525742.96	-15525742.77	-15525742.56	0.0138	0.0041
Venus	-47220-06-14 23:02 J	-15525516.75	-15525516.54	-15525516.33	0.0138	0.0021
Venus	-47219-01-27 04:47 J	-15525290.51	-15525290.30	-15525290.09	0.0138	0.0002
Venus	-47219-09-10 10:47 J	-15525064.26	-15525064.05	-15525063.84	0.0139	0.0019
Venus	-47218-04-24 16:47 J	-15524838.00	-15524837.80	-15524837.60	0.0139	0.0039
Venus	-47218-12-06 22:47 J	-15524611.74	-15524611.55	-15524611.36	0.0139	0.0060
Venus	-47217-07-20 04:47 J	-15524385.45	-15524385.30	-15524385.11	0.0140	0.0081
Venus	-47216-03-03 11:30 J	-15524159.15	-15524159.02	-15524158.86	0.0140	0.0101
Venus	-47216-10-15 18:28 J	-15523932.83	-15523932.73	-15523932.62	0.0140	0.0122
Mercury	-47199-08-04 01:54 J	-15517796.47	-15517796.42	-15517796.35	0.0146	0.0138
Mercury	-47199-10-31 08:52 J	-15517708.24	-15517708.13	-15517708.01	0.0146	0.0108
Mercury	-47198-01-27 16:04 J	-15517619.98	-15517619.83	-15517619.68	0.0146	0.0077
Mercury	-47198-04-25 23:02 J	-15517531.70	-15517531.54	-15517531.37	0.0146	0.0046
Mercury	-47198-07-23 06:14 J	-15517443.42	-15517443.24	-15517443.07	0.0146	0.0015
Mercury	-47198-10-19 13:26 J	-15517355.12	-15517354.94	-15517354.77	0.0146	0.0016
Mercury	-47197-01-15 20:38 J	-15517266.81	-15517266.64	-15517266.47	0.0146	0.0048
Mercury	-47197-04-13 03:35 J	-15517178.49	-15517178.35	-15517178.19	0.0146	0.0080
Mercury	-47197-07-10 10:47 J	-15517090.15	-15517090.05	-15517089.92	0.0146	0.0112
Mercury	-47197-10-06 18:14 J	-15517001.76	-15517001.74	-15517001.69	0.0146	0.0144
Moon	-47195-03-16 15:50 J	-15516476.01	-15516475.84	-15516475.65	0.0146	0.0104
Earth	-47195-03-16 18:57 J	-15516475.86	-15516475.71	-15516475.51	0.0146	0.0107 *
Earth	-47194-03-21 23:30 J	-15516105.76	-15516105.52	-15516105.27	0.0146	0.0038
Moon	-47194-03-22 02:52 J	-15516105.61	-15516105.38	-15516105.13	0.0146	0.0042 *

Mars	-47185-09-15 23:30 J	-15512639.83	-15512639.52	-15512639.19	0.0142	0.0015
Venus	-47184-05-31 06:14 J	-15512382.24	-15512382.24	-15512382.22	0.0142	0.0142
Venus	-47183-01-12 19:11 J	-15512155.81	-15512155.70	-15512155.57	0.0142	0.0119
Venus	-47183-08-27 07:54 J	-15511929.33	-15511929.17	-15511929.00	0.0142	0.0097
Venus	-47182-04-10 20:23 J	-15511702.83	-15511702.65	-15511702.45	0.0141	0.0075
Venus	-47182-11-23 08:52 J	-15511476.33	-15511476.13	-15511475.91	0.0141	0.0052
Venus	-47181-07-06 21:06 J	-15511249.84	-15511249.62	-15511249.40	0.0141	0.0029
Venus	-47180-02-18 09:21 J	-15511023.34	-15511023.11	-15511022.89	0.0140	0.0007
Venus	-47180-10-02 21:06 J	-15510796.84	-15510796.62	-15510796.39	0.0140	0.0016
Venus	-47179-05-17 08:38 J	-15510570.35	-15510570.14	-15510569.91	0.0139	0.0038
Venus	-47179-12-29 20:09 J	-15510343.86	-15510343.66	-15510343.45	0.0139	0.0059
Venus	-47178-08-13 07:40 J	-15510117.36	-15510117.18	-15510117.00	0.0139	0.0080
Venus	-47177-03-26 18:28 J	-15509890.86	-15509890.73	-15509890.56	0.0138	0.0102
Venus	-47177-11-08 05:16 J	-15509664.36	-15509664.28	-15509664.15	0.0138	0.0123
Mercury	-47157-02-29 13:11 J	-15502611.99	-15502611.95	-15502611.90	0.0132	0.0125
Mercury	-47157-05-27 16:33 J	-15502523.89	-15502523.81	-15502523.72	0.0132	0.0106
Mercury	-47157-08-23 20:09 J	-15502435.76	-15502435.66	-15502435.55	0.0132	0.0087
Mercury	-47157-11-19 23:45 J	-15502347.63	-15502347.51	-15502347.39	0.0132	0.0068
Mercury	-47156-02-16 03:06 J	-15502259.49	-15502259.37	-15502259.23	0.0132	0.0050
Mercury	-47156-05-15 06:42 J	-15502171.35	-15502171.22	-15502171.08	0.0132	0.0031
Mercury	-47156-08-11 10:18 J	-15502083.21	-15502083.07	-15502082.93	0.0132	0.0013
Mercury	-47156-11-07 13:40 J	-15501995.07	-15501994.93	-15501994.79	0.0132	0.0006
Mercury	-47155-02-03 17:02 J	-15501906.93	-15501906.79	-15501906.65	0.0132	0.0024
Mercury	-47155-05-02 20:23 J	-15501818.78	-15501818.65	-15501818.51	0.0132	0.0042
Mercury	-47155-07-29 23:45 J	-15501730.63	-15501730.51	-15501730.38	0.0132	0.0060
Mercury	-47155-10-26 03:06 J	-15501642.48	-15501642.37	-15501642.25	0.0132	0.0078
Mercury	-47154-01-22 06:14 J	-15501554.32	-15501554.24	-15501554.13	0.0132	0.0096
Mercury	-47154-04-20 09:50 J	-15501466.16	-15501466.09	-15501466.02	0.0132	0.0113
Mercury	-47154-07-17 12:57 J	-15501377.97	-15501377.96	-15501377.94	0.0132	0.0131
Moon	-47153-09-17 12:42 J	-15500950.09	-15500949.97	-15500949.83	0.0132	0.0112

Earth	-47153-09-17 13:26 J	-15500950.05	-15500949.94	-15500949.78	0.0132	0.0111	*
Earth	-47152-09-21 18:28 J	-15500580.98	-15500580.73	-15500580.48	0.0132	0.0006	
Moon	-47152-09-21 18:57 J	-15500580.97	-15500580.71	-15500580.45	0.0132	0.0003	*
Moon	-47151-09-25 21:35 J	-15500211.76	-15500211.60	-15500211.42	0.0133	0.0094	
Earth	-47151-09-25 22:33 J	-15500211.71	-15500211.56	-15500211.38	0.0133	0.0100	*
Mars	-47140-01-04 07:26 J	-15496458.49	-15496458.19	-15496457.90	0.0136	0.0005	
Venus	-47139-01-08 06:57 J	-15496089.29	-15496089.21	-15496089.12	0.0136	0.0124	
Venus	-47139-08-22 11:45 J	-15495863.13	-15495863.01	-15495862.87	0.0137	0.0106	
Venus	-47138-04-05 16:47 J	-15495636.96	-15495636.80	-15495636.63	0.0137	0.0087	
Venus	-47138-11-17 21:35 J	-15495410.77	-15495410.60	-15495410.40	0.0137	0.0069	
Venus	-47137-07-01 03:06 J	-15495184.56	-15495184.37	-15495184.17	0.0138	0.0049	
Venus	-47136-02-12 08:38 J	-15494958.35	-15494958.14	-15494957.93	0.0138	0.0029	
Venus	-47136-09-26 14:23 J	-15494732.11	-15494731.90	-15494731.69	0.0138	0.0009	
Venus	-47135-05-10 20:09 J	-15494505.87	-15494505.66	-15494505.45	0.0138	0.0011	
Venus	-47135-12-23 01:54 J	-15494279.62	-15494279.42	-15494279.21	0.0139	0.0031	
Venus	-47134-08-06 07:54 J	-15494053.36	-15494053.17	-15494052.97	0.0139	0.0051	
Venus	-47133-03-19 14:09 J	-15493827.08	-15493826.91	-15493826.72	0.0139	0.0072	
Venus	-47133-10-31 20:38 J	-15493600.79	-15493600.64	-15493600.47	0.0140	0.0092	
Venus	-47132-06-15 03:06 J	-15493374.48	-15493374.37	-15493374.23	0.0140	0.0113	
Venus	-47131-01-27 09:50 J	-15493148.14	-15493148.09	-15493148.01	0.0141	0.0133	
Mercury	-47115-08-24 08:23 J	-15487095.20	-15487095.15	-15487095.06	0.0146	0.0133	
Mercury	-47115-11-20 15:21 J	-15487006.97	-15487006.86	-15487006.72	0.0146	0.0103	
Mercury	-47114-02-16 22:33 J	-15486918.70	-15486918.56	-15486918.40	0.0146	0.0072	
Mercury	-47114-05-16 05:45 J	-15486830.43	-15486830.26	-15486830.09	0.0146	0.0041	
Mercury	-47114-08-12 12:42 J	-15486742.14	-15486741.97	-15486741.79	0.0146	0.0011	
Mercury	-47114-11-08 19:54 J	-15486653.84	-15486653.67	-15486653.49	0.0146	0.0021	
Mercury	-47113-02-05 03:06 J	-15486565.53	-15486565.37	-15486565.20	0.0146	0.0053	
Mercury	-47113-05-03 10:18 J	-15486477.21	-15486477.07	-15486476.92	0.0146	0.0085	
Mercury	-47113-07-30 17:30 J	-15486388.86	-15486388.77	-15486388.65	0.0146	0.0117	
Moon	-47111-03-16 23:02 J	-15485794.71	-15485794.54	-15485794.36	0.0146	0.0106	

Earth -47111-03-17 02:38 J -15485794.55 -15485794.39 -15485794.20 0.0146 0.0104 *
 Earth -47110-03-22 06:57 J -15485424.45 -15485424.21 -15485423.96 0.0146 0.0040
 Moon -47110-03-22 10:33 J -15485424.30 -15485424.06 -15485423.81 0.0146 0.0038 *
 Mars -47100-05-12 16:04 J -15481719.99 -15481719.83 -15481719.64 0.0142 0.0118
 Venus -47100-09-11 23:02 J -15481597.63 -15481597.54 -15481597.44 0.0142 0.0128
 Venus -47099-04-26 11:45 J -15481371.15 -15481371.01 -15481370.85 0.0142 0.0106
 Venus -47099-12-09 00:28 J -15481144.66 -15481144.48 -15481144.30 0.0141 0.0084
 Venus -47098-07-23 12:57 J -15480918.16 -15480917.96 -15480917.76 0.0141 0.0061
 Venus -47097-03-06 01:26 J -15480691.66 -15480691.44 -15480691.22 0.0141 0.0039
 Venus -47097-10-18 13:40 J -15480465.16 -15480464.93 -15480464.71 0.0140 0.0017
 Venus -47096-06-02 01:40 J -15480238.66 -15480238.43 -15480238.21 0.0140 0.0006
 Venus -47095-01-14 13:11 J -15480012.16 -15480011.95 -15480011.72 0.0140 0.0028
 Venus -47095-08-29 00:57 J -15479785.67 -15479785.46 -15479785.25 0.0139 0.0049
 Venus -47094-04-12 12:14 J -15479559.17 -15479558.99 -15479558.78 0.0139 0.0071
 Venus -47094-11-24 23:30 J -15479332.67 -15479332.52 -15479332.34 0.0139 0.0092
 Venus -47093-07-08 10:33 J -15479106.18 -15479106.06 -15479105.92 0.0138 0.0113
 Venus -47092-02-19 21:50 J -15478879.65 -15478879.59 -15478879.53 0.0138 0.0132
 Mercury -47073-03-20 20:09 J -15471910.72 -15471910.66 -15471910.61 0.0132 0.0121
 Mercury -47073-06-16 23:16 J -15471822.60 -15471822.53 -15471822.42 0.0132 0.0103
 Mercury -47073-09-13 03:06 J -15471734.48 -15471734.37 -15471734.26 0.0132 0.0083
 Mercury -47073-12-10 06:42 J -15471646.35 -15471646.22 -15471646.10 0.0132 0.0064
 Mercury -47072-03-08 10:04 J -15471558.21 -15471558.08 -15471557.94 0.0132 0.0046
 Mercury -47072-06-04 13:40 J -15471470.07 -15471469.93 -15471469.79 0.0132 0.0027
 Mercury -47072-08-31 17:02 J -15471381.93 -15471381.79 -15471381.64 0.0132 0.0009
 Mercury -47072-11-27 20:38 J -15471293.78 -15471293.64 -15471293.50 0.0132 0.0010
 Mercury -47071-02-23 23:59 J -15471205.64 -15471205.50 -15471205.36 0.0132 0.0028
 Mercury -47071-05-23 03:21 J -15471117.49 -15471117.36 -15471117.23 0.0132 0.0046
 Mercury -47071-08-19 06:42 J -15471029.34 -15471029.22 -15471029.10 0.0132 0.0064
 Mercury -47071-11-15 09:50 J -15470941.19 -15470941.09 -15470940.97 0.0132 0.0082
 Mercury -47070-02-11 13:26 J -15470853.03 -15470852.94 -15470852.85 0.0132 0.0100

Mercury -47070-05-10 16:33 J -15470764.86 -15470764.81 -15470764.74 0.0132 0.0118
 Earth -47069-09-17 23:02 J -15470268.68 -15470268.54 -15470268.38 0.0132 0.0106
 Moon -47069-09-17 22:47 J -15470268.67 -15470268.55 -15470268.39 0.0132 0.0107 *
 Earth -47068-09-22 03:50 J -15469899.60 -15469899.34 -15469899.09 0.0132 0.0002
 Moon -47068-09-22 04:18 J -15469899.58 -15469899.32 -15469899.06 0.0132 0.0005 *
 Earth -47067-09-26 07:54 J -15469530.31 -15469530.17 -15469530.00 0.0133 0.0104
 Moon -47067-09-26 07:54 J -15469530.29 -15469530.17 -15469530.02 0.0133 0.0109 *
 Mars -47056-08-29 19:40 J -15465539.90 -15465539.68 -15465539.41 0.0136 0.0079
 Venus -47056-09-07 16:47 J -15465530.85 -15465530.80 -15465530.73 0.0136 0.0130
 Venus -47055-04-21 21:35 J -15465304.71 -15465304.60 -15465304.47 0.0136 0.0113
 Venus -47055-12-04 02:38 J -15465078.54 -15465078.39 -15465078.23 0.0137 0.0094
 Venus -47054-07-18 07:40 J -15464852.35 -15464852.18 -15464852.00 0.0137 0.0075
 Venus -47053-02-29 12:42 J -15464626.15 -15464625.97 -15464625.77 0.0137 0.0057
 Venus -47053-10-12 18:14 J -15464399.94 -15464399.74 -15464399.53 0.0138 0.0037
 Venus -47052-05-26 23:59 J -15464173.71 -15464173.50 -15464173.29 0.0138 0.0017
 Venus -47051-01-08 05:30 J -15463947.48 -15463947.27 -15463947.05 0.0138 0.0004
 Venus -47051-08-22 11:30 J -15463721.23 -15463721.02 -15463720.81 0.0139 0.0022
 Venus -47050-04-05 17:16 J -15463494.97 -15463494.78 -15463494.57 0.0139 0.0043
 Venus -47050-11-17 23:30 J -15463268.70 -15463268.52 -15463268.33 0.0139 0.0063
 Venus -47049-07-01 05:45 J -15463042.42 -15463042.26 -15463042.08 0.0140 0.0083
 Venus -47048-02-12 12:14 J -15462816.12 -15462815.99 -15462815.84 0.0140 0.0103
 Venus -47048-09-26 18:57 J -15462589.80 -15462589.71 -15462589.60 0.0140 0.0123
 Mercury -47031-09-13 15:35 J -15456393.93 -15456393.85 -15456393.76 0.0146 0.0126
 Mercury -47031-12-10 22:33 J -15456305.69 -15456305.56 -15456305.42 0.0146 0.0095
 Mercury -47030-03-09 05:30 J -15456217.42 -15456217.27 -15456217.11 0.0146 0.0065
 Mercury -47030-06-05 12:42 J -15456129.14 -15456128.97 -15456128.80 0.0146 0.0034
 Mercury -47030-09-01 19:40 J -15456040.85 -15456040.68 -15456040.50 0.0146 0.0005
 Mercury -47030-11-29 02:52 J -15455952.55 -15455952.38 -15455952.21 0.0146 0.0028
 Mercury -47029-02-25 10:04 J -15455864.24 -15455864.08 -15455863.92 0.0146 0.0059
 Mercury -47029-05-23 17:02 J -15455775.91 -15455775.79 -15455775.64 0.0146 0.0092

Mercury	-47029-08-20 00:42 J	-15455687.57	-15455687.47	-15455687.38	0.0146	0.0123
Moon	-47027-03-17 07:54 J	-15455113.35	-15455113.17	-15455112.97	0.0146	0.0096
Earth	-47027-03-17 11:16 J	-15455113.20	-15455113.03	-15455112.83	0.0146	0.0099 *
Earth	-47026-03-22 15:21 J	-15454743.09	-15454742.86	-15454742.60	0.0146	0.0045
Moon	-47026-03-22 19:11 J	-15454742.93	-15454742.70	-15454742.45	0.0146	0.0048 *
Mars	-47017-02-01 11:45 J	-15451505.26	-15451505.01	-15451504.72	0.0143	0.0076
Venus	-47016-05-12 02:23 J	-15451039.43	-15451039.40	-15451039.33	0.0142	0.0139
Venus	-47016-12-24 15:21 J	-15450812.97	-15450812.86	-15450812.72	0.0142	0.0116
Venus	-47015-08-08 04:04 J	-15450586.49	-15450586.33	-15450586.15	0.0142	0.0094
Venus	-47014-03-22 16:47 J	-15450359.98	-15450359.80	-15450359.60	0.0141	0.0071
Venus	-47014-11-04 05:16 J	-15450133.48	-15450133.28	-15450133.06	0.0141	0.0049
Venus	-47013-06-17 17:30 J	-15449906.99	-15449906.77	-15449906.54	0.0141	0.0027
Venus	-47012-01-30 05:45 J	-15449680.48	-15449680.26	-15449680.03	0.0140	0.0004
Venus	-47012-09-13 17:30 J	-15449453.98	-15449453.77	-15449453.54	0.0140	0.0018
Venus	-47011-04-28 05:16 J	-15449227.49	-15449227.28	-15449227.05	0.0140	0.0040
Venus	-47011-12-10 17:02 J	-15449000.99	-15449000.79	-15449000.59	0.0139	0.0061
Venus	-47010-07-25 04:04 J	-15448774.50	-15448774.33	-15448774.13	0.0139	0.0082
Venus	-47009-03-07 15:21 J	-15448547.99	-15448547.86	-15448547.69	0.0139	0.0103
Venus	-47009-10-20 02:09 J	-15448321.49	-15448321.41	-15448321.28	0.0138	0.0124

47TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 47th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury -46989-04-10 02:38 J -15441209.45 -15441209.39 -15441209.32 0.0132 0.0117
 Mercury -46989-07-07 06:14 J -15441121.33 -15441121.24 -15441121.14 0.0132 0.0098
 Mercury -46989-10-03 09:35 J -15441033.20 -15441033.10 -15441032.98 0.0132 0.0080
 Mercury -46989-12-30 13:11 J -15440945.07 -15440944.95 -15440944.82 0.0132 0.0061
 Mercury -46988-03-28 16:47 J -15440856.93 -15440856.80 -15440856.66 0.0132 0.0043
 Mercury -46988-06-24 20:23 J -15440768.79 -15440768.65 -15440768.51 0.0132 0.0024
 Mercury -46988-09-20 23:45 J -15440680.65 -15440680.51 -15440680.36 0.0132 0.0006
 Mercury -46988-12-18 03:21 J -15440592.50 -15440592.36 -15440592.22 0.0132 0.0013
 Mercury -46987-03-16 06:42 J -15440504.36 -15440504.22 -15440504.08 0.0132 0.0031
 Mercury -46987-06-12 10:04 J -15440416.21 -15440416.08 -15440415.95 0.0132 0.0049
 Mercury -46987-09-08 13:26 J -15440328.06 -15440327.94 -15440327.82 0.0132 0.0067
 Mercury -46987-12-05 16:47 J -15440239.90 -15440239.80 -15440239.69 0.0132 0.0085
 Mercury -46986-03-03 19:54 J -15440151.74 -15440151.67 -15440151.57 0.0132 0.0104
 Mercury -46986-05-30 23:16 J -15440063.57 -15440063.53 -15440063.47 0.0132 0.0121
 Earth -46985-09-18 07:11 J -15439587.34 -15439587.20 -15439587.02 0.0132 0.0103
 Moon -46985-09-18 07:26 J -15439587.33 -15439587.19 -15439587.02 0.0132 0.0103 *
 Moon -46984-09-22 11:30 J -15439218.29 -15439218.02 -15439217.76 0.0132 0.0005
 Earth -46984-09-22 12:14 J -15439218.25 -15439217.99 -15439217.74 0.0132 0.0003 *
 Moon -46983-09-26 16:47 J -15438848.94 -15438848.80 -15438848.64 0.0133 0.0103
 Earth -46983-09-26 16:33 J -15438848.94 -15438848.81 -15438848.65 0.0133 0.0108 *
 Mars -46973-05-23 17:16 J -15435322.02 -15435321.78 -15435321.52 0.0136 0.0072
 Venus -46972-12-20 07:11 J -15434746.28 -15434746.20 -15434746.08 0.0136 0.0120
 Venus -46971-08-03 12:14 J -15434520.12 -15434519.99 -15434519.84 0.0137 0.0102
 Venus -46970-03-17 17:16 J -15434293.94 -15434293.78 -15434293.60 0.0137 0.0083
 Venus -46970-10-29 22:33 J -15434067.74 -15434067.56 -15434067.37 0.0137 0.0064
 Venus -46969-06-12 04:04 J -15433841.53 -15433841.33 -15433841.13 0.0138 0.0045
 Venus -46968-01-24 09:21 J -15433615.31 -15433615.11 -15433614.90 0.0138 0.0026
 Venus -46968-09-07 15:21 J -15433389.07 -15433388.86 -15433388.65 0.0138 0.0006
 Venus -46967-04-21 21:06 J -15433162.83 -15433162.62 -15433162.41 0.0139 0.0014

Venus	-46967-12-04 02:38 J	-15432936.58	-15432936.39	-15432936.18	0.0139	0.0034
Venus	-46966-07-18 08:52 J	-15432710.32	-15432710.13	-15432709.93	0.0139	0.0054
Venus	-46965-02-29 14:52 J	-15432484.05	-15432483.88	-15432483.69	0.0140	0.0074
Venus	-46965-10-12 21:21 J	-15432257.75	-15432257.61	-15432257.44	0.0140	0.0094
Venus	-46964-05-27 03:50 J	-15432031.45	-15432031.34	-15432031.20	0.0140	0.0114
Venus	-46963-01-08 10:47 J	-15431805.11	-15431805.05	-15431804.98	0.0141	0.0134
Mercury	-46947-10-03 22:47 J	-15425692.65	-15425692.55	-15425692.45	0.0146	0.0119
Mercury	-46947-12-31 05:30 J	-15425604.40	-15425604.27	-15425604.13	0.0146	0.0089
Mercury	-46946-03-29 12:28 J	-15425516.13	-15425515.98	-15425515.81	0.0146	0.0058
Mercury	-46946-06-25 19:40 J	-15425427.85	-15425427.68	-15425427.51	0.0146	0.0028
Mercury	-46946-09-22 02:38 J	-15425339.56	-15425339.39	-15425339.21	0.0146	0.0005
Mercury	-46946-12-19 09:50 J	-15425251.26	-15425251.09	-15425250.92	0.0146	0.0035
Mercury	-46945-03-16 16:47 J	-15425162.95	-15425162.80	-15425162.63	0.0146	0.0067
Mercury	-46945-06-13 00:14 J	-15425074.62	-15425074.49	-15425074.36	0.0146	0.0098
Mercury	-46945-09-09 07:26 J	-15424986.26	-15424986.19	-15424986.10	0.0146	0.0130
Moon	-46943-03-17 16:47 J	-15424431.97	-15424431.80	-15424431.60	0.0146	0.0098
Earth	-46943-03-17 20:23 J	-15424431.83	-15424431.65	-15424431.45	0.0146	0.0094 *
Earth	-46942-03-23 00:28 J	-15424061.71	-15424061.48	-15424061.23	0.0146	0.0049
Moon	-46942-03-23 04:04 J	-15424061.57	-15424061.33	-15424061.08	0.0146	0.0048 *
Mars	-46933-09-27 04:47 J	-15420585.60	-15420585.30	-15420584.97	0.0143	0.0030
Venus	-46932-08-23 19:54 J	-15420254.76	-15420254.67	-15420254.55	0.0142	0.0125
Venus	-46931-04-07 08:38 J	-15420028.28	-15420028.14	-15420027.97	0.0142	0.0103
Venus	-46931-11-19 21:21 J	-15419801.78	-15419801.61	-15419801.42	0.0141	0.0081
Venus	-46930-07-04 10:04 J	-15419575.28	-15419575.08	-15419574.88	0.0141	0.0058
Venus	-46929-02-15 22:33 J	-15419348.78	-15419348.56	-15419348.34	0.0141	0.0036
Venus	-46929-09-29 10:33 J	-15419122.28	-15419122.06	-15419121.83	0.0140	0.0015
Venus	-46928-05-13 22:47 J	-15418895.78	-15418895.55	-15418895.33	0.0140	0.0008
Venus	-46928-12-26 10:18 J	-15418669.28	-15418669.07	-15418668.84	0.0140	0.0030
Venus	-46927-08-09 22:04 J	-15418442.78	-15418442.58	-15418442.36	0.0139	0.0051
Venus	-46926-03-24 09:35 J	-15418216.28	-15418216.10	-15418215.90	0.0139	0.0072

Venus -46926-11-05 20:52 J -15417989.78 -15417989.63 -15417989.45 0.0139 0.0093
 Venus -46925-06-19 07:40 J -15417763.29 -15417763.18 -15417763.03 0.0138 0.0114
 Venus -46924-01-31 18:42 J -15417536.76 -15417536.72 -15417536.65 0.0138 0.0133
 Mercury -46905-04-30 09:06 J -15410508.17 -15410508.12 -15410508.03 0.0132 0.0115
 Mercury -46905-07-27 12:57 J -15410420.05 -15410419.96 -15410419.86 0.0132 0.0095
 Mercury -46905-10-23 16:33 J -15410331.92 -15410331.81 -15410331.69 0.0132 0.0076
 Mercury -46904-01-19 20:09 J -15410243.79 -15410243.66 -15410243.53 0.0132 0.0057
 Mercury -46904-04-17 23:30 J -15410155.65 -15410155.52 -15410155.38 0.0132 0.0039
 Mercury -46904-07-15 03:06 J -15410067.51 -15410067.37 -15410067.23 0.0132 0.0020
 Mercury -46904-10-11 06:42 J -15409979.37 -15409979.22 -15409979.08 0.0132 0.0004
 Mercury -46903-01-07 10:04 J -15409891.22 -15409891.08 -15409890.94 0.0132 0.0017
 Mercury -46903-04-05 13:26 J -15409803.07 -15409802.94 -15409802.80 0.0132 0.0035
 Mercury -46903-07-02 16:47 J -15409714.92 -15409714.80 -15409714.67 0.0132 0.0053
 Mercury -46903-09-28 20:09 J -15409626.77 -15409626.66 -15409626.54 0.0132 0.0071
 Mercury -46903-12-25 23:30 J -15409538.62 -15409538.52 -15409538.41 0.0132 0.0089
 Mercury -46902-03-24 02:52 J -15409450.45 -15409450.38 -15409450.29 0.0132 0.0107
 Mercury -46902-06-20 05:59 J -15409362.28 -15409362.25 -15409362.19 0.0132 0.0125
 Earth -46901-09-18 16:04 J -15408905.98 -15408905.83 -15408905.65 0.0132 0.0098
 Moon -46901-09-18 17:02 J -15408905.92 -15408905.79 -15408905.60 0.0132 0.0101 *
 Moon -46900-09-22 20:23 J -15408536.91 -15408536.65 -15408536.38 0.0132 0.0005
 Earth -46900-09-22 21:06 J -15408536.87 -15408536.62 -15408536.36 0.0132 0.0007 *
 Earth -46899-09-27 01:40 J -15408167.55 -15408167.43 -15408167.28 0.0133 0.0112
 Moon -46899-09-27 03:06 J -15408167.48 -15408167.37 -15408167.25 0.0133 0.0116 *
 Mars -46888-01-16 05:45 J -15404403.56 -15404403.26 -15404402.96 0.0136 0.0012
 Venus -46888-08-19 17:02 J -15404187.85 -15404187.79 -15404187.70 0.0136 0.0127
 Venus -46887-04-02 21:50 J -15403961.70 -15403961.59 -15403961.44 0.0137 0.0109
 Venus -46887-11-15 03:06 J -15403735.52 -15403735.37 -15403735.21 0.0137 0.0090
 Venus -46886-06-29 08:23 J -15403509.33 -15403509.15 -15403508.97 0.0137 0.0071
 Venus -46885-02-10 13:40 J -15403283.13 -15403282.93 -15403282.74 0.0137 0.0053
 Venus -46885-09-23 18:57 J -15403056.90 -15403056.71 -15403056.50 0.0138 0.0034

Venus	-46884-05-08 00:42 J	-15402830.68	-15402830.47	-15402830.26	0.0138	0.0014
Venus	-46884-12-20 06:28 J	-15402604.45	-15402604.23	-15402604.02	0.0138	0.0006
Venus	-46883-08-03 12:14 J	-15402378.20	-15402377.99	-15402377.79	0.0139	0.0025
Venus	-46882-03-17 17:59 J	-15402151.94	-15402151.75	-15402151.54	0.0139	0.0045
Venus	-46882-10-30 00:14 J	-15401925.67	-15401925.49	-15401925.30	0.0139	0.0065
Venus	-46881-06-12 06:14 J	-15401699.39	-15401699.24	-15401699.06	0.0140	0.0085
Venus	-46880-01-24 12:57 J	-15401473.10	-15401472.96	-15401472.82	0.0140	0.0104
Venus	-46880-09-07 19:26 J	-15401246.77	-15401246.69	-15401246.58	0.0140	0.0124
Mercury	-46863-07-27 22:47 J	-15395079.58	-15395079.55	-15395079.50	0.0146	0.0142
Mercury	-46863-10-24 05:45 J	-15394991.37	-15394991.26	-15394991.15	0.0146	0.0112
Mercury	-46862-01-20 12:42 J	-15394903.11	-15394902.97	-15394902.83	0.0146	0.0082
Mercury	-46862-04-18 19:40 J	-15394814.84	-15394814.68	-15394814.52	0.0146	0.0051
Mercury	-46862-07-16 02:38 J	-15394726.56	-15394726.39	-15394726.21	0.0146	0.0021
Mercury	-46862-10-12 09:50 J	-15394638.27	-15394638.09	-15394637.92	0.0146	0.0011
Mercury	-46861-01-08 16:47 J	-15394549.96	-15394549.80	-15394549.62	0.0146	0.0042
Mercury	-46861-04-05 23:59 J	-15394461.65	-15394461.50	-15394461.34	0.0146	0.0074
Mercury	-46861-07-03 07:11 J	-15394373.31	-15394373.20	-15394373.07	0.0146	0.0105
Mercury	-46861-09-29 14:23 J	-15394284.95	-15394284.90	-15394284.83	0.0146	0.0137
Moon	-46859-03-18 02:52 J	-15393750.57	-15393750.38	-15393750.16	0.0146	0.0086
Earth	-46859-03-18 05:45 J	-15393750.45	-15393750.26	-15393750.04	0.0146	0.0089 *
Earth	-46858-03-23 09:50 J	-15393380.31	-15393380.09	-15393379.84	0.0146	0.0055
Moon	-46858-03-23 13:40 J	-15393380.16	-15393379.93	-15393379.68	0.0146	0.0057 *
Venus	-46848-04-23 00:57 J	-15389696.53	-15389696.46	-15389696.38	0.0142	0.0134
Mars	-46848-05-23 22:47 J	-15389665.62	-15389665.55	-15389665.43	0.0142	0.0136
Venus	-46848-12-05 13:26 J	-15389470.06	-15389469.94	-15389469.79	0.0142	0.0112
Venus	-46847-07-20 02:23 J	-15389243.57	-15389243.40	-15389243.22	0.0142	0.0090
Venus	-46846-03-03 15:06 J	-15389017.06	-15389016.87	-15389016.67	0.0141	0.0068
Venus	-46846-10-16 03:21 J	-15388790.56	-15388790.36	-15388790.13	0.0141	0.0046
Venus	-46845-05-29 15:50 J	-15388564.06	-15388563.84	-15388563.62	0.0141	0.0024
Venus	-46844-01-11 04:04 J	-15388337.56	-15388337.33	-15388337.11	0.0140	0.0003

Venus -46844-08-25 15:50 J -15388111.06 -15388110.84 -15388110.61 0.0140 0.0020
 Venus -46843-04-09 03:35 J -15387884.56 -15387884.35 -15387884.13 0.0140 0.0042
 Venus -46843-11-21 15:06 J -15387658.06 -15387657.87 -15387657.66 0.0139 0.0063
 Venus -46842-07-06 02:38 J -15387431.57 -15387431.39 -15387431.21 0.0139 0.0083
 Venus -46841-02-17 13:40 J -15387205.07 -15387204.93 -15387204.77 0.0139 0.0104
 Venus -46841-10-01 00:42 J -15386978.56 -15386978.47 -15386978.37 0.0138 0.0123
 Mercury -46821-02-22 12:28 J -15379895.00 -15379894.98 -15379894.95 0.0132 0.0130
 Mercury -46821-05-20 15:50 J -15379806.90 -15379806.84 -15379806.75 0.0132 0.0111
 Mercury -46821-08-16 19:26 J -15379718.78 -15379718.69 -15379718.57 0.0132 0.0092
 Mercury -46821-11-12 23:02 J -15379630.65 -15379630.54 -15379630.41 0.0132 0.0074
 Mercury -46820-02-09 02:52 J -15379542.51 -15379542.38 -15379542.25 0.0132 0.0054
 Mercury -46820-05-08 06:14 J -15379454.37 -15379454.24 -15379454.10 0.0132 0.0036
 Mercury -46820-08-04 09:50 J -15379366.23 -15379366.09 -15379365.95 0.0132 0.0017
 Mercury -46820-10-31 13:11 J -15379278.09 -15379277.95 -15379277.80 0.0132 0.0004
 Mercury -46819-01-27 16:47 J -15379189.94 -15379189.80 -15379189.66 0.0132 0.0020
 Mercury -46819-04-25 20:09 J -15379101.79 -15379101.66 -15379101.52 0.0132 0.0038
 Mercury -46819-07-22 23:30 J -15379013.64 -15379013.52 -15379013.39 0.0132 0.0056
 Mercury -46819-10-19 02:52 J -15378925.49 -15378925.38 -15378925.26 0.0132 0.0074
 Mercury -46818-01-15 06:14 J -15378837.33 -15378837.24 -15378837.14 0.0132 0.0092
 Mercury -46818-04-13 09:35 J -15378749.17 -15378749.10 -15378749.02 0.0132 0.0110
 Mercury -46818-07-10 12:42 J -15378660.99 -15378660.97 -15378660.92 0.0132 0.0129
 Earth -46817-09-19 00:14 J -15378224.65 -15378224.49 -15378224.30 0.0132 0.0095
 Moon -46817-09-19 01:40 J -15378224.59 -15378224.43 -15378224.25 0.0132 0.0095 *
 Moon -46816-09-23 03:21 J -15377855.62 -15377855.36 -15377855.10 0.0132 0.0010
 Earth -46816-09-23 05:16 J -15377855.53 -15377855.28 -15377855.03 0.0132 0.0010 *
 Earth -46815-09-27 09:50 J -15377486.20 -15377486.09 -15377485.95 0.0133 0.0115
 Moon -46815-09-27 11:16 J -15377486.15 -15377486.03 -15377485.89 0.0133 0.0111 *
 Venus -46804-04-19 02:23 J -15373629.42 -15373629.40 -15373629.34 0.0136 0.0133
 Mars -46804-09-10 15:21 J -15373485.04 -15373484.86 -15373484.62 0.0136 0.0096
 Venus -46804-12-01 07:26 J -15373403.29 -15373403.19 -15373403.07 0.0136 0.0115

Venus -46803-07-15 12:14 J -15373177.12 -15373176.99 -15373176.82 0.0137 0.0098
 Jupiter -46803-12-02 11:30 J -15373037.31 -15373037.02 -15373036.68 0.0137 0.0106
 Venus -46802-02-26 17:30 J -15372950.93 -15372950.77 -15372950.59 0.0137 0.0079
 Venus -46802-10-10 22:47 J -15372724.73 -15372724.55 -15372724.35 0.0137 0.0061
 Venus -46801-05-24 04:18 J -15372498.52 -15372498.32 -15372498.12 0.0138 0.0042
 Venus -46800-01-05 09:35 J -15372272.30 -15372272.10 -15372271.88 0.0138 0.0023
 Venus -46800-08-19 15:21 J -15372046.07 -15372045.86 -15372045.64 0.0138 0.0004
 Venus -46799-04-02 21:06 J -15371819.83 -15371819.62 -15371819.41 0.0139 0.0016
 Venus -46799-11-15 02:52 J -15371593.58 -15371593.38 -15371593.17 0.0139 0.0036
 Venus -46798-06-29 08:52 J -15371367.32 -15371367.13 -15371366.93 0.0139 0.0055
 Venus -46797-02-10 15:06 J -15371141.05 -15371140.87 -15371140.69 0.0140 0.0075
 Venus -46797-09-23 21:21 J -15370914.75 -15370914.61 -15370914.44 0.0140 0.0095
 Venus -46796-05-08 03:50 J -15370688.45 -15370688.34 -15370688.21 0.0140 0.0115
 Venus -46796-12-20 10:33 J -15370462.11 -15370462.06 -15370461.99 0.0141 0.0134
 Mercury -46779-08-17 05:45 J -15364378.32 -15364378.26 -15364378.20 0.0146 0.0136
 Mercury -46779-11-13 12:14 J -15364290.09 -15364289.99 -15364289.85 0.0146 0.0107
 Mercury -46778-02-09 19:26 J -15364201.83 -15364201.69 -15364201.54 0.0146 0.0076
 Mercury -46778-05-09 02:23 J -15364113.56 -15364113.40 -15364113.23 0.0146 0.0045
 Mercury -46778-08-05 09:35 J -15364025.28 -15364025.10 -15364024.93 0.0146 0.0014
 Mercury -46778-11-01 16:33 J -15363936.98 -15363936.81 -15363936.63 0.0146 0.0017
 Mercury -46777-01-28 23:45 J -15363848.67 -15363848.51 -15363848.34 0.0146 0.0048
 Mercury -46777-04-26 06:57 J -15363760.36 -15363760.21 -15363760.06 0.0146 0.0080
 Mercury -46777-07-23 14:09 J -15363672.02 -15363671.91 -15363671.79 0.0146 0.0111
 Mercury -46777-10-19 21:21 J -15363583.63 -15363583.61 -15363583.57 0.0146 0.0143
 Moon -46775-03-18 11:45 J -15363069.20 -15363069.01 -15363068.81 0.0146 0.0089
 Earth -46775-03-18 14:38 J -15363069.09 -15363068.89 -15363068.68 0.0146 0.0085 *
 Earth -46774-03-23 18:28 J -15362698.95 -15362698.73 -15362698.48 0.0146 0.0058
 Moon -46774-03-23 21:35 J -15362698.83 -15362698.60 -15362698.35 0.0146 0.0058 *
 Mars -46765-02-12 23:16 J -15359450.82 -15359450.53 -15359450.24 0.0143 0.0058
 Venus -46765-12-21 05:30 J -15359138.28 -15359138.27 -15359138.25 0.0142 0.0142

Venus	-46764-08-04 18:14 J	-15358911.85	-15358911.74	-15358911.61	0.0142	0.0120
Venus	-46763-03-19 06:57 J	-15358685.35	-15358685.21	-15358685.03	0.0142	0.0099
Venus	-46763-10-31 19:54 J	-15358458.85	-15358458.67	-15358458.48	0.0141	0.0076
Venus	-46762-06-15 08:38 J	-15358232.35	-15358232.14	-15358231.94	0.0141	0.0054
Venus	-46761-01-27 20:52 J	-15358005.84	-15358005.63	-15358005.41	0.0141	0.0033
Venus	-46761-09-10 09:06 J	-15357779.34	-15357779.12	-15357778.89	0.0140	0.0011
Venus	-46760-04-24 21:21 J	-15357552.84	-15357552.61	-15357552.39	0.0140	0.0011
Venus	-46760-12-07 08:52 J	-15357326.34	-15357326.13	-15357325.90	0.0140	0.0033
Venus	-46759-07-21 20:38 J	-15357099.84	-15357099.64	-15357099.43	0.0139	0.0053
Venus	-46758-03-05 08:09 J	-15356873.34	-15356873.16	-15356872.96	0.0139	0.0074
Venus	-46758-10-17 19:11 J	-15356646.84	-15356646.70	-15356646.52	0.0139	0.0095
Venus	-46757-05-31 06:14 J	-15356420.35	-15356420.24	-15356420.10	0.0138	0.0115
Venus	-46756-01-12 17:02 J	-15356193.82	-15356193.79	-15356193.72	0.0138	0.0134
Mercury	-46737-03-13 19:11 J	-15349193.73	-15349193.70	-15349193.65	0.0132	0.0126
Mercury	-46737-06-09 22:47 J	-15349105.63	-15349105.55	-15349105.46	0.0132	0.0107
Mercury	-46737-09-06 02:23 J	-15349017.50	-15349017.40	-15349017.29	0.0132	0.0088
Mercury	-46737-12-03 05:59 J	-15348929.37	-15348929.25	-15348929.12	0.0132	0.0069
Mercury	-46736-03-01 09:35 J	-15348841.23	-15348841.10	-15348840.97	0.0132	0.0051
Mercury	-46736-05-28 13:11 J	-15348753.09	-15348752.95	-15348752.81	0.0132	0.0032
Mercury	-46736-08-24 16:33 J	-15348664.95	-15348664.81	-15348664.66	0.0132	0.0014
Mercury	-46736-11-20 20:09 J	-15348576.80	-15348576.66	-15348576.52	0.0132	0.0005
Mercury	-46735-02-16 23:30 J	-15348488.66	-15348488.52	-15348488.38	0.0132	0.0024
Mercury	-46735-05-16 02:52 J	-15348400.51	-15348400.38	-15348400.24	0.0132	0.0042
Mercury	-46735-08-12 06:14 J	-15348312.36	-15348312.24	-15348312.11	0.0132	0.0060
Mercury	-46735-11-08 09:35 J	-15348224.20	-15348224.10	-15348223.98	0.0132	0.0078
Mercury	-46734-02-04 12:57 J	-15348136.04	-15348135.96	-15348135.85	0.0132	0.0096
Mercury	-46734-05-03 16:18 J	-15348047.88	-15348047.82	-15348047.74	0.0132	0.0114
Mercury	-46734-07-30 19:54 J	-15347959.68	-15347959.67	-15347959.66	0.0132	0.0131
Earth	-46733-09-19 08:38 J	-15347543.30	-15347543.14	-15347542.94	0.0132	0.0093
Moon	-46733-09-19 11:30 J	-15347543.19	-15347543.02	-15347542.85	0.0132	0.0095 *

Moon	-46732-09-23 12:14 J	-15347174.25	-15347173.99	-15347173.73	0.0132	0.0012
Earth	-46732-09-23 13:54 J	-15347174.16	-15347173.92	-15347173.66	0.0132	0.0013 *
Earth	-46731-09-27 18:42 J	-15346804.83	-15346804.72	-15346804.60	0.0133	0.0118
Moon	-46731-09-27 20:38 J	-15346804.72	-15346804.64	-15346804.53	0.0133	0.0122 *
Mars	-46721-06-04 10:47 J	-15343267.31	-15343267.05	-15343266.77	0.0136	0.0058
Venus	-46720-07-31 17:02 J	-15342844.88	-15342844.79	-15342844.69	0.0136	0.0121
Jupiter	-46720-10-23 17:45 J	-15342760.99	-15342760.76	-15342760.52	0.0136	0.0120
Venus	-46719-03-14 21:50 J	-15342618.72	-15342618.59	-15342618.45	0.0136	0.0104
Venus	-46719-10-27 02:52 J	-15342392.54	-15342392.38	-15342392.21	0.0137	0.0086
Venus	-46718-06-10 07:54 J	-15342166.34	-15342166.17	-15342165.98	0.0137	0.0068
Venus	-46717-01-22 13:11 J	-15341940.14	-15341939.95	-15341939.74	0.0137	0.0049
Venus	-46717-09-04 18:42 J	-15341713.92	-15341713.72	-15341713.51	0.0138	0.0031
Venus	-46716-04-19 00:14 J	-15341487.70	-15341487.49	-15341487.27	0.0138	0.0012
Venus	-46716-12-01 05:45 J	-15341261.46	-15341261.26	-15341261.04	0.0138	0.0009
Venus	-46715-07-15 11:30 J	-15341035.22	-15341035.02	-15341034.81	0.0139	0.0027
Venus	-46714-02-26 17:30 J	-15340808.97	-15340808.77	-15340808.57	0.0139	0.0046
Venus	-46714-10-10 23:30 J	-15340582.70	-15340582.52	-15340582.33	0.0139	0.0066
Venus	-46713-05-24 05:30 J	-15340356.42	-15340356.27	-15340356.09	0.0140	0.0086
Venus	-46712-01-05 11:59 J	-15340130.12	-15340130.00	-15340129.85	0.0140	0.0105
Venus	-46712-08-19 18:42 J	-15339903.81	-15339903.72	-15339903.62	0.0140	0.0125
Mercury	-46695-09-06 12:28 J	-15333677.06	-15333676.98	-15333676.91	0.0146	0.0131
Mercury	-46695-12-03 19:11 J	-15333588.82	-15333588.70	-15333588.57	0.0146	0.0101
Mercury	-46694-03-02 02:09 J	-15333500.56	-15333500.41	-15333500.26	0.0146	0.0070
Mercury	-46694-05-29 09:06 J	-15333412.28	-15333412.12	-15333411.95	0.0146	0.0040
Mercury	-46694-08-25 16:18 J	-15333324.00	-15333323.82	-15333323.65	0.0146	0.0009
Mercury	-46694-11-21 23:16 J	-15333235.70	-15333235.53	-15333235.35	0.0146	0.0022
Mercury	-46693-02-18 06:28 J	-15333147.39	-15333147.23	-15333147.07	0.0146	0.0053
Mercury	-46693-05-16 13:26 J	-15333059.07	-15333058.94	-15333058.79	0.0146	0.0085
Mercury	-46693-08-12 20:52 J	-15332970.73	-15332970.63	-15332970.52	0.0146	0.0117
Moon	-46691-03-18 20:23 J	-15332387.85	-15332387.65	-15332387.43	0.0146	0.0078

Earth	-46691-03-18 22:04 J	-15332387.77	-15332387.58	-15332387.35	0.0146	0.0083	*
Earth	-46690-03-24 02:23 J	-15332017.62	-15332017.40	-15332017.16	0.0146	0.0061	
Moon	-46690-03-24 05:45 J	-15332017.49	-15332017.26	-15332017.02	0.0146	0.0062	*
Mars	-46681-10-08 13:54 J	-15328531.21	-15328530.92	-15328530.61	0.0142	0.0045	
Venus	-46680-04-03 22:33 J	-15328353.65	-15328353.56	-15328353.46	0.0142	0.0129	
Venus	-46680-11-16 11:16 J	-15328127.17	-15328127.03	-15328126.88	0.0142	0.0107	
Venus	-46679-06-30 23:59 J	-15327900.67	-15327900.50	-15327900.31	0.0142	0.0085	
Venus	-46678-02-12 12:42 J	-15327674.16	-15327673.97	-15327673.76	0.0141	0.0064	
Venus	-46678-09-27 01:11 J	-15327447.65	-15327447.45	-15327447.22	0.0141	0.0042	
Venus	-46677-05-10 13:40 J	-15327221.15	-15327220.93	-15327220.70	0.0141	0.0020	
Venus	-46677-12-23 01:54 J	-15326994.65	-15326994.42	-15326994.20	0.0140	0.0002	
Venus	-46676-08-06 13:40 J	-15326768.15	-15326767.93	-15326767.70	0.0140	0.0023	
Venus	-46675-03-21 01:40 J	-15326541.64	-15326541.43	-15326541.21	0.0140	0.0044	
Venus	-46675-11-02 13:11 J	-15326315.14	-15326314.95	-15326314.75	0.0139	0.0065	
Venus	-46674-06-17 00:28 J	-15326088.65	-15326088.48	-15326088.30	0.0139	0.0085	
Venus	-46673-01-29 11:45 J	-15325862.16	-15325862.01	-15325861.87	0.0139	0.0105	
Venus	-46673-09-11 22:33 J	-15325635.65	-15325635.56	-15325635.46	0.0138	0.0125	
Mercury	-46653-04-03 01:40 J	-15318492.47	-15318492.43	-15318492.37	0.0132	0.0123	
Mercury	-46653-06-30 05:30 J	-15318404.35	-15318404.27	-15318404.18	0.0132	0.0104	
Mercury	-46653-09-26 09:06 J	-15318316.22	-15318316.12	-15318316.01	0.0132	0.0085	
Mercury	-46653-12-23 12:42 J	-15318228.09	-15318227.97	-15318227.84	0.0132	0.0066	
Mercury	-46652-03-21 16:18 J	-15318139.95	-15318139.82	-15318139.69	0.0132	0.0047	
Mercury	-46652-06-17 19:40 J	-15318051.81	-15318051.68	-15318051.53	0.0132	0.0030	
Mercury	-46652-09-13 23:16 J	-15317963.67	-15317963.53	-15317963.39	0.0132	0.0011	
Mercury	-46652-12-11 02:52 J	-15317875.52	-15317875.38	-15317875.24	0.0132	0.0008	
Mercury	-46651-03-09 06:14 J	-15317787.38	-15317787.24	-15317787.10	0.0132	0.0027	
Mercury	-46651-06-05 09:35 J	-15317699.23	-15317699.10	-15317698.96	0.0132	0.0045	
Mercury	-46651-09-01 12:57 J	-15317611.08	-15317610.96	-15317610.83	0.0132	0.0063	
Mercury	-46651-11-28 16:18 J	-15317522.92	-15317522.82	-15317522.70	0.0132	0.0081	
Mercury	-46650-02-24 19:40 J	-15317434.76	-15317434.68	-15317434.58	0.0132	0.0099	

Mercury -46650-05-23 23:02 J -15317346.59 -15317346.54 -15317346.47 0.0132 0.0117
 Earth -46649-09-19 16:47 J -15316861.97 -15316861.80 -15316861.60 0.0132 0.0090
 Moon -46649-09-19 19:26 J -15316861.87 -15316861.69 -15316861.50 0.0132 0.0088 *
 Moon -46648-09-23 18:57 J -15316492.96 -15316492.71 -15316492.45 0.0132 0.0015
 Earth -46648-09-23 21:50 J -15316492.84 -15316492.59 -15316492.33 0.0132 0.0016 *
 Earth -46647-09-28 02:23 J -15316123.49 -15316123.40 -15316123.29 0.0133 0.0121
 Moon -46647-09-28 04:33 J -15316123.40 -15316123.31 -15316123.18 0.0133 0.0118 *
 Mars -46636-01-27 21:21 J -15312348.89 -15312348.61 -15312348.31 0.0136 0.0024
 Venus -46636-03-31 01:54 J -15312286.47 -15312286.42 -15312286.34 0.0136 0.0128
 Venus -46636-11-12 06:57 J -15312060.33 -15312060.21 -15312060.08 0.0136 0.0111
 Venus -46635-06-26 11:59 J -15311834.15 -15311834.00 -15311833.85 0.0137 0.0093
 Venus -46634-02-07 16:47 J -15311607.96 -15311607.80 -15311607.61 0.0137 0.0075
 Venus -46634-09-21 22:18 J -15311381.76 -15311381.57 -15311381.37 0.0137 0.0057
 Venus -46633-05-05 03:21 J -15311155.55 -15311155.36 -15311155.14 0.0138 0.0039
 Venus -46633-12-17 08:52 J -15310929.33 -15310929.13 -15310928.92 0.0138 0.0020
 Venus -46632-07-31 14:23 J -15310703.11 -15310702.90 -15310702.68 0.0138 0.0003
 Venus -46631-03-14 20:09 J -15310476.87 -15310476.66 -15310476.45 0.0138 0.0019
 Venus -46631-10-27 01:54 J -15310250.62 -15310250.42 -15310250.21 0.0139 0.0038
 Venus -46630-06-10 07:40 J -15310024.36 -15310024.18 -15310023.98 0.0139 0.0058
 Venus -46629-01-22 13:54 J -15309798.09 -15309797.92 -15309797.74 0.0139 0.0077
 Venus -46629-09-04 20:09 J -15309571.80 -15309571.66 -15309571.49 0.0140 0.0096
 Venus -46628-04-19 02:38 J -15309345.49 -15309345.39 -15309345.26 0.0140 0.0115
 Venus -46628-12-01 09:06 J -15309119.16 -15309119.12 -15309119.04 0.0140 0.0135
 Mercury -46611-09-26 18:42 J -15302975.79 -15302975.72 -15302975.62 0.0146 0.0126
 Mercury -46611-12-24 01:40 J -15302887.55 -15302887.43 -15302887.29 0.0146 0.0096
 Mercury -46610-03-22 08:38 J -15302799.29 -15302799.14 -15302798.98 0.0146 0.0066
 Mercury -46610-06-18 15:35 J -15302711.01 -15302710.85 -15302710.68 0.0146 0.0035
 Mercury -46610-09-14 22:47 J -15302622.73 -15302622.55 -15302622.38 0.0146 0.0005
 Mercury -46610-12-12 05:45 J -15302534.43 -15302534.26 -15302534.09 0.0146 0.0027
 Mercury -46609-03-09 12:42 J -15302446.12 -15302445.97 -15302445.80 0.0146 0.0059

Mercury -46609-06-05 20:09 J -15302357.80 -15302357.66 -15302357.52 0.0146 0.0090

Mercury -46609-09-02 03:06 J -15302269.45 -15302269.37 -15302269.26 0.0146 0.0122

Moon -46607-03-19 03:21 J -15301706.54 -15301706.36 -15301706.15 0.0146 0.0086

Earth -46607-03-19 05:16 J -15301706.48 -15301706.28 -15301706.05 0.0146 0.0081 *

Earth -46606-03-24 09:21 J -15301336.33 -15301336.11 -15301335.87 0.0146 0.0063

Moon -46606-03-24 11:30 J -15301336.25 -15301336.02 -15301335.77 0.0146 0.0064 *

Venus -46597-12-02 01:40 J -15297795.47 -15297795.43 -15297795.35 0.0142 0.0138

Venus -46596-07-16 14:38 J -15297569.00 -15297568.89 -15297568.74 0.0142 0.0116

Venus -46595-02-28 04:04 J -15297342.49 -15297342.33 -15297342.16 0.0142 0.0094

Venus -46595-10-12 16:33 J -15297115.99 -15297115.81 -15297115.60 0.0141 0.0073

Venus -46594-05-27 05:02 J -15296889.48 -15296889.29 -15296889.07 0.0141 0.0052

Venus -46593-01-08 17:45 J -15296662.98 -15296662.76 -15296662.54 0.0141 0.0029

Venus -46593-08-22 05:59 J -15296436.47 -15296436.25 -15296436.02 0.0140 0.0008

Venus -46592-04-05 17:59 J -15296209.97 -15296209.75 -15296209.52 0.0140 0.0014

Venus -46592-11-18 05:59 J -15295983.47 -15295983.25 -15295983.03 0.0140 0.0035

Venus -46591-07-02 17:30 J -15295756.97 -15295756.77 -15295756.56 0.0139 0.0056

Venus -46590-02-14 04:47 J -15295530.47 -15295530.30 -15295530.10 0.0139 0.0076

Venus -46590-09-28 16:18 J -15295303.98 -15295303.82 -15295303.65 0.0139 0.0096

Venus -46589-05-12 03:21 J -15295077.48 -15295077.36 -15295077.23 0.0138 0.0116

Venus -46589-12-24 13:40 J -15294850.95 -15294850.93 -15294850.86 0.0138 0.0136

Mercury -46569-04-23 08:38 J -15287791.19 -15287791.14 -15287791.07 0.0132 0.0119

Mercury -46569-07-20 12:14 J -15287703.08 -15287702.99 -15287702.89 0.0132 0.0100

Mercury -46569-10-16 15:50 J -15287614.95 -15287614.84 -15287614.72 0.0132 0.0082

Mercury -46568-01-12 19:40 J -15287526.81 -15287526.68 -15287526.56 0.0132 0.0063

Mercury -46568-04-10 23:02 J -15287438.67 -15287438.54 -15287438.40 0.0132 0.0044

Mercury -46568-07-08 02:38 J -15287350.53 -15287350.39 -15287350.25 0.0132 0.0025

Mercury -46568-10-04 06:14 J -15287262.39 -15287262.24 -15287262.10 0.0132 0.0007

Mercury -46568-12-31 09:35 J -15287174.24 -15287174.10 -15287173.96 0.0132 0.0012

Mercury -46567-03-29 13:11 J -15287086.09 -15287085.95 -15287085.82 0.0132 0.0030

Mercury -46567-06-25 16:33 J -15286997.94 -15286997.81 -15286997.68 0.0132 0.0048

Mercury -46567-09-21 19:54 J -15286909.79 -15286909.67 -15286909.55 0.0132 0.0067

Mercury -46567-12-18 23:02 J -15286821.63 -15286821.54 -15286821.42 0.0132 0.0086

Mercury -46566-03-17 02:23 J -15286733.47 -15286733.40 -15286733.30 0.0132 0.0103

Mercury -46566-06-13 05:59 J -15286645.30 -15286645.25 -15286645.19 0.0132 0.0121

Earth -46565-09-20 01:11 J -15286180.62 -15286180.45 -15286180.24 0.0132 0.0086

Moon -46565-09-20 04:47 J -15286180.48 -15286180.30 -15286180.12 0.0132 0.0090 *

Moon -46564-09-24 03:35 J -15285811.61 -15285811.35 -15285811.09 0.0132 0.0019

Earth -46564-09-24 06:28 J -15285811.48 -15285811.23 -15285810.98 0.0132 0.0019 *

Earth -46563-09-28 10:33 J -15285442.13 -15285442.06 -15285441.95 0.0133 0.0124

Moon -46563-09-28 13:40 J -15285441.98 -15285441.93 -15285441.84 0.0133 0.0127 *

Mars -46554-10-22 13:40 J -15282130.99 -15282130.93 -15282130.81 0.0135 0.0130

Venus -46553-11-28 11:16 J -15281728.05 -15281728.03 -15281727.99 0.0136 0.0134

Venus -46552-07-12 16:04 J -15281501.92 -15281501.83 -15281501.71 0.0136 0.0117

Mars -46552-09-22 09:21 J -15281430.28 -15281430.11 -15281429.91 0.0136 0.0107

Venus -46551-02-23 21:06 J -15281275.76 -15281275.62 -15281275.47 0.0136 0.0100

Venus -46551-10-08 02:09 J -15281049.57 -15281049.41 -15281049.23 0.0137 0.0082

Venus -46550-05-22 07:11 J -15280823.38 -15280823.20 -15280823.01 0.0137 0.0064

Venus -46549-01-03 12:28 J -15280597.18 -15280596.98 -15280596.78 0.0137 0.0046

Venus -46549-08-16 17:59 J -15280370.96 -15280370.75 -15280370.55 0.0138 0.0027

Venus -46548-03-30 23:16 J -15280144.74 -15280144.53 -15280144.32 0.0138 0.0009

Venus -46548-11-12 04:47 J -15279918.51 -15279918.30 -15279918.09 0.0138 0.0011

Venus -46547-06-26 10:18 J -15279692.27 -15279692.07 -15279691.85 0.0139 0.0030

Venus -46546-02-07 16:04 J -15279466.01 -15279465.83 -15279465.62 0.0139 0.0049

Venus -46546-09-21 22:33 J -15279239.74 -15279239.56 -15279239.37 0.0139 0.0068

Venus -46545-05-05 04:47 J -15279013.46 -15279013.30 -15279013.14 0.0140 0.0087

Venus -46545-12-17 11:02 J -15278787.17 -15278787.04 -15278786.90 0.0140 0.0106

Venus -46544-07-31 17:30 J -15278560.85 -15278560.77 -15278560.67 0.0140 0.0125

Mercury -46527-10-17 01:40 J -15272274.53 -15272274.43 -15272274.34 0.0146 0.0121

Mercury -46526-01-13 08:23 J -15272186.28 -15272186.15 -15272186.01 0.0146 0.0091

Mercury -46526-04-11 15:21 J -15272098.02 -15272097.86 -15272097.70 0.0146 0.0060

Mercury -46526-07-08 22:18 J -15272009.74 -15272009.57 -15272009.40 0.0146 0.0030
 Mercury -46526-10-05 05:16 J -15271921.45 -15271921.28 -15271921.10 0.0146 0.0004
 Mercury -46525-01-01 12:28 J -15271833.15 -15271832.98 -15271832.81 0.0146 0.0032
 Mercury -46525-03-29 19:26 J -15271744.84 -15271744.69 -15271744.53 0.0146 0.0064
 Mercury -46525-06-26 02:38 J -15271656.52 -15271656.39 -15271656.25 0.0146 0.0095
 Mercury -46525-09-22 10:04 J -15271568.17 -15271568.08 -15271567.99 0.0146 0.0127
 Moon -46523-03-19 11:59 J -15271025.20 -15271025.00 -15271024.77 0.0146 0.0073
 Earth -46523-03-19 12:57 J -15271025.17 -15271024.96 -15271024.74 0.0146 0.0078 *
 Earth -46522-03-24 16:47 J -15270655.02 -15270654.80 -15270654.56 0.0146 0.0065
 Moon -46522-03-24 18:57 J -15270654.93 -15270654.71 -15270654.46 0.0146 0.0065 *
 Mars -46513-02-24 04:04 J -15267396.63 -15267396.33 -15267396.04 0.0143 0.0047
 Venus -46512-03-15 18:42 J -15267010.81 -15267010.72 -15267010.60 0.0142 0.0124
 Jupiter -46512-09-27 10:33 J -15266815.47 -15266815.06 -15266814.58 0.0142 0.0079
 Venus -46512-10-28 07:40 J -15266784.32 -15266784.18 -15266784.02 0.0142 0.0103
 Venus -46511-06-11 20:23 J -15266557.82 -15266557.65 -15266557.46 0.0142 0.0082
 Venus -46510-01-24 09:06 J -15266331.31 -15266331.12 -15266330.91 0.0141 0.0060
 Venus -46510-09-07 21:50 J -15266104.81 -15266104.59 -15266104.37 0.0141 0.0038
 Venus -46509-04-21 10:04 J -15265878.30 -15265878.08 -15265877.85 0.0141 0.0017
 Venus -46509-12-03 22:18 J -15265651.80 -15265651.57 -15265651.35 0.0140 0.0004
 Venus -46508-07-18 10:18 J -15265425.30 -15265425.07 -15265424.85 0.0140 0.0025
 Venus -46507-03-01 22:04 J -15265198.79 -15265198.58 -15265198.37 0.0140 0.0046
 Venus -46507-10-14 09:21 J -15264972.30 -15264972.11 -15264971.90 0.0139 0.0067
 Venus -46506-05-28 20:52 J -15264745.80 -15264745.63 -15264745.45 0.0139 0.0086
 Venus -46505-01-10 07:54 J -15264519.31 -15264519.17 -15264519.02 0.0139 0.0106
 Venus -46505-08-23 18:28 J -15264292.80 -15264292.73 -15264292.62 0.0138 0.0126
 Mercury -46485-05-13 15:06 J -15257089.92 -15257089.87 -15257089.79 0.0132 0.0117
 Mercury -46485-08-09 18:57 J -15257001.80 -15257001.71 -15257001.61 0.0132 0.0097
 Mercury -46485-11-05 22:33 J -15256913.67 -15256913.56 -15256913.44 0.0132 0.0078
 Mercury -46484-02-02 02:09 J -15256825.53 -15256825.41 -15256825.28 0.0132 0.0059
 Mercury -46484-05-01 05:45 J -15256737.39 -15256737.26 -15256737.12 0.0132 0.0041

Mercury -46484-07-28 09:21 J -15256649.25 -15256649.11 -15256648.97 0.0132 0.0022

Mercury -46484-10-24 12:57 J -15256561.11 -15256560.96 -15256560.82 0.0132 0.0005

Mercury -46483-01-20 16:18 J -15256472.96 -15256472.82 -15256472.68 0.0132 0.0015

Mercury -46483-04-18 19:40 J -15256384.81 -15256384.68 -15256384.54 0.0132 0.0034

Mercury -46483-07-15 23:02 J -15256296.66 -15256296.54 -15256296.40 0.0132 0.0052

Mercury -46483-10-12 02:38 J -15256208.51 -15256208.39 -15256208.27 0.0132 0.0070

Mercury -46482-01-08 05:59 J -15256120.35 -15256120.25 -15256120.14 0.0132 0.0088

Mercury -46482-04-06 09:06 J -15256032.19 -15256032.12 -15256032.02 0.0132 0.0107

Mercury -46482-07-03 12:28 J -15255944.01 -15255943.98 -15255943.92 0.0132 0.0124

Earth -46481-09-20 09:06 J -15255499.30 -15255499.12 -15255498.91 0.0132 0.0084

Moon -46481-09-20 12:28 J -15255499.17 -15255498.98 -15255498.78 0.0132 0.0081 *

Moon -46480-09-24 10:33 J -15255130.31 -15255130.06 -15255129.80 0.0132 0.0020

Earth -46480-09-24 14:09 J -15255130.16 -15255129.91 -15255129.66 0.0132 0.0021 *

Earth -46479-09-28 18:14 J -15254760.79 -15254760.74 -15254760.65 0.0133 0.0127

Moon -46479-09-28 21:21 J -15254760.67 -15254760.61 -15254760.51 0.0133 0.0125 *

Mars -46469-06-16 02:23 J -15251212.66 -15251212.40 -15251212.10 0.0136 0.0047

Venus -46468-03-12 01:40 J -15250943.52 -15250943.43 -15250943.34 0.0136 0.0123

Venus -46468-10-24 06:14 J -15250717.36 -15250717.24 -15250717.10 0.0136 0.0106

Venus -46467-06-07 11:16 J -15250491.19 -15250491.03 -15250490.87 0.0137 0.0089

Venus -46466-01-19 16:18 J -15250265.00 -15250264.82 -15250264.64 0.0137 0.0071

Venus -46466-09-02 21:21 J -15250038.79 -15250038.61 -15250038.40 0.0137 0.0054

Venus -46465-04-16 02:52 J -15249812.58 -15249812.38 -15249812.18 0.0137 0.0035

Venus -46465-11-28 08:09 J -15249586.37 -15249586.16 -15249585.95 0.0138 0.0016

Venus -46464-07-12 13:40 J -15249360.14 -15249359.93 -15249359.72 0.0138 0.0003

Venus -46463-02-23 19:11 J -15249133.91 -15249133.70 -15249133.49 0.0138 0.0021

Venus -46463-10-08 01:11 J -15248907.65 -15248907.45 -15248907.25 0.0139 0.0040

Venus -46462-05-22 06:57 J -15248681.39 -15248681.21 -15248681.01 0.0139 0.0059

Venus -46461-01-03 12:57 J -15248455.12 -15248454.96 -15248454.77 0.0139 0.0078

Venus -46461-08-16 19:26 J -15248228.83 -15248228.69 -15248228.53 0.0140 0.0097

Venus -46460-03-31 01:54 J -15248002.53 -15248002.42 -15248002.30 0.0140 0.0116

Venus -46460-11-12 08:23 J -15247776.18 -15247776.15 -15247776.08 0.0140 0.0136

Mercury -46443-08-10 01:26 J -15241661.45 -15241661.44 -15241661.40 0.0146 0.0145

Mercury -46443-11-06 08:23 J -15241573.25 -15241573.15 -15241573.04 0.0146 0.0114

Mercury -46442-02-02 15:21 J -15241485.00 -15241484.86 -15241484.72 0.0146 0.0084

Mercury -46442-05-01 22:04 J -15241396.73 -15241396.58 -15241396.41 0.0146 0.0054

Mercury -46442-07-29 05:16 J -15241308.45 -15241308.28 -15241308.11 0.0146 0.0023

Mercury -46442-10-25 12:14 J -15241220.16 -15241219.99 -15241219.81 0.0146 0.0008

Mercury -46441-01-21 19:26 J -15241131.86 -15241131.69 -15241131.52 0.0146 0.0039

Mercury -46441-04-19 02:09 J -15241043.55 -15241043.41 -15241043.24 0.0146 0.0071

Mercury -46441-07-16 09:35 J -15240955.22 -15240955.10 -15240954.97 0.0146 0.0101

Mercury -46441-10-12 16:33 J -15240866.87 -15240866.81 -15240866.72 0.0146 0.0134

Moon -46439-03-19 20:38 J -15240343.84 -15240343.64 -15240343.43 0.0146 0.0080

Earth -46439-03-19 21:21 J -15240343.82 -15240343.61 -15240343.39 0.0146 0.0075 *

Earth -46438-03-25 00:57 J -15239973.67 -15239973.46 -15239973.22 0.0146 0.0069

Moon -46438-03-25 02:09 J -15239973.64 -15239973.41 -15239973.18 0.0146 0.0071 *

Mars -46429-10-19 18:57 J -15236476.99 -15236476.71 -15236476.41 0.0142 0.0057

Venus -46429-11-12 22:47 J -15236452.62 -15236452.55 -15236452.46 0.0142 0.0133

Venus -46428-06-27 11:59 J -15236226.14 -15236226.00 -15236225.86 0.0142 0.0111

Venus -46427-02-09 00:57 J -15235999.63 -15235999.46 -15235999.29 0.0142 0.0090

Venus -46427-09-23 13:40 J -15235773.13 -15235772.93 -15235772.74 0.0141 0.0069

Venus -46426-05-08 02:09 J -15235546.62 -15235546.41 -15235546.20 0.0141 0.0047

Venus -46426-12-20 14:23 J -15235320.12 -15235319.90 -15235319.68 0.0141 0.0026

Venus -46425-08-03 02:38 J -15235093.61 -15235093.39 -15235093.17 0.0140 0.0005

Venus -46424-03-17 14:38 J -15234867.11 -15234866.89 -15234866.66 0.0140 0.0016

Venus -46424-10-30 02:23 J -15234640.61 -15234640.40 -15234640.17 0.0140 0.0037

Venus -46423-06-13 13:54 J -15234414.11 -15234413.92 -15234413.70 0.0140 0.0057

Venus -46422-01-26 01:26 J -15234187.62 -15234187.44 -15234187.25 0.0139 0.0077

Venus -46422-09-09 12:28 J -15233961.13 -15233960.98 -15233960.81 0.0139 0.0097

Venus -46421-04-22 23:30 J -15233734.62 -15233734.52 -15233734.38 0.0139 0.0117

Venus -46421-12-05 10:18 J -15233508.09 -15233508.07 -15233508.01 0.0138 0.0136

Mercury -46401-03-06 18:28 J -15226476.74 -15226476.73 -15226476.71 0.0132 0.0131

Mercury -46401-06-02 22:04 J -15226388.65 -15226388.58 -15226388.50 0.0132 0.0112

Mercury -46401-08-30 01:40 J -15226300.52 -15226300.43 -15226300.32 0.0132 0.0093

Mercury -46401-11-26 05:30 J -15226212.39 -15226212.27 -15226212.15 0.0132 0.0074

Mercury -46400-02-22 09:06 J -15226124.25 -15226124.12 -15226123.99 0.0132 0.0055

Mercury -46400-05-21 12:28 J -15226036.11 -15226035.98 -15226035.84 0.0132 0.0037

Mercury -46400-08-17 16:04 J -15225947.97 -15225947.83 -15225947.69 0.0132 0.0018

Mercury -46400-11-13 19:40 J -15225859.82 -15225859.68 -15225859.54 0.0132 0.0000

Mercury -46399-02-09 23:02 J -15225771.68 -15225771.54 -15225771.39 0.0132 0.0019

Mercury -46399-05-09 02:38 J -15225683.53 -15225683.39 -15225683.25 0.0132 0.0037

Mercury -46399-08-05 05:59 J -15225595.38 -15225595.25 -15225595.12 0.0132 0.0055

Mercury -46399-11-01 09:35 J -15225507.22 -15225507.10 -15225506.99 0.0132 0.0074

Mercury -46398-01-28 12:57 J -15225419.06 -15225418.96 -15225418.86 0.0132 0.0092

Mercury -46398-04-26 16:18 J -15225330.90 -15225330.82 -15225330.74 0.0132 0.0110

Mercury -46398-07-23 19:26 J -15225242.72 -15225242.69 -15225242.65 0.0132 0.0128

Earth -46397-09-20 17:45 J -15224817.96 -15224817.76 -15224817.55 0.0132 0.0080

Moon -46397-09-20 21:06 J -15224817.80 -15224817.62 -15224817.41 0.0132 0.0085 *

Moon -46396-09-24 19:11 J -15224448.95 -15224448.70 -15224448.45 0.0133 0.0026

Earth -46396-09-24 22:18 J -15224448.80 -15224448.57 -15224448.31 0.0133 0.0026 *

Earth -46395-09-29 02:52 J -15224079.42 -15224079.38 -15224079.32 0.0133 0.0130

Moon -46395-09-29 06:14 J -15224079.24 -15224079.24 -15224079.19 0.0133 0.0132

Venus -46385-11-09 10:47 J -15220385.09 -15220385.05 -15220384.97 0.0136 0.0130

Mars -46384-02-08 14:52 J -15220294.15 -15220293.88 -15220293.58 0.0136 0.0038

Venus -46384-06-23 15:35 J -15220158.95 -15220158.85 -15220158.72 0.0136 0.0113

Venus -46383-02-04 20:38 J -15219932.78 -15219932.64 -15219932.48 0.0136 0.0096

Venus -46383-09-19 01:54 J -15219706.59 -15219706.42 -15219706.25 0.0137 0.0078

Venus -46382-05-03 06:57 J -15219480.40 -15219480.21 -15219480.02 0.0137 0.0060

Venus -46382-12-15 11:59 J -15219254.20 -15219254.00 -15219253.80 0.0137 0.0042

Venus -46381-07-28 17:16 J -15219027.99 -15219027.78 -15219027.57 0.0138 0.0024

Venus -46380-03-11 22:47 J -15218801.76 -15218801.55 -15218801.34 0.0138 0.0006

Venus	-46380-10-24 04:18 J	-15218575.53	-15218575.32	-15218575.11	0.0138	0.0013
Venus	-46379-06-07 10:04 J	-15218349.28	-15218349.08	-15218348.87	0.0139	0.0032
Venus	-46378-01-19 15:35 J	-15218123.03	-15218122.85	-15218122.64	0.0139	0.0051
Venus	-46378-09-02 22:04 J	-15217896.76	-15217896.58	-15217896.40	0.0139	0.0069
Venus	-46377-04-16 04:04 J	-15217670.48	-15217670.33	-15217670.16	0.0140	0.0089
Venus	-46377-11-28 10:47 J	-15217444.18	-15217444.05	-15217443.92	0.0140	0.0107
Venus	-46376-07-12 17:02 J	-15217217.86	-15217217.79	-15217217.69	0.0140	0.0127
Mercury	-46359-08-30 08:38 J	-15210960.19	-15210960.14	-15210960.08	0.0146	0.0137
Mercury	-46359-11-26 15:21 J	-15210871.97	-15210871.86	-15210871.73	0.0146	0.0108
Mercury	-46358-02-22 22:18 J	-15210783.71	-15210783.57	-15210783.42	0.0146	0.0077
Mercury	-46358-05-22 05:16 J	-15210695.44	-15210695.28	-15210695.11	0.0146	0.0047
Mercury	-46358-08-18 12:14 J	-15210607.16	-15210606.99	-15210606.82	0.0146	0.0016
Mercury	-46358-11-14 19:11 J	-15210518.87	-15210518.70	-15210518.52	0.0146	0.0015
Mercury	-46357-02-11 02:23 J	-15210430.57	-15210430.40	-15210430.23	0.0146	0.0046
Mercury	-46357-05-09 09:21 J	-15210342.25	-15210342.11	-15210341.95	0.0146	0.0077
Mercury	-46357-08-05 16:33 J	-15210253.92	-15210253.81	-15210253.69	0.0146	0.0108
Mercury	-46357-11-01 23:30 J	-15210165.55	-15210165.52	-15210165.45	0.0146	0.0141
Earth	-46355-03-20 05:59 J	-15209662.46	-15209662.25	-15209662.01	0.0146	0.0070
Moon	-46355-03-20 06:28 J	-15209662.44	-15209662.23	-15209662.00	0.0146	0.0064 *
Earth	-46354-03-25 10:18 J	-15209292.29	-15209292.07	-15209291.85	0.0146	0.0073
Moon	-46354-03-25 10:47 J	-15209292.26	-15209292.05	-15209291.80	0.0146	0.0072 *
Mars	-46346-07-12 00:57 J	-15206261.55	-15206261.46	-15206261.34	0.0143	0.0134
Venus	-46345-07-13 03:35 J	-15205894.37	-15205894.35	-15205894.30	0.0143	0.0141
Venus	-46344-02-24 17:02 J	-15205667.91	-15205667.79	-15205667.67	0.0142	0.0120
Venus	-46344-10-09 05:30 J	-15205441.41	-15205441.27	-15205441.09	0.0142	0.0099
Venus	-46343-05-23 18:14 J	-15205214.91	-15205214.74	-15205214.54	0.0142	0.0078
Venus	-46342-01-05 06:57 J	-15204988.41	-15204988.21	-15204988.00	0.0141	0.0056
Venus	-46342-08-19 19:26 J	-15204761.90	-15204761.69	-15204761.47	0.0141	0.0035
Venus	-46341-04-02 07:40 J	-15204535.40	-15204535.18	-15204534.95	0.0141	0.0015
Venus	-46341-11-14 19:54 J	-15204308.90	-15204308.67	-15204308.45	0.0140	0.0007

Venus -46340-06-29 07:40 J -15204082.40 -15204082.18 -15204081.96 0.0140 0.0027
 Venus -46339-02-10 19:11 J -15203855.90 -15203855.70 -15203855.48 0.0140 0.0048
 Venus -46339-09-25 06:28 J -15203629.41 -15203629.23 -15203629.02 0.0139 0.0069
 Venus -46338-05-09 17:59 J -15203402.91 -15203402.75 -15203402.57 0.0139 0.0088
 Venus -46338-12-22 05:16 J -15203176.42 -15203176.28 -15203176.14 0.0139 0.0107
 Venus -46337-08-04 15:50 J -15202949.91 -15202949.84 -15202949.73 0.0138 0.0126
 Mercury -46317-03-27 00:57 J -15195775.48 -15195775.46 -15195775.41 0.0132 0.0129
 Mercury -46317-06-23 04:47 J -15195687.37 -15195687.30 -15195687.21 0.0132 0.0109
 Mercury -46317-09-19 08:23 J -15195599.25 -15195599.15 -15195599.04 0.0132 0.0090
 Mercury -46317-12-16 11:59 J -15195511.11 -15195511.00 -15195510.87 0.0132 0.0071
 Mercury -46316-03-14 15:35 J -15195422.98 -15195422.85 -15195422.71 0.0132 0.0053
 Mercury -46316-06-10 19:11 J -15195334.83 -15195334.70 -15195334.56 0.0132 0.0034
 Mercury -46316-09-06 22:47 J -15195246.69 -15195246.55 -15195246.41 0.0132 0.0015
 Mercury -46316-12-04 02:23 J -15195158.55 -15195158.40 -15195158.26 0.0132 0.0004
 Mercury -46315-03-02 05:45 J -15195070.40 -15195070.26 -15195070.12 0.0132 0.0022
 Mercury -46315-05-29 09:21 J -15194982.25 -15194982.11 -15194981.98 0.0132 0.0040
 Mercury -46315-08-25 12:42 J -15194894.10 -15194893.97 -15194893.84 0.0132 0.0059
 Mercury -46315-11-21 15:50 J -15194805.94 -15194805.84 -15194805.71 0.0132 0.0078
 Mercury -46314-02-17 19:11 J -15194717.78 -15194717.70 -15194717.59 0.0132 0.0096
 Mercury -46314-05-16 23:02 J -15194629.61 -15194629.54 -15194629.47 0.0132 0.0113
 Mercury -46314-08-13 02:09 J -15194541.42 -15194541.41 -15194541.38 0.0132 0.0131
 Earth -46313-09-21 01:26 J -15194136.63 -15194136.44 -15194136.22 0.0132 0.0077
 Moon -46313-09-21 05:02 J -15194136.49 -15194136.29 -15194136.07 0.0132 0.0074 *
 Moon -46312-09-25 02:38 J -15193767.64 -15193767.39 -15193767.14 0.0132 0.0025
 Earth -46312-09-25 06:14 J -15193767.48 -15193767.24 -15193766.98 0.0132 0.0028 *
 Earth -46311-09-29 10:47 J -15193398.05 -15193398.05 -15193398.04 0.0133 0.0132
 Moon -46311-09-29 13:40 J -15193397.93 -15193397.93 -15193397.87 0.0133 0.0132
 Mars -46302-11-03 06:14 J -15190076.38 -15190076.24 -15190076.08 0.0135 0.0116
 Venus -46300-02-21 00:57 J -15189600.55 -15189600.46 -15189600.35 0.0136 0.0119
 Mars -46300-10-04 01:40 J -15189375.54 -15189375.43 -15189375.27 0.0136 0.0122

Venus	-46300-10-05 05:45 J	-15189374.39	-15189374.26	-15189374.11	0.0136	0.0103
Venus	-46299-05-19 10:33 J	-15189148.21	-15189148.06	-15189147.88	0.0137	0.0086
Venus	-46299-12-31 15:35 J	-15188922.02	-15188921.85	-15188921.65	0.0137	0.0068
Venus	-46298-08-14 20:52 J	-15188695.82	-15188695.63	-15188695.42	0.0137	0.0050
Venus	-46297-03-28 02:09 J	-15188469.61	-15188469.41	-15188469.20	0.0138	0.0032
Venus	-46297-11-09 07:40 J	-15188243.39	-15188243.18	-15188242.97	0.0138	0.0014
Venus	-46296-06-23 13:11 J	-15188017.16	-15188016.95	-15188016.74	0.0138	0.0005
Venus	-46295-02-04 18:42 J	-15187790.92	-15187790.72	-15187790.51	0.0138	0.0023
Venus	-46295-09-19 00:42 J	-15187564.67	-15187564.47	-15187564.26	0.0139	0.0042
Venus	-46294-05-03 06:42 J	-15187338.41	-15187338.22	-15187338.03	0.0139	0.0061
Venus	-46294-12-15 12:42 J	-15187112.13	-15187111.97	-15187111.79	0.0139	0.0080
Venus	-46293-07-28 19:11 J	-15186885.84	-15186885.70	-15186885.55	0.0140	0.0098
Venus	-46292-03-12 01:40 J	-15186659.53	-15186659.43	-15186659.31	0.0140	0.0117
Venus	-46292-10-24 08:38 J	-15186433.18	-15186433.14	-15186433.08	0.0140	0.0136
Mercury	-46275-09-19 15:35 J	-15180258.91	-15180258.85	-15180258.76	0.0146	0.0131
Mercury	-46275-12-16 22:33 J	-15180170.68	-15180170.56	-15180170.43	0.0146	0.0101
Mercury	-46274-03-15 05:30 J	-15180082.42	-15180082.27	-15180082.12	0.0146	0.0070
Mercury	-46274-06-11 12:14 J	-15179994.15	-15179993.99	-15179993.82	0.0146	0.0041
Mercury	-46274-09-07 19:26 J	-15179905.87	-15179905.69	-15179905.52	0.0146	0.0010
Mercury	-46274-12-05 02:23 J	-15179817.57	-15179817.40	-15179817.23	0.0146	0.0021
Mercury	-46273-03-02 09:21 J	-15179729.27	-15179729.11	-15179728.94	0.0146	0.0053
Mercury	-46273-05-29 16:18 J	-15179640.95	-15179640.82	-15179640.67	0.0146	0.0084
Mercury	-46273-08-25 23:30 J	-15179552.62	-15179552.52	-15179552.40	0.0146	0.0116
Earth	-46271-03-20 15:21 J	-15178981.08	-15178980.86	-15178980.62	0.0146	0.0066
Moon	-46271-03-20 15:35 J	-15178981.05	-15178980.85	-15178980.62	0.0146	0.0073 *
Moon	-46270-03-25 19:11 J	-15178610.92	-15178610.70	-15178610.48	0.0146	0.0081
Earth	-46270-03-25 19:11 J	-15178610.90	-15178610.70	-15178610.47	0.0146	0.0078 *
Mars	-46261-03-06 18:42 J	-15175342.03	-15175341.72	-15175341.41	0.0143	0.0029
Venus	-46261-10-24 21:50 J	-15175109.67	-15175109.59	-15175109.48	0.0142	0.0128
Venus	-46260-06-08 11:02 J	-15174883.18	-15174883.04	-15174882.89	0.0142	0.0107

Venus	-46259-01-20 23:30 J	-15174656.68	-15174656.52	-15174656.33	0.0142	0.0086
Venus	-46259-09-04 12:14 J	-15174430.18	-15174429.99	-15174429.78	0.0142	0.0065
Venus	-46258-04-19 00:57 J	-15174203.67	-15174203.46	-15174203.24	0.0141	0.0043
Venus	-46258-12-01 13:11 J	-15173977.17	-15173976.95	-15173976.73	0.0141	0.0023
Venus	-46257-07-15 01:11 J	-15173750.67	-15173750.45	-15173750.22	0.0141	0.0003
Venus	-46256-02-26 13:11 J	-15173524.17	-15173523.95	-15173523.72	0.0140	0.0019
Venus	-46256-10-11 00:57 J	-15173297.67	-15173297.46	-15173297.24	0.0140	0.0039
Venus	-46255-05-25 12:28 J	-15173071.17	-15173070.98	-15173070.77	0.0140	0.0059
Venus	-46254-01-06 23:45 J	-15172844.68	-15172844.51	-15172844.31	0.0139	0.0079
Venus	-46254-08-21 11:16 J	-15172618.19	-15172618.03	-15172617.87	0.0139	0.0098
Venus	-46253-04-03 22:04 J	-15172391.68	-15172391.58	-15172391.45	0.0139	0.0118
Venus	-46253-11-16 08:52 J	-15172165.15	-15172165.13	-15172165.07	0.0138	0.0136
Mercury	-46233-04-16 07:54 J	-15165074.21	-15165074.17	-15165074.11	0.0132	0.0124
Mercury	-46233-07-13 11:30 J	-15164986.09	-15164986.02	-15164985.92	0.0132	0.0105
Mercury	-46233-10-09 15:21 J	-15164897.97	-15164897.86	-15164897.75	0.0132	0.0086
Mercury	-46232-01-05 18:57 J	-15164809.83	-15164809.71	-15164809.58	0.0132	0.0067
Mercury	-46232-04-03 22:33 J	-15164721.69	-15164721.56	-15164721.42	0.0132	0.0048
Mercury	-46232-07-01 02:09 J	-15164633.55	-15164633.41	-15164633.27	0.0132	0.0030
Mercury	-46232-09-27 05:45 J	-15164545.41	-15164545.26	-15164545.12	0.0132	0.0011
Mercury	-46232-12-24 09:06 J	-15164457.26	-15164457.12	-15164456.98	0.0132	0.0008
Mercury	-46231-03-22 12:28 J	-15164369.11	-15164368.98	-15164368.83	0.0132	0.0027
Mercury	-46231-06-18 16:04 J	-15164280.96	-15164280.83	-15164280.69	0.0132	0.0044
Mercury	-46231-09-14 19:26 J	-15164192.81	-15164192.69	-15164192.56	0.0132	0.0062
Mercury	-46231-12-11 22:47 J	-15164104.65	-15164104.55	-15164104.43	0.0132	0.0081
Mercury	-46230-03-10 02:09 J	-15164016.49	-15164016.41	-15164016.31	0.0132	0.0099
Mercury	-46230-06-06 05:30 J	-15163928.32	-15163928.27	-15163928.20	0.0132	0.0117
Earth	-46229-09-21 09:50 J	-15163455.28	-15163455.09	-15163454.87	0.0132	0.0074
Moon	-46229-09-21 13:26 J	-15163455.13	-15163454.94	-15163454.72	0.0132	0.0080 *
Moon	-46228-09-25 11:16 J	-15163086.27	-15163086.03	-15163085.78	0.0132	0.0033
Earth	-46228-09-25 14:52 J	-15163086.13	-15163085.88	-15163085.63	0.0132	0.0031 *

Mars	-46217-06-27 18:42 J	-15159158.00	-15159157.72	-15159157.41	0.0136	0.0033
Venus	-46217-10-21 10:33 J	-15159042.14	-15159042.06	-15159041.98	0.0136	0.0125
Venus	-46216-06-04 15:21 J	-15158815.99	-15158815.86	-15158815.74	0.0136	0.0109
Venus	-46215-01-16 20:09 J	-15158589.81	-15158589.66	-15158589.50	0.0136	0.0092
Venus	-46215-08-31 00:57 J	-15158363.62	-15158363.46	-15158363.27	0.0137	0.0075
Venus	-46214-04-14 06:14 J	-15158137.43	-15158137.24	-15158137.05	0.0137	0.0057
Venus	-46214-11-26 11:16 J	-15157911.23	-15157911.03	-15157910.82	0.0137	0.0040
Venus	-46213-07-09 16:33 J	-15157685.01	-15157684.81	-15157684.60	0.0138	0.0022
Venus	-46212-02-20 22:04 J	-15157458.79	-15157458.58	-15157458.37	0.0138	0.0004
Venus	-46212-10-05 03:50 J	-15157232.55	-15157232.34	-15157232.13	0.0138	0.0015
Venus	-46211-05-19 09:35 J	-15157006.30	-15157006.10	-15157005.89	0.0139	0.0034
Venus	-46211-12-31 15:35 J	-15156780.05	-15156779.85	-15156779.66	0.0139	0.0052
Venus	-46210-08-14 21:21 J	-15156553.78	-15156553.61	-15156553.41	0.0139	0.0071
Venus	-46209-03-28 03:50 J	-15156327.49	-15156327.34	-15156327.17	0.0140	0.0090
Venus	-46209-11-09 10:18 J	-15156101.19	-15156101.07	-15156100.93	0.0140	0.0108
Venus	-46208-06-23 16:47 J	-15155874.87	-15155874.80	-15155874.70	0.0140	0.0127
Mercury	-46191-10-09 22:33 J	-15149557.64	-15149557.56	-15149557.46	0.0146	0.0125
Mercury	-46190-01-06 05:30 J	-15149469.40	-15149469.27	-15149469.14	0.0146	0.0094
Mercury	-46190-04-04 12:14 J	-15149381.14	-15149380.99	-15149380.83	0.0146	0.0065
Mercury	-46190-07-01 19:11 J	-15149292.86	-15149292.70	-15149292.53	0.0146	0.0034
Mercury	-46190-09-28 02:09 J	-15149204.58	-15149204.41	-15149204.23	0.0146	0.0005
Mercury	-46190-12-25 09:21 J	-15149116.29	-15149116.11	-15149115.94	0.0146	0.0028
Mercury	-46189-03-22 16:18 J	-15149027.98	-15149027.82	-15149027.66	0.0146	0.0059
Mercury	-46189-06-18 23:16 J	-15148939.66	-15148939.53	-15148939.38	0.0146	0.0090
Mercury	-46189-09-15 06:28 J	-15148851.32	-15148851.23	-15148851.13	0.0146	0.0122
Earth	-46187-03-20 23:45 J	-15148299.73	-15148299.51	-15148299.27	0.0146	0.0062
Moon	-46187-03-21 01:26 J	-15148299.66	-15148299.44	-15148299.20	0.0146	0.0055 *
Moon	-46186-03-26 03:35 J	-15147929.57	-15147929.35	-15147929.12	0.0146	0.0078
Earth	-46186-03-26 03:35 J	-15147929.54	-15147929.35	-15147929.12	0.0146	0.0082 *
Venus	-46177-06-24 02:52 J	-15144551.44	-15144551.38	-15144551.30	0.0143	0.0135

Mars	-46177-10-31 10:33 J	-15144422.31	-15144422.06	-15144421.77	0.0142	0.0077
Venus	-46176-02-05 15:50 J	-15144324.96	-15144324.84	-15144324.69	0.0142	0.0114
Venus	-46176-09-20 05:02 J	-15144098.46	-15144098.29	-15144098.12	0.0142	0.0093
Venus	-46175-05-04 17:30 J	-15143871.96	-15143871.77	-15143871.57	0.0142	0.0073
Venus	-46175-12-17 05:59 J	-15143645.45	-15143645.25	-15143645.04	0.0141	0.0052
Venus	-46174-07-31 18:14 J	-15143418.95	-15143418.74	-15143418.51	0.0141	0.0032
Venus	-46173-03-14 06:42 J	-15143192.44	-15143192.22	-15143191.99	0.0141	0.0011
Venus	-46173-10-26 18:42 J	-15142965.94	-15142965.72	-15142965.49	0.0140	0.0011
Venus	-46172-06-10 06:42 J	-15142739.44	-15142739.22	-15142739.00	0.0140	0.0031
Venus	-46171-01-22 18:14 J	-15142512.94	-15142512.74	-15142512.53	0.0140	0.0051
Venus	-46171-09-06 05:45 J	-15142286.45	-15142286.26	-15142286.06	0.0139	0.0070
Venus	-46170-04-20 17:02 J	-15142059.95	-15142059.79	-15142059.61	0.0139	0.0090
Venus	-46170-12-03 04:18 J	-15141833.45	-15141833.32	-15141833.17	0.0139	0.0109
Venus	-46169-07-16 15:21 J	-15141606.94	-15141606.86	-15141606.77	0.0138	0.0128
Mercury	-46149-05-06 14:52 J	-15134372.93	-15134372.88	-15134372.82	0.0132	0.0120
Mercury	-46149-08-02 18:28 J	-15134284.82	-15134284.73	-15134284.63	0.0132	0.0101
Mercury	-46149-10-29 22:18 J	-15134196.69	-15134196.57	-15134196.46	0.0132	0.0083
Mercury	-46148-01-26 01:40 J	-15134108.55	-15134108.43	-15134108.30	0.0132	0.0064
Mercury	-46148-04-24 05:16 J	-15134020.41	-15134020.28	-15134020.14	0.0132	0.0045
Mercury	-46148-07-21 08:52 J	-15133932.27	-15133932.13	-15133931.99	0.0132	0.0026
Mercury	-46148-10-17 12:28 J	-15133844.13	-15133843.98	-15133843.84	0.0132	0.0008
Mercury	-46147-01-13 15:50 J	-15133755.98	-15133755.84	-15133755.69	0.0132	0.0011
Mercury	-46147-04-11 19:26 J	-15133667.83	-15133667.69	-15133667.55	0.0132	0.0029
Mercury	-46147-07-08 22:47 J	-15133579.68	-15133579.55	-15133579.42	0.0132	0.0047
Mercury	-46147-10-05 02:09 J	-15133491.53	-15133491.41	-15133491.28	0.0132	0.0066
Mercury	-46146-01-01 05:45 J	-15133403.37	-15133403.26	-15133403.15	0.0132	0.0084
Mercury	-46146-03-30 09:06 J	-15133315.21	-15133315.12	-15133315.03	0.0132	0.0101
Mercury	-46146-06-26 12:28 J	-15133227.04	-15133226.98	-15133226.92	0.0132	0.0119
Earth	-46145-09-21 17:59 J	-15132773.95	-15132773.75	-15132773.53	0.0132	0.0072
Moon	-46145-09-21 21:21 J	-15132773.81	-15132773.61	-15132773.37	0.0132	0.0068 *

Moon	-46144-09-25 19:26 J	-15132404.93	-15132404.69	-15132404.44	0.0132	0.0030
Earth	-46144-09-25 22:47 J	-15132404.79	-15132404.55	-15132404.30	0.0132	0.0034 *
Venus	-46133-06-20 19:26 J	-15128483.74	-15128483.69	-15128483.63	0.0136	0.0131
Venus	-46132-02-01 23:59 J	-15128257.60	-15128257.50	-15128257.38	0.0136	0.0115
Mars	-46132-02-20 05:59 J	-15128239.52	-15128239.25	-15128238.96	0.0136	0.0050
Venus	-46132-09-16 04:47 J	-15128031.43	-15128031.30	-15128031.14	0.0136	0.0099
Venus	-46131-04-30 09:50 J	-15127805.25	-15127805.09	-15127804.91	0.0137	0.0081
Venus	-46131-12-12 14:52 J	-15127579.06	-15127578.88	-15127578.68	0.0137	0.0064
Venus	-46130-07-26 20:09 J	-15127352.86	-15127352.66	-15127352.46	0.0137	0.0046
Venus	-46129-03-09 01:26 J	-15127126.65	-15127126.44	-15127126.23	0.0137	0.0029
Venus	-46129-10-21 06:57 J	-15126900.42	-15126900.21	-15126900.00	0.0138	0.0011
Venus	-46128-06-04 12:28 J	-15126674.19	-15126673.98	-15126673.77	0.0138	0.0007
Venus	-46127-01-16 18:14 J	-15126447.95	-15126447.74	-15126447.53	0.0138	0.0026
Venus	-46127-08-31 00:14 J	-15126221.69	-15126221.49	-15126221.29	0.0139	0.0044
Venus	-46126-04-14 06:14 J	-15125995.43	-15125995.24	-15125995.05	0.0139	0.0063
Venus	-46126-11-26 11:59 J	-15125769.15	-15125769.00	-15125768.81	0.0139	0.0082
Venus	-46125-07-09 18:28 J	-15125542.87	-15125542.73	-15125542.57	0.0140	0.0100
Venus	-46124-02-21 00:57 J	-15125316.56	-15125316.46	-15125316.33	0.0140	0.0118
Venus	-46124-10-05 07:54 J	-15125090.21	-15125090.17	-15125090.11	0.0140	0.0137
Mercury	-46107-10-30 05:30 J	-15118856.37	-15118856.27	-15118856.17	0.0146	0.0119
Mercury	-46106-01-26 11:59 J	-15118768.12	-15118768.00	-15118767.85	0.0146	0.0090
Mercury	-46106-04-24 19:11 J	-15118679.86	-15118679.70	-15118679.54	0.0146	0.0059
Mercury	-46106-07-22 01:54 J	-15118591.58	-15118591.42	-15118591.24	0.0146	0.0029
Mercury	-46106-10-18 08:52 J	-15118503.30	-15118503.13	-15118502.95	0.0146	0.0005
Mercury	-46105-01-14 15:50 J	-15118415.00	-15118414.84	-15118414.66	0.0146	0.0034
Mercury	-46105-04-11 23:02 J	-15118326.70	-15118326.54	-15118326.38	0.0146	0.0064
Mercury	-46105-07-09 05:59 J	-15118238.37	-15118238.25	-15118238.11	0.0146	0.0096
Mercury	-46105-10-05 13:11 J	-15118150.03	-15118149.95	-15118149.86	0.0146	0.0127
Earth	-46103-03-21 07:54 J	-15117618.39	-15117618.17	-15117617.92	0.0146	0.0059
Moon	-46103-03-21 09:21 J	-15117618.31	-15117618.11	-15117617.87	0.0146	0.0067 *

Moon	-46102-03-26 10:47 J	-15117248.26	-15117248.05	-15117247.84	0.0146	0.0089
Earth	-46102-03-26 11:59 J	-15117248.19	-15117248.00	-15117247.78	0.0146	0.0085 *
Mars	-46094-07-23 17:45 J	-15114206.93	-15114206.76	-15114206.57	0.0143	0.0116
Venus	-46093-02-22 07:40 J	-15113993.19	-15113993.18	-15113993.16	0.0143	0.0142
Venus	-46093-10-05 20:38 J	-15113766.75	-15113766.64	-15113766.52	0.0142	0.0122
Venus	-46092-05-20 09:21 J	-15113540.26	-15113540.11	-15113539.94	0.0142	0.0101
Venus	-46091-01-01 21:50 J	-15113313.76	-15113313.59	-15113313.39	0.0142	0.0081
Venus	-46091-08-16 10:47 J	-15113087.25	-15113087.05	-15113086.84	0.0142	0.0060
Venus	-46090-03-30 23:16 J	-15112860.74	-15112860.53	-15112860.31	0.0141	0.0039
Venus	-46090-11-12 11:30 J	-15112634.24	-15112634.02	-15112633.79	0.0141	0.0019
Venus	-46089-06-25 23:45 J	-15112407.73	-15112407.51	-15112407.28	0.0141	0.0002
Venus	-46088-02-07 11:45 J	-15112181.23	-15112181.01	-15112180.78	0.0140	0.0022
Venus	-46088-09-21 23:30 J	-15111954.73	-15111954.52	-15111954.30	0.0140	0.0043
Venus	-46087-05-06 11:02 J	-15111728.23	-15111728.04	-15111727.82	0.0140	0.0063
Venus	-46087-12-18 22:33 J	-15111501.73	-15111501.56	-15111501.37	0.0139	0.0082
Venus	-46086-08-02 09:50 J	-15111275.23	-15111275.09	-15111274.92	0.0139	0.0101
Venus	-46085-03-15 21:06 J	-15111048.72	-15111048.62	-15111048.49	0.0139	0.0120
Venus	-46085-10-28 08:09 J	-15110822.16	-15110822.16	-15110822.14	0.0138	0.0138
Mercury	-46065-05-26 21:35 J	-15103671.66	-15103671.60	-15103671.52	0.0132	0.0117
Mercury	-46065-08-23 01:26 J	-15103583.54	-15103583.44	-15103583.34	0.0132	0.0097
Mercury	-46065-11-19 05:02 J	-15103495.40	-15103495.29	-15103495.17	0.0132	0.0078
Mercury	-46064-02-15 08:23 J	-15103407.27	-15103407.15	-15103407.01	0.0132	0.0060
Mercury	-46064-05-14 12:14 J	-15103319.13	-15103318.99	-15103318.85	0.0132	0.0041
Mercury	-46064-08-10 15:50 J	-15103230.98	-15103230.84	-15103230.70	0.0132	0.0022
Mercury	-46064-11-06 19:11 J	-15103142.84	-15103142.70	-15103142.55	0.0132	0.0005
Mercury	-46063-02-02 22:47 J	-15103054.69	-15103054.55	-15103054.41	0.0132	0.0015
Mercury	-46063-05-02 02:09 J	-15102966.54	-15102966.41	-15102966.27	0.0132	0.0033
Mercury	-46063-07-29 05:45 J	-15102878.39	-15102878.26	-15102878.13	0.0132	0.0051
Mercury	-46063-10-25 09:06 J	-15102790.24	-15102790.12	-15102790.00	0.0132	0.0069
Mercury	-46062-01-21 12:28 J	-15102702.08	-15102701.98	-15102701.87	0.0132	0.0088

Mercury -46062-04-19 15:50 J -15102613.92 -15102613.84 -15102613.75 0.0132 0.0106
 Mercury -46062-07-16 19:11 J -15102525.74 -15102525.70 -15102525.64 0.0132 0.0123
 Earth -46061-09-22 03:06 J -15102092.58 -15102092.37 -15102092.15 0.0132 0.0068
 Moon -46061-09-22 06:14 J -15102092.45 -15102092.24 -15102092.02 0.0132 0.0074 *
 Moon -46060-09-26 04:18 J -15101723.54 -15101723.32 -15101723.07 0.0132 0.0041
 Earth -46060-09-26 07:40 J -15101723.42 -15101723.18 -15101722.93 0.0132 0.0037 *
 Mars -46050-11-14 20:23 J -15098021.83 -15098021.65 -15098021.45 0.0135 0.0105
 Venus -46049-10-02 09:50 J -15097699.19 -15097699.09 -15097698.99 0.0136 0.0120
 Venus -46048-05-16 14:09 J -15097473.03 -15097472.91 -15097472.76 0.0136 0.0104
 Mars -46048-10-15 18:57 J -15097320.76 -15097320.71 -15097320.63 0.0136 0.0133
 Venus -46048-12-28 19:11 J -15097246.85 -15097246.70 -15097246.53 0.0136 0.0087
 Venus -46047-08-11 23:59 J -15097020.66 -15097020.50 -15097020.30 0.0137 0.0071
 Venus -46046-03-26 05:16 J -15096794.47 -15096794.28 -15096794.08 0.0137 0.0053
 Venus -46046-11-07 10:33 J -15096568.26 -15096568.06 -15096567.85 0.0137 0.0036
 Venus -46045-06-20 16:04 J -15096342.04 -15096341.83 -15096341.62 0.0138 0.0018
 Venus -46044-02-01 21:21 J -15096115.82 -15096115.61 -15096115.39 0.0138 0.0003
 Venus -46044-09-16 03:21 J -15095889.57 -15095889.36 -15095889.15 0.0138 0.0018
 Venus -46043-04-30 08:52 J -15095663.32 -15095663.13 -15095662.92 0.0138 0.0037
 Venus -46043-12-12 14:52 J -15095437.07 -15095436.88 -15095436.68 0.0139 0.0055
 Venus -46042-07-26 20:52 J -15095210.80 -15095210.63 -15095210.44 0.0139 0.0073
 Venus -46041-03-09 03:06 J -15094984.52 -15094984.37 -15094984.20 0.0139 0.0092
 Venus -46041-10-21 09:35 J -15094758.22 -15094758.10 -15094757.96 0.0140 0.0110
 Venus -46040-06-04 16:04 J -15094531.90 -15094531.83 -15094531.73 0.0140 0.0129
 Mercury -46023-08-23 05:16 J -15088243.30 -15088243.28 -15088243.24 0.0146 0.0144
 Mercury -46023-11-19 12:14 J -15088155.10 -15088154.99 -15088154.89 0.0146 0.0114
 Mercury -46022-02-15 18:57 J -15088066.85 -15088066.71 -15088066.57 0.0146 0.0084
 Mercury -46022-05-15 01:40 J -15087978.59 -15087978.43 -15087978.26 0.0146 0.0054
 Mercury -46022-08-11 08:38 J -15087890.31 -15087890.14 -15087889.97 0.0146 0.0023
 Mercury -46022-11-07 15:35 J -15087802.02 -15087801.85 -15087801.68 0.0146 0.0007
 Mercury -46021-02-03 22:33 J -15087713.73 -15087713.56 -15087713.39 0.0146 0.0038

Mercury	-46021-05-02 05:30 J	-15087625.42	-15087625.27	-15087625.11	0.0146	0.0070
Mercury	-46021-07-29 12:42 J	-15087537.09	-15087536.97	-15087536.84	0.0146	0.0101
Mercury	-46021-10-25 19:40 J	-15087448.74	-15087448.68	-15087448.60	0.0146	0.0133
Earth	-46019-03-21 15:50 J	-15086937.07	-15086936.84	-15086936.60	0.0146	0.0056
Moon	-46019-03-21 18:14 J	-15086936.96	-15086936.74	-15086936.49	0.0146	0.0050 *
Moon	-46018-03-26 18:14 J	-15086566.95	-15086566.74	-15086566.52	0.0146	0.0083
Earth	-46018-03-26 19:40 J	-15086566.87	-15086566.68	-15086566.46	0.0146	0.0088 *
Mars	-46009-03-18 09:06 J	-15083287.44	-15083287.12	-15083286.81	0.0143	0.0013
Venus	-46009-06-05 00:28 J	-15083208.55	-15083208.48	-15083208.37	0.0143	0.0130
Venus	-46008-01-17 13:26 J	-15082982.06	-15082981.94	-15082981.78	0.0142	0.0110
Venus	-46008-09-01 02:38 J	-15082755.56	-15082755.39	-15082755.21	0.0142	0.0089
Venus	-46007-04-15 15:21 J	-15082529.05	-15082528.86	-15082528.66	0.0142	0.0068
Venus	-46007-11-28 03:50 J	-15082302.55	-15082302.34	-15082302.12	0.0141	0.0047
Venus	-46006-07-12 16:04 J	-15082076.04	-15082075.83	-15082075.60	0.0141	0.0028
Venus	-46005-02-24 04:47 J	-15081849.53	-15081849.30	-15081849.08	0.0141	0.0007
Venus	-46005-10-07 16:47 J	-15081623.02	-15081622.80	-15081622.57	0.0140	0.0014
Venus	-46004-05-22 04:33 J	-15081396.52	-15081396.31	-15081396.08	0.0140	0.0034
Venus	-46003-01-03 16:18 J	-15081170.02	-15081169.82	-15081169.60	0.0140	0.0054
Venus	-46003-08-18 03:50 J	-15080943.52	-15080943.34	-15080943.14	0.0139	0.0074
Venus	-46002-04-01 15:21 J	-15080717.01	-15080716.86	-15080716.68	0.0139	0.0093
Venus	-46002-11-14 02:38 J	-15080490.51	-15080490.39	-15080490.24	0.0139	0.0112
Venus	-46001-06-27 13:54 J	-15080263.99	-15080263.92	-15080263.84	0.0138	0.0130

46TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 46th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-45981-03-20 00:57 J	-15073058.47	-15073058.46	-15073058.45	0.0132	0.0132		
Mercury	-45981-06-16 04:33 J	-15072970.38	-15072970.31	-15072970.23	0.0132	0.0113		
Mercury	-45981-09-12 08:09 J	-15072882.26	-15072882.16	-15072882.06	0.0132	0.0094		
Mercury	-45981-12-09 11:45 J	-15072794.12	-15072794.01	-15072793.89	0.0132	0.0075		
Mercury	-45980-03-07 15:21 J	-15072705.99	-15072705.86	-15072705.73	0.0132	0.0056		
Mercury	-45980-06-03 18:57 J	-15072617.85	-15072617.71	-15072617.57	0.0132	0.0037		
Mercury	-45980-08-30 22:33 J	-15072529.70	-15072529.56	-15072529.42	0.0132	0.0019		
Mercury	-45980-11-27 02:09 J	-15072441.56	-15072441.41	-15072441.27	0.0132	0.0003		
Mercury	-45979-02-23 05:30 J	-15072353.41	-15072353.27	-15072353.13	0.0132	0.0018		
Mercury	-45979-05-22 08:52 J	-15072265.26	-15072265.13	-15072264.99	0.0132	0.0037		
Mercury	-45979-08-18 12:28 J	-15072177.11	-15072176.98	-15072176.85	0.0132	0.0055		
Mercury	-45979-11-14 15:50 J	-15072088.95	-15072088.84	-15072088.72	0.0132	0.0073		
Mercury	-45978-02-10 19:11 J	-15072000.79	-15072000.70	-15072000.59	0.0132	0.0091		
Mercury	-45978-05-09 22:33 J	-15071912.63	-15071912.56	-15071912.47	0.0132	0.0109		
Mercury	-45978-08-06 01:54 J	-15071824.45	-15071824.42	-15071824.37	0.0132	0.0127		
Earth	-45977-09-22 11:16 J	-15071411.23	-15071411.03	-15071410.79	0.0132	0.0065		
Moon	-45977-09-22 14:23 J	-15071411.12	-15071410.90	-15071410.65	0.0132	0.0060	*	
Moon	-45976-09-26 13:26 J	-15071042.18	-15071041.94	-15071041.70	0.0132	0.0037		
Earth	-45976-09-26 16:18 J	-15071042.06	-15071041.82	-15071041.58	0.0132	0.0041	*	
Venus	-45965-06-01 18:57 J	-15067140.78	-15067140.71	-15067140.63	0.0136	0.0126		
Mars	-45965-07-09 10:04 J	-15067103.37	-15067103.08	-15067102.78	0.0136	0.0022		
Venus	-45964-01-13 23:30 J	-15066914.64	-15066914.52	-15066914.39	0.0136	0.0110		
Venus	-45964-08-28 04:33 J	-15066688.46	-15066688.31	-15066688.15	0.0136	0.0093		
Venus	-45963-04-11 09:21 J	-15066462.28	-15066462.11	-15066461.93	0.0136	0.0077		
Venus	-45963-11-23 14:23 J	-15066236.08	-15066235.90	-15066235.70	0.0137	0.0060		
Venus	-45962-07-07 19:40 J	-15066009.88	-15066009.68	-15066009.48	0.0137	0.0042		

Venus	-45961-02-19 00:42 J	-15065783.67	-15065783.47	-15065783.25	0.0137	0.0026
Venus	-45961-10-02 06:28 J	-15065557.44	-15065557.23	-15065557.02	0.0138	0.0007
Venus	-45960-05-16 12:14 J	-15065331.20	-15065330.99	-15065330.78	0.0138	0.0011
Venus	-45960-12-28 17:45 J	-15065104.96	-15065104.76	-15065104.55	0.0138	0.0029
Venus	-45959-08-11 23:45 J	-15064878.71	-15064878.51	-15064878.31	0.0139	0.0047
Venus	-45958-03-26 05:30 J	-15064652.45	-15064652.27	-15064652.07	0.0139	0.0065
Venus	-45958-11-07 11:45 J	-15064426.17	-15064426.01	-15064425.83	0.0139	0.0084
Venus	-45957-06-20 17:59 J	-15064199.88	-15064199.75	-15064199.60	0.0140	0.0102
Venus	-45956-02-02 00:14 J	-15063973.58	-15063973.49	-15063973.36	0.0140	0.0120
Venus	-45956-09-16 07:26 J	-15063747.22	-15063747.19	-15063747.15	0.0140	0.0138
Mercury	-45939-09-12 11:59 J	-15057542.04	-15057542.00	-15057541.93	0.0147	0.0138
Mercury	-45939-12-09 18:57 J	-15057453.82	-15057453.71	-15057453.59	0.0147	0.0108
Mercury	-45938-03-08 01:40 J	-15057365.57	-15057365.43	-15057365.28	0.0147	0.0078
Mercury	-45938-06-04 08:38 J	-15057277.30	-15057277.14	-15057276.97	0.0147	0.0047
Mercury	-45938-08-31 15:35 J	-15057189.02	-15057188.85	-15057188.68	0.0147	0.0017
Mercury	-45938-11-27 22:33 J	-15057100.74	-15057100.56	-15057100.39	0.0146	0.0014
Mercury	-45937-02-24 05:30 J	-15057012.44	-15057012.27	-15057012.11	0.0146	0.0045
Mercury	-45937-05-22 12:28 J	-15056924.13	-15056923.98	-15056923.83	0.0146	0.0076
Mercury	-45937-08-18 19:26 J	-15056835.80	-15056835.69	-15056835.56	0.0146	0.0108
Mercury	-45937-11-15 02:52 J	-15056747.43	-15056747.38	-15056747.33	0.0146	0.0139
Earth	-45935-03-22 00:14 J	-15056255.71	-15056255.49	-15056255.23	0.0146	0.0053
Moon	-45935-03-22 03:06 J	-15056255.59	-15056255.37	-15056255.14	0.0146	0.0059 *
Moon	-45934-03-27 01:40 J	-15055885.60	-15055885.43	-15055885.21	0.0146	0.0099
Earth	-45934-03-27 04:33 J	-15055885.49	-15055885.31	-15055885.10	0.0146	0.0092 *
Venus	-45925-02-03 05:16 J	-15052650.33	-15052650.28	-15052650.21	0.0143	0.0137
Venus	-45925-09-16 18:14 J	-15052423.85	-15052423.74	-15052423.60	0.0143	0.0117
Mars	-45925-11-11 23:45 J	-15052367.73	-15052367.51	-15052367.24	0.0143	0.0092
Venus	-45924-05-01 07:11 J	-15052197.35	-15052197.20	-15052197.03	0.0142	0.0097
Venus	-45924-12-13 19:54 J	-15051970.85	-15051970.67	-15051970.47	0.0142	0.0076
Venus	-45923-07-28 08:38 J	-15051744.34	-15051744.14	-15051743.93	0.0142	0.0056

Venus	-45922-03-11 21:06 J	-15051517.83	-15051517.62	-15051517.39	0.0141	0.0036
Venus	-45922-10-24 09:35 J	-15051291.32	-15051291.10	-15051290.87	0.0141	0.0015
Venus	-45921-06-06 21:50 J	-15051064.81	-15051064.59	-15051064.36	0.0141	0.0006
Venus	-45920-01-19 09:50 J	-15050838.30	-15050838.09	-15050837.86	0.0140	0.0026
Venus	-45920-09-02 21:35 J	-15050611.80	-15050611.60	-15050611.37	0.0140	0.0046
Venus	-45919-04-17 09:35 J	-15050385.29	-15050385.10	-15050384.89	0.0140	0.0065
Venus	-45919-11-29 21:06 J	-15050158.79	-15050158.62	-15050158.43	0.0139	0.0085
Venus	-45918-07-14 08:38 J	-15049932.29	-15049932.14	-15049931.99	0.0139	0.0103
Venus	-45917-02-25 19:40 J	-15049705.77	-15049705.68	-15049705.56	0.0139	0.0122
Mercury	-45897-04-09 07:40 J	-15042357.21	-15042357.18	-15042357.14	0.0132	0.0127
Mercury	-45897-07-06 11:16 J	-15042269.10	-15042269.03	-15042268.94	0.0132	0.0108
Mercury	-45897-10-02 15:06 J	-15042180.97	-15042180.87	-15042180.76	0.0132	0.0089
Mercury	-45897-12-29 18:42 J	-15042092.84	-15042092.72	-15042092.59	0.0132	0.0070
Mercury	-45896-03-27 22:18 J	-15042004.70	-15042004.57	-15042004.43	0.0132	0.0051
Mercury	-45896-06-24 01:54 J	-15041916.56	-15041916.42	-15041916.28	0.0132	0.0033
Mercury	-45896-09-20 05:30 J	-15041828.41	-15041828.27	-15041828.13	0.0132	0.0014
Mercury	-45896-12-17 09:06 J	-15041740.27	-15041740.12	-15041739.98	0.0132	0.0005
Mercury	-45895-03-15 12:28 J	-15041652.12	-15041651.98	-15041651.84	0.0132	0.0023
Mercury	-45895-06-11 16:04 J	-15041563.97	-15041563.83	-15041563.70	0.0132	0.0041
Mercury	-45895-09-07 19:26 J	-15041475.81	-15041475.69	-15041475.56	0.0132	0.0059
Mercury	-45895-12-04 23:02 J	-15041387.66	-15041387.54	-15041387.43	0.0132	0.0078
Mercury	-45894-03-03 02:23 J	-15041299.50	-15041299.40	-15041299.30	0.0132	0.0096
Mercury	-45894-05-30 05:45 J	-15041211.33	-15041211.26	-15041211.19	0.0132	0.0114
Mercury	-45894-08-26 09:06 J	-15041123.13	-15041123.12	-15041123.11	0.0132	0.0131
Earth	-45893-09-22 21:06 J	-15040729.84	-15040729.62	-15040729.38	0.0132	0.0059
Moon	-45893-09-22 23:30 J	-15040729.74	-15040729.52	-15040729.29	0.0132	0.0066 *
Moon	-45892-09-26 23:16 J	-15040360.75	-15040360.53	-15040360.29	0.0132	0.0049
Earth	-45892-09-27 01:54 J	-15040360.65	-15040360.42	-15040360.18	0.0132	0.0046 *
Venus	-45881-01-31 04:33 J	-15036582.34	-15036582.31	-15036582.25	0.0135	0.0132
Venus	-45881-09-13 09:21 J	-15036356.20	-15036356.11	-15036355.98	0.0136	0.0116

Mars	-45880-03-04 00:42 J	-15036184.71	-15036184.47	-15036184.18	0.0136	0.0064
Venus	-45880-04-27 14:23 J	-15036130.04	-15036129.90	-15036129.75	0.0136	0.0099
Venus	-45880-12-09 18:57 J	-15035903.86	-15035903.71	-15035903.52	0.0136	0.0084
Venus	-45879-07-24 00:14 J	-15035677.67	-15035677.49	-15035677.30	0.0137	0.0066
Venus	-45878-03-07 05:16 J	-15035451.47	-15035451.28	-15035451.07	0.0137	0.0049
Venus	-45878-10-19 10:47 J	-15035225.25	-15035225.05	-15035224.84	0.0137	0.0031
Venus	-45877-06-01 16:04 J	-15034999.04	-15034998.83	-15034998.61	0.0137	0.0014
Venus	-45876-01-13 21:35 J	-15034772.81	-15034772.60	-15034772.38	0.0138	0.0005
Venus	-45876-08-28 03:21 J	-15034546.57	-15034546.36	-15034546.15	0.0138	0.0022
Venus	-45875-04-11 09:06 J	-15034320.32	-15034320.12	-15034319.91	0.0138	0.0040
Venus	-45875-11-23 14:52 J	-15034094.06	-15034093.88	-15034093.68	0.0139	0.0058
Venus	-45874-07-07 21:06 J	-15033867.80	-15033867.62	-15033867.44	0.0139	0.0075
Venus	-45873-02-19 03:06 J	-15033641.52	-15033641.37	-15033641.21	0.0139	0.0094
Venus	-45873-10-02 09:21 J	-15033415.21	-15033415.11	-15033414.96	0.0140	0.0112
Venus	-45872-05-16 16:04 J	-15033188.90	-15033188.83	-15033188.74	0.0140	0.0130
Mercury	-45855-10-02 19:11 J	-15026840.76	-15026840.70	-15026840.61	0.0146	0.0131
Mercury	-45855-12-30 01:54 J	-15026752.53	-15026752.42	-15026752.29	0.0146	0.0101
Mercury	-45854-03-28 08:52 J	-15026664.28	-15026664.13	-15026663.98	0.0147	0.0071
Mercury	-45854-06-24 15:35 J	-15026576.01	-15026575.85	-15026575.68	0.0146	0.0041
Mercury	-45854-09-20 22:33 J	-15026487.73	-15026487.56	-15026487.38	0.0146	0.0010
Mercury	-45854-12-18 05:30 J	-15026399.44	-15026399.27	-15026399.10	0.0146	0.0021
Mercury	-45853-03-15 12:28 J	-15026311.14	-15026310.98	-15026310.81	0.0146	0.0052
Mercury	-45853-06-11 19:26 J	-15026222.83	-15026222.69	-15026222.54	0.0146	0.0083
Mercury	-45853-09-08 02:38 J	-15026134.49	-15026134.39	-15026134.28	0.0146	0.0115
Mercury	-45853-12-05 09:50 J	-15026046.09	-15026046.09	-15026046.08	0.0146	0.0146
Earth	-45851-03-22 09:50 J	-15025574.32	-15025574.09	-15025573.84	0.0146	0.0047
Moon	-45851-03-22 13:11 J	-15025574.18	-15025573.95	-15025573.70	0.0146	0.0040 *
Moon	-45850-03-27 11:16 J	-15025204.21	-15025204.03	-15025203.81	0.0146	0.0092
Earth	-45850-03-27 14:09 J	-15025204.09	-15025203.91	-15025203.71	0.0146	0.0097 *
Mars	-45842-08-04 10:04 J	-15022152.29	-15022152.08	-15022151.84	0.0143	0.0100

Venus	-45841-05-16 23:30 J	-15021865.62	-15021865.52	-15021865.41	0.0143	0.0124
Venus	-45841-12-29 11:59 J	-15021639.13	-15021639.00	-15021638.83	0.0142	0.0105
Venus	-45840-08-13 00:57 J	-15021412.63	-15021412.46	-15021412.27	0.0142	0.0084
Venus	-45839-03-27 13:40 J	-15021186.11	-15021185.93	-15021185.71	0.0142	0.0064
Venus	-45839-11-09 02:23 J	-15020959.60	-15020959.40	-15020959.18	0.0141	0.0044
Venus	-45838-06-23 14:52 J	-15020733.09	-15020732.88	-15020732.65	0.0141	0.0023
Venus	-45837-02-05 03:21 J	-15020506.58	-15020506.36	-15020506.13	0.0141	0.0004
Venus	-45837-09-18 15:35 J	-15020280.07	-15020279.85	-15020279.62	0.0140	0.0018
Venus	-45836-05-03 03:35 J	-15020053.56	-15020053.35	-15020053.13	0.0140	0.0038
Venus	-45836-12-15 15:21 J	-15019827.06	-15019826.86	-15019826.65	0.0140	0.0057
Venus	-45835-07-30 02:52 J	-15019600.55	-15019600.38	-15019600.18	0.0139	0.0077
Venus	-45834-03-13 14:38 J	-15019374.05	-15019373.89	-15019373.72	0.0139	0.0095
Venus	-45834-10-26 01:40 J	-15019147.54	-15019147.43	-15019147.28	0.0139	0.0114
Venus	-45833-06-08 12:57 J	-15018921.02	-15018920.96	-15018920.88	0.0138	0.0132
Mercury	-45813-04-29 14:23 J	-15011655.93	-15011655.90	-15011655.83	0.0132	0.0124
Mercury	-45813-07-26 18:14 J	-15011567.82	-15011567.74	-15011567.64	0.0132	0.0104
Mercury	-45813-10-22 21:50 J	-15011479.69	-15011479.59	-15011479.47	0.0132	0.0085
Mercury	-45812-01-19 01:40 J	-15011391.55	-15011391.43	-15011391.30	0.0132	0.0066
Mercury	-45812-04-17 05:16 J	-15011303.41	-15011303.28	-15011303.14	0.0132	0.0047
Mercury	-45812-07-14 08:52 J	-15011215.27	-15011215.13	-15011214.99	0.0132	0.0028
Mercury	-45812-10-10 12:28 J	-15011127.13	-15011126.98	-15011126.84	0.0132	0.0010
Mercury	-45811-01-06 15:50 J	-15011038.98	-15011038.84	-15011038.69	0.0132	0.0010
Mercury	-45811-04-04 19:26 J	-15010950.83	-15010950.69	-15010950.55	0.0132	0.0027
Mercury	-45811-07-01 22:47 J	-15010862.68	-15010862.55	-15010862.41	0.0132	0.0046
Mercury	-45811-09-28 02:09 J	-15010774.52	-15010774.41	-15010774.28	0.0132	0.0064
Mercury	-45811-12-25 05:45 J	-15010686.37	-15010686.26	-15010686.15	0.0132	0.0082
Mercury	-45810-03-23 09:06 J	-15010598.20	-15010598.12	-15010598.02	0.0132	0.0100
Mercury	-45810-06-19 12:28 J	-15010510.03	-15010509.98	-15010509.91	0.0132	0.0118
Earth	-45809-09-23 06:14 J	-15010048.46	-15010048.24	-15010048.00	0.0132	0.0055
Moon	-45809-09-23 08:38 J	-15010048.38	-15010048.14	-15010047.89	0.0132	0.0049 *

Moon	-45808-09-27 09:06 J	-15009679.34	-15009679.12	-15009678.88	0.0132	0.0045
Earth	-45808-09-27 11:02 J	-15009679.26	-15009679.04	-15009678.79	0.0132	0.0050 *
Mars	-45798-11-26 14:23 J	-15005967.10	-15005966.90	-15005966.65	0.0135	0.0091
Venus	-45797-05-13 18:57 J	-15005797.78	-15005797.71	-15005797.60	0.0136	0.0122
Venus	-45797-12-25 23:59 J	-15005571.63	-15005571.50	-15005571.36	0.0136	0.0105
Venus	-45796-08-09 04:47 J	-15005345.45	-15005345.30	-15005345.13	0.0136	0.0089
Venus	-45795-03-23 09:50 J	-15005119.26	-15005119.09	-15005118.90	0.0136	0.0072
Venus	-45795-11-04 14:52 J	-15004893.06	-15004892.88	-15004892.68	0.0137	0.0056
Jupiter	-45794-03-01 19:26 J	-15004776.13	-15004775.69	-15004775.19	0.0137	0.0045
Venus	-45794-06-18 20:09 J	-15004666.86	-15004666.66	-15004666.45	0.0137	0.0038
Venus	-45793-01-31 01:26 J	-15004440.64	-15004440.44	-15004440.22	0.0137	0.0021
Venus	-45793-09-13 07:11 J	-15004214.41	-15004214.20	-15004213.99	0.0138	0.0004
Venus	-45792-04-27 12:42 J	-15003988.18	-15003987.97	-15003987.76	0.0138	0.0014
Venus	-45792-12-09 18:28 J	-15003761.94	-15003761.73	-15003761.53	0.0138	0.0032
Venus	-45791-07-23 23:59 J	-15003535.69	-15003535.50	-15003535.30	0.0139	0.0050
Venus	-45790-03-07 06:14 J	-15003309.43	-15003309.24	-15003309.06	0.0139	0.0067
Venus	-45790-10-19 12:14 J	-15003083.15	-15003082.99	-15003082.82	0.0139	0.0085
Venus	-45789-06-01 18:14 J	-15002856.86	-15002856.74	-15002856.58	0.0140	0.0104
Venus	-45788-01-14 00:42 J	-15002630.56	-15002630.47	-15002630.35	0.0140	0.0121
Venus	-45788-08-28 07:26 J	-15002404.21	-15002404.19	-15002404.15	0.0140	0.0139
Mercury	-45771-10-23 02:23 J	-14996139.48	-14996139.40	-14996139.29	0.0147	0.0123
Mercury	-45770-01-19 09:21 J	-14996051.24	-14996051.11	-14996050.97	0.0147	0.0093
Mercury	-45770-04-17 16:04 J	-14995962.98	-14995962.83	-14995962.67	0.0147	0.0063
Mercury	-45770-07-14 23:02 J	-14995874.71	-14995874.54	-14995874.37	0.0147	0.0032
Mercury	-45770-10-11 05:59 J	-14995786.42	-14995786.25	-14995786.08	0.0146	0.0002
Mercury	-45769-01-07 12:57 J	-14995698.13	-14995697.96	-14995697.79	0.0146	0.0029
Mercury	-45769-04-04 19:54 J	-14995609.83	-14995609.67	-14995609.51	0.0146	0.0060
Mercury	-45769-07-02 02:52 J	-14995521.51	-14995521.38	-14995521.24	0.0146	0.0092
Mercury	-45769-09-28 09:50 J	-14995433.17	-14995433.09	-14995432.98	0.0146	0.0124
Earth	-45767-03-22 20:38 J	-14994892.88	-14994892.64	-14994892.39	0.0146	0.0040

Moon	-45767-03-22 23:59 J	-14994892.74	-14994892.50	-14994892.26	0.0146	0.0048 *
Moon	-45766-03-27 21:35 J	-14994522.76	-14994522.60	-14994522.42	0.0146	0.0110
Earth	-45766-03-28 00:42 J	-14994522.63	-14994522.47	-14994522.27	0.0146	0.0104 *
Venus	-45757-01-15 05:16 J	-14991307.36	-14991307.28	-14991307.18	0.0143	0.0131
Mars	-45757-03-30 04:33 J	-14991232.62	-14991232.31	-14991231.99	0.0143	0.0008
Venus	-45757-08-28 17:59 J	-14991080.87	-14991080.75	-14991080.59	0.0143	0.0112
Venus	-45756-04-12 07:11 J	-14990854.36	-14990854.20	-14990854.02	0.0142	0.0091
Venus	-45756-11-24 19:54 J	-14990627.85	-14990627.67	-14990627.46	0.0142	0.0071
Venus	-45755-07-09 08:38 J	-14990401.34	-14990401.14	-14990400.92	0.0142	0.0051
Venus	-45754-02-20 21:21 J	-14990174.82	-14990174.61	-14990174.38	0.0141	0.0031
Venus	-45754-10-05 09:50 J	-14989948.31	-14989948.09	-14989947.86	0.0141	0.0011
Venus	-45753-05-18 22:04 J	-14989721.80	-14989721.58	-14989721.35	0.0141	0.0010
Venus	-45753-12-31 10:04 J	-14989495.29	-14989495.08	-14989494.85	0.0140	0.0030
Venus	-45752-08-14 22:04 J	-14989268.79	-14989268.58	-14989268.37	0.0140	0.0049
Venus	-45751-03-29 09:50 J	-14989042.28	-14989042.09	-14989041.89	0.0140	0.0068
Venus	-45751-11-10 21:21 J	-14988815.77	-14988815.61	-14988815.42	0.0139	0.0087
Venus	-45750-06-25 08:38 J	-14988589.27	-14988589.14	-14988588.98	0.0139	0.0106
Venus	-45749-02-06 19:54 J	-14988362.76	-14988362.67	-14988362.56	0.0139	0.0124
Mercury	-45729-05-19 21:35 J	-14980954.65	-14980954.60	-14980954.53	0.0132	0.0118
Mercury	-45729-08-16 01:11 J	-14980866.53	-14980866.45	-14980866.34	0.0132	0.0099
Mercury	-45729-11-12 05:02 J	-14980778.40	-14980778.29	-14980778.17	0.0132	0.0080
Mercury	-45728-02-08 08:38 J	-14980690.26	-14980690.14	-14980690.01	0.0132	0.0061
Mercury	-45728-05-07 12:14 J	-14980602.12	-14980601.99	-14980601.85	0.0132	0.0042
Mercury	-45728-08-03 15:50 J	-14980513.98	-14980513.84	-14980513.69	0.0132	0.0024
Mercury	-45728-10-30 19:26 J	-14980425.83	-14980425.69	-14980425.54	0.0132	0.0005
Mercury	-45727-01-26 23:02 J	-14980337.68	-14980337.54	-14980337.40	0.0132	0.0014
Mercury	-45727-04-25 02:38 J	-14980249.53	-14980249.39	-14980249.26	0.0132	0.0032
Mercury	-45727-07-22 05:59 J	-14980161.38	-14980161.25	-14980161.12	0.0132	0.0051
Mercury	-45727-10-18 09:21 J	-14980073.22	-14980073.11	-14980072.98	0.0132	0.0069
Mercury	-45726-01-14 12:42 J	-14979985.07	-14979984.97	-14979984.85	0.0132	0.0087

Mercury -45726-04-12 16:04 J -14979896.90 -14979896.83 -14979896.73 0.0132 0.0105
 Mercury -45726-07-09 19:26 J -14979808.72 -14979808.69 -14979808.63 0.0132 0.0124
 Earth -45725-09-23 16:47 J -14979367.03 -14979366.80 -14979366.56 0.0132 0.0049
 Moon -45725-09-23 17:59 J -14979366.98 -14979366.75 -14979366.50 0.0132 0.0056 *
 Moon -45724-09-27 19:54 J -14978997.88 -14978997.67 -14978997.45 0.0132 0.0060
 Earth -45724-09-27 21:21 J -14978997.83 -14978997.61 -14978997.37 0.0132 0.0055 *
 Venus -45713-01-12 05:16 J -14975239.33 -14975239.28 -14975239.19 0.0135 0.0127
 Mars -45713-07-21 07:11 J -14975048.50 -14975048.20 -14975047.90 0.0136 0.0004
 Venus -45713-08-25 10:18 J -14975013.18 -14975013.07 -14975012.94 0.0136 0.0111
 Venus -45712-04-08 15:21 J -14974787.01 -14974786.86 -14974786.71 0.0136 0.0094
 Venus -45712-11-20 20:09 J -14974560.83 -14974560.66 -14974560.48 0.0136 0.0078
 Venus -45711-07-05 01:11 J -14974334.63 -14974334.45 -14974334.26 0.0137 0.0062
 Venus -45710-02-16 06:14 J -14974108.43 -14974108.24 -14974108.03 0.0137 0.0045
 Venus -45710-09-30 11:45 J -14973882.21 -14973882.01 -14973881.80 0.0137 0.0028
 Venus -45709-05-13 17:16 J -14973656.00 -14973655.78 -14973655.57 0.0137 0.0011
 Venus -45709-12-25 22:33 J -14973429.77 -14973429.56 -14973429.35 0.0138 0.0007
 Venus -45708-08-09 04:04 J -14973203.53 -14973203.33 -14973203.12 0.0138 0.0025
 Venus -45707-03-23 09:50 J -14972977.29 -14972977.09 -14972976.89 0.0138 0.0042
 Venus -45707-11-04 15:35 J -14972751.03 -14972750.85 -14972750.65 0.0139 0.0060
 Venus -45706-06-18 21:50 J -14972524.77 -14972524.59 -14972524.42 0.0139 0.0078
 Venus -45705-01-31 03:35 J -14972298.49 -14972298.35 -14972298.18 0.0140 0.0096
 Venus -45705-09-13 10:04 J -14972072.19 -14972072.08 -14972071.94 0.0140 0.0113
 Venus -45704-04-27 16:33 J -14971845.87 -14971845.81 -14971845.72 0.0140 0.0131
 Mercury -45687-08-16 03:06 J -14965526.39 -14965526.37 -14965526.33 0.0146 0.0144
 Mercury -45687-11-12 09:50 J -14965438.19 -14965438.09 -14965437.98 0.0146 0.0115
 Mercury -45686-02-08 16:47 J -14965349.94 -14965349.80 -14965349.66 0.0146 0.0085
 Mercury -45686-05-07 23:30 J -14965261.68 -14965261.52 -14965261.36 0.0146 0.0055
 Mercury -45686-08-04 06:14 J -14965173.40 -14965173.24 -14965173.06 0.0146 0.0025
 Mercury -45686-10-31 13:11 J -14965085.12 -14965084.95 -14965084.77 0.0146 0.0008
 Mercury -45685-01-27 20:09 J -14964996.82 -14964996.66 -14964996.49 0.0146 0.0038

Mercury -45685-04-25 03:06 J -14964908.52 -14964908.37 -14964908.21 0.0146 0.0069

Mercury -45685-07-22 10:04 J -14964820.19 -14964820.08 -14964819.94 0.0146 0.0101

Mercury -45685-10-18 17:16 J -14964731.84 -14964731.78 -14964731.69 0.0146 0.0132

Earth -45683-03-23 06:57 J -14964211.45 -14964211.21 -14964210.95 0.0146 0.0035

Moon -45683-03-23 10:47 J -14964211.29 -14964211.05 -14964210.80 0.0146 0.0026 *

Moon -45682-03-28 07:54 J -14963841.34 -14963841.17 -14963840.97 0.0146 0.0104

Earth -45682-03-28 11:16 J -14963841.19 -14963841.03 -14963840.85 0.0146 0.0110 *

Venus -45674-09-14 11:02 J -14960749.08 -14960749.04 -14960748.96 0.0143 0.0138

Venus -45673-04-28 00:14 J -14960522.60 -14960522.49 -14960522.35 0.0143 0.0118

Mars -45673-11-23 22:47 J -14960312.71 -14960312.55 -14960312.35 0.0143 0.0116

Venus -45673-12-10 13:26 J -14960296.10 -14960295.94 -14960295.78 0.0143 0.0098

Venus -45672-07-25 02:09 J -14960069.59 -14960069.41 -14960069.21 0.0142 0.0078

Venus -45671-03-08 15:06 J -14959843.07 -14959842.87 -14959842.66 0.0142 0.0058

Venus -45671-10-21 03:50 J -14959616.55 -14959616.34 -14959616.12 0.0142 0.0038

Venus -45670-06-04 16:18 J -14959390.04 -14959389.82 -14959389.59 0.0141 0.0018

Venus -45669-01-17 04:47 J -14959163.53 -14959163.30 -14959163.08 0.0141 0.0002

Venus -45669-08-30 16:47 J -14958937.01 -14958936.80 -14958936.57 0.0141 0.0023

Venus -45668-04-14 05:02 J -14958710.50 -14958710.29 -14958710.07 0.0140 0.0042

Venus -45668-11-26 16:47 J -14958484.00 -14958483.80 -14958483.59 0.0140 0.0061

Venus -45667-07-11 04:18 J -14958257.49 -14958257.32 -14958257.13 0.0139 0.0080

Venus -45666-02-22 15:50 J -14958030.99 -14958030.84 -14958030.67 0.0139 0.0099

Venus -45666-10-07 02:52 J -14957804.48 -14957804.38 -14957804.24 0.0139 0.0117

Venus -45665-05-20 13:54 J -14957577.95 -14957577.92 -14957577.85 0.0139 0.0135

Mercury -45645-03-13 01:11 J -14950341.45 -14950341.45 -14950341.45 0.0132 0.0132

Mercury -45645-06-09 04:33 J -14950253.37 -14950253.31 -14950253.22 0.0132 0.0113

Mercury -45645-09-05 08:23 J -14950165.24 -14950165.15 -14950165.04 0.0132 0.0094

Mercury -45645-12-02 11:59 J -14950077.11 -14950077.00 -14950076.87 0.0132 0.0075

Mercury -45644-02-28 15:50 J -14949988.97 -14949988.84 -14949988.71 0.0132 0.0056

Mercury -45644-05-27 19:26 J -14949900.83 -14949900.69 -14949900.55 0.0132 0.0037

Mercury -45644-08-23 23:02 J -14949812.68 -14949812.54 -14949812.40 0.0132 0.0018

Mercury -45644-11-20 02:38 J -14949724.54 -14949724.39 -14949724.25 0.0132 0.0002

Mercury -45643-02-16 05:59 J -14949636.39 -14949636.25 -14949636.10 0.0132 0.0019

Mercury -45643-05-15 09:35 J -14949548.24 -14949548.10 -14949547.96 0.0132 0.0037

Mercury -45643-08-11 13:11 J -14949460.08 -14949459.95 -14949459.83 0.0132 0.0055

Mercury -45643-11-07 16:18 J -14949371.93 -14949371.82 -14949371.69 0.0132 0.0074

Mercury -45642-02-03 19:54 J -14949283.77 -14949283.67 -14949283.56 0.0132 0.0092

Mercury -45642-05-02 23:16 J -14949195.60 -14949195.53 -14949195.45 0.0132 0.0110

Mercury -45642-07-30 02:52 J -14949107.41 -14949107.38 -14949107.35 0.0132 0.0127

Earth -45641-09-24 02:23 J -14948685.63 -14948685.40 -14948685.15 0.0132 0.0045

Moon -45641-09-24 03:35 J -14948685.59 -14948685.35 -14948685.09 0.0132 0.0039 *

Moon -45640-09-28 06:14 J -14948316.46 -14948316.24 -14948316.01 0.0132 0.0055

Earth -45640-09-28 06:57 J -14948316.42 -14948316.21 -14948315.97 0.0132 0.0060 *

Venus -45630-09-11 15:21 J -14944680.89 -14944680.86 -14944680.79 0.0135 0.0131

Venus -45629-04-24 20:09 J -14944454.76 -14944454.66 -14944454.54 0.0135 0.0116

Venus -45629-12-07 00:57 J -14944228.59 -14944228.46 -14944228.31 0.0136 0.0100

Mars -45628-03-15 21:21 J -14944129.83 -14944129.61 -14944129.35 0.0136 0.0081

Venus -45628-07-21 05:45 J -14944002.41 -14944002.26 -14944002.08 0.0136 0.0084

Venus -45627-03-04 10:47 J -14943776.22 -14943776.05 -14943775.86 0.0136 0.0068

Venus -45627-10-16 16:04 J -14943550.02 -14943549.83 -14943549.63 0.0137 0.0051

Venus -45626-05-30 21:06 J -14943323.82 -14943323.62 -14943323.41 0.0137 0.0034

Venus -45625-01-12 02:23 J -14943097.60 -14943097.40 -14943097.18 0.0137 0.0018

Venus -45625-08-25 07:54 J -14942871.38 -14942871.17 -14942870.95 0.0138 0.0003

Venus -45624-04-08 13:26 J -14942645.15 -14942644.94 -14942644.73 0.0138 0.0017

Venus -45624-11-20 18:57 J -14942418.91 -14942418.71 -14942418.50 0.0138 0.0035

Venus -45623-07-05 00:28 J -14942192.66 -14942192.48 -14942192.27 0.0139 0.0053

Venus -45622-02-16 06:28 J -14941966.40 -14941966.23 -14941966.04 0.0139 0.0070

Venus -45622-09-30 12:42 J -14941740.12 -14941739.97 -14941739.80 0.0139 0.0087

Venus -45621-05-13 18:57 J -14941513.84 -14941513.71 -14941513.56 0.0140 0.0105

Venus -45621-12-26 01:11 J -14941287.54 -14941287.45 -14941287.34 0.0140 0.0122

Venus -45620-08-09 07:40 J -14941061.18 -14941061.18 -14941061.14 0.0140 0.0140

Mercury -45603-09-05 10:33 J -14934825.12 -14934825.06 -14934825.00 0.0147 0.0137

Mercury -45603-12-02 17:16 J -14934736.89 -14934736.78 -14934736.66 0.0147 0.0107

Mercury -45602-02-28 23:45 J -14934648.64 -14934648.51 -14934648.35 0.0147 0.0078

Mercury -45602-05-28 06:42 J -14934560.38 -14934560.22 -14934560.05 0.0147 0.0047

Mercury -45602-08-24 13:40 J -14934472.10 -14934471.93 -14934471.76 0.0147 0.0016

Mercury -45602-11-20 20:38 J -14934383.81 -14934383.64 -14934383.47 0.0147 0.0014

Mercury -45601-02-17 03:35 J -14934295.51 -14934295.35 -14934295.18 0.0147 0.0045

Mercury -45601-05-15 10:33 J -14934207.20 -14934207.06 -14934206.91 0.0147 0.0077

Mercury -45601-08-11 17:30 J -14934118.88 -14934118.77 -14934118.64 0.0147 0.0108

Mercury -45601-11-08 00:42 J -14934030.51 -14934030.47 -14934030.41 0.0146 0.0140

Earth -45599-03-23 17:16 J -14933530.02 -14933529.78 -14933529.52 0.0146 0.0029

Moon -45599-03-23 20:52 J -14933529.87 -14933529.63 -14933529.38 0.0146 0.0036 *

Moon -45598-03-28 17:45 J -14933159.88 -14933159.76 -14933159.60 0.0146 0.0124

Earth -45598-03-28 21:35 J -14933159.74 -14933159.60 -14933159.43 0.0146 0.0116 *

Mars -45590-08-16 13:11 J -14930097.21 -14930096.95 -14930096.68 0.0143 0.0073

Venus -45590-12-27 06:28 J -14929964.33 -14929964.23 -14929964.12 0.0143 0.0124

Venus -45589-08-09 19:26 J -14929737.83 -14929737.69 -14929737.53 0.0143 0.0105

Venus -45588-03-24 08:38 J -14929511.31 -14929511.14 -14929510.95 0.0142 0.0085

Venus -45588-11-05 21:21 J -14929284.80 -14929284.61 -14929284.40 0.0142 0.0065

Venus -45587-06-20 10:18 J -14929058.28 -14929058.07 -14929057.85 0.0142 0.0045

Venus -45586-02-01 23:02 J -14928831.76 -14928831.54 -14928831.32 0.0141 0.0025

Venus -45586-09-16 11:30 J -14928605.24 -14928605.02 -14928604.79 0.0141 0.0005

Venus -45585-04-29 23:45 J -14928378.73 -14928378.51 -14928378.28 0.0141 0.0015

Venus -45585-12-12 11:59 J -14928152.22 -14928152.00 -14928151.78 0.0140 0.0034

Venus -45584-07-26 23:30 J -14927925.71 -14927925.52 -14927925.30 0.0140 0.0054

Venus -45583-03-10 11:30 J -14927699.20 -14927699.02 -14927698.82 0.0140 0.0073

Venus -45583-10-22 23:02 J -14927472.70 -14927472.54 -14927472.36 0.0139 0.0091

Venus -45582-06-06 10:18 J -14927246.19 -14927246.07 -14927245.92 0.0139 0.0110

Venus -45581-01-18 21:35 J -14927019.68 -14927019.60 -14927019.51 0.0139 0.0127

Mercury -45561-04-02 08:23 J -14919640.19 -14919640.15 -14919640.11 0.0132 0.0126

Mercury -45561-06-29 11:59 J -14919552.08 -14919552.00 -14919551.91 0.0132 0.0107
 Mercury -45561-09-25 15:35 J -14919463.95 -14919463.85 -14919463.73 0.0132 0.0088
 Mercury -45561-12-22 19:26 J -14919375.81 -14919375.69 -14919375.56 0.0132 0.0069
 Mercury -45560-03-20 23:02 J -14919287.67 -14919287.54 -14919287.40 0.0132 0.0050
 Mercury -45560-06-17 02:38 J -14919199.53 -14919199.39 -14919199.25 0.0132 0.0031
 Mercury -45560-09-13 06:14 J -14919111.38 -14919111.24 -14919111.09 0.0132 0.0013
 Mercury -45560-12-10 09:50 J -14919023.23 -14919023.09 -14919022.95 0.0132 0.0006
 Mercury -45559-03-08 13:11 J -14918935.08 -14918934.95 -14918934.80 0.0132 0.0025
 Mercury -45559-06-04 16:47 J -14918846.93 -14918846.80 -14918846.66 0.0132 0.0043
 Mercury -45559-08-31 20:23 J -14918758.78 -14918758.65 -14918758.53 0.0132 0.0061
 Mercury -45559-11-27 23:45 J -14918670.62 -14918670.51 -14918670.39 0.0132 0.0079
 Mercury -45558-02-24 03:06 J -14918582.46 -14918582.37 -14918582.27 0.0132 0.0097
 Mercury -45558-05-23 06:28 J -14918494.29 -14918494.23 -14918494.15 0.0132 0.0115
 Earth -45557-09-24 13:26 J -14918004.18 -14918003.94 -14918003.69 0.0132 0.0039
 Moon -45557-09-24 13:26 J -14918004.17 -14918003.94 -14918003.68 0.0132 0.0046 *
 Moon -45556-09-28 17:30 J -14917634.97 -14917634.77 -14917634.56 0.0132 0.0071
 Earth -45556-09-28 17:59 J -14917634.97 -14917634.75 -14917634.53 0.0132 0.0066 *
 Mars -45546-12-08 11:59 J -14913912.23 -14913912.00 -14913911.72 0.0135 0.0073
 Venus -45546-12-24 06:42 J -14913896.30 -14913896.22 -14913896.11 0.0135 0.0120
 Venus -45545-08-06 11:30 J -14913670.14 -14913670.02 -14913669.87 0.0136 0.0105
 Venus -45544-03-20 16:18 J -14913443.97 -14913443.82 -14913443.65 0.0136 0.0089
 Venus -45544-11-01 21:06 J -14913217.78 -14913217.62 -14913217.43 0.0136 0.0073
 Venus -45543-06-16 02:09 J -14912991.59 -14912991.41 -14912991.21 0.0136 0.0057
 Venus -45542-01-28 07:26 J -14912765.39 -14912765.19 -14912764.99 0.0137 0.0040
 Venus -45542-09-11 12:42 J -14912539.17 -14912538.97 -14912538.76 0.0137 0.0023
 Venus -45541-04-24 17:59 J -14912312.96 -14912312.75 -14912312.53 0.0137 0.0007
 Venus -45541-12-06 23:30 J -14912086.73 -14912086.52 -14912086.31 0.0138 0.0011
 Venus -45540-07-21 04:47 J -14911860.50 -14911860.30 -14911860.09 0.0138 0.0028
 Venus -45539-03-04 10:18 J -14911634.26 -14911634.07 -14911633.86 0.0138 0.0046
 Venus -45539-10-16 16:18 J -14911408.00 -14911407.82 -14911407.62 0.0139 0.0063

Venus -45538-05-30 22:04 J -14911181.74 -14911181.58 -14911181.39 0.0139 0.0081
 Venus -45537-01-12 04:18 J -14910955.46 -14910955.32 -14910955.16 0.0139 0.0097
 Venus -45537-08-25 10:33 J -14910729.16 -14910729.06 -14910728.93 0.0140 0.0115
 Venus -45536-04-08 17:02 J -14910502.84 -14910502.79 -14910502.71 0.0140 0.0132
 Mercury -45519-09-25 17:30 J -14904123.84 -14904123.77 -14904123.68 0.0147 0.0130
 Mercury -45519-12-23 00:28 J -14904035.60 -14904035.48 -14904035.36 0.0147 0.0100
 Mercury -45518-03-21 07:11 J -14903947.35 -14903947.20 -14903947.05 0.0147 0.0070
 Mercury -45518-06-17 13:54 J -14903859.08 -14903858.92 -14903858.75 0.0147 0.0040
 Mercury -45518-09-13 20:52 J -14903770.80 -14903770.63 -14903770.46 0.0147 0.0009
 Mercury -45518-12-11 03:50 J -14903682.51 -14903682.34 -14903682.17 0.0147 0.0022
 Mercury -45517-03-08 10:47 J -14903594.21 -14903594.05 -14903593.89 0.0147 0.0053
 Mercury -45517-06-04 17:30 J -14903505.90 -14903505.77 -14903505.61 0.0147 0.0085
 Mercury -45517-09-01 00:42 J -14903417.57 -14903417.47 -14903417.36 0.0147 0.0116
 Earth -45515-03-24 03:06 J -14902848.62 -14902848.37 -14902848.11 0.0146 0.0024
 Moon -45515-03-24 06:57 J -14902848.47 -14902848.21 -14902847.96 0.0146 0.0015 *
 Moon -45514-03-29 03:50 J -14902478.48 -14902478.34 -14902478.17 0.0146 0.0115
 Earth -45514-03-29 07:11 J -14902478.32 -14902478.20 -14902478.04 0.0146 0.0122 *
 Venus -45506-08-26 12:14 J -14899406.08 -14899405.99 -14899405.90 0.0143 0.0131
 Venus -45505-04-09 01:11 J -14899179.58 -14899179.45 -14899179.30 0.0143 0.0111
 Mars -45505-04-11 06:42 J -14899177.52 -14899177.22 -14899176.91 0.0143 0.0033
 Venus -45505-11-21 14:09 J -14898953.07 -14898952.91 -14898952.73 0.0143 0.0092
 Venus -45504-07-06 03:06 J -14898726.55 -14898726.37 -14898726.17 0.0142 0.0072
 Jupiter -45504-12-24 15:50 J -14898555.11 -14898554.84 -14898554.48 0.0142 0.0115
 Venus -45503-02-17 16:04 J -14898500.03 -14898499.83 -14898499.61 0.0142 0.0052
 Venus -45503-10-02 05:02 J -14898273.51 -14898273.29 -14898273.07 0.0142 0.0032
 Venus -45502-05-16 17:30 J -14898046.99 -14898046.77 -14898046.54 0.0141 0.0012
 Venus -45502-12-29 05:59 J -14897820.47 -14897820.25 -14897820.03 0.0141 0.0008
 Venus -45501-08-11 17:59 J -14897593.96 -14897593.75 -14897593.52 0.0141 0.0028
 Venus -45500-03-26 06:14 J -14897367.45 -14897367.24 -14897367.02 0.0140 0.0047
 Venus -45500-11-07 18:14 J -14897140.94 -14897140.74 -14897140.54 0.0140 0.0065

Venus -45499-06-22 05:45 J -14896914.43 -14896914.26 -14896914.08 0.0140 0.0084
 Venus -45498-02-03 17:02 J -14896687.93 -14896687.79 -14896687.63 0.0139 0.0102
 Venus -45498-09-18 04:18 J -14896461.42 -14896461.32 -14896461.20 0.0139 0.0120
 Venus -45497-05-01 15:06 J -14896234.87 -14896234.87 -14896234.82 0.0139 0.0138
 Mercury -45477-04-22 15:35 J -14888938.90 -14888938.85 -14888938.79 0.0132 0.0120
 Mercury -45477-07-19 19:11 J -14888850.78 -14888850.70 -14888850.60 0.0132 0.0101
 Mercury -45477-10-15 23:02 J -14888762.65 -14888762.54 -14888762.43 0.0132 0.0082
 Mercury -45476-01-12 02:38 J -14888674.51 -14888674.39 -14888674.26 0.0132 0.0063
 Mercury -45476-04-10 06:14 J -14888586.37 -14888586.24 -14888586.10 0.0132 0.0045
 Mercury -45476-07-07 09:50 J -14888498.23 -14888498.09 -14888497.94 0.0132 0.0026
 Mercury -45476-10-03 13:26 J -14888410.08 -14888409.94 -14888409.79 0.0132 0.0007
 Mercury -45476-12-30 17:02 J -14888321.93 -14888321.79 -14888321.65 0.0132 0.0011
 Mercury -45475-03-28 20:38 J -14888233.78 -14888233.64 -14888233.50 0.0132 0.0030
 Mercury -45475-06-24 23:59 J -14888145.63 -14888145.50 -14888145.36 0.0132 0.0048
 Mercury -45475-09-21 03:35 J -14888057.47 -14888057.35 -14888057.23 0.0132 0.0066
 Mercury -45475-12-18 06:42 J -14887969.31 -14887969.22 -14887969.10 0.0132 0.0085
 Mercury -45474-03-16 10:18 J -14887881.15 -14887881.07 -14887880.98 0.0132 0.0103
 Mercury -45474-06-12 13:54 J -14887792.98 -14887792.92 -14887792.86 0.0132 0.0120
 Moon -45473-09-24 23:45 J -14887322.76 -14887322.51 -14887322.24 0.0132 0.0028
 Earth -45473-09-24 23:59 J -14887322.75 -14887322.50 -14887322.26 0.0132 0.0033 *
 Moon -45472-09-29 04:18 J -14886953.53 -14886953.32 -14886953.10 0.0132 0.0065
 Earth -45472-09-29 04:04 J -14886953.53 -14886953.33 -14886953.10 0.0132 0.0071 *
 Venus -45462-08-23 16:47 J -14883337.86 -14883337.80 -14883337.70 0.0135 0.0125
 Venus -45461-04-05 21:35 J -14883111.71 -14883111.60 -14883111.46 0.0135 0.0110
 Mars -45461-08-02 05:02 J -14882993.59 -14882993.29 -14882992.98 0.0135 0.0013
 Venus -45461-11-18 02:23 J -14882885.54 -14882885.40 -14882885.24 0.0136 0.0094
 Venus -45460-07-02 07:11 J -14882659.37 -14882659.20 -14882659.02 0.0136 0.0078
 Venus -45459-02-13 11:59 J -14882433.18 -14882433.00 -14882432.80 0.0136 0.0062
 Venus -45459-09-27 17:16 J -14882206.98 -14882206.78 -14882206.58 0.0137 0.0046
 Venus -45458-05-11 22:18 J -14881980.77 -14881980.57 -14881980.36 0.0137 0.0029

Venus	-45458-12-24 03:35 J	-14881754.56	-14881754.35	-14881754.14	0.0137	0.0013
Venus	-45457-08-06 08:52 J	-14881528.34	-14881528.13	-14881527.92	0.0138	0.0004
Venus	-45456-03-20 14:09 J	-14881302.11	-14881301.91	-14881301.69	0.0138	0.0022
Venus	-45456-11-01 19:54 J	-14881075.87	-14881075.67	-14881075.47	0.0138	0.0038
Venus	-45455-06-16 01:26 J	-14880849.63	-14880849.44	-14880849.24	0.0139	0.0056
Venus	-45454-01-28 07:11 J	-14880623.37	-14880623.20	-14880623.01	0.0139	0.0073
Venus	-45454-09-11 13:11 J	-14880397.09	-14880396.95	-14880396.77	0.0139	0.0091
Venus	-45453-04-24 19:54 J	-14880170.81	-14880170.67	-14880170.54	0.0140	0.0107
Venus	-45453-12-07 01:54 J	-14879944.50	-14879944.42	-14879944.31	0.0140	0.0124
Mercury	-45435-10-16 00:42 J	-14873422.55	-14873422.47	-14873422.37	0.0147	0.0123
Mercury	-45434-01-12 07:26 J	-14873334.31	-14873334.19	-14873334.05	0.0147	0.0093
Mercury	-45434-04-10 14:09 J	-14873246.05	-14873245.91	-14873245.74	0.0147	0.0063
Mercury	-45434-07-07 21:06 J	-14873157.78	-14873157.62	-14873157.45	0.0147	0.0032
Mercury	-45434-10-04 04:04 J	-14873069.50	-14873069.33	-14873069.16	0.0147	0.0002
Mercury	-45434-12-31 11:02 J	-14872981.21	-14872981.04	-14872980.87	0.0147	0.0029
Mercury	-45433-03-28 17:45 J	-14872892.91	-14872892.76	-14872892.59	0.0147	0.0061
Mercury	-45433-06-25 00:57 J	-14872804.59	-14872804.46	-14872804.32	0.0147	0.0092
Mercury	-45433-09-21 07:54 J	-14872716.25	-14872716.17	-14872716.07	0.0147	0.0124
Earth	-45431-03-24 12:42 J	-14872167.22	-14872166.97	-14872166.71	0.0147	0.0018
Moon	-45431-03-24 16:18 J	-14872167.07	-14872166.82	-14872166.57	0.0147	0.0025 *
Moon	-45430-03-29 13:11 J	-14871797.03	-14871796.95	-14871796.83	0.0146	0.0135
Earth	-45430-03-29 17:02 J	-14871796.90	-14871796.79	-14871796.65	0.0146	0.0127 *
Venus	-45422-04-25 17:30 J	-14868847.81	-14868847.77	-14868847.69	0.0143	0.0138
Venus	-45422-12-08 06:42 J	-14868621.33	-14868621.22	-14868621.08	0.0143	0.0118
Venus	-45421-07-21 20:09 J	-14868394.81	-14868394.66	-14868394.49	0.0143	0.0098
Mars	-45421-12-06 00:28 J	-14868257.52	-14868257.48	-14868257.39	0.0143	0.0140
Venus	-45420-03-05 09:21 J	-14868168.29	-14868168.11	-14868167.92	0.0142	0.0078
Venus	-45420-10-17 22:18 J	-14867941.77	-14867941.57	-14867941.36	0.0142	0.0059
Venus	-45419-06-01 11:02 J	-14867715.25	-14867715.04	-14867714.82	0.0142	0.0039
Venus	-45418-01-13 23:45 J	-14867488.73	-14867488.51	-14867488.28	0.0141	0.0019

Venus	-45418-08-28 12:28 J	-14867262.21	-14867261.98	-14867261.76	0.0141	0.0003
Venus	-45417-04-11 00:42 J	-14867035.69	-14867035.47	-14867035.24	0.0141	0.0020
Venus	-45417-11-23 12:42 J	-14866809.18	-14866808.97	-14866808.75	0.0140	0.0040
Venus	-45416-07-08 00:42 J	-14866582.67	-14866582.47	-14866582.26	0.0140	0.0058
Venus	-45415-02-19 12:28 J	-14866356.16	-14866355.98	-14866355.79	0.0140	0.0077
Venus	-45415-10-04 00:14 J	-14866129.66	-14866129.49	-14866129.33	0.0139	0.0095
Venus	-45414-05-18 11:02 J	-14865903.15	-14865903.04	-14865902.89	0.0139	0.0113
Venus	-45414-12-30 22:33 J	-14865676.63	-14865676.56	-14865676.48	0.0139	0.0130
Mercury	-45393-05-12 22:47 J	-14858237.61	-14858237.55	-14858237.47	0.0132	0.0114
Mercury	-45393-08-09 02:38 J	-14858149.48	-14858149.39	-14858149.28	0.0132	0.0095
Mercury	-45393-11-05 06:14 J	-14858061.35	-14858061.24	-14858061.11	0.0132	0.0076
Mercury	-45392-02-01 10:04 J	-14857973.21	-14857973.08	-14857972.95	0.0132	0.0057
Mercury	-45392-04-30 13:40 J	-14857885.07	-14857884.93	-14857884.79	0.0132	0.0038
Mercury	-45392-07-27 17:16 J	-14857796.92	-14857796.78	-14857796.64	0.0132	0.0019
Mercury	-45392-10-23 20:52 J	-14857708.77	-14857708.63	-14857708.49	0.0132	0.0001
Mercury	-45391-01-20 00:28 J	-14857620.62	-14857620.48	-14857620.34	0.0132	0.0018
Mercury	-45391-04-18 04:04 J	-14857532.47	-14857532.33	-14857532.20	0.0132	0.0036
Mercury	-45391-07-15 07:26 J	-14857444.32	-14857444.19	-14857444.06	0.0132	0.0054
Mercury	-45391-10-11 10:47 J	-14857356.16	-14857356.05	-14857355.92	0.0132	0.0073
Mercury	-45390-01-07 14:09 J	-14857268.00	-14857267.91	-14857267.80	0.0132	0.0091
Mercury	-45390-04-05 17:30 J	-14857179.83	-14857179.77	-14857179.68	0.0132	0.0109
Mercury	-45390-07-02 21:21 J	-14857091.65	-14857091.61	-14857091.58	0.0132	0.0126
Moon	-45390-09-22 06:57 J	-14857010.27	-14857010.21	-14857010.11	0.0132	0.0125
Earth	-45390-09-22 06:28 J	-14857010.24	-14857010.23	-14857010.18	0.0132	0.0131 *
Moon	-45389-09-25 10:18 J	-14856641.31	-14856641.07	-14856640.81	0.0132	0.0034
Earth	-45389-09-25 11:16 J	-14856641.27	-14856641.03	-14856640.78	0.0132	0.0027 *
Earth	-45388-09-29 15:21 J	-14856272.05	-14856271.86	-14856271.64	0.0132	0.0078
Moon	-45388-09-29 16:04 J	-14856272.01	-14856271.83	-14856271.63	0.0132	0.0083 *
Venus	-45378-04-23 04:04 J	-14852779.38	-14852779.33	-14852779.26	0.0135	0.0129
Venus	-45378-12-05 08:38 J	-14852553.24	-14852553.14	-14852553.01	0.0135	0.0114

Venus	-45377-07-18 13:26 J	-14852327.08	-14852326.94	-14852326.79	0.0135	0.0099
Venus	-45376-03-01 18:14 J	-14852100.90	-14852100.74	-14852100.57	0.0136	0.0083
Mars	-45376-03-27 23:02 J	-14852074.72	-14852074.54	-14852074.32	0.0136	0.0101
Venus	-45376-10-13 23:02 J	-14851874.72	-14851874.54	-14851874.35	0.0136	0.0067
Venus	-45375-05-28 03:50 J	-14851648.53	-14851648.34	-14851648.13	0.0136	0.0051
Venus	-45374-01-09 08:52 J	-14851422.33	-14851422.13	-14851421.92	0.0137	0.0035
Venus	-45374-08-23 14:09 J	-14851196.12	-14851195.91	-14851195.70	0.0137	0.0018
Venus	-45373-04-05 19:26 J	-14850969.90	-14850969.69	-14850969.48	0.0137	0.0002
Venus	-45373-11-18 00:42 J	-14850743.68	-14850743.47	-14850743.26	0.0138	0.0015
Venus	-45372-07-02 05:59 J	-14850517.45	-14850517.25	-14850517.04	0.0138	0.0032
Venus	-45371-02-13 11:30 J	-14850291.20	-14850291.02	-14850290.81	0.0138	0.0050
Venus	-45371-09-27 17:45 J	-14850064.94	-14850064.76	-14850064.57	0.0139	0.0066
Venus	-45370-05-11 23:30 J	-14849838.68	-14849838.52	-14849838.34	0.0139	0.0083
Venus	-45370-12-24 05:30 J	-14849612.40	-14849612.27	-14849612.11	0.0139	0.0100
Venus	-45369-08-06 11:59 J	-14849386.11	-14849386.00	-14849385.88	0.0140	0.0117
Venus	-45368-03-20 18:14 J	-14849159.78	-14849159.74	-14849159.67	0.0140	0.0134
Mercury	-45351-08-09 01:26 J	-14842809.46	-14842809.44	-14842809.39	0.0147	0.0144
Mercury	-45351-11-05 08:23 J	-14842721.25	-14842721.15	-14842721.04	0.0147	0.0114
Mercury	-45350-02-01 15:06 J	-14842633.01	-14842632.87	-14842632.73	0.0147	0.0084
Mercury	-45350-04-30 21:50 J	-14842544.75	-14842544.59	-14842544.43	0.0147	0.0054
Mercury	-45350-07-28 04:33 J	-14842456.47	-14842456.31	-14842456.13	0.0147	0.0024
Mercury	-45350-10-24 11:30 J	-14842368.19	-14842368.02	-14842367.84	0.0147	0.0008
Mercury	-45349-01-20 18:28 J	-14842279.90	-14842279.73	-14842279.56	0.0147	0.0038
Mercury	-45349-04-18 01:11 J	-14842191.59	-14842191.45	-14842191.29	0.0147	0.0070
Mercury	-45349-07-15 08:23 J	-14842103.27	-14842103.15	-14842103.02	0.0147	0.0101
Mercury	-45349-10-11 15:35 J	-14842014.92	-14842014.85	-14842014.78	0.0147	0.0132
Earth	-45347-03-24 23:16 J	-14841485.78	-14841485.53	-14841485.27	0.0147	0.0012
Moon	-45347-03-25 02:38 J	-14841485.65	-14841485.39	-14841485.13	0.0147	0.0004 *
Moon	-45346-03-29 23:59 J	-14841115.61	-14841115.50	-14841115.35	0.0146	0.0127
Earth	-45346-03-30 03:21 J	-14841115.44	-14841115.36	-14841115.23	0.0146	0.0134 *

Venus	-45339-12-23 23:30 J	-14838289.52	-14838289.52	-14838289.51	0.0144	0.0143
Venus	-45338-08-07 12:42 J	-14838063.07	-14838062.97	-14838062.85	0.0143	0.0124
Mars	-45338-08-28 14:52 J	-14838042.15	-14838041.88	-14838041.57	0.0143	0.0051
Venus	-45337-03-21 01:54 J	-14837836.55	-14837836.42	-14837836.25	0.0143	0.0105
Venus	-45337-11-02 15:21 J	-14837610.04	-14837609.86	-14837609.68	0.0143	0.0085
Venus	-45336-06-17 04:18 J	-14837383.52	-14837383.32	-14837383.12	0.0142	0.0065
Venus	-45335-01-29 17:02 J	-14837156.99	-14837156.79	-14837156.57	0.0142	0.0046
Venus	-45335-09-13 05:59 J	-14836930.47	-14836930.25	-14836930.03	0.0142	0.0026
Venus	-45334-04-27 18:42 J	-14836703.95	-14836703.72	-14836703.50	0.0141	0.0007
Venus	-45334-12-10 06:57 J	-14836477.43	-14836477.21	-14836476.98	0.0141	0.0013
Venus	-45333-07-23 19:11 J	-14836250.92	-14836250.70	-14836250.48	0.0141	0.0032
Venus	-45332-03-07 06:57 J	-14836024.40	-14836024.21	-14836023.98	0.0140	0.0052
Venus	-45332-10-19 19:11 J	-14835797.89	-14835797.70	-14835797.50	0.0140	0.0069
Venus	-45331-06-03 06:28 J	-14835571.39	-14835571.23	-14835571.04	0.0140	0.0088
Venus	-45330-01-15 17:59 J	-14835344.88	-14835344.75	-14835344.59	0.0139	0.0106
Venus	-45330-08-30 05:16 J	-14835118.37	-14835118.28	-14835118.17	0.0139	0.0123
Mercury	-45309-03-06 02:38 J	-14827624.42	-14827624.39	-14827624.35	0.0132	0.0126
Mercury	-45309-06-02 06:28 J	-14827536.31	-14827536.23	-14827536.15	0.0132	0.0107
Mercury	-45309-08-29 10:04 J	-14827448.18	-14827448.08	-14827447.97	0.0132	0.0088
Mercury	-45309-11-25 13:54 J	-14827360.05	-14827359.92	-14827359.80	0.0132	0.0069
Mercury	-45308-02-21 17:16 J	-14827271.91	-14827271.78	-14827271.64	0.0132	0.0051
Mercury	-45308-05-20 21:06 J	-14827183.76	-14827183.62	-14827183.48	0.0132	0.0032
Mercury	-45308-08-17 00:42 J	-14827095.62	-14827095.47	-14827095.33	0.0132	0.0013
Mercury	-45308-11-13 04:18 J	-14827007.47	-14827007.32	-14827007.18	0.0132	0.0006
Mercury	-45307-02-09 07:40 J	-14826919.32	-14826919.18	-14826919.03	0.0132	0.0024
Mercury	-45307-05-08 11:16 J	-14826831.16	-14826831.03	-14826830.89	0.0132	0.0042
Mercury	-45307-08-04 14:38 J	-14826743.01	-14826742.89	-14826742.76	0.0132	0.0061
Mercury	-45307-10-31 17:59 J	-14826654.85	-14826654.75	-14826654.63	0.0132	0.0079
Mercury	-45306-01-27 21:35 J	-14826566.69	-14826566.60	-14826566.50	0.0132	0.0097
Mercury	-45306-04-26 00:57 J	-14826478.52	-14826478.46	-14826478.38	0.0132	0.0115

Earth	-45306-09-22 17:45 J	-14826328.82	-14826328.76	-14826328.65	0.0132	0.0124
Moon	-45306-09-22 19:40 J	-14826328.71	-14826328.68	-14826328.64	0.0132	0.0130 *
Moon	-45305-09-25 21:21 J	-14825959.87	-14825959.61	-14825959.35	0.0132	0.0014
Earth	-45305-09-25 22:33 J	-14825959.81	-14825959.56	-14825959.31	0.0132	0.0020 *
Earth	-45304-09-30 02:23 J	-14825590.58	-14825590.40	-14825590.19	0.0132	0.0085
Moon	-45304-09-30 03:35 J	-14825590.54	-14825590.35	-14825590.14	0.0132	0.0078 *
Venus	-45295-12-21 14:38 J	-14822220.89	-14822220.89	-14822220.84	0.0135	0.0134
Venus	-45294-08-04 19:11 J	-14821994.78	-14821994.70	-14821994.58	0.0135	0.0119
Mars	-45294-12-20 13:11 J	-14821857.22	-14821856.95	-14821856.66	0.0135	0.0051
Venus	-45293-03-18 00:14 J	-14821768.62	-14821768.49	-14821768.35	0.0135	0.0104
Venus	-45293-10-30 04:33 J	-14821542.46	-14821542.31	-14821542.13	0.0136	0.0089
Venus	-45292-06-13 09:21 J	-14821316.28	-14821316.11	-14821315.92	0.0136	0.0073
Venus	-45291-01-25 14:09 J	-14821090.09	-14821089.91	-14821089.71	0.0136	0.0057
Venus	-45291-09-08 19:26 J	-14820863.89	-14820863.69	-14820863.49	0.0137	0.0041
Venus	-45290-04-23 00:28 J	-14820637.69	-14820637.48	-14820637.27	0.0137	0.0025
Venus	-45290-12-05 05:30 J	-14820411.48	-14820411.27	-14820411.06	0.0137	0.0008
Venus	-45289-07-18 10:47 J	-14820185.26	-14820185.05	-14820184.84	0.0137	0.0008
Venus	-45288-03-01 16:18 J	-14819959.03	-14819958.82	-14819958.62	0.0138	0.0025
Venus	-45288-10-13 21:50 J	-14819732.79	-14819732.59	-14819732.39	0.0138	0.0042
Venus	-45287-05-28 03:35 J	-14819506.54	-14819506.35	-14819506.16	0.0138	0.0059
Venus	-45286-01-09 09:21 J	-14819280.28	-14819280.11	-14819279.93	0.0139	0.0076
Venus	-45286-08-23 15:06 J	-14819054.01	-14819053.87	-14819053.70	0.0139	0.0093
Venus	-45285-04-05 21:35 J	-14818827.72	-14818827.60	-14818827.46	0.0139	0.0110
Venus	-45285-11-18 03:50 J	-14818601.41	-14818601.34	-14818601.24	0.0140	0.0127
Mercury	-45267-08-29 09:06 J	-14812108.17	-14812108.12	-14812108.04	0.0147	0.0135
Mercury	-45267-11-25 15:50 J	-14812019.95	-14812019.84	-14812019.72	0.0147	0.0105
Mercury	-45266-02-21 22:33 J	-14811931.70	-14811931.56	-14811931.41	0.0147	0.0075
Mercury	-45266-05-21 05:16 J	-14811843.44	-14811843.28	-14811843.11	0.0147	0.0045
Mercury	-45266-08-17 12:14 J	-14811755.16	-14811754.99	-14811754.82	0.0147	0.0014
Mercury	-45266-11-13 19:11 J	-14811666.87	-14811666.70	-14811666.53	0.0147	0.0017

Mercury -45265-02-10 01:54 J -14811578.58 -14811578.42 -14811578.25 0.0147 0.0048

Mercury -45265-05-08 08:52 J -14811490.27 -14811490.13 -14811489.98 0.0147 0.0079

Mercury -45265-08-04 16:04 J -14811401.94 -14811401.83 -14811401.71 0.0147 0.0110

Mercury -45265-10-31 23:02 J -14811313.57 -14811313.54 -14811313.49 0.0147 0.0142

Moon -45264-03-20 03:35 J -14811174.36 -14811174.35 -14811174.30 0.0147 0.0146

Earth -45263-03-25 10:33 J -14810804.31 -14810804.06 -14810803.80 0.0147 0.0004

Moon -45263-03-25 13:40 J -14810804.19 -14810803.93 -14810803.67 0.0147 0.0011 *

Earth -45262-03-30 14:52 J -14810433.94 -14810433.88 -14810433.80 0.0146 0.0141

Venus -45254-04-06 19:26 J -14807504.77 -14807504.69 -14807504.59 0.0144 0.0131

Venus -45254-11-19 08:38 J -14807278.26 -14807278.14 -14807277.99 0.0143 0.0112

Mars -45253-04-23 11:30 J -14807122.30 -14807122.02 -14807121.73 0.0143 0.0060

Venus -45253-07-02 21:50 J -14807051.75 -14807051.59 -14807051.41 0.0143 0.0092

Venus -45252-02-14 11:02 J -14806825.22 -14806825.04 -14806824.83 0.0143 0.0073

Venus -45252-09-29 00:14 J -14806598.70 -14806598.49 -14806598.28 0.0142 0.0053

Venus -45251-05-13 12:57 J -14806372.17 -14806371.96 -14806371.74 0.0142 0.0033

Venus -45251-12-26 01:40 J -14806145.66 -14806145.43 -14806145.21 0.0142 0.0014

Venus -45250-08-09 13:54 J -14805919.14 -14805918.92 -14805918.69 0.0141 0.0007

Venus -45249-03-23 02:23 J -14805692.62 -14805692.40 -14805692.18 0.0141 0.0025

Venus -45249-11-04 14:23 J -14805466.11 -14805465.90 -14805465.68 0.0141 0.0044

Venus -45248-06-19 02:09 J -14805239.60 -14805239.41 -14805239.19 0.0140 0.0063

Venus -45247-01-31 14:09 J -14805013.09 -14805012.91 -14805012.72 0.0140 0.0080

Venus -45247-09-15 01:26 J -14804786.58 -14804786.44 -14804786.26 0.0140 0.0099

Venus -45246-04-29 12:57 J -14804560.07 -14804559.96 -14804559.82 0.0139 0.0116

Venus -45246-12-12 00:14 J -14804333.54 -14804333.49 -14804333.42 0.0139 0.0133

Mercury -45225-03-26 10:18 J -14796923.13 -14796923.07 -14796923.01 0.0132 0.0119

Mercury -45225-06-22 13:54 J -14796835.01 -14796834.92 -14796834.82 0.0132 0.0100

Mercury -45225-09-18 17:45 J -14796746.88 -14796746.76 -14796746.65 0.0132 0.0081

Mercury -45225-12-15 21:21 J -14796658.74 -14796658.61 -14796658.48 0.0132 0.0062

Mercury -45224-03-14 00:57 J -14796570.60 -14796570.46 -14796570.32 0.0132 0.0043

Mercury -45224-06-10 04:33 J -14796482.45 -14796482.31 -14796482.17 0.0132 0.0025

Mercury -45224-09-06 08:09 J -14796394.30 -14796394.16 -14796394.02 0.0132 0.0006

Mercury -45224-12-03 11:45 J -14796306.15 -14796306.01 -14796305.87 0.0132 0.0012

Mercury -45223-03-01 15:06 J -14796218.00 -14796217.87 -14796217.72 0.0132 0.0031

Mercury -45223-05-28 18:42 J -14796129.85 -14796129.72 -14796129.58 0.0132 0.0049

Mercury -45223-08-24 22:18 J -14796041.69 -14796041.57 -14796041.45 0.0132 0.0067

Mercury -45223-11-21 01:40 J -14795953.54 -14795953.43 -14795953.32 0.0132 0.0085

Mercury -45222-02-17 05:02 J -14795865.37 -14795865.29 -14795865.20 0.0132 0.0103

Mercury -45222-05-16 08:23 J -14795777.19 -14795777.15 -14795777.09 0.0132 0.0121

Earth -45222-09-23 05:45 J -14795647.35 -14795647.26 -14795647.11 0.0132 0.0117

Moon -45222-09-23 07:26 J -14795647.30 -14795647.19 -14795647.04 0.0132 0.0111 *

Moon -45221-09-26 08:38 J -14795278.39 -14795278.14 -14795277.87 0.0132 0.0020

Earth -45221-09-26 10:47 J -14795278.30 -14795278.05 -14795277.80 0.0132 0.0012 *

Earth -45220-09-30 14:52 J -14794909.06 -14794908.88 -14794908.69 0.0132 0.0092

Moon -45220-09-30 16:04 J -14794908.97 -14794908.83 -14794908.64 0.0132 0.0098 *

Venus -45210-04-04 07:11 J -14791436.27 -14791436.20 -14791436.10 0.0135 0.0123

Venus -45210-11-16 11:30 J -14791210.13 -14791210.02 -14791209.88 0.0135 0.0109

Venus -45209-06-29 16:33 J -14790983.97 -14790983.81 -14790983.66 0.0135 0.0093

Mars -45209-08-14 09:50 J -14790938.37 -14790938.09 -14790937.78 0.0136 0.0039

Venus -45208-02-10 20:52 J -14790757.79 -14790757.63 -14790757.44 0.0136 0.0078

Venus -45208-09-25 01:54 J -14790531.60 -14790531.42 -14790531.23 0.0136 0.0062

Venus -45207-05-09 06:42 J -14790305.41 -14790305.22 -14790305.01 0.0136 0.0046

Venus -45207-12-21 11:45 J -14790079.21 -14790079.01 -14790078.80 0.0137 0.0030

Venus -45206-08-04 16:47 J -14789853.01 -14789852.80 -14789852.59 0.0137 0.0014

Venus -45205-03-17 22:04 J -14789626.79 -14789626.58 -14789626.37 0.0137 0.0003

Venus -45205-10-30 03:21 J -14789400.57 -14789400.36 -14789400.15 0.0138 0.0019

Venus -45204-06-13 08:52 J -14789174.33 -14789174.13 -14789173.92 0.0138 0.0036

Venus -45203-01-25 14:23 J -14788948.09 -14788947.90 -14788947.70 0.0138 0.0053

Venus -45203-09-08 20:09 J -14788721.83 -14788721.66 -14788721.46 0.0139 0.0070

Venus -45202-04-23 02:09 J -14788495.56 -14788495.41 -14788495.23 0.0139 0.0086

Venus -45202-12-05 08:09 J -14788269.28 -14788269.16 -14788269.00 0.0139 0.0103

Venus -45201-07-18 14:38 J -14788042.99 -14788042.89 -14788042.77 0.0140 0.0120
 Venus -45200-03-01 21:21 J -14787816.65 -14787816.61 -14787816.56 0.0140 0.0136
 Mercury -45183-09-18 16:47 J -14781406.87 -14781406.80 -14781406.69 0.0147 0.0125
 Mercury -45183-12-15 23:45 J -14781318.63 -14781318.51 -14781318.38 0.0147 0.0095
 Mercury -45182-03-14 06:28 J -14781230.38 -14781230.23 -14781230.07 0.0147 0.0065
 Mercury -45182-06-10 13:11 J -14781142.11 -14781141.95 -14781141.78 0.0147 0.0035
 Mercury -45182-09-06 20:09 J -14781053.83 -14781053.66 -14781053.49 0.0147 0.0004
 Mercury -45182-12-04 03:06 J -14780965.54 -14780965.37 -14780965.20 0.0147 0.0027
 Mercury -45181-03-01 09:50 J -14780877.24 -14780877.09 -14780876.93 0.0147 0.0058
 Mercury -45181-05-28 16:47 J -14780788.93 -14780788.80 -14780788.66 0.0147 0.0089
 Mercury -45181-08-24 23:45 J -14780700.60 -14780700.51 -14780700.40 0.0147 0.0121
 Moon -45180-03-20 16:04 J -14780492.85 -14780492.83 -14780492.79 0.0147 0.0145
 Earth -45180-03-20 17:59 J -14780492.80 -14780492.75 -14780492.66 0.0147 0.0141 *
 Earth -45179-03-25 22:47 J -14780122.80 -14780122.55 -14780122.29 0.0147 0.0004
 Moon -45179-03-26 01:26 J -14780122.70 -14780122.44 -14780122.18 0.0147 0.0012 *
 Moon -45178-03-30 23:59 J -14779752.54 -14779752.50 -14779752.42 0.0146 0.0143
 Venus -45171-12-05 02:38 J -14776946.45 -14776946.39 -14776946.31 0.0144 0.0136
 Mars -45170-01-14 07:54 J -14776906.28 -14776906.17 -14776905.99 0.0144 0.0127
 Venus -45170-07-19 15:35 J -14776719.95 -14776719.85 -14776719.70 0.0143 0.0118
 Venus -45169-03-02 05:02 J -14776493.43 -14776493.29 -14776493.11 0.0143 0.0099
 Venus -45169-10-14 18:14 J -14776266.91 -14776266.74 -14776266.54 0.0143 0.0079
 Venus -45168-05-29 07:11 J -14776040.39 -14776040.20 -14776039.98 0.0143 0.0060
 Venus -45167-01-10 20:23 J -14775813.87 -14775813.65 -14775813.44 0.0142 0.0040
 Venus -45167-08-25 08:52 J -14775587.35 -14775587.13 -14775586.90 0.0142 0.0021
 Venus -45166-04-08 21:35 J -14775360.82 -14775360.60 -14775360.37 0.0142 0.0001
 Venus -45166-11-21 09:50 J -14775134.31 -14775134.09 -14775133.86 0.0141 0.0018
 Venus -45165-07-04 22:04 J -14774907.79 -14774907.58 -14774907.36 0.0141 0.0037
 Venus -45164-02-16 10:04 J -14774681.28 -14774681.08 -14774680.87 0.0141 0.0055
 Venus -45164-09-30 22:04 J -14774454.77 -14774454.58 -14774454.39 0.0140 0.0073
 Venus -45163-05-15 09:21 J -14774228.26 -14774228.11 -14774227.92 0.0140 0.0092

Venus -45163-12-27 20:52 J -14774001.75 -14774001.63 -14774001.47 0.0139 0.0110
 Venus -45162-08-11 08:23 J -14773775.23 -14773775.15 -14773775.05 0.0139 0.0126
 Mercury -45141-01-18 14:09 J -14766309.92 -14766309.91 -14766309.90 0.0132 0.0131
 Mercury -45141-04-15 17:45 J -14766221.83 -14766221.76 -14766221.68 0.0132 0.0112
 Mercury -45141-07-12 21:21 J -14766133.71 -14766133.61 -14766133.50 0.0132 0.0093
 Mercury -45141-10-09 01:11 J -14766045.57 -14766045.45 -14766045.33 0.0132 0.0074
 Mercury -45140-01-05 04:33 J -14765957.43 -14765957.31 -14765957.17 0.0132 0.0056
 Mercury -45140-04-03 08:23 J -14765869.29 -14765869.15 -14765869.01 0.0132 0.0037
 Mercury -45140-06-30 11:59 J -14765781.14 -14765781.00 -14765780.85 0.0132 0.0018
 Mercury -45140-09-26 15:35 J -14765692.99 -14765692.85 -14765692.70 0.0132 0.0002
 Mercury -45140-12-23 19:11 J -14765604.84 -14765604.70 -14765604.56 0.0132 0.0019
 Mercury -45139-03-21 22:33 J -14765516.69 -14765516.56 -14765516.42 0.0132 0.0038
 Mercury -45139-06-18 02:09 J -14765428.54 -14765428.41 -14765428.28 0.0132 0.0056
 Mercury -45139-09-14 05:30 J -14765340.38 -14765340.27 -14765340.15 0.0132 0.0074
 Mercury -45139-12-11 08:52 J -14765252.22 -14765252.13 -14765252.02 0.0132 0.0092
 Mercury -45138-03-09 12:28 J -14765164.05 -14765163.98 -14765163.90 0.0132 0.0110
 Mercury -45138-06-05 15:50 J -14765075.87 -14765075.84 -14765075.80 0.0132 0.0128
 Earth -45138-09-23 17:59 J -14764965.87 -14764965.75 -14764965.59 0.0132 0.0109
 Moon -45138-09-23 20:38 J -14764965.75 -14764965.64 -14764965.52 0.0132 0.0115 *
 Moon -45137-09-26 20:38 J -14764596.90 -14764596.64 -14764596.38 0.0132 0.0001
 Earth -45137-09-26 22:33 J -14764596.81 -14764596.56 -14764596.30 0.0132 0.0006 *
 Earth -45136-10-01 02:23 J -14764227.55 -14764227.40 -14764227.22 0.0132 0.0099
 Moon -45136-10-01 04:18 J -14764227.48 -14764227.32 -14764227.13 0.0132 0.0093 *
 Venus -45127-12-02 18:28 J -14760877.79 -14760877.73 -14760877.65 0.0135 0.0127
 Mars -45126-05-08 23:16 J -14760720.66 -14760720.53 -14760720.33 0.0135 0.0113
 Venus -45126-07-16 23:02 J -14760651.65 -14760651.54 -14760651.42 0.0135 0.0112
 Venus -45125-02-28 03:35 J -14760425.49 -14760425.35 -14760425.20 0.0135 0.0098
 Venus -45125-10-11 07:54 J -14760199.32 -14760199.17 -14760198.99 0.0136 0.0083
 Mars -45124-04-09 03:35 J -14760019.43 -14760019.35 -14760019.21 0.0136 0.0127
 Venus -45124-05-25 12:57 J -14759973.15 -14759972.96 -14759972.78 0.0136 0.0067

Venus	-45123-01-06 17:30 J	-14759746.96	-14759746.77	-14759746.57	0.0136	0.0052
Venus	-45123-08-20 22:33 J	-14759520.76	-14759520.56	-14759520.35	0.0136	0.0036
Venus	-45122-04-04 03:35 J	-14759294.56	-14759294.35	-14759294.14	0.0137	0.0020
Venus	-45122-11-16 08:38 J	-14759068.35	-14759068.14	-14759067.92	0.0137	0.0004
Venus	-45121-06-29 13:54 J	-14758842.13	-14758841.92	-14758841.71	0.0137	0.0013
Venus	-45120-02-10 19:26 J	-14758615.90	-14758615.69	-14758615.49	0.0138	0.0029
Venus	-45120-09-25 00:57 J	-14758389.65	-14758389.46	-14758389.26	0.0138	0.0046
Venus	-45119-05-09 06:28 J	-14758163.40	-14758163.23	-14758163.03	0.0138	0.0063
Venus	-45119-12-21 12:28 J	-14757937.14	-14757936.98	-14757936.80	0.0139	0.0079
Venus	-45118-08-04 18:42 J	-14757710.87	-14757710.72	-14757710.57	0.0139	0.0096
Venus	-45117-03-18 00:28 J	-14757484.58	-14757484.48	-14757484.34	0.0139	0.0113
Venus	-45117-10-30 07:11 J	-14757258.27	-14757258.20	-14757258.11	0.0140	0.0129
Mercury	-45099-07-12 17:59 J	-14750793.76	-14750793.75	-14750793.71	0.0147	0.0145
Mercury	-45099-10-09 00:42 J	-14750705.57	-14750705.47	-14750705.36	0.0147	0.0115
Mercury	-45098-01-05 07:11 J	-14750617.32	-14750617.20	-14750617.05	0.0147	0.0086
Mercury	-45098-04-03 13:54 J	-14750529.07	-14750528.92	-14750528.75	0.0147	0.0056
Mercury	-45098-06-30 20:52 J	-14750440.80	-14750440.63	-14750440.46	0.0147	0.0025
Mercury	-45098-09-27 03:50 J	-14750352.51	-14750352.34	-14750352.17	0.0147	0.0006
Mercury	-45098-12-24 10:33 J	-14750264.22	-14750264.06	-14750263.89	0.0147	0.0037
Mercury	-45097-03-21 17:30 J	-14750175.92	-14750175.77	-14750175.61	0.0147	0.0067
Mercury	-45097-06-18 00:28 J	-14750087.60	-14750087.48	-14750087.35	0.0147	0.0099
Mercury	-45097-09-14 07:40 J	-14749999.26	-14749999.18	-14749999.10	0.0147	0.0130
Moon	-45096-03-21 04:33 J	-14749811.42	-14749811.31	-14749811.20	0.0147	0.0130
Earth	-45096-03-21 05:45 J	-14749811.36	-14749811.26	-14749811.15	0.0147	0.0133 *
Earth	-45095-03-26 10:18 J	-14749441.32	-14749441.07	-14749440.81	0.0147	0.0013
Moon	-45095-03-26 12:42 J	-14749441.23	-14749440.97	-14749440.70	0.0147	0.0006 *
Venus	-45087-08-04 09:35 J	-14746388.12	-14746388.10	-14746388.05	0.0144	0.0142
Venus	-45086-03-18 23:16 J	-14746161.63	-14746161.53	-14746161.41	0.0144	0.0123
Mars	-45086-09-10 04:47 J	-14745986.61	-14745986.30	-14745985.99	0.0143	0.0016
Venus	-45086-10-31 12:42 J	-14745935.12	-14745934.97	-14745934.82	0.0143	0.0104

Venus	-45085-06-14 01:26 J	-14745708.60	-14745708.44	-14745708.24	0.0143	0.0086
Venus	-45084-01-26 14:38 J	-14745482.07	-14745481.89	-14745481.68	0.0143	0.0066
Venus	-45084-09-10 03:50 J	-14745255.55	-14745255.34	-14745255.12	0.0142	0.0046
Venus	-45083-04-24 16:33 J	-14745029.02	-14745028.81	-14745028.58	0.0142	0.0027
Venus	-45083-12-07 05:16 J	-14744802.50	-14744802.28	-14744802.05	0.0142	0.0008
Venus	-45082-07-21 17:45 J	-14744575.98	-14744575.76	-14744575.53	0.0141	0.0011
Venus	-45081-03-04 06:14 J	-14744349.46	-14744349.24	-14744349.02	0.0141	0.0030
Venus	-45081-10-16 18:14 J	-14744122.94	-14744122.74	-14744122.52	0.0141	0.0049
Venus	-45080-05-31 06:28 J	-14743896.43	-14743896.23	-14743896.04	0.0140	0.0067
Venus	-45079-01-12 17:45 J	-14743669.92	-14743669.76	-14743669.56	0.0140	0.0086
Venus	-45079-08-27 05:30 J	-14743443.41	-14743443.27	-14743443.10	0.0140	0.0103
Venus	-45078-04-10 17:16 J	-14743216.88	-14743216.78	-14743216.66	0.0139	0.0120
Venus	-45078-11-23 04:47 J	-14742990.34	-14742990.30	-14742990.26	0.0139	0.0136
Mercury	-45057-02-07 21:35 J	-14735608.64	-14735608.60	-14735608.55	0.0132	0.0124
Mercury	-45057-05-06 01:11 J	-14735520.53	-14735520.45	-14735520.35	0.0132	0.0105
Mercury	-45057-08-02 05:02 J	-14735432.39	-14735432.29	-14735432.17	0.0132	0.0086
Mercury	-45057-10-29 08:38 J	-14735344.26	-14735344.14	-14735344.01	0.0132	0.0067
Mercury	-45056-01-25 12:28 J	-14735256.11	-14735255.98	-14735255.84	0.0132	0.0048
Mercury	-45056-04-23 16:04 J	-14735167.97	-14735167.83	-14735167.69	0.0132	0.0029
Mercury	-45056-07-20 19:40 J	-14735079.82	-14735079.68	-14735079.54	0.0132	0.0011
Mercury	-45056-10-16 23:16 J	-14734991.67	-14734991.53	-14734991.39	0.0132	0.0008
Mercury	-45055-01-13 02:38 J	-14734903.52	-14734903.39	-14734903.24	0.0132	0.0027
Mercury	-45055-04-11 06:14 J	-14734815.37	-14734815.24	-14734815.10	0.0132	0.0045
Mercury	-45055-07-08 09:50 J	-14734727.22	-14734727.09	-14734726.97	0.0132	0.0063
Mercury	-45055-10-04 13:11 J	-14734639.06	-14734638.95	-14734638.83	0.0132	0.0081
Mercury	-45055-12-31 16:33 J	-14734550.89	-14734550.81	-14734550.71	0.0132	0.0099
Mercury	-45054-03-29 19:54 J	-14734462.72	-14734462.67	-14734462.59	0.0132	0.0117
Earth	-45054-09-24 06:57 J	-14734284.36	-14734284.21	-14734284.03	0.0132	0.0101
Moon	-45054-09-24 09:21 J	-14734284.27	-14734284.11	-14734283.93	0.0132	0.0095 *
Moon	-45053-09-27 08:52 J	-14733915.39	-14733915.13	-14733914.87	0.0132	0.0004

Earth	-45053-09-27 11:30 J	-14733915.27	-14733915.02	-14733914.76	0.0132	0.0003	*
Earth	-45052-10-01 15:21 J	-14733545.99	-14733545.86	-14733545.70	0.0132	0.0107	
Moon	-45052-10-01 17:30 J	-14733545.87	-14733545.77	-14733545.62	0.0132	0.0114	*
Venus	-45043-08-02 06:14 J	-14730319.27	-14730319.24	-14730319.17	0.0135	0.0131	
Venus	-45042-03-16 10:47 J	-14730093.14	-14730093.05	-14730092.93	0.0135	0.0116	
Venus	-45042-10-28 15:21 J	-14729866.99	-14729866.86	-14729866.71	0.0135	0.0102	
Mars	-45041-01-01 21:21 J	-14729801.89	-14729801.61	-14729801.30	0.0135	0.0025	
Venus	-45041-06-10 19:54 J	-14729640.83	-14729640.67	-14729640.50	0.0135	0.0087	
Venus	-45040-01-23 00:28 J	-14729414.65	-14729414.48	-14729414.29	0.0136	0.0072	
Venus	-45040-09-06 05:30 J	-14729188.46	-14729188.27	-14729188.07	0.0136	0.0056	
Venus	-45039-04-20 10:18 J	-14728962.27	-14728962.07	-14728961.86	0.0136	0.0041	
Venus	-45039-12-02 15:21 J	-14728736.07	-14728735.86	-14728735.65	0.0137	0.0025	
Venus	-45038-07-16 20:23 J	-14728509.86	-14728509.65	-14728509.44	0.0137	0.0009	
Venus	-45037-02-28 01:26 J	-14728283.65	-14728283.44	-14728283.22	0.0137	0.0008	
Venus	-45037-10-11 06:57 J	-14728057.42	-14728057.21	-14728057.00	0.0137	0.0024	
Venus	-45036-05-25 12:28 J	-14727831.18	-14727830.98	-14727830.78	0.0138	0.0040	
Venus	-45035-01-06 17:59 J	-14727604.94	-14727604.75	-14727604.55	0.0138	0.0057	
Venus	-45035-08-20 23:59 J	-14727378.68	-14727378.50	-14727378.32	0.0138	0.0073	
Venus	-45034-04-04 05:30 J	-14727152.41	-14727152.27	-14727152.09	0.0139	0.0090	
Venus	-45034-11-16 11:45 J	-14726926.13	-14726926.01	-14726925.86	0.0139	0.0106	
Venus	-45033-06-29 17:59 J	-14726699.83	-14726699.75	-14726699.63	0.0140	0.0123	
Venus	-45032-02-11 00:14 J	-14726473.49	-14726473.49	-14726473.44	0.0140	0.0139	
Mercury	-45015-08-02 01:54 J	-14720092.48	-14720092.42	-14720092.35	0.0147	0.0135	
Mercury	-45015-10-29 08:23 J	-14720004.25	-14720004.15	-14720004.02	0.0147	0.0106	
Mercury	-45014-01-25 15:06 J	-14719916.01	-14719915.87	-14719915.72	0.0147	0.0076	
Mercury	-45014-04-23 21:50 J	-14719827.74	-14719827.59	-14719827.42	0.0147	0.0046	
Mercury	-45014-07-21 04:47 J	-14719739.47	-14719739.30	-14719739.13	0.0147	0.0015	
Mercury	-45014-10-17 11:30 J	-14719651.19	-14719651.02	-14719650.84	0.0147	0.0016	
Mercury	-45013-01-13 18:28 J	-14719562.89	-14719562.73	-14719562.56	0.0147	0.0046	
Mercury	-45013-04-11 01:11 J	-14719474.59	-14719474.45	-14719474.29	0.0147	0.0078	

Mercury -45013-07-08 08:09 J -14719386.26 -14719386.16 -14719386.03 0.0147 0.0109

Mercury -45013-10-04 15:35 J -14719297.90 -14719297.85 -14719297.80 0.0147 0.0140

Moon -45012-03-21 16:33 J -14719129.92 -14719129.81 -14719129.68 0.0147 0.0129

Earth -45012-03-21 17:45 J -14719129.88 -14719129.76 -14719129.62 0.0147 0.0125 *

Earth -45011-03-26 22:33 J -14718759.81 -14718759.56 -14718759.30 0.0147 0.0021

Moon -45011-03-27 00:14 J -14718759.74 -14718759.49 -14718759.22 0.0147 0.0028 *

Venus -45003-11-16 06:14 J -14715603.33 -14715603.24 -14715603.13 0.0144 0.0128

Venus -45002-06-30 19:11 J -14715376.82 -14715376.70 -14715376.54 0.0144 0.0110

Venus -45001-02-12 08:52 J -14715150.29 -14715150.13 -14715149.95 0.0143 0.0090

Mars -45001-05-06 01:54 J -14715066.63 -14715066.42 -14715066.17 0.0143 0.0095

Venus -45001-09-25 22:04 J -14714923.77 -14714923.58 -14714923.38 0.0143 0.0071

45TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 45th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-45000-05-10 11:02 J	-14714697.24	-14714697.04	-14714696.83	0.0143	0.0052		
Venus	-45000-12-22 23:45 J	-14714470.72	-14714470.51	-14714470.28	0.0142	0.0033		
Venus	-44999-08-06 12:42 J	-14714244.19	-14714243.97	-14714243.75	0.0142	0.0014		
Venus	-44998-03-21 01:26 J	-14714017.67	-14714017.44	-14714017.22	0.0142	0.0005		
Venus	-44998-11-02 13:40 J	-14713791.14	-14713790.93	-14713790.70	0.0141	0.0024		
Venus	-44997-06-16 02:09 J	-14713564.63	-14713564.41	-14713564.20	0.0141	0.0042		
Venus	-44996-01-28 14:09 J	-14713338.11	-14713337.91	-14713337.70	0.0141	0.0061		

Venus -44996-09-12 02:09 J -14713111.59 -14713111.41 -14713111.22 0.0140 0.0079
 Venus -44995-04-26 14:09 J -14712885.07 -14712884.91 -14712884.75 0.0140 0.0096
 Venus -44995-12-09 01:26 J -14712658.55 -14712658.44 -14712658.30 0.0139 0.0114
 Venus -44994-07-23 12:57 J -14712432.03 -14712431.96 -14712431.87 0.0139 0.0131
 Mercury -44973-02-28 05:16 J -14704907.34 -14704907.28 -14704907.21 0.0132 0.0116
 Mercury -44973-05-26 09:06 J -14704819.22 -14704819.12 -14704819.02 0.0132 0.0097
 Mercury -44973-08-22 12:42 J -14704731.08 -14704730.97 -14704730.85 0.0132 0.0078
 Mercury -44973-11-18 16:18 J -14704642.94 -14704642.82 -14704642.68 0.0132 0.0059
 Mercury -44972-02-14 19:54 J -14704554.80 -14704554.67 -14704554.52 0.0132 0.0041
 Mercury -44972-05-13 23:45 J -14704466.65 -14704466.51 -14704466.37 0.0132 0.0022
 Mercury -44972-08-10 03:21 J -14704378.51 -14704378.36 -14704378.22 0.0132 0.0004
 Mercury -44972-11-06 06:42 J -14704290.36 -14704290.22 -14704290.07 0.0132 0.0016
 Mercury -44971-02-02 10:18 J -14704202.21 -14704202.07 -14704201.93 0.0132 0.0034
 Mercury -44971-05-01 13:54 J -14704114.05 -14704113.92 -14704113.79 0.0132 0.0052
 Mercury -44971-07-28 17:16 J -14704025.89 -14704025.78 -14704025.65 0.0132 0.0070
 Mercury -44971-10-24 20:52 J -14703937.73 -14703937.63 -14703937.52 0.0132 0.0088
 Mercury -44970-01-21 00:14 J -14703849.57 -14703849.49 -14703849.40 0.0132 0.0106
 Mercury -44970-04-19 03:35 J -14703761.39 -14703761.35 -14703761.30 0.0132 0.0124
 Earth -44970-09-24 19:40 J -14703602.84 -14703602.68 -14703602.48 0.0132 0.0093
 Moon -44970-09-24 22:47 J -14703602.70 -14703602.55 -14703602.37 0.0132 0.0099 *
 Moon -44969-09-27 21:35 J -14703233.85 -14703233.60 -14703233.34 0.0132 0.0018
 Earth -44969-09-28 00:28 J -14703233.73 -14703233.48 -14703233.23 0.0132 0.0011 *
 Earth -44968-10-02 03:50 J -14702864.44 -14702864.34 -14702864.20 0.0132 0.0116
 Moon -44968-10-02 06:42 J -14702864.34 -14702864.22 -14702864.06 0.0132 0.0109 *
 Venus -44959-04-01 17:59 J -14699760.75 -14699760.75 -14699760.72 0.0134 0.0134
 Venus -44959-11-13 22:33 J -14699534.65 -14699534.56 -14699534.46 0.0135 0.0120
 Venus -44958-06-28 02:38 J -14699308.51 -14699308.39 -14699308.24 0.0135 0.0106
 Venus -44957-02-09 07:11 J -14699082.34 -14699082.20 -14699082.03 0.0135 0.0091
 Mars -44957-08-26 18:28 J -14698882.99 -14698882.73 -14698882.46 0.0135 0.0065
 Venus -44957-09-22 11:45 J -14698856.17 -14698856.01 -14698855.82 0.0135 0.0077

Venus	-44956-05-06 16:47 J	-14698629.99	-14698629.80	-14698629.61	0.0136	0.0061
Venus	-44956-12-18 21:21 J	-14698403.80	-14698403.61	-14698403.40	0.0136	0.0046
Venus	-44955-08-02 02:09 J	-14698177.61	-14698177.41	-14698177.19	0.0136	0.0031
Venus	-44954-03-16 07:26 J	-14697951.40	-14697951.19	-14697950.98	0.0137	0.0014
Venus	-44954-10-28 12:28 J	-14697725.19	-14697724.98	-14697724.76	0.0137	0.0003
Venus	-44953-06-10 17:45 J	-14697498.97	-14697498.76	-14697498.55	0.0137	0.0018
Venus	-44952-01-22 23:02 J	-14697272.74	-14697272.54	-14697272.33	0.0138	0.0034
Venus	-44952-09-06 05:02 J	-14697046.49	-14697046.29	-14697046.10	0.0138	0.0050
Venus	-44951-04-20 10:33 J	-14696820.24	-14696820.06	-14696819.87	0.0138	0.0067
Venus	-44951-12-02 16:18 J	-14696593.98	-14696593.82	-14696593.65	0.0139	0.0083
Venus	-44950-07-16 22:18 J	-14696367.71	-14696367.57	-14696367.42	0.0139	0.0099
Venus	-44949-02-28 04:18 J	-14696141.43	-14696141.32	-14696141.19	0.0139	0.0115
Venus	-44949-10-11 10:33 J	-14695915.11	-14695915.06	-14695914.97	0.0140	0.0132
Mercury	-44931-08-22 09:21 J	-14689391.19	-14689391.11	-14689391.02	0.0147	0.0127
Mercury	-44931-11-18 15:50 J	-14689302.96	-14689302.84	-14689302.71	0.0147	0.0098
Mercury	-44930-02-14 22:33 J	-14689214.71	-14689214.56	-14689214.40	0.0147	0.0068
Mercury	-44930-05-14 05:16 J	-14689126.44	-14689126.28	-14689126.11	0.0147	0.0038
Mercury	-44930-08-10 12:14 J	-14689038.16	-14689037.99	-14689037.82	0.0147	0.0007
Mercury	-44930-11-06 18:57 J	-14688949.88	-14688949.71	-14688949.54	0.0147	0.0024
Mercury	-44929-02-03 01:40 J	-14688861.58	-14688861.43	-14688861.26	0.0147	0.0055
Mercury	-44929-05-01 08:38 J	-14688773.27	-14688773.14	-14688772.99	0.0147	0.0086
Mercury	-44929-07-28 15:50 J	-14688684.94	-14688684.84	-14688684.74	0.0147	0.0117
Moon	-44928-03-22 03:50 J	-14688448.47	-14688448.34	-14688448.17	0.0147	0.0117
Earth	-44928-03-22 04:04 J	-14688448.46	-14688448.33	-14688448.16	0.0147	0.0119 *
Earth	-44927-03-27 09:21 J	-14688078.35	-14688078.11	-14688077.85	0.0147	0.0028
Moon	-44927-03-27 10:47 J	-14688078.31	-14688078.05	-14688077.78	0.0147	0.0021 *
Venus	-44919-07-16 12:28 J	-14685045.04	-14685044.98	-14685044.88	0.0144	0.0134
Mars	-44918-01-26 22:47 J	-14684850.78	-14684850.55	-14684850.31	0.0144	0.0093
Venus	-44918-02-28 02:23 J	-14684818.53	-14684818.40	-14684818.27	0.0144	0.0115
Venus	-44918-10-12 15:21 J	-14684592.01	-14684591.86	-14684591.68	0.0144	0.0097

Venus	-44917-05-26 04:47 J	-14684365.48	-14684365.30	-14684365.11	0.0143	0.0078
Venus	-44916-01-07 17:45 J	-14684138.96	-14684138.76	-14684138.55	0.0143	0.0059
Venus	-44916-08-22 06:42 J	-14683912.43	-14683912.22	-14683912.00	0.0143	0.0040
Venus	-44915-04-05 19:54 J	-14683685.89	-14683685.67	-14683685.45	0.0142	0.0020
Venus	-44915-11-18 08:38 J	-14683459.37	-14683459.14	-14683458.92	0.0142	0.0002
Venus	-44914-07-02 21:06 J	-14683232.84	-14683232.62	-14683232.40	0.0142	0.0017
Venus	-44913-02-14 09:21 J	-14683006.32	-14683006.11	-14683005.88	0.0141	0.0037
Venus	-44913-09-27 21:50 J	-14682779.79	-14682779.59	-14682779.38	0.0141	0.0054
Venus	-44912-05-12 09:50 J	-14682553.27	-14682553.09	-14682552.89	0.0140	0.0073
Venus	-44912-12-24 21:50 J	-14682326.75	-14682326.59	-14682326.41	0.0140	0.0090
Venus	-44911-08-08 09:21 J	-14682100.23	-14682100.11	-14682099.95	0.0140	0.0108
Venus	-44910-03-22 21:06 J	-14681873.70	-14681873.62	-14681873.50	0.0139	0.0125
Mercury	-44890-12-22 09:21 J	-14674294.14	-14674294.11	-14674294.07	0.0132	0.0127
Mercury	-44889-03-19 12:57 J	-14674206.03	-14674205.96	-14674205.87	0.0132	0.0108
Mercury	-44889-06-15 16:47 J	-14674117.90	-14674117.80	-14674117.69	0.0132	0.0089
Mercury	-44889-09-11 20:38 J	-14674029.77	-14674029.64	-14674029.52	0.0132	0.0070
Mercury	-44889-12-09 00:14 J	-14673941.62	-14673941.49	-14673941.36	0.0132	0.0051
Mercury	-44888-03-07 03:50 J	-14673853.48	-14673853.34	-14673853.20	0.0132	0.0033
Mercury	-44888-06-03 07:26 J	-14673765.33	-14673765.19	-14673765.04	0.0132	0.0014
Mercury	-44888-08-30 11:02 J	-14673677.18	-14673677.04	-14673676.90	0.0132	0.0005
Mercury	-44888-11-26 14:38 J	-14673589.03	-14673588.89	-14673588.75	0.0132	0.0023
Mercury	-44887-02-22 17:59 J	-14673500.88	-14673500.75	-14673500.61	0.0132	0.0042
Mercury	-44887-05-21 21:35 J	-14673412.72	-14673412.60	-14673412.47	0.0132	0.0060
Mercury	-44887-08-18 00:57 J	-14673324.57	-14673324.46	-14673324.34	0.0132	0.0078
Mercury	-44887-11-14 04:33 J	-14673236.40	-14673236.31	-14673236.21	0.0132	0.0096
Mercury	-44886-02-10 07:54 J	-14673148.23	-14673148.17	-14673148.09	0.0132	0.0114
Mercury	-44886-05-09 11:16 J	-14673060.03	-14673060.03	-14673060.01	0.0132	0.0132
Earth	-44886-09-25 09:21 J	-14672921.29	-14672921.11	-14672920.89	0.0132	0.0084
Moon	-44886-09-25 12:28 J	-14672921.17	-14672920.98	-14672920.77	0.0132	0.0078 *
Moon	-44885-09-28 10:33 J	-14672552.31	-14672552.06	-14672551.80	0.0132	0.0014

Earth	-44885-09-28 13:54 J	-14672552.17	-14672551.92	-14672551.67	0.0132	0.0021 *
Earth	-44884-10-02 17:59 J	-14672182.83	-14672182.75	-14672182.66	0.0132	0.0124
Moon	-44884-10-02 20:52 J	-14672182.64	-14672182.63	-14672182.59	0.0132	0.0131
Venus	-44875-07-14 10:33 J	-14668976.12	-14668976.06	-14668975.96	0.0134	0.0124
Venus	-44874-02-25 15:06 J	-14668749.98	-14668749.87	-14668749.74	0.0135	0.0109
Mars	-44874-05-21 10:47 J	-14668665.27	-14668665.05	-14668664.80	0.0135	0.0085
Venus	-44874-10-09 19:26 J	-14668523.82	-14668523.69	-14668523.52	0.0135	0.0095
Venus	-44873-05-22 23:59 J	-14668297.66	-14668297.50	-14668297.31	0.0135	0.0080
Venus	-44872-01-04 04:47 J	-14668071.48	-14668071.30	-14668071.11	0.0135	0.0065
Venus	-44872-08-18 09:35 J	-14667845.29	-14667845.10	-14667844.90	0.0136	0.0050
Venus	-44871-04-01 14:38 J	-14667619.10	-14667618.89	-14667618.69	0.0136	0.0034
Venus	-44871-11-13 19:26 J	-14667392.90	-14667392.69	-14667392.48	0.0136	0.0019
Venus	-44870-06-28 00:28 J	-14667166.69	-14667166.48	-14667166.27	0.0137	0.0003
Venus	-44869-02-09 05:45 J	-14666940.47	-14666940.26	-14666940.05	0.0137	0.0013
Venus	-44869-09-22 11:02 J	-14666714.24	-14666714.04	-14666713.82	0.0137	0.0029
Venus	-44868-05-06 16:47 J	-14666488.00	-14666487.80	-14666487.60	0.0138	0.0045
Venus	-44868-12-18 22:04 J	-14666261.76	-14666261.58	-14666261.38	0.0138	0.0061
Venus	-44867-08-02 03:50 J	-14666035.51	-14666035.34	-14666035.16	0.0138	0.0077
Venus	-44866-03-16 09:35 J	-14665809.24	-14665809.10	-14665808.93	0.0139	0.0094
Venus	-44866-10-28 16:04 J	-14665582.96	-14665582.83	-14665582.70	0.0139	0.0110
Venus	-44865-06-10 22:04 J	-14665356.66	-14665356.58	-14665356.48	0.0139	0.0126
Mercury	-44847-06-15 10:47 J	-14658778.06	-14658778.05	-14658778.04	0.0147	0.0146
Mercury	-44847-09-11 17:02 J	-14658689.88	-14658689.79	-14658689.68	0.0147	0.0117
Mercury	-44847-12-08 23:45 J	-14658601.64	-14658601.51	-14658601.37	0.0147	0.0087
Mercury	-44846-03-07 06:28 J	-14658513.38	-14658513.23	-14658513.07	0.0147	0.0057
Mercury	-44846-06-03 13:11 J	-14658425.11	-14658424.95	-14658424.78	0.0147	0.0027
Mercury	-44846-08-30 20:09 J	-14658336.83	-14658336.66	-14658336.49	0.0147	0.0004
Mercury	-44846-11-27 02:52 J	-14658248.55	-14658248.38	-14658248.21	0.0147	0.0034
Mercury	-44845-02-23 09:50 J	-14658160.25	-14658160.09	-14658159.94	0.0147	0.0065
Mercury	-44845-05-21 16:33 J	-14658071.93	-14658071.81	-14658071.67	0.0147	0.0097

Mercury -44845-08-17 23:30 J -14657983.59 -14657983.52 -14657983.42 0.0147 0.0128

Earth -44844-03-22 16:47 J -14657766.96 -14657766.80 -14657766.62 0.0147 0.0110

Moon -44844-03-22 16:33 J -14657766.95 -14657766.81 -14657766.64 0.0147 0.0113 *

Earth -44843-03-27 21:50 J -14657396.83 -14657396.59 -14657396.34 0.0147 0.0036

Moon -44843-03-27 22:33 J -14657396.80 -14657396.56 -14657396.30 0.0147 0.0043 *

Venus -44835-03-15 19:26 J -14654486.73 -14654486.69 -14654486.62 0.0144 0.0139

Venus -44835-10-28 08:38 J -14654260.24 -14654260.14 -14654260.00 0.0144 0.0122

Venus -44834-06-11 22:18 J -14654033.72 -14654033.57 -14654033.41 0.0144 0.0102

Mars -44834-09-22 18:42 J -14653931.02 -14653930.72 -14653930.40 0.0144 0.0016

Venus -44833-01-24 11:30 J -14653807.19 -14653807.02 -14653806.83 0.0143 0.0084

Venus -44833-09-07 00:57 J -14653580.66 -14653580.46 -14653580.26 0.0143 0.0064

Venus -44832-04-21 13:54 J -14653354.13 -14653353.92 -14653353.70 0.0143 0.0046

Venus -44832-12-04 02:52 J -14653127.60 -14653127.38 -14653127.16 0.0142 0.0027

Venus -44831-07-18 15:35 J -14652901.07 -14652900.85 -14652900.62 0.0142 0.0008

Venus -44830-03-02 04:33 J -14652674.53 -14652674.31 -14652674.09 0.0142 0.0011

Venus -44830-10-14 17:02 J -14652448.00 -14652447.79 -14652447.56 0.0141 0.0030

Venus -44829-05-28 05:16 J -14652221.48 -14652221.28 -14652221.06 0.0141 0.0048

Venus -44828-01-09 17:45 J -14651994.96 -14651994.76 -14651994.56 0.0141 0.0066

Venus -44828-08-24 05:45 J -14651768.43 -14651768.26 -14651768.07 0.0140 0.0084

Venus -44827-04-07 17:45 J -14651541.91 -14651541.76 -14651541.60 0.0140 0.0101

Venus -44827-11-20 05:45 J -14651315.38 -14651315.26 -14651315.14 0.0140 0.0118

Venus -44826-07-04 17:02 J -14651088.84 -14651088.79 -14651088.73 0.0139 0.0135

Mercury -44805-01-11 17:02 J -14643592.84 -14643592.79 -14643592.72 0.0132 0.0119

Mercury -44805-04-08 20:52 J -14643504.72 -14643504.63 -14643504.53 0.0132 0.0100

Mercury -44805-07-06 00:28 J -14643416.59 -14643416.48 -14643416.36 0.0132 0.0081

Mercury -44805-10-02 04:18 J -14643328.45 -14643328.32 -14643328.19 0.0132 0.0062

Mercury -44805-12-29 07:54 J -14643240.30 -14643240.17 -14643240.03 0.0132 0.0043

Mercury -44804-03-27 11:30 J -14643152.16 -14643152.02 -14643151.87 0.0132 0.0025

Mercury -44804-06-23 15:06 J -14643064.01 -14643063.87 -14643063.72 0.0132 0.0007

Mercury -44804-09-19 18:42 J -14642975.86 -14642975.72 -14642975.57 0.0132 0.0013

Mercury -44804-12-16 22:18 J -14642887.71 -14642887.57 -14642887.43 0.0132 0.0031

Mercury -44803-03-15 01:40 J -14642799.55 -14642799.43 -14642799.29 0.0132 0.0050

Mercury -44803-06-11 05:16 J -14642711.40 -14642711.28 -14642711.15 0.0132 0.0068

Mercury -44803-09-07 08:38 J -14642623.24 -14642623.14 -14642623.02 0.0132 0.0086

Mercury -44803-12-04 12:14 J -14642535.07 -14642534.99 -14642534.90 0.0132 0.0104

Mercury -44802-03-02 15:35 J -14642446.89 -14642446.85 -14642446.79 0.0132 0.0122

Earth -44802-09-25 23:16 J -14642239.73 -14642239.53 -14642239.31 0.0132 0.0074

Moon -44802-09-26 02:38 J -14642239.58 -14642239.39 -14642239.18 0.0132 0.0080 *

Moon -44801-09-29 00:14 J -14641870.73 -14641870.49 -14641870.23 0.0132 0.0037

Earth -44801-09-29 03:35 J -14641870.59 -14641870.35 -14641870.10 0.0132 0.0030 *

Moon -44800-10-03 10:47 J -14641501.10 -14641501.05 -14641500.98 0.0132 0.0127

Venus -44791-03-13 22:47 J -14638417.60 -14638417.55 -14638417.47 0.0134 0.0127

Venus -44791-10-26 03:21 J -14638191.47 -14638191.36 -14638191.24 0.0134 0.0113

Venus -44790-06-09 07:26 J -14637965.32 -14637965.19 -14637965.03 0.0135 0.0099

Mars -44789-01-14 10:33 J -14637746.36 -14637746.06 -14637745.75 0.0135 0.0006

Venus -44789-01-21 12:14 J -14637739.15 -14637738.99 -14637738.82 0.0135 0.0084

Venus -44789-09-03 16:47 J -14637512.97 -14637512.80 -14637512.61 0.0135 0.0070

Venus -44788-04-17 21:21 J -14637286.79 -14637286.61 -14637286.40 0.0136 0.0055

Venus -44788-11-30 02:23 J -14637060.60 -14637060.40 -14637060.20 0.0136 0.0039

Venus -44787-07-14 07:11 J -14636834.41 -14636834.20 -14636833.99 0.0136 0.0024

Venus -44786-02-25 12:14 J -14636608.20 -14636607.99 -14636607.78 0.0136 0.0008

Jupiter -44786-06-12 12:42 J -14636501.39 -14636500.97 -14636500.55 0.0137 0.0073

Venus -44786-10-09 17:30 J -14636381.98 -14636381.77 -14636381.56 0.0137 0.0008

Venus -44785-05-22 22:47 J -14636155.76 -14636155.55 -14636155.35 0.0137 0.0023

Venus -44784-01-04 03:50 J -14635929.53 -14635929.34 -14635929.13 0.0137 0.0040

Venus -44784-08-18 09:35 J -14635703.30 -14635703.10 -14635702.91 0.0138 0.0055

Venus -44783-04-01 14:52 J -14635477.05 -14635476.88 -14635476.69 0.0138 0.0071

Venus -44783-11-13 20:38 J -14635250.79 -14635250.64 -14635250.46 0.0138 0.0087

Venus -44782-06-28 02:38 J -14635024.52 -14635024.39 -14635024.24 0.0139 0.0103

Venus -44781-02-09 08:23 J -14634798.24 -14634798.15 -14634798.02 0.0139 0.0119

Venus -44781-09-22 14:52 J -14634571.92 -14634571.88 -14634571.81 0.0140 0.0135
 Mercury -44763-07-05 18:14 J -14628076.79 -14628076.74 -14628076.68 0.0147 0.0137
 Mercury -44763-10-02 00:42 J -14627988.58 -14627988.47 -14627988.35 0.0147 0.0108
 Mercury -44763-12-29 07:26 J -14627900.33 -14627900.19 -14627900.04 0.0147 0.0078
 Mercury -44762-03-27 14:09 J -14627812.07 -14627811.91 -14627811.75 0.0147 0.0048
 Mercury -44762-06-23 20:52 J -14627723.80 -14627723.63 -14627723.46 0.0147 0.0018
 Mercury -44762-09-20 03:35 J -14627635.52 -14627635.35 -14627635.17 0.0147 0.0014
 Mercury -44762-12-17 10:33 J -14627547.22 -14627547.06 -14627546.89 0.0147 0.0044
 Mercury -44761-03-14 17:30 J -14627458.92 -14627458.77 -14627458.62 0.0147 0.0075
 Mercury -44761-06-11 00:28 J -14627370.60 -14627370.48 -14627370.36 0.0147 0.0106
 Mercury -44761-09-07 07:11 J -14627282.24 -14627282.20 -14627282.13 0.0147 0.0138
 Earth -44760-03-23 04:04 J -14627085.49 -14627085.33 -14627085.13 0.0147 0.0102
 Moon -44760-03-23 05:02 J -14627085.46 -14627085.29 -14627085.10 0.0147 0.0100 *
 Earth -44759-03-28 09:21 J -14626715.34 -14626715.11 -14626714.85 0.0147 0.0045
 Moon -44759-03-28 09:50 J -14626715.34 -14626715.09 -14626714.83 0.0147 0.0039 *
 Venus -44751-06-27 15:06 J -14623701.95 -14623701.87 -14623701.75 0.0144 0.0128
 Venus -44750-02-09 05:02 J -14623475.43 -14623475.29 -14623475.14 0.0144 0.0109
 Venus -44750-09-23 18:14 J -14623248.90 -14623248.74 -14623248.56 0.0144 0.0090
 Venus -44749-05-07 07:26 J -14623022.37 -14623022.19 -14623021.98 0.0143 0.0072
 Mars -44749-05-18 14:09 J -14623011.04 -14623010.91 -14623010.75 0.0143 0.0127
 Venus -44749-12-19 20:38 J -14622795.84 -14622795.64 -14622795.42 0.0143 0.0053
 Venus -44748-08-03 09:50 J -14622569.30 -14622569.09 -14622568.87 0.0143 0.0033
 Venus -44747-03-17 23:02 J -14622342.76 -14622342.54 -14622342.32 0.0142 0.0015
 Venus -44747-10-30 11:45 J -14622116.23 -14622116.01 -14622115.78 0.0142 0.0005
 Venus -44746-06-14 00:28 J -14621889.70 -14621889.48 -14621889.26 0.0142 0.0023
 Venus -44745-01-26 12:57 J -14621663.17 -14621662.96 -14621662.74 0.0141 0.0041
 Venus -44745-09-09 01:26 J -14621436.64 -14621436.44 -14621436.23 0.0141 0.0059
 Venus -44744-04-23 13:26 J -14621210.11 -14621209.94 -14621209.73 0.0141 0.0078
 Venus -44744-12-06 01:40 J -14620983.58 -14620983.43 -14620983.26 0.0140 0.0095
 Venus -44743-07-20 13:26 J -14620757.06 -14620756.94 -14620756.79 0.0140 0.0112

Venus -44742-03-04 01:11 J -14620530.52 -14620530.45 -14620530.35 0.0140 0.0128
 Mercury -44722-11-04 21:06 J -14612979.63 -14612979.62 -14612979.59 0.0132 0.0130
 Mercury -44721-02-01 00:42 J -14612891.53 -14612891.47 -14612891.38 0.0132 0.0111
 Mercury -44721-04-29 04:47 J -14612803.40 -14612803.30 -14612803.19 0.0132 0.0091
 Mercury -44721-07-26 08:23 J -14612715.27 -14612715.15 -14612715.02 0.0132 0.0072
 Mercury -44721-10-22 11:59 J -14612627.12 -14612627.00 -14612626.86 0.0132 0.0054
 Mercury -44720-01-18 15:50 J -14612538.98 -14612538.84 -14612538.70 0.0132 0.0035
 Mercury -44720-04-16 19:26 J -14612450.83 -14612450.69 -14612450.54 0.0132 0.0016
 Mercury -44720-07-13 23:02 J -14612362.68 -14612362.54 -14612362.39 0.0132 0.0003
 Mercury -44720-10-10 02:38 J -14612274.53 -14612274.39 -14612274.25 0.0132 0.0021
 Mercury -44719-01-06 06:14 J -14612186.38 -14612186.24 -14612186.10 0.0132 0.0040
 Mercury -44719-04-04 09:35 J -14612098.22 -14612098.10 -14612097.96 0.0132 0.0058
 Mercury -44719-07-01 13:11 J -14612010.06 -14612009.95 -14612009.83 0.0132 0.0076
 Mercury -44719-09-27 16:47 J -14611921.90 -14611921.80 -14611921.70 0.0132 0.0094
 Mercury -44719-12-24 20:09 J -14611833.73 -14611833.66 -14611833.58 0.0132 0.0112
 Mercury -44718-03-22 23:30 J -14611745.53 -14611745.52 -14611745.49 0.0132 0.0130
 Earth -44718-09-26 13:40 J -14611558.14 -14611557.93 -14611557.70 0.0132 0.0064
 Moon -44718-09-26 17:02 J -14611558.01 -14611557.79 -14611557.56 0.0132 0.0058 *
 Moon -44717-09-29 14:23 J -14611189.14 -14611188.90 -14611188.65 0.0132 0.0033
 Earth -44717-09-29 17:59 J -14611188.99 -14611188.75 -14611188.50 0.0132 0.0040 *
 Venus -44708-11-11 11:45 J -14607859.04 -14607859.01 -14607858.94 0.0134 0.0130
 Venus -44707-06-25 16:04 J -14607632.92 -14607632.83 -14607632.71 0.0134 0.0116
 Venus -44706-02-06 20:23 J -14607406.77 -14607406.65 -14607406.50 0.0135 0.0102
 Venus -44706-09-21 00:57 J -14607180.60 -14607180.46 -14607180.28 0.0135 0.0088
 Venus -44705-05-04 05:45 J -14606954.43 -14606954.26 -14606954.08 0.0135 0.0073
 Mars -44705-09-08 10:47 J -14606827.24 -14606827.05 -14606826.82 0.0135 0.0098
 Venus -44705-12-16 10:18 J -14606728.26 -14606728.07 -14606727.87 0.0135 0.0058
 Venus -44704-07-30 14:52 J -14606502.07 -14606501.88 -14606501.67 0.0136 0.0044
 Venus -44703-03-13 19:54 J -14606275.87 -14606275.67 -14606275.46 0.0136 0.0028
 Venus -44703-10-26 00:57 J -14606049.67 -14606049.46 -14606049.25 0.0136 0.0013

Venus	-44702-06-09 05:59 J	-14605823.46	-14605823.25	-14605823.04	0.0137	0.0003
Venus	-44701-01-21 11:02 J	-14605597.24	-14605597.04	-14605596.82	0.0137	0.0019
Venus	-44701-09-03 16:33 J	-14605371.01	-14605370.81	-14605370.60	0.0137	0.0034
Venus	-44700-04-17 21:50 J	-14605144.78	-14605144.59	-14605144.39	0.0138	0.0050
Venus	-44700-11-30 03:06 J	-14604918.54	-14604918.37	-14604918.17	0.0138	0.0066
Venus	-44699-07-14 08:52 J	-14604692.29	-14604692.13	-14604691.95	0.0138	0.0082
Venus	-44698-02-25 14:23 J	-14604466.03	-14604465.90	-14604465.73	0.0139	0.0098
Venus	-44698-10-09 20:38 J	-14604239.75	-14604239.64	-14604239.51	0.0139	0.0113
Venus	-44697-05-23 02:52 J	-14604013.45	-14604013.38	-14604013.29	0.0139	0.0129
Mercury	-44679-07-26 02:38 J	-14597375.47	-14597375.39	-14597375.30	0.0147	0.0125
Mercury	-44679-10-22 08:52 J	-14597287.24	-14597287.13	-14597286.99	0.0147	0.0096
Mercury	-44678-01-18 15:35 J	-14597198.99	-14597198.85	-14597198.69	0.0147	0.0066
Mercury	-44678-04-16 22:33 J	-14597110.73	-14597110.56	-14597110.40	0.0147	0.0036
Mercury	-44678-07-14 05:16 J	-14597022.45	-14597022.28	-14597022.11	0.0147	0.0005
Mercury	-44678-10-10 11:59 J	-14596934.16	-14596934.00	-14596933.83	0.0147	0.0026
Mercury	-44677-01-06 18:42 J	-14596845.87	-14596845.72	-14596845.55	0.0147	0.0057
Mercury	-44677-04-04 01:40 J	-14596757.56	-14596757.43	-14596757.28	0.0147	0.0088
Mercury	-44677-07-01 08:52 J	-14596669.23	-14596669.13	-14596669.03	0.0147	0.0119
Earth	-44676-03-23 18:28 J	-14596403.91	-14596403.73	-14596403.51	0.0147	0.0091
Moon	-44676-03-23 19:26 J	-14596403.87	-14596403.69	-14596403.49	0.0147	0.0093 *
Moon	-44675-03-28 23:16 J	-14596033.75	-14596033.53	-14596033.27	0.0147	0.0062
Earth	-44675-03-28 23:30 J	-14596033.74	-14596033.52	-14596033.27	0.0147	0.0056 *
Venus	-44667-02-24 23:02 J	-14593143.61	-14593143.54	-14593143.43	0.0144	0.0133
Venus	-44667-10-09 12:28 J	-14592917.10	-14592916.98	-14592916.83	0.0144	0.0114
Mars	-44666-02-08 15:35 J	-14592795.12	-14592794.85	-14592794.56	0.0144	0.0059
Venus	-44666-05-24 02:23 J	-14592690.57	-14592690.40	-14592690.24	0.0144	0.0095
Venus	-44665-01-05 15:21 J	-14592464.04	-14592463.86	-14592463.66	0.0144	0.0077
Venus	-44665-08-19 04:33 J	-14592237.50	-14592237.31	-14592237.09	0.0143	0.0058
Venus	-44664-04-02 17:59 J	-14592010.96	-14592010.75	-14592010.53	0.0143	0.0039
Venus	-44664-11-15 06:57 J	-14591784.43	-14591784.21	-14591783.98	0.0143	0.0021

Venus	-44663-06-29 19:54 J	-14591557.89	-14591557.67	-14591557.44	0.0142	0.0002
Venus	-44662-02-11 08:52 J	-14591331.35	-14591331.13	-14591330.91	0.0142	0.0017
Venus	-44662-09-25 21:21 J	-14591104.82	-14591104.61	-14591104.39	0.0142	0.0035
Venus	-44661-05-09 09:50 J	-14590878.29	-14590878.09	-14590877.87	0.0141	0.0053
Venus	-44661-12-21 22:04 J	-14590651.76	-14590651.58	-14590651.38	0.0141	0.0071
Venus	-44660-08-05 10:04 J	-14590425.24	-14590425.08	-14590424.89	0.0140	0.0089
Venus	-44659-03-19 22:18 J	-14590198.71	-14590198.57	-14590198.41	0.0140	0.0106
Venus	-44659-11-01 10:18 J	-14589972.18	-14589972.07	-14589971.96	0.0140	0.0122
Venus	-44658-06-15 21:21 J	-14589745.61	-14589745.61	-14589745.56	0.0139	0.0139
Mercury	-44638-11-25 05:02 J	-14582278.34	-14582278.29	-14582278.23	0.0132	0.0121
Mercury	-44637-02-21 08:52 J	-14582190.22	-14582190.13	-14582190.03	0.0132	0.0102
Mercury	-44637-05-19 12:28 J	-14582102.08	-14582101.98	-14582101.86	0.0132	0.0083
Mercury	-44637-08-15 16:18 J	-14582013.94	-14582013.82	-14582013.69	0.0132	0.0064
Mercury	-44637-11-11 19:54 J	-14581925.80	-14581925.67	-14581925.53	0.0132	0.0045
Mercury	-44636-02-07 23:45 J	-14581837.65	-14581837.51	-14581837.37	0.0132	0.0026
Mercury	-44636-05-07 03:21 J	-14581749.50	-14581749.36	-14581749.21	0.0132	0.0007
Mercury	-44636-08-03 06:57 J	-14581661.35	-14581661.21	-14581661.07	0.0132	0.0011
Mercury	-44636-10-30 10:33 J	-14581573.20	-14581573.06	-14581572.92	0.0132	0.0030
Mercury	-44635-01-26 14:09 J	-14581485.05	-14581484.91	-14581484.78	0.0132	0.0048
Mercury	-44635-04-24 17:30 J	-14581396.89	-14581396.77	-14581396.64	0.0132	0.0066
Mercury	-44635-07-21 20:52 J	-14581308.73	-14581308.63	-14581308.51	0.0132	0.0085
Mercury	-44635-10-18 00:28 J	-14581220.56	-14581220.48	-14581220.39	0.0132	0.0103
Mercury	-44634-01-14 03:50 J	-14581132.38	-14581132.34	-14581132.27	0.0132	0.0121
Earth	-44634-09-27 03:50 J	-14580876.56	-14580876.34	-14580876.09	0.0132	0.0054
Moon	-44634-09-27 07:54 J	-14580876.39	-14580876.17	-14580875.94	0.0132	0.0059 *
Moon	-44633-09-30 04:47 J	-14580507.51	-14580507.30	-14580507.06	0.0132	0.0057
Earth	-44633-09-30 08:38 J	-14580507.38	-14580507.14	-14580506.91	0.0132	0.0050 *
Venus	-44624-07-12 00:42 J	-14577300.48	-14577300.47	-14577300.44	0.0134	0.0133
Venus	-44623-02-23 05:02 J	-14577074.38	-14577074.29	-14577074.19	0.0134	0.0120
Venus	-44623-10-07 09:21 J	-14576848.23	-14576848.11	-14576847.97	0.0134	0.0106

Venus	-44622-05-21 13:40 J	-14576622.07	-14576621.93	-14576621.76	0.0135	0.0092
Mars	-44622-06-03 05:02 J	-14576609.58	-14576609.29	-14576609.01	0.0135	0.0049
Venus	-44621-01-02 18:28 J	-14576395.90	-14576395.73	-14576395.56	0.0135	0.0077
Venus	-44621-08-15 22:47 J	-14576169.72	-14576169.55	-14576169.35	0.0135	0.0063
Venus	-44620-03-30 03:50 J	-14575943.54	-14575943.34	-14575943.14	0.0135	0.0048
Venus	-44620-11-11 08:23 J	-14575717.35	-14575717.15	-14575716.94	0.0136	0.0033
Venus	-44619-06-25 13:11 J	-14575491.15	-14575490.95	-14575490.73	0.0136	0.0018
Venus	-44618-02-06 18:14 J	-14575264.95	-14575264.74	-14575264.53	0.0136	0.0003
Venus	-44618-09-20 23:30 J	-14575038.73	-14575038.52	-14575038.31	0.0137	0.0013
Venus	-44617-05-04 04:33 J	-14574812.51	-14574812.31	-14574812.10	0.0137	0.0028
Venus	-44617-12-16 09:35 J	-14574586.29	-14574586.10	-14574585.89	0.0137	0.0045
Venus	-44616-07-30 15:06 J	-14574360.06	-14574359.87	-14574359.68	0.0138	0.0060
Venus	-44615-03-13 20:38 J	-14574133.81	-14574133.64	-14574133.46	0.0138	0.0075
Venus	-44615-10-26 02:23 J	-14573907.55	-14573907.40	-14573907.24	0.0138	0.0091
Venus	-44614-06-09 07:54 J	-14573681.29	-14573681.17	-14573681.02	0.0139	0.0107
Venus	-44613-01-21 13:54 J	-14573455.00	-14573454.92	-14573454.80	0.0139	0.0122
Venus	-44613-09-03 19:54 J	-14573228.68	-14573228.67	-14573228.61	0.0139	0.0138
Mercury	-44595-05-19 03:35 J	-14566762.36	-14566762.35	-14566762.31	0.0147	0.0145
Mercury	-44595-08-15 10:18 J	-14566674.16	-14566674.07	-14566673.96	0.0147	0.0115
Mercury	-44595-11-11 16:47 J	-14566585.92	-14566585.80	-14566585.65	0.0147	0.0086
Mercury	-44594-02-07 23:30 J	-14566497.67	-14566497.52	-14566497.35	0.0147	0.0056
Mercury	-44594-05-07 06:28 J	-14566409.40	-14566409.23	-14566409.06	0.0147	0.0025
Mercury	-44594-08-03 13:11 J	-14566321.12	-14566320.95	-14566320.78	0.0147	0.0005
Mercury	-44594-10-30 19:54 J	-14566232.83	-14566232.67	-14566232.50	0.0147	0.0036
Mercury	-44593-01-27 02:52 J	-14566144.53	-14566144.38	-14566144.23	0.0147	0.0067
Mercury	-44593-04-24 09:35 J	-14566056.22	-14566056.10	-14566055.96	0.0147	0.0099
Mercury	-44593-07-21 16:33 J	-14565967.88	-14565967.81	-14565967.72	0.0147	0.0130
Earth	-44592-03-24 06:57 J	-14565722.41	-14565722.21	-14565721.98	0.0147	0.0082
Moon	-44592-03-24 08:23 J	-14565722.34	-14565722.15	-14565721.92	0.0147	0.0081 *
Moon	-44591-03-29 11:45 J	-14565352.25	-14565352.01	-14565351.77	0.0147	0.0059

Earth	-44591-03-29 12:14 J	-14565352.21	-14565351.99	-14565351.75	0.0147	0.0065 *
Venus	-44584-10-25 06:14 J	-14562585.29	-14562585.24	-14562585.16	0.0145	0.0138
Venus	-44583-06-08 19:54 J	-14562358.78	-14562358.67	-14562358.54	0.0144	0.0120
Venus	-44582-01-21 09:21 J	-14562132.25	-14562132.11	-14562131.94	0.0144	0.0101
Venus	-44582-09-04 22:47 J	-14561905.72	-14561905.55	-14561905.35	0.0144	0.0083
Mars	-44582-10-05 12:28 J	-14561875.26	-14561874.98	-14561874.68	0.0144	0.0054
Venus	-44581-04-18 12:28 J	-14561679.18	-14561678.98	-14561678.78	0.0143	0.0064
Venus	-44581-12-01 01:40 J	-14561452.64	-14561452.43	-14561452.22	0.0143	0.0045
Venus	-44580-07-15 14:52 J	-14561226.10	-14561225.88	-14561225.66	0.0143	0.0027
Venus	-44579-02-27 04:04 J	-14560999.55	-14560999.33	-14560999.11	0.0142	0.0008
Venus	-44579-10-11 17:02 J	-14560773.01	-14560772.79	-14560772.57	0.0142	0.0010
Venus	-44578-05-26 05:30 J	-14560546.48	-14560546.27	-14560546.04	0.0142	0.0029
Venus	-44577-01-07 18:14 J	-14560319.95	-14560319.74	-14560319.52	0.0141	0.0047
Venus	-44577-08-21 06:42 J	-14560093.42	-14560093.22	-14560093.02	0.0141	0.0064
Venus	-44576-04-04 18:57 J	-14559866.88	-14559866.71	-14559866.52	0.0141	0.0082
Venus	-44576-11-17 06:57 J	-14559640.36	-14559640.21	-14559640.04	0.0140	0.0099
Venus	-44575-07-01 18:42 J	-14559413.83	-14559413.72	-14559413.58	0.0140	0.0116
Venus	-44574-02-13 06:28 J	-14559187.29	-14559187.23	-14559187.15	0.0140	0.0132
Mercury	-44554-09-18 09:21 J	-14551665.12	-14551665.11	-14551665.10	0.0132	0.0131
Mercury	-44554-12-15 12:57 J	-14551577.03	-14551576.96	-14551576.87	0.0132	0.0112
Mercury	-44553-03-12 16:47 J	-14551488.90	-14551488.80	-14551488.69	0.0132	0.0093
Mercury	-44553-06-08 20:38 J	-14551400.76	-14551400.64	-14551400.52	0.0132	0.0074
Mercury	-44553-09-05 00:14 J	-14551312.62	-14551312.49	-14551312.35	0.0132	0.0055
Mercury	-44553-12-02 04:04 J	-14551224.47	-14551224.33	-14551224.19	0.0132	0.0036
Mercury	-44552-02-28 07:40 J	-14551136.32	-14551136.18	-14551136.04	0.0132	0.0017
Mercury	-44552-05-27 11:16 J	-14551048.17	-14551048.03	-14551047.88	0.0132	0.0002
Mercury	-44552-08-23 14:52 J	-14550960.02	-14550959.88	-14550959.74	0.0132	0.0020
Mercury	-44552-11-19 18:28 J	-14550871.87	-14550871.73	-14550871.59	0.0132	0.0039
Mercury	-44551-02-15 22:04 J	-14550783.71	-14550783.58	-14550783.45	0.0132	0.0057
Mercury	-44551-05-15 01:40 J	-14550695.55	-14550695.43	-14550695.32	0.0132	0.0075

Mercury -44551-08-11 05:02 J -14550607.39 -14550607.29 -14550607.19 0.0132 0.0093

Mercury -44551-11-07 08:38 J -14550519.22 -14550519.14 -14550519.07 0.0132 0.0111

Mercury -44550-02-03 11:59 J -14550431.02 -14550431.00 -14550430.97 0.0132 0.0129

Earth -44550-09-27 18:42 J -14550194.95 -14550194.72 -14550194.47 0.0132 0.0044

Moon -44550-09-27 22:18 J -14550194.80 -14550194.57 -14550194.32 0.0132 0.0038 *

Moon -44549-09-30 19:11 J -14549825.92 -14549825.70 -14549825.46 0.0132 0.0054

Earth -44549-09-30 22:47 J -14549825.76 -14549825.55 -14549825.31 0.0132 0.0061 *

Venus -44540-10-23 18:14 J -14546515.81 -14546515.74 -14546515.64 0.0134 0.0122

Venus -44539-06-06 22:33 J -14546289.67 -14546289.56 -14546289.43 0.0134 0.0109

Venus -44538-01-19 02:52 J -14546063.52 -14546063.38 -14546063.22 0.0134 0.0095

Venus -44538-09-02 07:26 J -14545837.34 -14545837.19 -14545837.00 0.0135 0.0081

Mars -44537-01-27 06:57 J -14545690.49 -14545690.21 -14545689.91 0.0135 0.0043

Venus -44537-04-15 12:14 J -14545611.17 -14545610.99 -14545610.80 0.0135 0.0066

Venus -44537-11-27 16:47 J -14545384.99 -14545384.80 -14545384.60 0.0135 0.0052

Venus -44536-07-11 21:35 J -14545158.81 -14545158.60 -14545158.40 0.0136 0.0037

Venus -44535-02-23 02:23 J -14544932.61 -14544932.40 -14544932.19 0.0136 0.0022

Venus -44535-10-07 07:26 J -14544706.41 -14544706.19 -14544705.98 0.0136 0.0007

Venus -44534-05-21 12:14 J -14544480.20 -14544479.99 -14544479.78 0.0137 0.0009

Venus -44533-01-02 17:16 J -14544253.99 -14544253.78 -14544253.57 0.0137 0.0024

Venus -44533-08-15 22:18 J -14544027.76 -14544027.57 -14544027.36 0.0137 0.0039

Venus -44532-03-30 03:35 J -14543801.54 -14543801.35 -14543801.15 0.0138 0.0055

Venus -44532-11-11 09:06 J -14543575.30 -14543575.12 -14543574.93 0.0138 0.0070

Venus -44531-06-25 14:38 J -14543349.05 -14543348.89 -14543348.72 0.0138 0.0085

Venus -44530-02-06 20:23 J -14543122.79 -14543122.65 -14543122.50 0.0139 0.0101

Venus -44530-09-21 02:09 J -14542896.51 -14542896.41 -14542896.28 0.0139 0.0116

Venus -44529-05-04 08:09 J -14542670.21 -14542670.16 -14542670.08 0.0139 0.0132

Mercury -44511-06-08 12:14 J -14536061.05 -14536060.99 -14536060.91 0.0147 0.0132

Mercury -44511-09-04 18:42 J -14535972.83 -14535972.72 -14535972.59 0.0147 0.0103

Mercury -44511-12-02 01:26 J -14535884.58 -14535884.44 -14535884.29 0.0147 0.0073

Mercury -44510-02-28 08:09 J -14535796.32 -14535796.16 -14535796.00 0.0147 0.0043

Mercury -44510-05-27 14:52 J -14535708.05 -14535707.88 -14535707.71 0.0147 0.0013

Mercury -44510-08-23 21:35 J -14535619.77 -14535619.60 -14535619.43 0.0147 0.0018

Mercury -44510-11-20 04:33 J -14535531.47 -14535531.31 -14535531.15 0.0147 0.0049

Mercury -44509-02-16 11:16 J -14535443.17 -14535443.03 -14535442.88 0.0147 0.0080

Mercury -44509-05-14 18:14 J -14535354.85 -14535354.74 -14535354.62 0.0147 0.0111

Mercury -44509-08-11 01:11 J -14535266.48 -14535266.45 -14535266.40 0.0147 0.0143

Earth -44508-03-24 21:35 J -14535040.81 -14535040.60 -14535040.37 0.0147 0.0071

Moon -44508-03-24 23:30 J -14535040.73 -14535040.52 -14535040.31 0.0147 0.0072 *

Moon -44507-03-30 01:40 J -14534670.65 -14534670.43 -14534670.21 0.0147 0.0081

Earth -44507-03-30 02:23 J -14534670.60 -14534670.40 -14534670.16 0.0147 0.0076 *

Venus -44500-06-24 14:09 J -14532026.94 -14532026.91 -14532026.85 0.0145 0.0142

Venus -44499-02-06 04:04 J -14531800.43 -14531800.33 -14531800.21 0.0145 0.0124

Mars -44499-06-27 16:18 J -14531658.92 -14531658.82 -14531658.67 0.0144 0.0132

Venus -44499-09-20 17:30 J -14531573.91 -14531573.77 -14531573.61 0.0144 0.0106

Venus -44498-05-05 07:26 J -14531347.37 -14531347.19 -14531347.02 0.0144 0.0087

Venus -44498-12-17 20:38 J -14531120.83 -14531120.64 -14531120.44 0.0144 0.0069

Venus -44497-07-31 09:50 J -14530894.29 -14530894.09 -14530893.87 0.0143 0.0051

Venus -44496-03-14 23:16 J -14530667.74 -14530667.53 -14530667.31 0.0143 0.0032

Venus -44496-10-27 12:28 J -14530441.20 -14530440.98 -14530440.75 0.0143 0.0014

Jupiter -44495-04-16 16:33 J -14530270.35 -14530269.81 -14530269.27 0.0142 0.0006

Venus -44495-06-11 01:40 J -14530214.66 -14530214.43 -14530214.21 0.0142 0.0006

Venus -44494-01-23 14:23 J -14529988.12 -14529987.90 -14529987.68 0.0142 0.0023

Venus -44494-09-07 02:52 J -14529761.58 -14529761.38 -14529761.15 0.0142 0.0042

Venus -44493-04-20 15:35 J -14529535.05 -14529534.85 -14529534.64 0.0141 0.0059

Venus -44493-12-03 04:04 J -14529308.52 -14529308.33 -14529308.14 0.0141 0.0076

Venus -44492-07-17 15:50 J -14529081.99 -14529081.84 -14529081.66 0.0141 0.0094

Venus -44491-03-01 04:04 J -14528855.46 -14528855.33 -14528855.18 0.0140 0.0110

Venus -44491-10-13 16:04 J -14528628.92 -14528628.83 -14528628.74 0.0140 0.0126

Mercury -44470-10-08 17:16 J -14520963.83 -14520963.78 -14520963.72 0.0132 0.0122

Mercury -44469-01-04 21:06 J -14520875.71 -14520875.62 -14520875.53 0.0132 0.0103

Mercury -44469-04-02 00:42 J -14520787.57 -14520787.47 -14520787.35 0.0132 0.0084

Mercury -44469-06-29 04:33 J -14520699.43 -14520699.31 -14520699.18 0.0132 0.0065

Mercury -44469-09-25 08:23 J -14520611.29 -14520611.15 -14520611.01 0.0132 0.0046

Mercury -44469-12-22 11:59 J -14520523.14 -14520523.00 -14520522.86 0.0132 0.0027

Mercury -44468-03-20 15:35 J -14520434.99 -14520434.85 -14520434.70 0.0132 0.0009

Mercury -44468-06-16 19:11 J -14520346.84 -14520346.70 -14520346.55 0.0132 0.0011

Mercury -44468-09-12 22:47 J -14520258.69 -14520258.55 -14520258.40 0.0132 0.0029

Mercury -44468-12-10 02:23 J -14520170.53 -14520170.40 -14520170.26 0.0132 0.0047

Mercury -44467-03-08 05:59 J -14520082.37 -14520082.25 -14520082.12 0.0132 0.0066

Mercury -44467-06-04 09:35 J -14519994.21 -14519994.10 -14519993.99 0.0132 0.0084

Mercury -44467-08-31 12:57 J -14519906.04 -14519905.96 -14519905.87 0.0132 0.0102

Mercury -44467-11-27 16:18 J -14519817.87 -14519817.82 -14519817.75 0.0132 0.0120

Earth -44466-09-28 09:50 J -14519513.34 -14519513.09 -14519512.85 0.0132 0.0033

Moon -44466-09-28 13:11 J -14519513.18 -14519512.95 -14519512.70 0.0132 0.0039 *

Moon -44465-10-01 10:18 J -14519144.27 -14519144.07 -14519143.86 0.0132 0.0077

Earth -44465-10-01 13:26 J -14519144.13 -14519143.94 -14519143.71 0.0132 0.0071 *

Venus -44456-06-23 07:11 J -14515957.26 -14515957.20 -14515957.11 0.0134 0.0125

Venus -44455-02-04 11:45 J -14515731.12 -14515731.01 -14515730.89 0.0134 0.0111

Venus -44455-09-18 16:18 J -14515504.96 -14515504.82 -14515504.67 0.0134 0.0098

Mars -44455-10-20 23:45 J -14515472.70 -14515472.51 -14515472.32 0.0134 0.0105

Venus -44454-05-02 20:38 J -14515278.80 -14515278.64 -14515278.47 0.0135 0.0084

Venus -44454-12-15 00:57 J -14515052.63 -14515052.46 -14515052.27 0.0135 0.0070

Venus -44453-07-28 05:30 J -14514826.45 -14514826.27 -14514826.07 0.0135 0.0056

Mars -44453-09-21 09:21 J -14514771.13 -14514771.11 -14514771.08 0.0135 0.0135

Venus -44452-03-11 10:18 J -14514600.27 -14514600.07 -14514599.86 0.0135 0.0041

Venus -44452-10-23 15:06 J -14514374.08 -14514373.87 -14514373.66 0.0136 0.0026

Venus -44451-06-06 19:54 J -14514147.89 -14514147.67 -14514147.46 0.0136 0.0011

Venus -44450-01-19 00:42 J -14513921.68 -14513921.47 -14513921.26 0.0136 0.0004

Venus -44450-09-02 05:45 J -14513695.47 -14513695.26 -14513695.05 0.0137 0.0019

Venus -44449-04-15 10:47 J -14513469.26 -14513469.05 -14513468.85 0.0137 0.0034

Venus	-44449-11-27 15:50 J	-14513243.03	-14513242.84	-14513242.64	0.0137	0.0049
Venus	-44448-07-11 20:52 J	-14513016.80	-14513016.63	-14513016.43	0.0138	0.0065
Venus	-44447-02-23 02:23 J	-14512790.56	-14512790.40	-14512790.22	0.0138	0.0080
Venus	-44447-10-07 08:23 J	-14512564.30	-14512564.15	-14512564.00	0.0138	0.0095
Venus	-44446-05-21 13:54 J	-14512338.04	-14512337.92	-14512337.78	0.0139	0.0110
Venus	-44445-01-02 19:40 J	-14512111.75	-14512111.68	-14512111.58	0.0139	0.0125
Mercury	-44427-06-28 19:54 J	-14505359.75	-14505359.67	-14505359.57	0.0147	0.0123
Mercury	-44427-09-25 02:38 J	-14505271.52	-14505271.39	-14505271.26	0.0147	0.0093
Mercury	-44427-12-22 09:06 J	-14505183.27	-14505183.12	-14505182.96	0.0147	0.0064
Mercury	-44426-03-20 15:50 J	-14505095.00	-14505094.84	-14505094.67	0.0147	0.0034
Mercury	-44426-06-16 22:33 J	-14505006.73	-14505006.56	-14505006.39	0.0147	0.0004
Mercury	-44426-09-13 05:16 J	-14504918.44	-14504918.28	-14504918.11	0.0147	0.0028
Mercury	-44426-12-10 11:59 J	-14504830.15	-14504830.00	-14504829.83	0.0147	0.0059
Mercury	-44425-03-07 18:57 J	-14504741.84	-14504741.71	-14504741.57	0.0147	0.0090
Mercury	-44425-06-04 01:54 J	-14504653.51	-14504653.42	-14504653.31	0.0147	0.0121
Earth	-44424-03-25 09:21 J	-14504359.34	-14504359.11	-14504358.88	0.0147	0.0063
Moon	-44424-03-25 11:45 J	-14504359.23	-14504359.01	-14504358.78	0.0147	0.0062 *
Moon	-44423-03-30 12:42 J	-14503989.18	-14503988.97	-14503988.74	0.0147	0.0078
Earth	-44423-03-30 14:23 J	-14503989.10	-14503988.90	-14503988.68	0.0147	0.0083 *
Venus	-44416-10-06 10:47 J	-14501242.15	-14501242.05	-14501241.95	0.0145	0.0129
Venus	-44415-05-20 23:59 J	-14501015.62	-14501015.50	-14501015.34	0.0144	0.0112
Venus	-44414-01-02 13:40 J	-14500789.09	-14500788.93	-14500788.75	0.0144	0.0093
Mars	-44414-02-21 11:59 J	-14500739.30	-14500739.00	-14500738.69	0.0144	0.0022
Venus	-44414-08-17 03:21 J	-14500562.54	-14500562.36	-14500562.16	0.0144	0.0075
Venus	-44413-03-30 16:47 J	-14500335.99	-14500335.80	-14500335.58	0.0144	0.0057
Venus	-44413-11-12 06:14 J	-14500109.45	-14500109.24	-14500109.02	0.0143	0.0038
Venus	-44412-06-26 19:26 J	-14499882.90	-14499882.69	-14499882.46	0.0143	0.0020
Venus	-44411-02-08 08:52 J	-14499656.36	-14499656.13	-14499655.91	0.0143	0.0001
Venus	-44411-09-22 21:50 J	-14499429.81	-14499429.59	-14499429.37	0.0142	0.0017
Venus	-44410-05-07 10:33 J	-14499203.27	-14499203.06	-14499202.84	0.0142	0.0035

Venus -44410-12-19 23:16 J -14498976.74 -14498976.53 -14498976.32 0.0142 0.0053
 Venus -44409-08-02 11:30 J -14498750.20 -14498750.02 -14498749.81 0.0141 0.0071
 Venus -44408-03-17 00:14 J -14498523.67 -14498523.49 -14498523.31 0.0141 0.0087
 Venus -44408-10-29 11:59 J -14498297.13 -14498297.00 -14498296.83 0.0141 0.0104
 Venus -44407-06-12 23:59 J -14498070.60 -14498070.50 -14498070.38 0.0140 0.0120
 Venus -44406-01-25 11:45 J -14497844.05 -14497844.01 -14497843.96 0.0140 0.0136
 Mercury -44386-10-29 01:11 J -14490262.51 -14490262.45 -14490262.36 0.0132 0.0113
 Mercury -44385-01-25 05:02 J -14490174.38 -14490174.29 -14490174.18 0.0132 0.0094
 Mercury -44385-04-22 08:52 J -14490086.25 -14490086.13 -14490086.01 0.0132 0.0075
 Mercury -44385-07-19 12:28 J -14489998.10 -14489997.98 -14489997.84 0.0132 0.0056
 Mercury -44385-10-15 16:18 J -14489909.96 -14489909.82 -14489909.68 0.0132 0.0037
 Mercury -44384-01-11 19:54 J -14489821.81 -14489821.67 -14489821.52 0.0132 0.0018
 Mercury -44384-04-09 23:45 J -14489733.66 -14489733.51 -14489733.37 0.0132 0.0002
 Mercury -44384-07-07 03:21 J -14489645.50 -14489645.36 -14489645.22 0.0132 0.0019
 Mercury -44384-10-03 06:57 J -14489557.35 -14489557.21 -14489557.07 0.0132 0.0038
 Mercury -44384-12-30 10:18 J -14489469.19 -14489469.07 -14489468.93 0.0132 0.0056
 Mercury -44383-03-28 13:54 J -14489381.03 -14489380.92 -14489380.80 0.0132 0.0075
 Mercury -44383-06-24 17:16 J -14489292.87 -14489292.78 -14489292.67 0.0132 0.0093
 Mercury -44383-09-20 20:52 J -14489204.70 -14489204.63 -14489204.55 0.0132 0.0111
 Moon -44383-09-24 16:47 J -14489200.84 -14489200.80 -14489200.75 0.0132 0.0129
 Earth -44383-09-24 20:09 J -14489200.71 -14489200.66 -14489200.58 0.0132 0.0127
 Mercury -44383-12-18 00:14 J -14489116.51 -14489116.49 -14489116.45 0.0132 0.0129
 Earth -44382-09-29 00:28 J -14488831.73 -14488831.48 -14488831.23 0.0132 0.0023
 Moon -44382-09-29 03:50 J -14488831.59 -14488831.34 -14488831.08 0.0132 0.0018 *
 Moon -44381-10-02 00:28 J -14488462.67 -14488462.48 -14488462.26 0.0132 0.0074
 Earth -44381-10-02 04:04 J -14488462.51 -14488462.33 -14488462.11 0.0132 0.0081 *
 Venus -44372-02-20 20:38 J -14485398.69 -14485398.64 -14485398.57 0.0134 0.0127
 Venus -44372-10-05 00:42 J -14485172.56 -14485172.47 -14485172.34 0.0134 0.0114
 Venus -44371-05-19 05:16 J -14484946.41 -14484946.28 -14484946.13 0.0134 0.0100
 Venus -44371-12-31 09:35 J -14484720.25 -14484720.10 -14484719.93 0.0134 0.0087

Mars	-44370-06-16 03:35 J	-14484553.66	-14484553.35	-14484553.04	0.0135	0.0013
Venus	-44370-08-14 14:09 J	-14484494.08	-14484493.91	-14484493.72	0.0135	0.0073
Venus	-44369-03-27 18:57 J	-14484267.91	-14484267.71	-14484267.52	0.0135	0.0058
Venus	-44369-11-08 23:16 J	-14484041.73	-14484041.53	-14484041.33	0.0135	0.0044
Venus	-44368-06-23 03:50 J	-14483815.54	-14483815.34	-14483815.13	0.0135	0.0030
Venus	-44367-02-04 08:38 J	-14483589.35	-14483589.14	-14483588.93	0.0136	0.0015
Venus	-44367-09-18 13:26 J	-14483363.15	-14483362.94	-14483362.72	0.0136	0.0003
Venus	-44366-05-02 18:14 J	-14483136.94	-14483136.74	-14483136.52	0.0136	0.0015
Venus	-44366-12-14 23:16 J	-14482910.73	-14482910.53	-14482910.32	0.0137	0.0030
Venus	-44365-07-28 04:04 J	-14482684.52	-14482684.33	-14482684.12	0.0137	0.0045
Venus	-44364-03-11 09:35 J	-14482458.29	-14482458.10	-14482457.91	0.0137	0.0060
Venus	-44364-10-23 14:52 J	-14482232.05	-14482231.88	-14482231.69	0.0138	0.0075
Venus	-44363-06-06 20:23 J	-14482005.80	-14482005.65	-14482005.48	0.0138	0.0090
Venus	-44362-01-19 02:09 J	-14481779.54	-14481779.41	-14481779.27	0.0138	0.0105
Venus	-44362-09-02 07:54 J	-14481553.26	-14481553.17	-14481553.06	0.0139	0.0120
Venus	-44361-04-15 13:40 J	-14481326.96	-14481326.93	-14481326.86	0.0139	0.0135
Mercury	-44343-04-21 21:35 J	-14474746.63	-14474746.60	-14474746.55	0.0147	0.0141
Mercury	-44343-07-19 04:04 J	-14474658.43	-14474658.33	-14474658.21	0.0147	0.0112
Mercury	-44343-10-15 10:47 J	-14474570.19	-14474570.05	-14474569.91	0.0147	0.0082
Mercury	-44342-01-11 17:30 J	-14474481.93	-14474481.77	-14474481.61	0.0147	0.0052
Mercury	-44342-04-10 00:14 J	-14474393.66	-14474393.49	-14474393.33	0.0147	0.0022
Mercury	-44342-07-07 06:57 J	-14474305.38	-14474305.21	-14474305.04	0.0147	0.0009
Mercury	-44342-10-03 13:40 J	-14474217.10	-14474216.93	-14474216.77	0.0147	0.0039
Mercury	-44342-12-30 20:23 J	-14474128.80	-14474128.65	-14474128.49	0.0147	0.0070
Mercury	-44341-03-28 03:06 J	-14474040.48	-14474040.37	-14474040.23	0.0147	0.0102
Mercury	-44341-06-24 10:04 J	-14473952.14	-14473952.08	-14473952.00	0.0147	0.0133
Earth	-44340-03-25 22:33 J	-14473677.78	-14473677.56	-14473677.31	0.0147	0.0054
Moon	-44340-03-26 01:11 J	-14473677.68	-14473677.45	-14473677.21	0.0147	0.0054 *
Moon	-44339-03-31 01:26 J	-14473307.62	-14473307.44	-14473307.23	0.0147	0.0098
Earth	-44339-03-31 03:21 J	-14473307.54	-14473307.36	-14473307.14	0.0147	0.0093 *

Venus -44332-06-05 17:45 J -14470683.83 -14470683.76 -14470683.66 0.0145 0.0134
 Venus -44331-01-18 07:40 J -14470457.30 -14470457.18 -14470457.04 0.0145 0.0116
 Venus -44331-09-01 21:35 J -14470230.76 -14470230.60 -14470230.44 0.0144 0.0098
 Venus -44330-04-16 10:47 J -14470004.22 -14470004.05 -14470003.85 0.0144 0.0080
 Mars -44330-10-18 09:50 J -14469819.31 -14469819.09 -14469818.83 0.0144 0.0090
 Venus -44330-11-29 00:28 J -14469777.67 -14469777.48 -14469777.27 0.0144 0.0061
 Venus -44329-07-12 13:54 J -14469551.13 -14469550.92 -14469550.70 0.0143 0.0043
 Venus -44328-02-24 03:21 J -14469324.57 -14469324.36 -14469324.13 0.0143 0.0025
 Venus -44328-10-08 16:47 J -14469098.03 -14469097.80 -14469097.58 0.0143 0.0007
 Venus -44327-05-23 05:45 J -14468871.48 -14468871.26 -14468871.04 0.0142 0.0012
 Venus -44326-01-04 18:28 J -14468644.94 -14468644.73 -14468644.51 0.0142 0.0030
 Venus -44326-08-19 06:57 J -14468418.41 -14468418.21 -14468417.98 0.0142 0.0048
 Venus -44325-04-01 19:54 J -14468191.87 -14468191.67 -14468191.47 0.0141 0.0065
 Venus -44325-11-14 08:09 J -14467965.33 -14467965.16 -14467964.97 0.0141 0.0082
 Venus -44324-06-28 20:09 J -14467738.80 -14467738.66 -14467738.48 0.0141 0.0099
 Venus -44323-02-10 08:23 J -14467512.27 -14467512.15 -14467512.02 0.0140 0.0115
 Venus -44323-09-24 19:54 J -14467285.73 -14467285.67 -14467285.57 0.0140 0.0131
 Mercury -44302-08-22 05:30 J -14459649.31 -14459649.27 -14459649.21 0.0132 0.0123
 Mercury -44302-11-18 09:21 J -14459561.19 -14459561.11 -14459561.02 0.0132 0.0104
 Mercury -44301-02-14 12:57 J -14459473.06 -14459472.96 -14459472.84 0.0132 0.0085
 Mercury -44301-05-12 16:47 J -14459384.92 -14459384.80 -14459384.67 0.0132 0.0066
 Mercury -44301-08-08 20:38 J -14459296.77 -14459296.64 -14459296.50 0.0132 0.0046
 Mercury -44301-11-05 00:14 J -14459208.63 -14459208.49 -14459208.34 0.0132 0.0028
 Mercury -44300-02-01 04:04 J -14459120.48 -14459120.33 -14459120.19 0.0132 0.0009
 Mercury -44300-04-30 07:40 J -14459032.33 -14459032.18 -14459032.04 0.0132 0.0010
 Mercury -44300-07-27 11:16 J -14458944.17 -14458944.03 -14458943.89 0.0132 0.0028
 Mercury -44300-10-23 14:52 J -14458856.01 -14458855.88 -14458855.75 0.0132 0.0047
 Mercury -44299-01-19 18:28 J -14458767.86 -14458767.73 -14458767.61 0.0132 0.0065
 Mercury -44299-04-17 21:50 J -14458679.69 -14458679.59 -14458679.47 0.0132 0.0083
 Mercury -44299-07-15 01:26 J -14458591.53 -14458591.44 -14458591.35 0.0132 0.0101

Moon -44299-09-25 07:40 J -14458519.30 -14458519.18 -14458519.05 0.0132 0.0113
 Earth -44299-09-25 10:33 J -14458519.15 -14458519.06 -14458518.92 0.0132 0.0117 *
 Mercury -44299-10-11 05:02 J -14458503.35 -14458503.29 -14458503.23 0.0132 0.0119
 Earth -44298-09-29 14:52 J -14458150.13 -14458149.88 -14458149.62 0.0132 0.0013
 Moon -44298-09-29 18:28 J -14458149.98 -14458149.73 -14458149.47 0.0132 0.0018 *
 Moon -44297-10-02 15:35 J -14457781.01 -14457780.85 -14457780.67 0.0132 0.0097
 Earth -44297-10-02 18:42 J -14457780.89 -14457780.72 -14457780.52 0.0132 0.0091 *
 Venus -44289-10-21 09:50 J -14454840.13 -14454840.09 -14454840.03 0.0133 0.0130
 Venus -44288-06-04 13:54 J -14454614.00 -14454613.92 -14454613.80 0.0134 0.0117
 Venus -44287-01-16 18:28 J -14454387.86 -14454387.73 -14454387.59 0.0134 0.0103
 Venus -44287-08-30 23:02 J -14454161.69 -14454161.54 -14454161.38 0.0134 0.0090
 Venus -44286-04-14 03:21 J -14453935.53 -14453935.36 -14453935.18 0.0134 0.0076
 Venus -44286-11-26 07:40 J -14453709.36 -14453709.18 -14453708.99 0.0135 0.0062
 Mars -44285-02-09 05:30 J -14453634.50 -14453634.27 -14453634.01 0.0135 0.0079
 Venus -44285-07-09 11:59 J -14453483.19 -14453483.00 -14453482.79 0.0135 0.0048
 Venus -44284-02-20 16:47 J -14453257.01 -14453256.80 -14453256.60 0.0135 0.0033
 Venus -44284-10-04 21:21 J -14453030.82 -14453030.61 -14453030.39 0.0136 0.0019
 Venus -44283-05-19 02:09 J -14452804.62 -14452804.41 -14452804.20 0.0136 0.0004
 Venus -44283-12-31 06:57 J -14452578.42 -14452578.21 -14452578.00 0.0136 0.0010
 Venus -44282-08-14 11:45 J -14452352.22 -14452352.01 -14452351.80 0.0136 0.0025
 Venus -44281-03-27 16:33 J -14452126.00 -14452125.81 -14452125.60 0.0137 0.0040
 Venus -44281-11-08 21:35 J -14451899.78 -14451899.60 -14451899.39 0.0137 0.0055
 Venus -44280-06-23 03:06 J -14451673.55 -14451673.37 -14451673.19 0.0137 0.0070
 Venus -44279-02-04 08:09 J -14451447.31 -14451447.16 -14451446.98 0.0138 0.0085
 Venus -44279-09-18 14:09 J -14451221.05 -14451220.91 -14451220.76 0.0138 0.0099
 Venus -44278-05-02 19:40 J -14450994.78 -14450994.68 -14450994.55 0.0138 0.0114
 Venus -44278-12-15 01:40 J -14450768.50 -14450768.43 -14450768.35 0.0139 0.0129
 Mercury -44259-05-12 05:16 J -14444045.34 -14444045.28 -14444045.20 0.0147 0.0132
 Mercury -44259-08-08 11:59 J -14443957.12 -14443957.00 -14443956.88 0.0147 0.0102
 Mercury -44259-11-04 18:14 J -14443868.87 -14443868.74 -14443868.58 0.0147 0.0073

Mercury -44258-02-01 00:57 J -14443780.61 -14443780.46 -14443780.29 0.0147 0.0043

Mercury -44258-04-30 07:40 J -14443692.34 -14443692.18 -14443692.00 0.0147 0.0013

Mercury -44258-07-27 14:38 J -14443604.06 -14443603.89 -14443603.72 0.0147 0.0018

Mercury -44258-10-23 21:06 J -14443515.77 -14443515.62 -14443515.45 0.0147 0.0049

Mercury -44257-01-20 04:04 J -14443427.47 -14443427.33 -14443427.18 0.0147 0.0080

Mercury -44257-04-17 10:47 J -14443339.15 -14443339.05 -14443338.93 0.0147 0.0111

Mercury -44257-07-14 17:59 J -14443250.79 -14443250.75 -14443250.71 0.0147 0.0142

Earth -44256-03-26 09:50 J -14442996.33 -14442996.09 -14442995.85 0.0147 0.0046

Moon -44256-03-26 12:42 J -14442996.20 -14442995.97 -14442995.72 0.0147 0.0046 *

Moon -44255-03-31 11:59 J -14442626.18 -14442626.00 -14442625.78 0.0147 0.0096

Earth -44255-03-31 14:38 J -14442626.07 -14442625.89 -14442625.69 0.0147 0.0100 *

Venus -44248-02-02 23:45 J -14440125.56 -14440125.51 -14440125.44 0.0145 0.0139

Venus -44248-09-17 13:26 J -14439899.04 -14439898.94 -14439898.80 0.0145 0.0122

Venus -44247-05-02 03:21 J -14439672.50 -14439672.36 -14439672.20 0.0145 0.0104

Mars -44247-07-10 08:09 J -14439603.36 -14439603.16 -14439602.92 0.0144 0.0101

Venus -44247-12-14 17:02 J -14439445.96 -14439445.79 -14439445.61 0.0144 0.0086

Venus -44246-07-29 06:42 J -14439219.42 -14439219.22 -14439219.02 0.0144 0.0067

Venus -44245-03-11 20:09 J -14438992.86 -14438992.66 -14438992.44 0.0144 0.0050

Venus -44245-10-24 09:35 J -14438766.31 -14438766.10 -14438765.87 0.0143 0.0031

Venus -44244-06-07 23:02 J -14438539.76 -14438539.54 -14438539.32 0.0143 0.0013

Venus -44243-01-20 12:14 J -14438313.22 -14438312.99 -14438312.77 0.0143 0.0006

Venus -44243-09-04 00:57 J -14438086.67 -14438086.46 -14438086.23 0.0142 0.0024

Venus -44242-04-18 13:54 J -14437860.13 -14437859.92 -14437859.70 0.0142 0.0041

Venus -44242-12-01 02:23 J -14437633.59 -14437633.40 -14437633.18 0.0142 0.0059

Venus -44241-07-14 14:52 J -14437407.06 -14437406.88 -14437406.68 0.0141 0.0076

Venus -44240-02-26 03:21 J -14437180.52 -14437180.36 -14437180.18 0.0141 0.0092

Venus -44240-10-10 15:21 J -14436953.99 -14436953.86 -14436953.70 0.0141 0.0109

Venus -44239-05-25 03:21 J -14436727.45 -14436727.36 -14436727.24 0.0140 0.0125

Venus -44238-01-06 15:21 J -14436500.86 -14436500.86 -14436500.85 0.0140 0.0140

Mercury -44218-09-11 13:26 J -14428948.00 -14428947.94 -14428947.86 0.0132 0.0114

Mercury -44218-12-08 17:16 J -14428859.87 -14428859.78 -14428859.67 0.0132 0.0095

Mercury -44217-03-05 21:06 J -14428771.74 -14428771.62 -14428771.50 0.0132 0.0076

Mercury -44217-06-02 00:42 J -14428683.59 -14428683.47 -14428683.33 0.0132 0.0057

Mercury -44217-08-29 04:33 J -14428595.45 -14428595.31 -14428595.17 0.0132 0.0038

Mercury -44217-11-25 08:23 J -14428507.30 -14428507.15 -14428507.01 0.0132 0.0019

Mercury -44216-02-21 11:59 J -14428419.15 -14428419.00 -14428418.85 0.0132 0.0000

Mercury -44216-05-20 15:35 J -14428330.99 -14428330.85 -14428330.70 0.0132 0.0019

Mercury -44216-08-16 19:11 J -14428242.84 -14428242.70 -14428242.56 0.0132 0.0037

Mercury -44216-11-12 22:33 J -14428154.68 -14428154.56 -14428154.42 0.0132 0.0056

Mercury -44215-02-09 02:09 J -14428066.52 -14428066.41 -14428066.28 0.0132 0.0074

Mercury -44215-05-08 05:45 J -14427978.36 -14427978.26 -14427978.15 0.0132 0.0092

Mercury -44215-08-04 09:06 J -14427890.19 -14427890.12 -14427890.03 0.0132 0.0110

Moon -44215-09-25 22:04 J -14427837.71 -14427837.58 -14427837.43 0.0132 0.0109

Earth -44215-09-26 00:57 J -14427837.58 -14427837.46 -14427837.29 0.0132 0.0107 *

Mercury -44215-10-31 12:42 J -14427802.00 -14427801.97 -14427801.93 0.0132 0.0128

Earth -44214-09-30 05:30 J -14427468.52 -14427468.27 -14427468.02 0.0132 0.0003

Moon -44214-09-30 08:52 J -14427468.39 -14427468.13 -14427467.88 0.0132 0.0003 *

Moon -44213-10-03 05:45 J -14427099.42 -14427099.26 -14427099.07 0.0132 0.0094

Earth -44213-10-03 09:06 J -14427099.27 -14427099.12 -14427098.94 0.0132 0.0101 *

Venus -44205-06-20 23:16 J -14424281.55 -14424281.53 -14424281.49 0.0133 0.0132

Venus -44204-02-02 03:35 J -14424055.44 -14424055.35 -14424055.25 0.0134 0.0119

Venus -44204-09-16 07:40 J -14423829.29 -14423829.18 -14423829.03 0.0134 0.0106

Venus -44203-04-30 12:14 J -14423603.14 -14423602.99 -14423602.83 0.0134 0.0092

Mars -44203-11-02 22:33 J -14423416.82 -14423416.56 -14423416.29 0.0134 0.0069

Venus -44203-12-12 16:18 J -14423376.98 -14423376.82 -14423376.64 0.0134 0.0079

Venus -44202-07-26 20:52 J -14423150.81 -14423150.63 -14423150.44 0.0135 0.0065

Venus -44201-03-09 01:11 J -14422924.64 -14422924.45 -14422924.25 0.0135 0.0051

Venus -44201-10-21 05:30 J -14422698.46 -14422698.27 -14422698.05 0.0135 0.0038

Venus -44200-06-04 10:18 J -14422472.28 -14422472.07 -14422471.86 0.0135 0.0023

Venus -44199-01-16 14:52 J -14422246.09 -14422245.88 -14422245.67 0.0136 0.0008

Venus	-44199-08-30 19:40 J	-14422019.89	-14422019.68	-14422019.47	0.0136	0.0006
Venus	-44198-04-14 00:28 J	-14421793.69	-14421793.48	-14421793.27	0.0136	0.0021
Venus	-44198-11-26 05:16 J	-14421567.48	-14421567.28	-14421567.07	0.0137	0.0035
Venus	-44197-07-09 10:18 J	-14421341.26	-14421341.07	-14421340.87	0.0137	0.0050
Venus	-44196-02-20 15:21 J	-14421115.03	-14421114.86	-14421114.66	0.0137	0.0065
Venus	-44196-10-04 20:52 J	-14420888.79	-14420888.63	-14420888.45	0.0138	0.0080
Venus	-44195-05-19 02:38 J	-14420662.54	-14420662.39	-14420662.24	0.0138	0.0094
Venus	-44195-12-31 07:54 J	-14420436.28	-14420436.17	-14420436.03	0.0138	0.0109
Venus	-44194-08-14 13:54 J	-14420210.01	-14420209.92	-14420209.82	0.0139	0.0124
Venus	-44193-03-27 19:54 J	-14419983.68	-14419983.67	-14419983.64	0.0139	0.0138
Mercury	-44175-06-01 13:26 J	-14413344.02	-14413343.94	-14413343.83	0.0147	0.0120
Mercury	-44175-08-28 20:09 J	-14413255.78	-14413255.66	-14413255.52	0.0147	0.0090
Mercury	-44175-11-25 02:38 J	-14413167.53	-14413167.39	-14413167.23	0.0147	0.0061
Mercury	-44174-02-21 09:21 J	-14413079.27	-14413079.11	-14413078.94	0.0147	0.0031
Mercury	-44174-05-20 16:04 J	-14412991.00	-14412990.83	-14412990.66	0.0147	0.0002
Mercury	-44174-08-16 22:47 J	-14412902.71	-14412902.55	-14412902.38	0.0147	0.0030
Mercury	-44174-11-13 05:30 J	-14412814.42	-14412814.27	-14412814.11	0.0147	0.0061
Mercury	-44173-02-09 12:28 J	-14412726.11	-14412725.98	-14412725.85	0.0147	0.0092
Mercury	-44173-05-07 19:26 J	-14412637.78	-14412637.69	-14412637.60	0.0147	0.0123
Earth	-44172-03-26 23:30 J	-14412314.76	-14412314.52	-14412314.26	0.0147	0.0036
Moon	-44172-03-27 02:38 J	-14412314.63	-14412314.39	-14412314.14	0.0147	0.0036 *
Moon	-44171-04-01 01:26 J	-14411944.58	-14411944.44	-14411944.26	0.0147	0.0115
Earth	-44171-04-01 04:33 J	-14411944.47	-14411944.31	-14411944.14	0.0147	0.0110 *
Venus	-44165-10-03 07:26 J	-14409567.21	-14409567.19	-14409567.15	0.0145	0.0144
Venus	-44164-05-17 21:06 J	-14409340.72	-14409340.62	-14409340.50	0.0145	0.0126
Venus	-44164-12-30 10:33 J	-14409114.19	-14409114.06	-14409113.89	0.0145	0.0109
Venus	-44163-08-14 00:28 J	-14408887.64	-14408887.48	-14408887.30	0.0144	0.0091
Mars	-44162-03-06 06:28 J	-14408683.54	-14408683.23	-14408682.92	0.0144	0.0012
Venus	-44162-03-28 14:23 J	-14408661.09	-14408660.90	-14408660.71	0.0144	0.0073
Venus	-44162-11-10 03:35 J	-14408434.54	-14408434.35	-14408434.13	0.0144	0.0055

Venus	-44161-06-23 17:16 J	-14408208.00	-14408207.78	-14408207.56	0.0144	0.0037
Venus	-44160-02-05 06:42 J	-14407981.44	-14407981.22	-14407981.00	0.0143	0.0018
Venus	-44160-09-19 19:54 J	-14407754.90	-14407754.67	-14407754.45	0.0143	0.0002
Venus	-44159-05-04 08:52 J	-14407528.35	-14407528.13	-14407527.91	0.0143	0.0017
Venus	-44159-12-16 21:35 J	-14407301.81	-14407301.60	-14407301.38	0.0142	0.0035
Venus	-44158-07-31 10:18 J	-14407075.27	-14407075.07	-14407074.86	0.0142	0.0052
Venus	-44157-03-13 22:47 J	-14406848.73	-14406848.55	-14406848.34	0.0142	0.0070
Venus	-44157-10-26 11:16 J	-14406622.20	-14406622.03	-14406621.84	0.0141	0.0086
Venus	-44156-06-09 23:16 J	-14406395.66	-14406395.53	-14406395.36	0.0141	0.0103
Venus	-44155-01-22 11:30 J	-14406169.13	-14406169.02	-14406168.89	0.0141	0.0119
Venus	-44155-09-05 23:16 J	-14405942.58	-14405942.53	-14405942.45	0.0140	0.0134
Mercury	-44134-07-05 17:45 J	-14398334.80	-14398334.76	-14398334.71	0.0132	0.0124
Mercury	-44134-10-01 21:35 J	-14398246.69	-14398246.60	-14398246.51	0.0132	0.0105
Mercury	-44134-12-29 01:11 J	-14398158.55	-14398158.45	-14398158.33	0.0132	0.0086
Mercury	-44133-03-26 05:02 J	-14398070.41	-14398070.29	-14398070.16	0.0132	0.0067
Mercury	-44133-06-22 08:52 J	-14397982.27	-14397982.13	-14397981.99	0.0132	0.0048
Mercury	-44133-09-18 12:28 J	-14397894.12	-14397893.98	-14397893.83	0.0132	0.0029
Mercury	-44133-12-15 16:18 J	-14397805.97	-14397805.82	-14397805.68	0.0132	0.0010
Mercury	-44132-03-13 19:54 J	-14397717.82	-14397717.67	-14397717.53	0.0132	0.0009
Mercury	-44132-06-09 23:30 J	-14397629.66	-14397629.52	-14397629.38	0.0132	0.0027
Mercury	-44132-09-06 03:06 J	-14397541.51	-14397541.37	-14397541.23	0.0132	0.0046
Mercury	-44132-12-03 06:42 J	-14397453.35	-14397453.22	-14397453.10	0.0132	0.0064
Mercury	-44131-03-01 10:18 J	-14397365.19	-14397365.07	-14397364.96	0.0132	0.0082
Mercury	-44131-05-28 13:40 J	-14397277.02	-14397276.93	-14397276.84	0.0132	0.0100
Mercury	-44131-08-24 17:16 J	-14397188.84	-14397188.78	-14397188.72	0.0132	0.0118
Moon	-44131-09-26 12:28 J	-14397156.14	-14397155.98	-14397155.79	0.0132	0.0094
Earth	-44131-09-26 15:35 J	-14397156.01	-14397155.85	-14397155.66	0.0132	0.0097 *
Earth	-44130-09-30 19:54 J	-14396786.93	-14396786.67	-14396786.42	0.0132	0.0007
Moon	-44130-09-30 23:02 J	-14396786.80	-14396786.54	-14396786.28	0.0132	0.0002 *
Moon	-44129-10-03 20:38 J	-14396417.74	-14396417.64	-14396417.51	0.0132	0.0117

Earth	-44129-10-03 23:30 J	-14396417.64	-14396417.52	-14396417.37	0.0132	0.0111	*
Venus	-44121-10-02 16:47 J	-14393496.87	-14393496.80	-14393496.70	0.0133	0.0122	
Venus	-44120-05-16 20:52 J	-14393270.73	-14393270.63	-14393270.49	0.0134	0.0109	
Venus	-44120-12-29 01:26 J	-14393044.58	-14393044.44	-14393044.29	0.0134	0.0095	
Venus	-44119-08-12 05:30 J	-14392818.42	-14392818.27	-14392818.09	0.0134	0.0082	
Venus	-44118-03-26 09:50 J	-14392592.26	-14392592.09	-14392591.89	0.0134	0.0069	
Mars	-44118-06-29 01:26 J	-14392497.73	-14392497.44	-14392497.13	0.0135	0.0024	
Venus	-44118-11-07 14:09 J	-14392366.09	-14392365.91	-14392365.70	0.0135	0.0055	
Venus	-44117-06-20 18:42 J	-14392139.92	-14392139.72	-14392139.51	0.0135	0.0041	
Venus	-44116-02-01 23:02 J	-14391913.74	-14391913.54	-14391913.32	0.0135	0.0027	
Venus	-44116-09-16 03:50 J	-14391687.55	-14391687.34	-14391687.12	0.0136	0.0013	
Venus	-44115-04-30 08:38 J	-14391461.35	-14391461.14	-14391460.93	0.0136	0.0002	
Venus	-44115-12-12 13:11 J	-14391235.16	-14391234.95	-14391234.74	0.0136	0.0016	
Venus	-44114-07-26 17:59 J	-14391008.95	-14391008.75	-14391008.54	0.0136	0.0031	
Venus	-44113-03-08 23:02 J	-14390782.74	-14390782.54	-14390782.34	0.0137	0.0045	
Venus	-44113-10-21 04:04 J	-14390556.51	-14390556.33	-14390556.13	0.0137	0.0060	
Venus	-44112-06-04 09:21 J	-14390330.28	-14390330.11	-14390329.92	0.0137	0.0075	
Venus	-44111-01-16 14:52 J	-14390104.03	-14390103.88	-14390103.71	0.0138	0.0089	
Venus	-44111-08-30 20:09 J	-14389877.78	-14389877.66	-14389877.50	0.0138	0.0104	
Venus	-44110-04-14 01:54 J	-14389651.51	-14389651.42	-14389651.29	0.0138	0.0119	
Venus	-44110-11-26 07:54 J	-14389425.21	-14389425.17	-14389425.10	0.0139	0.0133	
Mercury	-44091-03-25 14:52 J	-14382730.92	-14382730.88	-14382730.81	0.0147	0.0139	
Mercury	-44091-06-21 21:21 J	-14382642.71	-14382642.61	-14382642.49	0.0147	0.0110	
Mercury	-44091-09-18 04:04 J	-14382554.47	-14382554.33	-14382554.19	0.0147	0.0080	
Mercury	-44091-12-15 10:33 J	-14382466.21	-14382466.06	-14382465.90	0.0147	0.0051	
Mercury	-44090-03-13 17:16 J	-14382377.95	-14382377.78	-14382377.61	0.0147	0.0020	
Mercury	-44090-06-09 23:59 J	-14382289.67	-14382289.50	-14382289.33	0.0147	0.0010	
Mercury	-44090-09-06 06:42 J	-14382201.39	-14382201.22	-14382201.06	0.0147	0.0040	
Mercury	-44090-12-03 13:26 J	-14382113.09	-14382112.94	-14382112.79	0.0147	0.0071	
Mercury	-44089-02-29 20:09 J	-14382024.78	-14382024.66	-14382024.53	0.0147	0.0102	

Mercury -44089-05-28 03:06 J -14381936.44 -14381936.37 -14381936.30 0.0147 0.0133

Earth -44088-03-27 11:30 J -14381633.27 -14381633.02 -14381632.77 0.0147 0.0028

Moon -44088-03-27 14:52 J -14381633.12 -14381632.88 -14381632.62 0.0147 0.0028 *

Moon -44087-04-01 13:26 J -14381263.10 -14381262.94 -14381262.78 0.0147 0.0114

Earth -44087-04-01 16:18 J -14381262.96 -14381262.82 -14381262.66 0.0147 0.0118 *

Venus -44080-01-15 03:21 J -14378782.44 -14378782.36 -14378782.25 0.0145 0.0131

Venus -44080-08-29 17:16 J -14378555.91 -14378555.78 -14378555.63 0.0145 0.0114

Venus -44079-04-13 07:11 J -14378329.36 -14378329.20 -14378329.03 0.0145 0.0096

Venus -44079-11-25 20:38 J -14378102.82 -14378102.64 -14378102.45 0.0144 0.0078

Venus -44078-07-10 10:18 J -14377876.27 -14377876.07 -14377875.87 0.0144 0.0060

Mars -44078-10-30 23:30 J -14377763.66 -14377763.52 -14377763.34 0.0144 0.0122

Venus -44077-02-21 23:45 J -14377649.72 -14377649.51 -14377649.29 0.0144 0.0043

Venus -44077-10-05 13:11 J -14377423.17 -14377422.95 -14377422.73 0.0143 0.0025

Venus -44076-05-20 02:23 J -14377196.62 -14377196.40 -14377196.17 0.0143 0.0007

Venus -44075-01-01 15:21 J -14376970.08 -14376969.86 -14376969.63 0.0143 0.0011

Venus -44075-08-16 04:18 J -14376743.54 -14376743.32 -14376743.10 0.0143 0.0028

Venus -44074-03-30 17:02 J -14376516.99 -14376516.79 -14376516.57 0.0142 0.0046

Venus -44074-11-12 05:45 J -14376290.45 -14376290.26 -14376290.05 0.0142 0.0063

Venus -44073-06-25 18:14 J -14376063.92 -14376063.74 -14376063.55 0.0141 0.0080

Venus -44072-02-07 06:28 J -14375837.38 -14375837.23 -14375837.05 0.0141 0.0096

Venus -44072-09-21 18:42 J -14375610.84 -14375610.72 -14375610.57 0.0141 0.0112

Venus -44071-05-06 06:57 J -14375384.29 -14375384.21 -14375384.11 0.0140 0.0128

Mercury -44050-07-26 01:26 J -14367633.50 -14367633.44 -14367633.36 0.0132 0.0116

Mercury -44050-10-22 05:16 J -14367545.37 -14367545.28 -14367545.17 0.0132 0.0097

Mercury -44049-01-18 08:52 J -14367457.24 -14367457.13 -14367457.00 0.0132 0.0078

Mercury -44049-04-15 12:42 J -14367369.09 -14367368.97 -14367368.83 0.0132 0.0059

Mercury -44049-07-12 16:33 J -14367280.94 -14367280.81 -14367280.66 0.0132 0.0040

Mercury -44049-10-08 20:23 J -14367192.80 -14367192.65 -14367192.51 0.0132 0.0021

Mercury -44048-01-04 23:59 J -14367104.64 -14367104.50 -14367104.35 0.0132 0.0002

Mercury -44048-04-03 03:35 J -14367016.49 -14367016.35 -14367016.20 0.0132 0.0017

Mercury -44048-06-30 07:11 J -14366928.34 -14366928.20 -14366928.06 0.0132 0.0035
 Mercury -44048-09-26 10:47 J -14366840.18 -14366840.05 -14366839.91 0.0132 0.0054
 Mercury -44048-12-23 14:23 J -14366752.02 -14366751.90 -14366751.78 0.0132 0.0072
 Mercury -44047-03-21 17:59 J -14366663.85 -14366663.75 -14366663.65 0.0132 0.0090
 Mercury -44047-06-17 21:35 J -14366575.68 -14366575.60 -14366575.52 0.0132 0.0108
 Mercury -44047-09-14 00:57 J -14366487.49 -14366487.46 -14366487.42 0.0132 0.0126
 Moon -44047-09-27 02:38 J -14366474.55 -14366474.39 -14366474.19 0.0132 0.0090
 Earth -44047-09-27 05:45 J -14366474.45 -14366474.26 -14366474.07 0.0132 0.0087 *
 Earth -44046-10-01 09:35 J -14366105.34 -14366105.10 -14366104.84 0.0132 0.0017
 Moon -44046-10-01 12:28 J -14366105.23 -14366104.98 -14366104.71 0.0132 0.0022 *
 Moon -44045-10-04 10:33 J -14365736.17 -14365736.06 -14365735.92 0.0132 0.0114
 Earth -44045-10-04 13:40 J -14365736.02 -14365735.93 -14365735.82 0.0132 0.0120 *
 Venus -44037-06-02 05:59 J -14362938.32 -14362938.25 -14362938.16 0.0133 0.0124
 Venus -44036-01-14 10:18 J -14362712.18 -14362712.07 -14362711.95 0.0134 0.0111
 Venus -44036-08-28 14:38 J -14362486.03 -14362485.89 -14362485.74 0.0134 0.0098
 Mars -44035-03-22 15:50 J -14362279.92 -14362279.84 -14362279.69 0.0134 0.0124
 Venus -44035-04-11 18:42 J -14362259.87 -14362259.72 -14362259.54 0.0134 0.0085
 Venus -44035-11-23 23:02 J -14362033.72 -14362033.54 -14362033.36 0.0134 0.0072
 Venus -44034-07-08 03:21 J -14361807.55 -14361807.36 -14361807.17 0.0135 0.0058
 Venus -44033-02-19 07:26 J -14361581.38 -14361581.19 -14361580.98 0.0135 0.0045
 Mars -44033-02-22 03:06 J -14361578.50 -14361578.37 -14361578.19 0.0135 0.0116
 Venus -44033-10-02 12:14 J -14361355.19 -14361354.99 -14361354.78 0.0135 0.0030
 Venus -44032-05-16 16:47 J -14361129.01 -14361128.80 -14361128.59 0.0135 0.0016
 Venus -44032-12-28 21:21 J -14360902.82 -14360902.61 -14360902.40 0.0136 0.0002
 Venus -44031-08-12 02:09 J -14360676.62 -14360676.41 -14360676.20 0.0136 0.0012
 Venus -44030-03-26 06:42 J -14360450.42 -14360450.22 -14360450.00 0.0136 0.0027
 Venus -44030-11-07 11:45 J -14360224.21 -14360224.01 -14360223.80 0.0137 0.0041
 Venus -44029-06-20 16:47 J -14359997.99 -14359997.80 -14359997.60 0.0137 0.0055
 Venus -44028-02-01 22:04 J -14359771.76 -14359771.58 -14359771.40 0.0137 0.0070
 Venus -44028-09-16 03:21 J -14359545.52 -14359545.36 -14359545.18 0.0137 0.0084

Venus	-44027-04-30 08:38 J	-14359319.27	-14359319.14	-14359318.97	0.0138	0.0099
Venus	-44027-12-12 14:23 J	-14359093.01	-14359092.90	-14359092.77	0.0138	0.0113
Venus	-44026-07-26 20:09 J	-14358866.73	-14358866.66	-14358866.56	0.0138	0.0128
Mercury	-44007-04-14 23:30 J	-14352029.60	-14352029.52	-14352029.44	0.0147	0.0127
Mercury	-44007-07-12 05:45 J	-14351941.38	-14351941.26	-14351941.13	0.0147	0.0098
Mercury	-44007-10-08 12:14 J	-14351853.13	-14351852.99	-14351852.83	0.0147	0.0069
Mercury	-44006-01-04 18:57 J	-14351764.87	-14351764.71	-14351764.55	0.0147	0.0039
Mercury	-44006-04-03 01:26 J	-14351676.60	-14351676.44	-14351676.27	0.0147	0.0010
Mercury	-44006-06-30 08:09 J	-14351588.33	-14351588.16	-14351587.99	0.0147	0.0022
Mercury	-44006-09-26 14:52 J	-14351500.04	-14351499.88	-14351499.72	0.0147	0.0052
Mercury	-44006-12-23 21:35 J	-14351411.73	-14351411.60	-14351411.45	0.0147	0.0083
Mercury	-44005-03-21 04:18 J	-14351323.42	-14351323.32	-14351323.20	0.0147	0.0114
Mercury	-44005-06-17 11:30 J	-14351235.04	-14351235.02	-14351235.00	0.0147	0.0145
Earth	-44004-03-28 01:11 J	-14350951.70	-14350951.45	-14350951.19	0.0147	0.0018
Moon	-44004-03-28 04:33 J	-14350951.56	-14350951.31	-14350951.06	0.0147	0.0018 *
Moon	-44003-04-02 02:23 J	-14350581.49	-14350581.40	-14350581.27	0.0147	0.0133
Earth	-44003-04-02 06:14 J	-14350581.36	-14350581.24	-14350581.12	0.0147	0.0128 *

44TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 44th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-43997-09-14 11:16 J	-14348224.10	-14348224.03	-14348223.94	0.0145	0.0135		

Venus -43996-04-29 00:57 J -14347997.57 -14347997.46 -14347997.32 0.0145 0.0118
 Venus -43996-12-11 14:38 J -14347771.04 -14347770.89 -14347770.72 0.0145 0.0101
 Mars -43995-07-23 04:33 J -14347547.58 -14347547.31 -14347547.03 0.0145 0.0065
 Venus -43995-07-26 04:33 J -14347544.49 -14347544.31 -14347544.13 0.0144 0.0083
 Venus -43994-03-09 17:59 J -14347317.94 -14347317.75 -14347317.54 0.0144 0.0066
 Venus -43994-10-22 07:26 J -14347091.39 -14347091.19 -14347090.97 0.0144 0.0048
 Venus -43993-06-04 21:06 J -14346864.84 -14346864.62 -14346864.40 0.0144 0.0030
 Venus -43992-01-17 10:18 J -14346638.29 -14346638.07 -14346637.85 0.0143 0.0012
 Venus -43992-08-31 23:30 J -14346411.75 -14346411.52 -14346411.30 0.0143 0.0006
 Venus -43991-04-15 12:28 J -14346185.20 -14346184.98 -14346184.76 0.0143 0.0023
 Venus -43991-11-28 01:11 J -14345958.66 -14345958.45 -14345958.23 0.0142 0.0040
 Venus -43990-07-12 13:54 J -14345732.12 -14345731.92 -14345731.71 0.0142 0.0057
 Venus -43989-02-24 02:38 J -14345505.58 -14345505.39 -14345505.19 0.0142 0.0074
 Venus -43989-10-07 15:06 J -14345279.04 -14345278.87 -14345278.69 0.0141 0.0090
 Venus -43988-05-22 03:35 J -14345052.50 -14345052.35 -14345052.21 0.0141 0.0106
 Venus -43987-01-03 15:06 J -14344825.96 -14344825.87 -14344825.74 0.0141 0.0123
 Venus -43987-08-18 03:21 J -14344599.39 -14344599.36 -14344599.31 0.0140 0.0138
 Mercury -43966-05-19 05:30 J -14337020.30 -14337020.27 -14337020.23 0.0132 0.0127
 Mercury -43966-08-15 09:06 J -14336932.19 -14336932.12 -14336932.02 0.0132 0.0108
 Mercury -43966-11-11 13:11 J -14336844.06 -14336843.95 -14336843.84 0.0132 0.0088
 Mercury -43965-02-07 17:02 J -14336755.92 -14336755.79 -14336755.67 0.0132 0.0069
 Mercury -43965-05-05 20:38 J -14336667.77 -14336667.64 -14336667.50 0.0132 0.0050
 Mercury -43965-08-02 00:28 J -14336579.62 -14336579.48 -14336579.34 0.0132 0.0031
 Mercury -43965-10-29 04:04 J -14336491.47 -14336491.33 -14336491.18 0.0132 0.0013
 Mercury -43964-01-25 07:54 J -14336403.32 -14336403.17 -14336403.03 0.0132 0.0007
 Mercury -43964-04-23 11:30 J -14336315.16 -14336315.02 -14336314.88 0.0132 0.0025
 Mercury -43964-07-20 14:52 J -14336227.01 -14336226.88 -14336226.73 0.0132 0.0044
 Mercury -43964-10-16 18:28 J -14336138.85 -14336138.73 -14336138.59 0.0132 0.0062
 Mercury -43963-01-12 22:18 J -14336050.69 -14336050.57 -14336050.46 0.0132 0.0080
 Mercury -43963-04-11 01:40 J -14335962.52 -14335962.43 -14335962.33 0.0132 0.0098

Mercury -43963-07-08 05:16 J -14335874.34 -14335874.28 -14335874.21 0.0132 0.0116

Moon -43963-09-27 16:47 J -14335792.99 -14335792.80 -14335792.58 0.0132 0.0076

Earth -43963-09-27 19:40 J -14335792.88 -14335792.68 -14335792.47 0.0132 0.0078 *

Earth -43962-10-01 23:45 J -14335423.76 -14335423.51 -14335423.26 0.0132 0.0026

Moon -43962-10-02 02:23 J -14335423.66 -14335423.40 -14335423.14 0.0132 0.0021 *

Earth -43961-10-05 03:06 J -14335054.38 -14335054.37 -14335054.29 0.0132 0.0130

Venus -43953-01-31 19:26 J -14332379.76 -14332379.69 -14332379.62 0.0133 0.0126

Venus -43953-09-13 23:16 J -14332153.62 -14332153.53 -14332153.40 0.0133 0.0114

Venus -43952-04-28 03:21 J -14331927.48 -14331927.36 -14331927.20 0.0134 0.0101

Venus -43952-12-10 07:40 J -14331701.33 -14331701.18 -14331701.01 0.0134 0.0088

Venus -43951-07-24 11:59 J -14331475.17 -14331475.00 -14331474.82 0.0134 0.0074

Mars -43951-11-15 18:42 J -14331361.01 -14331360.72 -14331360.41 0.0134 0.0032

Venus -43950-03-07 16:04 J -14331249.00 -14331248.83 -14331248.62 0.0134 0.0062

Venus -43950-10-19 20:38 J -14331022.83 -14331022.64 -14331022.43 0.0135 0.0048

Venus -43949-06-02 00:57 J -14330796.66 -14330796.46 -14330796.25 0.0135 0.0034

Venus -43948-01-14 05:30 J -14330570.48 -14330570.27 -14330570.06 0.0135 0.0020

Venus -43948-08-28 10:18 J -14330344.28 -14330344.07 -14330343.86 0.0135 0.0006

Venus -43947-04-11 14:52 J -14330118.09 -14330117.88 -14330117.67 0.0136 0.0008

Venus -43947-11-23 19:40 J -14329891.89 -14329891.68 -14329891.47 0.0136 0.0022

Venus -43946-07-08 00:28 J -14329665.68 -14329665.48 -14329665.28 0.0136 0.0036

Venus -43945-02-19 05:16 J -14329439.47 -14329439.28 -14329439.07 0.0137 0.0051

Venus -43945-10-02 10:33 J -14329213.24 -14329213.06 -14329212.86 0.0137 0.0065

Venus -43944-05-16 15:50 J -14328987.00 -14328986.84 -14328986.66 0.0137 0.0080

Venus -43944-12-28 21:06 J -14328760.76 -14328760.62 -14328760.45 0.0138 0.0094

Venus -43943-08-12 02:38 J -14328534.50 -14328534.39 -14328534.24 0.0138 0.0108

Venus -43942-03-26 08:23 J -14328308.23 -14328308.15 -14328308.04 0.0138 0.0122

Venus -43942-11-07 14:38 J -14328081.92 -14328081.89 -14328081.85 0.0139 0.0136

Mercury -43923-02-06 00:57 J -14321416.46 -14321416.46 -14321416.46 0.0147 0.0147

Mercury -43923-05-05 06:57 J -14321328.30 -14321328.21 -14321328.10 0.0147 0.0118

Mercury -43923-08-01 13:26 J -14321240.06 -14321239.94 -14321239.80 0.0147 0.0089

Mercury -43923-10-28 20:09 J -14321151.82 -14321151.66 -14321151.51 0.0147 0.0059

Mercury -43922-01-25 02:38 J -14321063.55 -14321063.39 -14321063.22 0.0147 0.0029

Mercury -43922-04-23 09:21 J -14320975.28 -14320975.11 -14320974.94 0.0147 0.0004

Mercury -43922-07-20 15:50 J -14320887.00 -14320886.84 -14320886.67 0.0147 0.0031

Mercury -43922-10-16 22:33 J -14320798.71 -14320798.56 -14320798.40 0.0147 0.0062

Mercury -43921-01-13 05:16 J -14320710.41 -14320710.28 -14320710.14 0.0147 0.0093

Mercury -43921-04-10 11:59 J -14320622.08 -14320622.00 -14320621.90 0.0147 0.0124

Earth -43920-03-28 12:42 J -14320270.22 -14320269.97 -14320269.71 0.0147 0.0011

Moon -43920-03-28 16:33 J -14320270.06 -14320269.81 -14320269.56 0.0147 0.0011 *

Moon -43919-04-02 14:09 J -14319900.02 -14319899.91 -14319899.80 0.0147 0.0132

Earth -43919-04-02 17:16 J -14319899.86 -14319899.78 -14319899.67 0.0147 0.0136 *

Venus -43913-05-14 17:16 J -14317665.83 -14317665.78 -14317665.72 0.0145 0.0140

Venus -43913-12-27 06:42 J -14317439.32 -14317439.22 -14317439.09 0.0145 0.0123

Venus -43912-08-10 20:23 J -14317212.78 -14317212.65 -14317212.48 0.0145 0.0106

Venus -43911-03-25 10:33 J -14316986.23 -14316986.06 -14316985.88 0.0145 0.0088

Venus -43911-11-06 23:59 J -14316759.69 -14316759.50 -14316759.30 0.0144 0.0071

Mars -43910-03-18 20:52 J -14316627.92 -14316627.63 -14316627.33 0.0144 0.0043

Venus -43910-06-21 13:26 J -14316533.14 -14316532.94 -14316532.73 0.0144 0.0053

Venus -43909-02-03 02:52 J -14316306.59 -14316306.38 -14316306.16 0.0144 0.0036

Venus -43909-09-16 16:18 J -14316080.04 -14316079.82 -14316079.59 0.0144 0.0018

Venus -43908-05-01 05:30 J -14315853.49 -14315853.27 -14315853.04 0.0143 0.0003

Venus -43908-12-13 18:42 J -14315626.94 -14315626.72 -14315626.50 0.0143 0.0017

Venus -43907-07-28 07:26 J -14315400.40 -14315400.19 -14315399.96 0.0143 0.0035

Venus -43906-03-11 20:23 J -14315173.85 -14315173.65 -14315173.43 0.0142 0.0051

Venus -43906-10-24 09:06 J -14314947.31 -14314947.12 -14314946.91 0.0142 0.0068

Venus -43905-06-06 21:35 J -14314720.76 -14314720.60 -14314720.41 0.0142 0.0085

Venus -43904-01-19 10:04 J -14314494.23 -14314494.08 -14314493.91 0.0141 0.0101

Venus -43904-09-02 22:33 J -14314267.68 -14314267.56 -14314267.43 0.0141 0.0116

Venus -43903-04-17 10:33 J -14314041.12 -14314041.06 -14314040.97 0.0140 0.0132

Mercury -43882-06-08 13:11 J -14306319.00 -14306318.95 -14306318.88 0.0132 0.0119

Mercury -43882-09-04 17:02 J -14306230.88 -14306230.79 -14306230.69 0.0132 0.0100
 Mercury -43882-12-01 20:38 J -14306142.74 -14306142.64 -14306142.51 0.0132 0.0081
 Mercury -43881-02-28 00:28 J -14306054.60 -14306054.48 -14306054.34 0.0132 0.0062
 Mercury -43881-05-26 04:18 J -14305966.45 -14305966.32 -14305966.17 0.0132 0.0043
 Mercury -43881-08-22 08:09 J -14305878.30 -14305878.16 -14305878.02 0.0132 0.0024
 Mercury -43881-11-18 11:45 J -14305790.15 -14305790.01 -14305789.86 0.0132 0.0006
 Mercury -43880-02-14 15:35 J -14305702.00 -14305701.85 -14305701.71 0.0132 0.0014
 Mercury -43880-05-13 19:11 J -14305613.84 -14305613.70 -14305613.56 0.0132 0.0033
 Mercury -43880-08-09 22:47 J -14305525.68 -14305525.55 -14305525.42 0.0132 0.0051
 Mercury -43880-11-06 02:09 J -14305437.52 -14305437.41 -14305437.28 0.0132 0.0070
 Mercury -43879-02-02 05:45 J -14305349.36 -14305349.26 -14305349.15 0.0132 0.0088
 Mercury -43879-05-01 09:21 J -14305261.19 -14305261.11 -14305261.02 0.0132 0.0106
 Mercury -43879-07-28 12:42 J -14305173.00 -14305172.97 -14305172.91 0.0132 0.0124
 Moon -43879-09-28 07:11 J -14305111.41 -14305111.20 -14305110.99 0.0132 0.0071
 Earth -43879-09-28 08:38 J -14305111.34 -14305111.14 -14305110.90 0.0132 0.0070 *
 Earth -43878-10-02 12:57 J -14304742.19 -14304741.96 -14304741.70 0.0132 0.0035
 Moon -43878-10-02 15:21 J -14304742.10 -14304741.86 -14304741.60 0.0132 0.0039 *
 Venus -43870-10-01 08:09 J -14301821.22 -14301821.16 -14301821.10 0.0133 0.0128
 Venus -43869-05-14 11:59 J -14301595.09 -14301595.00 -14301594.88 0.0133 0.0115
 Venus -43869-12-26 16:18 J -14301368.95 -14301368.82 -14301368.68 0.0134 0.0103
 Venus -43868-08-09 20:23 J -14301142.80 -14301142.65 -14301142.48 0.0134 0.0090
 Venus -43867-03-24 00:28 J -14300916.64 -14300916.48 -14300916.29 0.0134 0.0077
 Venus -43867-11-05 04:47 J -14300690.48 -14300690.30 -14300690.10 0.0134 0.0064
 Venus -43866-06-19 09:06 J -14300464.31 -14300464.12 -14300463.92 0.0134 0.0051
 Mars -43866-07-11 20:23 J -14300441.91 -14300441.65 -14300441.35 0.0134 0.0059
 Venus -43865-01-31 13:40 J -14300238.14 -14300237.93 -14300237.73 0.0135 0.0037
 Venus -43865-09-13 18:14 J -14300011.95 -14300011.74 -14300011.53 0.0135 0.0023
 Venus -43864-04-27 22:47 J -14299785.76 -14299785.55 -14299785.34 0.0135 0.0010
 Venus -43864-12-10 03:21 J -14299559.57 -14299559.36 -14299559.15 0.0136 0.0004
 Venus -43863-07-24 07:54 J -14299333.38 -14299333.17 -14299332.96 0.0136 0.0018

Venus -43862-03-07 12:42 J -14299107.17 -14299106.97 -14299106.76 0.0136 0.0033
 Venus -43862-10-19 17:45 J -14298880.95 -14298880.76 -14298880.55 0.0136 0.0047
 Venus -43861-06-01 22:47 J -14298654.73 -14298654.55 -14298654.35 0.0137 0.0061
 Venus -43860-01-14 04:04 J -14298428.50 -14298428.33 -14298428.15 0.0137 0.0075
 Venus -43860-08-28 09:21 J -14298202.26 -14298202.11 -14298201.94 0.0137 0.0089
 Venus -43859-04-11 15:06 J -14297976.01 -14297975.87 -14297975.73 0.0138 0.0103
 Venus -43859-11-23 20:23 J -14297749.75 -14297749.65 -14297749.53 0.0138 0.0117
 Venus -43858-07-08 01:54 J -14297523.46 -14297523.42 -14297523.33 0.0138 0.0132
 Mercury -43839-02-26 08:38 J -14290715.19 -14290715.14 -14290715.08 0.0147 0.0137
 Mercury -43839-05-25 14:52 J -14290626.98 -14290626.88 -14290626.76 0.0147 0.0108
 Mercury -43839-08-21 21:21 J -14290538.75 -14290538.61 -14290538.46 0.0147 0.0079
 Mercury -43839-11-18 03:50 J -14290450.49 -14290450.34 -14290450.18 0.0147 0.0049
 Mercury -43838-02-14 10:33 J -14290362.23 -14290362.06 -14290361.89 0.0147 0.0019
 Mercury -43838-05-13 17:02 J -14290273.96 -14290273.79 -14290273.62 0.0147 0.0011
 Mercury -43838-08-09 23:45 J -14290185.67 -14290185.51 -14290185.35 0.0147 0.0041
 Mercury -43838-11-06 06:28 J -14290097.38 -14290097.23 -14290097.08 0.0147 0.0072
 Mercury -43837-02-02 13:11 J -14290009.07 -14290008.95 -14290008.82 0.0147 0.0103
 Mercury -43837-04-30 19:54 J -14289920.73 -14289920.67 -14289920.59 0.0147 0.0134
 Earth -43836-03-29 01:11 J -14289588.71 -14289588.45 -14289588.20 0.0147 0.0002
 Moon -43836-03-29 04:33 J -14289588.56 -14289588.31 -14289588.05 0.0147 0.0003 *
 Earth -43835-04-03 05:59 J -14289218.29 -14289218.25 -14289218.20 0.0147 0.0144
 Venus -43829-01-12 23:59 J -14287107.52 -14287107.50 -14287107.46 0.0145 0.0144
 Venus -43829-08-26 13:26 J -14286881.02 -14286880.94 -14286880.81 0.0145 0.0128
 Venus -43828-04-10 03:21 J -14286654.49 -14286654.36 -14286654.20 0.0145 0.0110
 Venus -43828-11-22 17:02 J -14286427.95 -14286427.79 -14286427.61 0.0145 0.0093
 Venus -43827-07-07 06:28 J -14286201.41 -14286201.23 -14286201.03 0.0145 0.0076
 Venus -43826-02-18 20:09 J -14285974.85 -14285974.66 -14285974.44 0.0144 0.0059
 Venus -43826-10-03 09:35 J -14285748.30 -14285748.10 -14285747.87 0.0144 0.0041
 Venus -43825-05-16 23:02 J -14285521.75 -14285521.54 -14285521.31 0.0144 0.0024
 Venus -43825-12-29 12:28 J -14285295.21 -14285294.98 -14285294.76 0.0143 0.0006

Venus	-43824-08-13 01:26 J	-14285068.66	-14285068.44	-14285068.21	0.0143	0.0012
Venus	-43823-03-27 14:38 J	-14284842.10	-14284841.89	-14284841.67	0.0143	0.0029
Venus	-43823-11-09 03:35 J	-14284615.56	-14284615.35	-14284615.13	0.0142	0.0046
Venus	-43822-06-23 16:33 J	-14284389.01	-14284388.81	-14284388.61	0.0142	0.0062
Venus	-43821-02-05 05:02 J	-14284162.47	-14284162.29	-14284162.10	0.0142	0.0079
Venus	-43821-09-18 17:30 J	-14283935.92	-14283935.77	-14283935.59	0.0141	0.0095
Venus	-43820-05-03 05:59 J	-14283709.37	-14283709.25	-14283709.10	0.0141	0.0111
Venus	-43820-12-15 17:59 J	-14283482.82	-14283482.75	-14283482.63	0.0141	0.0127
Mercury	-43798-04-01 17:02 J	-14275705.80	-14275705.79	-14275705.77	0.0132	0.0131
Mercury	-43798-06-28 21:06 J	-14275617.70	-14275617.62	-14275617.55	0.0132	0.0111
Mercury	-43798-09-25 00:42 J	-14275529.57	-14275529.47	-14275529.36	0.0132	0.0092
Mercury	-43798-12-22 04:33 J	-14275441.43	-14275441.31	-14275441.18	0.0132	0.0073
Mercury	-43797-03-19 08:23 J	-14275353.28	-14275353.15	-14275353.01	0.0132	0.0054
Mercury	-43797-06-15 11:59 J	-14275265.13	-14275265.00	-14275264.85	0.0132	0.0035
Mercury	-43797-09-11 15:50 J	-14275176.98	-14275176.84	-14275176.69	0.0132	0.0016
Mercury	-43797-12-08 19:26 J	-14275088.83	-14275088.69	-14275088.54	0.0132	0.0005
Mercury	-43796-03-06 23:16 J	-14275000.68	-14275000.53	-14275000.39	0.0132	0.0022
Mercury	-43796-06-03 02:52 J	-14274912.52	-14274912.38	-14274912.24	0.0132	0.0040
Mercury	-43796-08-30 06:14 J	-14274824.36	-14274824.24	-14274824.10	0.0132	0.0059
Mercury	-43796-11-26 10:04 J	-14274736.20	-14274736.08	-14274735.96	0.0132	0.0077
Mercury	-43795-02-22 13:40 J	-14274648.03	-14274647.93	-14274647.83	0.0132	0.0095
Mercury	-43795-05-21 17:16 J	-14274559.86	-14274559.78	-14274559.71	0.0132	0.0113
Mercury	-43795-08-17 20:38 J	-14274471.65	-14274471.64	-14274471.63	0.0132	0.0131
Moon	-43795-09-28 20:23 J	-14274429.86	-14274429.65	-14274429.42	0.0132	0.0059
Earth	-43795-09-28 22:18 J	-14274429.79	-14274429.57	-14274429.34	0.0132	0.0061 *
Earth	-43794-10-03 02:23 J	-14274060.63	-14274060.40	-14274060.15	0.0132	0.0044
Moon	-43794-10-03 04:18 J	-14274060.56	-14274060.32	-14274060.06	0.0132	0.0039 *
Venus	-43786-05-31 20:09 J	-14271262.68	-14271262.66	-14271262.59	0.0133	0.0130
Venus	-43785-01-13 00:42 J	-14271036.56	-14271036.47	-14271036.37	0.0133	0.0118
Venus	-43785-08-26 04:47 J	-14270810.42	-14270810.30	-14270810.16	0.0133	0.0105

Venus -43784-04-09 08:52 J -14270584.27 -14270584.13 -14270583.96 0.0134 0.0093
 Venus -43784-11-21 13:11 J -14270358.11 -14270357.95 -14270357.77 0.0134 0.0080
 Mars -43783-04-04 08:09 J -14270224.36 -14270224.16 -14270223.91 0.0134 0.0092
 Venus -43783-07-05 17:16 J -14270131.95 -14270131.78 -14270131.58 0.0134 0.0067
 Venus -43782-02-16 21:50 J -14269905.79 -14269905.59 -14269905.40 0.0134 0.0054
 Venus -43782-10-01 02:09 J -14269679.61 -14269679.41 -14269679.20 0.0135 0.0040
 Venus -43781-05-14 06:28 J -14269453.43 -14269453.23 -14269453.01 0.0135 0.0027
 Venus -43781-12-26 11:02 J -14269227.25 -14269227.04 -14269226.82 0.0135 0.0013
 Venus -43780-08-09 15:50 J -14269001.06 -14269000.84 -14269000.63 0.0135 0.0002
 Venus -43779-03-23 20:23 J -14268774.86 -14268774.65 -14268774.44 0.0136 0.0015
 Venus -43779-11-05 01:11 J -14268548.65 -14268548.45 -14268548.24 0.0136 0.0029
 Venus -43778-06-19 06:14 J -14268322.44 -14268322.24 -14268322.04 0.0136 0.0043
 Venus -43777-01-31 11:02 J -14268096.22 -14268096.04 -14268095.84 0.0136 0.0057
 Venus -43777-09-13 16:18 J -14267869.99 -14267869.82 -14267869.63 0.0137 0.0071
 Venus -43776-04-27 21:35 J -14267643.76 -14267643.60 -14267643.43 0.0137 0.0085
 Venus -43776-12-10 02:52 J -14267417.52 -14267417.38 -14267417.23 0.0137 0.0099
 Venus -43775-07-24 08:38 J -14267191.26 -14267191.14 -14267191.02 0.0138 0.0112
 Venus -43774-03-07 13:54 J -14266964.99 -14266964.92 -14266964.82 0.0138 0.0126
 Mercury -43755-03-18 15:50 J -14260013.90 -14260013.84 -14260013.75 0.0147 0.0129
 Mercury -43755-06-14 22:18 J -14259925.68 -14259925.57 -14259925.44 0.0147 0.0100
 Mercury -43755-09-11 05:02 J -14259837.44 -14259837.29 -14259837.15 0.0147 0.0070
 Mercury -43755-12-08 11:16 J -14259749.19 -14259749.03 -14259748.86 0.0147 0.0041
 Mercury -43754-03-06 17:59 J -14259660.92 -14259660.75 -14259660.58 0.0147 0.0011
 Mercury -43754-06-03 00:28 J -14259572.64 -14259572.48 -14259572.31 0.0147 0.0020
 Mercury -43754-08-30 07:11 J -14259484.36 -14259484.20 -14259484.04 0.0147 0.0050
 Mercury -43754-11-26 13:40 J -14259396.06 -14259395.93 -14259395.77 0.0147 0.0081
 Mercury -43753-02-22 20:23 J -14259307.74 -14259307.65 -14259307.52 0.0147 0.0112
 Moon -43753-03-24 03:35 J -14259277.42 -14259277.35 -14259277.24 0.0147 0.0136
 Earth -43753-03-24 06:57 J -14259277.27 -14259277.21 -14259277.13 0.0147 0.0141 *
 Mercury -43753-05-21 03:21 J -14259219.39 -14259219.36 -14259219.31 0.0147 0.0143

Earth	-43752-03-29 11:45 J	-14258907.27	-14258907.01	-14258906.76	0.0147	0.0005
Moon	-43752-03-29 15:21 J	-14258907.11	-14258906.86	-14258906.60	0.0147	0.0004 *
Venus	-43745-04-25 18:57 J	-14256322.80	-14256322.71	-14256322.62	0.0145	0.0132
Venus	-43745-12-08 08:23 J	-14256096.27	-14256096.15	-14256096.01	0.0145	0.0115
Venus	-43744-07-22 22:04 J	-14255869.73	-14255869.58	-14255869.41	0.0145	0.0098
Venus	-43743-03-06 11:45 J	-14255643.18	-14255643.01	-14255642.82	0.0145	0.0081
Mars	-43743-08-04 14:09 J	-14255492.20	-14255491.91	-14255491.61	0.0145	0.0040
Venus	-43743-10-19 01:26 J	-14255416.64	-14255416.44	-14255416.24	0.0144	0.0064
Venus	-43742-06-02 14:52 J	-14255190.09	-14255189.88	-14255189.67	0.0144	0.0046
Venus	-43741-01-15 04:18 J	-14254963.54	-14254963.32	-14254963.10	0.0144	0.0029
Venus	-43741-08-28 17:30 J	-14254736.99	-14254736.77	-14254736.54	0.0144	0.0012
Venus	-43740-04-12 06:57 J	-14254510.43	-14254510.21	-14254509.99	0.0143	0.0006
Venus	-43740-11-24 19:54 J	-14254283.89	-14254283.67	-14254283.44	0.0143	0.0023
Venus	-43739-07-09 08:52 J	-14254057.34	-14254057.13	-14254056.91	0.0143	0.0040
Venus	-43738-02-20 22:04 J	-14253830.78	-14253830.58	-14253830.37	0.0142	0.0056
Venus	-43738-10-05 10:47 J	-14253604.24	-14253604.05	-14253603.85	0.0142	0.0073
Venus	-43737-05-18 23:30 J	-14253377.69	-14253377.52	-14253377.34	0.0142	0.0089
Venus	-43737-12-31 11:45 J	-14253151.15	-14253151.01	-14253150.85	0.0141	0.0105
Venus	-43736-08-15 00:14 J	-14252924.60	-14252924.49	-14252924.37	0.0141	0.0120
Venus	-43735-03-29 12:14 J	-14252698.02	-14252697.99	-14252697.91	0.0140	0.0136
Mercury	-43714-04-22 00:28 J	-14245004.52	-14245004.48	-14245004.42	0.0132	0.0124
Mercury	-43714-07-19 04:33 J	-14244916.40	-14244916.31	-14244916.22	0.0132	0.0104
Mercury	-43714-10-15 08:09 J	-14244828.26	-14244828.16	-14244828.04	0.0132	0.0085
Mercury	-43713-01-11 11:59 J	-14244740.12	-14244740.00	-14244739.87	0.0132	0.0066
Mercury	-43713-04-08 15:50 J	-14244651.97	-14244651.84	-14244651.70	0.0132	0.0047
Mercury	-43713-07-05 19:40 J	-14244563.82	-14244563.68	-14244563.54	0.0132	0.0028
Mercury	-43713-10-01 23:16 J	-14244475.67	-14244475.53	-14244475.38	0.0132	0.0010
Mercury	-43713-12-29 03:06 J	-14244387.52	-14244387.37	-14244387.23	0.0132	0.0010
Mercury	-43712-03-27 06:42 J	-14244299.36	-14244299.22	-14244299.08	0.0132	0.0029
Mercury	-43712-06-23 10:18 J	-14244211.20	-14244211.07	-14244210.93	0.0132	0.0047

Mercury -43712-09-19 13:54 J -14244123.04 -14244122.92 -14244122.79 0.0132 0.0066

Mercury -43712-12-16 17:30 J -14244034.88 -14244034.77 -14244034.66 0.0132 0.0084

Mercury -43711-03-14 21:06 J -14243946.71 -14243946.62 -14243946.53 0.0132 0.0102

Mercury -43711-06-11 00:42 J -14243858.53 -14243858.47 -14243858.41 0.0132 0.0120

Moon -43711-09-29 09:50 J -14243748.31 -14243748.09 -14243747.86 0.0132 0.0054

Earth -43711-09-29 10:47 J -14243748.27 -14243748.05 -14243747.81 0.0132 0.0053 *

Earth -43710-10-03 14:52 J -14243379.10 -14243378.88 -14243378.63 0.0132 0.0052

Moon -43710-10-03 16:18 J -14243379.04 -14243378.82 -14243378.57 0.0132 0.0056 *

Venus -43702-01-29 08:38 J -14240704.15 -14240704.14 -14240704.11 0.0133 0.0132

Venus -43702-09-12 12:42 J -14240478.04 -14240477.97 -14240477.86 0.0133 0.0120

Venus -43701-04-25 17:16 J -14240251.91 -14240251.78 -14240251.66 0.0133 0.0108

Venus -43701-12-07 21:06 J -14240025.76 -14240025.62 -14240025.46 0.0134 0.0096

Venus -43700-07-22 01:11 J -14239799.60 -14239799.45 -14239799.27 0.0134 0.0083

Venus -43699-03-05 05:30 J -14239573.44 -14239573.27 -14239573.08 0.0134 0.0070

Venus -43699-10-17 09:50 J -14239347.27 -14239347.09 -14239346.89 0.0134 0.0057

Mars -43699-11-28 09:50 J -14239305.40 -14239305.09 -14239304.78 0.0134 0.0002

Venus -43698-05-31 14:09 J -14239121.10 -14239120.91 -14239120.70 0.0134 0.0044

Venus -43697-01-12 18:28 J -14238894.93 -14238894.73 -14238894.51 0.0135 0.0031

Venus -43697-08-25 23:16 J -14238668.74 -14238668.53 -14238668.32 0.0135 0.0017

Venus -43696-04-09 03:50 J -14238442.55 -14238442.34 -14238442.12 0.0135 0.0004

Venus -43696-11-21 08:23 J -14238216.36 -14238216.15 -14238215.93 0.0135 0.0011

Venus -43695-07-05 13:11 J -14237990.16 -14237989.95 -14237989.74 0.0136 0.0025

Jupiter -43695-09-06 08:52 J -14237927.60 -14237927.13 -14237926.62 0.0136 0.0021

Venus -43694-02-16 17:59 J -14237763.95 -14237763.75 -14237763.54 0.0136 0.0038

Venus -43694-09-30 23:02 J -14237537.73 -14237537.54 -14237537.33 0.0136 0.0053

Venus -43693-05-14 04:18 J -14237311.50 -14237311.32 -14237311.13 0.0137 0.0066

Venus -43693-12-26 09:06 J -14237085.28 -14237085.12 -14237084.94 0.0137 0.0080

Venus -43692-08-09 14:23 J -14236859.04 -14236858.90 -14236858.73 0.0137 0.0094

Venus -43691-03-23 19:40 J -14236632.79 -14236632.68 -14236632.53 0.0138 0.0108

Venus -43691-11-05 01:26 J -14236406.53 -14236406.44 -14236406.33 0.0138 0.0121

Venus -43690-06-19 07:11 J -14236180.24 -14236180.20 -14236180.15 0.0138 0.0135
 Mercury -43671-04-07 23:45 J -14229312.60 -14229312.51 -14229312.41 0.0147 0.0119
 Mercury -43671-07-05 05:59 J -14229224.37 -14229224.25 -14229224.11 0.0147 0.0090
 Mercury -43671-10-01 12:28 J -14229136.12 -14229135.98 -14229135.82 0.0147 0.0061
 Mercury -43671-12-28 19:11 J -14229047.87 -14229047.70 -14229047.54 0.0147 0.0031
 Mercury -43670-03-27 01:40 J -14228959.60 -14228959.43 -14228959.26 0.0147 0.0002
 Mercury -43670-06-23 08:09 J -14228871.32 -14228871.16 -14228870.99 0.0147 0.0030
 Mercury -43670-09-19 14:52 J -14228783.03 -14228782.88 -14228782.72 0.0147 0.0060
 Mercury -43670-12-16 21:35 J -14228694.73 -14228694.60 -14228694.46 0.0147 0.0091
 Mercury -43669-03-14 04:18 J -14228606.40 -14228606.32 -14228606.22 0.0147 0.0122
 Moon -43669-03-24 15:21 J -14228595.91 -14228595.86 -14228595.76 0.0147 0.0140
 Earth -43669-03-24 18:42 J -14228595.81 -14228595.72 -14228595.60 0.0147 0.0133 *
 Earth -43668-03-29 23:30 J -14228225.77 -14228225.52 -14228225.27 0.0147 0.0013
 Moon -43668-03-30 02:52 J -14228225.64 -14228225.38 -14228225.12 0.0147 0.0014 *
 Venus -43662-12-25 00:28 J -14225764.53 -14225764.48 -14225764.38 0.0146 0.0137
 Venus -43661-08-07 14:38 J -14225538.01 -14225537.89 -14225537.77 0.0145 0.0120
 Venus -43660-03-22 04:04 J -14225311.48 -14225311.33 -14225311.17 0.0145 0.0103
 Venus -43660-11-03 17:45 J -14225084.93 -14225084.76 -14225084.58 0.0145 0.0086
 Venus -43659-06-18 06:57 J -14224858.39 -14224858.21 -14224858.00 0.0145 0.0070
 Venus -43658-01-30 20:38 J -14224631.84 -14224631.64 -14224631.42 0.0144 0.0052
 Mars -43658-03-31 05:02 J -14224572.54 -14224572.29 -14224572.00 0.0144 0.0068
 Venus -43658-09-14 10:04 J -14224405.28 -14224405.08 -14224404.85 0.0144 0.0035
 Venus -43657-04-27 23:45 J -14224178.73 -14224178.51 -14224178.29 0.0144 0.0017
 Venus -43657-12-10 12:57 J -14223952.18 -14223951.96 -14223951.74 0.0143 0.0001
 Venus -43656-07-25 02:09 J -14223725.63 -14223725.41 -14223725.19 0.0143 0.0017
 Venus -43655-03-08 15:21 J -14223499.07 -14223498.86 -14223498.64 0.0143 0.0034
 Venus -43655-10-21 04:18 J -14223272.52 -14223272.32 -14223272.10 0.0142 0.0051
 Venus -43654-06-04 17:16 J -14223045.97 -14223045.78 -14223045.58 0.0142 0.0067
 Venus -43653-01-17 05:59 J -14222819.43 -14222819.25 -14222819.06 0.0142 0.0083
 Venus -43653-08-30 18:28 J -14222592.88 -14222592.73 -14222592.56 0.0141 0.0099

Venus -43652-04-14 07:26 J -14222366.32 -14222366.19 -14222366.06 0.0141 0.0115
 Venus -43652-11-26 19:11 J -14222139.77 -14222139.70 -14222139.60 0.0141 0.0130
 Mercury -43630-05-12 08:09 J -14214303.22 -14214303.16 -14214303.09 0.0132 0.0117
 Mercury -43630-08-08 11:59 J -14214215.10 -14214215.00 -14214214.90 0.0132 0.0097
 Mercury -43630-11-04 15:35 J -14214126.96 -14214126.85 -14214126.72 0.0132 0.0079
 Mercury -43629-01-31 19:40 J -14214038.81 -14214038.68 -14214038.55 0.0132 0.0059
 Mercury -43629-04-28 23:30 J -14213950.66 -14213950.52 -14213950.38 0.0132 0.0039
 Mercury -43629-07-26 03:06 J -14213862.51 -14213862.37 -14213862.22 0.0132 0.0021
 Mercury -43629-10-22 06:57 J -14213774.36 -14213774.21 -14213774.06 0.0132 0.0001
 Mercury -43628-01-18 10:33 J -14213686.20 -14213686.06 -14213685.91 0.0132 0.0018
 Mercury -43628-04-16 14:23 J -14213598.04 -14213597.90 -14213597.76 0.0132 0.0036
 Mercury -43628-07-13 17:45 J -14213509.88 -14213509.76 -14213509.62 0.0132 0.0055
 Mercury -43628-10-09 21:35 J -14213421.72 -14213421.60 -14213421.48 0.0132 0.0073
 Mercury -43627-01-06 01:11 J -14213333.55 -14213333.45 -14213333.35 0.0132 0.0091
 Mercury -43627-04-04 04:33 J -14213245.38 -14213245.31 -14213245.22 0.0132 0.0110
 Mercury -43627-07-01 07:54 J -14213157.19 -14213157.17 -14213157.12 0.0132 0.0128
 Moon -43627-09-29 22:33 J -14213066.78 -14213066.56 -14213066.32 0.0132 0.0043
 Earth -43627-09-29 23:30 J -14213066.75 -14213066.52 -14213066.27 0.0132 0.0045 *
 Earth -43626-10-04 04:04 J -14212697.55 -14212697.33 -14212697.10 0.0132 0.0060
 Moon -43626-10-04 04:47 J -14212697.52 -14212697.30 -14212697.04 0.0132 0.0056 *
 Venus -43618-05-13 01:11 J -14209919.53 -14209919.45 -14209919.36 0.0133 0.0122
 Venus -43618-12-25 05:02 J -14209693.39 -14209693.29 -14209693.16 0.0133 0.0111
 Venus -43617-08-07 09:06 J -14209467.24 -14209467.12 -14209466.95 0.0133 0.0099
 Venus -43616-03-21 13:26 J -14209241.09 -14209240.94 -14209240.76 0.0134 0.0086
 Venus -43616-11-02 17:45 J -14209014.93 -14209014.76 -14209014.57 0.0134 0.0073
 Venus -43615-06-16 22:04 J -14208788.77 -14208788.58 -14208788.38 0.0134 0.0060
 Venus -43614-01-29 02:23 J -14208562.59 -14208562.40 -14208562.19 0.0134 0.0047
 Mars -43614-07-24 10:04 J -14208386.28 -14208386.08 -14208385.82 0.0134 0.0090
 Venus -43614-09-12 06:57 J -14208336.41 -14208336.21 -14208336.00 0.0135 0.0034
 Venus -43613-04-25 11:30 J -14208110.23 -14208110.02 -14208109.81 0.0135 0.0020

Venus	-43613-12-07 16:04 J	-14207884.04	-14207883.83	-14207883.62	0.0135	0.0007
Venus	-43612-07-21 20:38 J	-14207657.85	-14207657.64	-14207657.43	0.0135	0.0007
Venus	-43611-03-05 01:26 J	-14207431.65	-14207431.44	-14207431.23	0.0136	0.0020
Venus	-43611-10-17 06:14 J	-14207205.44	-14207205.24	-14207205.03	0.0136	0.0034
Venus	-43610-05-31 11:02 J	-14206979.23	-14206979.04	-14206978.83	0.0136	0.0048
Venus	-43609-01-12 16:04 J	-14206753.01	-14206752.83	-14206752.64	0.0136	0.0062
Venus	-43609-08-25 20:52 J	-14206526.79	-14206526.63	-14206526.44	0.0137	0.0076
Venus	-43608-04-09 02:09 J	-14206300.56	-14206300.41	-14206300.24	0.0137	0.0090
Venus	-43608-11-21 07:40 J	-14206074.31	-14206074.18	-14206074.04	0.0137	0.0103
Venus	-43607-07-05 13:11 J	-14205848.06	-14205847.95	-14205847.84	0.0138	0.0116
Venus	-43606-02-16 18:42 J	-14205621.79	-14205621.72	-14205621.65	0.0138	0.0129
Mercury	-43587-01-30 00:57 J	-14198699.50	-14198699.46	-14198699.40	0.0146	0.0138
Mercury	-43587-04-28 07:11 J	-14198611.30	-14198611.20	-14198611.08	0.0146	0.0110
Mercury	-43587-07-25 13:40 J	-14198523.06	-14198522.93	-14198522.78	0.0147	0.0081
Mercury	-43587-10-21 20:09 J	-14198434.81	-14198434.66	-14198434.50	0.0147	0.0051
Mercury	-43586-01-18 02:38 J	-14198346.55	-14198346.39	-14198346.22	0.0147	0.0022
Mercury	-43586-04-16 09:21 J	-14198258.28	-14198258.11	-14198257.94	0.0147	0.0009
Mercury	-43586-07-13 15:50 J	-14198170.00	-14198169.84	-14198169.67	0.0147	0.0039
Mercury	-43586-10-09 22:33 J	-14198081.71	-14198081.56	-14198081.41	0.0147	0.0069
Mercury	-43585-01-06 05:16 J	-14197993.40	-14197993.28	-14197993.15	0.0147	0.0100
Moon	-43585-03-25 03:21 J	-14197914.49	-14197914.36	-14197914.21	0.0147	0.0120
Earth	-43585-03-25 05:45 J	-14197914.37	-14197914.26	-14197914.11	0.0147	0.0126 *
Mercury	-43585-04-03 11:59 J	-14197905.07	-14197905.00	-14197904.92	0.0147	0.0131
Earth	-43584-03-30 10:47 J	-14197544.31	-14197544.05	-14197543.80	0.0147	0.0020
Moon	-43584-03-30 13:54 J	-14197544.17	-14197543.92	-14197543.65	0.0147	0.0019 *
Venus	-43578-08-24 06:14 J	-14195206.29	-14195206.24	-14195206.18	0.0146	0.0141
Venus	-43577-04-06 19:40 J	-14194979.78	-14194979.68	-14194979.56	0.0145	0.0125
Venus	-43577-11-19 09:06 J	-14194753.26	-14194753.12	-14194752.96	0.0145	0.0108
Venus	-43576-07-03 22:33 J	-14194526.72	-14194526.56	-14194526.38	0.0145	0.0092
Mars	-43576-12-21 05:59 J	-14194356.39	-14194356.25	-14194356.07	0.0145	0.0123

Venus	-43575-02-15 12:14 J	-14194300.17	-14194299.99	-14194299.79	0.0145	0.0075
Venus	-43575-09-30 01:54 J	-14194073.62	-14194073.42	-14194073.21	0.0144	0.0058
Venus	-43574-05-14 15:06 J	-14193847.07	-14193846.87	-14193846.64	0.0144	0.0042
Venus	-43574-12-27 04:33 J	-14193620.52	-14193620.31	-14193620.08	0.0144	0.0024
Venus	-43573-08-09 17:59 J	-14193393.97	-14193393.75	-14193393.52	0.0144	0.0007
Venus	-43572-03-24 07:26 J	-14193167.41	-14193167.19	-14193166.97	0.0143	0.0011
Venus	-43572-11-05 20:38 J	-14192940.86	-14192940.64	-14192940.42	0.0143	0.0027
Venus	-43571-06-20 09:21 J	-14192714.31	-14192714.11	-14192713.88	0.0143	0.0045
Venus	-43570-02-01 22:33 J	-14192487.76	-14192487.56	-14192487.35	0.0142	0.0061
Venus	-43570-09-16 11:16 J	-14192261.21	-14192261.03	-14192260.83	0.0142	0.0077
Venus	-43569-04-29 23:59 J	-14192034.66	-14192034.50	-14192034.32	0.0142	0.0093
Venus	-43569-12-12 12:28 J	-14191808.11	-14191807.98	-14191807.82	0.0141	0.0108
Venus	-43568-07-27 00:57 J	-14191581.56	-14191581.46	-14191581.35	0.0141	0.0123
Venus	-43567-03-10 13:26 J	-14191354.98	-14191354.94	-14191354.90	0.0141	0.0138
Mercury	-43546-03-05 11:16 J	-14183690.04	-14183690.03	-14183689.99	0.0132	0.0130
Mercury	-43546-06-01 15:21 J	-14183601.93	-14183601.86	-14183601.77	0.0132	0.0110
Mercury	-43546-08-28 19:11 J	-14183513.80	-14183513.70	-14183513.59	0.0132	0.0091
Mercury	-43546-11-24 23:16 J	-14183425.66	-14183425.53	-14183425.41	0.0132	0.0071
Mercury	-43545-02-21 02:52 J	-14183337.51	-14183337.38	-14183337.24	0.0132	0.0052
Mercury	-43545-05-19 06:42 J	-14183249.36	-14183249.22	-14183249.07	0.0132	0.0033
Mercury	-43545-08-15 10:33 J	-14183161.21	-14183161.06	-14183160.91	0.0132	0.0014
Mercury	-43545-11-11 14:23 J	-14183073.05	-14183072.90	-14183072.76	0.0132	0.0006
Mercury	-43544-02-07 17:59 J	-14182984.89	-14182984.75	-14182984.61	0.0132	0.0024
Mercury	-43544-05-06 21:35 J	-14182896.73	-14182896.60	-14182896.46	0.0132	0.0043
Mercury	-43544-08-03 01:11 J	-14182808.57	-14182808.45	-14182808.32	0.0132	0.0061
Mercury	-43544-10-30 04:47 J	-14182720.41	-14182720.30	-14182720.18	0.0132	0.0080
Mercury	-43543-01-26 08:23 J	-14182632.24	-14182632.15	-14182632.05	0.0132	0.0098
Mercury	-43543-04-24 11:59 J	-14182544.06	-14182544.00	-14182543.93	0.0132	0.0116
Moon	-43543-09-30 11:16 J	-14182385.26	-14182385.03	-14182384.78	0.0132	0.0038
Earth	-43543-09-30 11:30 J	-14182385.26	-14182385.02	-14182384.77	0.0132	0.0037 *

Earth	-43542-10-04 15:50 J	-14182016.04	-14182015.84	-14182015.61	0.0132	0.0067
Moon	-43542-10-04 16:18 J	-14182016.03	-14182015.82	-14182015.59	0.0132	0.0070 *
Venus	-43534-01-10 12:42 J	-14179361.03	-14179360.97	-14179360.88	0.0133	0.0125
Venus	-43534-08-24 17:02 J	-14179134.89	-14179134.79	-14179134.66	0.0133	0.0113
Venus	-43533-04-06 21:06 J	-14178908.74	-14178908.62	-14178908.46	0.0133	0.0101
Venus	-43533-11-19 01:26 J	-14178682.59	-14178682.44	-14178682.27	0.0134	0.0089
Venus	-43532-07-03 05:45 J	-14178456.43	-14178456.26	-14178456.08	0.0134	0.0076
Venus	-43531-02-14 10:04 J	-14178230.26	-14178230.08	-14178229.89	0.0134	0.0063
Mars	-43531-04-16 19:11 J	-14178168.97	-14178168.70	-14178168.42	0.0134	0.0061
Venus	-43531-09-28 14:23 J	-14178004.09	-14178003.90	-14178003.69	0.0134	0.0051
Venus	-43530-05-12 18:57 J	-14177777.91	-14177777.71	-14177777.50	0.0134	0.0037
Venus	-43530-12-24 23:30 J	-14177551.73	-14177551.52	-14177551.31	0.0135	0.0024
Venus	-43529-08-07 04:04 J	-14177325.55	-14177325.33	-14177325.12	0.0135	0.0011
Venus	-43528-03-21 08:38 J	-14177099.35	-14177099.14	-14177098.93	0.0135	0.0003
Venus	-43528-11-02 13:11 J	-14176873.16	-14176872.95	-14176872.73	0.0135	0.0017
Venus	-43527-06-16 17:59 J	-14176646.96	-14176646.75	-14176646.54	0.0136	0.0030
Venus	-43526-01-28 22:47 J	-14176420.75	-14176420.55	-14176420.35	0.0136	0.0043
Venus	-43526-09-12 03:35 J	-14176194.53	-14176194.35	-14176194.15	0.0136	0.0057
Venus	-43525-04-25 08:38 J	-14175968.31	-14175968.14	-14175967.95	0.0137	0.0071
Venus	-43525-12-07 13:40 J	-14175742.09	-14175741.93	-14175741.75	0.0137	0.0084
Venus	-43524-07-21 18:57 J	-14175515.85	-14175515.71	-14175515.56	0.0137	0.0098
Venus	-43523-03-05 00:14 J	-14175289.60	-14175289.49	-14175289.36	0.0138	0.0111
Venus	-43523-10-17 05:59 J	-14175063.33	-14175063.25	-14175063.16	0.0138	0.0124
Venus	-43522-05-31 11:30 J	-14174837.03	-14174837.02	-14174836.99	0.0138	0.0137
Mercury	-43503-02-19 08:52 J	-14167998.21	-14167998.13	-14167998.05	0.0146	0.0129
Mercury	-43503-05-18 14:52 J	-14167909.99	-14167909.88	-14167909.75	0.0146	0.0101
Mercury	-43503-08-14 21:35 J	-14167821.75	-14167821.60	-14167821.46	0.0146	0.0071
Mercury	-43503-11-11 03:50 J	-14167733.49	-14167733.34	-14167733.17	0.0146	0.0042
Mercury	-43502-02-07 10:33 J	-14167645.23	-14167645.06	-14167644.89	0.0147	0.0012
Mercury	-43502-05-06 17:02 J	-14167556.96	-14167556.79	-14167556.62	0.0147	0.0018

Mercury -43502-08-02 23:30 J -14167468.67 -14167468.52 -14167468.35 0.0147 0.0049
 Mercury -43502-10-30 06:14 J -14167380.38 -14167380.24 -14167380.09 0.0147 0.0079
 Mercury -43501-01-26 12:57 J -14167292.07 -14167291.96 -14167291.84 0.0147 0.0110
 Moon -43501-03-25 15:06 J -14167232.98 -14167232.87 -14167232.72 0.0147 0.0125
 Earth -43501-03-25 17:30 J -14167232.90 -14167232.77 -14167232.60 0.0147 0.0118 *
 Mercury -43501-04-23 19:40 J -14167203.72 -14167203.68 -14167203.62 0.0147 0.0141
 Earth -43500-03-30 22:18 J -14166862.82 -14166862.57 -14166862.32 0.0147 0.0028
 Moon -43500-03-31 01:11 J -14166862.71 -14166862.45 -14166862.20 0.0147 0.0030 *
 Venus -43494-04-23 12:14 J -14164648.00 -14164647.99 -14164647.96 0.0146 0.0145
 Venus -43494-12-06 01:26 J -14164421.52 -14164421.44 -14164421.32 0.0146 0.0130
 Venus -43493-07-19 15:06 J -14164194.99 -14164194.87 -14164194.72 0.0145 0.0113
 Venus -43492-03-03 05:02 J -14163968.45 -14163968.29 -14163968.12 0.0145 0.0097
 Venus -43492-10-15 18:28 J -14163741.91 -14163741.73 -14163741.54 0.0145 0.0080
 Venus -43491-05-30 08:09 J -14163515.36 -14163515.16 -14163514.96 0.0145 0.0063
 Mars -43491-08-16 19:54 J -14163436.97 -14163436.67 -14163436.36 0.0144 0.0015
 Venus -43490-01-11 21:21 J -14163288.81 -14163288.61 -14163288.39 0.0144 0.0047
 Venus -43490-08-26 11:02 J -14163062.26 -14163062.04 -14163061.82 0.0144 0.0029
 Venus -43489-04-09 00:28 J -14162835.70 -14162835.48 -14162835.26 0.0144 0.0012
 Venus -43489-11-21 13:54 J -14162609.15 -14162608.92 -14162608.70 0.0143 0.0005
 Venus -43488-07-06 02:52 J -14162382.59 -14162382.38 -14162382.15 0.0143 0.0022
 Venus -43487-02-17 16:04 J -14162156.04 -14162155.83 -14162155.61 0.0143 0.0039
 Jupiter -43487-07-31 19:54 J -14161992.02 -14161991.67 -14161991.25 0.0143 0.0100
 Venus -43487-10-02 05:16 J -14161929.49 -14161929.28 -14161929.07 0.0142 0.0055
 Venus -43486-05-16 17:59 J -14161702.94 -14161702.75 -14161702.55 0.0142 0.0071
 Venus -43486-12-29 06:42 J -14161476.39 -14161476.22 -14161476.04 0.0142 0.0087
 Venus -43485-08-11 19:11 J -14161249.84 -14161249.70 -14161249.54 0.0141 0.0103
 Venus -43484-03-26 07:54 J -14161023.29 -14161023.17 -14161023.04 0.0141 0.0117
 Venus -43484-11-07 20:09 J -14160796.73 -14160796.66 -14160796.58 0.0141 0.0132
 Mercury -43462-03-25 18:57 J -14152988.76 -14152988.71 -14152988.66 0.0132 0.0123
 Mercury -43462-06-21 22:33 J -14152900.64 -14152900.56 -14152900.45 0.0132 0.0104

Mercury -43462-09-18 02:38 J -14152812.50 -14152812.39 -14152812.27 0.0132 0.0084
 Mercury -43462-12-15 06:28 J -14152724.35 -14152724.23 -14152724.10 0.0132 0.0065
 Mercury -43461-03-12 10:18 J -14152636.20 -14152636.07 -14152635.93 0.0132 0.0046
 Mercury -43461-06-08 14:09 J -14152548.05 -14152547.91 -14152547.76 0.0132 0.0026
 Mercury -43461-09-04 17:59 J -14152459.90 -14152459.75 -14152459.60 0.0132 0.0007
 Mercury -43461-12-01 21:35 J -14152371.74 -14152371.60 -14152371.45 0.0132 0.0012
 Mercury -43460-02-28 01:26 J -14152283.58 -14152283.44 -14152283.30 0.0132 0.0030
 Mercury -43460-05-27 05:02 J -14152195.42 -14152195.29 -14152195.15 0.0132 0.0049
 Mercury -43460-08-23 08:38 J -14152107.26 -14152107.14 -14152107.01 0.0132 0.0068
 Moon -43460-09-26 17:59 J -14152072.76 -14152072.75 -14152072.72 0.0132 0.0131
 Mercury -43460-11-19 12:14 J -14152019.09 -14152018.99 -14152018.88 0.0132 0.0086
 Mercury -43459-02-15 16:04 J -14151930.92 -14151930.83 -14151930.75 0.0132 0.0104
 Mercury -43459-05-14 19:11 J -14151842.73 -14151842.70 -14151842.63 0.0132 0.0123
 Earth -43459-09-30 23:30 J -14151703.76 -14151703.52 -14151703.27 0.0132 0.0030
 Moon -43459-09-30 23:30 J -14151703.75 -14151703.52 -14151703.28 0.0132 0.0029 *
 Moon -43458-10-05 03:35 J -14151334.55 -14151334.35 -14151334.11 0.0132 0.0071
 Earth -43458-10-05 04:04 J -14151334.53 -14151334.33 -14151334.12 0.0132 0.0074 *
 Venus -43451-09-10 00:42 J -14148802.52 -14148802.47 -14148802.40 0.0133 0.0127
 Venus -43450-04-24 05:02 J -14148576.39 -14148576.29 -14148576.18 0.0133 0.0115
 Venus -43450-12-06 09:06 J -14148350.24 -14148350.12 -14148349.98 0.0133 0.0104
 Venus -43449-07-19 13:11 J -14148124.09 -14148123.95 -14148123.78 0.0133 0.0092
 Venus -43448-03-02 17:45 J -14147897.93 -14147897.76 -14147897.58 0.0134 0.0079
 Venus -43448-10-14 22:04 J -14147671.76 -14147671.58 -14147671.39 0.0134 0.0066
 Venus -43447-05-29 02:23 J -14147445.59 -14147445.40 -14147445.20 0.0134 0.0053
 Mars -43447-12-10 18:57 J -14147250.01 -14147249.71 -14147249.40 0.0134 0.0028
 Venus -43446-01-10 06:42 J -14147219.42 -14147219.22 -14147219.01 0.0134 0.0041
 Venus -43446-08-24 11:16 J -14146993.23 -14146993.03 -14146992.81 0.0135 0.0028
 Venus -43445-04-06 15:50 J -14146767.05 -14146766.84 -14146766.62 0.0135 0.0015
 Venus -43445-11-18 20:23 J -14146540.86 -14146540.65 -14146540.43 0.0135 0.0002
 Venus -43444-07-03 00:57 J -14146314.67 -14146314.46 -14146314.24 0.0135 0.0013

Venus	-43443-02-14 05:45 J	-14146088.47	-14146088.26	-14146088.05	0.0136	0.0026
Venus	-43443-09-28 10:33 J	-14145862.26	-14145862.06	-14145861.85	0.0136	0.0039
Venus	-43442-05-12 15:35 J	-14145636.05	-14145635.85	-14145635.66	0.0136	0.0053
Venus	-43442-12-24 20:23 J	-14145409.83	-14145409.65	-14145409.46	0.0136	0.0066
Venus	-43441-08-07 00:57 J	-14145183.61	-14145183.46	-14145183.27	0.0137	0.0080
Venus	-43440-03-21 06:14 J	-14144957.38	-14144957.24	-14144957.07	0.0137	0.0093
Venus	-43440-11-02 11:30 J	-14144731.14	-14144731.02	-14144730.87	0.0137	0.0106
Venus	-43439-06-16 17:16 J	-14144504.88	-14144504.78	-14144504.67	0.0138	0.0119
Venus	-43438-01-28 22:33 J	-14144278.61	-14144278.56	-14144278.49	0.0138	0.0132
Mercury	-43419-03-11 16:33 J	-14137296.91	-14137296.81	-14137296.72	0.0146	0.0120
Mercury	-43419-06-07 22:33 J	-14137208.68	-14137208.56	-14137208.42	0.0146	0.0091
Mercury	-43419-09-04 05:16 J	-14137120.44	-14137120.28	-14137120.13	0.0146	0.0062
Mercury	-43419-12-01 11:30 J	-14137032.18	-14137032.02	-14137031.85	0.0146	0.0033
Mercury	-43418-02-27 17:59 J	-14136943.91	-14136943.75	-14136943.58	0.0146	0.0005
Mercury	-43418-05-27 00:42 J	-14136855.64	-14136855.47	-14136855.31	0.0146	0.0027
Mercury	-43418-08-23 07:11 J	-14136767.35	-14136767.20	-14136767.04	0.0146	0.0058
Mercury	-43418-11-19 13:40 J	-14136679.05	-14136678.93	-14136678.78	0.0146	0.0089
Mercury	-43417-02-15 20:38 J	-14136590.74	-14136590.64	-14136590.54	0.0146	0.0119
Moon	-43417-03-26 03:06 J	-14136551.53	-14136551.37	-14136551.19	0.0146	0.0105
Earth	-43417-03-26 04:47 J	-14136551.45	-14136551.30	-14136551.12	0.0146	0.0111 *
Earth	-43416-03-31 09:21 J	-14136181.36	-14136181.11	-14136180.86	0.0147	0.0035
Moon	-43416-03-31 11:59 J	-14136181.25	-14136181.00	-14136180.74	0.0147	0.0033 *
Venus	-43410-08-05 06:57 J	-14133863.28	-14133863.21	-14133863.11	0.0146	0.0134
Venus	-43409-03-18 20:38 J	-14133636.76	-14133636.64	-14133636.50	0.0145	0.0118
Venus	-43409-10-31 10:18 J	-14133410.22	-14133410.07	-14133409.91	0.0145	0.0101
Venus	-43408-06-14 23:45 J	-14133183.68	-14133183.51	-14133183.32	0.0145	0.0085
Venus	-43407-01-27 13:26 J	-14132957.13	-14132956.94	-14132956.74	0.0145	0.0068
Venus	-43407-09-11 02:52 J	-14132730.58	-14132730.38	-14132730.17	0.0144	0.0051
Mars	-43406-04-12 08:38 J	-14132517.35	-14132517.14	-14132516.88	0.0144	0.0092
Venus	-43406-04-25 16:33 J	-14132504.03	-14132503.81	-14132503.60	0.0144	0.0034

Venus -43406-12-08 05:45 J -14132277.48 -14132277.26 -14132277.03 0.0144 0.0018
 Venus -43405-07-21 19:11 J -14132050.92 -14132050.70 -14132050.48 0.0144 0.0001
 Venus -43404-03-05 08:38 J -14131824.36 -14131824.14 -14131823.92 0.0143 0.0016
 Venus -43404-10-17 21:35 J -14131597.81 -14131597.60 -14131597.37 0.0143 0.0033
 Venus -43403-06-01 10:47 J -14131371.26 -14131371.05 -14131370.84 0.0143 0.0049
 Venus -43402-01-13 23:30 J -14131144.71 -14131144.52 -14131144.31 0.0142 0.0065
 Venus -43402-08-28 12:14 J -14130918.16 -14130917.99 -14130917.80 0.0142 0.0081
 Venus -43401-04-11 00:57 J -14130691.61 -14130691.46 -14130691.28 0.0142 0.0097
 Venus -43401-11-23 13:26 J -14130465.06 -14130464.94 -14130464.79 0.0141 0.0112
 Venus -43400-07-08 01:40 J -14130238.51 -14130238.43 -14130238.32 0.0141 0.0126
 Venus -43399-02-19 13:54 J -14130011.92 -14130011.92 -14130011.90 0.0141 0.0141
 Mercury -43378-04-15 02:09 J -14122287.47 -14122287.41 -14122287.34 0.0132 0.0117
 Mercury -43378-07-12 05:45 J -14122199.34 -14122199.26 -14122199.15 0.0132 0.0099
 Mercury -43378-10-08 09:50 J -14122111.20 -14122111.09 -14122110.96 0.0132 0.0078
 Mercury -43377-01-04 13:40 J -14122023.06 -14122022.93 -14122022.79 0.0132 0.0059
 Mercury -43377-04-01 17:30 J -14121934.91 -14121934.77 -14121934.62 0.0132 0.0040
 Mercury -43377-06-28 21:21 J -14121846.75 -14121846.61 -14121846.46 0.0132 0.0021
 Mercury -43377-09-25 01:11 J -14121758.60 -14121758.45 -14121758.30 0.0132 0.0001
 Mercury -43377-12-22 04:47 J -14121670.44 -14121670.30 -14121670.15 0.0132 0.0018
 Mercury -43376-03-20 08:38 J -14121582.28 -14121582.14 -14121582.00 0.0132 0.0036
 Mercury -43376-06-16 12:14 J -14121494.12 -14121493.99 -14121493.85 0.0132 0.0055
 Mercury -43376-09-12 15:50 J -14121405.95 -14121405.84 -14121405.71 0.0132 0.0074
 Moon -43376-09-27 04:47 J -14121391.32 -14121391.30 -14121391.24 0.0132 0.0130
 Earth -43376-09-27 05:30 J -14121391.32 -14121391.27 -14121391.20 0.0132 0.0128 *
 Mercury -43376-12-09 19:26 J -14121317.79 -14121317.69 -14121317.58 0.0132 0.0092
 Mercury -43375-03-07 23:02 J -14121229.61 -14121229.54 -14121229.45 0.0132 0.0110
 Mercury -43375-06-04 02:38 J -14121141.41 -14121141.39 -14121141.35 0.0132 0.0128
 Earth -43375-10-01 10:33 J -14121022.31 -14121022.06 -14121021.81 0.0132 0.0024
 Moon -43375-10-01 11:16 J -14121022.26 -14121022.03 -14121021.78 0.0132 0.0024 *
 Moon -43374-10-05 13:54 J -14120653.11 -14120652.92 -14120652.70 0.0132 0.0083

Earth	-43374-10-05 15:06 J	-14120653.07	-14120652.87	-14120652.67	0.0132	0.0080 *
Venus	-43367-05-10 11:59 J	-14118244.04	-14118244.00	-14118243.95	0.0133	0.0129
Venus	-43367-12-22 15:50 J	-14118017.92	-14118017.84	-14118017.72	0.0133	0.0118
Venus	-43366-08-05 20:23 J	-14117791.77	-14117791.65	-14117791.51	0.0133	0.0106
Venus	-43365-03-19 00:57 J	-14117565.61	-14117565.46	-14117565.31	0.0133	0.0094
Venus	-43365-10-31 05:02 J	-14117339.45	-14117339.29	-14117339.11	0.0134	0.0082
Venus	-43364-06-14 09:21 J	-14117113.29	-14117113.11	-14117112.92	0.0134	0.0069
Mars	-43364-09-02 23:02 J	-14117032.62	-14117032.54	-14117032.40	0.0134	0.0125
Venus	-43363-01-26 13:40 J	-14116887.11	-14116886.93	-14116886.73	0.0134	0.0057
Venus	-43363-09-09 18:14 J	-14116660.93	-14116660.74	-14116660.53	0.0134	0.0044
Venus	-43362-04-23 22:47 J	-14116434.75	-14116434.55	-14116434.34	0.0134	0.0031
Mars	-43362-08-05 18:14 J	-14116330.89	-14116330.74	-14116330.59	0.0135	0.0117
Venus	-43362-12-06 03:21 J	-14116208.57	-14116208.36	-14116208.15	0.0135	0.0018
Venus	-43361-07-19 07:54 J	-14115982.39	-14115982.17	-14115981.96	0.0135	0.0005
Venus	-43360-03-02 12:28 J	-14115756.19	-14115755.98	-14115755.77	0.0135	0.0009
Venus	-43360-10-14 17:16 J	-14115529.99	-14115529.78	-14115529.57	0.0135	0.0022
Venus	-43359-05-28 21:50 J	-14115303.79	-14115303.59	-14115303.38	0.0136	0.0035
Venus	-43358-01-10 02:38 J	-14115077.59	-14115077.39	-14115077.19	0.0136	0.0048
Venus	-43358-08-24 07:26 J	-14114851.38	-14114851.19	-14114851.00	0.0136	0.0062
Venus	-43357-04-06 12:14 J	-14114625.16	-14114624.99	-14114624.80	0.0137	0.0075
Venus	-43357-11-18 17:16 J	-14114398.93	-14114398.78	-14114398.61	0.0137	0.0088
Venus	-43356-07-02 22:18 J	-14114172.69	-14114172.57	-14114172.41	0.0137	0.0102
Venus	-43355-02-14 04:04 J	-14113946.45	-14113946.33	-14113946.21	0.0138	0.0114
Venus	-43355-09-28 09:21 J	-14113720.18	-14113720.11	-14113720.02	0.0138	0.0127
Mercury	-43335-01-02 17:16 J	-14106683.81	-14106683.78	-14106683.72	0.0146	0.0141
Mercury	-43335-03-31 23:45 J	-14106595.61	-14106595.51	-14106595.40	0.0146	0.0112
Mercury	-43335-06-28 06:14 J	-14106507.37	-14106507.24	-14106507.10	0.0146	0.0082
Mercury	-43335-09-24 12:28 J	-14106419.13	-14106418.98	-14106418.82	0.0146	0.0054
Mercury	-43335-12-21 18:57 J	-14106330.87	-14106330.71	-14106330.54	0.0146	0.0024
Mercury	-43334-03-20 01:40 J	-14106242.60	-14106242.43	-14106242.26	0.0146	0.0006

Mercury -43334-06-16 08:09 J -14106154.32 -14106154.16 -14106154.00 0.0146 0.0036

Mercury -43334-09-12 14:38 J -14106066.04 -14106065.89 -14106065.73 0.0146 0.0066

Mercury -43334-12-09 21:21 J -14105977.73 -14105977.61 -14105977.48 0.0146 0.0097

Mercury -43333-03-07 03:50 J -14105889.41 -14105889.34 -14105889.24 0.0146 0.0128

Moon -43333-03-26 14:09 J -14105870.05 -14105869.91 -14105869.74 0.0146 0.0111

Earth -43333-03-26 15:50 J -14105870.01 -14105869.84 -14105869.66 0.0146 0.0104 *

Earth -43332-03-31 19:54 J -14105499.91 -14105499.67 -14105499.42 0.0147 0.0041

Moon -43332-03-31 21:50 J -14105499.83 -14105499.59 -14105499.33 0.0147 0.0044 *

Venus -43326-04-04 12:28 J -14103305.03 -14103304.98 -14103304.89 0.0146 0.0138

Venus -43326-11-17 02:09 J -14103078.52 -14103078.41 -14103078.28 0.0145 0.0122

Venus -43325-06-30 15:50 J -14102851.99 -14102851.84 -14102851.69 0.0145 0.0106

Venus -43324-02-12 05:30 J -14102625.44 -14102625.27 -14102625.10 0.0145 0.0089

Venus -43324-09-26 18:57 J -14102398.89 -14102398.71 -14102398.51 0.0145 0.0073

Mars -43323-01-02 12:14 J -14102301.20 -14102300.99 -14102300.76 0.0145 0.0099

Venus -43323-05-11 08:23 J -14102172.34 -14102172.15 -14102171.94 0.0144 0.0057

Venus -43323-12-23 22:04 J -14101945.79 -14101945.58 -14101945.37 0.0144 0.0040

Venus -43322-08-07 11:30 J -14101719.24 -14101719.02 -14101718.80 0.0144 0.0023

Venus -43321-03-21 00:57 J -14101492.68 -14101492.46 -14101492.23 0.0144 0.0006

Venus -43321-11-02 14:23 J -14101266.12 -14101265.90 -14101265.68 0.0143 0.0011

Venus -43320-06-17 03:21 J -14101039.57 -14101039.36 -14101039.13 0.0143 0.0027

Venus -43319-01-29 16:33 J -14100813.02 -14100812.81 -14100812.59 0.0143 0.0043

Venus -43319-09-13 05:30 J -14100586.47 -14100586.27 -14100586.06 0.0142 0.0060

Venus -43318-04-27 18:28 J -14100359.91 -14100359.73 -14100359.54 0.0142 0.0075

Venus -43318-12-10 06:57 J -14100133.37 -14100133.21 -14100133.03 0.0142 0.0091

Venus -43317-07-23 19:40 J -14099906.82 -14099906.68 -14099906.53 0.0142 0.0106

Venus -43316-03-07 07:40 J -14099680.27 -14099680.18 -14099680.04 0.0141 0.0122

Venus -43316-10-19 20:09 J -14099453.71 -14099453.66 -14099453.58 0.0141 0.0135

Mercury -43294-02-06 05:16 J -14091674.28 -14091674.28 -14091674.25 0.0132 0.0131

Mercury -43294-05-05 09:21 J -14091586.18 -14091586.11 -14091586.02 0.0132 0.0111

Mercury -43294-08-01 13:26 J -14091498.05 -14091497.94 -14091497.83 0.0132 0.0092

Mercury -43294-10-28 17:16 J -14091409.90 -14091409.78 -14091409.65 0.0132 0.0072

Mercury -43293-01-24 21:06 J -14091321.75 -14091321.62 -14091321.48 0.0132 0.0053

Mercury -43293-04-22 00:57 J -14091233.60 -14091233.46 -14091233.32 0.0132 0.0033

Mercury -43293-07-19 04:47 J -14091145.45 -14091145.30 -14091145.15 0.0132 0.0014

Mercury -43293-10-15 08:23 J -14091057.29 -14091057.15 -14091057.00 0.0132 0.0006

Mercury -43292-01-11 12:14 J -14090969.13 -14090968.99 -14090968.85 0.0132 0.0024

Mercury -43292-04-09 15:50 J -14090880.97 -14090880.84 -14090880.70 0.0132 0.0043

Mercury -43292-07-06 19:26 J -14090792.81 -14090792.69 -14090792.55 0.0132 0.0061

Moon -43292-09-27 15:21 J -14090709.97 -14090709.86 -14090709.74 0.0132 0.0118

Earth -43292-09-27 16:47 J -14090709.88 -14090709.80 -14090709.69 0.0132 0.0122 *

Mercury -43292-10-02 23:16 J -14090704.64 -14090704.53 -14090704.41 0.0132 0.0079

Mercury -43292-12-30 02:38 J -14090616.47 -14090616.39 -14090616.28 0.0132 0.0098

Mercury -43291-03-28 06:28 J -14090528.29 -14090528.23 -14090528.16 0.0132 0.0116

Earth -43291-10-01 21:35 J -14090340.85 -14090340.60 -14090340.34 0.0132 0.0018

Moon -43291-10-01 22:47 J -14090340.79 -14090340.55 -14090340.31 0.0132 0.0018 *

Moon -43290-10-06 00:57 J -14089971.65 -14089971.46 -14089971.25 0.0132 0.0083

Earth -43290-10-06 02:23 J -14089971.59 -14089971.40 -14089971.21 0.0132 0.0086 *

Venus -43283-01-07 23:16 J -14087685.56 -14087685.53 -14087685.50 0.0133 0.0131

Venus -43283-08-22 03:21 J -14087459.44 -14087459.36 -14087459.26 0.0133 0.0120

Venus -43282-04-05 07:40 J -14087233.29 -14087233.18 -14087233.04 0.0133 0.0108

Venus -43282-11-17 11:59 J -14087007.14 -14087007.00 -14087006.84 0.0133 0.0096

Venus -43281-06-30 16:04 J -14086780.98 -14086780.83 -14086780.65 0.0133 0.0085

Venus -43280-02-11 20:38 J -14086554.81 -14086554.64 -14086554.45 0.0134 0.0072

Venus -43280-09-26 00:57 J -14086328.64 -14086328.46 -14086328.25 0.0134 0.0060

Mars -43279-04-28 23:02 J -14086113.82 -14086113.54 -14086113.22 0.0134 0.0037

Venus -43279-05-10 05:30 J -14086102.46 -14086102.27 -14086102.06 0.0134 0.0047

Venus -43279-12-22 09:50 J -14085876.29 -14085876.09 -14085875.87 0.0134 0.0035

Venus -43278-08-05 14:23 J -14085650.10 -14085649.90 -14085649.68 0.0134 0.0022

Venus -43277-03-18 18:57 J -14085423.92 -14085423.71 -14085423.49 0.0135 0.0009

Venus -43277-10-30 23:30 J -14085197.73 -14085197.52 -14085197.30 0.0135 0.0006

Venus	-43276-06-14 04:04 J	-14084971.54	-14084971.33	-14084971.11	0.0135	0.0018
Venus	-43275-01-26 08:38 J	-14084745.34	-14084745.14	-14084744.92	0.0136	0.0032
Venus	-43275-09-09 13:40 J	-14084519.13	-14084518.93	-14084518.73	0.0136	0.0044
Venus	-43274-04-23 18:28 J	-14084292.92	-14084292.73	-14084292.54	0.0136	0.0057
Venus	-43274-12-05 23:02 J	-14084066.71	-14084066.54	-14084066.34	0.0136	0.0071
Venus	-43273-07-19 04:04 J	-14083840.48	-14083840.33	-14083840.15	0.0137	0.0084
Venus	-43272-03-02 09:21 J	-14083614.25	-14083614.11	-14083613.95	0.0137	0.0097
Venus	-43272-10-14 14:38 J	-14083388.00	-14083387.89	-14083387.75	0.0137	0.0110
Venus	-43271-05-28 20:23 J	-14083161.75	-14083161.65	-14083161.56	0.0138	0.0122
Venus	-43270-01-10 01:26 J	-14082935.46	-14082935.44	-14082935.38	0.0138	0.0135
Mercury	-43251-01-23 00:42 J	-14075982.53	-14075982.47	-14075982.39	0.0146	0.0133
Mercury	-43251-04-21 07:11 J	-14075894.31	-14075894.20	-14075894.08	0.0146	0.0104
Mercury	-43251-07-18 13:40 J	-14075806.08	-14075805.93	-14075805.79	0.0146	0.0075
Mercury	-43251-10-14 19:54 J	-14075717.83	-14075717.67	-14075717.51	0.0146	0.0045
Mercury	-43250-01-11 02:23 J	-14075629.57	-14075629.40	-14075629.23	0.0146	0.0016
Mercury	-43250-04-09 08:52 J	-14075541.30	-14075541.13	-14075540.96	0.0146	0.0014
Mercury	-43250-07-06 15:21 J	-14075453.02	-14075452.86	-14075452.69	0.0146	0.0044
Mercury	-43250-10-02 22:04 J	-14075364.73	-14075364.58	-14075364.43	0.0146	0.0074
Mercury	-43250-12-30 04:33 J	-14075276.42	-14075276.31	-14075276.18	0.0146	0.0105
Moon	-43249-03-27 00:42 J	-14075188.65	-14075188.47	-14075188.27	0.0146	0.0092
Earth	-43249-03-27 01:26 J	-14075188.61	-14075188.44	-14075188.24	0.0146	0.0099 *
Mercury	-43249-03-27 11:02 J	-14075188.09	-14075188.04	-14075187.96	0.0146	0.0136
Earth	-43248-04-01 05:30 J	-14074818.50	-14074818.27	-14074818.02	0.0147	0.0046
Moon	-43248-04-01 07:40 J	-14074818.43	-14074818.18	-14074817.93	0.0147	0.0043 *
Venus	-43243-12-02 17:30 J	-14072746.81	-14072746.77	-14072746.72	0.0146	0.0142
Venus	-43242-07-17 06:42 J	-14072520.31	-14072520.22	-14072520.10	0.0145	0.0127
Venus	-43241-02-28 20:38 J	-14072293.78	-14072293.64	-14072293.49	0.0145	0.0110
Venus	-43241-10-12 10:18 J	-14072067.24	-14072067.07	-14072066.90	0.0145	0.0094
Venus	-43240-05-26 23:45 J	-14071840.69	-14071840.51	-14071840.32	0.0145	0.0078
Venus	-43239-01-08 13:11 J	-14071614.14	-14071613.95	-14071613.74	0.0145	0.0062

Venus -43239-08-23 02:38 J -14071387.59 -14071387.39 -14071387.17 0.0144 0.0045
 Mars -43239-08-28 22:18 J -14071381.87 -14071381.57 -14071381.26 0.0144 0.0005
 Venus -43238-04-06 16:18 J -14071161.04 -14071160.82 -14071160.60 0.0144 0.0028
 Venus -43238-11-19 05:45 J -14070934.48 -14070934.26 -14070934.04 0.0144 0.0012
 Venus -43237-07-02 18:57 J -14070707.93 -14070707.71 -14070707.49 0.0143 0.0005
 Venus -43236-02-14 08:09 J -14070481.37 -14070481.16 -14070480.93 0.0143 0.0022
 Venus -43236-09-28 21:21 J -14070254.82 -14070254.61 -14070254.39 0.0143 0.0038
 Venus -43235-05-13 10:18 J -14070028.27 -14070028.07 -14070027.86 0.0143 0.0054
 Venus -43235-12-25 23:02 J -14069801.72 -14069801.54 -14069801.34 0.0142 0.0070
 Venus -43234-08-09 11:45 J -14069575.18 -14069575.01 -14069574.82 0.0142 0.0085
 Venus -43233-03-23 00:28 J -14069348.63 -14069348.48 -14069348.31 0.0142 0.0100
 Venus -43233-11-04 12:57 J -14069122.08 -14069121.96 -14069121.82 0.0141 0.0115
 Venus -43232-06-19 00:57 J -14068895.53 -14068895.46 -14068895.35 0.0141 0.0130
 Mercury -43210-02-26 12:42 J -14060973.02 -14060972.97 -14060972.93 0.0132 0.0126
 Mercury -43210-05-25 16:18 J -14060884.90 -14060884.82 -14060884.72 0.0132 0.0106
 Mercury -43210-08-21 20:23 J -14060796.76 -14060796.65 -14060796.53 0.0132 0.0086
 Mercury -43210-11-18 00:14 J -14060708.61 -14060708.49 -14060708.36 0.0132 0.0067
 Mercury -43209-02-14 04:18 J -14060620.46 -14060620.32 -14060620.19 0.0132 0.0048
 Mercury -43209-05-12 07:54 J -14060532.31 -14060532.17 -14060532.02 0.0132 0.0029
 Mercury -43209-08-08 11:45 J -14060444.15 -14060444.01 -14060443.86 0.0132 0.0009
 Mercury -43209-11-04 15:35 J -14060356.00 -14060355.85 -14060355.70 0.0132 0.0010
 Mercury -43208-01-31 19:11 J -14060267.84 -14060267.70 -14060267.55 0.0132 0.0029
 Mercury -43208-04-29 23:02 J -14060179.68 -14060179.54 -14060179.41 0.0132 0.0047
 Mercury -43208-07-27 02:38 J -14060091.51 -14060091.39 -14060091.26 0.0132 0.0066
 Moon -43208-09-28 00:42 J -14060028.55 -14060028.47 -14060028.34 0.0132 0.0120
 Earth -43208-09-28 02:23 J -14060028.49 -14060028.40 -14060028.26 0.0132 0.0118 *
 Mercury -43208-10-23 05:59 J -14060003.35 -14060003.25 -14060003.13 0.0132 0.0085
 Mercury -43207-01-19 09:50 J -14059915.17 -14059915.09 -14059915.00 0.0132 0.0103
 Mercury -43207-04-17 13:26 J -14059826.99 -14059826.94 -14059826.88 0.0132 0.0121
 Earth -43207-10-02 07:26 J -14059659.43 -14059659.19 -14059658.93 0.0132 0.0013

Moon	-43207-10-02 09:21 J	-14059659.35	-14059659.11	-14059658.86	0.0132	0.0012	*
Moon	-43206-10-06 09:50 J	-14059290.26	-14059290.09	-14059289.89	0.0132	0.0093	
Earth	-43206-10-06 11:45 J	-14059290.17	-14059290.01	-14059289.81	0.0132	0.0092	*
Venus	-43199-04-21 14:23 J	-14056900.98	-14056900.90	-14056900.82	0.0133	0.0122	
Venus	-43199-12-03 18:14 J	-14056674.84	-14056674.74	-14056674.61	0.0133	0.0111	
Venus	-43198-07-17 22:33 J	-14056448.68	-14056448.56	-14056448.40	0.0133	0.0100	
Venus	-43197-02-29 02:52 J	-14056222.52	-14056222.38	-14056222.20	0.0133	0.0088	
Venus	-43197-10-12 07:40 J	-14055996.35	-14055996.18	-14055996.00	0.0134	0.0075	
Venus	-43196-05-26 11:45 J	-14055770.18	-14055770.01	-14055769.81	0.0134	0.0063	
Venus	-43195-01-07 16:18 J	-14055544.01	-14055543.82	-14055543.62	0.0134	0.0050	
Venus	-43195-08-21 20:52 J	-14055317.83	-14055317.63	-14055317.42	0.0134	0.0037	
Mars	-43195-12-22 20:23 J	-14055194.92	-14055194.65	-14055194.35	0.0134	0.0051	
Venus	-43194-04-05 01:26 J	-14055091.65	-14055091.44	-14055091.23	0.0134	0.0025	
Venus	-43194-11-17 05:45 J	-14054865.47	-14054865.26	-14054865.05	0.0135	0.0012	
Venus	-43193-06-30 10:18 J	-14054639.29	-14054639.07	-14054638.86	0.0135	0.0002	
Venus	-43192-02-11 14:38 J	-14054413.09	-14054412.89	-14054412.67	0.0135	0.0015	
Venus	-43192-09-25 19:26 J	-14054186.89	-14054186.69	-14054186.48	0.0135	0.0027	
Venus	-43191-05-10 00:14 J	-14053960.69	-14053960.49	-14053960.29	0.0136	0.0040	
Venus	-43191-12-22 04:47 J	-14053734.49	-14053734.30	-14053734.10	0.0136	0.0053	
Venus	-43190-08-05 09:35 J	-14053508.28	-14053508.10	-14053507.91	0.0136	0.0066	
Venus	-43189-03-18 14:38 J	-14053282.06	-14053281.89	-14053281.71	0.0137	0.0079	
Venus	-43189-10-30 19:40 J	-14053055.82	-14053055.68	-14053055.51	0.0137	0.0092	
Venus	-43188-06-14 01:11 J	-14052829.59	-14052829.45	-14052829.31	0.0137	0.0105	
Venus	-43187-01-26 06:14 J	-14052603.34	-14052603.24	-14052603.12	0.0137	0.0118	
Venus	-43187-09-09 11:59 J	-14052377.06	-14052377.00	-14052376.93	0.0138	0.0130	
Mercury	-43167-02-12 07:54 J	-14045281.24	-14045281.17	-14045281.07	0.0146	0.0125	
Mercury	-43167-05-11 14:23 J	-14045193.02	-14045192.90	-14045192.77	0.0146	0.0096	
Mercury	-43167-08-07 20:38 J	-14045104.78	-14045104.64	-14045104.49	0.0146	0.0068	
Mercury	-43167-11-04 03:06 J	-14045016.53	-14045016.37	-14045016.21	0.0146	0.0038	
Mercury	-43166-01-31 09:35 J	-14044928.27	-14044928.10	-14044927.93	0.0146	0.0009	

Mercury -43166-04-29 16:04 J -14044840.00 -14044839.83 -14044839.66 0.0146 0.0021
 Mercury -43166-07-26 22:33 J -14044751.72 -14044751.56 -14044751.40 0.0146 0.0051
 Mercury -43166-10-23 05:02 J -14044663.42 -14044663.29 -14044663.14 0.0146 0.0081
 Mercury -43165-01-19 11:45 J -14044575.11 -14044575.01 -14044574.90 0.0146 0.0112
 Moon -43165-03-27 10:47 J -14044507.23 -14044507.05 -14044506.87 0.0146 0.0101
 Earth -43165-03-27 10:47 J -14044507.23 -14044507.05 -14044506.84 0.0146 0.0094 *
 Mercury -43165-04-16 18:14 J -14044486.76 -14044486.74 -14044486.69 0.0146 0.0143
 Earth -43164-04-01 14:52 J -14044137.12 -14044136.88 -14044136.64 0.0147 0.0051
 Moon -43164-04-01 15:35 J -14044137.09 -14044136.85 -14044136.60 0.0147 0.0055 *
 Venus -43158-03-16 11:45 J -14041962.09 -14041962.01 -14041961.90 0.0146 0.0131
 Venus -43158-10-29 00:57 J -14041735.57 -14041735.46 -14041735.30 0.0145 0.0116
 Venus -43157-06-11 14:38 J -14041509.04 -14041508.89 -14041508.72 0.0145 0.0099
 Venus -43156-01-24 04:18 J -14041282.49 -14041282.32 -14041282.13 0.0145 0.0083
 Venus -43156-09-07 17:59 J -14041055.94 -14041055.75 -14041055.55 0.0145 0.0067
 Venus -43155-04-22 07:26 J -14040829.39 -14040829.19 -14040828.97 0.0144 0.0050
 Venus -43155-12-04 21:06 J -14040602.84 -14040602.62 -14040602.41 0.0144 0.0034
 Mars -43154-04-24 08:52 J -14040462.32 -14040462.13 -14040461.92 0.0144 0.0109
 Venus -43154-07-19 10:33 J -14040376.29 -14040376.06 -14040375.84 0.0144 0.0017
 Venus -43153-03-01 23:59 J -14040149.73 -14040149.50 -14040149.28 0.0144 0.0002
 Venus -43153-10-14 13:11 J -14039923.17 -14039922.95 -14039922.73 0.0143 0.0016
 Venus -43152-05-29 02:09 J -14039696.62 -14039696.41 -14039696.19 0.0143 0.0032
 Venus -43151-01-10 15:06 J -14039470.07 -14039469.87 -14039469.65 0.0143 0.0048
 Venus -43151-08-25 04:04 J -14039243.52 -14039243.33 -14039243.12 0.0142 0.0064
 Venus -43150-04-08 16:47 J -14039016.97 -14039016.80 -14039016.60 0.0142 0.0080
 Venus -43150-11-21 05:45 J -14038790.43 -14038790.26 -14038790.09 0.0142 0.0094
 Venus -43149-07-04 18:14 J -14038563.88 -14038563.74 -14038563.60 0.0142 0.0109
 Venus -43148-02-16 06:28 J -14038337.33 -14038337.23 -14038337.12 0.0141 0.0123
 Venus -43148-09-30 18:42 J -14038110.76 -14038110.72 -14038110.67 0.0141 0.0137
 Mercury -43126-03-18 19:26 J -14030271.73 -14030271.69 -14030271.61 0.0132 0.0121
 Mercury -43126-06-14 23:30 J -14030183.61 -14030183.52 -14030183.42 0.0132 0.0101

Mercury -43126-09-11 03:21 J -14030095.47 -14030095.36 -14030095.23 0.0132 0.0081

Mercury -43126-12-08 07:26 J -14030007.32 -14030007.19 -14030007.05 0.0132 0.0061

Mercury -43125-03-05 11:16 J -14029919.17 -14029919.03 -14029918.89 0.0132 0.0042

Mercury -43125-06-01 15:06 J -14029831.01 -14029830.87 -14029830.72 0.0132 0.0023

Mercury -43125-08-28 18:57 J -14029742.86 -14029742.71 -14029742.56 0.0132 0.0004

Mercury -43125-11-24 22:47 J -14029654.70 -14029654.55 -14029654.41 0.0132 0.0016

Mercury -43124-02-21 02:23 J -14029566.54 -14029566.40 -14029566.26 0.0132 0.0034

Mercury -43124-05-20 05:59 J -14029478.38 -14029478.25 -14029478.11 0.0132 0.0053

Mercury -43124-08-16 09:50 J -14029390.21 -14029390.09 -14029389.97 0.0132 0.0071

Moon -43124-09-28 10:18 J -14029347.20 -14029347.07 -14029346.90 0.0132 0.0107

Earth -43124-09-28 13:11 J -14029347.08 -14029346.95 -14029346.81 0.0132 0.0112 *

Mercury -43124-11-12 13:11 J -14029302.04 -14029301.95 -14029301.83 0.0132 0.0090

Mercury -43123-02-08 17:02 J -14029213.87 -14029213.79 -14029213.71 0.0132 0.0108

Mercury -43123-05-07 20:38 J -14029125.68 -14029125.64 -14029125.60 0.0132 0.0126

Earth -43123-10-02 17:59 J -14028978.01 -14028977.75 -14028977.50 0.0132 0.0007

Moon -43123-10-02 19:54 J -14028977.91 -14028977.67 -14028977.42 0.0132 0.0008 *

Moon -43122-10-06 19:40 J -14028608.83 -14028608.68 -14028608.47 0.0132 0.0096

Earth -43122-10-06 22:04 J -14028608.73 -14028608.58 -14028608.39 0.0132 0.0097 *

Venus -43116-12-20 00:28 J -14026342.53 -14026342.48 -14026342.39 0.0133 0.0125

Venus -43115-08-03 05:16 J -14026116.38 -14026116.28 -14026116.16 0.0133 0.0113

Venus -43114-03-17 09:50 J -14025890.23 -14025890.09 -14025889.95 0.0133 0.0102

Venus -43114-10-29 14:09 J -14025664.07 -14025663.91 -14025663.75 0.0133 0.0090

Venus -43113-06-11 18:14 J -14025437.91 -14025437.74 -14025437.56 0.0133 0.0078

Venus -43112-01-23 22:33 J -14025211.74 -14025211.56 -14025211.36 0.0134 0.0066

Venus -43112-09-07 03:21 J -14024985.56 -14024985.36 -14024985.17 0.0134 0.0053

Mars -43112-09-14 21:50 J -14024977.77 -14024977.59 -14024977.37 0.0134 0.0104

Venus -43111-04-21 07:26 J -14024759.38 -14024759.19 -14024758.98 0.0134 0.0041

Venus -43111-12-03 11:59 J -14024533.21 -14024533.00 -14024532.79 0.0134 0.0028

Venus -43110-07-17 16:18 J -14024307.03 -14024306.82 -14024306.60 0.0135 0.0016

Venus -43109-02-28 20:52 J -14024080.84 -14024080.63 -14024080.42 0.0135 0.0003

Venus	-43109-10-12 01:26 J	-14023854.65	-14023854.44	-14023854.22	0.0135	0.0010
Venus	-43108-05-26 05:59 J	-14023628.46	-14023628.25	-14023628.04	0.0135	0.0023
Venus	-43107-01-07 10:33 J	-14023402.26	-14023402.06	-14023401.85	0.0136	0.0036
Venus	-43107-08-21 15:21 J	-14023176.05	-14023175.86	-14023175.66	0.0136	0.0049
Venus	-43106-04-04 20:09 J	-14022949.84	-14022949.66	-14022949.46	0.0136	0.0062
Venus	-43106-11-17 00:57 J	-14022723.63	-14022723.46	-14022723.27	0.0136	0.0075
Venus	-43105-06-30 06:14 J	-14022497.40	-14022497.24	-14022497.08	0.0137	0.0087
Venus	-43104-02-11 11:02 J	-14022271.17	-14022271.04	-14022270.88	0.0137	0.0100
Venus	-43104-09-25 16:47 J	-14022044.92	-14022044.80	-14022044.68	0.0137	0.0113
Venus	-43103-05-09 21:50 J	-14021818.65	-14021818.59	-14021818.48	0.0138	0.0126
Venus	-43103-12-22 03:35 J	-14021592.35	-14021592.35	-14021592.33	0.0138	0.0138
Mercury	-43084-12-06 09:06 J	-14014668.13	-14014668.12	-14014668.10	0.0146	0.0146
Mercury	-43083-03-04 15:21 J	-14014579.95	-14014579.86	-14014579.76	0.0146	0.0117
Mercury	-43083-05-31 21:35 J	-14014491.73	-14014491.60	-14014491.46	0.0146	0.0089
Mercury	-43083-08-28 03:50 J	-14014403.49	-14014403.34	-14014403.18	0.0146	0.0060
Mercury	-43083-11-24 10:18 J	-14014315.23	-14014315.07	-14014314.91	0.0146	0.0031
Mercury	-43082-02-20 16:47 J	-14014226.97	-14014226.80	-14014226.63	0.0146	0.0002
Mercury	-43082-05-19 23:16 J	-14014138.70	-14014138.53	-14014138.37	0.0146	0.0029
Mercury	-43082-08-16 05:45 J	-14014050.41	-14014050.26	-14014050.10	0.0146	0.0058
Mercury	-43082-11-12 12:14 J	-14013962.12	-14013961.99	-14013961.85	0.0146	0.0089
Mercury	-43081-02-08 18:42 J	-14013873.81	-14013873.72	-14013873.61	0.0146	0.0119
Earth	-43081-03-27 20:09 J	-14013825.84	-14013825.66	-14013825.44	0.0146	0.0089
Moon	-43081-03-27 20:52 J	-14013825.83	-14013825.63	-14013825.42	0.0146	0.0081 *
Earth	-43080-04-01 23:59 J	-14013455.72	-14013455.50	-14013455.25	0.0146	0.0057
Moon	-43080-04-02 00:57 J	-14013455.70	-14013455.46	-14013455.21	0.0146	0.0052 *
Venus	-43075-11-13 16:33 J	-14011403.89	-14011403.81	-14011403.73	0.0146	0.0135
Venus	-43074-06-28 05:59 J	-14011177.37	-14011177.25	-14011177.12	0.0145	0.0120
Venus	-43073-02-09 19:26 J	-14010950.83	-14010950.69	-14010950.53	0.0145	0.0104
Venus	-43073-09-23 08:52 J	-14010724.29	-14010724.13	-14010723.94	0.0145	0.0088
Venus	-43072-05-07 22:33 J	-14010497.75	-14010497.56	-14010497.37	0.0145	0.0072

Venus -43072-12-20 11:59 J -14010271.20 -14010271.00 -14010270.80 0.0145 0.0056
 Mars -43071-01-14 10:04 J -14010246.31 -14010246.08 -14010245.81 0.0145 0.0083
 Venus -43071-08-04 01:26 J -14010044.65 -14010044.44 -14010044.23 0.0144 0.0039
 Venus -43070-03-18 14:52 J -14009818.10 -14009817.88 -14009817.66 0.0144 0.0023
 Venus -43070-10-31 04:18 J -14009591.55 -14009591.32 -14009591.10 0.0144 0.0007
 Venus -43069-06-13 17:30 J -14009365.00 -14009364.77 -14009364.55 0.0144 0.0010
 Venus -43068-01-26 06:28 J -14009138.45 -14009138.23 -14009138.01 0.0143 0.0026
 Venus -43068-09-09 19:26 J -14008911.90 -14008911.69 -14008911.47 0.0143 0.0042
 Venus -43067-04-24 08:23 J -14008685.35 -14008685.15 -14008684.94 0.0143 0.0058
 Venus -43067-12-06 21:21 J -14008458.80 -14008458.61 -14008458.42 0.0142 0.0073
 Venus -43066-07-21 09:35 J -14008232.26 -14008232.10 -14008231.91 0.0142 0.0088
 Venus -43065-03-03 22:18 J -14008005.71 -14008005.57 -14008005.40 0.0142 0.0103
 Venus -43065-10-16 10:33 J -14007779.16 -14007779.06 -14007778.91 0.0141 0.0118
 Venus -43064-05-30 23:02 J -14007552.61 -14007552.54 -14007552.45 0.0141 0.0131
 Mercury -43042-04-08 02:38 J -13999570.46 -13999570.39 -13999570.32 0.0132 0.0116
 Mercury -43042-07-05 06:14 J -13999482.33 -13999482.24 -13999482.12 0.0132 0.0097
 Mercury -43042-10-01 10:18 J -13999394.18 -13999394.07 -13999393.94 0.0132 0.0077
 Mercury -43042-12-28 14:09 J -13999306.03 -13999305.91 -13999305.77 0.0132 0.0057
 Mercury -43041-03-25 18:14 J -13999217.88 -13999217.74 -13999217.60 0.0132 0.0037
 Mercury -43041-06-21 22:04 J -13999129.73 -13999129.58 -13999129.43 0.0132 0.0018
 Mercury -43041-09-18 01:54 J -13999041.57 -13999041.42 -13999041.28 0.0132 0.0003
 Mercury -43041-12-15 05:30 J -13998953.41 -13998953.27 -13998953.12 0.0132 0.0020
 Mercury -43040-03-13 09:21 J -13998865.25 -13998865.11 -13998864.97 0.0132 0.0039
 Mercury -43040-06-09 12:57 J -13998777.09 -13998776.96 -13998776.83 0.0132 0.0057
 Mercury -43040-09-05 16:33 J -13998688.92 -13998688.81 -13998688.69 0.0132 0.0076
 Moon -43040-09-28 19:11 J -13998665.81 -13998665.70 -13998665.54 0.0132 0.0112
 Earth -43040-09-28 21:50 J -13998665.72 -13998665.59 -13998665.42 0.0132 0.0108 *
 Mercury -43040-12-02 20:09 J -13998600.75 -13998600.66 -13998600.55 0.0132 0.0095
 Mercury -43039-02-28 23:45 J -13998512.57 -13998512.51 -13998512.43 0.0132 0.0113
 Mercury -43039-05-28 03:21 J -13998424.37 -13998424.36 -13998424.34 0.0132 0.0131

Earth	-43039-10-03 03:06 J	-13998296.63	-13998296.37	-13998296.12	0.0132	0.0003
Moon	-43039-10-03 05:45 J	-13998296.51	-13998296.26	-13998296.01	0.0132	0.0002 *
Moon	-43038-10-07 04:18 J	-13997927.46	-13997927.32	-13997927.13	0.0132	0.0102
Earth	-43038-10-07 07:26 J	-13997927.34	-13997927.19	-13997927.02	0.0132	0.0102 *
Venus	-43032-08-19 11:16 J	-13995784.08	-13995784.03	-13995783.97	0.0133	0.0127
Venus	-43031-04-02 15:35 J	-13995557.94	-13995557.85	-13995557.74	0.0133	0.0116
Venus	-43031-11-14 20:09 J	-13995331.79	-13995331.66	-13995331.53	0.0133	0.0105
Venus	-43030-06-28 23:59 J	-13995105.63	-13995105.50	-13995105.33	0.0133	0.0094
Venus	-43029-02-10 04:33 J	-13994879.47	-13994879.31	-13994879.13	0.0133	0.0081
Venus	-43029-09-23 09:21 J	-13994653.30	-13994653.11	-13994652.93	0.0134	0.0069
Venus	-43028-05-07 13:26 J	-13994427.13	-13994426.94	-13994426.74	0.0134	0.0057
Venus	-43028-12-19 17:45 J	-13994200.95	-13994200.76	-13994200.55	0.0134	0.0045
Mars	-43027-05-10 18:28 J	-13994059.04	-13994058.73	-13994058.42	0.0134	0.0016
Venus	-43027-08-02 22:18 J	-13993974.78	-13993974.57	-13993974.36	0.0134	0.0032
Venus	-43026-03-17 02:38 J	-13993748.60	-13993748.39	-13993748.17	0.0134	0.0020
Venus	-43026-10-29 07:11 J	-13993522.41	-13993522.20	-13993521.99	0.0135	0.0007
Venus	-43025-06-11 11:45 J	-13993296.23	-13993296.01	-13993295.80	0.0135	0.0006
Venus	-43024-01-23 16:18 J	-13993070.03	-13993069.82	-13993069.61	0.0135	0.0018
Venus	-43024-09-06 20:52 J	-13992843.83	-13992843.63	-13992843.42	0.0135	0.0031
Venus	-43023-04-21 01:40 J	-13992617.63	-13992617.43	-13992617.23	0.0136	0.0044
Venus	-43023-12-03 06:14 J	-13992391.42	-13992391.24	-13992391.04	0.0136	0.0057
Venus	-43022-07-17 11:02 J	-13992165.21	-13992165.04	-13992164.85	0.0136	0.0070
Venus	-43021-02-28 16:04 J	-13991938.99	-13991938.83	-13991938.65	0.0137	0.0082
Venus	-43021-10-11 21:21 J	-13991712.75	-13991712.61	-13991712.45	0.0137	0.0095
Venus	-43020-05-26 02:52 J	-13991486.51	-13991486.38	-13991486.25	0.0137	0.0107
Venus	-43019-01-07 07:54 J	-13991260.26	-13991260.17	-13991260.05	0.0137	0.0120
Venus	-43019-08-21 13:26 J	-13991033.98	-13991033.94	-13991033.87	0.0138	0.0133

43RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 43rd millennium BCE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
TRANSIT								
TIME								
Mercury	-43000-12-26 16:18 J	-13983966.87	-13983966.82	-13983966.77	0.0146	0.0138		
Mercury	-42999-03-24 22:18 J	-13983878.67	-13983878.57	-13983878.45	0.0146	0.0111		
Mercury	-42999-06-21 04:47 J	-13983790.44	-13983790.30	-13983790.16	0.0146	0.0082		
Mercury	-42999-09-17 11:02 J	-13983702.19	-13983702.04	-13983701.88	0.0146	0.0053		
Mercury	-42999-12-14 17:30 J	-13983613.94	-13983613.77	-13983613.61	0.0146	0.0024		
Mercury	-42998-03-12 23:45 J	-13983525.67	-13983525.51	-13983525.34	0.0146	0.0006		
Mercury	-42998-06-09 06:14 J	-13983437.40	-13983437.24	-13983437.07	0.0146	0.0036		
Mercury	-42998-09-05 12:42 J	-13983349.12	-13983348.97	-13983348.81	0.0146	0.0066		
Mercury	-42998-12-02 19:26 J	-13983260.82	-13983260.69	-13983260.56	0.0146	0.0096		
Mercury	-42997-02-29 01:40 J	-13983172.50	-13983172.43	-13983172.33	0.0146	0.0127		
Earth	-42997-03-28 05:16 J	-13983144.47	-13983144.28	-13983144.05	0.0146	0.0084		
Moon	-42997-03-28 05:59 J	-13983144.42	-13983144.25	-13983144.04	0.0146	0.0092		*
Moon	-42996-04-02 08:52 J	-13982774.36	-13982774.13	-13982773.89	0.0146	0.0066		
Earth	-42996-04-02 09:21 J	-13982774.34	-13982774.11	-13982773.87	0.0146	0.0061		*
Venus	-42991-07-13 21:06 J	-13980845.66	-13980845.62	-13980845.54	0.0146	0.0140		
Venus	-42990-02-25 10:33 J	-13980619.15	-13980619.06	-13980618.93	0.0145	0.0125		
Venus	-42990-10-10 00:28 J	-13980392.62	-13980392.48	-13980392.33	0.0145	0.0109		
Venus	-42989-05-23 13:40 J	-13980166.09	-13980165.93	-13980165.75	0.0145	0.0093		
Venus	-42988-01-05 03:06 J	-13979939.55	-13979939.37	-13979939.17	0.0145	0.0077		
Venus	-42988-08-19 16:47 J	-13979713.00	-13979712.80	-13979712.60	0.0145	0.0061		
Venus	-42987-04-03 06:14 J	-13979486.45	-13979486.24	-13979486.03	0.0144	0.0045		

Mars	-42987-09-09 18:57 J	-13979327.01	-13979326.71	-13979326.41	0.0144	0.0022
Venus	-42987-11-15 19:40 J	-13979259.90	-13979259.68	-13979259.47	0.0144	0.0029
Venus	-42986-06-30 08:52 J	-13979033.35	-13979033.13	-13979032.91	0.0144	0.0012
Venus	-42985-02-11 22:04 J	-13978806.80	-13978806.58	-13978806.35	0.0144	0.0004
Venus	-42985-09-25 11:16 J	-13978580.25	-13978580.03	-13978579.81	0.0143	0.0020
Venus	-42984-05-10 00:14 J	-13978353.70	-13978353.49	-13978353.27	0.0143	0.0036
Venus	-42984-12-22 13:11 J	-13978127.16	-13978126.95	-13978126.74	0.0143	0.0051
Venus	-42983-08-06 01:54 J	-13977900.61	-13977900.42	-13977900.22	0.0143	0.0067
Venus	-42982-03-20 14:52 J	-13977674.06	-13977673.88	-13977673.70	0.0142	0.0082
Venus	-42982-11-02 03:06 J	-13977447.52	-13977447.37	-13977447.19	0.0142	0.0097
Venus	-42981-06-15 15:50 J	-13977220.97	-13977220.84	-13977220.70	0.0142	0.0111
Venus	-42980-01-28 03:50 J	-13976994.42	-13976994.34	-13976994.22	0.0141	0.0126
Venus	-42980-09-11 16:04 J	-13976767.84	-13976767.83	-13976767.78	0.0141	0.0139
Mercury	-42958-01-30 05:30 J	-13968957.29	-13968957.27	-13968957.24	0.0132	0.0131
Mercury	-42958-04-28 09:35 J	-13968869.18	-13968869.10	-13968869.02	0.0132	0.0111
Mercury	-42958-07-25 13:26 J	-13968781.04	-13968780.94	-13968780.83	0.0132	0.0091
Mercury	-42958-10-21 17:16 J	-13968692.90	-13968692.78	-13968692.65	0.0132	0.0072
Mercury	-42957-01-17 21:06 J	-13968604.75	-13968604.62	-13968604.48	0.0132	0.0053
Mercury	-42957-04-15 00:57 J	-13968516.60	-13968516.46	-13968516.31	0.0132	0.0033
Mercury	-42957-07-12 05:02 J	-13968428.44	-13968428.29	-13968428.15	0.0132	0.0014
Mercury	-42957-10-08 08:38 J	-13968340.28	-13968340.14	-13968339.99	0.0132	0.0007
Mercury	-42956-01-04 12:28 J	-13968252.12	-13968251.98	-13968251.83	0.0132	0.0025
Mercury	-42956-04-02 16:18 J	-13968163.96	-13968163.82	-13968163.68	0.0132	0.0043
Mercury	-42956-06-29 19:54 J	-13968075.80	-13968075.67	-13968075.54	0.0132	0.0062
Mercury	-42956-09-25 23:45 J	-13967987.63	-13967987.51	-13967987.40	0.0132	0.0081
Moon	-42956-09-29 04:18 J	-13967984.49	-13967984.32	-13967984.14	0.0132	0.0097
Earth	-42956-09-29 07:11 J	-13967984.33	-13967984.20	-13967984.01	0.0132	0.0104 *
Mercury	-42956-12-23 03:06 J	-13967899.46	-13967899.37	-13967899.27	0.0132	0.0099
Mercury	-42955-03-21 06:42 J	-13967811.28	-13967811.22	-13967811.15	0.0132	0.0118
Earth	-42955-10-03 12:28 J	-13967615.23	-13967614.98	-13967614.72	0.0132	0.0002

Moon	-42955-10-03 15:21 J	-13967615.11	-13967614.86	-13967614.61	0.0132	0.0002 *
Moon	-42954-10-07 13:40 J	-13967246.06	-13967245.93	-13967245.75	0.0132	0.0106
Earth	-42954-10-07 17:02 J	-13967245.93	-13967245.79	-13967245.63	0.0132	0.0106 *
Venus	-42948-04-18 21:21 J	-13965225.64	-13965225.61	-13965225.55	0.0133	0.0130
Venus	-42948-12-01 02:09 J	-13964999.50	-13964999.41	-13964999.31	0.0133	0.0118
Venus	-42947-07-15 06:14 J	-13964773.35	-13964773.24	-13964773.10	0.0133	0.0107
Venus	-42946-02-26 10:47 J	-13964547.19	-13964547.05	-13964546.89	0.0133	0.0096
Venus	-42946-10-10 15:21 J	-13964321.03	-13964320.86	-13964320.69	0.0133	0.0084
Venus	-42945-05-23 19:40 J	-13964094.86	-13964094.68	-13964094.50	0.0134	0.0072
Venus	-42944-01-04 23:59 J	-13963868.69	-13963868.50	-13963868.31	0.0134	0.0060
Venus	-42944-08-19 04:18 J	-13963642.52	-13963642.32	-13963642.12	0.0134	0.0048
Venus	-42943-04-02 08:38 J	-13963416.34	-13963416.14	-13963415.93	0.0134	0.0036
Venus	-42943-11-14 12:57 J	-13963190.16	-13963189.96	-13963189.74	0.0134	0.0024
Mars	-42942-01-03 14:38 J	-13963140.15	-13963139.89	-13963139.62	0.0134	0.0071
Venus	-42942-06-28 17:30 J	-13962963.98	-13962963.77	-13962963.56	0.0135	0.0011
Venus	-42941-02-09 22:04 J	-13962737.80	-13962737.58	-13962737.37	0.0135	0.0003
Venus	-42941-09-23 02:38 J	-13962511.60	-13962511.39	-13962511.18	0.0135	0.0014
Venus	-42940-05-07 07:11 J	-13962285.41	-13962285.20	-13962284.99	0.0135	0.0027
Venus	-42940-12-19 11:45 J	-13962059.21	-13962059.01	-13962058.80	0.0136	0.0040
Venus	-42939-08-02 16:33 J	-13961833.00	-13961832.81	-13961832.61	0.0136	0.0052
Venus	-42938-03-16 21:21 J	-13961606.79	-13961606.61	-13961606.42	0.0136	0.0065
Venus	-42938-10-29 02:23 J	-13961380.56	-13961380.40	-13961380.22	0.0136	0.0078
Venus	-42937-06-11 07:40 J	-13961154.34	-13961154.18	-13961154.02	0.0137	0.0090
Venus	-42936-01-23 12:28 J	-13960928.10	-13960927.98	-13960927.82	0.0137	0.0103
Venus	-42936-09-06 17:59 J	-13960701.85	-13960701.75	-13960701.62	0.0137	0.0115
Venus	-42935-04-20 23:30 J	-13960475.58	-13960475.52	-13960475.43	0.0138	0.0128
Mercury	-42915-01-15 23:30 J	-13953265.59	-13953265.52	-13953265.45	0.0146	0.0131
Mercury	-42915-04-14 05:30 J	-13953177.38	-13953177.27	-13953177.15	0.0146	0.0103
Mercury	-42915-07-11 11:59 J	-13953089.14	-13953089.00	-13953088.86	0.0146	0.0074
Mercury	-42915-10-07 18:14 J	-13953000.90	-13953000.74	-13953000.58	0.0146	0.0046

Mercury -42914-01-04 00:28 J -13952912.64 -13952912.48 -13952912.31 0.0146 0.0017

Mercury -42914-04-02 06:57 J -13952824.38 -13952824.21 -13952824.04 0.0146 0.0013

Mercury -42914-06-29 13:26 J -13952736.10 -13952735.94 -13952735.78 0.0146 0.0043

Mercury -42914-09-25 19:54 J -13952647.81 -13952647.67 -13952647.52 0.0146 0.0073

Mercury -42914-12-23 02:09 J -13952559.51 -13952559.41 -13952559.27 0.0146 0.0104

Mercury -42913-03-20 08:52 J -13952471.19 -13952471.13 -13952471.05 0.0146 0.0134

Earth -42913-03-28 14:38 J -13952463.08 -13952462.89 -13952462.66 0.0146 0.0079

Moon -42913-03-28 16:18 J -13952463.02 -13952462.82 -13952462.59 0.0146 0.0072 *

Moon -42912-04-02 18:14 J -13952092.97 -13952092.74 -13952092.50 0.0146 0.0061

Earth -42912-04-02 18:28 J -13952092.94 -13952092.73 -13952092.49 0.0146 0.0067 *

Venus -42907-03-13 02:38 J -13950287.42 -13950287.39 -13950287.35 0.0146 0.0143

Venus -42907-10-25 15:35 J -13950060.93 -13950060.85 -13950060.73 0.0146 0.0129

Venus -42906-06-09 05:02 J -13949834.41 -13949834.29 -13949834.14 0.0145 0.0114

Venus -42905-01-21 18:57 J -13949607.87 -13949607.71 -13949607.55 0.0145 0.0098

Venus -42905-09-04 08:09 J -13949381.33 -13949381.16 -13949380.97 0.0145 0.0082

Venus -42904-04-18 21:35 J -13949154.79 -13949154.60 -13949154.40 0.0145 0.0066

Venus -42904-12-01 10:47 J -13948928.25 -13948928.05 -13948927.83 0.0145 0.0050

Venus -42903-07-16 00:14 J -13948701.70 -13948701.49 -13948701.27 0.0144 0.0034

Venus -42902-02-27 13:40 J -13948475.15 -13948474.93 -13948474.71 0.0144 0.0018

Mars -42902-05-06 03:50 J -13948407.46 -13948407.34 -13948407.18 0.0144 0.0127

Venus -42902-10-12 02:52 J -13948248.60 -13948248.38 -13948248.16 0.0144 0.0002

Venus -42901-05-25 16:04 J -13948022.06 -13948021.83 -13948021.61 0.0144 0.0014

Venus -42900-01-07 05:02 J -13947795.51 -13947795.29 -13947795.08 0.0143 0.0030

Venus -42900-08-21 17:45 J -13947568.97 -13947568.76 -13947568.54 0.0143 0.0045

Venus -42899-04-05 06:42 J -13947342.42 -13947342.22 -13947342.01 0.0143 0.0061

Venus -42899-11-17 19:26 J -13947115.87 -13947115.69 -13947115.49 0.0142 0.0076

Venus -42898-07-02 08:09 J -13946889.33 -13946889.16 -13946888.99 0.0142 0.0090

Venus -42897-02-13 20:38 J -13946662.78 -13946662.64 -13946662.48 0.0142 0.0105

Venus -42897-09-27 08:52 J -13946436.23 -13946436.13 -13946436.00 0.0141 0.0119

Venus -42896-05-11 21:06 J -13946209.67 -13946209.62 -13946209.53 0.0141 0.0133

Mercury -42874-02-19 12:14 J -13938256.03 -13938255.99 -13938255.94 0.0132 0.0127
 Mercury -42874-05-18 16:04 J -13938167.91 -13938167.83 -13938167.73 0.0132 0.0107
 Mercury -42874-08-14 20:09 J -13938079.77 -13938079.66 -13938079.54 0.0132 0.0087
 Mercury -42874-11-11 00:14 J -13937991.62 -13937991.49 -13937991.37 0.0132 0.0068
 Mercury -42873-02-07 03:50 J -13937903.47 -13937903.34 -13937903.19 0.0132 0.0049
 Mercury -42873-05-05 07:40 J -13937815.32 -13937815.18 -13937815.03 0.0132 0.0030
 Mercury -42873-08-01 11:45 J -13937727.16 -13937727.01 -13937726.87 0.0132 0.0010
 Mercury -42873-10-28 15:21 J -13937639.00 -13937638.86 -13937638.71 0.0132 0.0010
 Mercury -42872-01-24 19:11 J -13937550.84 -13937550.70 -13937550.55 0.0132 0.0028
 Mercury -42872-04-22 22:47 J -13937462.68 -13937462.55 -13937462.41 0.0132 0.0048
 Mercury -42872-07-20 02:23 J -13937374.51 -13937374.40 -13937374.26 0.0132 0.0067
 Moon -42872-09-29 12:28 J -13937303.12 -13937302.98 -13937302.80 0.0132 0.0104
 Earth -42872-09-29 15:50 J -13937302.99 -13937302.84 -13937302.66 0.0132 0.0099 *
 Mercury -42872-10-16 06:14 J -13937286.35 -13937286.24 -13937286.12 0.0132 0.0084
 Mercury -42871-01-12 09:50 J -13937198.17 -13937198.09 -13937197.99 0.0132 0.0103
 Mercury -42871-04-10 13:26 J -13937109.99 -13937109.94 -13937109.88 0.0132 0.0121
 Earth -42871-10-03 21:06 J -13936933.88 -13936933.62 -13936933.37 0.0132 0.0005
 Moon -42871-10-04 00:28 J -13936933.73 -13936933.48 -13936933.23 0.0132 0.0008 *
 Moon -42870-10-07 22:04 J -13936564.70 -13936564.58 -13936564.42 0.0132 0.0110
 Earth -42870-10-08 01:26 J -13936564.56 -13936564.44 -13936564.28 0.0132 0.0110 *
 Venus -42865-12-17 07:11 J -13934667.21 -13934667.20 -13934667.16 0.0133 0.0132
 Venus -42864-07-31 11:45 J -13934441.08 -13934441.01 -13934440.91 0.0133 0.0121
 Venus -42863-03-14 16:04 J -13934214.93 -13934214.83 -13934214.69 0.0133 0.0110
 Venus -42863-10-26 20:38 J -13933988.77 -13933988.64 -13933988.49 0.0133 0.0098
 Venus -42862-06-10 00:42 J -13933762.61 -13933762.47 -13933762.29 0.0133 0.0088
 Venus -42861-01-22 05:16 J -13933536.45 -13933536.28 -13933536.09 0.0133 0.0075
 Venus -42861-09-04 09:50 J -13933310.27 -13933310.09 -13933309.89 0.0134 0.0064
 Venus -42860-04-18 14:09 J -13933084.10 -13933083.91 -13933083.70 0.0134 0.0052
 Mars -42860-09-26 11:59 J -13932923.22 -13932923.00 -13932922.73 0.0134 0.0086
 Venus -42860-11-30 18:42 J -13932857.93 -13932857.72 -13932857.52 0.0134 0.0039

Venus	-42859-07-14 23:02 J	-13932631.75	-13932631.54	-13932631.33	0.0134	0.0027
Venus	-42858-02-26 03:21 J	-13932405.57	-13932405.36	-13932405.14	0.0134	0.0015
Venus	-42858-10-10 08:09 J	-13932179.38	-13932179.16	-13932178.95	0.0135	0.0003
Venus	-42857-05-23 12:28 J	-13931953.19	-13931952.98	-13931952.76	0.0135	0.0010
Venus	-42856-01-04 17:16 J	-13931726.99	-13931726.78	-13931726.57	0.0135	0.0023
Venus	-42856-08-18 21:35 J	-13931500.79	-13931500.60	-13931500.38	0.0135	0.0036
Venus	-42855-04-02 02:23 J	-13931274.59	-13931274.40	-13931274.19	0.0136	0.0048
Venus	-42855-11-14 07:26 J	-13931048.38	-13931048.19	-13931048.00	0.0136	0.0060
Venus	-42854-06-28 12:28 J	-13930822.16	-13930821.98	-13930821.80	0.0136	0.0073
Venus	-42853-02-09 17:16 J	-13930595.93	-13930595.78	-13930595.60	0.0137	0.0085
Venus	-42853-09-22 22:33 J	-13930369.69	-13930369.56	-13930369.40	0.0137	0.0098
Venus	-42852-05-07 03:50 J	-13930143.45	-13930143.34	-13930143.20	0.0137	0.0110
Venus	-42852-12-19 09:06 J	-13929917.19	-13929917.12	-13929917.01	0.0137	0.0123
Venus	-42851-08-02 15:06 J	-13929690.91	-13929690.87	-13929690.83	0.0138	0.0134
Mercury	-42831-02-05 06:14 J	-13922564.31	-13922564.24	-13922564.14	0.0146	0.0125
Mercury	-42831-05-04 12:28 J	-13922476.09	-13922475.98	-13922475.85	0.0146	0.0097
Mercury	-42831-07-31 18:42 J	-13922387.86	-13922387.72	-13922387.57	0.0146	0.0068
Mercury	-42831-10-28 01:11 J	-13922299.61	-13922299.45	-13922299.29	0.0146	0.0039
Mercury	-42830-01-24 07:26 J	-13922211.35	-13922211.19	-13922211.02	0.0146	0.0011
Mercury	-42830-04-22 13:54 J	-13922123.09	-13922122.92	-13922122.75	0.0146	0.0019
Mercury	-42830-07-19 20:09 J	-13922034.81	-13922034.66	-13922034.49	0.0146	0.0050
Mercury	-42830-10-16 02:38 J	-13921946.52	-13921946.39	-13921946.24	0.0146	0.0080
Mercury	-42829-01-12 09:21 J	-13921858.22	-13921858.11	-13921857.99	0.0146	0.0109
Earth	-42829-03-28 23:30 J	-13921781.72	-13921781.52	-13921781.28	0.0146	0.0075
Moon	-42829-03-29 01:26 J	-13921781.63	-13921781.44	-13921781.22	0.0146	0.0082 *
Mercury	-42829-04-09 16:04 J	-13921769.88	-13921769.83	-13921769.78	0.0146	0.0140
Moon	-42828-04-03 01:40 J	-13921411.64	-13921411.43	-13921411.19	0.0146	0.0076
Earth	-42828-04-03 03:21 J	-13921411.57	-13921411.36	-13921411.12	0.0146	0.0070 *
Venus	-42823-06-24 20:38 J	-13919502.72	-13919502.64	-13919502.54	0.0146	0.0132
Venus	-42822-02-06 09:50 J	-13919276.20	-13919276.09	-13919275.94	0.0145	0.0118

Venus	-42822-09-20 23:16 J	-13919049.67	-13919049.53	-13919049.36	0.0145	0.0102
Venus	-42821-05-04 12:57 J	-13918823.14	-13918822.96	-13918822.78	0.0145	0.0086
Venus	-42821-12-17 01:54 J	-13918596.60	-13918596.42	-13918596.21	0.0145	0.0071
Venus	-42820-07-31 15:35 J	-13918370.05	-13918369.85	-13918369.65	0.0145	0.0055
Mars	-42819-01-26 08:09 J	-13918191.41	-13918191.16	-13918190.88	0.0145	0.0066
Venus	-42819-03-15 04:47 J	-13918143.50	-13918143.30	-13918143.08	0.0144	0.0040
Venus	-42819-10-27 18:14 J	-13917916.96	-13917916.74	-13917916.52	0.0144	0.0023
Venus	-42818-06-11 07:26 J	-13917690.41	-13917690.19	-13917689.97	0.0144	0.0007
Venus	-42817-01-23 20:38 J	-13917463.86	-13917463.64	-13917463.42	0.0144	0.0009
Venus	-42817-09-06 09:35 J	-13917237.32	-13917237.10	-13917236.88	0.0143	0.0024
Venus	-42816-04-20 22:33 J	-13917010.77	-13917010.56	-13917010.34	0.0143	0.0040
Venus	-42816-12-03 11:30 J	-13916784.22	-13916784.02	-13916783.81	0.0143	0.0055
Venus	-42815-07-18 00:28 J	-13916557.68	-13916557.48	-13916557.29	0.0143	0.0070
Venus	-42814-03-01 12:57 J	-13916331.13	-13916330.96	-13916330.77	0.0142	0.0085
Venus	-42814-10-14 01:54 J	-13916104.58	-13916104.42	-13916104.26	0.0142	0.0099
Venus	-42813-05-27 14:09 J	-13915878.03	-13915877.91	-13915877.77	0.0142	0.0114
Venus	-42812-01-09 02:23 J	-13915651.48	-13915651.40	-13915651.29	0.0141	0.0128
Venus	-42812-08-23 14:52 J	-13915424.88	-13915424.88	-13915424.87	0.0141	0.0141
Mercury	-42790-03-11 18:57 J	-13907554.75	-13907554.71	-13907554.64	0.0132	0.0123
Mercury	-42790-06-07 23:02 J	-13907466.63	-13907466.54	-13907466.44	0.0132	0.0103
Mercury	-42790-09-04 02:52 J	-13907378.49	-13907378.38	-13907378.25	0.0132	0.0083
Mercury	-42790-12-01 06:57 J	-13907290.34	-13907290.21	-13907290.08	0.0132	0.0063
Mercury	-42789-02-27 10:47 J	-13907202.19	-13907202.05	-13907201.91	0.0132	0.0044
Mercury	-42789-05-25 14:38 J	-13907114.03	-13907113.89	-13907113.74	0.0132	0.0025
Mercury	-42789-08-21 18:28 J	-13907025.87	-13907025.73	-13907025.58	0.0132	0.0006
Mercury	-42789-11-17 22:18 J	-13906937.72	-13906937.57	-13906937.42	0.0132	0.0014
Mercury	-42788-02-14 02:09 J	-13906849.55	-13906849.41	-13906849.27	0.0132	0.0033
Mercury	-42788-05-13 05:45 J	-13906761.39	-13906761.26	-13906761.12	0.0132	0.0052
Mercury	-42788-08-09 09:21 J	-13906673.22	-13906673.11	-13906672.98	0.0132	0.0071
Moon	-42788-09-29 21:21 J	-13906621.79	-13906621.61	-13906621.41	0.0132	0.0090

Earth -42788-09-30 01:11 J -13906621.62 -13906621.45 -13906621.27 0.0132 0.0095 *
 Mercury -42788-11-05 13:11 J -13906585.05 -13906584.95 -13906584.84 0.0132 0.0089
 Mercury -42787-02-01 16:47 J -13906496.88 -13906496.80 -13906496.71 0.0132 0.0107
 Mercury -42787-04-30 20:23 J -13906408.69 -13906408.65 -13906408.60 0.0132 0.0126
 Earth -42787-10-04 06:14 J -13906252.50 -13906252.24 -13906251.99 0.0132 0.0009
 Moon -42787-10-04 09:35 J -13906252.35 -13906252.10 -13906251.85 0.0132 0.0007 *
 Moon -42786-10-08 07:11 J -13905883.32 -13905883.20 -13905883.06 0.0132 0.0114
 Earth -42786-10-08 10:33 J -13905883.17 -13905883.06 -13905882.91 0.0132 0.0114 *
 Saturn -42785-10-28 18:28 J -13905497.04 -13905496.73 -13905496.35 0.0132 0.0112
 Venus -42780-03-30 21:50 J -13903882.66 -13903882.59 -13903882.50 0.0133 0.0123
 Venus -42780-11-12 02:09 J -13903656.51 -13903656.41 -13903656.29 0.0133 0.0112
 Venus -42779-06-26 06:28 J -13903430.36 -13903430.23 -13903430.08 0.0133 0.0101
 Venus -42778-02-07 11:02 J -13903204.19 -13903204.04 -13903203.88 0.0133 0.0089
 Venus -42778-09-21 15:35 J -13902978.02 -13902977.85 -13902977.68 0.0133 0.0078
 Venus -42777-05-04 19:40 J -13902751.85 -13902751.68 -13902751.48 0.0134 0.0067
 Venus -42777-12-16 23:59 J -13902525.68 -13902525.50 -13902525.29 0.0134 0.0055
 Venus -42776-07-31 04:18 J -13902299.51 -13902299.32 -13902299.10 0.0134 0.0043
 Venus -42775-03-14 09:06 J -13902073.33 -13902073.12 -13902072.91 0.0134 0.0030
 Mars -42775-05-22 08:38 J -13902004.45 -13902004.14 -13902003.82 0.0134 0.0002
 Venus -42775-10-26 13:26 J -13901847.15 -13901846.94 -13901846.73 0.0134 0.0018
 Venus -42774-06-09 17:59 J -13901620.97 -13901620.75 -13901620.54 0.0135 0.0006
 Venus -42773-01-21 22:33 J -13901394.78 -13901394.56 -13901394.35 0.0135 0.0007
 Venus -42773-09-04 03:06 J -13901168.58 -13901168.37 -13901168.16 0.0135 0.0019
 Venus -42772-04-18 07:40 J -13900942.38 -13900942.18 -13900941.96 0.0135 0.0031
 Venus -42772-11-30 12:28 J -13900716.18 -13900715.98 -13900715.77 0.0136 0.0044
 Venus -42771-07-14 17:16 J -13900489.97 -13900489.78 -13900489.58 0.0136 0.0056
 Venus -42770-02-25 22:18 J -13900263.75 -13900263.57 -13900263.38 0.0136 0.0068
 Venus -42770-10-10 03:35 J -13900037.52 -13900037.35 -13900037.18 0.0136 0.0081
 Venus -42769-05-23 08:23 J -13899811.29 -13899811.15 -13899810.98 0.0137 0.0094
 Venus -42768-01-04 13:54 J -13899585.05 -13899584.92 -13899584.78 0.0137 0.0105

Venus -42768-08-18 19:11 J -13899358.80 -13899358.70 -13899358.59 0.0137 0.0118
 Venus -42767-04-02 00:28 J -13899132.53 -13899132.48 -13899132.40 0.0138 0.0130
 Mercury -42747-02-25 13:11 J -13891863.03 -13891862.95 -13891862.84 0.0146 0.0119
 Mercury -42747-05-24 19:40 J -13891774.81 -13891774.68 -13891774.55 0.0146 0.0090
 Mercury -42747-08-21 01:40 J -13891686.57 -13891686.43 -13891686.27 0.0146 0.0062
 Mercury -42747-11-17 08:09 J -13891598.32 -13891598.16 -13891598.00 0.0146 0.0033
 Mercury -42746-02-13 14:23 J -13891510.06 -13891509.90 -13891509.73 0.0146 0.0005
 Mercury -42746-05-12 20:52 J -13891421.79 -13891421.63 -13891421.46 0.0146 0.0026
 Mercury -42746-08-09 03:21 J -13891333.52 -13891333.36 -13891333.20 0.0146 0.0056
 Mercury -42746-11-05 09:50 J -13891245.23 -13891245.09 -13891244.95 0.0146 0.0086
 Mercury -42745-02-01 16:04 J -13891156.92 -13891156.83 -13891156.71 0.0146 0.0117
 Earth -42745-03-29 08:38 J -13891100.36 -13891100.14 -13891099.91 0.0146 0.0070
 Moon -42745-03-29 11:16 J -13891100.25 -13891100.03 -13891099.80 0.0146 0.0062 *
 Mercury -42745-04-29 23:02 J -13891068.54 -13891068.54 -13891068.54 0.0146 0.0146
 Moon -42744-04-03 10:33 J -13890730.28 -13890730.06 -13890729.82 0.0146 0.0068
 Earth -42744-04-03 12:14 J -13890730.20 -13890729.99 -13890729.76 0.0146 0.0075 *
 Venus -42739-02-22 01:26 J -13888944.51 -13888944.44 -13888944.36 0.0146 0.0136
 Venus -42739-10-06 14:38 J -13888718.00 -13888717.89 -13888717.76 0.0145 0.0121
 Venus -42738-05-21 03:50 J -13888491.47 -13888491.34 -13888491.18 0.0145 0.0107
 Venus -42737-01-02 17:02 J -13888264.94 -13888264.79 -13888264.60 0.0145 0.0092
 Venus -42737-08-16 06:28 J -13888038.41 -13888038.23 -13888038.03 0.0145 0.0076
 Venus -42736-03-30 19:54 J -13887811.86 -13887811.67 -13887811.46 0.0145 0.0060
 Venus -42736-11-12 09:06 J -13887585.32 -13887585.12 -13887584.90 0.0145 0.0045
 Venus -42735-06-26 22:33 J -13887358.78 -13887358.56 -13887358.34 0.0144 0.0029
 Mars -42735-09-21 16:18 J -13887272.10 -13887271.82 -13887271.52 0.0144 0.0037
 Venus -42734-02-08 11:45 J -13887132.23 -13887132.01 -13887131.79 0.0144 0.0013
 Venus -42734-09-23 00:57 J -13886905.68 -13886905.46 -13886905.24 0.0144 0.0003
 Venus -42733-05-06 13:54 J -13886679.14 -13886678.92 -13886678.69 0.0144 0.0019
 Venus -42733-12-19 02:52 J -13886452.59 -13886452.38 -13886452.16 0.0143 0.0034
 Venus -42732-08-02 15:50 J -13886226.05 -13886225.84 -13886225.63 0.0143 0.0049

Venus -42731-03-17 04:33 J -13885999.49 -13885999.31 -13885999.09 0.0143 0.0065
 Venus -42731-10-29 17:30 J -13885772.94 -13885772.77 -13885772.57 0.0142 0.0079
 Venus -42730-06-13 05:59 J -13885546.40 -13885546.25 -13885546.06 0.0142 0.0094
 Venus -42729-01-25 18:42 J -13885319.85 -13885319.72 -13885319.57 0.0142 0.0108
 Venus -42729-09-08 07:11 J -13885093.30 -13885093.20 -13885093.08 0.0141 0.0122
 Venus -42728-04-22 19:40 J -13884866.73 -13884866.68 -13884866.61 0.0141 0.0135
 Mercury -42706-04-01 01:54 J -13876853.49 -13876853.42 -13876853.36 0.0132 0.0119
 Mercury -42706-06-28 05:30 J -13876765.35 -13876765.27 -13876765.16 0.0132 0.0100
 Mercury -42706-09-24 09:35 J -13876677.21 -13876677.10 -13876676.97 0.0132 0.0080
 Mercury -42706-12-21 13:40 J -13876589.06 -13876588.93 -13876588.80 0.0132 0.0060
 Mercury -42705-03-18 17:30 J -13876500.91 -13876500.77 -13876500.63 0.0132 0.0040
 Mercury -42705-06-14 21:21 J -13876412.75 -13876412.61 -13876412.46 0.0132 0.0021
 Mercury -42705-09-11 01:11 J -13876324.60 -13876324.45 -13876324.30 0.0132 0.0002
 Mercury -42705-12-08 05:02 J -13876236.44 -13876236.29 -13876236.14 0.0132 0.0017
 Mercury -42704-03-06 08:38 J -13876148.27 -13876148.14 -13876147.99 0.0132 0.0037
 Mercury -42704-06-02 12:28 J -13876060.11 -13876059.98 -13876059.84 0.0132 0.0055
 Mercury -42704-08-29 16:04 J -13875971.94 -13875971.83 -13875971.70 0.0132 0.0074
 Moon -42704-09-30 05:59 J -13875940.42 -13875940.25 -13875940.08 0.0132 0.0098
 Earth -42704-09-30 09:06 J -13875940.29 -13875940.12 -13875939.93 0.0132 0.0092 *
 Mercury -42704-11-25 19:54 J -13875883.77 -13875883.67 -13875883.57 0.0132 0.0092
 Mercury -42703-02-21 23:16 J -13875795.59 -13875795.53 -13875795.44 0.0132 0.0111
 Mercury -42703-05-21 03:06 J -13875707.39 -13875707.37 -13875707.34 0.0132 0.0129
 Earth -42703-10-04 14:23 J -13875571.15 -13875570.90 -13875570.65 0.0132 0.0013
 Moon -42703-10-04 17:59 J -13875571.00 -13875570.75 -13875570.49 0.0132 0.0016 *
 Moon -42702-10-08 15:35 J -13875201.96 -13875201.85 -13875201.72 0.0132 0.0116
 Earth -42702-10-08 18:57 J -13875201.81 -13875201.71 -13875201.58 0.0132 0.0117 *
 Venus -42697-11-28 06:42 J -13873324.26 -13873324.22 -13873324.13 0.0133 0.0126
 Venus -42696-07-12 11:45 J -13873098.12 -13873098.01 -13873097.90 0.0133 0.0114
 Venus -42695-02-23 16:04 J -13872871.96 -13872871.83 -13872871.69 0.0133 0.0103
 Venus -42695-10-07 20:23 J -13872645.80 -13872645.65 -13872645.49 0.0133 0.0092

Venus	-42694-05-22 00:57 J	-13872419.63	-13872419.46	-13872419.29	0.0133	0.0081
Venus	-42693-01-03 05:02 J	-13872193.46	-13872193.29	-13872193.10	0.0133	0.0070
Venus	-42693-08-16 09:35 J	-13871967.29	-13871967.10	-13871966.90	0.0134	0.0058
Venus	-42692-03-30 13:54 J	-13871741.11	-13871740.92	-13871740.71	0.0134	0.0046
Venus	-42692-11-11 18:28 J	-13871514.94	-13871514.73	-13871514.52	0.0134	0.0034
Venus	-42691-06-25 22:47 J	-13871288.76	-13871288.55	-13871288.33	0.0134	0.0022
Mars	-42690-01-15 03:35 J	-13871085.57	-13871085.35	-13871085.09	0.0134	0.0086
Venus	-42690-02-07 03:21 J	-13871062.57	-13871062.36	-13871062.14	0.0134	0.0010
Venus	-42690-09-21 08:09 J	-13870836.38	-13870836.16	-13870835.95	0.0135	0.0003
Venus	-42689-05-04 12:42 J	-13870610.18	-13870609.97	-13870609.76	0.0135	0.0015
Venus	-42689-12-16 17:16 J	-13870383.99	-13870383.78	-13870383.57	0.0135	0.0027
Venus	-42688-07-30 22:04 J	-13870157.78	-13870157.58	-13870157.38	0.0135	0.0039
Venus	-42687-03-14 02:52 J	-13869931.57	-13869931.38	-13869931.18	0.0136	0.0052
Venus	-42687-10-26 07:54 J	-13869705.35	-13869705.17	-13869704.98	0.0136	0.0064
Jupiter	-42687-12-17 10:18 J	-13869653.52	-13869653.07	-13869652.56	0.0136	0.0034
Venus	-42686-06-09 12:57 J	-13869479.13	-13869478.96	-13869478.78	0.0136	0.0076
Venus	-42685-01-21 17:59 J	-13869252.90	-13869252.75	-13869252.58	0.0136	0.0089
Venus	-42685-09-03 23:16 J	-13869026.67	-13869026.53	-13869026.38	0.0137	0.0101
Venus	-42684-04-18 04:18 J	-13868800.42	-13868800.32	-13868800.18	0.0137	0.0113
Venus	-42684-11-30 10:04 J	-13868574.16	-13868574.08	-13868573.99	0.0137	0.0125
Venus	-42683-07-14 15:06 J	-13868347.87	-13868347.87	-13868347.83	0.0138	0.0137
Mercury	-42664-12-19 14:09 J	-13861249.95	-13861249.91	-13861249.87	0.0146	0.0141
Mercury	-42663-03-17 20:09 J	-13861161.76	-13861161.66	-13861161.55	0.0146	0.0113
Mercury	-42663-06-14 02:09 J	-13861073.53	-13861073.41	-13861073.27	0.0146	0.0085
Mercury	-42663-09-10 08:38 J	-13860985.29	-13860985.14	-13860984.99	0.0146	0.0056
Mercury	-42663-12-07 14:52 J	-13860897.04	-13860896.88	-13860896.72	0.0146	0.0027
Mercury	-42662-03-05 21:21 J	-13860808.78	-13860808.61	-13860808.45	0.0146	0.0004
Mercury	-42662-06-02 03:35 J	-13860720.51	-13860720.35	-13860720.18	0.0146	0.0031
Mercury	-42662-08-29 10:04 J	-13860632.23	-13860632.08	-13860631.93	0.0146	0.0061
Mercury	-42662-11-25 16:33 J	-13860543.94	-13860543.81	-13860543.68	0.0146	0.0091

Mercury -42661-02-21 23:02 J -13860455.62 -13860455.54 -13860455.44 0.0146 0.0122

Earth -42661-03-29 16:33 J -13860419.03 -13860418.81 -13860418.58 0.0146 0.0066

Moon -42661-03-29 19:26 J -13860418.90 -13860418.69 -13860418.47 0.0146 0.0074 *

Moon -42660-04-03 17:45 J -13860048.97 -13860048.76 -13860048.54 0.0146 0.0084

Earth -42660-04-03 20:23 J -13860048.86 -13860048.65 -13860048.42 0.0146 0.0078 *

Venus -42656-10-22 05:30 J -13858386.32 -13858386.27 -13858386.20 0.0146 0.0140

Venus -42655-06-05 18:28 J -13858159.82 -13858159.73 -13858159.60 0.0146 0.0126

Venus -42654-01-18 07:54 J -13857933.29 -13857933.17 -13857933.01 0.0145 0.0111

Venus -42654-09-01 21:21 J -13857706.76 -13857706.61 -13857706.43 0.0145 0.0095

Venus -42653-04-15 10:33 J -13857480.23 -13857480.06 -13857479.86 0.0145 0.0080

Venus -42653-11-27 23:45 J -13857253.69 -13857253.51 -13857253.30 0.0145 0.0065

Venus -42652-07-12 12:57 J -13857027.15 -13857026.96 -13857026.74 0.0145 0.0050

Venus -42651-02-24 02:38 J -13856800.60 -13856800.39 -13856800.17 0.0144 0.0034

Venus -42651-10-08 15:50 J -13856574.06 -13856573.84 -13856573.62 0.0144 0.0018

Mars -42650-05-17 23:02 J -13856352.61 -13856352.54 -13856352.44 0.0144 0.0138

Venus -42650-05-23 05:02 J -13856347.51 -13856347.29 -13856347.07 0.0144 0.0003

Venus -42649-01-04 17:59 J -13856120.97 -13856120.75 -13856120.53 0.0144 0.0013

Venus -42649-08-18 06:57 J -13855894.42 -13855894.21 -13855893.99 0.0143 0.0029

Venus -42648-04-01 19:54 J -13855667.87 -13855667.67 -13855667.45 0.0143 0.0044

Venus -42648-11-14 08:52 J -13855441.32 -13855441.13 -13855440.92 0.0143 0.0059

Venus -42647-06-28 21:50 J -13855214.77 -13855214.59 -13855214.39 0.0142 0.0074

Venus -42646-02-10 10:33 J -13854988.22 -13854988.06 -13854987.88 0.0142 0.0088

Venus -42646-09-24 23:02 J -13854761.68 -13854761.54 -13854761.37 0.0142 0.0103

Venus -42645-05-08 11:45 J -13854535.12 -13854535.01 -13854534.87 0.0141 0.0117

Venus -42645-12-20 23:59 J -13854308.57 -13854308.50 -13854308.40 0.0141 0.0130

Mercury -42622-04-21 08:38 J -13846152.21 -13846152.14 -13846152.07 0.0132 0.0115

Mercury -42622-07-18 12:14 J -13846064.08 -13846063.99 -13846063.87 0.0132 0.0096

Mercury -42622-10-14 16:18 J -13845975.93 -13845975.82 -13845975.69 0.0132 0.0076

Mercury -42621-01-10 20:23 J -13845887.78 -13845887.65 -13845887.51 0.0132 0.0056

Mercury -42621-04-08 00:14 J -13845799.63 -13845799.49 -13845799.34 0.0132 0.0036

Mercury -42621-07-05 04:04 J -13845711.47 -13845711.33 -13845711.18 0.0132 0.0017

Mercury -42621-10-01 07:54 J -13845623.31 -13845623.17 -13845623.02 0.0132 0.0005

Mercury -42621-12-28 11:45 J -13845535.15 -13845535.01 -13845534.86 0.0132 0.0022

Mercury -42620-03-26 15:35 J -13845446.99 -13845446.85 -13845446.71 0.0132 0.0040

Mercury -42620-06-22 19:11 J -13845358.82 -13845358.70 -13845358.56 0.0132 0.0060

Mercury -42620-09-18 22:47 J -13845270.66 -13845270.55 -13845270.42 0.0132 0.0079

Moon -42620-09-30 14:09 J -13845259.09 -13845258.91 -13845258.70 0.0132 0.0082

Earth -42620-09-30 17:59 J -13845258.93 -13845258.75 -13845258.55 0.0132 0.0089 *

Mercury -42620-12-16 02:38 J -13845182.48 -13845182.39 -13845182.29 0.0132 0.0097

Mercury -42619-03-14 06:14 J -13845094.30 -13845094.24 -13845094.16 0.0132 0.0115

Earth -42619-10-04 23:16 J -13844889.78 -13844889.53 -13844889.28 0.0132 0.0016

Moon -42619-10-05 02:38 J -13844889.64 -13844889.39 -13844889.13 0.0132 0.0013 *

Moon -42618-10-09 00:14 J -13844520.58 -13844520.49 -13844520.38 0.0132 0.0122

Earth -42618-10-09 03:35 J -13844520.42 -13844520.35 -13844520.22 0.0132 0.0122 *

Venus -42613-07-28 16:18 J -13842765.85 -13842765.82 -13842765.74 0.0133 0.0128

Venus -42612-03-11 20:52 J -13842539.71 -13842539.63 -13842539.51 0.0133 0.0117

Venus -42612-10-24 01:26 J -13842313.56 -13842313.44 -13842313.30 0.0133 0.0106

Venus -42611-06-07 05:45 J -13842087.40 -13842087.26 -13842087.10 0.0133 0.0095

Venus -42610-01-19 10:18 J -13841861.23 -13841861.07 -13841860.90 0.0133 0.0084

Venus -42610-09-02 14:38 J -13841635.06 -13841634.89 -13841634.70 0.0133 0.0073

Venus -42609-04-15 19:11 J -13841408.89 -13841408.70 -13841408.50 0.0134 0.0061

Venus -42609-11-27 23:30 J -13841182.71 -13841182.52 -13841182.31 0.0134 0.0049

Venus -42608-07-12 04:04 J -13840956.54 -13840956.33 -13840956.12 0.0134 0.0037

Mars -42608-10-07 22:33 J -13840868.82 -13840868.56 -13840868.29 0.0134 0.0073

Venus -42607-02-23 08:38 J -13840730.35 -13840730.14 -13840729.93 0.0134 0.0025

Venus -42607-10-07 13:11 J -13840504.16 -13840503.95 -13840503.74 0.0134 0.0013

Venus -42606-05-21 17:45 J -13840277.98 -13840277.76 -13840277.55 0.0134 0.0002

Venus -42605-01-02 22:18 J -13840051.78 -13840051.57 -13840051.36 0.0135 0.0011

Venus -42605-08-16 02:52 J -13839825.59 -13839825.38 -13839825.17 0.0135 0.0023

Venus -42604-03-30 07:40 J -13839599.38 -13839599.18 -13839598.97 0.0135 0.0036

Venus	-42604-11-11 12:28 J	-13839373.18	-13839372.98	-13839372.78	0.0135	0.0048
Venus	-42603-06-25 17:16 J	-13839146.96	-13839146.78	-13839146.58	0.0136	0.0060
Venus	-42602-02-06 22:18 J	-13838920.74	-13838920.57	-13838920.39	0.0136	0.0072
Venus	-42602-09-21 03:21 J	-13838694.51	-13838694.36	-13838694.18	0.0136	0.0085
Venus	-42601-05-04 08:23 J	-13838468.28	-13838468.15	-13838467.99	0.0137	0.0097
Venus	-42601-12-16 13:54 J	-13838242.05	-13838241.92	-13838241.79	0.0137	0.0108
Venus	-42600-07-30 18:57 J	-13838015.80	-13838015.71	-13838015.60	0.0137	0.0120
Venus	-42599-03-14 00:28 J	-13837789.53	-13837789.48	-13837789.41	0.0138	0.0132
Mercury	-42579-01-08 21:06 J	-13830548.68	-13830548.62	-13830548.57	0.0146	0.0136
Mercury	-42579-04-07 03:06 J	-13830460.48	-13830460.37	-13830460.26	0.0146	0.0107
Mercury	-42579-07-04 09:06 J	-13830372.25	-13830372.12	-13830371.98	0.0146	0.0079
Mercury	-42579-09-30 15:21 J	-13830284.01	-13830283.86	-13830283.70	0.0146	0.0050
Mercury	-42579-12-27 21:50 J	-13830195.76	-13830195.59	-13830195.43	0.0146	0.0021
Mercury	-42578-03-26 04:04 J	-13830107.50	-13830107.33	-13830107.16	0.0146	0.0008
Mercury	-42578-06-22 10:33 J	-13830019.22	-13830019.06	-13830018.90	0.0146	0.0038
Mercury	-42578-09-18 16:47 J	-13829930.94	-13829930.80	-13829930.64	0.0146	0.0068
Mercury	-42578-12-15 23:16 J	-13829842.65	-13829842.53	-13829842.40	0.0146	0.0098
Mercury	-42577-03-13 05:59 J	-13829754.33	-13829754.25	-13829754.17	0.0146	0.0128
Earth	-42577-03-30 01:11 J	-13829737.68	-13829737.45	-13829737.22	0.0146	0.0063
Moon	-42577-03-30 04:18 J	-13829737.55	-13829737.32	-13829737.08	0.0146	0.0055 *
Moon	-42576-04-04 01:54 J	-13829367.63	-13829367.42	-13829367.18	0.0146	0.0075
Earth	-42576-04-04 04:33 J	-13829367.51	-13829367.31	-13829367.08	0.0146	0.0082 *
Venus	-42572-06-21 09:35 J	-13827828.11	-13827828.10	-13827828.04	0.0146	0.0144
Venus	-42571-02-02 23:16 J	-13827601.62	-13827601.53	-13827601.43	0.0146	0.0129
Venus	-42571-09-17 12:14 J	-13827375.11	-13827374.99	-13827374.84	0.0146	0.0115
Venus	-42570-05-02 01:11 J	-13827148.59	-13827148.45	-13827148.27	0.0145	0.0101
Venus	-42570-12-14 14:38 J	-13826922.06	-13826921.89	-13826921.70	0.0145	0.0085
Venus	-42569-07-28 03:50 J	-13826695.52	-13826695.34	-13826695.14	0.0145	0.0070
Venus	-42568-03-11 17:02 J	-13826468.98	-13826468.79	-13826468.57	0.0145	0.0055
Venus	-42568-10-24 06:14 J	-13826242.44	-13826242.24	-13826242.01	0.0145	0.0040

Mars	-42567-02-07 03:21 J	-13826136.63	-13826136.36	-13826136.08	0.0144	0.0054
Venus	-42567-06-07 19:40 J	-13826015.90	-13826015.68	-13826015.46	0.0144	0.0024
Venus	-42566-01-20 08:52 J	-13825789.35	-13825789.13	-13825788.91	0.0144	0.0008
Venus	-42566-09-03 22:04 J	-13825562.80	-13825562.58	-13825562.36	0.0144	0.0007
Venus	-42565-04-17 11:16 J	-13825336.25	-13825336.03	-13825335.81	0.0144	0.0023
Venus	-42565-11-29 23:59 J	-13825109.70	-13825109.50	-13825109.28	0.0143	0.0039
Venus	-42564-07-14 13:11 J	-13824883.16	-13824882.95	-13824882.74	0.0143	0.0053
Venus	-42563-02-26 02:09 J	-13824656.60	-13824656.41	-13824656.21	0.0143	0.0068
Venus	-42563-10-10 14:52 J	-13824430.05	-13824429.88	-13824429.69	0.0142	0.0083
Venus	-42562-05-25 03:21 J	-13824203.50	-13824203.36	-13824203.18	0.0142	0.0097
Venus	-42561-01-06 16:04 J	-13823976.96	-13823976.83	-13823976.68	0.0142	0.0111
Venus	-42561-08-20 04:18 J	-13823750.40	-13823750.32	-13823750.20	0.0141	0.0125
Venus	-42560-04-03 17:02 J	-13823523.83	-13823523.79	-13823523.73	0.0141	0.0137
Mercury	-42538-02-12 10:47 J	-13815539.05	-13815539.05	-13815539.02	0.0132	0.0132
Mercury	-42538-05-11 14:52 J	-13815450.94	-13815450.88	-13815450.79	0.0132	0.0112
Mercury	-42538-08-07 18:57 J	-13815362.81	-13815362.71	-13815362.59	0.0132	0.0092
Mercury	-42538-11-03 23:02 J	-13815274.66	-13815274.54	-13815274.41	0.0132	0.0072
Mercury	-42537-01-31 02:52 J	-13815186.51	-13815186.38	-13815186.23	0.0132	0.0053
Mercury	-42537-04-28 06:57 J	-13815098.35	-13815098.21	-13815098.06	0.0132	0.0033
Mercury	-42537-07-25 10:47 J	-13815010.20	-13815010.05	-13815009.90	0.0132	0.0013
Mercury	-42537-10-21 14:38 J	-13814922.04	-13814921.89	-13814921.74	0.0132	0.0006
Mercury	-42536-01-17 18:28 J	-13814833.87	-13814833.73	-13814833.58	0.0132	0.0025
Mercury	-42536-04-15 22:04 J	-13814745.71	-13814745.58	-13814745.43	0.0132	0.0045
Mercury	-42536-07-13 01:54 J	-13814657.54	-13814657.42	-13814657.29	0.0132	0.0063
Moon	-42536-09-30 22:33 J	-13814577.73	-13814577.56	-13814577.36	0.0132	0.0092
Earth	-42536-10-01 01:54 J	-13814577.60	-13814577.42	-13814577.21	0.0132	0.0085 *
Mercury	-42536-10-09 05:45 J	-13814569.37	-13814569.26	-13814569.15	0.0132	0.0081
Mercury	-42535-01-05 09:21 J	-13814481.20	-13814481.11	-13814481.01	0.0132	0.0100
Mercury	-42535-04-03 12:57 J	-13814393.01	-13814392.96	-13814392.89	0.0132	0.0119
Earth	-42535-10-05 07:11 J	-13814208.45	-13814208.20	-13814207.95	0.0132	0.0020

Moon	-42535-10-05 10:47 J	-13814208.30	-13814208.05	-13814207.79	0.0132	0.0024 *
Moon	-42534-10-09 08:23 J	-13813839.22	-13813839.15	-13813839.03	0.0132	0.0123
Earth	-42534-10-09 11:59 J	-13813839.07	-13813839.00	-13813838.90	0.0132	0.0124 *
Venus	-42529-03-28 01:26 J	-13812207.46	-13812207.44	-13812207.38	0.0133	0.0130
Venus	-42529-11-09 06:14 J	-13811981.33	-13811981.24	-13811981.15	0.0133	0.0119
Venus	-42528-06-23 10:18 J	-13811755.18	-13811755.07	-13811754.93	0.0133	0.0109
Venus	-42527-02-04 14:38 J	-13811529.01	-13811528.89	-13811528.72	0.0133	0.0098
Venus	-42527-09-18 19:40 J	-13811302.84	-13811302.68	-13811302.52	0.0133	0.0087
Venus	-42526-05-02 23:45 J	-13811076.68	-13811076.51	-13811076.32	0.0133	0.0076
Venus	-42526-12-15 04:04 J	-13810850.50	-13810850.33	-13810850.13	0.0133	0.0065
Venus	-42525-07-28 08:38 J	-13810624.33	-13810624.14	-13810623.93	0.0134	0.0053
Venus	-42524-03-11 13:11 J	-13810398.15	-13810397.95	-13810397.74	0.0134	0.0041
Venus	-42524-10-23 17:45 J	-13810171.97	-13810171.76	-13810171.55	0.0134	0.0029
Mars	-42523-06-02 17:45 J	-13809950.07	-13809949.76	-13809949.44	0.0134	0.0013
Venus	-42523-06-06 22:18 J	-13809945.78	-13809945.57	-13809945.36	0.0134	0.0017
Venus	-42522-01-19 02:52 J	-13809719.59	-13809719.38	-13809719.17	0.0134	0.0005
Venus	-42522-09-02 07:40 J	-13809493.40	-13809493.18	-13809492.97	0.0135	0.0007
Venus	-42521-04-15 12:14 J	-13809267.20	-13809266.99	-13809266.78	0.0135	0.0019
Venus	-42521-11-27 16:47 J	-13809041.00	-13809040.80	-13809040.58	0.0135	0.0032
Venus	-42520-07-11 21:35 J	-13808814.79	-13808814.60	-13808814.39	0.0135	0.0044
Venus	-42519-02-23 02:23 J	-13808588.58	-13808588.40	-13808588.20	0.0136	0.0056
Venus	-42519-10-07 07:26 J	-13808362.36	-13808362.19	-13808361.99	0.0136	0.0068
Venus	-42518-05-21 12:42 J	-13808136.14	-13808135.97	-13808135.80	0.0136	0.0080
Venus	-42517-01-02 17:30 J	-13807909.91	-13807909.77	-13807909.60	0.0136	0.0092
Venus	-42517-08-15 22:33 J	-13807683.68	-13807683.56	-13807683.41	0.0137	0.0104
Venus	-42516-03-30 04:04 J	-13807457.44	-13807457.33	-13807457.21	0.0137	0.0115
Venus	-42516-11-11 09:35 J	-13807231.17	-13807231.10	-13807231.02	0.0137	0.0127
Mercury	-42495-01-29 03:35 J	-13799847.41	-13799847.35	-13799847.27	0.0146	0.0130
Mercury	-42495-04-27 09:35 J	-13799759.20	-13799759.10	-13799758.97	0.0146	0.0102
Mercury	-42495-07-24 16:04 J	-13799670.97	-13799670.83	-13799670.69	0.0146	0.0073

Mercury -42495-10-20 22:18 J -13799582.73 -13799582.57 -13799582.41 0.0146 0.0044

Mercury -42494-01-17 04:33 J -13799494.47 -13799494.31 -13799494.14 0.0146 0.0015

Mercury -42494-04-15 11:02 J -13799406.21 -13799406.04 -13799405.88 0.0146 0.0014

Mercury -42494-07-12 17:16 J -13799317.94 -13799317.78 -13799317.62 0.0146 0.0044

Mercury -42494-10-08 23:45 J -13799229.65 -13799229.51 -13799229.36 0.0146 0.0073

Mercury -42493-01-05 06:14 J -13799141.35 -13799141.24 -13799141.12 0.0146 0.0103

Earth -42493-03-30 09:21 J -13799056.34 -13799056.11 -13799055.88 0.0146 0.0059

Moon -42493-03-30 12:42 J -13799056.19 -13799055.97 -13799055.75 0.0146 0.0067 *

Mercury -42493-04-02 12:57 J -13799053.03 -13799052.96 -13799052.90 0.0146 0.0134

Moon -42492-04-04 09:21 J -13798686.29 -13798686.11 -13798685.90 0.0146 0.0093

Earth -42492-04-04 12:57 J -13798686.16 -13798685.96 -13798685.75 0.0146 0.0085 *

Venus -42488-10-03 03:35 J -13797043.44 -13797043.35 -13797043.26 0.0146 0.0133

Venus -42487-05-17 16:33 J -13796816.93 -13796816.81 -13796816.68 0.0146 0.0119

Venus -42487-12-30 05:30 J -13796590.41 -13796590.27 -13796590.11 0.0146 0.0104

Venus -42486-08-13 18:42 J -13796363.89 -13796363.72 -13796363.54 0.0145 0.0090

Venus -42485-03-27 08:09 J -13796137.35 -13796137.16 -13796136.97 0.0145 0.0075

Venus -42485-11-08 20:52 J -13795910.82 -13795910.63 -13795910.41 0.0145 0.0060

Venus -42484-06-23 10:04 J -13795684.28 -13795684.08 -13795683.86 0.0145 0.0045

Venus -42483-02-04 23:45 J -13795457.73 -13795457.51 -13795457.30 0.0144 0.0029

Venus -42483-09-19 12:57 J -13795231.18 -13795230.96 -13795230.74 0.0144 0.0014

Mars -42483-10-03 07:40 J -13795217.45 -13795217.18 -13795216.88 0.0144 0.0048

Venus -42482-05-04 01:54 J -13795004.64 -13795004.42 -13795004.19 0.0144 0.0004

Venus -42482-12-16 15:06 J -13794778.09 -13794777.87 -13794777.65 0.0144 0.0017

Venus -42481-07-30 04:04 J -13794551.54 -13794551.33 -13794551.11 0.0143 0.0033

Venus -42480-03-13 17:16 J -13794324.99 -13794324.78 -13794324.57 0.0143 0.0047

Venus -42480-10-26 05:59 J -13794098.44 -13794098.25 -13794098.04 0.0143 0.0063

Venus -42479-06-09 19:11 J -13793871.89 -13793871.70 -13793871.51 0.0142 0.0077

Jupiter -42479-10-22 02:23 J -13793737.76 -13793737.40 -13793737.02 0.0142 0.0104

Venus -42478-01-22 07:40 J -13793645.34 -13793645.18 -13793645.00 0.0142 0.0091

Venus -42478-09-05 20:23 J -13793418.79 -13793418.65 -13793418.49 0.0142 0.0105

Venus -42477-04-19 08:52 J -13793192.24 -13793192.13 -13793192.00 0.0142 0.0119
 Venus -42477-12-01 21:06 J -13792965.68 -13792965.62 -13792965.52 0.0141 0.0132
 Mercury -42454-03-04 17:30 J -13784837.79 -13784837.77 -13784837.71 0.0132 0.0128
 Mercury -42454-05-31 21:50 J -13784749.67 -13784749.59 -13784749.50 0.0132 0.0107
 Mercury -42454-08-28 01:40 J -13784661.53 -13784661.43 -13784661.31 0.0132 0.0088
 Mercury -42454-11-24 05:45 J -13784573.38 -13784573.26 -13784573.13 0.0132 0.0068
 Mercury -42453-02-20 09:35 J -13784485.23 -13784485.10 -13784484.95 0.0132 0.0049
 Mercury -42453-05-18 13:40 J -13784397.07 -13784396.93 -13784396.78 0.0132 0.0029
 Mercury -42453-08-14 17:30 J -13784308.91 -13784308.77 -13784308.62 0.0132 0.0010
 Mercury -42453-11-10 21:21 J -13784220.75 -13784220.61 -13784220.46 0.0132 0.0011
 Mercury -42452-02-07 01:11 J -13784132.59 -13784132.45 -13784132.30 0.0132 0.0029
 Mercury -42452-05-06 05:02 J -13784044.43 -13784044.29 -13784044.15 0.0132 0.0048
 Mercury -42452-08-02 08:38 J -13783956.26 -13783956.14 -13783956.01 0.0132 0.0067
 Moon -42452-10-01 07:11 J -13783896.39 -13783896.20 -13783895.98 0.0132 0.0075
 Earth -42452-10-01 10:47 J -13783896.25 -13783896.05 -13783895.85 0.0132 0.0082 *
 Mercury -42452-10-29 12:28 J -13783868.09 -13783867.98 -13783867.87 0.0132 0.0086
 Mercury -42451-01-25 16:04 J -13783779.91 -13783779.83 -13783779.73 0.0132 0.0104
 Mercury -42451-04-23 19:54 J -13783691.72 -13783691.67 -13783691.62 0.0132 0.0123
 Earth -42451-10-05 16:04 J -13783527.08 -13783526.83 -13783526.58 0.0132 0.0023
 Moon -42451-10-05 18:57 J -13783526.96 -13783526.71 -13783526.45 0.0132 0.0019 *
 Moon -42450-10-09 17:16 J -13783157.81 -13783157.78 -13783157.72 0.0132 0.0130
 Earth -42450-10-09 20:23 J -13783157.68 -13783157.65 -13783157.56 0.0132 0.0129
 Venus -42446-11-26 10:47 J -13781649.05 -13781649.05 -13781649.02 0.0133 0.0132
 Venus -42445-07-09 15:21 J -13781422.93 -13781422.86 -13781422.76 0.0133 0.0122
 Venus -42444-02-20 19:54 J -13781196.78 -13781196.67 -13781196.54 0.0133 0.0111
 Venus -42444-10-05 00:28 J -13780970.61 -13780970.48 -13780970.33 0.0133 0.0100
 Venus -42443-05-19 04:47 J -13780744.45 -13780744.30 -13780744.13 0.0133 0.0089
 Venus -42443-12-31 09:06 J -13780518.28 -13780518.12 -13780517.93 0.0133 0.0079
 Venus -42442-08-14 13:40 J -13780292.10 -13780291.93 -13780291.73 0.0133 0.0067
 Venus -42441-03-27 18:14 J -13780065.93 -13780065.74 -13780065.54 0.0134 0.0056

Venus	-42441-11-08 22:47 J	-13779839.75	-13779839.55	-13779839.35	0.0134	0.0044
Venus	-42440-06-23 03:06 J	-13779613.57	-13779613.37	-13779613.16	0.0134	0.0033
Venus	-42439-02-04 07:40 J	-13779387.39	-13779387.18	-13779386.96	0.0134	0.0021
Venus	-42439-09-18 12:28 J	-13779161.19	-13779160.98	-13779160.76	0.0134	0.0009
Mars	-42438-01-26 12:42 J	-13779031.18	-13779030.97	-13779030.75	0.0134	0.0099
Venus	-42438-05-02 17:02 J	-13778935.00	-13778934.79	-13778934.57	0.0134	0.0004
Venus	-42438-12-14 21:50 J	-13778708.80	-13778708.59	-13778708.38	0.0135	0.0015
Venus	-42437-07-28 02:23 J	-13778482.61	-13778482.40	-13778482.19	0.0135	0.0027
Venus	-42436-03-11 07:11 J	-13778256.40	-13778256.20	-13778255.99	0.0135	0.0039
Venus	-42436-10-23 11:59 J	-13778030.19	-13778030.00	-13778029.79	0.0135	0.0052
Venus	-42435-06-06 16:47 J	-13777803.98	-13777803.80	-13777803.60	0.0136	0.0064
Venus	-42434-01-18 21:50 J	-13777577.76	-13777577.59	-13777577.41	0.0136	0.0075
Venus	-42434-09-02 02:38 J	-13777351.54	-13777351.39	-13777351.21	0.0136	0.0088
Venus	-42433-04-15 07:54 J	-13777125.31	-13777125.17	-13777125.02	0.0137	0.0099
Venus	-42433-11-27 12:57 J	-13776899.07	-13776898.96	-13776898.82	0.0137	0.0111
Venus	-42432-07-11 18:14 J	-13776672.82	-13776672.74	-13776672.63	0.0137	0.0122
Venus	-42431-02-22 23:30 J	-13776446.55	-13776446.52	-13776446.45	0.0138	0.0134
Mercury	-42411-02-18 10:18 J	-13769146.14	-13769146.07	-13769145.97	0.0146	0.0124
Mercury	-42411-05-17 16:47 J	-13769057.92	-13769057.80	-13769057.67	0.0146	0.0095
Mercury	-42411-08-13 22:47 J	-13768969.69	-13768969.55	-13768969.39	0.0146	0.0067
Mercury	-42411-11-10 05:16 J	-13768881.44	-13768881.28	-13768881.12	0.0146	0.0038
Mercury	-42410-02-06 11:30 J	-13768793.19	-13768793.02	-13768792.85	0.0146	0.0009
Mercury	-42410-05-05 17:45 J	-13768704.92	-13768704.76	-13768704.59	0.0146	0.0020
Mercury	-42410-08-01 23:59 J	-13768616.65	-13768616.50	-13768616.33	0.0146	0.0051
Mercury	-42410-10-29 06:42 J	-13768528.36	-13768528.22	-13768528.08	0.0146	0.0080
Mercury	-42409-01-25 13:11 J	-13768440.06	-13768439.95	-13768439.84	0.0146	0.0110
Earth	-42409-03-30 17:30 J	-13768374.99	-13768374.77	-13768374.52	0.0146	0.0056
Moon	-42409-03-30 21:06 J	-13768374.84	-13768374.62	-13768374.37	0.0146	0.0048 *
Mercury	-42409-04-22 19:26 J	-13768351.72	-13768351.69	-13768351.63	0.0146	0.0140
Moon	-42408-04-04 17:59 J	-13768004.96	-13768004.75	-13768004.53	0.0146	0.0081

Earth	-42408-04-04 21:06 J	-13768004.80	-13768004.62	-13768004.40	0.0146	0.0089 *
Venus	-42404-06-02 07:54 J	-13766485.23	-13766485.17	-13766485.09	0.0146	0.0137
Venus	-42403-01-14 20:52 J	-13766258.73	-13766258.63	-13766258.50	0.0146	0.0123
Venus	-42403-08-29 10:04 J	-13766032.22	-13766032.08	-13766031.93	0.0146	0.0109
Venus	-42402-04-12 23:02 J	-13765805.69	-13765805.54	-13765805.36	0.0145	0.0094
Venus	-42402-11-25 12:14 J	-13765579.17	-13765578.99	-13765578.80	0.0145	0.0079
Venus	-42401-07-09 01:26 J	-13765352.63	-13765352.44	-13765352.24	0.0145	0.0064
Venus	-42400-02-20 14:52 J	-13765126.09	-13765125.88	-13765125.67	0.0145	0.0049
Mars	-42400-06-25 15:35 J	-13765000.89	-13765000.85	-13765000.77	0.0145	0.0142
Venus	-42400-10-05 04:04 J	-13764899.54	-13764899.33	-13764899.11	0.0145	0.0034
Venus	-42399-05-19 17:16 J	-13764673.00	-13764672.78	-13764672.56	0.0144	0.0019
Venus	-42398-01-01 06:14 J	-13764446.46	-13764446.24	-13764446.01	0.0144	0.0005
Venus	-42398-08-15 19:26 J	-13764219.91	-13764219.69	-13764219.47	0.0144	0.0012
Venus	-42397-03-29 08:38 J	-13763993.35	-13763993.14	-13763992.92	0.0144	0.0027
Venus	-42397-11-10 21:35 J	-13763766.81	-13763766.60	-13763766.38	0.0143	0.0042
Venus	-42396-06-25 10:33 J	-13763540.26	-13763540.06	-13763539.85	0.0143	0.0057
Venus	-42395-02-06 23:16 J	-13763313.71	-13763313.53	-13763313.32	0.0143	0.0072
Venus	-42395-09-21 12:14 J	-13763087.16	-13763086.99	-13763086.80	0.0142	0.0086
Venus	-42394-05-06 00:57 J	-13762860.61	-13762860.46	-13762860.29	0.0142	0.0100
Venus	-42394-12-18 13:26 J	-13762634.06	-13762633.94	-13762633.80	0.0142	0.0113
Venus	-42393-08-01 01:40 J	-13762407.51	-13762407.43	-13762407.32	0.0141	0.0127
Venus	-42392-03-15 14:09 J	-13762180.93	-13762180.91	-13762180.86	0.0141	0.0139
Mercury	-42370-03-25 00:28 J	-13754136.53	-13754136.48	-13754136.43	0.0132	0.0124
Mercury	-42370-06-21 04:33 J	-13754048.40	-13754048.31	-13754048.22	0.0132	0.0104
Mercury	-42370-09-17 08:23 J	-13753960.26	-13753960.15	-13753960.03	0.0132	0.0084
Mercury	-42370-12-14 12:28 J	-13753872.11	-13753871.98	-13753871.85	0.0132	0.0064
Mercury	-42369-03-11 16:18 J	-13753783.96	-13753783.82	-13753783.67	0.0132	0.0045
Mercury	-42369-06-07 20:23 J	-13753695.80	-13753695.65	-13753695.51	0.0132	0.0025
Mercury	-42369-09-04 00:14 J	-13753607.64	-13753607.49	-13753607.34	0.0132	0.0006
Mercury	-42369-12-01 04:04 J	-13753519.48	-13753519.33	-13753519.18	0.0132	0.0013

Mercury -42368-02-27 07:54 J -13753431.31 -13753431.17 -13753431.03 0.0132 0.0033
 Mercury -42368-05-26 11:45 J -13753343.15 -13753343.01 -13753342.88 0.0132 0.0052
 Mercury -42368-08-22 15:21 J -13753254.98 -13753254.86 -13753254.73 0.0132 0.0070
 Moon -42368-10-01 15:35 J -13753215.02 -13753214.85 -13753214.64 0.0132 0.0086
 Earth -42368-10-01 18:42 J -13753214.92 -13753214.72 -13753214.51 0.0132 0.0079 *
 Mercury -42368-11-18 18:57 J -13753166.81 -13753166.71 -13753166.59 0.0132 0.0089
 Mercury -42367-02-14 22:47 J -13753078.63 -13753078.55 -13753078.46 0.0132 0.0108
 Mercury -42367-05-14 02:23 J -13752990.43 -13752990.40 -13752990.35 0.0132 0.0126
 Earth -42367-10-05 23:45 J -13752845.75 -13752845.51 -13752845.26 0.0132 0.0026
 Moon -42367-10-06 02:52 J -13752845.62 -13752845.38 -13752845.12 0.0132 0.0031 *
 Moon -42366-10-10 02:09 J -13752476.47 -13752476.41 -13752476.34 0.0132 0.0127
 Earth -42366-10-10 04:47 J -13752476.33 -13752476.30 -13752476.26 0.0132 0.0131
 Venus -42361-03-09 00:14 J -13750864.55 -13750864.49 -13750864.40 0.0133 0.0124
 Venus -42361-10-21 04:33 J -13750638.40 -13750638.31 -13750638.18 0.0133 0.0114
 Venus -42360-06-04 09:06 J -13750412.24 -13750412.12 -13750411.97 0.0133 0.0103
 Venus -42359-01-16 13:54 J -13750186.07 -13750185.92 -13750185.76 0.0133 0.0092
 Venus -42359-08-30 18:28 J -13749959.89 -13749959.73 -13749959.55 0.0133 0.0081
 Venus -42358-04-13 22:47 J -13749733.72 -13749733.55 -13749733.35 0.0133 0.0070
 Venus -42358-11-26 03:35 J -13749507.55 -13749507.35 -13749507.16 0.0133 0.0059
 Venus -42357-07-09 07:54 J -13749281.37 -13749281.17 -13749280.96 0.0134 0.0047
 Venus -42356-02-20 12:28 J -13749055.18 -13749054.98 -13749054.77 0.0134 0.0036
 Venus -42356-10-04 17:16 J -13748828.99 -13748828.78 -13748828.57 0.0134 0.0024
 Mars -42356-10-19 04:47 J -13748814.57 -13748814.30 -13748814.01 0.0134 0.0060
 Venus -42355-05-18 21:50 J -13748602.81 -13748602.59 -13748602.38 0.0134 0.0012
 Venus -42355-12-31 02:23 J -13748376.61 -13748376.40 -13748376.19 0.0134 0.0001
 Venus -42354-08-14 06:57 J -13748150.42 -13748150.21 -13748149.99 0.0135 0.0012
 Venus -42353-03-27 11:45 J -13747924.22 -13747924.01 -13747923.80 0.0135 0.0023
 Venus -42353-11-08 16:18 J -13747698.02 -13747697.82 -13747697.61 0.0135 0.0035
 Venus -42352-06-22 21:06 J -13747471.81 -13747471.62 -13747471.41 0.0135 0.0047
 Venus -42351-02-04 01:54 J -13747245.60 -13747245.42 -13747245.22 0.0136 0.0059

Venus -42351-09-18 06:57 J -13747019.38 -13747019.21 -13747019.02 0.0136 0.0071
 Venus -42350-05-02 11:59 J -13746793.16 -13746793.00 -13746792.83 0.0136 0.0082
 Venus -42350-12-14 17:02 J -13746566.94 -13746566.79 -13746566.63 0.0137 0.0094
 Venus -42349-07-27 21:50 J -13746340.71 -13746340.59 -13746340.44 0.0137 0.0106
 Venus -42348-03-11 03:06 J -13746114.46 -13746114.37 -13746114.25 0.0137 0.0117
 Venus -42348-10-23 08:38 J -13745888.20 -13745888.14 -13745888.05 0.0137 0.0129
 Mercury -42328-12-12 11:16 J -13738533.03 -13738533.03 -13738533.01 0.0146 0.0146
 Mercury -42327-03-10 17:16 J -13738444.86 -13738444.78 -13738444.67 0.0146 0.0118
 Mercury -42327-06-06 23:45 J -13738356.64 -13738356.51 -13738356.38 0.0146 0.0089
 Mercury -42327-09-03 05:45 J -13738268.40 -13738268.26 -13738268.10 0.0146 0.0061
 Mercury -42327-11-30 11:59 J -13738180.16 -13738180.00 -13738179.83 0.0146 0.0032
 Mercury -42326-02-26 18:28 J -13738091.90 -13738091.73 -13738091.57 0.0146 0.0004
 Mercury -42326-05-26 00:42 J -13738003.63 -13738003.47 -13738003.31 0.0146 0.0026
 Mercury -42326-08-22 06:57 J -13737915.36 -13737915.21 -13737915.05 0.0146 0.0056
 Mercury -42326-11-18 13:26 J -13737827.07 -13737826.94 -13737826.80 0.0146 0.0086
 Mercury -42325-02-14 19:40 J -13737738.76 -13737738.68 -13737738.56 0.0146 0.0117
 Earth -42325-03-31 01:54 J -13737693.65 -13737693.42 -13737693.17 0.0146 0.0052
 Moon -42325-03-31 05:30 J -13737693.49 -13737693.27 -13737693.02 0.0146 0.0059 *
 Mercury -42325-05-13 02:38 J -13737650.39 -13737650.39 -13737650.38 0.0146 0.0146
 Moon -42324-04-05 01:40 J -13737323.59 -13737323.43 -13737323.22 0.0146 0.0101
 Earth -42324-04-05 05:30 J -13737323.45 -13737323.27 -13737323.06 0.0146 0.0092 *
 Venus -42320-01-30 12:28 J -13735927.03 -13735926.98 -13735926.91 0.0146 0.0140
 Venus -42320-09-14 01:11 J -13735700.53 -13735700.45 -13735700.32 0.0146 0.0127
 Venus -42319-04-28 14:23 J -13735474.02 -13735473.90 -13735473.75 0.0146 0.0113
 Venus -42319-12-11 03:21 J -13735247.51 -13735247.36 -13735247.18 0.0145 0.0099
 Venus -42318-07-25 16:47 J -13735020.98 -13735020.80 -13735020.62 0.0145 0.0084
 Venus -42317-03-08 05:45 J -13734794.44 -13734794.26 -13734794.05 0.0145 0.0069
 Venus -42317-10-20 19:11 J -13734567.90 -13734567.70 -13734567.49 0.0145 0.0054
 Venus -42316-06-04 08:23 J -13734341.36 -13734341.15 -13734340.93 0.0145 0.0039
 Venus -42315-01-16 21:35 J -13734114.82 -13734114.60 -13734114.38 0.0144 0.0024

Mars	-42315-02-18 21:50 J	-13734081.87	-13734081.59	-13734081.30	0.0144	0.0040
Venus	-42315-08-31 10:47 J	-13733888.27	-13733888.05	-13733887.83	0.0144	0.0009
Venus	-42314-04-14 23:59 J	-13733661.72	-13733661.50	-13733661.27	0.0144	0.0007
Venus	-42314-11-27 13:11 J	-13733435.17	-13733434.95	-13733434.73	0.0144	0.0022
Venus	-42313-07-11 02:09 J	-13733208.62	-13733208.41	-13733208.19	0.0143	0.0037
Venus	-42312-02-22 15:21 J	-13732982.07	-13732981.86	-13732981.65	0.0143	0.0051
Venus	-42312-10-07 04:04 J	-13732755.52	-13732755.33	-13732755.12	0.0143	0.0066
Venus	-42311-05-21 16:47 J	-13732528.97	-13732528.80	-13732528.60	0.0143	0.0081
Venus	-42310-01-03 05:30 J	-13732302.43	-13732302.27	-13732302.09	0.0142	0.0094
Venus	-42310-08-17 17:59 J	-13732075.88	-13732075.75	-13732075.59	0.0142	0.0108
Venus	-42309-03-31 06:42 J	-13731849.32	-13731849.22	-13731849.10	0.0142	0.0121
Venus	-42309-11-12 19:11 J	-13731622.77	-13731622.70	-13731622.63	0.0141	0.0134
Mercury	-42286-04-14 07:11 J	-13723435.26	-13723435.20	-13723435.13	0.0132	0.0120
Mercury	-42286-07-11 11:16 J	-13723347.13	-13723347.03	-13723346.93	0.0132	0.0100
Mercury	-42286-10-07 15:21 J	-13723258.98	-13723258.86	-13723258.74	0.0132	0.0080
Mercury	-42285-01-03 19:11 J	-13723170.83	-13723170.70	-13723170.56	0.0132	0.0060
Mercury	-42285-03-31 23:16 J	-13723082.67	-13723082.53	-13723082.39	0.0132	0.0041
Mercury	-42285-06-28 03:06 J	-13722994.52	-13722994.37	-13722994.22	0.0132	0.0021
Mercury	-42285-09-24 06:57 J	-13722906.36	-13722906.21	-13722906.06	0.0132	0.0002
Mercury	-42285-12-21 10:47 J	-13722818.19	-13722818.05	-13722817.90	0.0132	0.0018
Mercury	-42284-03-19 14:38 J	-13722730.03	-13722729.89	-13722729.75	0.0132	0.0037
Mercury	-42284-06-15 18:28 J	-13722641.86	-13722641.73	-13722641.60	0.0132	0.0055
Mercury	-42284-09-11 22:04 J	-13722553.69	-13722553.58	-13722553.45	0.0132	0.0074
Moon	-42284-10-02 00:42 J	-13722533.68	-13722533.47	-13722533.26	0.0132	0.0069
Earth	-42284-10-02 03:06 J	-13722533.57	-13722533.37	-13722533.16	0.0132	0.0075 *
Mercury	-42284-12-09 01:40 J	-13722465.52	-13722465.43	-13722465.31	0.0132	0.0094
Mercury	-42283-03-07 05:30 J	-13722377.34	-13722377.27	-13722377.19	0.0132	0.0112
Mercury	-42283-06-03 09:06 J	-13722289.13	-13722289.12	-13722289.09	0.0132	0.0130
Earth	-42283-10-06 08:23 J	-13722164.40	-13722164.15	-13722163.90	0.0132	0.0029
Moon	-42283-10-06 10:33 J	-13722164.31	-13722164.06	-13722163.80	0.0132	0.0024 *

Venus	-42278-11-07 09:35 J	-13720306.16	-13720306.10	-13720306.03	0.0133	0.0126
Venus	-42277-06-20 13:54 J	-13720080.01	-13720079.92	-13720079.80	0.0133	0.0116
Venus	-42276-02-01 18:42 J	-13719853.84	-13719853.72	-13719853.58	0.0133	0.0105
Venus	-42276-09-15 23:30 J	-13719627.67	-13719627.52	-13719627.37	0.0133	0.0094
Venus	-42275-04-30 04:04 J	-13719401.50	-13719401.33	-13719401.16	0.0133	0.0084
Venus	-42275-12-12 08:23 J	-13719175.32	-13719175.15	-13719174.96	0.0133	0.0073
Venus	-42274-07-26 12:57 J	-13718949.15	-13718948.96	-13718948.76	0.0133	0.0061
Venus	-42273-03-08 17:16 J	-13718722.96	-13718722.78	-13718722.57	0.0133	0.0051
Venus	-42273-10-20 22:04 J	-13718496.78	-13718496.58	-13718496.37	0.0134	0.0039
Venus	-42272-06-04 02:38 J	-13718270.60	-13718270.39	-13718270.18	0.0134	0.0027
Venus	-42271-01-16 07:11 J	-13718044.41	-13718044.20	-13718043.98	0.0134	0.0016
Mars	-42271-06-14 02:09 J	-13717895.72	-13717895.41	-13717895.10	0.0134	0.0026
Venus	-42271-08-30 11:59 J	-13717818.21	-13717818.00	-13717817.78	0.0134	0.0004
Venus	-42270-04-13 16:33 J	-13717592.02	-13717591.81	-13717591.59	0.0134	0.0008
Venus	-42270-11-25 21:06 J	-13717365.82	-13717365.62	-13717365.40	0.0135	0.0020
Venus	-42269-07-09 01:54 J	-13717139.63	-13717139.42	-13717139.21	0.0135	0.0031
Venus	-42268-02-20 06:28 J	-13716913.42	-13716913.23	-13716913.02	0.0135	0.0043
Venus	-42268-10-04 11:30 J	-13716687.21	-13716687.02	-13716686.82	0.0136	0.0055
Venus	-42267-05-18 16:04 J	-13716461.00	-13716460.83	-13716460.63	0.0136	0.0067
Venus	-42267-12-30 21:06 J	-13716234.78	-13716234.62	-13716234.44	0.0136	0.0078
Venus	-42266-08-14 02:09 J	-13716008.56	-13716008.41	-13716008.24	0.0136	0.0090
Venus	-42265-03-27 07:26 J	-13715782.33	-13715782.19	-13715782.05	0.0137	0.0101
Venus	-42265-11-08 12:42 J	-13715556.09	-13715555.97	-13715555.85	0.0137	0.0112
Venus	-42264-06-22 17:45 J	-13715329.84	-13715329.76	-13715329.66	0.0137	0.0124
Venus	-42263-02-03 23:02 J	-13715103.57	-13715103.54	-13715103.49	0.0138	0.0135
Mercury	-42243-01-01 18:14 J	-13707831.77	-13707831.74	-13707831.69	0.0146	0.0140
Mercury	-42243-03-31 00:14 J	-13707743.58	-13707743.49	-13707743.37	0.0146	0.0112
Mercury	-42243-06-27 06:28 J	-13707655.36	-13707655.23	-13707655.09	0.0146	0.0084
Mercury	-42243-09-23 12:42 J	-13707567.12	-13707566.97	-13707566.82	0.0146	0.0055
Mercury	-42243-12-20 18:57 J	-13707478.87	-13707478.71	-13707478.55	0.0146	0.0026

Mercury -42242-03-19 01:11 J -13707390.61 -13707390.45 -13707390.28 0.0146 0.0004

Mercury -42242-06-15 07:40 J -13707302.35 -13707302.18 -13707302.02 0.0146 0.0032

Mercury -42242-09-11 13:54 J -13707214.07 -13707213.92 -13707213.77 0.0146 0.0062

Mercury -42242-12-08 20:23 J -13707125.78 -13707125.65 -13707125.52 0.0146 0.0092

Mercury -42241-03-06 02:38 J -13707037.47 -13707037.39 -13707037.29 0.0146 0.0122

Earth -42241-03-31 10:18 J -13707012.30 -13707012.07 -13707011.82 0.0146 0.0048

Moon -42241-03-31 13:54 J -13707012.16 -13707011.92 -13707011.67 0.0146 0.0041 *

Moon -42240-04-05 10:04 J -13706642.27 -13706642.08 -13706641.86 0.0146 0.0088

Earth -42240-04-05 13:54 J -13706642.11 -13706641.92 -13706641.72 0.0146 0.0096 *

Venus -42237-09-29 17:16 J -13705368.81 -13705368.78 -13705368.74 0.0146 0.0143

Venus -42236-05-14 05:59 J -13705142.34 -13705142.25 -13705142.14 0.0146 0.0130

Venus -42236-12-26 19:11 J -13704915.83 -13704915.70 -13704915.57 0.0146 0.0116

Venus -42235-08-10 08:09 J -13704689.31 -13704689.16 -13704689.00 0.0146 0.0102

Venus -42234-03-24 21:06 J -13704462.78 -13704462.62 -13704462.43 0.0145 0.0088

Venus -42234-11-06 10:18 J -13704236.25 -13704236.07 -13704235.87 0.0145 0.0073

Venus -42233-06-19 23:30 J -13704009.71 -13704009.52 -13704009.31 0.0145 0.0058

Venus -42232-02-01 12:57 J -13703783.17 -13703782.96 -13703782.75 0.0145 0.0043

Venus -42232-09-16 02:09 J -13703556.62 -13703556.41 -13703556.19 0.0145 0.0028

Venus -42231-04-30 15:21 J -13703330.08 -13703329.86 -13703329.63 0.0144 0.0013

Mars -42231-10-15 04:47 J -13703162.57 -13703162.30 -13703162.03 0.0144 0.0061

Venus -42231-12-13 04:33 J -13703103.53 -13703103.31 -13703103.09 0.0144 0.0002

Venus -42230-07-27 17:45 J -13702876.98 -13702876.76 -13702876.54 0.0144 0.0017

Venus -42229-03-10 06:57 J -13702650.42 -13702650.21 -13702649.99 0.0144 0.0032

Venus -42229-10-22 19:54 J -13702423.87 -13702423.67 -13702423.45 0.0143 0.0046

Venus -42228-06-06 08:38 J -13702197.33 -13702197.14 -13702196.92 0.0143 0.0061

Venus -42227-01-18 21:35 J -13701970.78 -13701970.60 -13701970.40 0.0143 0.0075

Venus -42227-09-02 10:33 J -13701744.23 -13701744.06 -13701743.89 0.0142 0.0089

Venus -42226-04-16 23:16 J -13701517.68 -13701517.53 -13701517.38 0.0142 0.0103

Venus -42226-11-29 11:30 J -13701291.14 -13701291.02 -13701290.88 0.0142 0.0116

Venus -42225-07-12 23:45 J -13701064.59 -13701064.51 -13701064.41 0.0141 0.0129

Venus -42224-02-24 11:59 J -13700838.00 -13700838.00 -13700837.98 0.0141 0.0141
 Mercury -42202-05-04 13:40 J -13692733.99 -13692733.93 -13692733.85 0.0132 0.0116
 Mercury -42202-07-31 17:45 J -13692645.85 -13692645.76 -13692645.65 0.0132 0.0096
 Mercury -42202-10-27 21:50 J -13692557.71 -13692557.59 -13692557.46 0.0132 0.0076
 Mercury -42201-01-24 01:54 J -13692469.55 -13692469.42 -13692469.28 0.0132 0.0057
 Mercury -42201-04-21 05:45 J -13692381.40 -13692381.26 -13692381.11 0.0132 0.0037
 Mercury -42201-07-18 09:50 J -13692293.24 -13692293.09 -13692292.94 0.0132 0.0018
 Mercury -42201-10-14 13:40 J -13692205.08 -13692204.93 -13692204.78 0.0132 0.0002
 Mercury -42200-01-10 17:30 J -13692116.92 -13692116.77 -13692116.62 0.0132 0.0021
 Mercury -42200-04-08 21:21 J -13692028.75 -13692028.61 -13692028.47 0.0132 0.0040
 Mercury -42200-07-06 00:57 J -13691940.58 -13691940.46 -13691940.32 0.0132 0.0059
 Mercury -42200-10-02 04:47 J -13691852.41 -13691852.30 -13691852.18 0.0132 0.0078
 Moon -42200-10-02 09:06 J -13691852.30 -13691852.12 -13691851.91 0.0132 0.0079 *
 Earth -42200-10-02 11:16 J -13691852.24 -13691852.03 -13691851.82 0.0132 0.0073 *
 Mercury -42200-12-29 08:38 J -13691764.24 -13691764.14 -13691764.04 0.0132 0.0096
 Mercury -42199-03-27 11:59 J -13691676.06 -13691676.00 -13691675.92 0.0132 0.0116
 Earth -42199-10-06 15:50 J -13691483.07 -13691482.84 -13691482.58 0.0132 0.0033
 Moon -42199-10-06 18:14 J -13691482.98 -13691482.74 -13691482.48 0.0132 0.0038 *
 Moon -42198-10-10 19:26 J -13691113.69 -13691113.69 -13691113.69 0.0132 0.0132
 Venus -42194-07-07 18:14 J -13689747.78 -13689747.74 -13689747.67 0.0133 0.0128
 Venus -42193-02-18 22:47 J -13689521.63 -13689521.55 -13689521.43 0.0133 0.0118
 Venus -42193-10-02 03:50 J -13689295.47 -13689295.34 -13689295.21 0.0133 0.0107
 Venus -42192-05-16 07:54 J -13689069.30 -13689069.17 -13689069.00 0.0133 0.0097
 Venus -42192-12-28 12:42 J -13688843.12 -13688842.97 -13688842.80 0.0133 0.0086
 Venus -42191-08-11 17:16 J -13688616.94 -13688616.78 -13688616.59 0.0133 0.0075
 Venus -42190-03-25 21:50 J -13688390.76 -13688390.59 -13688390.39 0.0133 0.0065
 Venus -42190-11-07 02:23 J -13688164.59 -13688164.40 -13688164.19 0.0133 0.0053
 Venus -42189-06-20 07:11 J -13687938.40 -13687938.20 -13687937.99 0.0134 0.0042
 Venus -42188-02-01 11:45 J -13687712.22 -13687712.01 -13687711.80 0.0134 0.0030
 Venus -42188-09-15 16:33 J -13687486.02 -13687485.81 -13687485.60 0.0134 0.0019

Venus	-42187-04-29 21:06 J	-13687259.83	-13687259.62	-13687259.40	0.0134	0.0007
Venus	-42187-12-12 01:40 J	-13687033.64	-13687033.43	-13687033.21	0.0134	0.0005
Mars	-42186-02-06 20:52 J	-13686976.79	-13686976.63	-13686976.43	0.0134	0.0111
Venus	-42186-07-26 06:14 J	-13686807.45	-13686807.24	-13686807.02	0.0135	0.0016
Venus	-42185-03-08 11:02 J	-13686581.25	-13686581.04	-13686580.83	0.0135	0.0028
Venus	-42185-10-20 15:50 J	-13686355.04	-13686354.84	-13686354.63	0.0135	0.0039
Venus	-42184-06-03 20:23 J	-13686128.84	-13686128.65	-13686128.44	0.0135	0.0051
Venus	-42183-01-16 01:11 J	-13685902.63	-13685902.45	-13685902.25	0.0136	0.0063
Venus	-42183-08-30 06:14 J	-13685676.41	-13685676.24	-13685676.06	0.0136	0.0074
Venus	-42182-04-13 11:02 J	-13685450.19	-13685450.04	-13685449.86	0.0136	0.0086
Venus	-42182-11-25 16:04 J	-13685223.97	-13685223.83	-13685223.67	0.0136	0.0097
Venus	-42181-07-08 21:21 J	-13684997.73	-13684997.61	-13684997.48	0.0137	0.0108
Venus	-42180-02-20 02:23 J	-13684771.49	-13684771.40	-13684771.28	0.0137	0.0119
Venus	-42180-10-04 07:54 J	-13684545.22	-13684545.17	-13684545.09	0.0137	0.0130
Mercury	-42159-01-22 01:11 J	-13677130.51	-13677130.45	-13677130.38	0.0146	0.0134
Mercury	-42159-04-20 07:11 J	-13677042.30	-13677042.20	-13677042.08	0.0146	0.0106
Mercury	-42159-07-17 13:11 J	-13676954.08	-13676953.95	-13676953.80	0.0146	0.0078
Mercury	-42159-10-13 19:40 J	-13676865.84	-13676865.68	-13676865.53	0.0146	0.0049
Mercury	-42158-01-10 01:40 J	-13676777.59	-13676777.43	-13676777.26	0.0146	0.0021
Mercury	-42158-04-08 08:09 J	-13676689.33	-13676689.16	-13676689.00	0.0146	0.0009
Mercury	-42158-07-05 14:23 J	-13676601.06	-13676600.90	-13676600.74	0.0146	0.0038
Mercury	-42158-10-01 20:52 J	-13676512.78	-13676512.63	-13676512.48	0.0146	0.0068
Mercury	-42158-12-29 03:06 J	-13676424.49	-13676424.37	-13676424.24	0.0146	0.0098
Mercury	-42157-03-26 09:35 J	-13676336.17	-13676336.10	-13676336.01	0.0146	0.0128
Earth	-42157-03-31 18:28 J	-13676330.97	-13676330.73	-13676330.48	0.0146	0.0045
Moon	-42157-03-31 21:50 J	-13676330.82	-13676330.59	-13676330.34	0.0146	0.0052 *
Moon	-42156-04-05 18:28 J	-13675960.89	-13675960.73	-13675960.55	0.0146	0.0107
Earth	-42156-04-05 21:50 J	-13675960.76	-13675960.59	-13675960.39	0.0146	0.0099 *
Venus	-42152-01-11 10:33 J	-13674584.14	-13674584.06	-13674583.96	0.0146	0.0133
Venus	-42152-08-25 23:16 J	-13674357.63	-13674357.53	-13674357.39	0.0146	0.0120

Venus	-42151-04-09 12:28 J	-13674131.12	-13674130.98	-13674130.82	0.0146	0.0106
Venus	-42151-11-22 01:26 J	-13673904.60	-13673904.44	-13673904.26	0.0145	0.0092
Venus	-42150-07-06 14:38 J	-13673678.07	-13673677.89	-13673677.69	0.0145	0.0077
Venus	-42149-02-18 04:04 J	-13673451.52	-13673451.33	-13673451.12	0.0145	0.0062
Venus	-42149-10-01 17:16 J	-13673224.98	-13673224.78	-13673224.56	0.0145	0.0048
Venus	-42148-05-16 06:28 J	-13672998.44	-13672998.23	-13672998.01	0.0145	0.0033
Mars	-42148-07-07 13:11 J	-13672946.07	-13672945.95	-13672945.81	0.0145	0.0129
Venus	-42148-12-28 19:54 J	-13672771.89	-13672771.67	-13672771.46	0.0144	0.0018
Venus	-42147-08-12 08:52 J	-13672545.35	-13672545.13	-13672544.90	0.0144	0.0004
Venus	-42146-03-26 22:18 J	-13672318.79	-13672318.57	-13672318.35	0.0144	0.0012
Venus	-42146-11-08 11:16 J	-13672092.24	-13672092.03	-13672091.81	0.0144	0.0027
Venus	-42145-06-22 00:14 J	-13671865.70	-13671865.49	-13671865.27	0.0143	0.0042
Venus	-42144-02-03 13:11 J	-13671639.15	-13671638.95	-13671638.74	0.0143	0.0056
Venus	-42144-09-18 02:09 J	-13671412.60	-13671412.41	-13671412.21	0.0143	0.0070
Venus	-42143-05-02 14:38 J	-13671186.05	-13671185.89	-13671185.69	0.0143	0.0085
Venus	-42143-12-15 03:35 J	-13670959.51	-13670959.35	-13670959.18	0.0142	0.0098
Venus	-42142-07-29 15:50 J	-13670732.96	-13670732.84	-13670732.69	0.0142	0.0111
Venus	-42141-03-12 04:33 J	-13670506.41	-13670506.31	-13670506.20	0.0142	0.0124
Venus	-42141-10-24 16:33 J	-13670279.85	-13670279.81	-13670279.73	0.0141	0.0137
Mercury	-42118-02-25 16:33 J	-13662120.82	-13662120.81	-13662120.80	0.0132	0.0132
Mercury	-42118-05-24 20:38 J	-13662032.72	-13662032.64	-13662032.56	0.0132	0.0112
Mercury	-42118-08-21 00:28 J	-13661944.58	-13661944.48	-13661944.36	0.0132	0.0092
Mercury	-42118-11-17 04:33 J	-13661856.43	-13661856.31	-13661856.18	0.0132	0.0072
Mercury	-42117-02-13 08:38 J	-13661768.27	-13661768.14	-13661768.00	0.0132	0.0053
Mercury	-42117-05-11 12:28 J	-13661680.12	-13661679.98	-13661679.83	0.0132	0.0034
Mercury	-42117-08-07 16:33 J	-13661591.96	-13661591.81	-13661591.66	0.0132	0.0013
Mercury	-42117-11-03 20:23 J	-13661503.80	-13661503.65	-13661503.50	0.0132	0.0006
Mercury	-42116-01-31 00:14 J	-13661415.63	-13661415.49	-13661415.34	0.0132	0.0025
Mercury	-42116-04-29 04:04 J	-13661327.47	-13661327.33	-13661327.19	0.0132	0.0044
Mercury	-42116-07-26 07:40 J	-13661239.30	-13661239.18	-13661239.04	0.0132	0.0063

Moon -42116-10-02 18:14 J -13661170.96 -13661170.74 -13661170.52 0.0132 0.0063
 Earth -42116-10-02 19:26 J -13661170.90 -13661170.69 -13661170.46 0.0132 0.0070 *
 Mercury -42116-10-22 11:45 J -13661151.13 -13661151.01 -13661150.90 0.0132 0.0082
 Mercury -42115-01-18 15:21 J -13661062.95 -13661062.86 -13661062.76 0.0132 0.0100
 Mercury -42115-04-16 19:11 J -13660974.76 -13660974.70 -13660974.64 0.0132 0.0119
 Earth -42115-10-07 00:28 J -13660801.72 -13660801.48 -13660801.23 0.0132 0.0035
 Moon -42115-10-07 01:40 J -13660801.68 -13660801.43 -13660801.16 0.0132 0.0030 *
 Venus -42110-03-07 03:21 J -13659189.38 -13659189.36 -13659189.30 0.0132 0.0130
 Venus -42110-10-19 07:54 J -13658963.24 -13658963.17 -13658963.05 0.0133 0.0120
 Venus -42109-06-01 12:57 J -13658737.08 -13658736.96 -13658736.83 0.0133 0.0109
 Venus -42108-01-13 17:16 J -13658510.91 -13658510.78 -13658510.62 0.0133 0.0099
 Venus -42108-08-27 22:18 J -13658284.73 -13658284.57 -13658284.40 0.0133 0.0088
 Venus -42107-04-11 02:52 J -13658058.55 -13658058.38 -13658058.20 0.0133 0.0077
 Venus -42107-11-23 07:26 J -13657832.37 -13657832.19 -13657832.00 0.0133 0.0066
 Venus -42106-07-07 11:59 J -13657606.19 -13657606.00 -13657605.80 0.0133 0.0055
 Venus -42105-02-18 16:33 J -13657380.01 -13657379.81 -13657379.60 0.0133 0.0044
 Venus -42105-10-01 21:21 J -13657153.82 -13657153.61 -13657153.40 0.0134 0.0033
 Venus -42104-05-16 01:54 J -13656927.63 -13656927.42 -13656927.21 0.0134 0.0022
 Mars -42104-10-30 11:59 J -13656760.28 -13656760.00 -13656759.70 0.0134 0.0050
 Venus -42104-12-28 06:28 J -13656701.44 -13656701.23 -13656701.01 0.0134 0.0010
 Venus -42103-08-11 11:02 J -13656475.25 -13656475.04 -13656474.82 0.0134 0.0003
 Venus -42102-03-25 15:35 J -13656249.06 -13656248.85 -13656248.63 0.0134 0.0013
 Venus -42102-11-06 20:09 J -13656022.86 -13656022.66 -13656022.44 0.0135 0.0025
 Venus -42101-06-20 00:57 J -13655796.66 -13655796.46 -13655796.25 0.0135 0.0036
 Venus -42100-02-01 05:30 J -13655570.46 -13655570.27 -13655570.06 0.0135 0.0048
 Venus -42100-09-15 10:33 J -13655344.25 -13655344.06 -13655343.86 0.0135 0.0059
 Venus -42099-04-29 15:21 J -13655118.04 -13655117.86 -13655117.67 0.0136 0.0070
 Venus -42099-12-11 20:23 J -13654891.82 -13654891.65 -13654891.48 0.0136 0.0081
 Venus -42098-07-26 01:11 J -13654665.60 -13654665.45 -13654665.29 0.0136 0.0093
 Venus -42097-03-08 06:14 J -13654439.37 -13654439.24 -13654439.09 0.0137 0.0104

Venus -42097-10-20 11:30 J -13654213.12 -13654213.02 -13654212.89 0.0137 0.0115
 Venus -42096-06-03 16:47 J -13653986.86 -13653986.80 -13653986.70 0.0137 0.0126
 Venus -42095-01-15 22:18 J -13653760.57 -13653760.57 -13653760.54 0.0137 0.0137
 Mercury -42075-02-11 07:54 J -13646429.24 -13646429.17 -13646429.09 0.0146 0.0129
 Mercury -42075-05-10 13:54 J -13646341.03 -13646340.92 -13646340.79 0.0146 0.0101
 Mercury -42075-08-06 20:09 J -13646252.80 -13646252.66 -13646252.52 0.0146 0.0072
 Mercury -42075-11-03 02:09 J -13646164.56 -13646164.41 -13646164.24 0.0146 0.0045
 Mercury -42074-01-30 08:38 J -13646076.31 -13646076.14 -13646075.98 0.0146 0.0015
 Mercury -42074-04-28 14:52 J -13645988.05 -13645987.88 -13645987.72 0.0146 0.0014
 Mercury -42074-07-25 21:06 J -13645899.78 -13645899.62 -13645899.46 0.0146 0.0043
 Mercury -42074-10-22 03:21 J -13645811.50 -13645811.36 -13645811.21 0.0146 0.0073
 Mercury -42073-01-18 09:50 J -13645723.20 -13645723.09 -13645722.97 0.0146 0.0103
 Earth -42073-04-01 02:09 J -13645649.64 -13645649.41 -13645649.15 0.0146 0.0043
 Moon -42073-04-01 05:02 J -13645649.53 -13645649.29 -13645649.03 0.0146 0.0037 *
 Mercury -42073-04-15 16:04 J -13645634.88 -13645634.83 -13645634.75 0.0146 0.0134
 Moon -42072-04-06 02:38 J -13645279.58 -13645279.39 -13645279.20 0.0146 0.0094
 Earth -42072-04-06 05:45 J -13645279.43 -13645279.26 -13645279.07 0.0146 0.0102 *
 Venus -42069-09-10 15:06 J -13644025.94 -13644025.87 -13644025.79 0.0146 0.0136
 Venus -42068-04-25 03:50 J -13643799.44 -13643799.34 -13643799.21 0.0146 0.0123
 Venus -42068-12-07 17:02 J -13643572.93 -13643572.79 -13643572.64 0.0146 0.0109
 Venus -42067-07-22 05:45 J -13643346.41 -13643346.26 -13643346.08 0.0146 0.0096
 Venus -42066-03-05 19:26 J -13643119.87 -13643119.69 -13643119.51 0.0145 0.0081
 Venus -42066-10-18 08:23 J -13642893.33 -13642893.15 -13642892.94 0.0145 0.0067
 Venus -42065-05-31 21:35 J -13642666.80 -13642666.60 -13642666.38 0.0145 0.0052
 Venus -42064-01-13 11:02 J -13642440.25 -13642440.04 -13642439.83 0.0145 0.0037
 Venus -42064-08-28 00:14 J -13642213.71 -13642213.49 -13642213.27 0.0145 0.0022
 Mars -42063-03-02 19:11 J -13642026.99 -13642026.70 -13642026.40 0.0144 0.0028
 Venus -42063-04-11 13:26 J -13641987.16 -13641986.94 -13641986.72 0.0144 0.0008
 Venus -42063-11-24 02:38 J -13641760.61 -13641760.39 -13641760.17 0.0144 0.0008
 Venus -42062-07-08 15:35 J -13641534.06 -13641533.85 -13641533.62 0.0144 0.0023

Venus -42061-02-20 04:47 J -13641307.51 -13641307.30 -13641307.08 0.0144 0.0037
 Venus -42061-10-03 17:45 J -13641080.96 -13641080.76 -13641080.55 0.0143 0.0051
 Venus -42060-05-18 06:42 J -13640854.42 -13640854.22 -13640854.02 0.0143 0.0065
 Venus -42060-12-30 19:26 J -13640627.87 -13640627.69 -13640627.50 0.0143 0.0079
 Venus -42059-08-14 07:54 J -13640401.33 -13640401.17 -13640400.99 0.0142 0.0093
 Venus -42058-03-28 20:23 J -13640174.78 -13640174.65 -13640174.48 0.0142 0.0107
 Venus -42058-11-10 08:52 J -13639948.23 -13639948.13 -13639947.99 0.0142 0.0119
 Venus -42057-06-23 21:06 J -13639721.68 -13639721.62 -13639721.52 0.0142 0.0132
 Mercury -42034-03-17 23:02 J -13631419.56 -13631419.54 -13631419.49 0.0132 0.0129
 Mercury -42034-06-14 03:06 J -13631331.44 -13631331.37 -13631331.27 0.0132 0.0109
 Mercury -42034-09-10 07:11 J -13631243.30 -13631243.20 -13631243.08 0.0132 0.0089
 Mercury -42034-12-07 11:16 J -13631155.15 -13631155.03 -13631154.89 0.0132 0.0069
 Mercury -42033-03-04 15:21 J -13631067.00 -13631066.86 -13631066.72 0.0132 0.0049
 Mercury -42033-05-31 19:11 J -13630978.84 -13630978.70 -13630978.55 0.0132 0.0030
 Mercury -42033-08-27 23:16 J -13630890.68 -13630890.53 -13630890.38 0.0132 0.0010
 Mercury -42033-11-24 03:06 J -13630802.52 -13630802.37 -13630802.22 0.0132 0.0009
 Mercury -42032-02-20 06:57 J -13630714.35 -13630714.21 -13630714.06 0.0132 0.0029
 Mercury -42032-05-19 10:47 J -13630626.19 -13630626.05 -13630625.91 0.0132 0.0047
 Mercury -42032-08-15 14:23 J -13630538.02 -13630537.90 -13630537.77 0.0132 0.0067
 Moon -42032-10-03 02:38 J -13630489.58 -13630489.39 -13630489.17 0.0132 0.0074
 Earth -42032-10-03 03:35 J -13630489.57 -13630489.35 -13630489.13 0.0132 0.0067 *
 Mercury -42032-11-11 18:14 J -13630449.85 -13630449.74 -13630449.63 0.0132 0.0085
 Mercury -42031-02-07 22:04 J -13630361.67 -13630361.58 -13630361.49 0.0132 0.0104
 Mercury -42031-05-07 01:26 J -13630273.48 -13630273.44 -13630273.37 0.0132 0.0123
 Earth -42031-10-07 08:23 J -13630120.39 -13630120.15 -13630119.90 0.0132 0.0038
 Moon -42031-10-07 09:35 J -13630120.35 -13630120.10 -13630119.85 0.0132 0.0044 *
 Venus -42027-11-04 11:59 J -13628631.00 -13628631.00 -13628630.95 0.0132 0.0132
 Venus -42026-06-18 16:47 J -13628404.87 -13628404.80 -13628404.70 0.0132 0.0122
 Venus -42025-01-30 21:35 J -13628178.70 -13628178.60 -13628178.47 0.0133 0.0111
 Venus -42025-09-13 02:23 J -13627952.52 -13627952.40 -13627952.25 0.0133 0.0101

Venus	-42024-04-27 06:57 J	-13627726.35	-13627726.21	-13627726.03	0.0133	0.0091
Venus	-42024-12-09 11:45 J	-13627500.17	-13627500.01	-13627499.83	0.0133	0.0080
Venus	-42023-07-23 16:18 J	-13627273.99	-13627273.82	-13627273.62	0.0133	0.0069
Venus	-42022-03-06 21:06 J	-13627047.81	-13627047.62	-13627047.42	0.0133	0.0058
Venus	-42022-10-19 01:40 J	-13626821.63	-13626821.43	-13626821.22	0.0133	0.0047
Venus	-42021-06-01 06:28 J	-13626595.44	-13626595.23	-13626595.03	0.0134	0.0036
Venus	-42020-01-13 10:47 J	-13626369.26	-13626369.05	-13626368.83	0.0134	0.0025
Venus	-42020-08-27 15:35 J	-13626143.06	-13626142.85	-13626142.64	0.0134	0.0013
Venus	-42019-04-10 20:09 J	-13625916.87	-13625916.66	-13625916.45	0.0134	0.0002
Mars	-42019-06-25 06:57 J	-13625841.50	-13625841.21	-13625840.89	0.0134	0.0036
Venus	-42019-11-23 00:42 J	-13625690.69	-13625690.47	-13625690.26	0.0134	0.0009
Venus	-42018-07-07 05:16 J	-13625464.49	-13625464.28	-13625464.07	0.0135	0.0021
Venus	-42017-02-18 09:50 J	-13625238.29	-13625238.09	-13625237.88	0.0135	0.0032
Venus	-42017-10-01 14:38 J	-13625012.09	-13625011.89	-13625011.68	0.0135	0.0044
Venus	-42016-05-15 19:26 J	-13624785.88	-13624785.69	-13624785.49	0.0135	0.0055
Venus	-42016-12-28 00:14 J	-13624559.67	-13624559.49	-13624559.30	0.0136	0.0066
Venus	-42015-08-11 04:47 J	-13624333.46	-13624333.30	-13624333.11	0.0136	0.0078
Venus	-42014-03-25 10:04 J	-13624107.24	-13624107.08	-13624106.92	0.0136	0.0089
Venus	-42014-11-06 15:21 J	-13623881.00	-13623880.86	-13623880.72	0.0136	0.0100
Venus	-42013-06-19 20:23 J	-13623654.77	-13623654.65	-13623654.52	0.0137	0.0111
Venus	-42012-02-01 01:26 J	-13623428.52	-13623428.44	-13623428.33	0.0137	0.0122
Venus	-42012-09-15 07:11 J	-13623202.25	-13623202.20	-13623202.14	0.0137	0.0132

42ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 42nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-41991-03-03 14:38 J	-13615727.96	-13615727.89	-13615727.79	0.0146	0.0124		
Mercury	-41991-05-30 20:52 J	-13615639.75	-13615639.63	-13615639.50	0.0146	0.0095		
Mercury	-41991-08-27 03:06 J	-13615551.52	-13615551.37	-13615551.23	0.0146	0.0067		
Mercury	-41991-11-23 09:06 J	-13615463.27	-13615463.12	-13615462.96	0.0146	0.0038		
Mercury	-41990-02-19 15:21 J	-13615375.02	-13615374.86	-13615374.69	0.0146	0.0010		
Mercury	-41990-05-18 21:35 J	-13615286.76	-13615286.60	-13615286.43	0.0146	0.0020		
Mercury	-41990-08-15 03:50 J	-13615198.49	-13615198.34	-13615198.18	0.0146	0.0050		
Mercury	-41990-11-11 10:04 J	-13615110.21	-13615110.08	-13615109.93	0.0146	0.0080		
Mercury	-41989-02-07 16:47 J	-13615021.91	-13615021.80	-13615021.69	0.0146	0.0109		
Earth	-41989-04-01 10:18 J	-13614968.30	-13614968.07	-13614967.81	0.0146	0.0039		
Moon	-41989-04-01 13:26 J	-13614968.19	-13614967.94	-13614967.69	0.0146	0.0045	*	
Mercury	-41989-05-05 23:16 J	-13614933.58	-13614933.53	-13614933.48	0.0146	0.0139		
Moon	-41988-04-06 11:02 J	-13614598.19	-13614598.04	-13614597.88	0.0146	0.0113		
Earth	-41988-04-06 13:54 J	-13614598.09	-13614597.92	-13614597.74	0.0146	0.0105	*	
Venus	-41985-05-10 19:54 J	-13613467.73	-13613467.67	-13613467.61	0.0146	0.0139		
Venus	-41985-12-23 08:38 J	-13613241.24	-13613241.14	-13613241.03	0.0146	0.0126		
Venus	-41984-08-06 21:21 J	-13613014.73	-13613014.61	-13613014.46	0.0146	0.0113		
Venus	-41983-03-21 10:33 J	-13612788.21	-13612788.06	-13612787.89	0.0146	0.0099		
Venus	-41983-11-02 23:45 J	-13612561.68	-13612561.51	-13612561.33	0.0145	0.0085		
Venus	-41982-06-17 12:57 J	-13612335.15	-13612334.96	-13612334.76	0.0145	0.0070		
Venus	-41981-01-30 02:09 J	-13612108.61	-13612108.41	-13612108.20	0.0145	0.0056		
Venus	-41981-09-12 15:35 J	-13611882.06	-13611881.85	-13611881.64	0.0145	0.0041		
Venus	-41980-04-27 04:33 J	-13611655.52	-13611655.31	-13611655.09	0.0145	0.0027		
Venus	-41980-12-09 17:45 J	-13611428.98	-13611428.76	-13611428.54	0.0144	0.0012		
Venus	-41979-07-24 06:57 J	-13611202.43	-13611202.21	-13611201.99	0.0144	0.0003		
Mars	-41979-10-26 23:30 J	-13611107.76	-13611107.52	-13611107.25	0.0144	0.0073		

Venus -41978-03-07 20:09 J -13610975.88 -13610975.66 -13610975.44 0.0144 0.0018
 Venus -41978-10-20 09:06 J -13610749.33 -13610749.12 -13610748.90 0.0144 0.0032
 Venus -41977-06-02 22:04 J -13610522.78 -13610522.58 -13610522.36 0.0143 0.0046
 Venus -41976-01-15 11:02 J -13610296.24 -13610296.04 -13610295.84 0.0143 0.0060
 Venus -41976-08-29 23:45 J -13610069.69 -13610069.51 -13610069.31 0.0143 0.0074
 Venus -41975-04-13 12:28 J -13609843.14 -13609842.98 -13609842.80 0.0143 0.0088
 Venus -41975-11-26 00:57 J -13609616.60 -13609616.46 -13609616.29 0.0142 0.0101
 Venus -41974-07-10 13:26 J -13609390.06 -13609389.94 -13609389.79 0.0142 0.0114
 Venus -41973-02-22 01:40 J -13609163.51 -13609163.43 -13609163.31 0.0142 0.0127
 Venus -41973-10-05 14:23 J -13608936.94 -13608936.90 -13608936.85 0.0141 0.0139
 Mercury -41950-04-07 05:59 J -13600718.29 -13600718.25 -13600718.19 0.0132 0.0124
 Mercury -41950-07-04 10:04 J -13600630.17 -13600630.08 -13600629.98 0.0132 0.0104
 Mercury -41950-09-30 14:09 J -13600542.02 -13600541.91 -13600541.79 0.0132 0.0084
 Mercury -41950-12-27 17:59 J -13600453.87 -13600453.75 -13600453.61 0.0132 0.0065
 Mercury -41949-03-24 22:04 J -13600365.72 -13600365.58 -13600365.43 0.0132 0.0045
 Mercury -41949-06-21 02:09 J -13600277.56 -13600277.41 -13600277.26 0.0132 0.0025
 Mercury -41949-09-17 05:59 J -13600189.40 -13600189.25 -13600189.10 0.0132 0.0006
 Mercury -41949-12-14 09:50 J -13600101.24 -13600101.09 -13600100.94 0.0132 0.0014
 Mercury -41948-03-12 13:40 J -13600013.07 -13600012.93 -13600012.78 0.0132 0.0033
 Mercury -41948-06-08 17:30 J -13599924.90 -13599924.77 -13599924.63 0.0132 0.0052
 Mercury -41948-09-04 21:21 J -13599836.73 -13599836.61 -13599836.49 0.0132 0.0070
 Moon -41948-10-03 11:45 J -13599808.22 -13599808.01 -13599807.78 0.0132 0.0056
 Earth -41948-10-03 11:59 J -13599808.21 -13599808.00 -13599807.77 0.0132 0.0063 *
 Mercury -41948-12-02 00:57 J -13599748.56 -13599748.46 -13599748.35 0.0132 0.0089
 Mercury -41947-02-28 04:33 J -13599660.38 -13599660.31 -13599660.22 0.0132 0.0108
 Mercury -41947-05-27 08:23 J -13599572.18 -13599572.15 -13599572.10 0.0132 0.0126
 Moon -41947-10-07 17:02 J -13599439.04 -13599438.79 -13599438.53 0.0132 0.0035
 Earth -41947-10-07 17:16 J -13599439.02 -13599438.78 -13599438.54 0.0132 0.0041 *
 Venus -41942-02-16 02:38 J -13597846.47 -13597846.39 -13597846.31 0.0132 0.0123
 Venus -41942-09-30 07:26 J -13597620.30 -13597620.19 -13597620.08 0.0133 0.0113

Venus	-41941-05-13 11:59 J	-13597394.13	-13597394.00	-13597393.86	0.0133	0.0103
Venus	-41941-12-25 16:33 J	-13597167.95	-13597167.81	-13597167.65	0.0133	0.0093
Venus	-41940-08-08 21:21 J	-13596941.77	-13596941.61	-13596941.43	0.0133	0.0082
Venus	-41939-03-23 02:09 J	-13596715.59	-13596715.41	-13596715.23	0.0133	0.0071
Venus	-41939-11-04 06:42 J	-13596489.41	-13596489.22	-13596489.03	0.0133	0.0061
Venus	-41938-06-18 11:16 J	-13596263.23	-13596263.03	-13596262.83	0.0133	0.0050
Venus	-41937-01-30 15:50 J	-13596037.05	-13596036.84	-13596036.64	0.0133	0.0039
Venus	-41937-09-12 20:23 J	-13595810.86	-13595810.65	-13595810.44	0.0134	0.0028
Mars	-41936-03-17 19:40 J	-13595624.77	-13595624.68	-13595624.55	0.0134	0.0125
Venus	-41936-04-27 00:57 J	-13595584.67	-13595584.46	-13595584.25	0.0134	0.0017
Venus	-41936-12-09 05:30 J	-13595358.49	-13595358.27	-13595358.06	0.0134	0.0005
Venus	-41935-07-23 10:04 J	-13595132.30	-13595132.08	-13595131.87	0.0134	0.0006
Mars	-41934-02-18 02:23 J	-13594922.51	-13594922.40	-13594922.24	0.0134	0.0122
Venus	-41934-03-06 14:38 J	-13594906.10	-13594905.89	-13594905.68	0.0134	0.0017
Venus	-41934-10-18 19:11 J	-13594679.90	-13594679.70	-13594679.49	0.0135	0.0029
Venus	-41933-05-31 23:45 J	-13594453.71	-13594453.51	-13594453.30	0.0135	0.0040
Venus	-41932-01-13 04:33 J	-13594227.50	-13594227.31	-13594227.11	0.0135	0.0051
Venus	-41932-08-27 09:21 J	-13594001.29	-13594001.11	-13594000.91	0.0135	0.0062
Venus	-41931-04-10 14:09 J	-13593775.08	-13593774.91	-13593774.72	0.0136	0.0074
Venus	-41931-11-22 18:57 J	-13593548.86	-13593548.71	-13593548.53	0.0136	0.0085
Venus	-41930-07-07 00:14 J	-13593322.63	-13593322.49	-13593322.33	0.0136	0.0096
Venus	-41929-02-18 05:16 J	-13593096.40	-13593096.28	-13593096.14	0.0136	0.0107
Venus	-41929-10-01 10:33 J	-13592870.15	-13592870.06	-13592869.94	0.0137	0.0118
Venus	-41928-05-15 16:04 J	-13592643.89	-13592643.83	-13592643.74	0.0137	0.0128
Mercury	-41908-12-25 15:35 J	-13585114.86	-13585114.85	-13585114.82	0.0146	0.0145
Mercury	-41907-03-23 21:35 J	-13585026.69	-13585026.60	-13585026.50	0.0146	0.0117
Mercury	-41907-06-20 03:35 J	-13584938.47	-13584938.35	-13584938.21	0.0146	0.0090
Mercury	-41907-09-16 09:50 J	-13584850.24	-13584850.09	-13584849.94	0.0146	0.0061
Mercury	-41907-12-13 16:04 J	-13584761.99	-13584761.83	-13584761.67	0.0146	0.0032
Mercury	-41906-03-11 22:18 J	-13584673.74	-13584673.57	-13584673.41	0.0146	0.0004

Mercury -41906-06-08 04:18 J -13584585.48 -13584585.32 -13584585.15 0.0146 0.0027

Mercury -41906-09-04 10:47 J -13584497.20 -13584497.05 -13584496.90 0.0146 0.0055

Mercury -41906-12-01 16:47 J -13584408.92 -13584408.80 -13584408.65 0.0146 0.0086

Mercury -41905-02-27 23:30 J -13584320.62 -13584320.52 -13584320.41 0.0146 0.0115

Earth -41905-04-01 18:28 J -13584286.96 -13584286.73 -13584286.47 0.0146 0.0036

Moon -41905-04-01 20:23 J -13584286.89 -13584286.65 -13584286.38 0.0146 0.0031 *

Mercury -41905-05-26 05:59 J -13584232.27 -13584232.25 -13584232.23 0.0146 0.0145

Moon -41904-04-06 19:11 J -13583916.86 -13583916.70 -13583916.51 0.0146 0.0102

Earth -41904-04-06 22:04 J -13583916.74 -13583916.58 -13583916.40 0.0146 0.0109 *

Venus -41901-01-09 00:28 J -13582909.51 -13582909.48 -13582909.42 0.0146 0.0143

Venus -41901-08-22 13:40 J -13582683.03 -13582682.93 -13582682.83 0.0146 0.0129

Venus -41900-04-06 02:23 J -13582456.52 -13582456.40 -13582456.26 0.0146 0.0116

Venus -41900-11-18 15:06 J -13582230.01 -13582229.87 -13582229.70 0.0146 0.0103

Venus -41899-07-03 04:18 J -13582003.48 -13582003.32 -13582003.14 0.0146 0.0089

Venus -41898-02-14 17:45 J -13581776.94 -13581776.76 -13581776.57 0.0145 0.0074

Venus -41898-09-29 06:42 J -13581550.41 -13581550.22 -13581550.01 0.0145 0.0061

Venus -41897-05-12 19:54 J -13581323.87 -13581323.67 -13581323.45 0.0145 0.0046

Venus -41897-12-25 09:06 J -13581097.33 -13581097.12 -13581096.90 0.0145 0.0031

Mars -41896-07-19 10:04 J -13580891.24 -13580891.08 -13580890.88 0.0145 0.0116

Venus -41896-08-08 22:18 J -13580870.78 -13580870.57 -13580870.35 0.0145 0.0017

Venus -41895-03-23 11:45 J -13580644.23 -13580644.01 -13580643.79 0.0144 0.0003

Venus -41895-11-05 00:42 J -13580417.69 -13580417.47 -13580417.25 0.0144 0.0013

Venus -41894-06-19 13:40 J -13580191.14 -13580190.93 -13580190.71 0.0144 0.0027

Venus -41893-02-01 02:38 J -13579964.60 -13579964.39 -13579964.17 0.0144 0.0041

Venus -41893-09-14 15:21 J -13579738.05 -13579737.86 -13579737.64 0.0143 0.0056

Venus -41892-04-29 04:18 J -13579511.51 -13579511.32 -13579511.12 0.0143 0.0069

Venus -41892-12-11 17:02 J -13579284.96 -13579284.79 -13579284.60 0.0143 0.0083

Venus -41891-07-26 05:45 J -13579058.42 -13579058.26 -13579058.09 0.0143 0.0096

Venus -41890-03-09 17:59 J -13578831.87 -13578831.75 -13578831.59 0.0142 0.0110

Venus -41890-10-22 06:28 J -13578605.32 -13578605.23 -13578605.09 0.0142 0.0122

Venus -41889-06-04 18:57 J -13578378.76 -13578378.71 -13578378.62 0.0142 0.0134
 Mercury -41866-04-27 12:42 J -13570017.03 -13570016.97 -13570016.90 0.0132 0.0120
 Mercury -41866-07-24 16:47 J -13569928.89 -13569928.80 -13569928.70 0.0132 0.0100
 Mercury -41866-10-20 20:38 J -13569840.75 -13569840.64 -13569840.51 0.0132 0.0081
 Mercury -41865-01-17 00:42 J -13569752.60 -13569752.47 -13569752.33 0.0132 0.0061
 Mercury -41865-04-14 04:47 J -13569664.44 -13569664.30 -13569664.15 0.0132 0.0041
 Mercury -41865-07-11 08:52 J -13569576.28 -13569576.13 -13569575.98 0.0132 0.0021
 Mercury -41865-10-07 12:42 J -13569488.12 -13569487.97 -13569487.82 0.0132 0.0002
 Mercury -41864-01-03 16:33 J -13569399.96 -13569399.81 -13569399.66 0.0132 0.0017
 Mercury -41864-04-01 20:23 J -13569311.79 -13569311.65 -13569311.51 0.0132 0.0036
 Mercury -41864-06-29 00:14 J -13569223.62 -13569223.49 -13569223.36 0.0132 0.0055
 Mercury -41864-09-25 03:50 J -13569135.45 -13569135.34 -13569135.21 0.0132 0.0075
 Earth -41864-10-03 20:09 J -13569126.87 -13569126.66 -13569126.42 0.0132 0.0060
 Moon -41864-10-03 20:52 J -13569126.83 -13569126.63 -13569126.40 0.0132 0.0066 *
 Mercury -41864-12-22 07:40 J -13569047.28 -13569047.18 -13569047.07 0.0132 0.0093
 Mercury -41863-03-20 11:30 J -13568959.10 -13568959.02 -13568958.94 0.0132 0.0111
 Mercury -41863-06-16 14:52 J -13568870.89 -13568870.88 -13568870.84 0.0132 0.0131
 Moon -41863-10-08 00:57 J -13568757.69 -13568757.46 -13568757.20 0.0132 0.0051
 Earth -41863-10-08 01:26 J -13568757.68 -13568757.44 -13568757.20 0.0132 0.0044 *
 Venus -41859-10-16 11:30 J -13567288.08 -13567288.02 -13567287.94 0.0132 0.0125
 Venus -41858-05-30 16:18 J -13567061.92 -13567061.82 -13567061.70 0.0132 0.0115
 Venus -41857-01-11 21:06 J -13566835.74 -13566835.62 -13566835.48 0.0133 0.0105
 Venus -41857-08-25 01:54 J -13566609.56 -13566609.42 -13566609.26 0.0133 0.0095
 Venus -41856-04-08 06:28 J -13566383.38 -13566383.23 -13566383.05 0.0133 0.0085
 Venus -41856-11-20 11:02 J -13566157.21 -13566157.04 -13566156.85 0.0133 0.0074
 Venus -41855-07-04 15:50 J -13565931.03 -13565930.84 -13565930.65 0.0133 0.0063
 Venus -41854-02-15 20:23 J -13565704.84 -13565704.65 -13565704.45 0.0133 0.0052
 Venus -41854-09-30 00:57 J -13565478.66 -13565478.46 -13565478.25 0.0133 0.0042
 Venus -41853-05-13 05:30 J -13565252.48 -13565252.27 -13565252.06 0.0134 0.0031
 Venus -41853-12-25 10:04 J -13565026.29 -13565026.08 -13565025.87 0.0134 0.0020

Venus	-41852-08-08 14:38 J	-13564800.10	-13564799.89	-13564799.68	0.0134	0.0009
Mars	-41852-11-10 15:21 J	-13564706.16	-13564705.86	-13564705.55	0.0134	0.0039
Venus	-41851-03-22 19:11 J	-13564573.92	-13564573.70	-13564573.49	0.0134	0.0003
Venus	-41851-11-03 23:45 J	-13564347.72	-13564347.51	-13564347.30	0.0134	0.0014
Venus	-41850-06-18 04:18 J	-13564121.53	-13564121.32	-13564121.11	0.0135	0.0025
Venus	-41849-01-30 08:52 J	-13563895.33	-13563895.13	-13563894.92	0.0135	0.0036
Venus	-41849-09-12 13:40 J	-13563669.12	-13563668.93	-13563668.72	0.0135	0.0047
Venus	-41848-04-26 18:28 J	-13563442.92	-13563442.73	-13563442.53	0.0135	0.0058
Venus	-41848-12-08 23:02 J	-13563216.71	-13563216.54	-13563216.34	0.0136	0.0070
Venus	-41847-07-23 03:50 J	-13562990.49	-13562990.34	-13562990.15	0.0136	0.0081
Venus	-41846-03-06 09:21 J	-13562764.27	-13562764.11	-13562763.95	0.0136	0.0091
Venus	-41846-10-18 14:23 J	-13562538.03	-13562537.90	-13562537.75	0.0136	0.0103
Venus	-41845-05-31 19:26 J	-13562311.79	-13562311.69	-13562311.55	0.0137	0.0114
Venus	-41844-01-13 00:57 J	-13562085.54	-13562085.46	-13562085.36	0.0137	0.0124
Venus	-41844-08-27 06:28 J	-13561859.26	-13561859.23	-13561859.18	0.0137	0.0134
Mercury	-41823-01-14 22:33 J	-13554413.60	-13554413.56	-13554413.50	0.0146	0.0139
Mercury	-41823-04-13 04:33 J	-13554325.41	-13554325.31	-13554325.20	0.0146	0.0111
Mercury	-41823-07-10 10:33 J	-13554237.19	-13554237.06	-13554236.92	0.0146	0.0083
Mercury	-41823-10-06 16:33 J	-13554148.95	-13554148.81	-13554148.65	0.0146	0.0056
Mercury	-41822-01-02 23:02 J	-13554060.71	-13554060.54	-13554060.38	0.0146	0.0026
Mercury	-41822-04-01 05:02 J	-13553972.45	-13553972.29	-13553972.12	0.0146	0.0005
Mercury	-41822-06-28 11:16 J	-13553884.19	-13553884.03	-13553883.86	0.0146	0.0032
Mercury	-41822-09-24 17:45 J	-13553795.91	-13553795.76	-13553795.61	0.0146	0.0061
Mercury	-41822-12-21 23:59 J	-13553707.63	-13553707.50	-13553707.37	0.0146	0.0091
Mercury	-41821-03-19 06:14 J	-13553619.32	-13553619.24	-13553619.14	0.0146	0.0121
Earth	-41821-04-02 03:21 J	-13553605.60	-13553605.36	-13553605.11	0.0146	0.0031
Moon	-41821-04-02 05:02 J	-13553605.53	-13553605.29	-13553605.02	0.0146	0.0037 *
Moon	-41820-04-07 04:47 J	-13553235.43	-13553235.30	-13553235.15	0.0146	0.0120
Earth	-41820-04-07 06:57 J	-13553235.36	-13553235.21	-13553235.04	0.0146	0.0113 *
Venus	-41818-09-08 05:45 J	-13552351.27	-13552351.26	-13552351.22	0.0146	0.0145

Venus	-41817-04-21 18:42 J	-13552124.80	-13552124.72	-13552124.62	0.0146	0.0132
Venus	-41817-12-04 07:40 J	-13551898.30	-13551898.18	-13551898.05	0.0146	0.0119
Venus	-41816-07-18 20:23 J	-13551671.78	-13551671.65	-13551671.49	0.0146	0.0106
Venus	-41815-03-02 09:50 J	-13551445.26	-13551445.09	-13551444.92	0.0146	0.0092
Venus	-41815-10-14 22:33 J	-13551218.73	-13551218.56	-13551218.36	0.0146	0.0079
Venus	-41814-05-29 11:45 J	-13550992.19	-13550992.01	-13550991.80	0.0145	0.0065
Venus	-41813-01-11 01:11 J	-13550765.66	-13550765.45	-13550765.24	0.0145	0.0050
Venus	-41813-08-24 14:23 J	-13550539.12	-13550538.90	-13550538.69	0.0145	0.0035
Venus	-41812-04-08 03:21 J	-13550312.57	-13550312.36	-13550312.13	0.0145	0.0021
Venus	-41812-11-20 16:33 J	-13550086.03	-13550085.81	-13550085.59	0.0145	0.0006
Mars	-41811-03-14 16:18 J	-13549972.11	-13549971.82	-13549971.52	0.0144	0.0014
Venus	-41811-07-05 05:30 J	-13549859.49	-13549859.27	-13549859.04	0.0144	0.0009
Venus	-41810-02-16 18:42 J	-13549632.94	-13549632.72	-13549632.50	0.0144	0.0022
Venus	-41810-10-01 07:40 J	-13549406.39	-13549406.18	-13549405.96	0.0144	0.0037
Venus	-41809-05-14 20:23 J	-13549179.85	-13549179.65	-13549179.43	0.0144	0.0051
Venus	-41809-12-27 09:06 J	-13548953.30	-13548953.12	-13548952.91	0.0143	0.0065
Venus	-41808-08-10 21:50 J	-13548726.76	-13548726.59	-13548726.39	0.0143	0.0078
Venus	-41807-03-25 10:47 J	-13548500.21	-13548500.05	-13548499.87	0.0143	0.0091
Venus	-41807-11-06 23:16 J	-13548273.66	-13548273.53	-13548273.36	0.0142	0.0104
Venus	-41806-06-21 12:14 J	-13548047.12	-13548046.99	-13548046.87	0.0142	0.0117
Venus	-41805-02-03 00:14 J	-13547820.57	-13547820.49	-13547820.39	0.0142	0.0129
Venus	-41805-09-16 12:42 J	-13547593.98	-13547593.97	-13547593.94	0.0141	0.0141
Mercury	-41782-05-17 19:26 J	-13539315.75	-13539315.69	-13539315.61	0.0132	0.0116
Mercury	-41782-08-13 23:30 J	-13539227.62	-13539227.52	-13539227.41	0.0132	0.0096
Mercury	-41782-11-10 03:35 J	-13539139.47	-13539139.35	-13539139.22	0.0132	0.0076
Mercury	-41781-02-06 07:40 J	-13539051.31	-13539051.18	-13539051.04	0.0132	0.0056
Mercury	-41781-05-04 11:45 J	-13538963.16	-13538963.01	-13538962.87	0.0132	0.0036
Mercury	-41781-07-31 15:35 J	-13538875.00	-13538874.85	-13538874.70	0.0132	0.0017
Mercury	-41781-10-27 19:26 J	-13538786.83	-13538786.69	-13538786.54	0.0132	0.0004
Mercury	-41780-01-23 23:16 J	-13538698.67	-13538698.53	-13538698.38	0.0132	0.0022

Mercury -41780-04-22 03:06 J -13538610.50 -13538610.37 -13538610.22 0.0132 0.0041

Mercury -41780-07-19 06:57 J -13538522.34 -13538522.21 -13538522.07 0.0132 0.0060

Earth -41780-10-04 05:02 J -13538445.50 -13538445.29 -13538445.04 0.0132 0.0057

Moon -41780-10-04 06:14 J -13538445.46 -13538445.24 -13538445.01 0.0132 0.0049 *

Mercury -41780-10-15 10:47 J -13538434.16 -13538434.05 -13538433.93 0.0132 0.0079

Mercury -41779-01-11 14:23 J -13538345.99 -13538345.90 -13538345.79 0.0132 0.0098

Mercury -41779-04-09 17:59 J -13538257.80 -13538257.75 -13538257.66 0.0132 0.0117

Moon -41779-10-08 08:52 J -13538076.37 -13538076.13 -13538075.87 0.0132 0.0042

Earth -41779-10-08 10:18 J -13538076.30 -13538076.07 -13538075.82 0.0132 0.0049 *

Venus -41775-06-15 20:52 J -13536729.67 -13536729.63 -13536729.55 0.0132 0.0126

Venus -41774-01-28 01:54 J -13536503.51 -13536503.42 -13536503.31 0.0132 0.0116

Venus -41774-09-11 06:42 J -13536277.33 -13536277.22 -13536277.07 0.0132 0.0107

Venus -41773-04-24 11:30 J -13536051.15 -13536051.02 -13536050.86 0.0133 0.0097

Venus -41773-12-06 16:33 J -13535824.98 -13535824.81 -13535824.65 0.0133 0.0086

Venus -41772-07-20 20:52 J -13535598.80 -13535598.63 -13535598.44 0.0133 0.0076

Venus -41771-03-04 01:40 J -13535372.62 -13535372.43 -13535372.24 0.0133 0.0065

Venus -41771-10-16 05:59 J -13535146.43 -13535146.25 -13535146.04 0.0133 0.0055

Venus -41770-05-30 10:33 J -13534920.25 -13534920.06 -13534919.85 0.0133 0.0044

Venus -41769-01-11 15:06 J -13534694.07 -13534693.87 -13534693.65 0.0133 0.0033

Venus -41769-08-24 19:40 J -13534467.88 -13534467.68 -13534467.46 0.0134 0.0023

Venus -41768-04-08 00:14 J -13534241.70 -13534241.49 -13534241.27 0.0134 0.0012

Venus -41768-11-20 04:47 J -13534015.51 -13534015.30 -13534015.08 0.0134 0.0002

Venus -41767-07-04 09:21 J -13533789.32 -13533789.11 -13533788.90 0.0134 0.0011

Mars -41767-07-06 13:11 J -13533787.23 -13533786.95 -13533786.64 0.0134 0.0048

Venus -41766-02-15 13:54 J -13533563.13 -13533562.92 -13533562.71 0.0134 0.0022

Venus -41766-09-29 18:42 J -13533336.93 -13533336.72 -13533336.51 0.0135 0.0033

Venus -41765-05-12 23:16 J -13533110.72 -13533110.53 -13533110.32 0.0135 0.0044

Venus -41765-12-25 03:50 J -13532884.52 -13532884.34 -13532884.13 0.0135 0.0055

Venus -41764-08-08 08:52 J -13532658.31 -13532658.13 -13532657.94 0.0135 0.0066

Venus -41763-03-22 13:40 J -13532432.09 -13532431.93 -13532431.74 0.0136 0.0077

Venus -41763-11-03 18:42 J -13532205.87 -13532205.72 -13532205.55 0.0136 0.0088
 Venus -41762-06-17 23:59 J -13531979.64 -13531979.50 -13531979.35 0.0136 0.0099
 Venus -41761-01-30 05:02 J -13531753.40 -13531753.29 -13531753.15 0.0136 0.0109
 Venus -41761-09-12 10:18 J -13531527.15 -13531527.07 -13531526.95 0.0137 0.0120
 Venus -41760-04-26 15:50 J -13531300.89 -13531300.84 -13531300.76 0.0137 0.0130
 Mercury -41739-02-04 05:30 J -13523712.33 -13523712.27 -13523712.20 0.0146 0.0133
 Mercury -41739-05-03 11:30 J -13523624.13 -13523624.02 -13523623.90 0.0146 0.0105
 Mercury -41739-07-30 17:30 J -13523535.90 -13523535.77 -13523535.63 0.0146 0.0077
 Mercury -41739-10-26 23:30 J -13523447.67 -13523447.52 -13523447.36 0.0146 0.0049
 Mercury -41738-01-23 05:45 J -13523359.42 -13523359.26 -13523359.09 0.0146 0.0020
 Mercury -41738-04-21 11:59 J -13523271.16 -13523271.00 -13523270.83 0.0146 0.0009
 Mercury -41738-07-18 18:14 J -13523182.90 -13523182.74 -13523182.58 0.0146 0.0038
 Mercury -41738-10-15 00:28 J -13523094.62 -13523094.48 -13523094.33 0.0146 0.0068
 Mercury -41737-01-11 06:42 J -13523006.33 -13523006.22 -13523006.08 0.0146 0.0098
 Earth -41737-04-02 11:45 J -13522924.25 -13522924.01 -13522923.75 0.0146 0.0028
 Moon -41737-04-02 12:42 J -13522924.23 -13522923.97 -13522923.71 0.0146 0.0023 *
 Mercury -41737-04-08 13:11 J -13522918.02 -13522917.95 -13522917.86 0.0146 0.0128
 Moon -41736-04-07 13:40 J -13522554.08 -13522553.93 -13522553.76 0.0146 0.0110
 Earth -41736-04-07 15:35 J -13522553.99 -13522553.85 -13522553.69 0.0146 0.0117 *
 Venus -41734-12-20 23:45 J -13521566.58 -13521566.51 -13521566.42 0.0146 0.0135
 Venus -41733-08-03 12:42 J -13521340.08 -13521339.97 -13521339.84 0.0146 0.0122
 Venus -41732-03-18 01:40 J -13521113.56 -13521113.43 -13521113.27 0.0146 0.0109
 Venus -41732-10-30 14:38 J -13520887.04 -13520886.89 -13520886.71 0.0146 0.0096
 Venus -41731-06-14 03:50 J -13520660.51 -13520660.34 -13520660.15 0.0146 0.0082
 Venus -41730-01-26 17:02 J -13520433.98 -13520433.79 -13520433.59 0.0146 0.0068
 Venus -41730-09-10 06:14 J -13520207.44 -13520207.24 -13520207.03 0.0145 0.0053
 Venus -41729-04-23 19:11 J -13519980.90 -13519980.70 -13519980.48 0.0145 0.0039
 Venus -41729-12-06 08:23 J -13519754.36 -13519754.15 -13519753.93 0.0145 0.0025
 Venus -41728-07-20 21:35 J -13519527.82 -13519527.60 -13519527.38 0.0145 0.0011
 Venus -41727-03-04 10:47 J -13519301.27 -13519301.05 -13519300.83 0.0145 0.0004

Venus -41727-10-16 23:45 J -13519074.73 -13519074.51 -13519074.29 0.0144 0.0018
 Mars -41727-11-07 23:30 J -13519052.75 -13519052.52 -13519052.28 0.0144 0.0089
 Venus -41726-05-31 12:42 J -13518848.18 -13518847.97 -13518847.75 0.0144 0.0032
 Venus -41725-01-13 01:40 J -13518621.64 -13518621.43 -13518621.22 0.0144 0.0046
 Venus -41725-08-26 14:23 J -13518395.09 -13518394.90 -13518394.69 0.0143 0.0060
 Venus -41724-04-10 03:21 J -13518168.54 -13518168.36 -13518168.16 0.0143 0.0073
 Venus -41724-11-22 15:50 J -13517942.00 -13517941.84 -13517941.65 0.0143 0.0087
 Venus -41723-07-07 04:33 J -13517715.45 -13517715.31 -13517715.14 0.0143 0.0100
 Venus -41722-02-18 17:16 J -13517488.90 -13517488.78 -13517488.63 0.0142 0.0112
 Venus -41722-10-03 05:59 J -13517262.35 -13517262.25 -13517262.14 0.0142 0.0124
 Venus -41721-05-16 17:59 J -13517035.78 -13517035.75 -13517035.67 0.0142 0.0137
 Mercury -41698-03-10 22:04 J -13508702.58 -13508702.58 -13508702.55 0.0132 0.0131
 Mercury -41698-06-07 02:09 J -13508614.48 -13508614.41 -13508614.32 0.0132 0.0112
 Mercury -41698-09-03 06:14 J -13508526.34 -13508526.24 -13508526.12 0.0132 0.0092
 Mercury -41698-11-30 10:18 J -13508438.19 -13508438.07 -13508437.93 0.0132 0.0072
 Mercury -41697-02-26 14:23 J -13508350.03 -13508349.90 -13508349.76 0.0132 0.0052
 Mercury -41697-05-24 18:28 J -13508261.87 -13508261.73 -13508261.58 0.0132 0.0032
 Mercury -41697-08-20 22:18 J -13508173.71 -13508173.57 -13508173.42 0.0132 0.0013
 Mercury -41697-11-17 02:23 J -13508085.55 -13508085.40 -13508085.25 0.0132 0.0007
 Mercury -41696-02-13 06:14 J -13507997.39 -13507997.24 -13507997.09 0.0132 0.0026
 Mercury -41696-05-12 10:04 J -13507909.22 -13507909.08 -13507908.94 0.0132 0.0045
 Mercury -41696-08-08 13:40 J -13507821.05 -13507820.93 -13507820.79 0.0132 0.0064
 Earth -41696-10-04 13:54 J -13507764.14 -13507763.92 -13507763.67 0.0132 0.0053
 Moon -41696-10-04 15:50 J -13507764.05 -13507763.84 -13507763.61 0.0132 0.0058 *
 Mercury -41696-11-04 17:45 J -13507732.88 -13507732.76 -13507732.65 0.0132 0.0083
 Mercury -41695-01-31 21:21 J -13507644.70 -13507644.61 -13507644.51 0.0132 0.0101
 Mercury -41695-04-30 00:57 J -13507556.51 -13507556.46 -13507556.39 0.0132 0.0120
 Moon -41695-10-08 17:30 J -13507394.99 -13507394.77 -13507394.52 0.0132 0.0059
 Earth -41695-10-08 19:11 J -13507394.93 -13507394.70 -13507394.46 0.0132 0.0052 *
 Venus -41691-02-13 06:14 J -13506171.28 -13506171.24 -13506171.16 0.0132 0.0128

Venus	-41691-09-27 11:30 J	-13505945.11	-13505945.02	-13505944.92	0.0132	0.0118
Venus	-41690-05-11 16:18 J	-13505718.94	-13505718.82	-13505718.69	0.0132	0.0108
Venus	-41690-12-23 21:06 J	-13505492.76	-13505492.62	-13505492.47	0.0132	0.0098
Venus	-41689-08-06 01:40 J	-13505266.58	-13505266.43	-13505266.26	0.0133	0.0088
Venus	-41688-03-20 06:14 J	-13505040.40	-13505040.24	-13505040.05	0.0133	0.0078
Venus	-41688-11-01 11:02 J	-13504814.23	-13504814.04	-13504813.85	0.0133	0.0067
Venus	-41687-06-15 15:21 J	-13504588.05	-13504587.86	-13504587.66	0.0133	0.0057
Venus	-41686-01-27 19:54 J	-13504361.86	-13504361.67	-13504361.46	0.0133	0.0047
Venus	-41686-09-11 00:42 J	-13504135.68	-13504135.47	-13504135.26	0.0133	0.0036
Venus	-41685-04-24 05:16 J	-13503909.49	-13503909.28	-13503909.07	0.0133	0.0025
Venus	-41685-12-06 09:35 J	-13503683.31	-13503683.10	-13503682.88	0.0134	0.0014
Mars	-41684-03-29 00:28 J	-13503570.64	-13503570.48	-13503570.30	0.0134	0.0113
Venus	-41684-07-20 14:09 J	-13503457.12	-13503456.91	-13503456.69	0.0134	0.0004
Venus	-41683-03-03 18:42 J	-13503230.93	-13503230.72	-13503230.50	0.0134	0.0008
Venus	-41683-10-15 23:30 J	-13503004.73	-13503004.52	-13503004.31	0.0134	0.0019
Mars	-41682-03-01 09:50 J	-13502868.09	-13502868.09	-13502868.05	0.0134	0.0134
Venus	-41682-05-30 04:04 J	-13502778.54	-13502778.33	-13502778.12	0.0135	0.0029
Venus	-41681-01-11 08:38 J	-13502552.34	-13502552.14	-13502551.93	0.0135	0.0041
Venus	-41681-08-24 13:40 J	-13502326.13	-13502325.93	-13502325.74	0.0135	0.0051
Venus	-41680-04-07 18:14 J	-13502099.92	-13502099.74	-13502099.54	0.0135	0.0062
Venus	-41680-11-19 23:02 J	-13501873.71	-13501873.54	-13501873.35	0.0135	0.0073
Venus	-41679-07-04 04:04 J	-13501647.49	-13501647.33	-13501647.16	0.0136	0.0084
Venus	-41678-02-15 09:06 J	-13501421.26	-13501421.12	-13501420.96	0.0136	0.0095
Jupiter	-41678-03-13 23:16 J	-13501394.99	-13501394.53	-13501394.03	0.0136	0.0034
Venus	-41678-09-29 14:23 J	-13501195.02	-13501194.90	-13501194.75	0.0136	0.0106
Venus	-41677-05-12 19:40 J	-13500968.78	-13500968.68	-13500968.56	0.0137	0.0116
Venus	-41677-12-25 00:57 J	-13500742.53	-13500742.46	-13500742.37	0.0137	0.0126
Venus	-41676-08-08 06:28 J	-13500516.24	-13500516.23	-13500516.20	0.0137	0.0136
Mercury	-41655-02-24 12:14 J	-13493011.05	-13493010.99	-13493010.90	0.0146	0.0128
Mercury	-41655-05-23 18:28 J	-13492922.84	-13492922.73	-13492922.61	0.0146	0.0099

Mercury -41655-08-20 00:28 J -13492834.62 -13492834.48 -13492834.33 0.0146 0.0071
 Mercury -41655-11-16 06:42 J -13492746.38 -13492746.22 -13492746.06 0.0146 0.0042
 Mercury -41654-02-12 12:42 J -13492658.13 -13492657.97 -13492657.80 0.0146 0.0015
 Mercury -41654-05-11 18:57 J -13492569.87 -13492569.71 -13492569.54 0.0146 0.0016
 Mercury -41654-08-08 01:11 J -13492481.60 -13492481.45 -13492481.29 0.0146 0.0045
 Mercury -41654-11-04 07:40 J -13492393.32 -13492393.18 -13492393.04 0.0146 0.0074
 Mercury -41653-01-31 13:54 J -13492305.03 -13492304.92 -13492304.80 0.0146 0.0104
 Earth -41653-04-02 21:06 J -13492242.86 -13492242.62 -13492242.36 0.0146 0.0023
 Moon -41653-04-02 21:50 J -13492242.84 -13492242.59 -13492242.33 0.0146 0.0026 *
 Mercury -41653-04-28 20:09 J -13492216.71 -13492216.66 -13492216.58 0.0146 0.0135
 Moon -41652-04-07 23:45 J -13491872.61 -13491872.51 -13491872.38 0.0146 0.0129
 Earth -41652-04-08 00:42 J -13491872.59 -13491872.47 -13491872.31 0.0146 0.0122 *
 Venus -41650-08-20 05:30 J -13491008.33 -13491008.27 -13491008.19 0.0146 0.0137
 Venus -41649-04-02 17:59 J -13490781.84 -13490781.75 -13490781.62 0.0146 0.0125
 Venus -41649-11-15 06:57 J -13490555.33 -13490555.21 -13490555.06 0.0146 0.0112
 Venus -41648-06-29 20:09 J -13490328.82 -13490328.66 -13490328.50 0.0146 0.0098
 Venus -41647-02-11 09:06 J -13490102.28 -13490102.12 -13490101.93 0.0146 0.0085
 Venus -41647-09-25 22:18 J -13489875.75 -13489875.57 -13489875.37 0.0146 0.0071
 Venus -41646-05-10 11:30 J -13489649.22 -13489649.02 -13489648.82 0.0145 0.0057
 Venus -41646-12-23 00:14 J -13489422.69 -13489422.49 -13489422.27 0.0145 0.0044
 Venus -41645-08-05 13:40 J -13489196.15 -13489195.93 -13489195.72 0.0145 0.0029
 Venus -41644-03-20 02:52 J -13488969.60 -13488969.38 -13488969.16 0.0145 0.0014
 Mars -41644-07-31 12:28 J -13488836.18 -13488835.98 -13488835.75 0.0145 0.0100
 Venus -41644-11-01 15:50 J -13488743.06 -13488742.84 -13488742.62 0.0145 0.0003
 Venus -41643-06-16 04:47 J -13488516.51 -13488516.30 -13488516.07 0.0144 0.0015
 Venus -41642-01-28 17:45 J -13488289.97 -13488289.76 -13488289.53 0.0144 0.0029
 Venus -41642-09-12 06:57 J -13488063.42 -13488063.21 -13488063.00 0.0144 0.0042
 Venus -41641-04-25 19:40 J -13487836.87 -13487836.68 -13487836.46 0.0144 0.0056
 Venus -41641-12-08 08:38 J -13487610.33 -13487610.14 -13487609.94 0.0143 0.0069
 Venus -41640-07-22 21:35 J -13487383.78 -13487383.60 -13487383.42 0.0143 0.0082

Venus -41639-03-06 10:04 J -13487157.23 -13487157.08 -13487156.90 0.0143 0.0096
 Venus -41639-10-18 22:47 J -13486930.67 -13486930.55 -13486930.39 0.0142 0.0109
 Venus -41638-06-02 11:30 J -13486704.12 -13486704.02 -13486703.89 0.0142 0.0121
 Venus -41637-01-15 00:14 J -13486477.57 -13486477.49 -13486477.41 0.0142 0.0132
 Mercury -41614-03-31 05:02 J -13478001.32 -13478001.29 -13478001.24 0.0132 0.0127
 Mercury -41614-06-27 09:06 J -13477913.20 -13477913.12 -13477913.02 0.0132 0.0107
 Mercury -41614-09-23 13:11 J -13477825.05 -13477824.95 -13477824.82 0.0132 0.0087
 Mercury -41614-12-20 17:30 J -13477736.90 -13477736.77 -13477736.64 0.0132 0.0066
 Mercury -41613-03-17 21:21 J -13477648.74 -13477648.61 -13477648.46 0.0132 0.0047
 Mercury -41613-06-14 01:26 J -13477560.59 -13477560.44 -13477560.29 0.0132 0.0027
 Mercury -41613-09-10 05:30 J -13477472.42 -13477472.27 -13477472.12 0.0132 0.0008
 Mercury -41613-12-07 09:21 J -13477384.26 -13477384.11 -13477383.96 0.0132 0.0012
 Mercury -41612-03-05 13:11 J -13477296.09 -13477295.95 -13477295.80 0.0132 0.0031
 Mercury -41612-06-01 17:02 J -13477207.93 -13477207.79 -13477207.65 0.0132 0.0050
 Mercury -41612-08-28 20:38 J -13477119.75 -13477119.64 -13477119.50 0.0132 0.0069
 Earth -41612-10-04 23:59 J -13477082.74 -13477082.50 -13477082.26 0.0132 0.0048
 Moon -41612-10-05 01:40 J -13477082.66 -13477082.43 -13477082.18 0.0132 0.0041 *
 Mercury -41612-11-25 00:42 J -13477031.58 -13477031.47 -13477031.36 0.0132 0.0088
 Mercury -41611-02-21 04:18 J -13476943.40 -13476943.32 -13476943.23 0.0132 0.0106
 Mercury -41611-05-20 07:54 J -13476855.20 -13476855.17 -13476855.11 0.0132 0.0125
 Moon -41611-10-09 02:23 J -13476713.63 -13476713.40 -13476713.15 0.0132 0.0050
 Earth -41611-10-09 04:47 J -13476713.52 -13476713.30 -13476713.06 0.0132 0.0057 *
 Venus -41608-10-13 16:04 J -13475612.86 -13475612.83 -13475612.76 0.0132 0.0129
 Venus -41607-05-27 21:21 J -13475386.70 -13475386.61 -13475386.51 0.0132 0.0119
 Venus -41606-01-09 01:54 J -13475160.53 -13475160.42 -13475160.29 0.0132 0.0109
 Venus -41606-08-23 06:42 J -13474934.34 -13474934.22 -13474934.06 0.0132 0.0100
 Venus -41605-04-05 11:30 J -13474708.17 -13474708.02 -13474707.85 0.0133 0.0090
 Venus -41605-11-17 16:04 J -13474481.99 -13474481.83 -13474481.64 0.0133 0.0080
 Venus -41604-07-01 20:52 J -13474255.81 -13474255.63 -13474255.44 0.0133 0.0069
 Venus -41603-02-13 01:11 J -13474029.63 -13474029.45 -13474029.24 0.0133 0.0059

Venus	-41603-09-27 05:59 J	-13473803.45	-13473803.25	-13473803.04	0.0133	0.0048
Venus	-41602-05-11 10:18 J	-13473577.26	-13473577.07	-13473576.85	0.0133	0.0039
Venus	-41602-12-23 14:52 J	-13473351.08	-13473350.88	-13473350.66	0.0133	0.0028
Venus	-41601-08-05 19:40 J	-13473124.89	-13473124.68	-13473124.47	0.0134	0.0016
Venus	-41600-03-20 00:14 J	-13472898.71	-13472898.49	-13472898.28	0.0134	0.0006
Venus	-41600-11-01 04:47 J	-13472672.52	-13472672.30	-13472672.09	0.0134	0.0005
Mars	-41600-11-21 23:59 J	-13472651.80	-13472651.50	-13472651.18	0.0134	0.0026
Venus	-41599-06-15 09:21 J	-13472446.32	-13472446.11	-13472445.90	0.0134	0.0016
Venus	-41598-01-27 13:54 J	-13472220.13	-13472219.92	-13472219.71	0.0134	0.0027
Venus	-41598-09-10 18:42 J	-13471993.92	-13471993.72	-13471993.51	0.0135	0.0038
Venus	-41597-04-23 23:16 J	-13471767.72	-13471767.53	-13471767.32	0.0135	0.0049
Venus	-41597-12-06 04:18 J	-13471541.51	-13471541.32	-13471541.13	0.0135	0.0059
Venus	-41596-07-20 08:52 J	-13471315.30	-13471315.13	-13471314.93	0.0135	0.0071
Venus	-41595-03-03 14:09 J	-13471089.08	-13471088.91	-13471088.74	0.0136	0.0081
Venus	-41595-10-15 18:57 J	-13470862.85	-13470862.71	-13470862.53	0.0136	0.0092
Venus	-41594-05-30 00:14 J	-13470636.62	-13470636.49	-13470636.34	0.0136	0.0102
Venus	-41593-01-11 05:30 J	-13470410.38	-13470410.27	-13470410.14	0.0136	0.0113
Venus	-41593-08-24 10:47 J	-13470184.13	-13470184.05	-13470183.95	0.0137	0.0123
Venus	-41592-04-07 15:50 J	-13469957.87	-13469957.84	-13469957.77	0.0137	0.0134
Mercury	-41571-03-16 19:40 J	-13462309.77	-13462309.68	-13462309.59	0.0146	0.0121
Mercury	-41571-06-13 01:40 J	-13462221.56	-13462221.43	-13462221.31	0.0146	0.0093
Mercury	-41571-09-09 07:26 J	-13462133.33	-13462133.19	-13462133.04	0.0146	0.0065
Mercury	-41571-12-06 13:40 J	-13462045.09	-13462044.93	-13462044.77	0.0146	0.0036
Mercury	-41570-03-04 19:54 J	-13461956.84	-13461956.67	-13461956.51	0.0146	0.0007
Mercury	-41570-06-01 02:09 J	-13461868.58	-13461868.41	-13461868.25	0.0146	0.0022
Mercury	-41570-08-28 08:23 J	-13461780.31	-13461780.15	-13461780.00	0.0146	0.0051
Mercury	-41570-11-24 14:38 J	-13461692.02	-13461691.89	-13461691.75	0.0146	0.0081
Mercury	-41569-02-20 20:52 J	-13461603.73	-13461603.63	-13461603.51	0.0146	0.0111
Moon	-41569-04-03 05:45 J	-13461561.52	-13461561.26	-13461560.99	0.0146	0.0015
Earth	-41569-04-03 06:14 J	-13461561.49	-13461561.24	-13461560.98	0.0146	0.0018 *

Mercury -41569-05-19 03:06 J -13461515.39 -13461515.37 -13461515.31 0.0146 0.0142

Moon -41568-04-08 09:35 J -13461191.24 -13461191.10 -13461190.96 0.0146 0.0120

Earth -41568-04-08 10:04 J -13461191.20 -13461191.08 -13461190.94 0.0146 0.0126 *

Venus -41566-04-19 11:02 J -13460450.10 -13460450.04 -13460449.98 0.0146 0.0140

Venus -41566-12-01 23:30 J -13460223.61 -13460223.52 -13460223.40 0.0146 0.0127

Venus -41565-07-15 12:28 J -13459997.11 -13459996.98 -13459996.84 0.0146 0.0114

Venus -41564-02-27 01:26 J -13459770.59 -13459770.44 -13459770.27 0.0146 0.0101

Venus -41564-10-11 14:23 J -13459544.06 -13459543.90 -13459543.72 0.0146 0.0088

Venus -41563-05-26 03:35 J -13459317.54 -13459317.35 -13459317.16 0.0146 0.0074

Venus -41562-01-07 16:18 J -13459091.01 -13459090.82 -13459090.61 0.0146 0.0061

Venus -41562-08-22 05:30 J -13458864.47 -13458864.27 -13458864.05 0.0145 0.0047

Venus -41561-04-04 18:42 J -13458637.93 -13458637.72 -13458637.50 0.0145 0.0032

Venus -41561-11-17 07:54 J -13458411.39 -13458411.17 -13458410.95 0.0145 0.0018

Venus -41560-07-01 20:52 J -13458184.85 -13458184.63 -13458184.41 0.0145 0.0004

Venus -41559-02-13 10:04 J -13457958.30 -13457958.08 -13457957.86 0.0145 0.0010

Mars -41559-03-26 19:26 J -13457916.99 -13457916.69 -13457916.39 0.0145 0.0002

Venus -41559-09-27 23:02 J -13457731.75 -13457731.54 -13457731.32 0.0144 0.0024

Venus -41558-05-12 11:59 J -13457505.21 -13457505.00 -13457504.78 0.0144 0.0038

Venus -41558-12-25 00:57 J -13457278.66 -13457278.46 -13457278.25 0.0144 0.0052

Venus -41557-08-07 13:40 J -13457052.11 -13457051.93 -13457051.72 0.0143 0.0066

Venus -41556-03-22 02:52 J -13456825.56 -13456825.38 -13456825.19 0.0143 0.0078

Venus -41556-11-03 15:50 J -13456599.00 -13456598.84 -13456598.66 0.0143 0.0091

Venus -41555-06-18 04:33 J -13456372.46 -13456372.31 -13456372.15 0.0143 0.0104

Venus -41554-01-30 17:02 J -13456145.90 -13456145.79 -13456145.65 0.0142 0.0117

Venus -41554-09-14 05:45 J -13455919.35 -13455919.26 -13455919.16 0.0142 0.0128

Venus -41553-04-27 18:14 J -13455692.76 -13455692.74 -13455692.70 0.0142 0.0140

Mercury -41530-04-20 11:59 J -13447300.05 -13447300.00 -13447299.93 0.0132 0.0122

Mercury -41530-07-17 16:04 J -13447211.92 -13447211.83 -13447211.72 0.0132 0.0102

Mercury -41530-10-13 20:09 J -13447123.77 -13447123.66 -13447123.53 0.0132 0.0082

Mercury -41529-01-10 00:28 J -13447035.61 -13447035.48 -13447035.35 0.0132 0.0061

Mercury -41529-04-07 04:18 J -13446947.46 -13446947.32 -13446947.17 0.0132 0.0042

Mercury -41529-07-04 08:23 J -13446859.30 -13446859.15 -13446859.00 0.0132 0.0022

Mercury -41529-09-30 12:14 J -13446771.14 -13446770.99 -13446770.84 0.0132 0.0005

Mercury -41529-12-27 16:18 J -13446682.97 -13446682.82 -13446682.67 0.0132 0.0016

Mercury -41528-03-25 20:09 J -13446594.80 -13446594.66 -13446594.52 0.0132 0.0036

Mercury -41528-06-21 23:45 J -13446506.63 -13446506.51 -13446506.36 0.0132 0.0055

Mercury -41528-09-18 03:50 J -13446418.46 -13446418.34 -13446418.22 0.0132 0.0073

Earth -41528-10-05 09:06 J -13446401.35 -13446401.12 -13446400.87 0.0132 0.0043

Moon -41528-10-05 11:59 J -13446401.22 -13446401.00 -13446400.76 0.0132 0.0049 *

Mercury -41528-12-15 07:26 J -13446330.29 -13446330.19 -13446330.08 0.0132 0.0093

Mercury -41527-03-13 11:16 J -13446242.10 -13446242.03 -13446241.95 0.0132 0.0111

Mercury -41527-06-09 15:06 J -13446153.89 -13446153.87 -13446153.84 0.0132 0.0129

Moon -41527-10-09 11:45 J -13446032.21 -13446032.01 -13446031.77 0.0132 0.0069

Earth -41527-10-09 14:23 J -13446032.12 -13446031.90 -13446031.67 0.0132 0.0061 *

Venus -41524-06-13 01:40 J -13445054.46 -13445054.43 -13445054.37 0.0132 0.0130

Venus -41523-01-25 06:28 J -13444828.30 -13444828.23 -13444828.12 0.0132 0.0121

Venus -41523-09-08 11:45 J -13444602.12 -13444602.01 -13444601.89 0.0132 0.0110

Venus -41522-04-22 16:33 J -13444375.95 -13444375.81 -13444375.67 0.0132 0.0101

Venus -41522-12-04 20:52 J -13444149.77 -13444149.63 -13444149.46 0.0132 0.0092

Venus -41521-07-18 01:54 J -13443923.59 -13443923.42 -13443923.25 0.0133 0.0081

Venus -41520-03-01 06:28 J -13443697.41 -13443697.23 -13443697.04 0.0133 0.0071

Venus -41520-10-13 10:47 J -13443471.23 -13443471.05 -13443470.85 0.0133 0.0061

Venus -41519-05-27 15:35 J -13443245.05 -13443244.85 -13443244.65 0.0133 0.0050

Venus -41518-01-08 19:54 J -13443018.87 -13443018.67 -13443018.46 0.0133 0.0040

Venus -41518-08-23 00:42 J -13442792.68 -13442792.47 -13442792.26 0.0133 0.0030

Venus -41517-04-05 05:02 J -13442566.50 -13442566.29 -13442566.07 0.0133 0.0020

Venus -41517-11-17 09:35 J -13442340.31 -13442340.10 -13442339.88 0.0134 0.0009

Venus -41516-07-01 14:09 J -13442114.12 -13442113.91 -13442113.69 0.0134 0.0003

Venus -41515-02-12 18:57 J -13441887.93 -13441887.71 -13441887.50 0.0134 0.0013

Mars -41515-07-17 22:04 J -13441732.85 -13441732.58 -13441732.28 0.0134 0.0061

Venus	-41515-09-26 23:30 J	-13441661.73	-13441661.52	-13441661.30	0.0134	0.0024
Venus	-41514-05-11 04:18 J	-13441435.53	-13441435.32	-13441435.11	0.0134	0.0035
Venus	-41514-12-23 08:52 J	-13441209.33	-13441209.13	-13441208.92	0.0135	0.0046
Venus	-41513-08-05 13:54 J	-13440983.12	-13440982.92	-13440982.73	0.0135	0.0056
Venus	-41512-03-19 18:28 J	-13440756.90	-13440756.73	-13440756.53	0.0135	0.0067
Venus	-41512-10-31 23:30 J	-13440530.68	-13440530.52	-13440530.34	0.0135	0.0078
Venus	-41511-06-15 04:18 J	-13440304.46	-13440304.32	-13440304.14	0.0136	0.0089
Venus	-41510-01-27 09:21 J	-13440078.24	-13440078.11	-13440077.95	0.0136	0.0099
Venus	-41510-09-10 14:38 J	-13439852.00	-13439851.89	-13439851.75	0.0136	0.0109
Venus	-41509-04-23 19:40 J	-13439625.76	-13439625.68	-13439625.56	0.0137	0.0120
Venus	-41509-12-06 01:26 J	-13439399.50	-13439399.44	-13439399.37	0.0137	0.0129
Mercury	-41487-01-07 20:38 J	-13431696.67	-13431696.64	-13431696.60	0.0146	0.0142
Mercury	-41487-04-06 02:23 J	-13431608.49	-13431608.40	-13431608.29	0.0146	0.0114
Mercury	-41487-07-03 08:38 J	-13431520.27	-13431520.14	-13431520.01	0.0146	0.0086
Mercury	-41487-09-29 14:38 J	-13431432.03	-13431431.89	-13431431.73	0.0146	0.0058
Mercury	-41487-12-26 20:52 J	-13431343.79	-13431343.63	-13431343.47	0.0146	0.0029
Mercury	-41486-03-25 03:06 J	-13431255.54	-13431255.37	-13431255.21	0.0146	0.0003
Mercury	-41486-06-21 09:06 J	-13431167.28	-13431167.12	-13431166.95	0.0146	0.0030
Mercury	-41486-09-17 15:35 J	-13431079.01	-13431078.85	-13431078.70	0.0146	0.0059
Mercury	-41486-12-14 21:35 J	-13430990.72	-13430990.60	-13430990.46	0.0146	0.0089
Mercury	-41485-03-12 04:04 J	-13430902.42	-13430902.33	-13430902.23	0.0146	0.0118
Moon	-41485-04-03 15:21 J	-13430880.12	-13430879.86	-13430879.60	0.0146	0.0015
Earth	-41485-04-03 15:50 J	-13430880.09	-13430879.84	-13430879.58	0.0146	0.0013 *
Earth	-41484-04-08 19:26 J	-13430509.79	-13430509.69	-13430509.56	0.0146	0.0131
Moon	-41484-04-08 19:26 J	-13430509.75	-13430509.69	-13430509.59	0.0146	0.0138 *
Venus	-41483-12-17 16:18 J	-13429891.85	-13429891.82	-13429891.75	0.0146	0.0142
Venus	-41482-08-01 05:16 J	-13429665.37	-13429665.28	-13429665.18	0.0146	0.0130
Venus	-41481-03-14 17:59 J	-13429438.87	-13429438.75	-13429438.61	0.0146	0.0117
Venus	-41481-10-27 06:42 J	-13429212.36	-13429212.22	-13429212.05	0.0146	0.0105
Venus	-41480-06-10 19:40 J	-13428985.84	-13428985.68	-13428985.50	0.0146	0.0091

Venus	-41479-01-23 09:06 J	-13428759.31	-13428759.12	-13428758.94	0.0146	0.0077
Venus	-41479-09-06 21:50 J	-13428532.78	-13428532.59	-13428532.38	0.0146	0.0064
Venus	-41478-04-21 11:02 J	-13428306.24	-13428306.04	-13428305.83	0.0146	0.0050
Venus	-41478-12-03 23:59 J	-13428079.71	-13428079.50	-13428079.28	0.0145	0.0036
Venus	-41477-07-17 12:57 J	-13427853.17	-13427852.96	-13427852.73	0.0145	0.0023
Venus	-41476-03-01 02:23 J	-13427626.62	-13427626.40	-13427626.18	0.0145	0.0008
Venus	-41476-10-13 15:35 J	-13427400.07	-13427399.85	-13427399.63	0.0145	0.0006
Venus	-41475-05-28 04:33 J	-13427173.53	-13427173.31	-13427173.09	0.0144	0.0020
Mars	-41475-11-20 01:26 J	-13426997.63	-13426997.44	-13426997.22	0.0144	0.0105
Venus	-41474-01-09 17:30 J	-13426946.98	-13426946.77	-13426946.55	0.0144	0.0034
Venus	-41474-08-24 06:42 J	-13426720.43	-13426720.22	-13426720.01	0.0144	0.0047
Venus	-41473-04-06 19:40 J	-13426493.88	-13426493.68	-13426493.48	0.0144	0.0061
Venus	-41473-11-19 08:23 J	-13426267.32	-13426267.15	-13426266.95	0.0143	0.0075
Venus	-41472-07-03 21:21 J	-13426040.77	-13426040.61	-13426040.42	0.0143	0.0087
Venus	-41471-02-15 10:18 J	-13425814.22	-13425814.07	-13425813.91	0.0143	0.0100
Venus	-41471-09-29 23:02 J	-13425587.67	-13425587.54	-13425587.40	0.0142	0.0112
Jupiter	-41470-01-11 12:14 J	-13425484.20	-13425483.99	-13425483.71	0.0142	0.0127
Venus	-41470-05-14 11:45 J	-13425361.11	-13425361.01	-13425360.90	0.0142	0.0124
Venus	-41470-12-27 00:14 J	-13425134.54	-13425134.49	-13425134.42	0.0142	0.0136
Mercury	-41446-05-10 19:11 J	-13416598.76	-13416598.70	-13416598.62	0.0132	0.0116
Mercury	-41446-08-06 23:16 J	-13416510.63	-13416510.53	-13416510.42	0.0132	0.0096
Mercury	-41446-11-03 03:35 J	-13416422.48	-13416422.35	-13416422.23	0.0132	0.0076
Mercury	-41445-01-30 07:26 J	-13416334.32	-13416334.19	-13416334.05	0.0132	0.0056
Mercury	-41445-04-27 11:30 J	-13416246.16	-13416246.02	-13416245.87	0.0132	0.0036
Mercury	-41445-07-24 15:35 J	-13416158.00	-13416157.85	-13416157.70	0.0132	0.0017
Mercury	-41445-10-20 19:26 J	-13416069.84	-13416069.69	-13416069.54	0.0132	0.0003
Mercury	-41444-01-16 23:16 J	-13415981.67	-13415981.53	-13415981.38	0.0132	0.0022
Mercury	-41444-04-15 03:21 J	-13415893.50	-13415893.36	-13415893.22	0.0132	0.0041
Mercury	-41444-07-12 06:57 J	-13415805.33	-13415805.21	-13415805.07	0.0132	0.0061
Earth	-41444-10-05 19:54 J	-13415719.92	-13415719.67	-13415719.43	0.0132	0.0037

Moon -41444-10-05 22:33 J -13415719.80 -13415719.56 -13415719.31 0.0132 0.0031 *
 Mercury -41444-10-08 10:47 J -13415717.16 -13415717.05 -13415716.93 0.0132 0.0079
 Mercury -41443-01-04 14:38 J -13415628.98 -13415628.89 -13415628.79 0.0132 0.0098
 Mercury -41443-04-02 18:28 J -13415540.79 -13415540.73 -13415540.66 0.0132 0.0116
 Moon -41443-10-09 21:21 J -13415350.82 -13415350.61 -13415350.36 0.0132 0.0060
 Earth -41443-10-10 00:28 J -13415350.68 -13415350.48 -13415350.24 0.0132 0.0067 *
 Venus -41440-02-10 11:45 J -13414496.03 -13414496.01 -13414495.96 0.0132 0.0131
 Venus -41440-09-24 16:47 J -13414269.87 -13414269.80 -13414269.70 0.0132 0.0121
 Venus -41439-05-08 21:50 J -13414043.70 -13414043.59 -13414043.47 0.0132 0.0112
 Venus -41439-12-21 02:23 J -13413817.53 -13413817.40 -13413817.25 0.0132 0.0102
 Venus -41438-08-04 07:11 J -13413591.35 -13413591.20 -13413591.04 0.0132 0.0093
 Venus -41437-03-17 11:45 J -13413365.17 -13413365.01 -13413364.83 0.0132 0.0083
 Venus -41437-10-29 16:18 J -13413138.99 -13413138.82 -13413138.63 0.0133 0.0073
 Venus -41436-06-12 20:52 J -13412912.81 -13412912.63 -13412912.43 0.0133 0.0063
 Venus -41435-01-25 01:26 J -13412686.63 -13412686.44 -13412686.23 0.0133 0.0053
 Venus -41435-09-08 06:14 J -13412460.44 -13412460.24 -13412460.03 0.0133 0.0042
 Venus -41434-04-22 10:47 J -13412234.26 -13412234.05 -13412233.84 0.0133 0.0032
 Venus -41434-12-04 15:21 J -13412008.07 -13412007.86 -13412007.65 0.0133 0.0021
 Venus -41433-07-17 19:54 J -13411781.89 -13411781.67 -13411781.46 0.0133 0.0011
 Venus -41432-03-01 00:28 J -13411555.70 -13411555.48 -13411555.27 0.0134 0.0000
 Mars -41432-04-09 10:18 J -13411516.26 -13411516.07 -13411515.83 0.0134 0.0099
 Venus -41432-10-13 05:02 J -13411329.50 -13411329.29 -13411329.07 0.0134 0.0011
 Venus -41431-05-27 09:50 J -13411103.30 -13411103.09 -13411102.88 0.0134 0.0021
 Venus -41430-01-08 14:23 J -13410877.11 -13410876.90 -13410876.69 0.0134 0.0032
 Venus -41430-08-22 19:11 J -13410650.90 -13410650.70 -13410650.49 0.0134 0.0043
 Venus -41429-04-04 23:45 J -13410424.69 -13410424.51 -13410424.30 0.0135 0.0054
 Venus -41429-11-17 04:47 J -13410198.48 -13410198.30 -13410198.11 0.0135 0.0064
 Venus -41428-07-01 09:35 J -13409972.27 -13409972.10 -13409971.92 0.0135 0.0075
 Venus -41427-02-12 14:23 J -13409746.05 -13409745.90 -13409745.72 0.0135 0.0085
 Venus -41427-09-26 19:26 J -13409519.82 -13409519.69 -13409519.52 0.0136 0.0096

Venus -41426-05-11 00:28 J -13409293.59 -13409293.48 -13409293.33 0.0136 0.0106
 Venus -41426-12-23 05:59 J -13409067.36 -13409067.25 -13409067.14 0.0136 0.0116
 Venus -41425-08-05 11:02 J -13408841.11 -13408841.04 -13408840.95 0.0137 0.0126
 Venus -41424-03-19 16:04 J -13408614.84 -13408614.83 -13408614.78 0.0137 0.0136
 Mercury -41403-01-28 03:50 J -13400995.39 -13400995.34 -13400995.27 0.0146 0.0134
 Mercury -41403-04-26 09:50 J -13400907.20 -13400907.09 -13400906.98 0.0146 0.0107
 Mercury -41403-07-23 15:50 J -13400818.97 -13400818.84 -13400818.70 0.0146 0.0078
 Mercury -41403-10-19 21:50 J -13400730.74 -13400730.59 -13400730.43 0.0146 0.0050
 Mercury -41402-01-16 04:04 J -13400642.49 -13400642.33 -13400642.17 0.0146 0.0021
 Mercury -41402-04-14 10:18 J -13400554.24 -13400554.07 -13400553.91 0.0146 0.0008
 Mercury -41402-07-11 16:18 J -13400465.97 -13400465.82 -13400465.65 0.0146 0.0037
 Mercury -41402-10-07 22:33 J -13400377.70 -13400377.56 -13400377.40 0.0146 0.0067
 Mercury -41401-01-04 05:02 J -13400289.41 -13400289.29 -13400289.16 0.0146 0.0096
 Mercury -41401-04-01 11:16 J -13400201.11 -13400201.03 -13400200.94 0.0146 0.0126
 Moon -41401-04-03 23:45 J -13400198.77 -13400198.51 -13400198.24 0.0146 0.0007
 Earth -41401-04-04 01:40 J -13400198.69 -13400198.43 -13400198.18 0.0146 0.0008 *
 Earth -41400-04-09 04:47 J -13399828.36 -13399828.30 -13399828.18 0.0146 0.0137
 Moon -41400-04-09 05:45 J -13399828.36 -13399828.26 -13399828.14 0.0146 0.0131 *
 Venus -41399-08-16 22:04 J -13399333.59 -13399333.58 -13399333.53 0.0146 0.0145
 Venus -41398-03-31 10:47 J -13399107.13 -13399107.05 -13399106.95 0.0146 0.0132
 Venus -41398-11-12 23:45 J -13398880.63 -13398880.51 -13398880.39 0.0146 0.0120
 Venus -41397-06-26 12:14 J -13398654.12 -13398653.99 -13398653.83 0.0146 0.0107
 Venus -41396-02-08 01:11 J -13398427.60 -13398427.45 -13398427.27 0.0146 0.0094
 Venus -41396-09-22 14:09 J -13398201.08 -13398200.91 -13398200.72 0.0146 0.0081
 Venus -41395-05-07 03:21 J -13397974.55 -13397974.36 -13397974.17 0.0146 0.0067
 Venus -41395-12-19 16:04 J -13397748.02 -13397747.83 -13397747.62 0.0146 0.0054
 Venus -41394-08-03 05:16 J -13397521.49 -13397521.28 -13397521.07 0.0146 0.0040
 Venus -41393-03-16 18:28 J -13397294.94 -13397294.73 -13397294.51 0.0145 0.0026
 Venus -41393-10-29 07:40 J -13397068.40 -13397068.18 -13397067.96 0.0145 0.0012
 Venus -41392-06-12 20:38 J -13396841.86 -13396841.64 -13396841.42 0.0145 0.0003

Mars	-41392-08-12 15:35 J	-13396781.07	-13396780.85	-13396780.58	0.0145	0.0083
Venus	-41391-01-25 09:50 J	-13396615.31	-13396615.09	-13396614.87	0.0145	0.0016
Venus	-41391-09-08 23:02 J	-13396388.76	-13396388.54	-13396388.33	0.0144	0.0030
Venus	-41390-04-23 11:59 J	-13396162.21	-13396162.00	-13396161.78	0.0144	0.0044
Venus	-41390-12-06 00:57 J	-13395935.66	-13395935.46	-13395935.25	0.0144	0.0057
Venus	-41389-07-19 13:54 J	-13395709.10	-13395708.92	-13395708.72	0.0144	0.0070
Venus	-41388-03-03 02:52 J	-13395482.54	-13395482.38	-13395482.18	0.0143	0.0084
Venus	-41388-10-15 15:50 J	-13395255.99	-13395255.84	-13395255.66	0.0143	0.0096
Venus	-41387-05-30 04:33 J	-13395029.44	-13395029.31	-13395029.15	0.0143	0.0109
Venus	-41386-01-11 17:16 J	-13394802.88	-13394802.78	-13394802.65	0.0142	0.0121
Venus	-41386-08-26 05:45 J	-13394576.32	-13394576.26	-13394576.16	0.0142	0.0132
Mercury	-41362-03-03 22:18 J	-13385985.59	-13385985.57	-13385985.54	0.0132	0.0130
Mercury	-41362-05-31 02:23 J	-13385897.48	-13385897.40	-13385897.31	0.0132	0.0110
Mercury	-41362-08-27 06:28 J	-13385809.34	-13385809.23	-13385809.11	0.0132	0.0090
Mercury	-41362-11-23 10:33 J	-13385721.18	-13385721.06	-13385720.93	0.0132	0.0070
Mercury	-41361-02-19 14:38 J	-13385633.03	-13385632.89	-13385632.75	0.0132	0.0050
Mercury	-41361-05-17 18:42 J	-13385544.87	-13385544.72	-13385544.58	0.0132	0.0030
Mercury	-41361-08-13 22:33 J	-13385456.71	-13385456.56	-13385456.41	0.0132	0.0011
Moon	-41361-10-01 21:21 J	-13385407.61	-13385407.61	-13385407.60	0.0132	0.0132
Mercury	-41361-11-10 02:38 J	-13385368.54	-13385368.39	-13385368.24	0.0132	0.0009
Mercury	-41360-02-06 06:28 J	-13385280.38	-13385280.23	-13385280.08	0.0132	0.0028
Mercury	-41360-05-05 10:18 J	-13385192.21	-13385192.07	-13385191.93	0.0132	0.0047
Mercury	-41360-08-01 14:09 J	-13385104.03	-13385103.91	-13385103.78	0.0132	0.0066
Earth	-41360-10-06 05:45 J	-13385038.49	-13385038.26	-13385038.00	0.0132	0.0032
Moon	-41360-10-06 09:06 J	-13385038.35	-13385038.12	-13385037.87	0.0132	0.0037 *
Mercury	-41360-10-28 17:45 J	-13385015.86	-13385015.76	-13385015.63	0.0132	0.0085
Mercury	-41359-01-24 21:50 J	-13384927.68	-13384927.59	-13384927.50	0.0132	0.0103
Mercury	-41359-04-23 01:26 J	-13384839.49	-13384839.44	-13384839.38	0.0132	0.0122
Moon	-41359-10-10 07:40 J	-13384669.37	-13384669.18	-13384668.95	0.0132	0.0079
Earth	-41359-10-10 11:02 J	-13384669.24	-13384669.04	-13384668.82	0.0132	0.0072 *

Venus	-41357-10-10 21:50 J	-13383937.60	-13383937.59	-13383937.56	0.0132	0.0131
Venus	-41356-05-25 02:38 J	-13383711.46	-13383711.39	-13383711.30	0.0132	0.0122
Venus	-41355-01-06 07:26 J	-13383485.29	-13383485.19	-13383485.07	0.0132	0.0113
Venus	-41355-08-20 12:28 J	-13383259.11	-13383258.98	-13383258.84	0.0132	0.0104
Venus	-41354-04-03 17:02 J	-13383032.93	-13383032.79	-13383032.63	0.0132	0.0094
Venus	-41354-11-15 21:35 J	-13382806.75	-13382806.60	-13382806.42	0.0132	0.0085
Venus	-41353-06-29 02:09 J	-13382580.58	-13382580.41	-13382580.22	0.0133	0.0075
Venus	-41352-02-10 06:57 J	-13382354.40	-13382354.21	-13382354.02	0.0133	0.0065
Venus	-41352-09-24 11:30 J	-13382128.21	-13382128.02	-13382127.82	0.0133	0.0055
Venus	-41351-05-08 15:50 J	-13381902.03	-13381901.84	-13381901.62	0.0133	0.0045
Venus	-41351-12-20 20:38 J	-13381675.85	-13381675.64	-13381675.43	0.0133	0.0034
Venus	-41350-08-04 01:11 J	-13381449.66	-13381449.45	-13381449.23	0.0133	0.0024
Venus	-41349-03-17 05:45 J	-13381223.47	-13381223.26	-13381223.04	0.0133	0.0013
Venus	-41349-10-29 10:18 J	-13380997.28	-13380997.07	-13380996.85	0.0133	0.0003
Venus	-41348-06-12 14:52 J	-13380771.09	-13380770.88	-13380770.66	0.0134	0.0008
Mars	-41348-12-03 09:50 J	-13380597.41	-13380597.09	-13380596.77	0.0134	0.0010
Venus	-41347-01-24 19:26 J	-13380544.90	-13380544.69	-13380544.47	0.0134	0.0019
Venus	-41347-09-08 00:14 J	-13380318.69	-13380318.49	-13380318.27	0.0134	0.0029
Venus	-41346-04-22 05:02 J	-13380092.49	-13380092.29	-13380092.08	0.0134	0.0040
Venus	-41346-12-04 09:35 J	-13379866.29	-13379866.10	-13379865.89	0.0135	0.0050
Venus	-41345-07-17 14:23 J	-13379640.08	-13379639.90	-13379639.70	0.0135	0.0061
Venus	-41344-02-28 19:11 J	-13379413.87	-13379413.70	-13379413.51	0.0135	0.0071
Venus	-41344-10-13 00:14 J	-13379187.65	-13379187.49	-13379187.31	0.0135	0.0082
Venus	-41343-05-27 05:16 J	-13378961.43	-13378961.28	-13378961.12	0.0136	0.0092
Venus	-41342-01-08 10:04 J	-13378735.21	-13378735.08	-13378734.93	0.0136	0.0102
Venus	-41342-08-22 15:06 J	-13378508.98	-13378508.87	-13378508.74	0.0136	0.0112
Venus	-41341-04-04 20:09 J	-13378282.74	-13378282.66	-13378282.55	0.0136	0.0122
Venus	-41341-11-17 01:26 J	-13378056.48	-13378056.44	-13378056.37	0.0137	0.0132
Mercury	-41319-02-17 11:02 J	-13370294.11	-13370294.04	-13370293.95	0.0146	0.0127
Mercury	-41319-05-16 17:02 J	-13370205.90	-13370205.79	-13370205.67	0.0146	0.0099

Mercury -41319-08-12 23:02 J -13370117.68 -13370117.54 -13370117.39 0.0146 0.0071
 Mercury -41319-11-09 05:16 J -13370029.44 -13370029.28 -13370029.13 0.0146 0.0042
 Mercury -41318-02-05 11:16 J -13369941.19 -13369941.03 -13369940.86 0.0146 0.0014
 Earth -41318-03-31 07:26 J -13369887.21 -13369887.19 -13369887.13 0.0146 0.0145
 Mercury -41318-05-04 17:30 J -13369852.93 -13369852.77 -13369852.61 0.0146 0.0015
 Mercury -41318-07-31 23:45 J -13369764.67 -13369764.51 -13369764.35 0.0146 0.0045
 Mercury -41318-10-28 05:45 J -13369676.39 -13369676.26 -13369676.11 0.0146 0.0075
 Mercury -41317-01-24 12:14 J -13369588.10 -13369587.99 -13369587.87 0.0146 0.0104
 Moon -41317-04-04 09:50 J -13369517.35 -13369517.09 -13369516.83 0.0146 0.0003
 Earth -41317-04-04 11:30 J -13369517.27 -13369517.02 -13369516.76 0.0146 0.0003 *
 Mercury -41317-04-21 18:42 J -13369499.78 -13369499.72 -13369499.65 0.0146 0.0134
 Earth -41316-04-09 15:21 J -13369146.92 -13369146.86 -13369146.80 0.0147 0.0142
 Venus -41315-04-16 04:33 J -13368775.31 -13368775.31 -13368775.30 0.0147 0.0146
 Venus -41315-11-28 16:47 J -13368548.87 -13368548.80 -13368548.70 0.0146 0.0135
 Venus -41314-07-13 05:30 J -13368322.38 -13368322.27 -13368322.14 0.0146 0.0123
 Venus -41313-02-24 18:28 J -13368095.87 -13368095.73 -13368095.58 0.0146 0.0110
 Venus -41313-10-08 06:57 J -13367869.35 -13367869.21 -13367869.03 0.0146 0.0098
 Venus -41312-05-22 19:54 J -13367642.83 -13367642.67 -13367642.48 0.0146 0.0084
 Venus -41311-01-04 09:06 J -13367416.31 -13367416.12 -13367415.93 0.0146 0.0070
 Venus -41311-08-18 22:04 J -13367189.78 -13367189.58 -13367189.37 0.0146 0.0057
 Venus -41310-04-02 11:02 J -13366963.24 -13366963.04 -13366962.82 0.0146 0.0044
 Venus -41310-11-15 00:14 J -13366736.70 -13366736.49 -13366736.27 0.0146 0.0030
 Venus -41309-06-28 13:26 J -13366510.16 -13366509.94 -13366509.72 0.0145 0.0016
 Venus -41308-02-10 02:38 J -13366283.61 -13366283.39 -13366283.17 0.0145 0.0002
 Venus -41308-09-24 15:50 J -13366057.06 -13366056.84 -13366056.62 0.0145 0.0012
 Mars -41307-04-08 00:28 J -13365861.77 -13365861.48 -13365861.18 0.0145 0.0022
 Venus -41307-05-09 04:47 J -13365830.51 -13365830.30 -13365830.08 0.0145 0.0026
 Venus -41307-12-21 17:59 J -13365603.96 -13365603.75 -13365603.54 0.0144 0.0039
 Venus -41306-08-05 06:57 J -13365377.41 -13365377.21 -13365377.00 0.0144 0.0053
 Venus -41305-03-18 20:09 J -13365150.85 -13365150.66 -13365150.46 0.0144 0.0066

Venus -41305-10-31 09:06 J -13364924.29 -13364924.12 -13364923.92 0.0143 0.0079
 Venus -41304-06-14 21:50 J -13364697.74 -13364697.59 -13364697.40 0.0143 0.0092
 Venus -41303-01-27 11:02 J -13364471.19 -13364471.04 -13364470.89 0.0143 0.0104
 Venus -41303-09-10 23:30 J -13364244.63 -13364244.52 -13364244.38 0.0143 0.0117
 Venus -41302-04-25 12:14 J -13364018.07 -13364017.99 -13364017.88 0.0142 0.0128
 Venus -41302-12-08 00:57 J -13363791.49 -13363791.46 -13363791.42 0.0142 0.0139
 Mercury -41278-03-24 05:30 J -13355284.32 -13355284.27 -13355284.21 0.0132 0.0123
 Mercury -41278-06-20 09:35 J -13355196.19 -13355196.10 -13355196.00 0.0132 0.0103
 Mercury -41278-09-16 13:40 J -13355108.04 -13355107.93 -13355107.81 0.0132 0.0083
 Mercury -41278-12-13 17:59 J -13355019.89 -13355019.75 -13355019.62 0.0132 0.0063
 Mercury -41277-03-10 21:50 J -13354931.73 -13354931.59 -13354931.44 0.0132 0.0044
 Mercury -41277-06-07 01:54 J -13354843.57 -13354843.42 -13354843.27 0.0132 0.0024
 Mercury -41277-09-03 05:59 J -13354755.40 -13354755.25 -13354755.10 0.0132 0.0005
 Moon -41277-10-02 08:09 J -13354726.16 -13354726.16 -13354726.13 0.0132 0.0132
 Earth -41277-10-02 11:45 J -13354726.05 -13354726.01 -13354725.95 0.0132 0.0130
 Mercury -41277-11-30 09:50 J -13354667.24 -13354667.09 -13354666.94 0.0132 0.0015
 Mercury -41276-02-26 13:40 J -13354579.07 -13354578.93 -13354578.78 0.0132 0.0034
 Mercury -41276-05-25 17:30 J -13354490.90 -13354490.77 -13354490.63 0.0132 0.0053
 Mercury -41276-08-21 21:21 J -13354402.73 -13354402.61 -13354402.48 0.0132 0.0072
 Earth -41276-10-06 17:02 J -13354357.03 -13354356.79 -13354356.53 0.0132 0.0026
 Moon -41276-10-06 20:38 J -13354356.89 -13354356.64 -13354356.39 0.0132 0.0019 *
 Mercury -41276-11-18 01:11 J -13354314.55 -13354314.45 -13354314.34 0.0132 0.0091
 Mercury -41275-02-14 05:02 J -13354226.37 -13354226.29 -13354226.21 0.0132 0.0109
 Mercury -41275-05-13 08:38 J -13354138.16 -13354138.14 -13354138.10 0.0132 0.0128
 Moon -41275-10-10 18:14 J -13353987.94 -13353987.74 -13353987.51 0.0132 0.0072
 Earth -41275-10-10 22:04 J -13353987.78 -13353987.58 -13353987.37 0.0132 0.0078 *
 Venus -41272-01-22 13:11 J -13353153.02 -13353152.95 -13353152.87 0.0132 0.0123
 Venus -41272-09-05 17:59 J -13352926.84 -13352926.75 -13352926.63 0.0132 0.0114
 Venus -41271-04-19 22:33 J -13352700.67 -13352700.56 -13352700.41 0.0132 0.0106
 Venus -41271-12-02 03:35 J -13352474.49 -13352474.35 -13352474.19 0.0132 0.0096

Venus	-41270-07-16 08:23 J	-13352248.31	-13352248.15	-13352247.98	0.0132	0.0086
Venus	-41269-02-27 12:42 J	-13352022.13	-13352021.97	-13352021.77	0.0132	0.0077
Venus	-41269-10-10 17:30 J	-13351795.95	-13351795.77	-13351795.57	0.0133	0.0066
Venus	-41268-05-24 22:04 J	-13351569.77	-13351569.58	-13351569.38	0.0133	0.0056
Venus	-41267-01-06 02:52 J	-13351343.58	-13351343.38	-13351343.18	0.0133	0.0046
Venus	-41267-08-20 07:26 J	-13351117.40	-13351117.19	-13351116.98	0.0133	0.0036
Venus	-41266-04-03 11:59 J	-13350891.21	-13350891.00	-13350890.79	0.0133	0.0026
Venus	-41266-11-15 16:33 J	-13350665.03	-13350664.81	-13350664.60	0.0133	0.0015
Venus	-41265-06-28 21:06 J	-13350438.84	-13350438.62	-13350438.41	0.0133	0.0005
Venus	-41264-02-10 01:40 J	-13350212.64	-13350212.43	-13350212.21	0.0134	0.0005
Venus	-41264-09-24 06:28 J	-13349986.44	-13349986.23	-13349986.02	0.0134	0.0016
Venus	-41263-05-08 11:02 J	-13349760.25	-13349760.04	-13349759.83	0.0134	0.0027
Mars	-41263-07-29 12:14 J	-13349678.24	-13349677.99	-13349677.72	0.0134	0.0079
Venus	-41263-12-20 15:35 J	-13349534.05	-13349533.85	-13349533.64	0.0134	0.0037
Venus	-41262-08-03 20:23 J	-13349307.85	-13349307.65	-13349307.45	0.0134	0.0047
Venus	-41261-03-17 01:11 J	-13349081.64	-13349081.45	-13349081.26	0.0135	0.0058
Venus	-41261-10-29 05:59 J	-13348855.43	-13348855.25	-13348855.06	0.0135	0.0068
Venus	-41260-06-12 10:47 J	-13348629.22	-13348629.05	-13348628.88	0.0135	0.0079
Venus	-41259-01-24 15:35 J	-13348403.01	-13348402.85	-13348402.69	0.0135	0.0089
Venus	-41259-09-07 20:23 J	-13348176.78	-13348176.65	-13348176.49	0.0136	0.0099
Venus	-41258-04-22 01:26 J	-13347950.55	-13347950.44	-13347950.30	0.0136	0.0109
Venus	-41258-12-04 06:28 J	-13347724.32	-13347724.23	-13347724.12	0.0136	0.0119
Venus	-41257-07-17 11:30 J	-13347498.07	-13347498.02	-13347497.93	0.0137	0.0129
Mercury	-41235-03-09 18:14 J	-13339592.82	-13339592.74	-13339592.64	0.0146	0.0120
Mercury	-41235-06-06 00:14 J	-13339504.61	-13339504.49	-13339504.35	0.0146	0.0092
Mercury	-41235-09-02 06:14 J	-13339416.38	-13339416.24	-13339416.08	0.0146	0.0064
Mercury	-41235-11-29 12:28 J	-13339328.14	-13339327.98	-13339327.82	0.0146	0.0035
Mercury	-41234-02-25 18:42 J	-13339239.89	-13339239.72	-13339239.56	0.0146	0.0006
Earth	-41234-03-31 17:45 J	-13339205.82	-13339205.76	-13339205.67	0.0146	0.0139
Moon	-41234-03-31 20:38 J	-13339205.73	-13339205.64	-13339205.55	0.0146	0.0136 *

Mercury -41234-05-25 00:42 J -13339151.63 -13339151.47 -13339151.30 0.0146 0.0023

Mercury -41234-08-21 06:57 J -13339063.36 -13339063.21 -13339063.05 0.0146 0.0053

Mercury -41234-11-17 13:11 J -13338975.08 -13338974.95 -13338974.81 0.0146 0.0082

Mercury -41233-02-13 19:40 J -13338886.79 -13338886.68 -13338886.57 0.0147 0.0112

Moon -41233-04-04 18:57 J -13338835.97 -13338835.71 -13338835.45 0.0147 0.0005

Earth -41233-04-04 21:35 J -13338835.85 -13338835.60 -13338835.34 0.0147 0.0005 *

Mercury -41233-05-12 01:54 J -13338798.45 -13338798.42 -13338798.37 0.0147 0.0142

Moon -41232-04-10 02:38 J -13338465.42 -13338465.39 -13338465.32 0.0147 0.0144

Venus -41231-07-28 23:02 J -13337990.61 -13337990.54 -13337990.46 0.0147 0.0137

Venus -41230-03-12 11:30 J -13337764.12 -13337764.02 -13337763.89 0.0147 0.0125

Venus -41230-10-25 00:14 J -13337537.62 -13337537.49 -13337537.34 0.0146 0.0113

Venus -41229-06-07 13:11 J -13337311.11 -13337310.95 -13337310.79 0.0146 0.0100

Venus -41228-01-20 02:09 J -13337084.58 -13337084.41 -13337084.23 0.0146 0.0087

Venus -41228-09-03 15:06 J -13336858.06 -13336857.87 -13336857.68 0.0146 0.0073

Venus -41227-04-18 03:50 J -13336631.53 -13336631.34 -13336631.13 0.0146 0.0060

Venus -41227-11-30 16:47 J -13336405.00 -13336404.80 -13336404.58 0.0146 0.0047

Venus -41226-07-15 06:14 J -13336178.46 -13336178.24 -13336178.03 0.0146 0.0033

Venus -41225-02-26 19:26 J -13335951.91 -13335951.69 -13335951.47 0.0145 0.0019

Venus -41225-10-10 08:38 J -13335725.36 -13335725.14 -13335724.92 0.0145 0.0005

Venus -41224-05-24 21:50 J -13335498.81 -13335498.59 -13335498.37 0.0145 0.0008

Venus -41223-01-06 10:47 J -13335272.26 -13335272.05 -13335271.83 0.0145 0.0022

Venus -41223-08-20 23:59 J -13335045.71 -13335045.50 -13335045.28 0.0144 0.0036

Mars -41223-12-02 08:52 J -13334942.26 -13334942.13 -13334941.97 0.0144 0.0127

Venus -41222-04-04 13:11 J -13334819.15 -13334818.95 -13334818.74 0.0144 0.0049

Venus -41222-11-17 02:23 J -13334592.60 -13334592.40 -13334592.20 0.0144 0.0062

Venus -41221-06-30 15:06 J -13334366.04 -13334365.87 -13334365.67 0.0144 0.0076

Venus -41220-02-12 04:04 J -13334139.49 -13334139.33 -13334139.14 0.0143 0.0089

Venus -41220-09-26 17:16 J -13333912.93 -13333912.78 -13333912.62 0.0143 0.0100

Venus -41219-05-11 05:45 J -13333686.38 -13333686.26 -13333686.11 0.0143 0.0113

Venus -41219-12-23 18:28 J -13333459.82 -13333459.73 -13333459.61 0.0143 0.0125

Venus -41218-08-07 07:11 J -13333233.26 -13333233.20 -13333233.13 0.0142 0.0136
 Mercury -41194-04-13 12:42 J -13324583.03 -13324582.97 -13324582.89 0.0132 0.0117
 Mercury -41194-07-10 16:47 J -13324494.89 -13324494.80 -13324494.69 0.0132 0.0097
 Mercury -41194-10-06 20:52 J -13324406.74 -13324406.63 -13324406.50 0.0132 0.0077
 Mercury -41193-01-03 00:57 J -13324318.59 -13324318.46 -13324318.32 0.0132 0.0058
 Mercury -41193-03-31 05:16 J -13324230.43 -13324230.28 -13324230.14 0.0132 0.0038
 Mercury -41193-06-27 09:06 J -13324142.27 -13324142.12 -13324141.97 0.0132 0.0018
 Mercury -41193-09-23 13:11 J -13324054.10 -13324053.95 -13324053.80 0.0132 0.0002
 Moon -41193-10-02 18:57 J -13324044.80 -13324044.71 -13324044.59 0.0132 0.0120
 Earth -41193-10-02 22:47 J -13324044.63 -13324044.55 -13324044.45 0.0132 0.0123 *
 Mercury -41193-12-20 17:02 J -13323965.94 -13323965.79 -13323965.64 0.0132 0.0021
 Mercury -41192-03-18 20:52 J -13323877.77 -13323877.63 -13323877.48 0.0132 0.0040
 Mercury -41192-06-15 00:42 J -13323789.60 -13323789.47 -13323789.33 0.0132 0.0059
 Mercury -41192-09-11 04:33 J -13323701.42 -13323701.31 -13323701.18 0.0132 0.0078
 Earth -41192-10-07 03:50 J -13323675.59 -13323675.34 -13323675.08 0.0132 0.0019
 Moon -41192-10-07 07:26 J -13323675.44 -13323675.19 -13323674.94 0.0132 0.0024 *
 Mercury -41192-12-08 08:23 J -13323613.24 -13323613.15 -13323613.04 0.0132 0.0097
 Mercury -41191-03-06 12:14 J -13323525.06 -13323524.99 -13323524.92 0.0132 0.0115
 Moon -41191-10-11 05:02 J -13323306.46 -13323306.29 -13323306.09 0.0132 0.0091
 Earth -41191-10-11 08:38 J -13323306.32 -13323306.14 -13323305.93 0.0132 0.0084 *
 Venus -41189-09-21 23:16 J -13322594.58 -13322594.53 -13322594.44 0.0132 0.0124
 Venus -41188-05-06 04:18 J -13322368.42 -13322368.32 -13322368.21 0.0132 0.0115
 Venus -41188-12-18 08:52 J -13322142.24 -13322142.13 -13322141.98 0.0132 0.0107
 Venus -41187-08-01 14:09 J -13321916.06 -13321915.91 -13321915.76 0.0132 0.0097
 Venus -41186-03-15 18:28 J -13321689.88 -13321689.73 -13321689.55 0.0132 0.0088
 Venus -41186-10-27 23:16 J -13321463.70 -13321463.53 -13321463.35 0.0132 0.0078
 Venus -41185-06-10 04:04 J -13321237.52 -13321237.33 -13321237.14 0.0132 0.0068
 Venus -41184-01-22 08:23 J -13321011.33 -13321011.15 -13321010.94 0.0133 0.0058
 Venus -41184-09-05 13:26 J -13320785.14 -13320784.94 -13320784.74 0.0133 0.0048
 Venus -41183-04-19 17:45 J -13320558.96 -13320558.76 -13320558.55 0.0133 0.0038

Venus	-41183-12-01 22:18 J	-13320332.78	-13320332.57	-13320332.35	0.0133	0.0028
Venus	-41182-07-16 02:52 J	-13320106.59	-13320106.38	-13320106.16	0.0133	0.0018
Venus	-41181-02-27 07:40 J	-13319880.40	-13319880.18	-13319879.97	0.0133	0.0007
Venus	-41181-10-10 12:14 J	-13319654.20	-13319653.99	-13319653.77	0.0133	0.0003
Mars	-41180-04-21 00:14 J	-13319461.72	-13319461.49	-13319461.20	0.0134	0.0080
Venus	-41180-05-24 16:47 J	-13319428.01	-13319427.80	-13319427.58	0.0134	0.0014
Venus	-41179-01-05 21:21 J	-13319201.82	-13319201.61	-13319201.39	0.0134	0.0024
Venus	-41179-08-20 02:09 J	-13318975.62	-13318975.41	-13318975.20	0.0134	0.0034
Venus	-41178-04-03 06:42 J	-13318749.42	-13318749.22	-13318749.01	0.0134	0.0045
Venus	-41178-11-15 11:02 J	-13318523.22	-13318523.04	-13318522.83	0.0135	0.0056
Venus	-41177-06-28 16:04 J	-13318297.01	-13318296.83	-13318296.64	0.0135	0.0065
Venus	-41176-02-09 20:52 J	-13318070.81	-13318070.63	-13318070.45	0.0135	0.0075
Venus	-41176-09-24 01:40 J	-13317844.59	-13317844.43	-13317844.26	0.0135	0.0086
Venus	-41175-05-08 06:28 J	-13317618.37	-13317618.23	-13317618.07	0.0136	0.0096
Venus	-41175-12-20 11:30 J	-13317392.15	-13317392.02	-13317391.89	0.0136	0.0105
Venus	-41174-08-03 16:04 J	-13317165.92	-13317165.83	-13317165.70	0.0136	0.0116
Venus	-41173-03-16 21:21 J	-13316939.68	-13316939.61	-13316939.51	0.0136	0.0125
Venus	-41173-10-29 02:52 J	-13316713.41	-13316713.38	-13316713.33	0.0137	0.0134
Mercury	-41152-12-31 19:40 J	-13308979.72	-13308979.68	-13308979.63	0.0146	0.0140
Mercury	-41151-03-30 01:26 J	-13308891.53	-13308891.44	-13308891.32	0.0146	0.0113
Mercury	-41151-06-26 07:40 J	-13308803.31	-13308803.18	-13308803.04	0.0146	0.0084
Mercury	-41151-09-22 13:40 J	-13308715.08	-13308714.93	-13308714.78	0.0146	0.0056
Mercury	-41151-12-19 19:40 J	-13308626.84	-13308626.68	-13308626.51	0.0146	0.0027
Mercury	-41150-03-18 01:54 J	-13308538.58	-13308538.42	-13308538.26	0.0146	0.0002
Earth	-41150-04-01 03:50 J	-13308524.43	-13308524.34	-13308524.23	0.0146	0.0133
Moon	-41150-04-01 07:11 J	-13308524.27	-13308524.20	-13308524.11	0.0146	0.0138 *
Mercury	-41150-06-14 07:54 J	-13308450.32	-13308450.17	-13308450.00	0.0146	0.0032
Mercury	-41150-09-10 14:09 J	-13308362.05	-13308361.91	-13308361.75	0.0147	0.0061
Mercury	-41150-12-07 20:38 J	-13308273.77	-13308273.64	-13308273.51	0.0147	0.0090
Mercury	-41149-03-05 02:52 J	-13308185.47	-13308185.38	-13308185.28	0.0147	0.0120

Moon	-41149-04-05 05:02 J	-13308154.55	-13308154.29	-13308154.03	0.0147	0.0010
Earth	-41149-04-05 07:40 J	-13308154.43	-13308154.18	-13308153.92	0.0147	0.0010 *
Venus	-41147-03-28 05:02 J	-13307432.34	-13307432.29	-13307432.21	0.0147	0.0139
Venus	-41147-11-09 17:45 J	-13307205.86	-13307205.76	-13307205.65	0.0147	0.0127
Venus	-41146-06-24 06:14 J	-13306979.36	-13306979.24	-13306979.10	0.0147	0.0115
Venus	-41145-02-05 19:11 J	-13306752.85	-13306752.70	-13306752.54	0.0146	0.0102
Venus	-41145-09-19 08:09 J	-13306526.33	-13306526.16	-13306525.99	0.0146	0.0090
Venus	-41144-05-03 21:06 J	-13306299.80	-13306299.62	-13306299.43	0.0146	0.0077
Venus	-41144-12-16 09:50 J	-13306073.28	-13306073.09	-13306072.88	0.0146	0.0064
Venus	-41143-07-30 23:02 J	-13305846.74	-13305846.54	-13305846.33	0.0146	0.0050
Venus	-41142-03-14 12:14 J	-13305620.20	-13305619.99	-13305619.77	0.0146	0.0037
Venus	-41142-10-27 01:26 J	-13305393.65	-13305393.44	-13305393.22	0.0146	0.0023
Venus	-41141-06-09 14:52 J	-13305167.10	-13305166.88	-13305166.66	0.0145	0.0009
Venus	-41140-01-22 04:04 J	-13304940.55	-13304940.33	-13304940.11	0.0145	0.0005
Mars	-41140-08-25 02:52 J	-13304725.64	-13304725.38	-13304725.10	0.0145	0.0059
Venus	-41140-09-05 17:16 J	-13304714.00	-13304713.78	-13304713.56	0.0145	0.0018
Venus	-41139-04-20 06:28 J	-13304487.44	-13304487.23	-13304487.01	0.0145	0.0032
Venus	-41139-12-02 19:40 J	-13304260.89	-13304260.68	-13304260.47	0.0144	0.0045
Venus	-41138-07-17 08:52 J	-13304034.33	-13304034.13	-13304033.93	0.0144	0.0059
Venus	-41137-02-28 21:50 J	-13303807.77	-13303807.59	-13303807.39	0.0144	0.0072
Venus	-41137-10-12 10:47 J	-13303581.21	-13303581.05	-13303580.86	0.0144	0.0085
Venus	-41136-05-26 23:59 J	-13303354.66	-13303354.50	-13303354.33	0.0143	0.0097
Venus	-41135-01-08 12:28 J	-13303128.11	-13303127.98	-13303127.82	0.0143	0.0109
Venus	-41135-08-23 01:11 J	-13302901.55	-13302901.45	-13302901.32	0.0143	0.0121
Venus	-41134-04-06 14:23 J	-13302674.98	-13302674.90	-13302674.82	0.0142	0.0132
Mercury	-41110-02-04 15:50 J	-13293969.85	-13293969.84	-13293969.80	0.0132	0.0131
Mercury	-41110-05-03 20:09 J	-13293881.74	-13293881.66	-13293881.57	0.0132	0.0110
Mercury	-41110-07-31 00:14 J	-13293793.59	-13293793.49	-13293793.37	0.0132	0.0090
Mercury	-41110-10-27 04:18 J	-13293705.44	-13293705.32	-13293705.18	0.0132	0.0070
Mercury	-41109-01-23 08:38 J	-13293617.28	-13293617.14	-13293617.00	0.0132	0.0050

Mercury -41109-04-20 12:28 J -13293529.12 -13293528.98 -13293528.83 0.0132 0.0031

Mercury -41109-07-17 16:33 J -13293440.96 -13293440.81 -13293440.66 0.0132 0.0011

Moon -41109-10-03 06:42 J -13293363.31 -13293363.22 -13293363.09 0.0132 0.0119

Earth -41109-10-03 10:33 J -13293363.17 -13293363.06 -13293362.94 0.0132 0.0116 *

Mercury -41109-10-13 20:38 J -13293352.79 -13293352.64 -13293352.49 0.0132 0.0008

Mercury -41108-01-10 00:28 J -13293264.62 -13293264.48 -13293264.33 0.0132 0.0028

Mercury -41108-04-08 04:18 J -13293176.46 -13293176.32 -13293176.18 0.0132 0.0047

Mercury -41108-07-05 08:09 J -13293088.28 -13293088.16 -13293088.03 0.0132 0.0066

Mercury -41108-10-01 12:14 J -13293000.11 -13292999.99 -13292999.88 0.0132 0.0084

Earth -41108-10-07 15:35 J -13292994.10 -13292993.85 -13292993.59 0.0132 0.0013

Moon -41108-10-07 19:11 J -13292993.95 -13292993.70 -13292993.44 0.0132 0.0007 *

Mercury -41108-12-28 15:50 J -13292911.93 -13292911.84 -13292911.74 0.0132 0.0103

Mercury -41107-03-26 19:26 J -13292823.73 -13292823.69 -13292823.62 0.0132 0.0122

Moon -41107-10-11 16:47 J -13292624.99 -13292624.80 -13292624.61 0.0132 0.0084

Earth -41107-10-11 20:09 J -13292624.83 -13292624.66 -13292624.46 0.0132 0.0091 *

Venus -41105-05-22 09:50 J -13292036.13 -13292036.09 -13292036.00 0.0132 0.0125

Venus -41104-01-03 14:52 J -13291809.96 -13291809.88 -13291809.76 0.0132 0.0116

Venus -41104-08-17 19:54 J -13291583.78 -13291583.67 -13291583.52 0.0132 0.0107

Venus -41103-04-01 00:57 J -13291357.60 -13291357.46 -13291357.31 0.0132 0.0098

Venus -41103-11-13 05:30 J -13291131.42 -13291131.27 -13291131.10 0.0132 0.0088

Venus -41102-06-27 10:33 J -13290905.24 -13290905.06 -13290904.89 0.0132 0.0079

Venus -41101-02-08 14:52 J -13290679.05 -13290678.88 -13290678.68 0.0132 0.0069

Venus -41101-09-21 19:40 J -13290452.86 -13290452.68 -13290452.47 0.0132 0.0059

Venus -41100-05-06 00:14 J -13290226.68 -13290226.49 -13290226.28 0.0133 0.0050

Venus -41100-12-18 04:47 J -13290000.49 -13290000.30 -13290000.08 0.0133 0.0040

Venus -41099-08-01 09:50 J -13289774.31 -13289774.09 -13289773.88 0.0133 0.0029

Venus -41098-03-15 14:23 J -13289548.12 -13289547.90 -13289547.69 0.0133 0.0019

Venus -41098-10-27 18:57 J -13289321.93 -13289321.71 -13289321.50 0.0133 0.0009

Venus -41097-06-09 23:30 J -13289095.74 -13289095.52 -13289095.30 0.0133 0.0001

Venus -41096-01-22 04:04 J -13288869.54 -13288869.33 -13288869.11 0.0133 0.0012

Venus -41096-09-05 08:52 J -13288643.34 -13288643.13 -13288642.92 0.0134 0.0022
 Mars -41096-12-15 05:30 J -13288542.59 -13288542.27 -13288541.95 0.0134 0.0011
 Venus -41095-04-19 13:26 J -13288417.15 -13288416.94 -13288416.73 0.0134 0.0032
 Venus -41095-12-01 17:59 J -13288190.96 -13288190.75 -13288190.55 0.0134 0.0042
 Venus -41094-07-15 22:33 J -13287964.76 -13287964.56 -13287964.36 0.0134 0.0053
 Venus -41093-02-27 03:06 J -13287738.55 -13287738.37 -13287738.18 0.0135 0.0063
 Venus -41093-10-10 07:54 J -13287512.34 -13287512.17 -13287511.98 0.0135 0.0073
 Venus -41092-05-24 12:28 J -13287286.13 -13287285.98 -13287285.80 0.0135 0.0083
 Venus -41091-01-05 17:30 J -13287059.92 -13287059.77 -13287059.61 0.0135 0.0093
 Venus -41091-08-19 22:04 J -13286833.70 -13286833.58 -13286833.42 0.0136 0.0103
 Venus -41090-04-03 03:21 J -13286607.47 -13286607.36 -13286607.24 0.0136 0.0112
 Venus -41090-11-15 08:38 J -13286381.23 -13286381.14 -13286381.05 0.0136 0.0122
 Venus -41089-06-28 13:11 J -13286154.98 -13286154.95 -13286154.87 0.0137 0.0132
 Mercury -41067-01-21 03:06 J -13278278.43 -13278278.37 -13278278.29 0.0146 0.0132
 Mercury -41067-04-19 09:06 J -13278190.23 -13278190.12 -13278190.00 0.0146 0.0104
 Mercury -41067-07-16 15:06 J -13278102.00 -13278101.87 -13278101.73 0.0146 0.0076
 Mercury -41067-10-12 21:06 J -13278013.77 -13278013.62 -13278013.46 0.0146 0.0047
 Mercury -41066-01-09 03:21 J -13277925.52 -13277925.36 -13277925.20 0.0146 0.0019
 Earth -41066-04-01 14:23 J -13277843.01 -13277842.90 -13277842.75 0.0147 0.0127
 Moon -41066-04-01 17:45 J -13277842.88 -13277842.76 -13277842.61 0.0147 0.0123 *
 Mercury -41066-04-07 09:21 J -13277837.27 -13277837.11 -13277836.94 0.0147 0.0010
 Mercury -41066-07-04 15:35 J -13277749.01 -13277748.85 -13277748.69 0.0147 0.0039
 Mercury -41066-09-30 21:50 J -13277660.74 -13277660.59 -13277660.44 0.0147 0.0069
 Mercury -41066-12-28 03:50 J -13277572.45 -13277572.34 -13277572.21 0.0147 0.0099
 Mercury -41065-03-25 10:04 J -13277484.14 -13277484.08 -13277483.99 0.0147 0.0129
 Moon -41065-04-05 15:06 J -13277473.13 -13277472.87 -13277472.61 0.0147 0.0016
 Earth -41065-04-05 18:28 J -13277472.98 -13277472.73 -13277472.48 0.0147 0.0017 *
 Venus -41064-11-25 11:30 J -13276874.07 -13276874.02 -13276873.95 0.0147 0.0141
 Venus -41063-07-09 23:59 J -13276647.59 -13276647.50 -13276647.39 0.0147 0.0129
 Venus -41062-02-21 12:42 J -13276421.09 -13276420.97 -13276420.83 0.0147 0.0117

Venus	-41062-10-06 01:26 J	-13276194.58	-13276194.44	-13276194.28	0.0146	0.0105
Venus	-41061-05-19 14:09 J	-13275968.07	-13275967.91	-13275967.73	0.0146	0.0092
Venus	-41060-01-01 03:06 J	-13275741.54	-13275741.37	-13275741.18	0.0146	0.0079
Venus	-41060-08-15 16:04 J	-13275515.01	-13275514.83	-13275514.62	0.0146	0.0066
Venus	-41059-03-30 05:16 J	-13275288.48	-13275288.28	-13275288.07	0.0146	0.0053
Venus	-41059-11-11 18:28 J	-13275061.94	-13275061.73	-13275061.52	0.0146	0.0039
Venus	-41058-06-26 07:40 J	-13274835.39	-13274835.18	-13274834.96	0.0146	0.0026
Venus	-41057-02-07 21:06 J	-13274608.84	-13274608.62	-13274608.40	0.0145	0.0012
Venus	-41057-09-21 10:18 J	-13274382.29	-13274382.07	-13274381.85	0.0145	0.0002
Venus	-41056-05-05 23:30 J	-13274155.74	-13274155.52	-13274155.30	0.0145	0.0015
Venus	-41056-12-18 12:42 J	-13273929.18	-13273928.97	-13273928.75	0.0145	0.0029
Mars	-41055-04-20 12:28 J	-13273806.24	-13273805.98	-13273805.68	0.0145	0.0046
Venus	-41055-08-02 01:40 J	-13273702.63	-13273702.43	-13273702.21	0.0145	0.0043
Venus	-41054-03-16 15:06 J	-13273476.07	-13273475.87	-13273475.66	0.0144	0.0056
Venus	-41054-10-29 04:18 J	-13273249.51	-13273249.32	-13273249.12	0.0144	0.0068
Venus	-41053-06-11 17:16 J	-13273022.95	-13273022.78	-13273022.59	0.0144	0.0081
Venus	-41052-01-24 06:14 J	-13272796.40	-13272796.24	-13272796.06	0.0144	0.0094
Venus	-41052-09-07 19:11 J	-13272569.84	-13272569.70	-13272569.55	0.0143	0.0106
Venus	-41051-04-22 08:09 J	-13272343.28	-13272343.16	-13272343.03	0.0143	0.0117
Venus	-41051-12-04 20:38 J	-13272116.73	-13272116.64	-13272116.54	0.0143	0.0129
Venus	-41050-07-19 09:06 J	-13271890.15	-13271890.12	-13271890.07	0.0142	0.0140
Mercury	-41026-02-24 23:16 J	-13263268.57	-13263268.53	-13263268.46	0.0132	0.0124
Mercury	-41026-05-24 03:35 J	-13263180.44	-13263180.35	-13263180.25	0.0132	0.0103
Mercury	-41026-08-20 07:40 J	-13263092.29	-13263092.18	-13263092.05	0.0132	0.0083
Mercury	-41026-11-16 11:45 J	-13263004.13	-13263004.01	-13263003.87	0.0132	0.0064
Mercury	-41025-02-12 16:04 J	-13262915.98	-13262915.83	-13262915.69	0.0132	0.0043
Mercury	-41025-05-10 19:54 J	-13262827.81	-13262827.67	-13262827.52	0.0132	0.0024
Mercury	-41025-08-06 23:59 J	-13262739.65	-13262739.50	-13262739.35	0.0132	0.0004
Moon	-41025-10-03 18:14 J	-13262681.87	-13262681.74	-13262681.57	0.0132	0.0107
Earth	-41025-10-03 22:18 J	-13262681.71	-13262681.57	-13262681.42	0.0132	0.0109 *

Mercury -41025-11-03 04:04 J -13262651.48 -13262651.33 -13262651.18 0.0132 0.0015

Mercury -41024-01-30 07:54 J -13262563.32 -13262563.17 -13262563.03 0.0132 0.0034

Mercury -41024-04-28 11:45 J -13262475.15 -13262475.01 -13262474.87 0.0132 0.0053

Mercury -41024-07-25 15:35 J -13262386.97 -13262386.85 -13262386.72 0.0132 0.0072

Earth -41024-10-08 03:06 J -13262312.62 -13262312.37 -13262312.11 0.0132 0.0006

Moon -41024-10-08 06:42 J -13262312.48 -13262312.22 -13262311.96 0.0132 0.0010 *

Mercury -41024-10-21 19:11 J -13262298.79 -13262298.70 -13262298.58 0.0132 0.0091

Mercury -41023-01-17 23:16 J -13262210.61 -13262210.53 -13262210.45 0.0132 0.0109

Mercury -41023-04-16 02:52 J -13262122.40 -13262122.38 -13262122.34 0.0132 0.0128

Moon -41023-10-12 04:04 J -13261943.47 -13261943.33 -13261943.16 0.0132 0.0104

Earth -41023-10-12 07:40 J -13261943.34 -13261943.18 -13261943.00 0.0132 0.0097 *

Venus -41021-01-20 21:06 J -13261477.68 -13261477.62 -13261477.55 0.0132 0.0125

Venus -41021-09-03 01:40 J -13261251.51 -13261251.43 -13261251.30 0.0132 0.0117

Venus -41020-04-17 06:42 J -13261025.33 -13261025.22 -13261025.08 0.0132 0.0108

Venus -41020-11-29 11:59 J -13260799.15 -13260799.00 -13260798.86 0.0132 0.0098

Venus -41019-07-13 16:33 J -13260572.96 -13260572.81 -13260572.64 0.0132 0.0089

Venus -41018-02-24 21:06 J -13260346.78 -13260346.62 -13260346.43 0.0132 0.0080

Venus -41018-10-09 01:54 J -13260120.59 -13260120.42 -13260120.23 0.0132 0.0070

Venus -41017-05-22 06:42 J -13259894.41 -13259894.22 -13259894.02 0.0132 0.0060

Venus -41016-01-03 11:16 J -13259668.23 -13259668.03 -13259667.82 0.0132 0.0051

Venus -41016-08-17 16:04 J -13259442.03 -13259441.83 -13259441.62 0.0132 0.0041

Venus -41015-03-31 20:38 J -13259215.85 -13259215.64 -13259215.43 0.0133 0.0031

Venus -41015-11-13 01:11 J -13258989.66 -13258989.45 -13258989.23 0.0133 0.0021

Venus -41014-06-27 05:45 J -13258763.47 -13258763.26 -13258763.04 0.0133 0.0011

Venus -41013-02-08 10:18 J -13258537.28 -13258537.07 -13258536.85 0.0133 0.0002

Venus -41013-09-21 15:06 J -13258311.09 -13258310.87 -13258310.66 0.0133 0.0010

Venus -41012-05-05 19:40 J -13258084.90 -13258084.68 -13258084.47 0.0133 0.0020

Venus -41012-12-17 23:59 J -13257858.70 -13257858.50 -13257858.29 0.0134 0.0030

Venus -41011-08-01 04:33 J -13257632.51 -13257632.31 -13257632.10 0.0134 0.0040

Mars -41011-08-10 08:23 J -13257623.36 -13257623.15 -13257622.94 0.0134 0.0100

Venus	-41010-03-15 09:06 J	-13257406.31	-13257406.12	-13257405.92	0.0134	0.0050
Venus	-41010-10-27 13:40 J	-13257180.11	-13257179.93	-13257179.73	0.0134	0.0061
Venus	-41009-06-09 18:14 J	-13256953.91	-13256953.74	-13256953.54	0.0135	0.0071
Venus	-41008-01-21 23:16 J	-13256727.70	-13256727.53	-13256727.36	0.0135	0.0080
Venus	-41008-09-05 03:50 J	-13256501.49	-13256501.34	-13256501.17	0.0135	0.0090
Venus	-41007-04-19 08:52 J	-13256275.27	-13256275.13	-13256274.98	0.0135	0.0100
Venus	-41007-12-01 13:26 J	-13256049.05	-13256048.94	-13256048.80	0.0136	0.0110
Venus	-41006-07-15 18:28 J	-13255822.82	-13255822.73	-13255822.61	0.0136	0.0119
Venus	-41005-02-26 23:30 J	-13255596.57	-13255596.52	-13255596.43	0.0136	0.0128

41ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 41st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-40983-02-10 10:33 J	-13247577.14	-13247577.06	-13247576.97	0.0146	0.0124		
Mercury	-40983-05-09 16:33 J	-13247488.93	-13247488.81	-13247488.69	0.0146	0.0096		
Mercury	-40983-08-05 22:33 J	-13247400.70	-13247400.56	-13247400.42	0.0147	0.0068		
Mercury	-40983-11-02 04:33 J	-13247312.47	-13247312.31	-13247312.15	0.0147	0.0039		
Mercury	-40982-01-29 10:33 J	-13247224.22	-13247224.06	-13247223.89	0.0147	0.0011		
Earth	-40982-04-02 00:42 J	-13247161.60	-13247161.47	-13247161.31	0.0147	0.0121		
Moon	-40982-04-02 04:33 J	-13247161.43	-13247161.31	-13247161.17	0.0147	0.0126	*	
Mercury	-40982-04-27 16:47 J	-13247135.96	-13247135.80	-13247135.64	0.0147	0.0018		
Mercury	-40982-07-24 22:47 J	-13247047.70	-13247047.55	-13247047.39	0.0147	0.0048		

Mercury -40982-10-21 05:02 J -13246959.42 -13246959.29 -13246959.14 0.0147 0.0077

Mercury -40981-01-17 11:16 J -13246871.13 -13246871.03 -13246870.91 0.0147 0.0107

Moon -40981-04-06 01:26 J -13246791.69 -13246791.44 -13246791.18 0.0147 0.0023

Earth -40981-04-06 04:33 J -13246791.55 -13246791.31 -13246791.05 0.0147 0.0023 *

Mercury -40981-04-14 17:30 J -13246782.82 -13246782.77 -13246782.70 0.0147 0.0137

Venus -40980-07-25 17:45 J -13246315.79 -13246315.76 -13246315.69 0.0147 0.0143

Venus -40979-03-09 06:28 J -13246089.32 -13246089.23 -13246089.13 0.0147 0.0131

Venus -40979-10-21 19:11 J -13245862.82 -13245862.70 -13245862.57 0.0147 0.0119

Venus -40978-06-05 07:54 J -13245636.32 -13245636.17 -13245636.02 0.0147 0.0107

Venus -40977-01-17 20:38 J -13245409.80 -13245409.64 -13245409.47 0.0147 0.0095

Venus -40977-08-31 09:35 J -13245183.27 -13245183.10 -13245182.92 0.0146 0.0082

Venus -40976-04-14 22:33 J -13244956.75 -13244956.56 -13244956.36 0.0146 0.0069

Venus -40976-11-27 11:45 J -13244730.21 -13244730.01 -13244729.81 0.0146 0.0055

Venus -40975-07-12 00:42 J -13244503.67 -13244503.47 -13244503.25 0.0146 0.0042

Venus -40974-02-23 14:09 J -13244277.12 -13244276.91 -13244276.69 0.0146 0.0029

Venus -40974-10-08 03:21 J -13244050.57 -13244050.36 -13244050.13 0.0146 0.0016

Venus -40973-05-21 16:47 J -13243824.02 -13243823.80 -13243823.58 0.0145 0.0002

Venus -40972-01-03 05:59 J -13243597.47 -13243597.25 -13243597.03 0.0145 0.0012

Mars -40972-01-11 08:52 J -13243589.20 -13243589.13 -13243589.04 0.0145 0.0140

Venus -40972-08-17 19:11 J -13243370.91 -13243370.70 -13243370.48 0.0145 0.0026

Venus -40971-04-01 08:38 J -13243144.35 -13243144.14 -13243143.93 0.0145 0.0039

Venus -40971-11-13 21:50 J -13242917.80 -13242917.59 -13242917.38 0.0145 0.0052

Venus -40970-06-28 10:47 J -13242691.24 -13242691.05 -13242690.84 0.0144 0.0065

Venus -40969-02-09 23:45 J -13242464.68 -13242464.51 -13242464.31 0.0144 0.0078

Venus -40969-09-23 12:57 J -13242238.12 -13242237.96 -13242237.78 0.0144 0.0090

Venus -40968-05-08 01:40 J -13242011.57 -13242011.43 -13242011.26 0.0143 0.0103

Venus -40968-12-20 14:23 J -13241785.01 -13241784.90 -13241784.75 0.0143 0.0115

Venus -40967-08-04 03:35 J -13241558.46 -13241558.35 -13241558.25 0.0143 0.0125

Venus -40966-03-18 15:50 J -13241331.88 -13241331.84 -13241331.76 0.0143 0.0137

Mercury -40942-03-17 07:11 J -13232567.27 -13232567.20 -13232567.13 0.0132 0.0115

Mercury -40942-06-13 11:16 J -13232479.13 -13232479.03 -13232478.92 0.0132 0.0095

Mercury -40942-09-09 15:21 J -13232390.98 -13232390.86 -13232390.73 0.0132 0.0075

Mercury -40942-12-06 19:26 J -13232302.82 -13232302.69 -13232302.55 0.0132 0.0056

Mercury -40941-03-03 23:30 J -13232214.66 -13232214.52 -13232214.37 0.0132 0.0036

Mercury -40941-05-31 03:35 J -13232126.50 -13232126.35 -13232126.20 0.0132 0.0016

Mercury -40941-08-27 07:26 J -13232038.34 -13232038.19 -13232038.04 0.0132 0.0005

Moon -40941-10-04 07:11 J -13232000.34 -13232000.20 -13232000.03 0.0132 0.0103

Earth -40941-10-04 10:18 J -13232000.21 -13232000.07 -13231999.89 0.0132 0.0102 *

Mercury -40941-11-23 11:30 J -13231950.17 -13231950.02 -13231949.87 0.0132 0.0022

Mercury -40940-02-19 15:21 J -13231862.00 -13231861.86 -13231861.72 0.0132 0.0041

Mercury -40940-05-18 19:11 J -13231773.83 -13231773.70 -13231773.56 0.0132 0.0060

Mercury -40940-08-14 23:02 J -13231685.65 -13231685.54 -13231685.42 0.0132 0.0079

Earth -40940-10-08 15:35 J -13231631.11 -13231630.85 -13231630.60 0.0132 0.0002

Moon -40940-10-08 19:11 J -13231630.96 -13231630.70 -13231630.45 0.0132 0.0007 *

Mercury -40940-11-11 02:52 J -13231597.47 -13231597.38 -13231597.28 0.0132 0.0098

Mercury -40939-02-07 06:42 J -13231509.29 -13231509.22 -13231509.15 0.0132 0.0116

Moon -40939-10-12 16:18 J -13231261.97 -13231261.82 -13231261.64 0.0132 0.0099

Earth -40939-10-12 19:40 J -13231261.81 -13231261.68 -13231261.51 0.0132 0.0105 *

Venus -40938-09-20 07:54 J -13230919.21 -13230919.17 -13230919.08 0.0132 0.0126

Venus -40937-05-03 13:11 J -13230693.04 -13230692.95 -13230692.84 0.0132 0.0117

Venus -40937-12-15 18:14 J -13230466.86 -13230466.74 -13230466.61 0.0132 0.0108

Venus -40936-07-29 23:02 J -13230240.67 -13230240.54 -13230240.38 0.0132 0.0099

Venus -40935-03-13 03:50 J -13230014.48 -13230014.34 -13230014.17 0.0132 0.0090

Venus -40935-10-25 08:23 J -13229788.30 -13229788.15 -13229787.96 0.0132 0.0082

Venus -40934-06-08 13:26 J -13229562.12 -13229561.94 -13229561.75 0.0132 0.0071

Venus -40933-01-20 18:14 J -13229335.93 -13229335.74 -13229335.54 0.0132 0.0062

Venus -40933-09-02 22:47 J -13229109.74 -13229109.55 -13229109.34 0.0132 0.0052

Venus -40932-04-17 03:35 J -13228883.55 -13228883.35 -13228883.14 0.0132 0.0042

Venus -40932-11-29 08:09 J -13228657.36 -13228657.16 -13228656.94 0.0133 0.0032

Venus -40931-07-13 12:57 J -13228431.18 -13228430.96 -13228430.75 0.0133 0.0022

Venus	-40930-02-24 17:30 J	-13228204.99	-13228204.77	-13228204.56	0.0133	0.0012
Venus	-40930-10-08 22:04 J	-13227978.79	-13227978.58	-13227978.36	0.0133	0.0002
Venus	-40929-05-22 02:38 J	-13227752.61	-13227752.39	-13227752.18	0.0133	0.0008
Venus	-40928-01-03 06:57 J	-13227526.42	-13227526.21	-13227525.99	0.0133	0.0019
Mars	-40928-05-02 23:59 J	-13227406.79	-13227406.50	-13227406.21	0.0133	0.0056
Venus	-40928-08-17 11:30 J	-13227300.22	-13227300.02	-13227299.80	0.0134	0.0029
Venus	-40927-03-31 16:04 J	-13227074.03	-13227073.83	-13227073.62	0.0134	0.0038
Venus	-40927-11-12 20:38 J	-13226847.84	-13226847.64	-13226847.44	0.0134	0.0048
Venus	-40926-06-27 00:57 J	-13226621.64	-13226621.46	-13226621.25	0.0134	0.0059
Venus	-40925-02-08 05:30 J	-13226395.44	-13226395.27	-13226395.07	0.0134	0.0069
Venus	-40925-09-21 10:33 J	-13226169.23	-13226169.06	-13226168.88	0.0135	0.0078
Venus	-40924-05-05 15:06 J	-13225943.02	-13225942.87	-13225942.70	0.0135	0.0088
Venus	-40924-12-17 19:54 J	-13225716.81	-13225716.67	-13225716.51	0.0135	0.0097
Venus	-40923-08-01 00:57 J	-13225490.59	-13225490.46	-13225490.33	0.0136	0.0107
Venus	-40922-03-15 05:59 J	-13225264.36	-13225264.25	-13225264.14	0.0136	0.0116
Venus	-40922-10-27 11:02 J	-13225038.11	-13225038.04	-13225037.95	0.0136	0.0126
Venus	-40921-06-09 16:04 J	-13224811.85	-13224811.83	-13224811.78	0.0136	0.0135
Mercury	-40900-12-04 12:14 J	-13216964.01	-13216963.99	-13216963.94	0.0146	0.0143
Mercury	-40899-03-02 18:14 J	-13216875.83	-13216875.74	-13216875.64	0.0146	0.0115
Mercury	-40899-05-30 00:14 J	-13216787.62	-13216787.49	-13216787.36	0.0147	0.0087
Mercury	-40899-08-26 06:14 J	-13216699.39	-13216699.24	-13216699.09	0.0147	0.0059
Mercury	-40899-11-22 12:14 J	-13216611.15	-13216610.99	-13216610.83	0.0147	0.0030
Mercury	-40898-02-18 18:14 J	-13216522.90	-13216522.74	-13216522.58	0.0147	0.0002
Earth	-40898-04-02 11:59 J	-13216480.14	-13216480.00	-13216479.82	0.0147	0.0114
Moon	-40898-04-02 15:35 J	-13216480.00	-13216479.85	-13216479.67	0.0147	0.0109 *
Mercury	-40898-05-18 00:14 J	-13216434.64	-13216434.49	-13216434.32	0.0147	0.0028
Mercury	-40898-08-14 06:28 J	-13216346.38	-13216346.23	-13216346.07	0.0147	0.0057
Mercury	-40898-11-10 12:42 J	-13216258.10	-13216257.97	-13216257.83	0.0147	0.0086
Mercury	-40897-02-06 18:57 J	-13216169.80	-13216169.71	-13216169.60	0.0147	0.0116
Moon	-40897-04-06 12:14 J	-13216110.24	-13216109.99	-13216109.73	0.0147	0.0029

Earth -40897-04-06 16:04 J -13216110.08 -13216109.83 -13216109.58 0.0147 0.0030 *
 Mercury -40897-05-05 01:11 J -13216081.46 -13216081.45 -13216081.42 0.0147 0.0146
 Venus -40896-03-25 00:57 J -13215757.49 -13215757.46 -13215757.41 0.0147 0.0144
 Venus -40896-11-06 13:11 J -13215531.03 -13215530.95 -13215530.85 0.0147 0.0133
 Venus -40895-06-21 01:54 J -13215304.54 -13215304.42 -13215304.30 0.0147 0.0121
 Venus -40894-02-02 14:38 J -13215078.03 -13215077.89 -13215077.74 0.0147 0.0109
 Venus -40894-09-17 03:21 J -13214851.51 -13214851.36 -13214851.19 0.0147 0.0097
 Venus -40893-04-30 16:04 J -13214624.99 -13214624.83 -13214624.64 0.0147 0.0085
 Venus -40893-12-13 05:02 J -13214398.47 -13214398.29 -13214398.09 0.0146 0.0072
 Venus -40892-07-27 18:14 J -13214171.93 -13214171.74 -13214171.53 0.0146 0.0058
 Venus -40891-03-11 07:26 J -13213945.39 -13213945.19 -13213944.97 0.0146 0.0045
 Venus -40891-10-23 20:38 J -13213718.84 -13213718.64 -13213718.42 0.0146 0.0032
 Venus -40890-06-07 10:04 J -13213492.30 -13213492.08 -13213491.86 0.0146 0.0018
 Venus -40889-01-19 23:16 J -13213265.75 -13213265.53 -13213265.31 0.0146 0.0005
 Venus -40889-09-02 12:42 J -13213039.19 -13213038.97 -13213038.75 0.0145 0.0009
 Venus -40888-04-17 01:54 J -13212812.64 -13212812.42 -13212812.20 0.0145 0.0022
 Mars -40888-09-06 17:45 J -13212670.04 -13212669.76 -13212669.46 0.0145 0.0035
 Venus -40888-11-29 14:52 J -13212586.08 -13212585.88 -13212585.66 0.0145 0.0036
 Venus -40887-07-14 04:18 J -13212359.53 -13212359.32 -13212359.11 0.0145 0.0049
 Venus -40886-02-25 17:30 J -13212132.96 -13212132.77 -13212132.57 0.0144 0.0062
 Venus -40886-10-10 06:42 J -13211906.41 -13211906.22 -13211906.03 0.0144 0.0074
 Venus -40885-05-23 19:26 J -13211679.85 -13211679.69 -13211679.50 0.0144 0.0087
 Venus -40884-01-05 08:38 J -13211453.30 -13211453.14 -13211452.98 0.0144 0.0099
 Venus -40884-08-19 21:21 J -13211226.74 -13211226.61 -13211226.46 0.0143 0.0111
 Venus -40883-04-03 10:04 J -13211000.18 -13211000.08 -13210999.95 0.0143 0.0122
 Venus -40883-11-15 23:02 J -13210773.61 -13210773.54 -13210773.46 0.0143 0.0133
 Mercury -40858-01-08 10:18 J -13201954.09 -13201954.07 -13201954.02 0.0132 0.0128
 Mercury -40858-04-06 14:52 J -13201865.97 -13201865.88 -13201865.80 0.0132 0.0108
 Mercury -40858-07-03 18:57 J -13201777.82 -13201777.71 -13201777.60 0.0132 0.0088
 Mercury -40858-09-29 22:47 J -13201689.67 -13201689.55 -13201689.41 0.0132 0.0068

Mercury -40858-12-27 02:52 J -13201601.51 -13201601.38 -13201601.23 0.0132 0.0049
 Mercury -40857-03-24 06:57 J -13201513.35 -13201513.21 -13201513.06 0.0132 0.0029
 Mercury -40857-06-20 11:02 J -13201425.19 -13201425.04 -13201424.89 0.0132 0.0009
 Mercury -40857-09-16 15:06 J -13201337.02 -13201336.87 -13201336.72 0.0132 0.0011
 Moon -40857-10-04 19:11 J -13201318.86 -13201318.70 -13201318.50 0.0132 0.0092
 Earth -40857-10-04 22:47 J -13201318.71 -13201318.55 -13201318.36 0.0132 0.0094 *
 Mercury -40857-12-13 18:57 J -13201248.85 -13201248.71 -13201248.56 0.0132 0.0030
 Mercury -40856-03-11 22:47 J -13201160.68 -13201160.55 -13201160.41 0.0132 0.0049
 Mercury -40856-06-08 02:38 J -13201072.51 -13201072.39 -13201072.26 0.0132 0.0068
 Mercury -40856-09-04 06:42 J -13200984.33 -13200984.22 -13200984.11 0.0132 0.0086
 Earth -40856-10-09 03:35 J -13200949.60 -13200949.35 -13200949.09 0.0132 0.0010
 Moon -40856-10-09 06:57 J -13200949.47 -13200949.21 -13200948.95 0.0132 0.0006 *
 Mercury -40856-12-01 10:18 J -13200896.15 -13200896.07 -13200895.98 0.0132 0.0105
 Mercury -40855-02-27 13:54 J -13200807.96 -13200807.92 -13200807.86 0.0132 0.0124
 Moon -40855-10-13 04:33 J -13200580.39 -13200580.31 -13200580.18 0.0132 0.0119
 Earth -40855-10-13 08:23 J -13200580.28 -13200580.15 -13200580.02 0.0132 0.0112 *
 Venus -40854-05-20 19:40 J -13200360.74 -13200360.68 -13200360.62 0.0132 0.0126
 Venus -40853-01-02 00:14 J -13200134.57 -13200134.49 -13200134.38 0.0132 0.0118
 Venus -40853-08-15 05:30 J -13199908.38 -13199908.27 -13199908.14 0.0132 0.0109
 Venus -40852-03-29 10:33 J -13199682.20 -13199682.06 -13199681.91 0.0132 0.0100
 Venus -40852-11-10 15:06 J -13199456.01 -13199455.87 -13199455.70 0.0132 0.0091
 Venus -40851-06-24 19:54 J -13199229.83 -13199229.67 -13199229.49 0.0132 0.0082
 Venus -40850-02-06 00:57 J -13199003.64 -13199003.46 -13199003.28 0.0132 0.0072
 Venus -40850-09-20 05:30 J -13198777.45 -13198777.27 -13198777.07 0.0132 0.0063
 Venus -40849-05-03 10:18 J -13198551.26 -13198551.07 -13198550.86 0.0132 0.0053
 Venus -40849-12-15 14:52 J -13198325.08 -13198324.88 -13198324.67 0.0132 0.0044
 Venus -40848-07-29 19:40 J -13198098.89 -13198098.68 -13198098.47 0.0132 0.0034
 Venus -40847-03-13 00:14 J -13197872.70 -13197872.49 -13197872.27 0.0133 0.0024
 Venus -40847-10-25 04:47 J -13197646.51 -13197646.30 -13197646.08 0.0133 0.0014
 Venus -40846-06-08 09:21 J -13197420.33 -13197420.11 -13197419.90 0.0133 0.0004

Venus	-40845-01-20 13:40 J	-13197194.14	-13197193.93	-13197193.71	0.0133	0.0006
Venus	-40845-09-02 18:14 J	-13196967.95	-13196967.74	-13196967.52	0.0133	0.0016
Venus	-40844-04-16 22:47 J	-13196741.76	-13196741.55	-13196741.34	0.0133	0.0026
Venus	-40844-11-29 03:06 J	-13196515.57	-13196515.37	-13196515.16	0.0134	0.0036
Mars	-40844-12-27 03:50 J	-13196487.65	-13196487.34	-13196487.03	0.0134	0.0035
Venus	-40843-07-13 07:26 J	-13196289.38	-13196289.19	-13196288.98	0.0134	0.0046
Venus	-40842-02-24 11:59 J	-13196063.19	-13196063.00	-13196062.80	0.0134	0.0056
Venus	-40842-10-08 16:47 J	-13195836.98	-13195836.80	-13195836.61	0.0134	0.0066
Venus	-40841-05-21 21:06 J	-13195610.78	-13195610.62	-13195610.42	0.0135	0.0076
Venus	-40840-01-03 01:54 J	-13195384.57	-13195384.42	-13195384.24	0.0135	0.0085
Venus	-40840-08-17 06:57 J	-13195158.36	-13195158.21	-13195158.06	0.0135	0.0094
Venus	-40839-03-31 11:30 J	-13194932.14	-13194932.02	-13194931.87	0.0135	0.0104
Venus	-40839-11-12 16:18 J	-13194705.91	-13194705.82	-13194705.68	0.0136	0.0114
Venus	-40838-06-26 21:21 J	-13194479.68	-13194479.61	-13194479.50	0.0136	0.0123
Venus	-40837-02-08 02:52 J	-13194253.43	-13194253.38	-13194253.32	0.0136	0.0131
Mercury	-40816-12-24 19:40 J	-13186262.73	-13186262.68	-13186262.61	0.0147	0.0135
Mercury	-40815-03-23 01:40 J	-13186174.54	-13186174.43	-13186174.32	0.0147	0.0107
Mercury	-40815-06-19 07:40 J	-13186086.32	-13186086.18	-13186086.05	0.0147	0.0079
Mercury	-40815-09-15 13:26 J	-13185998.08	-13185997.94	-13185997.78	0.0147	0.0051
Mercury	-40815-12-12 19:40 J	-13185909.84	-13185909.68	-13185909.52	0.0147	0.0022
Mercury	-40814-03-11 01:40 J	-13185821.59	-13185821.43	-13185821.27	0.0147	0.0007
Earth	-40814-04-02 22:33 J	-13185798.71	-13185798.56	-13185798.37	0.0147	0.0107
Moon	-40814-04-03 02:09 J	-13185798.55	-13185798.41	-13185798.22	0.0147	0.0113 *
Mercury	-40814-06-07 07:40 J	-13185733.33	-13185733.18	-13185733.01	0.0147	0.0036
Mercury	-40814-09-03 13:54 J	-13185645.06	-13185644.92	-13185644.77	0.0147	0.0065
Mercury	-40814-11-30 20:09 J	-13185556.78	-13185556.66	-13185556.53	0.0147	0.0095
Mercury	-40813-02-27 02:09 J	-13185468.48	-13185468.41	-13185468.31	0.0147	0.0125
Moon	-40813-04-06 23:16 J	-13185428.77	-13185428.53	-13185428.28	0.0147	0.0038
Earth	-40813-04-07 02:38 J	-13185428.63	-13185428.39	-13185428.13	0.0147	0.0037 *
Venus	-40813-11-22 07:26 J	-13185199.19	-13185199.19	-13185199.15	0.0147	0.0146

Venus	-40812-07-06 19:54 J	-13184972.74	-13184972.67	-13184972.58	0.0147	0.0135
Venus	-40811-02-18 08:23 J	-13184746.25	-13184746.15	-13184746.02	0.0147	0.0124
Venus	-40811-10-02 21:06 J	-13184519.75	-13184519.62	-13184519.47	0.0147	0.0112
Venus	-40810-05-17 09:50 J	-13184293.24	-13184293.09	-13184292.92	0.0147	0.0100
Venus	-40810-12-29 22:47 J	-13184066.72	-13184066.55	-13184066.37	0.0147	0.0087
Venus	-40809-08-12 11:45 J	-13183840.19	-13183840.01	-13183839.81	0.0147	0.0074
Venus	-40808-03-27 00:42 J	-13183613.65	-13183613.47	-13183613.26	0.0146	0.0062
Venus	-40808-11-08 13:54 J	-13183387.11	-13183386.92	-13183386.70	0.0146	0.0049
Venus	-40807-06-23 03:06 J	-13183160.57	-13183160.37	-13183160.15	0.0146	0.0035
Venus	-40806-02-04 16:47 J	-13182934.02	-13182933.80	-13182933.59	0.0146	0.0021
Venus	-40806-09-19 05:59 J	-13182707.47	-13182707.25	-13182707.03	0.0146	0.0008
Venus	-40805-05-02 19:11 J	-13182480.92	-13182480.70	-13182480.48	0.0146	0.0006
Venus	-40805-12-15 08:23 J	-13182254.37	-13182254.15	-13182253.93	0.0145	0.0019
Venus	-40804-07-29 21:35 J	-13182027.81	-13182027.60	-13182027.38	0.0145	0.0032
Venus	-40803-03-13 11:02 J	-13181801.25	-13181801.04	-13181800.83	0.0145	0.0045
Mars	-40803-05-03 03:21 J	-13181750.60	-13181750.36	-13181750.09	0.0145	0.0072
Venus	-40803-10-26 00:14 J	-13181574.69	-13181574.49	-13181574.28	0.0145	0.0058
Venus	-40802-06-09 13:11 J	-13181348.13	-13181347.95	-13181347.75	0.0144	0.0071
Venus	-40801-01-22 02:09 J	-13181121.58	-13181121.41	-13181121.22	0.0144	0.0083
Venus	-40801-09-04 15:21 J	-13180895.02	-13180894.86	-13180894.69	0.0144	0.0095
Venus	-40800-04-19 04:33 J	-13180668.46	-13180668.31	-13180668.16	0.0144	0.0107
Venus	-40800-12-01 17:02 J	-13180441.90	-13180441.79	-13180441.65	0.0143	0.0119
Venus	-40799-07-16 06:14 J	-13180215.34	-13180215.24	-13180215.15	0.0143	0.0129
Venus	-40798-02-27 18:28 J	-13179988.75	-13179988.73	-13179988.68	0.0143	0.0141
Mercury	-40774-01-28 18:14 J	-13171252.80	-13171252.74	-13171252.67	0.0132	0.0120
Mercury	-40774-04-26 22:18 J	-13171164.66	-13171164.57	-13171164.46	0.0132	0.0100
Mercury	-40774-07-24 02:38 J	-13171076.51	-13171076.39	-13171076.27	0.0132	0.0080
Mercury	-40774-10-20 06:28 J	-13170988.36	-13170988.23	-13170988.08	0.0132	0.0060
Mercury	-40773-01-16 10:47 J	-13170900.20	-13170900.05	-13170899.91	0.0132	0.0040
Mercury	-40773-04-13 14:38 J	-13170812.03	-13170811.89	-13170811.73	0.0132	0.0021

Mercury -40773-07-10 18:42 J -13170723.87 -13170723.72 -13170723.57 0.0132 0.0002
 Moon -40773-10-05 09:06 J -13170637.30 -13170637.12 -13170636.92 0.0132 0.0086
 Earth -40773-10-05 11:59 J -13170637.19 -13170637.00 -13170636.80 0.0132 0.0085 *
 Mercury -40773-10-06 22:47 J -13170635.70 -13170635.55 -13170635.40 0.0132 0.0018
 Mercury -40772-01-03 02:38 J -13170547.53 -13170547.39 -13170547.24 0.0132 0.0037
 Mercury -40772-04-01 06:28 J -13170459.36 -13170459.23 -13170459.09 0.0132 0.0057
 Mercury -40772-06-28 10:33 J -13170371.19 -13170371.06 -13170370.94 0.0132 0.0075
 Mercury -40772-09-24 14:09 J -13170283.01 -13170282.91 -13170282.80 0.0132 0.0094
 Earth -40772-10-09 16:47 J -13170268.05 -13170267.80 -13170267.54 0.0132 0.0018
 Moon -40772-10-09 20:09 J -13170267.91 -13170267.66 -13170267.40 0.0132 0.0023 *
 Mercury -40772-12-21 17:45 J -13170194.82 -13170194.76 -13170194.67 0.0132 0.0113
 Mercury -40771-03-19 21:50 J -13170106.60 -13170106.59 -13170106.58 0.0132 0.0131
 Moon -40771-10-13 18:14 J -13169898.84 -13169898.74 -13169898.61 0.0132 0.0115
 Earth -40771-10-13 21:06 J -13169898.70 -13169898.62 -13169898.50 0.0132 0.0121 *
 Venus -40770-01-18 06:57 J -13169802.25 -13169802.21 -13169802.13 0.0132 0.0127
 Venus -40770-09-01 12:28 J -13169576.07 -13169575.98 -13169575.88 0.0132 0.0118
 Venus -40769-04-14 17:16 J -13169349.89 -13169349.78 -13169349.65 0.0132 0.0110
 Venus -40769-11-26 22:04 J -13169123.70 -13169123.58 -13169123.42 0.0132 0.0101
 Venus -40768-07-11 03:06 J -13168897.51 -13168897.37 -13168897.20 0.0132 0.0092
 Venus -40767-02-22 08:23 J -13168671.32 -13168671.15 -13168670.98 0.0132 0.0082
 Venus -40767-10-06 12:57 J -13168445.13 -13168444.96 -13168444.77 0.0132 0.0073
 Venus -40766-05-20 17:30 J -13168218.95 -13168218.77 -13168218.57 0.0132 0.0064
 Venus -40765-01-01 22:18 J -13167992.76 -13167992.57 -13167992.36 0.0132 0.0054
 Venus -40765-08-15 03:06 J -13167766.57 -13167766.37 -13167766.16 0.0132 0.0045
 Venus -40764-03-29 07:54 J -13167540.38 -13167540.17 -13167539.96 0.0132 0.0035
 Venus -40764-11-10 12:14 J -13167314.20 -13167313.99 -13167313.77 0.0133 0.0025
 Venus -40763-06-24 16:47 J -13167088.02 -13167087.80 -13167087.58 0.0133 0.0015
 Venus -40762-02-05 21:21 J -13166861.83 -13166861.61 -13166861.40 0.0133 0.0006
 Venus -40762-09-20 01:54 J -13166635.64 -13166635.42 -13166635.21 0.0133 0.0005
 Venus -40761-05-03 06:14 J -13166409.45 -13166409.24 -13166409.02 0.0133 0.0014

Mars -40761-09-18 19:11 J -13166270.81 -13166270.70 -13166270.54 0.0133 0.0120
 Venus -40761-12-15 10:33 J -13166183.27 -13166183.06 -13166182.84 0.0133 0.0024
 Venus -40760-07-29 15:06 J -13165957.08 -13165956.87 -13165956.66 0.0134 0.0034
 Venus -40759-03-12 19:26 J -13165730.89 -13165730.69 -13165730.48 0.0134 0.0044
 Mars -40759-08-22 09:50 J -13165568.16 -13165568.09 -13165567.96 0.0134 0.0127
 Venus -40759-10-24 23:59 J -13165504.69 -13165504.50 -13165504.30 0.0134 0.0054
 Venus -40758-06-08 04:33 J -13165278.49 -13165278.31 -13165278.12 0.0134 0.0063
 Venus -40757-01-20 08:52 J -13165052.29 -13165052.13 -13165051.93 0.0134 0.0074
 Venus -40757-09-02 13:40 J -13164826.08 -13164825.93 -13164825.75 0.0135 0.0083
 Venus -40756-04-16 18:28 J -13164599.87 -13164599.73 -13164599.56 0.0135 0.0092
 Venus -40756-11-28 23:16 J -13164373.66 -13164373.53 -13164373.38 0.0135 0.0102
 Venus -40755-07-13 04:18 J -13164147.44 -13164147.32 -13164147.20 0.0135 0.0111
 Venus -40754-02-24 09:06 J -13163921.20 -13163921.12 -13163921.01 0.0136 0.0120
 Venus -40754-10-08 14:23 J -13163694.95 -13163694.90 -13163694.82 0.0136 0.0129
 Mercury -40731-01-14 03:35 J -13155561.43 -13155561.35 -13155561.27 0.0147 0.0125
 Mercury -40731-04-12 09:21 J -13155473.22 -13155473.11 -13155472.98 0.0147 0.0097
 Mercury -40731-07-09 15:21 J -13155385.00 -13155384.86 -13155384.72 0.0147 0.0069
 Mercury -40731-10-05 21:21 J -13155296.77 -13155296.61 -13155296.45 0.0147 0.0041
 Mercury -40730-01-02 03:21 J -13155208.52 -13155208.36 -13155208.20 0.0147 0.0012
 Mercury -40730-03-31 09:21 J -13155120.27 -13155120.11 -13155119.94 0.0147 0.0017
 Earth -40730-04-03 11:02 J -13155117.22 -13155117.04 -13155116.85 0.0147 0.0098
 Moon -40730-04-03 14:23 J -13155117.09 -13155116.90 -13155116.69 0.0147 0.0093 *
 Mercury -40730-06-27 15:35 J -13155032.01 -13155031.85 -13155031.69 0.0147 0.0046
 Mercury -40730-09-23 21:50 J -13154943.73 -13154943.59 -13154943.45 0.0147 0.0075
 Mercury -40730-12-21 03:50 J -13154855.44 -13154855.34 -13154855.22 0.0147 0.0105
 Mercury -40729-03-18 10:04 J -13154767.13 -13154767.08 -13154767.00 0.0147 0.0135
 Moon -40729-04-07 11:02 J -13154747.27 -13154747.04 -13154746.79 0.0147 0.0044
 Earth -40729-04-07 14:52 J -13154747.11 -13154746.88 -13154746.63 0.0147 0.0046 *
 Venus -40728-03-06 03:35 J -13154414.42 -13154414.35 -13154414.26 0.0147 0.0136
 Venus -40728-10-18 15:50 J -13154187.94 -13154187.84 -13154187.71 0.0147 0.0125

Venus	-40727-06-02 04:18 J	-13153961.44	-13153961.32	-13153961.17	0.0147	0.0114
Venus	-40726-01-14 17:30 J	-13153734.92	-13153734.77	-13153734.61	0.0147	0.0101
Venus	-40726-08-29 06:14 J	-13153508.40	-13153508.24	-13153508.06	0.0147	0.0089
Venus	-40725-04-11 18:57 J	-13153281.88	-13153281.71	-13153281.51	0.0147	0.0077
Venus	-40725-11-24 08:09 J	-13153055.35	-13153055.16	-13153054.96	0.0147	0.0064
Venus	-40724-07-08 21:21 J	-13152828.81	-13152828.61	-13152828.41	0.0146	0.0050
Venus	-40723-02-20 10:33 J	-13152602.27	-13152602.06	-13152601.84	0.0146	0.0037
Venus	-40723-10-04 23:45 J	-13152375.72	-13152375.51	-13152375.29	0.0146	0.0024
Venus	-40722-05-19 12:57 J	-13152149.17	-13152148.96	-13152148.74	0.0146	0.0011
Venus	-40721-01-01 02:23 J	-13151922.62	-13151922.40	-13151922.19	0.0146	0.0004
Venus	-40721-08-14 15:35 J	-13151696.07	-13151695.85	-13151695.63	0.0146	0.0016
Mars	-40720-01-24 02:23 J	-13151533.58	-13151533.40	-13151533.20	0.0145	0.0112
Venus	-40720-03-29 04:47 J	-13151469.51	-13151469.30	-13151469.08	0.0145	0.0029
Venus	-40720-11-10 17:59 J	-13151242.96	-13151242.75	-13151242.53	0.0145	0.0042
Venus	-40719-06-25 06:57 J	-13151016.40	-13151016.21	-13151015.99	0.0145	0.0055
Venus	-40718-02-06 20:09 J	-13150789.84	-13150789.66	-13150789.45	0.0145	0.0068
Venus	-40718-09-21 09:35 J	-13150563.29	-13150563.10	-13150562.92	0.0144	0.0080
Venus	-40717-05-04 22:18 J	-13150336.73	-13150336.57	-13150336.39	0.0144	0.0092
Venus	-40717-12-17 11:16 J	-13150110.17	-13150110.03	-13150109.87	0.0144	0.0104
Venus	-40716-07-31 23:59 J	-13149883.61	-13149883.50	-13149883.35	0.0144	0.0116
Venus	-40715-03-15 13:11 J	-13149657.04	-13149656.95	-13149656.84	0.0143	0.0126
Venus	-40715-10-28 01:54 J	-13149430.47	-13149430.42	-13149430.35	0.0143	0.0137
Mercury	-40691-11-21 21:50 J	-13140639.60	-13140639.59	-13140639.58	0.0132	0.0132
Mercury	-40690-02-18 01:54 J	-13140551.50	-13140551.42	-13140551.34	0.0132	0.0111
Mercury	-40690-05-17 05:59 J	-13140463.35	-13140463.25	-13140463.13	0.0132	0.0092
Mercury	-40690-08-13 10:18 J	-13140375.20	-13140375.07	-13140374.94	0.0132	0.0071
Mercury	-40690-11-09 14:09 J	-13140287.04	-13140286.91	-13140286.76	0.0132	0.0052
Mercury	-40689-02-05 18:28 J	-13140198.88	-13140198.73	-13140198.58	0.0132	0.0032
Mercury	-40689-05-03 22:18 J	-13140110.72	-13140110.57	-13140110.41	0.0132	0.0013
Mercury	-40689-07-31 02:23 J	-13140022.55	-13140022.40	-13140022.25	0.0132	0.0007

Moon -40689-10-05 22:04 J -13139955.78 -13139955.58 -13139955.37 0.0132 0.0075
 Earth -40689-10-06 00:42 J -13139955.66 -13139955.47 -13139955.24 0.0132 0.0077 *
 Mercury -40689-10-27 06:28 J -13139934.38 -13139934.23 -13139934.09 0.0132 0.0026
 Mercury -40688-01-23 10:18 J -13139846.21 -13139846.07 -13139845.93 0.0132 0.0045
 Mercury -40688-04-21 14:09 J -13139758.04 -13139757.91 -13139757.78 0.0132 0.0064
 Mercury -40688-07-18 17:59 J -13139669.86 -13139669.75 -13139669.63 0.0132 0.0083
 Earth -40688-10-10 05:45 J -13139586.50 -13139586.26 -13139586.00 0.0132 0.0027
 Moon -40688-10-10 08:23 J -13139586.40 -13139586.15 -13139585.89 0.0132 0.0023 *
 Mercury -40688-10-14 21:50 J -13139581.68 -13139581.59 -13139581.49 0.0132 0.0102
 Mercury -40687-01-11 01:26 J -13139493.48 -13139493.44 -13139493.37 0.0132 0.0121
 Venus -40687-09-17 18:57 J -13139243.76 -13139243.71 -13139243.65 0.0132 0.0127
 Earth -40687-10-14 10:04 J -13139217.10 -13139217.08 -13139217.02 0.0132 0.0130
 Venus -40686-05-01 23:45 J -13139017.58 -13139017.51 -13139017.40 0.0132 0.0119
 Venus -40686-12-14 05:16 J -13138791.40 -13138791.28 -13138791.16 0.0132 0.0110
 Venus -40685-07-27 10:18 J -13138565.20 -13138565.07 -13138564.92 0.0132 0.0101
 Venus -40684-03-10 15:21 J -13138339.01 -13138338.86 -13138338.70 0.0132 0.0092
 Venus -40684-10-22 20:09 J -13138112.82 -13138112.66 -13138112.49 0.0132 0.0083
 Venus -40683-06-06 00:57 J -13137886.64 -13137886.46 -13137886.28 0.0132 0.0074
 Venus -40682-01-18 05:30 J -13137660.45 -13137660.27 -13137660.07 0.0132 0.0065
 Venus -40682-09-01 10:33 J -13137434.25 -13137434.06 -13137433.86 0.0132 0.0055
 Venus -40681-04-14 15:06 J -13137208.07 -13137207.87 -13137207.66 0.0132 0.0046
 Venus -40681-11-26 19:40 J -13136981.89 -13136981.68 -13136981.47 0.0132 0.0036
 Venus -40680-07-11 00:14 J -13136755.70 -13136755.49 -13136755.28 0.0132 0.0027
 Venus -40679-02-22 04:47 J -13136529.52 -13136529.30 -13136529.09 0.0133 0.0017
 Venus -40679-10-06 09:06 J -13136303.33 -13136303.12 -13136302.90 0.0133 0.0008
 Venus -40678-05-20 13:40 J -13136077.15 -13136076.93 -13136076.71 0.0133 0.0003
 Venus -40677-01-01 17:59 J -13135850.96 -13135850.75 -13135850.53 0.0133 0.0012
 Venus -40677-08-14 22:18 J -13135624.78 -13135624.57 -13135624.35 0.0133 0.0023
 Venus -40676-03-29 02:52 J -13135398.59 -13135398.38 -13135398.17 0.0133 0.0032
 Mars -40676-05-15 02:23 J -13135351.71 -13135351.40 -13135351.08 0.0133 0.0028

Venus -40676-11-10 07:11 J -13135172.40 -13135172.20 -13135171.99 0.0134 0.0042
 Venus -40675-06-24 11:45 J -13134946.21 -13134946.01 -13134945.81 0.0134 0.0051
 Venus -40674-02-05 16:04 J -13134720.01 -13134719.83 -13134719.63 0.0134 0.0061
 Venus -40674-09-19 20:52 J -13134493.81 -13134493.63 -13134493.44 0.0134 0.0070
 Venus -40673-05-03 01:26 J -13134267.61 -13134267.44 -13134267.26 0.0134 0.0080
 Venus -40673-12-15 06:14 J -13134041.40 -13134041.24 -13134041.08 0.0135 0.0089
 Venus -40672-07-29 10:33 J -13133815.19 -13133815.06 -13133814.90 0.0135 0.0099
 Venus -40671-03-12 15:21 J -13133588.97 -13133588.86 -13133588.71 0.0135 0.0108
 Venus -40671-10-24 20:52 J -13133362.73 -13133362.63 -13133362.52 0.0135 0.0117
 Venus -40670-06-08 01:40 J -13133136.50 -13133136.43 -13133136.34 0.0136 0.0126
 Jupiter -40670-06-24 22:47 J -13133119.77 -13133119.55 -13133119.28 0.0136 0.0117
 Venus -40669-01-20 06:57 J -13132910.24 -13132910.21 -13132910.18 0.0136 0.0135
 Mercury -40648-11-07 05:02 J -13124948.30 -13124948.29 -13124948.26 0.0147 0.0144
 Mercury -40647-02-03 11:02 J -13124860.13 -13124860.04 -13124859.94 0.0147 0.0117
 Mercury -40647-05-02 16:47 J -13124771.92 -13124771.80 -13124771.67 0.0147 0.0089
 Mercury -40647-07-29 22:47 J -13124683.70 -13124683.55 -13124683.40 0.0147 0.0061
 Mercury -40647-10-26 04:47 J -13124595.46 -13124595.30 -13124595.14 0.0147 0.0032
 Mercury -40646-01-22 10:47 J -13124507.21 -13124507.05 -13124506.89 0.0147 0.0004
 Earth -40646-04-03 21:35 J -13124435.79 -13124435.60 -13124435.39 0.0147 0.0091
 Moon -40646-04-04 00:42 J -13124435.64 -13124435.47 -13124435.25 0.0147 0.0098 *
 Mercury -40646-04-20 16:47 J -13124418.96 -13124418.80 -13124418.63 0.0147 0.0026
 Mercury -40646-07-17 23:02 J -13124330.69 -13124330.54 -13124330.39 0.0147 0.0055
 Mercury -40646-10-14 05:16 J -13124242.41 -13124242.28 -13124242.14 0.0147 0.0084
 Mercury -40645-01-10 11:16 J -13124154.12 -13124154.03 -13124153.91 0.0147 0.0114
 Moon -40645-04-07 22:18 J -13124065.79 -13124065.57 -13124065.32 0.0147 0.0055
 Mercury -40645-04-07 17:45 J -13124065.78 -13124065.76 -13124065.72 0.0147 0.0144 *
 Earth -40645-04-08 01:40 J -13124065.65 -13124065.43 -13124065.18 0.0147 0.0053
 Venus -40645-11-03 10:18 J -13123856.13 -13123856.07 -13123855.99 0.0147 0.0138
 Venus -40644-06-17 22:33 J -13123629.65 -13123629.56 -13123629.44 0.0147 0.0127
 Venus -40643-01-30 11:16 J -13123403.15 -13123403.03 -13123402.88 0.0147 0.0116

Venus	-40643-09-13 23:59 J	-13123176.64	-13123176.50	-13123176.33	0.0147	0.0104
Venus	-40642-04-28 12:42 J	-13122950.12	-13122949.97	-13122949.78	0.0147	0.0092
Venus	-40642-12-11 01:54 J	-13122723.60	-13122723.42	-13122723.23	0.0147	0.0079
Venus	-40641-07-24 14:38 J	-13122497.07	-13122496.89	-13122496.68	0.0147	0.0067
Venus	-40640-03-08 04:04 J	-13122270.53	-13122270.33	-13122270.12	0.0147	0.0053
Venus	-40640-10-20 17:16 J	-13122043.99	-13122043.78	-13122043.57	0.0146	0.0040
Venus	-40639-06-04 06:28 J	-13121817.44	-13121817.23	-13121817.01	0.0146	0.0027
Venus	-40638-01-16 19:40 J	-13121590.89	-13121590.68	-13121590.46	0.0146	0.0014
Venus	-40638-08-31 09:06 J	-13121364.34	-13121364.12	-13121363.90	0.0146	0.0001
Venus	-40637-04-13 22:18 J	-13121137.79	-13121137.57	-13121137.35	0.0146	0.0013
Venus	-40637-11-26 11:30 J	-13120911.23	-13120911.02	-13120910.80	0.0146	0.0026
Venus	-40636-07-11 00:42 J	-13120684.68	-13120684.47	-13120684.25	0.0145	0.0039
Mars	-40636-09-19 12:57 J	-13120614.26	-13120613.96	-13120613.67	0.0145	0.0005
Venus	-40635-02-22 14:09 J	-13120458.11	-13120457.91	-13120457.70	0.0145	0.0051
Venus	-40635-10-07 03:21 J	-13120231.55	-13120231.36	-13120231.16	0.0145	0.0064
Venus	-40634-05-21 16:18 J	-13120005.00	-13120004.82	-13120004.62	0.0145	0.0077
Venus	-40633-01-03 05:16 J	-13119778.44	-13119778.28	-13119778.09	0.0144	0.0089
Venus	-40633-08-16 18:28 J	-13119551.88	-13119551.73	-13119551.56	0.0144	0.0100
Venus	-40632-03-31 07:26 J	-13119325.31	-13119325.19	-13119325.03	0.0144	0.0112
Venus	-40632-11-12 20:38 J	-13119098.74	-13119098.64	-13119098.52	0.0143	0.0123
Venus	-40631-06-27 09:35 J	-13118872.17	-13118872.10	-13118872.02	0.0143	0.0133
Mercury	-40607-12-12 05:16 J	-13109938.32	-13109938.28	-13109938.21	0.0132	0.0124
Mercury	-40606-03-10 09:35 J	-13109850.19	-13109850.10	-13109850.00	0.0132	0.0103
Mercury	-40606-06-06 13:40 J	-13109762.04	-13109761.93	-13109761.80	0.0132	0.0083
Mercury	-40606-09-02 17:59 J	-13109673.88	-13109673.75	-13109673.61	0.0132	0.0063
Mercury	-40606-11-29 22:04 J	-13109585.72	-13109585.58	-13109585.43	0.0132	0.0043
Mercury	-40605-02-26 02:09 J	-13109497.56	-13109497.41	-13109497.26	0.0132	0.0024
Mercury	-40605-05-24 06:14 J	-13109409.39	-13109409.24	-13109409.09	0.0132	0.0004
Mercury	-40605-08-20 10:18 J	-13109321.22	-13109321.07	-13109320.92	0.0132	0.0016
Moon	-40605-10-06 12:28 J	-13109274.18	-13109273.98	-13109273.76	0.0132	0.0068

Earth -40605-10-06 14:23 J -13109274.10 -13109273.90 -13109273.66 0.0132 0.0068 *
 Mercury -40605-11-16 14:09 J -13109233.05 -13109232.91 -13109232.76 0.0132 0.0035
 Mercury -40604-02-12 17:59 J -13109144.88 -13109144.75 -13109144.61 0.0132 0.0054
 Mercury -40604-05-11 21:50 J -13109056.71 -13109056.59 -13109056.46 0.0132 0.0073
 Mercury -40604-08-08 01:40 J -13108968.53 -13108968.43 -13108968.31 0.0132 0.0092
 Earth -40604-10-10 19:26 J -13108904.93 -13108904.69 -13108904.44 0.0132 0.0036
 Moon -40604-10-10 22:04 J -13108904.81 -13108904.58 -13108904.32 0.0132 0.0041 *
 Mercury -40604-11-04 05:45 J -13108880.34 -13108880.26 -13108880.18 0.0132 0.0110
 Mercury -40603-01-31 09:21 J -13108792.13 -13108792.11 -13108792.07 0.0132 0.0129
 Venus -40603-05-18 06:57 J -13108685.26 -13108685.21 -13108685.15 0.0132 0.0127
 Venus -40603-12-30 11:59 J -13108459.07 -13108459.00 -13108458.89 0.0132 0.0119
 Venus -40602-08-13 17:45 J -13108232.88 -13108232.76 -13108232.64 0.0132 0.0110
 Venus -40601-03-26 22:18 J -13108006.69 -13108006.57 -13108006.41 0.0132 0.0102
 Venus -40601-11-08 03:21 J -13107780.50 -13107780.36 -13107780.19 0.0132 0.0093
 Venus -40600-06-22 08:23 J -13107554.31 -13107554.15 -13107553.97 0.0132 0.0084
 Venus -40599-02-03 13:11 J -13107328.12 -13107327.95 -13107327.76 0.0132 0.0075
 Venus -40599-09-17 18:14 J -13107101.92 -13107101.74 -13107101.54 0.0132 0.0065
 Venus -40598-05-01 22:47 J -13106875.73 -13106875.55 -13106875.34 0.0132 0.0056
 Venus -40598-12-14 03:35 J -13106649.55 -13106649.35 -13106649.14 0.0132 0.0046
 Venus -40597-07-27 08:09 J -13106423.36 -13106423.16 -13106422.94 0.0132 0.0037
 Venus -40596-03-10 12:42 J -13106197.18 -13106196.97 -13106196.75 0.0132 0.0027
 Venus -40596-10-22 17:16 J -13105970.99 -13105970.78 -13105970.56 0.0132 0.0018
 Venus -40595-06-05 21:35 J -13105744.81 -13105744.60 -13105744.38 0.0133 0.0008
 Venus -40594-01-18 02:09 J -13105518.63 -13105518.41 -13105518.20 0.0133 0.0002
 Venus -40594-09-01 06:42 J -13105292.44 -13105292.22 -13105292.01 0.0133 0.0011
 Venus -40593-04-14 10:47 J -13105066.25 -13105066.05 -13105065.83 0.0133 0.0021
 Venus -40593-11-26 15:21 J -13104840.07 -13104839.86 -13104839.65 0.0133 0.0030
 Venus -40592-07-10 19:26 J -13104613.88 -13104613.69 -13104613.47 0.0133 0.0041
 Mars -40591-01-08 11:30 J -13104432.28 -13104432.02 -13104431.72 0.0134 0.0066
 Venus -40591-02-21 23:59 J -13104387.69 -13104387.50 -13104387.29 0.0134 0.0050

Venus	-40591-10-06 04:47 J	-13104161.49	-13104161.30	-13104161.10	0.0134	0.0059
Venus	-40590-05-20 09:06 J	-13103935.29	-13103935.12	-13103934.92	0.0134	0.0069
Venus	-40589-01-01 13:40 J	-13103709.09	-13103708.93	-13103708.74	0.0134	0.0078
Venus	-40589-08-14 18:14 J	-13103482.88	-13103482.74	-13103482.56	0.0135	0.0088
Venus	-40588-03-28 23:02 J	-13103256.67	-13103256.54	-13103256.38	0.0135	0.0097
Venus	-40588-11-10 03:50 J	-13103030.45	-13103030.34	-13103030.19	0.0135	0.0106
Venus	-40587-06-24 09:06 J	-13102804.23	-13102804.12	-13102804.01	0.0135	0.0115
Venus	-40586-02-05 13:54 J	-13102578.00	-13102577.92	-13102577.83	0.0136	0.0124
Venus	-40586-09-19 19:11 J	-13102351.74	-13102351.70	-13102351.65	0.0136	0.0132
Mercury	-40564-11-27 12:57 J	-13094247.01	-13094246.96	-13094246.89	0.0146	0.0134
Mercury	-40563-02-23 18:42 J	-13094158.82	-13094158.72	-13094158.60	0.0147	0.0107
Mercury	-40563-05-23 00:42 J	-13094070.60	-13094070.47	-13094070.33	0.0147	0.0079
Mercury	-40563-08-19 06:42 J	-13093982.37	-13093982.22	-13093982.07	0.0147	0.0050
Mercury	-40563-11-15 12:42 J	-13093894.13	-13093893.97	-13093893.81	0.0147	0.0022
Mercury	-40562-02-11 18:42 J	-13093805.88	-13093805.72	-13093805.55	0.0147	0.0008
Earth	-40562-04-04 10:33 J	-13093754.26	-13093754.06	-13093753.84	0.0147	0.0082
Moon	-40562-04-04 13:26 J	-13093754.14	-13093753.94	-13093753.70	0.0147	0.0077 *
Mercury	-40562-05-11 00:57 J	-13093717.62	-13093717.46	-13093717.30	0.0147	0.0036
Mercury	-40562-08-07 06:57 J	-13093629.35	-13093629.21	-13093629.06	0.0147	0.0065
Mercury	-40562-11-03 13:11 J	-13093541.07	-13093540.95	-13093540.82	0.0147	0.0095
Mercury	-40561-01-30 19:26 J	-13093452.77	-13093452.69	-13093452.60	0.0147	0.0125
Moon	-40561-04-08 11:30 J	-13093384.25	-13093384.02	-13093383.79	0.0147	0.0059
Earth	-40561-04-08 14:52 J	-13093384.11	-13093383.88	-13093383.65	0.0147	0.0062 *
Venus	-40561-07-03 18:14 J	-13093297.79	-13093297.74	-13093297.66	0.0147	0.0139
Venus	-40560-02-15 06:42 J	-13093071.31	-13093071.22	-13093071.11	0.0147	0.0128
Venus	-40560-09-29 19:11 J	-13092844.82	-13092844.70	-13092844.56	0.0147	0.0117
Venus	-40559-05-14 07:54 J	-13092618.31	-13092618.17	-13092618.01	0.0147	0.0105
Venus	-40559-12-26 20:38 J	-13092391.80	-13092391.64	-13092391.47	0.0147	0.0093
Venus	-40558-08-10 09:21 J	-13092165.28	-13092165.11	-13092164.92	0.0147	0.0081
Venus	-40557-03-23 22:33 J	-13091938.75	-13091938.56	-13091938.36	0.0147	0.0068

Venus	-40557-11-05 11:30 J	-13091712.21	-13091712.02	-13091711.81	0.0147	0.0055
Venus	-40556-06-20 00:42 J	-13091485.68	-13091485.47	-13091485.26	0.0146	0.0042
Venus	-40555-02-01 13:54 J	-13091259.13	-13091258.92	-13091258.70	0.0146	0.0029
Venus	-40555-09-16 03:06 J	-13091032.58	-13091032.37	-13091032.15	0.0146	0.0017
Venus	-40554-04-30 16:33 J	-13090806.03	-13090805.81	-13090805.60	0.0146	0.0004
Venus	-40554-12-13 05:30 J	-13090579.48	-13090579.27	-13090579.05	0.0146	0.0010
Venus	-40553-07-26 18:57 J	-13090352.93	-13090352.71	-13090352.50	0.0146	0.0023
Venus	-40552-03-10 08:09 J	-13090126.37	-13090126.16	-13090125.94	0.0146	0.0036
Venus	-40552-10-22 21:35 J	-13089899.81	-13089899.60	-13089899.39	0.0145	0.0048
Mars	-40551-05-16 01:26 J	-13089694.63	-13089694.44	-13089694.21	0.0145	0.0102
Venus	-40551-06-06 10:33 J	-13089673.25	-13089673.06	-13089672.85	0.0145	0.0061
Venus	-40550-01-18 23:30 J	-13089446.69	-13089446.52	-13089446.31	0.0145	0.0074
Venus	-40550-09-02 12:57 J	-13089220.13	-13089219.96	-13089219.77	0.0144	0.0086
Venus	-40549-04-16 02:09 J	-13088993.56	-13088993.41	-13088993.24	0.0144	0.0098
Venus	-40549-11-28 15:06 J	-13088767.00	-13088766.87	-13088766.71	0.0144	0.0109
Venus	-40548-07-13 04:18 J	-13088540.43	-13088540.32	-13088540.19	0.0144	0.0120
Venus	-40547-02-24 17:02 J	-13088313.86	-13088313.79	-13088313.68	0.0143	0.0131
Venus	-40547-10-09 06:14 J	-13088087.26	-13088087.24	-13088087.20	0.0143	0.0141
Mercury	-40522-01-01 13:11 J	-13079237.01	-13079236.95	-13079236.86	0.0132	0.0115
Mercury	-40522-03-30 17:30 J	-13079148.87	-13079148.77	-13079148.66	0.0132	0.0094
Mercury	-40522-06-26 21:35 J	-13079060.72	-13079060.60	-13079060.46	0.0132	0.0074
Mercury	-40522-09-23 01:54 J	-13078972.56	-13078972.42	-13078972.28	0.0132	0.0054
Mercury	-40522-12-20 05:59 J	-13078884.40	-13078884.25	-13078884.10	0.0132	0.0034
Mercury	-40521-03-17 10:04 J	-13078796.23	-13078796.08	-13078795.93	0.0132	0.0015
Mercury	-40521-06-13 14:09 J	-13078708.06	-13078707.91	-13078707.76	0.0132	0.0005
Mercury	-40521-09-09 17:59 J	-13078619.89	-13078619.75	-13078619.60	0.0132	0.0024
Moon	-40521-10-07 02:09 J	-13078592.62	-13078592.41	-13078592.17	0.0132	0.0057
Earth	-40521-10-07 04:33 J	-13078592.53	-13078592.31	-13078592.07	0.0132	0.0058 *
Mercury	-40521-12-06 22:04 J	-13078531.72	-13078531.58	-13078531.44	0.0132	0.0043
Mercury	-40520-03-05 01:54 J	-13078443.55	-13078443.42	-13078443.29	0.0132	0.0062

Mercury -40520-06-01 05:45 J -13078355.37 -13078355.26 -13078355.14 0.0132 0.0081
 Mercury -40520-08-28 09:35 J -13078267.19 -13078267.10 -13078267.00 0.0132 0.0100
 Earth -40520-10-11 09:21 J -13078223.34 -13078223.11 -13078222.86 0.0132 0.0046
 Moon -40520-10-11 11:30 J -13078223.27 -13078223.02 -13078222.77 0.0132 0.0042 *
 Mercury -40520-11-24 13:26 J -13078179.00 -13078178.94 -13078178.87 0.0132 0.0119
 Venus -40519-01-15 19:11 J -13078126.75 -13078126.70 -13078126.64 0.0132 0.0127
 Venus -40519-08-30 00:28 J -13077900.56 -13077900.48 -13077900.38 0.0132 0.0119
 Venus -40518-04-13 05:30 J -13077674.37 -13077674.27 -13077674.13 0.0132 0.0111
 Venus -40518-11-25 10:47 J -13077448.18 -13077448.05 -13077447.90 0.0132 0.0102
 Venus -40517-07-08 15:50 J -13077221.98 -13077221.84 -13077221.67 0.0132 0.0093
 Venus -40516-02-19 20:52 J -13076995.79 -13076995.63 -13076995.45 0.0132 0.0084
 Venus -40516-10-04 01:54 J -13076769.59 -13076769.42 -13076769.24 0.0132 0.0075
 Venus -40515-05-18 06:28 J -13076543.41 -13076543.23 -13076543.03 0.0132 0.0066
 Venus -40515-12-30 11:16 J -13076317.22 -13076317.03 -13076316.83 0.0132 0.0057
 Venus -40514-08-13 16:04 J -13076091.03 -13076090.83 -13076090.62 0.0132 0.0047
 Venus -40513-03-26 20:38 J -13075864.84 -13075864.64 -13075864.43 0.0132 0.0038
 Venus -40513-11-08 01:11 J -13075638.66 -13075638.45 -13075638.24 0.0132 0.0028
 Venus -40512-06-22 05:30 J -13075412.48 -13075412.27 -13075412.05 0.0132 0.0019
 Venus -40511-02-03 10:04 J -13075186.30 -13075186.08 -13075185.86 0.0132 0.0009
 Venus -40511-09-17 14:38 J -13074960.11 -13074959.89 -13074959.67 0.0133 0.0001
 Venus -40510-05-01 18:57 J -13074733.92 -13074733.71 -13074733.49 0.0133 0.0010
 Venus -40510-12-13 23:16 J -13074507.74 -13074507.53 -13074507.31 0.0133 0.0019
 Venus -40509-07-27 03:35 J -13074281.56 -13074281.35 -13074281.13 0.0133 0.0029
 Mars -40509-10-01 04:18 J -13074215.56 -13074215.32 -13074215.08 0.0133 0.0089
 Venus -40508-03-10 08:09 J -13074055.37 -13074055.16 -13074054.95 0.0133 0.0038
 Venus -40508-10-22 12:42 J -13073829.17 -13073828.97 -13073828.77 0.0133 0.0048
 Venus -40507-06-05 16:47 J -13073602.98 -13073602.80 -13073602.59 0.0134 0.0058
 Venus -40506-01-17 21:21 J -13073376.78 -13073376.61 -13073376.41 0.0134 0.0067
 Venus -40506-09-01 02:09 J -13073150.58 -13073150.41 -13073150.23 0.0134 0.0076
 Venus -40505-04-14 06:42 J -13072924.37 -13072924.22 -13072924.05 0.0134 0.0085

Venus -40505-11-26 11:16 J -13072698.17 -13072698.03 -13072697.86 0.0135 0.0095
 Venus -40504-07-10 16:04 J -13072471.95 -13072471.83 -13072471.68 0.0135 0.0104
 Venus -40503-02-21 21:06 J -13072245.73 -13072245.62 -13072245.50 0.0135 0.0112
 Venus -40503-10-06 01:54 J -13072019.50 -13072019.42 -13072019.31 0.0135 0.0121
 Venus -40502-05-20 06:57 J -13071793.26 -13071793.21 -13071793.14 0.0136 0.0130
 Mercury -40480-12-17 20:38 J -13063545.72 -13063545.64 -13063545.56 0.0147 0.0126
 Mercury -40479-03-16 02:23 J -13063457.51 -13063457.40 -13063457.28 0.0147 0.0098
 Mercury -40479-06-12 08:23 J -13063369.29 -13063369.15 -13063369.01 0.0147 0.0070
 Mercury -40479-09-08 14:23 J -13063281.06 -13063280.90 -13063280.75 0.0147 0.0042
 Mercury -40479-12-05 20:23 J -13063192.81 -13063192.65 -13063192.49 0.0147 0.0013
 Mercury -40478-03-04 02:23 J -13063104.56 -13063104.40 -13063104.24 0.0147 0.0016
 Earth -40478-04-04 21:50 J -13063072.79 -13063072.59 -13063072.36 0.0147 0.0075
 Moon -40478-04-05 00:57 J -13063072.67 -13063072.46 -13063072.24 0.0147 0.0081 *
 Mercury -40478-05-31 08:38 J -13063016.30 -13063016.14 -13063015.99 0.0147 0.0045
 Mercury -40478-08-27 14:38 J -13062928.03 -13062927.89 -13062927.75 0.0147 0.0074
 Mercury -40478-11-23 20:52 J -13062839.74 -13062839.63 -13062839.51 0.0147 0.0104
 Mercury -40477-02-20 03:06 J -13062751.43 -13062751.37 -13062751.30 0.0147 0.0134
 Venus -40477-03-03 01:40 J -13062739.49 -13062739.43 -13062739.37 0.0147 0.0140
 Moon -40477-04-08 23:16 J -13062702.74 -13062702.53 -13062702.31 0.0147 0.0072
 Earth -40477-04-09 02:23 J -13062702.62 -13062702.40 -13062702.17 0.0147 0.0069 *
 Venus -40477-10-15 13:26 J -13062513.02 -13062512.94 -13062512.82 0.0147 0.0130
 Venus -40476-05-30 02:23 J -13062286.53 -13062286.40 -13062286.27 0.0147 0.0118
 Venus -40475-01-11 14:52 J -13062060.02 -13062059.88 -13062059.72 0.0147 0.0107
 Venus -40475-08-26 03:35 J -13061833.51 -13061833.35 -13061833.18 0.0147 0.0095
 Venus -40474-04-09 16:18 J -13061606.99 -13061606.82 -13061606.63 0.0147 0.0083
 Venus -40474-11-22 05:02 J -13061380.47 -13061380.29 -13061380.09 0.0147 0.0071
 Venus -40473-07-05 18:14 J -13061153.93 -13061153.74 -13061153.54 0.0147 0.0058
 Venus -40472-02-17 07:26 J -13060927.39 -13060927.19 -13060926.98 0.0147 0.0045
 Venus -40472-10-01 20:38 J -13060700.85 -13060700.64 -13060700.42 0.0147 0.0032
 Venus -40471-05-16 09:50 J -13060474.31 -13060474.09 -13060473.87 0.0146 0.0019

Venus	-40471-12-28 23:02 J	-13060247.76	-13060247.54	-13060247.32	0.0146	0.0006
Venus	-40470-08-12 12:14 J	-13060021.21	-13060020.99	-13060020.77	0.0146	0.0007
Venus	-40469-03-26 01:40 J	-13059794.65	-13059794.43	-13059794.21	0.0146	0.0020
Venus	-40469-11-07 14:52 J	-13059568.09	-13059567.88	-13059567.66	0.0146	0.0033
Mars	-40468-02-05 23:59 J	-13059477.74	-13059477.50	-13059477.26	0.0146	0.0083
Venus	-40468-06-22 04:04 J	-13059341.53	-13059341.33	-13059341.12	0.0145	0.0045
Venus	-40467-02-03 17:16 J	-13059114.97	-13059114.78	-13059114.57	0.0145	0.0058
Venus	-40467-09-18 06:42 J	-13058888.41	-13058888.22	-13058888.02	0.0145	0.0070
Venus	-40466-05-02 19:40 J	-13058661.84	-13058661.68	-13058661.48	0.0145	0.0083
Venus	-40466-12-15 08:52 J	-13058435.28	-13058435.13	-13058434.95	0.0144	0.0095
Venus	-40465-07-28 22:04 J	-13058208.71	-13058208.58	-13058208.41	0.0144	0.0106
Venus	-40464-03-12 11:30 J	-13057982.14	-13057982.02	-13057981.88	0.0144	0.0117
Venus	-40464-10-25 00:42 J	-13057755.56	-13057755.47	-13057755.36	0.0143	0.0128
Venus	-40463-06-08 13:40 J	-13057528.98	-13057528.93	-13057528.87	0.0143	0.0138
Mercury	-40439-10-25 17:02 J	-13048623.83	-13048623.79	-13048623.73	0.0132	0.0125
Mercury	-40438-01-21 21:21 J	-13048535.70	-13048535.61	-13048535.51	0.0132	0.0105
Mercury	-40438-04-20 01:26 J	-13048447.55	-13048447.44	-13048447.31	0.0132	0.0085
Mercury	-40438-07-17 05:30 J	-13048359.39	-13048359.27	-13048359.13	0.0132	0.0066
Mercury	-40438-10-13 09:50 J	-13048271.23	-13048271.09	-13048270.94	0.0132	0.0045
Mercury	-40437-01-09 13:54 J	-13048183.07	-13048182.92	-13048182.77	0.0132	0.0025
Mercury	-40437-04-06 17:59 J	-13048094.90	-13048094.75	-13048094.60	0.0132	0.0006
Mercury	-40437-07-03 22:04 J	-13048006.73	-13048006.58	-13048006.43	0.0132	0.0014
Mercury	-40437-09-30 01:54 J	-13047918.56	-13047918.42	-13047918.27	0.0132	0.0033
Moon	-40437-10-07 17:45 J	-13047910.98	-13047910.76	-13047910.53	0.0132	0.0048
Earth	-40437-10-07 19:11 J	-13047910.94	-13047910.70	-13047910.46	0.0132	0.0048 *
Mercury	-40437-12-27 05:59 J	-13047830.39	-13047830.25	-13047830.11	0.0132	0.0052
Mercury	-40436-03-25 09:50 J	-13047742.21	-13047742.09	-13047741.96	0.0132	0.0071
Mercury	-40436-06-21 13:40 J	-13047654.03	-13047653.93	-13047653.82	0.0132	0.0090
Venus	-40436-09-15 07:26 J	-13047568.23	-13047568.19	-13047568.11	0.0132	0.0127
Mercury	-40436-09-17 17:30 J	-13047565.84	-13047565.77	-13047565.68	0.0132	0.0109

Earth	-40436-10-11 23:59 J	-13047541.73	-13047541.50	-13047541.27	0.0132	0.0055
Moon	-40436-10-12 01:54 J	-13047541.65	-13047541.42	-13047541.18	0.0132	0.0059 *
Mercury	-40436-12-14 21:06 J	-13047477.64	-13047477.62	-13047477.57	0.0132	0.0128
Venus	-40435-04-29 12:42 J	-13047342.04	-13047341.97	-13047341.86	0.0132	0.0119
Venus	-40435-12-11 18:28 J	-13047115.85	-13047115.73	-13047115.61	0.0132	0.0110
Venus	-40434-07-25 23:30 J	-13046889.65	-13046889.52	-13046889.37	0.0132	0.0102
Venus	-40433-03-08 04:47 J	-13046663.45	-13046663.30	-13046663.14	0.0132	0.0093
Venus	-40433-10-20 09:35 J	-13046437.26	-13046437.10	-13046436.92	0.0132	0.0084
Venus	-40432-06-03 14:38 J	-13046211.07	-13046210.89	-13046210.71	0.0132	0.0075
Venus	-40431-01-15 19:26 J	-13045984.88	-13045984.69	-13045984.50	0.0132	0.0066
Venus	-40431-08-30 00:14 J	-13045758.68	-13045758.49	-13045758.29	0.0132	0.0057
Venus	-40430-04-13 04:47 J	-13045532.50	-13045532.30	-13045532.09	0.0132	0.0048
Venus	-40430-11-25 09:21 J	-13045306.31	-13045306.11	-13045305.90	0.0132	0.0038
Venus	-40429-07-08 13:54 J	-13045080.13	-13045079.92	-13045079.71	0.0132	0.0029
Venus	-40428-02-19 18:28 J	-13044853.95	-13044853.73	-13044853.52	0.0132	0.0020
Venus	-40428-10-03 23:02 J	-13044627.76	-13044627.54	-13044627.33	0.0132	0.0010
Venus	-40427-05-18 03:21 J	-13044401.58	-13044401.36	-13044401.14	0.0132	0.0001
Venus	-40427-12-30 07:40 J	-13044175.39	-13044175.18	-13044174.96	0.0133	0.0009
Venus	-40426-08-13 11:59 J	-13043949.21	-13043949.00	-13043948.78	0.0133	0.0019
Venus	-40425-03-26 16:33 J	-13043723.02	-13043722.81	-13043722.60	0.0133	0.0028
Venus	-40425-11-07 20:52 J	-13043496.83	-13043496.63	-13043496.42	0.0133	0.0037
Mars	-40424-05-27 15:50 J	-13043296.16	-13043295.84	-13043295.51	0.0133	0.0005
Venus	-40424-06-22 01:26 J	-13043270.64	-13043270.44	-13043270.24	0.0133	0.0047
Venus	-40423-02-03 05:45 J	-13043044.45	-13043044.26	-13043044.06	0.0133	0.0056
Venus	-40423-09-17 10:18 J	-13042818.24	-13042818.07	-13042817.87	0.0134	0.0066
Venus	-40422-05-01 14:52 J	-13042592.04	-13042591.88	-13042591.69	0.0134	0.0075
Venus	-40422-12-13 19:26 J	-13042365.84	-13042365.69	-13042365.51	0.0134	0.0084
Venus	-40421-07-26 23:59 J	-13042139.64	-13042139.50	-13042139.33	0.0134	0.0094
Venus	-40420-03-10 05:02 J	-13041913.42	-13041913.29	-13041913.14	0.0135	0.0102
Venus	-40420-10-22 09:50 J	-13041687.20	-13041687.09	-13041686.96	0.0135	0.0111

Venus -40419-06-05 14:52 J -13041460.97 -13041460.88 -13041460.78 0.0135 0.0120
 Venus -40418-01-17 19:54 J -13041234.74 -13041234.67 -13041234.61 0.0135 0.0128
 Mercury -40396-10-10 23:02 J -13032932.57 -13032932.54 -13032932.50 0.0146 0.0142
 Mercury -40395-01-07 04:47 J -13032844.39 -13032844.30 -13032844.20 0.0147 0.0114
 Mercury -40395-04-05 10:33 J -13032756.18 -13032756.06 -13032755.93 0.0147 0.0087
 Mercury -40395-07-02 16:33 J -13032667.96 -13032667.81 -13032667.66 0.0147 0.0059
 Mercury -40395-09-28 22:33 J -13032579.72 -13032579.56 -13032579.40 0.0147 0.0030
 Mercury -40395-12-26 04:33 J -13032491.47 -13032491.31 -13032491.15 0.0147 0.0002
 Mercury -40394-03-24 10:33 J -13032403.22 -13032403.06 -13032402.90 0.0147 0.0028
 Earth -40394-04-05 11:30 J -13032391.23 -13032391.02 -13032390.78 0.0147 0.0065
 Moon -40394-04-05 13:54 J -13032391.14 -13032390.92 -13032390.66 0.0147 0.0059 *
 Mercury -40394-06-20 16:33 J -13032314.95 -13032314.81 -13032314.65 0.0147 0.0057
 Mercury -40394-09-16 22:47 J -13032226.68 -13032226.55 -13032226.41 0.0147 0.0086
 Venus -40394-11-01 09:50 J -13032181.13 -13032181.09 -13032181.02 0.0147 0.0141
 Mercury -40394-12-14 05:02 J -13032138.38 -13032138.29 -13032138.18 0.0147 0.0116
 Mercury -40393-03-11 11:16 J -13032050.04 -13032050.03 -13032050.00 0.0147 0.0146
 Moon -40393-04-09 12:57 J -13032021.17 -13032020.96 -13032020.74 0.0147 0.0076
 Earth -40393-04-09 16:04 J -13032021.04 -13032020.83 -13032020.61 0.0147 0.0079 *
 Venus -40393-06-14 22:18 J -13031954.66 -13031954.57 -13031954.47 0.0147 0.0130
 Venus -40392-01-27 10:47 J -13031728.17 -13031728.05 -13031727.92 0.0147 0.0119
 Venus -40392-09-10 23:02 J -13031501.67 -13031501.54 -13031501.38 0.0147 0.0108
 Venus -40391-04-25 11:59 J -13031275.17 -13031275.00 -13031274.84 0.0147 0.0096
 Venus -40391-12-08 00:28 J -13031048.65 -13031048.48 -13031048.30 0.0147 0.0084
 Venus -40390-07-22 13:11 J -13030822.13 -13030821.95 -13030821.75 0.0147 0.0072
 Venus -40389-03-05 02:09 J -13030595.60 -13030595.41 -13030595.20 0.0147 0.0060
 Venus -40389-10-17 15:21 J -13030369.06 -13030368.86 -13030368.65 0.0147 0.0047
 Venus -40388-06-01 04:18 J -13030142.53 -13030142.32 -13030142.10 0.0147 0.0034
 Venus -40387-01-13 17:30 J -13029915.98 -13029915.77 -13029915.55 0.0146 0.0021
 Venus -40387-08-28 06:42 J -13029689.44 -13029689.22 -13029689.00 0.0146 0.0008
 Venus -40386-04-11 19:54 J -13029462.89 -13029462.67 -13029462.45 0.0146 0.0005

Venus -40386-11-24 09:06 J -13029236.33 -13029236.12 -13029235.90 0.0146 0.0018
 Venus -40385-07-07 22:33 J -13029009.78 -13029009.56 -13029009.35 0.0146 0.0030
 Venus -40384-02-19 11:59 J -13028783.21 -13028783.00 -13028782.79 0.0146 0.0043
 Mars -40384-10-02 11:45 J -13028558.30 -13028558.01 -13028557.72 0.0145 0.0025
 Venus -40384-10-04 01:11 J -13028556.65 -13028556.45 -13028556.24 0.0145 0.0055
 Venus -40383-05-18 14:09 J -13028330.09 -13028329.91 -13028329.70 0.0145 0.0069
 Venus -40383-12-31 03:35 J -13028103.52 -13028103.35 -13028103.16 0.0145 0.0080
 Venus -40382-08-14 16:47 J -13027876.96 -13027876.80 -13027876.62 0.0145 0.0092
 Venus -40381-03-28 06:14 J -13027650.38 -13027650.24 -13027650.08 0.0144 0.0103
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 Venus -40380-06-24 08:23 J -13027197.24 -13027197.15 -13027197.03 0.0144 0.0126
 Venus -40379-02-05 21:21 J -13026970.66 -13026970.61 -13026970.52 0.0143 0.0136
 Jupiter -40379-03-01 04:47 J -13026947.76 -13026947.30 -13026946.81 0.0143 0.0072
 Mercury -40355-11-15 00:57 J -13017922.52 -13017922.46 -13017922.37 0.0132 0.0116
 Mercury -40354-02-11 05:30 J -13017834.38 -13017834.27 -13017834.17 0.0132 0.0095
 Mercury -40354-05-10 09:35 J -13017746.22 -13017746.10 -13017745.97 0.0132 0.0075
 Mercury -40354-08-06 13:40 J -13017658.06 -13017657.93 -13017657.79 0.0132 0.0056
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 Earth -40353-10-08 09:35 J -13017229.34 -13017229.10 -13017228.85 0.0132 0.0038 *
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 Earth -40352-10-12 14:23 J -13016860.11 -13016859.90 -13016859.67 0.0132 0.0065

Moon	-40352-10-12 15:35 J	-13016860.08	-13016859.85	-13016859.61	0.0132	0.0062 *
Venus	-40352-12-28 01:11 J	-13016783.52	-13016783.45	-13016783.34	0.0132	0.0119
Venus	-40351-08-11 06:42 J	-13016557.32	-13016557.22	-13016557.08	0.0132	0.0111
Venus	-40350-03-25 12:14 J	-13016331.12	-13016330.99	-13016330.85	0.0132	0.0102
Venus	-40350-11-06 17:02 J	-13016104.93	-13016104.79	-13016104.62	0.0132	0.0094
Venus	-40349-06-19 22:04 J	-13015878.73	-13015878.58	-13015878.40	0.0132	0.0085
Venus	-40348-02-01 03:06 J	-13015652.54	-13015652.37	-13015652.18	0.0132	0.0076
Venus	-40348-09-15 07:54 J	-13015426.34	-13015426.17	-13015425.97	0.0132	0.0067
Venus	-40347-04-29 12:42 J	-13015200.16	-13015199.97	-13015199.76	0.0132	0.0058
Venus	-40347-12-11 17:30 J	-13014973.97	-13014973.77	-13014973.57	0.0132	0.0048
Venus	-40346-07-25 22:04 J	-13014747.78	-13014747.58	-13014747.37	0.0132	0.0039
Venus	-40345-03-08 02:38 J	-13014521.60	-13014521.39	-13014521.17	0.0132	0.0030
Venus	-40345-10-20 07:11 J	-13014295.42	-13014295.20	-13014294.99	0.0132	0.0020
Venus	-40344-06-03 11:30 J	-13014069.23	-13014069.02	-13014068.80	0.0132	0.0011
Venus	-40343-01-15 16:04 J	-13013843.05	-13013842.83	-13013842.61	0.0132	0.0002
Venus	-40343-08-29 20:38 J	-13013616.86	-13013616.64	-13013616.43	0.0133	0.0008
Venus	-40342-04-13 00:57 J	-13013390.67	-13013390.46	-13013390.25	0.0133	0.0017
Venus	-40342-11-25 05:02 J	-13013164.49	-13013164.29	-13013164.07	0.0133	0.0027
Venus	-40341-07-08 09:35 J	-13012938.30	-13012938.10	-13012937.89	0.0133	0.0036
Venus	-40340-02-19 13:54 J	-13012712.11	-13012711.92	-13012711.71	0.0133	0.0046
Venus	-40340-10-03 18:42 J	-13012485.91	-13012485.72	-13012485.52	0.0133	0.0054
Mars	-40339-01-21 01:26 J	-13012376.66	-13012376.44	-13012376.23	0.0133	0.0099
Venus	-40339-05-17 23:16 J	-13012259.72	-13012259.53	-13012259.34	0.0134	0.0064
Venus	-40339-12-30 03:35 J	-13012033.52	-13012033.35	-13012033.16	0.0134	0.0073
Venus	-40338-08-13 08:09 J	-13011807.32	-13011807.16	-13011806.98	0.0134	0.0082
Venus	-40337-03-26 12:42 J	-13011581.11	-13011580.97	-13011580.80	0.0134	0.0091
Venus	-40337-11-07 17:16 J	-13011354.90	-13011354.78	-13011354.62	0.0134	0.0101
Venus	-40336-06-21 22:18 J	-13011128.69	-13011128.57	-13011128.44	0.0135	0.0109
Venus	-40335-02-03 03:06 J	-13010902.47	-13010902.37	-13010902.26	0.0135	0.0117
Venus	-40335-09-17 08:09 J	-13010676.24	-13010676.16	-13010676.08	0.0135	0.0126

Venus -40334-05-01 12:57 J -13010449.99 -13010449.96 -13010449.93 0.0136 0.0134
 Mercury -40312-10-31 06:42 J -13002231.28 -13002231.22 -13002231.15 0.0146 0.0133
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 Mercury -40310-01-15 12:14 J -13001790.15 -13001789.99 -13001789.83 0.0147 0.0008
 Earth -40310-04-05 23:30 J -13001709.74 -13001709.52 -13001709.27 0.0147 0.0057
 Moon -40310-04-06 01:54 J -13001709.66 -13001709.42 -13001709.19 0.0147 0.0063 *
 Mercury -40310-04-13 18:14 J -13001701.89 -13001701.74 -13001701.58 0.0147 0.0037
 Venus -40310-07-01 17:30 J -13001622.81 -13001622.77 -13001622.71 0.0147 0.0142
 Mercury -40310-07-11 00:14 J -13001613.62 -13001613.49 -13001613.33 0.0147 0.0067
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 Mercury -40309-01-03 12:42 J -13001437.04 -13001436.97 -13001436.88 0.0147 0.0126
 Venus -40309-02-13 05:30 J -13001396.35 -13001396.27 -13001396.16 0.0147 0.0132
 Moon -40309-04-10 00:57 J -13001339.63 -13001339.46 -13001339.24 0.0147 0.0091
 Earth -40309-04-10 03:50 J -13001339.54 -13001339.34 -13001339.13 0.0147 0.0087 *
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 Venus -40304-01-29 11:02 J -12999584.24 -12999584.04 -12999583.82 0.0147 0.0037
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 Venus -40303-12-10 02:38 J -12998904.61 -12998904.39 -12998904.17 0.0146 0.0003
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Venus -40301-10-19 18:28 J -12998224.94 -12998224.73 -12998224.51 0.0146 0.0040
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 Mars -40299-05-28 21:35 J -12997638.70 -12997638.60 -12997638.46 0.0145 0.0132
 Venus -40299-08-30 10:18 J -12997545.24 -12997545.07 -12997544.87 0.0145 0.0077
 Venus -40298-04-13 23:45 J -12997318.67 -12997318.51 -12997318.32 0.0145 0.0089
 Venus -40298-11-26 13:11 J -12997092.10 -12997091.95 -12997091.78 0.0144 0.0100
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 Venus -40295-05-20 17:59 J -12996185.75 -12996185.75 -12996185.73 0.0143 0.0143
 Mercury -40271-09-08 05:02 J -12987309.33 -12987309.29 -12987309.24 0.0132 0.0126
 Mercury -40271-12-05 09:06 J -12987221.20 -12987221.12 -12987221.02 0.0132 0.0106
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 Mercury -40270-08-26 21:50 J -12986956.73 -12986956.59 -12986956.44 0.0132 0.0046
 Earth -40270-10-05 18:57 J -12986916.72 -12986916.71 -12986916.67 0.0132 0.0131
 Mercury -40270-11-23 01:54 J -12986868.57 -12986868.42 -12986868.27 0.0132 0.0026
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 Earth -40269-10-09 00:28 J -12986547.72 -12986547.48 -12986547.22 0.0132 0.0028 *
 Mercury -40269-11-09 17:59 J -12986515.89 -12986515.75 -12986515.61 0.0132 0.0052
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 Mercury -40268-08-01 05:30 J -12986251.34 -12986251.27 -12986251.18 0.0132 0.0109
 Venus -40268-08-27 14:09 J -12986224.99 -12986224.91 -12986224.80 0.0132 0.0119
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Moon -40268-10-13 06:14 J -12986178.43 -12986178.24 -12986178.01 0.0132 0.0079 *
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 Venus -40267-04-10 19:26 J -12985998.79 -12985998.69 -12985998.55 0.0132 0.0111
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 Venus -40260-09-15 05:02 J -12983284.51 -12983284.29 -12983284.07 0.0132 0.0003
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 Mars -40257-10-13 18:57 J -12982159.98 -12982159.71 -12982159.39 0.0133 0.0054
 Venus -40257-10-20 03:06 J -12982153.57 -12982153.37 -12982153.16 0.0133 0.0044
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 Earth -40226-04-06 13:40 J -12971028.16 -12971027.93 -12971027.67 0.0147 0.0046
 Moon -40226-04-06 15:35 J -12971028.10 -12971027.85 -12971027.59 0.0147 0.0039 *
 Mercury -40226-05-04 02:38 J -12971000.54 -12971000.39 -12971000.23 0.0147 0.0049
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 Venus -40226-10-13 14:09 J -12970837.98 -12970837.91 -12970837.80 0.0147 0.0133
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 Moon -40225-04-10 15:35 J -12970658.03 -12970657.85 -12970657.65 0.0147 0.0095
 Earth -40225-04-10 17:59 J -12970657.93 -12970657.75 -12970657.56 0.0147 0.0098 *
 Venus -40225-05-27 02:23 J -12970611.50 -12970611.40 -12970611.27 0.0147 0.0122
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 Venus -40216-01-31 15:50 J -12967440.04 -12967439.84 -12967439.63 0.0146 0.0050
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 Mercury -40187-12-25 17:16 J -12956519.88 -12956519.78 -12956519.67 0.0132 0.0096
 Mercury -40186-03-23 21:21 J -12956431.72 -12956431.61 -12956431.47 0.0132 0.0077
 Mercury -40186-06-20 01:40 J -12956343.56 -12956343.43 -12956343.29 0.0132 0.0056
 Mercury -40186-09-16 05:59 J -12956255.40 -12956255.25 -12956255.11 0.0132 0.0036
 Moon -40186-10-06 10:04 J -12956235.19 -12956235.08 -12956234.96 0.0132 0.0117
 Earth -40186-10-06 09:35 J -12956235.18 -12956235.10 -12956234.98 0.0132 0.0121 *
 Mercury -40186-12-13 10:04 J -12956167.23 -12956167.08 -12956166.93 0.0132 0.0016
 Mercury -40185-03-10 14:09 J -12956079.06 -12956078.91 -12956078.76 0.0132 0.0004
 Mercury -40185-06-06 17:59 J -12955990.89 -12955990.75 -12955990.60 0.0132 0.0023
 Mercury -40185-09-02 22:04 J -12955902.72 -12955902.58 -12955902.44 0.0132 0.0042
 Venus -40185-09-12 20:52 J -12955892.66 -12955892.63 -12955892.55 0.0132 0.0127
 Moon -40185-10-09 14:38 J -12955866.13 -12955865.89 -12955865.64 0.0132 0.0017
 Earth -40185-10-09 15:21 J -12955866.11 -12955865.86 -12955865.60 0.0132 0.0017 *
 Mercury -40185-11-30 02:09 J -12955814.55 -12955814.41 -12955814.28 0.0132 0.0061
 Mercury -40184-02-26 05:59 J -12955726.37 -12955726.25 -12955726.13 0.0132 0.0080
 Venus -40184-04-27 02:38 J -12955666.47 -12955666.39 -12955666.28 0.0132 0.0119
 Mercury -40184-05-25 09:50 J -12955638.18 -12955638.09 -12955637.99 0.0132 0.0099
 Mercury -40184-08-21 13:40 J -12955549.99 -12955549.93 -12955549.86 0.0132 0.0118

Earth	-40184-10-13 19:54 J	-12955496.85	-12955496.67	-12955496.46	0.0132	0.0086
Moon	-40184-10-13 20:23 J	-12955496.85	-12955496.65	-12955496.44	0.0132	0.0083 *
Venus	-40184-12-09 07:54 J	-12955440.27	-12955440.17	-12955440.03	0.0132	0.0111
Venus	-40183-07-23 13:40 J	-12955214.06	-12955213.93	-12955213.79	0.0132	0.0102
Venus	-40182-03-06 18:42 J	-12954987.86	-12954987.72	-12954987.55	0.0132	0.0094
Venus	-40182-10-18 23:45 J	-12954761.67	-12954761.51	-12954761.33	0.0132	0.0085
Venus	-40181-06-01 04:47 J	-12954535.47	-12954535.30	-12954535.12	0.0132	0.0076
Venus	-40180-01-13 09:50 J	-12954309.28	-12954309.09	-12954308.90	0.0132	0.0067
Venus	-40180-08-27 14:23 J	-12954083.08	-12954082.90	-12954082.69	0.0132	0.0059
Venus	-40179-04-10 19:11 J	-12953856.90	-12953856.70	-12953856.49	0.0132	0.0050
Venus	-40179-11-22 23:45 J	-12953630.71	-12953630.51	-12953630.29	0.0132	0.0041
Venus	-40178-07-07 04:33 J	-12953404.52	-12953404.31	-12953404.10	0.0132	0.0031
Venus	-40177-02-18 09:06 J	-12953178.34	-12953178.12	-12953177.91	0.0132	0.0022
Venus	-40177-10-01 13:40 J	-12952952.15	-12952951.93	-12952951.71	0.0132	0.0013
Venus	-40176-05-15 17:59 J	-12952725.96	-12952725.75	-12952725.53	0.0132	0.0004
Venus	-40176-12-27 22:33 J	-12952499.78	-12952499.56	-12952499.35	0.0132	0.0006
Venus	-40175-08-11 02:52 J	-12952273.59	-12952273.38	-12952273.16	0.0132	0.0015
Venus	-40174-03-25 07:26 J	-12952047.40	-12952047.19	-12952046.98	0.0133	0.0024
Venus	-40174-11-06 11:45 J	-12951821.22	-12951821.01	-12951820.80	0.0133	0.0033
Venus	-40173-06-19 16:04 J	-12951595.03	-12951594.83	-12951594.62	0.0133	0.0043
Venus	-40172-01-31 20:23 J	-12951368.83	-12951368.65	-12951368.44	0.0133	0.0052
Mars	-40172-06-09 06:57 J	-12951240.51	-12951240.21	-12951239.89	0.0133	0.0041
Venus	-40172-09-15 00:57 J	-12951142.63	-12951142.46	-12951142.25	0.0133	0.0062
Venus	-40171-04-29 05:45 J	-12950916.44	-12950916.26	-12950916.07	0.0133	0.0070
Venus	-40171-12-11 10:04 J	-12950690.24	-12950690.08	-12950689.90	0.0134	0.0079
Venus	-40170-07-25 14:23 J	-12950464.05	-12950463.90	-12950463.72	0.0134	0.0088
Venus	-40169-03-07 19:11 J	-12950237.84	-12950237.70	-12950237.55	0.0134	0.0096
Venus	-40169-10-19 23:30 J	-12950011.63	-12950011.52	-12950011.37	0.0134	0.0106
Venus	-40168-06-03 04:18 J	-12949785.42	-12949785.32	-12949785.19	0.0135	0.0114
Venus	-40167-01-15 08:52 J	-12949559.20	-12949559.13	-12949559.02	0.0135	0.0122

Venus -40167-08-29 13:26 J -12949332.97 -12949332.94 -12949332.86 0.0135 0.0131
 Mercury -40144-09-13 16:47 J -12940916.84 -12940916.80 -12940916.74 0.0146 0.0139
 Mercury -40144-12-10 22:33 J -12940828.65 -12940828.56 -12940828.45 0.0146 0.0112
 Mercury -40143-03-09 04:33 J -12940740.44 -12940740.31 -12940740.18 0.0147 0.0084
 Mercury -40143-06-05 10:18 J -12940652.21 -12940652.07 -12940651.92 0.0147 0.0056
 Mercury -40143-09-01 16:18 J -12940563.98 -12940563.82 -12940563.66 0.0147 0.0028
 Venus -40143-10-29 09:50 J -12940506.11 -12940506.09 -12940506.03 0.0147 0.0144
 Mercury -40143-11-28 22:18 J -12940475.73 -12940475.57 -12940475.41 0.0147 0.0002
 Mercury -40142-02-25 04:18 J -12940387.48 -12940387.32 -12940387.16 0.0147 0.0030
 Earth -40142-04-07 01:40 J -12940346.67 -12940346.43 -12940346.18 0.0147 0.0037
 Moon -40142-04-07 02:38 J -12940346.63 -12940346.39 -12940346.13 0.0147 0.0045 *
 Mercury -40142-05-24 10:18 J -12940299.22 -12940299.07 -12940298.92 0.0147 0.0059
 Venus -40142-06-12 21:35 J -12940279.67 -12940279.60 -12940279.49 0.0147 0.0134
 Mercury -40142-08-20 16:33 J -12940210.94 -12940210.81 -12940210.68 0.0147 0.0088
 Mercury -40142-11-16 22:33 J -12940122.65 -12940122.56 -12940122.46 0.0147 0.0118
 Venus -40141-01-25 10:04 J -12940053.19 -12940053.08 -12940052.96 0.0147 0.0123
 Moon -40141-04-11 03:35 J -12939976.49 -12939976.35 -12939976.17 0.0147 0.0110
 Earth -40141-04-11 05:16 J -12939976.44 -12939976.28 -12939976.09 0.0147 0.0106 *
 Venus -40141-09-07 22:18 J -12939826.70 -12939826.57 -12939826.43 0.0147 0.0112
 Venus -40140-04-22 10:33 J -12939600.21 -12939600.06 -12939599.90 0.0147 0.0101
 Venus -40140-12-04 22:47 J -12939373.71 -12939373.55 -12939373.37 0.0147 0.0090
 Venus -40139-07-19 11:16 J -12939147.20 -12939147.03 -12939146.84 0.0147 0.0078
 Venus -40138-03-03 00:14 J -12938920.68 -12938920.49 -12938920.29 0.0147 0.0066
 Venus -40138-10-15 12:57 J -12938694.15 -12938693.96 -12938693.75 0.0147 0.0054
 Venus -40137-05-29 01:54 J -12938467.62 -12938467.42 -12938467.21 0.0147 0.0042
 Venus -40136-01-10 14:52 J -12938241.09 -12938240.88 -12938240.66 0.0147 0.0029
 Venus -40136-08-25 04:04 J -12938014.55 -12938014.33 -12938014.11 0.0147 0.0016
 Venus -40135-04-08 17:16 J -12937788.00 -12937787.78 -12937787.56 0.0147 0.0004
 Venus -40135-11-21 06:28 J -12937561.45 -12937561.23 -12937561.01 0.0146 0.0009
 Venus -40134-07-05 19:40 J -12937334.89 -12937334.68 -12937334.46 0.0146 0.0022

Venus -40133-02-17 09:06 J -12937108.33 -12937108.12 -12937107.90 0.0146 0.0034
 Venus -40133-09-30 22:33 J -12936881.76 -12936881.56 -12936881.35 0.0146 0.0047
 Venus -40132-05-15 11:59 J -12936655.20 -12936655.00 -12936654.79 0.0146 0.0059
 Mars -40132-10-15 09:35 J -12936502.36 -12936502.10 -12936501.82 0.0145 0.0056
 Venus -40132-12-28 01:11 J -12936428.63 -12936428.45 -12936428.25 0.0145 0.0071
 Venus -40131-08-11 14:38 J -12936202.06 -12936201.89 -12936201.70 0.0145 0.0083
 Venus -40130-03-26 04:04 J -12935975.48 -12935975.33 -12935975.15 0.0145 0.0095
 Venus -40130-11-07 17:30 J -12935748.91 -12935748.77 -12935748.61 0.0145 0.0106
 Venus -40129-06-21 06:57 J -12935522.33 -12935522.21 -12935522.08 0.0144 0.0117
 Venus -40128-02-02 20:09 J -12935295.76 -12935295.66 -12935295.55 0.0144 0.0127
 Venus -40128-09-17 08:52 J -12935069.17 -12935069.13 -12935069.05 0.0144 0.0138
 Mercury -40103-07-22 16:47 J -12925994.83 -12925994.80 -12925994.75 0.0132 0.0127
 Mercury -40103-10-18 20:52 J -12925906.70 -12925906.63 -12925906.53 0.0132 0.0108
 Mercury -40102-01-15 01:26 J -12925818.55 -12925818.44 -12925818.32 0.0132 0.0087
 Mercury -40102-04-13 05:45 J -12925730.40 -12925730.26 -12925730.13 0.0132 0.0067
 Mercury -40102-07-10 09:50 J -12925642.23 -12925642.09 -12925641.95 0.0132 0.0047
 Mercury -40102-10-06 13:54 J -12925554.07 -12925553.92 -12925553.77 0.0132 0.0027
 Earth -40102-10-07 00:14 J -12925553.60 -12925553.49 -12925553.33 0.0132 0.0111
 Moon -40102-10-07 00:28 J -12925553.59 -12925553.48 -12925553.32 0.0132 0.0113 *
 Mercury -40101-01-02 17:59 J -12925465.90 -12925465.75 -12925465.60 0.0132 0.0007
 Mercury -40101-03-30 22:04 J -12925377.73 -12925377.58 -12925377.43 0.0132 0.0013
 Venus -40101-05-13 09:50 J -12925334.15 -12925334.09 -12925334.03 0.0132 0.0126
 Mercury -40101-06-27 02:09 J -12925289.56 -12925289.41 -12925289.26 0.0132 0.0032
 Mercury -40101-09-23 06:14 J -12925201.38 -12925201.24 -12925201.10 0.0132 0.0051
 Earth -40101-10-10 06:14 J -12925184.50 -12925184.24 -12925183.99 0.0132 0.0007
 Moon -40101-10-10 06:28 J -12925184.47 -12925184.23 -12925183.98 0.0132 0.0007 *
 Mercury -40101-12-20 10:04 J -12925113.21 -12925113.08 -12925112.95 0.0132 0.0070
 Venus -40101-12-25 15:21 J -12925107.95 -12925107.86 -12925107.76 0.0132 0.0118
 Mercury -40100-03-18 13:54 J -12925025.02 -12925024.92 -12925024.81 0.0132 0.0089
 Mercury -40100-06-14 17:45 J -12924936.83 -12924936.76 -12924936.67 0.0132 0.0108

Venus -40100-08-08 20:52 J -12924881.74 -12924881.63 -12924881.50 0.0132 0.0110
 Mercury -40100-09-10 21:35 J -12924848.63 -12924848.60 -12924848.55 0.0132 0.0127
 Earth -40100-10-14 10:33 J -12924815.22 -12924815.06 -12924814.87 0.0132 0.0096
 Moon -40100-10-14 11:16 J -12924815.21 -12924815.03 -12924814.86 0.0132 0.0098 *
 Venus -40099-03-23 02:09 J -12924655.54 -12924655.41 -12924655.26 0.0132 0.0102
 Venus -40099-11-04 07:11 J -12924429.34 -12924429.20 -12924429.03 0.0132 0.0094
 Venus -40098-06-18 12:28 J -12924203.14 -12924202.98 -12924202.80 0.0132 0.0085
 Venus -40097-01-30 17:45 J -12923976.94 -12923976.76 -12923976.58 0.0132 0.0076
 Venus -40097-09-12 22:18 J -12923750.74 -12923750.57 -12923750.36 0.0132 0.0068
 Venus -40096-04-27 03:21 J -12923524.55 -12923524.36 -12923524.16 0.0132 0.0059
 Venus -40096-12-09 07:54 J -12923298.36 -12923298.17 -12923297.95 0.0132 0.0050
 Venus -40095-07-23 12:42 J -12923072.17 -12923071.97 -12923071.75 0.0132 0.0041
 Venus -40094-03-06 17:30 J -12922845.98 -12922845.77 -12922845.55 0.0132 0.0032
 Venus -40094-10-18 22:04 J -12922619.79 -12922619.58 -12922619.36 0.0132 0.0023
 Venus -40093-06-01 02:38 J -12922393.60 -12922393.39 -12922393.17 0.0132 0.0013
 Venus -40092-01-13 07:11 J -12922167.42 -12922167.20 -12922166.98 0.0132 0.0004
 Venus -40092-08-27 11:45 J -12921941.23 -12921941.01 -12921940.79 0.0132 0.0005
 Venus -40091-04-10 16:04 J -12921715.04 -12921714.83 -12921714.61 0.0132 0.0015
 Venus -40091-11-22 20:38 J -12921488.85 -12921488.64 -12921488.43 0.0132 0.0023
 Venus -40090-07-07 00:57 J -12921262.66 -12921262.46 -12921262.24 0.0133 0.0033
 Venus -40089-02-18 05:16 J -12921036.47 -12921036.28 -12921036.06 0.0133 0.0042
 Mars -40089-03-01 23:59 J -12921023.66 -12921023.50 -12921023.30 0.0133 0.0111
 Venus -40089-10-01 09:50 J -12920810.28 -12920810.09 -12920809.88 0.0133 0.0051
 Venus -40088-05-15 14:38 J -12920584.08 -12920583.89 -12920583.70 0.0133 0.0060
 Venus -40088-12-27 18:57 J -12920357.89 -12920357.71 -12920357.52 0.0133 0.0069
 Venus -40087-08-10 23:16 J -12920131.70 -12920131.53 -12920131.35 0.0134 0.0078
 Venus -40086-03-25 03:50 J -12919905.50 -12919905.34 -12919905.17 0.0134 0.0086
 Venus -40086-11-06 08:09 J -12919679.30 -12919679.16 -12919678.99 0.0134 0.0095
 Venus -40085-06-19 12:42 J -12919453.09 -12919452.97 -12919452.82 0.0134 0.0104
 Venus -40084-01-31 17:16 J -12919226.88 -12919226.78 -12919226.65 0.0135 0.0112

Venus -40084-09-14 22:04 J -12919000.67 -12919000.58 -12919000.48 0.0135 0.0120
 Venus -40083-04-29 02:38 J -12918774.44 -12918774.39 -12918774.31 0.0135 0.0128
 Mercury -40060-10-04 01:11 J -12910215.52 -12910215.45 -12910215.37 0.0146 0.0128
 Mercury -40060-12-31 06:42 J -12910127.33 -12910127.22 -12910127.10 0.0146 0.0101
 Mercury -40059-03-29 12:42 J -12910039.11 -12910038.97 -12910038.83 0.0147 0.0073
 Mercury -40059-06-25 18:28 J -12909950.88 -12909950.73 -12909950.57 0.0147 0.0045
 Venus -40059-06-28 18:28 J -12909947.74 -12909947.73 -12909947.67 0.0147 0.0145
 Mercury -40059-09-22 00:28 J -12909862.64 -12909862.48 -12909862.32 0.0147 0.0016
 Mercury -40059-12-19 06:28 J -12909774.39 -12909774.23 -12909774.07 0.0147 0.0012
 Venus -40058-02-10 06:28 J -12909721.29 -12909721.23 -12909721.13 0.0147 0.0135
 Mercury -40058-03-17 12:28 J -12909686.13 -12909685.98 -12909685.82 0.0147 0.0041
 Earth -40058-04-07 15:21 J -12909665.10 -12909664.86 -12909664.61 0.0147 0.0028
 Moon -40058-04-07 16:04 J -12909665.09 -12909664.83 -12909664.57 0.0147 0.0021 *
 Mercury -40058-06-13 18:28 J -12909597.87 -12909597.73 -12909597.58 0.0147 0.0071
 Mercury -40058-09-10 00:28 J -12909509.59 -12909509.48 -12909509.35 0.0147 0.0100
 Venus -40058-09-24 18:42 J -12909494.83 -12909494.72 -12909494.60 0.0147 0.0124
 Mercury -40058-12-07 06:42 J -12909421.29 -12909421.22 -12909421.13 0.0147 0.0130
 Moon -40057-04-11 17:45 J -12909294.91 -12909294.76 -12909294.59 0.0147 0.0112
 Earth -40057-04-11 19:11 J -12909294.84 -12909294.70 -12909294.53 0.0147 0.0116 *
 Venus -40057-05-08 06:28 J -12909268.35 -12909268.23 -12909268.08 0.0147 0.0114
 Venus -40057-12-20 18:57 J -12909041.86 -12909041.71 -12909041.55 0.0147 0.0102
 Venus -40056-08-04 07:11 J -12908815.36 -12908815.20 -12908815.02 0.0147 0.0091
 Venus -40055-03-18 19:54 J -12908588.85 -12908588.67 -12908588.49 0.0147 0.0079
 Venus -40055-10-31 08:09 J -12908362.34 -12908362.16 -12908361.96 0.0147 0.0068
 Venus -40054-06-14 20:52 J -12908135.82 -12908135.63 -12908135.42 0.0147 0.0056
 Venus -40053-01-27 10:04 J -12907909.28 -12907909.08 -12907908.87 0.0147 0.0043
 Venus -40053-09-09 23:02 J -12907682.75 -12907682.54 -12907682.32 0.0147 0.0031
 Venus -40052-04-24 11:59 J -12907456.21 -12907456.00 -12907455.78 0.0147 0.0019
 Venus -40052-12-07 01:11 J -12907229.67 -12907229.45 -12907229.23 0.0147 0.0006
 Venus -40051-07-21 14:23 J -12907003.11 -12907002.90 -12907002.68 0.0146 0.0007

Venus	-40050-03-05 03:50 J	-12906776.55	-12906776.34	-12906776.12	0.0146	0.0020
Venus	-40050-10-17 17:16 J	-12906549.99	-12906549.78	-12906549.56	0.0146	0.0032
Venus	-40049-05-31 06:42 J	-12906323.43	-12906323.22	-12906323.01	0.0146	0.0044
Mars	-40049-07-08 12:28 J	-12906285.12	-12906284.98	-12906284.83	0.0146	0.0126
Venus	-40048-01-12 19:54 J	-12906096.86	-12906096.67	-12906096.46	0.0146	0.0057
Venus	-40048-08-27 09:21 J	-12905870.29	-12905870.11	-12905869.91	0.0146	0.0069
Venus	-40047-04-10 23:02 J	-12905643.72	-12905643.54	-12905643.35	0.0145	0.0081
Venus	-40047-11-23 12:14 J	-12905417.15	-12905416.99	-12905416.81	0.0145	0.0092
Venus	-40046-07-08 01:26 J	-12905190.58	-12905190.44	-12905190.27	0.0145	0.0104
Venus	-40045-02-19 14:52 J	-12904964.00	-12904963.88	-12904963.73	0.0145	0.0115
Venus	-40045-10-03 04:04 J	-12904737.42	-12904737.33	-12904737.21	0.0144	0.0125
Venus	-40044-05-17 17:30 J	-12904510.84	-12904510.77	-12904510.69	0.0144	0.0135
Mercury	-40019-08-12 00:57 J	-12895293.52	-12895293.46	-12895293.39	0.0132	0.0118
Mercury	-40019-11-08 05:16 J	-12895205.38	-12895205.28	-12895205.18	0.0132	0.0097
Mercury	-40018-02-04 09:21 J	-12895117.23	-12895117.11	-12895116.98	0.0132	0.0077
Mercury	-40018-05-03 13:40 J	-12895029.07	-12895028.93	-12895028.79	0.0132	0.0057
Mercury	-40018-07-30 17:45 J	-12894940.90	-12894940.76	-12894940.61	0.0132	0.0037
Moon	-40018-10-07 14:23 J	-12894872.06	-12894871.90	-12894871.70	0.0132	0.0097
Earth	-40018-10-07 15:06 J	-12894872.01	-12894871.87	-12894871.68	0.0132	0.0101 *
Mercury	-40018-10-26 22:04 J	-12894852.73	-12894852.58	-12894852.43	0.0132	0.0017
Venus	-40017-01-11 21:50 J	-12894775.64	-12894775.59	-12894775.51	0.0132	0.0126
Mercury	-40017-01-23 02:09 J	-12894764.57	-12894764.41	-12894764.26	0.0132	0.0004
Mercury	-40017-04-20 05:59 J	-12894676.39	-12894676.25	-12894676.09	0.0132	0.0022
Mercury	-40017-07-17 10:04 J	-12894588.22	-12894588.08	-12894587.93	0.0132	0.0041
Venus	-40017-08-25 03:50 J	-12894549.43	-12894549.34	-12894549.24	0.0132	0.0118
Earth	-40017-10-10 20:38 J	-12894502.89	-12894502.64	-12894502.38	0.0132	0.0004
Moon	-40017-10-10 20:52 J	-12894502.87	-12894502.63	-12894502.38	0.0132	0.0003 *
Mercury	-40017-10-13 14:09 J	-12894500.04	-12894499.91	-12894499.78	0.0132	0.0060
Mercury	-40016-01-09 17:45 J	-12894411.86	-12894411.76	-12894411.63	0.0132	0.0080
Mercury	-40016-04-07 22:04 J	-12894323.68	-12894323.58	-12894323.48	0.0132	0.0098

Venus -40016-04-08 09:21 J -12894323.22 -12894323.11 -12894322.98 0.0132 0.0110

Mercury -40016-07-05 01:40 J -12894235.49 -12894235.43 -12894235.35 0.0132 0.0117

Moon -40016-10-15 00:42 J -12894133.63 -12894133.47 -12894133.30 0.0132 0.0103

Earth -40016-10-15 00:57 J -12894133.59 -12894133.46 -12894133.28 0.0132 0.0106 *

Venus -40016-11-20 14:38 J -12894097.02 -12894096.89 -12894096.74 0.0132 0.0102

Venus -40015-07-04 19:40 J -12893870.81 -12893870.68 -12893870.50 0.0132 0.0094

Venus -40014-02-16 01:11 J -12893644.61 -12893644.45 -12893644.27 0.0132 0.0085

Venus -40014-09-30 06:28 J -12893418.41 -12893418.23 -12893418.05 0.0132 0.0076

Venus -40013-05-13 11:02 J -12893192.21 -12893192.04 -12893191.84 0.0132 0.0068

Venus -40013-12-25 16:04 J -12892966.02 -12892965.83 -12892965.63 0.0132 0.0059

Venus -40012-08-08 21:06 J -12892739.82 -12892739.62 -12892739.41 0.0132 0.0050

Venus -40011-03-23 01:54 J -12892513.63 -12892513.42 -12892513.21 0.0132 0.0041

Venus -40011-11-04 06:28 J -12892287.44 -12892287.23 -12892287.01 0.0132 0.0032

Venus -40010-06-18 11:02 J -12892061.25 -12892061.04 -12892060.82 0.0132 0.0023

Venus -40009-01-30 15:50 J -12891835.06 -12891834.84 -12891834.63 0.0132 0.0014

Venus -40009-09-12 20:23 J -12891608.86 -12891608.65 -12891608.43 0.0132 0.0005

Venus -40008-04-27 00:57 J -12891382.68 -12891382.46 -12891382.24 0.0132 0.0004

Venus -40008-12-09 05:30 J -12891156.49 -12891156.27 -12891156.06 0.0132 0.0013

Venus -40007-07-23 09:50 J -12890930.30 -12890930.09 -12890929.87 0.0132 0.0023

Venus -40006-03-06 14:23 J -12890704.11 -12890703.90 -12890703.69 0.0133 0.0032

Venus -40006-10-18 18:57 J -12890477.92 -12890477.71 -12890477.50 0.0133 0.0041

Venus -40005-05-31 23:16 J -12890251.73 -12890251.53 -12890251.33 0.0133 0.0050

Mars -40005-10-26 13:26 J -12890104.26 -12890103.94 -12890103.61 0.0133 0.0016

Venus -40004-01-13 03:35 J -12890025.53 -12890025.35 -12890025.15 0.0133 0.0059

Venus -40004-08-27 08:09 J -12889799.34 -12889799.16 -12889798.97 0.0133 0.0068

Venus -40003-04-10 12:28 J -12889573.15 -12889572.98 -12889572.79 0.0133 0.0076

Venus -40003-11-22 17:02 J -12889346.95 -12889346.79 -12889346.62 0.0134 0.0085

Venus -40002-07-06 21:06 J -12889120.76 -12889120.62 -12889120.45 0.0134 0.0094

Venus -40001-02-18 01:40 J -12888894.55 -12888894.43 -12888894.28 0.0134 0.0102

Venus -40001-10-01 06:14 J -12888668.34 -12888668.24 -12888668.10 0.0134 0.0110

40TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 40th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-40000-05-15 11:02 J	-12888442.13	-12888442.04	-12888441.93	0.0135	0.0118		
Venus	-40000-12-27 15:21 J	-12888215.92	-12888215.86	-12888215.77	0.0135	0.0126		
Venus	-39999-08-10 20:23 J	-12887989.68	-12887989.65	-12887989.62	0.0135	0.0134		
Mercury	-39976-07-28 03:06 J	-12879602.37	-12879602.37	-12879602.36	0.0146	0.0146		
Mercury	-39976-10-24 08:52 J	-12879514.22	-12879514.13	-12879514.04	0.0146	0.0119		
Mercury	-39975-01-20 14:23 J	-12879426.01	-12879425.90	-12879425.77	0.0146	0.0092		
Venus	-39975-02-26 02:38 J	-12879389.41	-12879389.39	-12879389.35	0.0146	0.0145		
Mercury	-39975-04-18 20:23 J	-12879337.79	-12879337.65	-12879337.50	0.0146	0.0063		
Mercury	-39975-07-16 02:09 J	-12879249.56	-12879249.41	-12879249.25	0.0147	0.0036		
Venus	-39975-10-10 14:09 J	-12879162.98	-12879162.91	-12879162.82	0.0147	0.0135		
Mercury	-39975-10-12 08:09 J	-12879161.32	-12879161.16	-12879161.00	0.0147	0.0007		
Mercury	-39974-01-08 14:09 J	-12879073.07	-12879072.91	-12879072.75	0.0147	0.0022		
Mercury	-39974-04-06 20:09 J	-12878984.81	-12878984.66	-12878984.51	0.0147	0.0050		
Moon	-39974-04-08 03:06 J	-12878983.62	-12878983.37	-12878983.11	0.0147	0.0028		
Earth	-39974-04-08 03:06 J	-12878983.62	-12878983.37	-12878983.12	0.0147	0.0020	*	
Venus	-39974-05-25 01:54 J	-12878936.52	-12878936.42	-12878936.30	0.0147	0.0125		
Mercury	-39974-07-04 02:09 J	-12878896.54	-12878896.41	-12878896.27	0.0147	0.0080		
Mercury	-39974-09-30 08:23 J	-12878808.26	-12878808.15	-12878808.04	0.0147	0.0109		

Mercury -39974-12-27 14:23 J -12878719.94 -12878719.90 -12878719.84 0.0147 0.0139

Venus -39973-01-06 13:40 J -12878710.04 -12878709.93 -12878709.78 0.0147 0.0115

Moon -39973-04-12 05:45 J -12878613.36 -12878613.26 -12878613.12 0.0147 0.0128

Earth -39973-04-12 06:42 J -12878613.35 -12878613.22 -12878613.07 0.0147 0.0123 *

Venus -39973-08-20 01:54 J -12878483.56 -12878483.42 -12878483.26 0.0147 0.0104

Saturn -39973-12-03 13:40 J -12878378.50 -12878377.93 -12878377.35 0.0147 0.0064

Venus -39972-04-03 14:23 J -12878257.07 -12878256.90 -12878256.74 0.0147 0.0092

Venus -39972-11-16 02:23 J -12878030.57 -12878030.40 -12878030.21 0.0147 0.0081

Venus -39971-06-30 15:06 J -12877804.06 -12877803.87 -12877803.68 0.0147 0.0069

Venus -39970-02-12 03:35 J -12877577.53 -12877577.35 -12877577.14 0.0147 0.0058

Venus -39970-09-26 16:33 J -12877351.01 -12877350.81 -12877350.60 0.0147 0.0046

Venus -39969-05-10 05:30 J -12877124.48 -12877124.27 -12877124.05 0.0147 0.0033

Venus -39969-12-22 18:28 J -12876897.94 -12876897.73 -12876897.51 0.0147 0.0021

Venus -39968-08-06 07:40 J -12876671.40 -12876671.18 -12876670.96 0.0147 0.0008

Venus -39967-03-20 21:06 J -12876444.84 -12876444.62 -12876444.41 0.0146 0.0005

Venus -39967-11-02 10:18 J -12876218.29 -12876218.07 -12876217.85 0.0146 0.0017

Venus -39966-06-16 23:30 J -12875991.73 -12875991.52 -12875991.30 0.0146 0.0030

Venus -39965-01-29 12:57 J -12875765.16 -12875764.96 -12875764.74 0.0146 0.0042

Venus -39965-09-12 02:23 J -12875538.60 -12875538.40 -12875538.19 0.0146 0.0054

Mars -39964-03-03 21:35 J -12875365.88 -12875365.60 -12875365.30 0.0146 0.0022

Venus -39964-04-26 16:04 J -12875312.03 -12875311.83 -12875311.64 0.0146 0.0066

Venus -39964-12-09 05:30 J -12875085.46 -12875085.27 -12875085.09 0.0145 0.0078

Venus -39963-07-23 18:42 J -12874858.89 -12874858.72 -12874858.54 0.0145 0.0090

Venus -39962-03-07 08:09 J -12874632.31 -12874632.16 -12874631.99 0.0145 0.0101

Venus -39962-10-19 21:35 J -12874405.73 -12874405.60 -12874405.45 0.0145 0.0112

Venus -39961-06-02 10:33 J -12874179.16 -12874179.06 -12874178.92 0.0144 0.0123

Venus -39960-01-14 23:59 J -12873952.58 -12873952.50 -12873952.41 0.0144 0.0133

Venus -39960-08-29 13:11 J -12873725.98 -12873725.95 -12873725.92 0.0144 0.0142

Mercury -39935-06-05 04:47 J -12864680.33 -12864680.30 -12864680.27 0.0132 0.0129

Mercury -39935-09-01 08:52 J -12864592.21 -12864592.13 -12864592.03 0.0132 0.0109

Mercury -39935-11-28 13:11 J -12864504.06 -12864503.95 -12864503.83 0.0132 0.0088

Mercury -39934-02-24 17:16 J -12864415.90 -12864415.78 -12864415.64 0.0132 0.0068

Mercury -39934-05-23 21:35 J -12864327.74 -12864327.60 -12864327.45 0.0132 0.0048

Mercury -39934-08-20 01:54 J -12864239.57 -12864239.42 -12864239.27 0.0132 0.0028

Venus -39934-09-11 09:50 J -12864217.13 -12864217.09 -12864217.00 0.0132 0.0127

Moon -39934-10-08 05:16 J -12864190.46 -12864190.28 -12864190.09 0.0132 0.0094

Earth -39934-10-08 05:45 J -12864190.43 -12864190.26 -12864190.06 0.0132 0.0091 *

Mercury -39934-11-16 05:59 J -12864151.40 -12864151.25 -12864151.10 0.0132 0.0008

Mercury -39933-02-12 10:04 J -12864063.23 -12864063.08 -12864062.93 0.0132 0.0011

Venus -39933-04-24 15:50 J -12863990.92 -12863990.84 -12863990.73 0.0132 0.0118

Mercury -39933-05-10 14:09 J -12863975.06 -12863974.91 -12863974.76 0.0132 0.0031

Mercury -39933-08-06 17:59 J -12863886.88 -12863886.75 -12863886.61 0.0132 0.0050

Earth -39933-10-11 11:16 J -12863821.28 -12863821.03 -12863820.78 0.0132 0.0012

Moon -39933-10-11 12:14 J -12863821.23 -12863820.99 -12863820.74 0.0132 0.0014 *

Mercury -39933-11-02 22:04 J -12863798.71 -12863798.58 -12863798.45 0.0132 0.0069

Venus -39933-12-06 21:21 J -12863764.71 -12863764.61 -12863764.47 0.0132 0.0110

Mercury -39932-01-30 01:54 J -12863710.53 -12863710.42 -12863710.30 0.0132 0.0088

Mercury -39932-04-28 05:45 J -12863622.34 -12863622.26 -12863622.17 0.0132 0.0107

Venus -39932-07-21 02:52 J -12863538.50 -12863538.38 -12863538.22 0.0132 0.0102

Mercury -39932-07-25 09:35 J -12863534.13 -12863534.10 -12863534.05 0.0132 0.0126

Moon -39932-10-15 15:06 J -12863451.98 -12863451.87 -12863451.74 0.0132 0.0117

Earth -39932-10-15 15:35 J -12863451.96 -12863451.85 -12863451.71 0.0132 0.0115 *

Venus -39931-03-04 08:38 J -12863312.29 -12863312.14 -12863311.98 0.0132 0.0093

Venus -39931-10-16 13:40 J -12863086.09 -12863085.93 -12863085.75 0.0132 0.0085

Venus -39930-05-30 18:57 J -12862859.89 -12862859.71 -12862859.53 0.0132 0.0076

Venus -39929-01-11 23:45 J -12862633.69 -12862633.51 -12862633.31 0.0132 0.0068

Venus -39929-08-25 05:02 J -12862407.48 -12862407.29 -12862407.09 0.0132 0.0059

Venus -39928-04-08 09:50 J -12862181.29 -12862181.09 -12862180.88 0.0132 0.0050

Venus -39928-11-20 14:23 J -12861955.09 -12861954.90 -12861954.68 0.0132 0.0042

Venus -39927-07-04 19:26 J -12861728.90 -12861728.69 -12861728.48 0.0132 0.0032

Venus	-39926-02-16 00:14 J	-12861502.71	-12861502.49	-12861502.28	0.0132	0.0023
Venus	-39926-09-30 05:02 J	-12861276.51	-12861276.29	-12861276.08	0.0132	0.0014
Venus	-39925-05-13 09:35 J	-12861050.32	-12861050.10	-12861049.88	0.0132	0.0005
Venus	-39925-12-25 14:09 J	-12860824.13	-12860823.91	-12860823.70	0.0132	0.0004
Venus	-39924-08-08 18:42 J	-12860597.94	-12860597.72	-12860597.50	0.0132	0.0013
Venus	-39923-03-22 23:02 J	-12860371.75	-12860371.54	-12860371.32	0.0132	0.0022
Venus	-39923-11-04 03:35 J	-12860145.56	-12860145.35	-12860145.14	0.0132	0.0031
Venus	-39922-06-18 08:09 J	-12859919.37	-12859919.16	-12859918.96	0.0133	0.0040
Venus	-39921-01-30 12:28 J	-12859693.18	-12859692.98	-12859692.78	0.0133	0.0049
Venus	-39921-09-12 16:47 J	-12859466.98	-12859466.80	-12859466.59	0.0133	0.0058
Venus	-39920-04-26 21:06 J	-12859240.79	-12859240.62	-12859240.42	0.0133	0.0067
Mars	-39920-06-22 01:11 J	-12859184.69	-12859184.45	-12859184.17	0.0133	0.0078
Venus	-39920-12-09 01:40 J	-12859014.60	-12859014.43	-12859014.25	0.0133	0.0075
Venus	-39919-07-23 06:14 J	-12858788.41	-12858788.24	-12858788.07	0.0134	0.0084
Venus	-39918-03-06 10:18 J	-12858562.21	-12858562.07	-12858561.90	0.0134	0.0093
Venus	-39918-10-18 14:52 J	-12858336.00	-12858335.88	-12858335.72	0.0134	0.0101
Venus	-39917-05-31 19:11 J	-12858109.80	-12858109.70	-12858109.55	0.0134	0.0110
Venus	-39916-01-12 23:59 J	-12857883.59	-12857883.50	-12857883.39	0.0134	0.0117
Venus	-39916-08-27 04:33 J	-12857657.38	-12857657.31	-12857657.22	0.0135	0.0125
Venus	-39915-04-10 09:21 J	-12857431.14	-12857431.11	-12857431.06	0.0135	0.0132
Mercury	-39892-08-17 11:02 J	-12848901.08	-12848901.04	-12848900.97	0.0146	0.0136
Venus	-39892-10-26 11:45 J	-12848831.04	-12848831.01	-12848830.98	0.0146	0.0145
Mercury	-39892-11-13 17:02 J	-12848812.90	-12848812.79	-12848812.68	0.0146	0.0108
Mercury	-39891-02-09 22:33 J	-12848724.68	-12848724.56	-12848724.42	0.0146	0.0081
Mercury	-39891-05-09 04:33 J	-12848636.46	-12848636.31	-12848636.16	0.0147	0.0052
Venus	-39891-06-09 22:47 J	-12848604.61	-12848604.55	-12848604.46	0.0147	0.0136
Mercury	-39891-08-05 10:18 J	-12848548.22	-12848548.07	-12848547.91	0.0147	0.0025
Mercury	-39891-11-01 16:18 J	-12848459.98	-12848459.82	-12848459.66	0.0147	0.0005
Venus	-39890-01-22 10:33 J	-12848378.15	-12848378.06	-12848377.94	0.0147	0.0126
Mercury	-39890-01-28 22:18 J	-12848371.73	-12848371.57	-12848371.41	0.0147	0.0033

Moon -39890-04-08 16:18 J -12848302.08 -12848301.82 -12848301.56 0.0147 0.0003
 Earth -39890-04-08 16:33 J -12848302.06 -12848301.81 -12848301.55 0.0147 0.0011 *
 Mercury -39890-04-27 04:18 J -12848283.47 -12848283.32 -12848283.17 0.0147 0.0062
 Mercury -39890-07-24 10:18 J -12848195.19 -12848195.07 -12848194.94 0.0147 0.0091
 Venus -39890-09-05 22:47 J -12848151.68 -12848151.55 -12848151.42 0.0147 0.0115
 Mercury -39890-10-20 16:18 J -12848106.90 -12848106.82 -12848106.72 0.0147 0.0121
 Moon -39889-04-12 19:26 J -12847931.78 -12847931.69 -12847931.55 0.0147 0.0129
 Earth -39889-04-12 20:09 J -12847931.75 -12847931.66 -12847931.54 0.0147 0.0133 *
 Venus -39889-04-19 10:18 J -12847925.21 -12847925.07 -12847924.91 0.0147 0.0105
 Venus -39889-12-01 22:18 J -12847698.72 -12847698.57 -12847698.39 0.0147 0.0094
 Venus -39888-07-16 11:02 J -12847472.22 -12847472.04 -12847471.86 0.0147 0.0082
 Venus -39887-02-27 23:16 J -12847245.71 -12847245.53 -12847245.33 0.0147 0.0071
 Venus -39887-10-12 11:59 J -12847019.19 -12847019.00 -12847018.80 0.0147 0.0059
 Venus -39886-05-27 00:42 J -12846792.67 -12846792.47 -12846792.26 0.0147 0.0047
 Venus -39885-01-08 13:40 J -12846566.14 -12846565.93 -12846565.72 0.0147 0.0035
 Venus -39885-08-22 02:38 J -12846339.60 -12846339.39 -12846339.17 0.0147 0.0022
 Venus -39884-04-05 15:50 J -12846113.06 -12846112.84 -12846112.62 0.0147 0.0010
 Venus -39884-11-18 05:02 J -12845886.51 -12845886.29 -12845886.08 0.0147 0.0003
 Venus -39883-07-02 18:14 J -12845659.96 -12845659.74 -12845659.52 0.0146 0.0015
 Venus -39882-02-14 07:40 J -12845433.40 -12845433.18 -12845432.97 0.0146 0.0027
 Venus -39882-09-28 20:52 J -12845206.83 -12845206.63 -12845206.41 0.0146 0.0040
 Venus -39881-05-12 10:18 J -12844980.27 -12844980.07 -12844979.86 0.0146 0.0052
 Venus -39881-12-24 23:45 J -12844753.71 -12844753.51 -12844753.31 0.0146 0.0064
 Venus -39880-08-08 12:57 J -12844527.14 -12844526.96 -12844526.76 0.0146 0.0076
 Mars -39880-10-28 09:06 J -12844446.34 -12844446.12 -12844445.87 0.0145 0.0087
 Venus -39879-03-23 02:38 J -12844300.56 -12844300.39 -12844300.21 0.0145 0.0087
 Venus -39879-11-04 16:04 J -12844073.99 -12844073.83 -12844073.67 0.0145 0.0099
 Venus -39878-06-19 05:02 J -12843847.41 -12843847.29 -12843847.13 0.0145 0.0110
 Venus -39877-01-31 18:14 J -12843620.84 -12843620.74 -12843620.60 0.0145 0.0121
 Venus -39877-09-14 07:40 J -12843394.26 -12843394.18 -12843394.08 0.0144 0.0131

Venus -39876-04-28 20:52 J -12843167.66 -12843167.63 -12843167.57 0.0144 0.0140
 Mercury -39851-06-25 12:42 J -12833979.03 -12833978.97 -12833978.90 0.0132 0.0119
 Mercury -39851-09-21 16:47 J -12833890.89 -12833890.80 -12833890.69 0.0132 0.0099
 Mercury -39851-12-18 21:21 J -12833802.73 -12833802.61 -12833802.49 0.0132 0.0079
 Mercury -39850-03-17 01:26 J -12833714.57 -12833714.44 -12833714.30 0.0132 0.0059
 Venus -39850-05-11 22:18 J -12833658.63 -12833658.57 -12833658.50 0.0132 0.0126
 Mercury -39850-06-13 05:45 J -12833626.41 -12833626.26 -12833626.12 0.0132 0.0039
 Mercury -39850-09-09 09:50 J -12833538.24 -12833538.09 -12833537.94 0.0132 0.0019
 Moon -39850-10-08 18:28 J -12833508.93 -12833508.73 -12833508.50 0.0132 0.0078
 Earth -39850-10-08 20:09 J -12833508.85 -12833508.66 -12833508.45 0.0132 0.0082 *
 Mercury -39850-12-06 13:54 J -12833450.07 -12833449.92 -12833449.77 0.0132 0.0001
 Venus -39850-12-24 04:18 J -12833432.42 -12833432.32 -12833432.22 0.0132 0.0118
 Mercury -39849-03-03 17:59 J -12833361.90 -12833361.75 -12833361.60 0.0132 0.0020
 Mercury -39849-05-30 21:50 J -12833273.73 -12833273.59 -12833273.44 0.0132 0.0041
 Venus -39849-08-06 09:35 J -12833206.20 -12833206.10 -12833205.96 0.0132 0.0110
 Mercury -39849-08-27 01:54 J -12833185.55 -12833185.42 -12833185.28 0.0132 0.0059
 Earth -39849-10-12 01:26 J -12833139.69 -12833139.44 -12833139.19 0.0132 0.0022
 Moon -39849-10-12 02:23 J -12833139.64 -12833139.40 -12833139.15 0.0132 0.0022 *
 Mercury -39849-11-23 05:59 J -12833097.37 -12833097.25 -12833097.13 0.0132 0.0078
 Mercury -39848-02-19 09:50 J -12833009.19 -12833009.09 -12833008.99 0.0132 0.0097
 Venus -39848-03-20 15:06 J -12832979.99 -12832979.87 -12832979.71 0.0132 0.0102
 Mercury -39848-05-18 13:40 J -12832920.99 -12832920.93 -12832920.85 0.0132 0.0116
 Moon -39848-10-16 04:04 J -12832770.40 -12832770.33 -12832770.21 0.0132 0.0123
 Earth -39848-10-16 06:14 J -12832770.32 -12832770.24 -12832770.15 0.0132 0.0124 *
 Venus -39848-11-01 20:52 J -12832753.78 -12832753.63 -12832753.47 0.0132 0.0093
 Venus -39847-06-16 02:09 J -12832527.57 -12832527.41 -12832527.23 0.0132 0.0085
 Venus -39846-01-28 07:11 J -12832301.36 -12832301.20 -12832301.01 0.0132 0.0077
 Venus -39846-09-11 12:28 J -12832075.16 -12832074.98 -12832074.78 0.0132 0.0068
 Venus -39845-04-24 17:45 J -12831848.95 -12831848.76 -12831848.56 0.0132 0.0059
 Venus -39845-12-06 22:18 J -12831622.76 -12831622.57 -12831622.35 0.0132 0.0051

Venus	-39844-07-21 03:21 J	-12831396.56	-12831396.36	-12831396.14	0.0132	0.0042
Venus	-39843-03-04 08:23 J	-12831170.36	-12831170.15	-12831169.94	0.0132	0.0033
Venus	-39843-10-16 13:11 J	-12830944.16	-12830943.95	-12830943.73	0.0132	0.0024
Venus	-39842-05-30 17:45 J	-12830717.97	-12830717.76	-12830717.54	0.0132	0.0015
Venus	-39841-01-11 22:33 J	-12830491.78	-12830491.56	-12830491.34	0.0132	0.0006
Venus	-39841-08-25 03:21 J	-12830265.58	-12830265.36	-12830265.15	0.0132	0.0004
Venus	-39840-04-08 07:54 J	-12830039.39	-12830039.17	-12830038.96	0.0132	0.0013
Venus	-39840-11-20 12:14 J	-12829813.20	-12829812.99	-12829812.77	0.0132	0.0022
Venus	-39839-07-04 16:47 J	-12829587.01	-12829586.80	-12829586.59	0.0132	0.0030
Venus	-39838-02-15 21:06 J	-12829360.82	-12829360.62	-12829360.41	0.0133	0.0040
Venus	-39838-09-30 01:40 J	-12829134.62	-12829134.43	-12829134.22	0.0133	0.0048
Mars	-39837-03-14 17:59 J	-12828968.00	-12828967.75	-12828967.47	0.0133	0.0075
Venus	-39837-05-13 05:59 J	-12828908.44	-12828908.25	-12828908.05	0.0133	0.0057
Venus	-39837-12-25 10:18 J	-12828682.25	-12828682.07	-12828681.87	0.0133	0.0066
Venus	-39836-08-08 14:52 J	-12828456.06	-12828455.88	-12828455.70	0.0133	0.0074
Venus	-39835-03-22 19:26 J	-12828229.86	-12828229.69	-12828229.53	0.0133	0.0083
Venus	-39835-11-03 23:30 J	-12828003.66	-12828003.52	-12828003.35	0.0134	0.0092
Venus	-39834-06-18 03:50 J	-12827777.47	-12827777.34	-12827777.18	0.0134	0.0100
Venus	-39833-01-30 08:09 J	-12827551.27	-12827551.16	-12827551.01	0.0134	0.0108
Venus	-39833-09-12 12:57 J	-12827325.05	-12827324.96	-12827324.84	0.0134	0.0116
Venus	-39832-04-26 17:30 J	-12827098.84	-12827098.77	-12827098.67	0.0135	0.0123
Venus	-39832-12-08 22:04 J	-12826872.61	-12826872.58	-12826872.52	0.0135	0.0131
Venus	-39808-06-25 19:26 J	-12818272.70	-12818272.69	-12818272.66	0.0146	0.0146
Mercury	-39808-09-06 18:57 J	-12818199.78	-12818199.71	-12818199.62	0.0146	0.0126
Mercury	-39808-12-04 00:42 J	-12818111.58	-12818111.47	-12818111.35	0.0146	0.0098
Venus	-39807-02-07 06:42 J	-12818046.28	-12818046.22	-12818046.13	0.0146	0.0136
Mercury	-39807-03-02 06:28 J	-12818023.37	-12818023.23	-12818023.09	0.0146	0.0071
Earth	-39807-04-04 00:42 J	-12817990.48	-12817990.47	-12817990.40	0.0146	0.0145
Moon	-39807-04-04 02:52 J	-12817990.46	-12817990.38	-12817990.30	0.0146	0.0138 *
Mercury	-39807-05-29 12:14 J	-12817935.14	-12817934.99	-12817934.83	0.0146	0.0043

Mercury -39807-08-25 18:14 J -12817846.90 -12817846.74 -12817846.58 0.0147 0.0015
 Venus -39807-09-21 18:14 J -12817819.83 -12817819.74 -12817819.62 0.0147 0.0127
 Mercury -39807-11-21 23:59 J -12817758.66 -12817758.50 -12817758.34 0.0147 0.0014
 Mercury -39806-02-18 05:59 J -12817670.40 -12817670.25 -12817670.09 0.0147 0.0042
 Moon -39806-04-09 03:35 J -12817620.61 -12817620.35 -12817620.09 0.0147 0.0010
 Earth -39806-04-09 04:33 J -12817620.56 -12817620.31 -12817620.06 0.0147 0.0003 *
 Venus -39806-05-06 05:45 J -12817593.37 -12817593.26 -12817593.11 0.0147 0.0117
 Mercury -39806-05-17 11:45 J -12817582.14 -12817582.01 -12817581.85 0.0147 0.0072
 Mercury -39806-08-13 17:59 J -12817493.86 -12817493.75 -12817493.63 0.0147 0.0100
 Mercury -39806-11-09 23:59 J -12817405.56 -12817405.50 -12817405.41 0.0147 0.0130
 Venus -39806-12-18 17:45 J -12817366.90 -12817366.76 -12817366.60 0.0147 0.0106
 Earth -39805-04-13 07:54 J -12817250.23 -12817250.17 -12817250.08 0.0147 0.0140
 Moon -39805-04-13 08:23 J -12817250.18 -12817250.15 -12817250.11 0.0147 0.0145 *
 Venus -39805-08-01 05:45 J -12817140.41 -12817140.26 -12817140.09 0.0147 0.0095
 Venus -39804-03-15 17:59 J -12816913.92 -12816913.75 -12816913.57 0.0147 0.0084
 Venus -39804-10-28 06:28 J -12816687.42 -12816687.23 -12816687.04 0.0147 0.0072
 Venus -39803-06-11 18:42 J -12816460.91 -12816460.72 -12816460.51 0.0147 0.0061
 Venus -39802-01-24 07:26 J -12816234.38 -12816234.19 -12816233.97 0.0147 0.0049
 Venus -39802-09-07 20:23 J -12816007.86 -12816007.65 -12816007.44 0.0147 0.0037
 Venus -39801-04-21 09:21 J -12815781.32 -12815781.11 -12815780.89 0.0147 0.0024
 Venus -39801-12-03 22:18 J -12815554.79 -12815554.57 -12815554.35 0.0147 0.0012
 Venus -39800-07-18 11:30 J -12815328.24 -12815328.02 -12815327.80 0.0147 0.0001
 Venus -39799-03-02 00:42 J -12815101.68 -12815101.47 -12815101.25 0.0146 0.0013
 Venus -39799-10-14 13:54 J -12814875.13 -12814874.92 -12814874.70 0.0146 0.0026
 Venus -39798-05-29 03:21 J -12814648.57 -12814648.36 -12814648.15 0.0146 0.0037
 Venus -39797-01-10 16:47 J -12814422.01 -12814421.80 -12814421.60 0.0146 0.0049
 Mars -39797-07-21 07:54 J -12814229.36 -12814229.17 -12814228.94 0.0146 0.0100
 Venus -39797-08-24 06:14 J -12814195.44 -12814195.24 -12814195.05 0.0146 0.0061
 Venus -39796-04-07 19:11 J -12813968.87 -12813968.70 -12813968.49 0.0146 0.0074
 Venus -39796-11-20 08:52 J -12813742.30 -12813742.13 -12813741.95 0.0145 0.0085

Venus -39795-07-04 22:04 J -12813515.73 -12813515.58 -12813515.40 0.0145 0.0096
 Venus -39794-02-16 11:30 J -12813289.16 -12813289.02 -12813288.86 0.0145 0.0107
 Venus -39794-10-01 00:42 J -12813062.58 -12813062.47 -12813062.33 0.0145 0.0118
 Venus -39793-05-14 14:09 J -12812836.01 -12812835.91 -12812835.80 0.0145 0.0128
 Venus -39793-12-27 03:21 J -12812609.42 -12812609.36 -12812609.30 0.0144 0.0138
 Mercury -39767-04-18 16:04 J -12803365.84 -12803365.83 -12803365.80 0.0132 0.0131
 Mercury -39767-07-15 20:38 J -12803277.72 -12803277.64 -12803277.55 0.0132 0.0111
 Mercury -39767-10-12 00:42 J -12803189.57 -12803189.47 -12803189.35 0.0132 0.0091
 Mercury -39766-01-08 05:02 J -12803101.41 -12803101.29 -12803101.15 0.0132 0.0070
 Venus -39766-01-09 09:50 J -12803100.14 -12803100.09 -12803100.01 0.0132 0.0126
 Mercury -39766-04-06 09:06 J -12803013.25 -12803013.12 -12803012.97 0.0132 0.0051
 Mercury -39766-07-03 13:26 J -12802925.08 -12802924.94 -12802924.79 0.0132 0.0030
 Venus -39766-08-23 16:04 J -12802873.93 -12802873.83 -12802873.73 0.0132 0.0118
 Mercury -39766-09-29 17:45 J -12802836.92 -12802836.76 -12802836.61 0.0132 0.0010
 Moon -39766-10-09 08:23 J -12802827.36 -12802827.15 -12802826.93 0.0132 0.0076
 Earth -39766-10-09 09:50 J -12802827.29 -12802827.09 -12802826.86 0.0132 0.0073 *
 Mercury -39766-12-26 21:50 J -12802748.75 -12802748.59 -12802748.44 0.0132 0.0010
 Mercury -39765-03-24 01:40 J -12802660.57 -12802660.43 -12802660.28 0.0132 0.0030
 Venus -39765-04-05 21:50 J -12802647.71 -12802647.59 -12802647.47 0.0132 0.0110
 Mercury -39765-06-20 05:45 J -12802572.40 -12802572.26 -12802572.11 0.0132 0.0049
 Mercury -39765-09-16 09:35 J -12802484.22 -12802484.10 -12802483.96 0.0132 0.0068
 Earth -39765-10-12 15:06 J -12802458.11 -12802457.87 -12802457.61 0.0132 0.0031
 Moon -39765-10-12 17:16 J -12802458.02 -12802457.78 -12802457.54 0.0132 0.0032 *
 Venus -39765-11-18 03:21 J -12802421.49 -12802421.36 -12802421.21 0.0132 0.0102
 Mercury -39765-12-13 13:40 J -12802396.04 -12802395.93 -12802395.81 0.0132 0.0087
 Mercury -39764-03-11 17:30 J -12802307.85 -12802307.77 -12802307.67 0.0132 0.0106
 Mercury -39764-06-07 21:35 J -12802219.64 -12802219.60 -12802219.55 0.0132 0.0124
 Venus -39764-07-02 08:52 J -12802195.28 -12802195.13 -12802194.97 0.0132 0.0093
 Venus -39763-02-13 14:09 J -12801969.06 -12801968.91 -12801968.73 0.0132 0.0085
 Venus -39763-09-27 19:26 J -12801742.85 -12801742.69 -12801742.50 0.0132 0.0077

Venus	-39762-05-12 00:42 J	-12801516.65	-12801516.47	-12801516.27	0.0132	0.0068
Venus	-39762-12-24 05:59 J	-12801290.44	-12801290.25	-12801290.05	0.0132	0.0059
Venus	-39761-08-06 11:02 J	-12801064.24	-12801064.04	-12801063.83	0.0132	0.0051
Venus	-39760-03-20 16:04 J	-12800838.04	-12800837.83	-12800837.62	0.0132	0.0042
Venus	-39760-11-01 20:52 J	-12800611.84	-12800611.63	-12800611.41	0.0132	0.0033
Venus	-39759-06-16 01:40 J	-12800385.64	-12800385.43	-12800385.21	0.0132	0.0024
Venus	-39758-01-28 06:28 J	-12800159.44	-12800159.23	-12800159.01	0.0132	0.0015
Venus	-39758-09-11 11:16 J	-12799933.24	-12799933.03	-12799932.81	0.0132	0.0007
Venus	-39757-04-24 16:04 J	-12799707.05	-12799706.83	-12799706.61	0.0132	0.0003
Venus	-39757-12-06 20:38 J	-12799480.86	-12799480.64	-12799480.42	0.0132	0.0012
Venus	-39756-07-21 00:57 J	-12799254.67	-12799254.46	-12799254.24	0.0132	0.0021
Venus	-39755-03-04 05:45 J	-12799028.47	-12799028.26	-12799028.05	0.0132	0.0030
Venus	-39755-10-16 10:04 J	-12798802.28	-12798802.08	-12798801.87	0.0132	0.0039
Venus	-39754-05-30 14:23 J	-12798576.09	-12798575.90	-12798575.69	0.0133	0.0048
Venus	-39753-01-11 18:57 J	-12798349.91	-12798349.71	-12798349.51	0.0133	0.0056
Venus	-39753-08-24 23:16 J	-12798123.71	-12798123.53	-12798123.34	0.0133	0.0065
Mars	-39753-11-08 04:33 J	-12798048.62	-12798048.31	-12798047.97	0.0133	0.0019
Venus	-39752-04-08 03:35 J	-12797897.52	-12797897.35	-12797897.16	0.0133	0.0073
Venus	-39752-11-20 08:09 J	-12797671.33	-12797671.16	-12797670.99	0.0133	0.0082
Venus	-39751-07-04 11:59 J	-12797445.14	-12797445.00	-12797444.82	0.0133	0.0091
Venus	-39750-02-15 16:33 J	-12797218.94	-12797218.81	-12797218.65	0.0134	0.0099
Venus	-39750-09-29 21:21 J	-12796992.73	-12796992.61	-12796992.48	0.0134	0.0106
Venus	-39749-05-13 01:40 J	-12796766.53	-12796766.43	-12796766.31	0.0134	0.0114
Venus	-39749-12-25 05:59 J	-12796540.32	-12796540.25	-12796540.14	0.0134	0.0123
Venus	-39748-08-08 10:47 J	-12796314.09	-12796314.05	-12796313.98	0.0135	0.0130
Venus	-39724-02-23 04:33 J	-12787714.31	-12787714.31	-12787714.28	0.0146	0.0146
Mercury	-39724-06-30 21:35 J	-12787586.64	-12787586.60	-12787586.57	0.0146	0.0142
Mercury	-39724-09-27 03:06 J	-12787498.46	-12787498.37	-12787498.27	0.0146	0.0115
Venus	-39724-10-07 15:50 J	-12787487.91	-12787487.84	-12787487.76	0.0146	0.0137
Mercury	-39724-12-24 08:52 J	-12787410.26	-12787410.13	-12787410.00	0.0146	0.0087

Mercury -39723-03-22 14:38 J -12787322.04 -12787321.89 -12787321.75 0.0146 0.0060
 Earth -39723-04-04 14:52 J -12787308.97 -12787308.88 -12787308.77 0.0146 0.0134
 Moon -39723-04-04 16:47 J -12787308.85 -12787308.80 -12787308.72 0.0146 0.0142 *
 Venus -39723-05-22 02:52 J -12787261.47 -12787261.38 -12787261.26 0.0146 0.0128
 Mercury -39723-06-18 20:23 J -12787233.81 -12787233.65 -12787233.49 0.0146 0.0032
 Mercury -39723-09-15 02:09 J -12787145.57 -12787145.41 -12787145.24 0.0147 0.0006
 Mercury -39723-12-12 08:09 J -12787057.32 -12787057.16 -12787057.00 0.0147 0.0025
 Venus -39722-01-03 14:52 J -12787035.00 -12787034.88 -12787034.75 0.0147 0.0117
 Mercury -39722-03-10 14:09 J -12786969.06 -12786968.91 -12786968.76 0.0147 0.0053
 Moon -39722-04-09 16:47 J -12786939.06 -12786938.80 -12786938.54 0.0147 0.0014
 Earth -39722-04-09 18:14 J -12786939.00 -12786938.74 -12786938.49 0.0147 0.0008 *
 Mercury -39722-06-06 19:54 J -12786880.79 -12786880.67 -12786880.52 0.0147 0.0083
 Venus -39722-08-18 02:23 J -12786808.54 -12786808.40 -12786808.24 0.0147 0.0107
 Mercury -39722-09-03 02:09 J -12786792.51 -12786792.41 -12786792.30 0.0147 0.0112
 Mercury -39722-11-30 08:09 J -12786704.19 -12786704.16 -12786704.11 0.0147 0.0142
 Venus -39721-03-31 14:23 J -12786582.06 -12786581.90 -12786581.74 0.0147 0.0096
 Moon -39721-04-13 21:50 J -12786568.60 -12786568.59 -12786568.55 0.0147 0.0146
 Venus -39721-11-13 02:23 J -12786355.57 -12786355.40 -12786355.22 0.0147 0.0085
 Venus -39720-06-27 14:38 J -12786129.07 -12786128.89 -12786128.70 0.0147 0.0074
 Venus -39719-02-09 03:21 J -12785902.56 -12785902.36 -12785902.17 0.0147 0.0062
 Venus -39719-09-23 15:35 J -12785676.04 -12785675.85 -12785675.64 0.0147 0.0051
 Venus -39718-05-08 04:18 J -12785449.52 -12785449.32 -12785449.10 0.0147 0.0039
 Venus -39718-12-20 17:16 J -12785222.99 -12785222.78 -12785222.56 0.0147 0.0026
 Venus -39717-08-03 06:14 J -12784996.45 -12784996.24 -12784996.02 0.0147 0.0014
 Venus -39716-03-17 19:26 J -12784769.91 -12784769.69 -12784769.47 0.0147 0.0002
 Venus -39716-10-30 08:38 J -12784543.36 -12784543.14 -12784542.92 0.0147 0.0011
 Venus -39715-06-13 21:50 J -12784316.81 -12784316.59 -12784316.38 0.0146 0.0023
 Venus -39714-01-26 11:02 J -12784090.25 -12784090.04 -12784089.83 0.0146 0.0035
 Venus -39714-09-10 00:14 J -12783863.69 -12783863.49 -12783863.28 0.0146 0.0047
 Venus -39713-04-23 13:40 J -12783637.13 -12783636.93 -12783636.73 0.0146 0.0059

Venus -39713-12-06 02:52 J -12783410.56 -12783410.38 -12783410.18 0.0146 0.0071
 Mars -39712-03-16 18:57 J -12783310.00 -12783309.71 -12783309.41 0.0146 0.0008
 Venus -39712-07-20 16:04 J -12783184.00 -12783183.83 -12783183.64 0.0146 0.0083
 Venus -39711-03-04 05:45 J -12782957.42 -12782957.26 -12782957.09 0.0145 0.0094
 Venus -39711-10-16 19:11 J -12782730.85 -12782730.70 -12782730.55 0.0145 0.0105
 Venus -39710-05-31 08:23 J -12782504.28 -12782504.15 -12782504.02 0.0145 0.0115
 Venus -39709-01-12 21:06 J -12782277.71 -12782277.62 -12782277.49 0.0145 0.0126
 Venus -39709-08-26 10:18 J -12782051.12 -12782051.07 -12782050.98 0.0144 0.0136
 Mercury -39683-05-08 23:59 J -12772664.55 -12772664.50 -12772664.43 0.0132 0.0122
 Mercury -39683-08-05 04:18 J -12772576.41 -12772576.32 -12772576.21 0.0132 0.0102
 Venus -39683-09-08 21:21 J -12772541.66 -12772541.61 -12772541.52 0.0132 0.0126
 Mercury -39683-11-01 08:38 J -12772488.25 -12772488.14 -12772488.01 0.0132 0.0081
 Mercury -39682-01-28 12:57 J -12772400.09 -12772399.96 -12772399.82 0.0132 0.0061
 Venus -39682-04-23 03:35 J -12772315.44 -12772315.35 -12772315.24 0.0132 0.0118
 Mercury -39682-04-26 17:02 J -12772311.93 -12772311.79 -12772311.64 0.0132 0.0042
 Mercury -39682-07-23 21:21 J -12772223.76 -12772223.61 -12772223.46 0.0132 0.0021
 Moon -39682-10-09 21:35 J -12772145.83 -12772145.60 -12772145.36 0.0132 0.0059
 Earth -39682-10-09 23:45 J -12772145.72 -12772145.51 -12772145.27 0.0132 0.0064 *
 Mercury -39682-10-20 01:26 J -12772135.59 -12772135.44 -12772135.28 0.0132 0.0003
 Venus -39682-12-05 09:35 J -12772089.22 -12772089.10 -12772088.97 0.0132 0.0110
 Mercury -39681-01-16 05:30 J -12772047.42 -12772047.27 -12772047.11 0.0132 0.0019
 Mercury -39681-04-13 09:35 J -12771959.24 -12771959.10 -12771958.95 0.0132 0.0038
 Mercury -39681-07-10 13:40 J -12771871.07 -12771870.93 -12771870.79 0.0132 0.0057
 Venus -39681-07-18 15:21 J -12771862.99 -12771862.86 -12771862.71 0.0132 0.0102
 Mercury -39681-10-06 17:30 J -12771782.88 -12771782.77 -12771782.64 0.0132 0.0077
 Earth -39681-10-13 05:02 J -12771776.52 -12771776.29 -12771776.04 0.0132 0.0041
 Moon -39681-10-13 06:42 J -12771776.44 -12771776.22 -12771775.97 0.0132 0.0041 *
 Mercury -39680-01-02 21:35 J -12771694.70 -12771694.60 -12771694.49 0.0132 0.0095
 Venus -39680-03-01 21:06 J -12771636.77 -12771636.62 -12771636.46 0.0132 0.0093
 Mercury -39680-04-01 01:26 J -12771606.51 -12771606.44 -12771606.36 0.0132 0.0114

Venus	-39680-10-14 02:23 J	-12771410.56	-12771410.40	-12771410.23	0.0132	0.0085
Venus	-39679-05-28 07:40 J	-12771184.35	-12771184.18	-12771183.99	0.0132	0.0077
Venus	-39678-01-09 13:11 J	-12770958.14	-12770957.95	-12770957.76	0.0132	0.0068
Venus	-39678-08-23 18:14 J	-12770731.92	-12770731.74	-12770731.53	0.0132	0.0060
Venus	-39677-04-05 23:30 J	-12770505.72	-12770505.52	-12770505.31	0.0132	0.0051
Venus	-39677-11-18 04:33 J	-12770279.52	-12770279.31	-12770279.10	0.0132	0.0042
Venus	-39676-07-02 09:21 J	-12770053.32	-12770053.11	-12770052.89	0.0132	0.0034
Venus	-39675-02-13 14:23 J	-12769827.11	-12769826.90	-12769826.68	0.0132	0.0024
Venus	-39675-09-27 19:11 J	-12769600.91	-12769600.70	-12769600.48	0.0132	0.0016
Venus	-39674-05-11 23:59 J	-12769374.72	-12769374.50	-12769374.28	0.0132	0.0007
Venus	-39674-12-24 04:47 J	-12769148.52	-12769148.30	-12769148.09	0.0132	0.0003
Venus	-39673-08-06 09:21 J	-12768922.33	-12768922.11	-12768921.89	0.0132	0.0011
Venus	-39672-03-20 13:54 J	-12768696.13	-12768695.92	-12768695.70	0.0132	0.0020
Venus	-39672-11-01 18:14 J	-12768469.95	-12768469.74	-12768469.52	0.0132	0.0029
Venus	-39671-06-15 22:47 J	-12768243.76	-12768243.55	-12768243.34	0.0132	0.0038
Venus	-39670-01-28 03:06 J	-12768017.57	-12768017.37	-12768017.16	0.0133	0.0047
Venus	-39670-09-11 07:40 J	-12767791.37	-12767791.18	-12767790.98	0.0133	0.0055
Venus	-39669-04-24 11:45 J	-12767565.19	-12767565.01	-12767564.81	0.0133	0.0064
Venus	-39669-12-06 16:04 J	-12767339.00	-12767338.83	-12767338.64	0.0133	0.0073
Mars	-39668-07-04 14:38 J	-12767129.03	-12767128.89	-12767128.68	0.0133	0.0113
Venus	-39668-07-20 20:38 J	-12767112.81	-12767112.64	-12767112.47	0.0133	0.0081
Venus	-39667-03-04 00:57 J	-12766886.61	-12766886.46	-12766886.29	0.0133	0.0089
Venus	-39667-10-16 05:30 J	-12766660.41	-12766660.27	-12766660.12	0.0134	0.0097
Venus	-39666-05-30 09:50 J	-12766434.21	-12766434.09	-12766433.95	0.0134	0.0105
Venus	-39665-01-11 14:09 J	-12766208.01	-12766207.91	-12766207.78	0.0134	0.0113
Venus	-39665-08-24 18:57 J	-12765981.79	-12765981.71	-12765981.61	0.0134	0.0121
Venus	-39664-04-07 23:16 J	-12765755.57	-12765755.53	-12765755.45	0.0134	0.0129
Venus	-39640-06-06 23:45 J	-12756929.57	-12756929.51	-12756929.43	0.0146	0.0137
Mercury	-39640-07-21 05:16 J	-12756885.34	-12756885.28	-12756885.22	0.0146	0.0133
Mercury	-39640-10-17 10:47 J	-12756797.15	-12756797.05	-12756796.94	0.0146	0.0106

Mercury -39639-01-13 16:18 J -12756708.94 -12756708.82 -12756708.68 0.0146 0.0079

Venus -39639-01-19 10:47 J -12756703.13 -12756703.05 -12756702.93 0.0146 0.0129

Earth -39639-04-05 02:52 J -12756627.51 -12756627.38 -12756627.25 0.0146 0.0126

Moon -39639-04-05 05:02 J -12756627.43 -12756627.29 -12756627.15 0.0146 0.0120 *

Mercury -39639-04-11 22:18 J -12756620.72 -12756620.57 -12756620.42 0.0146 0.0051

Mercury -39639-07-09 04:04 J -12756532.49 -12756532.33 -12756532.17 0.0146 0.0023

Venus -39639-09-02 22:18 J -12756476.68 -12756476.57 -12756476.43 0.0146 0.0119

Mercury -39639-10-05 09:50 J -12756444.25 -12756444.09 -12756443.92 0.0146 0.0007

Mercury -39638-01-01 15:50 J -12756356.00 -12756355.84 -12756355.68 0.0147 0.0034

Mercury -39638-03-30 21:50 J -12756267.74 -12756267.59 -12756267.44 0.0147 0.0063

Moon -39638-04-10 04:04 J -12756257.59 -12756257.33 -12756257.07 0.0147 0.0008

Earth -39638-04-10 05:59 J -12756257.51 -12756257.25 -12756257.00 0.0147 0.0016 *

Venus -39638-04-17 09:50 J -12756250.22 -12756250.09 -12756249.93 0.0147 0.0109

Mercury -39638-06-27 03:50 J -12756179.46 -12756179.34 -12756179.21 0.0147 0.0092

Mercury -39638-09-23 09:35 J -12756091.17 -12756091.10 -12756090.99 0.0147 0.0122

Venus -39638-11-29 21:35 J -12756023.75 -12756023.60 -12756023.43 0.0147 0.0098

Venus -39637-07-13 09:35 J -12755797.26 -12755797.10 -12755796.92 0.0147 0.0087

Venus -39636-02-24 21:50 J -12755570.76 -12755570.59 -12755570.40 0.0147 0.0076

Venus -39636-10-09 10:18 J -12755344.26 -12755344.07 -12755343.87 0.0147 0.0064

Venus -39635-05-23 22:33 J -12755117.75 -12755117.56 -12755117.35 0.0147 0.0053

Venus -39634-01-05 11:16 J -12754891.23 -12754891.03 -12754890.81 0.0147 0.0041

Venus -39634-08-19 23:59 J -12754664.70 -12754664.50 -12754664.28 0.0147 0.0029

Venus -39633-04-02 12:57 J -12754438.17 -12754437.96 -12754437.74 0.0147 0.0017

Venus -39633-11-15 01:54 J -12754211.63 -12754211.42 -12754211.20 0.0147 0.0005

Venus -39632-06-29 15:06 J -12753985.09 -12753984.87 -12753984.66 0.0147 0.0008

Venus -39631-02-11 04:18 J -12753758.54 -12753758.32 -12753758.11 0.0146 0.0020

Venus -39631-09-25 17:30 J -12753531.98 -12753531.77 -12753531.56 0.0146 0.0032

Venus -39630-05-10 06:42 J -12753305.43 -12753305.22 -12753305.01 0.0146 0.0044

Venus -39630-12-22 19:40 J -12753078.87 -12753078.68 -12753078.47 0.0146 0.0057

Venus -39629-08-05 08:52 J -12752852.31 -12752852.13 -12752851.93 0.0146 0.0068

Venus -39628-03-19 22:18 J -12752625.74 -12752625.57 -12752625.38 0.0146 0.0080
 Venus -39628-11-01 11:45 J -12752399.18 -12752399.01 -12752398.83 0.0146 0.0091
 Mars -39628-11-10 01:40 J -12752390.59 -12752390.43 -12752390.22 0.0146 0.0113
 Venus -39627-06-16 00:57 J -12752172.61 -12752172.46 -12752172.30 0.0145 0.0102
 Venus -39626-01-28 14:09 J -12751946.04 -12751945.91 -12751945.76 0.0145 0.0112
 Venus -39626-09-12 03:06 J -12751719.47 -12751719.37 -12751719.23 0.0145 0.0123
 Venus -39625-04-25 16:33 J -12751492.88 -12751492.81 -12751492.71 0.0145 0.0133
 Venus -39625-12-08 05:30 J -12751266.28 -12751266.27 -12751266.21 0.0144 0.0143
 Venus -39599-05-09 08:23 J -12741983.20 -12741983.15 -12741983.07 0.0133 0.0126
 Mercury -39599-05-29 07:40 J -12741963.25 -12741963.18 -12741963.10 0.0133 0.0114
 Mercury -39599-08-25 11:59 J -12741875.10 -12741875.00 -12741874.88 0.0132 0.0094
 Mercury -39599-11-21 16:18 J -12741786.94 -12741786.82 -12741786.69 0.0132 0.0073
 Venus -39599-12-21 14:38 J -12741756.98 -12741756.89 -12741756.78 0.0132 0.0118
 Mercury -39598-02-17 20:38 J -12741698.78 -12741698.64 -12741698.50 0.0132 0.0053
 Mercury -39598-05-17 00:42 J -12741610.61 -12741610.47 -12741610.31 0.0132 0.0033
 Venus -39598-08-04 20:23 J -12741530.75 -12741530.65 -12741530.50 0.0132 0.0111
 Mercury -39598-08-13 05:02 J -12741522.44 -12741522.29 -12741522.14 0.0132 0.0013
 Moon -39598-10-10 10:18 J -12741464.29 -12741464.07 -12741463.82 0.0132 0.0059
 Earth -39598-10-10 12:57 J -12741464.19 -12741463.96 -12741463.72 0.0132 0.0055 *
 Mercury -39598-11-09 09:06 J -12741434.27 -12741434.12 -12741433.97 0.0132 0.0007
 Mercury -39597-02-05 13:11 J -12741346.10 -12741345.95 -12741345.80 0.0132 0.0026
 Venus -39597-03-18 02:23 J -12741304.52 -12741304.40 -12741304.24 0.0132 0.0102
 Mercury -39597-05-03 17:16 J -12741257.92 -12741257.78 -12741257.63 0.0132 0.0046
 Mercury -39597-07-30 21:21 J -12741169.74 -12741169.61 -12741169.48 0.0132 0.0065
 Earth -39597-10-13 17:59 J -12741094.97 -12741094.75 -12741094.50 0.0132 0.0049
 Moon -39597-10-13 20:38 J -12741094.85 -12741094.64 -12741094.39 0.0132 0.0052 *
 Mercury -39597-10-27 01:11 J -12741081.56 -12741081.45 -12741081.33 0.0132 0.0084
 Venus -39597-10-30 08:09 J -12741078.30 -12741078.16 -12741077.99 0.0132 0.0094
 Mercury -39596-01-23 05:16 J -12740993.37 -12740993.28 -12740993.18 0.0132 0.0103
 Mercury -39596-04-21 09:06 J -12740905.17 -12740905.12 -12740905.06 0.0132 0.0122

Venus	-39596-06-13 13:54 J	-12740852.08	-12740851.92	-12740851.75	0.0132	0.0085
Venus	-39595-01-25 19:26 J	-12740625.86	-12740625.69	-12740625.50	0.0132	0.0077
Venus	-39595-09-09 00:42 J	-12740399.64	-12740399.47	-12740399.27	0.0132	0.0069
Venus	-39594-04-23 06:14 J	-12740173.43	-12740173.24	-12740173.04	0.0132	0.0060
Venus	-39594-12-05 11:30 J	-12739947.22	-12739947.02	-12739946.82	0.0132	0.0051
Venus	-39593-07-18 16:33 J	-12739721.01	-12739720.81	-12739720.60	0.0132	0.0043
Venus	-39592-03-01 21:35 J	-12739494.80	-12739494.60	-12739494.38	0.0132	0.0034
Venus	-39592-10-14 02:38 J	-12739268.60	-12739268.39	-12739268.17	0.0132	0.0025
Venus	-39591-05-28 07:26 J	-12739042.40	-12739042.19	-12739041.97	0.0132	0.0016
Venus	-39590-01-09 12:14 J	-12738816.20	-12738815.99	-12738815.77	0.0132	0.0008
Venus	-39590-08-23 17:16 J	-12738590.00	-12738589.78	-12738589.57	0.0132	0.0003
Venus	-39589-04-05 21:50 J	-12738363.81	-12738363.59	-12738363.37	0.0132	0.0011
Venus	-39589-11-18 02:23 J	-12738137.62	-12738137.40	-12738137.19	0.0132	0.0020
Venus	-39588-07-02 06:42 J	-12737911.43	-12737911.22	-12737911.00	0.0132	0.0028
Venus	-39587-02-13 11:16 J	-12737685.24	-12737685.03	-12737684.82	0.0132	0.0037
Venus	-39587-09-27 15:35 J	-12737459.04	-12737458.85	-12737458.64	0.0133	0.0046
Venus	-39586-05-11 20:09 J	-12737232.86	-12737232.66	-12737232.46	0.0133	0.0054
Venus	-39586-12-24 00:14 J	-12737006.67	-12737006.49	-12737006.29	0.0133	0.0063
Mars	-39585-03-27 04:18 J	-12736912.61	-12736912.32	-12736911.99	0.0133	0.0042
Venus	-39585-08-06 04:33 J	-12736780.48	-12736780.31	-12736780.12	0.0133	0.0071
Venus	-39584-03-20 09:06 J	-12736554.29	-12736554.12	-12736553.94	0.0133	0.0079
Venus	-39584-11-01 13:26 J	-12736328.09	-12736327.94	-12736327.77	0.0133	0.0088
Venus	-39583-06-15 17:45 J	-12736101.90	-12736101.76	-12736101.60	0.0133	0.0096
Venus	-39582-01-27 22:04 J	-12735875.70	-12735875.58	-12735875.43	0.0134	0.0104
Venus	-39582-09-11 03:06 J	-12735649.49	-12735649.37	-12735649.25	0.0134	0.0111
Venus	-39581-04-24 07:11 J	-12735423.28	-12735423.20	-12735423.09	0.0134	0.0119
Venus	-39581-12-06 11:59 J	-12735197.06	-12735197.00	-12735196.92	0.0134	0.0127
Venus	-39580-07-20 16:33 J	-12734970.82	-12734970.81	-12734970.78	0.0135	0.0134
Jupiter	-39579-09-18 23:59 J	-12734545.88	-12734545.50	-12734545.06	0.0135	0.0074
Venus	-39556-02-04 08:09 J	-12726371.21	-12726371.16	-12726371.08	0.0146	0.0138

Mercury -39556-08-10 12:42 J -12726184.04 -12726183.97 -12726183.87 0.0146 0.0123

Venus -39556-09-18 19:11 J -12726144.78 -12726144.70 -12726144.59 0.0146 0.0129

Mercury -39556-11-06 18:42 J -12726095.84 -12726095.72 -12726095.60 0.0146 0.0096

Mercury -39555-02-03 00:14 J -12726007.62 -12726007.49 -12726007.34 0.0146 0.0069

Earth -39555-04-05 14:52 J -12725946.01 -12725945.88 -12725945.71 0.0146 0.0117

Moon -39555-04-05 17:45 J -12725945.87 -12725945.76 -12725945.61 0.0146 0.0124 *

Mercury -39555-05-02 06:14 J -12725919.40 -12725919.24 -12725919.09 0.0146 0.0041

Venus -39555-05-03 06:28 J -12725918.34 -12725918.23 -12725918.09 0.0146 0.0120

Mercury -39555-07-29 11:59 J -12725831.16 -12725831.00 -12725830.84 0.0146 0.0013

Mercury -39555-10-25 17:45 J -12725742.92 -12725742.76 -12725742.60 0.0146 0.0016

Venus -39555-12-15 17:59 J -12725691.88 -12725691.75 -12725691.59 0.0146 0.0109

Mercury -39554-01-21 23:45 J -12725654.66 -12725654.51 -12725654.36 0.0146 0.0044

Moon -39554-04-10 16:04 J -12725576.08 -12725575.83 -12725575.57 0.0146 0.0032

Earth -39554-04-10 18:28 J -12725575.98 -12725575.73 -12725575.48 0.0146 0.0024 *

Mercury -39554-04-20 05:30 J -12725566.40 -12725566.27 -12725566.12 0.0146 0.0074

Mercury -39554-07-17 11:30 J -12725478.12 -12725478.02 -12725477.89 0.0147 0.0103

Venus -39554-07-30 05:45 J -12725465.41 -12725465.26 -12725465.09 0.0147 0.0099

Mercury -39554-10-13 17:45 J -12725389.82 -12725389.76 -12725389.68 0.0147 0.0132

Venus -39553-03-12 17:45 J -12725238.92 -12725238.76 -12725238.58 0.0147 0.0088

Venus -39553-10-25 05:45 J -12725012.43 -12725012.26 -12725012.07 0.0147 0.0077

Venus -39552-06-08 17:59 J -12724785.93 -12724785.75 -12724785.55 0.0147 0.0066

Venus -39551-01-21 06:42 J -12724559.42 -12724559.22 -12724559.02 0.0147 0.0054

Venus -39551-09-04 19:11 J -12724332.91 -12724332.70 -12724332.49 0.0147 0.0042

Venus -39550-04-19 07:40 J -12724106.38 -12724106.18 -12724105.96 0.0147 0.0031

Venus -39550-12-01 20:23 J -12723879.86 -12723879.65 -12723879.43 0.0147 0.0019

Venus -39549-07-15 09:21 J -12723653.32 -12723653.11 -12723652.89 0.0147 0.0007

Venus -39548-02-26 22:33 J -12723426.78 -12723426.56 -12723426.34 0.0147 0.0006

Venus -39548-10-11 11:30 J -12723200.23 -12723200.02 -12723199.80 0.0147 0.0018

Venus -39547-05-26 00:42 J -12722973.68 -12722973.47 -12722973.26 0.0146 0.0030

Venus -39546-01-07 13:40 J -12722747.13 -12722746.93 -12722746.71 0.0146 0.0043

Venus -39546-08-22 02:52 J -12722520.57 -12722520.38 -12722520.17 0.0146 0.0054
 Venus -39545-04-04 16:04 J -12722294.01 -12722293.83 -12722293.62 0.0146 0.0066
 Mars -39545-08-03 03:35 J -12722173.59 -12722173.35 -12722173.08 0.0146 0.0072
 Venus -39545-11-17 05:30 J -12722067.45 -12722067.27 -12722067.08 0.0146 0.0077
 Venus -39544-07-01 18:28 J -12721840.89 -12721840.73 -12721840.54 0.0146 0.0089
 Venus -39543-02-13 07:54 J -12721614.32 -12721614.17 -12721614.00 0.0145 0.0100
 Venus -39543-09-27 21:06 J -12721387.75 -12721387.62 -12721387.46 0.0145 0.0110
 Venus -39542-05-12 10:33 J -12721161.17 -12721161.06 -12721160.93 0.0145 0.0120
 Venus -39542-12-24 23:45 J -12720934.60 -12720934.51 -12720934.41 0.0145 0.0130
 Venus -39541-08-07 12:57 J -12720708.01 -12720707.96 -12720707.90 0.0144 0.0140
 Venus -39515-01-06 19:26 J -12711424.75 -12711424.69 -12711424.61 0.0133 0.0126
 Mercury -39515-03-22 11:02 J -12711350.08 -12711350.04 -12711349.99 0.0133 0.0127
 Mercury -39515-06-18 15:35 J -12711261.94 -12711261.85 -12711261.76 0.0133 0.0106
 Venus -39515-08-21 01:54 J -12711198.51 -12711198.42 -12711198.31 0.0132 0.0118
 Mercury -39515-09-14 19:40 J -12711173.79 -12711173.68 -12711173.55 0.0132 0.0086
 Mercury -39515-12-11 23:59 J -12711085.63 -12711085.50 -12711085.36 0.0132 0.0065
 Mercury -39514-03-10 04:18 J -12710997.46 -12710997.32 -12710997.17 0.0132 0.0045
 Venus -39514-04-04 07:40 J -12710972.28 -12710972.18 -12710972.04 0.0132 0.0110
 Mercury -39514-06-06 08:23 J -12710909.29 -12710909.15 -12710908.99 0.0132 0.0026
 Mercury -39514-09-02 12:42 J -12710821.12 -12710820.97 -12710820.82 0.0132 0.0005
 Moon -39514-10-10 23:02 J -12710782.78 -12710782.54 -12710782.29 0.0132 0.0041
 Earth -39514-10-11 01:54 J -12710782.65 -12710782.42 -12710782.17 0.0132 0.0047 *
 Venus -39514-11-16 13:40 J -12710746.05 -12710745.93 -12710745.78 0.0132 0.0102
 Mercury -39514-11-29 16:47 J -12710732.95 -12710732.80 -12710732.65 0.0132 0.0015
 Mercury -39513-02-25 20:52 J -12710644.77 -12710644.63 -12710644.48 0.0132 0.0034
 Mercury -39513-05-24 00:57 J -12710556.60 -12710556.46 -12710556.32 0.0132 0.0054
 Venus -39513-06-29 19:26 J -12710519.82 -12710519.69 -12710519.51 0.0132 0.0094
 Mercury -39513-08-20 05:02 J -12710468.41 -12710468.29 -12710468.16 0.0132 0.0073
 Earth -39513-10-14 07:26 J -12710413.42 -12710413.19 -12710412.96 0.0132 0.0057
 Moon -39513-10-14 10:04 J -12710413.31 -12710413.08 -12710412.86 0.0132 0.0057 *

Mercury -39513-11-16 08:52 J -12710380.23 -12710380.13 -12710380.02 0.0132 0.0092

Venus -39512-02-11 01:40 J -12710293.60 -12710293.43 -12710293.26 0.0132 0.0085

Mercury -39512-02-12 12:57 J -12710292.04 -12710291.96 -12710291.88 0.0132 0.0111

Mercury -39512-05-11 16:47 J -12710203.81 -12710203.80 -12710203.77 0.0132 0.0130

Venus -39512-09-25 07:11 J -12710067.37 -12710067.20 -12710067.02 0.0132 0.0077

Venus -39511-05-09 12:28 J -12709841.16 -12709840.98 -12709840.78 0.0132 0.0069

Venus -39511-12-21 17:59 J -12709614.94 -12709614.75 -12709614.55 0.0132 0.0060

Venus -39510-08-04 23:16 J -12709388.72 -12709388.53 -12709388.32 0.0132 0.0052

Venus -39509-03-18 04:33 J -12709162.51 -12709162.31 -12709162.09 0.0132 0.0043

Venus -39509-10-30 09:50 J -12708936.30 -12708936.09 -12708935.88 0.0132 0.0034

Venus -39508-06-13 14:52 J -12708710.10 -12708709.88 -12708709.67 0.0132 0.0025

Venus -39507-01-25 19:40 J -12708483.90 -12708483.68 -12708483.46 0.0132 0.0016

Venus -39507-09-09 00:42 J -12708257.69 -12708257.47 -12708257.25 0.0132 0.0008

Venus -39506-04-23 05:16 J -12708031.49 -12708031.28 -12708031.06 0.0132 0.0003

Venus -39506-12-05 10:04 J -12707805.30 -12707805.08 -12707804.86 0.0132 0.0010

Venus -39505-07-18 14:23 J -12707579.11 -12707578.90 -12707578.68 0.0132 0.0020

Venus -39504-03-01 19:11 J -12707352.91 -12707352.70 -12707352.49 0.0132 0.0028

Venus -39504-10-13 23:30 J -12707126.72 -12707126.52 -12707126.30 0.0132 0.0037

Venus -39503-05-28 04:04 J -12706900.53 -12706900.33 -12706900.12 0.0132 0.0045

Venus -39502-01-09 08:09 J -12706674.34 -12706674.16 -12706673.95 0.0133 0.0054

Venus -39502-08-23 12:42 J -12706448.15 -12706447.97 -12706447.77 0.0133 0.0062

Venus -39501-04-05 17:16 J -12706221.96 -12706221.78 -12706221.59 0.0133 0.0070

Venus -39501-11-17 21:35 J -12705995.77 -12705995.60 -12705995.42 0.0133 0.0078

Mars -39501-11-20 14:52 J -12705993.17 -12705992.88 -12705992.57 0.0133 0.0051

Venus -39500-07-02 01:54 J -12705769.58 -12705769.42 -12705769.25 0.0133 0.0086

Venus -39499-02-13 06:14 J -12705543.38 -12705543.24 -12705543.08 0.0133 0.0095

Venus -39499-09-27 10:47 J -12705317.17 -12705317.05 -12705316.90 0.0134 0.0103

Venus -39498-05-11 15:21 J -12705090.97 -12705090.86 -12705090.73 0.0134 0.0110

Venus -39498-12-23 19:40 J -12704864.76 -12704864.68 -12704864.56 0.0134 0.0118

Venus -39497-08-06 00:14 J -12704638.55 -12704638.49 -12704638.40 0.0134 0.0126

Venus -39496-03-20 05:02 J -12704412.31 -12704412.29 -12704412.24 0.0134 0.0133
 Venus -39473-10-04 15:50 J -12695812.89 -12695812.84 -12695812.76 0.0146 0.0139
 Venus -39472-05-19 03:06 J -12695586.46 -12695586.37 -12695586.27 0.0146 0.0129
 Mercury -39472-06-03 14:52 J -12695570.91 -12695570.88 -12695570.83 0.0146 0.0141
 Mercury -39472-08-30 20:23 J -12695482.74 -12695482.65 -12695482.54 0.0146 0.0114
 Mercury -39472-11-27 02:09 J -12695394.53 -12695394.41 -12695394.28 0.0146 0.0087
 Venus -39472-12-31 14:09 J -12695360.02 -12695359.91 -12695359.78 0.0146 0.0120
 Mercury -39471-02-23 07:54 J -12695306.31 -12695306.17 -12695306.02 0.0146 0.0059
 Earth -39471-04-06 02:23 J -12695264.56 -12695264.40 -12695264.22 0.0146 0.0110
 Moon -39471-04-06 05:30 J -12695264.44 -12695264.27 -12695264.09 0.0146 0.0104 *
 Mercury -39471-05-22 13:40 J -12695218.08 -12695217.93 -12695217.77 0.0146 0.0032
 Venus -39471-08-15 01:26 J -12695133.57 -12695133.44 -12695133.29 0.0146 0.0110
 Mercury -39471-08-18 19:26 J -12695129.85 -12695129.69 -12695129.52 0.0146 0.0006
 Mercury -39471-11-15 01:26 J -12695041.60 -12695041.44 -12695041.28 0.0146 0.0025
 Mercury -39470-02-11 07:11 J -12694953.34 -12694953.20 -12694953.04 0.0146 0.0054
 Venus -39470-03-29 13:11 J -12694907.10 -12694906.95 -12694906.79 0.0146 0.0100
 Moon -39470-04-11 03:06 J -12694894.63 -12694894.37 -12694894.11 0.0146 0.0024
 Earth -39470-04-11 05:45 J -12694894.51 -12694894.26 -12694894.01 0.0146 0.0032 *
 Mercury -39470-05-10 13:11 J -12694865.08 -12694864.95 -12694864.81 0.0146 0.0082
 Mercury -39470-08-06 19:11 J -12694776.80 -12694776.70 -12694776.59 0.0146 0.0111
 Mercury -39470-11-03 01:26 J -12694688.48 -12694688.44 -12694688.39 0.0146 0.0141
 Venus -39470-11-11 00:42 J -12694680.63 -12694680.47 -12694680.29 0.0146 0.0090
 Venus -39469-06-24 12:42 J -12694454.14 -12694453.97 -12694453.78 0.0147 0.0079
 Venus -39468-02-06 00:57 J -12694227.64 -12694227.46 -12694227.26 0.0147 0.0067
 Venus -39468-09-20 13:26 J -12694001.14 -12694000.94 -12694000.74 0.0147 0.0056
 Venus -39467-05-05 01:40 J -12693774.63 -12693774.43 -12693774.22 0.0147 0.0044
 Venus -39467-12-17 14:09 J -12693548.11 -12693547.91 -12693547.69 0.0147 0.0033
 Venus -39466-08-01 02:52 J -12693321.59 -12693321.38 -12693321.16 0.0147 0.0021
 Venus -39465-03-14 15:50 J -12693095.06 -12693094.84 -12693094.62 0.0147 0.0008
 Venus -39465-10-27 04:47 J -12692868.52 -12692868.30 -12692868.09 0.0147 0.0005

Venus	-39464-06-10 17:30 J	-12692641.98	-12692641.77	-12692641.55	0.0147	0.0016
Venus	-39463-01-23 06:42 J	-12692415.44	-12692415.22	-12692415.01	0.0146	0.0028
Venus	-39463-09-06 19:26 J	-12692188.89	-12692188.69	-12692188.47	0.0146	0.0041
Venus	-39462-04-21 08:52 J	-12691962.33	-12691962.13	-12691961.92	0.0146	0.0052
Venus	-39462-12-03 21:50 J	-12691735.78	-12691735.59	-12691735.38	0.0146	0.0063
Venus	-39461-07-17 11:02 J	-12691509.22	-12691509.04	-12691508.84	0.0146	0.0075
Venus	-39460-03-01 00:28 J	-12691282.65	-12691282.48	-12691282.30	0.0146	0.0086
Mars	-39460-03-29 10:33 J	-12691254.34	-12691254.06	-12691253.77	0.0146	0.0031
Venus	-39460-10-13 13:40 J	-12691056.08	-12691055.93	-12691055.76	0.0146	0.0097
Venus	-39459-05-28 02:52 J	-12690829.52	-12690829.38	-12690829.22	0.0145	0.0107
Venus	-39458-01-09 16:18 J	-12690602.95	-12690602.82	-12690602.69	0.0145	0.0118
Venus	-39458-08-24 05:02 J	-12690376.37	-12690376.29	-12690376.17	0.0145	0.0128
Venus	-39457-04-06 18:28 J	-12690149.78	-12690149.73	-12690149.64	0.0145	0.0138
Venus	-39432-09-06 05:30 J	-12680866.32	-12680866.27	-12680866.18	0.0133	0.0126
Mercury	-39431-04-11 18:28 J	-12680648.79	-12680648.73	-12680648.66	0.0133	0.0119
Venus	-39431-04-20 12:14 J	-12680640.08	-12680639.99	-12680639.89	0.0133	0.0118
Mercury	-39431-07-08 22:47 J	-12680560.64	-12680560.55	-12680560.44	0.0133	0.0099
Mercury	-39431-10-05 03:06 J	-12680472.48	-12680472.37	-12680472.24	0.0132	0.0079
Venus	-39431-12-02 17:59 J	-12680413.85	-12680413.75	-12680413.60	0.0132	0.0111
Mercury	-39430-01-01 07:40 J	-12680384.32	-12680384.18	-12680384.04	0.0132	0.0058
Mercury	-39430-03-30 11:45 J	-12680296.15	-12680296.01	-12680295.86	0.0132	0.0038
Mercury	-39430-06-26 16:04 J	-12680207.98	-12680207.83	-12680207.68	0.0132	0.0018
Venus	-39430-07-17 00:28 J	-12680187.61	-12680187.48	-12680187.33	0.0132	0.0102
Mercury	-39430-09-22 20:09 J	-12680119.81	-12680119.66	-12680119.50	0.0132	0.0003
Moon	-39430-10-11 11:02 J	-12680101.28	-12680101.04	-12680100.79	0.0132	0.0043
Earth	-39430-10-11 14:23 J	-12680101.15	-12680100.90	-12680100.66	0.0132	0.0039 *
Mercury	-39430-12-20 00:14 J	-12680031.64	-12680031.49	-12680031.33	0.0132	0.0023
Venus	-39429-02-28 06:28 J	-12679961.37	-12679961.23	-12679961.06	0.0132	0.0094
Mercury	-39429-03-17 04:18 J	-12679943.46	-12679943.32	-12679943.17	0.0132	0.0042
Mercury	-39429-06-13 08:23 J	-12679855.28	-12679855.15	-12679855.01	0.0132	0.0061

Mercury -39429-09-09 12:28 J -12679767.09 -12679766.98 -12679766.86 0.0132 0.0080

Venus -39429-10-11 12:14 J -12679735.14 -12679734.99 -12679734.81 0.0132 0.0086

Earth -39429-10-14 19:26 J -12679731.89 -12679731.69 -12679731.45 0.0132 0.0065

Moon -39429-10-14 23:02 J -12679731.75 -12679731.54 -12679731.32 0.0132 0.0067 *

Mercury -39429-12-06 16:33 J -12679678.91 -12679678.81 -12679678.71 0.0132 0.0099

Mercury -39428-03-04 20:38 J -12679590.71 -12679590.64 -12679590.58 0.0132 0.0118

Venus -39428-05-25 18:14 J -12679508.92 -12679508.74 -12679508.56 0.0132 0.0077

Venus -39427-01-06 23:30 J -12679282.69 -12679282.52 -12679282.32 0.0132 0.0069

Venus -39427-08-21 05:30 J -12679056.47 -12679056.27 -12679056.08 0.0132 0.0060

Venus -39426-04-04 10:33 J -12678830.25 -12678830.06 -12678829.84 0.0132 0.0052

Venus -39426-11-16 16:04 J -12678604.04 -12678603.83 -12678603.62 0.0132 0.0043

Venus -39425-06-29 21:06 J -12678377.82 -12678377.62 -12678377.40 0.0132 0.0035

Venus -39424-02-11 02:23 J -12678151.61 -12678151.40 -12678151.18 0.0132 0.0026

Venus -39424-09-25 07:26 J -12677925.41 -12677925.19 -12677924.97 0.0132 0.0017

Venus -39423-05-09 12:14 J -12677699.20 -12677698.99 -12677698.77 0.0132 0.0008

Venus -39423-12-21 17:02 J -12677473.01 -12677472.79 -12677472.57 0.0132 0.0002

Venus -39422-08-04 21:50 J -12677246.81 -12677246.59 -12677246.37 0.0132 0.0010

Venus -39421-03-18 02:23 J -12677020.61 -12677020.40 -12677020.18 0.0132 0.0018

Venus -39421-10-30 06:57 J -12676794.42 -12676794.21 -12676793.99 0.0132 0.0027

Venus -39420-06-13 11:30 J -12676568.23 -12676568.02 -12676567.81 0.0132 0.0035

Venus -39419-01-25 15:50 J -12676342.04 -12676341.84 -12676341.63 0.0132 0.0044

Venus -39419-09-08 20:23 J -12676115.84 -12676115.65 -12676115.44 0.0133 0.0053

Venus -39418-04-23 00:57 J -12675889.65 -12675889.46 -12675889.27 0.0133 0.0061

Mars -39418-08-14 01:54 J -12675776.62 -12675776.42 -12675776.22 0.0133 0.0104

Venus -39418-12-05 05:16 J -12675663.46 -12675663.28 -12675663.09 0.0133 0.0069

Venus -39417-07-18 09:50 J -12675437.27 -12675437.09 -12675436.92 0.0133 0.0077

Venus -39416-03-01 14:09 J -12675211.07 -12675210.91 -12675210.74 0.0133 0.0085

Venus -39416-10-13 18:42 J -12674984.87 -12674984.72 -12674984.56 0.0133 0.0094

Venus -39415-05-27 23:02 J -12674758.67 -12674758.54 -12674758.39 0.0133 0.0102

Venus -39414-01-09 03:35 J -12674532.46 -12674532.35 -12674532.22 0.0134 0.0109

Venus -39414-08-23 07:54 J -12674306.25 -12674306.17 -12674306.05 0.0134 0.0117
 Venus -39413-04-05 12:42 J -12674080.04 -12674079.97 -12674079.88 0.0134 0.0124
 Venus -39413-11-17 17:16 J -12673853.81 -12673853.78 -12673853.72 0.0134 0.0132
 Venus -39389-06-04 00:14 J -12665254.54 -12665254.49 -12665254.42 0.0146 0.0139
 Venus -39388-01-16 11:16 J -12665028.12 -12665028.03 -12665027.93 0.0146 0.0130
 Mercury -39388-06-23 22:33 J -12664869.62 -12664869.56 -12664869.49 0.0146 0.0132
 Venus -39388-08-30 22:04 J -12664801.68 -12664801.58 -12664801.45 0.0146 0.0121
 Mercury -39388-09-20 04:04 J -12664781.43 -12664781.33 -12664781.21 0.0146 0.0105
 Mercury -39388-12-17 09:50 J -12664693.22 -12664693.09 -12664692.95 0.0146 0.0078
 Mercury -39387-03-15 15:35 J -12664604.99 -12664604.85 -12664604.70 0.0146 0.0050
 Earth -39387-04-06 14:23 J -12664583.07 -12664582.90 -12664582.71 0.0146 0.0102
 Moon -39387-04-06 17:45 J -12664582.92 -12664582.76 -12664582.58 0.0146 0.0108 *
 Venus -39387-04-14 09:21 J -12664575.23 -12664575.11 -12664574.96 0.0146 0.0111
 Mercury -39387-06-11 21:21 J -12664516.76 -12664516.61 -12664516.45 0.0146 0.0023
 Mercury -39387-09-08 03:21 J -12664428.52 -12664428.36 -12664428.20 0.0146 0.0006
 Venus -39387-11-26 20:38 J -12664348.78 -12664348.64 -12664348.47 0.0146 0.0102
 Mercury -39387-12-05 09:06 J -12664340.27 -12664340.12 -12664339.96 0.0146 0.0034
 Mercury -39386-03-03 14:52 J -12664252.02 -12664251.88 -12664251.72 0.0146 0.0063
 Moon -39386-04-11 14:38 J -12664213.13 -12664212.89 -12664212.64 0.0146 0.0047
 Earth -39386-04-11 17:45 J -12664213.00 -12664212.76 -12664212.51 0.0146 0.0039 *
 Mercury -39386-05-30 21:06 J -12664163.75 -12664163.62 -12664163.49 0.0146 0.0092
 Venus -39386-07-11 08:23 J -12664122.30 -12664122.15 -12664121.97 0.0146 0.0091
 Mercury -39386-08-27 02:52 J -12664075.46 -12664075.38 -12664075.28 0.0146 0.0121
 Venus -39385-02-22 20:23 J -12663895.82 -12663895.65 -12663895.46 0.0146 0.0080
 Venus -39385-10-06 08:23 J -12663669.33 -12663669.15 -12663668.95 0.0147 0.0069
 Venus -39384-05-20 20:23 J -12663442.83 -12663442.65 -12663442.44 0.0147 0.0058
 Venus -39383-01-02 08:52 J -12663216.33 -12663216.13 -12663215.92 0.0147 0.0046
 Venus -39383-08-16 21:21 J -12662989.81 -12662989.61 -12662989.39 0.0147 0.0034
 Venus -39382-03-31 10:04 J -12662763.30 -12662763.08 -12662762.87 0.0147 0.0022
 Venus -39382-11-12 22:33 J -12662536.77 -12662536.56 -12662536.34 0.0147 0.0011

Venus	-39381-06-26 11:30 J	-12662310.24	-12662310.02	-12662309.81	0.0147	0.0003
Venus	-39380-02-08 00:28 J	-12662083.70	-12662083.48	-12662083.27	0.0147	0.0014
Venus	-39380-09-22 13:26 J	-12661857.16	-12661856.94	-12661856.73	0.0146	0.0026
Venus	-39379-05-07 02:23 J	-12661630.61	-12661630.40	-12661630.19	0.0146	0.0038
Venus	-39379-12-19 15:21 J	-12661404.07	-12661403.86	-12661403.66	0.0146	0.0049
Venus	-39378-08-03 04:18 J	-12661177.51	-12661177.32	-12661177.12	0.0146	0.0061
Venus	-39377-03-16 17:45 J	-12660950.95	-12660950.76	-12660950.57	0.0146	0.0072
Venus	-39377-10-29 06:42 J	-12660724.39	-12660724.22	-12660724.03	0.0146	0.0084
Venus	-39376-06-12 19:54 J	-12660497.82	-12660497.67	-12660497.49	0.0146	0.0095
Mars	-39376-11-22 17:16 J	-12660334.86	-12660334.78	-12660334.66	0.0145	0.0136
Venus	-39375-01-25 09:06 J	-12660271.26	-12660271.12	-12660270.95	0.0145	0.0106
Venus	-39375-09-08 22:33 J	-12660044.68	-12660044.56	-12660044.42	0.0145	0.0116
Venus	-39374-04-23 11:45 J	-12659818.10	-12659818.01	-12659817.89	0.0145	0.0126
Venus	-39374-12-06 01:26 J	-12659591.52	-12659591.44	-12659591.37	0.0145	0.0135
Venus	-39373-07-19 14:38 J	-12659364.89	-12659364.89	-12659364.89	0.0144	0.0144
Jupiter	-39371-06-21 21:50 J	-12658662.61	-12658662.59	-12658662.49	0.0144	0.0143
Venus	-39348-05-06 16:04 J	-12650307.88	-12650307.83	-12650307.75	0.0133	0.0126
Venus	-39348-12-18 22:47 J	-12650081.64	-12650081.55	-12650081.45	0.0133	0.0118
Mercury	-39347-02-02 21:50 J	-12650035.59	-12650035.59	-12650035.58	0.0133	0.0132
Mercury	-39347-05-02 02:09 J	-12649947.49	-12649947.41	-12649947.32	0.0133	0.0112
Mercury	-39347-07-29 06:28 J	-12649859.34	-12649859.23	-12649859.11	0.0133	0.0091
Venus	-39347-08-02 05:02 J	-12649855.40	-12649855.29	-12649855.15	0.0133	0.0110
Mercury	-39347-10-25 10:47 J	-12649771.17	-12649771.05	-12649770.91	0.0133	0.0071
Mercury	-39346-01-21 15:06 J	-12649683.01	-12649682.87	-12649682.72	0.0132	0.0050
Venus	-39346-03-16 11:16 J	-12649629.16	-12649629.03	-12649628.88	0.0132	0.0102
Mercury	-39346-04-19 19:26 J	-12649594.84	-12649594.69	-12649594.54	0.0132	0.0030
Mercury	-39346-07-16 23:45 J	-12649506.67	-12649506.51	-12649506.36	0.0132	0.0010
Moon	-39346-10-11 23:30 J	-12649419.77	-12649419.52	-12649419.27	0.0132	0.0025
Earth	-39346-10-12 02:52 J	-12649419.62	-12649419.38	-12649419.13	0.0132	0.0031 *
Mercury	-39346-10-13 03:50 J	-12649418.49	-12649418.34	-12649418.19	0.0132	0.0010

Venus -39346-10-28 17:16 J -12649402.92 -12649402.78 -12649402.61 0.0132 0.0094
 Mercury -39345-01-09 07:54 J -12649330.32 -12649330.17 -12649330.02 0.0132 0.0030
 Mercury -39345-04-06 11:59 J -12649242.14 -12649242.00 -12649241.86 0.0132 0.0049
 Venus -39345-06-10 23:16 J -12649176.69 -12649176.53 -12649176.35 0.0132 0.0086
 Mercury -39345-07-03 15:50 J -12649153.96 -12649153.84 -12649153.70 0.0132 0.0070
 Mercury -39345-09-29 19:54 J -12649065.77 -12649065.67 -12649065.55 0.0132 0.0088
 Earth -39345-10-15 08:23 J -12649050.35 -12649050.15 -12649049.93 0.0132 0.0073
 Moon -39345-10-15 11:30 J -12649050.22 -12649050.02 -12649049.80 0.0132 0.0071 *
 Mercury -39345-12-26 23:59 J -12648977.58 -12648977.50 -12648977.41 0.0132 0.0107
 Venus -39344-01-23 05:30 J -12648950.45 -12648950.27 -12648950.10 0.0132 0.0078
 Mercury -39344-03-25 03:50 J -12648889.37 -12648889.34 -12648889.28 0.0132 0.0127
 Venus -39344-09-06 11:02 J -12648724.22 -12648724.04 -12648723.84 0.0132 0.0069
 Venus -39343-04-20 16:33 J -12648498.00 -12648497.81 -12648497.60 0.0132 0.0061
 Venus -39343-12-02 22:04 J -12648271.77 -12648271.58 -12648271.37 0.0132 0.0052
 Venus -39342-07-17 03:35 J -12648045.55 -12648045.35 -12648045.14 0.0132 0.0043
 Venus -39341-02-28 08:38 J -12647819.34 -12647819.14 -12647818.92 0.0132 0.0035
 Venus -39341-10-11 13:54 J -12647593.13 -12647592.92 -12647592.70 0.0132 0.0026
 Venus -39340-05-25 18:57 J -12647366.92 -12647366.71 -12647366.49 0.0132 0.0017
 Venus -39339-01-06 23:59 J -12647140.72 -12647140.50 -12647140.28 0.0132 0.0008
 Venus -39339-08-21 04:47 J -12646914.51 -12646914.30 -12646914.08 0.0132 0.0003
 Venus -39338-04-04 09:35 J -12646688.32 -12646688.10 -12646687.88 0.0132 0.0009
 Venus -39338-11-16 14:09 J -12646462.12 -12646461.91 -12646461.69 0.0132 0.0018
 Venus -39337-06-29 18:42 J -12646235.93 -12646235.72 -12646235.50 0.0132 0.0026
 Venus -39336-02-10 23:16 J -12646009.73 -12646009.53 -12646009.31 0.0132 0.0035
 Venus -39336-09-25 03:50 J -12645783.54 -12645783.34 -12645783.12 0.0132 0.0044
 Venus -39335-05-09 08:23 J -12645557.34 -12645557.15 -12645556.94 0.0132 0.0052
 Venus -39335-12-21 12:42 J -12645331.15 -12645330.97 -12645330.77 0.0133 0.0060
 Venus -39334-08-04 17:16 J -12645104.96 -12645104.78 -12645104.59 0.0133 0.0069
 Venus -39333-03-17 21:35 J -12644878.76 -12644878.60 -12644878.41 0.0133 0.0077
 Mars -39333-04-08 11:45 J -12644857.33 -12644857.01 -12644856.68 0.0133 0.0013

Venus	-39333-10-30 02:09 J	-12644652.56	-12644652.41	-12644652.23	0.0133	0.0085
Venus	-39332-06-13 06:28 J	-12644426.36	-12644426.23	-12644426.06	0.0133	0.0093
Venus	-39331-01-25 11:16 J	-12644200.16	-12644200.03	-12644199.88	0.0133	0.0101
Venus	-39331-09-08 15:35 J	-12643973.95	-12643973.85	-12643973.71	0.0133	0.0109
Venus	-39330-04-22 20:23 J	-12643747.74	-12643747.65	-12643747.53	0.0134	0.0116
Venus	-39330-12-05 00:57 J	-12643521.53	-12643521.46	-12643521.37	0.0134	0.0123
Venus	-39329-07-18 05:30 J	-12643295.30	-12643295.27	-12643295.21	0.0134	0.0130
Venus	-39305-02-02 08:23 J	-12634696.20	-12634696.15	-12634696.08	0.0146	0.0140
Venus	-39305-09-15 19:11 J	-12634469.78	-12634469.70	-12634469.60	0.0146	0.0131
Venus	-39304-04-30 05:45 J	-12634243.36	-12634243.26	-12634243.12	0.0146	0.0122
Mercury	-39304-07-14 06:14 J	-12634168.32	-12634168.24	-12634168.15	0.0146	0.0123
Mercury	-39304-10-10 11:45 J	-12634080.12	-12634080.01	-12634079.88	0.0146	0.0096
Venus	-39304-12-12 17:02 J	-12634016.91	-12634016.79	-12634016.64	0.0146	0.0112
Mercury	-39303-01-06 17:30 J	-12633991.91	-12633991.77	-12633991.63	0.0146	0.0069
Mercury	-39303-04-04 23:16 J	-12633903.68	-12633903.53	-12633903.38	0.0146	0.0041
Earth	-39303-04-07 01:40 J	-12633901.61	-12633901.43	-12633901.22	0.0146	0.0094
Moon	-39303-04-07 05:16 J	-12633901.47	-12633901.28	-12633901.08	0.0146	0.0088 *
Mercury	-39303-07-02 05:02 J	-12633815.45	-12633815.29	-12633815.13	0.0146	0.0013
Venus	-39303-07-27 04:18 J	-12633790.46	-12633790.32	-12633790.15	0.0146	0.0102
Mercury	-39303-09-28 10:47 J	-12633727.21	-12633727.05	-12633726.89	0.0146	0.0015
Mercury	-39303-12-25 16:47 J	-12633638.95	-12633638.80	-12633638.65	0.0146	0.0043
Venus	-39302-03-10 16:04 J	-12633563.99	-12633563.83	-12633563.66	0.0146	0.0092
Mercury	-39302-03-23 22:33 J	-12633550.69	-12633550.56	-12633550.41	0.0146	0.0072
Moon	-39302-04-12 01:40 J	-12633531.67	-12633531.43	-12633531.18	0.0146	0.0038
Earth	-39302-04-12 05:02 J	-12633531.53	-12633531.29	-12633531.05	0.0146	0.0047 *
Mercury	-39302-06-20 04:47 J	-12633462.42	-12633462.30	-12633462.19	0.0146	0.0101
Mercury	-39302-09-16 10:18 J	-12633374.12	-12633374.07	-12633373.98	0.0146	0.0131
Venus	-39302-10-23 03:21 J	-12633337.52	-12633337.36	-12633337.16	0.0146	0.0082
Venus	-39301-06-05 15:21 J	-12633111.04	-12633110.86	-12633110.66	0.0146	0.0070
Venus	-39300-01-18 03:35 J	-12632884.54	-12632884.35	-12632884.15	0.0147	0.0059

Venus	-39300-09-01 15:35 J	-12632658.04	-12632657.85	-12632657.63	0.0147	0.0048
Venus	-39299-04-16 04:04 J	-12632431.54	-12632431.33	-12632431.12	0.0147	0.0036
Venus	-39299-11-28 16:18 J	-12632205.03	-12632204.82	-12632204.60	0.0147	0.0024
Venus	-39298-07-13 05:02 J	-12631978.51	-12631978.29	-12631978.08	0.0147	0.0012
Venus	-39297-02-24 17:45 J	-12631751.98	-12631751.76	-12631751.54	0.0147	0.0000
Venus	-39297-10-08 06:28 J	-12631525.45	-12631525.23	-12631525.01	0.0147	0.0012
Venus	-39296-05-22 19:11 J	-12631298.91	-12631298.70	-12631298.48	0.0146	0.0024
Venus	-39295-01-04 07:54 J	-12631072.37	-12631072.17	-12631071.95	0.0146	0.0036
Venus	-39295-08-18 20:52 J	-12630845.83	-12630845.63	-12630845.41	0.0146	0.0047
Venus	-39294-04-02 10:18 J	-12630619.27	-12630619.07	-12630618.87	0.0146	0.0058
Venus	-39294-11-14 23:02 J	-12630392.72	-12630392.54	-12630392.34	0.0146	0.0070
Venus	-39293-06-28 12:14 J	-12630166.16	-12630165.99	-12630165.80	0.0146	0.0081
Mars	-39293-08-15 15:50 J	-12630118.10	-12630117.84	-12630117.56	0.0146	0.0052
Venus	-39292-02-10 01:40 J	-12629939.60	-12629939.43	-12629939.26	0.0146	0.0092
Venus	-39292-09-24 14:52 J	-12629713.03	-12629712.88	-12629712.72	0.0145	0.0103
Venus	-39291-05-09 03:50 J	-12629486.46	-12629486.34	-12629486.19	0.0145	0.0114
Venus	-39291-12-21 17:16 J	-12629259.89	-12629259.78	-12629259.66	0.0145	0.0123
Venus	-39290-08-05 06:28 J	-12629033.30	-12629033.23	-12629033.13	0.0145	0.0133
Venus	-39289-03-18 19:40 J	-12628806.70	-12628806.68	-12628806.63	0.0144	0.0143
Venus	-39264-01-04 01:40 J	-12619749.49	-12619749.43	-12619749.35	0.0133	0.0126
Venus	-39264-08-18 08:09 J	-12619523.24	-12619523.16	-12619523.04	0.0133	0.0119
Mercury	-39263-02-23 05:02 J	-12619334.33	-12619334.29	-12619334.24	0.0133	0.0126
Venus	-39263-04-01 14:52 J	-12619296.99	-12619296.88	-12619296.75	0.0133	0.0111
Mercury	-39263-05-22 09:21 J	-12619246.19	-12619246.11	-12619246.01	0.0133	0.0105
Mercury	-39263-08-18 13:40 J	-12619158.04	-12619157.93	-12619157.80	0.0133	0.0085
Earth	-39263-10-08 07:40 J	-12619107.22	-12619107.18	-12619107.10	0.0133	0.0129
Moon	-39263-10-08 11:30 J	-12619107.11	-12619107.02	-12619106.92	0.0133	0.0122 *
Venus	-39263-11-13 21:06 J	-12619070.74	-12619070.62	-12619070.47	0.0133	0.0103
Mercury	-39263-11-14 18:14 J	-12619069.87	-12619069.74	-12619069.60	0.0133	0.0064
Mercury	-39262-02-10 22:33 J	-12618981.71	-12618981.56	-12618981.41	0.0133	0.0043

Mercury -39262-05-10 02:38 J -12618893.54 -12618893.39 -12618893.23 0.0132 0.0024

Venus -39262-06-28 03:35 J -12618844.50 -12618844.35 -12618844.19 0.0132 0.0095

Mercury -39262-08-06 06:57 J -12618805.36 -12618805.21 -12618805.05 0.0132 0.0003

Moon -39262-10-12 10:33 J -12618738.30 -12618738.06 -12618737.80 0.0132 0.0030

Earth -39262-10-12 14:09 J -12618738.15 -12618737.91 -12618737.65 0.0132 0.0025 *

Mercury -39262-11-02 11:02 J -12618717.19 -12618717.04 -12618716.88 0.0132 0.0017

Mercury -39261-01-29 15:21 J -12618629.01 -12618628.86 -12618628.72 0.0132 0.0037

Venus -39261-02-09 09:35 J -12618618.26 -12618618.10 -12618617.92 0.0132 0.0087

Mercury -39261-04-26 19:11 J -12618540.83 -12618540.70 -12618540.55 0.0132 0.0057

Mercury -39261-07-23 23:30 J -12618452.64 -12618452.52 -12618452.40 0.0132 0.0075

Venus -39261-09-22 15:21 J -12618392.02 -12618391.86 -12618391.66 0.0132 0.0079

Earth -39261-10-15 19:40 J -12618368.87 -12618368.68 -12618368.46 0.0132 0.0080

Moon -39261-10-15 23:30 J -12618368.71 -12618368.52 -12618368.32 0.0132 0.0083 *

Mercury -39261-10-20 03:35 J -12618364.46 -12618364.35 -12618364.25 0.0132 0.0095

Mercury -39260-01-16 07:11 J -12618276.26 -12618276.20 -12618276.11 0.0132 0.0114

Venus -39260-05-06 21:35 J -12618165.79 -12618165.60 -12618165.41 0.0132 0.0070

Venus -39260-12-19 03:06 J -12617939.56 -12617939.37 -12617939.17 0.0132 0.0061

Venus -39259-08-02 08:38 J -12617713.33 -12617713.14 -12617712.92 0.0132 0.0053

Venus -39258-03-16 14:09 J -12617487.11 -12617486.91 -12617486.69 0.0132 0.0044

Venus -39258-10-28 19:40 J -12617260.89 -12617260.68 -12617260.47 0.0132 0.0035

Venus -39257-06-11 00:42 J -12617034.68 -12617034.47 -12617034.25 0.0132 0.0027

Venus -39256-01-23 05:45 J -12616808.47 -12616808.26 -12616808.04 0.0132 0.0018

Venus -39256-09-06 11:02 J -12616582.26 -12616582.04 -12616581.82 0.0132 0.0009

Venus -39255-04-20 15:50 J -12616356.06 -12616355.84 -12616355.62 0.0132 0.0001

Venus -39255-12-02 20:38 J -12616129.86 -12616129.64 -12616129.42 0.0132 0.0008

Venus -39254-07-17 01:11 J -12615903.66 -12615903.45 -12615903.23 0.0132 0.0018

Venus -39253-02-28 05:59 J -12615677.46 -12615677.25 -12615677.03 0.0132 0.0026

Venus -39253-10-11 10:33 J -12615451.26 -12615451.06 -12615450.84 0.0132 0.0035

Venus -39252-05-25 15:21 J -12615225.07 -12615224.86 -12615224.65 0.0132 0.0042

Venus -39251-01-06 19:54 J -12614998.87 -12614998.67 -12614998.47 0.0132 0.0051

Venus	-39251-08-21 00:14 J	-12614772.67	-12614772.49	-12614772.29	0.0133	0.0060
Venus	-39250-04-04 04:47 J	-12614546.48	-12614546.30	-12614546.10	0.0133	0.0068
Venus	-39250-11-16 09:21 J	-12614320.28	-12614320.11	-12614319.93	0.0133	0.0076
Venus	-39249-06-29 13:40 J	-12614094.08	-12614093.93	-12614093.75	0.0133	0.0084
Mars	-39249-12-02 19:26 J	-12613937.93	-12613937.69	-12613937.41	0.0133	0.0079
Venus	-39248-02-10 18:14 J	-12613867.88	-12613867.74	-12613867.57	0.0133	0.0092
Venus	-39248-09-24 23:02 J	-12613641.67	-12613641.54	-12613641.39	0.0133	0.0100
Venus	-39247-05-09 03:21 J	-12613415.47	-12613415.36	-12613415.22	0.0133	0.0108
Venus	-39247-12-21 07:54 J	-12613189.26	-12613189.17	-12613189.05	0.0134	0.0115
Venus	-39246-08-04 12:42 J	-12612963.05	-12612962.97	-12612962.88	0.0134	0.0122
Venus	-39245-03-17 17:16 J	-12612736.82	-12612736.78	-12612736.71	0.0134	0.0129
Venus	-39222-10-02 16:33 J	-12604137.85	-12604137.81	-12604137.74	0.0145	0.0140
Venus	-39221-05-16 03:06 J	-12603911.44	-12603911.37	-12603911.27	0.0146	0.0132
Venus	-39221-12-28 13:54 J	-12603685.02	-12603684.92	-12603684.79	0.0146	0.0123
Mercury	-39220-05-07 08:09 J	-12603555.18	-12603555.16	-12603555.11	0.0146	0.0141
Mercury	-39220-08-03 13:54 J	-12603467.01	-12603466.92	-12603466.82	0.0146	0.0114
Venus	-39220-08-12 00:57 J	-12603458.58	-12603458.46	-12603458.31	0.0146	0.0113
Mercury	-39220-10-30 19:26 J	-12603378.81	-12603378.69	-12603378.56	0.0146	0.0087
Mercury	-39219-01-27 01:11 J	-12603290.59	-12603290.45	-12603290.30	0.0146	0.0060
Venus	-39219-03-26 12:14 J	-12603232.13	-12603231.99	-12603231.83	0.0146	0.0103
Earth	-39219-04-07 13:40 J	-12603220.13	-12603219.93	-12603219.72	0.0146	0.0086
Moon	-39219-04-07 17:30 J	-12603219.96	-12603219.77	-12603219.57	0.0146	0.0093 *
Mercury	-39219-04-25 06:57 J	-12603202.36	-12603202.21	-12603202.05	0.0146	0.0032
Mercury	-39219-07-22 12:42 J	-12603114.13	-12603113.97	-12603113.81	0.0146	0.0004
Mercury	-39219-10-18 18:28 J	-12603025.88	-12603025.73	-12603025.57	0.0146	0.0024
Venus	-39219-11-07 23:30 J	-12603005.67	-12603005.52	-12603005.35	0.0146	0.0093
Mercury	-39218-01-15 00:28 J	-12602937.63	-12602937.48	-12602937.33	0.0146	0.0052
Moon	-39218-04-12 13:11 J	-12602850.17	-12602849.95	-12602849.71	0.0146	0.0061
Earth	-39218-04-12 16:33 J	-12602850.03	-12602849.81	-12602849.56	0.0146	0.0054 *
Mercury	-39218-04-13 06:14 J	-12602849.37	-12602849.24	-12602849.10	0.0146	0.0081

Venus -39218-06-22 11:02 J -12602779.21 -12602779.04 -12602778.85 0.0146 0.0082
 Mercury -39218-07-10 12:14 J -12602761.09 -12602760.99 -12602760.88 0.0146 0.0110
 Mercury -39218-10-06 18:14 J -12602672.78 -12602672.74 -12602672.68 0.0146 0.0139
 Venus -39217-02-03 23:02 J -12602552.72 -12602552.54 -12602552.35 0.0146 0.0071
 Venus -39217-09-17 10:47 J -12602326.24 -12602326.05 -12602325.85 0.0146 0.0061
 Venus -39216-05-01 22:47 J -12602099.75 -12602099.55 -12602099.34 0.0147 0.0049
 Venus -39216-12-14 11:02 J -12601873.25 -12601873.04 -12601872.83 0.0147 0.0038
 Venus -39215-07-28 23:16 J -12601646.74 -12601646.53 -12601646.32 0.0147 0.0026
 Venus -39214-03-12 11:45 J -12601420.22 -12601420.01 -12601419.79 0.0147 0.0014
 Venus -39214-10-25 00:14 J -12601193.70 -12601193.49 -12601193.27 0.0147 0.0004
 Venus -39213-06-07 12:57 J -12600967.18 -12600966.96 -12600966.74 0.0147 0.0009
 Venus -39212-01-20 01:40 J -12600740.64 -12600740.43 -12600740.21 0.0147 0.0021
 Venus -39212-09-03 14:23 J -12600514.11 -12600513.90 -12600513.68 0.0146 0.0033
 Venus -39211-04-18 03:21 J -12600287.56 -12600287.36 -12600287.15 0.0146 0.0045
 Venus -39211-11-30 16:18 J -12600061.02 -12600060.82 -12600060.61 0.0146 0.0056
 Venus -39210-07-15 05:30 J -12599834.47 -12599834.27 -12599834.08 0.0146 0.0068
 Venus -39209-02-26 18:28 J -12599607.90 -12599607.73 -12599607.53 0.0146 0.0079
 Venus -39209-10-10 07:40 J -12599381.34 -12599381.18 -12599381.00 0.0146 0.0090
 Mars -39208-04-10 22:18 J -12599198.83 -12599198.57 -12599198.29 0.0146 0.0052
 Venus -39208-05-24 20:52 J -12599154.77 -12599154.63 -12599154.46 0.0146 0.0101
 Venus -39207-01-06 10:04 J -12598928.21 -12598928.08 -12598927.93 0.0145 0.0111
 Venus -39207-08-20 23:16 J -12598701.63 -12598701.53 -12598701.39 0.0145 0.0121
 Venus -39206-04-04 12:42 J -12598475.05 -12598474.97 -12598474.86 0.0145 0.0131
 Venus -39206-11-17 02:23 J -12598248.45 -12598248.40 -12598248.35 0.0145 0.0140
 Venus -39181-09-03 11:45 J -12589191.07 -12589191.01 -12589190.93 0.0133 0.0126
 Venus -39180-04-17 18:14 J -12588964.82 -12588964.74 -12588964.62 0.0133 0.0119
 Venus -39180-11-30 00:57 J -12588738.57 -12588738.46 -12588738.33 0.0133 0.0111
 Mercury -39179-03-15 12:14 J -12588633.04 -12588632.99 -12588632.90 0.0133 0.0119
 Mercury -39179-06-11 16:47 J -12588544.89 -12588544.80 -12588544.69 0.0133 0.0098
 Venus -39179-07-14 07:40 J -12588512.31 -12588512.18 -12588512.04 0.0133 0.0103

Mercury -39179-09-07 21:21 J -12588456.73 -12588456.61 -12588456.48 0.0133 0.0077

Earth -39179-10-08 19:54 J -12588425.77 -12588425.67 -12588425.56 0.0133 0.0121

Moon -39179-10-08 23:30 J -12588425.57 -12588425.52 -12588425.45 0.0133 0.0128 *

Mercury -39179-12-05 01:40 J -12588368.57 -12588368.43 -12588368.29 0.0133 0.0056

Venus -39178-02-25 14:09 J -12588286.06 -12588285.91 -12588285.76 0.0133 0.0095

Mercury -39178-03-03 05:45 J -12588280.40 -12588280.26 -12588280.10 0.0133 0.0037

Mercury -39178-05-30 10:04 J -12588192.23 -12588192.08 -12588191.92 0.0132 0.0017

Mercury -39178-08-26 14:23 J -12588104.05 -12588103.90 -12588103.74 0.0132 0.0005

Venus -39178-10-09 20:09 J -12588059.82 -12588059.66 -12588059.49 0.0132 0.0087

Moon -39178-10-12 22:47 J -12588056.80 -12588056.55 -12588056.30 0.0132 0.0011

Earth -39178-10-13 02:09 J -12588056.65 -12588056.41 -12588056.15 0.0132 0.0018 *

Mercury -39178-11-22 18:28 J -12588015.87 -12588015.73 -12588015.57 0.0132 0.0025

Mercury -39177-02-18 22:47 J -12587927.70 -12587927.55 -12587927.41 0.0132 0.0044

Mercury -39177-05-17 02:38 J -12587839.51 -12587839.39 -12587839.25 0.0132 0.0064

Venus -39177-05-23 02:09 J -12587833.58 -12587833.41 -12587833.23 0.0132 0.0078

Mercury -39177-08-13 06:57 J -12587751.33 -12587751.21 -12587751.09 0.0132 0.0083

Earth -39177-10-16 07:54 J -12587687.35 -12587687.17 -12587686.97 0.0132 0.0087

Moon -39177-10-16 11:30 J -12587687.21 -12587687.02 -12587686.82 0.0132 0.0085 *

Mercury -39177-11-09 10:47 J -12587663.14 -12587663.05 -12587662.95 0.0132 0.0102

Venus -39176-01-04 07:54 J -12587607.35 -12587607.17 -12587606.97 0.0132 0.0070

Mercury -39176-02-05 14:38 J -12587574.93 -12587574.89 -12587574.82 0.0132 0.0122

Venus -39176-08-18 14:09 J -12587381.11 -12587380.91 -12587380.72 0.0132 0.0062

Venus -39175-04-01 19:26 J -12587154.88 -12587154.69 -12587154.48 0.0132 0.0053

Venus -39175-11-14 01:11 J -12586928.66 -12586928.45 -12586928.25 0.0132 0.0044

Venus -39174-06-28 06:14 J -12586702.44 -12586702.24 -12586702.02 0.0132 0.0036

Venus -39173-02-09 11:45 J -12586476.23 -12586476.01 -12586475.80 0.0132 0.0027

Venus -39173-09-22 17:02 J -12586250.01 -12586249.79 -12586249.58 0.0132 0.0018

Venus -39172-05-06 21:50 J -12586023.80 -12586023.59 -12586023.37 0.0132 0.0010

Venus -39172-12-19 02:52 J -12585797.60 -12585797.38 -12585797.16 0.0132 0.0001

Venus -39171-08-02 07:40 J -12585571.39 -12585571.18 -12585570.96 0.0132 0.0008

Venus	-39170-03-16 12:28 J	-12585345.19	-12585344.98	-12585344.76	0.0132	0.0016
Venus	-39170-10-28 17:16 J	-12585118.99	-12585118.78	-12585118.57	0.0132	0.0025
Venus	-39169-06-10 21:50 J	-12584892.80	-12584892.59	-12584892.38	0.0132	0.0033
Venus	-39168-01-23 02:38 J	-12584666.60	-12584666.39	-12584666.19	0.0132	0.0042
Venus	-39168-09-06 06:57 J	-12584440.40	-12584440.21	-12584439.99	0.0132	0.0051
Venus	-39167-04-20 11:45 J	-12584214.20	-12584214.01	-12584213.81	0.0132	0.0058
Venus	-39167-12-02 16:04 J	-12583988.00	-12583987.83	-12583987.63	0.0133	0.0067
Venus	-39166-07-16 20:38 J	-12583761.81	-12583761.64	-12583761.45	0.0133	0.0075
Mars	-39166-08-26 03:06 J	-12583721.63	-12583721.37	-12583721.10	0.0133	0.0078
Venus	-39165-02-28 01:11 J	-12583535.60	-12583535.45	-12583535.27	0.0133	0.0083
Venus	-39165-10-11 05:59 J	-12583309.40	-12583309.25	-12583309.08	0.0133	0.0091
Venus	-39164-05-25 10:47 J	-12583083.19	-12583083.05	-12583082.91	0.0133	0.0098
Venus	-39163-01-06 14:52 J	-12582856.99	-12582856.88	-12582856.73	0.0133	0.0107
Venus	-39163-08-20 19:40 J	-12582630.78	-12582630.68	-12582630.56	0.0134	0.0114
Venus	-39162-04-04 00:14 J	-12582404.57	-12582404.49	-12582404.39	0.0134	0.0121
Venus	-39162-11-16 05:02 J	-12582178.34	-12582178.29	-12582178.22	0.0134	0.0128
Venus	-39138-06-02 00:42 J	-12573579.49	-12573579.47	-12573579.40	0.0145	0.0142
Venus	-39137-01-14 11:30 J	-12573353.09	-12573353.02	-12573352.92	0.0145	0.0133
Venus	-39137-08-27 22:04 J	-12573126.67	-12573126.58	-12573126.45	0.0146	0.0124
Venus	-39136-04-11 09:06 J	-12572900.24	-12572900.12	-12572899.98	0.0146	0.0114
Mercury	-39136-05-27 15:50 J	-12572853.89	-12572853.84	-12572853.76	0.0146	0.0132
Mercury	-39136-08-23 21:35 J	-12572765.70	-12572765.60	-12572765.49	0.0146	0.0105
Mercury	-39136-11-20 03:06 J	-12572677.50	-12572677.37	-12572677.23	0.0146	0.0078
Venus	-39136-11-23 20:09 J	-12572673.81	-12572673.66	-12572673.51	0.0146	0.0104
Mercury	-39135-02-16 08:52 J	-12572589.28	-12572589.13	-12572588.98	0.0146	0.0051
Earth	-39135-04-08 00:57 J	-12572538.66	-12572538.46	-12572538.23	0.0146	0.0079
Moon	-39135-04-08 04:33 J	-12572538.52	-12572538.31	-12572538.08	0.0146	0.0073 *
Mercury	-39135-05-15 14:38 J	-12572501.05	-12572500.89	-12572500.73	0.0146	0.0023
Venus	-39135-07-08 07:11 J	-12572447.35	-12572447.20	-12572447.03	0.0146	0.0094
Mercury	-39135-08-11 20:23 J	-12572412.81	-12572412.65	-12572412.49	0.0146	0.0005

Mercury -39135-11-08 02:09 J -12572324.57 -12572324.41 -12572324.25 0.0146 0.0033

Mercury -39134-02-04 08:09 J -12572236.31 -12572236.16 -12572236.02 0.0146 0.0062

Venus -39134-02-19 18:28 J -12572220.89 -12572220.73 -12572220.54 0.0146 0.0084

Moon -39134-04-13 00:14 J -12572168.72 -12572168.49 -12572168.25 0.0146 0.0053

Earth -39134-04-13 04:04 J -12572168.56 -12572168.33 -12572168.10 0.0146 0.0062 *

Mercury -39134-05-03 13:54 J -12572148.04 -12572147.92 -12572147.79 0.0146 0.0090

Mercury -39134-07-30 19:40 J -12572059.76 -12572059.68 -12572059.58 0.0146 0.0119

Venus -39134-10-04 06:14 J -12571994.42 -12571994.24 -12571994.05 0.0146 0.0073

Venus -39133-05-17 17:45 J -12571767.94 -12571767.76 -12571767.55 0.0146 0.0063

Venus -39133-12-30 05:59 J -12571541.45 -12571541.25 -12571541.05 0.0146 0.0051

Venus -39132-08-13 17:45 J -12571314.96 -12571314.76 -12571314.55 0.0147 0.0040

Venus -39131-03-28 05:59 J -12571088.46 -12571088.25 -12571088.04 0.0147 0.0028

Venus -39131-11-09 18:14 J -12570861.95 -12570861.74 -12570861.52 0.0147 0.0016

Venus -39130-06-24 06:28 J -12570635.44 -12570635.23 -12570635.01 0.0147 0.0006

Venus -39129-02-05 19:11 J -12570408.91 -12570408.70 -12570408.48 0.0147 0.0007

Venus -39129-09-19 07:54 J -12570182.39 -12570182.17 -12570181.96 0.0146 0.0019

Venus -39128-05-03 20:23 J -12569955.86 -12569955.65 -12569955.43 0.0146 0.0031

Venus -39128-12-16 09:06 J -12569729.32 -12569729.12 -12569728.91 0.0146 0.0042

Venus -39127-07-30 22:04 J -12569502.78 -12569502.58 -12569502.37 0.0146 0.0053

Venus -39126-03-14 11:02 J -12569276.22 -12569276.04 -12569275.83 0.0146 0.0065

Venus -39126-10-27 00:14 J -12569049.67 -12569049.49 -12569049.30 0.0146 0.0076

Mars -39125-01-02 22:18 J -12568981.67 -12568981.57 -12568981.44 0.0146 0.0134

Venus -39125-06-09 13:26 J -12568823.11 -12568822.94 -12568822.76 0.0146 0.0087

Venus -39124-01-22 02:23 J -12568596.55 -12568596.40 -12568596.23 0.0146 0.0098

Venus -39124-09-05 15:35 J -12568369.98 -12568369.85 -12568369.69 0.0145 0.0108

Venus -39123-04-20 05:02 J -12568143.41 -12568143.29 -12568143.16 0.0145 0.0118

Venus -39123-12-02 18:14 J -12567916.83 -12567916.74 -12567916.63 0.0145 0.0128

Venus -39122-07-17 07:11 J -12567690.25 -12567690.20 -12567690.12 0.0145 0.0138

Venus -39097-05-03 20:23 J -12558632.70 -12558632.65 -12558632.57 0.0133 0.0127

Venus -39097-12-16 03:35 J -12558406.44 -12558406.35 -12558406.25 0.0133 0.0119

Venus -39096-07-30 10:04 J -12558180.18 -12558180.08 -12558179.94 0.0133 0.0112
 Venus -39095-03-13 16:47 J -12557953.92 -12557953.80 -12557953.65 0.0133 0.0104
 Mercury -39095-04-04 19:40 J -12557931.76 -12557931.68 -12557931.59 0.0133 0.0112
 Mercury -39095-07-01 23:59 J -12557843.60 -12557843.50 -12557843.38 0.0133 0.0092
 Mercury -39095-09-28 04:33 J -12557755.44 -12557755.31 -12557755.18 0.0133 0.0071
 Earth -39095-10-09 05:59 J -12557744.35 -12557744.25 -12557744.10 0.0133 0.0116
 Moon -39095-10-09 09:35 J -12557744.23 -12557744.10 -12557743.93 0.0133 0.0109 *
 Venus -39095-10-25 23:16 J -12557727.67 -12557727.53 -12557727.37 0.0133 0.0096
 Mercury -39095-12-25 08:38 J -12557667.27 -12557667.14 -12557666.99 0.0133 0.0051
 Mercury -39094-03-23 13:11 J -12557579.10 -12557578.95 -12557578.80 0.0133 0.0030
 Venus -39094-06-09 05:30 J -12557501.42 -12557501.27 -12557501.09 0.0133 0.0088
 Mercury -39094-06-19 17:16 J -12557490.93 -12557490.78 -12557490.62 0.0132 0.0011
 Mercury -39094-09-15 21:35 J -12557402.75 -12557402.60 -12557402.45 0.0132 0.0010
 Moon -39094-10-13 09:21 J -12557375.36 -12557375.11 -12557374.86 0.0132 0.0016
 Earth -39094-10-13 12:57 J -12557375.21 -12557374.96 -12557374.70 0.0132 0.0011 *
 Mercury -39094-12-13 01:40 J -12557314.57 -12557314.43 -12557314.28 0.0132 0.0030
 Venus -39093-01-21 11:45 J -12557275.18 -12557275.01 -12557274.82 0.0132 0.0079
 Mercury -39093-03-10 05:59 J -12557226.39 -12557226.25 -12557226.11 0.0132 0.0050
 Mercury -39093-06-06 09:50 J -12557138.21 -12557138.09 -12557137.95 0.0132 0.0070
 Mercury -39093-09-02 14:09 J -12557050.02 -12557049.91 -12557049.80 0.0132 0.0089
 Venus -39093-09-03 17:59 J -12557048.93 -12557048.75 -12557048.56 0.0132 0.0071
 Earth -39093-10-16 18:28 J -12557005.90 -12557005.73 -12557005.54 0.0132 0.0092
 Moon -39093-10-16 22:04 J -12557005.74 -12557005.58 -12557005.39 0.0132 0.0096 *
 Mercury -39093-11-29 17:59 J -12556961.83 -12556961.75 -12556961.66 0.0132 0.0108
 Mercury -39092-02-25 21:50 J -12556873.61 -12556873.59 -12556873.54 0.0132 0.0128
 Venus -39092-04-17 23:45 J -12556822.70 -12556822.51 -12556822.31 0.0132 0.0062
 Venus -39092-11-30 05:16 J -12556596.47 -12556596.28 -12556596.07 0.0132 0.0054
 Venus -39091-07-14 11:02 J -12556370.24 -12556370.04 -12556369.83 0.0132 0.0045
 Venus -39090-02-25 16:18 J -12556144.02 -12556143.82 -12556143.60 0.0132 0.0037
 Venus -39090-10-09 21:50 J -12555917.80 -12555917.59 -12555917.37 0.0132 0.0028

Venus	-39089-05-23 03:06 J	-12555691.59	-12555691.37	-12555691.15	0.0132	0.0019
Venus	-39088-01-04 08:09 J	-12555465.38	-12555465.16	-12555464.94	0.0132	0.0011
Venus	-39088-08-18 13:11 J	-12555239.17	-12555238.95	-12555238.73	0.0132	0.0003
Venus	-39087-04-01 18:14 J	-12555012.96	-12555012.74	-12555012.52	0.0132	0.0006
Venus	-39087-11-13 23:02 J	-12554786.76	-12554786.54	-12554786.32	0.0132	0.0015
Venus	-39086-06-28 03:50 J	-12554560.56	-12554560.34	-12554560.13	0.0132	0.0023
Venus	-39085-02-09 08:23 J	-12554334.35	-12554334.15	-12554333.93	0.0132	0.0032
Venus	-39085-09-22 13:11 J	-12554108.15	-12554107.95	-12554107.73	0.0132	0.0041
Venus	-39084-05-06 17:59 J	-12553881.95	-12553881.75	-12553881.55	0.0132	0.0049
Venus	-39084-12-18 22:18 J	-12553655.75	-12553655.57	-12553655.36	0.0132	0.0058
Venus	-39083-08-02 03:06 J	-12553429.55	-12553429.37	-12553429.17	0.0133	0.0065
Venus	-39082-03-16 07:40 J	-12553203.35	-12553203.18	-12553202.99	0.0133	0.0074
Venus	-39082-10-28 12:14 J	-12552977.15	-12552976.99	-12552976.81	0.0133	0.0082
Mars	-39081-04-20 09:50 J	-12552802.41	-12552802.09	-12552801.76	0.0133	0.0012
Venus	-39081-06-10 16:47 J	-12552750.94	-12552750.80	-12552750.63	0.0133	0.0090
Venus	-39080-01-22 21:35 J	-12552524.74	-12552524.60	-12552524.45	0.0133	0.0097
Venus	-39080-09-06 01:54 J	-12552298.53	-12552298.42	-12552298.27	0.0133	0.0106
Venus	-39079-04-20 06:42 J	-12552072.32	-12552072.22	-12552072.10	0.0133	0.0112
Venus	-39079-12-02 11:02 J	-12551846.11	-12551846.04	-12551845.93	0.0134	0.0120
Venus	-39078-07-16 15:35 J	-12551619.90	-12551619.85	-12551619.76	0.0134	0.0127
Venus	-39077-02-27 20:38 J	-12551393.65	-12551393.64	-12551393.62	0.0134	0.0134
Venus	-39054-01-30 08:52 J	-12543021.15	-12543021.13	-12543021.07	0.0145	0.0142
Venus	-39054-09-13 19:11 J	-12542794.77	-12542794.70	-12542794.60	0.0145	0.0134
Venus	-39053-04-27 05:45 J	-12542568.35	-12542568.26	-12542568.14	0.0145	0.0125
Venus	-39053-12-09 16:47 J	-12542341.93	-12542341.80	-12542341.67	0.0146	0.0115
Mercury	-39052-06-16 23:16 J	-12542152.60	-12542152.53	-12542152.44	0.0146	0.0124
Venus	-39052-07-24 03:21 J	-12542115.49	-12542115.36	-12542115.20	0.0146	0.0106
Mercury	-39052-09-13 05:02 J	-12542064.40	-12542064.29	-12542064.17	0.0146	0.0097
Mercury	-39052-12-10 10:33 J	-12541976.19	-12541976.06	-12541975.92	0.0146	0.0070
Venus	-39051-03-07 14:23 J	-12541889.05	-12541888.90	-12541888.73	0.0146	0.0096

Mercury -39051-03-08 16:18 J -12541887.97 -12541887.82 -12541887.67 0.0146 0.0042

Earth -39051-04-08 11:45 J -12541857.22 -12541857.01 -12541856.78 0.0146 0.0072

Moon -39051-04-08 15:21 J -12541857.06 -12541856.86 -12541856.63 0.0146 0.0078 *

Mercury -39051-06-04 22:04 J -12541799.74 -12541799.58 -12541799.42 0.0146 0.0015

Mercury -39051-09-01 03:50 J -12541711.50 -12541711.34 -12541711.18 0.0146 0.0013

Venus -39051-10-20 01:40 J -12541662.59 -12541662.43 -12541662.25 0.0146 0.0085

Mercury -39051-11-28 09:35 J -12541623.25 -12541623.10 -12541622.95 0.0146 0.0041

Mercury -39050-02-24 15:21 J -12541535.00 -12541534.86 -12541534.71 0.0146 0.0070

Moon -39050-04-13 10:47 J -12541487.25 -12541487.05 -12541486.82 0.0146 0.0076

Earth -39050-04-13 14:23 J -12541487.11 -12541486.90 -12541486.66 0.0146 0.0068 *

Mercury -39050-05-23 21:21 J -12541446.73 -12541446.61 -12541446.49 0.0146 0.0098

Venus -39050-06-03 13:11 J -12541436.13 -12541435.95 -12541435.76 0.0146 0.0075

Mercury -39050-08-20 03:06 J -12541358.44 -12541358.37 -12541358.28 0.0146 0.0128

Venus -39049-01-16 00:57 J -12541209.65 -12541209.46 -12541209.27 0.0146 0.0064

Venus -39049-08-29 12:42 J -12540983.17 -12540982.97 -12540982.77 0.0146 0.0053

Venus -39048-04-13 00:28 J -12540756.68 -12540756.48 -12540756.27 0.0146 0.0041

Venus -39048-11-25 12:28 J -12540530.19 -12540529.98 -12540529.77 0.0147 0.0030

Venus -39047-07-10 00:28 J -12540303.69 -12540303.48 -12540303.26 0.0147 0.0019

Venus -39046-02-21 12:57 J -12540077.17 -12540076.96 -12540076.74 0.0147 0.0008

Venus -39046-10-06 01:26 J -12539850.65 -12539850.44 -12539850.22 0.0147 0.0005

Venus -39045-05-19 13:54 J -12539624.13 -12539623.92 -12539623.70 0.0146 0.0016

Venus -39044-01-01 02:23 J -12539397.61 -12539397.40 -12539397.18 0.0146 0.0028

Venus -39044-08-15 15:21 J -12539171.07 -12539170.86 -12539170.65 0.0146 0.0039

Venus -39043-03-30 04:04 J -12538944.52 -12538944.33 -12538944.12 0.0146 0.0051

Venus -39043-11-11 17:16 J -12538717.98 -12538717.78 -12538717.58 0.0146 0.0062

Venus -39042-06-26 05:59 J -12538491.43 -12538491.25 -12538491.05 0.0146 0.0074

Venus -39041-02-07 19:11 J -12538264.87 -12538264.70 -12538264.51 0.0146 0.0085

Mars -39041-08-28 03:21 J -12538062.64 -12538062.36 -12538062.07 0.0146 0.0032

Venus -39041-09-21 08:09 J -12538038.31 -12538038.16 -12538037.98 0.0146 0.0096

Venus -39040-05-05 21:50 J -12537811.74 -12537811.59 -12537811.44 0.0145 0.0106

Venus	-39040-12-18 10:33 J	-12537585.17	-12537585.06	-12537584.91	0.0145	0.0117
Venus	-39039-08-01 23:45 J	-12537358.60	-12537358.51	-12537358.39	0.0145	0.0126
Venus	-39038-03-16 12:57 J	-12537132.01	-12537131.96	-12537131.86	0.0145	0.0136
Venus	-39038-10-29 02:38 J	-12536905.39	-12536905.39	-12536905.38	0.0145	0.0144
Venus	-39013-01-02 05:30 J	-12528074.32	-12528074.27	-12528074.19	0.0133	0.0128
Venus	-39013-08-15 12:28 J	-12527848.05	-12527847.98	-12527847.86	0.0133	0.0121
Venus	-39012-03-29 19:40 J	-12527621.79	-12527621.68	-12527621.55	0.0133	0.0112
Venus	-39012-11-11 02:23 J	-12527395.53	-12527395.40	-12527395.26	0.0133	0.0104
Mercury	-39011-01-26 22:18 J	-12527318.60	-12527318.57	-12527318.51	0.0133	0.0127
Mercury	-39011-04-25 02:52 J	-12527230.47	-12527230.38	-12527230.28	0.0133	0.0106
Venus	-39011-06-25 09:06 J	-12527169.27	-12527169.12	-12527168.97	0.0133	0.0096
Mercury	-39011-07-22 07:26 J	-12527142.31	-12527142.19	-12527142.07	0.0133	0.0085
Earth	-39011-10-09 17:16 J	-12527062.91	-12527062.78	-12527062.62	0.0133	0.0109
Moon	-39011-10-09 21:06 J	-12527062.73	-12527062.62	-12527062.49	0.0133	0.0116 *
Mercury	-39011-10-18 11:30 J	-12527054.14	-12527054.02	-12527053.87	0.0133	0.0065
Mercury	-39010-01-14 16:04 J	-12526965.97	-12526965.83	-12526965.68	0.0133	0.0044
Venus	-39010-02-06 15:35 J	-12526943.02	-12526942.85	-12526942.69	0.0133	0.0088
Mercury	-39010-04-12 20:23 J	-12526877.80	-12526877.65	-12526877.50	0.0133	0.0023
Mercury	-39010-07-10 00:42 J	-12526789.63	-12526789.47	-12526789.32	0.0132	0.0004
Venus	-39010-09-20 21:35 J	-12526716.77	-12526716.60	-12526716.41	0.0132	0.0080
Mercury	-39010-10-06 04:47 J	-12526701.45	-12526701.30	-12526701.14	0.0132	0.0017
Moon	-39010-10-13 20:38 J	-12526693.89	-12526693.64	-12526693.39	0.0132	0.0002
Earth	-39010-10-13 23:59 J	-12526693.75	-12526693.50	-12526693.24	0.0132	0.0005 *
Mercury	-39009-01-02 09:06 J	-12526613.27	-12526613.12	-12526612.98	0.0132	0.0036
Mercury	-39009-03-30 12:57 J	-12526525.09	-12526524.96	-12526524.81	0.0132	0.0057
Venus	-39009-05-04 03:35 J	-12526490.52	-12526490.35	-12526490.15	0.0132	0.0072
Mercury	-39009-06-26 17:16 J	-12526436.90	-12526436.78	-12526436.65	0.0132	0.0076
Mercury	-39009-09-22 21:06 J	-12526348.71	-12526348.62	-12526348.50	0.0132	0.0095
Earth	-39009-10-17 05:30 J	-12526324.43	-12526324.27	-12526324.09	0.0132	0.0099
Moon	-39009-10-17 08:52 J	-12526324.29	-12526324.13	-12526323.94	0.0132	0.0096 *

Venus	-39009-12-16 09:21 J	-12526264.29	-12526264.11	-12526263.90	0.0132	0.0064
Mercury	-39009-12-20 01:11 J	-12526260.51	-12526260.45	-12526260.37	0.0132	0.0114
Venus	-39008-07-30 15:35 J	-12526038.05	-12526037.85	-12526037.65	0.0132	0.0054
Venus	-39007-03-13 21:06 J	-12525811.82	-12525811.62	-12525811.41	0.0132	0.0046
Venus	-39007-10-26 02:38 J	-12525585.60	-12525585.39	-12525585.17	0.0132	0.0037
Venus	-39006-06-09 07:54 J	-12525359.38	-12525359.17	-12525358.95	0.0132	0.0029
Venus	-39005-01-21 13:26 J	-12525133.16	-12525132.94	-12525132.72	0.0132	0.0020
Venus	-39005-09-03 18:42 J	-12524906.94	-12524906.72	-12524906.50	0.0132	0.0012
Venus	-39004-04-17 23:45 J	-12524680.73	-12524680.51	-12524680.29	0.0132	0.0003
Venus	-39004-11-30 04:33 J	-12524454.52	-12524454.31	-12524454.08	0.0132	0.0007
Venus	-39003-07-14 09:35 J	-12524228.32	-12524228.10	-12524227.88	0.0132	0.0014
Venus	-39002-02-25 14:23 J	-12524002.11	-12524001.90	-12524001.68	0.0132	0.0023
Venus	-39002-10-09 19:26 J	-12523775.90	-12523775.69	-12523775.48	0.0132	0.0031
Venus	-39001-05-23 00:14 J	-12523549.70	-12523549.49	-12523549.28	0.0132	0.0040

39TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 39th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-39000-01-04 04:33 J	-12523323.50	-12523323.31	-12523323.09	0.0132	0.0049		
Venus	-39000-08-18 09:21 J	-12523097.29	-12523097.11	-12523096.90	0.0132	0.0057		
Venus	-38999-04-01 14:09 J	-12522871.09	-12522870.91	-12522870.71	0.0132	0.0065		
Venus	-38999-11-13 18:42 J	-12522644.89	-12522644.72	-12522644.53	0.0133	0.0073		

Venus	-38998-06-27 23:16 J	-12522418.69	-12522418.53	-12522418.35	0.0133	0.0081
Venus	-38997-02-09 04:04 J	-12522192.49	-12522192.33	-12522192.17	0.0133	0.0088
Venus	-38997-09-22 08:38 J	-12521966.28	-12521966.14	-12521965.98	0.0133	0.0096
Mars	-38997-12-14 16:33 J	-12521883.00	-12521882.81	-12521882.59	0.0133	0.0102
Venus	-38996-05-06 13:26 J	-12521740.07	-12521739.94	-12521739.81	0.0133	0.0104
Venus	-38996-12-18 17:30 J	-12521513.87	-12521513.77	-12521513.63	0.0133	0.0112
Venus	-38995-08-01 22:04 J	-12521287.66	-12521287.58	-12521287.47	0.0134	0.0119
Venus	-38994-03-16 02:38 J	-12521061.44	-12521061.39	-12521061.30	0.0134	0.0126
Venus	-38994-10-28 07:40 J	-12520835.21	-12520835.18	-12520835.15	0.0134	0.0132
Venus	-38971-09-29 17:02 J	-12512462.82	-12512462.79	-12512462.75	0.0145	0.0142
Venus	-38970-05-14 02:52 J	-12512236.44	-12512236.38	-12512236.29	0.0145	0.0134
Venus	-38970-12-26 13:26 J	-12512010.04	-12512009.94	-12512009.82	0.0145	0.0125
Venus	-38969-08-08 23:45 J	-12511783.62	-12511783.51	-12511783.36	0.0145	0.0117
Venus	-38968-03-23 10:33 J	-12511557.19	-12511557.06	-12511556.90	0.0146	0.0107
Mercury	-38968-04-10 01:11 J	-12511539.47	-12511539.45	-12511539.41	0.0146	0.0143
Mercury	-38968-07-07 06:42 J	-12511451.31	-12511451.22	-12511451.12	0.0146	0.0116
Mercury	-38968-10-03 12:28 J	-12511363.11	-12511362.98	-12511362.86	0.0146	0.0089
Venus	-38968-11-04 21:35 J	-12511330.75	-12511330.60	-12511330.43	0.0146	0.0097
Mercury	-38968-12-30 17:59 J	-12511274.89	-12511274.75	-12511274.61	0.0146	0.0062
Mercury	-38967-03-28 23:30 J	-12511186.67	-12511186.52	-12511186.36	0.0146	0.0035
Earth	-38967-04-08 21:50 J	-12511175.80	-12511175.59	-12511175.35	0.0146	0.0066
Moon	-38967-04-09 01:11 J	-12511175.67	-12511175.45	-12511175.20	0.0146	0.0061 *
Venus	-38967-06-19 08:38 J	-12511104.30	-12511104.14	-12511103.96	0.0146	0.0087
Mercury	-38967-06-25 05:16 J	-12511098.44	-12511098.28	-12511098.12	0.0146	0.0008
Mercury	-38967-09-21 11:02 J	-12511010.20	-12511010.04	-12511009.88	0.0146	0.0021
Mercury	-38967-12-18 16:47 J	-12510921.95	-12510921.80	-12510921.64	0.0146	0.0049
Venus	-38966-01-31 20:09 J	-12510877.84	-12510877.66	-12510877.47	0.0146	0.0076
Mercury	-38966-03-16 22:47 J	-12510833.69	-12510833.55	-12510833.41	0.0146	0.0077
Moon	-38966-04-13 20:38 J	-12510805.85	-12510805.64	-12510805.40	0.0146	0.0066
Earth	-38966-04-14 00:14 J	-12510805.69	-12510805.49	-12510805.25	0.0146	0.0075 *

Mercury -38966-06-13 04:33 J -12510745.41 -12510745.31 -12510745.19 0.0146 0.0106

Mercury -38966-09-09 10:33 J -12510657.11 -12510657.06 -12510657.00 0.0146 0.0135

Venus -38966-09-15 07:40 J -12510651.37 -12510651.18 -12510650.99 0.0146 0.0066

Venus -38965-04-28 19:11 J -12510424.90 -12510424.70 -12510424.50 0.0146 0.0055

Venus -38965-12-11 06:42 J -12510198.42 -12510198.22 -12510198.01 0.0146 0.0044

Venus -38964-07-25 18:42 J -12509971.93 -12509971.72 -12509971.51 0.0146 0.0032

Venus -38963-03-09 06:57 J -12509745.43 -12509745.21 -12509745.00 0.0146 0.0021

Venus -38963-10-21 18:57 J -12509518.92 -12509518.71 -12509518.49 0.0146 0.0010

Venus -38962-06-05 07:26 J -12509292.41 -12509292.19 -12509291.98 0.0146 0.0003

Venus -38961-01-17 19:40 J -12509065.89 -12509065.68 -12509065.46 0.0146 0.0014

Venus -38961-08-31 08:23 J -12508839.36 -12508839.15 -12508838.94 0.0146 0.0025

Venus -38960-04-14 20:52 J -12508612.83 -12508612.63 -12508612.41 0.0146 0.0037

Venus -38960-11-27 09:50 J -12508386.29 -12508386.09 -12508385.88 0.0146 0.0048

Venus -38959-07-11 22:33 J -12508159.75 -12508159.56 -12508159.35 0.0146 0.0060

Venus -38958-02-23 11:45 J -12507933.20 -12507933.01 -12507932.81 0.0146 0.0071

Venus -38958-10-08 00:42 J -12507706.64 -12507706.47 -12507706.28 0.0146 0.0082

Venus -38957-05-21 13:40 J -12507480.08 -12507479.93 -12507479.75 0.0146 0.0093

Venus -38956-01-03 02:38 J -12507253.52 -12507253.39 -12507253.22 0.0146 0.0104

Mars -38956-04-23 07:26 J -12507143.42 -12507143.19 -12507142.91 0.0145 0.0071

Venus -38956-08-17 16:04 J -12507026.96 -12507026.83 -12507026.69 0.0145 0.0113

Venus -38955-04-01 05:16 J -12506800.38 -12506800.28 -12506800.16 0.0145 0.0124

Venus -38955-11-13 18:14 J -12506573.81 -12506573.74 -12506573.63 0.0145 0.0133

Venus -38954-06-28 07:40 J -12506347.21 -12506347.18 -12506347.13 0.0145 0.0142

Venus -38930-09-01 13:40 J -12497515.97 -12497515.93 -12497515.85 0.0133 0.0129

Venus -38929-04-14 21:06 J -12497289.70 -12497289.62 -12497289.52 0.0133 0.0120

Venus -38929-11-27 03:50 J -12497063.44 -12497063.34 -12497063.21 0.0133 0.0113

Venus -38928-07-11 10:47 J -12496837.17 -12496837.05 -12496836.90 0.0133 0.0105

Mercury -38927-02-16 05:30 J -12496617.33 -12496617.27 -12496617.21 0.0133 0.0121

Venus -38927-02-22 17:30 J -12496610.91 -12496610.77 -12496610.60 0.0133 0.0097

Mercury -38927-05-15 09:50 J -12496529.18 -12496529.09 -12496528.98 0.0133 0.0100

Mercury -38927-08-11 14:09 J -12496441.02 -12496440.91 -12496440.77 0.0133 0.0080

Venus -38927-10-06 23:59 J -12496384.65 -12496384.50 -12496384.32 0.0133 0.0089

Earth -38927-10-10 02:38 J -12496381.52 -12496381.39 -12496381.21 0.0133 0.0105

Moon -38927-10-10 05:45 J -12496381.41 -12496381.26 -12496381.06 0.0133 0.0098 *

Mercury -38927-11-07 18:42 J -12496352.86 -12496352.72 -12496352.58 0.0133 0.0059

Mercury -38926-02-03 23:02 J -12496264.69 -12496264.54 -12496264.39 0.0133 0.0039

Mercury -38926-05-03 03:21 J -12496176.51 -12496176.36 -12496176.21 0.0133 0.0018

Venus -38926-05-21 06:14 J -12496158.40 -12496158.24 -12496158.05 0.0133 0.0081

Mercury -38926-07-30 07:40 J -12496088.34 -12496088.18 -12496088.03 0.0133 0.0003

Moon -38926-10-14 05:59 J -12496012.50 -12496012.25 -12496011.99 0.0132 0.0006

Earth -38926-10-14 09:35 J -12496012.36 -12496012.10 -12496011.85 0.0132 0.0000 *

Mercury -38926-10-26 11:45 J -12496000.16 -12496000.01 -12495999.86 0.0132 0.0022

Venus -38925-01-02 12:28 J -12495932.15 -12495931.98 -12495931.78 0.0132 0.0073

Mercury -38925-01-22 16:04 J -12495911.98 -12495911.83 -12495911.69 0.0132 0.0042

Mercury -38925-04-19 19:54 J -12495823.80 -12495823.67 -12495823.53 0.0132 0.0062

Mercury -38925-07-17 00:14 J -12495735.61 -12495735.49 -12495735.37 0.0132 0.0081

Venus -38925-08-15 18:57 J -12495705.90 -12495705.71 -12495705.52 0.0132 0.0064

Mercury -38925-10-13 04:04 J -12495647.42 -12495647.33 -12495647.22 0.0132 0.0100

Earth -38925-10-17 14:38 J -12495643.02 -12495642.89 -12495642.71 0.0132 0.0104

Moon -38925-10-17 18:14 J -12495642.87 -12495642.74 -12495642.57 0.0132 0.0108 *

Mercury -38924-01-09 08:09 J -12495559.21 -12495559.16 -12495559.09 0.0132 0.0119

Venus -38924-03-30 00:28 J -12495479.67 -12495479.48 -12495479.27 0.0132 0.0056

Venus -38924-11-11 06:14 J -12495253.44 -12495253.24 -12495253.03 0.0132 0.0047

Venus -38923-06-25 11:59 J -12495027.21 -12495027.00 -12495026.79 0.0132 0.0038

Venus -38922-02-06 17:16 J -12494800.98 -12494800.78 -12494800.55 0.0132 0.0030

Venus -38922-09-20 22:47 J -12494574.76 -12494574.55 -12494574.32 0.0132 0.0022

Venus -38921-05-04 04:04 J -12494348.54 -12494348.33 -12494348.10 0.0132 0.0013

Venus -38921-12-16 09:21 J -12494122.33 -12494122.11 -12494121.89 0.0132 0.0004

Venus -38920-07-30 14:38 J -12493896.11 -12493895.89 -12493895.67 0.0132 0.0005

Venus -38919-03-13 19:40 J -12493669.90 -12493669.68 -12493669.46 0.0132 0.0013

Venus	-38919-10-26 00:28 J	-12493443.69	-12493443.48	-12493443.26	0.0132	0.0022
Venus	-38918-06-09 05:16 J	-12493217.49	-12493217.28	-12493217.06	0.0132	0.0030
Venus	-38917-01-21 10:18 J	-12492991.28	-12492991.07	-12492990.86	0.0132	0.0038
Venus	-38917-09-03 14:52 J	-12492765.07	-12492764.88	-12492764.66	0.0132	0.0048
Venus	-38916-04-17 19:40 J	-12492538.86	-12492538.68	-12492538.47	0.0132	0.0056
Venus	-38916-11-30 00:28 J	-12492312.66	-12492312.48	-12492312.28	0.0132	0.0063
Venus	-38915-07-14 05:02 J	-12492086.46	-12492086.29	-12492086.09	0.0133	0.0072
Venus	-38914-02-25 09:50 J	-12491860.25	-12491860.09	-12491859.91	0.0133	0.0080
Mars	-38914-09-06 19:54 J	-12491666.95	-12491666.67	-12491666.36	0.0133	0.0057
Venus	-38914-10-09 14:52 J	-12491634.04	-12491633.88	-12491633.72	0.0133	0.0087
Venus	-38913-05-22 19:11 J	-12491407.84	-12491407.70	-12491407.54	0.0133	0.0095
Venus	-38912-01-03 23:45 J	-12491181.64	-12491181.51	-12491181.36	0.0133	0.0103
Venus	-38912-08-18 04:04 J	-12490955.43	-12490955.33	-12490955.19	0.0133	0.0111
Venus	-38911-04-01 08:38 J	-12490729.22	-12490729.14	-12490729.02	0.0134	0.0118
Venus	-38911-11-13 13:40 J	-12490503.01	-12490502.93	-12490502.85	0.0134	0.0124
Venus	-38910-06-27 17:59 J	-12490276.78	-12490276.75	-12490276.70	0.0134	0.0131
Venus	-38887-05-30 00:14 J	-12481904.51	-12481904.49	-12481904.45	0.0145	0.0143
Venus	-38886-01-11 10:18 J	-12481678.13	-12481678.07	-12481677.98	0.0145	0.0135
Venus	-38886-08-25 20:38 J	-12481451.73	-12481451.64	-12481451.53	0.0145	0.0126
Venus	-38885-04-08 06:57 J	-12481225.32	-12481225.21	-12481225.07	0.0145	0.0117
Venus	-38885-11-20 17:30 J	-12480998.90	-12480998.77	-12480998.62	0.0146	0.0108
Mercury	-38884-04-30 08:23 J	-12480838.20	-12480838.15	-12480838.09	0.0146	0.0136
Venus	-38884-07-05 04:18 J	-12480772.47	-12480772.32	-12480772.16	0.0146	0.0098
Mercury	-38884-07-27 13:54 J	-12480750.02	-12480749.92	-12480749.81	0.0146	0.0109
Mercury	-38884-10-23 19:40 J	-12480661.81	-12480661.68	-12480661.55	0.0146	0.0082
Mercury	-38883-01-20 01:11 J	-12480573.60	-12480573.45	-12480573.30	0.0146	0.0055
Venus	-38883-02-16 15:21 J	-12480546.02	-12480545.86	-12480545.68	0.0146	0.0088
Earth	-38883-04-09 07:26 J	-12480494.42	-12480494.19	-12480493.96	0.0146	0.0061
Moon	-38883-04-09 10:47 J	-12480494.27	-12480494.05	-12480493.81	0.0146	0.0066 *
Mercury	-38883-04-18 06:42 J	-12480485.37	-12480485.22	-12480485.06	0.0146	0.0028

Mercury -38883-07-15 12:28 J -12480397.14 -12480396.98 -12480396.82 0.0146 0.0001
 Venus -38883-10-01 02:23 J -12480319.57 -12480319.40 -12480319.21 0.0146 0.0078
 Mercury -38883-10-11 18:14 J -12480308.90 -12480308.74 -12480308.58 0.0146 0.0028
 Mercury -38882-01-07 23:59 J -12480220.65 -12480220.50 -12480220.35 0.0146 0.0056
 Mercury -38882-04-06 05:45 J -12480132.39 -12480132.26 -12480132.12 0.0146 0.0084
 Moon -38882-04-14 06:28 J -12480124.42 -12480124.23 -12480124.02 0.0146 0.0085
 Earth -38882-04-14 09:50 J -12480124.30 -12480124.09 -12480123.87 0.0146 0.0078 *
 Venus -38882-05-15 13:40 J -12480093.11 -12480092.93 -12480092.73 0.0146 0.0067
 Mercury -38882-07-03 11:30 J -12480044.11 -12480044.02 -12480043.91 0.0146 0.0113
 Mercury -38882-09-29 17:30 J -12479955.79 -12479955.77 -12479955.72 0.0146 0.0142
 Venus -38882-12-28 01:11 J -12479866.64 -12479866.45 -12479866.25 0.0146 0.0056
 Venus -38881-08-10 12:42 J -12479640.16 -12479639.97 -12479639.76 0.0146 0.0046
 Venus -38880-03-25 00:28 J -12479413.68 -12479413.48 -12479413.26 0.0146 0.0035
 Venus -38880-11-06 12:42 J -12479187.19 -12479186.97 -12479186.76 0.0146 0.0023
 Venus -38879-06-21 00:42 J -12478960.69 -12478960.47 -12478960.26 0.0146 0.0011
 Venus -38878-02-02 12:57 J -12478734.17 -12478733.96 -12478733.74 0.0146 0.0003
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 Mars -38873-01-15 07:40 J -12476926.33 -12476926.18 -12476925.99 0.0146 0.0117
 Venus -38873-01-19 18:57 J -12476921.87 -12476921.71 -12476921.53 0.0146 0.0091
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 Venus -38872-04-16 21:21 J -12476468.74 -12476468.61 -12476468.46 0.0145 0.0112
 Venus -38872-11-29 10:18 J -12476242.17 -12476242.07 -12476241.93 0.0145 0.0122
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Venus -38846-05-01 22:18 J -12466957.61 -12466957.57 -12466957.49 0.0134 0.0129
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 Mercury -38843-06-04 16:47 J -12465827.90 -12465827.80 -12465827.68 0.0133 0.0095
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 Earth -38843-10-10 13:11 J -12465700.11 -12465699.95 -12465699.77 0.0133 0.0099
 Moon -38843-10-10 16:33 J -12465699.95 -12465699.81 -12465699.65 0.0133 0.0106 *
 Mercury -38843-11-28 01:40 J -12465651.56 -12465651.43 -12465651.28 0.0133 0.0054
 Venus -38842-01-18 15:50 J -12465600.01 -12465599.84 -12465599.66 0.0133 0.0081
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 Earth -38841-10-18 00:57 J -12464961.59 -12464961.46 -12464961.30 0.0132 0.0108
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 Venus -38841-11-27 10:04 J -12464921.28 -12464921.08 -12464920.88 0.0132 0.0056
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Venus	-38839-02-22 21:35 J	-12464468.81	-12464468.60	-12464468.38	0.0132	0.0039
Venus	-38839-10-07 03:06 J	-12464242.58	-12464242.37	-12464242.15	0.0132	0.0030
Venus	-38838-05-21 08:38 J	-12464016.35	-12464016.14	-12464015.92	0.0132	0.0022
Venus	-38837-01-02 13:54 J	-12463790.13	-12463789.92	-12463789.70	0.0132	0.0014
Venus	-38837-08-15 19:26 J	-12463563.91	-12463563.69	-12463563.47	0.0132	0.0005
Venus	-38836-03-30 00:42 J	-12463337.69	-12463337.47	-12463337.25	0.0132	0.0005
Venus	-38836-11-11 05:45 J	-12463111.48	-12463111.26	-12463111.04	0.0132	0.0013
Venus	-38835-06-25 10:33 J	-12462885.27	-12462885.06	-12462884.84	0.0132	0.0021
Venus	-38834-02-06 15:35 J	-12462659.06	-12462658.85	-12462658.63	0.0132	0.0030
Venus	-38834-09-20 20:38 J	-12462432.84	-12462432.64	-12462432.42	0.0132	0.0038
Venus	-38833-05-04 01:26 J	-12462206.64	-12462206.44	-12462206.23	0.0132	0.0046
Venus	-38833-12-16 06:14 J	-12461980.43	-12461980.24	-12461980.03	0.0132	0.0055
Venus	-38832-07-30 11:02 J	-12461754.22	-12461754.04	-12461753.84	0.0132	0.0063
Venus	-38831-03-13 15:50 J	-12461528.02	-12461527.84	-12461527.65	0.0133	0.0071
Venus	-38831-10-25 20:38 J	-12461301.81	-12461301.64	-12461301.46	0.0133	0.0079
Venus	-38830-06-09 00:57 J	-12461075.60	-12461075.46	-12461075.28	0.0133	0.0087
Venus	-38829-01-21 05:45 J	-12460849.40	-12460849.26	-12460849.10	0.0133	0.0094
Mars	-38829-05-02 02:09 J	-12460747.71	-12460747.41	-12460747.08	0.0133	0.0033
Venus	-38829-09-03 10:18 J	-12460623.19	-12460623.07	-12460622.92	0.0133	0.0102
Venus	-38828-04-17 14:52 J	-12460396.99	-12460396.88	-12460396.74	0.0133	0.0109
Venus	-38828-11-29 19:26 J	-12460170.78	-12460170.69	-12460170.57	0.0133	0.0116
Venus	-38827-07-13 23:45 J	-12459944.57	-12459944.51	-12459944.41	0.0134	0.0124
Venus	-38826-02-25 04:33 J	-12459718.35	-12459718.31	-12459718.25	0.0134	0.0130
Venus	-38803-01-27 07:54 J	-12451346.17	-12451346.17	-12451346.13	0.0145	0.0144
Venus	-38803-09-10 17:45 J	-12451119.81	-12451119.76	-12451119.67	0.0145	0.0136
Venus	-38802-04-25 04:04 J	-12450893.42	-12450893.33	-12450893.22	0.0145	0.0127
Venus	-38802-12-07 14:09 J	-12450667.02	-12450666.91	-12450666.77	0.0145	0.0118
Venus	-38801-07-21 00:57 J	-12450440.60	-12450440.46	-12450440.32	0.0145	0.0109
Venus	-38800-03-04 11:16 J	-12450214.17	-12450214.03	-12450213.86	0.0146	0.0099
Mercury	-38800-05-20 15:35 J	-12450136.91	-12450136.85	-12450136.77	0.0146	0.0129

Mercury -38800-08-16 21:06 J -12450048.72 -12450048.62 -12450048.50 0.0146 0.0102
 Venus -38800-10-16 21:50 J -12449987.74 -12449987.59 -12449987.40 0.0146 0.0090
 Mercury -38800-11-13 02:38 J -12449960.52 -12449960.39 -12449960.25 0.0146 0.0075
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 Earth -38799-04-09 17:02 J -12449813.02 -12449812.79 -12449812.55 0.0146 0.0056
 Moon -38799-04-09 19:40 J -12449812.91 -12449812.68 -12449812.43 0.0146 0.0052 *
 Mercury -38799-05-08 13:54 J -12449784.07 -12449783.92 -12449783.76 0.0146 0.0021
 Venus -38799-05-31 09:06 J -12449761.29 -12449761.12 -12449760.94 0.0146 0.0079
 Mercury -38799-08-04 19:40 J -12449695.84 -12449695.68 -12449695.52 0.0146 0.0007
 Mercury -38799-11-01 01:26 J -12449607.60 -12449607.44 -12449607.28 0.0146 0.0035
 Venus -38798-01-12 20:09 J -12449534.83 -12449534.66 -12449534.46 0.0146 0.0069
 Mercury -38798-01-28 07:11 J -12449519.34 -12449519.20 -12449519.05 0.0146 0.0063
 Moon -38798-04-14 15:50 J -12449443.04 -12449442.84 -12449442.62 0.0146 0.0076
 Earth -38798-04-14 19:26 J -12449442.90 -12449442.69 -12449442.48 0.0146 0.0083 *
 Mercury -38798-04-26 12:57 J -12449431.08 -12449430.96 -12449430.83 0.0146 0.0091
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 Venus -38798-08-27 07:40 J -12449308.37 -12449308.18 -12449307.98 0.0146 0.0058
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 Venus -38797-11-22 06:42 J -12448855.42 -12448855.22 -12448855.01 0.0146 0.0036
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 Venus -38794-05-17 07:11 J -12447949.42 -12447949.20 -12447948.99 0.0146 0.0010
 Venus -38794-12-29 19:26 J -12447722.90 -12447722.69 -12447722.47 0.0146 0.0021
 Venus -38793-08-12 07:54 J -12447496.38 -12447496.17 -12447495.95 0.0146 0.0033
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 Venus -38792-11-08 09:21 J -12447043.30 -12447043.11 -12447042.90 0.0146 0.0055
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Venus -38789-05-02 13:11 J -12446137.10 -12446136.95 -12446136.78 0.0146 0.0099
 Mars -38789-09-09 09:50 J -12446007.37 -12446007.09 -12446006.80 0.0146 0.0017
 Venus -38789-12-15 01:54 J -12445910.54 -12445910.42 -12445910.26 0.0145 0.0110
 Venus -38788-07-29 15:06 J -12445683.98 -12445683.87 -12445683.73 0.0145 0.0119
 Venus -38787-03-13 04:33 J -12445457.40 -12445457.31 -12445457.21 0.0145 0.0129
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 Venus -38762-08-13 13:40 J -12436173.01 -12436172.93 -12436172.83 0.0134 0.0122
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 Venus -38761-11-08 03:50 J -12435720.46 -12435720.34 -12435720.20 0.0133 0.0106
 Venus -38760-06-22 10:47 J -12435494.19 -12435494.05 -12435493.89 0.0133 0.0098
 Mercury -38760-12-30 14:38 J -12435302.89 -12435302.89 -12435302.86 0.0133 0.0132
 Venus -38759-02-03 17:30 J -12435267.92 -12435267.77 -12435267.60 0.0133 0.0090
 Mercury -38759-03-28 19:11 J -12435214.77 -12435214.70 -12435214.60 0.0133 0.0111
 Mercury -38759-06-24 23:45 J -12435126.62 -12435126.51 -12435126.39 0.0133 0.0090
 Venus -38759-09-17 23:59 J -12435041.67 -12435041.50 -12435041.32 0.0133 0.0082
 Mercury -38759-09-21 04:18 J -12435038.45 -12435038.32 -12435038.19 0.0133 0.0069
 Earth -38759-10-10 22:04 J -12435018.75 -12435018.58 -12435018.40 0.0133 0.0095
 Moon -38759-10-11 00:42 J -12435018.66 -12435018.47 -12435018.27 0.0133 0.0088 *
 Mercury -38759-12-18 08:38 J -12434950.28 -12434950.14 -12434949.99 0.0133 0.0049
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 Moon -38758-10-15 01:40 J -12434649.68 -12434649.43 -12434649.18 0.0133 0.0003
 Earth -38758-10-15 04:33 J -12434649.56 -12434649.31 -12434649.05 0.0133 0.0009 *
 Mercury -38758-12-06 01:40 J -12434597.58 -12434597.43 -12434597.28 0.0133 0.0032
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Venus -38757-07-27 18:42 J -12434362.92 -12434362.72 -12434362.52 0.0132 0.0057
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 Earth -38757-10-18 10:04 J -12434280.21 -12434280.08 -12434279.94 0.0132 0.0112
 Moon -38757-10-18 12:42 J -12434280.08 -12434279.97 -12434279.83 0.0132 0.0117 *
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 Venus -38756-03-11 00:28 J -12434136.68 -12434136.48 -12434136.26 0.0132 0.0049
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 Venus -38717-11-01 17:59 J -12419655.89 -12419655.75 -12419655.59 0.0145 0.0101
 Mercury -38716-06-09 22:47 J -12419435.63 -12419435.55 -12419435.46 0.0146 0.0122
 Venus -38716-06-16 04:33 J -12419429.46 -12419429.31 -12419429.13 0.0146 0.0091
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 Moon -38715-04-10 04:47 J -12419131.53 -12419131.30 -12419131.05 0.0146 0.0056 *
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 Moon -38714-04-15 01:40 J -12418761.61 -12418761.43 -12418761.23 0.0146 0.0094
 Earth -38714-04-15 04:33 J -12418761.51 -12418761.31 -12418761.11 0.0146 0.0088 *
 Venus -38714-04-26 13:40 J -12418750.11 -12418749.93 -12418749.72 0.0146 0.0060
 Mercury -38714-05-16 19:54 J -12418729.78 -12418729.67 -12418729.54 0.0146 0.0098
 Mercury -38714-08-13 01:54 J -12418641.49 -12418641.42 -12418641.34 0.0146 0.0127
 Venus -38714-12-09 01:11 J -12418523.65 -12418523.45 -12418523.24 0.0146 0.0049
 Venus -38713-07-22 12:42 J -12418297.17 -12418296.97 -12418296.76 0.0146 0.0038
 Venus -38712-03-06 00:28 J -12418070.68 -12418070.48 -12418070.26 0.0146 0.0027
 Venus -38712-10-18 12:28 J -12417844.19 -12417843.98 -12417843.76 0.0146 0.0016
 Venus -38711-06-02 00:28 J -12417617.69 -12417617.48 -12417617.26 0.0146 0.0005

Venus	-38710-01-14 12:42 J	-12417391.18	-12417390.97	-12417390.75	0.0146	0.0008
Venus	-38710-08-29 01:11 J	-12417164.67	-12417164.45	-12417164.24	0.0146	0.0019
Venus	-38709-04-11 13:40 J	-12416938.14	-12416937.93	-12416937.72	0.0146	0.0030
Venus	-38709-11-24 01:54 J	-12416711.62	-12416711.42	-12416711.20	0.0146	0.0043
Venus	-38708-07-08 14:38 J	-12416485.08	-12416484.89	-12416484.68	0.0146	0.0053
Venus	-38707-02-20 03:50 J	-12416258.54	-12416258.34	-12416258.15	0.0146	0.0064
Venus	-38707-10-04 16:33 J	-12416031.99	-12416031.81	-12416031.62	0.0146	0.0075
Venus	-38706-05-19 05:30 J	-12415805.44	-12415805.27	-12415805.09	0.0146	0.0086
Venus	-38706-12-31 18:14 J	-12415578.89	-12415578.74	-12415578.57	0.0146	0.0097
Venus	-38705-08-14 07:26 J	-12415352.34	-12415352.19	-12415352.04	0.0146	0.0107
Venus	-38704-03-28 20:09 J	-12415125.77	-12415125.66	-12415125.51	0.0145	0.0117
Mars	-38704-05-05 11:45 J	-12415088.25	-12415088.01	-12415087.77	0.0145	0.0083
Venus	-38704-11-10 09:35 J	-12414899.20	-12414899.10	-12414898.99	0.0145	0.0127
Venus	-38703-06-24 22:04 J	-12414672.63	-12414672.58	-12414672.48	0.0145	0.0136
Venus	-38702-02-06 11:30 J	-12414446.02	-12414446.02	-12414446.01	0.0145	0.0145
Venus	-38679-08-29 14:09 J	-12405840.94	-12405840.91	-12405840.83	0.0134	0.0130
Venus	-38678-04-12 22:04 J	-12405614.66	-12405614.58	-12405614.49	0.0134	0.0122
Venus	-38678-11-25 05:02 J	-12405388.39	-12405388.29	-12405388.16	0.0133	0.0115
Venus	-38677-07-08 12:28 J	-12405162.10	-12405161.98	-12405161.84	0.0133	0.0107
Venus	-38676-02-19 19:26 J	-12404935.83	-12404935.69	-12404935.54	0.0133	0.0099
Venus	-38676-10-04 02:09 J	-12404709.57	-12404709.41	-12404709.24	0.0133	0.0091
Mercury	-38675-01-19 21:35 J	-12404601.63	-12404601.60	-12404601.54	0.0133	0.0127
Mercury	-38675-04-18 02:09 J	-12404513.49	-12404513.41	-12404513.31	0.0133	0.0106
Venus	-38675-05-18 08:52 J	-12404483.31	-12404483.13	-12404482.96	0.0133	0.0082
Mercury	-38675-07-15 06:42 J	-12404425.34	-12404425.22	-12404425.10	0.0133	0.0085
Earth	-38675-10-11 07:26 J	-12404337.36	-12404337.19	-12404336.99	0.0133	0.0091
Moon	-38675-10-11 09:50 J	-12404337.24	-12404337.09	-12404336.89	0.0133	0.0098 *
Mercury	-38675-10-11 11:16 J	-12404337.17	-12404337.03	-12404336.90	0.0133	0.0064 *
Venus	-38675-12-30 15:06 J	-12404257.05	-12404256.87	-12404256.68	0.0133	0.0074
Mercury	-38674-01-07 15:21 J	-12404249.00	-12404248.86	-12404248.70	0.0133	0.0044

Mercury -38674-04-05 19:40 J -12404160.82 -12404160.68 -12404160.52 0.0133 0.0024

Mercury -38674-07-03 00:14 J -12404072.65 -12404072.49 -12404072.34 0.0133 0.0004

Venus -38674-08-13 21:21 J -12404030.79 -12404030.61 -12404030.41 0.0133 0.0066

Mercury -38674-09-29 04:18 J -12403984.47 -12403984.32 -12403984.16 0.0133 0.0017

Moon -38674-10-15 11:45 J -12403968.25 -12403968.01 -12403967.76 0.0133 0.0020

Earth -38674-10-15 13:54 J -12403968.17 -12403967.92 -12403967.66 0.0133 0.0013 *

Mercury -38674-12-26 08:38 J -12403896.29 -12403896.14 -12403895.99 0.0133 0.0037

Mercury -38673-03-23 12:42 J -12403808.11 -12403807.97 -12403807.83 0.0133 0.0057

Venus -38673-03-27 03:21 J -12403804.54 -12403804.36 -12403804.15 0.0133 0.0058

Mercury -38673-06-19 16:47 J -12403719.92 -12403719.80 -12403719.67 0.0133 0.0076

Mercury -38673-09-15 20:52 J -12403631.73 -12403631.63 -12403631.52 0.0133 0.0096

Earth -38673-10-18 19:11 J -12403598.80 -12403598.70 -12403598.56 0.0132 0.0117

Moon -38673-10-18 21:50 J -12403598.70 -12403598.59 -12403598.43 0.0132 0.0113 *

Venus -38673-11-08 09:21 J -12403578.30 -12403578.11 -12403577.89 0.0132 0.0050

Mercury -38673-12-13 01:11 J -12403543.53 -12403543.45 -12403543.38 0.0132 0.0115

Venus -38672-06-22 15:21 J -12403352.06 -12403351.86 -12403351.64 0.0132 0.0041

Venus -38671-02-03 21:06 J -12403125.83 -12403125.62 -12403125.40 0.0132 0.0032

Venus -38671-09-18 03:06 J -12402899.59 -12402899.37 -12402899.15 0.0132 0.0023

Venus -38670-05-02 08:38 J -12402673.36 -12402673.14 -12402672.92 0.0132 0.0015

Venus -38670-12-14 13:54 J -12402447.13 -12402446.92 -12402446.69 0.0132 0.0007

Venus -38669-07-27 19:26 J -12402220.91 -12402220.69 -12402220.47 0.0132 0.0003

Venus -38668-03-11 00:42 J -12401994.69 -12401994.47 -12401994.25 0.0132 0.0011

Venus -38668-10-23 05:59 J -12401768.47 -12401768.25 -12401768.03 0.0132 0.0019

Venus -38667-06-06 11:02 J -12401542.25 -12401542.04 -12401541.82 0.0132 0.0028

Venus -38666-01-18 16:04 J -12401316.03 -12401315.83 -12401315.61 0.0132 0.0036

Venus -38666-09-01 21:21 J -12401089.81 -12401089.61 -12401089.40 0.0132 0.0044

Venus -38665-04-15 02:09 J -12400863.60 -12400863.41 -12400863.20 0.0132 0.0053

Venus -38665-11-27 06:57 J -12400637.40 -12400637.21 -12400637.01 0.0132 0.0061

Venus -38664-07-11 11:45 J -12400411.19 -12400411.01 -12400410.82 0.0132 0.0069

Venus -38663-02-22 16:33 J -12400184.98 -12400184.81 -12400184.63 0.0133 0.0077

Venus	-38663-10-06 21:06 J	-12399958.77	-12399958.62	-12399958.44	0.0133	0.0085
Venus	-38662-05-21 02:09 J	-12399732.57	-12399732.41	-12399732.26	0.0133	0.0092
Mars	-38662-09-18 06:57 J	-12399612.52	-12399612.21	-12399611.89	0.0133	0.0040
Venus	-38661-01-02 06:14 J	-12399506.36	-12399506.24	-12399506.08	0.0133	0.0100
Venus	-38661-08-15 11:02 J	-12399280.15	-12399280.04	-12399279.90	0.0133	0.0107
Venus	-38660-03-29 15:35 J	-12399053.94	-12399053.85	-12399053.73	0.0133	0.0114
Venus	-38660-11-10 20:09 J	-12398827.73	-12398827.66	-12398827.55	0.0133	0.0121
Venus	-38659-06-25 00:57 J	-12398601.51	-12398601.46	-12398601.39	0.0134	0.0128
Venus	-38635-01-08 09:21 J	-12390003.17	-12390003.11	-12390003.04	0.0144	0.0137
Venus	-38635-08-22 18:57 J	-12389776.79	-12389776.71	-12389776.60	0.0145	0.0129
Venus	-38634-04-06 05:02 J	-12389550.40	-12389550.29	-12389550.17	0.0145	0.0120
Venus	-38634-11-18 14:52 J	-12389324.00	-12389323.88	-12389323.73	0.0145	0.0112
Venus	-38633-07-02 01:26 J	-12389097.59	-12389097.44	-12389097.29	0.0145	0.0102
Venus	-38632-02-13 11:45 J	-12388871.16	-12388871.01	-12388870.83	0.0146	0.0093
Mercury	-38632-04-03 00:28 J	-12388822.50	-12388822.48	-12388822.44	0.0146	0.0141
Mercury	-38632-06-30 05:59 J	-12388734.34	-12388734.25	-12388734.15	0.0146	0.0115
Mercury	-38632-09-26 11:16 J	-12388646.14	-12388646.03	-12388645.89	0.0146	0.0089
Venus	-38632-09-27 22:18 J	-12388644.73	-12388644.57	-12388644.38	0.0146	0.0083
Mercury	-38632-12-23 17:02 J	-12388557.93	-12388557.79	-12388557.65	0.0146	0.0062
Mercury	-38631-03-21 22:33 J	-12388469.71	-12388469.56	-12388469.40	0.0146	0.0035
Earth	-38631-04-10 11:59 J	-12388450.24	-12388450.00	-12388449.75	0.0146	0.0046
Moon	-38631-04-10 13:40 J	-12388450.17	-12388449.93	-12388449.67	0.0146	0.0043 *
Venus	-38631-05-12 09:35 J	-12388418.28	-12388418.10	-12388417.91	0.0146	0.0072
Mercury	-38631-06-18 04:18 J	-12388381.48	-12388381.32	-12388381.16	0.0146	0.0008
Mercury	-38631-09-14 09:50 J	-12388293.24	-12388293.09	-12388292.93	0.0146	0.0021
Mercury	-38631-12-11 15:35 J	-12388205.00	-12388204.85	-12388204.70	0.0146	0.0049
Venus	-38631-12-24 20:23 J	-12388191.83	-12388191.65	-12388191.44	0.0146	0.0062
Mercury	-38630-03-09 21:21 J	-12388116.74	-12388116.61	-12388116.47	0.0146	0.0077
Moon	-38630-04-15 11:30 J	-12388080.22	-12388080.02	-12388079.82	0.0146	0.0086
Earth	-38630-04-15 14:09 J	-12388080.10	-12388079.91	-12388079.71	0.0146	0.0093 *

Mercury -38630-06-06 03:06 J -12388028.47 -12388028.37 -12388028.25 0.0146 0.0105

Venus -38630-08-08 07:40 J -12387965.37 -12387965.18 -12387964.97 0.0146 0.0051

Mercury -38630-09-02 08:52 J -12387940.18 -12387940.13 -12387940.05 0.0146 0.0134

Venus -38629-03-21 19:11 J -12387738.90 -12387738.70 -12387738.49 0.0146 0.0040

Venus -38629-11-03 06:42 J -12387512.42 -12387512.22 -12387512.00 0.0146 0.0029

Venus -38628-06-17 18:42 J -12387285.93 -12387285.72 -12387285.51 0.0146 0.0018

Venus -38627-01-30 06:42 J -12387059.43 -12387059.22 -12387059.00 0.0146 0.0006

Venus -38627-09-13 18:57 J -12386832.93 -12386832.71 -12386832.50 0.0146 0.0005

Venus -38626-04-28 06:57 J -12386606.42 -12386606.21 -12386605.99 0.0146 0.0017

Venus -38626-12-10 19:11 J -12386379.90 -12386379.70 -12386379.48 0.0146 0.0028

Venus -38625-07-24 07:40 J -12386153.38 -12386153.18 -12386152.96 0.0146 0.0040

Venus -38624-03-07 20:38 J -12385926.84 -12385926.64 -12385926.44 0.0146 0.0051

Venus -38624-10-20 09:06 J -12385700.31 -12385700.12 -12385699.92 0.0146 0.0062

Venus -38623-06-03 21:50 J -12385473.77 -12385473.59 -12385473.39 0.0146 0.0073

Venus -38622-01-16 10:33 J -12385247.23 -12385247.06 -12385246.87 0.0146 0.0084

Venus -38622-08-30 23:45 J -12385020.68 -12385020.51 -12385020.35 0.0146 0.0094

Mars -38621-01-27 12:42 J -12384871.16 -12384870.97 -12384870.76 0.0146 0.0103

Venus -38621-04-13 12:28 J -12384794.12 -12384793.98 -12384793.82 0.0146 0.0105

Venus -38621-11-26 01:11 J -12384567.57 -12384567.45 -12384567.30 0.0145 0.0115

Venus -38620-07-10 14:09 J -12384341.01 -12384340.91 -12384340.78 0.0145 0.0124

Venus -38619-02-22 03:21 J -12384114.44 -12384114.36 -12384114.27 0.0145 0.0134

Venus -38619-10-06 16:33 J -12383887.85 -12383887.81 -12383887.78 0.0145 0.0142

Venus -38595-04-28 21:50 J -12375282.63 -12375282.59 -12375282.54 0.0134 0.0130

Venus -38595-12-11 05:16 J -12375056.35 -12375056.28 -12375056.18 0.0134 0.0123

Venus -38594-07-25 12:28 J -12374830.07 -12374829.98 -12374829.85 0.0134 0.0116

Venus -38593-03-07 19:54 J -12374603.79 -12374603.67 -12374603.53 0.0133 0.0108

Venus -38593-10-20 02:52 J -12374377.52 -12374377.38 -12374377.22 0.0133 0.0100

Venus -38592-06-03 09:50 J -12374151.24 -12374151.09 -12374150.92 0.0133 0.0092

Venus -38591-01-15 16:33 J -12373924.98 -12373924.81 -12373924.63 0.0133 0.0083

Mercury -38591-02-09 04:33 J -12373900.37 -12373900.31 -12373900.25 0.0133 0.0122

Mercury -38591-05-08 08:38 J -12373812.22 -12373812.14 -12373812.02 0.0133 0.0102

Mercury -38591-08-04 13:11 J -12373724.06 -12373723.95 -12373723.81 0.0133 0.0081

Venus -38591-08-29 23:02 J -12373698.71 -12373698.54 -12373698.35 0.0133 0.0075

Earth -38591-10-11 16:04 J -12373656.02 -12373655.83 -12373655.64 0.0133 0.0087

Moon -38591-10-11 17:02 J -12373655.98 -12373655.79 -12373655.56 0.0133 0.0081 *

Mercury -38591-10-31 17:45 J -12373635.89 -12373635.76 -12373635.62 0.0133 0.0060

Mercury -38590-01-27 22:04 J -12373547.72 -12373547.58 -12373547.43 0.0133 0.0040

Venus -38590-04-13 05:16 J -12373472.46 -12373472.28 -12373472.08 0.0133 0.0067

Mercury -38590-04-26 02:23 J -12373459.55 -12373459.40 -12373459.24 0.0133 0.0020

Mercury -38590-07-23 06:42 J -12373371.37 -12373371.22 -12373371.06 0.0133 0.0004

Moon -38590-10-15 20:09 J -12373286.90 -12373286.66 -12373286.41 0.0133 0.0011

Earth -38590-10-15 22:18 J -12373286.82 -12373286.57 -12373286.32 0.0133 0.0017 *

Mercury -38590-10-19 11:02 J -12373283.19 -12373283.04 -12373282.89 0.0133 0.0021

Venus -38590-11-25 11:30 J -12373246.21 -12373246.02 -12373245.81 0.0133 0.0059

Mercury -38589-01-15 15:06 J -12373195.01 -12373194.87 -12373194.72 0.0133 0.0042

Mercury -38589-04-12 19:26 J -12373106.82 -12373106.69 -12373106.55 0.0133 0.0061

Venus -38589-07-08 17:45 J -12373019.96 -12373019.76 -12373019.55 0.0133 0.0050

Mercury -38589-07-09 23:30 J -12373018.64 -12373018.52 -12373018.39 0.0133 0.0081

Mercury -38589-10-06 03:50 J -12372930.44 -12372930.34 -12372930.24 0.0133 0.0100

Earth -38589-10-19 03:50 J -12372917.43 -12372917.34 -12372917.22 0.0133 0.0120

Moon -38589-10-19 05:59 J -12372917.33 -12372917.25 -12372917.16 0.0133 0.0125 *

Mercury -38588-01-02 07:40 J -12372842.24 -12372842.18 -12372842.11 0.0132 0.0119

Venus -38588-02-19 23:45 J -12372793.71 -12372793.51 -12372793.29 0.0132 0.0042

Venus -38588-10-04 05:30 J -12372567.47 -12372567.27 -12372567.04 0.0132 0.0034

Venus -38587-05-18 11:30 J -12372341.24 -12372341.02 -12372340.80 0.0132 0.0025

Venus -38587-12-30 17:02 J -12372115.00 -12372114.79 -12372114.57 0.0132 0.0016

Venus -38586-08-13 22:47 J -12371888.77 -12371888.55 -12371888.33 0.0132 0.0008

Venus -38585-03-27 04:18 J -12371662.54 -12371662.32 -12371662.10 0.0132 0.0001

Venus -38585-11-08 09:35 J -12371436.32 -12371436.10 -12371435.88 0.0132 0.0010

Venus -38584-06-22 14:52 J -12371210.10 -12371209.88 -12371209.66 0.0132 0.0018

Venus	-38583-02-03 20:09 J	-12370983.87	-12370983.66	-12370983.44	0.0132	0.0026
Venus	-38583-09-18 01:11 J	-12370757.65	-12370757.45	-12370757.23	0.0132	0.0035
Venus	-38582-05-02 06:14 J	-12370531.44	-12370531.24	-12370531.02	0.0132	0.0044
Venus	-38582-12-14 11:16 J	-12370305.22	-12370305.03	-12370304.82	0.0132	0.0052
Venus	-38581-07-27 16:18 J	-12370079.01	-12370078.82	-12370078.62	0.0132	0.0060
Venus	-38580-03-10 21:06 J	-12369852.80	-12369852.62	-12369852.43	0.0132	0.0068
Venus	-38580-10-23 01:54 J	-12369626.59	-12369626.42	-12369626.24	0.0133	0.0076
Venus	-38579-06-06 06:28 J	-12369400.39	-12369400.23	-12369400.05	0.0133	0.0084
Venus	-38578-01-18 11:16 J	-12369174.18	-12369174.03	-12369173.87	0.0133	0.0091
Venus	-38578-09-01 16:04 J	-12368947.97	-12368947.83	-12368947.68	0.0133	0.0098
Venus	-38577-04-14 20:23 J	-12368721.76	-12368721.65	-12368721.50	0.0133	0.0106
Mars	-38577-05-13 08:38 J	-12368693.43	-12368693.14	-12368692.81	0.0133	0.0048
Venus	-38577-11-27 01:26 J	-12368495.56	-12368495.44	-12368495.33	0.0133	0.0113
Venus	-38576-07-11 05:45 J	-12368269.34	-12368269.26	-12368269.16	0.0133	0.0120
Venus	-38575-02-22 10:18 J	-12368043.12	-12368043.07	-12368042.99	0.0134	0.0127
Venus	-38575-10-06 15:06 J	-12367816.88	-12367816.87	-12367816.84	0.0134	0.0133
Venus	-38552-09-07 16:47 J	-12359444.86	-12359444.80	-12359444.74	0.0144	0.0138
Venus	-38551-04-22 02:09 J	-12359218.49	-12359218.41	-12359218.31	0.0145	0.0130
Venus	-38551-12-04 12:14 J	-12358992.10	-12358991.99	-12358991.88	0.0145	0.0121
Venus	-38550-07-18 22:04 J	-12358765.71	-12358765.58	-12358765.44	0.0145	0.0112
Venus	-38549-03-01 08:09 J	-12358539.30	-12358539.16	-12358539.00	0.0145	0.0103
Venus	-38549-10-13 18:28 J	-12358312.88	-12358312.73	-12358312.56	0.0145	0.0094
Mercury	-38548-04-23 07:40 J	-12358121.23	-12358121.18	-12358121.12	0.0146	0.0135
Venus	-38548-05-28 05:16 J	-12358086.45	-12358086.28	-12358086.11	0.0146	0.0084
Mercury	-38548-07-20 12:57 J	-12358033.05	-12358032.96	-12358032.85	0.0146	0.0109
Mercury	-38548-10-16 18:28 J	-12357944.85	-12357944.73	-12357944.59	0.0146	0.0082
Venus	-38547-01-09 15:50 J	-12357860.01	-12357859.84	-12357859.64	0.0146	0.0074
Mercury	-38547-01-13 00:14 J	-12357856.64	-12357856.49	-12357856.35	0.0146	0.0055
Earth	-38547-04-10 21:06 J	-12357768.86	-12357768.62	-12357768.38	0.0146	0.0041
Moon	-38547-04-10 22:47 J	-12357768.80	-12357768.55	-12357768.30	0.0146	0.0044 *

Mercury -38547-04-11 05:45 J -12357768.42 -12357768.26 -12357768.11 0.0146 0.0028 *

Mercury -38547-07-08 11:16 J -12357680.19 -12357680.03 -12357679.87 0.0146 0.0001

Venus -38547-08-24 03:06 J -12357633.56 -12357633.37 -12357633.18 0.0146 0.0063

Mercury -38547-10-04 17:02 J -12357591.95 -12357591.79 -12357591.64 0.0146 0.0027

Mercury -38547-12-31 22:47 J -12357503.70 -12357503.55 -12357503.40 0.0146 0.0055

Mercury -38546-03-30 04:33 J -12357415.44 -12357415.31 -12357415.18 0.0146 0.0083

Venus -38546-04-07 13:54 J -12357407.11 -12357406.92 -12357406.71 0.0146 0.0053

Moon -38546-04-15 21:21 J -12357398.77 -12357398.61 -12357398.43 0.0146 0.0104

Earth -38546-04-15 23:02 J -12357398.71 -12357398.54 -12357398.34 0.0146 0.0098 *

Mercury -38546-06-26 10:04 J -12357327.17 -12357327.08 -12357326.97 0.0146 0.0112

Mercury -38546-09-22 15:50 J -12357238.86 -12357238.84 -12357238.78 0.0146 0.0141

Venus -38546-11-20 01:11 J -12357180.64 -12357180.45 -12357180.23 0.0146 0.0043

Venus -38545-07-03 12:57 J -12356954.17 -12356953.96 -12356953.75 0.0146 0.0031

Venus -38544-02-15 00:42 J -12356727.68 -12356727.47 -12356727.25 0.0146 0.0020

Venus -38544-09-29 12:42 J -12356501.19 -12356500.97 -12356500.76 0.0146 0.0009

Venus -38543-05-14 00:42 J -12356274.69 -12356274.47 -12356274.26 0.0146 0.0003

Venus -38543-12-26 12:42 J -12356048.18 -12356047.97 -12356047.75 0.0146 0.0014

Venus -38542-08-10 00:57 J -12355821.67 -12355821.46 -12355821.24 0.0146 0.0026

Venus -38541-03-23 13:26 J -12355595.15 -12355594.94 -12355594.73 0.0146 0.0037

Venus -38541-11-05 01:54 J -12355368.62 -12355368.42 -12355368.21 0.0146 0.0048

Venus -38540-06-19 14:23 J -12355142.09 -12355141.90 -12355141.70 0.0146 0.0060

Venus -38539-02-01 02:52 J -12354915.56 -12354915.38 -12354915.18 0.0146 0.0071

Venus -38539-09-15 15:50 J -12354689.02 -12354688.84 -12354688.66 0.0146 0.0081

Venus -38538-04-30 04:33 J -12354462.47 -12354462.31 -12354462.14 0.0146 0.0092

Venus -38538-12-12 17:02 J -12354235.93 -12354235.79 -12354235.62 0.0146 0.0103

Venus -38537-07-26 05:59 J -12354009.37 -12354009.25 -12354009.10 0.0146 0.0113

Mars -38537-09-21 13:26 J -12353952.23 -12353951.94 -12353951.65 0.0146 0.0004

Venus -38536-03-09 18:57 J -12353782.81 -12353782.71 -12353782.58 0.0145 0.0122

Venus -38536-10-22 07:54 J -12353556.25 -12353556.17 -12353556.06 0.0145 0.0132

Venus -38535-06-05 20:52 J -12353329.67 -12353329.63 -12353329.56 0.0145 0.0140

Venus -38512-12-27 05:16 J -12344724.31 -12344724.28 -12344724.22 0.0134 0.0131
 Venus -38511-08-10 12:57 J -12344498.03 -12344497.96 -12344497.86 0.0134 0.0124
 Venus -38510-03-24 20:38 J -12344271.74 -12344271.64 -12344271.53 0.0134 0.0116
 Venus -38510-11-06 03:35 J -12344045.46 -12344045.35 -12344045.20 0.0134 0.0109
 Venus -38509-06-19 10:47 J -12343819.18 -12343819.05 -12343818.89 0.0133 0.0101
 Venus -38508-01-31 17:59 J -12343592.90 -12343592.75 -12343592.59 0.0133 0.0092
 Venus -38508-09-15 00:42 J -12343366.63 -12343366.47 -12343366.29 0.0133 0.0084
 Mercury -38507-03-01 11:02 J -12343199.10 -12343199.04 -12343198.96 0.0133 0.0118
 Venus -38507-04-29 07:11 J -12343140.37 -12343140.20 -12343140.01 0.0133 0.0076
 Mercury -38507-05-28 15:35 J -12343110.95 -12343110.85 -12343110.73 0.0133 0.0097
 Mercury -38507-08-24 20:09 J -12343022.78 -12343022.66 -12343022.53 0.0133 0.0076
 Earth -38507-10-12 00:42 J -12342974.66 -12342974.47 -12342974.26 0.0133 0.0083
 Moon -38507-10-12 02:09 J -12342974.59 -12342974.41 -12342974.20 0.0133 0.0090 *
 Mercury -38507-11-21 00:42 J -12342934.61 -12342934.47 -12342934.33 0.0133 0.0055
 Venus -38507-12-11 13:40 J -12342914.11 -12342913.93 -12342913.73 0.0133 0.0068
 Mercury -38506-02-17 05:02 J -12342846.44 -12342846.29 -12342846.14 0.0133 0.0035
 Mercury -38506-05-16 09:21 J -12342758.26 -12342758.11 -12342757.95 0.0133 0.0014
 Venus -38506-07-25 20:09 J -12342687.85 -12342687.66 -12342687.45 0.0133 0.0060
 Mercury -38506-08-12 13:40 J -12342670.09 -12342669.93 -12342669.78 0.0133 0.0006
 Moon -38506-10-16 06:14 J -12342605.48 -12342605.24 -12342604.99 0.0133 0.0028
 Earth -38506-10-16 07:11 J -12342605.45 -12342605.20 -12342604.94 0.0133 0.0021 *
 Mercury -38506-11-08 17:45 J -12342581.90 -12342581.76 -12342581.60 0.0133 0.0027
 Mercury -38505-02-04 22:04 J -12342493.72 -12342493.58 -12342493.43 0.0133 0.0046
 Venus -38505-03-08 02:38 J -12342461.60 -12342461.39 -12342461.19 0.0133 0.0051
 Mercury -38505-05-03 02:09 J -12342405.54 -12342405.41 -12342405.27 0.0133 0.0066
 Mercury -38505-07-30 06:14 J -12342317.35 -12342317.24 -12342317.11 0.0133 0.0086
 Earth -38505-10-19 12:42 J -12342236.03 -12342235.97 -12342235.86 0.0132 0.0125
 Moon -38505-10-19 14:23 J -12342235.99 -12342235.90 -12342235.77 0.0132 0.0120 *
 Venus -38505-10-20 08:23 J -12342235.35 -12342235.15 -12342234.93 0.0132 0.0043
 Mercury -38505-10-26 10:33 J -12342229.15 -12342229.06 -12342228.97 0.0132 0.0105

Mercury -38504-01-22 14:38 J -12342140.94 -12342140.89 -12342140.84 0.0132 0.0124

Venus -38504-06-03 14:23 J -12342009.11 -12342008.90 -12342008.68 0.0132 0.0034

Venus -38503-01-15 20:23 J -12341782.87 -12341782.65 -12341782.43 0.0132 0.0026

Venus -38503-08-30 02:09 J -12341556.62 -12341556.41 -12341556.18 0.0132 0.0017

Venus -38502-04-13 07:54 J -12341330.39 -12341330.17 -12341329.95 0.0132 0.0008

Venus -38502-11-25 13:26 J -12341104.16 -12341103.94 -12341103.72 0.0132 0.0000

Venus -38501-07-08 18:57 J -12340877.93 -12340877.71 -12340877.49 0.0132 0.0009

Venus -38500-02-20 00:14 J -12340651.70 -12340651.49 -12340651.27 0.0132 0.0017

Venus -38500-10-04 05:45 J -12340425.48 -12340425.26 -12340425.05 0.0132 0.0026

Venus -38499-05-18 10:33 J -12340199.26 -12340199.06 -12340198.84 0.0132 0.0035

Venus -38499-12-30 15:50 J -12339973.04 -12339972.84 -12339972.63 0.0132 0.0042

Venus -38498-08-13 20:52 J -12339746.83 -12339746.63 -12339746.42 0.0132 0.0051

Venus -38497-03-27 01:40 J -12339520.62 -12339520.43 -12339520.22 0.0132 0.0059

Venus -38497-11-08 06:28 J -12339294.41 -12339294.23 -12339294.03 0.0132 0.0067

Venus -38496-06-22 11:16 J -12339068.20 -12339068.03 -12339067.84 0.0133 0.0075

Venus -38495-02-03 15:50 J -12338841.99 -12338841.84 -12338841.65 0.0133 0.0083

Venus -38495-09-17 20:52 J -12338615.78 -12338615.63 -12338615.46 0.0133 0.0090

Mars -38494-02-03 05:59 J -12338477.39 -12338477.25 -12338477.06 0.0133 0.0115

Venus -38494-05-02 01:26 J -12338389.58 -12338389.44 -12338389.28 0.0133 0.0097

Venus -38494-12-14 06:14 J -12338163.37 -12338163.24 -12338163.11 0.0133 0.0104

Venus -38493-07-27 10:47 J -12337937.16 -12337937.05 -12337936.93 0.0133 0.0112

Venus -38492-03-10 15:21 J -12337710.95 -12337710.86 -12337710.75 0.0133 0.0119

Venus -38492-10-22 19:54 J -12337484.72 -12337484.67 -12337484.58 0.0133 0.0126

Venus -38491-06-06 00:42 J -12337258.49 -12337258.47 -12337258.43 0.0134 0.0132

Jupiter -38488-11-28 09:35 J -12335987.51 -12335987.10 -12335986.68 0.0135 0.0073

Venus -38468-05-07 23:30 J -12328886.56 -12328886.52 -12328886.45 0.0144 0.0139

Venus -38468-12-20 09:21 J -12328660.19 -12328660.11 -12328660.02 0.0144 0.0131

Venus -38467-08-03 18:42 J -12328433.81 -12328433.72 -12328433.59 0.0145 0.0123

Venus -38466-03-18 04:33 J -12328207.42 -12328207.31 -12328207.16 0.0145 0.0114

Venus -38466-10-30 14:38 J -12327981.02 -12327980.89 -12327980.73 0.0145 0.0105

Venus -38465-06-13 00:57 J -12327754.61 -12327754.46 -12327754.29 0.0145 0.0096
 Venus -38464-01-25 11:45 J -12327528.17 -12327528.01 -12327527.83 0.0145 0.0086
 Mercury -38464-05-13 14:38 J -12327419.95 -12327419.89 -12327419.81 0.0146 0.0129
 Mercury -38464-08-09 19:54 J -12327331.77 -12327331.67 -12327331.55 0.0146 0.0103
 Venus -38464-09-08 22:18 J -12327301.74 -12327301.57 -12327301.38 0.0146 0.0076
 Mercury -38464-11-06 01:26 J -12327243.57 -12327243.44 -12327243.30 0.0146 0.0076
 Mercury -38463-02-02 07:11 J -12327155.35 -12327155.20 -12327155.05 0.0146 0.0049
 Earth -38463-04-11 05:45 J -12327087.49 -12327087.26 -12327087.00 0.0146 0.0037
 Moon -38463-04-11 06:28 J -12327087.48 -12327087.23 -12327086.97 0.0146 0.0035 *
 Venus -38463-04-23 09:06 J -12327075.30 -12327075.12 -12327074.92 0.0146 0.0066
 Mercury -38463-05-01 12:42 J -12327067.13 -12327066.97 -12327066.81 0.0146 0.0021
 Mercury -38463-07-28 18:14 J -12326978.89 -12326978.74 -12326978.58 0.0146 0.0007
 Mercury -38463-10-24 23:59 J -12326890.65 -12326890.50 -12326890.34 0.0146 0.0034
 Venus -38463-12-05 20:09 J -12326848.85 -12326848.66 -12326848.45 0.0146 0.0055
 Mercury -38462-01-21 05:45 J -12326802.40 -12326802.26 -12326802.12 0.0146 0.0062
 Moon -38462-04-16 06:14 J -12326717.41 -12326717.24 -12326717.04 0.0146 0.0097
 Earth -38462-04-16 07:54 J -12326717.33 -12326717.17 -12326716.97 0.0146 0.0103 *
 Mercury -38462-04-19 11:30 J -12326714.14 -12326714.02 -12326713.89 0.0146 0.0090
 Mercury -38462-07-16 17:02 J -12326625.87 -12326625.79 -12326625.68 0.0146 0.0119
 Venus -38462-07-20 07:26 J -12326622.38 -12326622.19 -12326621.98 0.0146 0.0044
 Venus -38461-03-02 19:11 J -12326395.91 -12326395.70 -12326395.49 0.0146 0.0033
 Venus -38461-10-15 06:42 J -12326169.43 -12326169.22 -12326169.00 0.0146 0.0022
 Venus -38460-05-29 18:28 J -12325942.94 -12325942.73 -12325942.51 0.0146 0.0011
 Venus -38459-01-11 06:28 J -12325716.44 -12325716.23 -12325716.01 0.0146 0.0001
 Venus -38459-08-25 18:28 J -12325489.94 -12325489.73 -12325489.51 0.0146 0.0012
 Venus -38458-04-09 06:42 J -12325263.43 -12325263.22 -12325263.01 0.0146 0.0023
 Venus -38458-11-21 18:57 J -12325036.92 -12325036.71 -12325036.50 0.0146 0.0035
 Venus -38457-07-05 07:11 J -12324810.40 -12324810.20 -12324809.99 0.0146 0.0046
 Venus -38456-02-16 19:54 J -12324583.87 -12324583.67 -12324583.47 0.0146 0.0057
 Venus -38456-10-01 08:23 J -12324357.34 -12324357.15 -12324356.95 0.0146 0.0068

Venus	-38455-05-15 20:52 J	-12324130.80	-12324130.63	-12324130.44	0.0146	0.0079
Venus	-38455-12-28 09:21 J	-12323904.26	-12323904.11	-12323903.92	0.0146	0.0090
Venus	-38454-08-11 22:18 J	-12323677.72	-12323677.57	-12323677.40	0.0146	0.0100
Venus	-38453-03-25 11:16 J	-12323451.17	-12323451.03	-12323450.88	0.0146	0.0110
Venus	-38453-11-06 23:59 J	-12323224.61	-12323224.50	-12323224.37	0.0146	0.0120
Mars	-38452-05-17 16:04 J	-12323033.04	-12323032.83	-12323032.61	0.0145	0.0096
Venus	-38452-06-21 12:57 J	-12322998.05	-12322997.96	-12322997.86	0.0145	0.0129
Venus	-38451-02-03 01:26 J	-12322771.49	-12322771.44	-12322771.35	0.0145	0.0138
Venus	-38428-08-26 11:59 J	-12314166.02	-12314166.00	-12314165.94	0.0134	0.0132
Venus	-38427-04-09 20:09 J	-12313939.74	-12313939.66	-12313939.58	0.0134	0.0124
Venus	-38427-11-22 03:21 J	-12313713.45	-12313713.36	-12313713.24	0.0134	0.0117
Venus	-38426-07-06 11:16 J	-12313487.16	-12313487.03	-12313486.91	0.0134	0.0109
Venus	-38425-02-17 17:59 J	-12313260.88	-12313260.75	-12313260.59	0.0133	0.0102
Venus	-38425-10-01 01:11 J	-12313034.60	-12313034.45	-12313034.28	0.0133	0.0093
Venus	-38424-05-15 07:54 J	-12312808.33	-12312808.17	-12312807.99	0.0133	0.0085
Venus	-38424-12-27 14:38 J	-12312582.06	-12312581.89	-12312581.70	0.0133	0.0077
Mercury	-38423-03-21 17:45 J	-12312497.83	-12312497.76	-12312497.67	0.0133	0.0114
Mercury	-38423-06-17 22:18 J	-12312409.68	-12312409.57	-12312409.45	0.0133	0.0093
Venus	-38423-08-10 21:21 J	-12312355.79	-12312355.61	-12312355.41	0.0133	0.0069
Mercury	-38423-09-14 02:52 J	-12312321.51	-12312321.38	-12312321.25	0.0133	0.0072
Moon	-38423-10-12 08:52 J	-12312293.34	-12312293.13	-12312292.90	0.0133	0.0074
Earth	-38423-10-12 08:52 J	-12312293.33	-12312293.13	-12312292.93	0.0133	0.0080 *
Mercury	-38423-12-11 07:11 J	-12312233.34	-12312233.20	-12312233.05	0.0133	0.0051
Mercury	-38422-03-09 11:30 J	-12312145.17	-12312145.02	-12312144.86	0.0133	0.0031
Venus	-38422-03-25 03:50 J	-12312129.53	-12312129.34	-12312129.13	0.0133	0.0061
Mercury	-38422-06-05 15:50 J	-12312056.99	-12312056.84	-12312056.68	0.0133	0.0011
Mercury	-38422-09-01 20:09 J	-12311968.81	-12311968.66	-12311968.50	0.0133	0.0010
Moon	-38422-10-16 14:23 J	-12311924.14	-12311923.90	-12311923.65	0.0133	0.0018
Earth	-38422-10-16 15:21 J	-12311924.11	-12311923.86	-12311923.61	0.0133	0.0024 *
Venus	-38422-11-06 10:18 J	-12311903.27	-12311903.07	-12311902.86	0.0133	0.0052

Mercury -38422-11-29 00:28 J -12311880.63 -12311880.48 -12311880.33 0.0133 0.0030

Mercury -38421-02-25 04:47 J -12311792.44 -12311792.30 -12311792.16 0.0133 0.0050

Mercury -38421-05-23 08:52 J -12311704.26 -12311704.13 -12311704.00 0.0133 0.0070

Venus -38421-06-19 16:18 J -12311677.02 -12311676.82 -12311676.60 0.0133 0.0044

Mercury -38421-08-19 12:57 J -12311616.07 -12311615.96 -12311615.84 0.0132 0.0089

Earth -38421-10-19 21:21 J -12311554.68 -12311554.61 -12311554.54 0.0132 0.0127

Mercury -38421-11-15 17:02 J -12311527.87 -12311527.79 -12311527.70 0.0132 0.0109

Venus -38420-01-31 22:33 J -12311450.77 -12311450.56 -12311450.34 0.0132 0.0035

Mercury -38420-02-11 21:21 J -12311439.65 -12311439.61 -12311439.57 0.0132 0.0128

Venus -38420-09-15 04:47 J -12311224.52 -12311224.30 -12311224.09 0.0132 0.0027

Venus -38419-04-29 10:33 J -12310998.28 -12310998.06 -12310997.84 0.0132 0.0018

Venus -38419-12-11 16:18 J -12310772.04 -12310771.82 -12310771.60 0.0132 0.0010

Venus -38418-07-25 22:04 J -12310545.80 -12310545.58 -12310545.36 0.0132 0.0002

Venus -38417-03-08 03:35 J -12310319.57 -12310319.35 -12310319.13 0.0132 0.0008

Venus -38417-10-20 08:52 J -12310093.34 -12310093.13 -12310092.91 0.0132 0.0016

Venus -38416-06-03 14:23 J -12309867.12 -12309866.90 -12309866.69 0.0132 0.0025

Venus -38415-01-15 19:26 J -12309640.90 -12309640.69 -12309640.47 0.0132 0.0033

Venus -38415-08-30 00:42 J -12309414.67 -12309414.47 -12309414.26 0.0132 0.0041

Venus -38414-04-13 05:45 J -12309188.46 -12309188.26 -12309188.05 0.0132 0.0049

Venus -38414-11-25 10:33 J -12308962.25 -12308962.06 -12308961.86 0.0132 0.0057

Venus -38413-07-08 15:21 J -12308736.04 -12308735.86 -12308735.66 0.0132 0.0066

Venus -38412-02-19 20:09 J -12308509.83 -12308509.66 -12308509.47 0.0133 0.0073

Venus -38412-10-04 01:11 J -12308283.61 -12308283.45 -12308283.27 0.0133 0.0081

Venus -38411-05-18 05:45 J -12308057.41 -12308057.26 -12308057.09 0.0133 0.0089

Venus -38411-12-30 10:33 J -12307831.20 -12307831.06 -12307830.90 0.0133 0.0096

Venus -38410-08-13 15:06 J -12307604.99 -12307604.87 -12307604.72 0.0133 0.0103

Mars -38410-09-29 07:54 J -12307558.48 -12307558.17 -12307557.84 0.0133 0.0028

Venus -38409-03-26 19:54 J -12307378.78 -12307378.67 -12307378.54 0.0133 0.0110

Venus -38409-11-08 00:28 J -12307152.56 -12307152.48 -12307152.36 0.0133 0.0118

Venus -38408-06-22 05:02 J -12306926.35 -12306926.29 -12306926.19 0.0133 0.0124

Venus -38407-02-03 09:50 J -12306700.12 -12306700.09 -12306700.03 0.0134 0.0131
 Venus -38384-01-05 06:42 J -12298328.26 -12298328.22 -12298328.16 0.0144 0.0140
 Venus -38384-08-19 16:04 J -12298101.91 -12298101.83 -12298101.74 0.0144 0.0132
 Venus -38383-04-03 01:26 J -12297875.54 -12297875.44 -12297875.32 0.0145 0.0124
 Venus -38383-11-15 11:16 J -12297649.15 -12297649.03 -12297648.90 0.0145 0.0115
 Venus -38382-06-29 21:06 J -12297422.75 -12297422.62 -12297422.47 0.0145 0.0106
 Venus -38381-02-11 07:11 J -12297196.34 -12297196.20 -12297196.03 0.0145 0.0097
 Venus -38381-09-24 17:45 J -12296969.92 -12296969.76 -12296969.58 0.0145 0.0087
 Venus -38380-05-09 04:18 J -12296743.49 -12296743.32 -12296743.13 0.0145 0.0077
 Mercury -38380-06-02 21:21 J -12296718.68 -12296718.61 -12296718.52 0.0145 0.0124
 Mercury -38380-08-30 02:52 J -12296630.49 -12296630.38 -12296630.26 0.0146 0.0097
 Mercury -38380-11-26 08:23 J -12296542.28 -12296542.15 -12296542.01 0.0146 0.0070
 Venus -38380-12-21 15:06 J -12296517.05 -12296516.87 -12296516.67 0.0146 0.0067
 Mercury -38379-02-22 13:54 J -12296454.07 -12296453.92 -12296453.77 0.0146 0.0043
 Earth -38379-04-11 14:09 J -12296406.16 -12296405.91 -12296405.66 0.0146 0.0033
 Moon -38379-04-11 14:23 J -12296406.14 -12296405.90 -12296405.63 0.0146 0.0035 *
 Mercury -38379-05-21 19:26 J -12296365.84 -12296365.69 -12296365.53 0.0146 0.0017
 Venus -38379-08-05 02:09 J -12296290.60 -12296290.41 -12296290.21 0.0146 0.0057
 Mercury -38379-08-18 01:11 J -12296277.61 -12296277.45 -12296277.29 0.0146 0.0011
 Mercury -38379-11-14 06:42 J -12296189.37 -12296189.22 -12296189.06 0.0146 0.0040
 Mercury -38378-02-10 12:28 J -12296101.12 -12296100.98 -12296100.83 0.0146 0.0067
 Venus -38378-03-19 13:11 J -12296064.14 -12296063.95 -12296063.74 0.0146 0.0046
 Moon -38378-04-16 15:35 J -12296036.00 -12296035.85 -12296035.68 0.0146 0.0111
 Earth -38378-04-16 16:04 J -12296035.99 -12296035.83 -12296035.64 0.0146 0.0106 *
 Mercury -38378-05-09 18:14 J -12296012.85 -12296012.74 -12296012.61 0.0146 0.0096
 Mercury -38378-08-06 00:14 J -12295924.57 -12295924.49 -12295924.41 0.0146 0.0124
 Venus -38378-11-01 00:42 J -12295837.68 -12295837.47 -12295837.26 0.0146 0.0035
 Venus -38377-06-14 12:14 J -12295611.20 -12295610.99 -12295610.78 0.0146 0.0024
 Venus -38376-01-26 23:59 J -12295384.71 -12295384.50 -12295384.28 0.0146 0.0013
 Venus -38376-09-10 11:45 J -12295158.22 -12295158.01 -12295157.79 0.0146 0.0003

Venus	-38375-04-24 23:45 J	-12294931.72	-12294931.51	-12294931.29	0.0146	0.0010
Venus	-38375-12-07 11:45 J	-12294705.22	-12294705.01	-12294704.80	0.0146	0.0021
Venus	-38374-07-21 23:59 J	-12294478.71	-12294478.50	-12294478.29	0.0146	0.0032
Venus	-38373-03-04 12:14 J	-12294252.19	-12294251.99	-12294251.78	0.0146	0.0044
Venus	-38373-10-17 00:28 J	-12294025.67	-12294025.48	-12294025.27	0.0146	0.0056
Venus	-38372-05-31 12:57 J	-12293799.14	-12293798.96	-12293798.75	0.0146	0.0066
Venus	-38371-01-13 01:26 J	-12293572.61	-12293572.44	-12293572.24	0.0146	0.0077
Venus	-38371-08-27 14:23 J	-12293346.07	-12293345.90	-12293345.73	0.0146	0.0087
Venus	-38370-04-11 02:52 J	-12293119.53	-12293119.38	-12293119.21	0.0146	0.0098
Venus	-38370-11-23 15:35 J	-12292892.98	-12292892.85	-12292892.69	0.0146	0.0108
Mars	-38369-02-08 16:18 J	-12292816.04	-12292815.82	-12292815.59	0.0146	0.0091
Venus	-38369-07-07 04:18 J	-12292666.43	-12292666.32	-12292666.18	0.0146	0.0118
Venus	-38368-02-18 17:30 J	-12292439.87	-12292439.77	-12292439.66	0.0145	0.0127
Venus	-38368-10-03 06:28 J	-12292213.31	-12292213.23	-12292213.16	0.0145	0.0136
Venus	-38367-05-17 19:11 J	-12291986.71	-12291986.70	-12291986.68	0.0145	0.0144
Venus	-38344-04-25 19:26 J	-12283607.72	-12283607.69	-12283607.65	0.0134	0.0133
Venus	-38344-12-08 03:06 J	-12283381.43	-12283381.37	-12283381.28	0.0134	0.0125
Venus	-38343-07-22 10:47 J	-12283155.14	-12283155.05	-12283154.93	0.0134	0.0118
Venus	-38342-03-05 18:28 J	-12282928.85	-12282928.73	-12282928.60	0.0134	0.0110
Venus	-38342-10-18 01:54 J	-12282702.56	-12282702.42	-12282702.28	0.0134	0.0102
Venus	-38341-05-31 08:38 J	-12282476.28	-12282476.14	-12282475.97	0.0133	0.0094
Venus	-38340-01-12 15:35 J	-12282250.00	-12282249.85	-12282249.66	0.0133	0.0087
Venus	-38340-08-26 22:33 J	-12282023.72	-12282023.56	-12282023.36	0.0133	0.0078
Mercury	-38339-01-12 19:40 J	-12281884.69	-12281884.68	-12281884.64	0.0133	0.0131
Venus	-38339-04-10 05:16 J	-12281797.46	-12281797.28	-12281797.08	0.0133	0.0070
Mercury	-38339-04-11 00:14 J	-12281796.56	-12281796.49	-12281796.39	0.0133	0.0110
Mercury	-38339-07-08 04:47 J	-12281708.40	-12281708.30	-12281708.17	0.0133	0.0089
Mercury	-38339-10-04 09:21 J	-12281620.23	-12281620.11	-12281619.97	0.0133	0.0068
Earth	-38339-10-12 17:02 J	-12281611.98	-12281611.79	-12281611.56	0.0133	0.0077
Moon	-38339-10-12 17:16 J	-12281611.97	-12281611.78	-12281611.56	0.0133	0.0083 *

Venus -38339-11-22 11:45 J -12281571.19 -12281571.01 -12281570.80 0.0133 0.0062
 Mercury -38339-12-31 13:54 J -12281532.06 -12281531.92 -12281531.77 0.0133 0.0047
 Mercury -38338-03-29 18:14 J -12281443.89 -12281443.74 -12281443.58 0.0133 0.0027
 Mercury -38338-06-25 22:47 J -12281355.71 -12281355.55 -12281355.40 0.0133 0.0007
 Venus -38338-07-06 18:28 J -12281344.93 -12281344.73 -12281344.52 0.0133 0.0053
 Mercury -38338-09-22 02:52 J -12281267.53 -12281267.38 -12281267.22 0.0133 0.0015
 Earth -38338-10-16 23:45 J -12281242.75 -12281242.51 -12281242.25 0.0133 0.0028
 Moon -38338-10-16 23:59 J -12281242.73 -12281242.50 -12281242.26 0.0133 0.0034 *
 Mercury -38338-12-19 07:11 J -12281179.35 -12281179.20 -12281179.05 0.0133 0.0034
 Venus -38337-02-18 00:42 J -12281118.67 -12281118.47 -12281118.25 0.0133 0.0045
 Mercury -38337-03-16 11:16 J -12281091.16 -12281091.03 -12281090.88 0.0133 0.0055
 Mercury -38337-06-12 15:21 J -12281002.97 -12281002.86 -12281002.72 0.0132 0.0075
 Mercury -38337-09-08 19:40 J -12280914.78 -12280914.68 -12280914.56 0.0132 0.0094
 Venus -38337-10-01 07:11 J -12280892.41 -12280892.20 -12280891.99 0.0132 0.0036
 Moon -38337-10-20 06:14 J -12280873.32 -12280873.24 -12280873.15 0.0132 0.0125
 Earth -38337-10-20 05:45 J -12280873.28 -12280873.26 -12280873.21 0.0132 0.0131 *
 Mercury -38337-12-05 23:59 J -12280826.58 -12280826.50 -12280826.42 0.0132 0.0113
 Mercury -38336-03-04 04:04 J -12280738.33 -12280738.33 -12280738.32 0.0132 0.0132
 Venus -38336-05-15 13:11 J -12280666.17 -12280665.95 -12280665.73 0.0132 0.0027
 Venus -38336-12-27 18:57 J -12280439.92 -12280439.71 -12280439.48 0.0132 0.0019
 Venus -38335-08-11 01:11 J -12280213.67 -12280213.45 -12280213.23 0.0132 0.0011
 Venus -38334-03-25 06:42 J -12279987.44 -12279987.22 -12279987.00 0.0132 0.0003
 Venus -38334-11-06 12:14 J -12279761.20 -12279760.99 -12279760.76 0.0132 0.0007
 Venus -38333-06-19 17:45 J -12279534.98 -12279534.76 -12279534.54 0.0132 0.0015
 Venus -38332-01-31 23:16 J -12279308.75 -12279308.53 -12279308.31 0.0132 0.0024
 Venus -38332-09-15 04:33 J -12279082.52 -12279082.31 -12279082.09 0.0132 0.0032
 Venus -38331-04-29 09:35 J -12278856.30 -12278856.10 -12278855.88 0.0132 0.0041
 Venus -38331-12-11 14:38 J -12278630.08 -12278629.89 -12278629.68 0.0132 0.0049
 Venus -38330-07-25 19:40 J -12278403.87 -12278403.68 -12278403.47 0.0132 0.0057
 Venus -38329-03-08 00:42 J -12278177.66 -12278177.47 -12278177.28 0.0132 0.0065

Venus	-38329-10-20 05:30 J	-12277951.44	-12277951.27	-12277951.08	0.0132	0.0073
Venus	-38328-06-03 10:33 J	-12277725.23	-12277725.06	-12277724.89	0.0133	0.0080
Venus	-38327-01-15 15:06 J	-12277499.03	-12277498.87	-12277498.70	0.0133	0.0088
Venus	-38327-08-29 19:54 J	-12277272.81	-12277272.67	-12277272.51	0.0133	0.0095
Venus	-38326-04-13 00:42 J	-12277046.60	-12277046.47	-12277046.33	0.0133	0.0102
Venus	-38326-11-25 05:16 J	-12276820.39	-12276820.28	-12276820.15	0.0133	0.0109
Mars	-38325-05-24 11:16 J	-12276639.31	-12276639.03	-12276638.72	0.0133	0.0059
Venus	-38325-07-08 09:50 J	-12276594.18	-12276594.09	-12276593.97	0.0133	0.0117
Venus	-38324-02-19 14:23 J	-12276367.96	-12276367.90	-12276367.80	0.0133	0.0124
Venus	-38324-10-03 19:26 J	-12276141.72	-12276141.69	-12276141.63	0.0133	0.0130
Venus	-38301-09-04 13:40 J	-12267769.97	-12267769.93	-12267769.89	0.0144	0.0140
Venus	-38300-04-18 22:18 J	-12267543.63	-12267543.57	-12267543.47	0.0144	0.0134
Venus	-38300-12-01 08:09 J	-12267317.26	-12267317.16	-12267317.05	0.0144	0.0125
Venus	-38299-07-15 17:30 J	-12267090.88	-12267090.77	-12267090.63	0.0145	0.0117
Venus	-38298-02-27 03:50 J	-12266864.48	-12266864.34	-12266864.20	0.0145	0.0107
Venus	-38298-10-11 13:40 J	-12266638.08	-12266637.93	-12266637.77	0.0145	0.0098
Venus	-38297-05-24 23:59 J	-12266411.66	-12266411.50	-12266411.33	0.0145	0.0089
Venus	-38296-01-06 10:33 J	-12266185.23	-12266185.06	-12266184.88	0.0145	0.0079
Mercury	-38296-03-26 23:02 J	-12266105.56	-12266105.54	-12266105.52	0.0145	0.0144
Mercury	-38296-06-23 04:18 J	-12266017.40	-12266017.32	-12266017.23	0.0145	0.0118
Venus	-38296-08-20 21:06 J	-12265958.80	-12265958.62	-12265958.42	0.0145	0.0069
Mercury	-38296-09-19 09:35 J	-12265929.21	-12265929.10	-12265928.97	0.0146	0.0092
Mercury	-38296-12-16 15:21 J	-12265841.00	-12265840.86	-12265840.72	0.0146	0.0065
Mercury	-38295-03-14 20:52 J	-12265752.78	-12265752.63	-12265752.48	0.0146	0.0038
Venus	-38295-04-04 07:54 J	-12265732.36	-12265732.17	-12265731.96	0.0146	0.0059
Moon	-38295-04-11 21:35 J	-12265724.86	-12265724.60	-12265724.34	0.0146	0.0030
Earth	-38295-04-11 22:18 J	-12265724.82	-12265724.57	-12265724.32	0.0146	0.0029 *
Mercury	-38295-06-11 02:23 J	-12265664.56	-12265664.40	-12265664.24	0.0146	0.0010
Mercury	-38295-09-07 07:54 J	-12265576.32	-12265576.17	-12265576.01	0.0146	0.0018
Venus	-38295-11-16 18:57 J	-12265505.90	-12265505.71	-12265505.50	0.0146	0.0048

Mercury -38295-12-04 13:40 J -12265488.08 -12265487.93 -12265487.78 0.0146 0.0045
 Mercury -38294-03-02 19:26 J -12265399.83 -12265399.69 -12265399.55 0.0146 0.0073
 Moon -38294-04-16 23:45 J -12265354.67 -12265354.51 -12265354.32 0.0146 0.0104
 Earth -38294-04-17 00:28 J -12265354.64 -12265354.48 -12265354.30 0.0146 0.0109 *
 Mercury -38294-05-30 01:11 J -12265311.56 -12265311.45 -12265311.33 0.0146 0.0101
 Venus -38294-07-01 06:14 J -12265279.44 -12265279.24 -12265279.03 0.0146 0.0037
 Mercury -38294-08-26 06:57 J -12265223.27 -12265223.21 -12265223.13 0.0146 0.0130
 Venus -38293-02-12 17:45 J -12265052.96 -12265052.76 -12265052.54 0.0146 0.0026
 Venus -38293-09-26 05:30 J -12264826.48 -12264826.27 -12264826.06 0.0146 0.0015
 Venus -38292-05-10 17:02 J -12264600.00 -12264599.79 -12264599.57 0.0146 0.0005
 Venus -38292-12-23 05:02 J -12264373.51 -12264373.29 -12264373.08 0.0146 0.0008
 Venus -38291-08-06 16:47 J -12264147.01 -12264146.80 -12264146.58 0.0146 0.0019
 Venus -38290-03-21 05:02 J -12263920.50 -12263920.29 -12263920.08 0.0146 0.0030
 Venus -38290-11-02 17:16 J -12263693.99 -12263693.78 -12263693.57 0.0146 0.0042
 Venus -38289-06-16 05:30 J -12263467.47 -12263467.27 -12263467.07 0.0146 0.0053
 Venus -38288-01-28 17:59 J -12263240.95 -12263240.75 -12263240.56 0.0146 0.0064
 Venus -38288-09-12 06:28 J -12263014.42 -12263014.23 -12263014.04 0.0146 0.0074
 Venus -38287-04-26 18:42 J -12262787.88 -12262787.72 -12262787.53 0.0146 0.0085
 Venus -38287-12-09 07:40 J -12262561.35 -12262561.18 -12262561.02 0.0146 0.0095
 Venus -38286-07-23 19:54 J -12262334.80 -12262334.67 -12262334.51 0.0146 0.0106
 Venus -38285-03-06 09:06 J -12262108.25 -12262108.12 -12262107.98 0.0146 0.0115
 Mars -38285-10-03 15:06 J -12261897.16 -12261896.87 -12261896.58 0.0145 0.0007
 Venus -38285-10-18 21:50 J -12261881.69 -12261881.59 -12261881.47 0.0145 0.0125
 Venus -38284-06-02 10:47 J -12261655.13 -12261655.05 -12261654.96 0.0145 0.0134
 Venus -38283-01-14 23:30 J -12261428.55 -12261428.52 -12261428.47 0.0145 0.0142
 Venus -38261-12-24 01:40 J -12253049.44 -12253049.43 -12253049.38 0.0134 0.0134
 Venus -38260-08-07 09:35 J -12252823.15 -12252823.10 -12252823.00 0.0134 0.0127
 Venus -38259-03-21 17:45 J -12252596.86 -12252596.76 -12252596.65 0.0134 0.0118
 Venus -38259-11-03 00:57 J -12252370.56 -12252370.46 -12252370.32 0.0134 0.0111
 Venus -38258-06-17 08:38 J -12252144.27 -12252144.14 -12252143.99 0.0134 0.0103

Venus -38257-01-29 16:04 J -12251917.98 -12251917.83 -12251917.67 0.0133 0.0095
 Venus -38257-09-11 23:16 J -12251691.70 -12251691.53 -12251691.36 0.0133 0.0087
 Venus -38256-04-26 06:14 J -12251465.42 -12251465.24 -12251465.06 0.0133 0.0079
 Venus -38256-12-08 12:57 J -12251239.15 -12251238.96 -12251238.77 0.0133 0.0070
 Mercury -38255-02-02 02:23 J -12251183.43 -12251183.40 -12251183.35 0.0133 0.0127
 Mercury -38255-05-01 06:57 J -12251095.29 -12251095.21 -12251095.11 0.0133 0.0106
 Venus -38255-07-22 19:40 J -12251012.87 -12251012.68 -12251012.48 0.0133 0.0062
 Mercury -38255-07-28 11:30 J -12251007.13 -12251007.02 -12251006.89 0.0133 0.0085
 Moon -38255-10-12 23:59 J -12250930.72 -12250930.50 -12250930.26 0.0133 0.0068
 Earth -38255-10-13 00:57 J -12250930.66 -12250930.46 -12250930.24 0.0133 0.0074 *
 Mercury -38255-10-24 16:04 J -12250918.96 -12250918.83 -12250918.69 0.0133 0.0064
 Mercury -38254-01-20 20:38 J -12250830.79 -12250830.64 -12250830.49 0.0133 0.0043
 Venus -38254-03-06 02:09 J -12250786.61 -12250786.41 -12250786.20 0.0133 0.0054
 Mercury -38254-04-19 00:57 J -12250742.61 -12250742.46 -12250742.31 0.0133 0.0023
 Mercury -38254-07-16 05:16 J -12250654.43 -12250654.28 -12250654.12 0.0133 0.0002
 Mercury -38254-10-12 09:35 J -12250566.25 -12250566.10 -12250565.95 0.0133 0.0018
 Earth -38254-10-17 07:40 J -12250561.42 -12250561.18 -12250560.92 0.0133 0.0031
 Moon -38254-10-17 08:23 J -12250561.40 -12250561.15 -12250560.91 0.0133 0.0024 *
 Venus -38254-10-18 08:23 J -12250560.35 -12250560.15 -12250559.93 0.0133 0.0046
 Mercury -38253-01-08 13:40 J -12250478.07 -12250477.93 -12250477.77 0.0133 0.0039
 Mercury -38253-04-05 17:59 J -12250389.88 -12250389.75 -12250389.61 0.0133 0.0058
 Venus -38253-05-31 14:52 J -12250334.09 -12250333.88 -12250333.66 0.0133 0.0037
 Mercury -38253-07-02 22:18 J -12250301.69 -12250301.57 -12250301.45 0.0132 0.0078
 Mercury -38253-09-29 02:23 J -12250213.50 -12250213.40 -12250213.29 0.0132 0.0097
 Mercury -38253-12-26 06:28 J -12250125.29 -12250125.23 -12250125.15 0.0132 0.0117
 Venus -38252-01-12 21:06 J -12250107.84 -12250107.62 -12250107.40 0.0132 0.0028
 Venus -38252-08-27 03:21 J -12249881.58 -12249881.36 -12249881.14 0.0132 0.0020
 Venus -38251-04-10 09:06 J -12249655.34 -12249655.12 -12249654.90 0.0132 0.0011
 Venus -38251-11-22 14:52 J -12249429.10 -12249428.88 -12249428.66 0.0132 0.0004
 Venus -38250-07-06 20:38 J -12249202.86 -12249202.64 -12249202.42 0.0132 0.0006

Venus	-38249-02-18 02:09 J	-12248976.63	-12248976.41	-12248976.19	0.0132	0.0015
Venus	-38249-10-01 07:40 J	-12248750.39	-12248750.18	-12248749.96	0.0132	0.0023
Venus	-38248-05-15 12:57 J	-12248524.17	-12248523.96	-12248523.74	0.0132	0.0031
Venus	-38248-12-27 18:14 J	-12248297.95	-12248297.74	-12248297.53	0.0132	0.0039
Venus	-38247-08-10 23:16 J	-12248071.73	-12248071.53	-12248071.32	0.0132	0.0048
Venus	-38246-03-25 04:18 J	-12247845.51	-12247845.32	-12247845.11	0.0132	0.0056
Venus	-38246-11-06 09:21 J	-12247619.30	-12247619.11	-12247618.91	0.0132	0.0064
Venus	-38245-06-19 14:09 J	-12247393.08	-12247392.91	-12247392.72	0.0132	0.0071
Venus	-38244-01-31 19:11 J	-12247166.87	-12247166.70	-12247166.52	0.0132	0.0079
Venus	-38244-09-14 23:59 J	-12246940.65	-12246940.50	-12246940.33	0.0133	0.0087
Venus	-38243-04-29 04:47 J	-12246714.44	-12246714.30	-12246714.14	0.0133	0.0094
Venus	-38243-12-11 09:35 J	-12246488.23	-12246488.10	-12246487.95	0.0133	0.0101
Mars	-38242-02-14 04:47 J	-12246423.47	-12246423.30	-12246423.07	0.0133	0.0105
Venus	-38242-07-25 14:23 J	-12246262.02	-12246261.90	-12246261.77	0.0133	0.0108
Venus	-38241-03-07 19:11 J	-12246035.80	-12246035.70	-12246035.59	0.0133	0.0115
Venus	-38241-10-19 23:45 J	-12245809.57	-12245809.51	-12245809.41	0.0133	0.0123
Venus	-38240-06-03 04:47 J	-12245583.35	-12245583.30	-12245583.24	0.0133	0.0129
Venus	-38217-05-04 20:23 J	-12237211.68	-12237211.65	-12237211.61	0.0144	0.0141
Venus	-38217-12-17 05:45 J	-12236985.34	-12236985.26	-12236985.18	0.0144	0.0133
Venus	-38216-07-31 14:52 J	-12236758.97	-12236758.88	-12236758.77	0.0144	0.0126
Venus	-38215-03-15 00:14 J	-12236532.60	-12236532.49	-12236532.36	0.0144	0.0117
Venus	-38215-10-27 09:50 J	-12236306.21	-12236306.09	-12236305.94	0.0145	0.0109
Venus	-38214-06-10 20:09 J	-12236079.81	-12236079.66	-12236079.51	0.0145	0.0099
Venus	-38213-01-23 06:14 J	-12235853.40	-12235853.24	-12235853.06	0.0145	0.0090
Venus	-38213-09-05 16:33 J	-12235626.97	-12235626.81	-12235626.62	0.0145	0.0081
Mercury	-38212-04-16 05:45 J	-12235404.30	-12235404.26	-12235404.21	0.0145	0.0139
Venus	-38212-04-20 03:06 J	-12235400.54	-12235400.37	-12235400.17	0.0145	0.0071
Mercury	-38212-07-13 11:02 J	-12235316.13	-12235316.04	-12235315.93	0.0145	0.0113
Mercury	-38212-10-09 16:33 J	-12235227.93	-12235227.81	-12235227.68	0.0146	0.0086
Venus	-38212-12-02 14:09 J	-12235174.11	-12235173.91	-12235173.72	0.0146	0.0060

Mercury -38211-01-05 22:04 J -12235139.72 -12235139.58 -12235139.43 0.0146 0.0059

Mercury -38211-04-04 03:35 J -12235051.50 -12235051.35 -12235051.19 0.0146 0.0032

Moon -38211-04-12 05:45 J -12235043.52 -12235043.26 -12235043.00 0.0146 0.0027

Earth -38211-04-12 06:28 J -12235043.48 -12235043.23 -12235042.98 0.0146 0.0026 *

Mercury -38211-07-01 09:21 J -12234963.27 -12234963.11 -12234962.96 0.0146 0.0006

Venus -38211-07-17 00:42 J -12234947.66 -12234947.47 -12234947.26 0.0146 0.0050

Mercury -38211-09-27 14:52 J -12234875.04 -12234874.88 -12234874.72 0.0146 0.0023

Mercury -38211-12-24 20:23 J -12234786.79 -12234786.65 -12234786.49 0.0146 0.0051

Venus -38210-02-28 11:59 J -12234721.20 -12234721.00 -12234720.78 0.0146 0.0039

Mercury -38210-03-23 02:09 J -12234698.54 -12234698.41 -12234698.27 0.0146 0.0079

Earth -38210-04-17 08:23 J -12234673.30 -12234673.15 -12234672.97 0.0146 0.0112

Moon -38210-04-17 09:06 J -12234673.26 -12234673.12 -12234672.96 0.0146 0.0116 *

Mercury -38210-06-19 07:54 J -12234610.27 -12234610.17 -12234610.05 0.0146 0.0107

Mercury -38210-09-15 13:54 J -12234521.98 -12234521.92 -12234521.86 0.0146 0.0135

Venus -38210-10-12 23:16 J -12234494.73 -12234494.53 -12234494.31 0.0146 0.0028

Venus -38209-05-26 10:47 J -12234268.26 -12234268.05 -12234267.83 0.0146 0.0017

Venus -38208-01-07 22:33 J -12234041.78 -12234041.56 -12234041.35 0.0146 0.0005

Venus -38208-08-22 10:18 J -12233815.29 -12233815.07 -12233814.86 0.0146 0.0006

Venus -38207-04-05 22:04 J -12233588.79 -12233588.58 -12233588.37 0.0146 0.0017

Venus -38207-11-18 09:50 J -12233362.29 -12233362.09 -12233361.87 0.0146 0.0029

Venus -38206-07-02 22:04 J -12233135.79 -12233135.58 -12233135.37 0.0146 0.0039

Venus -38205-02-14 10:18 J -12232909.27 -12232909.07 -12232908.86 0.0146 0.0051

Venus -38205-09-27 22:33 J -12232682.75 -12232682.56 -12232682.36 0.0146 0.0062

Venus -38204-05-12 10:47 J -12232456.23 -12232456.05 -12232455.85 0.0146 0.0073

Venus -38204-12-24 23:16 J -12232229.70 -12232229.53 -12232229.34 0.0146 0.0083

Venus -38203-08-08 11:45 J -12232003.17 -12232003.01 -12232002.83 0.0146 0.0093

Venus -38202-03-23 00:42 J -12231776.62 -12231776.47 -12231776.31 0.0146 0.0103

Venus -38202-11-04 13:26 J -12231550.07 -12231549.94 -12231549.80 0.0146 0.0113

Venus -38201-06-18 01:54 J -12231323.52 -12231323.42 -12231323.29 0.0146 0.0123

Venus -38200-01-30 15:06 J -12231096.96 -12231096.87 -12231096.78 0.0145 0.0132

Mars	-38200-05-29 13:26 J	-12230978.13	-12230977.94	-12230977.73	0.0145	0.0104
Venus	-38200-09-14 04:04 J	-12230870.38	-12230870.33	-12230870.28	0.0145	0.0141
Venus	-38177-08-23 08:52 J	-12222491.14	-12222491.13	-12222491.10	0.0135	0.0134
Venus	-38176-04-06 16:47 J	-12222264.86	-12222264.80	-12222264.71	0.0134	0.0127
Venus	-38176-11-19 00:42 J	-12222038.56	-12222038.47	-12222038.36	0.0134	0.0119
Venus	-38175-07-03 08:38 J	-12221812.26	-12221812.14	-12221812.01	0.0134	0.0111
Venus	-38174-02-14 16:04 J	-12221585.96	-12221585.83	-12221585.68	0.0134	0.0104
Venus	-38174-09-28 23:30 J	-12221359.67	-12221359.52	-12221359.36	0.0134	0.0096
Venus	-38173-05-12 06:42 J	-12221133.38	-12221133.22	-12221133.05	0.0133	0.0088
Venus	-38173-12-24 13:40 J	-12220907.10	-12220906.93	-12220906.74	0.0133	0.0080
Venus	-38172-08-07 20:52 J	-12220680.81	-12220680.63	-12220680.44	0.0133	0.0071
Mercury	-38171-02-22 09:06 J	-12220482.17	-12220482.12	-12220482.05	0.0133	0.0123
Venus	-38171-03-22 03:35 J	-12220454.54	-12220454.35	-12220454.15	0.0133	0.0063
Mercury	-38171-05-21 13:54 J	-12220394.02	-12220393.92	-12220393.82	0.0133	0.0101
Mercury	-38171-08-17 18:14 J	-12220305.86	-12220305.74	-12220305.61	0.0133	0.0081
Moon	-38171-10-13 08:38 J	-12220249.35	-12220249.14	-12220248.92	0.0133	0.0076
Earth	-38171-10-13 09:50 J	-12220249.30	-12220249.09	-12220248.87	0.0133	0.0070 *
Venus	-38171-11-03 10:04 J	-12220228.27	-12220228.08	-12220227.87	0.0133	0.0055
Mercury	-38171-11-13 22:47 J	-12220217.69	-12220217.55	-12220217.41	0.0133	0.0060
Mercury	-38170-02-10 03:06 J	-12220129.51	-12220129.37	-12220129.21	0.0133	0.0039
Mercury	-38170-05-09 07:40 J	-12220041.33	-12220041.18	-12220041.02	0.0133	0.0018
Venus	-38170-06-17 16:47 J	-12220002.01	-12220001.80	-12220001.59	0.0133	0.0046
Mercury	-38170-08-05 11:59 J	-12219953.15	-12219953.00	-12219952.84	0.0133	0.0003
Earth	-38170-10-17 16:18 J	-12219880.05	-12219879.82	-12219879.56	0.0133	0.0034
Moon	-38170-10-17 17:45 J	-12219879.99	-12219879.76	-12219879.52	0.0133	0.0041 *
Mercury	-38170-11-01 16:18 J	-12219864.97	-12219864.82	-12219864.67	0.0133	0.0022
Mercury	-38169-01-28 20:38 J	-12219776.79	-12219776.64	-12219776.49	0.0133	0.0042
Venus	-38169-01-29 23:02 J	-12219775.74	-12219775.54	-12219775.32	0.0133	0.0038
Mercury	-38169-04-26 00:42 J	-12219688.60	-12219688.47	-12219688.33	0.0133	0.0063
Mercury	-38169-07-23 04:47 J	-12219600.41	-12219600.30	-12219600.17	0.0133	0.0083

Venus -38169-09-12 05:30 J -12219549.48 -12219549.27 -12219549.05 0.0132 0.0029
 Mercury -38169-10-19 09:06 J -12219512.21 -12219512.12 -12219512.02 0.0132 0.0102
 Moon -38169-10-20 21:06 J -12219510.64 -12219510.62 -12219510.55 0.0132 0.0131
 Mercury -38168-01-15 13:11 J -12219424.00 -12219423.95 -12219423.88 0.0132 0.0121
 Venus -38168-04-26 11:45 J -12219323.23 -12219323.01 -12219322.79 0.0132 0.0021
 Venus -38168-12-08 17:30 J -12219096.98 -12219096.77 -12219096.54 0.0132 0.0012
 Venus -38167-07-22 23:30 J -12218870.74 -12218870.52 -12218870.30 0.0132 0.0004
 Venus -38166-03-06 05:16 J -12218644.50 -12218644.28 -12218644.06 0.0132 0.0005
 Venus -38166-10-18 10:47 J -12218418.26 -12218418.05 -12218417.82 0.0132 0.0014
 Venus -38165-05-31 16:18 J -12218192.03 -12218191.82 -12218191.60 0.0132 0.0022
 Venus -38164-01-12 21:35 J -12217965.81 -12217965.60 -12217965.38 0.0132 0.0031
 Venus -38164-08-27 03:06 J -12217739.58 -12217739.37 -12217739.16 0.0132 0.0039
 Venus -38163-04-10 08:23 J -12217513.36 -12217513.15 -12217512.95 0.0132 0.0047
 Venus -38163-11-22 13:26 J -12217287.14 -12217286.94 -12217286.74 0.0132 0.0055
 Venus -38162-07-06 18:14 J -12217060.93 -12217060.74 -12217060.54 0.0132 0.0063
 Venus -38161-02-17 23:16 J -12216834.71 -12216834.53 -12216834.34 0.0132 0.0071
 Venus -38161-10-01 04:04 J -12216608.49 -12216608.33 -12216608.14 0.0132 0.0079
 Venus -38160-05-15 09:06 J -12216382.28 -12216382.12 -12216381.94 0.0133 0.0086
 Venus -38160-12-27 13:40 J -12216156.06 -12216155.93 -12216155.76 0.0133 0.0094
 Venus -38159-08-10 18:42 J -12215929.85 -12215929.72 -12215929.57 0.0133 0.0101
 Venus -38158-03-24 23:30 J -12215703.63 -12215703.52 -12215703.38 0.0133 0.0108
 Mars -38158-10-10 08:38 J -12215504.46 -12215504.14 -12215503.80 0.0133 0.0018
 Venus -38158-11-06 04:18 J -12215477.41 -12215477.32 -12215477.19 0.0133 0.0115
 Venus -38157-06-19 09:21 J -12215251.19 -12215251.11 -12215251.02 0.0133 0.0121
 Venus -38156-01-31 13:54 J -12215024.96 -12215024.92 -12215024.85 0.0133 0.0128
 Venus -38133-01-03 03:50 J -12206653.36 -12206653.34 -12206653.31 0.0144 0.0142
 Venus -38133-08-16 12:28 J -12206427.03 -12206426.98 -12206426.89 0.0144 0.0135
 Venus -38132-03-30 21:35 J -12206200.68 -12206200.60 -12206200.48 0.0144 0.0127
 Venus -38132-11-12 07:11 J -12205974.31 -12205974.20 -12205974.07 0.0144 0.0119
 Venus -38131-06-26 16:47 J -12205747.93 -12205747.80 -12205747.65 0.0145 0.0110

Venus -38130-02-08 02:38 J -12205521.53 -12205521.39 -12205521.22 0.0145 0.0101
 Venus -38130-09-22 12:42 J -12205295.12 -12205294.97 -12205294.79 0.0145 0.0092
 Venus -38129-05-05 23:02 J -12205068.70 -12205068.54 -12205068.35 0.0145 0.0082
 Venus -38129-12-18 09:50 J -12204842.28 -12204842.09 -12204841.91 0.0145 0.0072
 Mercury -38128-05-06 12:57 J -12204703.02 -12204702.96 -12204702.90 0.0145 0.0133
 Venus -38128-08-01 20:09 J -12204615.84 -12204615.66 -12204615.46 0.0145 0.0062
 Mercury -38128-08-02 18:14 J -12204614.84 -12204614.74 -12204614.63 0.0145 0.0107
 Mercury -38128-10-29 23:30 J -12204526.64 -12204526.52 -12204526.38 0.0146 0.0080
 Mercury -38127-01-26 05:02 J -12204438.43 -12204438.29 -12204438.14 0.0146 0.0053
 Venus -38127-03-16 07:11 J -12204389.40 -12204389.20 -12204389.00 0.0146 0.0051
 Moon -38127-04-12 12:57 J -12204362.21 -12204361.96 -12204361.69 0.0146 0.0025
 Earth -38127-04-12 15:06 J -12204362.12 -12204361.87 -12204361.62 0.0146 0.0022 *
 Mercury -38127-04-24 10:33 J -12204350.21 -12204350.06 -12204349.90 0.0146 0.0026
 Mercury -38127-07-21 16:04 J -12204261.98 -12204261.83 -12204261.67 0.0146 0.0005
 Mercury -38127-10-17 21:50 J -12204173.75 -12204173.59 -12204173.44 0.0146 0.0029
 Venus -38127-10-28 17:59 J -12204162.95 -12204162.75 -12204162.54 0.0146 0.0041
 Mercury -38126-01-14 03:21 J -12204085.50 -12204085.36 -12204085.21 0.0146 0.0057
 Mercury -38126-04-12 08:52 J -12203997.25 -12203997.13 -12203996.99 0.0146 0.0085
 Earth -38126-04-17 16:47 J -12203991.93 -12203991.80 -12203991.63 0.0146 0.0116
 Moon -38126-04-17 17:30 J -12203991.91 -12203991.77 -12203991.60 0.0146 0.0112 *
 Venus -38126-06-12 05:16 J -12203936.49 -12203936.28 -12203936.07 0.0146 0.0030
 Mercury -38126-07-09 14:52 J -12203908.97 -12203908.88 -12203908.77 0.0146 0.0113
 Mercury -38126-10-05 20:52 J -12203820.67 -12203820.63 -12203820.59 0.0146 0.0141
 Venus -38125-01-24 16:33 J -12203710.01 -12203709.81 -12203709.59 0.0146 0.0019
 Venus -38125-09-07 04:04 J -12203483.54 -12203483.33 -12203483.11 0.0146 0.0008
 Venus -38124-04-21 15:50 J -12203257.06 -12203256.84 -12203256.63 0.0146 0.0004
 Venus -38124-12-04 03:21 J -12203030.57 -12203030.36 -12203030.14 0.0146 0.0015
 Venus -38123-07-18 15:06 J -12202804.08 -12202803.87 -12202803.65 0.0146 0.0026
 Venus -38122-03-02 03:21 J -12202577.57 -12202577.36 -12202577.15 0.0146 0.0037
 Venus -38122-10-14 15:21 J -12202351.06 -12202350.86 -12202350.65 0.0146 0.0049

Venus	-38121-05-28 03:35 J	-12202124.54	-12202124.35	-12202124.15	0.0146	0.0059
Venus	-38120-01-09 15:50 J	-12201898.02	-12201897.84	-12201897.64	0.0146	0.0070
Venus	-38120-08-24 04:04 J	-12201671.50	-12201671.33	-12201671.14	0.0146	0.0081
Venus	-38119-04-07 16:47 J	-12201444.96	-12201444.80	-12201444.62	0.0146	0.0091
Venus	-38119-11-20 05:30 J	-12201218.42	-12201218.27	-12201218.11	0.0146	0.0101
Venus	-38118-07-04 18:14 J	-12200991.88	-12200991.74	-12200991.60	0.0146	0.0111
Venus	-38117-02-16 06:57 J	-12200765.32	-12200765.21	-12200765.08	0.0146	0.0121
Mars	-38117-02-20 14:38 J	-12200761.11	-12200760.89	-12200760.63	0.0146	0.0083
Venus	-38117-09-29 19:26 J	-12200538.77	-12200538.69	-12200538.57	0.0145	0.0131
Venus	-38116-05-14 08:23 J	-12200312.20	-12200312.15	-12200312.07	0.0145	0.0139
Venus	-38093-12-04 23:30 J	-12191706.58	-12191706.52	-12191706.44	0.0135	0.0128
Venus	-38092-07-19 07:26 J	-12191480.27	-12191480.19	-12191480.08	0.0134	0.0120
Venus	-38091-03-02 15:21 J	-12191253.97	-12191253.86	-12191253.73	0.0134	0.0113
Venus	-38091-10-14 22:47 J	-12191027.67	-12191027.55	-12191027.40	0.0134	0.0105
Venus	-38090-05-29 06:28 J	-12190801.38	-12190801.23	-12190801.07	0.0134	0.0097
Venus	-38089-01-10 13:54 J	-12190575.08	-12190574.92	-12190574.75	0.0134	0.0089
Venus	-38089-08-23 21:06 J	-12190348.79	-12190348.62	-12190348.44	0.0133	0.0081
Venus	-38088-04-07 04:04 J	-12190122.51	-12190122.33	-12190122.14	0.0133	0.0072
Venus	-38088-11-19 10:47 J	-12189896.23	-12189896.05	-12189895.84	0.0133	0.0064
Mercury	-38087-03-14 15:35 J	-12189780.91	-12189780.85	-12189780.77	0.0133	0.0119
Mercury	-38087-06-10 20:09 J	-12189692.75	-12189692.66	-12189692.54	0.0133	0.0098
Venus	-38087-07-03 17:30 J	-12189669.95	-12189669.77	-12189669.55	0.0133	0.0056
Mercury	-38087-09-07 00:42 J	-12189604.59	-12189604.47	-12189604.33	0.0133	0.0077
Moon	-38087-10-13 15:06 J	-12189568.08	-12189567.87	-12189567.62	0.0133	0.0063
Earth	-38087-10-13 17:30 J	-12189567.97	-12189567.77	-12189567.54	0.0133	0.0068 *
Mercury	-38087-12-04 05:16 J	-12189516.42	-12189516.28	-12189516.13	0.0133	0.0056
Venus	-38086-02-15 00:28 J	-12189443.68	-12189443.48	-12189443.27	0.0133	0.0047
Mercury	-38086-03-02 09:50 J	-12189428.24	-12189428.09	-12189427.94	0.0133	0.0035
Mercury	-38086-05-29 14:09 J	-12189340.06	-12189339.91	-12189339.75	0.0133	0.0015
Mercury	-38086-08-25 18:42 J	-12189251.88	-12189251.72	-12189251.57	0.0133	0.0007

Venus -38086-09-29 06:57 J -12189217.42 -12189217.21 -12189216.99 0.0133 0.0039
 Earth -38086-10-18 00:14 J -12189198.72 -12189198.49 -12189198.23 0.0133 0.0037
 Moon -38086-10-18 01:54 J -12189198.65 -12189198.42 -12189198.17 0.0133 0.0030 *
 Mercury -38086-11-21 22:47 J -12189163.70 -12189163.55 -12189163.39 0.0133 0.0027
 Mercury -38085-02-18 03:06 J -12189075.51 -12189075.37 -12189075.22 0.0133 0.0046
 Venus -38085-05-12 13:11 J -12188991.16 -12188990.95 -12188990.73 0.0133 0.0030
 Mercury -38085-05-16 07:11 J -12188987.32 -12188987.20 -12188987.05 0.0133 0.0067
 Mercury -38085-08-12 11:45 J -12188899.13 -12188899.01 -12188898.90 0.0133 0.0086
 Mercury -38085-11-08 15:35 J -12188810.93 -12188810.85 -12188810.75 0.0133 0.0106
 Venus -38085-12-24 19:26 J -12188764.91 -12188764.69 -12188764.47 0.0132 0.0022
 Mercury -38084-02-04 19:54 J -12188722.71 -12188722.67 -12188722.62 0.0132 0.0125
 Venus -38084-08-08 01:40 J -12188538.65 -12188538.43 -12188538.21 0.0132 0.0013
 Venus -38083-03-22 07:26 J -12188312.41 -12188312.19 -12188311.96 0.0132 0.0006
 Venus -38083-11-03 13:11 J -12188086.17 -12188085.95 -12188085.73 0.0132 0.0005
 Venus -38082-06-17 18:57 J -12187859.93 -12187859.71 -12187859.49 0.0132 0.0013
 Venus -38081-01-30 00:14 J -12187633.70 -12187633.49 -12187633.26 0.0132 0.0022
 Venus -38081-09-12 05:59 J -12187407.46 -12187407.25 -12187407.03 0.0132 0.0029
 Venus -38080-04-26 11:16 J -12187181.24 -12187181.03 -12187180.82 0.0132 0.0038
 Venus -38080-12-08 16:33 J -12186955.02 -12186954.81 -12186954.61 0.0132 0.0046
 Venus -38079-07-22 21:35 J -12186728.79 -12186728.60 -12186728.39 0.0132 0.0054
 Venus -38078-03-06 02:52 J -12186502.57 -12186502.38 -12186502.19 0.0132 0.0062
 Venus -38078-10-18 07:40 J -12186276.35 -12186276.18 -12186275.98 0.0132 0.0070
 Venus -38077-05-31 12:42 J -12186050.14 -12186049.97 -12186049.78 0.0132 0.0077
 Venus -38076-01-12 17:45 J -12185823.92 -12185823.76 -12185823.59 0.0132 0.0085
 Venus -38076-08-26 22:33 J -12185597.70 -12185597.56 -12185597.39 0.0133 0.0093
 Venus -38075-04-10 03:21 J -12185371.48 -12185371.36 -12185371.20 0.0133 0.0100
 Venus -38075-11-22 08:23 J -12185145.27 -12185145.15 -12185145.01 0.0133 0.0107
 Venus -38074-07-06 12:57 J -12184919.05 -12184918.96 -12184918.83 0.0133 0.0114
 Venus -38073-02-17 18:14 J -12184692.82 -12184692.74 -12184692.65 0.0133 0.0120
 Mars -38073-06-04 09:35 J -12184585.36 -12184585.10 -12184584.79 0.0133 0.0069

Venus -38073-09-30 23:02 J -12184466.59 -12184466.54 -12184466.47 0.0133 0.0127
 Venus -38050-09-02 11:02 J -12176095.04 -12176095.04 -12176095.02 0.0143 0.0143
 Venus -38049-04-15 19:54 J -12175868.73 -12175868.67 -12175868.59 0.0144 0.0136
 Venus -38049-11-28 05:02 J -12175642.37 -12175642.29 -12175642.18 0.0144 0.0128
 Venus -38048-07-12 14:38 J -12175416.01 -12175415.89 -12175415.77 0.0144 0.0120
 Venus -38047-02-23 23:45 J -12175189.63 -12175189.51 -12175189.36 0.0144 0.0112
 Venus -38047-10-08 09:35 J -12174963.24 -12174963.10 -12174962.94 0.0145 0.0103
 Venus -38046-05-22 19:40 J -12174736.83 -12174736.68 -12174736.51 0.0145 0.0093
 Venus -38045-01-04 05:59 J -12174510.42 -12174510.25 -12174510.07 0.0145 0.0083
 Venus -38045-08-17 16:18 J -12174284.00 -12174283.82 -12174283.63 0.0145 0.0073
 Venus -38044-04-01 02:38 J -12174057.57 -12174057.39 -12174057.19 0.0145 0.0064
 Mercury -38044-05-26 19:54 J -12174001.74 -12174001.67 -12174001.60 0.0145 0.0127
 Mercury -38044-08-23 01:11 J -12173913.56 -12173913.45 -12173913.34 0.0146 0.0101
 Venus -38044-11-13 13:26 J -12173831.13 -12173830.94 -12173830.74 0.0146 0.0053
 Mercury -38044-11-19 06:42 J -12173825.36 -12173825.22 -12173825.09 0.0146 0.0074
 Mercury -38043-02-15 11:59 J -12173737.14 -12173737.00 -12173736.85 0.0146 0.0047
 Moon -38043-04-12 21:50 J -12173680.84 -12173680.59 -12173680.32 0.0146 0.0018
 Earth -38043-04-12 23:45 J -12173680.75 -12173680.51 -12173680.25 0.0146 0.0019 *
 Mercury -38043-05-14 17:30 J -12173648.92 -12173648.77 -12173648.61 0.0146 0.0021
 Venus -38043-06-28 00:14 J -12173604.69 -12173604.49 -12173604.28 0.0146 0.0042
 Mercury -38043-08-10 23:16 J -12173560.69 -12173560.53 -12173560.38 0.0146 0.0008
 Mercury -38043-11-07 04:47 J -12173472.45 -12173472.30 -12173472.15 0.0146 0.0035
 Mercury -38042-02-03 10:18 J -12173384.21 -12173384.07 -12173383.92 0.0146 0.0063
 Venus -38042-02-09 11:30 J -12173378.23 -12173378.02 -12173377.81 0.0146 0.0031
 Earth -38042-04-18 01:11 J -12173310.57 -12173310.45 -12173310.28 0.0146 0.0120
 Moon -38042-04-18 03:35 J -12173310.48 -12173310.35 -12173310.22 0.0146 0.0122 *
 Mercury -38042-05-02 16:04 J -12173295.95 -12173295.83 -12173295.70 0.0146 0.0091
 Mercury -38042-07-29 21:50 J -12173207.68 -12173207.59 -12173207.49 0.0146 0.0119
 Venus -38042-09-23 22:33 J -12173151.76 -12173151.56 -12173151.34 0.0146 0.0021
 Venus -38041-05-07 10:04 J -12172925.30 -12172925.08 -12172924.87 0.0146 0.0010

Venus	-38041-12-19 21:21 J	-12172698.82	-12172698.61	-12172698.39	0.0146	0.0003
Venus	-38040-08-03 08:52 J	-12172472.34	-12172472.13	-12172471.91	0.0146	0.0013
Venus	-38039-03-17 20:38 J	-12172245.84	-12172245.64	-12172245.42	0.0146	0.0025
Venus	-38039-10-30 08:38 J	-12172019.35	-12172019.14	-12172018.93	0.0146	0.0035
Venus	-38038-06-13 20:23 J	-12171792.84	-12171792.65	-12171792.43	0.0146	0.0047
Venus	-38037-01-26 08:38 J	-12171566.33	-12171566.14	-12171565.93	0.0146	0.0057
Venus	-38037-09-08 20:52 J	-12171339.81	-12171339.63	-12171339.43	0.0146	0.0068
Venus	-38036-04-23 09:21 J	-12171113.29	-12171113.11	-12171112.93	0.0146	0.0079
Venus	-38036-12-05 21:35 J	-12170886.76	-12170886.60	-12170886.42	0.0146	0.0089
Venus	-38035-07-20 10:04 J	-12170660.23	-12170660.08	-12170659.91	0.0146	0.0099
Venus	-38034-03-03 23:02 J	-12170433.68	-12170433.54	-12170433.39	0.0146	0.0109
Venus	-38034-10-16 11:45 J	-12170207.13	-12170207.01	-12170206.88	0.0146	0.0119
Venus	-38033-05-30 00:14 J	-12169980.57	-12169980.49	-12169980.37	0.0145	0.0129
Mars	-38033-10-15 14:38 J	-12169842.17	-12169841.89	-12169841.60	0.0145	0.0016
Venus	-38032-01-11 12:57 J	-12169754.01	-12169753.96	-12169753.87	0.0145	0.0138
Venus	-38009-08-04 06:28 J	-12161148.28	-12161148.23	-12161148.15	0.0135	0.0129
Venus	-38008-03-18 14:23 J	-12160921.98	-12160921.90	-12160921.79	0.0134	0.0122
Venus	-38008-10-30 22:33 J	-12160695.67	-12160695.56	-12160695.44	0.0134	0.0114
Venus	-38007-06-14 06:14 J	-12160469.36	-12160469.24	-12160469.09	0.0134	0.0106
Venus	-38006-01-26 13:54 J	-12160243.06	-12160242.92	-12160242.76	0.0134	0.0098
Venus	-38006-09-09 21:21 J	-12160016.76	-12160016.61	-12160016.43	0.0134	0.0090
Venus	-38005-04-23 04:33 J	-12159790.47	-12159790.31	-12159790.12	0.0133	0.0082
Venus	-38005-12-05 11:45 J	-12159564.19	-12159564.01	-12159563.81	0.0133	0.0073
Venus	-38004-07-19 18:42 J	-12159337.90	-12159337.72	-12159337.51	0.0133	0.0066
Venus	-38003-03-03 01:54 J	-12159111.62	-12159111.42	-12159111.22	0.0133	0.0056
Mercury	-38003-04-03 22:33 J	-12159079.63	-12159079.56	-12159079.48	0.0133	0.0114
Mercury	-38003-07-01 03:06 J	-12158991.48	-12158991.37	-12158991.25	0.0133	0.0093
Mercury	-38003-09-27 07:40 J	-12158903.31	-12158903.18	-12158903.05	0.0133	0.0072
Moon	-38003-10-13 23:59 J	-12158886.71	-12158886.50	-12158886.26	0.0133	0.0069
Earth	-38003-10-14 02:23 J	-12158886.61	-12158886.40	-12158886.17	0.0133	0.0064 *

Venus -38003-10-15 08:23 J -12158885.35 -12158885.15 -12158884.93 0.0133 0.0048

Mercury -38003-12-24 12:14 J -12158815.14 -12158814.99 -12158814.85 0.0133 0.0051

Mercury -38002-03-22 16:33 J -12158726.96 -12158726.81 -12158726.65 0.0133 0.0031

Venus -38002-05-29 14:52 J -12158659.08 -12158658.88 -12158658.66 0.0133 0.0040

Mercury -38002-06-18 20:52 J -12158638.78 -12158638.63 -12158638.47 0.0133 0.0011

Mercury -38002-09-15 01:26 J -12158550.60 -12158550.44 -12158550.29 0.0133 0.0011

Earth -38002-10-18 09:06 J -12158517.36 -12158517.12 -12158516.87 0.0133 0.0040

Moon -38002-10-18 11:30 J -12158517.24 -12158517.02 -12158516.78 0.0133 0.0047 *

Mercury -38002-12-12 05:45 J -12158462.41 -12158462.26 -12158462.11 0.0133 0.0031

Venus -38001-01-10 21:35 J -12158432.82 -12158432.60 -12158432.39 0.0133 0.0031

Mercury -38001-03-09 09:50 J -12158374.23 -12158374.09 -12158373.94 0.0133 0.0051

Mercury -38001-06-05 14:09 J -12158286.04 -12158285.91 -12158285.78 0.0133 0.0071

Venus -38001-08-24 03:50 J -12158206.56 -12158206.34 -12158206.12 0.0133 0.0022

Mercury -38001-09-01 18:14 J -12158197.84 -12158197.74 -12158197.62 0.0133 0.0090

Mercury -38001-11-28 22:33 J -12158109.64 -12158109.56 -12158109.47 0.0133 0.0110

38TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 38th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-38000-02-25 02:23 J	-12158021.41	-12158021.40	-12158021.35	0.0132	0.0130		
Venus	-38000-04-07 09:50 J	-12157980.30	-12157980.09	-12157979.86	0.0132	0.0014		
Venus	-38000-11-19 15:50 J	-12157754.06	-12157753.84	-12157753.62	0.0132	0.0005		

Venus	-37999-07-03 21:35 J	-12157527.82	-12157527.60	-12157527.37	0.0132	0.0004
Venus	-37998-02-15 03:21 J	-12157301.58	-12157301.36	-12157301.14	0.0132	0.0012
Venus	-37998-09-29 08:52 J	-12157075.34	-12157075.13	-12157074.90	0.0132	0.0021
Venus	-37997-05-12 14:23 J	-12156849.11	-12156848.90	-12156848.68	0.0132	0.0029
Venus	-37997-12-24 19:54 J	-12156622.88	-12156622.67	-12156622.46	0.0132	0.0037
Venus	-37996-08-08 01:11 J	-12156396.65	-12156396.45	-12156396.24	0.0132	0.0045
Venus	-37995-03-22 06:28 J	-12156170.43	-12156170.23	-12156170.03	0.0132	0.0053
Venus	-37995-11-03 11:30 J	-12155944.21	-12155944.02	-12155943.82	0.0132	0.0061
Venus	-37994-06-17 16:33 J	-12155717.99	-12155717.81	-12155717.62	0.0132	0.0069
Venus	-37993-01-29 21:21 J	-12155491.77	-12155491.61	-12155491.41	0.0132	0.0077
Venus	-37993-09-12 02:52 J	-12155265.55	-12155265.38	-12155265.21	0.0132	0.0084
Venus	-37992-04-26 07:26 J	-12155039.33	-12155039.19	-12155039.01	0.0133	0.0092
Venus	-37992-12-08 12:28 J	-12154813.11	-12154812.98	-12154812.82	0.0133	0.0099
Venus	-37991-07-22 17:30 J	-12154586.89	-12154586.77	-12154586.63	0.0133	0.0106
Mars	-37990-02-25 02:23 J	-12154369.59	-12154369.40	-12154369.14	0.0133	0.0096
Venus	-37990-03-05 22:18 J	-12154360.67	-12154360.57	-12154360.44	0.0133	0.0113
Venus	-37990-10-18 03:06 J	-12154134.44	-12154134.37	-12154134.26	0.0133	0.0120
Venus	-37989-05-31 08:09 J	-12153908.21	-12153908.16	-12153908.08	0.0133	0.0126
Venus	-37988-01-12 13:11 J	-12153681.96	-12153681.95	-12153681.93	0.0133	0.0133
Venus	-37966-12-15 03:06 J	-12145310.42	-12145310.37	-12145310.30	0.0144	0.0137
Venus	-37965-07-28 12:14 J	-12145084.07	-12145083.99	-12145083.89	0.0144	0.0129
Venus	-37964-03-11 21:21 J	-12144857.71	-12144857.61	-12144857.49	0.0144	0.0121
Venus	-37964-10-24 06:57 J	-12144631.34	-12144631.21	-12144631.08	0.0144	0.0113
Venus	-37963-06-07 16:33 J	-12144404.95	-12144404.81	-12144404.66	0.0145	0.0104
Venus	-37962-01-20 02:23 J	-12144178.55	-12144178.40	-12144178.23	0.0145	0.0095
Venus	-37962-09-03 12:28 J	-12143952.14	-12143951.98	-12143951.80	0.0145	0.0085
Venus	-37961-04-16 22:47 J	-12143725.73	-12143725.55	-12143725.36	0.0145	0.0075
Venus	-37961-11-29 09:06 J	-12143499.30	-12143499.12	-12143498.92	0.0145	0.0065
Mercury	-37960-06-16 02:52 J	-12143300.46	-12143300.38	-12143300.30	0.0145	0.0121
Venus	-37960-07-13 19:40 J	-12143272.87	-12143272.68	-12143272.48	0.0146	0.0055

Mercury -37960-09-12 08:09 J -12143212.27 -12143212.16 -12143212.04 0.0146 0.0095

Mercury -37960-12-09 13:26 J -12143124.07 -12143123.94 -12143123.80 0.0146 0.0068

Venus -37959-02-25 06:42 J -12143046.42 -12143046.22 -12143046.02 0.0146 0.0044

Mercury -37959-03-07 18:57 J -12143035.86 -12143035.71 -12143035.56 0.0146 0.0042

Moon -37959-04-13 05:16 J -12142999.53 -12142999.28 -12142999.02 0.0146 0.0018

Earth -37959-04-13 08:09 J -12142999.40 -12142999.16 -12142998.90 0.0146 0.0015 *

Mercury -37959-06-04 00:28 J -12142947.63 -12142947.48 -12142947.32 0.0146 0.0015

Mercury -37959-08-31 05:59 J -12142859.40 -12142859.25 -12142859.09 0.0146 0.0014

Venus -37959-10-09 17:30 J -12142819.98 -12142819.77 -12142819.56 0.0146 0.0033

Mercury -37959-11-27 11:45 J -12142771.16 -12142771.01 -12142770.86 0.0146 0.0041

Mercury -37958-02-23 17:16 J -12142682.91 -12142682.78 -12142682.63 0.0146 0.0069

Earth -37958-04-18 10:04 J -12142629.21 -12142629.08 -12142628.94 0.0146 0.0123

Moon -37958-04-18 11:59 J -12142629.13 -12142629.00 -12142628.86 0.0146 0.0120 *

Mercury -37958-05-22 22:47 J -12142594.66 -12142594.55 -12142594.42 0.0146 0.0097

Venus -37958-05-24 04:33 J -12142593.52 -12142593.31 -12142593.10 0.0146 0.0023

Mercury -37958-08-19 04:47 J -12142506.38 -12142506.30 -12142506.22 0.0146 0.0125

Venus -37957-01-05 15:50 J -12142367.05 -12142366.84 -12142366.62 0.0146 0.0012

Venus -37957-08-19 03:06 J -12142140.58 -12142140.37 -12142140.15 0.0146 0.0003

Venus -37956-04-02 14:38 J -12141914.10 -12141913.89 -12141913.67 0.0146 0.0011

Venus -37956-11-15 02:09 J -12141687.62 -12141687.41 -12141687.19 0.0146 0.0022

Venus -37955-06-29 13:54 J -12141461.12 -12141460.92 -12141460.70 0.0146 0.0033

Venus -37954-02-11 01:54 J -12141234.61 -12141234.42 -12141234.20 0.0146 0.0044

Venus -37954-09-25 13:54 J -12141008.11 -12141007.92 -12141007.71 0.0146 0.0055

Venus -37953-05-09 02:23 J -12140781.59 -12140781.40 -12140781.21 0.0146 0.0066

Venus -37953-12-21 14:23 J -12140555.08 -12140554.90 -12140554.71 0.0146 0.0076

Venus -37952-08-05 02:38 J -12140328.55 -12140328.39 -12140328.20 0.0146 0.0087

Venus -37951-03-19 15:21 J -12140102.01 -12140101.86 -12140101.69 0.0146 0.0097

Venus -37951-11-01 04:04 J -12139875.47 -12139875.33 -12139875.18 0.0146 0.0107

Venus -37950-06-15 16:33 J -12139648.92 -12139648.81 -12139648.67 0.0146 0.0117

Venus -37949-01-28 05:16 J -12139422.37 -12139422.28 -12139422.16 0.0146 0.0127

Venus -37949-09-10 17:59 J -12139195.81 -12139195.75 -12139195.65 0.0145 0.0136
 Venus -37948-04-25 06:57 J -12138969.22 -12138969.21 -12138969.17 0.0145 0.0144
 Mars -37948-06-10 14:52 J -12138923.04 -12138922.88 -12138922.68 0.0145 0.0114
 Venus -37925-04-03 12:57 J -12130590.00 -12130589.96 -12130589.88 0.0135 0.0130
 Venus -37925-11-15 21:06 J -12130363.69 -12130363.62 -12130363.51 0.0134 0.0123
 Venus -37924-06-30 05:30 J -12130137.38 -12130137.27 -12130137.15 0.0134 0.0114
 Venus -37923-02-11 13:11 J -12129911.07 -12129910.95 -12129910.80 0.0134 0.0107
 Venus -37923-09-25 20:52 J -12129684.76 -12129684.63 -12129684.47 0.0134 0.0099
 Venus -37922-05-10 04:33 J -12129458.47 -12129458.31 -12129458.14 0.0134 0.0091
 Venus -37922-12-22 11:59 J -12129232.17 -12129232.00 -12129231.82 0.0133 0.0083
 Venus -37921-08-04 19:11 J -12129005.87 -12129005.70 -12129005.50 0.0133 0.0075
 Venus -37920-03-19 02:23 J -12128779.59 -12128779.40 -12128779.20 0.0133 0.0066
 Venus -37920-10-31 09:06 J -12128553.31 -12128553.12 -12128552.91 0.0133 0.0058
 Mercury -37919-01-26 00:42 J -12128466.49 -12128466.47 -12128466.45 0.0133 0.0131
 Mercury -37919-04-24 05:02 J -12128378.37 -12128378.29 -12128378.19 0.0133 0.0110
 Venus -37919-06-14 16:04 J -12128327.03 -12128326.83 -12128326.62 0.0133 0.0049
 Mercury -37919-07-21 09:35 J -12128290.21 -12128290.10 -12128289.97 0.0133 0.0089
 Moon -37919-10-14 07:11 J -12128205.42 -12128205.20 -12128204.95 0.0133 0.0057
 Earth -37919-10-14 10:33 J -12128205.28 -12128205.06 -12128204.83 0.0133 0.0061 *
 Mercury -37919-10-17 14:09 J -12128202.04 -12128201.91 -12128201.77 0.0133 0.0068
 Mercury -37918-01-13 18:42 J -12128113.86 -12128113.72 -12128113.57 0.0133 0.0047
 Venus -37918-01-26 22:33 J -12128100.76 -12128100.56 -12128100.33 0.0133 0.0041
 Mercury -37918-04-11 23:16 J -12128025.68 -12128025.53 -12128025.38 0.0133 0.0027
 Mercury -37918-07-09 03:35 J -12127937.50 -12127937.35 -12127937.19 0.0133 0.0006
 Venus -37918-09-10 05:16 J -12127874.49 -12127874.28 -12127874.06 0.0133 0.0032
 Mercury -37918-10-05 07:54 J -12127849.32 -12127849.17 -12127849.01 0.0133 0.0015
 Earth -37918-10-18 17:02 J -12127836.02 -12127835.79 -12127835.54 0.0133 0.0043
 Moon -37918-10-18 19:40 J -12127835.92 -12127835.68 -12127835.44 0.0133 0.0037 *
 Mercury -37917-01-01 12:14 J -12127761.14 -12127760.99 -12127760.84 0.0133 0.0035
 Mercury -37917-03-29 16:33 J -12127672.95 -12127672.81 -12127672.67 0.0133 0.0054

Venus -37917-04-23 11:30 J -12127648.23 -12127648.02 -12127647.79 0.0133 0.0024
 Mercury -37917-06-25 20:38 J -12127584.76 -12127584.64 -12127584.50 0.0133 0.0075
 Mercury -37917-09-22 00:57 J -12127496.56 -12127496.46 -12127496.35 0.0133 0.0094
 Venus -37917-12-05 17:45 J -12127421.98 -12127421.76 -12127421.54 0.0133 0.0015
 Mercury -37917-12-19 05:02 J -12127408.36 -12127408.29 -12127408.21 0.0133 0.0114
 Venus -37916-07-19 23:59 J -12127195.73 -12127195.50 -12127195.28 0.0132 0.0007
 Venus -37915-03-03 05:45 J -12126969.48 -12126969.26 -12126969.04 0.0132 0.0002
 Venus -37915-10-15 11:30 J -12126743.24 -12126743.02 -12126742.80 0.0132 0.0011
 Venus -37914-05-29 17:02 J -12126517.01 -12126516.79 -12126516.57 0.0132 0.0019
 Venus -37913-01-10 22:33 J -12126290.77 -12126290.56 -12126290.34 0.0132 0.0027
 Venus -37913-08-24 04:04 J -12126064.54 -12126064.33 -12126064.11 0.0132 0.0036
 Venus -37912-04-07 09:35 J -12125838.31 -12125838.10 -12125837.89 0.0132 0.0044
 Venus -37912-11-19 14:52 J -12125612.08 -12125611.88 -12125611.68 0.0132 0.0052
 Venus -37911-07-03 19:54 J -12125385.86 -12125385.67 -12125385.47 0.0132 0.0060
 Venus -37910-02-15 00:57 J -12125159.64 -12125159.46 -12125159.26 0.0132 0.0068
 Venus -37910-09-29 06:14 J -12124933.41 -12124933.24 -12124933.05 0.0132 0.0075
 Venus -37909-05-12 11:30 J -12124707.19 -12124707.02 -12124706.85 0.0132 0.0083
 Venus -37909-12-24 16:04 J -12124480.97 -12124480.83 -12124480.66 0.0132 0.0091
 Venus -37908-08-07 21:06 J -12124254.75 -12124254.62 -12124254.46 0.0133 0.0098
 Venus -37907-03-22 02:09 J -12124028.53 -12124028.41 -12124028.27 0.0133 0.0105
 Venus -37907-11-03 07:11 J -12123802.31 -12123802.20 -12123802.08 0.0133 0.0112
 Venus -37906-06-17 11:59 J -12123576.08 -12123576.00 -12123575.89 0.0133 0.0119
 Mars -37906-10-21 04:47 J -12123450.63 -12123450.30 -12123449.97 0.0133 0.0009
 Venus -37905-01-29 17:02 J -12123349.86 -12123349.79 -12123349.72 0.0133 0.0125
 Venus -37905-09-11 21:35 J -12123123.61 -12123123.60 -12123123.55 0.0133 0.0132
 Venus -37882-08-14 09:50 J -12114752.13 -12114752.09 -12114752.02 0.0143 0.0138
 Venus -37881-03-27 18:42 J -12114525.79 -12114525.72 -12114525.61 0.0144 0.0131
 Venus -37881-11-09 04:18 J -12114299.43 -12114299.32 -12114299.21 0.0144 0.0122
 Venus -37880-06-23 13:26 J -12114073.06 -12114072.94 -12114072.80 0.0144 0.0114
 Venus -37879-02-04 23:02 J -12113846.67 -12113846.54 -12113846.38 0.0144 0.0106

Venus -37879-09-19 09:06 J -12113620.28 -12113620.12 -12113619.96 0.0145 0.0096
 Venus -37878-05-03 18:42 J -12113393.87 -12113393.72 -12113393.54 0.0145 0.0087
 Venus -37878-12-16 05:02 J -12113167.46 -12113167.29 -12113167.10 0.0145 0.0077
 Venus -37877-07-29 15:06 J -12112941.04 -12112940.87 -12112940.67 0.0145 0.0068
 Venus -37876-03-13 01:54 J -12112714.61 -12112714.42 -12112714.22 0.0145 0.0056
 Mercury -37876-04-09 04:18 J -12112687.35 -12112687.32 -12112687.29 0.0145 0.0142
 Mercury -37876-07-06 09:35 J -12112599.19 -12112599.10 -12112599.00 0.0146 0.0116
 Mercury -37876-10-02 14:52 J -12112511.00 -12112510.88 -12112510.75 0.0146 0.0090
 Venus -37876-10-25 12:28 J -12112488.18 -12112487.98 -12112487.77 0.0146 0.0046
 Mercury -37876-12-29 20:23 J -12112422.79 -12112422.65 -12112422.51 0.0146 0.0063
 Mercury -37875-03-28 01:54 J -12112334.57 -12112334.42 -12112334.27 0.0146 0.0036
 Moon -37875-04-13 13:26 J -12112318.19 -12112317.94 -12112317.68 0.0146 0.0009
 Earth -37875-04-13 16:18 J -12112318.07 -12112317.82 -12112317.56 0.0146 0.0012 *
 Venus -37875-06-08 23:16 J -12112261.73 -12112261.53 -12112261.32 0.0146 0.0035
 Mercury -37875-06-24 07:26 J -12112246.35 -12112246.19 -12112246.03 0.0146 0.0009
 Mercury -37875-09-20 12:57 J -12112158.12 -12112157.96 -12112157.80 0.0146 0.0018
 Mercury -37875-12-17 18:28 J -12112069.88 -12112069.73 -12112069.58 0.0146 0.0046
 Venus -37874-01-21 10:18 J -12112035.28 -12112035.07 -12112034.85 0.0146 0.0025
 Mercury -37874-03-15 23:59 J -12111981.63 -12111981.50 -12111981.35 0.0146 0.0074
 Earth -37874-04-18 17:59 J -12111947.87 -12111947.75 -12111947.62 0.0146 0.0126
 Moon -37874-04-18 20:38 J -12111947.74 -12111947.64 -12111947.51 0.0146 0.0128 *
 Mercury -37874-06-12 05:45 J -12111893.37 -12111893.26 -12111893.14 0.0146 0.0102
 Venus -37874-09-04 21:35 J -12111808.82 -12111808.60 -12111808.39 0.0146 0.0014
 Mercury -37874-09-08 11:45 J -12111805.08 -12111805.01 -12111804.94 0.0146 0.0130
 Venus -37873-04-18 08:38 J -12111582.35 -12111582.14 -12111581.92 0.0146 0.0004
 Venus -37873-11-30 20:09 J -12111355.88 -12111355.66 -12111355.45 0.0146 0.0009
 Venus -37872-07-15 07:40 J -12111129.39 -12111129.18 -12111128.97 0.0146 0.0020
 Venus -37871-02-26 19:26 J -12110902.90 -12110902.69 -12110902.48 0.0146 0.0031
 Venus -37871-10-11 07:26 J -12110676.40 -12110676.19 -12110675.98 0.0146 0.0042
 Venus -37870-05-25 19:26 J -12110449.89 -12110449.69 -12110449.49 0.0146 0.0053

Venus	-37869-01-07 07:26 J	-12110223.38	-12110223.19	-12110222.99	0.0146	0.0063
Venus	-37869-08-20 19:26 J	-12109996.86	-12109996.69	-12109996.49	0.0146	0.0075
Venus	-37868-04-04 07:54 J	-12109770.34	-12109770.17	-12109769.98	0.0146	0.0085
Venus	-37868-11-16 20:23 J	-12109543.80	-12109543.65	-12109543.48	0.0146	0.0095
Venus	-37867-07-01 08:52 J	-12109317.27	-12109317.13	-12109316.97	0.0146	0.0105
Venus	-37866-02-12 21:35 J	-12109090.72	-12109090.60	-12109090.45	0.0146	0.0115
Venus	-37866-09-27 10:18 J	-12108864.17	-12108864.07	-12108863.94	0.0146	0.0125
Mars	-37865-03-03 17:45 J	-12108706.01	-12108705.76	-12108705.51	0.0146	0.0071
Venus	-37865-05-10 23:02 J	-12108637.61	-12108637.54	-12108637.44	0.0146	0.0134
Venus	-37865-12-23 11:45 J	-12108411.03	-12108411.01	-12108410.95	0.0145	0.0143
Venus	-37842-12-02 19:40 J	-12100031.71	-12100031.68	-12100031.60	0.0135	0.0131
Venus	-37841-07-16 04:04 J	-12099805.39	-12099805.33	-12099805.22	0.0135	0.0124
Venus	-37840-02-27 12:28 J	-12099579.08	-12099578.98	-12099578.86	0.0134	0.0116
Venus	-37840-10-11 20:09 J	-12099352.77	-12099352.66	-12099352.51	0.0134	0.0109
Venus	-37839-05-26 04:04 J	-12099126.46	-12099126.33	-12099126.16	0.0134	0.0100
Venus	-37838-01-07 11:59 J	-12098900.15	-12098900.00	-12098899.83	0.0134	0.0092
Venus	-37838-08-21 19:26 J	-12098673.85	-12098673.69	-12098673.50	0.0134	0.0084
Venus	-37837-04-04 02:52 J	-12098447.55	-12098447.38	-12098447.19	0.0133	0.0075
Venus	-37837-11-16 09:50 J	-12098221.27	-12098221.09	-12098220.88	0.0133	0.0068
Venus	-37836-06-30 17:16 J	-12097994.98	-12097994.78	-12097994.58	0.0133	0.0058
Venus	-37835-02-11 23:59 J	-12097768.70	-12097768.50	-12097768.29	0.0133	0.0050
Mercury	-37835-02-15 07:11 J	-12097765.24	-12097765.20	-12097765.15	0.0133	0.0127
Mercury	-37835-05-14 11:45 J	-12097677.09	-12097677.01	-12097676.91	0.0133	0.0106
Mercury	-37835-08-10 16:18 J	-12097588.93	-12097588.82	-12097588.69	0.0133	0.0085
Venus	-37835-09-26 06:57 J	-12097542.42	-12097542.21	-12097542.00	0.0133	0.0041
Moon	-37835-10-14 15:50 J	-12097524.06	-12097523.84	-12097523.60	0.0133	0.0062
Earth	-37835-10-14 19:11 J	-12097523.93	-12097523.70	-12097523.47	0.0133	0.0057 *
Mercury	-37835-11-06 20:52 J	-12097500.76	-12097500.63	-12097500.48	0.0133	0.0064
Mercury	-37834-02-03 01:26 J	-12097412.59	-12097412.44	-12097412.29	0.0133	0.0043
Mercury	-37834-05-02 05:45 J	-12097324.41	-12097324.26	-12097324.10	0.0133	0.0023

Venus -37834-05-10 13:11 J -12097316.16 -12097315.95 -12097315.73 0.0133 0.0033
 Mercury -37834-07-29 10:18 J -12097236.23 -12097236.07 -12097235.91 0.0133 0.0002
 Earth -37834-10-19 01:40 J -12097154.67 -12097154.43 -12097154.19 0.0133 0.0046
 Moon -37834-10-19 04:47 J -12097154.52 -12097154.30 -12097154.06 0.0133 0.0053 *
 Mercury -37834-10-25 14:38 J -12097148.04 -12097147.89 -12097147.73 0.0133 0.0019
 Venus -37834-12-22 19:26 J -12097089.90 -12097089.69 -12097089.46 0.0133 0.0025
 Mercury -37833-01-21 18:57 J -12097059.86 -12097059.71 -12097059.56 0.0133 0.0039
 Mercury -37833-04-18 23:16 J -12096971.67 -12096971.53 -12096971.39 0.0133 0.0059
 Mercury -37833-07-16 03:21 J -12096883.48 -12096883.36 -12096883.23 0.0133 0.0079
 Venus -37833-08-05 01:54 J -12096863.64 -12096863.42 -12096863.19 0.0133 0.0016
 Mercury -37833-10-12 07:40 J -12096795.28 -12096795.18 -12096795.08 0.0133 0.0098
 Mercury -37832-01-08 11:45 J -12096707.07 -12096707.01 -12096706.94 0.0132 0.0118
 Venus -37832-03-19 08:09 J -12096637.38 -12096637.16 -12096636.94 0.0132 0.0007
 Venus -37832-10-31 13:54 J -12096411.14 -12096410.92 -12096410.70 0.0132 0.0002
 Venus -37831-06-14 19:40 J -12096184.90 -12096184.68 -12096184.45 0.0132 0.0010
 Venus -37830-01-27 01:26 J -12095958.66 -12095958.44 -12095958.22 0.0132 0.0018
 Venus -37830-09-10 07:11 J -12095732.41 -12095732.20 -12095731.98 0.0132 0.0026
 Venus -37829-04-23 12:42 J -12095506.18 -12095505.97 -12095505.76 0.0132 0.0035
 Venus -37829-12-05 17:59 J -12095279.95 -12095279.75 -12095279.53 0.0132 0.0043
 Venus -37828-07-19 23:16 J -12095053.72 -12095053.53 -12095053.32 0.0132 0.0051
 Venus -37827-03-03 04:33 J -12094827.49 -12094827.31 -12094827.10 0.0132 0.0059
 Venus -37827-10-15 09:50 J -12094601.26 -12094601.09 -12094600.89 0.0132 0.0067
 Venus -37826-05-29 15:06 J -12094375.04 -12094374.87 -12094374.68 0.0132 0.0075
 Venus -37825-01-10 20:09 J -12094148.82 -12094148.66 -12094148.48 0.0132 0.0082
 Venus -37825-08-24 01:26 J -12093922.59 -12093922.44 -12093922.27 0.0132 0.0090
 Venus -37824-04-07 06:28 J -12093696.37 -12093696.23 -12093696.08 0.0132 0.0097
 Venus -37824-11-19 11:02 J -12093470.15 -12093470.04 -12093469.88 0.0133 0.0105
 Venus -37823-07-03 16:18 J -12093243.93 -12093243.82 -12093243.70 0.0133 0.0111
 Venus -37822-02-14 21:06 J -12093017.70 -12093017.62 -12093017.51 0.0133 0.0118
 Venus -37822-09-29 01:54 J -12092791.47 -12092791.42 -12092791.33 0.0133 0.0125

Venus	-37821-05-12 06:42 J	-12092565.23	-12092565.22	-12092565.16	0.0133	0.0132
Mars	-37821-06-15 07:26 J	-12092531.44	-12092531.19	-12092530.90	0.0133	0.0077
Venus	-37798-04-13 16:47 J	-12084193.84	-12084193.80	-12084193.74	0.0143	0.0139
Venus	-37798-11-26 01:40 J	-12083967.50	-12083967.43	-12083967.34	0.0143	0.0132
Venus	-37797-07-09 10:33 J	-12083741.15	-12083741.06	-12083740.94	0.0144	0.0124
Venus	-37796-02-20 20:09 J	-12083514.78	-12083514.66	-12083514.53	0.0144	0.0115
Venus	-37796-10-05 05:30 J	-12083288.40	-12083288.27	-12083288.12	0.0144	0.0107
Venus	-37795-05-19 15:06 J	-12083062.02	-12083061.87	-12083061.71	0.0144	0.0098
Venus	-37794-01-01 01:11 J	-12082835.61	-12082835.45	-12082835.28	0.0145	0.0088
Venus	-37794-08-15 11:02 J	-12082609.21	-12082609.04	-12082608.85	0.0145	0.0079
Venus	-37793-03-28 21:21 J	-12082382.80	-12082382.61	-12082382.42	0.0145	0.0069
Venus	-37793-11-10 07:26 J	-12082156.38	-12082156.19	-12082155.99	0.0145	0.0059
Earth	-37792-04-08 22:04 J	-12082006.58	-12082006.58	-12082006.56	0.0145	0.0145
Moon	-37792-04-09 01:54 J	-12082006.49	-12082006.42	-12082006.35	0.0145	0.0139
Mercury	-37792-04-29 10:47 J	-12081986.09	-12081986.05	-12081985.99	0.0145	0.0137
Venus	-37792-06-24 17:59 J	-12081929.95	-12081929.75	-12081929.54	0.0146	0.0048
Mercury	-37792-07-26 16:04 J	-12081897.92	-12081897.83	-12081897.72	0.0146	0.0112
Mercury	-37792-10-22 21:35 J	-12081809.72	-12081809.60	-12081809.47	0.0146	0.0085
Mercury	-37791-01-19 02:52 J	-12081721.51	-12081721.38	-12081721.23	0.0146	0.0059
Venus	-37791-02-06 04:47 J	-12081703.50	-12081703.30	-12081703.09	0.0146	0.0038
Moon	-37791-04-13 19:54 J	-12081636.92	-12081636.67	-12081636.41	0.0146	0.0014
Earth	-37791-04-13 23:30 J	-12081636.77	-12081636.52	-12081636.26	0.0146	0.0010 *
Mercury	-37791-04-17 08:23 J	-12081633.30	-12081633.15	-12081632.99	0.0146	0.0032
Mercury	-37791-07-14 14:09 J	-12081545.07	-12081544.91	-12081544.76	0.0146	0.0006
Venus	-37791-09-20 15:50 J	-12081477.05	-12081476.84	-12081476.63	0.0146	0.0027
Mercury	-37791-10-10 19:40 J	-12081456.84	-12081456.68	-12081456.53	0.0146	0.0023
Mercury	-37790-01-07 01:11 J	-12081368.60	-12081368.45	-12081368.30	0.0146	0.0051
Mercury	-37790-04-05 06:42 J	-12081280.35	-12081280.22	-12081280.08	0.0146	0.0079
Earth	-37790-04-19 01:26 J	-12081266.55	-12081266.44	-12081266.32	0.0146	0.0128
Moon	-37790-04-19 03:50 J	-12081266.44	-12081266.34	-12081266.20	0.0146	0.0127 *

Venus -37790-05-05 02:38 J -12081250.60 -12081250.39 -12081250.17 0.0146 0.0016

Mercury -37790-07-02 12:14 J -12081192.08 -12081191.99 -12081191.87 0.0146 0.0107

Mercury -37790-09-28 18:14 J -12081103.79 -12081103.74 -12081103.68 0.0146 0.0135

Venus -37790-12-17 13:54 J -12081024.13 -12081023.92 -12081023.70 0.0146 0.0005

Venus -37789-07-31 01:11 J -12080797.66 -12080797.45 -12080797.23 0.0146 0.0007

Venus -37788-03-14 12:42 J -12080571.18 -12080570.97 -12080570.75 0.0146 0.0018

Venus -37788-10-27 00:28 J -12080344.69 -12080344.48 -12080344.27 0.0146 0.0028

Venus -37787-06-10 12:14 J -12080118.20 -12080117.99 -12080117.78 0.0146 0.0039

Venus -37786-01-23 00:14 J -12079891.69 -12079891.49 -12079891.29 0.0146 0.0051

Venus -37786-09-06 12:14 J -12079665.18 -12079664.99 -12079664.79 0.0146 0.0062

Venus -37785-04-20 00:28 J -12079438.66 -12079438.48 -12079438.29 0.0146 0.0072

Venus -37785-12-02 12:28 J -12079212.14 -12079211.98 -12079211.78 0.0146 0.0084

Venus -37784-07-17 01:11 J -12078985.61 -12078985.45 -12078985.28 0.0146 0.0093

Venus -37783-02-28 13:54 J -12078759.06 -12078758.92 -12078758.76 0.0146 0.0103

Venus -37783-10-13 02:23 J -12078532.52 -12078532.40 -12078532.25 0.0146 0.0113

Venus -37782-05-27 15:06 J -12078305.97 -12078305.87 -12078305.74 0.0146 0.0123

Venus -37781-01-09 03:50 J -12078079.42 -12078079.34 -12078079.24 0.0146 0.0132

Venus -37781-08-22 16:33 J -12077852.85 -12077852.81 -12077852.75 0.0145 0.0141

Mars -37781-10-27 16:04 J -12077787.10 -12077786.83 -12077786.53 0.0145 0.0027

Venus -37758-08-02 02:52 J -12069473.42 -12069473.38 -12069473.32 0.0135 0.0131

Venus -37757-03-15 11:16 J -12069247.11 -12069247.03 -12069246.94 0.0135 0.0124

Venus -37757-10-27 19:11 J -12069020.79 -12069020.70 -12069020.57 0.0134 0.0117

Venus -37756-06-11 03:35 J -12068794.47 -12068794.35 -12068794.21 0.0134 0.0109

Venus -37755-01-23 11:16 J -12068568.15 -12068568.03 -12068567.86 0.0134 0.0101

Venus -37755-09-06 19:11 J -12068341.85 -12068341.70 -12068341.52 0.0134 0.0093

Venus -37754-04-21 02:38 J -12068115.54 -12068115.39 -12068115.20 0.0134 0.0085

Venus -37754-12-03 10:04 J -12067889.24 -12067889.08 -12067888.88 0.0133 0.0077

Venus -37753-07-16 17:45 J -12067662.95 -12067662.76 -12067662.56 0.0133 0.0068

Venus -37752-02-28 00:42 J -12067436.66 -12067436.47 -12067436.26 0.0133 0.0059

Venus -37752-10-12 07:26 J -12067210.38 -12067210.19 -12067209.97 0.0133 0.0051

Mercury -37751-03-07 13:40 J -12067063.97 -12067063.93 -12067063.86 0.0133 0.0123

Venus -37751-05-26 14:23 J -12066984.11 -12066983.90 -12066983.68 0.0133 0.0042

Mercury -37751-06-03 18:28 J -12066975.83 -12066975.73 -12066975.62 0.0133 0.0102

Mercury -37751-08-30 23:02 J -12066887.66 -12066887.54 -12066887.41 0.0133 0.0081

Moon -37751-10-14 23:45 J -12066842.75 -12066842.51 -12066842.27 0.0133 0.0051

Earth -37751-10-15 03:06 J -12066842.59 -12066842.37 -12066842.13 0.0133 0.0055 *

Mercury -37751-11-27 03:35 J -12066799.49 -12066799.35 -12066799.21 0.0133 0.0060

Venus -37750-01-07 20:52 J -12066757.84 -12066757.63 -12066757.41 0.0133 0.0034

Mercury -37750-02-23 08:09 J -12066711.31 -12066711.16 -12066711.01 0.0133 0.0039

Mercury -37750-05-22 12:28 J -12066623.13 -12066622.98 -12066622.82 0.0133 0.0019

Mercury -37750-08-18 17:02 J -12066534.95 -12066534.79 -12066534.64 0.0133 0.0004

Venus -37750-08-22 03:35 J -12066531.57 -12066531.35 -12066531.13 0.0133 0.0025

Earth -37750-10-19 09:35 J -12066473.33 -12066473.10 -12066472.86 0.0133 0.0049

Moon -37750-10-19 12:57 J -12066473.20 -12066472.96 -12066472.72 0.0133 0.0043 *

Mercury -37750-11-14 21:06 J -12066446.77 -12066446.62 -12066446.46 0.0133 0.0023

Mercury -37749-02-11 01:26 J -12066358.58 -12066358.44 -12066358.29 0.0133 0.0043

Venus -37749-04-04 09:50 J -12066305.31 -12066305.09 -12066304.87 0.0133 0.0017

Mercury -37749-05-09 05:45 J -12066270.39 -12066270.26 -12066270.12 0.0133 0.0062

Mercury -37749-08-05 09:50 J -12066182.20 -12066182.09 -12066181.96 0.0133 0.0083

Mercury -37749-11-01 14:09 J -12066094.00 -12066093.91 -12066093.81 0.0132 0.0102

Venus -37749-11-16 15:50 J -12066079.06 -12066078.84 -12066078.61 0.0132 0.0008

Mercury -37748-01-28 18:14 J -12066005.79 -12066005.74 -12066005.67 0.0132 0.0121

Venus -37748-06-30 22:04 J -12065852.81 -12065852.58 -12065852.36 0.0132 0.0002

Venus -37747-02-12 03:50 J -12065626.56 -12065626.34 -12065626.12 0.0132 0.0009

Venus -37747-09-26 09:50 J -12065400.31 -12065400.09 -12065399.87 0.0132 0.0017

Venus -37746-05-10 15:21 J -12065174.07 -12065173.86 -12065173.64 0.0132 0.0026

Venus -37746-12-22 20:52 J -12064947.84 -12064947.63 -12064947.41 0.0132 0.0034

Venus -37745-08-05 02:23 J -12064721.60 -12064721.40 -12064721.18 0.0132 0.0042

Venus -37744-03-19 07:54 J -12064495.37 -12064495.17 -12064494.96 0.0132 0.0050

Venus -37744-10-31 13:11 J -12064269.14 -12064268.95 -12064268.74 0.0132 0.0058

Venus	-37743-06-14 18:28 J	-12064042.91	-12064042.73	-12064042.53	0.0132	0.0066
Venus	-37742-01-26 23:59 J	-12063816.69	-12063816.50	-12063816.32	0.0132	0.0074
Venus	-37742-09-10 05:02 J	-12063590.45	-12063590.29	-12063590.11	0.0132	0.0081
Venus	-37741-04-23 10:18 J	-12063364.23	-12063364.07	-12063363.91	0.0132	0.0089
Venus	-37741-12-05 14:52 J	-12063138.01	-12063137.88	-12063137.71	0.0132	0.0097
Venus	-37740-07-19 19:54 J	-12062911.79	-12062911.67	-12062911.52	0.0132	0.0104
Venus	-37739-03-03 00:57 J	-12062685.56	-12062685.46	-12062685.33	0.0133	0.0111
Venus	-37739-10-15 05:59 J	-12062459.33	-12062459.25	-12062459.13	0.0133	0.0118
Mars	-37738-03-07 23:16 J	-12062315.77	-12062315.53	-12062315.27	0.0133	0.0087
Venus	-37738-05-29 11:02 J	-12062233.11	-12062233.04	-12062232.96	0.0133	0.0124
Venus	-37737-01-10 15:50 J	-12062006.87	-12062006.84	-12062006.79	0.0133	0.0130
Venus	-37715-12-11 23:45 J	-12053635.53	-12053635.51	-12053635.45	0.0143	0.0140
Venus	-37714-07-26 08:38 J	-12053409.21	-12053409.14	-12053409.05	0.0143	0.0133
Venus	-37713-03-08 17:30 J	-12053182.86	-12053182.77	-12053182.65	0.0144	0.0125
Venus	-37713-10-21 02:38 J	-12052956.50	-12052956.39	-12052956.25	0.0144	0.0117
Venus	-37712-06-04 11:59 J	-12052730.13	-12052730.00	-12052729.85	0.0144	0.0108
Venus	-37711-01-16 21:35 J	-12052503.74	-12052503.60	-12052503.43	0.0144	0.0099
Venus	-37711-08-31 07:26 J	-12052277.35	-12052277.19	-12052277.02	0.0145	0.0090
Venus	-37710-04-14 17:16 J	-12052050.95	-12052050.78	-12052050.60	0.0145	0.0080
Venus	-37710-11-27 03:21 J	-12051824.54	-12051824.36	-12051824.17	0.0145	0.0070
Venus	-37709-07-10 13:26 J	-12051598.12	-12051597.94	-12051597.74	0.0145	0.0060
Venus	-37708-02-21 23:59 J	-12051371.69	-12051371.50	-12051371.29	0.0145	0.0050
Earth	-37708-04-09 05:30 J	-12051325.30	-12051325.27	-12051325.20	0.0145	0.0143
Mercury	-37708-05-19 17:30 J	-12051284.82	-12051284.77	-12051284.69	0.0146	0.0133
Mercury	-37708-08-15 22:47 J	-12051196.64	-12051196.55	-12051196.43	0.0146	0.0107
Venus	-37708-10-06 10:33 J	-12051145.26	-12051145.06	-12051144.85	0.0146	0.0039
Mercury	-37708-11-12 04:18 J	-12051108.44	-12051108.32	-12051108.19	0.0146	0.0080
Mercury	-37707-02-08 09:50 J	-12051020.23	-12051020.09	-12051019.94	0.0146	0.0053
Moon	-37707-04-14 03:50 J	-12050955.59	-12050955.34	-12050955.08	0.0146	0.0003
Earth	-37707-04-14 07:26 J	-12050955.45	-12050955.19	-12050954.94	0.0146	0.0007 *

Mercury -37707-05-07 15:21 J -12050932.02 -12050931.86 -12050931.71 0.0146 0.0027

Venus -37707-05-20 21:21 J -12050918.82 -12050918.61 -12050918.40 0.0146 0.0029

Mercury -37707-08-03 20:52 J -12050843.79 -12050843.63 -12050843.48 0.0146 0.0004

Mercury -37707-10-31 02:23 J -12050755.56 -12050755.40 -12050755.25 0.0146 0.0028

Venus -37706-01-02 08:23 J -12050692.36 -12050692.15 -12050691.94 0.0146 0.0018

Mercury -37706-01-27 07:54 J -12050667.32 -12050667.17 -12050667.02 0.0146 0.0056

Earth -37706-04-19 08:52 J -12050585.23 -12050585.13 -12050585.01 0.0146 0.0131

Moon -37706-04-19 12:28 J -12050585.08 -12050584.98 -12050584.86 0.0146 0.0131 *

Mercury -37706-04-25 13:26 J -12050579.06 -12050578.94 -12050578.80 0.0146 0.0084

Mercury -37706-07-22 18:57 J -12050490.80 -12050490.71 -12050490.59 0.0146 0.0112

Venus -37706-08-16 19:26 J -12050465.90 -12050465.69 -12050465.48 0.0146 0.0007

Mercury -37706-10-19 00:57 J -12050402.50 -12050402.46 -12050402.41 0.0146 0.0140

Venus -37705-03-30 06:42 J -12050239.44 -12050239.22 -12050239.01 0.0146 0.0004

Venus -37705-11-11 17:59 J -12050012.96 -12050012.75 -12050012.53 0.0146 0.0016

Venus -37704-06-26 05:30 J -12049786.48 -12049786.27 -12049786.05 0.0146 0.0027

Venus -37703-02-07 17:30 J -12049559.98 -12049559.77 -12049559.56 0.0146 0.0037

Venus -37703-09-22 05:16 J -12049333.48 -12049333.28 -12049333.07 0.0146 0.0049

Venus -37702-05-06 17:16 J -12049106.97 -12049106.78 -12049106.58 0.0146 0.0060

Venus -37702-12-19 05:16 J -12048880.46 -12048880.28 -12048880.08 0.0146 0.0071

Venus -37701-08-01 17:30 J -12048653.94 -12048653.77 -12048653.58 0.0146 0.0081

Venus -37700-03-16 06:14 J -12048427.40 -12048427.24 -12048427.07 0.0146 0.0091

Venus -37700-10-28 18:42 J -12048200.87 -12048200.72 -12048200.56 0.0146 0.0101

Venus -37699-06-12 07:26 J -12047974.33 -12047974.19 -12047974.05 0.0146 0.0111

Venus -37698-01-24 19:54 J -12047747.78 -12047747.67 -12047747.54 0.0146 0.0121

Venus -37698-09-08 08:23 J -12047521.23 -12047521.15 -12047521.04 0.0146 0.0131

Venus -37697-04-21 21:06 J -12047294.66 -12047294.62 -12047294.54 0.0146 0.0140

Mars -37696-06-22 14:09 J -12046868.04 -12046867.91 -12046867.74 0.0145 0.0123

Venus -37674-04-01 09:50 J -12038915.12 -12038915.09 -12038915.04 0.0135 0.0132

Venus -37674-11-13 18:14 J -12038688.81 -12038688.74 -12038688.64 0.0135 0.0125

Venus -37673-06-27 02:38 J -12038462.48 -12038462.39 -12038462.26 0.0135 0.0118

Venus -37672-02-08 11:02 J -12038236.16 -12038236.04 -12038235.90 0.0134 0.0110
 Venus -37672-09-22 19:11 J -12038009.84 -12038009.70 -12038009.55 0.0134 0.0101
 Venus -37671-05-07 03:06 J -12037783.53 -12037783.37 -12037783.21 0.0134 0.0093
 Venus -37671-12-19 10:47 J -12037557.22 -12037557.05 -12037556.88 0.0134 0.0085
 Venus -37670-08-02 18:14 J -12037330.92 -12037330.74 -12037330.55 0.0134 0.0077
 Venus -37669-03-16 01:26 J -12037104.62 -12037104.44 -12037104.24 0.0133 0.0069
 Venus -37669-10-28 08:23 J -12036878.33 -12036878.15 -12036877.94 0.0133 0.0061
 Venus -37668-06-11 15:50 J -12036652.05 -12036651.84 -12036651.64 0.0133 0.0052
 Venus -37667-01-23 22:18 J -12036425.77 -12036425.57 -12036425.35 0.0133 0.0043
 Mercury -37667-03-27 20:38 J -12036362.70 -12036362.64 -12036362.56 0.0133 0.0118
 Mercury -37667-06-24 01:11 J -12036274.55 -12036274.45 -12036274.34 0.0133 0.0097
 Venus -37667-09-07 05:02 J -12036199.49 -12036199.29 -12036199.06 0.0133 0.0035
 Mercury -37667-09-20 05:45 J -12036186.38 -12036186.26 -12036186.13 0.0133 0.0076
 Moon -37667-10-15 08:09 J -12036161.38 -12036161.16 -12036160.91 0.0133 0.0055
 Earth -37667-10-15 11:45 J -12036161.23 -12036161.01 -12036160.76 0.0133 0.0051 *
 Mercury -37667-12-17 10:18 J -12036098.21 -12036098.07 -12036097.92 0.0133 0.0055
 Mercury -37666-03-15 14:52 J -12036010.03 -12036009.88 -12036009.73 0.0133 0.0034
 Venus -37666-04-21 11:45 J -12035973.23 -12035973.01 -12035972.79 0.0133 0.0026
 Mercury -37666-06-11 19:11 J -12035921.85 -12035921.70 -12035921.54 0.0133 0.0014
 Mercury -37666-09-07 23:45 J -12035833.67 -12035833.51 -12035833.36 0.0133 0.0007
 Earth -37666-10-19 18:28 J -12035791.97 -12035791.73 -12035791.50 0.0133 0.0052
 Moon -37666-10-19 21:50 J -12035791.80 -12035791.59 -12035791.35 0.0133 0.0059 *
 Venus -37666-12-03 17:59 J -12035746.97 -12035746.75 -12035746.53 0.0133 0.0017
 Mercury -37666-12-05 04:04 J -12035745.48 -12035745.33 -12035745.18 0.0133 0.0027
 Mercury -37665-03-02 08:23 J -12035657.30 -12035657.15 -12035657.01 0.0133 0.0047
 Mercury -37665-05-29 12:28 J -12035569.11 -12035568.98 -12035568.84 0.0133 0.0067
 Venus -37665-07-17 00:14 J -12035520.71 -12035520.49 -12035520.26 0.0133 0.0009
 Mercury -37665-08-25 16:47 J -12035480.91 -12035480.80 -12035480.68 0.0133 0.0086
 Mercury -37665-11-21 20:52 J -12035392.71 -12035392.63 -12035392.53 0.0132 0.0106
 Mercury -37664-02-18 00:57 J -12035304.49 -12035304.46 -12035304.40 0.0132 0.0126

Venus	-37664-02-28 06:28 J	-12035294.45	-12035294.23	-12035294.01	0.0132	0.0001
Venus	-37664-10-12 12:28 J	-12035068.20	-12035067.98	-12035067.76	0.0132	0.0008
Venus	-37663-05-26 18:14 J	-12034841.96	-12034841.74	-12034841.52	0.0132	0.0017
Venus	-37662-01-07 23:59 J	-12034615.71	-12034615.50	-12034615.28	0.0132	0.0025
Venus	-37662-08-22 05:45 J	-12034389.47	-12034389.26	-12034389.04	0.0132	0.0033
Venus	-37661-04-04 11:16 J	-12034163.23	-12034163.03	-12034162.81	0.0132	0.0042
Venus	-37661-11-16 16:47 J	-12033937.00	-12033936.80	-12033936.59	0.0132	0.0050
Venus	-37660-06-30 22:18 J	-12033710.77	-12033710.57	-12033710.37	0.0132	0.0057
Venus	-37659-02-12 03:35 J	-12033484.53	-12033484.35	-12033484.15	0.0132	0.0065
Venus	-37659-09-26 08:52 J	-12033258.30	-12033258.13	-12033257.93	0.0132	0.0074
Venus	-37658-05-10 14:09 J	-12033032.07	-12033031.91	-12033031.73	0.0132	0.0081
Venus	-37658-12-22 19:26 J	-12032805.85	-12032805.69	-12032805.52	0.0132	0.0088
Venus	-37657-08-05 00:42 J	-12032579.62	-12032579.47	-12032579.32	0.0132	0.0096
Venus	-37656-03-19 05:16 J	-12032353.40	-12032353.28	-12032353.12	0.0132	0.0104
Venus	-37656-10-31 10:18 J	-12032127.17	-12032127.07	-12032126.93	0.0133	0.0111
Venus	-37655-06-14 15:21 J	-12031900.95	-12031900.86	-12031900.75	0.0133	0.0117
Venus	-37654-01-26 20:09 J	-12031674.72	-12031674.66	-12031674.57	0.0133	0.0124
Venus	-37654-09-10 01:11 J	-12031448.48	-12031448.45	-12031448.40	0.0133	0.0130
Mars	-37654-11-01 03:06 J	-12031396.70	-12031396.37	-12031396.04	0.0133	0.0001
Venus	-37631-08-11 07:26 J	-12023077.21	-12023077.19	-12023077.16	0.0143	0.0141
Venus	-37630-03-25 15:35 J	-12022850.90	-12022850.85	-12022850.75	0.0143	0.0135
Venus	-37630-11-07 00:28 J	-12022624.56	-12022624.48	-12022624.36	0.0143	0.0127
Venus	-37629-06-20 09:35 J	-12022398.20	-12022398.10	-12022397.97	0.0144	0.0118
Venus	-37628-02-01 19:11 J	-12022171.83	-12022171.70	-12022171.56	0.0144	0.0109
Venus	-37628-09-16 04:18 J	-12021945.46	-12021945.32	-12021945.16	0.0144	0.0101
Venus	-37627-04-30 13:54 J	-12021719.07	-12021718.92	-12021718.75	0.0145	0.0091
Venus	-37627-12-12 23:45 J	-12021492.68	-12021492.51	-12021492.33	0.0145	0.0082
Venus	-37626-07-27 09:35 J	-12021266.28	-12021266.10	-12021265.91	0.0145	0.0072
Venus	-37625-03-09 19:40 J	-12021039.86	-12021039.68	-12021039.48	0.0145	0.0062
Venus	-37625-10-22 05:59 J	-12020813.44	-12020813.25	-12020813.05	0.0145	0.0052

Earth -37624-04-09 13:40 J -12020643.99 -12020643.93 -12020643.85 0.0146 0.0140
 Moon -37624-04-09 17:16 J -12020643.87 -12020643.78 -12020643.67 0.0146 0.0133 *
 Venus -37624-06-05 16:33 J -12020587.01 -12020586.81 -12020586.60 0.0146 0.0041
 Mercury -37624-06-09 00:28 J -12020583.55 -12020583.48 -12020583.40 0.0146 0.0127
 Mercury -37624-09-05 05:45 J -12020495.36 -12020495.26 -12020495.14 0.0146 0.0101
 Mercury -37624-12-02 11:16 J -12020407.16 -12020407.03 -12020406.90 0.0146 0.0075
 Venus -37623-01-18 03:06 J -12020360.57 -12020360.37 -12020360.15 0.0146 0.0031
 Mercury -37623-02-28 16:33 J -12020318.95 -12020318.81 -12020318.66 0.0146 0.0048
 Moon -37623-04-14 11:30 J -12020274.27 -12020274.02 -12020273.77 0.0146 0.0009
 Earth -37623-04-14 15:06 J -12020274.12 -12020273.87 -12020273.61 0.0146 0.0004 *
 Mercury -37623-05-27 22:04 J -12020230.74 -12020230.58 -12020230.43 0.0146 0.0021
 Mercury -37623-08-24 03:35 J -12020142.51 -12020142.35 -12020142.19 0.0146 0.0006
 Venus -37623-09-01 14:09 J -12020134.12 -12020133.91 -12020133.70 0.0146 0.0020
 Mercury -37623-11-20 09:06 J -12020054.27 -12020054.12 -12020053.97 0.0146 0.0033
 Mercury -37622-02-16 14:38 J -12019966.03 -12019965.89 -12019965.74 0.0146 0.0061
 Venus -37622-04-16 01:11 J -12019907.67 -12019907.45 -12019907.24 0.0146 0.0009
 Earth -37622-04-19 16:33 J -12019903.88 -12019903.81 -12019903.69 0.0146 0.0134
 Moon -37622-04-19 20:09 J -12019903.75 -12019903.66 -12019903.54 0.0146 0.0133 *
 Mercury -37622-05-15 20:09 J -12019877.78 -12019877.66 -12019877.53 0.0146 0.0089
 Mercury -37622-08-12 01:54 J -12019789.51 -12019789.42 -12019789.32 0.0146 0.0117
 Mercury -37622-11-08 07:40 J -12019701.18 -12019701.18 -12019701.16 0.0146 0.0145
 Venus -37622-11-28 12:14 J -12019681.21 -12019680.99 -12019680.78 0.0146 0.0002
 Venus -37621-07-11 23:30 J -12019454.73 -12019454.52 -12019454.31 0.0146 0.0013
 Venus -37620-02-23 11:16 J -12019228.24 -12019228.03 -12019227.82 0.0146 0.0024
 Venus -37620-10-07 22:47 J -12019001.75 -12019001.55 -12019001.34 0.0146 0.0036
 Venus -37619-05-22 10:33 J -12018775.26 -12018775.06 -12018774.85 0.0146 0.0047
 Venus -37618-01-03 22:33 J -12018548.75 -12018548.56 -12018548.36 0.0146 0.0058
 Venus -37618-08-18 10:33 J -12018322.24 -12018322.06 -12018321.86 0.0146 0.0069
 Venus -37617-03-31 22:47 J -12018095.72 -12018095.55 -12018095.36 0.0146 0.0079
 Venus -37617-11-13 11:16 J -12017869.19 -12017869.03 -12017868.85 0.0146 0.0090

Venus	-37616-06-27 23:30 J	-12017642.66	-12017642.52	-12017642.35	0.0146	0.0100
Venus	-37615-02-09 11:59 J	-12017416.12	-12017416.00	-12017415.84	0.0146	0.0110
Venus	-37615-09-24 00:28 J	-12017189.58	-12017189.48	-12017189.34	0.0146	0.0120
Venus	-37614-05-08 13:11 J	-12016963.03	-12016962.95	-12016962.83	0.0146	0.0129
Venus	-37614-12-21 01:54 J	-12016736.47	-12016736.42	-12016736.34	0.0146	0.0138
Mars	-37613-03-15 17:16 J	-12016651.03	-12016650.78	-12016650.51	0.0146	0.0063
Venus	-37591-11-29 16:47 J	-12008356.82	-12008356.80	-12008356.76	0.0135	0.0133
Venus	-37590-07-14 01:26 J	-12008130.50	-12008130.44	-12008130.35	0.0135	0.0126
Venus	-37589-02-25 10:18 J	-12007904.18	-12007904.07	-12007903.97	0.0135	0.0118
Venus	-37589-10-08 17:59 J	-12007677.86	-12007677.75	-12007677.61	0.0135	0.0111
Venus	-37588-05-23 02:23 J	-12007451.54	-12007451.40	-12007451.25	0.0134	0.0103
Venus	-37587-01-04 10:18 J	-12007225.22	-12007225.07	-12007224.90	0.0134	0.0094
Venus	-37587-08-18 18:14 J	-12006998.91	-12006998.74	-12006998.57	0.0134	0.0086
Venus	-37586-04-02 01:40 J	-12006772.60	-12006772.43	-12006772.24	0.0134	0.0078
Venus	-37586-11-14 08:52 J	-12006546.31	-12006546.13	-12006545.93	0.0134	0.0070
Venus	-37585-06-27 16:04 J	-12006320.01	-12006319.83	-12006319.61	0.0133	0.0062
Venus	-37584-02-08 23:30 J	-12006093.72	-12006093.52	-12006093.31	0.0133	0.0052
Venus	-37584-09-23 06:14 J	-12005867.44	-12005867.24	-12005867.02	0.0133	0.0044
Mercury	-37583-04-17 03:21 J	-12005661.44	-12005661.36	-12005661.28	0.0133	0.0114
Venus	-37583-05-07 12:57 J	-12005641.17	-12005640.96	-12005640.74	0.0133	0.0035
Mercury	-37583-07-14 07:54 J	-12005573.28	-12005573.17	-12005573.05	0.0133	0.0093
Mercury	-37583-10-10 12:28 J	-12005485.11	-12005484.98	-12005484.84	0.0133	0.0072
Moon	-37583-10-15 16:33 J	-12005480.04	-12005479.81	-12005479.56	0.0133	0.0046
Earth	-37583-10-15 20:23 J	-12005479.88	-12005479.65	-12005479.41	0.0133	0.0048 *
Venus	-37583-12-19 19:26 J	-12005414.90	-12005414.69	-12005414.46	0.0133	0.0027
Mercury	-37582-01-06 17:02 J	-12005396.93	-12005396.79	-12005396.64	0.0133	0.0051
Mercury	-37582-04-04 21:21 J	-12005308.76	-12005308.61	-12005308.45	0.0133	0.0031
Mercury	-37582-07-02 01:54 J	-12005220.58	-12005220.42	-12005220.26	0.0133	0.0010
Venus	-37582-08-03 02:09 J	-12005188.63	-12005188.41	-12005188.19	0.0133	0.0018
Mercury	-37582-09-28 06:14 J	-12005132.39	-12005132.24	-12005132.08	0.0133	0.0011

Earth -37582-10-20 02:23 J -12005110.61 -12005110.40 -12005110.15 0.0133 0.0056
 Moon -37582-10-20 06:14 J -12005110.47 -12005110.24 -12005110.00 0.0133 0.0050 *
 Mercury -37582-12-25 10:47 J -12005044.21 -12005044.05 -12005043.90 0.0133 0.0031
 Venus -37581-03-16 08:23 J -12004962.37 -12004962.15 -12004961.93 0.0133 0.0010
 Mercury -37581-03-22 15:06 J -12004956.02 -12004955.87 -12004955.73 0.0133 0.0051
 Mercury -37581-06-18 19:11 J -12004867.83 -12004867.70 -12004867.57 0.0133 0.0071
 Mercury -37581-09-14 23:30 J -12004779.63 -12004779.52 -12004779.41 0.0133 0.0091
 Venus -37581-10-28 14:38 J -12004736.11 -12004735.89 -12004735.67 0.0132 0.0002
 Mercury -37581-12-12 03:35 J -12004691.43 -12004691.35 -12004691.26 0.0132 0.0110
 Mercury -37580-03-10 07:40 J -12004603.20 -12004603.18 -12004603.14 0.0132 0.0130
 Venus -37580-06-11 20:38 J -12004509.86 -12004509.64 -12004509.42 0.0132 0.0007
 Venus -37579-01-24 02:38 J -12004283.61 -12004283.39 -12004283.17 0.0132 0.0016
 Venus -37579-09-07 08:23 J -12004057.36 -12004057.15 -12004056.93 0.0132 0.0024
 Venus -37578-04-21 14:09 J -12003831.12 -12003830.91 -12003830.69 0.0132 0.0033
 Venus -37578-12-03 19:54 J -12003604.88 -12003604.67 -12003604.46 0.0132 0.0041
 Venus -37577-07-17 01:11 J -12003378.64 -12003378.45 -12003378.23 0.0132 0.0050
 Venus -37576-02-28 06:42 J -12003152.40 -12003152.22 -12003152.00 0.0132 0.0058
 Venus -37576-10-12 12:14 J -12002926.17 -12002925.99 -12002925.78 0.0132 0.0065
 Venus -37575-05-26 17:59 J -12002699.94 -12002699.75 -12002699.57 0.0132 0.0073
 Venus -37574-01-07 23:02 J -12002473.71 -12002473.54 -12002473.36 0.0132 0.0080
 Venus -37574-08-22 04:04 J -12002247.48 -12002247.33 -12002247.15 0.0132 0.0088
 Venus -37573-04-04 09:21 J -12002021.25 -12002021.11 -12002020.95 0.0132 0.0095
 Venus -37573-11-16 14:23 J -12001795.03 -12001794.90 -12001794.75 0.0132 0.0103
 Venus -37572-06-30 19:11 J -12001568.80 -12001568.70 -12001568.56 0.0132 0.0110
 Venus -37571-02-11 23:59 J -12001342.58 -12001342.50 -12001342.38 0.0133 0.0117
 Venus -37571-09-26 05:16 J -12001116.35 -12001116.28 -12001116.19 0.0133 0.0123
 Venus -37570-05-10 09:50 J -12000890.11 -12000890.09 -12000890.02 0.0133 0.0130
 Mars -37569-06-26 05:02 J -12000477.52 -12000477.29 -12000477.02 0.0133 0.0086
 Venus -37547-04-10 14:52 J -11992518.88 -11992518.88 -11992518.85 0.0143 0.0143
 Venus -37547-11-22 23:30 J -11992292.57 -11992292.52 -11992292.44 0.0143 0.0135

Venus	-37546-07-07 08:09 J	-11992066.24	-11992066.16	-11992066.05	0.0143	0.0128
Venus	-37545-02-18 17:30 J	-11991839.89	-11991839.77	-11991839.66	0.0144	0.0119
Venus	-37545-10-02 02:09 J	-11991613.53	-11991613.41	-11991613.26	0.0144	0.0111
Venus	-37544-05-16 11:30 J	-11991387.16	-11991387.02	-11991386.86	0.0144	0.0102
Venus	-37544-12-28 21:06 J	-11991160.77	-11991160.62	-11991160.45	0.0144	0.0093
Venus	-37543-08-12 06:28 J	-11990934.38	-11990934.23	-11990934.04	0.0145	0.0084
Venus	-37542-03-26 16:18 J	-11990707.99	-11990707.82	-11990707.62	0.0145	0.0074
Venus	-37542-11-08 02:38 J	-11990481.58	-11990481.39	-11990481.20	0.0145	0.0064
Venus	-37541-06-21 12:28 J	-11990255.17	-11990254.98	-11990254.77	0.0145	0.0054
Venus	-37540-02-02 23:16 J	-11990028.73	-11990028.53	-11990028.33	0.0146	0.0043
Earth	-37540-04-09 22:18 J	-11989962.65	-11989962.57	-11989962.47	0.0146	0.0136
Moon	-37540-04-10 01:26 J	-11989962.46	-11989962.44	-11989962.38	0.0146	0.0144
Mercury	-37540-06-29 07:26 J	-11989882.27	-11989882.19	-11989882.10	0.0146	0.0122
Venus	-37540-09-17 09:35 J	-11989802.30	-11989802.10	-11989801.88	0.0146	0.0033
Mercury	-37540-09-25 12:42 J	-11989794.08	-11989793.97	-11989793.85	0.0146	0.0096
Mercury	-37540-12-22 18:14 J	-11989705.88	-11989705.74	-11989705.60	0.0146	0.0069
Mercury	-37539-03-20 23:30 J	-11989617.67	-11989617.52	-11989617.37	0.0146	0.0042
Moon	-37539-04-14 20:23 J	-11989592.90	-11989592.65	-11989592.40	0.0146	0.0005
Earth	-37539-04-14 23:59 J	-11989592.75	-11989592.50	-11989592.25	0.0146	0.0000 *
Venus	-37539-05-01 20:23 J	-11989575.86	-11989575.65	-11989575.44	0.0146	0.0022
Mercury	-37539-06-17 05:02 J	-11989529.45	-11989529.29	-11989529.13	0.0146	0.0015
Mercury	-37539-09-13 10:33 J	-11989441.22	-11989441.06	-11989440.90	0.0146	0.0012
Mercury	-37539-12-10 16:04 J	-11989352.98	-11989352.83	-11989352.68	0.0146	0.0039
Venus	-37539-12-14 07:11 J	-11989349.41	-11989349.20	-11989348.98	0.0146	0.0011
Mercury	-37538-03-08 21:35 J	-11989264.74	-11989264.60	-11989264.46	0.0146	0.0067
Earth	-37538-04-20 01:26 J	-11989222.50	-11989222.44	-11989222.34	0.0146	0.0138
Moon	-37538-04-20 05:30 J	-11989222.34	-11989222.27	-11989222.18	0.0146	0.0137 *
Mercury	-37538-06-05 03:21 J	-11989176.48	-11989176.36	-11989176.24	0.0146	0.0095
Venus	-37538-07-28 18:28 J	-11989122.95	-11989122.73	-11989122.52	0.0146	0.0002
Mercury	-37538-09-01 09:06 J	-11989088.21	-11989088.12	-11989088.04	0.0146	0.0123

Venus	-37537-03-11 05:45 J	-11988896.47	-11988896.26	-11988896.05	0.0146	0.0011
Venus	-37537-10-23 17:16 J	-11988670.00	-11988669.78	-11988669.57	0.0146	0.0023
Venus	-37536-06-07 04:47 J	-11988443.51	-11988443.30	-11988443.09	0.0146	0.0034
Venus	-37535-01-19 16:33 J	-11988217.01	-11988216.81	-11988216.60	0.0146	0.0045
Venus	-37535-09-03 04:33 J	-11987990.51	-11987990.31	-11987990.11	0.0146	0.0056
Venus	-37534-04-17 16:33 J	-11987764.00	-11987763.81	-11987763.62	0.0146	0.0067
Venus	-37534-11-30 04:33 J	-11987537.49	-11987537.31	-11987537.12	0.0146	0.0077
Venus	-37533-07-13 16:33 J	-11987310.97	-11987310.81	-11987310.62	0.0146	0.0088
Venus	-37532-02-25 05:16 J	-11987084.43	-11987084.28	-11987084.11	0.0146	0.0098
Venus	-37532-10-09 17:45 J	-11986857.90	-11986857.76	-11986857.61	0.0146	0.0108
Venus	-37531-05-24 05:59 J	-11986631.36	-11986631.25	-11986631.11	0.0146	0.0118
Venus	-37530-01-05 18:57 J	-11986404.82	-11986404.71	-11986404.61	0.0146	0.0127
Venus	-37530-08-20 07:11 J	-11986178.26	-11986178.20	-11986178.11	0.0146	0.0137
Venus	-37529-04-02 19:54 J	-11985951.67	-11985951.67	-11985951.64	0.0146	0.0146
Mars	-37529-11-08 17:02 J	-11985732.06	-11985731.79	-11985731.50	0.0146	0.0036
Venus	-37507-07-29 23:59 J	-11977798.50	-11977798.50	-11977798.46	0.0135	0.0135
Venus	-37506-03-13 08:38 J	-11977572.19	-11977572.14	-11977572.05	0.0135	0.0128
Venus	-37506-10-25 17:02 J	-11977345.87	-11977345.79	-11977345.66	0.0135	0.0120
Venus	-37505-06-08 01:40 J	-11977119.54	-11977119.43	-11977119.29	0.0135	0.0112
Venus	-37504-01-20 10:04 J	-11976893.21	-11976893.08	-11976892.93	0.0134	0.0104
Venus	-37504-09-03 18:14 J	-11976666.89	-11976666.74	-11976666.58	0.0134	0.0095
Venus	-37503-04-18 01:54 J	-11976440.58	-11976440.42	-11976440.24	0.0134	0.0087
Venus	-37503-11-30 09:35 J	-11976214.27	-11976214.10	-11976213.91	0.0134	0.0079
Venus	-37502-07-14 17:02 J	-11975987.97	-11975987.79	-11975987.59	0.0134	0.0071
Venus	-37501-02-26 00:28 J	-11975761.67	-11975761.48	-11975761.28	0.0133	0.0062
Venus	-37501-10-09 07:26 J	-11975535.39	-11975535.19	-11975534.98	0.0133	0.0054
Venus	-37500-05-23 14:23 J	-11975309.10	-11975308.90	-11975308.68	0.0133	0.0045
Venus	-37499-01-04 21:21 J	-11975082.83	-11975082.61	-11975082.40	0.0133	0.0036
Mercury	-37499-02-08 05:16 J	-11975048.29	-11975048.28	-11975048.24	0.0133	0.0131
Mercury	-37499-05-07 10:04 J	-11974960.16	-11974960.08	-11974959.98	0.0133	0.0109

Mercury -37499-08-03 14:38 J -11974872.00 -11974871.89 -11974871.76 0.0133 0.0088

Venus -37499-08-19 03:50 J -11974856.55 -11974856.34 -11974856.11 0.0133 0.0028

Moon -37499-10-16 02:09 J -11974798.65 -11974798.41 -11974798.17 0.0133 0.0046

Earth -37499-10-16 05:16 J -11974798.51 -11974798.28 -11974798.02 0.0133 0.0044 *

Mercury -37499-10-30 19:11 J -11974783.83 -11974783.70 -11974783.56 0.0133 0.0067

Mercury -37498-01-26 23:59 J -11974695.65 -11974695.50 -11974695.36 0.0133 0.0046

Venus -37498-04-02 10:33 J -11974630.28 -11974630.06 -11974629.84 0.0133 0.0019

Mercury -37498-04-25 04:18 J -11974607.47 -11974607.32 -11974607.16 0.0133 0.0025

Mercury -37498-07-22 08:52 J -11974519.29 -11974519.13 -11974518.98 0.0133 0.0006

Mercury -37498-10-18 13:11 J -11974431.11 -11974430.95 -11974430.79 0.0133 0.0016

Earth -37498-10-20 11:45 J -11974429.23 -11974429.01 -11974428.77 0.0133 0.0060

Moon -37498-10-20 15:35 J -11974429.06 -11974428.85 -11974428.62 0.0133 0.0065 *

Venus -37498-11-14 16:47 J -11974404.02 -11974403.80 -11974403.57 0.0133 0.0011

Mercury -37497-01-14 17:30 J -11974342.92 -11974342.77 -11974342.62 0.0133 0.0036

Mercury -37497-04-11 21:50 J -11974254.73 -11974254.59 -11974254.45 0.0133 0.0056

Venus -37497-06-27 23:16 J -11974177.75 -11974177.53 -11974177.31 0.0133 0.0003

Mercury -37497-07-09 02:09 J -11974166.54 -11974166.41 -11974166.28 0.0133 0.0076

Mercury -37497-10-05 06:14 J -11974078.34 -11974078.24 -11974078.13 0.0133 0.0096

Mercury -37496-01-01 10:18 J -11973990.13 -11973990.07 -11973989.98 0.0132 0.0116

Venus -37496-02-09 05:16 J -11973951.50 -11973951.28 -11973951.05 0.0132 0.0007

Venus -37496-09-23 11:30 J -11973725.24 -11973725.02 -11973724.80 0.0132 0.0015

Venus -37495-05-07 17:16 J -11973498.99 -11973498.78 -11973498.56 0.0132 0.0024

Venus -37495-12-19 23:16 J -11973272.75 -11973272.53 -11973272.32 0.0132 0.0032

Venus -37494-08-03 04:47 J -11973046.50 -11973046.30 -11973046.08 0.0132 0.0040

Venus -37493-03-16 10:33 J -11972820.26 -11972820.06 -11972819.85 0.0132 0.0048

Venus -37493-10-28 16:04 J -11972594.02 -11972593.83 -11972593.62 0.0132 0.0056

Venus -37492-06-11 21:35 J -11972367.79 -11972367.60 -11972367.40 0.0132 0.0064

Venus -37491-01-24 02:52 J -11972141.55 -11972141.38 -11972141.18 0.0132 0.0072

Venus -37491-09-07 08:38 J -11971915.32 -11971915.14 -11971914.97 0.0132 0.0080

Venus -37490-04-21 13:26 J -11971689.09 -11971688.94 -11971688.76 0.0132 0.0088

Venus	-37490-12-03 18:42 J	-11971462.86	-11971462.72	-11971462.56	0.0132	0.0095
Venus	-37489-07-16 23:30 J	-11971236.64	-11971236.52	-11971236.36	0.0132	0.0102
Venus	-37488-02-28 05:02 J	-11971010.42	-11971010.29	-11971010.17	0.0132	0.0109
Venus	-37488-10-12 09:50 J	-11970784.19	-11970784.09	-11970783.98	0.0133	0.0116
Venus	-37487-05-26 14:23 J	-11970557.96	-11970557.90	-11970557.80	0.0133	0.0123
Venus	-37486-01-07 19:26 J	-11970331.73	-11970331.69	-11970331.63	0.0133	0.0129
Mars	-37486-03-18 22:33 J	-11970261.82	-11970261.56	-11970261.29	0.0133	0.0077
Jupiter	-37479-02-26 07:26 J	-11967725.64	-11967725.19	-11967724.70	0.0135	0.0039
Venus	-37463-07-23 07:40 J	-11961734.23	-11961734.18	-11961734.11	0.0143	0.0136
Venus	-37462-03-06 16:18 J	-11961507.91	-11961507.82	-11961507.73	0.0143	0.0129
Venus	-37462-10-19 00:57 J	-11961281.57	-11961281.46	-11961281.34	0.0144	0.0121
Venus	-37461-06-01 10:04 J	-11961055.21	-11961055.08	-11961054.95	0.0144	0.0112
Venus	-37460-01-13 19:11 J	-11960828.84	-11960828.70	-11960828.55	0.0144	0.0104
Venus	-37460-08-28 04:33 J	-11960602.46	-11960602.31	-11960602.15	0.0144	0.0094
Venus	-37459-04-11 14:09 J	-11960376.08	-11960375.91	-11960375.74	0.0145	0.0085
Venus	-37459-11-23 23:45 J	-11960149.69	-11960149.51	-11960149.33	0.0145	0.0075
Venus	-37458-07-08 09:35 J	-11959923.29	-11959923.10	-11959922.91	0.0145	0.0065
Venus	-37457-02-19 19:40 J	-11959696.87	-11959696.68	-11959696.48	0.0145	0.0055
Venus	-37457-10-03 05:59 J	-11959470.45	-11959470.25	-11959470.05	0.0145	0.0045
Earth	-37456-04-10 07:40 J	-11959281.29	-11959281.18	-11959281.07	0.0146	0.0131
Moon	-37456-04-10 10:47 J	-11959281.17	-11959281.05	-11959280.91	0.0146	0.0124 *
Mercury	-37456-04-22 09:21 J	-11959269.14	-11959269.11	-11959269.07	0.0146	0.0141
Venus	-37456-05-17 16:18 J	-11959244.02	-11959243.82	-11959243.61	0.0146	0.0034
Mercury	-37456-07-19 14:38 J	-11959180.98	-11959180.89	-11959180.80	0.0146	0.0115
Mercury	-37456-10-15 19:54 J	-11959092.79	-11959092.67	-11959092.55	0.0146	0.0089
Venus	-37456-12-30 03:06 J	-11959017.58	-11959017.37	-11959017.16	0.0146	0.0023
Mercury	-37455-01-12 01:11 J	-11959004.59	-11959004.45	-11959004.31	0.0146	0.0063
Mercury	-37455-04-10 06:42 J	-11958916.37	-11958916.22	-11958916.07	0.0146	0.0036
Moon	-37455-04-15 05:45 J	-11958911.51	-11958911.26	-11958911.01	0.0146	0.0001
Earth	-37455-04-15 09:06 J	-11958911.37	-11958911.12	-11958910.87	0.0146	0.0005 *

Mercury -37455-07-07 11:59 J -11958828.15 -11958828.00 -11958827.84 0.0146 0.0010

Venus -37455-08-13 13:54 J -11958791.13 -11958790.92 -11958790.71 0.0146 0.0013

Mercury -37455-10-03 17:30 J -11958739.92 -11958739.77 -11958739.61 0.0146 0.0019

Mercury -37455-12-30 23:16 J -11958651.68 -11958651.53 -11958651.38 0.0146 0.0046

Venus -37454-03-28 00:57 J -11958564.67 -11958564.46 -11958564.25 0.0146 0.0002

Mercury -37454-03-29 04:47 J -11958563.44 -11958563.30 -11958563.16 0.0146 0.0074

Earth -37454-04-20 10:33 J -11958541.08 -11958541.06 -11958540.98 0.0146 0.0143

Moon -37454-04-20 14:09 J -11958540.94 -11958540.91 -11958540.84 0.0146 0.0143

Mercury -37454-06-25 10:18 J -11958475.18 -11958475.07 -11958474.95 0.0146 0.0102

Mercury -37454-09-21 16:04 J -11958386.90 -11958386.83 -11958386.76 0.0146 0.0130

Venus -37454-11-09 11:59 J -11958338.21 -11958338.00 -11958337.78 0.0146 0.0010

Venus -37453-06-22 23:30 J -11958111.73 -11958111.52 -11958111.31 0.0146 0.0021

Venus -37452-02-04 11:02 J -11957885.24 -11957885.04 -11957884.83 0.0146 0.0032

Venus -37452-09-18 22:47 J -11957658.75 -11957658.55 -11957658.34 0.0146 0.0043

Venus -37451-05-03 10:33 J -11957432.26 -11957432.06 -11957431.86 0.0146 0.0054

Venus -37451-12-15 22:18 J -11957205.75 -11957205.57 -11957205.37 0.0146 0.0065

Venus -37450-07-30 10:18 J -11956979.24 -11956979.07 -11956978.88 0.0146 0.0076

Venus -37449-03-12 22:33 J -11956752.72 -11956752.56 -11956752.37 0.0146 0.0086

Venus -37449-10-25 11:02 J -11956526.20 -11956526.04 -11956525.87 0.0146 0.0096

Venus -37448-06-08 23:16 J -11956299.67 -11956299.53 -11956299.37 0.0146 0.0107

Venus -37447-01-21 11:45 J -11956073.13 -11956073.01 -11956072.87 0.0146 0.0116

Venus -37447-09-04 23:59 J -11955846.59 -11955846.50 -11955846.37 0.0146 0.0126

Venus -37446-04-19 12:42 J -11955620.04 -11955619.97 -11955619.88 0.0146 0.0135

Venus -37446-12-02 01:11 J -11955393.46 -11955393.45 -11955393.40 0.0146 0.0144

Mars -37444-07-04 18:28 J -11954812.82 -11954812.73 -11954812.60 0.0145 0.0134

Venus -37423-11-10 16:04 J -11947013.88 -11947013.83 -11947013.74 0.0135 0.0129

Venus -37422-06-25 00:42 J -11946787.54 -11946787.47 -11946787.35 0.0135 0.0121

Venus -37421-02-06 09:21 J -11946561.21 -11946561.11 -11946560.97 0.0135 0.0113

Venus -37421-09-19 17:45 J -11946334.89 -11946334.76 -11946334.61 0.0135 0.0105

Venus -37420-05-04 01:54 J -11946108.57 -11946108.42 -11946108.26 0.0134 0.0097

Venus -37420-12-16 09:35 J -11945882.25 -11945882.10 -11945881.92 0.0134 0.0089
 Venus -37419-07-30 17:30 J -11945655.94 -11945655.77 -11945655.58 0.0134 0.0080
 Venus -37418-03-14 00:57 J -11945429.64 -11945429.46 -11945429.26 0.0134 0.0072
 Venus -37418-10-26 08:23 J -11945203.34 -11945203.15 -11945202.95 0.0134 0.0063
 Venus -37417-06-08 15:35 J -11944977.05 -11944976.85 -11944976.64 0.0133 0.0054
 Venus -37416-01-20 22:33 J -11944750.76 -11944750.56 -11944750.34 0.0133 0.0046
 Venus -37416-09-04 05:30 J -11944524.48 -11944524.27 -11944524.05 0.0133 0.0037
 Mercury -37415-02-28 12:14 J -11944347.03 -11944346.99 -11944346.93 0.0133 0.0126
 Venus -37415-04-18 12:14 J -11944298.20 -11944297.99 -11944297.77 0.0133 0.0029
 Mercury -37415-05-27 17:02 J -11944258.89 -11944258.79 -11944258.69 0.0133 0.0104
 Mercury -37415-08-23 21:35 J -11944170.72 -11944170.60 -11944170.47 0.0133 0.0083
 Moon -37415-10-16 11:02 J -11944117.27 -11944117.04 -11944116.79 0.0133 0.0038
 Earth -37415-10-16 14:23 J -11944117.13 -11944116.90 -11944116.64 0.0133 0.0040 *
 Mercury -37415-11-20 02:09 J -11944082.55 -11944082.41 -11944082.27 0.0133 0.0062
 Venus -37415-11-30 18:57 J -11944071.93 -11944071.71 -11944071.49 0.0133 0.0020
 Mercury -37414-02-16 06:42 J -11943994.37 -11943994.22 -11943994.07 0.0133 0.0041
 Mercury -37414-05-15 11:16 J -11943906.19 -11943906.03 -11943905.88 0.0133 0.0021
 Venus -37414-07-15 01:26 J -11943845.66 -11943845.44 -11943845.22 0.0133 0.0012
 Mercury -37414-08-11 15:35 J -11943818.01 -11943817.85 -11943817.69 0.0133 0.0001
 Earth -37414-10-20 20:52 J -11943747.85 -11943747.63 -11943747.40 0.0133 0.0064
 Moon -37414-10-21 00:14 J -11943747.71 -11943747.49 -11943747.25 0.0133 0.0059 *
 Mercury -37414-11-07 19:54 J -11943729.82 -11943729.67 -11943729.51 0.0133 0.0021
 Mercury -37413-02-04 00:14 J -11943641.63 -11943641.49 -11943641.34 0.0133 0.0041
 Venus -37413-02-26 07:54 J -11943619.40 -11943619.17 -11943618.95 0.0133 0.0004
 Mercury -37413-05-02 04:33 J -11943553.44 -11943553.31 -11943553.17 0.0133 0.0061
 Mercury -37413-07-29 08:52 J -11943465.25 -11943465.13 -11943465.00 0.0132 0.0081
 Venus -37413-10-09 13:54 J -11943393.14 -11943392.92 -11943392.69 0.0132 0.0006
 Mercury -37413-10-25 12:57 J -11943377.05 -11943376.96 -11943376.85 0.0132 0.0101
 Mercury -37412-01-21 17:16 J -11943288.83 -11943288.78 -11943288.71 0.0132 0.0120
 Venus -37412-05-23 19:54 J -11943166.88 -11943166.67 -11943166.44 0.0132 0.0015

Venus	-37411-01-05 02:09 J	-11942940.63	-11942940.41	-11942940.19	0.0132	0.0022
Venus	-37411-08-19 07:54 J	-11942714.38	-11942714.17	-11942713.95	0.0132	0.0031
Venus	-37410-04-02 13:40 J	-11942488.13	-11942487.93	-11942487.71	0.0132	0.0039
Venus	-37410-11-14 19:26 J	-11942261.89	-11942261.69	-11942261.48	0.0132	0.0047
Venus	-37409-06-28 00:57 J	-11942035.65	-11942035.46	-11942035.25	0.0132	0.0056
Venus	-37408-02-09 06:28 J	-11941809.41	-11941809.23	-11941809.03	0.0132	0.0064
Venus	-37408-09-23 11:59 J	-11941583.17	-11941583.00	-11941582.81	0.0132	0.0072
Venus	-37407-05-07 17:16 J	-11941356.94	-11941356.78	-11941356.59	0.0132	0.0079
Venus	-37407-12-19 22:33 J	-11941130.72	-11941130.56	-11941130.39	0.0132	0.0087
Venus	-37406-08-03 03:35 J	-11940904.49	-11940904.35	-11940904.19	0.0132	0.0094
Venus	-37405-03-16 08:38 J	-11940678.27	-11940678.14	-11940677.99	0.0132	0.0102
Venus	-37405-10-28 13:40 J	-11940452.04	-11940451.93	-11940451.79	0.0132	0.0109
Venus	-37404-06-11 18:28 J	-11940225.82	-11940225.73	-11940225.61	0.0133	0.0116
Venus	-37403-01-23 23:30 J	-11939999.59	-11939999.52	-11939999.43	0.0133	0.0122
Venus	-37403-09-07 04:18 J	-11939773.35	-11939773.32	-11939773.25	0.0133	0.0129
Mars	-37402-11-12 01:26 J	-11939342.77	-11939342.44	-11939342.10	0.0133	0.0009
Venus	-37379-03-22 14:52 J	-11931175.91	-11931175.88	-11931175.81	0.0143	0.0138
Venus	-37379-11-03 23:30 J	-11930949.59	-11930949.52	-11930949.42	0.0143	0.0130
Venus	-37378-06-18 08:09 J	-11930723.25	-11930723.16	-11930723.04	0.0143	0.0122
Venus	-37377-01-30 17:16 J	-11930496.90	-11930496.78	-11930496.64	0.0144	0.0114
Venus	-37377-09-13 02:23 J	-11930270.54	-11930270.40	-11930270.25	0.0144	0.0105
Venus	-37376-04-27 11:30 J	-11930044.17	-11930044.02	-11930043.85	0.0144	0.0096
Venus	-37376-12-09 21:06 J	-11929817.79	-11929817.62	-11929817.45	0.0144	0.0087
Venus	-37375-07-24 06:42 J	-11929591.40	-11929591.22	-11929591.04	0.0145	0.0077
Venus	-37374-03-07 16:33 J	-11929365.00	-11929364.81	-11929364.62	0.0145	0.0067
Venus	-37374-10-20 02:23 J	-11929138.59	-11929138.40	-11929138.20	0.0145	0.0057
Venus	-37373-06-02 12:42 J	-11928912.17	-11928911.97	-11928911.77	0.0145	0.0047
Venus	-37372-01-14 23:02 J	-11928685.74	-11928685.54	-11928685.33	0.0146	0.0037
Earth	-37372-04-10 16:33 J	-11928599.93	-11928599.81	-11928599.68	0.0146	0.0126
Moon	-37372-04-10 18:57 J	-11928599.79	-11928599.71	-11928599.59	0.0146	0.0134 *

Mercury -37372-05-12 16:18 J -11928567.87 -11928567.82 -11928567.76 0.0146 0.0135

Mercury -37372-08-08 21:35 J -11928479.69 -11928479.60 -11928479.49 0.0146 0.0109

Venus -37372-08-29 09:50 J -11928459.30 -11928459.09 -11928458.88 0.0146 0.0026

Mercury -37372-11-05 02:52 J -11928391.50 -11928391.38 -11928391.25 0.0146 0.0083

Mercury -37371-02-01 08:23 J -11928303.29 -11928303.15 -11928303.01 0.0146 0.0056

Venus -37371-04-12 20:38 J -11928232.86 -11928232.64 -11928232.43 0.0146 0.0015

Moon -37371-04-15 15:06 J -11928230.11 -11928229.87 -11928229.62 0.0146 0.0015

Earth -37371-04-15 18:28 J -11928229.98 -11928229.73 -11928229.48 0.0146 0.0010 *

Mercury -37371-04-30 13:54 J -11928215.08 -11928214.92 -11928214.77 0.0146 0.0029

Mercury -37371-07-27 19:11 J -11928126.85 -11928126.70 -11928126.54 0.0146 0.0003

Mercury -37371-10-24 00:42 J -11928038.62 -11928038.47 -11928038.31 0.0146 0.0026

Venus -37371-11-25 07:26 J -11928006.40 -11928006.19 -11928005.98 0.0146 0.0004

Mercury -37370-01-20 06:14 J -11927950.38 -11927950.24 -11927950.09 0.0146 0.0053

Mercury -37370-04-18 11:45 J -11927862.13 -11927862.01 -11927861.87 0.0146 0.0081

Venus -37370-07-09 18:28 J -11927779.94 -11927779.73 -11927779.51 0.0146 0.0008

Mercury -37370-07-15 17:30 J -11927773.87 -11927773.77 -11927773.66 0.0146 0.0109

Mercury -37370-10-11 23:16 J -11927685.58 -11927685.53 -11927685.47 0.0146 0.0137

Venus -37369-02-21 05:59 J -11927553.46 -11927553.25 -11927553.03 0.0146 0.0019

Venus -37369-10-04 17:30 J -11927326.98 -11927326.77 -11927326.56 0.0146 0.0030

Venus -37368-05-19 05:02 J -11927100.49 -11927100.29 -11927100.08 0.0146 0.0041

Venus -37368-12-31 16:33 J -11926874.00 -11926873.81 -11926873.60 0.0146 0.0053

Venus -37367-08-15 04:47 J -11926647.49 -11926647.30 -11926647.11 0.0146 0.0063

Venus -37366-03-29 16:47 J -11926420.98 -11926420.80 -11926420.61 0.0146 0.0074

Venus -37366-11-11 04:33 J -11926194.47 -11926194.31 -11926194.12 0.0146 0.0085

Venus -37365-06-24 17:02 J -11925967.95 -11925967.79 -11925967.62 0.0146 0.0095

Venus -37364-02-06 05:02 J -11925741.42 -11925741.29 -11925741.12 0.0146 0.0106

Venus -37364-09-20 17:30 J -11925514.89 -11925514.77 -11925514.62 0.0146 0.0115

Venus -37363-05-05 05:59 J -11925288.35 -11925288.25 -11925288.13 0.0146 0.0125

Venus -37363-12-17 18:42 J -11925061.80 -11925061.72 -11925061.63 0.0146 0.0133

Venus -37362-08-01 07:11 J -11924835.24 -11924835.20 -11924835.15 0.0146 0.0142

Mars	-37361-03-28 00:42 J	-11924595.73	-11924595.47	-11924595.19	0.0146	0.0049
Venus	-37339-07-10 23:59 J	-11916455.55	-11916455.50	-11916455.43	0.0135	0.0129
Venus	-37338-02-22 08:23 J	-11916229.22	-11916229.15	-11916229.03	0.0135	0.0122
Venus	-37338-10-06 17:02 J	-11916002.89	-11916002.79	-11916002.66	0.0135	0.0114
Venus	-37337-05-20 01:26 J	-11915776.56	-11915776.44	-11915776.29	0.0135	0.0106
Venus	-37336-01-01 09:50 J	-11915550.24	-11915550.09	-11915549.93	0.0134	0.0098
Venus	-37336-08-15 17:45 J	-11915323.92	-11915323.76	-11915323.58	0.0134	0.0089
Venus	-37335-03-30 01:26 J	-11915097.61	-11915097.44	-11915097.25	0.0134	0.0081
Venus	-37335-11-11 08:52 J	-11914871.30	-11914871.13	-11914870.93	0.0134	0.0073
Venus	-37334-06-25 16:47 J	-11914645.00	-11914644.80	-11914644.61	0.0134	0.0064
Venus	-37333-02-06 23:45 J	-11914418.70	-11914418.51	-11914418.29	0.0133	0.0056
Venus	-37333-09-20 06:57 J	-11914192.41	-11914192.21	-11914191.99	0.0133	0.0047
Venus	-37332-05-04 13:54 J	-11913966.13	-11913965.92	-11913965.70	0.0133	0.0038
Venus	-37332-12-16 20:38 J	-11913739.85	-11913739.64	-11913739.41	0.0133	0.0030
Mercury	-37331-03-20 19:11 J	-11913645.76	-11913645.70	-11913645.62	0.0133	0.0120
Mercury	-37331-06-16 23:45 J	-11913557.60	-11913557.51	-11913557.39	0.0133	0.0099
Venus	-37331-07-31 03:35 J	-11913513.57	-11913513.35	-11913513.13	0.0133	0.0021
Mercury	-37331-09-13 04:18 J	-11913469.43	-11913469.32	-11913469.18	0.0133	0.0078
Moon	-37331-10-16 21:21 J	-11913435.85	-11913435.61	-11913435.37	0.0133	0.0036
Earth	-37331-10-17 00:28 J	-11913435.73	-11913435.48	-11913435.23	0.0133	0.0034 *
Mercury	-37331-12-10 09:06 J	-11913381.26	-11913381.12	-11913380.97	0.0133	0.0057
Mercury	-37330-03-08 13:40 J	-11913293.08	-11913292.93	-11913292.78	0.0133	0.0036
Venus	-37330-03-14 10:18 J	-11913287.29	-11913287.07	-11913286.85	0.0133	0.0012
Mercury	-37330-06-04 18:14 J	-11913204.90	-11913204.74	-11913204.59	0.0133	0.0015
Mercury	-37330-08-31 22:33 J	-11913116.71	-11913116.56	-11913116.40	0.0133	0.0006
Earth	-37330-10-21 06:28 J	-11913066.43	-11913066.23	-11913065.99	0.0133	0.0069
Moon	-37330-10-21 10:04 J	-11913066.28	-11913066.08	-11913065.85	0.0133	0.0074 *
Venus	-37330-10-26 16:33 J	-11913061.03	-11913060.81	-11913060.58	0.0133	0.0004
Mercury	-37330-11-28 02:52 J	-11913028.53	-11913028.38	-11913028.22	0.0133	0.0026
Mercury	-37329-02-24 07:11 J	-11912940.34	-11912940.20	-11912940.05	0.0133	0.0047

Mercury -37329-05-22 11:30 J -11912852.15 -11912852.02 -11912851.88 0.0132 0.0066

Venus -37329-06-08 22:47 J -11912834.77 -11912834.55 -11912834.32 0.0132 0.0006

Mercury -37329-08-18 15:50 J -11912763.95 -11912763.84 -11912763.72 0.0132 0.0086

Mercury -37329-11-14 20:09 J -11912675.75 -11912675.66 -11912675.56 0.0132 0.0106

Venus -37328-01-21 05:02 J -11912608.51 -11912608.29 -11912608.06 0.0132 0.0014

Mercury -37328-02-11 00:14 J -11912587.53 -11912587.49 -11912587.43 0.0132 0.0125

Venus -37328-09-04 11:16 J -11912382.24 -11912382.03 -11912381.81 0.0132 0.0022

Venus -37327-04-18 17:16 J -11912155.99 -11912155.78 -11912155.56 0.0132 0.0030

Venus -37327-11-30 23:02 J -11911929.75 -11911929.54 -11911929.32 0.0132 0.0039

Venus -37326-07-15 04:47 J -11911703.50 -11911703.30 -11911703.09 0.0132 0.0047

Venus -37325-02-26 10:18 J -11911477.26 -11911477.07 -11911476.86 0.0132 0.0055

Venus -37325-10-09 16:04 J -11911251.02 -11911250.83 -11911250.63 0.0132 0.0063

Venus -37324-05-23 21:21 J -11911024.78 -11911024.61 -11911024.41 0.0132 0.0071

Venus -37323-01-05 02:52 J -11910798.55 -11910798.38 -11910798.20 0.0132 0.0079

Venus -37323-08-19 07:54 J -11910572.32 -11910572.17 -11910571.99 0.0132 0.0087

Venus -37322-04-02 13:11 J -11910346.09 -11910345.95 -11910345.79 0.0132 0.0094

Venus -37322-11-14 18:28 J -11910119.87 -11910119.73 -11910119.59 0.0132 0.0101

Venus -37321-06-27 23:30 J -11909893.65 -11909893.52 -11909893.40 0.0132 0.0108

Venus -37320-02-09 04:18 J -11909667.42 -11909667.32 -11909667.21 0.0132 0.0115

Venus -37320-09-23 09:06 J -11909441.19 -11909441.12 -11909441.02 0.0133 0.0122

Venus -37319-05-07 14:09 J -11909214.96 -11909214.91 -11909214.85 0.0133 0.0128

Mars -37317-07-07 06:42 J -11908423.42 -11908423.22 -11908422.97 0.0133 0.0097

Venus -37296-11-19 22:47 J -11900617.59 -11900617.55 -11900617.50 0.0143 0.0139

Venus -37295-07-04 06:57 J -11900391.27 -11900391.21 -11900391.11 0.0143 0.0132

Venus -37294-02-15 15:35 J -11900164.94 -11900164.85 -11900164.73 0.0143 0.0124

Venus -37294-09-30 00:14 J -11899938.60 -11899938.49 -11899938.35 0.0144 0.0116

Venus -37293-05-13 09:21 J -11899712.24 -11899712.11 -11899711.96 0.0144 0.0107

Venus -37293-12-25 18:28 J -11899485.87 -11899485.73 -11899485.56 0.0144 0.0098

Venus -37292-08-09 03:50 J -11899259.49 -11899259.34 -11899259.16 0.0144 0.0089

Venus -37291-03-23 13:26 J -11899033.11 -11899032.94 -11899032.76 0.0145 0.0079

Venus -37291-11-04 23:16 J -11898806.72 -11898806.53 -11898806.35 0.0145 0.0069
 Venus -37290-06-19 09:06 J -11898580.31 -11898580.12 -11898579.93 0.0145 0.0059
 Venus -37289-01-31 19:11 J -11898353.89 -11898353.70 -11898353.49 0.0145 0.0049
 Venus -37289-09-14 05:30 J -11898127.47 -11898127.27 -11898127.06 0.0145 0.0039
 Earth -37288-04-11 01:26 J -11897918.57 -11897918.44 -11897918.30 0.0146 0.0122
 Moon -37288-04-11 03:50 J -11897918.48 -11897918.34 -11897918.17 0.0146 0.0115 *
 Venus -37288-04-28 16:04 J -11897901.03 -11897900.83 -11897900.61 0.0146 0.0028
 Mercury -37288-06-01 23:16 J -11897866.59 -11897866.53 -11897866.45 0.0146 0.0129
 Mercury -37288-08-29 04:33 J -11897778.41 -11897778.31 -11897778.19 0.0146 0.0103
 Mercury -37288-11-25 09:50 J -11897690.21 -11897690.09 -11897689.95 0.0146 0.0077
 Venus -37288-12-11 02:52 J -11897674.59 -11897674.38 -11897674.17 0.0146 0.0017
 Mercury -37287-02-21 15:21 J -11897602.00 -11897601.86 -11897601.71 0.0146 0.0050
 Moon -37287-04-16 00:28 J -11897548.73 -11897548.48 -11897548.23 0.0146 0.0008
 Earth -37287-04-16 03:06 J -11897548.61 -11897548.37 -11897548.11 0.0146 0.0015 *
 Mercury -37287-05-20 20:52 J -11897513.79 -11897513.63 -11897513.48 0.0146 0.0023
 Venus -37287-07-25 13:40 J -11897448.14 -11897447.93 -11897447.71 0.0146 0.0007
 Mercury -37287-08-17 02:23 J -11897425.56 -11897425.40 -11897425.25 0.0146 0.0006
 Mercury -37287-11-13 07:40 J -11897337.33 -11897337.18 -11897337.02 0.0146 0.0032
 Mercury -37286-02-09 13:26 J -11897249.09 -11897248.94 -11897248.80 0.0146 0.0059
 Venus -37286-03-09 00:57 J -11897221.67 -11897221.46 -11897221.25 0.0146 0.0005
 Mercury -37286-05-08 18:57 J -11897160.83 -11897160.71 -11897160.58 0.0146 0.0087
 Mercury -37286-08-05 00:42 J -11897072.57 -11897072.47 -11897072.38 0.0146 0.0115
 Venus -37286-10-21 12:14 J -11896995.20 -11896994.99 -11896994.78 0.0146 0.0017
 Mercury -37286-11-01 05:59 J -11896984.26 -11896984.25 -11896984.21 0.0146 0.0145
 Venus -37285-06-03 23:30 J -11896768.73 -11896768.52 -11896768.31 0.0146 0.0028
 Venus -37284-01-16 11:02 J -11896542.24 -11896542.04 -11896541.83 0.0146 0.0039
 Venus -37284-08-30 22:33 J -11896315.75 -11896315.56 -11896315.34 0.0146 0.0051
 Venus -37283-04-14 10:18 J -11896089.25 -11896089.07 -11896088.86 0.0146 0.0062
 Venus -37283-11-26 22:33 J -11895862.75 -11895862.56 -11895862.37 0.0146 0.0072
 Venus -37282-07-11 10:18 J -11895636.24 -11895636.07 -11895635.88 0.0146 0.0083

Venus	-37281-02-22 22:33 J	-11895409.71	-11895409.56	-11895409.38	0.0146	0.0093
Venus	-37281-10-06 10:47 J	-11895183.19	-11895183.05	-11895182.88	0.0146	0.0104
Venus	-37280-05-20 23:02 J	-11894956.66	-11894956.54	-11894956.39	0.0146	0.0114
Venus	-37279-01-02 11:45 J	-11894730.13	-11894730.01	-11894729.89	0.0146	0.0123
Venus	-37279-08-16 23:45 J	-11894503.58	-11894503.51	-11894503.40	0.0146	0.0133
Venus	-37278-03-31 12:28 J	-11894277.02	-11894276.98	-11894276.91	0.0146	0.0141
Mars	-37277-11-21 01:11 J	-11893676.71	-11893676.45	-11893676.17	0.0146	0.0050
Jupiter	-37272-10-07 12:28 J	-11891895.06	-11891894.98	-11891894.86	0.0144	0.0141
Venus	-37255-03-10 07:26 J	-11885897.23	-11885897.19	-11885897.12	0.0135	0.0131
Venus	-37255-10-22 16:04 J	-11885670.90	-11885670.83	-11885670.72	0.0135	0.0123
Venus	-37254-06-06 00:57 J	-11885444.56	-11885444.46	-11885444.33	0.0135	0.0115
Venus	-37253-01-18 09:21 J	-11885218.23	-11885218.11	-11885217.96	0.0135	0.0107
Venus	-37253-08-31 17:45 J	-11884991.90	-11884991.76	-11884991.60	0.0135	0.0099
Venus	-37252-04-15 01:40 J	-11884765.59	-11884765.43	-11884765.26	0.0134	0.0090
Venus	-37252-11-27 09:21 J	-11884539.27	-11884539.11	-11884538.92	0.0134	0.0082
Venus	-37251-07-11 17:02 J	-11884312.96	-11884312.79	-11884312.58	0.0134	0.0074
Venus	-37250-02-23 00:57 J	-11884086.65	-11884086.46	-11884086.26	0.0134	0.0065
Venus	-37250-10-07 08:09 J	-11883860.36	-11883860.16	-11883859.95	0.0133	0.0057
Venus	-37249-05-20 15:06 J	-11883634.06	-11883633.87	-11883633.65	0.0133	0.0049
Venus	-37248-01-01 22:18 J	-11883407.78	-11883407.57	-11883407.35	0.0133	0.0040
Venus	-37248-08-16 05:16 J	-11883181.49	-11883181.28	-11883181.05	0.0133	0.0031
Earth	-37248-10-13 02:52 J	-11883123.38	-11883123.38	-11883123.36	0.0133	0.0133
Moon	-37248-10-13 05:30 J	-11883123.28	-11883123.27	-11883123.22	0.0133	0.0132
Venus	-37247-03-30 12:14 J	-11882955.21	-11882954.99	-11882954.77	0.0133	0.0022
Mercury	-37247-04-10 02:23 J	-11882944.48	-11882944.40	-11882944.32	0.0133	0.0114
Mercury	-37247-07-07 06:57 J	-11882856.32	-11882856.21	-11882856.10	0.0133	0.0093
Mercury	-37247-10-03 11:30 J	-11882768.15	-11882768.02	-11882767.88	0.0133	0.0072
Moon	-37247-10-17 07:11 J	-11882754.44	-11882754.20	-11882753.95	0.0133	0.0029
Earth	-37247-10-17 09:50 J	-11882754.33	-11882754.09	-11882753.83	0.0133	0.0030 *
Venus	-37247-11-11 18:42 J	-11882728.93	-11882728.72	-11882728.49	0.0133	0.0014

Mercury -37247-12-30 16:04 J -11882679.97 -11882679.83 -11882679.68 0.0133 0.0051

Mercury -37246-03-28 20:38 J -11882591.79 -11882591.64 -11882591.48 0.0133 0.0030

Mercury -37246-06-25 01:11 J -11882503.61 -11882503.45 -11882503.30 0.0133 0.0010

Venus -37246-06-26 01:26 J -11882502.66 -11882502.44 -11882502.22 0.0133 0.0005

Mercury -37246-09-21 05:30 J -11882415.42 -11882415.27 -11882415.11 0.0133 0.0011

Earth -37246-10-21 16:04 J -11882385.02 -11882384.83 -11882384.60 0.0132 0.0074

Moon -37246-10-21 18:57 J -11882384.91 -11882384.71 -11882384.47 0.0132 0.0070 *

Mercury -37246-12-18 09:50 J -11882327.24 -11882327.09 -11882326.93 0.0132 0.0032

Venus -37245-02-07 07:54 J -11882276.39 -11882276.17 -11882275.95 0.0132 0.0004

Mercury -37245-03-15 14:09 J -11882239.05 -11882238.91 -11882238.76 0.0132 0.0052

Mercury -37245-06-11 18:28 J -11882150.85 -11882150.73 -11882150.59 0.0132 0.0072

Mercury -37245-09-07 22:47 J -11882062.65 -11882062.55 -11882062.43 0.0132 0.0091

Venus -37245-09-20 14:09 J -11882050.13 -11882049.91 -11882049.69 0.0132 0.0013

Mercury -37245-12-05 02:52 J -11881974.45 -11881974.38 -11881974.28 0.0132 0.0111

Mercury -37244-03-03 07:11 J -11881886.21 -11881886.20 -11881886.17 0.0132 0.0131

Venus -37244-05-04 20:09 J -11881823.87 -11881823.66 -11881823.43 0.0132 0.0021

Venus -37244-12-17 02:23 J -11881597.62 -11881597.40 -11881597.19 0.0132 0.0029

Venus -37243-07-31 08:09 J -11881371.36 -11881371.16 -11881370.94 0.0132 0.0038

Venus -37242-03-14 13:54 J -11881145.12 -11881144.92 -11881144.70 0.0132 0.0046

Venus -37242-10-26 19:40 J -11880918.87 -11880918.68 -11880918.47 0.0132 0.0054

Venus -37241-06-09 01:11 J -11880692.64 -11880692.45 -11880692.25 0.0132 0.0062

Venus -37240-01-21 06:42 J -11880466.40 -11880466.22 -11880466.03 0.0132 0.0070

Venus -37240-09-04 11:59 J -11880240.16 -11880240.00 -11880239.81 0.0132 0.0078

Venus -37239-04-18 17:30 J -11880013.94 -11880013.77 -11880013.60 0.0132 0.0085

Venus -37239-11-30 22:18 J -11879787.71 -11879787.57 -11879787.40 0.0132 0.0093

Venus -37238-07-15 03:21 J -11879561.49 -11879561.36 -11879561.20 0.0132 0.0101

Venus -37237-02-26 08:23 J -11879335.26 -11879335.15 -11879335.01 0.0132 0.0108

Venus -37237-10-09 13:26 J -11879109.03 -11879108.94 -11879108.81 0.0132 0.0115

Venus -37236-05-23 18:42 J -11878882.80 -11878882.72 -11878882.63 0.0132 0.0121

Venus -37235-01-04 23:16 J -11878656.57 -11878656.53 -11878656.46 0.0133 0.0128

Mars	-37234-03-29 23:16 J	-11878207.80	-11878207.53	-11878207.22	0.0133	0.0066
Venus	-37212-07-20 05:59 J	-11870059.27	-11870059.25	-11870059.20	0.0142	0.0140
Venus	-37211-03-03 14:09 J	-11869832.97	-11869832.91	-11869832.82	0.0143	0.0133
Venus	-37211-10-15 22:33 J	-11869606.64	-11869606.56	-11869606.44	0.0143	0.0126
Venus	-37210-05-30 07:40 J	-11869380.30	-11869380.18	-11869380.06	0.0143	0.0117
Venus	-37209-01-11 16:18 J	-11869153.94	-11869153.82	-11869153.67	0.0144	0.0109
Venus	-37209-08-25 01:40 J	-11868927.58	-11868927.43	-11868927.28	0.0144	0.0099
Venus	-37208-04-08 10:47 J	-11868701.21	-11868701.05	-11868700.88	0.0144	0.0090
Venus	-37208-11-20 20:09 J	-11868474.83	-11868474.66	-11868474.48	0.0144	0.0081
Venus	-37207-07-05 05:45 J	-11868248.44	-11868248.26	-11868248.07	0.0145	0.0071
Venus	-37206-02-16 15:35 J	-11868022.03	-11868021.85	-11868021.65	0.0145	0.0061
Venus	-37206-10-01 01:40 J	-11867795.62	-11867795.43	-11867795.22	0.0145	0.0051
Venus	-37205-05-14 11:59 J	-11867569.20	-11867569.00	-11867568.79	0.0145	0.0040
Venus	-37205-12-26 22:33 J	-11867342.77	-11867342.56	-11867342.35	0.0145	0.0030
Earth	-37204-04-11 09:50 J	-11867237.23	-11867237.09	-11867236.94	0.0146	0.0118
Moon	-37204-04-11 11:16 J	-11867237.14	-11867237.03	-11867236.88	0.0146	0.0126 *
Mercury	-37204-06-22 06:28 J	-11867165.31	-11867165.23	-11867165.15	0.0146	0.0123
Venus	-37204-08-10 09:21 J	-11867116.32	-11867116.11	-11867115.90	0.0146	0.0019
Mercury	-37204-09-18 11:30 J	-11867077.13	-11867077.02	-11867076.90	0.0146	0.0097
Mercury	-37204-12-15 16:47 J	-11866988.93	-11866988.80	-11866988.66	0.0146	0.0071
Mercury	-37203-03-13 22:18 J	-11866900.72	-11866900.57	-11866900.42	0.0146	0.0044
Venus	-37203-03-24 20:09 J	-11866889.88	-11866889.66	-11866889.45	0.0146	0.0008
Moon	-37203-04-16 09:06 J	-11866867.36	-11866867.12	-11866866.87	0.0146	0.0024
Earth	-37203-04-16 11:45 J	-11866867.26	-11866867.01	-11866866.75	0.0146	0.0019 *
Mercury	-37203-06-10 03:50 J	-11866812.50	-11866812.34	-11866812.19	0.0146	0.0017
Mercury	-37203-09-06 09:21 J	-11866724.27	-11866724.11	-11866723.96	0.0146	0.0011
Venus	-37203-11-06 06:57 J	-11866663.42	-11866663.21	-11866662.99	0.0146	0.0004
Mercury	-37203-12-03 14:38 J	-11866636.04	-11866635.89	-11866635.73	0.0146	0.0038
Mercury	-37202-03-01 20:23 J	-11866547.79	-11866547.65	-11866547.51	0.0146	0.0065
Mercury	-37202-05-29 01:54 J	-11866459.54	-11866459.42	-11866459.30	0.0146	0.0093

Venus	-37202-06-20 18:14 J	-11866436.95	-11866436.74	-11866436.53	0.0146	0.0014
Mercury	-37202-08-25 07:40 J	-11866371.27	-11866371.18	-11866371.09	0.0146	0.0122
Venus	-37201-02-02 05:30 J	-11866210.47	-11866210.27	-11866210.05	0.0146	0.0026
Venus	-37201-09-15 17:02 J	-11865983.99	-11865983.79	-11865983.58	0.0146	0.0037
Venus	-37200-04-30 04:33 J	-11865757.50	-11865757.31	-11865757.10	0.0146	0.0048
Venus	-37200-12-12 16:04 J	-11865531.01	-11865530.83	-11865530.62	0.0146	0.0060
Venus	-37199-07-27 04:18 J	-11865304.51	-11865304.32	-11865304.13	0.0146	0.0070
Venus	-37198-03-10 16:18 J	-11865077.99	-11865077.82	-11865077.64	0.0146	0.0081
Venus	-37198-10-23 04:18 J	-11864851.48	-11864851.32	-11864851.14	0.0146	0.0091
Venus	-37197-06-05 16:33 J	-11864624.96	-11864624.81	-11864624.65	0.0146	0.0101
Venus	-37196-01-18 04:47 J	-11864398.43	-11864398.30	-11864398.15	0.0146	0.0112
Venus	-37196-09-01 17:02 J	-11864171.90	-11864171.79	-11864171.66	0.0146	0.0121
Venus	-37195-04-16 05:45 J	-11863945.35	-11863945.26	-11863945.16	0.0146	0.0131
Venus	-37195-11-28 18:14 J	-11863718.80	-11863718.74	-11863718.67	0.0146	0.0140
Mars	-37194-08-15 06:28 J	-11863459.32	-11863459.23	-11863459.10	0.0146	0.0134
Venus	-37172-11-07 15:06 J	-11855338.90	-11855338.87	-11855338.79	0.0136	0.0132
Venus	-37171-06-22 00:28 J	-11855112.56	-11855112.48	-11855112.38	0.0135	0.0124
Venus	-37170-02-03 08:52 J	-11854886.22	-11854886.13	-11854886.00	0.0135	0.0116
Venus	-37170-09-17 17:30 J	-11854659.89	-11854659.77	-11854659.62	0.0135	0.0108
Venus	-37169-05-01 01:40 J	-11854433.56	-11854433.43	-11854433.27	0.0135	0.0100
Venus	-37169-12-13 09:50 J	-11854207.24	-11854207.09	-11854206.91	0.0134	0.0092
Venus	-37168-07-27 17:45 J	-11853980.92	-11853980.76	-11853980.57	0.0134	0.0084
Venus	-37167-03-11 01:54 J	-11853754.61	-11853754.42	-11853754.23	0.0134	0.0074
Venus	-37167-10-23 09:21 J	-11853528.30	-11853528.11	-11853527.91	0.0134	0.0066
Venus	-37166-06-06 16:33 J	-11853302.00	-11853301.81	-11853301.59	0.0134	0.0058
Venus	-37165-01-19 00:14 J	-11853075.70	-11853075.49	-11853075.28	0.0133	0.0049
Venus	-37165-09-01 07:11 J	-11852849.40	-11852849.20	-11852848.97	0.0133	0.0041
Venus	-37164-04-15 14:23 J	-11852623.11	-11852622.90	-11852622.68	0.0133	0.0031
Earth	-37164-10-13 13:11 J	-11852442.01	-11852441.95	-11852441.86	0.0133	0.0127
Moon	-37164-10-13 15:06 J	-11852441.90	-11852441.87	-11852441.78	0.0133	0.0130 *

Venus -37164-11-27 21:06 J -11852396.83 -11852396.62 -11852396.39 0.0133 0.0023
 Mercury -37163-02-01 04:33 J -11852331.33 -11852331.31 -11852331.27 0.0133 0.0130
 Mercury -37163-04-30 09:21 J -11852243.19 -11852243.11 -11852243.01 0.0133 0.0108
 Venus -37163-07-12 04:04 J -11852170.55 -11852170.33 -11852170.11 0.0133 0.0014
 Mercury -37163-07-27 13:54 J -11852155.03 -11852154.92 -11852154.79 0.0133 0.0087
 Moon -37163-10-17 18:14 J -11852072.99 -11852072.74 -11852072.50 0.0133 0.0025
 Earth -37163-10-17 20:23 J -11852072.90 -11852072.65 -11852072.39 0.0133 0.0024 *
 Mercury -37163-10-23 18:42 J -11852066.86 -11852066.72 -11852066.58 0.0133 0.0066
 Mercury -37162-01-19 23:16 J -11851978.68 -11851978.53 -11851978.38 0.0133 0.0045
 Venus -37162-02-23 10:47 J -11851944.27 -11851944.05 -11851943.83 0.0133 0.0005
 Mercury -37162-04-18 03:50 J -11851890.50 -11851890.34 -11851890.19 0.0133 0.0024
 Mercury -37162-07-15 08:23 J -11851802.31 -11851802.15 -11851802.00 0.0133 0.0005
 Venus -37162-10-07 17:16 J -11851718.00 -11851717.78 -11851717.56 0.0132 0.0003
 Mercury -37162-10-11 12:42 J -11851714.13 -11851713.97 -11851713.81 0.0132 0.0017
 Earth -37162-10-22 02:52 J -11851703.58 -11851703.38 -11851703.17 0.0132 0.0079
 Moon -37162-10-22 05:30 J -11851703.46 -11851703.27 -11851703.05 0.0132 0.0083 *
 Mercury -37161-01-07 17:02 J -11851625.94 -11851625.79 -11851625.64 0.0132 0.0037
 Mercury -37161-04-04 21:21 J -11851537.74 -11851537.61 -11851537.46 0.0132 0.0058
 Venus -37161-05-20 23:30 J -11851491.74 -11851491.52 -11851491.30 0.0132 0.0012
 Mercury -37161-07-02 01:40 J -11851449.55 -11851449.43 -11851449.30 0.0132 0.0078
 Mercury -37161-09-28 05:59 J -11851361.35 -11851361.25 -11851361.14 0.0132 0.0097
 Mercury -37161-12-25 10:18 J -11851273.14 -11851273.07 -11851273.00 0.0132 0.0117
 Venus -37160-01-02 05:45 J -11851265.48 -11851265.26 -11851265.04 0.0132 0.0020
 Venus -37160-08-16 11:45 J -11851039.22 -11851039.01 -11851038.78 0.0132 0.0030
 Venus -37159-03-30 17:59 J -11850812.96 -11850812.75 -11850812.54 0.0132 0.0037
 Venus -37159-11-11 23:45 J -11850586.72 -11850586.51 -11850586.30 0.0132 0.0046
 Venus -37158-06-26 05:16 J -11850360.47 -11850360.28 -11850360.07 0.0132 0.0054
 Venus -37157-02-07 10:47 J -11850134.23 -11850134.05 -11850133.84 0.0132 0.0062
 Venus -37157-09-20 16:18 J -11849907.99 -11849907.82 -11849907.62 0.0132 0.0070
 Venus -37156-05-04 22:04 J -11849681.76 -11849681.58 -11849681.40 0.0132 0.0078

Venus	-37156-12-17 03:06 J	-11849455.53	-11849455.37	-11849455.20	0.0132	0.0085
Venus	-37155-07-31 08:09 J	-11849229.30	-11849229.16	-11849228.99	0.0132	0.0093
Venus	-37154-03-14 13:11 J	-11849003.07	-11849002.95	-11849002.79	0.0132	0.0101
Venus	-37154-10-26 18:28 J	-11848776.84	-11848776.73	-11848776.59	0.0132	0.0107
Venus	-37153-06-08 23:16 J	-11848550.62	-11848550.53	-11848550.40	0.0132	0.0115
Venus	-37152-01-21 04:33 J	-11848324.39	-11848324.31	-11848324.21	0.0132	0.0121
Venus	-37152-09-04 09:21 J	-11848098.15	-11848098.11	-11848098.03	0.0132	0.0127
Mars	-37150-11-23 07:11 J	-11847288.51	-11847288.20	-11847287.86	0.0133	0.0024
Venus	-37128-03-19 13:54 J	-11839500.93	-11839500.92	-11839500.89	0.0142	0.0142
Venus	-37128-10-31 22:18 J	-11839274.64	-11839274.57	-11839274.50	0.0143	0.0134
Venus	-37127-06-15 06:42 J	-11839048.32	-11839048.22	-11839048.12	0.0143	0.0126
Venus	-37126-01-27 15:06 J	-11838821.98	-11838821.87	-11838821.74	0.0143	0.0118
Venus	-37126-09-10 23:59 J	-11838595.63	-11838595.50	-11838595.36	0.0144	0.0110
Venus	-37125-04-24 08:52 J	-11838369.28	-11838369.13	-11838368.98	0.0144	0.0101
Venus	-37125-12-06 17:45 J	-11838142.91	-11838142.76	-11838142.58	0.0144	0.0092
Venus	-37124-07-21 03:21 J	-11837916.53	-11837916.36	-11837916.18	0.0144	0.0083
Venus	-37123-03-04 12:57 J	-11837690.14	-11837689.96	-11837689.78	0.0145	0.0073
Venus	-37123-10-16 22:33 J	-11837463.74	-11837463.56	-11837463.36	0.0145	0.0063
Venus	-37122-05-31 08:23 J	-11837237.33	-11837237.15	-11837236.94	0.0145	0.0053
Venus	-37121-01-12 18:57 J	-11837010.91	-11837010.71	-11837010.50	0.0145	0.0042
Venus	-37121-08-26 05:16 J	-11836784.48	-11836784.28	-11836784.07	0.0145	0.0032
Venus	-37120-04-09 15:50 J	-11836558.05	-11836557.84	-11836557.63	0.0146	0.0021
Earth	-37120-04-11 18:42 J	-11836555.86	-11836555.72	-11836555.55	0.0146	0.0114
Moon	-37120-04-11 20:52 J	-11836555.81	-11836555.63	-11836555.45	0.0146	0.0106 *
Mercury	-37120-04-15 08:09 J	-11836552.18	-11836552.16	-11836552.13	0.0146	0.0143
Mercury	-37120-07-12 13:26 J	-11836464.03	-11836463.94	-11836463.85	0.0146	0.0117
Mercury	-37120-10-08 18:42 J	-11836375.84	-11836375.72	-11836375.60	0.0146	0.0091
Venus	-37120-11-22 02:38 J	-11836331.61	-11836331.39	-11836331.18	0.0146	0.0010
Mercury	-37119-01-04 23:59 J	-11836287.63	-11836287.50	-11836287.36	0.0146	0.0064
Mercury	-37119-04-03 05:16 J	-11836199.42	-11836199.28	-11836199.12	0.0146	0.0038

Moon -37119-04-16 18:57 J -11836185.95 -11836185.71 -11836185.46 0.0146 0.0016
 Earth -37119-04-16 20:52 J -11836185.87 -11836185.63 -11836185.37 0.0146 0.0023 *
 Mercury -37119-06-30 10:47 J -11836111.20 -11836111.05 -11836110.89 0.0146 0.0011
 Venus -37119-07-06 13:26 J -11836105.15 -11836104.94 -11836104.73 0.0146 0.0001
 Mercury -37119-09-26 16:18 J -11836022.98 -11836022.82 -11836022.66 0.0146 0.0017
 Mercury -37119-12-23 21:50 J -11835934.74 -11835934.59 -11835934.44 0.0146 0.0044
 Venus -37118-02-18 00:28 J -11835878.69 -11835878.48 -11835878.26 0.0146 0.0013
 Mercury -37118-03-22 03:21 J -11835846.49 -11835846.36 -11835846.22 0.0146 0.0072
 Mercury -37118-06-18 08:52 J -11835758.24 -11835758.13 -11835758.01 0.0146 0.0100
 Mercury -37118-09-14 14:23 J -11835669.96 -11835669.90 -11835669.81 0.0146 0.0129
 Venus -37118-10-02 11:45 J -11835652.22 -11835652.01 -11835651.79 0.0146 0.0024
 Venus -37117-05-15 23:02 J -11835425.74 -11835425.54 -11835425.33 0.0146 0.0035
 Venus -37117-12-28 10:33 J -11835199.26 -11835199.06 -11835198.85 0.0146 0.0046
 Venus -37116-08-11 22:04 J -11834972.77 -11834972.58 -11834972.37 0.0146 0.0058
 Venus -37115-03-26 09:50 J -11834746.27 -11834746.09 -11834745.89 0.0146 0.0069
 Venus -37115-11-07 21:35 J -11834519.76 -11834519.60 -11834519.40 0.0146 0.0080
 Venus -37114-06-22 09:50 J -11834293.25 -11834293.09 -11834292.91 0.0146 0.0090
 Venus -37113-02-03 22:18 J -11834066.73 -11834066.57 -11834066.42 0.0146 0.0100
 Venus -37113-09-17 10:04 J -11833840.21 -11833840.08 -11833839.92 0.0146 0.0110
 Venus -37112-05-01 22:33 J -11833613.68 -11833613.56 -11833613.43 0.0146 0.0120
 Venus -37112-12-14 10:47 J -11833387.14 -11833387.05 -11833386.94 0.0146 0.0129
 Venus -37111-07-28 23:16 J -11833160.58 -11833160.53 -11833160.45 0.0146 0.0138
 Mars -37109-04-09 07:11 J -11832540.47 -11832540.20 -11832539.92 0.0146 0.0036
 Venus -37088-07-07 23:16 J -11824780.56 -11824780.53 -11824780.47 0.0136 0.0133
 Venus -37087-02-19 08:23 J -11824554.23 -11824554.15 -11824554.06 0.0136 0.0125
 Venus -37087-10-03 16:47 J -11824327.89 -11824327.80 -11824327.67 0.0135 0.0118
 Venus -37086-05-18 01:26 J -11824101.55 -11824101.44 -11824101.29 0.0135 0.0109
 Venus -37086-12-30 09:50 J -11823875.22 -11823875.09 -11823874.93 0.0135 0.0101
 Venus -37085-08-12 18:14 J -11823648.89 -11823648.74 -11823648.57 0.0135 0.0093
 Venus -37084-03-27 02:09 J -11823422.57 -11823422.41 -11823422.22 0.0134 0.0084

Venus -37084-11-08 10:18 J -11823196.26 -11823196.07 -11823195.89 0.0134 0.0075
 Venus -37083-06-22 17:45 J -11822969.94 -11822969.76 -11822969.55 0.0134 0.0067
 Venus -37082-02-04 01:26 J -11822743.63 -11822743.44 -11822743.23 0.0134 0.0058
 Venus -37082-09-18 08:52 J -11822517.33 -11822517.13 -11822516.92 0.0133 0.0050
 Venus -37081-05-01 16:04 J -11822291.03 -11822290.83 -11822290.61 0.0133 0.0041
 Venus -37081-12-13 23:16 J -11822064.74 -11822064.53 -11822064.31 0.0133 0.0032
 Venus -37080-07-28 06:28 J -11821838.45 -11821838.23 -11821838.01 0.0133 0.0023
 Earth -37080-10-13 23:16 J -11821760.60 -11821760.53 -11821760.40 0.0133 0.0122
 Moon -37080-10-14 02:09 J -11821760.53 -11821760.41 -11821760.30 0.0133 0.0119 *
 Mercury -37079-02-21 11:59 J -11821630.06 -11821630.00 -11821629.94 0.0133 0.0123
 Venus -37079-03-11 13:11 J -11821612.17 -11821611.95 -11821611.73 0.0133 0.0015
 Mercury -37079-05-20 16:33 J -11821541.91 -11821541.81 -11821541.70 0.0133 0.0102
 Mercury -37079-08-16 21:06 J -11821453.74 -11821453.62 -11821453.49 0.0133 0.0081
 Moon -37079-10-18 05:02 J -11821391.53 -11821391.29 -11821391.04 0.0133 0.0018
 Earth -37079-10-18 06:57 J -11821391.46 -11821391.21 -11821390.95 0.0133 0.0019 *
 Venus -37079-10-23 19:54 J -11821385.89 -11821385.67 -11821385.45 0.0133 0.0006
 Mercury -37079-11-13 01:40 J -11821365.56 -11821365.43 -11821365.28 0.0133 0.0060
 Mercury -37078-02-09 06:28 J -11821277.38 -11821277.23 -11821277.08 0.0133 0.0039
 Mercury -37078-05-08 11:02 J -11821189.20 -11821189.04 -11821188.89 0.0133 0.0018
 Venus -37078-06-07 02:23 J -11821159.62 -11821159.40 -11821159.18 0.0133 0.0003
 Mercury -37078-08-04 15:21 J -11821101.01 -11821100.86 -11821100.70 0.0133 0.0004
 Earth -37078-10-22 13:40 J -11821022.13 -11821021.93 -11821021.73 0.0132 0.0084
 Moon -37078-10-22 15:21 J -11821022.05 -11821021.86 -11821021.64 0.0132 0.0081 *
 Mercury -37078-10-31 19:54 J -11821012.83 -11821012.67 -11821012.52 0.0132 0.0023
 Venus -37077-01-19 08:52 J -11820933.35 -11820933.13 -11820932.91 0.0132 0.0011
 Mercury -37077-01-28 00:14 J -11820924.64 -11820924.49 -11820924.34 0.0132 0.0043
 Mercury -37077-04-25 04:33 J -11820836.44 -11820836.31 -11820836.17 0.0132 0.0063
 Mercury -37077-07-22 08:52 J -11820748.25 -11820748.13 -11820748.01 0.0132 0.0083
 Venus -37077-09-01 15:06 J -11820707.08 -11820706.87 -11820706.64 0.0132 0.0020
 Mercury -37077-10-18 12:57 J -11820660.04 -11820659.96 -11820659.85 0.0132 0.0104

Mercury -37076-01-14 17:30 J -11820571.82 -11820571.77 -11820571.71 0.0132 0.0123

Venus -37076-04-15 21:21 J -11820480.82 -11820480.61 -11820480.39 0.0132 0.0028

Venus -37076-11-28 03:06 J -11820254.57 -11820254.37 -11820254.15 0.0132 0.0037

Venus -37075-07-12 09:06 J -11820028.32 -11820028.12 -11820027.90 0.0132 0.0045

Venus -37074-02-23 14:52 J -11819802.07 -11819801.88 -11819801.67 0.0132 0.0054

Venus -37074-10-07 20:38 J -11819575.83 -11819575.64 -11819575.44 0.0132 0.0062

Venus -37073-05-21 02:09 J -11819349.59 -11819349.41 -11819349.22 0.0132 0.0069

Venus -37072-01-02 07:26 J -11819123.36 -11819123.19 -11819123.00 0.0132 0.0077

Venus -37072-08-16 12:42 J -11818897.12 -11818896.97 -11818896.79 0.0132 0.0085

Venus -37071-03-30 17:59 J -11818670.89 -11818670.75 -11818670.58 0.0132 0.0092

Venus -37071-11-11 23:16 J -11818444.67 -11818444.53 -11818444.38 0.0132 0.0099

Venus -37070-06-26 04:18 J -11818218.44 -11818218.32 -11818218.19 0.0132 0.0107

Venus -37069-02-07 09:21 J -11817992.21 -11817992.11 -11817991.99 0.0132 0.0114

Venus -37069-09-20 14:23 J -11817765.98 -11817765.90 -11817765.80 0.0132 0.0120

Venus -37068-05-04 19:26 J -11817539.74 -11817539.69 -11817539.62 0.0132 0.0127

Mars -37065-07-18 13:40 J -11816369.09 -11816368.93 -11816368.73 0.0133 0.0111

Venus -37044-07-01 05:59 J -11808716.30 -11808716.25 -11808716.17 0.0143 0.0136

Venus -37043-02-12 14:23 J -11808489.98 -11808489.90 -11808489.80 0.0143 0.0128

Venus -37043-09-26 22:33 J -11808263.65 -11808263.56 -11808263.43 0.0143 0.0120

Venus -37042-05-11 07:26 J -11808037.31 -11808037.19 -11808037.05 0.0143 0.0112

Venus -37042-12-23 16:18 J -11807810.95 -11807810.82 -11807810.66 0.0144 0.0103

Venus -37041-08-06 01:26 J -11807584.59 -11807584.44 -11807584.27 0.0144 0.0094

Venus -37040-03-20 10:33 J -11807358.22 -11807358.06 -11807357.88 0.0144 0.0085

Venus -37040-11-01 20:09 J -11807131.84 -11807131.66 -11807131.47 0.0144 0.0075

Venus -37039-06-16 05:45 J -11806905.44 -11806905.26 -11806905.06 0.0145 0.0065

Venus -37038-01-28 15:50 J -11806679.03 -11806678.84 -11806678.64 0.0145 0.0055

Venus -37038-09-12 01:54 J -11806452.61 -11806452.42 -11806452.21 0.0145 0.0044

Venus -37037-04-25 12:14 J -11806226.19 -11806225.99 -11806225.78 0.0145 0.0034

Venus -37037-12-07 22:47 J -11805999.76 -11805999.55 -11805999.34 0.0146 0.0023

Earth -37036-04-12 04:18 J -11805874.47 -11805874.32 -11805874.14 0.0146 0.0109

Moon -37036-04-12 04:47 J -11805874.44 -11805874.30 -11805874.13 0.0146 0.0116 *
 Mercury -37036-05-05 15:35 J -11805850.91 -11805850.85 -11805850.80 0.0146 0.0136
 Venus -37036-07-22 09:21 J -11805773.32 -11805773.11 -11805772.90 0.0146 0.0012
 Mercury -37036-08-01 20:23 J -11805762.74 -11805762.65 -11805762.54 0.0146 0.0111
 Mercury -37036-10-29 01:54 J -11805674.54 -11805674.42 -11805674.29 0.0146 0.0084
 Mercury -37035-01-25 07:11 J -11805586.34 -11805586.20 -11805586.06 0.0146 0.0058
 Venus -37035-03-05 20:09 J -11805546.87 -11805546.66 -11805546.44 0.0146 0.0003
 Moon -37035-04-17 04:33 J -11805504.54 -11805504.31 -11805504.06 0.0146 0.0034
 Earth -37035-04-17 06:14 J -11805504.48 -11805504.24 -11805503.98 0.0146 0.0028 *
 Mercury -37035-04-23 12:28 J -11805498.13 -11805497.98 -11805497.82 0.0146 0.0031
 Mercury -37035-07-20 17:59 J -11805409.91 -11805409.75 -11805409.59 0.0146 0.0004
 Mercury -37035-10-16 23:30 J -11805321.68 -11805321.52 -11805321.37 0.0146 0.0023
 Venus -37035-10-18 07:11 J -11805320.41 -11805320.20 -11805319.99 0.0146 0.0011
 Mercury -37034-01-13 04:47 J -11805233.44 -11805233.30 -11805233.14 0.0146 0.0052
 Mercury -37034-04-11 10:18 J -11805145.19 -11805145.07 -11805144.93 0.0146 0.0079
 Venus -37034-06-01 18:14 J -11805093.95 -11805093.74 -11805093.52 0.0146 0.0022
 Mercury -37034-07-08 15:50 J -11805056.93 -11805056.84 -11805056.72 0.0146 0.0108
 Mercury -37034-10-04 21:35 J -11804968.65 -11804968.60 -11804968.53 0.0146 0.0135
 Venus -37033-01-14 05:30 J -11804867.47 -11804867.27 -11804867.05 0.0146 0.0034
 Venus -37033-08-27 17:02 J -11804640.99 -11804640.79 -11804640.58 0.0146 0.0044
 Venus -37032-04-11 04:33 J -11804414.50 -11804414.31 -11804414.11 0.0146 0.0055
 Venus -37032-11-23 16:04 J -11804188.01 -11804187.83 -11804187.63 0.0146 0.0067
 Venus -37031-07-08 03:50 J -11803961.51 -11803961.34 -11803961.15 0.0147 0.0078
 Venus -37030-02-19 16:04 J -11803734.99 -11803734.83 -11803734.65 0.0147 0.0088
 Venus -37030-10-04 04:04 J -11803508.48 -11803508.33 -11803508.16 0.0147 0.0098
 Venus -37029-05-17 16:04 J -11803281.96 -11803281.83 -11803281.67 0.0146 0.0109
 Venus -37029-12-30 04:18 J -11803055.43 -11803055.32 -11803055.18 0.0146 0.0119
 Venus -37028-08-13 17:02 J -11802828.89 -11802828.79 -11802828.68 0.0146 0.0128
 Venus -37027-03-28 05:16 J -11802602.33 -11802602.28 -11802602.19 0.0146 0.0137
 Venus -37027-11-09 17:59 J -11802375.75 -11802375.75 -11802375.72 0.0146 0.0146

Mars	-37025-12-03 09:35 J	-11801621.36	-11801621.10	-11801620.84	0.0146	0.0064
Venus	-37004-03-07 07:26 J	-11794222.21	-11794222.19	-11794222.14	0.0136	0.0134
Venus	-37004-10-19 16:33 J	-11793995.88	-11793995.81	-11793995.72	0.0136	0.0126
Venus	-37003-06-03 01:40 J	-11793769.54	-11793769.43	-11793769.32	0.0136	0.0118
Venus	-37002-01-15 09:50 J	-11793543.20	-11793543.09	-11793542.94	0.0135	0.0111
Venus	-37002-08-29 18:28 J	-11793316.86	-11793316.73	-11793316.57	0.0135	0.0102
Venus	-37001-04-12 02:38 J	-11793090.53	-11793090.39	-11793090.21	0.0135	0.0094
Venus	-37001-11-24 11:16 J	-11792864.21	-11792864.03	-11792863.86	0.0134	0.0085

37TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 37th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-37000-07-08 19:11 J	-11792637.88	-11792637.70	-11792637.51	0.0134	0.0076		
Venus	-36999-02-20 02:52 J	-11792411.56	-11792411.38	-11792411.18	0.0134	0.0068		
Venus	-36999-10-04 10:33 J	-11792185.25	-11792185.06	-11792184.85	0.0134	0.0059		
Venus	-36998-05-18 17:59 J	-11791958.95	-11791958.75	-11791958.54	0.0134	0.0051		
Venus	-36998-12-31 01:26 J	-11791732.65	-11791732.44	-11791732.22	0.0133	0.0042		
Venus	-36997-08-13 08:38 J	-11791506.35	-11791506.14	-11791505.91	0.0133	0.0033		
Venus	-36996-03-27 15:50 J	-11791280.06	-11791279.84	-11791279.62	0.0133	0.0024		
Earth	-36996-10-14 11:02 J	-11791079.16	-11791079.04	-11791078.91	0.0133	0.0115		
Moon	-36996-10-14 12:14 J	-11791079.10	-11791078.99	-11791078.86	0.0133	0.0118	*	
Venus	-36996-11-08 22:33 J	-11791053.77	-11791053.56	-11791053.33	0.0133	0.0016		

Mercury -36995-03-13 18:57 J -11790928.77 -11790928.71 -11790928.62 0.0133 0.0117

Mercury -36995-06-09 23:45 J -11790840.61 -11790840.51 -11790840.39 0.0133 0.0095

Venus -36995-06-23 05:30 J -11790827.49 -11790827.27 -11790827.04 0.0133 0.0007

Mercury -36995-09-06 04:33 J -11790752.44 -11790752.31 -11790752.18 0.0133 0.0074

Moon -36995-10-18 16:47 J -11790710.04 -11790709.80 -11790709.55 0.0133 0.0012

Earth -36995-10-18 18:14 J -11790709.99 -11790709.74 -11790709.48 0.0133 0.0012 *

Mercury -36995-12-03 09:06 J -11790664.26 -11790664.12 -11790663.97 0.0133 0.0053

Venus -36994-02-04 12:14 J -11790601.21 -11790600.99 -11790600.77 0.0133 0.0002

Mercury -36994-03-01 13:40 J -11790576.08 -11790575.93 -11790575.77 0.0133 0.0032

Mercury -36994-05-28 18:14 J -11790487.90 -11790487.74 -11790487.58 0.0133 0.0011

Mercury -36994-08-24 22:47 J -11790399.71 -11790399.55 -11790399.40 0.0133 0.0010

Venus -36994-09-18 18:42 J -11790374.94 -11790374.72 -11790374.49 0.0133 0.0011

Earth -36994-10-23 00:42 J -11790340.65 -11790340.47 -11790340.28 0.0132 0.0090

Moon -36994-10-23 02:09 J -11790340.57 -11790340.41 -11790340.20 0.0132 0.0094 *

Mercury -36994-11-21 03:06 J -11790311.52 -11790311.37 -11790311.21 0.0132 0.0030

Mercury -36993-02-17 07:26 J -11790223.33 -11790223.19 -11790223.04 0.0132 0.0050

Venus -36993-05-02 00:57 J -11790148.67 -11790148.46 -11790148.23 0.0132 0.0020

Mercury -36993-05-15 11:45 J -11790135.13 -11790135.01 -11790134.87 0.0132 0.0070

Mercury -36993-08-11 16:04 J -11790046.94 -11790046.83 -11790046.71 0.0132 0.0090

Mercury -36993-11-07 20:23 J -11789958.73 -11789958.65 -11789958.56 0.0132 0.0110

Venus -36993-12-14 07:11 J -11789922.41 -11789922.20 -11789921.98 0.0132 0.0028

Mercury -36992-02-04 00:28 J -11789870.50 -11789870.48 -11789870.44 0.0132 0.0130

Venus -36992-07-28 13:26 J -11789696.15 -11789695.94 -11789695.73 0.0132 0.0036

Venus -36991-03-11 19:11 J -11789469.90 -11789469.70 -11789469.49 0.0132 0.0045

Venus -36991-10-24 00:57 J -11789243.66 -11789243.46 -11789243.25 0.0132 0.0053

Venus -36990-06-07 06:28 J -11789017.42 -11789017.23 -11789017.02 0.0132 0.0061

Venus -36989-01-19 11:59 J -11788791.18 -11788791.00 -11788790.80 0.0132 0.0069

Venus -36989-09-01 17:30 J -11788564.93 -11788564.77 -11788564.58 0.0132 0.0077

Venus -36988-04-15 23:16 J -11788338.70 -11788338.53 -11788338.36 0.0132 0.0084

Venus -36988-11-28 04:04 J -11788112.47 -11788112.33 -11788112.16 0.0132 0.0092

Venus	-36987-07-12 09:21 J	-11787886.24	-11787886.11	-11787885.95	0.0132	0.0100
Venus	-36986-02-23 14:38 J	-11787660.01	-11787659.89	-11787659.75	0.0132	0.0106
Venus	-36986-10-07 19:54 J	-11787433.77	-11787433.67	-11787433.55	0.0132	0.0113
Venus	-36985-05-21 00:42 J	-11787207.54	-11787207.47	-11787207.36	0.0132	0.0121
Venus	-36984-01-02 05:59 J	-11786981.30	-11786981.25	-11786981.18	0.0132	0.0127
Mars	-36982-04-10 10:33 J	-11786153.35	-11786153.06	-11786152.73	0.0133	0.0049
Venus	-36960-02-28 15:21 J	-11778157.91	-11778157.86	-11778157.80	0.0142	0.0137
Venus	-36960-10-12 23:02 J	-11777931.61	-11777931.54	-11777931.43	0.0143	0.0130
Venus	-36959-05-27 07:40 J	-11777705.28	-11777705.18	-11777705.06	0.0143	0.0121
Venus	-36958-01-08 16:18 J	-11777478.94	-11777478.82	-11777478.68	0.0143	0.0113
Venus	-36958-08-23 00:57 J	-11777252.59	-11777252.46	-11777252.30	0.0144	0.0105
Venus	-36957-04-05 09:50 J	-11777026.23	-11777026.09	-11777025.92	0.0144	0.0096
Venus	-36957-11-17 18:57 J	-11776799.86	-11776799.71	-11776799.53	0.0144	0.0087
Venus	-36956-07-02 04:33 J	-11776573.48	-11776573.31	-11776573.13	0.0144	0.0076
Venus	-36955-02-13 14:09 J	-11776347.09	-11776346.91	-11776346.71	0.0145	0.0067
Venus	-36955-09-27 23:59 J	-11776120.69	-11776120.50	-11776120.30	0.0145	0.0056
Venus	-36954-05-12 09:50 J	-11775894.28	-11775894.09	-11775893.88	0.0145	0.0046
Venus	-36954-12-24 20:09 J	-11775667.86	-11775667.66	-11775667.45	0.0145	0.0035
Venus	-36953-08-07 06:28 J	-11775441.43	-11775441.23	-11775441.01	0.0145	0.0025
Venus	-36952-03-21 17:02 J	-11775215.00	-11775214.79	-11775214.58	0.0146	0.0013
Earth	-36952-04-12 15:21 J	-11775193.04	-11775192.86	-11775192.68	0.0146	0.0102
Moon	-36952-04-12 15:35 J	-11775193.04	-11775192.85	-11775192.64	0.0146	0.0095 *
Mercury	-36952-05-25 22:33 J	-11775149.62	-11775149.56	-11775149.48	0.0146	0.0129
Mercury	-36952-08-22 03:50 J	-11775061.44	-11775061.34	-11775061.22	0.0146	0.0103
Venus	-36952-11-03 03:35 J	-11774988.56	-11774988.35	-11774988.13	0.0146	0.0004
Mercury	-36952-11-18 09:21 J	-11774973.24	-11774973.11	-11774972.98	0.0146	0.0076
Mercury	-36951-02-14 14:38 J	-11774885.03	-11774884.89	-11774884.74	0.0146	0.0050
Moon	-36951-04-17 16:04 J	-11774823.07	-11774822.83	-11774822.58	0.0146	0.0027
Earth	-36951-04-17 16:47 J	-11774823.04	-11774822.80	-11774822.54	0.0146	0.0034 *
Mercury	-36951-05-13 19:54 J	-11774796.82	-11774796.67	-11774796.51	0.0146	0.0023

Venus -36951-06-17 14:38 J -11774762.11 -11774761.89 -11774761.68 0.0146 0.0009
 Mercury -36951-08-10 01:26 J -11774708.60 -11774708.44 -11774708.28 0.0146 0.0004
 Mercury -36951-11-06 06:57 J -11774620.37 -11774620.21 -11774620.06 0.0146 0.0032
 Venus -36950-01-30 01:40 J -11774535.64 -11774535.43 -11774535.22 0.0146 0.0020
 Mercury -36950-02-02 12:14 J -11774532.13 -11774531.99 -11774531.84 0.0146 0.0059
 Mercury -36950-05-01 17:45 J -11774443.88 -11774443.76 -11774443.62 0.0146 0.0087
 Mercury -36950-07-28 23:16 J -11774355.61 -11774355.53 -11774355.42 0.0146 0.0115
 Venus -36950-09-13 12:42 J -11774309.17 -11774308.97 -11774308.75 0.0146 0.0032
 Mercury -36950-10-25 05:02 J -11774267.31 -11774267.29 -11774267.25 0.0146 0.0143
 Venus -36949-04-26 23:59 J -11774082.70 -11774082.50 -11774082.29 0.0146 0.0043
 Venus -36949-12-09 11:30 J -11773856.22 -11773856.02 -11773855.82 0.0146 0.0054
 Venus -36948-07-23 23:02 J -11773629.73 -11773629.54 -11773629.35 0.0147 0.0065
 Venus -36947-03-07 10:47 J -11773403.23 -11773403.05 -11773402.86 0.0147 0.0076
 Venus -36947-10-19 22:33 J -11773176.72 -11773176.56 -11773176.37 0.0147 0.0087
 Venus -36946-06-03 10:33 J -11772950.21 -11772950.06 -11772949.89 0.0147 0.0097
 Venus -36945-01-15 22:47 J -11772723.69 -11772723.55 -11772723.40 0.0147 0.0107
 Venus -36945-08-29 11:02 J -11772497.16 -11772497.04 -11772496.91 0.0146 0.0117
 Venus -36944-04-12 23:16 J -11772270.62 -11772270.53 -11772270.41 0.0146 0.0127
 Venus -36944-11-25 11:59 J -11772044.08 -11772044.00 -11772043.92 0.0146 0.0136
 Venus -36943-07-10 00:42 J -11771817.50 -11771817.47 -11771817.45 0.0146 0.0145
 Mars -36942-08-27 16:47 J -11771403.95 -11771403.80 -11771403.62 0.0146 0.0118
 Venus -36921-11-04 15:35 J -11763663.86 -11763663.85 -11763663.81 0.0136 0.0135
 Venus -36920-06-19 01:11 J -11763437.53 -11763437.45 -11763437.37 0.0136 0.0127
 Venus -36919-01-31 09:35 J -11763211.18 -11763211.10 -11763210.97 0.0136 0.0120
 Venus -36919-09-14 18:28 J -11762984.84 -11762984.73 -11762984.59 0.0135 0.0112
 Venus -36918-04-29 03:06 J -11762758.50 -11762758.37 -11762758.22 0.0135 0.0103
 Venus -36918-12-11 11:30 J -11762532.17 -11762532.02 -11762531.85 0.0135 0.0095
 Venus -36917-07-24 19:40 J -11762305.83 -11762305.68 -11762305.49 0.0135 0.0087
 Venus -36916-03-08 04:04 J -11762079.51 -11762079.33 -11762079.14 0.0134 0.0078
 Venus -36916-10-20 11:45 J -11761853.19 -11761853.01 -11761852.81 0.0134 0.0069

Venus -36915-06-03 19:54 J -11761626.87 -11761626.67 -11761626.47 0.0134 0.0060

Venus -36914-01-16 03:21 J -11761400.56 -11761400.36 -11761400.15 0.0134 0.0052

Venus -36914-08-30 10:47 J -11761174.25 -11761174.05 -11761173.83 0.0133 0.0043

Venus -36913-04-12 17:59 J -11760947.96 -11760947.75 -11760947.52 0.0133 0.0034

Venus -36913-11-25 01:11 J -11760721.66 -11760721.45 -11760721.22 0.0133 0.0025

Venus -36912-07-09 08:23 J -11760495.37 -11760495.15 -11760494.93 0.0133 0.0016

Earth -36912-10-14 22:18 J -11760397.70 -11760397.57 -11760397.41 0.0133 0.0108

Moon -36912-10-14 23:30 J -11760397.67 -11760397.52 -11760397.35 0.0133 0.0105 *

Mercury -36911-01-04 21:35 J -11760315.61 -11760315.60 -11760315.56 0.0133 0.0131

Venus -36911-02-20 15:21 J -11760269.08 -11760268.86 -11760268.64 0.0133 0.0008

Mercury -36911-04-03 02:38 J -11760227.48 -11760227.39 -11760227.30 0.0133 0.0109

Mercury -36911-06-30 07:11 J -11760139.31 -11760139.20 -11760139.07 0.0133 0.0088

Mercury -36911-09-26 11:45 J -11760051.14 -11760051.01 -11760050.86 0.0133 0.0067

Venus -36911-10-04 22:04 J -11760042.81 -11760042.58 -11760042.36 0.0133 0.0003

Moon -36911-10-19 04:33 J -11760028.55 -11760028.31 -11760028.06 0.0133 0.0006

Earth -36911-10-19 05:30 J -11760028.52 -11760028.27 -11760028.01 0.0133 0.0006 *

Mercury -36911-12-23 16:33 J -11759962.96 -11759962.81 -11759962.66 0.0133 0.0046

Mercury -36910-03-21 21:06 J -11759874.78 -11759874.62 -11759874.47 0.0133 0.0025

Venus -36910-05-19 04:18 J -11759816.54 -11759816.32 -11759816.09 0.0133 0.0011

Mercury -36910-06-18 01:40 J -11759786.59 -11759786.43 -11759786.28 0.0133 0.0005

Mercury -36910-09-14 05:59 J -11759698.40 -11759698.25 -11759698.09 0.0133 0.0016

Earth -36910-10-23 11:45 J -11759659.17 -11759659.01 -11759658.82 0.0132 0.0097

Moon -36910-10-23 12:28 J -11759659.14 -11759658.98 -11759658.77 0.0132 0.0095 *

Mercury -36910-12-11 10:18 J -11759610.21 -11759610.07 -11759609.91 0.0132 0.0037

Venus -36910-12-31 10:47 J -11759590.27 -11759590.05 -11759589.83 0.0132 0.0019

Mercury -36909-03-08 14:52 J -11759522.02 -11759521.88 -11759521.74 0.0132 0.0057

Mercury -36909-06-04 19:11 J -11759433.83 -11759433.70 -11759433.57 0.0132 0.0077

Venus -36909-08-13 17:02 J -11759364.00 -11759363.79 -11759363.57 0.0132 0.0027

Mercury -36909-08-31 23:16 J -11759345.63 -11759345.53 -11759345.41 0.0132 0.0097

Mercury -36909-11-28 03:35 J -11759257.41 -11759257.35 -11759257.27 0.0132 0.0116

Venus	-36908-03-27 23:16 J	-11759137.75	-11759137.53	-11759137.32	0.0132	0.0036
Venus	-36908-11-09 05:02 J	-11758911.50	-11758911.29	-11758911.08	0.0132	0.0044
Venus	-36907-06-23 10:47 J	-11758685.25	-11758685.05	-11758684.84	0.0132	0.0052
Venus	-36906-02-04 16:33 J	-11758459.00	-11758458.81	-11758458.61	0.0132	0.0060
Venus	-36906-09-18 22:18 J	-11758232.76	-11758232.57	-11758232.38	0.0132	0.0068
Venus	-36905-05-02 03:35 J	-11758006.52	-11758006.35	-11758006.16	0.0132	0.0076
Venus	-36905-12-14 08:52 J	-11757780.29	-11757780.13	-11757779.95	0.0132	0.0084
Venus	-36904-07-28 14:23 J	-11757554.05	-11757553.90	-11757553.74	0.0132	0.0091
Venus	-36903-03-11 19:26 J	-11757327.82	-11757327.69	-11757327.53	0.0132	0.0099
Venus	-36903-10-24 00:42 J	-11757101.58	-11757101.47	-11757101.33	0.0132	0.0106
Venus	-36902-06-07 05:45 J	-11756875.35	-11756875.26	-11756875.13	0.0132	0.0113
Venus	-36901-01-19 10:47 J	-11756649.12	-11756649.05	-11756648.94	0.0132	0.0120
Venus	-36901-09-01 16:04 J	-11756422.88	-11756422.83	-11756422.75	0.0132	0.0127
Mars	-36898-12-04 18:42 J	-11755234.02	-11755233.72	-11755233.38	0.0133	0.0041
Venus	-36877-10-28 23:45 J	-11747599.55	-11747599.51	-11747599.46	0.0142	0.0138
Venus	-36876-06-12 07:54 J	-11747373.25	-11747373.17	-11747373.09	0.0142	0.0131
Venus	-36875-01-24 16:04 J	-11747146.92	-11747146.83	-11747146.71	0.0143	0.0123
Venus	-36875-09-08 00:28 J	-11746920.59	-11746920.48	-11746920.34	0.0143	0.0115
Venus	-36874-04-22 09:06 J	-11746694.24	-11746694.12	-11746693.96	0.0143	0.0107
Venus	-36874-12-04 18:28 J	-11746467.89	-11746467.73	-11746467.58	0.0144	0.0097
Venus	-36873-07-18 03:21 J	-11746241.52	-11746241.36	-11746241.19	0.0144	0.0088
Venus	-36872-03-01 12:42 J	-11746015.14	-11746014.97	-11746014.79	0.0144	0.0078
Venus	-36872-10-13 22:04 J	-11745788.76	-11745788.58	-11745788.38	0.0144	0.0069
Venus	-36871-05-28 07:54 J	-11745562.36	-11745562.17	-11745561.97	0.0145	0.0058
Venus	-36870-01-09 17:45 J	-11745335.95	-11745335.76	-11745335.55	0.0145	0.0048
Venus	-36870-08-24 04:04 J	-11745109.53	-11745109.33	-11745109.12	0.0145	0.0037
Venus	-36869-04-06 14:09 J	-11744883.11	-11744882.91	-11744882.70	0.0145	0.0027
Venus	-36869-11-19 00:28 J	-11744656.69	-11744656.48	-11744656.26	0.0146	0.0016
Moon	-36868-04-13 00:57 J	-11744511.63	-11744511.46	-11744511.26	0.0146	0.0103
Earth	-36868-04-13 01:40 J	-11744511.61	-11744511.43	-11744511.23	0.0146	0.0096 *

Mercury -36868-06-15 05:59 J -11744448.32 -11744448.25 -11744448.15 0.0146 0.0121

Venus -36868-07-03 11:16 J -11744430.25 -11744430.03 -11744429.82 0.0146 0.0005

Mercury -36868-09-11 11:16 J -11744360.14 -11744360.03 -11744359.91 0.0146 0.0095

Mercury -36868-12-08 16:47 J -11744271.94 -11744271.80 -11744271.67 0.0146 0.0068

Venus -36867-02-14 22:04 J -11744203.79 -11744203.58 -11744203.37 0.0146 0.0007

Mercury -36867-03-06 22:04 J -11744183.73 -11744183.58 -11744183.43 0.0146 0.0042

Moon -36867-04-18 02:52 J -11744141.60 -11744141.38 -11744141.14 0.0146 0.0047

Earth -36867-04-18 03:21 J -11744141.60 -11744141.36 -11744141.11 0.0146 0.0040 *

Mercury -36867-06-03 03:21 J -11744095.51 -11744095.36 -11744095.20 0.0146 0.0015

Mercury -36867-08-30 08:52 J -11744007.29 -11744007.13 -11744006.98 0.0146 0.0012

Venus -36867-09-29 08:52 J -11743977.34 -11743977.13 -11743976.91 0.0146 0.0019

Mercury -36867-11-26 14:23 J -11743919.05 -11743918.90 -11743918.75 0.0146 0.0040

Mercury -36866-02-22 19:40 J -11743830.81 -11743830.68 -11743830.53 0.0146 0.0067

Venus -36866-05-13 19:54 J -11743750.87 -11743750.67 -11743750.46 0.0146 0.0030

Mercury -36866-05-22 01:11 J -11743742.56 -11743742.45 -11743742.32 0.0146 0.0095

Mercury -36866-08-18 06:42 J -11743654.29 -11743654.22 -11743654.12 0.0146 0.0124

Venus -36866-12-26 07:11 J -11743524.40 -11743524.20 -11743523.99 0.0146 0.0041

Venus -36865-08-08 18:28 J -11743297.92 -11743297.73 -11743297.52 0.0146 0.0052

Venus -36864-03-23 05:59 J -11743071.43 -11743071.25 -11743071.05 0.0147 0.0063

Venus -36864-11-04 17:45 J -11742844.94 -11742844.76 -11742844.57 0.0147 0.0074

Venus -36863-06-19 05:16 J -11742618.44 -11742618.28 -11742618.09 0.0147 0.0085

Venus -36862-01-31 17:30 J -11742391.92 -11742391.77 -11742391.60 0.0147 0.0095

Venus -36862-09-15 05:30 J -11742165.41 -11742165.27 -11742165.11 0.0147 0.0105

Venus -36861-04-28 17:30 J -11741938.88 -11741938.77 -11741938.62 0.0147 0.0116

Venus -36861-12-11 06:14 J -11741712.35 -11741712.24 -11741712.13 0.0147 0.0125

Venus -36860-07-25 18:28 J -11741485.80 -11741485.73 -11741485.63 0.0146 0.0135

Venus -36859-03-09 07:11 J -11741259.23 -11741259.20 -11741259.15 0.0146 0.0144

Mars -36857-04-21 22:33 J -11740484.85 -11740484.56 -11740484.28 0.0146 0.0016

Venus -36836-02-16 09:21 J -11732879.16 -11732879.11 -11732879.02 0.0136 0.0129

Venus -36836-09-30 18:28 J -11732652.81 -11732652.73 -11732652.61 0.0136 0.0121

Venus	-36835-05-15 03:21 J	-11732426.47	-11732426.36	-11732426.22	0.0135	0.0113
Venus	-36835-12-27 12:14 J	-11732200.12	-11732199.99	-11732199.84	0.0135	0.0104
Venus	-36834-08-10 20:38 J	-11731973.78	-11731973.64	-11731973.47	0.0135	0.0096
Venus	-36833-03-24 05:02 J	-11731747.45	-11731747.29	-11731747.11	0.0135	0.0088
Venus	-36833-11-05 13:26 J	-11731521.12	-11731520.94	-11731520.76	0.0134	0.0079
Venus	-36832-06-19 21:21 J	-11731294.79	-11731294.61	-11731294.41	0.0134	0.0070
Venus	-36831-02-01 05:16 J	-11731068.47	-11731068.28	-11731068.07	0.0134	0.0061
Venus	-36831-09-15 12:57 J	-11730842.15	-11730841.96	-11730841.74	0.0134	0.0053
Venus	-36830-04-29 20:38 J	-11730615.85	-11730615.64	-11730615.43	0.0134	0.0044
Venus	-36830-12-12 04:04 J	-11730389.55	-11730389.33	-11730389.11	0.0133	0.0035
Venus	-36829-07-25 11:16 J	-11730163.24	-11730163.03	-11730162.80	0.0133	0.0026
Venus	-36828-03-08 18:28 J	-11729936.95	-11729936.73	-11729936.51	0.0133	0.0017
Earth	-36828-10-15 10:18 J	-11729716.22	-11729716.07	-11729715.89	0.0133	0.0101
Moon	-36828-10-15 10:33 J	-11729716.20	-11729716.06	-11729715.88	0.0133	0.0105 *
Venus	-36828-10-21 01:26 J	-11729710.67	-11729710.44	-11729710.22	0.0133	0.0008
Mercury	-36827-01-25 05:16 J	-11729614.33	-11729614.28	-11729614.21	0.0133	0.0123
Mercury	-36827-04-23 09:50 J	-11729526.18	-11729526.09	-11729525.97	0.0133	0.0102
Venus	-36827-06-04 08:09 J	-11729484.39	-11729484.16	-11729483.94	0.0133	0.0002
Mercury	-36827-07-20 14:52 J	-11729438.01	-11729437.88	-11729437.75	0.0133	0.0080
Mercury	-36827-10-16 19:26 J	-11729349.83	-11729349.69	-11729349.55	0.0133	0.0059
Moon	-36827-10-19 17:16 J	-11729347.02	-11729346.78	-11729346.53	0.0133	0.0003
Earth	-36827-10-19 17:45 J	-11729347.02	-11729346.76	-11729346.51	0.0133	0.0002 *
Mercury	-36826-01-12 23:59 J	-11729261.65	-11729261.50	-11729261.35	0.0133	0.0038
Venus	-36826-01-16 14:38 J	-11729258.11	-11729257.89	-11729257.67	0.0133	0.0010
Mercury	-36826-04-11 04:33 J	-11729173.47	-11729173.31	-11729173.15	0.0133	0.0017
Mercury	-36826-07-08 09:06 J	-11729085.28	-11729085.12	-11729084.96	0.0133	0.0004
Venus	-36826-08-30 21:06 J	-11729031.84	-11729031.62	-11729031.40	0.0133	0.0018
Mercury	-36826-10-04 13:26 J	-11728997.09	-11728996.94	-11728996.78	0.0132	0.0024
Earth	-36826-10-23 23:30 J	-11728977.66	-11728977.52	-11728977.34	0.0132	0.0104
Moon	-36826-10-24 00:28 J	-11728977.63	-11728977.48	-11728977.31	0.0132	0.0106 *

Mercury -36826-12-31 17:59 J -11728908.90 -11728908.75 -11728908.60 0.0132 0.0044

Mercury -36825-03-28 22:18 J -11728820.71 -11728820.57 -11728820.43 0.0132 0.0064

Venus -36825-04-13 03:21 J -11728805.57 -11728805.36 -11728805.14 0.0132 0.0027

Mercury -36825-06-25 02:38 J -11728732.51 -11728732.39 -11728732.27 0.0132 0.0084

Mercury -36825-09-21 06:42 J -11728644.31 -11728644.22 -11728644.12 0.0132 0.0104

Venus -36825-11-25 09:21 J -11728579.32 -11728579.11 -11728578.89 0.0132 0.0035

Mercury -36825-12-18 11:02 J -11728556.09 -11728556.04 -11728555.98 0.0132 0.0123

Venus -36824-07-09 15:21 J -11728353.06 -11728352.86 -11728352.64 0.0132 0.0044

Venus -36823-02-20 21:06 J -11728126.81 -11728126.62 -11728126.40 0.0132 0.0052

Venus -36823-10-05 03:06 J -11727900.56 -11727900.37 -11727900.17 0.0132 0.0060

Venus -36822-05-19 08:38 J -11727674.32 -11727674.14 -11727673.94 0.0132 0.0068

Venus -36822-12-31 14:09 J -11727448.08 -11727447.91 -11727447.72 0.0132 0.0076

Venus -36821-08-13 19:26 J -11727221.84 -11727221.69 -11727221.50 0.0132 0.0084

Venus -36820-03-28 00:57 J -11726995.60 -11726995.46 -11726995.29 0.0132 0.0091

Venus -36820-11-09 05:59 J -11726769.37 -11726769.25 -11726769.08 0.0132 0.0099

Venus -36819-06-23 11:16 J -11726543.14 -11726543.03 -11726542.88 0.0132 0.0106

Venus -36818-02-04 16:33 J -11726316.91 -11726316.81 -11726316.68 0.0132 0.0113

Venus -36818-09-18 22:18 J -11726090.66 -11726090.57 -11726090.48 0.0132 0.0120

Venus -36817-05-02 02:52 J -11725864.42 -11725864.38 -11725864.30 0.0132 0.0127

Mars -36815-08-26 15:50 J -11725017.97 -11725017.84 -11725017.67 0.0132 0.0118

Mars -36813-07-30 05:02 J -11724314.32 -11724314.29 -11724314.20 0.0133 0.0131

Venus -36793-06-28 08:38 J -11717041.16 -11717041.14 -11717041.09 0.0142 0.0140

Venus -36792-02-09 16:47 J -11716814.87 -11716814.80 -11716814.72 0.0142 0.0132

Venus -36792-09-24 00:57 J -11716588.55 -11716588.46 -11716588.35 0.0143 0.0125

Venus -36791-05-08 09:35 J -11716362.22 -11716362.10 -11716361.98 0.0143 0.0116

Venus -36791-12-20 17:59 J -11716135.87 -11716135.75 -11716135.60 0.0143 0.0108

Venus -36790-08-04 03:06 J -11715909.52 -11715909.37 -11715909.22 0.0143 0.0099

Venus -36789-03-17 11:45 J -11715683.16 -11715683.01 -11715682.83 0.0144 0.0090

Venus -36789-10-29 21:06 J -11715456.79 -11715456.62 -11715456.44 0.0144 0.0080

Venus -36788-06-13 06:28 J -11715230.40 -11715230.23 -11715230.03 0.0144 0.0070

Venus -36787-01-25 16:33 J -11715004.01 -11715003.81 -11715003.62 0.0145 0.0060
 Venus -36787-09-09 02:09 J -11714777.60 -11714777.41 -11714777.21 0.0145 0.0050
 Venus -36786-04-23 11:59 J -11714551.20 -11714551.00 -11714550.79 0.0145 0.0039
 Venus -36786-12-05 22:04 J -11714324.78 -11714324.58 -11714324.36 0.0145 0.0029
 Venus -36785-07-19 08:23 J -11714098.35 -11714098.15 -11714097.93 0.0146 0.0018
 Venus -36784-03-02 19:11 J -11713871.92 -11713871.70 -11713871.49 0.0146 0.0006
 Mercury -36784-04-08 08:23 J -11713835.19 -11713835.15 -11713835.10 0.0146 0.0139
 Moon -36784-04-13 11:59 J -11713830.21 -11713830.00 -11713829.77 0.0146 0.0082
 Earth -36784-04-13 12:42 J -11713830.16 -11713829.97 -11713829.76 0.0146 0.0089 *
 Mercury -36784-07-05 13:40 J -11713747.02 -11713746.93 -11713746.83 0.0146 0.0113
 Mercury -36784-10-01 18:42 J -11713658.83 -11713658.72 -11713658.59 0.0146 0.0087
 Venus -36784-10-15 05:45 J -11713645.47 -11713645.26 -11713645.05 0.0146 0.0005
 Mercury -36784-12-29 00:14 J -11713570.63 -11713570.49 -11713570.35 0.0146 0.0060
 Mercury -36783-03-27 05:30 J -11713482.42 -11713482.27 -11713482.12 0.0146 0.0034
 Earth -36783-04-18 14:23 J -11713460.13 -11713459.90 -11713459.65 0.0146 0.0047
 Moon -36783-04-18 14:38 J -11713460.12 -11713459.89 -11713459.65 0.0146 0.0040 *
 Venus -36783-05-29 16:33 J -11713419.02 -11713418.81 -11713418.60 0.0146 0.0016
 Mercury -36783-06-23 10:47 J -11713394.20 -11713394.05 -11713393.89 0.0146 0.0008
 Mercury -36783-09-19 16:18 J -11713305.97 -11713305.82 -11713305.66 0.0146 0.0021
 Mercury -36783-12-16 21:35 J -11713217.74 -11713217.60 -11713217.44 0.0146 0.0049
 Venus -36782-01-11 03:35 J -11713192.56 -11713192.35 -11713192.14 0.0146 0.0028
 Mercury -36782-03-15 03:21 J -11713129.49 -11713129.36 -11713129.23 0.0146 0.0076
 Mercury -36782-06-11 08:52 J -11713041.24 -11713041.13 -11713041.02 0.0146 0.0103
 Venus -36782-08-25 14:38 J -11712966.09 -11712965.89 -11712965.68 0.0146 0.0039
 Mercury -36782-09-07 14:23 J -11712952.96 -11712952.90 -11712952.83 0.0146 0.0132
 Venus -36781-04-08 01:54 J -11712739.62 -11712739.42 -11712739.21 0.0146 0.0050
 Venus -36781-11-20 13:26 J -11712513.13 -11712512.94 -11712512.75 0.0147 0.0061
 Venus -36780-07-05 00:57 J -11712286.64 -11712286.46 -11712286.27 0.0147 0.0072
 Venus -36779-02-16 12:42 J -11712060.14 -11712059.97 -11712059.78 0.0147 0.0083
 Venus -36779-10-01 00:28 J -11711833.63 -11711833.48 -11711833.30 0.0147 0.0094

Venus	-36778-05-15 12:42 J	-11711607.11	-11711606.97	-11711606.81	0.0147	0.0104
Venus	-36778-12-28 00:57 J	-11711380.59	-11711380.46	-11711380.32	0.0147	0.0114
Venus	-36777-08-10 13:11 J	-11711154.06	-11711153.95	-11711153.83	0.0147	0.0124
Venus	-36776-03-25 01:26 J	-11710927.51	-11710927.44	-11710927.33	0.0147	0.0134
Venus	-36776-11-06 14:09 J	-11710700.94	-11710700.91	-11710700.85	0.0146	0.0143
Mars	-36773-12-16 02:38 J	-11709565.60	-11709565.39	-11709565.14	0.0146	0.0086
Venus	-36753-10-16 17:59 J	-11702320.79	-11702320.75	-11702320.67	0.0136	0.0130
Venus	-36752-05-31 03:21 J	-11702094.44	-11702094.36	-11702094.25	0.0136	0.0122
Venus	-36751-01-12 12:28 J	-11701868.09	-11701867.98	-11701867.85	0.0136	0.0114
Venus	-36751-08-26 21:06 J	-11701641.74	-11701641.62	-11701641.47	0.0135	0.0106
Venus	-36750-04-10 05:45 J	-11701415.40	-11701415.26	-11701415.09	0.0135	0.0097
Venus	-36750-11-22 14:09 J	-11701189.06	-11701188.91	-11701188.73	0.0135	0.0089
Venus	-36749-07-05 22:47 J	-11700962.72	-11700962.55	-11700962.36	0.0135	0.0080
Venus	-36748-02-17 06:42 J	-11700736.39	-11700736.22	-11700736.02	0.0134	0.0072
Venus	-36748-10-01 14:52 J	-11700510.07	-11700509.88	-11700509.68	0.0134	0.0062
Venus	-36747-05-15 22:33 J	-11700283.76	-11700283.56	-11700283.35	0.0134	0.0054
Venus	-36747-12-28 06:14 J	-11700057.44	-11700057.24	-11700057.02	0.0134	0.0045
Venus	-36746-08-11 13:54 J	-11699831.13	-11699830.92	-11699830.70	0.0133	0.0036
Venus	-36745-03-24 21:06 J	-11699604.83	-11699604.62	-11699604.39	0.0133	0.0027
Venus	-36745-11-06 04:18 J	-11699378.54	-11699378.32	-11699378.10	0.0133	0.0018
Venus	-36744-06-20 11:16 J	-11699152.25	-11699152.03	-11699151.80	0.0133	0.0009
Moon	-36744-10-15 22:18 J	-11699034.75	-11699034.57	-11699034.36	0.0133	0.0090
Earth	-36744-10-15 22:18 J	-11699034.73	-11699034.57	-11699034.37	0.0133	0.0094 *
Venus	-36743-02-01 18:14 J	-11698925.96	-11698925.74	-11698925.52	0.0133	0.0001
Mercury	-36743-02-14 12:57 J	-11698913.04	-11698912.96	-11698912.88	0.0133	0.0115
Mercury	-36743-05-13 17:30 J	-11698824.88	-11698824.77	-11698824.65	0.0133	0.0094
Mercury	-36743-08-09 22:04 J	-11698736.70	-11698736.58	-11698736.44	0.0133	0.0073
Venus	-36743-09-16 00:57 J	-11698699.69	-11698699.46	-11698699.24	0.0133	0.0009
Earth	-36743-10-20 05:30 J	-11698665.53	-11698665.27	-11698665.02	0.0133	0.0009
Moon	-36743-10-20 05:30 J	-11698665.52	-11698665.27	-11698665.03	0.0133	0.0008 *

Mercury -36743-11-06 02:52 J -11698648.52 -11698648.38 -11698648.23 0.0133 0.0052

Mercury -36742-02-02 07:26 J -11698560.34 -11698560.19 -11698560.03 0.0133 0.0031

Venus -36742-04-30 07:11 J -11698473.42 -11698473.20 -11698472.98 0.0133 0.0018

Mercury -36742-05-01 11:59 J -11698472.16 -11698472.00 -11698471.84 0.0133 0.0010

Mercury -36742-07-28 16:33 J -11698383.97 -11698383.81 -11698383.66 0.0132 0.0011

Moon -36742-10-24 11:16 J -11698296.17 -11698296.03 -11698295.87 0.0132 0.0109

Earth -36742-10-24 11:16 J -11698296.15 -11698296.03 -11698295.87 0.0132 0.0111 *

Mercury -36742-10-24 20:52 J -11698295.78 -11698295.63 -11698295.47 0.0132 0.0031

Venus -36742-12-12 13:26 J -11698247.15 -11698246.94 -11698246.72 0.0132 0.0026

Mercury -36741-01-21 01:11 J -11698207.59 -11698207.45 -11698207.30 0.0132 0.0051

Mercury -36741-04-18 05:30 J -11698119.39 -11698119.27 -11698119.13 0.0132 0.0071

Mercury -36741-07-15 09:50 J -11698031.19 -11698031.09 -11698030.97 0.0132 0.0091

Venus -36741-07-25 19:54 J -11698020.89 -11698020.67 -11698020.46 0.0132 0.0035

Mercury -36741-10-11 14:09 J -11697942.99 -11697942.91 -11697942.82 0.0132 0.0111

Mercury -36740-01-07 18:14 J -11697854.75 -11697854.74 -11697854.70 0.0132 0.0131

Venus -36740-03-09 01:40 J -11697794.63 -11697794.43 -11697794.21 0.0132 0.0043

Venus -36740-10-21 07:40 J -11697568.38 -11697568.18 -11697567.97 0.0132 0.0051

Venus -36739-06-04 13:26 J -11697342.13 -11697341.94 -11697341.74 0.0132 0.0060

Venus -36738-01-16 19:11 J -11697115.89 -11697115.70 -11697115.51 0.0132 0.0068

Venus -36738-08-31 00:57 J -11696889.64 -11696889.46 -11696889.28 0.0132 0.0075

Venus -36737-04-13 06:14 J -11696663.40 -11696663.24 -11696663.06 0.0132 0.0083

Venus -36737-11-25 11:30 J -11696437.17 -11696437.02 -11696436.85 0.0132 0.0091

Venus -36736-07-09 17:02 J -11696210.93 -11696210.79 -11696210.64 0.0132 0.0098

Venus -36735-02-20 22:18 J -11695984.69 -11695984.57 -11695984.43 0.0132 0.0105

Venus -36735-10-05 03:50 J -11695758.45 -11695758.34 -11695758.23 0.0132 0.0112

Venus -36734-05-19 08:38 J -11695532.22 -11695532.14 -11695532.04 0.0132 0.0119

Venus -36734-12-31 13:40 J -11695305.98 -11695305.93 -11695305.85 0.0132 0.0126

Mars -36730-04-22 01:54 J -11694098.74 -11694098.42 -11694098.09 0.0133 0.0028

Venus -36709-02-26 17:16 J -11686482.79 -11686482.78 -11686482.77 0.0142 0.0141

Venus -36709-10-10 00:42 J -11686256.52 -11686256.47 -11686256.38 0.0142 0.0134

Venus	-36708-05-24 08:52 J	-11686030.21	-11686030.13	-11686030.02	0.0142	0.0127
Venus	-36707-01-05 17:30 J	-11685803.88	-11685803.77	-11685803.64	0.0143	0.0118
Venus	-36707-08-20 02:23 J	-11685577.54	-11685577.40	-11685577.27	0.0143	0.0109
Venus	-36706-04-03 10:47 J	-11685351.19	-11685351.05	-11685350.89	0.0143	0.0101
Venus	-36706-11-15 19:40 J	-11685124.83	-11685124.68	-11685124.51	0.0144	0.0092
Venus	-36705-06-29 04:47 J	-11684898.46	-11684898.30	-11684898.12	0.0144	0.0082
Venus	-36704-02-10 14:09 J	-11684672.08	-11684671.91	-11684671.72	0.0144	0.0072
Venus	-36704-09-24 23:30 J	-11684445.70	-11684445.52	-11684445.31	0.0144	0.0063
Venus	-36703-05-09 09:21 J	-11684219.30	-11684219.11	-11684218.90	0.0145	0.0052
Venus	-36703-12-21 19:11 J	-11683992.89	-11683992.70	-11683992.49	0.0145	0.0041
Venus	-36702-08-05 05:16 J	-11683766.48	-11683766.28	-11683766.06	0.0145	0.0031
Venus	-36701-03-18 15:35 J	-11683540.06	-11683539.85	-11683539.64	0.0145	0.0019
Venus	-36701-10-31 01:54 J	-11683313.63	-11683313.42	-11683313.20	0.0146	0.0009
Moon	-36700-04-13 20:38 J	-11683148.84	-11683148.64	-11683148.43	0.0146	0.0090
Earth	-36700-04-13 22:04 J	-11683148.78	-11683148.58	-11683148.36	0.0146	0.0084 *
Mercury	-36700-04-28 15:35 J	-11683133.91	-11683133.85	-11683133.78	0.0146	0.0132
Venus	-36700-06-14 12:28 J	-11683087.19	-11683086.98	-11683086.76	0.0146	0.0004
Mercury	-36700-07-25 20:52 J	-11683045.73	-11683045.63	-11683045.53	0.0146	0.0106
Mercury	-36700-10-22 01:54 J	-11682957.54	-11682957.42	-11682957.28	0.0146	0.0080
Mercury	-36699-01-18 07:11 J	-11682869.33	-11682869.20	-11682869.05	0.0146	0.0054
Venus	-36699-01-26 23:30 J	-11682860.73	-11682860.52	-11682860.31	0.0146	0.0014
Mercury	-36699-04-16 12:42 J	-11682781.12	-11682780.97	-11682780.82	0.0146	0.0027
Earth	-36699-04-18 23:45 J	-11682778.74	-11682778.51	-11682778.27	0.0146	0.0052
Moon	-36699-04-19 00:14 J	-11682778.70	-11682778.49	-11682778.25	0.0146	0.0059 *
Mercury	-36699-07-13 17:59 J	-11682692.90	-11682692.75	-11682692.59	0.0146	0.0003
Venus	-36699-09-10 10:18 J	-11682634.28	-11682634.07	-11682633.86	0.0146	0.0026
Mercury	-36699-10-09 23:30 J	-11682604.67	-11682604.52	-11682604.37	0.0146	0.0027
Mercury	-36698-01-06 04:47 J	-11682516.44	-11682516.30	-11682516.15	0.0146	0.0055
Mercury	-36698-04-04 10:33 J	-11682428.19	-11682428.06	-11682427.93	0.0146	0.0083
Venus	-36698-04-24 21:21 J	-11682407.81	-11682407.61	-11682407.40	0.0146	0.0037

Mercury -36698-07-01 16:04 J -11682339.93 -11682339.83 -11682339.73 0.0146 0.0111

Mercury -36698-09-27 21:35 J -11682251.64 -11682251.60 -11682251.55 0.0146 0.0139

Venus -36698-12-07 08:38 J -11682181.34 -11682181.14 -11682180.94 0.0146 0.0048

Venus -36697-07-20 19:54 J -11681954.86 -11681954.67 -11681954.47 0.0147 0.0059

Venus -36696-03-04 07:40 J -11681728.36 -11681728.18 -11681727.99 0.0147 0.0070

Venus -36696-10-16 19:26 J -11681501.86 -11681501.69 -11681501.51 0.0147 0.0081

Venus -36695-05-31 07:11 J -11681275.36 -11681275.20 -11681275.02 0.0147 0.0092

Venus -36694-01-12 19:26 J -11681048.84 -11681048.69 -11681048.54 0.0147 0.0102

Venus -36694-08-27 07:40 J -11680822.32 -11680822.18 -11680822.04 0.0147 0.0112

Venus -36693-04-09 19:40 J -11680595.78 -11680595.68 -11680595.55 0.0147 0.0123

Venus -36693-11-22 08:09 J -11680369.24 -11680369.16 -11680369.05 0.0147 0.0132

Venus -36692-07-06 20:38 J -11680142.68 -11680142.64 -11680142.57 0.0147 0.0141

Mars -36690-09-09 11:16 J -11679348.23 -11679348.03 -11679347.80 0.0146 0.0096

Venus -36669-06-16 03:06 J -11671762.41 -11671762.37 -11671762.29 0.0136 0.0132

Venus -36668-01-28 12:28 J -11671536.06 -11671535.98 -11671535.87 0.0136 0.0123

Venus -36668-09-11 21:35 J -11671309.70 -11671309.60 -11671309.47 0.0136 0.0115

Venus -36667-04-26 06:28 J -11671083.35 -11671083.23 -11671083.08 0.0135 0.0107

Venus -36667-12-08 15:06 J -11670857.00 -11670856.87 -11670856.70 0.0135 0.0099

Venus -36666-07-23 00:14 J -11670630.66 -11670630.49 -11670630.32 0.0135 0.0089

Venus -36665-03-05 08:23 J -11670404.32 -11670404.15 -11670403.96 0.0135 0.0081

Venus -36665-10-17 16:33 J -11670177.99 -11670177.81 -11670177.61 0.0134 0.0072

Venus -36664-06-01 00:42 J -11669951.66 -11669951.47 -11669951.26 0.0134 0.0063

Venus -36663-01-13 08:38 J -11669725.34 -11669725.14 -11669724.93 0.0134 0.0054

Venus -36663-08-27 16:33 J -11669499.02 -11669498.81 -11669498.60 0.0134 0.0045

Venus -36662-04-10 23:59 J -11669272.71 -11669272.50 -11669272.28 0.0133 0.0036

Venus -36662-11-23 07:26 J -11669046.41 -11669046.19 -11669045.97 0.0133 0.0027

Venus -36661-07-06 14:38 J -11668820.11 -11668819.89 -11668819.66 0.0133 0.0018

Venus -36660-02-17 21:50 J -11668593.82 -11668593.59 -11668593.37 0.0133 0.0009

Venus -36660-10-02 04:33 J -11668367.53 -11668367.31 -11668367.08 0.0133 0.0001

Moon -36660-10-16 10:04 J -11668353.26 -11668353.08 -11668352.87 0.0133 0.0090

Earth -36660-10-16 10:47 J -11668353.23 -11668353.05 -11668352.84 0.0133 0.0086 *
 Mercury -36660-12-08 15:35 J -11668299.88 -11668299.85 -11668299.80 0.0133 0.0129
 Mercury -36659-03-06 20:38 J -11668211.74 -11668211.64 -11668211.55 0.0133 0.0107
 Venus -36659-05-16 11:16 J -11668141.25 -11668141.03 -11668140.81 0.0133 0.0009
 Mercury -36659-06-03 01:11 J -11668123.57 -11668123.45 -11668123.33 0.0133 0.0086
 Mercury -36659-08-30 05:45 J -11668035.39 -11668035.26 -11668035.12 0.0133 0.0065
 Earth -36659-10-20 17:45 J -11667984.01 -11667983.76 -11667983.50 0.0133 0.0017
 Moon -36659-10-20 18:28 J -11667983.97 -11667983.73 -11667983.48 0.0133 0.0018 *
 Mercury -36659-11-26 10:18 J -11667947.21 -11667947.07 -11667946.91 0.0133 0.0044
 Venus -36659-12-28 17:30 J -11667914.98 -11667914.77 -11667914.54 0.0133 0.0018
 Mercury -36658-02-22 14:52 J -11667859.03 -11667858.88 -11667858.72 0.0133 0.0024
 Mercury -36658-05-21 19:26 J -11667770.84 -11667770.69 -11667770.53 0.0132 0.0004
 Venus -36658-08-12 00:14 J -11667688.71 -11667688.49 -11667688.27 0.0132 0.0026
 Mercury -36658-08-17 23:59 J -11667682.66 -11667682.50 -11667682.34 0.0132 0.0018
 Moon -36658-10-24 23:16 J -11667614.62 -11667614.53 -11667614.40 0.0132 0.0119
 Earth -36658-10-24 23:30 J -11667614.61 -11667614.52 -11667614.38 0.0132 0.0118 *
 Mercury -36658-11-14 04:18 J -11667594.46 -11667594.32 -11667594.16 0.0132 0.0039
 Mercury -36657-02-10 08:52 J -11667506.27 -11667506.13 -11667505.99 0.0132 0.0059
 Venus -36657-03-25 06:14 J -11667462.45 -11667462.24 -11667462.02 0.0132 0.0035
 Mercury -36657-05-08 13:11 J -11667418.07 -11667417.95 -11667417.82 0.0132 0.0079
 Mercury -36657-08-04 17:30 J -11667329.87 -11667329.77 -11667329.67 0.0132 0.0098
 Mercury -36657-10-31 21:35 J -11667241.66 -11667241.60 -11667241.52 0.0132 0.0118
 Venus -36657-11-06 12:14 J -11667236.19 -11667235.99 -11667235.77 0.0132 0.0043
 Venus -36656-06-20 18:14 J -11667009.94 -11667009.74 -11667009.53 0.0132 0.0051
 Venus -36655-02-02 00:14 J -11666783.68 -11666783.49 -11666783.29 0.0132 0.0059
 Venus -36655-09-16 06:14 J -11666557.43 -11666557.24 -11666557.05 0.0132 0.0067
 Venus -36654-04-30 11:45 J -11666331.19 -11666331.01 -11666330.83 0.0132 0.0075
 Venus -36654-12-12 17:02 J -11666104.95 -11666104.79 -11666104.60 0.0132 0.0083
 Venus -36653-07-25 22:33 J -11665878.70 -11665878.56 -11665878.39 0.0132 0.0091
 Venus -36652-03-09 04:04 J -11665652.46 -11665652.33 -11665652.17 0.0132 0.0098

Venus	-36652-10-21 09:21 J	-11665426.22	-11665426.11	-11665425.96	0.0132	0.0106
Venus	-36651-06-04 14:38 J	-11665199.99	-11665199.89	-11665199.76	0.0132	0.0113
Venus	-36650-01-16 20:09 J	-11664973.75	-11664973.66	-11664973.57	0.0132	0.0119
Venus	-36650-08-31 01:11 J	-11664747.50	-11664747.45	-11664747.38	0.0132	0.0126
Mars	-36646-12-16 13:40 J	-11663179.21	-11663178.93	-11663178.63	0.0133	0.0063
Venus	-36625-06-09 10:18 J	-11655698.13	-11655698.07	-11655698.01	0.0142	0.0135
Venus	-36624-01-21 18:14 J	-11655471.82	-11655471.74	-11655471.64	0.0142	0.0128
Venus	-36624-09-05 02:23 J	-11655245.50	-11655245.40	-11655245.27	0.0142	0.0120
Venus	-36623-04-19 11:02 J	-11655019.17	-11655019.04	-11655018.91	0.0143	0.0111
Venus	-36623-12-01 19:26 J	-11654792.82	-11654792.69	-11654792.53	0.0143	0.0103
Venus	-36622-07-16 04:18 J	-11654566.47	-11654566.32	-11654566.15	0.0143	0.0093
Venus	-36621-02-27 13:11 J	-11654340.11	-11654339.95	-11654339.76	0.0144	0.0084
Venus	-36621-10-10 22:18 J	-11654113.73	-11654113.57	-11654113.37	0.0144	0.0074
Venus	-36620-05-25 07:54 J	-11653887.35	-11653887.17	-11653886.97	0.0144	0.0064
Venus	-36619-01-06 17:30 J	-11653660.96	-11653660.77	-11653660.56	0.0145	0.0054
Venus	-36619-08-21 03:21 J	-11653434.56	-11653434.36	-11653434.15	0.0145	0.0043
Venus	-36618-04-04 13:11 J	-11653208.15	-11653207.95	-11653207.74	0.0145	0.0032
Venus	-36618-11-16 23:16 J	-11652981.74	-11652981.53	-11652981.32	0.0145	0.0021
Venus	-36617-06-30 09:35 J	-11652755.31	-11652755.10	-11652754.89	0.0146	0.0010
Venus	-36616-02-11 20:09 J	-11652528.87	-11652528.66	-11652528.45	0.0146	0.0002
Moon	-36616-04-14 06:57 J	-11652467.44	-11652467.21	-11652466.98	0.0146	0.0071
Earth	-36616-04-14 08:23 J	-11652467.35	-11652467.15	-11652466.92	0.0146	0.0078 *
Mercury	-36616-05-18 22:47 J	-11652432.61	-11652432.55	-11652432.46	0.0146	0.0125
Mercury	-36616-08-15 04:04 J	-11652344.43	-11652344.33	-11652344.21	0.0146	0.0099
Venus	-36616-09-26 06:42 J	-11652302.43	-11652302.22	-11652302.00	0.0146	0.0013
Mercury	-36616-11-11 09:21 J	-11652256.24	-11652256.11	-11652255.97	0.0146	0.0073
Mercury	-36615-02-07 14:38 J	-11652168.03	-11652167.89	-11652167.74	0.0146	0.0046
Earth	-36615-04-19 10:18 J	-11652097.30	-11652097.07	-11652096.83	0.0146	0.0058
Moon	-36615-04-19 11:45 J	-11652097.24	-11652097.01	-11652096.78	0.0146	0.0050 *
Mercury	-36615-05-06 20:09 J	-11652079.82	-11652079.66	-11652079.51	0.0146	0.0019

Venus -36615-05-10 17:30 J -11652075.98 -11652075.77 -11652075.56 0.0146 0.0024
 Mercury -36615-08-03 01:26 J -11651991.59 -11651991.44 -11651991.28 0.0146 0.0008
 Mercury -36615-10-30 06:42 J -11651903.37 -11651903.22 -11651903.06 0.0146 0.0035
 Venus -36615-12-23 04:18 J -11651849.52 -11651849.32 -11651849.10 0.0146 0.0036
 Mercury -36614-01-26 12:14 J -11651815.13 -11651814.99 -11651814.84 0.0146 0.0063
 Mercury -36614-04-24 17:45 J -11651726.88 -11651726.76 -11651726.63 0.0146 0.0091
 Mercury -36614-07-21 23:16 J -11651638.61 -11651638.53 -11651638.43 0.0146 0.0119
 Venus -36614-08-06 15:35 J -11651623.05 -11651622.85 -11651622.64 0.0146 0.0046
 Venus -36613-03-20 02:52 J -11651396.57 -11651396.38 -11651396.17 0.0146 0.0058
 Venus -36613-11-01 14:23 J -11651170.08 -11651169.90 -11651169.70 0.0147 0.0069
 Venus -36612-06-16 01:54 J -11650943.58 -11650943.42 -11650943.22 0.0147 0.0080
 Venus -36611-01-28 14:09 J -11650717.07 -11650716.91 -11650716.74 0.0147 0.0090
 Venus -36611-09-12 01:54 J -11650490.56 -11650490.42 -11650490.25 0.0147 0.0101
 Venus -36610-04-26 14:09 J -11650264.04 -11650263.91 -11650263.76 0.0147 0.0111
 Venus -36610-12-09 02:38 J -11650037.51 -11650037.39 -11650037.27 0.0147 0.0121
 Venus -36609-07-22 14:52 J -11649810.97 -11649810.88 -11649810.78 0.0147 0.0131
 Venus -36608-03-06 03:21 J -11649584.40 -11649584.36 -11649584.28 0.0147 0.0141
 Mars -36605-05-04 15:06 J -11648429.15 -11648428.87 -11648428.58 0.0146 0.0005
 Venus -36585-02-14 11:59 J -11641204.03 -11641204.00 -11641203.93 0.0137 0.0133
 Venus -36585-09-27 21:35 J -11640977.68 -11640977.60 -11640977.50 0.0136 0.0124
 Venus -36584-05-12 06:42 J -11640751.32 -11640751.22 -11640751.09 0.0136 0.0116
 Venus -36584-12-24 15:50 J -11640524.96 -11640524.84 -11640524.69 0.0136 0.0108
 Venus -36583-08-08 00:42 J -11640298.61 -11640298.47 -11640298.31 0.0135 0.0099
 Venus -36582-03-22 09:35 J -11640072.26 -11640072.10 -11640071.93 0.0135 0.0090
 Venus -36582-11-03 17:59 J -11639845.92 -11639845.75 -11639845.56 0.0135 0.0082
 Venus -36581-06-17 02:23 J -11639619.58 -11639619.40 -11639619.20 0.0135 0.0073
 Venus -36580-01-29 10:33 J -11639393.24 -11639393.06 -11639392.85 0.0134 0.0064
 Venus -36580-09-12 18:42 J -11639166.92 -11639166.72 -11639166.51 0.0134 0.0055
 Venus -36579-04-27 02:23 J -11638940.60 -11638940.40 -11638940.18 0.0134 0.0046
 Venus -36579-12-09 10:04 J -11638714.29 -11638714.08 -11638713.86 0.0134 0.0037

Venus -36578-07-23 17:45 J -11638487.98 -11638487.76 -11638487.54 0.0133 0.0028
 Venus -36577-03-06 00:57 J -11638261.68 -11638261.46 -11638261.24 0.0133 0.0019
 Venus -36577-10-18 07:54 J -11638035.39 -11638035.17 -11638034.94 0.0133 0.0010
 Venus -36576-06-01 14:52 J -11637809.10 -11637808.88 -11637808.66 0.0133 0.0001
 Moon -36576-10-16 22:33 J -11637671.77 -11637671.56 -11637671.33 0.0133 0.0074
 Earth -36576-10-16 23:45 J -11637671.71 -11637671.51 -11637671.30 0.0133 0.0078 *
 Mercury -36576-12-28 23:02 J -11637598.59 -11637598.54 -11637598.46 0.0133 0.0121
 Venus -36575-01-13 21:35 J -11637582.82 -11637582.60 -11637582.37 0.0133 0.0008
 Mercury -36575-03-27 04:04 J -11637510.43 -11637510.33 -11637510.22 0.0133 0.0099
 Mercury -36575-06-23 08:38 J -11637422.26 -11637422.14 -11637422.00 0.0133 0.0078
 Venus -36575-08-28 04:18 J -11637356.54 -11637356.32 -11637356.10 0.0133 0.0017
 Mercury -36575-09-19 13:26 J -11637334.08 -11637333.94 -11637333.79 0.0133 0.0057
 Earth -36575-10-21 06:28 J -11637302.48 -11637302.23 -11637301.98 0.0133 0.0024
 Moon -36575-10-21 07:11 J -11637302.44 -11637302.20 -11637301.95 0.0133 0.0023 *
 Mercury -36575-12-16 17:59 J -11637245.90 -11637245.75 -11637245.59 0.0133 0.0036
 Mercury -36574-03-14 22:33 J -11637157.72 -11637157.56 -11637157.40 0.0133 0.0015
 Venus -36574-04-11 10:33 J -11637130.27 -11637130.06 -11637129.83 0.0132 0.0026
 Mercury -36574-06-11 03:06 J -11637069.53 -11637069.37 -11637069.21 0.0132 0.0006
 Mercury -36574-09-07 07:26 J -11636981.34 -11636981.19 -11636981.03 0.0132 0.0027
 Moon -36574-10-25 10:47 J -11636933.11 -11636933.05 -11636932.94 0.0132 0.0125
 Earth -36574-10-25 12:28 J -11636933.06 -11636932.98 -11636932.89 0.0132 0.0125 *
 Venus -36574-11-23 17:02 J -11636904.01 -11636903.79 -11636903.58 0.0132 0.0034
 Mercury -36574-12-04 11:59 J -11636893.15 -11636893.00 -11636892.85 0.0132 0.0046
 Mercury -36573-03-01 16:18 J -11636804.95 -11636804.82 -11636804.68 0.0132 0.0066
 Mercury -36573-05-28 20:38 J -11636716.75 -11636716.64 -11636716.52 0.0132 0.0086
 Venus -36573-07-06 23:02 J -11636677.74 -11636677.54 -11636677.32 0.0132 0.0043
 Mercury -36573-08-25 00:57 J -11636628.54 -11636628.46 -11636628.36 0.0132 0.0106
 Mercury -36573-11-21 05:16 J -11636540.32 -11636540.28 -11636540.23 0.0132 0.0126
 Venus -36572-02-18 05:02 J -11636451.48 -11636451.29 -11636451.07 0.0132 0.0051
 Venus -36572-10-02 11:02 J -11636225.23 -11636225.04 -11636224.83 0.0132 0.0059

Venus	-36571-05-16 16:47 J	-11635998.98	-11635998.80	-11635998.60	0.0132	0.0067
Venus	-36571-12-28 22:33 J	-11635772.73	-11635772.56	-11635772.37	0.0132	0.0075
Venus	-36570-08-12 04:18 J	-11635546.48	-11635546.32	-11635546.14	0.0132	0.0083
Venus	-36569-03-25 09:35 J	-11635320.24	-11635320.10	-11635319.92	0.0132	0.0091
Venus	-36569-11-06 15:21 J	-11635094.00	-11635093.86	-11635093.71	0.0132	0.0098
Venus	-36568-06-20 20:52 J	-11634867.76	-11634867.63	-11634867.50	0.0132	0.0105
Venus	-36567-02-02 01:40 J	-11634641.52	-11634641.43	-11634641.29	0.0132	0.0113
Venus	-36567-09-16 07:26 J	-11634415.27	-11634415.19	-11634415.09	0.0132	0.0119
Venus	-36566-04-30 12:28 J	-11634189.03	-11634188.98	-11634188.91	0.0132	0.0126
Mars	-36563-09-07 11:59 J	-11632963.22	-11632963.00	-11632962.75	0.0132	0.0094
Venus	-36541-02-07 18:42 J	-11625139.76	-11625139.72	-11625139.65	0.0142	0.0137
Venus	-36541-09-21 02:38 J	-11624913.46	-11624913.39	-11624913.29	0.0142	0.0129
Venus	-36540-05-05 10:47 J	-11624687.14	-11624687.05	-11624686.93	0.0142	0.0121
Venus	-36540-12-17 19:11 J	-11624460.81	-11624460.70	-11624460.56	0.0143	0.0113
Venus	-36539-08-01 03:50 J	-11624234.47	-11624234.34	-11624234.19	0.0143	0.0104
Venus	-36538-03-15 12:28 J	-11624008.13	-11624007.98	-11624007.81	0.0143	0.0095
Venus	-36538-10-27 21:06 J	-11623781.77	-11623781.62	-11623781.43	0.0144	0.0086
Venus	-36537-06-10 06:14 J	-11623555.41	-11623555.24	-11623555.05	0.0144	0.0076
Venus	-36536-01-22 15:50 J	-11623329.02	-11623328.84	-11623328.65	0.0144	0.0065
Venus	-36536-09-06 01:11 J	-11623102.64	-11623102.45	-11623102.25	0.0144	0.0055
Venus	-36535-04-20 10:47 J	-11622876.25	-11622876.05	-11622875.84	0.0145	0.0045
Venus	-36535-12-02 20:38 J	-11622649.85	-11622649.64	-11622649.43	0.0145	0.0034
Venus	-36534-07-17 06:28 J	-11622423.43	-11622423.23	-11622423.01	0.0145	0.0023
Venus	-36533-02-28 16:47 J	-11622197.01	-11622196.80	-11622196.59	0.0145	0.0012
Venus	-36533-10-12 03:06 J	-11621970.58	-11621970.37	-11621970.15	0.0146	0.0002
Mercury	-36532-03-12 00:57 J	-11621819.47	-11621819.46	-11621819.43	0.0146	0.0144
Moon	-36532-04-14 15:35 J	-11621786.06	-11621785.85	-11621785.63	0.0146	0.0079
Earth	-36532-04-14 17:59 J	-11621785.95	-11621785.75	-11621785.51	0.0146	0.0073 *
Venus	-36532-05-26 13:40 J	-11621744.14	-11621743.93	-11621743.72	0.0146	0.0010
Mercury	-36532-06-08 06:14 J	-11621731.32	-11621731.24	-11621731.15	0.0146	0.0118

Mercury -36532-09-04 11:16 J -11621643.14 -11621643.03 -11621642.90 0.0146 0.0092
 Mercury -36532-12-01 16:33 J -11621554.94 -11621554.81 -11621554.67 0.0146 0.0066
 Venus -36531-01-08 00:28 J -11621517.69 -11621517.48 -11621517.27 0.0146 0.0022
 Mercury -36531-02-27 21:50 J -11621466.73 -11621466.59 -11621466.44 0.0146 0.0039
 Earth -36531-04-19 19:54 J -11621415.89 -11621415.67 -11621415.43 0.0146 0.0063
 Moon -36531-04-19 21:35 J -11621415.81 -11621415.60 -11621415.38 0.0146 0.0070 *
 Mercury -36531-05-27 03:21 J -11621378.52 -11621378.36 -11621378.21 0.0146 0.0013
 Venus -36531-08-22 11:16 J -11621291.23 -11621291.03 -11621290.82 0.0146 0.0033
 Mercury -36531-08-23 08:38 J -11621290.29 -11621290.14 -11621289.98 0.0146 0.0015
 Mercury -36531-11-19 13:54 J -11621202.06 -11621201.92 -11621201.76 0.0146 0.0043
 Mercury -36530-02-15 19:26 J -11621113.82 -11621113.69 -11621113.55 0.0146 0.0070
 Venus -36530-04-05 22:18 J -11621064.77 -11621064.57 -11621064.36 0.0146 0.0044
 Mercury -36530-05-15 00:57 J -11621025.57 -11621025.46 -11621025.34 0.0146 0.0098
 Mercury -36530-08-11 06:42 J -11620937.30 -11620937.22 -11620937.14 0.0146 0.0126
 Venus -36530-11-18 09:35 J -11620838.29 -11620838.10 -11620837.90 0.0146 0.0055
 Venus -36529-07-01 21:06 J -11620611.81 -11620611.62 -11620611.42 0.0147 0.0066
 Venus -36528-02-13 08:52 J -11620385.30 -11620385.13 -11620384.94 0.0147 0.0077
 Venus -36528-09-27 20:38 J -11620158.80 -11620158.64 -11620158.46 0.0147 0.0088
 Venus -36527-05-12 08:38 J -11619932.29 -11619932.14 -11619931.98 0.0147 0.0099
 Venus -36527-12-24 20:23 J -11619705.77 -11619705.65 -11619705.49 0.0147 0.0110
 Venus -36526-08-08 08:38 J -11619479.24 -11619479.14 -11619479.00 0.0147 0.0120
 Venus -36525-03-21 21:06 J -11619252.70 -11619252.62 -11619252.50 0.0147 0.0130
 Venus -36525-11-03 09:50 J -11619026.15 -11619026.09 -11619026.01 0.0147 0.0139
 Mars -36521-12-28 17:30 J -11617509.94 -11617509.77 -11617509.55 0.0146 0.0106
 Venus -36502-10-14 21:06 J -11610645.64 -11610645.62 -11610645.55 0.0137 0.0134
 Venus -36501-05-28 06:57 J -11610419.28 -11610419.21 -11610419.11 0.0136 0.0126
 Venus -36500-01-09 16:18 J -11610192.92 -11610192.82 -11610192.69 0.0136 0.0117
 Venus -36500-08-24 01:26 J -11609966.56 -11609966.44 -11609966.29 0.0136 0.0109
 Venus -36499-04-07 10:47 J -11609740.20 -11609740.05 -11609739.90 0.0136 0.0100
 Venus -36499-11-19 19:26 J -11609513.85 -11609513.69 -11609513.52 0.0135 0.0091

Venus	-36498-07-04 04:04 J	-11609287.49	-11609287.33	-11609287.14	0.0135	0.0083
Venus	-36497-02-15 12:28 J	-11609061.15	-11609060.98	-11609060.78	0.0135	0.0074
Venus	-36497-09-28 20:52 J	-11608834.82	-11608834.63	-11608834.43	0.0134	0.0065
Venus	-36496-05-13 05:02 J	-11608608.49	-11608608.29	-11608608.08	0.0134	0.0056
Venus	-36496-12-25 12:42 J	-11608382.17	-11608381.97	-11608381.75	0.0134	0.0047
Venus	-36495-08-08 20:38 J	-11608155.85	-11608155.64	-11608155.42	0.0134	0.0038
Venus	-36494-03-23 04:04 J	-11607929.54	-11607929.33	-11607929.10	0.0134	0.0029
Venus	-36494-11-04 11:30 J	-11607703.24	-11607703.02	-11607702.80	0.0133	0.0019
Venus	-36493-06-17 18:42 J	-11607476.94	-11607476.72	-11607476.50	0.0133	0.0010
Venus	-36492-01-30 01:40 J	-11607250.65	-11607250.43	-11607250.20	0.0133	0.0002
Venus	-36492-09-13 08:38 J	-11607024.36	-11607024.14	-11607023.92	0.0133	0.0008
Moon	-36492-10-17 10:47 J	-11606990.25	-11606990.05	-11606989.81	0.0133	0.0075
Earth	-36492-10-17 12:28 J	-11606990.18	-11606989.98	-11606989.74	0.0133	0.0070 *
Mercury	-36491-01-18 06:57 J	-11606897.28	-11606897.21	-11606897.11	0.0133	0.0112
Mercury	-36491-04-16 11:45 J	-11606809.12	-11606809.01	-11606808.89	0.0133	0.0091
Venus	-36491-04-27 15:06 J	-11606798.09	-11606797.87	-11606797.64	0.0133	0.0017
Mercury	-36491-07-13 16:18 J	-11606720.94	-11606720.82	-11606720.67	0.0133	0.0070
Mercury	-36491-10-09 21:06 J	-11606632.76	-11606632.62	-11606632.47	0.0133	0.0048
Earth	-36491-10-21 19:26 J	-11606620.93	-11606620.69	-11606620.44	0.0133	0.0032
Moon	-36491-10-21 20:52 J	-11606620.86	-11606620.63	-11606620.39	0.0133	0.0034 *
Venus	-36491-12-09 21:35 J	-11606571.81	-11606571.60	-11606571.38	0.0133	0.0025
Mercury	-36490-01-06 01:40 J	-11606544.58	-11606544.43	-11606544.27	0.0133	0.0028
Mercury	-36490-04-04 06:14 J	-11606456.39	-11606456.24	-11606456.08	0.0133	0.0008
Mercury	-36490-07-01 10:47 J	-11606368.21	-11606368.05	-11606367.89	0.0132	0.0014
Venus	-36490-07-24 04:04 J	-11606345.54	-11606345.33	-11606345.11	0.0132	0.0034
Mercury	-36490-09-27 15:21 J	-11606280.01	-11606279.86	-11606279.71	0.0132	0.0034
Mercury	-36490-12-24 19:40 J	-11606191.82	-11606191.68	-11606191.53	0.0132	0.0055
Venus	-36489-03-06 10:18 J	-11606119.27	-11606119.07	-11606118.85	0.0132	0.0042
Mercury	-36489-03-22 00:14 J	-11606103.62	-11606103.49	-11606103.36	0.0132	0.0075
Mercury	-36489-06-18 04:18 J	-11606015.42	-11606015.32	-11606015.20	0.0132	0.0095

Mercury	-36489-09-14 08:38 J	-11605927.21	-11605927.14	-11605927.05	0.0132	0.0114
Venus	-36489-10-18 16:33 J	-11605893.01	-11605892.81	-11605892.60	0.0132	0.0051
Venus	-36488-06-01 22:18 J	-11605666.76	-11605666.57	-11605666.36	0.0132	0.0059
Venus	-36487-01-14 04:18 J	-11605440.50	-11605440.32	-11605440.12	0.0132	0.0067
Venus	-36487-08-28 10:18 J	-11605214.25	-11605214.07	-11605213.88	0.0132	0.0075
Venus	-36486-04-11 15:50 J	-11604988.00	-11604987.84	-11604987.66	0.0132	0.0083
Venus	-36486-11-23 21:21 J	-11604761.76	-11604761.61	-11604761.44	0.0132	0.0091
Venus	-36485-07-07 03:06 J	-11604535.51	-11604535.37	-11604535.22	0.0132	0.0098
Venus	-36484-02-18 08:23 J	-11604309.27	-11604309.15	-11604309.01	0.0132	0.0106
Venus	-36484-10-02 13:54 J	-11604083.02	-11604082.92	-11604082.80	0.0132	0.0113
Venus	-36483-05-16 18:57 J	-11603856.78	-11603856.71	-11603856.60	0.0132	0.0120
Venus	-36483-12-28 23:59 J	-11603630.53	-11603630.50	-11603630.42	0.0132	0.0127
Mars	-36478-05-04 01:54 J	-11602043.75	-11602043.42	-11602043.08	0.0132	0.0003
Jupiter	-36471-06-09 00:14 J	-11599450.86	-11599450.49	-11599450.06	0.0135	0.0079
Venus	-36458-10-08 05:30 J	-11594581.31	-11594581.27	-11594581.22	0.0141	0.0138
Venus	-36457-05-21 13:26 J	-11594355.02	-11594354.94	-11594354.86	0.0142	0.0130
Venus	-36456-01-02 21:21 J	-11594128.71	-11594128.61	-11594128.50	0.0142	0.0122
Venus	-36456-08-17 05:45 J	-11593902.39	-11593902.26	-11593902.14	0.0142	0.0114
Venus	-36455-03-31 13:54 J	-11593676.06	-11593675.92	-11593675.77	0.0143	0.0105
Venus	-36455-11-12 22:18 J	-11593449.72	-11593449.57	-11593449.41	0.0143	0.0096
Venus	-36454-06-27 07:11 J	-11593223.37	-11593223.20	-11593223.03	0.0143	0.0087
Venus	-36453-02-08 16:04 J	-11592997.00	-11592996.83	-11592996.65	0.0144	0.0077
Venus	-36453-09-22 00:57 J	-11592770.63	-11592770.46	-11592770.26	0.0144	0.0067
Venus	-36452-05-06 10:33 J	-11592544.26	-11592544.06	-11592543.87	0.0144	0.0057
Venus	-36452-12-18 19:40 J	-11592317.87	-11592317.68	-11592317.47	0.0145	0.0047
Venus	-36451-08-02 05:30 J	-11592091.47	-11592091.27	-11592091.06	0.0145	0.0036
Venus	-36450-03-16 15:21 J	-11591865.06	-11591864.86	-11591864.65	0.0145	0.0025
Venus	-36450-10-29 01:26 J	-11591638.65	-11591638.44	-11591638.23	0.0145	0.0014
Venus	-36449-06-11 11:45 J	-11591412.22	-11591412.01	-11591411.80	0.0146	0.0003
Venus	-36448-01-23 22:18 J	-11591185.78	-11591185.57	-11591185.36	0.0146	0.0009

Mercury -36448-04-01 08:38 J -11591118.19 -11591118.14 -11591118.08 0.0146 0.0135

Moon -36448-04-15 03:21 J -11591104.58 -11591104.36 -11591104.11 0.0146 0.0059

Earth -36448-04-15 05:59 J -11591104.46 -11591104.25 -11591104.01 0.0146 0.0065 *

Mercury -36448-06-28 13:54 J -11591030.02 -11591029.92 -11591029.82 0.0146 0.0109

Venus -36448-09-07 08:52 J -11590959.34 -11590959.13 -11590958.92 0.0146 0.0020

Mercury -36448-09-24 18:57 J -11590941.83 -11590941.71 -11590941.58 0.0146 0.0083

Mercury -36448-12-22 00:14 J -11590853.62 -11590853.49 -11590853.34 0.0146 0.0057

Mercury -36447-03-20 05:30 J -11590765.41 -11590765.27 -11590765.11 0.0146 0.0030

Earth -36447-04-20 07:54 J -11590734.38 -11590734.17 -11590733.94 0.0146 0.0071

Moon -36447-04-20 10:18 J -11590734.29 -11590734.07 -11590733.85 0.0146 0.0063 *

Venus -36447-04-21 19:40 J -11590732.89 -11590732.68 -11590732.47 0.0146 0.0031

Mercury -36447-06-16 11:02 J -11590677.20 -11590677.04 -11590676.89 0.0146 0.0003

Mercury -36447-09-12 16:18 J -11590588.97 -11590588.82 -11590588.66 0.0146 0.0024

Venus -36447-12-04 06:28 J -11590506.43 -11590506.23 -11590506.02 0.0146 0.0043

Mercury -36447-12-09 21:50 J -11590500.74 -11590500.59 -11590500.44 0.0146 0.0052

Mercury -36446-03-08 03:06 J -11590412.49 -11590412.37 -11590412.23 0.0146 0.0080

Mercury -36446-06-04 08:38 J -11590324.24 -11590324.14 -11590324.02 0.0146 0.0108

Venus -36446-07-18 17:45 J -11590279.95 -11590279.76 -11590279.56 0.0146 0.0054

Mercury -36446-08-31 14:23 J -11590235.95 -11590235.90 -11590235.84 0.0146 0.0135

Venus -36445-03-01 05:16 J -11590053.47 -11590053.28 -11590053.08 0.0146 0.0065

Venus -36445-10-13 17:02 J -11589826.97 -11589826.79 -11589826.61 0.0147 0.0076

Venus -36444-05-28 04:33 J -11589600.48 -11589600.31 -11589600.13 0.0147 0.0087

Venus -36443-01-09 16:18 J -11589373.97 -11589373.82 -11589373.65 0.0147 0.0098

Venus -36443-08-24 04:33 J -11589147.45 -11589147.31 -11589147.16 0.0147 0.0108

Venus -36442-04-07 16:33 J -11588920.92 -11588920.81 -11588920.67 0.0147 0.0119

Venus -36442-11-20 04:47 J -11588694.39 -11588694.30 -11588694.19 0.0147 0.0129

Venus -36441-07-03 17:16 J -11588467.84 -11588467.78 -11588467.70 0.0147 0.0138

Mars -36438-09-22 03:21 J -11587292.59 -11587292.36 -11587292.10 0.0146 0.0075

Venus -36418-06-14 06:42 J -11580087.24 -11580087.22 -11580087.18 0.0137 0.0135

Venus -36417-01-26 16:18 J -11579860.89 -11579860.82 -11579860.73 0.0137 0.0127

Venus	-36417-09-09 01:54 J	-11579634.52	-11579634.42	-11579634.30	0.0136	0.0119
Venus	-36416-04-23 11:02 J	-11579408.16	-11579408.04	-11579407.90	0.0136	0.0110
Venus	-36416-12-05 20:09 J	-11579181.79	-11579181.66	-11579181.50	0.0136	0.0102
Venus	-36415-07-20 05:16 J	-11578955.43	-11578955.28	-11578955.11	0.0135	0.0093
Venus	-36414-03-03 13:54 J	-11578729.08	-11578728.92	-11578728.73	0.0135	0.0084
Venus	-36414-10-15 22:33 J	-11578502.74	-11578502.56	-11578502.37	0.0135	0.0075
Venus	-36413-05-29 06:57 J	-11578276.40	-11578276.21	-11578276.01	0.0135	0.0066
Venus	-36412-01-10 15:06 J	-11578050.06	-11578049.87	-11578049.66	0.0134	0.0057
Venus	-36412-08-24 23:16 J	-11577823.74	-11577823.53	-11577823.32	0.0134	0.0047
Venus	-36411-04-08 07:11 J	-11577597.42	-11577597.20	-11577596.99	0.0134	0.0038
Venus	-36411-11-20 14:38 J	-11577371.11	-11577370.89	-11577370.67	0.0134	0.0029
Venus	-36410-07-04 22:04 J	-11577144.80	-11577144.58	-11577144.36	0.0134	0.0020
Venus	-36409-02-16 05:16 J	-11576918.50	-11576918.28	-11576918.05	0.0133	0.0011
Venus	-36409-09-29 12:28 J	-11576692.20	-11576691.98	-11576691.76	0.0133	0.0002
Venus	-36408-05-13 19:11 J	-11576465.92	-11576465.70	-11576465.47	0.0133	0.0007
Moon	-36408-10-17 23:59 J	-11576308.73	-11576308.50	-11576308.25	0.0133	0.0057
Earth	-36408-10-18 02:09 J	-11576308.64	-11576308.41	-11576308.18	0.0133	0.0061 *
Mercury	-36408-11-11 09:50 J	-11576284.13	-11576284.09	-11576284.02	0.0133	0.0125
Venus	-36408-12-26 01:54 J	-11576239.64	-11576239.42	-11576239.19	0.0133	0.0016
Mercury	-36407-02-07 14:52 J	-11576195.97	-11576195.88	-11576195.77	0.0133	0.0103
Mercury	-36407-05-06 19:26 J	-11576107.81	-11576107.69	-11576107.55	0.0133	0.0082
Mercury	-36407-08-03 00:14 J	-11576019.63	-11576019.49	-11576019.34	0.0133	0.0061
Venus	-36407-08-09 08:38 J	-11576013.35	-11576013.14	-11576012.92	0.0133	0.0025
Earth	-36407-10-22 08:23 J	-11575939.38	-11575939.15	-11575938.89	0.0133	0.0041
Moon	-36407-10-22 10:18 J	-11575939.30	-11575939.07	-11575938.83	0.0133	0.0039 *
Mercury	-36407-10-30 04:47 J	-11575931.44	-11575931.30	-11575931.14	0.0133	0.0040
Mercury	-36406-01-26 09:35 J	-11575843.26	-11575843.10	-11575842.94	0.0133	0.0019
Venus	-36406-03-23 15:06 J	-11575787.08	-11575786.87	-11575786.65	0.0133	0.0033
Mercury	-36406-04-24 14:09 J	-11575755.07	-11575754.91	-11575754.75	0.0133	0.0003
Mercury	-36406-07-21 18:42 J	-11575666.88	-11575666.72	-11575666.57	0.0132	0.0023

Mercury -36406-10-17 23:02 J -11575578.69 -11575578.54 -11575578.39 0.0132 0.0043

Venus -36406-11-04 21:35 J -11575560.81 -11575560.60 -11575560.39 0.0132 0.0042

Mercury -36405-01-14 03:21 J -11575490.49 -11575490.36 -11575490.22 0.0132 0.0063

Mercury -36405-04-11 07:40 J -11575402.29 -11575402.18 -11575402.05 0.0132 0.0084

Venus -36405-06-18 03:35 J -11575334.55 -11575334.35 -11575334.14 0.0132 0.0050

Mercury -36405-07-08 11:59 J -11575314.08 -11575314.00 -11575313.89 0.0132 0.0103

Mercury -36405-10-04 16:33 J -11575225.86 -11575225.81 -11575225.75 0.0132 0.0123

Venus -36404-01-30 09:50 J -11575108.29 -11575108.09 -11575107.89 0.0132 0.0059

Venus -36404-09-13 15:35 J -11574882.03 -11574881.85 -11574881.64 0.0132 0.0067

Venus -36403-04-27 21:35 J -11574655.77 -11574655.60 -11574655.41 0.0132 0.0075

Venus -36403-12-10 03:06 J -11574429.52 -11574429.37 -11574429.18 0.0132 0.0083

Venus -36402-07-24 08:52 J -11574203.27 -11574203.13 -11574202.95 0.0132 0.0091

Venus -36401-03-06 14:38 J -11573977.02 -11573976.89 -11573976.73 0.0132 0.0098

Venus -36401-10-18 20:09 J -11573750.78 -11573750.66 -11573750.52 0.0132 0.0106

Venus -36400-06-02 01:26 J -11573524.54 -11573524.44 -11573524.31 0.0132 0.0113

Venus -36399-01-14 06:42 J -11573298.29 -11573298.22 -11573298.11 0.0132 0.0120

Venus -36399-08-28 11:59 J -11573072.04 -11573072.00 -11573071.92 0.0132 0.0127

Mars -36394-12-28 14:38 J -11571124.11 -11571123.89 -11571123.62 0.0133 0.0090

Venus -36374-06-07 15:21 J -11564022.88 -11564022.86 -11564022.82 0.0141 0.0139

Venus -36373-01-19 23:02 J -11563796.60 -11563796.54 -11563796.45 0.0142 0.0132

Venus -36373-09-02 06:57 J -11563570.30 -11563570.21 -11563570.10 0.0142 0.0124

Venus -36372-04-16 15:06 J -11563343.99 -11563343.87 -11563343.74 0.0142 0.0115

Venus -36372-11-28 23:16 J -11563117.66 -11563117.53 -11563117.38 0.0143 0.0107

Venus -36371-07-13 07:40 J -11562891.32 -11562891.18 -11562891.02 0.0143 0.0098

Venus -36370-02-24 16:18 J -11562664.98 -11562664.82 -11562664.65 0.0143 0.0088

Venus -36370-10-09 00:57 J -11562438.63 -11562438.46 -11562438.27 0.0144 0.0079

Venus -36369-05-22 09:50 J -11562212.26 -11562212.09 -11562211.89 0.0144 0.0069

Venus -36368-01-03 19:26 J -11561985.88 -11561985.69 -11561985.50 0.0144 0.0058

Venus -36368-08-18 04:33 J -11561759.50 -11561759.31 -11561759.10 0.0144 0.0048

Venus -36367-04-01 13:54 J -11561533.11 -11561532.92 -11561532.70 0.0145 0.0038

Venus -36367-11-13 23:45 J -11561306.71 -11561306.51 -11561306.30 0.0145 0.0027
 Venus -36366-06-28 09:50 J -11561080.30 -11561080.09 -11561079.88 0.0145 0.0016
 Venus -36365-02-09 20:09 J -11560853.88 -11560853.66 -11560853.45 0.0145 0.0005
 Venus -36365-09-23 06:28 J -11560627.45 -11560627.23 -11560627.02 0.0146 0.0007
 Moon -36364-04-15 14:38 J -11560423.12 -11560422.89 -11560422.66 0.0146 0.0063
 Earth -36364-04-15 17:45 J -11560422.99 -11560422.76 -11560422.52 0.0146 0.0057 *
 Mercury -36364-04-21 16:18 J -11560416.89 -11560416.82 -11560416.74 0.0146 0.0126
 Venus -36364-05-07 16:47 J -11560401.01 -11560400.80 -11560400.58 0.0146 0.0018
 Mercury -36364-07-18 21:35 J -11560328.71 -11560328.60 -11560328.49 0.0146 0.0100
 Mercury -36364-10-15 02:38 J -11560240.52 -11560240.39 -11560240.25 0.0146 0.0074
 Venus -36364-12-20 03:35 J -11560174.56 -11560174.35 -11560174.14 0.0146 0.0029
 Mercury -36363-01-11 07:54 J -11560152.31 -11560152.17 -11560152.02 0.0146 0.0048
 Mercury -36363-04-09 13:11 J -11560064.10 -11560063.95 -11560063.79 0.0146 0.0021
 Earth -36363-04-20 19:26 J -11560052.89 -11560052.69 -11560052.46 0.0146 0.0079
 Moon -36363-04-20 21:50 J -11560052.77 -11560052.59 -11560052.37 0.0146 0.0087 *
 Mercury -36363-07-06 18:42 J -11559975.88 -11559975.72 -11559975.57 0.0146 0.0007
 Venus -36363-08-03 14:38 J -11559948.10 -11559947.89 -11559947.69 0.0146 0.0041
 Mercury -36363-10-02 23:59 J -11559887.65 -11559887.50 -11559887.35 0.0146 0.0033
 Mercury -36363-12-30 05:30 J -11559799.41 -11559799.27 -11559799.13 0.0146 0.0061
 Venus -36362-03-18 01:26 J -11559721.63 -11559721.44 -11559721.23 0.0146 0.0053
 Mercury -36362-03-28 10:47 J -11559711.17 -11559711.05 -11559710.92 0.0146 0.0089
 Mercury -36362-06-24 16:18 J -11559622.90 -11559622.82 -11559622.72 0.0146 0.0117
 Mercury -36362-09-20 22:04 J -11559534.60 -11559534.58 -11559534.56 0.0146 0.0145
 Venus -36362-10-30 12:42 J -11559495.15 -11559494.97 -11559494.76 0.0146 0.0064
 Venus -36361-06-13 00:14 J -11559268.66 -11559268.49 -11559268.29 0.0147 0.0075
 Venus -36360-01-25 11:59 J -11559042.16 -11559042.00 -11559041.81 0.0147 0.0086
 Venus -36360-09-08 23:59 J -11558815.66 -11558815.50 -11558815.33 0.0147 0.0096
 Venus -36359-04-23 11:45 J -11558589.14 -11558589.01 -11558588.85 0.0147 0.0107
 Venus -36359-12-05 23:59 J -11558362.62 -11558362.50 -11558362.37 0.0147 0.0117
 Venus -36358-07-20 11:59 J -11558136.09 -11558136.00 -11558135.88 0.0147 0.0127

Venus	-36357-03-03 00:28 J	-11557909.54	-11557909.48	-11557909.39	0.0147	0.0137
Venus	-36357-10-15 13:11 J	-11557682.96	-11557682.95	-11557682.93	0.0147	0.0146
Mars	-36353-05-17 10:04 J	-11556373.36	-11556373.08	-11556372.79	0.0146	0.0028
Venus	-36334-02-11 16:18 J	-11549528.83	-11549528.82	-11549528.79	0.0137	0.0136
Venus	-36334-09-26 02:09 J	-11549302.48	-11549302.41	-11549302.33	0.0137	0.0128
Venus	-36333-05-09 11:45 J	-11549076.11	-11549076.01	-11549075.90	0.0137	0.0120
Venus	-36333-12-21 21:06 J	-11548849.74	-11548849.62	-11548849.48	0.0136	0.0111
Venus	-36332-08-05 06:14 J	-11548623.37	-11548623.24	-11548623.08	0.0136	0.0103
Venus	-36331-03-19 15:21 J	-11548397.01	-11548396.86	-11548396.68	0.0136	0.0094
Venus	-36331-11-01 00:28 J	-11548170.65	-11548170.48	-11548170.30	0.0135	0.0085
Venus	-36330-06-15 08:52 J	-11547944.30	-11547944.13	-11547943.93	0.0135	0.0076
Venus	-36329-01-27 17:30 J	-11547717.95	-11547717.77	-11547717.57	0.0135	0.0067
Venus	-36329-09-10 01:40 J	-11547491.62	-11547491.43	-11547491.21	0.0135	0.0058
Venus	-36328-04-24 09:50 J	-11547265.29	-11547265.09	-11547264.87	0.0134	0.0048
Venus	-36328-12-06 17:45 J	-11547038.97	-11547038.76	-11547038.54	0.0134	0.0039
Venus	-36327-07-21 01:26 J	-11546812.65	-11546812.44	-11546812.21	0.0134	0.0030
Venus	-36326-03-04 09:06 J	-11546586.34	-11546586.12	-11546585.90	0.0134	0.0021
Venus	-36326-10-16 16:18 J	-11546360.04	-11546359.82	-11546359.59	0.0133	0.0012
Venus	-36325-05-29 23:30 J	-11546133.74	-11546133.52	-11546133.30	0.0133	0.0003
Venus	-36324-01-11 06:28 J	-11545907.45	-11545907.23	-11545907.01	0.0133	0.0007
Venus	-36324-08-25 13:26 J	-11545681.16	-11545680.94	-11545680.72	0.0133	0.0015
Moon	-36324-10-18 13:26 J	-11545627.17	-11545626.94	-11545626.70	0.0133	0.0057
Earth	-36324-10-18 15:50 J	-11545627.06	-11545626.84	-11545626.59	0.0133	0.0052 *
Mercury	-36324-12-01 17:59 J	-11545582.82	-11545582.75	-11545582.66	0.0133	0.0115
Mercury	-36323-02-27 22:47 J	-11545494.66	-11545494.55	-11545494.43	0.0133	0.0094
Venus	-36323-04-08 19:54 J	-11545454.88	-11545454.67	-11545454.44	0.0133	0.0025
Mercury	-36323-05-27 03:21 J	-11545406.48	-11545406.36	-11545406.21	0.0133	0.0073
Mercury	-36323-08-23 08:23 J	-11545318.30	-11545318.15	-11545318.01	0.0133	0.0051
Earth	-36323-10-22 22:33 J	-11545257.79	-11545257.56	-11545257.31	0.0133	0.0050
Moon	-36323-10-23 00:42 J	-11545257.69	-11545257.47	-11545257.23	0.0133	0.0053 *

Mercury -36323-11-19 12:57 J -11545230.12 -11545229.96 -11545229.81 0.0133 0.0030

Venus -36323-11-21 02:38 J -11545228.61 -11545228.39 -11545228.17 0.0133 0.0033

Mercury -36322-02-15 17:30 J -11545141.93 -11545141.77 -11545141.61 0.0133 0.0009

Mercury -36322-05-14 22:04 J -11545053.74 -11545053.58 -11545053.42 0.0132 0.0011

Venus -36322-07-05 09:06 J -11545002.33 -11545002.12 -11545001.91 0.0132 0.0042

Mercury -36322-08-11 02:23 J -11544965.55 -11544965.40 -11544965.24 0.0132 0.0032

Mercury -36322-11-07 06:57 J -11544877.35 -11544877.21 -11544877.06 0.0132 0.0052

Mercury -36321-02-03 11:16 J -11544789.15 -11544789.03 -11544788.89 0.0132 0.0073

Venus -36321-02-16 15:06 J -11544776.06 -11544775.87 -11544775.65 0.0132 0.0051

Mercury -36321-05-01 15:35 J -11544700.95 -11544700.85 -11544700.73 0.0132 0.0093

Mercury -36321-07-28 19:54 J -11544612.74 -11544612.67 -11544612.58 0.0132 0.0112

Venus -36321-09-29 21:35 J -11544549.79 -11544549.60 -11544549.40 0.0132 0.0059

Mercury -36321-10-25 00:28 J -11544524.49 -11544524.48 -11544524.47 0.0132 0.0132

Venus -36320-05-14 03:21 J -11544323.54 -11544323.36 -11544323.15 0.0132 0.0067

Venus -36320-12-26 09:21 J -11544097.28 -11544097.11 -11544096.92 0.0132 0.0075

Venus -36319-08-09 15:21 J -11543871.02 -11543870.86 -11543870.68 0.0132 0.0083

Venus -36318-03-23 21:06 J -11543644.77 -11543644.62 -11543644.45 0.0132 0.0091

Venus -36318-11-05 02:52 J -11543418.52 -11543418.38 -11543418.23 0.0132 0.0098

Venus -36317-06-18 08:09 J -11543192.28 -11543192.16 -11543192.02 0.0132 0.0106

Venus -36316-01-30 13:40 J -11542966.03 -11542965.93 -11542965.81 0.0132 0.0113

Venus -36316-09-13 19:11 J -11542739.78 -11542739.70 -11542739.61 0.0132 0.0120

Venus -36315-04-28 00:14 J -11542513.53 -11542513.49 -11542513.42 0.0132 0.0127

Mars -36311-09-19 16:18 J -11540908.09 -11540907.82 -11540907.51 0.0132 0.0065

Venus -36290-02-05 02:23 J -11533464.40 -11533464.40 -11533464.38 0.0141 0.0141

Venus -36290-09-19 09:50 J -11533238.14 -11533238.09 -11533238.00 0.0141 0.0134

Venus -36289-05-02 17:59 J -11533011.85 -11533011.75 -11533011.65 0.0142 0.0125

Venus -36289-12-15 01:40 J -11532785.53 -11532785.43 -11532785.29 0.0142 0.0117

Venus -36288-07-29 09:50 J -11532559.21 -11532559.09 -11532558.94 0.0142 0.0109

Venus -36287-03-12 18:28 J -11532332.88 -11532332.73 -11532332.58 0.0143 0.0099

Venus -36287-10-25 02:38 J -11532106.54 -11532106.39 -11532106.22 0.0143 0.0090

Venus	-36286-06-08 11:16 J	-11531880.20	-11531880.03	-11531879.85	0.0143	0.0080
Venus	-36285-01-20 20:09 J	-11531653.83	-11531653.66	-11531653.46	0.0144	0.0071
Venus	-36285-09-03 05:16 J	-11531427.46	-11531427.28	-11531427.08	0.0144	0.0061
Venus	-36284-04-17 14:38 J	-11531201.09	-11531200.89	-11531200.69	0.0144	0.0050
Venus	-36284-11-29 23:59 J	-11530974.70	-11530974.50	-11530974.29	0.0145	0.0039
Venus	-36283-07-14 09:35 J	-11530748.30	-11530748.10	-11530747.89	0.0145	0.0029
Venus	-36282-02-25 19:40 J	-11530521.89	-11530521.68	-11530521.47	0.0145	0.0017
Venus	-36282-10-10 05:45 J	-11530295.48	-11530295.26	-11530295.05	0.0145	0.0007
Venus	-36281-05-23 15:50 J	-11530069.05	-11530068.84	-11530068.62	0.0146	0.0005
Venus	-36280-01-05 02:23 J	-11529842.61	-11529842.40	-11529842.19	0.0146	0.0016
Mercury	-36280-02-12 19:26 J	-11529803.73	-11529803.69	-11529803.66	0.0146	0.0141
Moon	-36280-04-16 04:33 J	-11529741.56	-11529741.31	-11529741.06	0.0146	0.0041
Earth	-36280-04-16 07:26 J	-11529741.42	-11529741.19	-11529740.94	0.0146	0.0047 *
Mercury	-36280-05-12 00:14 J	-11529715.57	-11529715.49	-11529715.39	0.0146	0.0116
Mercury	-36280-08-08 05:30 J	-11529627.38	-11529627.27	-11529627.14	0.0146	0.0090
Venus	-36280-08-19 12:57 J	-11529616.16	-11529615.96	-11529615.75	0.0146	0.0028
Mercury	-36280-11-04 10:47 J	-11529539.19	-11529539.05	-11529538.91	0.0146	0.0063
Mercury	-36279-01-31 16:04 J	-11529450.98	-11529450.83	-11529450.68	0.0146	0.0037
Venus	-36279-04-02 23:45 J	-11529389.71	-11529389.51	-11529389.30	0.0146	0.0039
Earth	-36279-04-21 09:21 J	-11529371.30	-11529371.11	-11529370.90	0.0146	0.0089
Moon	-36279-04-21 12:14 J	-11529371.18	-11529370.99	-11529370.77	0.0146	0.0082 *
Mercury	-36279-04-29 21:21 J	-11529362.76	-11529362.61	-11529362.45	0.0146	0.0010
Mercury	-36279-07-27 02:52 J	-11529274.54	-11529274.38	-11529274.23	0.0146	0.0018
Mercury	-36279-10-23 08:09 J	-11529186.31	-11529186.16	-11529186.01	0.0146	0.0044
Venus	-36279-11-15 10:47 J	-11529163.24	-11529163.05	-11529162.84	0.0146	0.0051
Mercury	-36278-01-19 13:26 J	-11529098.07	-11529097.94	-11529097.80	0.0146	0.0072
Mercury	-36278-04-17 19:11 J	-11529009.81	-11529009.70	-11529009.59	0.0146	0.0100
Venus	-36278-06-29 22:04 J	-11528936.77	-11528936.58	-11528936.38	0.0146	0.0062
Mercury	-36278-07-15 00:42 J	-11528921.54	-11528921.47	-11528921.39	0.0146	0.0128
Venus	-36277-02-11 09:50 J	-11528710.28	-11528710.09	-11528709.91	0.0147	0.0073

Venus	-36277-09-24 21:21 J	-11528483.79	-11528483.61	-11528483.44	0.0147	0.0084
Venus	-36276-05-09 08:52 J	-11528257.29	-11528257.13	-11528256.96	0.0147	0.0095
Venus	-36276-12-21 20:23 J	-11528030.78	-11528030.65	-11528030.49	0.0147	0.0106
Venus	-36275-08-05 08:38 J	-11527804.26	-11527804.14	-11527804.00	0.0147	0.0116
Venus	-36274-03-19 20:52 J	-11527577.73	-11527577.63	-11527577.52	0.0147	0.0126
Venus	-36274-11-01 09:06 J	-11527351.19	-11527351.12	-11527351.03	0.0147	0.0136
Venus	-36273-06-14 21:06 J	-11527124.63	-11527124.62	-11527124.57	0.0147	0.0146
Mars	-36268-01-10 17:45 J	-11525453.86	-11525453.76	-11525453.62	0.0146	0.0132
Jupiter	-36263-01-19 09:06 J	-11523619.56	-11523619.12	-11523618.64	0.0144	0.0078
Venus	-36250-05-26 11:45 J	-11518744.06	-11518744.01	-11518743.93	0.0137	0.0130
Venus	-36249-01-07 21:21 J	-11518517.69	-11518517.61	-11518517.49	0.0137	0.0122
Venus	-36249-08-21 07:11 J	-11518291.32	-11518291.20	-11518291.07	0.0136	0.0113
Venus	-36248-04-04 16:18 J	-11518064.95	-11518064.82	-11518064.66	0.0136	0.0104
Venus	-36248-11-17 01:40 J	-11517838.58	-11517838.43	-11517838.26	0.0136	0.0095
Venus	-36247-07-01 10:47 J	-11517612.22	-11517612.05	-11517611.87	0.0135	0.0086
Venus	-36246-02-12 19:26 J	-11517385.86	-11517385.69	-11517385.50	0.0135	0.0077
Venus	-36246-09-27 03:50 J	-11517159.52	-11517159.34	-11517159.13	0.0135	0.0068
Venus	-36245-05-10 12:14 J	-11516933.18	-11516932.99	-11516932.78	0.0135	0.0059
Venus	-36245-12-22 20:23 J	-11516706.85	-11516706.65	-11516706.43	0.0134	0.0049
Venus	-36244-08-06 04:33 J	-11516480.52	-11516480.31	-11516480.09	0.0134	0.0040
Venus	-36243-03-20 12:14 J	-11516254.20	-11516253.99	-11516253.77	0.0134	0.0031
Venus	-36243-11-01 19:40 J	-11516027.89	-11516027.68	-11516027.45	0.0134	0.0022
Venus	-36242-06-16 03:21 J	-11515801.58	-11515801.36	-11515801.14	0.0134	0.0012
Venus	-36241-01-28 10:33 J	-11515575.28	-11515575.06	-11515574.83	0.0133	0.0004
Venus	-36241-09-10 17:45 J	-11515348.98	-11515348.76	-11515348.54	0.0133	0.0006
Venus	-36240-04-25 00:42 J	-11515122.69	-11515122.47	-11515122.25	0.0133	0.0015
Mercury	-36240-09-24 21:21 J	-11514969.65	-11514969.61	-11514969.56	0.0133	0.0127
Moon	-36240-10-19 03:21 J	-11514945.60	-11514945.36	-11514945.10	0.0133	0.0038
Earth	-36240-10-19 05:45 J	-11514945.49	-11514945.26	-11514945.00	0.0133	0.0043 *
Venus	-36240-12-07 07:26 J	-11514896.41	-11514896.19	-11514895.97	0.0133	0.0024

Mercury -36240-12-22 01:54 J -11514881.51 -11514881.42 -11514881.31 0.0133 0.0106

Mercury -36239-03-20 06:42 J -11514793.34 -11514793.22 -11514793.09 0.0133 0.0084

Mercury -36239-06-16 11:30 J -11514705.16 -11514705.02 -11514704.87 0.0133 0.0063

Venus -36239-07-21 14:09 J -11514670.12 -11514669.91 -11514669.69 0.0133 0.0033

Mercury -36239-09-12 16:04 J -11514616.97 -11514616.83 -11514616.67 0.0133 0.0042

Earth -36239-10-23 12:28 J -11514576.20 -11514575.98 -11514575.74 0.0133 0.0060

Moon -36239-10-23 14:52 J -11514576.09 -11514575.88 -11514575.64 0.0133 0.0058 *

Mercury -36239-12-09 20:52 J -11514528.79 -11514528.63 -11514528.47 0.0133 0.0021

Venus -36238-03-04 20:38 J -11514443.84 -11514443.64 -11514443.42 0.0132 0.0041

Mercury -36238-03-08 01:26 J -11514440.60 -11514440.44 -11514440.28 0.0132 0.0001

Mercury -36238-06-04 05:59 J -11514352.41 -11514352.25 -11514352.09 0.0132 0.0021

Mercury -36238-08-31 10:33 J -11514264.21 -11514264.06 -11514263.91 0.0132 0.0041

Venus -36238-10-17 02:52 J -11514217.57 -11514217.38 -11514217.16 0.0132 0.0050

Mercury -36238-11-27 14:52 J -11514176.01 -11514175.88 -11514175.74 0.0132 0.0062

Mercury -36237-02-23 19:26 J -11514087.81 -11514087.69 -11514087.57 0.0132 0.0082

Mercury -36237-05-21 23:45 J -11513999.61 -11513999.51 -11513999.41 0.0132 0.0102

Venus -36237-05-30 09:06 J -11513991.31 -11513991.12 -11513990.91 0.0132 0.0059

Mercury -36237-08-18 03:50 J -11513911.39 -11513911.34 -11513911.27 0.0132 0.0122

Venus -36236-01-11 15:35 J -11513765.04 -11513764.85 -11513764.66 0.0132 0.0067

Venus -36236-08-25 21:21 J -11513538.78 -11513538.61 -11513538.41 0.0132 0.0075

Venus -36235-04-09 03:21 J -11513312.52 -11513312.36 -11513312.18 0.0132 0.0083

Venus -36235-11-21 08:52 J -11513086.27 -11513086.13 -11513085.95 0.0132 0.0091

Venus -36234-07-05 14:52 J -11512860.02 -11512859.88 -11512859.73 0.0132 0.0098

Venus -36233-02-16 20:09 J -11512633.77 -11512633.66 -11512633.51 0.0132 0.0106

Venus -36233-09-30 01:54 J -11512407.52 -11512407.42 -11512407.30 0.0132 0.0113

Venus -36232-05-14 07:11 J -11512181.28 -11512181.20 -11512181.10 0.0132 0.0120

Venus -36232-12-26 12:14 J -11511955.03 -11511954.99 -11511954.92 0.0132 0.0127

Mars -36226-05-16 07:11 J -11509988.51 -11509988.20 -11509987.86 0.0132 0.0029

Venus -36206-05-19 19:54 J -11502679.73 -11502679.67 -11502679.61 0.0141 0.0134

Venus -36205-01-01 03:35 J -11502453.43 -11502453.35 -11502453.25 0.0141 0.0127

Venus	-36205-08-14 11:30 J	-11502227.13	-11502227.02	-11502226.90	0.0142	0.0118
Venus	-36204-03-28 18:57 J	-11502000.82	-11502000.71	-11502000.55	0.0142	0.0111
Venus	-36204-11-10 03:21 J	-11501774.50	-11501774.36	-11501774.20	0.0143	0.0101
Venus	-36203-06-24 11:30 J	-11501548.16	-11501548.02	-11501547.84	0.0143	0.0092
Venus	-36202-02-05 20:09 J	-11501321.82	-11501321.66	-11501321.47	0.0143	0.0083
Venus	-36202-09-20 05:16 J	-11501095.46	-11501095.28	-11501095.10	0.0144	0.0072
Venus	-36201-05-03 13:54 J	-11500869.10	-11500868.92	-11500868.72	0.0144	0.0062
Venus	-36201-12-15 23:16 J	-11500642.72	-11500642.53	-11500642.33	0.0144	0.0051
Venus	-36200-07-30 08:38 J	-11500416.34	-11500416.14	-11500415.94	0.0144	0.0041
Venus	-36199-03-13 18:14 J	-11500189.95	-11500189.74	-11500189.54	0.0145	0.0030
Venus	-36199-10-26 03:50 J	-11499963.55	-11499963.34	-11499963.13	0.0145	0.0019
Venus	-36198-06-09 13:54 J	-11499737.13	-11499736.92	-11499736.71	0.0145	0.0008
Venus	-36197-01-22 00:14 J	-11499510.70	-11499510.49	-11499510.28	0.0145	0.0003
Venus	-36197-09-04 10:33 J	-11499284.27	-11499284.06	-11499283.85	0.0146	0.0014
Mercury	-36196-03-05 02:52 J	-11499102.44	-11499102.38	-11499102.32	0.0146	0.0133
Moon	-36196-04-16 15:21 J	-11499060.09	-11499059.86	-11499059.61	0.0146	0.0046
Earth	-36196-04-16 19:11 J	-11499059.94	-11499059.70	-11499059.46	0.0146	0.0039 *
Venus	-36196-04-18 21:06 J	-11499057.83	-11499057.62	-11499057.41	0.0146	0.0026
Mercury	-36196-06-01 07:54 J	-11499014.26	-11499014.17	-11499014.06	0.0146	0.0107
Mercury	-36196-08-28 13:11 J	-11498926.07	-11498925.95	-11498925.82	0.0146	0.0081
Mercury	-36196-11-24 18:14 J	-11498837.87	-11498837.74	-11498837.59	0.0146	0.0055
Venus	-36196-12-01 07:40 J	-11498831.38	-11498831.18	-11498830.97	0.0146	0.0038
Mercury	-36195-02-20 23:45 J	-11498749.66	-11498749.51	-11498749.36	0.0146	0.0028
Earth	-36195-04-21 21:06 J	-11498689.80	-11498689.62	-11498689.42	0.0146	0.0096
Moon	-36195-04-21 23:45 J	-11498689.66	-11498689.51	-11498689.31	0.0146	0.0105 *
Mercury	-36195-05-20 05:02 J	-11498661.44	-11498661.29	-11498661.14	0.0146	0.0001
Venus	-36195-07-15 18:42 J	-11498604.92	-11498604.72	-11498604.51	0.0146	0.0049
Mercury	-36195-08-16 10:18 J	-11498573.22	-11498573.07	-11498572.91	0.0146	0.0026
Mercury	-36195-11-12 15:50 J	-11498484.99	-11498484.84	-11498484.70	0.0146	0.0053
Mercury	-36194-02-08 21:06 J	-11498396.74	-11498396.62	-11498396.48	0.0146	0.0081

Venus -36194-02-27 05:59 J -11498378.44 -11498378.25 -11498378.05 0.0146 0.0060
 Mercury -36194-05-08 02:38 J -11498308.49 -11498308.39 -11498308.28 0.0146 0.0109
 Mercury -36194-08-04 08:09 J -11498220.20 -11498220.16 -11498220.10 0.0146 0.0137
 Venus -36194-10-11 17:16 J -11498151.96 -11498151.78 -11498151.59 0.0146 0.0071
 Venus -36193-05-25 04:33 J -11497925.47 -11497925.31 -11497925.12 0.0147 0.0083
 Venus -36192-01-06 16:18 J -11497698.97 -11497698.82 -11497698.64 0.0147 0.0094
 Venus -36192-08-21 04:18 J -11497472.47 -11497472.32 -11497472.17 0.0147 0.0104
 Venus -36191-04-04 16:04 J -11497245.95 -11497245.83 -11497245.69 0.0147 0.0115
 Venus -36191-11-17 04:04 J -11497019.43 -11497019.33 -11497019.21 0.0147 0.0125
 Venus -36190-07-01 16:04 J -11496792.89 -11496792.83 -11496792.73 0.0147 0.0135
 Venus -36189-02-13 04:47 J -11496566.33 -11496566.30 -11496566.26 0.0147 0.0144
 Mars -36186-10-05 04:04 J -11495236.60 -11495236.33 -11495236.06 0.0147 0.0048
 Venus -36166-01-23 21:35 J -11488185.64 -11488185.60 -11488185.52 0.0137 0.0131
 Venus -36166-09-07 07:40 J -11487959.27 -11487959.18 -11487959.07 0.0137 0.0122
 Venus -36165-04-20 17:16 J -11487732.89 -11487732.78 -11487732.65 0.0137 0.0114
 Venus -36165-12-03 02:23 J -11487506.52 -11487506.40 -11487506.24 0.0136 0.0106
 Venus -36164-07-17 11:59 J -11487280.15 -11487280.00 -11487279.83 0.0136 0.0096
 Venus -36163-02-28 21:06 J -11487053.78 -11487053.62 -11487053.44 0.0136 0.0087
 Venus -36163-10-13 05:59 J -11486827.43 -11486827.25 -11486827.06 0.0135 0.0078
 Venus -36162-05-27 14:38 J -11486601.08 -11486600.89 -11486600.69 0.0135 0.0068
 Venus -36161-01-08 23:02 J -11486374.74 -11486374.54 -11486374.33 0.0135 0.0059
 Venus -36161-08-22 07:26 J -11486148.40 -11486148.19 -11486147.98 0.0135 0.0050
 Venus -36160-04-05 15:21 J -11485922.07 -11485921.86 -11485921.64 0.0134 0.0040
 Venus -36160-11-17 23:16 J -11485695.75 -11485695.53 -11485695.31 0.0134 0.0031
 Venus -36159-07-02 06:57 J -11485469.43 -11485469.21 -11485468.99 0.0134 0.0022
 Venus -36158-02-13 14:38 J -11485243.11 -11485242.89 -11485242.67 0.0134 0.0013
 Venus -36158-09-27 21:50 J -11485016.81 -11485016.59 -11485016.36 0.0133 0.0004
 Venus -36157-05-11 05:02 J -11484790.51 -11484790.29 -11484790.06 0.0133 0.0006
 Moon -36157-10-15 15:35 J -11484632.89 -11484632.85 -11484632.78 0.0133 0.0129
 Venus -36157-12-23 11:59 J -11484564.22 -11484564.00 -11484563.77 0.0133 0.0015

Venus -36156-08-06 18:57 J -11484337.92 -11484337.71 -11484337.48 0.0133 0.0024
 Mercury -36156-10-15 05:16 J -11484268.35 -11484268.28 -11484268.20 0.0133 0.0117
 Moon -36156-10-19 17:16 J -11484264.02 -11484263.78 -11484263.52 0.0133 0.0038
 Earth -36156-10-19 20:23 J -11484263.89 -11484263.65 -11484263.40 0.0133 0.0033 *
 Mercury -36155-01-11 10:04 J -11484180.18 -11484180.08 -11484179.96 0.0133 0.0096
 Venus -36155-03-21 01:40 J -11484111.64 -11484111.43 -11484111.20 0.0133 0.0033
 Mercury -36155-04-09 14:52 J -11484092.01 -11484091.88 -11484091.74 0.0133 0.0074
 Mercury -36155-07-06 19:40 J -11484003.83 -11484003.68 -11484003.53 0.0133 0.0053
 Mercury -36155-10-03 00:14 J -11483915.64 -11483915.49 -11483915.33 0.0133 0.0032
 Earth -36155-10-24 03:06 J -11483894.58 -11483894.37 -11483894.14 0.0133 0.0069
 Moon -36155-10-24 05:59 J -11483894.45 -11483894.25 -11483894.03 0.0133 0.0072 *
 Venus -36155-11-02 08:09 J -11483885.36 -11483885.16 -11483884.93 0.0133 0.0042
 Mercury -36155-12-30 05:02 J -11483827.45 -11483827.29 -11483827.13 0.0132 0.0011
 Mercury -36154-03-28 09:35 J -11483739.26 -11483739.10 -11483738.94 0.0132 0.0010
 Venus -36154-06-16 14:52 J -11483659.08 -11483658.88 -11483658.67 0.0132 0.0050
 Mercury -36154-06-24 14:09 J -11483651.07 -11483650.91 -11483650.76 0.0132 0.0031
 Mercury -36154-09-20 18:28 J -11483562.87 -11483562.73 -11483562.58 0.0132 0.0051
 Mercury -36154-12-17 22:47 J -11483474.67 -11483474.55 -11483474.41 0.0132 0.0072
 Venus -36153-01-28 21:06 J -11483432.81 -11483432.62 -11483432.41 0.0132 0.0059
 Mercury -36153-03-15 03:21 J -11483386.47 -11483386.36 -11483386.24 0.0132 0.0091
 Mercury -36153-06-11 07:40 J -11483298.26 -11483298.18 -11483298.09 0.0132 0.0111
 Mercury -36153-09-07 12:14 J -11483210.01 -11483209.99 -11483209.97 0.0132 0.0131
 Venus -36153-09-11 03:21 J -11483206.54 -11483206.36 -11483206.15 0.0132 0.0067
 Venus -36152-04-25 09:35 J -11482980.27 -11482980.10 -11482979.91 0.0132 0.0075
 Venus -36152-12-07 15:21 J -11482754.02 -11482753.86 -11482753.67 0.0132 0.0083
 Venus -36151-07-21 21:21 J -11482527.76 -11482527.61 -11482527.44 0.0132 0.0091
 Venus -36150-03-05 02:52 J -11482301.51 -11482301.38 -11482301.22 0.0132 0.0099
 Venus -36150-10-17 08:52 J -11482075.26 -11482075.13 -11482075.00 0.0132 0.0106
 Venus -36149-05-30 13:54 J -11481849.01 -11481848.92 -11481848.79 0.0132 0.0114
 Venus -36148-01-11 19:11 J -11481622.76 -11481622.70 -11481622.59 0.0132 0.0121

Venus	-36148-08-26 00:28 J	-11481396.51	-11481396.48	-11481396.40	0.0132	0.0128
Mars	-36143-02-05 09:35 J	-11479772.18	-11479772.10	-11479771.97	0.0132	0.0125
Mars	-36141-01-09 23:02 J	-11479068.66	-11479068.54	-11479068.39	0.0132	0.0121
Venus	-36122-01-17 06:28 J	-11472121.27	-11472121.23	-11472121.16	0.0141	0.0136
Venus	-36122-08-31 13:54 J	-11471894.99	-11471894.92	-11471894.82	0.0141	0.0128
Venus	-36121-04-13 21:50 J	-11471668.70	-11471668.59	-11471668.47	0.0142	0.0120
Venus	-36121-11-26 05:30 J	-11471442.39	-11471442.27	-11471442.13	0.0142	0.0111
Venus	-36120-07-10 13:40 J	-11471216.07	-11471215.93	-11471215.78	0.0142	0.0102
Venus	-36119-02-21 21:50 J	-11470989.74	-11470989.59	-11470989.42	0.0143	0.0093
Venus	-36119-10-06 06:28 J	-11470763.40	-11470763.23	-11470763.06	0.0143	0.0083
Venus	-36118-05-20 14:52 J	-11470537.05	-11470536.88	-11470536.69	0.0143	0.0074
Venus	-36117-01-01 23:45 J	-11470310.69	-11470310.51	-11470310.31	0.0144	0.0064
Venus	-36117-08-15 08:52 J	-11470084.32	-11470084.13	-11470083.93	0.0144	0.0053
Venus	-36116-03-29 18:14 J	-11469857.94	-11469857.74	-11469857.54	0.0144	0.0043
Venus	-36116-11-11 03:35 J	-11469631.56	-11469631.35	-11469631.14	0.0144	0.0032
Venus	-36115-06-25 13:11 J	-11469405.16	-11469404.95	-11469404.74	0.0145	0.0021
Venus	-36114-02-06 23:16 J	-11469178.74	-11469178.53	-11469178.32	0.0145	0.0010
Venus	-36114-09-21 09:21 J	-11468952.32	-11468952.11	-11468951.90	0.0145	0.0002
Venus	-36113-05-04 19:40 J	-11468725.89	-11468725.68	-11468725.47	0.0145	0.0013
Venus	-36113-12-17 05:59 J	-11468499.46	-11468499.25	-11468499.04	0.0146	0.0024
Mercury	-36112-03-25 10:47 J	-11468401.12	-11468401.05	-11468400.97	0.0146	0.0123
Moon	-36112-04-17 04:47 J	-11468378.55	-11468378.30	-11468378.04	0.0146	0.0025
Earth	-36112-04-17 08:09 J	-11468378.40	-11468378.16	-11468377.91	0.0146	0.0031 *
Mercury	-36112-06-21 15:50 J	-11468312.94	-11468312.84	-11468312.72	0.0146	0.0097
Venus	-36112-07-31 16:33 J	-11468273.01	-11468272.81	-11468272.59	0.0146	0.0036
Mercury	-36112-09-17 21:06 J	-11468224.75	-11468224.62	-11468224.48	0.0146	0.0071
Mercury	-36112-12-15 02:23 J	-11468136.55	-11468136.40	-11468136.25	0.0146	0.0045
Mercury	-36111-03-13 07:40 J	-11468048.33	-11468048.18	-11468048.03	0.0146	0.0018
Venus	-36111-03-15 03:35 J	-11468046.55	-11468046.35	-11468046.14	0.0146	0.0047
Earth	-36111-04-22 10:04 J	-11468008.24	-11468008.08	-11468007.90	0.0146	0.0105

Moon -36111-04-22 13:26 J -11468008.11 -11468007.94 -11468007.74 0.0146 0.0098 *
 Mercury -36111-06-09 12:57 J -11467960.11 -11467959.96 -11467959.80 0.0146 0.0009
 Mercury -36111-09-05 18:14 J -11467871.89 -11467871.74 -11467871.59 0.0146 0.0036
 Venus -36111-10-27 14:38 J -11467820.08 -11467819.89 -11467819.69 0.0146 0.0059
 Mercury -36111-12-02 23:45 J -11467783.65 -11467783.51 -11467783.37 0.0146 0.0064
 Mercury -36110-03-01 05:02 J -11467695.40 -11467695.29 -11467695.16 0.0146 0.0092
 Mercury -36110-05-28 10:33 J -11467607.14 -11467607.06 -11467606.96 0.0146 0.0120
 Venus -36110-06-11 01:54 J -11467593.60 -11467593.42 -11467593.23 0.0146 0.0070
 Venus -36109-01-23 13:11 J -11467367.11 -11467366.95 -11467366.76 0.0147 0.0082
 Venus -36109-09-06 00:57 J -11467140.62 -11467140.46 -11467140.29 0.0147 0.0092
 Venus -36108-04-20 12:28 J -11466914.12 -11466913.98 -11466913.82 0.0147 0.0103
 Venus -36108-12-03 00:14 J -11466687.61 -11466687.49 -11466687.34 0.0147 0.0114
 Venus -36107-07-17 12:14 J -11466461.09 -11466460.99 -11466460.87 0.0147 0.0124
 Venus -36106-03-01 00:28 J -11466234.55 -11466234.48 -11466234.38 0.0147 0.0134
 Venus -36106-10-13 12:57 J -11466008.00 -11466007.96 -11466007.92 0.0147 0.0143
 Mars -36101-05-30 11:02 J -11464317.30 -11464317.04 -11464316.77 0.0146 0.0057
 Venus -36083-09-23 07:26 J -11457627.23 -11457627.19 -11457627.12 0.0137 0.0132
 Venus -36082-05-07 17:16 J -11457400.86 -11457400.78 -11457400.67 0.0137 0.0124
 Venus -36082-12-20 03:21 J -11457174.47 -11457174.36 -11457174.23 0.0137 0.0115
 Venus -36081-08-02 12:42 J -11456948.09 -11456947.97 -11456947.81 0.0136 0.0106
 Venus -36080-03-16 22:04 J -11456721.72 -11456721.58 -11456721.41 0.0136 0.0097
 Venus -36080-10-29 07:11 J -11456495.36 -11456495.20 -11456495.02 0.0136 0.0088
 Venus -36079-06-12 16:18 J -11456268.99 -11456268.82 -11456268.63 0.0136 0.0079
 Venus -36078-01-25 00:57 J -11456042.64 -11456042.46 -11456042.26 0.0135 0.0070
 Venus -36078-09-08 09:35 J -11455816.29 -11455816.10 -11455815.89 0.0135 0.0060
 Venus -36077-04-21 17:45 J -11455589.96 -11455589.76 -11455589.54 0.0135 0.0051
 Venus -36077-12-04 01:54 J -11455363.62 -11455363.42 -11455363.20 0.0134 0.0042
 Venus -36076-07-18 10:04 J -11455137.29 -11455137.08 -11455136.86 0.0134 0.0032
 Venus -36075-03-01 17:59 J -11454910.97 -11454910.75 -11454910.53 0.0134 0.0023
 Venus -36075-10-14 01:26 J -11454684.66 -11454684.44 -11454684.21 0.0134 0.0014

Venus -36074-05-28 09:06 J -11454458.35 -11454458.12 -11454457.90 0.0134 0.0004

Venus -36073-01-09 16:18 J -11454232.04 -11454231.82 -11454231.59 0.0133 0.0005

Venus -36073-08-22 23:30 J -11454005.74 -11454005.52 -11454005.29 0.0133 0.0015

Earth -36073-10-16 03:06 J -11453951.44 -11453951.37 -11453951.27 0.0133 0.0126

Moon -36073-10-16 06:42 J -11453951.23 -11453951.22 -11453951.19 0.0133 0.0133

Venus -36072-04-06 06:42 J -11453779.44 -11453779.22 -11453779.00 0.0133 0.0023

Mercury -36072-08-08 08:23 J -11453655.17 -11453655.15 -11453655.10 0.0133 0.0129

Moon -36072-10-20 07:54 J -11453582.43 -11453582.17 -11453581.91 0.0133 0.0018

Earth -36072-10-20 11:02 J -11453582.29 -11453582.04 -11453581.79 0.0133 0.0023 *

Mercury -36072-11-04 13:26 J -11453567.03 -11453566.94 -11453566.84 0.0133 0.0107

Venus -36072-11-18 13:26 J -11453553.16 -11453552.94 -11453552.72 0.0133 0.0032

Mercury -36071-01-31 18:14 J -11453478.86 -11453478.74 -11453478.61 0.0133 0.0086

Mercury -36071-04-29 23:02 J -11453390.68 -11453390.54 -11453390.40 0.0133 0.0064

Venus -36071-07-02 20:09 J -11453326.87 -11453326.66 -11453326.44 0.0133 0.0041

Mercury -36071-07-27 03:50 J -11453302.50 -11453302.34 -11453302.19 0.0133 0.0043

Mercury -36071-10-23 08:23 J -11453214.31 -11453214.15 -11453213.99 0.0133 0.0022

Earth -36071-10-24 17:30 J -11453212.96 -11453212.77 -11453212.55 0.0133 0.0079

Moon -36071-10-24 20:23 J -11453212.84 -11453212.65 -11453212.43 0.0133 0.0077 *

Mercury -36070-01-19 12:57 J -11453126.12 -11453125.96 -11453125.80 0.0132 0.0002

Venus -36070-02-14 02:52 J -11453100.59 -11453100.38 -11453100.17 0.0132 0.0050

Mercury -36070-04-17 17:30 J -11453037.92 -11453037.77 -11453037.61 0.0132 0.0020

Mercury -36070-07-14 22:04 J -11452949.73 -11452949.58 -11452949.43 0.0132 0.0040

Venus -36070-09-28 09:06 J -11452874.31 -11452874.12 -11452873.91 0.0132 0.0059

Mercury -36070-10-11 02:38 J -11452861.53 -11452861.39 -11452861.25 0.0132 0.0061

Mercury -36069-01-07 06:57 J -11452773.33 -11452773.21 -11452773.08 0.0132 0.0081

Mercury -36069-04-04 11:30 J -11452685.12 -11452685.02 -11452684.92 0.0132 0.0101

Venus -36069-05-11 15:21 J -11452648.04 -11452647.86 -11452647.66 0.0132 0.0067

Mercury -36069-07-01 15:50 J -11452596.90 -11452596.84 -11452596.78 0.0132 0.0120

Venus -36069-12-23 21:35 J -11452421.78 -11452421.60 -11452421.41 0.0132 0.0075

Venus -36068-08-07 03:35 J -11452195.51 -11452195.35 -11452195.17 0.0132 0.0083

Venus	-36067-03-21 09:35 J	-11451969.25	-11451969.10	-11451968.93	0.0132	0.0091
Venus	-36067-11-02 15:06 J	-11451743.00	-11451742.87	-11451742.71	0.0132	0.0099
Venus	-36066-06-16 20:38 J	-11451516.75	-11451516.64	-11451516.49	0.0132	0.0107
Venus	-36065-01-29 02:09 J	-11451290.50	-11451290.41	-11451290.28	0.0132	0.0114
Venus	-36065-09-11 07:40 J	-11451064.25	-11451064.18	-11451064.08	0.0132	0.0121
Venus	-36064-04-25 12:57 J	-11450837.99	-11450837.96	-11450837.89	0.0132	0.0128
Mars	-36059-10-02 02:09 J	-11448852.72	-11448852.41	-11448852.07	0.0132	0.0032
Venus	-36039-09-16 16:33 J	-11441562.85	-11441562.81	-11441562.76	0.0141	0.0137
Venus	-36038-04-30 23:45 J	-11441336.58	-11441336.51	-11441336.42	0.0141	0.0129
Venus	-36038-12-13 07:40 J	-11441110.29	-11441110.18	-11441110.07	0.0141	0.0121
Venus	-36037-07-26 14:52 J	-11440883.99	-11440883.88	-11440883.73	0.0142	0.0113
Venus	-36036-03-09 23:16 J	-11440657.68	-11440657.53	-11440657.39	0.0142	0.0104
Venus	-36036-10-22 06:57 J	-11440431.36	-11440431.21	-11440431.04	0.0142	0.0095
Venus	-36035-06-05 15:21 J	-11440205.02	-11440204.86	-11440204.69	0.0143	0.0085
Venus	-36034-01-17 23:59 J	-11439978.68	-11439978.50	-11439978.32	0.0143	0.0075
Venus	-36034-09-01 08:38 J	-11439752.32	-11439752.14	-11439751.95	0.0143	0.0065
Venus	-36033-04-14 17:30 J	-11439525.96	-11439525.77	-11439525.57	0.0144	0.0055
Venus	-36033-11-27 02:38 J	-11439299.59	-11439299.39	-11439299.19	0.0144	0.0044
Venus	-36032-07-11 11:59 J	-11439073.21	-11439073.00	-11439072.79	0.0144	0.0034
Venus	-36031-02-22 21:35 J	-11438846.81	-11438846.60	-11438846.39	0.0145	0.0023
Venus	-36031-10-07 07:26 J	-11438620.41	-11438620.19	-11438619.98	0.0145	0.0012
Venus	-36030-05-21 17:16 J	-11438393.99	-11438393.78	-11438393.57	0.0145	0.0001
Venus	-36029-01-03 03:35 J	-11438167.56	-11438167.35	-11438167.14	0.0145	0.0011
Venus	-36029-08-16 13:54 J	-11437941.13	-11437940.92	-11437940.71	0.0146	0.0022
Mercury	-36028-01-16 13:11 J	-11437787.98	-11437787.95	-11437787.91	0.0146	0.0141
Venus	-36028-03-31 00:28 J	-11437714.69	-11437714.48	-11437714.27	0.0146	0.0034
Mercury	-36028-04-14 17:59 J	-11437699.83	-11437699.75	-11437699.64	0.0146	0.0116
Moon	-36028-04-17 15:21 J	-11437697.11	-11437696.86	-11437696.61	0.0146	0.0030
Earth	-36028-04-17 19:11 J	-11437696.95	-11437696.70	-11437696.45	0.0146	0.0024 *
Mercury	-36028-07-11 23:16 J	-11437611.64	-11437611.53	-11437611.40	0.0146	0.0090

Mercury -36028-10-08 04:33 J -11437523.44 -11437523.31 -11437523.17 0.0146 0.0063

Venus -36028-11-12 11:16 J -11437488.24 -11437488.03 -11437487.83 0.0146 0.0045

Mercury -36027-01-04 09:50 J -11437435.24 -11437435.09 -11437434.94 0.0146 0.0037

Mercury -36027-04-02 15:06 J -11437347.02 -11437346.87 -11437346.72 0.0146 0.0010

Earth -36027-04-22 20:38 J -11437326.78 -11437326.64 -11437326.46 0.0146 0.0112

Moon -36027-04-23 00:28 J -11437326.62 -11437326.48 -11437326.33 0.0146 0.0119 *

Venus -36027-06-26 21:50 J -11437261.77 -11437261.59 -11437261.38 0.0146 0.0057

Mercury -36027-06-29 20:23 J -11437258.80 -11437258.65 -11437258.50 0.0146 0.0017

Mercury -36027-09-26 01:40 J -11437170.57 -11437170.43 -11437170.28 0.0146 0.0044

Mercury -36027-12-23 07:11 J -11437082.34 -11437082.20 -11437082.06 0.0146 0.0072

Venus -36026-02-08 09:06 J -11437035.30 -11437035.12 -11437034.92 0.0146 0.0069

Mercury -36026-03-21 12:28 J -11436994.09 -11436993.98 -11436993.86 0.0146 0.0100

Mercury -36026-06-17 17:59 J -11436905.82 -11436905.75 -11436905.67 0.0146 0.0128

Venus -36026-09-22 20:23 J -11436808.82 -11436808.65 -11436808.46 0.0146 0.0080

Venus -36025-05-06 07:40 J -11436582.33 -11436582.18 -11436582.00 0.0147 0.0091

Venus -36025-12-18 19:11 J -11436355.84 -11436355.70 -11436355.53 0.0147 0.0102

Venus -36024-08-02 07:11 J -11436129.33 -11436129.20 -11436129.06 0.0147 0.0112

Venus -36023-03-16 18:57 J -11435902.81 -11435902.71 -11435902.58 0.0147 0.0123

Venus -36023-10-29 06:57 J -11435676.29 -11435676.21 -11435676.11 0.0147 0.0133

Venus -36022-06-12 19:11 J -11435449.74 -11435449.70 -11435449.64 0.0147 0.0142

Mars -36018-02-21 18:42 J -11434099.85 -11434099.72 -11434099.57 0.0147 0.0126

36TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 36th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-35999-05-23 17:02 J	-11427068.83	-11427068.79	-11427068.72	0.0138	0.0134		
Venus	-35998-01-05 03:21 J	-11426842.44	-11426842.36	-11426842.26	0.0137	0.0125		
Venus	-35998-08-19 12:57 J	-11426616.06	-11426615.96	-11426615.83	0.0137	0.0116		
Venus	-35997-04-01 22:47 J	-11426389.68	-11426389.55	-11426389.40	0.0137	0.0107		
Venus	-35997-11-14 07:54 J	-11426163.30	-11426163.17	-11426162.99	0.0136	0.0099		
Venus	-35996-06-28 17:16 J	-11425936.93	-11425936.78	-11425936.59	0.0136	0.0090		
Venus	-35995-02-10 02:23 J	-11425710.56	-11425710.40	-11425710.20	0.0136	0.0080		
Venus	-35995-09-24 11:16 J	-11425484.21	-11425484.03	-11425483.83	0.0136	0.0071		
Venus	-35994-05-08 20:09 J	-11425257.86	-11425257.66	-11425257.46	0.0135	0.0061		
Venus	-35994-12-21 04:33 J	-11425031.51	-11425031.31	-11425031.10	0.0135	0.0051		
Venus	-35993-08-03 12:57 J	-11424805.17	-11424804.96	-11424804.74	0.0135	0.0042		
Venus	-35992-03-17 20:52 J	-11424578.84	-11424578.63	-11424578.40	0.0134	0.0033		
Venus	-35992-10-30 04:47 J	-11424352.51	-11424352.30	-11424352.07	0.0134	0.0024		
Venus	-35991-06-13 12:42 J	-11424126.19	-11424125.97	-11424125.74	0.0134	0.0014		
Venus	-35990-01-25 20:23 J	-11423899.87	-11423899.65	-11423899.43	0.0134	0.0004		
Venus	-35990-09-09 03:50 J	-11423673.56	-11423673.34	-11423673.11	0.0133	0.0005		
Venus	-35989-04-22 11:02 J	-11423447.26	-11423447.04	-11423446.81	0.0133	0.0014		
Earth	-35989-10-16 17:45 J	-11423269.86	-11423269.76	-11423269.61	0.0133	0.0116		
Moon	-35989-10-16 21:06 J	-11423269.75	-11423269.62	-11423269.46	0.0133	0.0109	*	
Venus	-35989-12-04 18:14 J	-11423220.96	-11423220.74	-11423220.52	0.0133	0.0023		
Venus	-35988-07-19 01:26 J	-11422994.66	-11422994.44	-11422994.23	0.0133	0.0032		
Mercury	-35988-08-28 16:33 J	-11422953.87	-11422953.81	-11422953.72	0.0133	0.0119		
Moon	-35988-10-20 22:04 J	-11422900.83	-11422900.58	-11422900.32	0.0133	0.0019		
Earth	-35988-10-21 01:40 J	-11422900.68	-11422900.43	-11422900.17	0.0133	0.0013	*	
Mercury	-35988-11-24 21:35 J	-11422865.70	-11422865.60	-11422865.48	0.0133	0.0097		
Mercury	-35987-02-21 02:09 J	-11422777.53	-11422777.41	-11422777.26	0.0133	0.0076		
Venus	-35987-03-02 08:09 J	-11422768.37	-11422768.16	-11422767.95	0.0133	0.0041		

Mercury -35987-05-20 07:11 J -11422689.35 -11422689.20 -11422689.05 0.0133 0.0054
 Mercury -35987-08-16 11:59 J -11422601.16 -11422601.00 -11422600.85 0.0133 0.0033
 Venus -35987-10-14 14:52 J -11422542.09 -11422541.88 -11422541.67 0.0133 0.0050
 Earth -35987-10-25 08:09 J -11422531.33 -11422531.16 -11422530.95 0.0133 0.0089
 Moon -35987-10-25 11:30 J -11422531.18 -11422531.02 -11422530.82 0.0133 0.0092 *
 Mercury -35987-11-12 16:33 J -11422512.97 -11422512.81 -11422512.65 0.0133 0.0012
 Mercury -35986-02-08 21:06 J -11422424.78 -11422424.62 -11422424.46 0.0132 0.0009
 Mercury -35986-05-08 01:40 J -11422336.58 -11422336.43 -11422336.27 0.0132 0.0030
 Venus -35986-05-28 21:06 J -11422315.81 -11422315.62 -11422315.41 0.0132 0.0059
 Mercury -35986-08-04 05:59 J -11422248.39 -11422248.25 -11422248.09 0.0132 0.0051
 Mercury -35986-10-31 10:33 J -11422160.19 -11422160.06 -11422159.92 0.0132 0.0071
 Venus -35985-01-10 03:21 J -11422089.53 -11422089.36 -11422089.15 0.0132 0.0068
 Mercury -35985-01-27 15:06 J -11422071.98 -11422071.87 -11422071.75 0.0132 0.0090
 Mercury -35985-04-24 19:26 J -11421983.77 -11421983.69 -11421983.60 0.0132 0.0110
 Mercury -35985-07-21 23:45 J -11421895.53 -11421895.51 -11421895.48 0.0132 0.0130
 Venus -35985-08-23 10:04 J -11421863.26 -11421863.08 -11421862.90 0.0132 0.0075
 Venus -35984-04-06 16:18 J -11421637.00 -11421636.82 -11421636.65 0.0132 0.0084
 Venus -35984-11-18 21:35 J -11421410.74 -11421410.60 -11421410.42 0.0132 0.0092
 Venus -35983-07-03 03:50 J -11421184.48 -11421184.34 -11421184.19 0.0132 0.0099
 Venus -35982-02-14 09:21 J -11420958.23 -11420958.11 -11420957.97 0.0132 0.0107
 Venus -35982-09-28 14:38 J -11420731.97 -11420731.89 -11420731.76 0.0132 0.0115
 Venus -35981-05-11 20:09 J -11420505.72 -11420505.66 -11420505.56 0.0132 0.0122
 Venus -35981-12-24 01:54 J -11420279.47 -11420279.42 -11420279.37 0.0132 0.0128
 Mars -35974-05-28 19:26 J -11417932.97 -11417932.69 -11417932.38 0.0132 0.0061
 Venus -35955-05-17 03:35 J -11411004.37 -11411004.35 -11411004.30 0.0140 0.0139
 Venus -35955-12-29 10:47 J -11410778.10 -11410778.05 -11410777.95 0.0141 0.0131
 Venus -35954-08-12 18:28 J -11410551.82 -11410551.73 -11410551.62 0.0141 0.0123
 Venus -35953-03-26 02:09 J -11410325.53 -11410325.41 -11410325.28 0.0142 0.0114
 Venus -35953-11-07 09:50 J -11410099.23 -11410099.09 -11410098.95 0.0142 0.0105
 Venus -35952-06-21 17:30 J -11409872.91 -11409872.77 -11409872.60 0.0142 0.0096

Venus	-35951-02-03 01:54 J	-11409646.58	-11409646.42	-11409646.25	0.0143	0.0087
Venus	-35951-09-17 10:18 J	-11409420.24	-11409420.07	-11409419.89	0.0143	0.0077
Venus	-35950-05-01 18:42 J	-11409193.90	-11409193.72	-11409193.52	0.0143	0.0067
Venus	-35950-12-14 03:35 J	-11408967.54	-11408967.35	-11408967.15	0.0144	0.0057
Venus	-35949-07-27 12:42 J	-11408741.17	-11408740.97	-11408740.77	0.0144	0.0046
Venus	-35948-03-10 21:50 J	-11408514.79	-11408514.59	-11408514.38	0.0144	0.0035
Venus	-35948-10-23 07:11 J	-11408288.40	-11408288.20	-11408287.98	0.0144	0.0025
Venus	-35947-06-06 17:02 J	-11408062.00	-11408061.79	-11408061.58	0.0145	0.0013
Venus	-35946-01-19 03:06 J	-11407835.58	-11407835.37	-11407835.16	0.0145	0.0002
Venus	-35946-09-02 12:57 J	-11407609.17	-11407608.96	-11407608.74	0.0145	0.0010
Venus	-35945-04-15 23:16 J	-11407382.74	-11407382.53	-11407382.32	0.0145	0.0021
Venus	-35945-11-28 09:35 J	-11407156.30	-11407156.10	-11407155.89	0.0146	0.0032
Mercury	-35944-02-05 21:06 J	-11407086.68	-11407086.62	-11407086.55	0.0146	0.0131
Moon	-35944-04-18 05:16 J	-11407015.54	-11407015.28	-11407015.03	0.0146	0.0010
Earth	-35944-04-18 08:38 J	-11407015.39	-11407015.14	-11407014.89	0.0146	0.0015 *
Mercury	-35944-05-05 02:09 J	-11406998.51	-11406998.41	-11406998.30	0.0146	0.0105
Venus	-35944-07-12 20:09 J	-11406929.86	-11406929.66	-11406929.45	0.0146	0.0044
Mercury	-35944-08-01 07:26 J	-11406910.32	-11406910.19	-11406910.06	0.0146	0.0079
Mercury	-35944-10-28 12:28 J	-11406822.12	-11406821.98	-11406821.83	0.0146	0.0053
Mercury	-35943-01-24 17:45 J	-11406733.91	-11406733.76	-11406733.61	0.0146	0.0027
Venus	-35943-02-24 07:11 J	-11406703.39	-11406703.20	-11406703.00	0.0146	0.0055
Mercury	-35943-04-22 23:02 J	-11406645.69	-11406645.54	-11406645.38	0.0146	0.0002
Earth	-35943-04-23 10:04 J	-11406645.21	-11406645.08	-11406644.93	0.0146	0.0120
Moon	-35943-04-23 13:54 J	-11406645.07	-11406644.92	-11406644.76	0.0146	0.0112 *
Mercury	-35943-07-20 04:18 J	-11406557.47	-11406557.32	-11406557.16	0.0146	0.0028
Venus	-35943-10-08 17:59 J	-11406476.93	-11406476.75	-11406476.55	0.0146	0.0067
Mercury	-35943-10-16 09:50 J	-11406469.24	-11406469.09	-11406468.95	0.0146	0.0055
Mercury	-35942-01-12 15:06 J	-11406380.99	-11406380.87	-11406380.74	0.0146	0.0082
Mercury	-35942-04-10 20:23 J	-11406292.74	-11406292.65	-11406292.54	0.0146	0.0111
Venus	-35942-05-23 05:02 J	-11406250.46	-11406250.29	-11406250.10	0.0146	0.0079

Mercury	-35942-07-08 01:54 J	-11406204.46	-11406204.42	-11406204.36	0.0146	0.0138
Venus	-35941-01-04 16:18 J	-11406023.97	-11406023.82	-11406023.64	0.0147	0.0090
Venus	-35941-08-18 03:50 J	-11405797.48	-11405797.34	-11405797.17	0.0147	0.0101
Venus	-35940-04-01 15:35 J	-11405570.98	-11405570.85	-11405570.70	0.0147	0.0111
Venus	-35940-11-14 03:06 J	-11405344.47	-11405344.37	-11405344.23	0.0147	0.0122
Venus	-35939-06-28 15:06 J	-11405117.95	-11405117.87	-11405117.76	0.0147	0.0132
Venus	-35938-02-10 03:06 J	-11404891.40	-11404891.37	-11404891.30	0.0147	0.0142
Mars	-35934-10-18 01:40 J	-11403180.70	-11403180.43	-11403180.14	0.0147	0.0023
Venus	-35915-01-21 02:52 J	-11396510.41	-11396510.38	-11396510.33	0.0138	0.0135
Venus	-35915-09-04 12:42 J	-11396284.04	-11396283.97	-11396283.87	0.0138	0.0127
Venus	-35914-04-18 23:02 J	-11396057.65	-11396057.54	-11396057.42	0.0137	0.0118
Venus	-35914-12-01 08:23 J	-11395831.27	-11395831.15	-11395831.00	0.0137	0.0109
Venus	-35913-07-14 17:59 J	-11395604.88	-11395604.75	-11395604.58	0.0137	0.0100
Venus	-35912-02-26 03:21 J	-11395378.51	-11395378.36	-11395378.17	0.0136	0.0091
Venus	-35912-10-10 12:28 J	-11395152.14	-11395151.98	-11395151.78	0.0136	0.0081
Venus	-35911-05-24 21:35 J	-11394925.78	-11394925.60	-11394925.40	0.0136	0.0072
Venus	-35910-01-06 06:42 J	-11394699.42	-11394699.22	-11394699.02	0.0135	0.0062
Venus	-35910-08-20 15:06 J	-11394473.07	-11394472.87	-11394472.66	0.0135	0.0052
Venus	-35909-04-02 23:30 J	-11394246.73	-11394246.52	-11394246.30	0.0135	0.0043
Venus	-35909-11-15 07:40 J	-11394020.39	-11394020.18	-11394019.96	0.0135	0.0034
Venus	-35908-06-29 15:50 J	-11393794.05	-11393793.84	-11393793.61	0.0134	0.0024
Venus	-35907-02-10 23:59 J	-11393567.73	-11393567.50	-11393567.28	0.0134	0.0015
Venus	-35907-09-25 07:40 J	-11393341.41	-11393341.18	-11393340.96	0.0134	0.0005
Venus	-35906-05-09 15:06 J	-11393115.09	-11393114.87	-11393114.65	0.0134	0.0004
Venus	-35906-12-21 22:33 J	-11392888.78	-11392888.56	-11392888.34	0.0133	0.0014
Venus	-35905-08-04 05:45 J	-11392662.47	-11392662.26	-11392662.03	0.0133	0.0023
Earth	-35905-10-17 08:52 J	-11392588.28	-11392588.13	-11392587.98	0.0133	0.0106
Moon	-35905-10-17 11:59 J	-11392588.11	-11392588.00	-11392587.84	0.0133	0.0114 *
Venus	-35904-03-18 12:57 J	-11392436.17	-11392435.96	-11392435.74	0.0133	0.0032
Mercury	-35904-06-21 20:09 J	-11392340.69	-11392340.66	-11392340.63	0.0133	0.0130

Mercury -35904-09-18 01:11 J -11392252.55 -11392252.45 -11392252.36 0.0133 0.0108

Moon -35904-10-21 13:11 J -11392219.21 -11392218.95 -11392218.69 0.0133 0.0002

Earth -35904-10-21 16:33 J -11392219.06 -11392218.81 -11392218.55 0.0133 0.0004 *

Venus -35904-10-30 19:40 J -11392209.88 -11392209.68 -11392209.46 0.0133 0.0041

Mercury -35904-12-15 05:45 J -11392164.38 -11392164.26 -11392164.13 0.0133 0.0087

Mercury -35903-03-13 10:33 J -11392076.20 -11392076.06 -11392075.92 0.0133 0.0065

Mercury -35903-06-09 15:21 J -11391988.01 -11391987.86 -11391987.71 0.0133 0.0044

Venus -35903-06-14 02:23 J -11391983.60 -11391983.40 -11391983.18 0.0133 0.0050

Mercury -35903-09-05 20:09 J -11391899.82 -11391899.66 -11391899.51 0.0133 0.0023

Earth -35903-10-25 23:16 J -11391849.69 -11391849.53 -11391849.35 0.0133 0.0098

Moon -35903-10-26 02:38 J -11391849.55 -11391849.39 -11391849.20 0.0133 0.0096 *

Mercury -35903-12-03 00:42 J -11391811.63 -11391811.47 -11391811.31 0.0133 0.0002

Venus -35902-01-26 09:06 J -11391757.31 -11391757.12 -11391756.91 0.0133 0.0059

Mercury -35902-03-01 05:16 J -11391723.44 -11391723.28 -11391723.12 0.0133 0.0019

Mercury -35902-05-28 09:50 J -11391635.24 -11391635.09 -11391634.94 0.0132 0.0040

Mercury -35902-08-24 14:09 J -11391547.04 -11391546.91 -11391546.76 0.0132 0.0060

Venus -35902-09-09 15:35 J -11391531.03 -11391530.85 -11391530.65 0.0132 0.0067

Mercury -35902-11-20 18:42 J -11391458.84 -11391458.72 -11391458.59 0.0132 0.0080

Mercury -35901-02-16 23:02 J -11391370.63 -11391370.54 -11391370.43 0.0132 0.0100

Venus -35901-04-22 22:04 J -11391304.76 -11391304.58 -11391304.40 0.0132 0.0076

Mercury -35901-05-15 03:21 J -11391282.41 -11391282.36 -11391282.28 0.0132 0.0120

Venus -35901-12-05 03:50 J -11391078.49 -11391078.34 -11391078.15 0.0132 0.0084

Venus -35900-07-19 09:50 J -11390852.23 -11390852.09 -11390851.91 0.0132 0.0093

Venus -35899-03-02 15:50 J -11390625.97 -11390625.84 -11390625.68 0.0132 0.0100

Venus -35899-10-14 21:50 J -11390399.71 -11390399.59 -11390399.46 0.0132 0.0107

Venus -35898-05-29 03:06 J -11390173.46 -11390173.37 -11390173.25 0.0132 0.0115

Venus -35897-01-10 08:38 J -11389947.21 -11389947.14 -11389947.04 0.0132 0.0122

Venus -35897-08-23 14:09 J -11389720.94 -11389720.91 -11389720.85 0.0132 0.0129

Mars -35891-02-17 23:30 J -11387716.73 -11387716.52 -11387716.24 0.0132 0.0091

Venus -35871-01-14 15:06 J -11380445.88 -11380445.87 -11380445.84 0.0140 0.0139

Venus	-35871-08-28 22:04 J	-11380219.64	-11380219.58	-11380219.50	0.0141	0.0132
Venus	-35870-04-12 05:16 J	-11379993.37	-11379993.28	-11379993.17	0.0141	0.0124
Venus	-35870-11-24 12:42 J	-11379767.08	-11379766.97	-11379766.84	0.0141	0.0115
Venus	-35869-07-07 20:23 J	-11379540.78	-11379540.65	-11379540.50	0.0142	0.0107
Venus	-35868-02-19 04:18 J	-11379314.47	-11379314.32	-11379314.16	0.0142	0.0097
Venus	-35868-10-03 11:59 J	-11379088.15	-11379088.00	-11379087.82	0.0142	0.0089
Venus	-35867-05-17 20:09 J	-11378861.82	-11378861.66	-11378861.47	0.0143	0.0079
Venus	-35867-12-30 05:02 J	-11378635.47	-11378635.29	-11378635.10	0.0143	0.0068
Venus	-35866-08-13 13:26 J	-11378409.12	-11378408.94	-11378408.73	0.0143	0.0059
Venus	-35865-03-26 22:18 J	-11378182.76	-11378182.57	-11378182.36	0.0144	0.0048
Venus	-35865-11-08 07:26 J	-11377956.39	-11377956.19	-11377955.98	0.0144	0.0037
Venus	-35864-06-22 16:47 J	-11377730.01	-11377729.80	-11377729.59	0.0144	0.0026
Venus	-35863-02-04 02:23 J	-11377503.61	-11377503.40	-11377503.18	0.0144	0.0015
Venus	-35863-09-18 12:14 J	-11377277.20	-11377276.99	-11377276.78	0.0145	0.0004
Venus	-35862-05-02 22:04 J	-11377050.79	-11377050.58	-11377050.37	0.0145	0.0008
Venus	-35862-12-15 08:09 J	-11376824.37	-11376824.16	-11376823.95	0.0145	0.0019
Earth	-35861-04-13 19:11 J	-11376703.74	-11376703.70	-11376703.61	0.0145	0.0141
Moon	-35861-04-13 22:33 J	-11376703.62	-11376703.56	-11376703.47	0.0145	0.0139 *
Venus	-35861-07-28 18:28 J	-11376597.94	-11376597.73	-11376597.53	0.0145	0.0031
Mercury	-35860-02-26 04:47 J	-11376385.37	-11376385.30	-11376385.21	0.0146	0.0122
Venus	-35860-03-12 04:47 J	-11376371.50	-11376371.30	-11376371.09	0.0146	0.0042
Moon	-35860-04-18 17:02 J	-11376334.04	-11376333.79	-11376333.54	0.0146	0.0012
Earth	-35860-04-18 20:38 J	-11376333.89	-11376333.64	-11376333.38	0.0146	0.0007 *
Mercury	-35860-05-25 10:04 J	-11376297.19	-11376297.08	-11376296.97	0.0146	0.0096
Mercury	-35860-08-21 15:06 J	-11376209.00	-11376208.87	-11376208.74	0.0146	0.0070
Venus	-35860-10-24 15:21 J	-11376145.05	-11376144.86	-11376144.66	0.0146	0.0054
Mercury	-35860-11-17 20:09 J	-11376120.80	-11376120.66	-11376120.51	0.0146	0.0044
Mercury	-35859-02-14 01:26 J	-11376032.59	-11376032.44	-11376032.28	0.0146	0.0018
Earth	-35859-04-23 21:50 J	-11375963.69	-11375963.59	-11375963.45	0.0146	0.0128
Moon	-35859-04-24 01:26 J	-11375963.52	-11375963.44	-11375963.33	0.0146	0.0135 *

Mercury -35859-05-13 06:42 J -11375944.37 -11375944.22 -11375944.06 0.0146 0.0010

Venus -35859-06-08 02:09 J -11375918.59 -11375918.41 -11375918.21 0.0146 0.0065

Mercury -35859-08-09 11:59 J -11375856.14 -11375856.00 -11375855.84 0.0146 0.0037

Mercury -35859-11-05 17:16 J -11375767.91 -11375767.78 -11375767.63 0.0146 0.0064

Venus -35858-01-20 13:26 J -11375692.12 -11375691.94 -11375691.76 0.0146 0.0077

Mercury -35858-02-01 22:47 J -11375679.67 -11375679.55 -11375679.42 0.0146 0.0091

Mercury -35858-05-01 04:04 J -11375591.41 -11375591.33 -11375591.23 0.0146 0.0120

Venus -35858-09-04 00:28 J -11375465.65 -11375465.48 -11375465.31 0.0146 0.0088

Venus -35857-04-17 11:45 J -11375239.16 -11375239.01 -11375238.85 0.0147 0.0099

Venus -35857-11-29 23:02 J -11375012.67 -11375012.54 -11375012.39 0.0147 0.0110

Venus -35856-07-14 10:47 J -11374786.16 -11374786.05 -11374785.92 0.0147 0.0120

Venus -35855-02-25 23:02 J -11374559.64 -11374559.54 -11374559.45 0.0147 0.0130

Venus -35855-10-10 10:47 J -11374333.11 -11374333.05 -11374332.99 0.0147 0.0140

Mars -35849-06-12 07:11 J -11372261.43 -11372261.20 -11372260.95 0.0146 0.0080

Venus -35832-09-20 11:30 J -11365952.02 -11365952.02 -11365951.97 0.0138 0.0138

Venus -35831-05-04 22:04 J -11365725.65 -11365725.58 -11365725.49 0.0138 0.0128

Venus -35831-12-17 07:54 J -11365499.26 -11365499.17 -11365499.04 0.0138 0.0120

Venus -35830-07-31 17:59 J -11365272.86 -11365272.75 -11365272.60 0.0137 0.0111

Venus -35829-03-14 03:50 J -11365046.48 -11365046.34 -11365046.18 0.0137 0.0101

Venus -35829-10-26 13:11 J -11364820.10 -11364819.95 -11364819.77 0.0137 0.0092

Venus -35828-06-09 22:33 J -11364593.72 -11364593.56 -11364593.37 0.0136 0.0082

Venus -35827-01-22 07:40 J -11364367.36 -11364367.18 -11364366.98 0.0136 0.0073

Venus -35827-09-05 16:47 J -11364140.99 -11364140.80 -11364140.60 0.0136 0.0063

Venus -35826-04-20 01:26 J -11363914.64 -11363914.44 -11363914.23 0.0135 0.0053

Venus -35826-12-02 09:50 J -11363688.29 -11363688.09 -11363687.87 0.0135 0.0044

Venus -35825-07-15 18:42 J -11363461.94 -11363461.72 -11363461.51 0.0135 0.0034

Venus -35824-02-27 02:52 J -11363235.60 -11363235.38 -11363235.16 0.0135 0.0025

Venus -35824-10-11 10:47 J -11363009.27 -11363009.05 -11363008.82 0.0134 0.0015

Venus -35823-05-25 18:42 J -11362782.94 -11362782.72 -11362782.50 0.0134 0.0006

Venus -35822-01-07 02:23 J -11362556.62 -11362556.40 -11362556.18 0.0134 0.0004

Venus -35822-08-21 10:04 J -11362330.30 -11362330.08 -11362329.86 0.0134 0.0013
 Venus -35821-04-03 17:16 J -11362103.99 -11362103.78 -11362103.55 0.0133 0.0023
 Earth -35821-10-17 23:16 J -11361906.69 -11361906.53 -11361906.33 0.0133 0.0096
 Moon -35821-10-18 02:52 J -11361906.56 -11361906.38 -11361906.18 0.0133 0.0090 *
 Venus -35821-11-16 00:28 J -11361877.69 -11361877.48 -11361877.26 0.0133 0.0032
 Venus -35820-06-30 07:26 J -11361651.39 -11361651.19 -11361650.97 0.0133 0.0041
 Mercury -35820-07-12 04:04 J -11361639.38 -11361639.33 -11361639.25 0.0133 0.0120
 Mercury -35820-10-08 09:06 J -11361551.22 -11361551.12 -11361551.01 0.0133 0.0098
 Moon -35820-10-22 03:35 J -11361537.60 -11361537.35 -11361537.09 0.0133 0.0001
 Earth -35820-10-22 07:26 J -11361537.45 -11361537.19 -11361536.94 0.0133 0.0007 *
 Mercury -35819-01-04 13:54 J -11361463.05 -11361462.92 -11361462.78 0.0133 0.0077
 Venus -35819-02-11 14:23 J -11361425.10 -11361424.90 -11361424.69 0.0133 0.0050
 Mercury -35819-04-02 18:42 J -11361374.86 -11361374.72 -11361374.57 0.0133 0.0055
 Mercury -35819-06-29 23:30 J -11361286.68 -11361286.52 -11361286.36 0.0133 0.0034
 Venus -35819-09-25 21:06 J -11361198.81 -11361198.62 -11361198.41 0.0133 0.0059
 Mercury -35819-09-26 04:04 J -11361198.49 -11361198.33 -11361198.17 0.0133 0.0013 *
 Earth -35819-10-26 13:54 J -11361168.05 -11361167.92 -11361167.76 0.0133 0.0108
 Moon -35819-10-26 17:16 J -11361167.90 -11361167.78 -11361167.62 0.0133 0.0112 *
 Mercury -35819-12-23 08:52 J -11361110.29 -11361110.13 -11361109.97 0.0133 0.0008
 Mercury -35818-03-21 13:26 J -11361022.10 -11361021.94 -11361021.79 0.0133 0.0029
 Venus -35818-05-10 03:35 J -11360972.53 -11360972.35 -11360972.15 0.0133 0.0068
 Mercury -35818-06-17 17:45 J -11360933.90 -11360933.76 -11360933.60 0.0133 0.0050
 Mercury -35818-09-13 22:18 J -11360845.70 -11360845.57 -11360845.43 0.0132 0.0070
 Mercury -35818-12-11 02:52 J -11360757.49 -11360757.38 -11360757.26 0.0132 0.0090
 Venus -35818-12-22 10:04 J -11360746.26 -11360746.08 -11360745.89 0.0132 0.0076
 Mercury -35817-03-08 07:11 J -11360669.28 -11360669.20 -11360669.11 0.0132 0.0110
 Mercury -35817-06-04 11:30 J -11360581.04 -11360581.02 -11360580.98 0.0132 0.0130
 Venus -35817-08-04 16:04 J -11360519.98 -11360519.83 -11360519.64 0.0132 0.0085
 Venus -35816-03-18 22:18 J -11360293.72 -11360293.57 -11360293.40 0.0132 0.0092
 Venus -35816-10-31 04:04 J -11360067.46 -11360067.33 -11360067.17 0.0132 0.0100

Venus	-35815-06-14 09:50 J	-11359841.20	-11359841.09	-11359840.95	0.0132	0.0108
Venus	-35814-01-26 15:35 J	-11359614.94	-11359614.85	-11359614.73	0.0132	0.0115
Venus	-35814-09-09 21:21 J	-11359388.68	-11359388.61	-11359388.52	0.0132	0.0122
Venus	-35813-04-23 02:52 J	-11359162.41	-11359162.38	-11359162.33	0.0132	0.0129
Mars	-35807-10-14 18:14 J	-11356797.07	-11356796.74	-11356796.40	0.0132	0.0004
Venus	-35787-04-28 10:04 J	-11349661.13	-11349661.08	-11349661.00	0.0140	0.0133
Venus	-35787-12-10 17:30 J	-11349434.86	-11349434.77	-11349434.67	0.0141	0.0125
Venus	-35786-07-25 00:28 J	-11349208.58	-11349208.48	-11349208.34	0.0141	0.0118
Venus	-35785-03-07 07:54 J	-11348982.28	-11348982.17	-11348982.01	0.0141	0.0109
Venus	-35785-10-19 15:50 J	-11348755.98	-11348755.84	-11348755.68	0.0142	0.0099
Venus	-35784-06-02 23:45 J	-11348529.66	-11348529.51	-11348529.34	0.0142	0.0090
Venus	-35783-01-15 07:54 J	-11348303.33	-11348303.17	-11348302.98	0.0142	0.0081
Venus	-35783-08-29 16:33 J	-11348076.99	-11348076.81	-11348076.62	0.0143	0.0070
Venus	-35782-04-13 00:57 J	-11347850.64	-11347850.46	-11347850.26	0.0143	0.0060
Venus	-35782-11-25 09:35 J	-11347624.29	-11347624.10	-11347623.89	0.0143	0.0050
Venus	-35781-07-08 18:42 J	-11347397.92	-11347397.72	-11347397.51	0.0144	0.0039
Venus	-35780-02-20 04:04 J	-11347171.54	-11347171.33	-11347171.12	0.0144	0.0027
Venus	-35780-10-04 13:26 J	-11346945.15	-11346944.94	-11346944.73	0.0144	0.0016
Venus	-35779-05-18 23:02 J	-11346718.75	-11346718.54	-11346718.33	0.0145	0.0005
Venus	-35779-12-31 08:52 J	-11346492.34	-11346492.13	-11346491.92	0.0145	0.0006
Venus	-35778-08-14 18:42 J	-11346265.93	-11346265.72	-11346265.51	0.0145	0.0018
Venus	-35777-03-28 04:47 J	-11346039.50	-11346039.30	-11346039.09	0.0145	0.0029
Earth	-35777-04-14 10:33 J	-11346022.16	-11346022.06	-11346021.93	0.0145	0.0129
Moon	-35777-04-14 13:54 J	-11346022.03	-11346021.92	-11346021.80	0.0145	0.0129 *
Venus	-35777-11-09 15:06 J	-11345813.07	-11345812.87	-11345812.66	0.0146	0.0041
Mercury	-35777-12-20 08:09 J	-11345772.21	-11345772.16	-11345772.10	0.0146	0.0136
Mercury	-35776-03-18 13:11 J	-11345684.04	-11345683.95	-11345683.85	0.0146	0.0110
Moon	-35776-04-19 08:38 J	-11345652.39	-11345652.14	-11345651.89	0.0146	0.0009
Earth	-35776-04-19 11:45 J	-11345652.26	-11345652.01	-11345651.75	0.0146	0.0005 *
Mercury	-35776-06-14 18:14 J	-11345595.86	-11345595.74	-11345595.61	0.0146	0.0084

Venus -35776-06-24 01:26 J -11345586.63 -11345586.44 -11345586.23 0.0146 0.0053
 Mercury -35776-09-10 23:30 J -11345507.66 -11345507.52 -11345507.38 0.0146 0.0058
 Mercury -35776-12-08 04:33 J -11345419.45 -11345419.31 -11345419.16 0.0146 0.0032
 Venus -35775-02-05 12:14 J -11345360.17 -11345359.99 -11345359.79 0.0146 0.0064
 Mercury -35775-03-06 09:50 J -11345331.24 -11345331.09 -11345330.93 0.0146 0.0006
 Earth -35775-04-24 12:57 J -11345282.02 -11345281.96 -11345281.87 0.0146 0.0139
 Moon -35775-04-24 16:33 J -11345281.90 -11345281.81 -11345281.68 0.0146 0.0131 *
 Mercury -35775-06-02 15:06 J -11345243.02 -11345242.87 -11345242.72 0.0146 0.0022
 Mercury -35775-08-29 20:23 J -11345154.79 -11345154.65 -11345154.50 0.0146 0.0049
 Venus -35775-09-19 23:16 J -11345133.71 -11345133.53 -11345133.35 0.0146 0.0075
 Mercury -35775-11-26 01:40 J -11345066.55 -11345066.43 -11345066.29 0.0146 0.0076
 Mercury -35774-02-22 07:11 J -11344978.31 -11344978.20 -11344978.09 0.0146 0.0104
 Venus -35774-05-04 10:04 J -11344907.24 -11344907.08 -11344906.90 0.0146 0.0087
 Mercury -35774-05-21 12:28 J -11344890.03 -11344889.98 -11344889.90 0.0146 0.0132
 Venus -35774-12-16 21:21 J -11344680.76 -11344680.61 -11344680.45 0.0147 0.0098
 Venus -35773-07-30 08:23 J -11344454.27 -11344454.15 -11344453.99 0.0147 0.0109
 Venus -35772-03-13 20:23 J -11344227.77 -11344227.65 -11344227.52 0.0147 0.0119
 Venus -35772-10-26 07:40 J -11344001.26 -11344001.18 -11344001.06 0.0147 0.0130
 Venus -35771-06-09 19:54 J -11343774.73 -11343774.67 -11343774.60 0.0147 0.0139
 Mars -35766-03-06 21:06 J -11342043.82 -11342043.62 -11342043.40 0.0147 0.0098
 Venus -35747-01-02 07:54 J -11335167.23 -11335167.17 -11335167.09 0.0138 0.0130
 Venus -35747-08-16 18:14 J -11334940.84 -11334940.74 -11334940.63 0.0138 0.0121
 Venus -35746-03-31 04:04 J -11334714.45 -11334714.33 -11334714.19 0.0137 0.0112
 Venus -35746-11-12 13:54 J -11334488.06 -11334487.92 -11334487.77 0.0137 0.0103
 Venus -35745-06-25 23:30 J -11334261.67 -11334261.52 -11334261.35 0.0137 0.0093
 Venus -35744-02-07 08:52 J -11334035.29 -11334035.13 -11334034.94 0.0136 0.0084
 Venus -35744-09-21 17:59 J -11333808.92 -11333808.75 -11333808.55 0.0136 0.0074
 Venus -35743-05-06 03:06 J -11333582.56 -11333582.37 -11333582.16 0.0136 0.0065
 Venus -35743-12-18 11:59 J -11333356.20 -11333356.00 -11333355.79 0.0136 0.0055
 Venus -35742-08-01 20:52 J -11333129.84 -11333129.63 -11333129.41 0.0135 0.0045

Venus	-35741-03-15 05:30 J	-11332903.49	-11332903.27	-11332903.05	0.0135	0.0035
Venus	-35741-10-27 13:40 J	-11332677.15	-11332676.93	-11332676.71	0.0135	0.0026
Venus	-35740-06-10 21:50 J	-11332450.81	-11332450.59	-11332450.36	0.0134	0.0016
Venus	-35739-01-23 05:59 J	-11332224.47	-11332224.25	-11332224.03	0.0134	0.0006
Venus	-35739-09-06 13:54 J	-11331998.14	-11331997.92	-11331997.70	0.0134	0.0003
Venus	-35738-04-20 21:35 J	-11331771.83	-11331771.60	-11331771.38	0.0134	0.0013
Venus	-35738-12-03 04:47 J	-11331545.51	-11331545.30	-11331545.07	0.0134	0.0022
Venus	-35737-07-16 12:14 J	-11331319.20	-11331318.99	-11331318.77	0.0133	0.0032
Earth	-35737-10-18 14:23 J	-11331225.09	-11331224.90	-11331224.70	0.0133	0.0086
Moon	-35737-10-18 17:45 J	-11331224.92	-11331224.76	-11331224.55	0.0133	0.0094 *
Venus	-35736-02-27 19:26 J	-11331092.90	-11331092.69	-11331092.47	0.0133	0.0041
Mercury	-35736-05-05 07:40 J	-11331026.20	-11331026.18	-11331026.16	0.0133	0.0131
Mercury	-35736-08-01 12:14 J	-11330938.07	-11330937.99	-11330937.88	0.0133	0.0110
Venus	-35736-10-12 02:09 J	-11330866.60	-11330866.41	-11330866.19	0.0133	0.0050
Moon	-35736-10-22 18:42 J	-11330855.97	-11330855.72	-11330855.47	0.0133	0.0022
Earth	-35736-10-22 22:04 J	-11330855.83	-11330855.58	-11330855.32	0.0133	0.0017 *
Mercury	-35736-10-28 17:16 J	-11330849.89	-11330849.78	-11330849.65	0.0133	0.0088
Mercury	-35735-01-24 22:18 J	-11330761.71	-11330761.57	-11330761.43	0.0133	0.0066
Mercury	-35735-04-23 02:52 J	-11330673.53	-11330673.38	-11330673.22	0.0133	0.0045
Venus	-35735-05-26 08:52 J	-11330640.32	-11330640.13	-11330639.92	0.0133	0.0059
Mercury	-35735-07-20 07:40 J	-11330585.34	-11330585.18	-11330585.02	0.0133	0.0024
Mercury	-35735-10-16 12:14 J	-11330497.15	-11330496.99	-11330496.83	0.0133	0.0004
Earth	-35735-10-27 04:33 J	-11330486.40	-11330486.31	-11330486.17	0.0133	0.0118
Moon	-35735-10-27 08:38 J	-11330486.26	-11330486.14	-11330486.01	0.0133	0.0115 *
Venus	-35734-01-07 15:21 J	-11330414.03	-11330413.86	-11330413.65	0.0133	0.0068
Mercury	-35734-01-12 16:47 J	-11330408.95	-11330408.80	-11330408.64	0.0133	0.0019
Mercury	-35734-04-10 21:35 J	-11330320.76	-11330320.60	-11330320.45	0.0133	0.0039
Mercury	-35734-07-08 01:54 J	-11330232.56	-11330232.42	-11330232.27	0.0133	0.0059
Venus	-35734-08-21 22:04 J	-11330187.75	-11330187.58	-11330187.39	0.0133	0.0076
Mercury	-35734-10-04 06:28 J	-11330144.35	-11330144.23	-11330144.10	0.0133	0.0080

Mercury -35734-12-31 10:47 J -11330056.14 -11330056.05 -11330055.94 0.0132 0.0100

Mercury -35733-03-28 15:06 J -11329967.92 -11329967.87 -11329967.79 0.0132 0.0120

Venus -35733-04-04 04:18 J -11329961.48 -11329961.32 -11329961.14 0.0132 0.0084

Venus -35733-11-16 10:18 J -11329735.21 -11329735.07 -11329734.90 0.0132 0.0093

Venus -35732-06-30 16:18 J -11329508.95 -11329508.82 -11329508.66 0.0132 0.0100

Venus -35731-02-11 22:04 J -11329282.69 -11329282.58 -11329282.44 0.0132 0.0108

Venus -35731-09-26 04:18 J -11329056.42 -11329056.32 -11329056.21 0.0132 0.0115

Venus -35730-05-10 09:35 J -11328830.16 -11328830.10 -11328830.01 0.0132 0.0123

Venus -35730-12-22 15:06 J -11328603.89 -11328603.87 -11328603.82 0.0132 0.0130

Mars -35722-06-10 11:30 J -11325877.23 -11325877.02 -11325876.77 0.0132 0.0096

Venus -35704-12-26 21:21 J -11319102.65 -11319102.61 -11319102.54 0.0140 0.0135

Venus -35703-08-10 04:33 J -11318876.39 -11318876.31 -11318876.21 0.0140 0.0127

Venus -35702-03-24 11:59 J -11318650.11 -11318650.00 -11318649.89 0.0141 0.0118

Venus -35702-11-05 19:26 J -11318423.82 -11318423.69 -11318423.56 0.0141 0.0110

Venus -35701-06-19 02:52 J -11318197.52 -11318197.38 -11318197.23 0.0141 0.0101

Venus -35700-01-31 10:47 J -11317971.21 -11317971.05 -11317970.89 0.0142 0.0091

Venus -35700-09-14 18:57 J -11317744.89 -11317744.71 -11317744.54 0.0142 0.0082

Venus -35699-04-29 02:52 J -11317518.55 -11317518.38 -11317518.19 0.0142 0.0072

Venus -35699-12-11 11:16 J -11317292.21 -11317292.03 -11317291.83 0.0143 0.0062

Venus -35698-07-25 19:54 J -11317065.85 -11317065.67 -11317065.46 0.0143 0.0052

Venus -35697-03-08 04:47 J -11316839.49 -11316839.30 -11316839.09 0.0143 0.0041

Venus -35697-10-20 14:09 J -11316613.12 -11316612.91 -11316612.71 0.0144 0.0029

Venus -35696-06-03 23:16 J -11316386.74 -11316386.53 -11316386.32 0.0144 0.0018

Venus -35695-01-16 08:52 J -11316160.34 -11316160.13 -11316159.92 0.0144 0.0007

Venus -35695-08-30 18:28 J -11315933.94 -11315933.73 -11315933.52 0.0145 0.0005

Venus -35694-04-14 04:18 J -11315707.54 -11315707.32 -11315707.11 0.0145 0.0016

Venus -35694-11-26 13:54 J -11315481.12 -11315480.92 -11315480.70 0.0145 0.0028

Earth -35693-04-14 23:45 J -11315340.64 -11315340.51 -11315340.36 0.0145 0.0119

Moon -35693-04-15 02:23 J -11315340.53 -11315340.40 -11315340.23 0.0145 0.0118 *

Venus -35693-07-10 00:14 J -11315254.69 -11315254.49 -11315254.28 0.0145 0.0039

Mercury -35692-01-09 16:04 J -11315070.90 -11315070.83 -11315070.75 0.0146 0.0126
 Venus -35692-02-21 10:47 J -11315028.25 -11315028.05 -11315027.85 0.0146 0.0051
 Mercury -35692-04-07 20:52 J -11314982.73 -11314982.63 -11314982.51 0.0146 0.0101
 Moon -35692-04-19 21:21 J -11314970.86 -11314970.61 -11314970.36 0.0146 0.0009
 Earth -35692-04-20 00:43 J -11314970.72 -11314970.47 -11314970.22 0.0146 0.0013 *
 Mercury -35692-07-05 02:09 J -11314894.54 -11314894.41 -11314894.28 0.0146 0.0075
 Mercury -35692-10-01 07:11 J -11314806.34 -11314806.20 -11314806.05 0.0146 0.0049
 Venus -35692-10-05 21:21 J -11314801.80 -11314801.61 -11314801.42 0.0146 0.0062
 Mercury -35692-12-28 12:28 J -11314718.13 -11314717.98 -11314717.83 0.0146 0.0022
 Mercury -35691-03-26 17:45 J -11314629.91 -11314629.76 -11314629.61 0.0146 0.0004
 Venus -35691-05-20 07:40 J -11314575.35 -11314575.18 -11314574.98 0.0146 0.0074
 Mercury -35691-06-22 23:02 J -11314541.69 -11314541.54 -11314541.39 0.0146 0.0031
 Mercury -35691-09-19 04:19 J -11314453.46 -11314453.32 -11314453.18 0.0146 0.0059
 Mercury -35691-12-16 09:35 J -11314365.22 -11314365.10 -11314364.97 0.0146 0.0086
 Venus -35690-01-01 18:43 J -11314348.88 -11314348.72 -11314348.54 0.0146 0.0085
 Mercury -35690-03-14 15:07 J -11314276.96 -11314276.87 -11314276.77 0.0146 0.0113
 Mercury -35690-06-10 20:23 J -11314188.68 -11314188.65 -11314188.60 0.0146 0.0142
 Venus -35690-08-16 05:45 J -11314122.41 -11314122.26 -11314122.09 0.0146 0.0096
 Venus -35689-03-29 16:47 J -11313895.92 -11313895.80 -11313895.64 0.0147 0.0108
 Venus -35689-11-11 04:33 J -11313669.43 -11313669.31 -11313669.18 0.0147 0.0118
 Venus -35688-06-25 16:04 J -11313442.92 -11313442.83 -11313442.72 0.0147 0.0128
 Venus -35687-02-07 04:04 J -11313216.40 -11313216.33 -11313216.26 0.0147 0.0138
 Mars -35682-10-31 03:21 J -11311124.65 -11311124.36 -11311124.07 0.0147 0.0005
 Venus -35664-09-01 17:02 J -11304608.85 -11304608.79 -11304608.72 0.0138 0.0132
 Venus -35663-04-16 02:52 J -11304382.46 -11304382.38 -11304382.26 0.0138 0.0123
 Venus -35663-11-28 13:11 J -11304156.06 -11304155.95 -11304155.81 0.0138 0.0114
 Venus -35662-07-12 23:02 J -11303929.67 -11303929.54 -11303929.38 0.0137 0.0105
 Venus -35661-02-24 08:52 J -11303703.28 -11303703.13 -11303702.96 0.0137 0.0095
 Venus -35661-10-07 18:43 J -11303476.90 -11303476.72 -11303476.55 0.0137 0.0085
 Venus -35660-05-22 03:50 J -11303250.52 -11303250.34 -11303250.14 0.0136 0.0076

Venus	-35659-01-03 12:57 J	-11303024.14	-11303023.96	-11303023.75	0.0136	0.0066
Venus	-35659-08-17 22:19 J	-11302797.77	-11302797.57	-11302797.36	0.0136	0.0056
Venus	-35658-04-01 06:57 J	-11302571.41	-11302571.21	-11302570.99	0.0135	0.0046
Venus	-35658-11-13 15:50 J	-11302345.06	-11302344.84	-11302344.62	0.0135	0.0036
Venus	-35657-06-27 00:14 J	-11302118.70	-11302118.49	-11302118.26	0.0135	0.0027
Venus	-35656-02-08 08:38 J	-11301892.36	-11301892.14	-11301891.91	0.0135	0.0017
Venus	-35656-09-22 16:47 J	-11301666.02	-11301665.80	-11301665.57	0.0134	0.0007
Venus	-35655-05-07 00:43 J	-11301439.69	-11301439.47	-11301439.24	0.0134	0.0003
Venus	-35655-12-19 08:23 J	-11301213.37	-11301213.15	-11301212.92	0.0134	0.0013
Venus	-35654-08-02 16:19 J	-11300987.04	-11300986.82	-11300986.60	0.0134	0.0022
Venus	-35653-03-15 23:31 J	-11300760.73	-11300760.52	-11300760.30	0.0133	0.0031
Earth	-35653-10-19 04:47 J	-11300543.50	-11300543.30	-11300543.08	0.0133	0.0076
Moon	-35653-10-19 08:23 J	-11300543.36	-11300543.15	-11300542.92	0.0133	0.0070 *
Venus	-35653-10-28 06:43 J	-11300534.43	-11300534.22	-11300534.00	0.0133	0.0040
Mercury	-35652-05-25 15:50 J	-11300324.91	-11300324.84	-11300324.78	0.0133	0.0121
Venus	-35652-06-11 13:55 J	-11300308.13	-11300307.92	-11300307.71	0.0133	0.0049
Mercury	-35652-08-21 20:23 J	-11300236.74	-11300236.65	-11300236.53	0.0133	0.0100
Moon	-35652-10-23 08:52 J	-11300174.38	-11300174.13	-11300173.88	0.0133	0.0020
Earth	-35652-10-23 12:43 J	-11300174.22	-11300173.97	-11300173.72	0.0133	0.0026 *
Mercury	-35652-11-18 01:26 J	-11300148.57	-11300148.44	-11300148.31	0.0133	0.0078
Venus	-35651-01-23 20:23 J	-11300081.84	-11300081.65	-11300081.44	0.0133	0.0059
Mercury	-35651-02-14 05:59 J	-11300060.38	-11300060.25	-11300060.09	0.0133	0.0057
Mercury	-35651-05-13 11:02 J	-11299972.20	-11299972.04	-11299971.89	0.0133	0.0035
Mercury	-35651-08-09 15:35 J	-11299884.01	-11299883.85	-11299883.69	0.0133	0.0014
Venus	-35651-09-07 03:35 J	-11299855.54	-11299855.35	-11299855.16	0.0133	0.0067
Earth	-35651-10-27 18:57 J	-11299804.76	-11299804.71	-11299804.62	0.0133	0.0127
Moon	-35651-10-27 22:19 J	-11299804.59	-11299804.57	-11299804.50	0.0133	0.0131
Mercury	-35651-11-05 20:23 J	-11299795.81	-11299795.65	-11299795.49	0.0133	0.0007
Mercury	-35650-02-02 00:57 J	-11299707.62	-11299707.46	-11299707.30	0.0133	0.0028
Venus	-35650-04-21 09:50 J	-11299629.26	-11299629.09	-11299628.90	0.0133	0.0076

Mercury -35650-05-01 05:16 J -11299619.42 -11299619.28 -11299619.12 0.0133 0.0049

Mercury -35650-07-28 10:04 J -11299531.22 -11299531.08 -11299530.95 0.0133 0.0069

Mercury -35650-10-24 14:38 J -11299443.01 -11299442.89 -11299442.78 0.0133 0.0089

Venus -35650-12-03 16:04 J -11299402.99 -11299402.83 -11299402.65 0.0132 0.0084

Mercury -35649-01-20 18:43 J -11299354.80 -11299354.72 -11299354.62 0.0132 0.0109

Mercury -35649-04-17 23:16 J -11299266.56 -11299266.53 -11299266.49 0.0132 0.0129

Venus -35649-07-16 22:19 J -11299176.71 -11299176.57 -11299176.40 0.0132 0.0093

Venus -35648-02-28 04:33 J -11298950.45 -11298950.31 -11298950.16 0.0132 0.0100

Venus -35648-10-12 10:33 J -11298724.18 -11298724.06 -11298723.93 0.0132 0.0108

Venus -35647-05-26 16:04 J -11298497.92 -11298497.83 -11298497.71 0.0132 0.0116

Venus -35646-01-07 21:50 J -11298271.65 -11298271.59 -11298271.50 0.0132 0.0123

Venus -35646-08-22 03:35 J -11298045.37 -11298045.35 -11298045.30 0.0132 0.0130

Mars -35639-03-02 15:50 J -11295661.15 -11295660.84 -11295660.54 0.0132 0.0056

Venus -35620-08-26 09:07 J -11288544.16 -11288544.12 -11288544.07 0.0140 0.0136

Venus -35619-04-09 15:50 J -11288317.91 -11288317.84 -11288317.75 0.0140 0.0129

Venus -35619-11-21 23:16 J -11288091.64 -11288091.53 -11288091.42 0.0141 0.0120

Venus -35618-07-06 06:28 J -11287865.35 -11287865.23 -11287865.10 0.0141 0.0111

Venus -35617-02-17 13:55 J -11287639.06 -11287638.92 -11287638.77 0.0141 0.0102

Venus -35617-09-30 21:50 J -11287412.75 -11287412.59 -11287412.43 0.0142 0.0093

Venus -35616-05-15 05:45 J -11287186.43 -11287186.26 -11287186.09 0.0142 0.0083

Venus -35616-12-27 13:55 J -11286960.10 -11286959.92 -11286959.73 0.0142 0.0073

Venus -35615-08-10 22:04 J -11286733.76 -11286733.58 -11286733.38 0.0143 0.0064

Venus -35614-03-25 06:43 J -11286507.41 -11286507.22 -11286507.02 0.0143 0.0053

Venus -35614-11-06 15:21 J -11286281.05 -11286280.86 -11286280.65 0.0143 0.0042

Venus -35613-06-20 00:28 J -11286054.69 -11286054.48 -11286054.27 0.0144 0.0031

Venus -35612-02-01 09:35 J -11285828.30 -11285828.10 -11285827.88 0.0144 0.0020

Venus -35612-09-15 18:57 J -11285601.92 -11285601.71 -11285601.50 0.0144 0.0009

Venus -35611-04-30 04:33 J -11285375.53 -11285375.31 -11285375.10 0.0144 0.0004

Venus -35611-12-12 14:09 J -11285149.12 -11285148.91 -11285148.70 0.0145 0.0015

Venus -35610-07-26 23:59 J -11284922.71 -11284922.50 -11284922.29 0.0145 0.0026

Venus -35609-03-09 10:04 J -11284696.28 -11284696.08 -11284695.87 0.0145 0.0038
 Earth -35609-04-15 13:26 J -11284659.09 -11284658.94 -11284658.76 0.0145 0.0110
 Moon -35609-04-15 15:50 J -11284658.99 -11284658.84 -11284658.65 0.0145 0.0110 *
 Venus -35609-10-21 20:09 J -11284469.85 -11284469.66 -11284469.45 0.0146 0.0050
 Mercury -35609-11-02 19:11 J -11284457.73 -11284457.70 -11284457.66 0.0146 0.0141
 Mercury -35608-01-29 23:59 J -11284369.58 -11284369.50 -11284369.40 0.0146 0.0116
 Moon -35608-04-20 11:45 J -11284289.25 -11284289.01 -11284288.76 0.0146 0.0027
 Earth -35608-04-20 14:38 J -11284289.14 -11284288.89 -11284288.64 0.0146 0.0023 *
 Mercury -35608-04-28 05:02 J -11284281.40 -11284281.29 -11284281.16 0.0146 0.0090
 Venus -35608-06-05 06:43 J -11284243.41 -11284243.22 -11284243.03 0.0146 0.0061
 Mercury -35608-07-25 10:19 J -11284193.21 -11284193.07 -11284192.93 0.0146 0.0064
 Mercury -35608-10-21 15:21 J -11284105.00 -11284104.86 -11284104.71 0.0146 0.0038
 Venus -35607-01-17 17:31 J -11284016.96 -11284016.77 -11284016.59 0.0146 0.0072
 Mercury -35607-01-17 20:38 J -11284016.79 -11284016.64 -11284016.49 0.0146 0.0011 *
 Mercury -35607-04-16 01:55 J -11283928.58 -11283928.42 -11283928.27 0.0146 0.0015
 Mercury -35607-07-13 07:11 J -11283840.35 -11283840.20 -11283840.06 0.0146 0.0042
 Venus -35607-09-01 03:50 J -11283790.50 -11283790.34 -11283790.15 0.0146 0.0085
 Mercury -35607-10-09 12:28 J -11283752.12 -11283751.98 -11283751.84 0.0146 0.0069
 Mercury -35606-01-05 17:45 J -11283663.87 -11283663.76 -11283663.64 0.0146 0.0097
 Mercury -35606-04-03 23:16 J -11283575.61 -11283575.53 -11283575.45 0.0146 0.0125
 Venus -35606-04-15 14:52 J -11283564.03 -11283563.88 -11283563.70 0.0146 0.0095
 Venus -35606-11-28 02:09 J -11283337.55 -11283337.41 -11283337.26 0.0146 0.0106
 Venus -35605-07-11 13:26 J -11283111.06 -11283110.94 -11283110.80 0.0147 0.0117
 Venus -35604-02-23 01:26 J -11282884.54 -11282884.44 -11282884.34 0.0147 0.0127
 Venus -35604-10-07 13:11 J -11282658.02 -11282657.95 -11282657.88 0.0147 0.0137
 Mars -35597-06-25 11:31 J -11280205.18 -11280205.02 -11280204.81 0.0146 0.0111
 Venus -35580-05-02 02:09 J -11274050.45 -11274050.41 -11274050.34 0.0139 0.0134
 Venus -35580-12-14 12:57 J -11273824.05 -11273823.96 -11273823.87 0.0138 0.0125
 Venus -35579-07-28 23:02 J -11273597.65 -11273597.54 -11273597.41 0.0138 0.0115
 Venus -35578-03-12 09:07 J -11273371.26 -11273371.12 -11273370.98 0.0137 0.0106

Venus	-35578-10-24 18:43 J	-11273144.87	-11273144.72	-11273144.55	0.0137	0.0097
Venus	-35577-06-07 04:33 J	-11272918.47	-11272918.31	-11272918.13	0.0137	0.0087
Venus	-35576-01-19 14:09 J	-11272692.09	-11272691.91	-11272691.72	0.0136	0.0077
Venus	-35576-09-02 23:16 J	-11272465.71	-11272465.53	-11272465.32	0.0136	0.0068
Venus	-35575-04-17 08:38 J	-11272239.34	-11272239.14	-11272238.93	0.0136	0.0057
Venus	-35575-11-29 17:31 J	-11272012.97	-11272012.77	-11272012.55	0.0136	0.0047
Venus	-35574-07-14 02:23 J	-11271786.61	-11271786.40	-11271786.18	0.0135	0.0038
Venus	-35573-02-25 11:02 J	-11271560.25	-11271560.04	-11271559.82	0.0135	0.0028
Venus	-35573-10-08 19:26 J	-11271333.91	-11271333.69	-11271333.46	0.0135	0.0018
Venus	-35572-05-23 03:35 J	-11271107.57	-11271107.35	-11271107.12	0.0134	0.0009
Venus	-35571-01-04 11:45 J	-11270881.23	-11270881.01	-11270880.78	0.0134	0.0002
Venus	-35571-08-18 19:40 J	-11270654.90	-11270654.68	-11270654.45	0.0134	0.0012
Venus	-35570-04-02 03:21 J	-11270428.58	-11270428.36	-11270428.14	0.0134	0.0021
Venus	-35570-11-14 10:47 J	-11270202.26	-11270202.05	-11270201.83	0.0134	0.0031
Venus	-35569-06-27 17:59 J	-11269975.95	-11269975.75	-11269975.53	0.0133	0.0040
Earth	-35569-10-19 19:11 J	-11269861.91	-11269861.70	-11269861.47	0.0133	0.0066
Moon	-35569-10-19 23:02 J	-11269861.75	-11269861.54	-11269861.32	0.0133	0.0074 *
Venus	-35568-02-09 01:11 J	-11269749.65	-11269749.45	-11269749.24	0.0133	0.0049
Mercury	-35568-06-14 23:31 J	-11269623.59	-11269623.52	-11269623.42	0.0133	0.0112
Mercury	-35568-09-11 04:33 J	-11269535.42	-11269535.31	-11269535.18	0.0133	0.0090
Venus	-35568-09-23 08:09 J	-11269523.35	-11269523.16	-11269522.95	0.0133	0.0058
Moon	-35568-10-23 23:31 J	-11269492.76	-11269492.52	-11269492.28	0.0133	0.0041
Earth	-35568-10-24 02:52 J	-11269492.62	-11269492.38	-11269492.13	0.0133	0.0035 *
Mercury	-35568-12-08 09:21 J	-11269447.24	-11269447.11	-11269446.96	0.0133	0.0068
Mercury	-35567-03-06 14:09 J	-11269359.06	-11269358.91	-11269358.75	0.0133	0.0047
Venus	-35567-05-07 14:52 J	-11269297.07	-11269296.88	-11269296.68	0.0133	0.0067
Mercury	-35567-06-02 18:57 J	-11269270.87	-11269270.71	-11269270.55	0.0133	0.0026
Mercury	-35567-08-29 23:45 J	-11269182.67	-11269182.51	-11269182.35	0.0133	0.0005
Mercury	-35567-11-26 04:19 J	-11269094.48	-11269094.32	-11269094.16	0.0133	0.0017
Venus	-35567-12-19 21:21 J	-11269070.78	-11269070.61	-11269070.42	0.0133	0.0076

Mercury -35566-02-22 08:52 J -11269006.28 -11269006.13 -11269005.97 0.0133 0.0037

Mercury -35566-05-21 13:26 J -11268918.08 -11268917.94 -11268917.79 0.0133 0.0058

Venus -35566-08-03 03:50 J -11268844.50 -11268844.34 -11268844.16 0.0133 0.0085

Mercury -35566-08-17 17:45 J -11268829.88 -11268829.76 -11268829.62 0.0133 0.0079

Mercury -35566-11-13 22:19 J -11268741.67 -11268741.57 -11268741.46 0.0132 0.0098

Mercury -35565-02-10 02:38 J -11268653.44 -11268653.39 -11268653.31 0.0132 0.0119

Venus -35565-03-16 10:19 J -11268618.22 -11268618.07 -11268617.91 0.0132 0.0093

Venus -35565-10-28 16:19 J -11268391.95 -11268391.82 -11268391.66 0.0132 0.0101

Venus -35564-06-11 22:19 J -11268165.68 -11268165.57 -11268165.43 0.0132 0.0109

Venus -35563-01-24 04:04 J -11267939.41 -11267939.33 -11267939.21 0.0132 0.0116

Venus -35563-09-07 10:19 J -11267713.14 -11267713.07 -11267712.99 0.0132 0.0123

Venus -35562-04-21 15:35 J -11267486.85 -11267486.85 -11267486.80 0.0132 0.0131

Mars -35555-10-27 08:09 J -11264741.47 -11264741.16 -11264740.83 0.0132 0.0037

Venus -35536-04-25 19:55 J -11257985.69 -11257985.67 -11257985.63 0.0140 0.0138

Venus -35536-12-08 02:38 J -11257759.45 -11257759.39 -11257759.30 0.0140 0.0130

Venus -35535-07-22 09:50 J -11257533.18 -11257533.09 -11257532.98 0.0140 0.0122

Venus -35534-03-05 17:02 J -11257306.91 -11257306.79 -11257306.66 0.0141 0.0113

Venus -35534-10-18 00:14 J -11257080.62 -11257080.49 -11257080.33 0.0141 0.0104

Venus -35533-05-31 08:09 J -11256854.31 -11256854.16 -11256854.00 0.0141 0.0095

Venus -35532-01-12 16:04 J -11256627.99 -11256627.83 -11256627.66 0.0142 0.0085

Venus -35532-08-26 23:59 J -11256401.67 -11256401.50 -11256401.31 0.0142 0.0075

Venus -35531-04-10 08:09 J -11256175.34 -11256175.16 -11256174.96 0.0142 0.0065

Venus -35531-11-22 16:33 J -11255949.00 -11255948.81 -11255948.61 0.0143 0.0055

Venus -35530-07-07 00:57 J -11255722.65 -11255722.46 -11255722.25 0.0143 0.0044

Venus -35529-02-18 10:04 J -11255496.29 -11255496.08 -11255495.87 0.0143 0.0033

Venus -35529-10-01 18:57 J -11255269.92 -11255269.71 -11255269.50 0.0144 0.0022

Venus -35528-05-16 04:04 J -11255043.54 -11255043.33 -11255043.12 0.0144 0.0010

Venus -35528-12-28 13:26 J -11254817.15 -11254816.94 -11254816.73 0.0144 0.0002

Venus -35527-08-11 23:02 J -11254590.75 -11254590.54 -11254590.33 0.0145 0.0013

Venus -35526-03-26 08:38 J -11254364.35 -11254364.14 -11254363.93 0.0145 0.0024

Venus -35526-11-07 18:14 J -11254137.94 -11254137.74 -11254137.52 0.0145 0.0036
 Earth -35525-04-16 00:57 J -11253977.62 -11253977.46 -11253977.27 0.0145 0.0103
 Moon -35525-04-16 03:21 J -11253977.54 -11253977.36 -11253977.17 0.0145 0.0102 *
 Venus -35525-06-21 04:33 J -11253911.51 -11253911.31 -11253911.11 0.0145 0.0047
 Mercury -35525-11-23 02:38 J -11253756.44 -11253756.39 -11253756.32 0.0145 0.0133
 Venus -35524-02-02 14:38 J -11253685.07 -11253684.89 -11253684.68 0.0146 0.0060
 Mercury -35524-02-19 07:26 J -11253668.28 -11253668.19 -11253668.07 0.0146 0.0108
 Moon -35524-04-20 23:02 J -11253607.78 -11253607.54 -11253607.29 0.0146 0.0026
 Earth -35524-04-21 01:55 J -11253607.67 -11253607.42 -11253607.18 0.0146 0.0030 *
 Mercury -35524-05-18 12:43 J -11253580.09 -11253579.97 -11253579.84 0.0146 0.0082
 Mercury -35524-08-14 17:45 J -11253491.90 -11253491.76 -11253491.62 0.0146 0.0056
 Venus -35524-09-17 01:11 J -11253458.62 -11253458.45 -11253458.25 0.0146 0.0071
 Mercury -35524-11-10 23:02 J -11253403.69 -11253403.54 -11253403.39 0.0146 0.0030
 Mercury -35523-02-07 04:04 J -11253315.48 -11253315.33 -11253315.17 0.0146 0.0005
 Venus -35523-05-01 11:45 J -11253232.17 -11253232.01 -11253231.82 0.0146 0.0082
 Mercury -35523-05-06 09:21 J -11253227.26 -11253227.11 -11253226.96 0.0146 0.0024
 Mercury -35523-08-02 14:38 J -11253139.03 -11253138.89 -11253138.74 0.0146 0.0051
 Mercury -35523-10-29 19:55 J -11253050.80 -11253050.67 -11253050.54 0.0146 0.0078
 Venus -35523-12-13 22:33 J -11253005.71 -11253005.56 -11253005.38 0.0146 0.0094
 Mercury -35522-01-26 01:11 J -11252962.55 -11252962.45 -11252962.34 0.0146 0.0105
 Mercury -35522-04-24 06:28 J -11252874.28 -11252874.23 -11252874.15 0.0146 0.0134
 Venus -35522-07-28 09:35 J -11252779.23 -11252779.10 -11252778.94 0.0146 0.0105
 Venus -35521-03-10 20:52 J -11252552.74 -11252552.63 -11252552.48 0.0146 0.0116
 Venus -35521-10-23 08:38 J -11252326.24 -11252326.14 -11252326.03 0.0147 0.0126
 Venus -35520-06-06 20:09 J -11252099.73 -11252099.66 -11252099.57 0.0147 0.0136
 Venus -35519-01-19 08:09 J -11251873.17 -11251873.16 -11251873.14 0.0147 0.0146
 Mars -35514-03-19 20:23 J -11249987.89 -11249987.65 -11249987.39 0.0147 0.0072
 Venus -35497-12-30 10:19 J -11243492.09 -11243492.07 -11243492.01 0.0139 0.0136
 Venus -35496-08-13 20:52 J -11243265.70 -11243265.63 -11243265.52 0.0138 0.0127
 Venus -35495-03-28 07:11 J -11243039.30 -11243039.20 -11243039.07 0.0138 0.0118

Venus	-35495-11-09 17:31 J	-11242812.90	-11242812.77	-11242812.62	0.0138	0.0108
Venus	-35494-06-24 03:35 J	-11242586.49	-11242586.35	-11242586.18	0.0137	0.0098
Venus	-35493-02-05 13:40 J	-11242360.10	-11242359.93	-11242359.76	0.0137	0.0088
Venus	-35493-09-18 23:02 J	-11242133.71	-11242133.54	-11242133.34	0.0137	0.0079
Venus	-35492-05-03 08:38 J	-11241907.33	-11241907.14	-11241906.94	0.0136	0.0069
Venus	-35492-12-15 17:45 J	-11241680.95	-11241680.76	-11241680.54	0.0136	0.0059
Venus	-35491-07-30 03:07 J	-11241454.57	-11241454.37	-11241454.15	0.0136	0.0049
Venus	-35490-03-13 12:14 J	-11241228.21	-11241227.99	-11241227.78	0.0135	0.0039
Venus	-35490-10-25 20:38 J	-11241001.85	-11241001.64	-11241001.41	0.0135	0.0030
Venus	-35489-06-08 05:31 J	-11240775.49	-11240775.27	-11240775.05	0.0135	0.0019
Venus	-35488-01-20 13:55 J	-11240549.14	-11240548.92	-11240548.70	0.0135	0.0009
Venus	-35488-09-03 22:04 J	-11240322.80	-11240322.58	-11240322.35	0.0134	0.0002
Venus	-35487-04-18 05:59 J	-11240096.47	-11240096.25	-11240096.02	0.0134	0.0011
Venus	-35487-11-30 13:40 J	-11239870.14	-11239869.93	-11239869.70	0.0134	0.0021
Venus	-35486-07-14 21:35 J	-11239643.82	-11239643.60	-11239643.38	0.0134	0.0030
Venus	-35485-02-26 04:47 J	-11239417.51	-11239417.30	-11239417.08	0.0134	0.0040
Venus	-35485-10-09 11:59 J	-11239191.20	-11239191.00	-11239190.79	0.0133	0.0049
Earth	-35485-10-20 08:38 J	-11239180.36	-11239180.14	-11239179.90	0.0133	0.0058
Moon	-35485-10-20 11:59 J	-11239180.23	-11239180.00	-11239179.75	0.0133	0.0052 *
Mercury	-35484-04-08 02:52 J	-11239010.44	-11239010.38	-11239010.33	0.0133	0.0125
Venus	-35484-05-23 18:57 J	-11238964.90	-11238964.71	-11238964.50	0.0133	0.0058
Mercury	-35484-07-05 07:40 J	-11238922.28	-11238922.18	-11238922.08	0.0133	0.0103
Mercury	-35484-10-01 12:28 J	-11238834.10	-11238833.98	-11238833.85	0.0133	0.0081
Moon	-35484-10-24 12:43 J	-11238811.20	-11238810.97	-11238810.72	0.0133	0.0038
Earth	-35484-10-24 16:19 J	-11238811.05	-11238810.82	-11238810.57	0.0133	0.0044 *
Mercury	-35484-12-28 17:16 J	-11238745.92	-11238745.78	-11238745.63	0.0133	0.0059
Venus	-35483-01-05 01:40 J	-11238738.61	-11238738.43	-11238738.22	0.0133	0.0067
Mercury	-35483-03-26 22:04 J	-11238657.73	-11238657.58	-11238657.42	0.0133	0.0038
Mercury	-35483-06-23 02:52 J	-11238569.54	-11238569.38	-11238569.22	0.0133	0.0017
Venus	-35483-08-19 08:38 J	-11238512.31	-11238512.14	-11238511.95	0.0133	0.0076

Mercury -35483-09-19 07:26 J -11238481.35 -11238481.19 -11238481.02 0.0133 0.0006

Mercury -35483-12-16 11:59 J -11238393.15 -11238393.00 -11238392.84 0.0133 0.0026

Mercury -35482-03-14 16:47 J -11238304.95 -11238304.80 -11238304.65 0.0133 0.0046

Venus -35482-04-02 15:21 J -11238286.03 -11238285.86 -11238285.69 0.0133 0.0084

Mercury -35482-06-10 21:07 J -11238216.75 -11238216.62 -11238216.47 0.0133 0.0067

Mercury -35482-09-07 01:55 J -11238128.54 -11238128.42 -11238128.30 0.0133 0.0087

Venus -35482-11-14 21:21 J -11238059.75 -11238059.61 -11238059.44 0.0133 0.0093

Mercury -35482-12-04 06:14 J -11238040.33 -11238040.24 -11238040.14 0.0132 0.0107

Mercury -35481-03-01 10:47 J -11237952.09 -11237952.05 -11237952.01 0.0132 0.0127

Venus -35481-06-28 03:50 J -11237833.47 -11237833.34 -11237833.19 0.0132 0.0101

Venus -35480-02-09 10:04 J -11237607.20 -11237607.08 -11237606.95 0.0132 0.0109

Venus -35480-09-23 16:04 J -11237380.92 -11237380.83 -11237380.72 0.0132 0.0116

Venus -35479-05-07 21:50 J -11237154.65 -11237154.59 -11237154.50 0.0132 0.0124

Venus -35479-12-20 03:35 J -11236928.36 -11236928.35 -11236928.31 0.0132 0.0131

Mars -35472-07-19 10:47 J -11234525.20 -11234525.05 -11234524.88 0.0132 0.0115

Mars -35470-06-22 23:59 J -11233821.56 -11233821.50 -11233821.41 0.0132 0.0129

Venus -35452-08-07 13:40 J -11227200.98 -11227200.93 -11227200.85 0.0140 0.0132

Venus -35451-03-21 20:52 J -11226974.72 -11226974.63 -11226974.53 0.0140 0.0123

Venus -35451-11-03 04:04 J -11226748.45 -11226748.33 -11226748.21 0.0140 0.0115

Venus -35450-06-17 11:02 J -11226522.16 -11226522.04 -11226521.89 0.0141 0.0106

Venus -35449-01-29 18:57 J -11226295.86 -11226295.71 -11226295.56 0.0141 0.0097

Venus -35449-09-12 02:38 J -11226069.56 -11226069.39 -11226069.22 0.0141 0.0087

Venus -35448-04-26 10:19 J -11225843.24 -11225843.07 -11225842.88 0.0142 0.0077

Venus -35448-12-08 18:14 J -11225616.91 -11225616.74 -11225616.54 0.0142 0.0068

Venus -35447-07-23 02:38 J -11225390.58 -11225390.39 -11225390.19 0.0142 0.0057

Venus -35446-03-06 11:02 J -11225164.23 -11225164.04 -11225163.83 0.0143 0.0046

Venus -35446-10-18 19:40 J -11224937.88 -11224937.68 -11224937.47 0.0143 0.0035

Venus -35445-06-01 04:33 J -11224711.52 -11224711.31 -11224711.10 0.0143 0.0024

Venus -35444-01-13 13:40 J -11224485.14 -11224484.93 -11224484.72 0.0144 0.0012

Venus -35444-08-27 22:47 J -11224258.76 -11224258.55 -11224258.33 0.0144 0.0003

Venus -35443-04-11 08:09 J -11224032.37 -11224032.16 -11224031.95 0.0144 0.0011
 Venus -35443-11-23 17:31 J -11223805.97 -11223805.77 -11223805.55 0.0145 0.0023
 Venus -35442-07-08 03:21 J -11223579.56 -11223579.36 -11223579.15 0.0145 0.0034
 Venus -35441-02-19 13:26 J -11223353.14 -11223352.94 -11223352.73 0.0145 0.0046
 Earth -35441-04-16 13:26 J -11223296.12 -11223295.94 -11223295.74 0.0145 0.0094
 Moon -35441-04-16 15:07 J -11223296.06 -11223295.87 -11223295.66 0.0145 0.0093 *
 Venus -35441-10-02 23:31 J -11223126.71 -11223126.52 -11223126.32 0.0145 0.0058
 Mercury -35441-12-13 10:19 J -11223055.14 -11223055.07 -11223054.98 0.0145 0.0124
 Mercury -35440-03-11 15:21 J -11222966.96 -11222966.86 -11222966.74 0.0146 0.0098
 Moon -35440-04-21 11:59 J -11222926.22 -11222926.00 -11222925.75 0.0146 0.0042
 Earth -35440-04-21 14:09 J -11222926.15 -11222925.91 -11222925.66 0.0146 0.0038 *
 Venus -35440-05-17 09:50 J -11222900.27 -11222900.09 -11222899.89 0.0146 0.0069
 Mercury -35440-06-07 20:23 J -11222878.77 -11222878.65 -11222878.51 0.0146 0.0073
 Mercury -35440-09-04 01:26 J -11222790.58 -11222790.44 -11222790.29 0.0146 0.0047
 Mercury -35440-12-01 06:43 J -11222702.37 -11222702.22 -11222702.07 0.0146 0.0020
 Venus -35440-12-29 20:38 J -11222673.82 -11222673.64 -11222673.46 0.0146 0.0080
 Mercury -35439-02-27 11:59 J -11222614.16 -11222614.00 -11222613.85 0.0146 0.0007
 Mercury -35439-05-26 17:16 J -11222525.93 -11222525.78 -11222525.63 0.0146 0.0033
 Venus -35439-08-13 06:57 J -11222447.36 -11222447.21 -11222447.03 0.0146 0.0092
 Mercury -35439-08-22 22:19 J -11222437.70 -11222437.57 -11222437.42 0.0146 0.0060
 Mercury -35439-11-19 03:50 J -11222349.46 -11222349.34 -11222349.22 0.0146 0.0087
 Mercury -35438-02-15 08:52 J -11222261.21 -11222261.13 -11222261.02 0.0146 0.0116
 Venus -35438-03-27 17:59 J -11222220.89 -11222220.75 -11222220.58 0.0146 0.0103
 Mercury -35438-05-14 14:38 J -11222172.92 -11222172.89 -11222172.86 0.0146 0.0143
 Venus -35438-11-09 05:31 J -11221994.40 -11221994.27 -11221994.14 0.0146 0.0114
 Venus -35437-06-22 16:33 J -11221767.91 -11221767.81 -11221767.69 0.0146 0.0125
 Venus -35436-02-04 04:19 J -11221541.39 -11221541.32 -11221541.23 0.0147 0.0135
 Venus -35436-09-18 16:04 J -11221314.85 -11221314.83 -11221314.80 0.0147 0.0145
 Mars -35430-11-13 01:26 J -11219068.71 -11219068.44 -11219068.16 0.0147 0.0030
 Venus -35413-08-29 18:57 J -11212933.71 -11212933.71 -11212933.66 0.0139 0.0138

Venus	-35412-04-13 05:45 J	-11212707.33	-11212707.26	-11212707.17	0.0139	0.0129
Venus	-35412-11-25 16:19 J	-11212480.92	-11212480.82	-11212480.70	0.0138	0.0119
Venus	-35411-07-10 02:38 J	-11212254.51	-11212254.39	-11212254.24	0.0138	0.0110
Venus	-35410-02-21 12:57 J	-11212028.11	-11212027.96	-11212027.80	0.0138	0.0100
Venus	-35410-10-05 22:47 J	-11211801.71	-11211801.55	-11211801.37	0.0137	0.0090
Venus	-35409-05-19 08:38 J	-11211575.31	-11211575.14	-11211574.95	0.0137	0.0080
Venus	-35409-12-31 18:14 J	-11211348.92	-11211348.74	-11211348.54	0.0137	0.0070
Venus	-35408-08-15 03:35 J	-11211122.54	-11211122.35	-11211122.14	0.0136	0.0061
Venus	-35407-03-29 12:57 J	-11210896.16	-11210895.96	-11210895.75	0.0136	0.0050
Venus	-35407-11-10 22:04 J	-11210669.79	-11210669.58	-11210669.36	0.0136	0.0040
Venus	-35406-06-25 06:57 J	-11210443.42	-11210443.21	-11210442.98	0.0135	0.0030
Venus	-35405-02-06 15:35 J	-11210217.06	-11210216.85	-11210216.62	0.0135	0.0021
Venus	-35405-09-20 00:14 J	-11209990.71	-11209990.49	-11209990.26	0.0135	0.0010
Venus	-35404-05-04 08:23 J	-11209764.37	-11209764.15	-11209763.92	0.0135	0.0002
Venus	-35404-12-16 16:33 J	-11209538.03	-11209537.81	-11209537.59	0.0134	0.0010
Venus	-35403-07-31 00:28 J	-11209311.70	-11209311.48	-11209311.26	0.0134	0.0020
Venus	-35402-03-14 08:09 J	-11209085.38	-11209085.16	-11209084.94	0.0134	0.0030
Venus	-35402-10-26 15:35 J	-11208859.06	-11208858.85	-11208858.63	0.0134	0.0039
Venus	-35401-06-08 22:47 J	-11208632.75	-11208632.55	-11208632.34	0.0134	0.0049
Earth	-35401-10-20 22:19 J	-11208498.80	-11208498.57	-11208498.32	0.0133	0.0050
Moon	-35401-10-21 01:40 J	-11208498.65	-11208498.43	-11208498.18	0.0133	0.0057 *
Venus	-35400-01-21 05:59 J	-11208406.45	-11208406.25	-11208406.04	0.0133	0.0058
Mercury	-35400-04-28 10:33 J	-11208309.13	-11208309.06	-11208308.97	0.0133	0.0115
Mercury	-35400-07-25 15:35 J	-11208220.96	-11208220.85	-11208220.73	0.0133	0.0093
Venus	-35400-09-04 12:43 J	-11208180.14	-11208179.97	-11208179.76	0.0133	0.0068
Mercury	-35400-10-21 20:09 J	-11208132.78	-11208132.66	-11208132.51	0.0133	0.0072
Moon	-35400-10-25 02:52 J	-11208129.60	-11208129.38	-11208129.14	0.0133	0.0058
Earth	-35400-10-25 05:59 J	-11208129.48	-11208129.25	-11208129.01	0.0133	0.0052 *
Mercury	-35399-01-18 01:11 J	-11208044.60	-11208044.45	-11208044.30	0.0133	0.0050
Mercury	-35399-04-16 05:59 J	-11207956.41	-11207956.25	-11207956.09	0.0133	0.0029

Venus -35399-04-18 19:55 J -11207953.85 -11207953.67 -11207953.49 0.0133 0.0075
 Mercury -35399-07-13 10:47 J -11207868.21 -11207868.05 -11207867.89 0.0133 0.0008
 Mercury -35399-10-09 15:21 J -11207780.02 -11207779.86 -11207779.70 0.0133 0.0014
 Venus -35399-12-01 02:23 J -11207727.56 -11207727.40 -11207727.22 0.0133 0.0084
 Mercury -35398-01-05 19:55 J -11207691.82 -11207691.67 -11207691.51 0.0133 0.0035
 Mercury -35398-04-04 00:43 J -11207603.62 -11207603.47 -11207603.33 0.0133 0.0055
 Mercury -35398-07-01 05:02 J -11207515.41 -11207515.29 -11207515.15 0.0133 0.0076
 Venus -35398-07-15 08:52 J -11207501.28 -11207501.13 -11207500.96 0.0133 0.0093
 Mercury -35398-09-27 09:35 J -11207427.20 -11207427.10 -11207426.99 0.0133 0.0096
 Mercury -35398-12-24 14:09 J -11207338.98 -11207338.91 -11207338.83 0.0133 0.0116
 Venus -35397-02-26 15:21 J -11207274.99 -11207274.86 -11207274.71 0.0132 0.0101
 Venus -35397-10-09 21:50 J -11207048.71 -11207048.59 -11207048.46 0.0132 0.0109
 Venus -35396-05-24 03:50 J -11206822.43 -11206822.34 -11206822.23 0.0132 0.0117
 Venus -35395-01-05 09:35 J -11206596.15 -11206596.10 -11206596.01 0.0132 0.0125
 Venus -35395-08-19 16:04 J -11206369.85 -11206369.83 -11206369.81 0.0132 0.0131
 Mars -35387-03-15 02:52 J -11203605.70 -11203605.38 -11203605.04 0.0132 0.0024
 Jupiter -35380-09-07 11:45 J -11200872.37 -11200872.01 -11200871.57 0.0134 0.0077
 Venus -35368-04-07 01:11 J -11196642.50 -11196642.45 -11196642.38 0.0139 0.0134
 Venus -35368-11-19 08:09 J -11196416.25 -11196416.16 -11196416.06 0.0140 0.0125
 Venus -35367-07-03 15:07 J -11196189.98 -11196189.87 -11196189.75 0.0140 0.0117
 Venus -35366-02-14 22:19 J -11195963.70 -11195963.57 -11195963.43 0.0140 0.0108
 Venus -35366-09-29 05:45 J -11195737.41 -11195737.26 -11195737.11 0.0141 0.0098
 Venus -35365-05-12 12:57 J -11195511.11 -11195510.96 -11195510.78 0.0141 0.0089
 Venus -35365-12-24 21:07 J -11195284.79 -11195284.62 -11195284.44 0.0142 0.0079
 Venus -35364-08-08 04:47 J -11195058.47 -11195058.30 -11195058.10 0.0142 0.0069
 Venus -35363-03-22 12:57 J -11194832.15 -11194831.96 -11194831.76 0.0142 0.0058
 Venus -35363-11-03 21:07 J -11194605.81 -11194605.62 -11194605.42 0.0143 0.0048
 Venus -35362-06-18 05:31 J -11194379.47 -11194379.27 -11194379.06 0.0143 0.0037
 Venus -35361-01-30 14:23 J -11194153.11 -11194152.90 -11194152.69 0.0143 0.0025
 Venus -35361-09-12 23:02 J -11193926.74 -11193926.54 -11193926.32 0.0144 0.0015

Venus -35360-04-27 08:09 J -11193700.37 -11193700.16 -11193699.95 0.0144 0.0003
 Venus -35360-12-09 17:16 J -11193473.99 -11193473.78 -11193473.57 0.0144 0.0009
 Venus -35359-07-24 02:38 J -11193247.60 -11193247.39 -11193247.18 0.0144 0.0020
 Venus -35358-03-07 12:14 J -11193021.19 -11193020.99 -11193020.78 0.0145 0.0032
 Venus -35358-10-19 21:50 J -11192794.78 -11192794.59 -11192794.38 0.0145 0.0044
 Earth -35357-04-17 00:57 J -11192614.65 -11192614.46 -11192614.24 0.0145 0.0087
 Moon -35357-04-17 02:09 J -11192614.60 -11192614.41 -11192614.19 0.0145 0.0087 *
 Venus -35357-06-02 07:55 J -11192568.36 -11192568.17 -11192567.97 0.0145 0.0056
 Mercury -35357-10-06 12:57 J -11192441.99 -11192441.96 -11192441.91 0.0145 0.0140
 Mercury -35356-01-02 17:59 J -11192353.83 -11192353.75 -11192353.65 0.0145 0.0115
 Venus -35356-01-14 17:59 J -11192341.92 -11192341.75 -11192341.55 0.0145 0.0068
 Mercury -35356-03-31 23:02 J -11192265.66 -11192265.54 -11192265.42 0.0145 0.0090
 Moon -35356-04-21 23:45 J -11192244.74 -11192244.51 -11192244.27 0.0145 0.0042
 Earth -35356-04-22 01:26 J -11192244.67 -11192244.44 -11192244.19 0.0145 0.0046 *
 Mercury -35356-06-28 04:04 J -11192177.46 -11192177.33 -11192177.19 0.0146 0.0064
 Venus -35356-08-29 04:33 J -11192115.48 -11192115.31 -11192115.12 0.0146 0.0079
 Mercury -35356-09-24 09:07 J -11192089.26 -11192089.12 -11192088.97 0.0146 0.0038
 Mercury -35356-12-21 14:23 J -11192001.05 -11192000.90 -11192000.75 0.0146 0.0012
 Mercury -35355-03-19 19:26 J -11191912.84 -11191912.69 -11191912.53 0.0146 0.0015
 Venus -35355-04-12 15:07 J -11191889.03 -11191888.87 -11191888.69 0.0146 0.0090
 Mercury -35355-06-16 00:43 J -11191824.62 -11191824.47 -11191824.32 0.0146 0.0042
 Mercury -35355-09-12 05:59 J -11191736.38 -11191736.25 -11191736.11 0.0146 0.0069
 Venus -35355-11-25 01:55 J -11191662.56 -11191662.42 -11191662.26 0.0146 0.0101
 Mercury -35355-12-09 11:16 J -11191648.14 -11191648.03 -11191647.91 0.0146 0.0096
 Mercury -35354-03-07 16:33 J -11191559.88 -11191559.81 -11191559.72 0.0146 0.0124
 Venus -35354-07-09 12:57 J -11191436.09 -11191435.96 -11191435.81 0.0146 0.0112
 Venus -35353-02-21 00:14 J -11191209.59 -11191209.49 -11191209.36 0.0146 0.0123
 Venus -35353-10-04 11:45 J -11190983.08 -11190983.01 -11190982.91 0.0146 0.0134
 Venus -35352-05-18 23:16 J -11190756.56 -11190756.53 -11190756.48 0.0146 0.0144
 Mars -35345-07-08 04:33 J -11188149.44 -11188149.31 -11188149.17 0.0146 0.0129

Venus	-35329-12-11 13:26 J	-11182149.01	-11182148.94	-11182148.87	0.0139	0.0131
Venus	-35328-07-25 23:59 J	-11181922.60	-11181922.50	-11181922.39	0.0139	0.0122
Venus	-35327-03-09 10:19 J	-11181696.19	-11181696.07	-11181695.93	0.0138	0.0112
Venus	-35327-10-21 20:23 J	-11181469.78	-11181469.65	-11181469.48	0.0138	0.0103
Venus	-35326-06-05 06:43 J	-11181243.37	-11181243.22	-11181243.04	0.0138	0.0093
Venus	-35325-01-17 17:02 J	-11181016.97	-11181016.79	-11181016.61	0.0137	0.0083
Venus	-35325-08-31 02:52 J	-11180790.57	-11180790.38	-11180790.19	0.0137	0.0072
Venus	-35324-04-14 11:59 J	-11180564.18	-11180564.00	-11180563.78	0.0137	0.0063
Venus	-35324-11-26 21:35 J	-11180337.80	-11180337.60	-11180337.39	0.0136	0.0052
Venus	-35323-07-11 06:57 J	-11180111.42	-11180111.21	-11180110.99	0.0136	0.0042
Venus	-35322-02-22 16:04 J	-11179885.05	-11179884.83	-11179884.61	0.0136	0.0032
Venus	-35322-10-07 00:43 J	-11179658.68	-11179658.47	-11179658.24	0.0135	0.0022
Venus	-35321-05-20 09:21 J	-11179432.33	-11179432.11	-11179431.88	0.0135	0.0011
Venus	-35320-01-01 17:45 J	-11179205.98	-11179205.76	-11179205.53	0.0135	0.0003
Venus	-35320-08-16 02:09 J	-11178979.63	-11178979.41	-11178979.19	0.0135	0.0009
Venus	-35319-03-30 10:04 J	-11178753.30	-11178753.08	-11178752.86	0.0134	0.0019
Venus	-35319-11-11 17:59 J	-11178526.97	-11178526.75	-11178526.54	0.0134	0.0029
Venus	-35318-06-26 01:26 J	-11178300.65	-11178300.44	-11178300.22	0.0134	0.0038
Venus	-35317-02-07 08:52 J	-11178074.33	-11178074.13	-11178073.92	0.0134	0.0048
Venus	-35317-09-20 16:04 J	-11177848.02	-11177847.83	-11177847.62	0.0134	0.0057
Earth	-35317-10-21 10:33 J	-11177817.29	-11177817.06	-11177816.80	0.0133	0.0043
Moon	-35317-10-21 13:40 J	-11177817.17	-11177816.93	-11177816.67	0.0133	0.0035 *
Mercury	-35316-02-19 13:11 J	-11177695.98	-11177695.95	-11177695.90	0.0133	0.0129
Venus	-35316-05-04 23:02 J	-11177621.72	-11177621.54	-11177621.33	0.0133	0.0067
Mercury	-35316-05-18 17:59 J	-11177607.83	-11177607.75	-11177607.64	0.0133	0.0108
Mercury	-35316-08-14 23:02 J	-11177519.66	-11177519.54	-11177519.41	0.0133	0.0085
Moon	-35316-10-25 15:07 J	-11177448.08	-11177447.87	-11177447.62	0.0133	0.0055
Earth	-35316-10-25 18:28 J	-11177447.95	-11177447.73	-11177447.49	0.0133	0.0060 *
Mercury	-35316-11-11 04:04 J	-11177431.47	-11177431.33	-11177431.19	0.0133	0.0063
Venus	-35316-12-17 05:59 J	-11177395.42	-11177395.25	-11177395.05	0.0133	0.0075

Mercury -35315-02-07 08:52 J -11177343.28 -11177343.13 -11177342.97 0.0133 0.0042

Mercury -35315-05-06 13:40 J -11177255.09 -11177254.93 -11177254.77 0.0133 0.0020

Venus -35315-07-31 12:57 J -11177169.12 -11177168.96 -11177168.78 0.0133 0.0084

Mercury -35315-08-02 18:28 J -11177166.89 -11177166.73 -11177166.57 0.0133 0.0003

Mercury -35315-10-29 23:02 J -11177078.70 -11177078.54 -11177078.38 0.0133 0.0022

Mercury -35314-01-26 03:35 J -11176990.50 -11176990.35 -11176990.19 0.0133 0.0043

Venus -35314-03-14 19:26 J -11176942.83 -11176942.69 -11176942.51 0.0133 0.0093

Mercury -35314-04-24 08:09 J -11176902.29 -11176902.16 -11176902.01 0.0133 0.0064

Mercury -35314-07-21 12:43 J -11176814.08 -11176813.97 -11176813.84 0.0133 0.0084

Mercury -35314-10-17 17:31 J -11176725.87 -11176725.77 -11176725.68 0.0133 0.0104

Venus -35314-10-27 02:09 J -11176716.54 -11176716.41 -11176716.26 0.0133 0.0101

Mercury -35313-01-13 21:35 J -11176637.64 -11176637.60 -11176637.53 0.0133 0.0125

Venus -35313-06-09 08:38 J -11176490.26 -11176490.14 -11176490.01 0.0132 0.0109

Venus -35312-01-21 14:52 J -11176263.97 -11176263.88 -11176263.77 0.0132 0.0117

Venus -35312-09-04 21:07 J -11176037.68 -11176037.62 -11176037.54 0.0132 0.0124

Venus -35311-04-19 03:07 J -11175811.37 -11175811.37 -11175811.34 0.0132 0.0132

Mars -35303-11-08 17:45 J -11172686.03 -11172685.76 -11172685.45 0.0132 0.0068

Venus -35285-12-05 12:57 J -11166083.99 -11166083.96 -11166083.90 0.0139 0.0136

Venus -35284-07-19 19:40 J -11165857.75 -11165857.68 -11165857.58 0.0140 0.0127

Venus -35283-03-03 02:23 J -11165631.49 -11165631.40 -11165631.27 0.0140 0.0119

Venus -35283-10-15 09:50 J -11165405.22 -11165405.09 -11165404.95 0.0140 0.0110

Venus -35282-05-29 16:47 J -11165178.93 -11165178.80 -11165178.64 0.0141 0.0101

Venus -35281-01-11 00:28 J -11164952.63 -11164952.48 -11164952.31 0.0141 0.0091

Venus -35281-08-24 07:55 J -11164726.33 -11164726.17 -11164725.98 0.0141 0.0082

Venus -35280-04-07 15:50 J -11164500.01 -11164499.84 -11164499.65 0.0142 0.0071

Venus -35280-11-19 23:45 J -11164273.69 -11164273.51 -11164273.31 0.0142 0.0060

Venus -35279-07-04 07:55 J -11164047.36 -11164047.17 -11164046.97 0.0142 0.0050

Venus -35278-02-15 16:04 J -11163821.02 -11163820.83 -11163820.62 0.0143 0.0039

Venus -35278-09-30 00:43 J -11163594.68 -11163594.47 -11163594.26 0.0143 0.0027

Venus -35277-05-13 09:21 J -11163368.32 -11163368.11 -11163367.90 0.0143 0.0016

Venus	-35277-12-25 18:14 J	-11163141.95	-11163141.74	-11163141.52	0.0144	0.0005
Venus	-35276-08-09 03:21 J	-11162915.57	-11162915.36	-11162915.15	0.0144	0.0007
Venus	-35275-03-23 12:28 J	-11162689.19	-11162688.98	-11162688.77	0.0144	0.0019
Venus	-35275-11-04 21:50 J	-11162462.79	-11162462.59	-11162462.38	0.0145	0.0030
Venus	-35274-06-19 07:26 J	-11162236.38	-11162236.19	-11162235.98	0.0145	0.0042
Venus	-35273-01-31 17:45 J	-11162009.96	-11162009.76	-11162009.57	0.0145	0.0053
Earth	-35273-04-17 14:23 J	-11161933.11	-11161932.90	-11161932.68	0.0145	0.0077
Moon	-35273-04-17 14:52 J	-11161933.09	-11161932.88	-11161932.64	0.0145	0.0076 *
Venus	-35273-09-14 03:35 J	-11161783.53	-11161783.35	-11161783.15	0.0145	0.0065
Mercury	-35273-10-26 20:52 J	-11161740.68	-11161740.63	-11161740.56	0.0145	0.0131
Mercury	-35272-01-23 01:55 J	-11161652.52	-11161652.42	-11161652.31	0.0145	0.0105
Mercury	-35272-04-21 06:57 J	-11161564.33	-11161564.21	-11161564.08	0.0145	0.0080
Moon	-35272-04-22 13:40 J	-11161563.14	-11161562.93	-11161562.69	0.0145	0.0058
Earth	-35272-04-22 14:52 J	-11161563.11	-11161562.88	-11161562.64	0.0145	0.0055 *
Venus	-35272-04-28 13:55 J	-11161557.10	-11161556.92	-11161556.74	0.0145	0.0077
Mercury	-35272-07-18 11:59 J	-11161476.14	-11161476.00	-11161475.86	0.0146	0.0054
Mercury	-35272-10-14 17:02 J	-11161387.93	-11161387.79	-11161387.64	0.0146	0.0028
Venus	-35272-12-11 00:28 J	-11161330.65	-11161330.48	-11161330.31	0.0146	0.0088
Mercury	-35271-01-10 22:19 J	-11161299.72	-11161299.57	-11161299.42	0.0146	0.0002
Mercury	-35271-04-09 03:21 J	-11161211.50	-11161211.36	-11161211.20	0.0146	0.0026
Mercury	-35271-07-06 08:38 J	-11161123.28	-11161123.14	-11161122.99	0.0146	0.0052
Venus	-35271-07-25 10:47 J	-11161104.19	-11161104.05	-11161103.88	0.0146	0.0100
Mercury	-35271-10-02 13:55 J	-11161035.04	-11161034.92	-11161034.79	0.0146	0.0079
Mercury	-35271-12-29 19:11 J	-11160946.80	-11160946.70	-11160946.59	0.0146	0.0107
Venus	-35270-03-08 21:50 J	-11160877.71	-11160877.59	-11160877.44	0.0146	0.0111
Mercury	-35270-03-28 00:43 J	-11160858.52	-11160858.47	-11160858.41	0.0146	0.0134
Venus	-35270-10-21 09:21 J	-11160651.23	-11160651.11	-11160650.99	0.0146	0.0122
Venus	-35269-06-03 20:09 J	-11160424.73	-11160424.66	-11160424.55	0.0146	0.0133
Venus	-35268-01-16 07:55 J	-11160198.21	-11160198.17	-11160198.12	0.0146	0.0143
Mars	-35262-04-01 15:50 J	-11157932.10	-11157931.84	-11157931.56	0.0147	0.0051

Venus	-35245-08-10 21:21 J	-11151590.65	-11151590.61	-11151590.53	0.0139	0.0134
Venus	-35244-03-25 08:09 J	-11151364.24	-11151364.16	-11151364.05	0.0139	0.0125
Venus	-35244-11-06 18:57 J	-11151137.83	-11151137.71	-11151137.58	0.0138	0.0115
Venus	-35243-06-21 05:16 J	-11150911.41	-11150911.28	-11150911.12	0.0138	0.0105
Venus	-35242-02-02 15:50 J	-11150685.00	-11150684.84	-11150684.67	0.0138	0.0095
Venus	-35242-09-17 01:55 J	-11150458.59	-11150458.42	-11150458.24	0.0137	0.0085
Venus	-35241-04-30 11:31 J	-11150232.19	-11150232.02	-11150231.82	0.0137	0.0075
Venus	-35241-12-12 21:21 J	-11150005.80	-11150005.61	-11150005.40	0.0137	0.0065
Venus	-35240-07-27 06:57 J	-11149779.41	-11149779.21	-11149778.99	0.0136	0.0054
Venus	-35239-03-10 16:19 J	-11149553.03	-11149552.82	-11149552.60	0.0136	0.0044
Venus	-35239-10-23 01:26 J	-11149326.65	-11149326.44	-11149326.22	0.0136	0.0033
Venus	-35238-06-06 10:33 J	-11149100.28	-11149100.06	-11149099.84	0.0136	0.0023
Venus	-35237-01-18 19:11 J	-11148873.92	-11148873.70	-11148873.48	0.0135	0.0013
Venus	-35237-09-01 03:50 J	-11148647.57	-11148647.34	-11148647.12	0.0135	0.0003
Venus	-35236-04-15 11:59 J	-11148421.22	-11148421.00	-11148420.78	0.0135	0.0008
Venus	-35236-11-27 19:55 J	-11148194.89	-11148194.67	-11148194.44	0.0135	0.0018
Venus	-35235-07-12 04:04 J	-11147968.55	-11147968.33	-11147968.11	0.0134	0.0028
Venus	-35234-02-23 11:45 J	-11147742.22	-11147742.01	-11147741.79	0.0134	0.0037
Venus	-35234-10-07 19:11 J	-11147515.90	-11147515.70	-11147515.49	0.0134	0.0047
Moon	-35234-10-18 12:43 J	-11147505.00	-11147504.97	-11147504.90	0.0134	0.0131
Venus	-35233-05-21 02:23 J	-11147289.59	-11147289.40	-11147289.19	0.0134	0.0057
Earth	-35233-10-21 23:59 J	-11147135.75	-11147135.50	-11147135.25	0.0134	0.0034
Moon	-35233-10-22 02:38 J	-11147135.63	-11147135.39	-11147135.14	0.0134	0.0041 *
Venus	-35232-01-02 09:35 J	-11147063.28	-11147063.10	-11147062.89	0.0133	0.0066
Mercury	-35232-03-11 20:52 J	-11146994.69	-11146994.63	-11146994.55	0.0133	0.0121
Mercury	-35232-06-08 01:55 J	-11146906.52	-11146906.42	-11146906.30	0.0133	0.0099
Venus	-35232-08-16 17:02 J	-11146836.97	-11146836.79	-11146836.60	0.0133	0.0075
Mercury	-35232-09-04 06:57 J	-11146818.34	-11146818.21	-11146818.07	0.0133	0.0076
Moon	-35232-10-26 05:02 J	-11146766.48	-11146766.29	-11146766.07	0.0133	0.0075
Earth	-35232-10-26 07:26 J	-11146766.40	-11146766.19	-11146765.96	0.0133	0.0069 *

Mercury -35232-12-01 11:45 J -11146730.15 -11146730.01 -11146729.86 0.0133 0.0055

Mercury -35231-02-27 16:33 J -11146641.96 -11146641.81 -11146641.65 0.0133 0.0033

Venus -35231-03-30 23:45 J -11146610.67 -11146610.51 -11146610.33 0.0133 0.0084

Mercury -35231-05-26 21:21 J -11146553.77 -11146553.61 -11146553.44 0.0133 0.0012

Mercury -35231-08-23 02:09 J -11146465.57 -11146465.41 -11146465.25 0.0133 0.0010

Venus -35231-11-12 06:28 J -11146384.38 -11146384.23 -11146384.06 0.0133 0.0092

Mercury -35231-11-19 06:43 J -11146377.37 -11146377.22 -11146377.06 0.0133 0.0031

Mercury -35230-02-15 11:16 J -11146289.17 -11146289.03 -11146288.87 0.0133 0.0052

Mercury -35230-05-14 16:04 J -11146200.96 -11146200.83 -11146200.69 0.0133 0.0072

Venus -35230-06-26 12:57 J -11146158.09 -11146157.96 -11146157.80 0.0133 0.0101

Mercury -35230-08-10 20:23 J -11146112.75 -11146112.65 -11146112.53 0.0133 0.0093

Mercury -35230-11-07 00:57 J -11146024.53 -11146024.46 -11146024.37 0.0133 0.0113

Venus -35229-02-07 19:40 J -11145931.80 -11145931.68 -11145931.54 0.0133 0.0109

Venus -35229-09-21 02:09 J -11145705.50 -11145705.41 -11145705.30 0.0132 0.0117

Venus -35228-05-05 08:23 J -11145479.21 -11145479.15 -11145479.07 0.0132 0.0125

Venus -35228-12-17 14:23 J -11145252.90 -11145252.90 -11145252.87 0.0132 0.0132

Mars -35220-07-31 18:28 J -11142469.96 -11142469.73 -11142469.45 0.0132 0.0086

Venus -35201-08-05 00:57 J -11135525.48 -11135525.46 -11135525.43 0.0139 0.0137

Venus -35200-03-19 07:26 J -11135299.25 -11135299.19 -11135299.10 0.0139 0.0129

Venus -35200-10-31 14:09 J -11135073.00 -11135072.91 -11135072.79 0.0140 0.0121

Venus -35199-06-14 21:07 J -11134846.73 -11134846.62 -11134846.48 0.0140 0.0112

Venus -35198-01-27 04:33 J -11134620.45 -11134620.31 -11134620.16 0.0140 0.0103

Venus -35198-09-10 11:45 J -11134394.16 -11134394.01 -11134393.84 0.0141 0.0093

Venus -35197-04-23 19:11 J -11134167.86 -11134167.70 -11134167.52 0.0141 0.0083

Venus -35197-12-06 02:52 J -11133941.55 -11133941.38 -11133941.19 0.0141 0.0073

Venus -35196-07-20 10:47 J -11133715.24 -11133715.05 -11133714.86 0.0142 0.0062

Venus -35195-03-03 18:43 J -11133488.91 -11133488.72 -11133488.52 0.0142 0.0052

Venus -35195-10-16 02:52 J -11133262.58 -11133262.38 -11133262.18 0.0142 0.0041

Venus -35194-05-30 11:02 J -11133036.24 -11133036.04 -11133035.82 0.0143 0.0030

Venus -35193-01-11 19:55 J -11132809.88 -11132809.67 -11132809.46 0.0143 0.0018

Venus	-35193-08-25 04:33 J	-11132583.52	-11132583.31	-11132583.10	0.0143	0.0007
Venus	-35192-04-08 13:26 J	-11132357.15	-11132356.94	-11132356.73	0.0144	0.0005
Venus	-35192-11-20 22:33 J	-11132130.77	-11132130.56	-11132130.35	0.0144	0.0017
Venus	-35191-07-05 07:40 J	-11131904.38	-11131904.18	-11131903.97	0.0144	0.0028
Venus	-35190-02-16 17:16 J	-11131677.98	-11131677.78	-11131677.57	0.0145	0.0040
Venus	-35190-10-01 02:52 J	-11131451.57	-11131451.38	-11131451.17	0.0145	0.0052
Moon	-35189-04-18 03:35 J	-11131251.57	-11131251.35	-11131251.10	0.0145	0.0069
Earth	-35189-04-18 03:21 J	-11131251.56	-11131251.36	-11131251.12	0.0145	0.0068 *
Venus	-35189-05-14 12:57 J	-11131225.15	-11131224.96	-11131224.76	0.0145	0.0063
Mercury	-35189-11-16 04:47 J	-11131039.37	-11131039.30	-11131039.21	0.0145	0.0121
Venus	-35189-12-26 23:16 J	-11130998.71	-11130998.53	-11130998.35	0.0145	0.0075
Mercury	-35188-02-12 09:50 J	-11130951.20	-11130951.09	-11130950.97	0.0145	0.0095
Moon	-35188-04-23 03:21 J	-11130881.58	-11130881.36	-11130881.14	0.0145	0.0061
Earth	-35188-04-23 03:50 J	-11130881.55	-11130881.34	-11130881.09	0.0145	0.0065 *
Mercury	-35188-05-11 14:52 J	-11130863.01	-11130862.88	-11130862.74	0.0145	0.0070
Mercury	-35188-08-07 19:55 J	-11130774.81	-11130774.67	-11130774.52	0.0145	0.0044
Venus	-35188-08-10 09:21 J	-11130772.27	-11130772.11	-11130771.93	0.0145	0.0087
Mercury	-35188-11-04 01:11 J	-11130686.61	-11130686.45	-11130686.30	0.0146	0.0018
Mercury	-35187-01-31 06:14 J	-11130598.39	-11130598.24	-11130598.09	0.0146	0.0009
Venus	-35187-03-24 19:55 J	-11130545.81	-11130545.67	-11130545.50	0.0146	0.0098
Mercury	-35187-04-29 11:16 J	-11130510.17	-11130510.03	-11130509.87	0.0146	0.0036
Mercury	-35187-07-26 16:33 J	-11130421.94	-11130421.81	-11130421.67	0.0146	0.0062
Mercury	-35187-10-22 21:50 J	-11130333.70	-11130333.59	-11130333.46	0.0146	0.0090
Venus	-35187-11-06 06:43 J	-11130319.35	-11130319.22	-11130319.07	0.0146	0.0109
Mercury	-35186-01-19 03:07 J	-11130245.45	-11130245.37	-11130245.27	0.0146	0.0117
Mercury	-35186-04-17 08:38 J	-11130157.16	-11130157.14	-11130157.12	0.0146	0.0144
Venus	-35186-06-20 17:31 J	-11130092.87	-11130092.77	-11130092.63	0.0146	0.0120
Venus	-35185-02-02 04:47 J	-11129866.38	-11129866.30	-11129866.19	0.0146	0.0131
Venus	-35185-09-15 16:04 J	-11129639.87	-11129639.83	-11129639.76	0.0146	0.0142
Mars	-35178-11-25 20:38 J	-11127012.89	-11127012.64	-11127012.36	0.0146	0.0051

Jupiter	-35172-03-09 03:50 J	-11125082.73	-11125082.34	-11125081.87	0.0145	0.0090
Venus	-35161-04-10 04:19 J	-11121032.33	-11121032.32	-11121032.26	0.0139	0.0138
Venus	-35161-11-22 15:50 J	-11120805.93	-11120805.84	-11120805.76	0.0139	0.0127
Venus	-35160-07-07 02:23 J	-11120579.51	-11120579.40	-11120579.27	0.0139	0.0118
Venus	-35159-02-18 13:11 J	-11120353.09	-11120352.95	-11120352.81	0.0138	0.0108
Venus	-35159-10-02 23:02 J	-11120126.68	-11120126.54	-11120126.36	0.0138	0.0098
Venus	-35158-05-17 09:21 J	-11119900.27	-11119900.11	-11119899.92	0.0138	0.0088
Venus	-35158-12-29 19:26 J	-11119673.86	-11119673.69	-11119673.49	0.0137	0.0078
Venus	-35157-08-12 05:16 J	-11119447.46	-11119447.28	-11119447.07	0.0137	0.0067
Venus	-35156-03-26 14:52 J	-11119221.07	-11119220.88	-11119220.66	0.0137	0.0057
Venus	-35156-11-08 00:28 J	-11118994.68	-11118994.48	-11118994.26	0.0136	0.0046
Venus	-35155-06-22 10:04 J	-11118768.30	-11118768.08	-11118767.87	0.0136	0.0035
Venus	-35154-02-03 18:57 J	-11118541.93	-11118541.71	-11118541.49	0.0136	0.0025
Venus	-35154-09-18 03:50 J	-11118315.56	-11118315.34	-11118315.12	0.0136	0.0014
Venus	-35153-05-01 12:28 J	-11118089.21	-11118088.98	-11118088.76	0.0135	0.0005
Venus	-35153-12-13 20:52 J	-11117862.86	-11117862.63	-11117862.41	0.0135	0.0006
Venus	-35152-07-28 05:02 J	-11117636.51	-11117636.29	-11117636.06	0.0135	0.0016
Venus	-35151-03-11 12:57 J	-11117410.17	-11117409.96	-11117409.73	0.0134	0.0027
Venus	-35151-10-23 20:52 J	-11117183.84	-11117183.63	-11117183.41	0.0134	0.0036
Venus	-35150-06-07 04:19 J	-11116957.52	-11116957.32	-11116957.10	0.0134	0.0046
Earth	-35150-10-19 03:21 J	-11116823.42	-11116823.36	-11116823.30	0.0134	0.0129
Venus	-35149-01-19 12:14 J	-11116731.20	-11116730.99	-11116730.79	0.0134	0.0055
Venus	-35149-09-01 19:26 J	-11116504.88	-11116504.69	-11116504.49	0.0134	0.0065
Earth	-35149-10-22 11:45 J	-11116454.26	-11116454.01	-11116453.76	0.0134	0.0027
Moon	-35149-10-22 13:55 J	-11116454.18	-11116453.92	-11116453.65	0.0134	0.0020 *
Mercury	-35148-04-01 04:33 J	-11116293.39	-11116293.31	-11116293.22	0.0133	0.0113
Venus	-35148-04-16 02:38 J	-11116278.57	-11116278.39	-11116278.20	0.0133	0.0074
Mercury	-35148-06-28 09:35 J	-11116205.22	-11116205.10	-11116204.98	0.0133	0.0090
Mercury	-35148-09-24 14:23 J	-11116117.03	-11116116.90	-11116116.76	0.0133	0.0069
Moon	-35148-10-26 17:02 J	-11116084.99	-11116084.79	-11116084.57	0.0133	0.0069

Earth -35148-10-26 19:40 J -11116084.89 -11116084.68 -11116084.47 0.0133 0.0076 *
 Venus -35148-11-28 09:50 J -11116052.26 -11116052.09 -11116051.91 0.0133 0.0083
 Mercury -35148-12-21 19:11 J -11116028.84 -11116028.70 -11116028.54 0.0133 0.0047
 Mercury -35147-03-20 00:14 J -11115940.65 -11115940.49 -11115940.33 0.0133 0.0025
 Mercury -35147-06-16 05:02 J -11115852.45 -11115852.29 -11115852.13 0.0133 0.0005
 Venus -35147-07-12 16:47 J -11115825.96 -11115825.80 -11115825.64 0.0133 0.0091
 Mercury -35147-09-12 09:35 J -11115764.26 -11115764.10 -11115763.94 0.0133 0.0018
 Mercury -35147-12-09 14:23 J -11115676.05 -11115675.90 -11115675.75 0.0133 0.0038
 Venus -35146-02-23 23:31 J -11115599.66 -11115599.52 -11115599.37 0.0133 0.0100
 Mercury -35146-03-07 18:57 J -11115587.85 -11115587.71 -11115587.56 0.0133 0.0059
 Mercury -35146-06-03 23:31 J -11115499.64 -11115499.52 -11115499.39 0.0133 0.0080
 Mercury -35146-08-31 03:50 J -11115411.43 -11115411.34 -11115411.22 0.0133 0.0101
 Venus -35146-10-08 05:59 J -11115373.36 -11115373.25 -11115373.11 0.0133 0.0109
 Mercury -35146-11-27 08:23 J -11115323.20 -11115323.15 -11115323.07 0.0133 0.0121
 Venus -35145-05-21 12:28 J -11115147.07 -11115146.98 -11115146.86 0.0133 0.0117
 Venus -35144-01-02 18:43 J -11114920.77 -11114920.72 -11114920.63 0.0132 0.0125
 Venus -35144-08-17 01:11 J -11114694.45 -11114694.45 -11114694.42 0.0132 0.0132
 Mars -35135-03-27 08:23 J -11111550.49 -11111550.15 -11111549.82 0.0132 0.0004
 Venus -35117-11-16 18:28 J -11104740.78 -11104740.73 -11104740.65 0.0139 0.0132
 Venus -35116-07-01 01:26 J -11104514.53 -11104514.44 -11104514.34 0.0139 0.0123
 Venus -35115-02-12 08:09 J -11104288.27 -11104288.16 -11104288.03 0.0140 0.0114
 Venus -35115-09-26 15:21 J -11104062.00 -11104061.86 -11104061.72 0.0140 0.0105
 Venus -35114-05-10 22:04 J -11103835.71 -11103835.58 -11103835.40 0.0141 0.0096
 Venus -35114-12-23 05:59 J -11103609.42 -11103609.25 -11103609.08 0.0141 0.0085
 Venus -35113-08-05 13:11 J -11103383.11 -11103382.95 -11103382.76 0.0141 0.0076
 Venus -35112-03-19 20:52 J -11103156.81 -11103156.63 -11103156.43 0.0142 0.0065
 Venus -35112-11-01 04:47 J -11102930.49 -11102930.30 -11102930.10 0.0142 0.0054
 Venus -35111-06-15 12:43 J -11102704.16 -11102703.97 -11102703.76 0.0142 0.0044
 Venus -35110-01-27 21:21 J -11102477.82 -11102477.61 -11102477.40 0.0143 0.0032
 Venus -35110-09-11 05:45 J -11102251.47 -11102251.26 -11102251.05 0.0143 0.0021

Venus	-35109-04-24 14:23 J	-11102025.11	-11102024.90	-11102024.69	0.0143	0.0009
Venus	-35109-12-06 23:02 J	-11101798.75	-11101798.54	-11101798.32	0.0144	0.0004
Venus	-35108-07-21 08:09 J	-11101572.37	-11101572.16	-11101571.95	0.0144	0.0014
Venus	-35107-03-04 17:16 J	-11101345.98	-11101345.78	-11101345.57	0.0144	0.0026
Venus	-35107-10-17 02:52 J	-11101119.59	-11101119.38	-11101119.18	0.0144	0.0038
Venus	-35106-05-31 12:14 J	-11100893.18	-11100892.99	-11100892.78	0.0145	0.0050
Venus	-35105-01-12 22:19 J	-11100666.76	-11100666.57	-11100666.37	0.0145	0.0061
Moon	-35105-04-18 16:19 J	-11100570.06	-11100569.82	-11100569.57	0.0145	0.0056
Earth	-35105-04-18 16:47 J	-11100570.03	-11100569.80	-11100569.57	0.0145	0.0058 *
Venus	-35105-08-26 08:23 J	-11100440.33	-11100440.15	-11100439.96	0.0145	0.0073
Mercury	-35105-09-09 07:55 J	-11100426.22	-11100426.17	-11100426.11	0.0145	0.0136
Mercury	-35105-12-06 12:57 J	-11100338.06	-11100337.96	-11100337.87	0.0145	0.0110
Mercury	-35104-03-04 17:45 J	-11100249.88	-11100249.76	-11100249.63	0.0145	0.0085
Venus	-35104-04-09 18:43 J	-11100213.89	-11100213.72	-11100213.55	0.0145	0.0085
Moon	-35104-04-23 16:47 J	-11100200.00	-11100199.80	-11100199.58	0.0145	0.0076
Earth	-35104-04-23 17:16 J	-11100200.00	-11100199.78	-11100199.56	0.0145	0.0073 *
Mercury	-35104-05-31 22:47 J	-11100161.68	-11100161.55	-11100161.41	0.0145	0.0060
Mercury	-35104-08-28 03:50 J	-11100073.48	-11100073.34	-11100073.19	0.0145	0.0034
Venus	-35104-11-22 04:47 J	-11099987.44	-11099987.30	-11099987.12	0.0146	0.0097
Mercury	-35104-11-24 09:07 J	-11099985.28	-11099985.12	-11099984.97	0.0146	0.0008
Mercury	-35103-02-20 14:09 J	-11099897.06	-11099896.91	-11099896.76	0.0146	0.0019
Mercury	-35103-05-19 19:11 J	-11099808.84	-11099808.70	-11099808.55	0.0146	0.0046
Venus	-35103-07-06 15:35 J	-11099760.98	-11099760.85	-11099760.70	0.0146	0.0108
Mercury	-35103-08-16 00:28 J	-11099720.61	-11099720.48	-11099720.34	0.0146	0.0073
Mercury	-35103-11-12 05:45 J	-11099632.36	-11099632.26	-11099632.14	0.0146	0.0100
Mercury	-35102-02-08 11:02 J	-11099544.10	-11099544.04	-11099543.96	0.0146	0.0127
Venus	-35102-02-18 02:23 J	-11099534.50	-11099534.40	-11099534.26	0.0146	0.0119
Venus	-35102-10-02 13:40 J	-11099308.02	-11099307.93	-11099307.82	0.0146	0.0130
Venus	-35101-05-16 00:43 J	-11099081.52	-11099081.47	-11099081.40	0.0146	0.0140
Mars	-35095-08-19 07:55 J	-11096795.28	-11096795.17	-11096795.01	0.0147	0.0129

Venus	-35077-07-22 23:45 J	-11090247.57	-11090247.51	-11090247.42	0.0139	0.0130
Venus	-35076-03-06 10:47 J	-11090021.16	-11090021.05	-11090020.94	0.0139	0.0120
Venus	-35076-10-18 21:07 J	-11089794.74	-11089794.62	-11089794.47	0.0138	0.0111
Venus	-35075-06-02 07:40 J	-11089568.32	-11089568.18	-11089568.01	0.0138	0.0101
Venus	-35074-01-14 18:14 J	-11089341.90	-11089341.74	-11089341.56	0.0138	0.0090
Venus	-35074-08-29 04:19 J	-11089115.49	-11089115.32	-11089115.13	0.0137	0.0079
Venus	-35073-04-11 14:09 J	-11088889.09	-11088888.91	-11088888.71	0.0137	0.0069
Venus	-35073-11-23 23:45 J	-11088662.70	-11088662.51	-11088662.29	0.0137	0.0059
Venus	-35072-07-08 09:35 J	-11088436.30	-11088436.10	-11088435.88	0.0136	0.0048
Venus	-35071-02-19 18:57 J	-11088209.92	-11088209.71	-11088209.49	0.0136	0.0037
Venus	-35071-10-04 04:04 J	-11087983.55	-11087983.33	-11087983.11	0.0136	0.0027
Venus	-35070-05-18 12:57 J	-11087757.18	-11087756.96	-11087756.74	0.0136	0.0016
Venus	-35070-12-30 21:35 J	-11087530.82	-11087530.60	-11087530.37	0.0135	0.0006
Venus	-35069-08-13 06:14 J	-11087304.46	-11087304.24	-11087304.02	0.0135	0.0005
Venus	-35068-03-27 14:23 J	-11087078.12	-11087077.90	-11087077.67	0.0135	0.0015
Venus	-35068-11-08 22:33 J	-11086851.78	-11086851.56	-11086851.34	0.0135	0.0025
Venus	-35067-06-23 06:43 J	-11086625.44	-11086625.22	-11086625.01	0.0134	0.0035
Venus	-35066-02-04 14:23 J	-11086399.11	-11086398.90	-11086398.68	0.0134	0.0045
Venus	-35066-09-18 22:04 J	-11086172.78	-11086172.58	-11086172.37	0.0134	0.0054
Moon	-35066-10-19 13:40 J	-11086142.04	-11086141.93	-11086141.79	0.0134	0.0116
Earth	-35066-10-19 15:07 J	-11086141.95	-11086141.87	-11086141.74	0.0134	0.0122 *
Venus	-35065-05-02 05:31 J	-11085946.46	-11085946.27	-11085946.07	0.0134	0.0064
Earth	-35065-10-23 00:14 J	-11085772.74	-11085772.49	-11085772.23	0.0134	0.0019
Moon	-35065-10-23 02:09 J	-11085772.67	-11085772.41	-11085772.15	0.0134	0.0026 *
Venus	-35065-12-14 12:57 J	-11085720.15	-11085719.96	-11085719.77	0.0133	0.0073
Mercury	-35064-01-23 07:11 J	-11085680.24	-11085680.20	-11085680.14	0.0133	0.0126
Mercury	-35064-04-21 11:59 J	-11085592.09	-11085592.00	-11085591.89	0.0133	0.0105
Mercury	-35064-07-18 17:02 J	-11085503.91	-11085503.79	-11085503.65	0.0133	0.0082
Venus	-35064-07-28 19:55 J	-11085493.83	-11085493.67	-11085493.48	0.0133	0.0082
Mercury	-35064-10-14 22:04 J	-11085415.72	-11085415.58	-11085415.43	0.0133	0.0060

Moon -35064-10-27 06:28 J -11085403.41 -11085403.23 -11085403.04 0.0133 0.0089
 Earth -35064-10-27 07:55 J -11085403.36 -11085403.17 -11085402.96 0.0133 0.0083 *
 Mercury -35063-01-11 03:07 J -11085327.53 -11085327.37 -11085327.22 0.0133 0.0039
 Venus -35063-03-12 02:52 J -11085267.52 -11085267.38 -11085267.20 0.0133 0.0092
 Mercury -35063-04-09 07:55 J -11085239.33 -11085239.17 -11085239.01 0.0133 0.0017
 Mercury -35063-07-06 12:28 J -11085151.14 -11085150.98 -11085150.81 0.0133 0.0006
 Mercury -35063-10-02 17:16 J -11085062.94 -11085062.78 -11085062.62 0.0133 0.0026
 Venus -35063-10-24 09:50 J -11085041.22 -11085041.09 -11085040.93 0.0133 0.0100
 Mercury -35063-12-29 21:50 J -11084974.73 -11084974.59 -11084974.43 0.0133 0.0047
 Mercury -35062-03-28 02:23 J -11084886.53 -11084886.40 -11084886.25 0.0133 0.0068
 Venus -35062-06-07 16:47 J -11084814.92 -11084814.80 -11084814.67 0.0133 0.0108
 Mercury -35062-06-24 07:11 J -11084798.31 -11084798.20 -11084798.08 0.0133 0.0088
 Mercury -35062-09-20 11:31 J -11084710.10 -11084710.02 -11084709.92 0.0133 0.0109
 Mercury -35062-12-17 16:04 J -11084621.85 -11084621.83 -11084621.78 0.0133 0.0129
 Venus -35061-01-19 23:02 J -11084588.63 -11084588.54 -11084588.42 0.0133 0.0117
 Venus -35061-09-02 05:45 J -11084362.32 -11084362.26 -11084362.17 0.0133 0.0125
 Venus -35060-04-16 11:59 J -11084136.00 -11084136.00 -11084135.97 0.0132 0.0132
 Mars -35051-11-20 21:35 J -11080630.82 -11080630.60 -11080630.35 0.0132 0.0095
 Venus -35033-07-17 05:16 J -11074182.32 -11074182.28 -11074182.21 0.0139 0.0134
 Venus -35032-02-28 11:45 J -11073956.08 -11073956.01 -11073955.90 0.0139 0.0126
 Venus -35032-10-12 18:28 J -11073729.83 -11073729.73 -11073729.60 0.0140 0.0117
 Venus -35031-05-27 01:40 J -11073503.56 -11073503.43 -11073503.29 0.0140 0.0107
 Venus -35030-01-08 08:52 J -11073277.27 -11073277.13 -11073276.97 0.0140 0.0098
 Venus -35030-08-22 16:04 J -11073050.99 -11073050.83 -11073050.66 0.0141 0.0088
 Venus -35029-04-04 23:31 J -11072824.69 -11072824.52 -11072824.34 0.0141 0.0077
 Venus -35029-11-17 06:43 J -11072598.39 -11072598.22 -11072598.02 0.0141 0.0068
 Venus -35028-07-01 14:38 J -11072372.08 -11072371.89 -11072371.69 0.0142 0.0056
 Venus -35027-02-12 22:47 J -11072145.75 -11072145.55 -11072145.35 0.0142 0.0045
 Venus -35027-09-27 06:43 J -11071919.42 -11071919.22 -11071919.01 0.0142 0.0034
 Venus -35026-05-11 15:07 J -11071693.08 -11071692.87 -11071692.66 0.0143 0.0023

Venus	-35026-12-23 23:31 J	-11071466.72	-11071466.52	-11071466.30	0.0143	0.0012
Venus	-35025-08-06 08:23 J	-11071240.36	-11071240.15	-11071239.94	0.0143	0.0001
Venus	-35024-03-20 17:16 J	-11071013.99	-11071013.78	-11071013.57	0.0144	0.0012
Venus	-35024-11-02 02:09 J	-11070787.61	-11070787.41	-11070787.19	0.0144	0.0024
Venus	-35023-06-16 11:31 J	-11070561.22	-11070561.02	-11070560.81	0.0144	0.0035
Venus	-35022-01-28 21:07 J	-11070334.81	-11070334.62	-11070334.41	0.0144	0.0047
Venus	-35022-09-12 06:57 J	-11070108.40	-11070108.21	-11070108.01	0.0145	0.0059
Moon	-35021-04-19 03:21 J	-11069888.60	-11069888.36	-11069888.11	0.0145	0.0053
Earth	-35021-04-19 04:19 J	-11069888.55	-11069888.32	-11069888.08	0.0145	0.0051 *
Venus	-35021-04-25 16:47 J	-11069881.98	-11069881.80	-11069881.61	0.0145	0.0071
Mercury	-35021-09-29 15:21 J	-11069724.92	-11069724.86	-11069724.78	0.0145	0.0127
Venus	-35021-12-08 02:52 J	-11069655.54	-11069655.38	-11069655.20	0.0145	0.0083
Mercury	-35021-12-26 20:23 J	-11069636.75	-11069636.65	-11069636.54	0.0145	0.0102
Mercury	-35020-03-25 01:26 J	-11069548.57	-11069548.44	-11069548.31	0.0145	0.0077
Earth	-35020-04-24 04:33 J	-11069518.51	-11069518.31	-11069518.08	0.0145	0.0081
Moon	-35020-04-24 04:47 J	-11069518.50	-11069518.30	-11069518.09	0.0145	0.0078 *
Mercury	-35020-06-21 06:28 J	-11069460.37	-11069460.23	-11069460.09	0.0145	0.0051
Venus	-35020-07-22 13:11 J	-11069429.10	-11069428.95	-11069428.78	0.0145	0.0094
Mercury	-35020-09-17 11:31 J	-11069372.17	-11069372.02	-11069371.87	0.0145	0.0025
Mercury	-35020-12-14 16:33 J	-11069283.96	-11069283.81	-11069283.65	0.0145	0.0003
Venus	-35019-03-05 23:45 J	-11069202.64	-11069202.51	-11069202.35	0.0146	0.0106
Mercury	-35019-03-12 21:50 J	-11069195.74	-11069195.59	-11069195.44	0.0146	0.0028
Mercury	-35019-06-09 02:52 J	-11069107.52	-11069107.38	-11069107.23	0.0146	0.0054
Mercury	-35019-09-05 08:09 J	-11069019.29	-11069019.16	-11069019.03	0.0146	0.0081
Venus	-35019-10-18 10:33 J	-11068976.18	-11068976.06	-11068975.92	0.0146	0.0117
Mercury	-35019-12-02 13:26 J	-11068931.04	-11068930.94	-11068930.84	0.0146	0.0108
Mercury	-35018-02-28 18:43 J	-11068842.77	-11068842.72	-11068842.66	0.0146	0.0136
Venus	-35018-06-01 21:21 J	-11068749.70	-11068749.61	-11068749.50	0.0146	0.0128
Venus	-35017-01-14 08:38 J	-11068523.20	-11068523.14	-11068523.07	0.0146	0.0138
Mars	-35010-04-14 11:16 J	-11065876.30	-11065876.03	-11065875.74	0.0146	0.0028

35TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 35th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-34993-03-22 06:14 J		-11059689.28	-11059689.24	-11059689.16	0.0139	0.0134	
Venus	-34993-11-03 17:16 J		-11059462.87	-11059462.78	-11059462.66	0.0139	0.0123	
Venus	-34992-06-18 04:33 J		-11059236.44	-11059236.31	-11059236.18	0.0139	0.0113	
Venus	-34991-01-30 14:38 J		-11059010.02	-11059009.89	-11059009.72	0.0138	0.0104	
Venus	-34991-09-14 01:11 J		-11058783.60	-11058783.45	-11058783.27	0.0138	0.0093	
Venus	-34990-04-28 11:31 J		-11058557.19	-11058557.02	-11058556.83	0.0138	0.0082	
Venus	-34990-12-10 21:35 J		-11058330.79	-11058330.60	-11058330.40	0.0137	0.0072	
Venus	-34989-07-24 07:26 J		-11058104.38	-11058104.19	-11058103.98	0.0137	0.0061	
Venus	-34988-03-07 17:02 J		-11057877.99	-11057877.79	-11057877.57	0.0137	0.0050	
Venus	-34988-10-20 02:23 J		-11057651.61	-11057651.40	-11057651.18	0.0136	0.0040	
Venus	-34987-06-03 11:45 J		-11057425.23	-11057425.01	-11057424.79	0.0136	0.0029	
Venus	-34986-01-15 20:38 J		-11057198.85	-11057198.64	-11057198.41	0.0136	0.0019	
Venus	-34986-08-30 05:31 J		-11056972.49	-11056972.27	-11056972.04	0.0136	0.0009	
Venus	-34985-04-12 14:09 J		-11056746.13	-11056745.91	-11056745.68	0.0135	0.0004	
Venus	-34985-11-24 22:33 J		-11056519.78	-11056519.56	-11056519.33	0.0135	0.0013	
Venus	-34984-07-09 06:57 J		-11056293.43	-11056293.21	-11056292.98	0.0135	0.0023	
Venus	-34983-02-20 15:07 J		-11056067.08	-11056066.87	-11056066.65	0.0134	0.0033	
Venus	-34983-10-04 23:02 J		-11055840.75	-11055840.54	-11055840.32	0.0134	0.0043	

Venus -34982-05-19 06:43 J -11055614.42 -11055614.22 -11055614.01 0.0134 0.0053
 Moon -34982-10-20 00:57 J -11055460.54 -11055460.46 -11055460.33 0.0134 0.0122
 Earth -34982-10-20 01:55 J -11055460.52 -11055460.42 -11055460.27 0.0134 0.0116 *
 Venus -34982-12-31 14:09 J -11055388.09 -11055387.91 -11055387.70 0.0134 0.0063
 Venus -34981-08-13 21:50 J -11055161.77 -11055161.59 -11055161.39 0.0134 0.0072
 Earth -34981-10-23 11:02 J -11055091.29 -11055091.04 -11055090.78 0.0134 0.0013
 Moon -34981-10-23 12:28 J -11055091.25 -11055090.98 -11055090.72 0.0134 0.0006 *
 Mercury -34980-02-12 14:23 J -11054978.96 -11054978.90 -11054978.82 0.0133 0.0120
 Venus -34980-03-28 05:02 J -11054935.45 -11054935.29 -11054935.10 0.0133 0.0081
 Mercury -34980-05-11 19:26 J -11054890.79 -11054890.69 -11054890.57 0.0133 0.0097
 Mercury -34980-08-08 00:14 J -11054802.61 -11054802.49 -11054802.34 0.0133 0.0076
 Moon -34980-10-27 17:16 J -11054721.96 -11054721.78 -11054721.57 0.0133 0.0083
 Earth -34980-10-27 18:57 J -11054721.88 -11054721.71 -11054721.51 0.0133 0.0090 *
 Mercury -34980-11-04 05:16 J -11054714.42 -11054714.28 -11054714.12 0.0133 0.0053
 Venus -34980-11-09 12:14 J -11054709.14 -11054708.99 -11054708.82 0.0133 0.0090
 Mercury -34979-01-31 10:19 J -11054626.23 -11054626.07 -11054625.91 0.0133 0.0032
 Mercury -34979-04-29 15:07 J -11054538.03 -11054537.87 -11054537.71 0.0133 0.0010
 Venus -34979-06-23 19:11 J -11054482.83 -11054482.70 -11054482.54 0.0133 0.0099
 Mercury -34979-07-26 19:55 J -11054449.83 -11054449.67 -11054449.51 0.0133 0.0011
 Mercury -34979-10-23 00:28 J -11054361.63 -11054361.48 -11054361.32 0.0133 0.0033
 Mercury -34978-01-19 05:02 J -11054273.42 -11054273.29 -11054273.13 0.0133 0.0054
 Venus -34978-02-05 01:55 J -11054256.53 -11054256.42 -11054256.27 0.0133 0.0108
 Mercury -34978-04-17 09:50 J -11054185.22 -11054185.09 -11054184.95 0.0133 0.0074
 Mercury -34978-07-14 14:23 J -11054097.00 -11054096.90 -11054096.78 0.0133 0.0095
 Venus -34978-09-19 08:52 J -11054030.22 -11054030.13 -11054030.01 0.0133 0.0116
 Mercury -34978-10-10 19:11 J -11054008.78 -11054008.70 -11054008.63 0.0133 0.0115
 Venus -34977-05-02 15:35 J -11053803.92 -11053803.85 -11053803.77 0.0133 0.0124
 Venus -34977-12-14 22:04 J -11053577.59 -11053577.58 -11053577.56 0.0132 0.0132
 Mars -34968-08-12 17:45 J -11050415.04 -11050414.76 -11050414.44 0.0132 0.0061
 Venus -34949-03-16 15:21 J -11043623.88 -11043623.86 -11043623.81 0.0139 0.0136

Venus	-34949-10-28 22:04 J	-11043397.66	-11043397.58	-11043397.49	0.0139	0.0127
Venus	-34948-06-12 04:33 J	-11043171.41	-11043171.31	-11043171.19	0.0139	0.0119
Venus	-34947-01-24 11:16 J	-11042945.14	-11042945.03	-11042944.88	0.0140	0.0110
Venus	-34947-09-07 18:14 J	-11042718.87	-11042718.74	-11042718.58	0.0140	0.0100
Venus	-34946-04-22 01:11 J	-11042492.59	-11042492.45	-11042492.27	0.0140	0.0091
Venus	-34946-12-04 08:52 J	-11042266.30	-11042266.13	-11042265.95	0.0141	0.0080
Venus	-34945-07-17 16:19 J	-11042040.00	-11042039.82	-11042039.63	0.0141	0.0069
Venus	-34944-02-28 23:59 J	-11041813.69	-11041813.50	-11041813.31	0.0142	0.0059
Venus	-34944-10-13 07:40 J	-11041587.38	-11041587.18	-11041586.98	0.0142	0.0048
Venus	-34943-05-27 15:35 J	-11041361.05	-11041360.85	-11041360.64	0.0142	0.0037
Venus	-34942-01-08 23:59 J	-11041134.71	-11041134.50	-11041134.29	0.0142	0.0026
Venus	-34942-08-23 08:23 J	-11040908.36	-11040908.15	-11040907.94	0.0143	0.0014
Venus	-34941-04-05 17:02 J	-11040682.01	-11040681.79	-11040681.58	0.0143	0.0004
Venus	-34941-11-18 01:40 J	-11040455.64	-11040455.43	-11040455.22	0.0143	0.0009
Venus	-34940-07-02 10:47 J	-11040229.26	-11040229.05	-11040228.84	0.0144	0.0021
Venus	-34939-02-13 19:55 J	-11040002.87	-11040002.67	-11040002.46	0.0144	0.0033
Venus	-34939-09-28 05:31 J	-11039776.47	-11039776.27	-11039776.07	0.0144	0.0045
Venus	-34938-05-12 14:52 J	-11039550.07	-11039549.88	-11039549.68	0.0144	0.0057
Venus	-34938-12-25 00:43 J	-11039323.65	-11039323.47	-11039323.27	0.0145	0.0069
Moon	-34937-04-19 13:40 J	-11039207.18	-11039206.93	-11039206.68	0.0145	0.0042
Earth	-34937-04-19 14:52 J	-11039207.11	-11039206.88	-11039206.63	0.0145	0.0045 *
Mercury	-34937-07-23 17:59 J	-11039111.75	-11039111.75	-11039111.74	0.0145	0.0145
Venus	-34937-08-07 10:47 J	-11039097.22	-11039097.05	-11039096.87	0.0145	0.0080
Mercury	-34937-10-19 22:47 J	-11039023.62	-11039023.55	-11039023.46	0.0145	0.0120
Mercury	-34936-01-16 03:35 J	-11038935.45	-11038935.35	-11038935.23	0.0145	0.0095
Venus	-34936-03-21 20:52 J	-11038870.78	-11038870.63	-11038870.45	0.0145	0.0092
Mercury	-34936-04-14 08:52 J	-11038847.26	-11038847.13	-11038847.00	0.0145	0.0069
Earth	-34936-04-24 14:52 J	-11038837.06	-11038836.88	-11038836.66	0.0145	0.0087
Moon	-34936-04-24 16:04 J	-11038837.02	-11038836.83	-11038836.63	0.0145	0.0087 *
Mercury	-34936-07-11 13:55 J	-11038759.07	-11038758.92	-11038758.78	0.0145	0.0044

Mercury -34936-10-07 18:57 J -11038670.86 -11038670.71 -11038670.56 0.0145 0.0018

Venus -34936-11-03 07:26 J -11038644.33 -11038644.19 -11038644.04 0.0145 0.0104

Mercury -34935-01-03 23:59 J -11038582.65 -11038582.50 -11038582.35 0.0145 0.0008

Mercury -34935-04-02 05:02 J -11038494.43 -11038494.29 -11038494.14 0.0146 0.0035

Venus -34935-06-17 17:59 J -11038417.88 -11038417.75 -11038417.62 0.0146 0.0115

Mercury -34935-06-29 10:19 J -11038406.21 -11038406.07 -11038405.93 0.0146 0.0062

Mercury -34935-09-25 15:21 J -11038317.97 -11038317.86 -11038317.73 0.0146 0.0089

Mercury -34935-12-22 20:38 J -11038229.72 -11038229.64 -11038229.54 0.0146 0.0116

Venus -34934-01-30 04:47 J -11038191.40 -11038191.30 -11038191.19 0.0146 0.0126

Mercury -34934-03-21 02:09 J -11038141.43 -11038141.41 -11038141.38 0.0146 0.0143

Venus -34934-09-13 15:35 J -11037964.91 -11037964.85 -11037964.77 0.0146 0.0137

Mars -34926-12-08 13:11 J -11034957.19 -11034956.95 -11034956.69 0.0146 0.0071

Venus -34910-11-20 13:55 J -11029130.96 -11029130.92 -11029130.87 0.0140 0.0136

Venus -34909-07-04 00:43 J -11028904.54 -11028904.47 -11028904.36 0.0139 0.0127

Venus -34908-02-15 11:45 J -11028678.12 -11028678.01 -11028677.88 0.0139 0.0116

Venus -34908-09-29 22:19 J -11028451.70 -11028451.57 -11028451.41 0.0139 0.0106

Venus -34907-05-14 08:52 J -11028225.28 -11028225.13 -11028224.96 0.0138 0.0095

Venus -34907-12-26 19:11 J -11027998.86 -11027998.70 -11027998.51 0.0138 0.0085

Venus -34906-08-10 05:31 J -11027772.45 -11027772.27 -11027772.08 0.0138 0.0074

Venus -34905-03-23 15:21 J -11027546.05 -11027545.86 -11027545.66 0.0137 0.0063

Venus -34905-11-05 00:57 J -11027319.66 -11027319.46 -11027319.24 0.0137 0.0053

Venus -34904-06-19 10:33 J -11027093.26 -11027093.06 -11027092.84 0.0137 0.0042

Venus -34903-01-31 19:55 J -11026866.88 -11026866.67 -11026866.44 0.0136 0.0031

Venus -34903-09-15 05:02 J -11026640.51 -11026640.29 -11026640.06 0.0136 0.0021

Venus -34902-04-29 13:55 J -11026414.14 -11026413.92 -11026413.69 0.0136 0.0010

Venus -34902-12-11 22:47 J -11026187.77 -11026187.55 -11026187.33 0.0135 0.0001

Venus -34901-07-25 07:26 J -11025961.41 -11025961.19 -11025960.96 0.0135 0.0011

Venus -34900-03-08 15:50 J -11025735.06 -11025734.84 -11025734.62 0.0135 0.0022

Venus -34900-10-20 23:59 J -11025508.71 -11025508.50 -11025508.28 0.0135 0.0032

Venus -34899-06-04 08:09 J -11025282.37 -11025282.16 -11025281.95 0.0134 0.0042

Venus -34898-01-16 16:04 J -11025056.04 -11025055.83 -11025055.62 0.0134 0.0052
 Venus -34898-08-30 23:31 J -11024829.70 -11024829.52 -11024829.30 0.0134 0.0062
 Moon -34898-10-20 12:57 J -11024779.10 -11024778.96 -11024778.79 0.0134 0.0104
 Earth -34898-10-20 13:40 J -11024779.06 -11024778.93 -11024778.77 0.0134 0.0109 *
 Venus -34897-04-13 07:26 J -11024603.38 -11024603.19 -11024603.00 0.0134 0.0071
 Earth -34897-10-23 22:47 J -11024409.80 -11024409.55 -11024409.29 0.0134 0.0006
 Moon -34897-10-23 23:45 J -11024409.77 -11024409.51 -11024409.25 0.0134 0.0013 *
 Venus -34897-11-25 14:38 J -11024377.06 -11024376.89 -11024376.70 0.0134 0.0081
 Mercury -34896-03-04 22:04 J -11024277.67 -11024277.58 -11024277.49 0.0133 0.0112
 Mercury -34896-06-01 02:52 J -11024189.49 -11024189.38 -11024189.25 0.0133 0.0090
 Venus -34896-07-09 22:04 J -11024150.74 -11024150.58 -11024150.41 0.0133 0.0090
 Mercury -34896-08-28 07:55 J -11024101.31 -11024101.17 -11024101.03 0.0133 0.0068
 Moon -34896-10-28 05:59 J -11024040.39 -11024040.25 -11024040.08 0.0133 0.0103
 Earth -34896-10-28 06:57 J -11024040.38 -11024040.21 -11024040.03 0.0133 0.0096 *
 Mercury -34896-11-24 12:43 J -11024013.12 -11024012.97 -11024012.81 0.0133 0.0046
 Mercury -34895-02-20 17:45 J -11023924.92 -11023924.76 -11023924.60 0.0133 0.0024
 Venus -34895-02-21 05:16 J -11023924.42 -11023924.28 -11023924.13 0.0133 0.0098
 Mercury -34895-05-19 22:33 J -11023836.72 -11023836.56 -11023836.40 0.0133 0.0003
 Mercury -34895-08-16 03:21 J -11023748.52 -11023748.36 -11023748.20 0.0133 0.0019
 Venus -34895-10-05 12:14 J -11023698.11 -11023697.99 -11023697.85 0.0133 0.0107
 Mercury -34895-11-12 07:55 J -11023660.32 -11023660.17 -11023660.01 0.0133 0.0040
 Mercury -34894-02-08 12:43 J -11023572.11 -11023571.97 -11023571.83 0.0133 0.0061
 Mercury -34894-05-07 17:16 J -11023483.90 -11023483.78 -11023483.65 0.0133 0.0082
 Venus -34894-05-19 18:43 J -11023471.81 -11023471.72 -11023471.59 0.0133 0.0116
 Mercury -34894-08-03 21:50 J -11023395.68 -11023395.59 -11023395.48 0.0133 0.0102
 Mercury -34894-10-31 02:09 J -11023307.45 -11023307.41 -11023307.33 0.0133 0.0123
 Venus -34893-01-01 01:26 J -11023245.50 -11023245.44 -11023245.35 0.0133 0.0124
 Venus -34893-08-14 08:09 J -11023019.17 -11023019.16 -11023019.13 0.0133 0.0132
 Mars -34883-04-08 06:14 J -11019495.56 -11019495.24 -11019494.91 0.0132 0.0028
 Venus -34866-11-15 01:55 J -11013065.42 -11013065.42 -11013065.41 0.0139 0.0138

Venus	-34865-06-28 08:09 J	-11012839.22	-11012839.16	-11012839.08	0.0139	0.0130
Venus	-34864-02-09 14:38 J	-11012612.98	-11012612.89	-11012612.78	0.0139	0.0121
Venus	-34864-09-23 21:21 J	-11012386.73	-11012386.61	-11012386.48	0.0140	0.0112
Venus	-34863-05-08 04:19 J	-11012160.46	-11012160.32	-11012160.17	0.0140	0.0102
Venus	-34863-12-20 11:16 J	-11011934.18	-11011934.03	-11011933.86	0.0140	0.0093
Venus	-34862-08-03 18:14 J	-11011707.90	-11011707.74	-11011707.55	0.0141	0.0083
Venus	-34861-03-17 01:40 J	-11011481.61	-11011481.43	-11011481.24	0.0141	0.0072
Venus	-34861-10-29 09:07 J	-11011255.30	-11011255.12	-11011254.92	0.0141	0.0062
Venus	-34860-06-12 16:47 J	-11011028.99	-11011028.80	-11011028.60	0.0142	0.0051
Venus	-34859-01-25 00:43 J	-11010802.66	-11010802.47	-11010802.26	0.0142	0.0040
Venus	-34859-09-08 08:52 J	-11010576.33	-11010576.13	-11010575.92	0.0142	0.0028
Venus	-34858-04-22 17:16 J	-11010349.99	-11010349.78	-11010349.57	0.0143	0.0017
Venus	-34858-12-05 01:40 J	-11010123.64	-11010123.43	-11010123.22	0.0143	0.0005
Venus	-34857-07-18 10:19 J	-11009897.28	-11009897.07	-11009896.86	0.0143	0.0006
Venus	-34856-03-01 19:11 J	-11009670.91	-11009670.70	-11009670.49	0.0143	0.0018
Venus	-34856-10-14 04:19 J	-11009444.53	-11009444.32	-11009444.11	0.0144	0.0030
Venus	-34855-05-28 13:40 J	-11009218.13	-11009217.93	-11009217.73	0.0144	0.0042
Venus	-34854-01-09 23:02 J	-11008991.73	-11008991.54	-11008991.34	0.0144	0.0054
Venus	-34854-08-24 08:38 J	-11008765.32	-11008765.14	-11008764.94	0.0145	0.0066
Venus	-34853-04-06 18:28 J	-11008538.90	-11008538.73	-11008538.54	0.0145	0.0078
Moon	-34853-04-19 23:16 J	-11008525.77	-11008525.53	-11008525.27	0.0145	0.0043
Earth	-34853-04-20 01:26 J	-11008525.68	-11008525.44	-11008525.19	0.0145	0.0039 *
Mercury	-34853-08-13 01:11 J	-11008410.48	-11008410.45	-11008410.40	0.0145	0.0138
Mercury	-34853-11-09 05:59 J	-11008322.33	-11008322.25	-11008322.14	0.0145	0.0113
Venus	-34853-11-19 04:19 J	-11008312.47	-11008312.32	-11008312.14	0.0145	0.0090
Mercury	-34852-02-05 11:02 J	-11008234.15	-11008234.04	-11008233.91	0.0145	0.0088
Earth	-34852-04-25 01:26 J	-11008155.63	-11008155.44	-11008155.24	0.0145	0.0092
Moon	-34852-04-25 02:09 J	-11008155.58	-11008155.41	-11008155.20	0.0145	0.0090 *
Mercury	-34852-05-04 16:04 J	-11008145.96	-11008145.83	-11008145.69	0.0145	0.0062
Venus	-34852-07-03 14:38 J	-11008086.03	-11008085.89	-11008085.73	0.0145	0.0102

Mercury -34852-07-31 21:07 J -11008057.77 -11008057.62 -11008057.47 0.0145 0.0037

Mercury -34852-10-28 02:09 J -11007969.56 -11007969.41 -11007969.26 0.0145 0.0011

Mercury -34851-01-24 07:11 J -11007881.35 -11007881.20 -11007881.05 0.0145 0.0016

Venus -34851-02-15 01:26 J -11007859.57 -11007859.44 -11007859.30 0.0145 0.0113

Mercury -34851-04-22 12:14 J -11007793.13 -11007792.99 -11007792.84 0.0145 0.0043

Mercury -34851-07-19 17:31 J -11007704.90 -11007704.77 -11007704.63 0.0146 0.0069

Venus -34851-09-29 11:59 J -11007633.11 -11007633.00 -11007632.89 0.0146 0.0124

Mercury -34851-10-15 22:47 J -11007616.66 -11007616.55 -11007616.43 0.0146 0.0096

Mercury -34850-01-12 04:04 J -11007528.41 -11007528.33 -11007528.25 0.0146 0.0123

Venus -34850-05-13 22:33 J -11007406.63 -11007406.56 -11007406.47 0.0146 0.0135

Venus -34850-12-26 09:21 J -11007180.11 -11007180.11 -11007180.09 0.0146 0.0146

Mars -34843-08-31 18:43 J -11004739.88 -11004739.72 -11004739.52 0.0146 0.0112

Venus -34826-07-20 19:40 J -10998572.68 -10998572.68 -10998572.65 0.0140 0.0140

Venus -34825-03-03 06:43 J -10998346.29 -10998346.22 -10998346.13 0.0139 0.0130

Venus -34825-10-15 17:45 J -10998119.86 -10998119.76 -10998119.64 0.0139 0.0119

Venus -34824-05-30 04:33 J -10997893.43 -10997893.31 -10997893.16 0.0139 0.0109

Venus -34823-01-11 15:07 J -10997667.01 -10997666.87 -10997666.70 0.0138 0.0099

Venus -34823-08-26 01:55 J -10997440.59 -10997440.42 -10997440.25 0.0138 0.0088

Venus -34822-04-09 11:45 J -10997214.19 -10997214.01 -10997213.81 0.0138 0.0077

Venus -34822-11-21 21:35 J -10996987.78 -10996987.60 -10996987.39 0.0138 0.0067

Venus -34821-07-05 07:40 J -10996761.38 -10996761.18 -10996760.97 0.0137 0.0056

Venus -34820-02-16 17:16 J -10996534.98 -10996534.78 -10996534.56 0.0137 0.0045

Venus -34820-10-01 02:52 J -10996308.60 -10996308.38 -10996308.16 0.0137 0.0034

Venus -34819-05-15 11:59 J -10996082.22 -10996082.00 -10996081.78 0.0136 0.0023

Venus -34819-12-27 21:07 J -10995855.84 -10995855.62 -10995855.39 0.0136 0.0012

Venus -34818-08-11 06:14 J -10995629.47 -10995629.24 -10995629.02 0.0136 0.0003

Venus -34817-03-24 14:52 J -10995403.11 -10995402.88 -10995402.66 0.0135 0.0009

Venus -34817-11-05 23:16 J -10995176.75 -10995176.53 -10995176.30 0.0135 0.0020

Venus -34816-06-20 07:40 J -10994950.39 -10994950.18 -10994949.96 0.0135 0.0030

Venus -34815-02-01 16:04 J -10994724.04 -10994723.83 -10994723.62 0.0135 0.0040

Venus -34815-09-15 23:59 J -10994497.70 -10994497.50 -10994497.29 0.0134 0.0050
 Venus -34814-04-30 07:40 J -10994271.37 -10994271.18 -10994270.97 0.0134 0.0061
 Earth -34814-10-20 23:16 J -10994097.66 -10994097.53 -10994097.34 0.0134 0.0104
 Moon -34814-10-20 23:45 J -10994097.64 -10994097.51 -10994097.36 0.0134 0.0109 *
 Venus -34814-12-12 15:21 J -10994045.03 -10994044.86 -10994044.65 0.0134 0.0070
 Venus -34813-07-25 23:02 J -10993818.70 -10993818.54 -10993818.34 0.0134 0.0080
 Earth -34813-10-24 08:52 J -10993728.39 -10993728.13 -10993727.88 0.0134 0.0002
 Moon -34813-10-24 08:52 J -10993728.39 -10993728.13 -10993727.86 0.0134 0.0005 *
 Mercury -34813-12-26 23:45 J -10993664.54 -10993664.51 -10993664.46 0.0134 0.0129
 Venus -34812-03-09 06:28 J -10993592.38 -10993592.23 -10993592.05 0.0134 0.0089
 Mercury -34812-03-25 05:02 J -10993576.39 -10993576.29 -10993576.19 0.0133 0.0106
 Mercury -34812-06-21 10:04 J -10993488.21 -10993488.08 -10993487.95 0.0133 0.0084
 Mercury -34812-09-17 14:52 J -10993400.02 -10993399.88 -10993399.73 0.0133 0.0062
 Venus -34812-10-21 13:55 J -10993366.06 -10993365.92 -10993365.76 0.0133 0.0098
 Moon -34812-10-28 16:19 J -10993358.98 -10993358.82 -10993358.64 0.0133 0.0095
 Earth -34812-10-28 16:33 J -10993358.95 -10993358.81 -10993358.62 0.0133 0.0102 *
 Mercury -34812-12-14 19:55 J -10993311.82 -10993311.67 -10993311.51 0.0133 0.0040
 Mercury -34811-03-13 00:43 J -10993223.63 -10993223.47 -10993223.30 0.0133 0.0018
 Venus -34811-06-04 20:52 J -10993139.75 -10993139.63 -10993139.49 0.0133 0.0107
 Mercury -34811-06-09 05:31 J -10993135.43 -10993135.27 -10993135.10 0.0133 0.0006
 Mercury -34811-09-05 10:19 J -10993047.22 -10993047.07 -10993046.91 0.0133 0.0025
 Mercury -34811-12-02 15:07 J -10992959.02 -10992958.87 -10992958.72 0.0133 0.0046
 Venus -34810-01-17 03:35 J -10992913.44 -10992913.35 -10992913.22 0.0133 0.0115
 Mercury -34810-02-28 19:40 J -10992870.81 -10992870.68 -10992870.53 0.0133 0.0067
 Mercury -34810-05-28 00:14 J -10992782.60 -10992782.49 -10992782.36 0.0133 0.0088
 Mercury -34810-08-24 05:02 J -10992694.38 -10992694.29 -10992694.20 0.0133 0.0108
 Venus -34810-08-31 10:19 J -10992687.13 -10992687.07 -10992686.97 0.0133 0.0124
 Mercury -34810-11-20 09:35 J -10992606.13 -10992606.10 -10992606.06 0.0133 0.0128
 Venus -34809-04-13 17:02 J -10992460.80 -10992460.79 -10992460.75 0.0133 0.0132
 Mars -34801-12-29 00:28 J -10989279.55 -10989279.48 -10989279.40 0.0132 0.0128

Mars	-34799-12-02 16:04 J	-10988575.97	-10988575.83	-10988575.64	0.0132	0.0116
Venus	-34781-02-26 18:14 J	-10982280.78	-10982280.74	-10982280.66	0.0139	0.0133
Venus	-34781-10-10 00:28 J	-10982054.55	-10982054.48	-10982054.36	0.0139	0.0124
Venus	-34780-05-24 07:26 J	-10981828.30	-10981828.19	-10981828.06	0.0139	0.0114
Venus	-34779-01-05 14:09 J	-10981602.04	-10981601.91	-10981601.76	0.0140	0.0105
Venus	-34779-08-19 21:07 J	-10981375.77	-10981375.62	-10981375.46	0.0140	0.0095
Venus	-34778-04-03 03:50 J	-10981149.49	-10981149.34	-10981149.16	0.0140	0.0086
Venus	-34778-11-15 11:16 J	-10980923.20	-10980923.03	-10980922.85	0.0141	0.0075
Venus	-34777-06-28 18:43 J	-10980696.91	-10980696.72	-10980696.53	0.0141	0.0064
Venus	-34776-02-10 02:09 J	-10980470.60	-10980470.41	-10980470.21	0.0141	0.0054
Venus	-34776-09-24 09:50 J	-10980244.28	-10980244.09	-10980243.88	0.0142	0.0043
Venus	-34775-05-08 17:59 J	-10980017.96	-10980017.75	-10980017.54	0.0142	0.0031
Venus	-34775-12-21 02:09 J	-10979791.62	-10979791.41	-10979791.20	0.0142	0.0020
Venus	-34774-08-04 10:33 J	-10979565.27	-10979565.06	-10979564.85	0.0143	0.0008
Venus	-34773-03-17 19:11 J	-10979338.92	-10979338.70	-10979338.49	0.0143	0.0005
Venus	-34773-10-30 03:50 J	-10979112.55	-10979112.34	-10979112.13	0.0143	0.0016
Venus	-34772-06-13 12:43 J	-10978886.17	-10978885.97	-10978885.76	0.0144	0.0028
Venus	-34771-01-25 22:04 J	-10978659.78	-10978659.58	-10978659.38	0.0144	0.0040
Venus	-34771-09-09 07:11 J	-10978433.39	-10978433.20	-10978432.99	0.0144	0.0052
Venus	-34770-04-23 16:47 J	-10978206.99	-10978206.80	-10978206.61	0.0144	0.0064
Venus	-34770-12-06 02:23 J	-10977980.57	-10977980.40	-10977980.21	0.0145	0.0076
Moon	-34769-04-20 09:21 J	-10977844.36	-10977844.11	-10977843.85	0.0145	0.0030
Earth	-34769-04-20 11:45 J	-10977844.25	-10977844.01	-10977843.76	0.0145	0.0033 *
Venus	-34769-07-19 11:59 J	-10977754.15	-10977754.00	-10977753.81	0.0145	0.0088
Mercury	-34769-09-02 08:23 J	-10977709.20	-10977709.15	-10977709.07	0.0145	0.0131
Mercury	-34769-11-29 13:26 J	-10977621.03	-10977620.94	-10977620.83	0.0145	0.0106
Mercury	-34768-02-25 18:28 J	-10977532.85	-10977532.73	-10977532.61	0.0145	0.0081
Venus	-34768-03-02 22:19 J	-10977527.71	-10977527.57	-10977527.40	0.0145	0.0100
Earth	-34768-04-25 11:16 J	-10977474.20	-10977474.03	-10977473.83	0.0145	0.0097
Moon	-34768-04-25 13:11 J	-10977474.12	-10977473.95	-10977473.75	0.0145	0.0098 *

Mercury -34768-05-24 23:16 J -10977444.66 -10977444.53 -10977444.38 0.0145 0.0055

Mercury -34768-08-21 04:19 J -10977356.46 -10977356.32 -10977356.17 0.0145 0.0030

Venus -34768-10-15 08:52 J -10977301.27 -10977301.13 -10977301.00 0.0145 0.0111

Mercury -34768-11-17 09:21 J -10977268.26 -10977268.11 -10977267.95 0.0145 0.0005

Mercury -34767-02-13 14:23 J -10977180.04 -10977179.90 -10977179.74 0.0145 0.0023

Mercury -34767-05-12 19:26 J -10977091.82 -10977091.69 -10977091.54 0.0145 0.0050

Venus -34767-05-29 18:43 J -10977074.81 -10977074.72 -10977074.58 0.0146 0.0123

Mercury -34767-08-09 00:43 J -10977003.59 -10977003.47 -10977003.33 0.0146 0.0076

Mercury -34767-11-05 05:59 J -10976915.35 -10976915.25 -10976915.14 0.0146 0.0103

Venus -34766-01-11 05:16 J -10976848.34 -10976848.28 -10976848.17 0.0146 0.0134

Mercury -34766-02-01 11:16 J -10976827.09 -10976827.03 -10976826.96 0.0146 0.0130

Venus -34766-08-25 16:19 J -10976621.84 -10976621.82 -10976621.78 0.0146 0.0144

Mars -34758-04-26 21:07 J -10973820.90 -10973820.62 -10973820.33 0.0146 0.0015

Venus -34742-11-01 13:11 J -10967788.00 -10967787.95 -10967787.87 0.0140 0.0133

Venus -34741-06-15 00:28 J -10967561.58 -10967561.48 -10967561.37 0.0139 0.0123

Venus -34740-01-27 11:16 J -10967335.15 -10967335.03 -10967334.89 0.0139 0.0112

Venus -34740-09-10 21:50 J -10967108.73 -10967108.59 -10967108.42 0.0139 0.0102

Venus -34739-04-25 08:38 J -10966882.31 -10966882.14 -10966881.97 0.0138 0.0091

Venus -34739-12-07 18:43 J -10966655.89 -10966655.72 -10966655.53 0.0138 0.0080

Venus -34738-07-22 05:02 J -10966429.48 -10966429.29 -10966429.09 0.0138 0.0069

Venus -34737-03-04 14:38 J -10966203.08 -10966202.89 -10966202.67 0.0137 0.0059

Venus -34737-10-17 00:28 J -10965976.68 -10965976.48 -10965976.26 0.0137 0.0047

Venus -34736-05-31 10:19 J -10965750.29 -10965750.07 -10965749.86 0.0137 0.0036

Venus -34735-01-12 19:26 J -10965523.90 -10965523.69 -10965523.46 0.0136 0.0026

Venus -34735-08-27 04:47 J -10965297.52 -10965297.30 -10965297.07 0.0136 0.0015

Venus -34734-04-10 13:55 J -10965071.15 -10965070.92 -10965070.70 0.0136 0.0004

Venus -34734-11-22 22:33 J -10964844.78 -10964844.56 -10964844.33 0.0136 0.0008

Venus -34733-07-06 07:26 J -10964618.41 -10964618.19 -10964617.96 0.0135 0.0018

Venus -34732-02-17 16:04 J -10964392.05 -10964391.83 -10964391.61 0.0135 0.0028

Venus -34732-10-02 00:14 J -10964165.70 -10964165.49 -10964165.27 0.0135 0.0039

Venus -34731-05-16 08:23 J -10963939.35 -10963939.15 -10963938.93 0.0135 0.0049
 Venus -34731-12-28 16:33 J -10963713.01 -10963712.81 -10963712.61 0.0134 0.0059
 Venus -34730-08-12 00:28 J -10963486.67 -10963486.48 -10963486.28 0.0134 0.0068
 Earth -34730-10-21 10:19 J -10963416.23 -10963416.07 -10963415.88 0.0134 0.0098
 Moon -34730-10-21 11:02 J -10963416.21 -10963416.04 -10963415.86 0.0134 0.0093 *
 Venus -34729-03-25 08:09 J -10963260.34 -10963260.16 -10963259.98 0.0134 0.0078
 Moon -34729-10-24 19:26 J -10963046.95 -10963046.69 -10963046.42 0.0134 0.0002
 Earth -34729-10-24 19:40 J -10963046.93 -10963046.68 -10963046.42 0.0134 0.0005 *
 Venus -34729-11-06 15:21 J -10963034.01 -10963033.86 -10963033.68 0.0134 0.0088
 Mercury -34728-01-16 06:57 J -10962963.26 -10962963.21 -10962963.13 0.0134 0.0122
 Mercury -34728-04-14 11:59 J -10962875.10 -10962875.00 -10962874.88 0.0134 0.0100
 Venus -34728-06-20 22:47 J -10962807.69 -10962807.55 -10962807.39 0.0133 0.0097
 Mercury -34728-07-11 17:16 J -10962786.91 -10962786.78 -10962786.64 0.0133 0.0077
 Mercury -34728-10-07 22:19 J -10962698.72 -10962698.57 -10962698.42 0.0133 0.0055
 Earth -34728-10-29 03:35 J -10962677.48 -10962677.35 -10962677.18 0.0133 0.0107
 Moon -34728-10-29 04:04 J -10962677.44 -10962677.33 -10962677.19 0.0133 0.0113 *
 Mercury -34727-01-04 03:07 J -10962610.52 -10962610.37 -10962610.21 0.0133 0.0033
 Venus -34727-02-02 06:14 J -10962581.37 -10962581.24 -10962581.11 0.0133 0.0106
 Mercury -34727-04-02 07:55 J -10962522.33 -10962522.17 -10962522.00 0.0133 0.0012
 Mercury -34727-06-29 12:57 J -10962434.13 -10962433.96 -10962433.80 0.0133 0.0010
 Venus -34727-09-16 13:11 J -10962355.06 -10962354.95 -10962354.83 0.0133 0.0115
 Mercury -34727-09-25 17:31 J -10962345.92 -10962345.77 -10962345.61 0.0133 0.0032
 Mercury -34727-12-22 22:19 J -10962257.72 -10962257.57 -10962257.42 0.0133 0.0052
 Mercury -34726-03-21 03:07 J -10962169.50 -10962169.37 -10962169.24 0.0133 0.0073
 Venus -34726-04-30 19:40 J -10962128.74 -10962128.68 -10962128.58 0.0133 0.0123
 Mercury -34726-06-17 07:26 J -10962081.29 -10962081.19 -10962081.07 0.0133 0.0094
 Mercury -34726-09-13 12:14 J -10961993.07 -10961992.99 -10961992.91 0.0133 0.0114
 Venus -34726-12-13 02:38 J -10961902.42 -10961902.39 -10961902.35 0.0133 0.0131
 Mars -34716-08-24 11:31 J -10958360.33 -10958360.02 -10958359.69 0.0132 0.0041
 Venus -34698-10-27 04:47 J -10951722.32 -10951722.30 -10951722.24 0.0139 0.0136

Venus	-34697-06-09 11:31 J	-10951496.10	-10951496.02	-10951495.93	0.0139	0.0126
Venus	-34696-01-21 17:45 J	-10951269.85	-10951269.76	-10951269.63	0.0139	0.0118
Venus	-34696-09-05 00:28 J	-10951043.60	-10951043.48	-10951043.33	0.0140	0.0108
Venus	-34695-04-19 07:26 J	-10950817.34	-10950817.19	-10950817.04	0.0140	0.0098
Venus	-34695-12-01 14:09 J	-10950591.06	-10950590.91	-10950590.73	0.0140	0.0088
Venus	-34694-07-15 21:21 J	-10950364.78	-10950364.61	-10950364.42	0.0141	0.0078
Venus	-34693-02-27 04:47 J	-10950138.48	-10950138.30	-10950138.11	0.0141	0.0067
Venus	-34693-10-10 12:14 J	-10949912.18	-10949911.99	-10949911.79	0.0141	0.0056
Venus	-34692-05-24 19:40 J	-10949685.87	-10949685.68	-10949685.47	0.0141	0.0046
Venus	-34691-01-06 03:50 J	-10949459.54	-10949459.34	-10949459.13	0.0142	0.0034
Venus	-34691-08-20 11:59 J	-10949233.21	-10949233.00	-10949232.79	0.0142	0.0022
Venus	-34690-04-03 20:09 J	-10949006.87	-10949006.66	-10949006.45	0.0142	0.0011
Venus	-34690-11-16 04:33 J	-10948780.52	-10948780.31	-10948780.10	0.0143	0.0001
Venus	-34689-06-29 13:11 J	-10948554.16	-10948553.95	-10948553.74	0.0143	0.0013
Venus	-34688-02-10 22:04 J	-10948327.78	-10948327.58	-10948327.37	0.0143	0.0025
Venus	-34688-09-25 07:11 J	-10948101.41	-10948101.20	-10948101.00	0.0144	0.0037
Venus	-34687-05-09 16:19 J	-10947875.02	-10947874.82	-10947874.62	0.0144	0.0049
Venus	-34687-12-22 01:26 J	-10947648.62	-10947648.44	-10947648.24	0.0144	0.0062
Venus	-34686-08-05 11:02 J	-10947422.22	-10947422.04	-10947421.85	0.0144	0.0073
Venus	-34685-03-18 20:38 J	-10947195.80	-10947195.64	-10947195.46	0.0145	0.0086
Moon	-34685-04-20 20:23 J	-10947162.90	-10947162.65	-10947162.40	0.0145	0.0030
Earth	-34685-04-20 23:02 J	-10947162.78	-10947162.54	-10947162.28	0.0145	0.0026 *
Mercury	-34685-09-22 16:19 J	-10947007.90	-10947007.82	-10947007.74	0.0145	0.0122
Venus	-34685-10-31 06:43 J	-10946969.37	-10946969.22	-10946969.06	0.0145	0.0097
Mercury	-34685-12-19 20:52 J	-10946919.73	-10946919.63	-10946919.51	0.0145	0.0098
Mercury	-34684-03-18 01:55 J	-10946831.55	-10946831.42	-10946831.29	0.0145	0.0072
Earth	-34684-04-25 22:33 J	-10946792.72	-10946792.56	-10946792.37	0.0145	0.0104
Moon	-34684-04-26 00:28 J	-10946792.63	-10946792.48	-10946792.29	0.0145	0.0103 *
Mercury	-34684-06-14 06:57 J	-10946743.35	-10946743.21	-10946743.07	0.0145	0.0047
Venus	-34684-06-14 16:47 J	-10946742.94	-10946742.80	-10946742.66	0.0145	0.0109

Mercury -34684-09-10 11:59 J -10946655.15 -10946655.00 -10946654.85 0.0145 0.0022

Mercury -34684-12-07 17:02 J -10946566.95 -10946566.79 -10946566.64 0.0145 0.0006

Venus -34683-01-27 02:52 J -10946516.48 -10946516.38 -10946516.25 0.0145 0.0120

Mercury -34683-03-05 22:04 J -10946478.73 -10946478.58 -10946478.43 0.0145 0.0031

Mercury -34683-06-02 03:07 J -10946390.51 -10946390.37 -10946390.23 0.0145 0.0057

Mercury -34683-08-29 08:23 J -10946302.28 -10946302.15 -10946302.03 0.0146 0.0084

Venus -34683-09-10 13:11 J -10946290.02 -10946289.95 -10946289.84 0.0146 0.0132

Mercury -34683-11-25 13:26 J -10946214.03 -10946213.94 -10946213.84 0.0146 0.0111

Mercury -34682-02-21 18:43 J -10946125.76 -10946125.72 -10946125.67 0.0146 0.0138

Venus -34682-04-24 23:59 J -10946063.53 -10946063.50 -10946063.45 0.0146 0.0142

Mars -34674-12-20 22:33 J -10942901.78 -10942901.56 -10942901.32 0.0146 0.0084

Venus -34658-07-01 18:43 J -10937229.74 -10937229.72 -10937229.65 0.0140 0.0137

Venus -34657-02-13 05:59 J -10937003.33 -10937003.25 -10937003.14 0.0139 0.0126

Venus -34657-09-26 16:47 J -10936776.91 -10936776.80 -10936776.66 0.0139 0.0116

Venus -34656-05-11 03:50 J -10936550.48 -10936550.34 -10936550.19 0.0139 0.0105

Venus -34656-12-23 14:09 J -10936324.06 -10936323.91 -10936323.73 0.0139 0.0095

Venus -34655-08-07 00:43 J -10936097.64 -10936097.47 -10936097.28 0.0138 0.0084

Venus -34654-03-21 11:02 J -10935871.23 -10935871.04 -10935870.85 0.0138 0.0072

Venus -34654-11-02 20:52 J -10935644.82 -10935644.63 -10935644.42 0.0138 0.0062

Venus -34653-06-16 06:57 J -10935418.41 -10935418.21 -10935418.00 0.0137 0.0050

Venus -34652-01-28 16:47 J -10935192.02 -10935191.80 -10935191.59 0.0137 0.0039

Venus -34652-09-12 02:09 J -10934965.63 -10934965.41 -10934965.19 0.0137 0.0028

Venus -34651-04-26 11:31 J -10934739.24 -10934739.02 -10934738.80 0.0136 0.0017

Venus -34651-12-08 20:38 J -10934512.86 -10934512.64 -10934512.41 0.0136 0.0007

Venus -34650-07-23 05:45 J -10934286.48 -10934286.26 -10934286.03 0.0136 0.0005

Venus -34649-03-05 14:38 J -10934060.11 -10934059.89 -10934059.67 0.0135 0.0015

Venus -34649-10-17 23:02 J -10933833.75 -10933833.54 -10933833.31 0.0135 0.0026

Venus -34648-06-01 07:40 J -10933607.39 -10933607.18 -10933606.96 0.0135 0.0036

Venus -34647-01-13 15:50 J -10933381.04 -10933380.84 -10933380.62 0.0135 0.0047

Venus -34647-08-28 00:14 J -10933154.69 -10933154.49 -10933154.28 0.0134 0.0057

Venus -34646-04-11 07:55 J -10932928.35 -10932928.17 -10932927.96 0.0134 0.0067
 Earth -34646-10-21 19:40 J -10932734.85 -10932734.68 -10932734.48 0.0134 0.0093
 Moon -34646-10-21 20:52 J -10932734.79 -10932734.63 -10932734.45 0.0134 0.0098 *
 Venus -34646-11-23 16:04 J -10932702.01 -10932701.83 -10932701.65 0.0134 0.0076
 Venus -34645-07-06 23:31 J -10932475.68 -10932475.52 -10932475.34 0.0134 0.0086
 Moon -34645-10-25 03:50 J -10932365.60 -10932365.34 -10932365.07 0.0134 0.0016
 Earth -34645-10-25 05:02 J -10932365.55 -10932365.29 -10932365.03 0.0134 0.0010 *
 Mercury -34644-02-05 14:09 J -10932261.99 -10932261.91 -10932261.83 0.0134 0.0116
 Venus -34644-02-18 06:57 J -10932249.35 -10932249.21 -10932249.05 0.0134 0.0096
 Mercury -34644-05-04 18:57 J -10932173.82 -10932173.71 -10932173.58 0.0134 0.0094
 Mercury -34644-07-31 23:59 J -10932085.63 -10932085.50 -10932085.35 0.0134 0.0072
 Venus -34644-10-02 14:23 J -10932023.03 -10932022.90 -10932022.76 0.0133 0.0105
 Mercury -34644-10-28 05:02 J -10931997.44 -10931997.29 -10931997.13 0.0133 0.0050
 Earth -34644-10-29 12:43 J -10931996.09 -10931995.97 -10931995.81 0.0133 0.0112
 Moon -34644-10-29 13:26 J -10931996.08 -10931995.94 -10931995.78 0.0133 0.0105 *
 Mercury -34643-01-24 10:04 J -10931909.24 -10931909.08 -10931908.92 0.0133 0.0028
 Mercury -34643-04-22 14:52 J -10931821.04 -10931820.88 -10931820.72 0.0133 0.0006
 Venus -34643-05-16 21:21 J -10931796.72 -10931796.61 -10931796.49 0.0133 0.0114
 Mercury -34643-07-19 19:40 J -10931732.84 -10931732.68 -10931732.52 0.0133 0.0016
 Mercury -34643-10-16 00:28 J -10931644.63 -10931644.48 -10931644.32 0.0133 0.0037
 Venus -34643-12-29 04:04 J -10931570.40 -10931570.33 -10931570.23 0.0133 0.0122
 Mercury -34642-01-12 05:02 J -10931556.43 -10931556.29 -10931556.14 0.0133 0.0058
 Mercury -34642-04-10 09:35 J -10931468.22 -10931468.10 -10931467.96 0.0133 0.0079
 Mercury -34642-07-07 14:23 J -10931380.00 -10931379.90 -10931379.79 0.0133 0.0099
 Venus -34642-08-12 11:16 J -10931344.07 -10931344.03 -10931343.99 0.0133 0.0130
 Mercury -34642-10-03 18:57 J -10931291.77 -10931291.71 -10931291.63 0.0133 0.0120
 Mars -34631-04-19 19:40 J -10927440.97 -10927440.68 -10927440.35 0.0132 0.0047
 Venus -34614-06-26 15:07 J -10921163.87 -10921163.87 -10921163.84 0.0138 0.0138
 Venus -34613-02-07 21:35 J -10920937.67 -10920937.60 -10920937.52 0.0139 0.0129
 Venus -34613-09-21 03:50 J -10920711.43 -10920711.34 -10920711.22 0.0139 0.0120

Venus	-34612-05-05 10:33 J	-10920485.18	-10920485.06	-10920484.93	0.0139	0.0111
Venus	-34612-12-17 17:16 J	-10920258.91	-10920258.78	-10920258.62	0.0140	0.0101
Venus	-34611-07-31 23:59 J	-10920032.64	-10920032.50	-10920032.32	0.0140	0.0091
Venus	-34610-03-15 07:11 J	-10919806.37	-10919806.20	-10919806.02	0.0140	0.0081
Venus	-34610-10-27 14:23 J	-10919580.08	-10919579.90	-10919579.71	0.0141	0.0070
Venus	-34609-06-09 21:50 J	-10919353.78	-10919353.59	-10919353.39	0.0141	0.0059
Venus	-34608-01-22 05:31 J	-10919127.46	-10919127.27	-10919127.06	0.0141	0.0048
Venus	-34608-09-05 13:26 J	-10918901.14	-10918900.94	-10918900.73	0.0142	0.0037
Venus	-34607-04-19 21:21 J	-10918674.82	-10918674.61	-10918674.40	0.0142	0.0025
Venus	-34607-12-02 05:31 J	-10918448.48	-10918448.27	-10918448.06	0.0142	0.0013
Venus	-34606-07-16 13:55 J	-10918222.13	-10918221.92	-10918221.71	0.0143	0.0002
Venus	-34605-02-27 22:19 J	-10917995.77	-10917995.57	-10917995.35	0.0143	0.0011
Venus	-34605-10-11 07:11 J	-10917769.41	-10917769.20	-10917768.99	0.0143	0.0022
Venus	-34604-05-25 15:50 J	-10917543.04	-10917542.84	-10917542.63	0.0143	0.0035
Venus	-34603-01-07 00:57 J	-10917316.65	-10917316.46	-10917316.25	0.0144	0.0047
Venus	-34603-08-21 10:04 J	-10917090.26	-10917090.08	-10917089.87	0.0144	0.0059
Venus	-34602-04-04 19:26 J	-10916863.86	-10916863.69	-10916863.49	0.0144	0.0071
Venus	-34602-11-17 05:16 J	-10916637.45	-10916637.28	-10916637.11	0.0145	0.0083
Moon	-34601-04-21 07:11 J	-10916481.45	-10916481.20	-10916480.94	0.0145	0.0015
Earth	-34601-04-21 10:19 J	-10916481.32	-10916481.07	-10916480.82	0.0145	0.0019 *
Venus	-34601-06-30 14:52 J	-10916411.03	-10916410.88	-10916410.71	0.0145	0.0095
Mercury	-34601-07-16 18:57 J	-10916394.75	-10916394.71	-10916394.67	0.0145	0.0139
Mercury	-34601-10-12 23:31 J	-10916306.60	-10916306.52	-10916306.42	0.0145	0.0115
Mercury	-34600-01-09 04:19 J	-10916218.43	-10916218.32	-10916218.19	0.0145	0.0090
Venus	-34600-02-12 01:11 J	-10916184.60	-10916184.45	-10916184.31	0.0145	0.0106
Mercury	-34600-04-07 09:21 J	-10916130.24	-10916130.11	-10916129.97	0.0145	0.0065
Earth	-34600-04-26 09:21 J	-10916111.26	-10916111.11	-10916110.93	0.0145	0.0111
Moon	-34600-04-26 11:59 J	-10916111.14	-10916111.00	-10916110.82	0.0145	0.0110 *
Mercury	-34600-07-04 14:23 J	-10916042.04	-10916041.90	-10916041.75	0.0145	0.0039
Venus	-34600-09-26 10:47 J	-10915958.15	-10915958.05	-10915957.91	0.0145	0.0119

Mercury -34600-09-30 19:26 J -10915953.84 -10915953.69 -10915953.54 0.0145 0.0014
 Mercury -34600-12-28 00:28 J -10915865.63 -10915865.48 -10915865.33 0.0145 0.0013
 Mercury -34599-03-26 05:31 J -10915777.42 -10915777.27 -10915777.13 0.0145 0.0039
 Venus -34599-05-10 21:07 J -10915731.70 -10915731.62 -10915731.51 0.0145 0.0130
 Mercury -34599-06-22 10:33 J -10915689.19 -10915689.06 -10915688.92 0.0145 0.0065
 Mercury -34599-09-18 15:50 J -10915600.96 -10915600.84 -10915600.72 0.0146 0.0092
 Mercury -34599-12-15 20:52 J -10915512.71 -10915512.63 -10915512.54 0.0146 0.0119
 Venus -34599-12-23 07:26 J -10915505.22 -10915505.19 -10915505.12 0.0146 0.0141
 Mars -34591-09-13 07:11 J -10912684.40 -10912684.20 -10912683.97 0.0146 0.0097
 Venus -34574-10-13 12:28 J -10906445.05 -10906444.98 -10906444.89 0.0140 0.0130
 Venus -34573-05-26 23:31 J -10906218.62 -10906218.52 -10906218.39 0.0139 0.0119
 Venus -34572-01-08 10:33 J -10905992.19 -10905992.06 -10905991.92 0.0139 0.0108
 Venus -34572-08-22 20:52 J -10905765.77 -10905765.63 -10905765.46 0.0139 0.0098
 Venus -34571-04-06 07:26 J -10905539.35 -10905539.19 -10905539.01 0.0138 0.0087
 Venus -34571-11-18 17:31 J -10905312.94 -10905312.77 -10905312.57 0.0138 0.0076
 Venus -34570-07-03 03:50 J -10905086.52 -10905086.34 -10905086.13 0.0138 0.0065
 Venus -34569-02-14 13:55 J -10904860.12 -10904859.92 -10904859.70 0.0137 0.0054
 Venus -34569-09-27 23:45 J -10904633.72 -10904633.51 -10904633.29 0.0137 0.0042
 Venus -34568-05-12 09:35 J -10904407.32 -10904407.10 -10904406.89 0.0137 0.0031
 Venus -34568-12-24 18:43 J -10904180.93 -10904180.72 -10904180.49 0.0136 0.0021
 Venus -34567-08-08 04:19 J -10903954.54 -10903954.32 -10903954.10 0.0136 0.0009
 Venus -34566-03-22 13:26 J -10903728.16 -10903727.94 -10903727.72 0.0136 0.0002
 Venus -34566-11-03 22:19 J -10903501.79 -10903501.57 -10903501.35 0.0136 0.0013
 Venus -34565-06-17 07:11 J -10903275.42 -10903275.20 -10903274.98 0.0135 0.0024
 Venus -34564-01-29 15:50 J -10903049.06 -10903048.84 -10903048.62 0.0135 0.0034
 Venus -34564-09-13 00:14 J -10902822.70 -10902822.49 -10902822.28 0.0135 0.0045
 Venus -34563-04-27 08:09 J -10902596.35 -10902596.16 -10902595.94 0.0135 0.0056
 Venus -34563-12-09 16:19 J -10902370.00 -10902369.82 -10902369.61 0.0134 0.0066
 Venus -34562-07-24 00:28 J -10902143.66 -10902143.48 -10902143.29 0.0134 0.0075
 Earth -34562-10-22 05:45 J -10902053.43 -10902053.26 -10902053.05 0.0134 0.0088

Moon -34562-10-22 07:26 J -10902053.37 -10902053.19 -10902052.99 0.0134 0.0084 *
 Venus -34561-03-06 07:55 J -10901917.33 -10901917.17 -10901916.98 0.0134 0.0085
 Venus -34561-10-18 15:21 J -10901691.00 -10901690.86 -10901690.69 0.0134 0.0095
 Moon -34561-10-25 13:55 J -10901684.18 -10901683.92 -10901683.66 0.0134 0.0008
 Earth -34561-10-25 15:21 J -10901684.12 -10901683.86 -10901683.61 0.0134 0.0015 *
 Mercury -34561-11-29 15:50 J -10901648.85 -10901648.84 -10901648.81 0.0134 0.0133
 Mercury -34560-02-25 21:07 J -10901560.71 -10901560.62 -10901560.52 0.0134 0.0110
 Mercury -34560-05-25 02:09 J -10901472.53 -10901472.41 -10901472.28 0.0134 0.0088
 Venus -34560-06-01 22:47 J -10901464.68 -10901464.55 -10901464.40 0.0134 0.0104
 Mercury -34560-08-21 07:11 J -10901384.34 -10901384.20 -10901384.05 0.0134 0.0065
 Earth -34560-10-29 23:02 J -10901314.64 -10901314.54 -10901314.40 0.0133 0.0116
 Moon -34560-10-30 00:57 J -10901314.55 -10901314.46 -10901314.36 0.0133 0.0123 *
 Mercury -34560-11-17 12:14 J -10901296.14 -10901295.99 -10901295.84 0.0133 0.0043
 Venus -34559-01-14 05:59 J -10901238.36 -10901238.25 -10901238.12 0.0133 0.0113
 Mercury -34559-02-13 17:02 J -10901207.95 -10901207.79 -10901207.62 0.0133 0.0022
 Mercury -34559-05-12 22:04 J -10901119.75 -10901119.58 -10901119.42 0.0133 0.0003
 Mercury -34559-08-09 02:52 J -10901031.54 -10901031.38 -10901031.22 0.0133 0.0022
 Venus -34559-08-28 13:11 J -10901012.03 -10901011.95 -10901011.85 0.0133 0.0121
 Mercury -34559-11-05 07:26 J -10900943.34 -10900943.19 -10900943.03 0.0133 0.0043
 Mercury -34558-02-01 11:59 J -10900855.13 -10900855.00 -10900854.85 0.0133 0.0064
 Venus -34558-04-11 19:40 J -10900785.70 -10900785.68 -10900785.61 0.0133 0.0130
 Mercury -34558-04-30 17:02 J -10900766.92 -10900766.79 -10900766.67 0.0133 0.0085
 Mercury -34558-07-27 21:21 J -10900678.70 -10900678.61 -10900678.50 0.0133 0.0105
 Mercury -34558-10-24 01:55 J -10900590.46 -10900590.42 -10900590.36 0.0133 0.0126
 Mars -34548-01-09 11:45 J -10897225.16 -10897225.01 -10897224.80 0.0132 0.0112
 Venus -34530-10-08 07:26 J -10890379.25 -10890379.19 -10890379.13 0.0138 0.0132
 Venus -34529-05-21 13:26 J -10890153.02 -10890152.94 -10890152.83 0.0139 0.0123
 Venus -34528-01-02 20:23 J -10889926.77 -10889926.65 -10889926.53 0.0139 0.0113
 Venus -34528-08-17 02:52 J -10889700.51 -10889700.38 -10889700.23 0.0139 0.0104
 Venus -34527-03-31 09:35 J -10889474.25 -10889474.10 -10889473.94 0.0140 0.0094

Venus	-34527-11-12 16:47 J	-10889247.97	-10889247.80	-10889247.63	0.0140	0.0083
Venus	-34526-06-26 23:31 J	-10889021.68	-10889021.52	-10889021.32	0.0140	0.0074
Venus	-34525-02-08 07:11 J	-10888795.38	-10888795.20	-10888795.00	0.0141	0.0062
Venus	-34525-09-21 14:38 J	-10888569.08	-10888568.89	-10888568.68	0.0141	0.0051
Venus	-34524-05-05 22:33 J	-10888342.76	-10888342.56	-10888342.36	0.0141	0.0040
Venus	-34524-12-18 06:28 J	-10888116.43	-10888116.23	-10888116.02	0.0142	0.0028
Venus	-34523-08-01 14:38 J	-10887890.10	-10887889.89	-10887889.68	0.0142	0.0016
Venus	-34522-03-15 22:47 J	-10887663.76	-10887663.55	-10887663.34	0.0142	0.0005
Venus	-34522-10-28 07:11 J	-10887437.41	-10887437.20	-10887436.99	0.0143	0.0008
Venus	-34521-06-10 15:35 J	-10887211.05	-10887210.85	-10887210.63	0.0143	0.0020
Venus	-34520-01-23 00:43 J	-10886984.68	-10886984.47	-10886984.26	0.0143	0.0032
Venus	-34520-09-06 09:35 J	-10886758.30	-10886758.10	-10886757.90	0.0144	0.0044
Venus	-34519-04-20 18:43 J	-10886531.92	-10886531.72	-10886531.53	0.0144	0.0056
Venus	-34519-12-03 03:50 J	-10886305.52	-10886305.34	-10886305.15	0.0144	0.0068
Earth	-34518-04-17 21:35 J	-10886169.64	-10886169.60	-10886169.52	0.0144	0.0140
Moon	-34518-04-18 01:26 J	-10886169.53	-10886169.44	-10886169.34	0.0144	0.0133 *
Venus	-34518-07-17 13:11 J	-10886079.12	-10886078.95	-10886078.77	0.0144	0.0081
Venus	-34517-02-28 22:47 J	-10885852.70	-10885852.55	-10885852.37	0.0145	0.0093
Moon	-34517-04-21 17:31 J	-10885800.02	-10885799.77	-10885799.52	0.0145	0.0018
Earth	-34517-04-21 20:52 J	-10885799.88	-10885799.63	-10885799.38	0.0145	0.0013 *
Mercury	-34517-08-06 02:09 J	-10885693.46	-10885693.41	-10885693.34	0.0145	0.0132
Venus	-34517-10-12 08:52 J	-10885626.27	-10885626.13	-10885625.98	0.0145	0.0104
Mercury	-34517-11-02 07:11 J	-10885605.30	-10885605.20	-10885605.10	0.0145	0.0107
Mercury	-34516-01-29 11:59 J	-10885517.12	-10885517.00	-10885516.88	0.0145	0.0082
Earth	-34516-04-26 20:09 J	-10885429.80	-10885429.66	-10885429.50	0.0145	0.0116
Moon	-34516-04-26 22:47 J	-10885429.68	-10885429.55	-10885429.39	0.0145	0.0116 *
Mercury	-34516-04-27 16:47 J	-10885428.94	-10885428.80	-10885428.66	0.0145	0.0057
Venus	-34516-05-26 18:28 J	-10885399.83	-10885399.73	-10885399.58	0.0145	0.0117
Mercury	-34516-07-24 21:35 J	-10885340.74	-10885340.60	-10885340.45	0.0145	0.0032
Mercury	-34516-10-21 02:38 J	-10885252.54	-10885252.39	-10885252.23	0.0145	0.0008

Venus -34515-01-08 04:47 J -10885173.38 -10885173.30 -10885173.18 0.0145 0.0128
 Mercury -34515-01-17 07:40 J -10885164.33 -10885164.18 -10885164.02 0.0145 0.0021
 Mercury -34515-04-15 12:43 J -10885076.11 -10885075.97 -10885075.82 0.0145 0.0047
 Mercury -34515-07-12 17:59 J -10884987.88 -10884987.75 -10884987.62 0.0145 0.0073
 Venus -34515-08-22 15:07 J -10884946.91 -10884946.87 -10884946.79 0.0145 0.0139
 Mercury -34515-10-08 23:02 J -10884899.65 -10884899.54 -10884899.42 0.0146 0.0100
 Mercury -34514-01-05 04:19 J -10884811.39 -10884811.32 -10884811.24 0.0146 0.0127
 Mars -34506-05-09 09:21 J -10881765.39 -10881765.11 -10881764.82 0.0146 0.0003
 Venus -34490-06-12 18:28 J -10875886.79 -10875886.73 -10875886.66 0.0140 0.0133
 Venus -34489-01-25 05:16 J -10875660.37 -10875660.28 -10875660.16 0.0139 0.0123
 Venus -34489-09-07 16:04 J -10875433.95 -10875433.83 -10875433.68 0.0139 0.0112
 Venus -34488-04-22 02:52 J -10875207.52 -10875207.38 -10875207.22 0.0139 0.0101
 Venus -34488-12-04 13:40 J -10874981.10 -10874980.93 -10874980.76 0.0139 0.0090
 Venus -34487-07-18 23:45 J -10874754.68 -10874754.51 -10874754.31 0.0138 0.0079
 Venus -34486-03-02 10:04 J -10874528.27 -10874528.08 -10874527.88 0.0138 0.0068
 Venus -34486-10-14 20:09 J -10874301.86 -10874301.66 -10874301.45 0.0138 0.0057
 Venus -34485-05-28 05:59 J -10874075.45 -10874075.25 -10874075.03 0.0137 0.0046
 Venus -34484-01-09 15:50 J -10873849.05 -10873848.84 -10873848.62 0.0137 0.0034
 Venus -34484-08-24 01:26 J -10873622.66 -10873622.44 -10873622.21 0.0137 0.0023
 Venus -34483-04-07 10:47 J -10873396.27 -10873396.05 -10873395.82 0.0136 0.0012
 Venus -34483-11-19 20:09 J -10873169.89 -10873169.66 -10873169.44 0.0136 0.0001
 Venus -34482-07-04 05:16 J -10872943.50 -10872943.28 -10872943.06 0.0136 0.0010
 Venus -34481-02-15 14:09 J -10872717.13 -10872716.91 -10872716.69 0.0135 0.0021
 Venus -34481-09-28 22:47 J -10872490.76 -10872490.55 -10872490.33 0.0135 0.0032
 Venus -34480-05-13 07:11 J -10872264.41 -10872264.20 -10872263.98 0.0135 0.0043
 Venus -34480-12-25 15:35 J -10872038.05 -10872037.85 -10872037.64 0.0135 0.0053
 Venus -34479-08-08 23:45 J -10871811.70 -10871811.51 -10871811.30 0.0134 0.0064
 Venus -34478-03-23 07:40 J -10871585.35 -10871585.18 -10871584.98 0.0134 0.0074
 Earth -34478-10-22 14:38 J -10871372.07 -10871371.89 -10871371.67 0.0134 0.0084
 Moon -34478-10-22 17:02 J -10871371.97 -10871371.79 -10871371.60 0.0134 0.0088 *

Venus -34478-11-04 15:35 J -10871359.02 -10871358.85 -10871358.67 0.0134 0.0083
 Venus -34477-06-17 23:02 J -10871132.69 -10871132.54 -10871132.37 0.0134 0.0093
 Moon -34477-10-25 21:50 J -10871002.85 -10871002.59 -10871002.33 0.0134 0.0024
 Earth -34477-10-25 23:59 J -10871002.75 -10871002.50 -10871002.24 0.0134 0.0019 *
 Mercury -34477-12-19 22:33 J -10870947.59 -10870947.56 -10870947.50 0.0134 0.0128
 Venus -34476-01-30 06:14 J -10870906.36 -10870906.24 -10870906.08 0.0134 0.0103
 Mercury -34476-03-18 03:50 J -10870859.44 -10870859.34 -10870859.23 0.0134 0.0105
 Mercury -34476-06-14 08:52 J -10870771.25 -10870771.13 -10870771.00 0.0134 0.0083
 Mercury -34476-09-10 13:55 J -10870683.06 -10870682.92 -10870682.77 0.0134 0.0061
 Venus -34476-09-13 13:40 J -10870680.03 -10870679.93 -10870679.79 0.0134 0.0112
 Earth -34476-10-30 07:55 J -10870633.27 -10870633.17 -10870633.05 0.0133 0.0120
 Moon -34476-10-30 09:07 J -10870633.22 -10870633.12 -10870632.97 0.0133 0.0114 *
 Mercury -34476-12-07 18:57 J -10870594.87 -10870594.71 -10870594.55 0.0133 0.0039
 Mercury -34475-03-05 23:45 J -10870506.67 -10870506.51 -10870506.34 0.0133 0.0017
 Venus -34475-04-27 20:52 J -10870453.71 -10870453.63 -10870453.53 0.0133 0.0120
 Mercury -34475-06-02 04:47 J -10870418.47 -10870418.30 -10870418.14 0.0133 0.0006
 Mercury -34475-08-29 09:21 J -10870330.26 -10870330.11 -10870329.94 0.0133 0.0027
 Mercury -34475-11-25 14:09 J -10870242.06 -10870241.91 -10870241.75 0.0133 0.0048
 Venus -34475-12-10 03:35 J -10870227.39 -10870227.35 -10870227.28 0.0133 0.0129
 Mercury -34474-02-21 18:57 J -10870153.84 -10870153.71 -10870153.57 0.0133 0.0068
 Mercury -34474-05-20 23:31 J -10870065.63 -10870065.52 -10870065.39 0.0133 0.0089
 Mercury -34474-08-17 04:04 J -10869977.41 -10869977.33 -10869977.23 0.0133 0.0110
 Mercury -34474-11-13 08:52 J -10869889.15 -10869889.13 -10869889.10 0.0133 0.0130
 Mars -34464-09-04 18:43 J -10866306.04 -10866305.72 -10866305.38 0.0132 0.0026
 Venus -34446-06-07 16:04 J -10859820.86 -10859820.83 -10859820.77 0.0138 0.0135
 Venus -34445-01-19 22:33 J -10859594.63 -10859594.56 -10859594.46 0.0139 0.0126
 Venus -34445-09-02 04:47 J -10859368.39 -10859368.30 -10859368.17 0.0139 0.0117
 Venus -34444-04-16 11:31 J -10859142.14 -10859142.02 -10859141.87 0.0139 0.0107
 Venus -34444-11-28 18:28 J -10858915.87 -10858915.73 -10858915.57 0.0140 0.0097
 Venus -34443-07-13 01:11 J -10858689.60 -10858689.45 -10858689.27 0.0140 0.0087

Venus	-34442-02-24 08:23 J	-10858463.32	-10858463.15	-10858462.96	0.0140	0.0076
Venus	-34442-10-08 15:35 J	-10858237.02	-10858236.85	-10858236.65	0.0141	0.0066
Venus	-34441-05-21 23:16 J	-10858010.72	-10858010.53	-10858010.33	0.0141	0.0054
Venus	-34440-01-03 06:57 J	-10857784.40	-10857784.21	-10857784.00	0.0141	0.0043
Venus	-34440-08-17 14:52 J	-10857558.08	-10857557.88	-10857557.67	0.0142	0.0031
Venus	-34439-03-31 22:47 J	-10857331.76	-10857331.55	-10857331.34	0.0142	0.0019
Venus	-34439-11-13 06:57 J	-10857105.42	-10857105.21	-10857105.00	0.0142	0.0008
Venus	-34438-06-27 15:07 J	-10856879.08	-10856878.87	-10856878.66	0.0142	0.0005
Venus	-34437-02-08 23:45 J	-10856652.72	-10856652.51	-10856652.30	0.0143	0.0017
Venus	-34437-09-22 08:09 J	-10856426.36	-10856426.16	-10856425.94	0.0143	0.0029
Venus	-34436-05-06 17:02 J	-10856199.99	-10856199.79	-10856199.58	0.0143	0.0041
Venus	-34436-12-19 01:55 J	-10855973.61	-10855973.42	-10855973.21	0.0144	0.0054
Venus	-34435-08-02 11:02 J	-10855747.22	-10855747.04	-10855746.84	0.0144	0.0066
Venus	-34434-03-16 20:23 J	-10855520.82	-10855520.65	-10855520.46	0.0144	0.0078
Earth	-34434-04-18 06:57 J	-10855488.29	-10855488.21	-10855488.13	0.0144	0.0136
Moon	-34434-04-18 09:50 J	-10855488.10	-10855488.09	-10855488.03	0.0144	0.0143
Venus	-34434-10-29 05:59 J	-10855294.41	-10855294.25	-10855294.08	0.0144	0.0090
Moon	-34433-04-22 02:09 J	-10855118.66	-10855118.41	-10855118.15	0.0145	0.0004
Earth	-34433-04-22 05:45 J	-10855118.51	-10855118.26	-10855118.01	0.0145	0.0009 *
Venus	-34433-06-11 15:35 J	-10855067.99	-10855067.85	-10855067.69	0.0145	0.0102
Mercury	-34433-08-26 09:21 J	-10854992.18	-10854992.11	-10854992.04	0.0145	0.0126
Mercury	-34433-11-22 13:55 J	-10854904.02	-10854903.92	-10854903.81	0.0145	0.0102
Venus	-34432-01-24 01:55 J	-10854841.55	-10854841.42	-10854841.29	0.0145	0.0113
Mercury	-34432-02-18 18:43 J	-10854815.84	-10854815.72	-10854815.58	0.0145	0.0077
Earth	-34432-04-27 05:02 J	-10854748.42	-10854748.29	-10854748.14	0.0145	0.0120
Moon	-34432-04-27 08:09 J	-10854748.28	-10854748.16	-10854748.00	0.0145	0.0119 *
Mercury	-34432-05-17 23:45 J	-10854727.65	-10854727.51	-10854727.37	0.0145	0.0051
Mercury	-34432-08-14 04:47 J	-10854639.45	-10854639.30	-10854639.15	0.0145	0.0026
Venus	-34432-09-07 11:31 J	-10854615.11	-10854615.02	-10854614.89	0.0145	0.0125
Mercury	-34432-11-10 09:50 J	-10854551.24	-10854551.09	-10854550.94	0.0145	0.0003

Mercury -34431-02-06 14:38 J -10854463.03 -10854462.89 -10854462.73 0.0145 0.0027

Venus -34431-04-21 21:50 J -10854388.65 -10854388.59 -10854388.50 0.0145 0.0136

Mercury -34431-05-05 19:55 J -10854374.81 -10854374.67 -10854374.53 0.0145 0.0052

Mercury -34431-08-02 00:57 J -10854286.59 -10854286.46 -10854286.33 0.0145 0.0079

Mercury -34431-10-29 05:59 J -10854198.35 -10854198.25 -10854198.14 0.0145 0.0106

Mercury -34430-01-25 11:16 J -10854110.08 -10854110.03 -10854109.96 0.0146 0.0133

Mars -34421-01-02 08:23 J -10850846.35 -10850846.15 -10850845.94 0.0146 0.0098

Venus -34406-02-09 23:59 J -10845328.53 -10845328.50 -10845328.44 0.0140 0.0137

Venus -34406-09-24 11:31 J -10845102.11 -10845102.02 -10845101.93 0.0140 0.0126

Venus -34405-05-07 22:04 J -10844875.69 -10844875.58 -10844875.44 0.0139 0.0116

Venus -34405-12-20 09:07 J -10844649.26 -10844649.12 -10844648.97 0.0139 0.0105

Venus -34404-08-03 19:26 J -10844422.83 -10844422.69 -10844422.51 0.0139 0.0094

Venus -34403-03-18 05:59 J -10844196.41 -10844196.25 -10844196.06 0.0138 0.0083

Venus -34403-10-30 16:19 J -10843970.00 -10843969.82 -10843969.61 0.0138 0.0072

Venus -34402-06-14 02:38 J -10843743.58 -10843743.39 -10843743.18 0.0138 0.0060

Venus -34401-01-26 12:43 J -10843517.17 -10843516.97 -10843516.75 0.0137 0.0049

Venus -34401-09-08 22:47 J -10843290.76 -10843290.55 -10843290.33 0.0137 0.0037

Venus -34400-04-23 08:23 J -10843064.37 -10843064.15 -10843063.93 0.0137 0.0026

Venus -34400-12-05 17:59 J -10842837.97 -10842837.75 -10842837.53 0.0136 0.0014

Venus -34399-07-20 03:21 J -10842611.58 -10842611.36 -10842611.13 0.0136 0.0004

Venus -34398-03-03 12:28 J -10842385.20 -10842384.98 -10842384.75 0.0136 0.0008

Venus -34398-10-15 21:35 J -10842158.82 -10842158.60 -10842158.38 0.0136 0.0019

Venus -34397-05-29 06:14 J -10841932.46 -10841932.24 -10841932.02 0.0135 0.0030

Venus -34396-01-10 14:38 J -10841706.09 -10841705.89 -10841705.66 0.0135 0.0041

Venus -34396-08-24 23:31 J -10841479.73 -10841479.52 -10841479.32 0.0135 0.0051

Venus -34395-04-08 07:26 J -10841253.38 -10841253.19 -10841252.98 0.0135 0.0062

Venus -34395-11-20 15:35 J -10841027.04 -10841026.85 -10841026.66 0.0134 0.0072

Venus -34394-07-04 23:16 J -10840800.69 -10840800.53 -10840800.34 0.0134 0.0082

Earth -34394-10-23 00:14 J -10840690.69 -10840690.49 -10840690.28 0.0134 0.0079

Moon -34394-10-23 02:38 J -10840690.58 -10840690.39 -10840690.17 0.0134 0.0077 *

Venus -34393-02-16 06:57 J -10840574.36 -10840574.21 -10840574.03 0.0134 0.0092
 Venus -34393-09-29 14:52 J -10840348.03 -10840347.88 -10840347.74 0.0134 0.0101
 Moon -34393-10-26 06:57 J -10840321.47 -10840321.21 -10840320.95 0.0134 0.0017
 Earth -34393-10-26 09:21 J -10840321.36 -10840321.11 -10840320.86 0.0134 0.0023 *
 Mercury -34392-01-09 05:45 J -10840246.33 -10840246.26 -10840246.20 0.0134 0.0122
 Mercury -34392-04-07 10:33 J -10840158.16 -10840158.06 -10840157.94 0.0134 0.0100
 Venus -34392-05-13 21:50 J -10840121.70 -10840121.59 -10840121.46 0.0134 0.0111
 Mercury -34392-07-04 15:35 J -10840069.97 -10840069.85 -10840069.70 0.0134 0.0078
 Mercury -34392-09-30 20:38 J -10839981.78 -10839981.64 -10839981.48 0.0133 0.0056
 Earth -34392-10-30 17:16 J -10839951.86 -10839951.78 -10839951.67 0.0133 0.0124
 Moon -34392-10-30 19:40 J -10839951.71 -10839951.68 -10839951.62 0.0133 0.0131 *
 Venus -34392-12-26 05:02 J -10839895.38 -10839895.29 -10839895.18 0.0133 0.0120
 Mercury -34392-12-28 01:40 J -10839893.58 -10839893.43 -10839893.27 0.0133 0.0033
 Mercury -34391-03-26 06:43 J -10839805.38 -10839805.22 -10839805.06 0.0133 0.0011
 Mercury -34391-06-22 11:31 J -10839717.18 -10839717.02 -10839716.85 0.0133 0.0010
 Venus -34391-08-09 11:59 J -10839669.04 -10839669.00 -10839668.92 0.0133 0.0128
 Mercury -34391-09-18 16:19 J -10839628.97 -10839628.82 -10839628.66 0.0133 0.0032
 Mercury -34391-12-15 20:52 J -10839540.77 -10839540.63 -10839540.47 0.0133 0.0054
 Mercury -34390-03-14 01:40 J -10839452.55 -10839452.43 -10839452.29 0.0133 0.0074
 Mercury -34390-06-10 06:28 J -10839364.34 -10839364.23 -10839364.11 0.0133 0.0095
 Mercury -34390-09-06 11:02 J -10839276.11 -10839276.04 -10839275.95 0.0133 0.0115
 Mars -34379-05-01 01:11 J -10835386.74 -10835386.45 -10835386.14 0.0132 0.0060
 Venus -34362-02-05 01:11 J -10829262.45 -10829262.45 -10829262.43 0.0138 0.0138
 Venus -34362-09-19 07:11 J -10829036.26 -10829036.20 -10829036.11 0.0138 0.0129
 Venus -34361-05-02 13:40 J -10828810.02 -10828809.93 -10828809.81 0.0139 0.0120
 Venus -34361-12-14 20:23 J -10828583.77 -10828583.65 -10828583.51 0.0139 0.0110
 Venus -34360-07-29 02:52 J -10828357.51 -10828357.38 -10828357.21 0.0139 0.0101
 Venus -34359-03-12 09:50 J -10828131.24 -10828131.09 -10828130.92 0.0140 0.0090
 Venus -34359-10-24 17:02 J -10827904.96 -10827904.79 -10827904.61 0.0140 0.0079
 Venus -34358-06-08 00:14 J -10827678.67 -10827678.49 -10827678.30 0.0140 0.0069

Venus	-34357-01-20 07:40 J	-10827452.37	-10827452.18	-10827451.98	0.0141	0.0058
Venus	-34357-09-02 15:07 J	-10827226.06	-10827225.87	-10827225.66	0.0141	0.0046
Venus	-34356-04-16 23:02 J	-10826999.75	-10826999.54	-10826999.34	0.0141	0.0035
Venus	-34356-11-29 06:43 J	-10826773.43	-10826773.22	-10826773.01	0.0142	0.0023
Venus	-34355-07-13 14:52 J	-10826547.09	-10826546.88	-10826546.67	0.0142	0.0011
Venus	-34354-02-24 23:02 J	-10826320.75	-10826320.54	-10826320.33	0.0142	0.0002
Venus	-34354-10-09 07:11 J	-10826094.41	-10826094.20	-10826093.98	0.0143	0.0014
Venus	-34353-05-22 15:50 J	-10825868.05	-10825867.84	-10825867.63	0.0143	0.0026
Venus	-34352-01-04 00:28 J	-10825641.68	-10825641.48	-10825641.27	0.0143	0.0038
Venus	-34352-08-18 09:21 J	-10825415.30	-10825415.11	-10825414.91	0.0144	0.0050
Venus	-34351-04-01 18:14 J	-10825188.92	-10825188.74	-10825188.54	0.0144	0.0063
Venus	-34351-11-14 03:21 J	-10824962.53	-10824962.36	-10824962.17	0.0144	0.0075
Earth	-34350-04-18 15:07 J	-10824806.96	-10824806.87	-10824806.76	0.0144	0.0132
Moon	-34350-04-18 18:57 J	-10824806.83	-10824806.71	-10824806.58	0.0144	0.0124 *
Venus	-34350-06-28 12:43 J	-10824736.13	-10824735.97	-10824735.79	0.0144	0.0087
Venus	-34349-02-09 22:47 J	-10824509.70	-10824509.55	-10824509.40	0.0145	0.0099
Moon	-34349-04-22 10:19 J	-10824437.31	-10824437.07	-10824436.81	0.0145	0.0012
Earth	-34349-04-22 13:55 J	-10824437.17	-10824436.92	-10824436.66	0.0145	0.0006 *
Mercury	-34349-09-15 16:04 J	-10824290.90	-10824290.83	-10824290.74	0.0145	0.0121
Venus	-34349-09-23 08:09 J	-10824283.28	-10824283.16	-10824283.01	0.0145	0.0111
Mercury	-34349-12-12 21:07 J	-10824202.73	-10824202.62	-10824202.51	0.0145	0.0096
Mercury	-34348-03-11 01:55 J	-10824114.55	-10824114.42	-10824114.29	0.0145	0.0071
Saturn	-34348-04-05 14:23 J	-10824089.31	-10824088.90	-10824088.38	0.0145	0.0103
Earth	-34348-04-27 13:11 J	-10824067.06	-10824066.95	-10824066.80	0.0145	0.0124
Moon	-34348-04-27 16:33 J	-10824066.92	-10824066.81	-10824066.67	0.0145	0.0124 *
Venus	-34348-05-07 18:14 J	-10824056.84	-10824056.74	-10824056.62	0.0145	0.0122
Mercury	-34348-06-07 06:43 J	-10824026.36	-10824026.22	-10824026.08	0.0145	0.0046
Mercury	-34348-09-03 11:45 J	-10823938.16	-10823938.01	-10823937.86	0.0145	0.0020
Mercury	-34348-11-30 16:33 J	-10823849.96	-10823849.81	-10823849.65	0.0145	0.0007
Venus	-34348-12-20 04:33 J	-10823830.39	-10823830.31	-10823830.23	0.0145	0.0134

Mercury -34347-02-26 21:35 J -10823761.74 -10823761.60 -10823761.45 0.0145 0.0032
 Mercury -34347-05-26 02:38 J -10823673.52 -10823673.39 -10823673.24 0.0145 0.0058
 Venus -34347-08-03 14:52 J -10823603.89 -10823603.88 -10823603.86 0.0145 0.0145
 Mercury -34347-08-22 07:55 J -10823585.29 -10823585.17 -10823585.05 0.0145 0.0084
 Mercury -34347-11-18 12:57 J -10823497.05 -10823496.96 -10823496.86 0.0145 0.0111
 Mercury -34346-02-14 17:59 J -10823408.78 -10823408.75 -10823408.69 0.0145 0.0139
 Mars -34339-09-25 13:40 J -10820629.16 -10820628.93 -10820628.70 0.0146 0.0084
 Venus -34322-05-24 16:19 J -10814543.88 -10814543.82 -10814543.72 0.0140 0.0130
 Venus -34321-01-06 03:50 J -10814317.45 -10814317.34 -10814317.23 0.0140 0.0119
 Venus -34321-08-19 14:23 J -10814091.03 -10814090.90 -10814090.75 0.0139 0.0108
 Venus -34320-04-03 01:11 J -10813864.60 -10813864.45 -10813864.28 0.0139 0.0097
 Venus -34320-11-15 11:45 J -10813638.18 -10813638.01 -10813637.83 0.0139 0.0086
 Venus -34319-06-29 22:19 J -10813411.75 -10813411.57 -10813411.38 0.0138 0.0074
 Venus -34318-02-11 08:38 J -10813185.33 -10813185.14 -10813184.94 0.0138 0.0063
 Venus -34318-09-25 18:43 J -10812958.92 -10812958.72 -10812958.51 0.0138 0.0052
 Venus -34317-05-09 04:33 J -10812732.52 -10812732.31 -10812732.09 0.0137 0.0040
 Venus -34317-12-21 14:23 J -10812506.11 -10812505.90 -10812505.67 0.0137 0.0029
 Venus -34316-08-05 00:14 J -10812279.71 -10812279.49 -10812279.27 0.0137 0.0017
 Venus -34315-03-19 09:35 J -10812053.32 -10812053.10 -10812052.87 0.0136 0.0006
 Venus -34315-10-31 18:57 J -10811826.94 -10811826.71 -10811826.49 0.0136 0.0005
 Venus -34314-06-15 03:50 J -10811600.55 -10811600.34 -10811600.11 0.0136 0.0017
 Venus -34313-01-27 12:43 J -10811374.18 -10811373.97 -10811373.74 0.0136 0.0028
 Venus -34313-09-09 21:35 J -10811147.81 -10811147.60 -10811147.38 0.0135 0.0038
 Venus -34312-04-24 05:59 J -10810921.45 -10810921.25 -10810921.04 0.0135 0.0049
 Venus -34312-12-06 14:09 J -10810695.10 -10810694.91 -10810694.70 0.0135 0.0060
 Venus -34311-07-20 22:19 J -10810468.75 -10810468.57 -10810468.36 0.0135 0.0071
 Venus -34310-03-04 06:14 J -10810242.40 -10810242.24 -10810242.04 0.0134 0.0081
 Venus -34310-10-16 14:09 J -10810016.07 -10810015.91 -10810015.74 0.0134 0.0090
 Earth -34310-10-23 08:23 J -10810009.36 -10810009.15 -10810008.94 0.0134 0.0076
 Moon -34310-10-23 11:16 J -10810009.22 -10810009.03 -10810008.82 0.0134 0.0080 *

Venus -34309-05-29 21:35 J -10809789.73 -10809789.60 -10809789.44 0.0134 0.0100
 Moon -34309-10-26 14:09 J -10809640.15 -10809639.91 -10809639.64 0.0134 0.0031
 Earth -34309-10-26 17:16 J -10809640.02 -10809639.78 -10809639.52 0.0134 0.0026 *
 Venus -34308-01-11 05:16 J -10809563.40 -10809563.28 -10809563.15 0.0134 0.0109
 Mercury -34308-01-29 12:14 J -10809545.06 -10809544.99 -10809544.91 0.0134 0.0118
 Mercury -34308-04-27 17:02 J -10809456.89 -10809456.79 -10809456.66 0.0134 0.0096
 Mercury -34308-07-24 22:04 J -10809368.70 -10809368.58 -10809368.43 0.0134 0.0074
 Venus -34308-08-25 12:14 J -10809337.07 -10809336.99 -10809336.87 0.0134 0.0119
 Mercury -34308-10-21 03:21 J -10809280.51 -10809280.36 -10809280.20 0.0133 0.0051
 Earth -34308-10-31 01:26 J -10809270.51 -10809270.44 -10809270.35 0.0133 0.0127
 Moon -34308-10-31 04:04 J -10809270.43 -10809270.33 -10809270.22 0.0133 0.0120 *
 Mercury -34307-01-17 08:23 J -10809192.31 -10809192.15 -10809191.99 0.0133 0.0029
 Venus -34307-04-08 19:26 J -10809110.74 -10809110.69 -10809110.61 0.0133 0.0127
 Mercury -34307-04-15 13:11 J -10809104.11 -10809103.95 -10809103.78 0.0133 0.0008
 Mercury -34307-07-12 18:14 J -10809015.90 -10809015.74 -10809015.58 0.0133 0.0014
 Mercury -34307-10-08 22:47 J -10808927.70 -10808927.55 -10808927.38 0.0133 0.0037
 Mercury -34306-01-05 03:35 J -10808839.49 -10808839.35 -10808839.20 0.0133 0.0057
 Mercury -34306-04-03 08:23 J -10808751.27 -10808751.15 -10808751.01 0.0133 0.0078
 Mercury -34306-06-30 12:57 J -10808663.05 -10808662.96 -10808662.84 0.0133 0.0099
 Mercury -34306-09-26 17:45 J -10808574.82 -10808574.76 -10808574.69 0.0133 0.0119
 Mars -34296-01-20 13:55 J -10805171.12 -10805170.92 -10805170.69 0.0132 0.0100
 Jupiter -34289-11-19 11:02 J -10802311.51 -10802311.04 -10802310.56 0.0134 0.0034
 Venus -34278-05-19 16:04 J -10798477.87 -10798477.83 -10798477.76 0.0138 0.0132
 Venus -34278-12-31 22:47 J -10798251.64 -10798251.55 -10798251.45 0.0139 0.0123
 Venus -34277-08-14 05:16 J -10798025.40 -10798025.28 -10798025.16 0.0139 0.0113
 Venus -34276-03-28 11:45 J -10797799.14 -10797799.01 -10797798.86 0.0139 0.0103
 Venus -34276-11-09 18:14 J -10797572.88 -10797572.74 -10797572.56 0.0139 0.0094
 Venus -34275-06-24 01:26 J -10797346.60 -10797346.44 -10797346.26 0.0140 0.0083
 Venus -34274-02-05 08:23 J -10797120.32 -10797120.15 -10797119.95 0.0140 0.0072
 Venus -34274-09-19 15:50 J -10796894.02 -10796893.84 -10796893.64 0.0140 0.0061

Venus	-34273-05-02 23:02 J	-10796667.72	-10796667.54	-10796667.33	0.0141	0.0050
Venus	-34273-12-15 06:43 J	-10796441.41	-10796441.22	-10796441.01	0.0141	0.0038
Venus	-34272-07-29 14:38 J	-10796215.10	-10796214.89	-10796214.68	0.0141	0.0026
Venus	-34271-03-12 22:33 J	-10795988.77	-10795988.56	-10795988.35	0.0142	0.0014
Venus	-34271-10-25 06:28 J	-10795762.44	-10795762.23	-10795762.02	0.0142	0.0002
Venus	-34270-06-08 14:38 J	-10795536.10	-10795535.89	-10795535.68	0.0142	0.0010
Venus	-34269-01-20 23:02 J	-10795309.74	-10795309.54	-10795309.32	0.0143	0.0023
Venus	-34269-09-03 07:40 J	-10795083.38	-10795083.18	-10795082.97	0.0143	0.0035
Venus	-34268-04-17 16:19 J	-10794857.02	-10794856.82	-10794856.62	0.0143	0.0047
Venus	-34268-11-30 00:57 J	-10794630.64	-10794630.46	-10794630.26	0.0144	0.0060
Venus	-34267-07-14 10:04 J	-10794404.25	-10794404.08	-10794403.89	0.0144	0.0072
Venus	-34266-02-25 19:26 J	-10794177.85	-10794177.69	-10794177.50	0.0144	0.0084
Earth	-34266-04-18 22:47 J	-10794125.64	-10794125.55	-10794125.42	0.0144	0.0129
Moon	-34266-04-19 02:09 J	-10794125.47	-10794125.41	-10794125.31	0.0144	0.0137 *
Venus	-34266-10-10 04:47 J	-10793951.44	-10793951.30	-10793951.12	0.0144	0.0097
Moon	-34265-04-22 18:14 J	-10793755.99	-10793755.74	-10793755.49	0.0145	0.0003
Earth	-34265-04-22 22:04 J	-10793755.84	-10793755.58	-10793755.33	0.0145	0.0003 *
Venus	-34265-05-23 14:52 J	-10793725.02	-10793724.88	-10793724.74	0.0145	0.0108
Mercury	-34265-07-09 18:14 J	-10793677.77	-10793677.74	-10793677.71	0.0145	0.0141
Mercury	-34265-10-05 23:02 J	-10793589.63	-10793589.54	-10793589.45	0.0145	0.0116
Mercury	-34264-01-02 03:35 J	-10793501.45	-10793501.35	-10793501.22	0.0145	0.0092
Venus	-34264-01-05 00:28 J	-10793498.58	-10793498.48	-10793498.35	0.0145	0.0120
Mercury	-34264-03-31 08:38 J	-10793413.27	-10793413.14	-10793413.01	0.0145	0.0066
Earth	-34264-04-27 21:07 J	-10793385.72	-10793385.62	-10793385.48	0.0145	0.0127
Moon	-34264-04-28 00:57 J	-10793385.58	-10793385.46	-10793385.32	0.0145	0.0124 *
Mercury	-34264-06-27 13:26 J	-10793325.08	-10793324.94	-10793324.79	0.0145	0.0041
Venus	-34264-08-19 10:33 J	-10793272.13	-10793272.06	-10793271.96	0.0145	0.0131
Mercury	-34264-09-23 18:28 J	-10793236.88	-10793236.73	-10793236.58	0.0145	0.0016
Mercury	-34264-12-20 23:31 J	-10793148.67	-10793148.52	-10793148.37	0.0145	0.0010
Mercury	-34263-03-19 04:33 J	-10793060.46	-10793060.31	-10793060.16	0.0145	0.0037

Venus -34263-04-02 21:07 J -10793045.65 -10793045.62 -10793045.58 0.0145 0.0143
 Mercury -34263-06-15 09:21 J -10792972.24 -10792972.11 -10792971.96 0.0145 0.0064
 Mercury -34263-09-11 14:38 J -10792884.00 -10792883.89 -10792883.77 0.0145 0.0090
 Mercury -34263-12-08 19:40 J -10792795.76 -10792795.68 -10792795.58 0.0145 0.0117
 Mercury -34262-03-07 00:57 J -10792707.47 -10792707.46 -10792707.43 0.0145 0.0144
 Mars -34254-05-21 10:47 J -10789710.33 -10789710.05 -10789709.76 0.0146 0.0010
 Venus -34238-01-21 21:35 J -10783985.65 -10783985.60 -10783985.52 0.0140 0.0134
 Venus -34238-09-05 08:52 J -10783759.23 -10783759.13 -10783759.02 0.0140 0.0123
 Venus -34237-04-18 19:40 J -10783532.80 -10783532.68 -10783532.54 0.0139 0.0112
 Venus -34237-12-01 06:28 J -10783306.37 -10783306.23 -10783306.06 0.0139 0.0101
 Venus -34236-07-15 17:16 J -10783079.93 -10783079.78 -10783079.60 0.0139 0.0090
 Venus -34235-02-27 03:50 J -10782853.51 -10782853.34 -10782853.14 0.0138 0.0079
 Venus -34235-10-11 14:09 J -10782627.09 -10782626.91 -10782626.70 0.0138 0.0067
 Venus -34234-05-26 00:43 J -10782400.67 -10782400.47 -10782400.26 0.0138 0.0055
 Venus -34233-01-07 10:47 J -10782174.26 -10782174.05 -10782173.83 0.0137 0.0044
 Venus -34233-08-20 20:38 J -10781947.85 -10781947.64 -10781947.41 0.0137 0.0032
 Venus -34232-04-04 06:28 J -10781721.45 -10781721.23 -10781721.01 0.0137 0.0021
 Venus -34232-11-16 16:04 J -10781495.05 -10781494.83 -10781494.61 0.0137 0.0009
 Venus -34231-07-01 01:40 J -10781268.66 -10781268.43 -10781268.21 0.0136 0.0004
 Venus -34230-02-12 10:47 J -10781042.27 -10781042.05 -10781041.83 0.0136 0.0014
 Venus -34230-09-26 19:40 J -10780815.90 -10780815.68 -10780815.46 0.0136 0.0025
 Venus -34229-05-10 04:19 J -10780589.53 -10780589.32 -10780589.10 0.0135 0.0036
 Venus -34229-12-22 12:43 J -10780363.17 -10780362.97 -10780362.75 0.0135 0.0048
 Venus -34228-08-05 21:21 J -10780136.80 -10780136.61 -10780136.40 0.0135 0.0058
 Venus -34227-03-20 05:45 J -10779910.45 -10779910.26 -10779910.07 0.0135 0.0068
 Venus -34227-11-01 13:26 J -10779684.11 -10779683.94 -10779683.74 0.0135 0.0079
 Venus -34226-06-15 21:21 J -10779457.77 -10779457.61 -10779457.43 0.0134 0.0089
 Earth -34226-10-23 16:47 J -10779328.00 -10779327.80 -10779327.57 0.0134 0.0074
 Moon -34226-10-23 20:23 J -10779327.86 -10779327.65 -10779327.43 0.0134 0.0071 *
 Venus -34225-01-28 05:02 J -10779231.43 -10779231.29 -10779231.13 0.0134 0.0099

Venus -34225-09-10 12:43 J -10779005.09 -10779004.97 -10779004.83 0.0134 0.0108
 Moon -34225-10-26 22:47 J -10778958.79 -10778958.55 -10778958.28 0.0134 0.0024
 Earth -34225-10-27 02:09 J -10778958.65 -10778958.41 -10778958.16 0.0134 0.0029 *
 Mercury -34224-02-18 18:57 J -10778843.79 -10778843.71 -10778843.62 0.0134 0.0113
 Venus -34224-04-24 20:09 J -10778778.76 -10778778.66 -10778778.54 0.0134 0.0117
 Mercury -34224-05-17 23:59 J -10778755.62 -10778755.50 -10778755.37 0.0134 0.0091
 Mercury -34224-08-14 05:02 J -10778667.43 -10778667.29 -10778667.14 0.0134 0.0068
 Earth -34224-10-31 10:04 J -10778589.11 -10778589.08 -10778589.00 0.0134 0.0131
 Mercury -34224-11-10 10:04 J -10778579.23 -10778579.08 -10778578.92 0.0134 0.0046
 Venus -34224-12-07 03:35 J -10778552.42 -10778552.35 -10778552.28 0.0134 0.0126
 Mercury -34223-02-06 15:07 J -10778491.03 -10778490.87 -10778490.71 0.0133 0.0024
 Mercury -34223-05-05 20:09 J -10778402.83 -10778402.66 -10778402.50 0.0133 0.0004
 Mercury -34223-08-02 00:57 J -10778314.62 -10778314.46 -10778314.30 0.0133 0.0019
 Mercury -34223-10-29 05:45 J -10778226.41 -10778226.26 -10778226.10 0.0133 0.0041
 Mercury -34222-01-25 10:19 J -10778138.20 -10778138.07 -10778137.92 0.0133 0.0063
 Mercury -34222-04-23 15:07 J -10778049.99 -10778049.87 -10778049.74 0.0133 0.0083
 Mercury -34222-07-20 19:40 J -10777961.76 -10777961.68 -10777961.57 0.0133 0.0104
 Mercury -34222-10-17 00:43 J -10777873.52 -10777873.47 -10777873.42 0.0133 0.0124
 Mars -34212-09-15 19:40 J -10774252.00 -10774251.68 -10774251.34 0.0132 0.0016
 Venus -34194-01-17 01:55 J -10767919.46 -10767919.42 -10767919.38 0.0138 0.0135
 Venus -34194-08-31 07:40 J -10767693.25 -10767693.18 -10767693.08 0.0138 0.0127
 Venus -34193-04-13 14:09 J -10767467.01 -10767466.91 -10767466.78 0.0139 0.0117
 Venus -34193-11-25 20:52 J -10767240.75 -10767240.63 -10767240.49 0.0139 0.0107
 Venus -34192-07-10 03:35 J -10767014.49 -10767014.35 -10767014.19 0.0139 0.0097
 Venus -34191-02-21 10:33 J -10766788.22 -10766788.06 -10766787.89 0.0140 0.0086
 Venus -34191-10-05 17:31 J -10766561.95 -10766561.77 -10766561.59 0.0140 0.0075
 Venus -34190-05-20 00:28 J -10766335.66 -10766335.48 -10766335.28 0.0140 0.0064
 Venus -34189-01-01 07:55 J -10766109.36 -10766109.17 -10766108.96 0.0141 0.0053
 Venus -34189-08-14 15:21 J -10765883.05 -10765882.86 -10765882.65 0.0141 0.0041
 Venus -34188-03-28 23:02 J -10765656.75 -10765656.54 -10765656.33 0.0141 0.0029

Venus -34188-11-10 06:43 J -10765430.43 -10765430.22 -10765430.01 0.0142 0.0017
 Venus -34187-06-24 14:38 J -10765204.10 -10765203.89 -10765203.68 0.0142 0.0005
 Venus -34186-02-05 22:47 J -10764977.76 -10764977.55 -10764977.34 0.0142 0.0007
 Venus -34186-09-20 06:57 J -10764751.42 -10764751.21 -10764751.00 0.0143 0.0019
 Venus -34185-05-03 15:21 J -10764525.06 -10764524.86 -10764524.65 0.0143 0.0032
 Venus -34185-12-15 23:45 J -10764298.70 -10764298.51 -10764298.30 0.0143 0.0045
 Venus -34184-07-30 08:38 J -10764072.33 -10764072.14 -10764071.94 0.0143 0.0057
 Venus -34183-03-13 17:45 J -10763845.94 -10763845.76 -10763845.57 0.0144 0.0069
 Venus -34183-10-26 02:52 J -10763619.55 -10763619.38 -10763619.20 0.0144 0.0081
 Earth -34182-04-19 07:40 J -10763444.28 -10763444.18 -10763444.03 0.0144 0.0125
 Moon -34182-04-19 11:45 J -10763444.16 -10763444.01 -10763443.86 0.0144 0.0117 *
 Venus -34182-06-09 11:59 J -10763393.15 -10763393.00 -10763392.83 0.0144 0.0094
 Venus -34181-01-21 21:35 J -10763166.73 -10763166.60 -10763166.44 0.0144 0.0106
 Moon -34181-04-23 03:35 J -10763074.60 -10763074.35 -10763074.10 0.0145 0.0005
 Earth -34181-04-23 06:57 J -10763074.47 -10763074.21 -10763073.96 0.0145 0.0003 *
 Mercury -34181-07-30 01:11 J -10762976.49 -10762976.45 -10762976.39 0.0145 0.0135
 Venus -34181-09-04 07:40 J -10762940.30 -10762940.18 -10762940.05 0.0145 0.0117
 Mercury -34181-10-26 05:45 J -10762888.34 -10762888.26 -10762888.15 0.0145 0.0111
 Mercury -34180-01-22 10:47 J -10762800.17 -10762800.05 -10762799.93 0.0145 0.0086
 Venus -34180-04-18 17:16 J -10762713.86 -10762713.78 -10762713.67 0.0145 0.0129
 Mercury -34180-04-20 15:35 J -10762711.98 -10762711.85 -10762711.71 0.0145 0.0061
 Earth -34180-04-28 05:59 J -10762704.34 -10762704.25 -10762704.12 0.0145 0.0131
 Moon -34180-04-28 09:35 J -10762704.18 -10762704.10 -10762703.98 0.0145 0.0132 *
 Mercury -34180-07-17 20:38 J -10762623.79 -10762623.64 -10762623.50 0.0145 0.0035
 Mercury -34180-10-14 01:26 J -10762535.59 -10762535.44 -10762535.29 0.0145 0.0010
 Venus -34180-12-01 03:35 J -10762487.39 -10762487.35 -10762487.29 0.0145 0.0140
 Mercury -34179-01-10 06:28 J -10762447.38 -10762447.23 -10762447.08 0.0145 0.0016
 Mercury -34179-04-08 11:31 J -10762359.16 -10762359.02 -10762358.87 0.0145 0.0043
 Mercury -34179-07-05 16:33 J -10762270.94 -10762270.81 -10762270.67 0.0145 0.0069
 Mercury -34179-10-01 21:35 J -10762182.71 -10762182.60 -10762182.48 0.0145 0.0096

Mercury -34179-12-29 02:52 J -10762094.46 -10762094.38 -10762094.30 0.0145 0.0122
 Mars -34169-01-14 09:35 J -10758791.29 -10758791.10 -10758790.90 0.0146 0.0104
 Jupiter -34164-06-03 03:21 J -10756824.85 -10756824.36 -10756823.82 0.0145 0.0047
 Venus -34155-09-21 02:23 J -10753427.42 -10753427.40 -10753427.36 0.0140 0.0138
 Venus -34154-05-05 13:55 J -10753201.01 -10753200.92 -10753200.83 0.0140 0.0127
 Venus -34154-12-18 00:28 J -10752974.58 -10752974.48 -10752974.34 0.0140 0.0117
 Venus -34153-07-31 11:31 J -10752748.15 -10752748.02 -10752747.85 0.0139 0.0106
 Venus -34152-03-14 22:19 J -10752521.72 -10752521.57 -10752521.39 0.0139 0.0094
 Venus -34152-10-27 09:07 J -10752295.29 -10752295.12 -10752294.93 0.0139 0.0082
 Venus -34151-06-10 19:55 J -10752068.86 -10752068.67 -10752068.47 0.0138 0.0071
 Venus -34150-01-23 06:14 J -10751842.44 -10751842.24 -10751842.03 0.0138 0.0059
 Venus -34150-09-06 16:33 J -10751616.02 -10751615.81 -10751615.60 0.0138 0.0047
 Venus -34149-04-20 02:23 J -10751389.61 -10751389.40 -10751389.18 0.0137 0.0036
 Venus -34149-12-02 12:14 J -10751163.21 -10751162.99 -10751162.77 0.0137 0.0024
 Venus -34148-07-16 22:04 J -10750936.80 -10750936.58 -10750936.36 0.0137 0.0012
 Venus -34147-02-28 07:26 J -10750710.41 -10750710.19 -10750709.96 0.0136 0.0003
 Venus -34147-10-12 16:47 J -10750484.02 -10750483.80 -10750483.58 0.0136 0.0011
 Venus -34146-05-27 01:40 J -10750257.65 -10750257.43 -10750257.20 0.0136 0.0022
 Venus -34145-01-08 10:33 J -10750031.27 -10750031.06 -10750030.84 0.0136 0.0034
 Venus -34145-08-21 19:11 J -10749804.90 -10749804.70 -10749804.48 0.0135 0.0045
 Venus -34144-04-05 03:50 J -10749578.54 -10749578.34 -10749578.13 0.0135 0.0055
 Venus -34144-11-17 11:59 J -10749352.19 -10749352.00 -10749351.80 0.0135 0.0066
 Venus -34143-07-01 20:09 J -10749125.83 -10749125.66 -10749125.47 0.0135 0.0077
 Venus -34142-02-13 04:04 J -10748899.49 -10748899.33 -10748899.15 0.0134 0.0087
 Venus -34142-09-27 11:59 J -10748673.14 -10748673.00 -10748672.84 0.0134 0.0097
 Earth -34142-10-24 00:28 J -10748646.68 -10748646.48 -10748646.25 0.0134 0.0071
 Moon -34142-10-24 04:04 J -10748646.53 -10748646.33 -10748646.10 0.0134 0.0073 *
 Venus -34141-05-10 19:40 J -10748446.81 -10748446.68 -10748446.54 0.0134 0.0106
 Moon -34141-10-27 06:28 J -10748277.48 -10748277.23 -10748276.98 0.0134 0.0036
 Earth -34141-10-27 09:50 J -10748277.33 -10748277.09 -10748276.83 0.0134 0.0032 *

Mercury -34141-12-12 20:09 J -10748230.68 -10748230.66 -10748230.63 0.0134 0.0132
 Venus -34141-12-23 02:52 J -10748220.47 -10748220.38 -10748220.25 0.0134 0.0116
 Mercury -34140-03-11 01:26 J -10748142.53 -10748142.44 -10748142.34 0.0134 0.0109
 Mercury -34140-06-07 06:28 J -10748054.35 -10748054.23 -10748054.10 0.0134 0.0087
 Venus -34140-08-06 10:33 J -10747994.12 -10747994.06 -10747993.97 0.0134 0.0125
 Mercury -34140-09-03 11:31 J -10747966.16 -10747966.02 -10747965.87 0.0134 0.0064
 Earth -34140-10-31 17:59 J -10747907.75 -10747907.75 -10747907.72 0.0134 0.0133
 Moon -34140-10-31 21:07 J -10747907.68 -10747907.62 -10747907.52 0.0134 0.0127
 Mercury -34140-11-30 16:33 J -10747877.96 -10747877.81 -10747877.65 0.0134 0.0042
 Mercury -34139-02-26 21:35 J -10747789.76 -10747789.60 -10747789.43 0.0133 0.0020
 Mercury -34139-05-26 02:38 J -10747701.56 -10747701.39 -10747701.23 0.0133 0.0002
 Mercury -34139-08-22 07:26 J -10747613.35 -10747613.19 -10747613.03 0.0133 0.0023
 Mercury -34139-11-18 12:14 J -10747525.14 -10747524.99 -10747524.83 0.0133 0.0045
 Mercury -34138-02-14 17:02 J -10747436.93 -10747436.79 -10747436.65 0.0133 0.0066
 Mercury -34138-05-13 21:35 J -10747348.71 -10747348.60 -10747348.47 0.0133 0.0088
 Mercury -34138-08-10 02:23 J -10747260.48 -10747260.40 -10747260.30 0.0133 0.0108
 Mercury -34138-11-06 07:11 J -10747172.23 -10747172.20 -10747172.16 0.0133 0.0128
 Mars -34127-05-11 23:45 J -10743332.77 -10743332.51 -10743332.20 0.0132 0.0070
 Venus -34110-04-30 17:31 J -10737134.84 -10737134.77 -10737134.70 0.0138 0.0130
 Venus -34110-12-12 23:59 J -10736908.60 -10736908.50 -10736908.40 0.0138 0.0120
 Venus -34109-07-26 06:14 J -10736682.36 -10736682.24 -10736682.10 0.0139 0.0110
 Venus -34108-03-09 12:43 J -10736456.10 -10736455.97 -10736455.81 0.0139 0.0100
 Venus -34108-10-21 19:26 J -10736229.84 -10736229.69 -10736229.51 0.0139 0.0090
 Venus -34107-06-05 02:23 J -10736003.56 -10736003.40 -10736003.21 0.0140 0.0079
 Venus -34106-01-17 09:50 J -10735777.27 -10735777.09 -10735776.90 0.0140 0.0067
 Venus -34106-08-31 16:47 J -10735550.98 -10735550.80 -10735550.59 0.0140 0.0057
 Venus -34105-04-14 00:14 J -10735324.69 -10735324.49 -10735324.28 0.0141 0.0045
 Venus -34105-11-26 07:40 J -10735098.38 -10735098.18 -10735097.97 0.0141 0.0033
 Venus -34104-07-10 15:21 J -10734872.07 -10734871.86 -10734871.65 0.0141 0.0021
 Venus -34103-02-21 23:16 J -10734645.74 -10734645.53 -10734645.32 0.0142 0.0008

Venus	-34103-10-06 07:11 J	-10734419.41	-10734419.20	-10734418.99	0.0142	0.0004
Venus	-34102-05-20 15:21 J	-10734193.07	-10734192.86	-10734192.65	0.0142	0.0016
Venus	-34101-01-01 23:31 J	-10733966.72	-10733966.52	-10733966.30	0.0143	0.0029
Venus	-34101-08-15 08:09 J	-10733740.36	-10733740.16	-10733739.96	0.0143	0.0041
Venus	-34100-03-29 16:47 J	-10733514.00	-10733513.80	-10733513.60	0.0143	0.0053
Venus	-34100-11-11 01:26 J	-10733287.62	-10733287.44	-10733287.24	0.0144	0.0066
Venus	-34099-06-25 10:33 J	-10733061.23	-10733061.06	-10733060.88	0.0144	0.0078
Venus	-34098-02-06 20:09 J	-10732834.82	-10732834.66	-10732834.50	0.0144	0.0090
Earth	-34098-04-19 17:16 J	-10732762.90	-10732762.78	-10732762.62	0.0144	0.0120
Moon	-34098-04-19 20:23 J	-10732762.76	-10732762.65	-10732762.52	0.0144	0.0126 *
Venus	-34098-09-21 05:31 J	-10732608.41	-10732608.27	-10732608.12	0.0144	0.0103
Moon	-34097-04-23 12:57 J	-10732393.21	-10732392.96	-10732392.71	0.0145	0.0013
Earth	-34097-04-23 16:33 J	-10732393.06	-10732392.81	-10732392.56	0.0145	0.0007 *
Venus	-34097-05-04 14:52 J	-10732381.99	-10732381.88	-10732381.74	0.0145	0.0115
Mercury	-34097-08-19 08:23 J	-10732275.21	-10732275.15	-10732275.08	0.0145	0.0129
Mercury	-34097-11-15 13:11 J	-10732187.05	-10732186.95	-10732186.84	0.0145	0.0104
Venus	-34097-12-17 00:43 J	-10732155.56	-10732155.47	-10732155.35	0.0145	0.0127
Mercury	-34096-02-11 17:59 J	-10732098.87	-10732098.75	-10732098.62	0.0145	0.0079
Earth	-34096-04-28 15:35 J	-10732022.92	-10732022.85	-10732022.74	0.0145	0.0136
Moon	-34096-04-28 19:11 J	-10732022.79	-10732022.70	-10732022.58	0.0145	0.0132 *
Mercury	-34096-05-10 22:47 J	-10732010.68	-10732010.55	-10732010.41	0.0145	0.0054
Venus	-34096-07-31 10:47 J	-10731929.10	-10731929.05	-10731928.97	0.0145	0.0138
Mercury	-34096-08-07 03:50 J	-10731922.49	-10731922.34	-10731922.19	0.0145	0.0029
Mercury	-34096-11-03 08:38 J	-10731834.29	-10731834.14	-10731833.99	0.0145	0.0005
Mercury	-34095-01-30 13:40 J	-10731746.08	-10731745.93	-10731745.78	0.0145	0.0023
Mercury	-34095-04-28 18:43 J	-10731657.86	-10731657.72	-10731657.58	0.0145	0.0049
Mercury	-34095-07-25 23:45 J	-10731569.64	-10731569.51	-10731569.38	0.0145	0.0076
Mercury	-34095-10-22 04:47 J	-10731481.40	-10731481.30	-10731481.19	0.0145	0.0102
Mercury	-34094-01-18 09:50 J	-10731393.15	-10731393.09	-10731393.01	0.0145	0.0129
Mars	-34087-10-07 15:50 J	-10728574.08	-10728573.84	-10728573.59	0.0146	0.0077

Venus	-34070-01-02 18:57 J	-10722642.77	-10722642.71	-10722642.62	0.0140	0.0132
Venus	-34070-08-17 05:59 J	-10722416.34	-10722416.25	-10722416.12	0.0140	0.0121
Venus	-34069-03-30 17:02 J	-10722189.91	-10722189.79	-10722189.63	0.0139	0.0110
Venus	-34069-11-12 04:04 J	-10721963.47	-10721963.33	-10721963.16	0.0139	0.0098
Venus	-34068-06-26 15:07 J	-10721737.04	-10721736.87	-10721736.69	0.0139	0.0086
Venus	-34067-02-08 01:40 J	-10721510.61	-10721510.43	-10721510.23	0.0138	0.0075
Venus	-34067-09-22 11:59 J	-10721284.19	-10721284.00	-10721283.79	0.0138	0.0063
Venus	-34066-05-06 22:19 J	-10721057.77	-10721057.57	-10721057.35	0.0138	0.0051
Venus	-34066-12-19 08:23 J	-10720831.35	-10720831.15	-10720830.93	0.0137	0.0040
Venus	-34065-08-01 18:28 J	-10720604.94	-10720604.73	-10720604.50	0.0137	0.0028
Venus	-34064-03-16 04:19 J	-10720378.54	-10720378.32	-10720378.10	0.0137	0.0016
Venus	-34064-10-28 13:55 J	-10720152.15	-10720151.92	-10720151.70	0.0137	0.0004
Venus	-34063-06-11 23:16 J	-10719925.76	-10719925.53	-10719925.31	0.0136	0.0008
Venus	-34062-01-24 08:23 J	-10719699.37	-10719699.15	-10719698.93	0.0136	0.0019
Venus	-34062-09-07 17:16 J	-10719472.99	-10719472.78	-10719472.56	0.0136	0.0031
Venus	-34061-04-21 02:09 J	-10719246.62	-10719246.41	-10719246.20	0.0136	0.0042
Venus	-34061-12-03 10:19 J	-10719020.26	-10719020.07	-10719019.85	0.0135	0.0054
Venus	-34060-07-17 18:57 J	-10718793.90	-10718793.71	-10718793.50	0.0135	0.0064
Venus	-34059-03-01 03:21 J	-10718567.54	-10718567.36	-10718567.17	0.0135	0.0074
Venus	-34059-10-13 11:16 J	-10718341.19	-10718341.03	-10718340.84	0.0135	0.0085
Venus	-34058-05-27 19:11 J	-10718114.85	-10718114.70	-10718114.53	0.0134	0.0095
Earth	-34058-10-24 09:21 J	-10717965.33	-10717965.11	-10717964.88	0.0134	0.0066
Moon	-34058-10-24 12:43 J	-10717965.18	-10717964.97	-10717964.74	0.0134	0.0065 *
Venus	-34057-01-09 03:07 J	-10717888.50	-10717888.37	-10717888.23	0.0134	0.0105
Venus	-34057-08-22 10:47 J	-10717662.16	-10717662.05	-10717661.93	0.0134	0.0114
Moon	-34057-10-27 14:52 J	-10717596.12	-10717595.88	-10717595.62	0.0134	0.0031
Earth	-34057-10-27 18:28 J	-10717595.97	-10717595.73	-10717595.48	0.0134	0.0036 *
Mercury	-34056-01-02 02:52 J	-10717529.42	-10717529.38	-10717529.32	0.0134	0.0127
Mercury	-34056-03-31 08:09 J	-10717441.26	-10717441.16	-10717441.05	0.0134	0.0104
Venus	-34056-04-05 17:59 J	-10717435.81	-10717435.75	-10717435.65	0.0134	0.0124

Mercury -34056-06-27 13:11 J -10717353.07 -10717352.95 -10717352.81 0.0134 0.0082
 Mercury -34056-09-23 18:14 J -10717264.88 -10717264.74 -10717264.58 0.0134 0.0060
 Venus -34056-11-18 01:26 J -10717209.45 -10717209.44 -10717209.40 0.0134 0.0133
 Mercury -34056-12-20 23:16 J -10717176.68 -10717176.53 -10717176.37 0.0134 0.0037
 Mercury -34055-03-19 04:19 J -10717088.48 -10717088.32 -10717088.15 0.0133 0.0015
 Mercury -34055-06-15 09:21 J -10717000.27 -10717000.11 -10716999.95 0.0133 0.0007
 Mercury -34055-09-11 14:09 J -10716912.07 -10716911.91 -10716911.75 0.0133 0.0028
 Mercury -34055-12-08 18:57 J -10716823.85 -10716823.71 -10716823.55 0.0133 0.0050
 Mercury -34054-03-06 23:45 J -10716735.64 -10716735.51 -10716735.37 0.0133 0.0071
 Mercury -34054-06-03 04:19 J -10716647.42 -10716647.32 -10716647.19 0.0133 0.0093
 Mercury -34054-08-30 09:07 J -10716559.19 -10716559.12 -10716559.03 0.0133 0.0113
 Mars -34044-01-31 11:59 J -10713117.22 -10713117.00 -10713116.73 0.0132 0.0091
 Venus -34027-12-29 02:38 J -10706576.44 -10706576.39 -10706576.33 0.0138 0.0133
 Venus -34026-08-12 08:52 J -10706350.21 -10706350.13 -10706350.03 0.0138 0.0124
 Venus -34025-03-25 15:21 J -10706123.97 -10706123.86 -10706123.73 0.0139 0.0114
 Venus -34025-11-06 21:35 J -10705897.72 -10705897.60 -10705897.44 0.0139 0.0104
 Venus -34024-06-21 04:19 J -10705671.46 -10705671.32 -10705671.14 0.0139 0.0094
 Venus -34023-02-02 11:16 J -10705445.19 -10705445.03 -10705444.84 0.0140 0.0083
 Venus -34023-09-16 18:28 J -10705218.91 -10705218.73 -10705218.54 0.0140 0.0071
 Venus -34022-05-01 01:40 J -10704992.62 -10704992.43 -10704992.24 0.0140 0.0060
 Venus -34022-12-13 08:52 J -10704766.32 -10704766.13 -10704765.93 0.0141 0.0048
 Venus -34021-07-26 16:19 J -10704540.02 -10704539.82 -10704539.61 0.0141 0.0036
 Venus -34020-03-09 23:45 J -10704313.71 -10704313.51 -10704313.30 0.0141 0.0024
 Venus -34020-10-22 07:26 J -10704087.40 -10704087.19 -10704086.97 0.0142 0.0013
 Venus -34019-06-05 15:21 J -10703861.07 -10703860.86 -10703860.64 0.0142 0.0003
 Venus -34018-01-17 23:31 J -10703634.72 -10703634.52 -10703634.30 0.0142 0.0013
 Venus -34018-09-01 07:40 J -10703408.38 -10703408.18 -10703407.96 0.0143 0.0026
 Venus -34017-04-14 16:04 J -10703182.03 -10703181.83 -10703181.62 0.0143 0.0038
 Venus -34017-11-27 00:43 J -10702955.66 -10702955.47 -10702955.27 0.0143 0.0050
 Venus -34016-07-11 09:35 J -10702729.29 -10702729.10 -10702728.91 0.0143 0.0063

Venus -34015-02-22 18:43 J -10702502.90 -10702502.72 -10702502.54 0.0144 0.0075

Venus -34015-10-07 03:35 J -10702276.50 -10702276.35 -10702276.17 0.0144 0.0088

Earth -34014-04-20 03:07 J -10702081.50 -10702081.37 -10702081.19 0.0144 0.0114

Moon -34014-04-20 06:14 J -10702081.40 -10702081.24 -10702081.05 0.0144 0.0106 *

Venus -34014-05-21 12:57 J -10702050.10 -10702049.96 -10702049.79 0.0144 0.0100

Venus -34013-01-02 22:33 J -10701823.68 -10701823.56 -10701823.41 0.0144 0.0112

Moon -34013-04-23 23:45 J -10701711.76 -10701711.51 -10701711.26 0.0144 0.0006

Earth -34013-04-24 02:23 J -10701711.65 -10701711.40 -10701711.14 0.0144 0.0013 *

Venus -34013-08-16 08:23 J -10701597.24 -10701597.15 -10701597.03 0.0145 0.0124

Mercury -34013-09-08 15:35 J -10701573.92 -10701573.85 -10701573.76 0.0145 0.0122

Mercury -34013-12-05 20:38 J -10701485.75 -10701485.64 -10701485.53 0.0145 0.0097

Mercury -34012-03-04 01:11 J -10701397.57 -10701397.45 -10701397.32 0.0145 0.0072

Venus -34012-03-30 18:14 J -10701370.79 -10701370.74 -10701370.65 0.0145 0.0136

Earth -34012-04-29 01:40 J -10701341.47 -10701341.43 -10701341.35 0.0145 0.0141

Moon -34012-04-29 05:02 J -10701341.30 -10701341.29 -10701341.22 0.0145 0.0143

Mercury -34012-05-31 06:14 J -10701309.38 -10701309.24 -10701309.10 0.0145 0.0047

Mercury -34012-08-27 11:02 J -10701221.19 -10701221.04 -10701220.89 0.0145 0.0022

Mercury -34012-11-23 16:04 J -10701132.98 -10701132.83 -10701132.68 0.0145 0.0005

Mercury -34011-02-19 20:52 J -10701044.77 -10701044.63 -10701044.48 0.0145 0.0030

Mercury -34011-05-19 01:55 J -10700956.56 -10700956.42 -10700956.28 0.0145 0.0056

Mercury -34011-08-15 06:57 J -10700868.33 -10700868.21 -10700868.08 0.0145 0.0083

Mercury -34011-11-11 11:59 J -10700780.09 -10700780.00 -10700779.89 0.0145 0.0109

Mercury -34010-02-07 17:02 J -10700691.83 -10700691.79 -10700691.72 0.0145 0.0137

Mars -34002-06-02 15:35 J -10697655.13 -10697654.85 -10697654.56 0.0146 0.0020

34TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 34th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-33987-09-02 00:14 J	-10692084.52	-10692084.49	-10692084.41	0.0140	0.0137		
Venus	-33986-04-16 11:31 J	-10691858.10	-10691858.02	-10691857.90	0.0140	0.0125		
Venus	-33986-11-28 22:47 J	-10691631.66	-10691631.55	-10691631.41	0.0140	0.0114		
Venus	-33985-07-12 09:50 J	-10691405.23	-10691405.09	-10691404.92	0.0139	0.0102		
Venus	-33984-02-23 20:52 J	-10691178.79	-10691178.63	-10691178.46	0.0139	0.0090		
Venus	-33984-10-08 07:11 J	-10690952.37	-10690952.20	-10690952.00	0.0139	0.0079		
Venus	-33983-05-22 17:59 J	-10690725.94	-10690725.75	-10690725.55	0.0138	0.0067		
Venus	-33982-01-04 04:19 J	-10690499.52	-10690499.32	-10690499.11	0.0138	0.0055		
Venus	-33982-08-18 14:23 J	-10690273.10	-10690272.90	-10690272.68	0.0138	0.0043		
Venus	-33981-04-01 00:28 J	-10690046.69	-10690046.48	-10690046.26	0.0137	0.0031		
Venus	-33981-11-13 10:19 J	-10689820.29	-10689820.07	-10689819.85	0.0137	0.0019		
Venus	-33980-06-27 19:55 J	-10689593.89	-10689593.67	-10689593.44	0.0137	0.0008		
Venus	-33979-02-09 05:31 J	-10689367.50	-10689367.27	-10689367.05	0.0136	0.0005		
Venus	-33979-09-23 14:38 J	-10689141.11	-10689140.89	-10689140.67	0.0136	0.0016		
Venus	-33978-05-07 23:31 J	-10688914.74	-10688914.52	-10688914.30	0.0136	0.0028		
Venus	-33978-12-20 08:09 J	-10688688.36	-10688688.16	-10688687.93	0.0136	0.0040		
Venus	-33977-08-02 17:02 J	-10688461.99	-10688461.79	-10688461.57	0.0135	0.0051		
Venus	-33976-03-17 01:40 J	-10688235.63	-10688235.43	-10688235.23	0.0135	0.0061		
Venus	-33976-10-29 09:50 J	-10688009.27	-10688009.09	-10688008.89	0.0135	0.0072		
Venus	-33975-06-12 17:59 J	-10687782.92	-10687782.75	-10687782.56	0.0135	0.0083		
Venus	-33974-01-25 02:09 J	-10687556.56	-10687556.41	-10687556.24	0.0134	0.0093		
Venus	-33974-09-08 10:19 J	-10687330.21	-10687330.07	-10687329.93	0.0134	0.0103		
Earth	-33974-10-24 17:16 J	-10687284.00	-10687283.78	-10687283.55	0.0134	0.0063		
Moon	-33974-10-24 21:07 J	-10687283.84	-10687283.62	-10687283.39	0.0134	0.0065	*	

Venus -33973-04-21 17:59 J -10687103.87 -10687103.75 -10687103.63 0.0134 0.0112
 Moon -33973-10-27 23:16 J -10686914.77 -10686914.53 -10686914.29 0.0134 0.0042
 Earth -33973-10-28 02:38 J -10686914.63 -10686914.39 -10686914.14 0.0134 0.0039 *
 Venus -33973-12-04 01:11 J -10686877.52 -10686877.45 -10686877.35 0.0134 0.0122
 Mercury -33972-01-22 09:21 J -10686828.16 -10686828.11 -10686828.03 0.0134 0.0123
 Mercury -33972-04-20 14:38 J -10686739.99 -10686739.89 -10686739.77 0.0134 0.0100
 Mercury -33972-07-17 19:40 J -10686651.80 -10686651.68 -10686651.54 0.0134 0.0078
 Venus -33972-07-18 08:38 J -10686651.16 -10686651.14 -10686651.08 0.0134 0.0132
 Mercury -33972-10-14 00:57 J -10686563.61 -10686563.46 -10686563.31 0.0134 0.0055
 Moon -33972-11-01 14:52 J -10686544.90 -10686544.88 -10686544.86 0.0134 0.0133
 Mercury -33971-01-10 05:59 J -10686475.41 -10686475.25 -10686475.09 0.0133 0.0033
 Mercury -33971-04-08 11:02 J -10686387.21 -10686387.04 -10686386.88 0.0133 0.0011
 Mercury -33971-07-05 15:50 J -10686299.00 -10686298.84 -10686298.67 0.0133 0.0011
 Mercury -33971-10-01 20:52 J -10686210.79 -10686210.63 -10686210.47 0.0133 0.0033
 Mercury -33971-12-29 01:26 J -10686122.58 -10686122.44 -10686122.28 0.0133 0.0055
 Mercury -33970-03-27 06:14 J -10686034.36 -10686034.24 -10686034.10 0.0133 0.0076
 Mercury -33970-06-23 11:02 J -10685946.14 -10685946.04 -10685945.92 0.0133 0.0096
 Mercury -33970-09-19 15:50 J -10685857.91 -10685857.84 -10685857.76 0.0133 0.0117
 Mars -33960-09-26 16:04 J -10682198.16 -10682197.83 -10682197.49 0.0132 0.0007
 Venus -33943-08-28 11:02 J -10676018.05 -10676018.04 -10676018.00 0.0138 0.0137
 Venus -33942-04-11 17:16 J -10675791.85 -10675791.78 -10675791.69 0.0138 0.0127
 Venus -33942-11-23 23:45 J -10675565.61 -10675565.51 -10675565.39 0.0138 0.0117
 Venus -33941-07-07 06:28 J -10675339.36 -10675339.23 -10675339.09 0.0139 0.0107
 Venus -33940-02-18 12:57 J -10675113.10 -10675112.96 -10675112.80 0.0139 0.0097
 Venus -33940-10-02 19:40 J -10674886.84 -10674886.68 -10674886.51 0.0139 0.0086
 Venus -33939-05-17 02:23 J -10674660.56 -10674660.40 -10674660.21 0.0140 0.0075
 Venus -33939-12-29 09:50 J -10674434.28 -10674434.09 -10674433.90 0.0140 0.0063
 Venus -33938-08-12 17:02 J -10674207.99 -10674207.79 -10674207.59 0.0140 0.0052
 Venus -33937-03-26 00:14 J -10673981.69 -10673981.49 -10673981.28 0.0141 0.0040
 Venus -33937-11-07 07:40 J -10673755.39 -10673755.18 -10673754.97 0.0141 0.0028

Venus -33936-06-21 15:21 J -10673529.07 -10673528.86 -10673528.65 0.0141 0.0016
 Venus -33935-02-02 23:16 J -10673302.74 -10673302.53 -10673302.32 0.0142 0.0003
 Venus -33935-09-17 07:11 J -10673076.41 -10673076.20 -10673075.99 0.0142 0.0009
 Venus -33934-05-01 15:21 J -10672850.07 -10672849.86 -10672849.65 0.0142 0.0022
 Venus -33934-12-13 23:31 J -10672623.72 -10672623.52 -10672623.30 0.0143 0.0035
 Venus -33933-07-27 08:09 J -10672397.35 -10672397.16 -10672396.95 0.0143 0.0047
 Venus -33932-03-10 17:02 J -10672170.98 -10672170.79 -10672170.60 0.0143 0.0059
 Venus -33932-10-23 01:40 J -10671944.60 -10671944.43 -10671944.23 0.0143 0.0073
 Venus -33931-06-06 10:47 J -10671718.21 -10671718.05 -10671717.86 0.0144 0.0085
 Venus -33930-01-18 20:23 J -10671491.80 -10671491.65 -10671491.49 0.0144 0.0097
 Earth -33930-04-20 12:28 J -10671400.14 -10671399.98 -10671399.81 0.0144 0.0109
 Moon -33930-04-20 14:23 J -10671400.04 -10671399.90 -10671399.74 0.0144 0.0116 *
 Venus -33930-09-02 05:45 J -10671265.38 -10671265.26 -10671265.11 0.0144 0.0110
 Venus -33929-04-15 15:21 J -10671038.96 -10671038.86 -10671038.73 0.0144 0.0122
 Moon -33929-04-24 08:38 J -10671030.38 -10671030.14 -10671029.89 0.0144 0.0023
 Earth -33929-04-24 11:31 J -10671030.27 -10671030.02 -10671029.77 0.0144 0.0017 *
 Mercury -33929-07-02 17:59 J -10670960.78 -10670960.75 -10670960.71 0.0145 0.0140
 Mercury -33929-09-28 22:47 J -10670872.63 -10670872.55 -10670872.46 0.0145 0.0116
 Venus -33929-11-28 01:40 J -10670812.51 -10670812.43 -10670812.35 0.0145 0.0133
 Mercury -33929-12-26 03:21 J -10670784.46 -10670784.36 -10670784.24 0.0145 0.0092
 Mercury -33928-03-24 08:09 J -10670696.28 -10670696.16 -10670696.02 0.0145 0.0067
 Earth -33928-04-29 11:02 J -10670660.04 -10670660.04 -10670660.03 0.0145 0.0145
 Moon -33928-04-29 13:40 J -10670659.97 -10670659.93 -10670659.85 0.0145 0.0141
 Mercury -33928-06-20 13:11 J -10670608.09 -10670607.95 -10670607.81 0.0145 0.0041
 Venus -33928-07-12 11:31 J -10670586.02 -10670586.02 -10670586.01 0.0145 0.0145
 Mercury -33928-09-16 17:59 J -10670519.89 -10670519.75 -10670519.60 0.0145 0.0016
 Mercury -33928-12-13 23:02 J -10670431.69 -10670431.54 -10670431.39 0.0145 0.0010
 Mercury -33927-03-12 04:04 J -10670343.48 -10670343.33 -10670343.19 0.0145 0.0036
 Mercury -33927-06-08 08:52 J -10670255.26 -10670255.13 -10670254.99 0.0145 0.0063
 Mercury -33927-09-04 14:09 J -10670167.03 -10670166.91 -10670166.79 0.0145 0.0089

Mercury -33927-12-01 18:57 J -10670078.79 -10670078.71 -10670078.61 0.0145 0.0116

Mercury -33926-02-28 00:14 J -10669990.51 -10669990.49 -10669990.45 0.0145 0.0142

Mars -33917-01-26 13:55 J -10666736.07 -10666735.92 -10666735.73 0.0146 0.0116

Venus -33903-05-02 05:59 J -10661526.25 -10661526.25 -10661526.22 0.0140 0.0140

Venus -33903-12-14 17:16 J -10661299.85 -10661299.78 -10661299.68 0.0140 0.0129

Venus -33902-07-29 04:33 J -10661073.41 -10661073.31 -10661073.18 0.0140 0.0118

Venus -33901-03-11 15:50 J -10660846.98 -10660846.84 -10660846.69 0.0139 0.0106

Venus -33901-10-24 02:38 J -10660620.55 -10660620.39 -10660620.22 0.0139 0.0094

Venus -33900-06-07 13:40 J -10660394.11 -10660393.93 -10660393.75 0.0139 0.0082

Venus -33899-01-19 23:59 J -10660167.68 -10660167.50 -10660167.30 0.0138 0.0071

Venus -33899-09-03 10:33 J -10659941.26 -10659941.06 -10659940.85 0.0138 0.0058

Venus -33898-04-17 20:23 J -10659714.85 -10659714.65 -10659714.42 0.0138 0.0047

Venus -33898-11-30 06:43 J -10659488.43 -10659488.22 -10659488.00 0.0137 0.0034

Venus -33897-07-13 16:33 J -10659262.02 -10659261.81 -10659261.58 0.0137 0.0023

Venus -33896-02-25 02:23 J -10659035.62 -10659035.40 -10659035.18 0.0137 0.0010

Venus -33896-10-09 11:45 J -10658809.23 -10658809.01 -10658808.78 0.0137 0.0002

Venus -33895-05-23 21:07 J -10658582.85 -10658582.62 -10658582.40 0.0136 0.0013

Venus -33894-01-05 05:59 J -10658356.46 -10658356.25 -10658356.02 0.0136 0.0025

Venus -33894-08-19 14:52 J -10658130.08 -10658129.88 -10658129.65 0.0136 0.0037

Venus -33893-04-01 23:45 J -10657903.71 -10657903.51 -10657903.29 0.0136 0.0048

Venus -33893-11-14 08:23 J -10657677.35 -10657677.15 -10657676.94 0.0135 0.0059

Venus -33892-06-28 16:47 J -10657450.98 -10657450.80 -10657450.60 0.0135 0.0070

Venus -33891-02-10 01:26 J -10657224.62 -10657224.44 -10657224.26 0.0135 0.0080

Venus -33891-09-24 09:21 J -10656998.27 -10656998.11 -10656997.94 0.0134 0.0091

Venus -33890-05-08 17:02 J -10656771.92 -10656771.79 -10656771.62 0.0134 0.0102

Earth -33890-10-25 01:55 J -10656602.64 -10656602.42 -10656602.18 0.0134 0.0060

Moon -33890-10-25 05:16 J -10656602.50 -10656602.28 -10656602.04 0.0134 0.0059 *

Venus -33890-12-21 00:57 J -10656545.57 -10656545.46 -10656545.32 0.0134 0.0111

Venus -33889-08-03 08:38 J -10656319.21 -10656319.14 -10656319.02 0.0134 0.0121

Moon -33889-10-28 07:40 J -10656233.42 -10656233.18 -10656232.93 0.0134 0.0038

Earth -33889-10-28 11:02 J -10656233.27 -10656233.04 -10656232.78 0.0134 0.0043 *
 Mercury -33888-02-11 16:04 J -10656126.90 -10656126.83 -10656126.74 0.0134 0.0118
 Venus -33888-03-17 16:33 J -10656092.85 -10656092.81 -10656092.75 0.0134 0.0130
 Mercury -33888-05-10 21:21 J -10656038.72 -10656038.61 -10656038.49 0.0134 0.0095
 Mercury -33888-08-07 02:23 J -10655950.53 -10655950.40 -10655950.25 0.0134 0.0073
 Mercury -33888-11-03 07:26 J -10655862.33 -10655862.19 -10655862.03 0.0133 0.0051
 Mercury -33887-01-30 12:43 J -10655774.13 -10655773.97 -10655773.81 0.0133 0.0028
 Mercury -33887-04-28 17:45 J -10655685.92 -10655685.76 -10655685.60 0.0133 0.0006
 Mercury -33887-07-25 22:33 J -10655597.72 -10655597.56 -10655597.39 0.0133 0.0016
 Mercury -33887-10-22 03:35 J -10655509.51 -10655509.35 -10655509.19 0.0133 0.0037
 Mercury -33886-01-18 08:23 J -10655421.29 -10655421.15 -10655421.00 0.0133 0.0059
 Mercury -33886-04-16 12:57 J -10655333.08 -10655332.96 -10655332.82 0.0133 0.0080
 Mercury -33886-07-13 17:45 J -10655244.85 -10655244.76 -10655244.65 0.0133 0.0101
 Mercury -33886-10-09 22:47 J -10655156.62 -10655156.55 -10655156.49 0.0133 0.0121
 Mars -33875-05-22 20:23 J -10651278.90 -10651278.65 -10651278.36 0.0132 0.0078
 Venus -33859-12-10 01:26 J -10645233.48 -10645233.44 -10645233.36 0.0138 0.0131
 Venus -33858-07-24 07:55 J -10645007.26 -10645007.17 -10645007.06 0.0138 0.0121
 Venus -33857-03-06 14:23 J -10644781.02 -10644780.90 -10644780.77 0.0139 0.0111
 Venus -33857-10-18 21:07 J -10644554.77 -10644554.62 -10644554.48 0.0139 0.0100
 Venus -33856-06-02 03:35 J -10644328.51 -10644328.35 -10644328.18 0.0139 0.0090
 Venus -33855-01-14 10:19 J -10644102.23 -10644102.07 -10644101.88 0.0140 0.0079
 Venus -33855-08-28 17:31 J -10643875.95 -10643875.77 -10643875.58 0.0140 0.0067
 Venus -33854-04-12 00:28 J -10643649.67 -10643649.48 -10643649.28 0.0140 0.0056
 Venus -33854-11-24 07:40 J -10643423.38 -10643423.18 -10643422.97 0.0141 0.0044
 Venus -33853-07-07 15:07 J -10643197.07 -10643196.87 -10643196.66 0.0141 0.0032
 Venus -33852-02-18 22:47 J -10642970.76 -10642970.55 -10642970.34 0.0141 0.0019
 Venus -33852-10-03 06:28 J -10642744.44 -10642744.23 -10642744.02 0.0142 0.0007
 Venus -33851-05-17 14:23 J -10642518.11 -10642517.90 -10642517.69 0.0142 0.0005
 Venus -33851-12-29 22:33 J -10642291.77 -10642291.56 -10642291.35 0.0142 0.0018
 Venus -33850-08-13 06:43 J -10642065.42 -10642065.22 -10642065.01 0.0142 0.0031

Venus -33849-03-26 15:07 J -10641839.07 -10641838.87 -10641838.66 0.0143 0.0043
 Venus -33849-11-07 23:45 J -10641612.70 -10641612.51 -10641612.31 0.0143 0.0056
 Venus -33848-06-22 08:38 J -10641386.32 -10641386.14 -10641385.95 0.0143 0.0069
 Venus -33847-02-03 17:45 J -10641159.92 -10641159.76 -10641159.58 0.0144 0.0081
 Venus -33847-09-18 02:52 J -10640933.53 -10640933.38 -10640933.21 0.0144 0.0094
 Earth -33846-04-20 19:55 J -10640718.82 -10640718.67 -10640718.48 0.0144 0.0107
 Moon -33846-04-20 22:04 J -10640718.75 -10640718.58 -10640718.38 0.0144 0.0099 *
 Venus -33846-05-02 12:14 J -10640707.12 -10640706.99 -10640706.83 0.0144 0.0106
 Venus -33846-12-14 21:50 J -10640480.70 -10640480.59 -10640480.46 0.0144 0.0119
 Moon -33845-04-24 17:16 J -10640349.02 -10640348.78 -10640348.53 0.0144 0.0013
 Earth -33845-04-24 19:11 J -10640348.95 -10640348.70 -10640348.45 0.0144 0.0020 *
 Mercury -33845-07-23 00:43 J -10640259.51 -10640259.47 -10640259.41 0.0145 0.0136
 Venus -33845-07-28 07:26 J -10640254.26 -10640254.19 -10640254.08 0.0145 0.0131
 Mercury -33845-10-19 05:31 J -10640171.36 -10640171.27 -10640171.17 0.0145 0.0111
 Mercury -33844-01-15 10:19 J -10640083.19 -10640083.07 -10640082.95 0.0145 0.0087
 Venus -33844-03-11 17:59 J -10640027.79 -10640027.75 -10640027.72 0.0145 0.0142
 Mercury -33844-04-13 15:07 J -10639995.00 -10639994.87 -10639994.73 0.0145 0.0062
 Mercury -33844-07-10 19:55 J -10639906.81 -10639906.67 -10639906.52 0.0145 0.0037
 Mercury -33844-10-07 00:57 J -10639818.61 -10639818.46 -10639818.31 0.0145 0.0011
 Mercury -33843-01-03 05:45 J -10639730.41 -10639730.26 -10639730.11 0.0145 0.0015
 Mercury -33843-04-01 10:47 J -10639642.19 -10639642.05 -10639641.90 0.0145 0.0041
 Mercury -33843-06-28 15:35 J -10639553.97 -10639553.85 -10639553.71 0.0145 0.0067
 Mercury -33843-09-24 20:52 J -10639465.74 -10639465.63 -10639465.51 0.0145 0.0093
 Mercury -33843-12-22 01:40 J -10639377.50 -10639377.43 -10639377.33 0.0145 0.0121
 Mars -33835-10-19 19:55 J -10636518.92 -10636518.67 -10636518.41 0.0146 0.0065
 Venus -33819-08-13 22:47 J -10630741.60 -10630741.55 -10630741.46 0.0140 0.0133
 Venus -33818-03-28 09:50 J -10630515.17 -10630515.09 -10630514.96 0.0140 0.0122
 Venus -33818-11-09 21:21 J -10630288.74 -10630288.61 -10630288.47 0.0140 0.0110
 Venus -33817-06-23 08:09 J -10630062.30 -10630062.16 -10630061.99 0.0139 0.0099
 Venus -33816-02-04 19:11 J -10629835.87 -10629835.70 -10629835.52 0.0139 0.0086

Venus	-33816-09-19 05:59 J	-10629609.44	-10629609.25	-10629609.06	0.0139	0.0074
Venus	-33815-05-03 16:04 J	-10629383.02	-10629382.83	-10629382.62	0.0138	0.0062
Venus	-33815-12-16 02:23 J	-10629156.60	-10629156.40	-10629156.18	0.0138	0.0050
Venus	-33814-07-30 12:43 J	-10628930.18	-10628929.97	-10628929.75	0.0138	0.0038
Venus	-33813-03-12 22:33 J	-10628703.78	-10628703.56	-10628703.34	0.0137	0.0026
Venus	-33813-10-25 08:09 J	-10628477.38	-10628477.16	-10628476.93	0.0137	0.0014
Venus	-33812-06-08 17:45 J	-10628250.98	-10628250.76	-10628250.53	0.0137	0.0003
Venus	-33811-01-21 03:07 J	-10628024.59	-10628024.37	-10628024.14	0.0136	0.0011
Venus	-33811-09-04 12:14 J	-10627798.20	-10627797.99	-10627797.76	0.0136	0.0023
Venus	-33810-04-18 21:07 J	-10627571.82	-10627571.62	-10627571.39	0.0136	0.0034
Venus	-33810-12-01 06:14 J	-10627345.45	-10627345.24	-10627345.03	0.0136	0.0045
Venus	-33809-07-14 14:52 J	-10627119.07	-10627118.88	-10627118.67	0.0135	0.0056
Venus	-33808-02-25 23:31 J	-10626892.71	-10626892.52	-10626892.32	0.0135	0.0067
Venus	-33808-10-10 07:55 J	-10626666.35	-10626666.17	-10626665.98	0.0135	0.0078
Venus	-33807-05-24 16:04 J	-10626439.99	-10626439.83	-10626439.66	0.0135	0.0089
Venus	-33806-01-05 23:59 J	-10626213.64	-10626213.50	-10626213.34	0.0134	0.0099
Venus	-33806-08-20 08:09 J	-10625987.28	-10625987.16	-10625987.02	0.0134	0.0109
Earth	-33806-10-25 10:04 J	-10625921.31	-10625921.08	-10625920.85	0.0134	0.0056
Moon	-33806-10-25 13:40 J	-10625921.17	-10625920.93	-10625920.70	0.0134	0.0057 *
Venus	-33805-04-02 15:50 J	-10625760.93	-10625760.84	-10625760.73	0.0134	0.0119
Moon	-33805-10-28 16:04 J	-10625552.06	-10625551.83	-10625551.59	0.0134	0.0048
Earth	-33805-10-28 19:26 J	-10625551.93	-10625551.69	-10625551.45	0.0134	0.0045 *
Venus	-33805-11-14 23:16 J	-10625534.57	-10625534.53	-10625534.45	0.0134	0.0129
Mercury	-33804-03-03 22:33 J	-10625425.63	-10625425.56	-10625425.46	0.0134	0.0114
Mercury	-33804-05-31 03:50 J	-10625337.45	-10625337.34	-10625337.21	0.0134	0.0091
Mercury	-33804-08-27 08:52 J	-10625249.26	-10625249.13	-10625248.98	0.0133	0.0069
Mercury	-33804-11-23 14:09 J	-10625161.06	-10625160.91	-10625160.75	0.0133	0.0046
Mercury	-33803-02-19 19:11 J	-10625072.86	-10625072.70	-10625072.53	0.0133	0.0024
Mercury	-33803-05-19 00:14 J	-10624984.65	-10624984.49	-10624984.32	0.0133	0.0002
Mercury	-33803-08-15 05:16 J	-10624896.44	-10624896.28	-10624896.12	0.0133	0.0020

Mercury -33803-11-11 10:04 J -10624808.23 -10624808.08 -10624807.92 0.0133 0.0041
 Mercury -33802-02-07 14:38 J -10624720.02 -10624719.89 -10624719.73 0.0133 0.0064
 Mercury -33802-05-06 19:26 J -10624631.80 -10624631.69 -10624631.55 0.0133 0.0084
 Mercury -33802-08-03 00:14 J -10624543.57 -10624543.49 -10624543.38 0.0133 0.0105
 Mercury -33802-10-30 05:16 J -10624455.33 -10624455.28 -10624455.23 0.0133 0.0125
 Mars -33792-02-11 06:14 J -10621063.47 -10621063.24 -10621062.95 0.0132 0.0084
 Venus -33775-08-09 09:21 J -10614675.13 -10614675.11 -10614675.05 0.0138 0.0135
 Venus -33774-03-23 15:35 J -10614448.92 -10614448.85 -10614448.75 0.0138 0.0125
 Venus -33774-11-04 22:04 J -10614222.69 -10614222.58 -10614222.46 0.0138 0.0115
 Venus -33773-06-18 04:47 J -10613996.44 -10613996.30 -10613996.17 0.0139 0.0104
 Venus -33772-01-30 11:16 J -10613770.18 -10613770.03 -10613769.87 0.0139 0.0093
 Venus -33772-09-13 17:45 J -10613543.92 -10613543.76 -10613543.58 0.0139 0.0083
 Venus -33771-04-28 00:43 J -10613317.65 -10613317.47 -10613317.28 0.0140 0.0071
 Venus -33771-12-10 07:55 J -10613091.36 -10613091.17 -10613090.98 0.0140 0.0059
 Venus -33770-07-24 14:52 J -10612865.07 -10612864.88 -10612864.67 0.0140 0.0048
 Venus -33769-03-06 22:04 J -10612638.78 -10612638.58 -10612638.37 0.0141 0.0036
 Venus -33769-10-19 05:45 J -10612412.47 -10612412.26 -10612412.05 0.0141 0.0023
 Venus -33768-06-02 13:26 J -10612186.15 -10612185.94 -10612185.73 0.0141 0.0011
 Venus -33767-01-14 21:21 J -10611959.82 -10611959.61 -10611959.40 0.0142 0.0001
 Venus -33767-08-29 05:16 J -10611733.49 -10611733.28 -10611733.07 0.0142 0.0014
 Venus -33766-04-12 13:26 J -10611507.14 -10611506.94 -10611506.73 0.0142 0.0027
 Venus -33766-11-24 21:50 J -10611280.79 -10611280.59 -10611280.39 0.0143 0.0039
 Venus -33765-07-08 06:28 J -10611054.43 -10611054.23 -10611054.03 0.0143 0.0052
 Venus -33764-02-19 15:07 J -10610828.05 -10610827.87 -10610827.67 0.0143 0.0065
 Venus -33764-10-04 00:14 J -10610601.66 -10610601.49 -10610601.31 0.0143 0.0078
 Venus -33763-05-18 09:07 J -10610375.27 -10610375.12 -10610374.94 0.0144 0.0091
 Venus -33763-12-30 18:28 J -10610148.86 -10610148.73 -10610148.57 0.0144 0.0103
 Earth -33762-04-21 03:35 J -10610037.52 -10610037.35 -10610037.18 0.0144 0.0104
 Moon -33762-04-21 04:04 J -10610037.48 -10610037.33 -10610037.15 0.0144 0.0111 *
 Venus -33762-08-14 04:04 J -10609922.45 -10609922.33 -10609922.20 0.0144 0.0115

Venus -33761-03-27 13:40 J -10609696.02 -10609695.93 -10609695.82 0.0144 0.0128
 Moon -33761-04-25 00:14 J -10609667.72 -10609667.49 -10609667.24 0.0144 0.0029
 Earth -33761-04-25 02:09 J -10609667.65 -10609667.41 -10609667.15 0.0144 0.0022 *
 Mercury -33761-08-12 07:26 J -10609558.24 -10609558.19 -10609558.13 0.0145 0.0132
 Mercury -33761-11-08 11:59 J -10609470.09 -10609470.00 -10609469.89 0.0145 0.0108
 Venus -33761-11-08 23:16 J -10609469.56 -10609469.53 -10609469.46 0.0145 0.0140
 Mercury -33760-02-04 16:47 J -10609381.91 -10609381.80 -10609381.67 0.0145 0.0083
 Moon -33760-04-30 03:50 J -10609297.37 -10609297.34 -10609297.31 0.0145 0.0143
 Mercury -33760-05-03 21:50 J -10609293.73 -10609293.59 -10609293.46 0.0145 0.0058
 Mercury -33760-07-31 02:38 J -10609205.54 -10609205.39 -10609205.25 0.0145 0.0033
 Mercury -33760-10-27 07:26 J -10609117.34 -10609117.19 -10609117.04 0.0145 0.0008
 Mercury -33759-01-23 12:28 J -10609029.13 -10609028.98 -10609028.83 0.0145 0.0019
 Mercury -33759-04-21 17:16 J -10608940.92 -10608940.78 -10608940.63 0.0145 0.0045
 Mercury -33759-07-18 22:19 J -10608852.70 -10608852.57 -10608852.43 0.0145 0.0071
 Mercury -33759-10-15 03:21 J -10608764.47 -10608764.36 -10608764.24 0.0145 0.0097
 Mercury -33758-01-11 08:38 J -10608676.22 -10608676.14 -10608676.06 0.0145 0.0124
 Mars -33750-06-14 16:33 J -10605600.09 -10605599.81 -10605599.53 0.0146 0.0027
 Venus -33735-04-13 04:04 J -10600183.36 -10600183.33 -10600183.28 0.0140 0.0138
 Venus -33735-11-25 15:21 J -10599956.94 -10599956.86 -10599956.76 0.0140 0.0126
 Venus -33734-07-10 02:23 J -10599730.51 -10599730.40 -10599730.25 0.0140 0.0115
 Venus -33733-02-21 13:40 J -10599504.07 -10599503.93 -10599503.77 0.0139 0.0103
 Venus -33733-10-05 00:28 J -10599277.64 -10599277.48 -10599277.30 0.0139 0.0091
 Venus -33732-05-19 11:16 J -10599051.21 -10599051.03 -10599050.84 0.0139 0.0078
 Venus -33732-12-31 21:35 J -10598824.78 -10598824.60 -10598824.39 0.0139 0.0067
 Venus -33731-08-15 07:55 J -10598598.36 -10598598.17 -10598597.95 0.0138 0.0055
 Venus -33730-03-29 18:14 J -10598371.95 -10598371.74 -10598371.52 0.0138 0.0042
 Venus -33730-11-11 04:04 J -10598145.54 -10598145.33 -10598145.10 0.0138 0.0030
 Venus -33729-06-24 14:09 J -10597919.13 -10597918.91 -10597918.68 0.0137 0.0017
 Venus -33728-02-05 23:45 J -10597692.73 -10597692.51 -10597692.28 0.0137 0.0006
 Venus -33728-09-20 09:21 J -10597466.33 -10597466.11 -10597465.89 0.0137 0.0007

Venus -33727-05-04 18:28 J -10597239.95 -10597239.73 -10597239.50 0.0136 0.0019
 Venus -33727-12-17 03:35 J -10597013.56 -10597013.35 -10597013.13 0.0136 0.0031
 Venus -33726-07-31 12:43 J -10596787.18 -10596786.97 -10596786.75 0.0136 0.0042
 Venus -33725-03-13 21:21 J -10596560.80 -10596560.61 -10596560.39 0.0136 0.0054
 Venus -33725-10-26 06:14 J -10596334.43 -10596334.24 -10596334.04 0.0135 0.0065
 Venus -33724-06-09 14:23 J -10596108.07 -10596107.90 -10596107.70 0.0135 0.0076
 Venus -33723-01-21 22:47 J -10595881.70 -10595881.55 -10595881.36 0.0135 0.0087
 Venus -33723-09-05 06:57 J -10595655.34 -10595655.21 -10595655.04 0.0135 0.0098
 Venus -33722-04-19 15:07 J -10595428.99 -10595428.87 -10595428.72 0.0134 0.0108
 Earth -33722-10-25 18:28 J -10595239.96 -10595239.73 -10595239.49 0.0134 0.0053
 Moon -33722-10-25 21:07 J -10595239.84 -10595239.62 -10595239.36 0.0134 0.0054 *
 Venus -33722-12-01 23:02 J -10595202.63 -10595202.54 -10595202.42 0.0134 0.0118
 Venus -33721-07-15 06:57 J -10594976.27 -10594976.21 -10594976.13 0.0134 0.0127
 Moon -33721-10-29 00:43 J -10594870.70 -10594870.47 -10594870.23 0.0134 0.0045
 Earth -33721-10-29 03:50 J -10594870.57 -10594870.34 -10594870.09 0.0134 0.0049 *
 Mercury -33721-12-25 23:59 J -10594812.51 -10594812.50 -10594812.46 0.0134 0.0132
 Mercury -33720-03-24 05:16 J -10594724.36 -10594724.28 -10594724.17 0.0134 0.0109
 Mercury -33720-06-20 10:33 J -10594636.18 -10594636.06 -10594635.93 0.0134 0.0086
 Mercury -33720-09-16 15:50 J -10594547.99 -10594547.84 -10594547.69 0.0134 0.0064
 Mercury -33720-12-13 20:52 J -10594459.78 -10594459.63 -10594459.47 0.0133 0.0041
 Mercury -33719-03-12 01:55 J -10594371.58 -10594371.42 -10594371.25 0.0133 0.0019
 Mercury -33719-06-08 06:57 J -10594283.37 -10594283.21 -10594283.05 0.0133 0.0003
 Mercury -33719-09-04 11:45 J -10594195.17 -10594195.01 -10594194.84 0.0133 0.0025
 Mercury -33719-12-01 16:33 J -10594106.95 -10594106.81 -10594106.65 0.0133 0.0046
 Mercury -33718-02-27 21:35 J -10594018.74 -10594018.60 -10594018.46 0.0133 0.0067
 Mercury -33718-05-27 02:23 J -10593930.52 -10593930.40 -10593930.28 0.0133 0.0088
 Mercury -33718-08-23 06:57 J -10593842.29 -10593842.21 -10593842.11 0.0133 0.0109
 Mercury -33718-11-19 11:31 J -10593754.03 -10593754.02 -10593753.97 0.0133 0.0130
 Mars -33708-10-07 11:45 J -10590144.35 -10590144.01 -10590143.68 0.0132 0.0001
 Venus -33691-11-20 23:45 J -10583890.56 -10583890.51 -10583890.42 0.0138 0.0129

Venus	-33690-07-05 06:28 J	-10583664.34	-10583664.23	-10583664.12	0.0138	0.0119
Venus	-33689-02-16 12:14 J	-10583438.10	-10583437.99	-10583437.84	0.0139	0.0109
Venus	-33689-09-29 19:11 J	-10583211.85	-10583211.70	-10583211.55	0.0139	0.0097
Venus	-33688-05-14 01:40 J	-10582985.59	-10582985.43	-10582985.26	0.0139	0.0086
Venus	-33688-12-26 08:38 J	-10582759.32	-10582759.14	-10582758.96	0.0140	0.0075
Venus	-33687-08-09 15:21 J	-10582533.04	-10582532.86	-10582532.66	0.0140	0.0064
Venus	-33686-03-23 22:33 J	-10582306.76	-10582306.56	-10582306.36	0.0140	0.0052
Venus	-33686-11-05 05:31 J	-10582080.47	-10582080.27	-10582080.06	0.0141	0.0040
Venus	-33685-06-18 12:57 J	-10581854.16	-10581853.96	-10581853.75	0.0141	0.0028
Venus	-33684-01-30 20:38 J	-10581627.85	-10581627.64	-10581627.42	0.0141	0.0015
Venus	-33684-09-14 04:33 J	-10581401.53	-10581401.31	-10581401.10	0.0142	0.0003
Venus	-33683-04-28 12:14 J	-10581175.20	-10581174.99	-10581174.77	0.0142	0.0011
Venus	-33683-12-10 20:23 J	-10580948.86	-10580948.65	-10580948.44	0.0142	0.0023
Venus	-33682-07-25 04:47 J	-10580722.51	-10580722.30	-10580722.10	0.0142	0.0036
Venus	-33681-03-07 13:11 J	-10580496.15	-10580495.95	-10580495.75	0.0143	0.0049
Venus	-33681-10-19 21:50 J	-10580269.78	-10580269.59	-10580269.39	0.0143	0.0061
Venus	-33680-06-03 06:28 J	-10580043.40	-10580043.23	-10580043.04	0.0143	0.0075
Venus	-33679-01-15 15:35 J	-10579817.01	-10579816.85	-10579816.67	0.0144	0.0087
Venus	-33679-08-30 00:43 J	-10579590.61	-10579590.47	-10579590.30	0.0144	0.0100
Venus	-33678-04-13 10:04 J	-10579364.20	-10579364.08	-10579363.94	0.0144	0.0113
Earth	-33678-04-21 10:33 J	-10579356.23	-10579356.06	-10579355.88	0.0144	0.0103
Moon	-33678-04-21 11:02 J	-10579356.22	-10579356.04	-10579355.83	0.0144	0.0096 *
Venus	-33678-11-25 19:40 J	-10579137.78	-10579137.68	-10579137.57	0.0144	0.0125
Moon	-33677-04-25 08:38 J	-10578986.38	-10578986.14	-10578985.90	0.0145	0.0016
Earth	-33677-04-25 09:21 J	-10578986.36	-10578986.11	-10578985.86	0.0145	0.0023 *
Venus	-33677-07-09 05:16 J	-10578911.34	-10578911.28	-10578911.21	0.0145	0.0137
Mercury	-33677-09-01 14:09 J	-10578856.97	-10578856.91	-10578856.84	0.0145	0.0128
Mercury	-33677-11-28 18:43 J	-10578768.81	-10578768.72	-10578768.61	0.0145	0.0104
Mercury	-33676-02-24 23:31 J	-10578680.64	-10578680.52	-10578680.39	0.0145	0.0079
Mercury	-33676-05-24 04:19 J	-10578592.45	-10578592.32	-10578592.18	0.0145	0.0054

Mercury -33676-08-20 09:07 J -10578504.26 -10578504.12 -10578503.97 0.0145 0.0029

Mercury -33676-11-16 14:09 J -10578416.06 -10578415.91 -10578415.76 0.0145 0.0004

Mercury -33675-02-12 18:57 J -10578327.85 -10578327.71 -10578327.56 0.0145 0.0023

Mercury -33675-05-11 23:59 J -10578239.64 -10578239.50 -10578239.36 0.0145 0.0048

Mercury -33675-08-08 05:02 J -10578151.42 -10578151.29 -10578151.16 0.0145 0.0075

Mercury -33675-11-04 09:50 J -10578063.19 -10578063.09 -10578062.97 0.0145 0.0101

Mercury -33674-01-31 15:07 J -10577974.94 -10577974.87 -10577974.80 0.0145 0.0128

Mars -33665-02-07 13:11 J -10574681.11 -10574680.95 -10574680.78 0.0146 0.0119

Venus -33651-07-25 20:38 J -10569398.72 -10569398.64 -10569398.56 0.0140 0.0131

Venus -33650-03-09 07:26 J -10569172.29 -10569172.19 -10569172.06 0.0140 0.0119

Venus -33650-10-21 18:43 J -10568945.86 -10568945.72 -10568945.57 0.0140 0.0107

Venus -33649-06-04 05:59 J -10568719.42 -10568719.25 -10568719.09 0.0139 0.0095

Venus -33648-01-16 16:19 J -10568492.98 -10568492.82 -10568492.63 0.0139 0.0083

Venus -33648-08-31 02:52 J -10568266.56 -10568266.38 -10568266.17 0.0139 0.0071

Venus -33647-04-14 13:11 J -10568040.14 -10568039.95 -10568039.73 0.0138 0.0059

Venus -33647-11-26 23:45 J -10567813.72 -10567813.51 -10567813.30 0.0138 0.0046

Venus -33646-07-11 10:04 J -10567587.30 -10567587.08 -10567586.87 0.0138 0.0033

Venus -33645-02-22 19:55 J -10567360.89 -10567360.67 -10567360.45 0.0137 0.0021

Venus -33645-10-06 05:31 J -10567134.49 -10567134.27 -10567134.04 0.0137 0.0009

Venus -33644-05-20 15:07 J -10566908.10 -10566907.87 -10566907.65 0.0137 0.0004

Venus -33643-01-02 00:28 J -10566681.70 -10566681.48 -10566681.26 0.0137 0.0016

Venus -33643-08-16 09:50 J -10566455.31 -10566455.09 -10566454.87 0.0136 0.0027

Venus -33642-03-30 18:43 J -10566228.93 -10566228.72 -10566228.50 0.0136 0.0039

Venus -33642-11-12 03:35 J -10566002.55 -10566002.35 -10566002.13 0.0136 0.0051

Venus -33641-06-25 12:28 J -10565776.17 -10565775.98 -10565775.77 0.0135 0.0062

Venus -33640-02-06 21:07 J -10565549.80 -10565549.62 -10565549.42 0.0135 0.0074

Venus -33640-09-21 05:45 J -10565323.43 -10565323.26 -10565323.08 0.0135 0.0084

Venus -33639-05-05 13:55 J -10565097.07 -10565096.92 -10565096.75 0.0135 0.0095

Venus -33639-12-17 21:50 J -10564870.71 -10564870.59 -10564870.44 0.0134 0.0106

Venus -33638-08-01 06:14 J -10564644.35 -10564644.24 -10564644.12 0.0134 0.0116

Earth -33638-10-26 02:23 J -10564558.63 -10564558.40 -10564558.16 0.0134 0.0050
 Moon -33638-10-26 05:16 J -10564558.52 -10564558.28 -10564558.03 0.0134 0.0050 *
 Venus -33637-03-14 13:40 J -10564417.98 -10564417.93 -10564417.83 0.0134 0.0126
 Moon -33637-10-29 09:07 J -10564189.33 -10564189.12 -10564188.87 0.0134 0.0053
 Earth -33637-10-29 11:45 J -10564189.24 -10564189.01 -10564188.77 0.0134 0.0051 *
 Mercury -33636-01-15 06:28 J -10564111.26 -10564111.23 -10564111.17 0.0134 0.0128
 Mercury -33636-04-13 11:59 J -10564023.10 -10564023.00 -10564022.90 0.0134 0.0105
 Mercury -33636-07-10 17:02 J -10563934.91 -10563934.79 -10563934.65 0.0134 0.0082
 Mercury -33636-10-06 22:19 J -10563846.72 -10563846.57 -10563846.42 0.0134 0.0060
 Mercury -33635-01-03 03:21 J -10563758.52 -10563758.36 -10563758.20 0.0134 0.0038
 Mercury -33635-04-01 08:23 J -10563670.31 -10563670.15 -10563669.98 0.0133 0.0016
 Mercury -33635-06-28 13:26 J -10563582.10 -10563581.94 -10563581.78 0.0133 0.0006
 Mercury -33635-09-24 18:14 J -10563493.89 -10563493.74 -10563493.57 0.0133 0.0028
 Mercury -33635-12-21 23:16 J -10563405.68 -10563405.53 -10563405.38 0.0133 0.0050
 Mercury -33634-03-20 03:50 J -10563317.46 -10563317.34 -10563317.19 0.0133 0.0071
 Mercury -33634-06-16 08:38 J -10563229.24 -10563229.14 -10563229.01 0.0133 0.0092
 Mercury -33634-09-12 13:26 J -10563141.01 -10563140.94 -10563140.85 0.0133 0.0113
 Mars -33623-06-02 15:07 J -10559225.12 -10559224.87 -10559224.60 0.0132 0.0083
 Venus -33607-07-21 08:23 J -10553332.18 -10553332.15 -10553332.08 0.0138 0.0133
 Venus -33606-03-04 14:52 J -10553105.97 -10553105.88 -10553105.78 0.0138 0.0123
 Venus -33606-10-16 20:52 J -10552879.74 -10552879.63 -10552879.49 0.0138 0.0113
 Venus -33605-05-30 03:21 J -10552653.49 -10552653.36 -10552653.21 0.0139 0.0102
 Venus -33604-01-11 10:19 J -10552427.23 -10552427.07 -10552426.91 0.0139 0.0090
 Venus -33604-08-25 16:33 J -10552200.97 -10552200.81 -10552200.62 0.0139 0.0080
 Venus -33603-04-08 23:31 J -10551974.70 -10551974.52 -10551974.33 0.0140 0.0068
 Venus -33603-11-21 06:28 J -10551748.42 -10551748.23 -10551748.03 0.0140 0.0056
 Venus -33602-07-05 13:55 J -10551522.13 -10551521.92 -10551521.72 0.0140 0.0044
 Venus -33601-02-16 21:07 J -10551295.82 -10551295.62 -10551295.41 0.0141 0.0031
 Venus -33601-09-30 04:33 J -10551069.52 -10551069.31 -10551069.10 0.0141 0.0019
 Venus -33600-05-14 12:14 J -10550843.20 -10550842.99 -10550842.78 0.0141 0.0007

Venus	-33600-12-26 20:09 J	-10550616.87	-10550616.66	-10550616.45	0.0142	0.0007
Venus	-33599-08-10 04:19 J	-10550390.53	-10550390.32	-10550390.11	0.0142	0.0019
Venus	-33598-03-24 12:14 J	-10550164.19	-10550163.99	-10550163.78	0.0142	0.0032
Venus	-33598-11-05 20:38 J	-10549937.84	-10549937.64	-10549937.43	0.0143	0.0045
Venus	-33597-06-19 05:02 J	-10549711.47	-10549711.29	-10549711.09	0.0143	0.0058
Venus	-33596-01-31 13:55 J	-10549485.09	-10549484.92	-10549484.73	0.0143	0.0071
Venus	-33596-09-14 23:02 J	-10549258.71	-10549258.54	-10549258.37	0.0143	0.0084
Venus	-33595-04-29 07:40 J	-10549032.32	-10549032.18	-10549032.01	0.0144	0.0097
Venus	-33595-12-11 17:02 J	-10548805.92	-10548805.79	-10548805.65	0.0144	0.0109
Moon	-33594-04-21 17:59 J	-10548674.91	-10548674.75	-10548674.56	0.0144	0.0105
Earth	-33594-04-21 18:43 J	-10548674.89	-10548674.72	-10548674.53	0.0144	0.0099 *
Venus	-33594-07-26 02:38 J	-10548579.50	-10548579.39	-10548579.28	0.0144	0.0122
Venus	-33593-03-08 11:45 J	-10548353.07	-10548353.01	-10548352.91	0.0144	0.0135
Moon	-33593-04-25 16:33 J	-10548305.04	-10548304.81	-10548304.57	0.0145	0.0033
Earth	-33593-04-25 17:02 J	-10548305.03	-10548304.79	-10548304.53	0.0145	0.0027 *
Mercury	-33593-09-21 20:52 J	-10548155.70	-10548155.63	-10548155.55	0.0145	0.0124
Mercury	-33593-12-19 01:40 J	-10548067.53	-10548067.43	-10548067.32	0.0145	0.0099
Mercury	-33592-03-17 06:28 J	-10547979.36	-10547979.23	-10547979.10	0.0145	0.0074
Mercury	-33592-06-13 11:16 J	-10547891.17	-10547891.03	-10547890.89	0.0145	0.0049
Mercury	-33592-09-09 16:04 J	-10547802.98	-10547802.83	-10547802.68	0.0145	0.0024
Mercury	-33592-12-06 20:52 J	-10547714.78	-10547714.63	-10547714.48	0.0145	0.0003
Mercury	-33591-03-05 01:55 J	-10547626.57	-10547626.42	-10547626.27	0.0145	0.0027
Mercury	-33591-06-01 06:43 J	-10547538.36	-10547538.22	-10547538.08	0.0145	0.0053
Mercury	-33591-08-28 11:45 J	-10547450.13	-10547450.01	-10547449.88	0.0145	0.0080
Mercury	-33591-11-24 16:33 J	-10547361.90	-10547361.81	-10547361.69	0.0145	0.0107
Mercury	-33590-02-20 21:50 J	-10547273.64	-10547273.59	-10547273.52	0.0145	0.0133
Mars	-33583-10-31 17:31 J	-10544464.01	-10544463.77	-10544463.49	0.0146	0.0063
Venus	-33567-03-25 01:11 J	-10538840.49	-10538840.45	-10538840.38	0.0141	0.0136
Venus	-33567-11-06 12:28 J	-10538614.07	-10538613.98	-10538613.86	0.0140	0.0124
Venus	-33566-06-20 23:45 J	-10538387.63	-10538387.51	-10538387.36	0.0140	0.0112

Venus	-33565-02-02 10:47 J	-10538161.19	-10538161.05	-10538160.88	0.0140	0.0100
Venus	-33565-09-15 21:35 J	-10537934.76	-10537934.60	-10537934.41	0.0139	0.0088
Venus	-33564-04-30 08:09 J	-10537708.33	-10537708.16	-10537707.96	0.0139	0.0075
Venus	-33564-12-12 18:43 J	-10537481.91	-10537481.72	-10537481.51	0.0139	0.0063
Venus	-33563-07-27 05:02 J	-10537255.48	-10537255.29	-10537255.07	0.0138	0.0051
Venus	-33562-03-10 15:35 J	-10537029.07	-10537028.85	-10537028.64	0.0138	0.0037
Venus	-33562-10-23 01:26 J	-10536802.66	-10536802.44	-10536802.22	0.0138	0.0025
Venus	-33561-06-05 11:16 J	-10536576.25	-10536576.03	-10536575.80	0.0137	0.0013
Venus	-33560-01-17 21:07 J	-10536349.84	-10536349.62	-10536349.40	0.0137	0.0000
Venus	-33560-09-01 06:43 J	-10536123.44	-10536123.22	-10536123.00	0.0137	0.0012
Venus	-33559-04-15 15:50 J	-10535897.05	-10535896.84	-10535896.61	0.0136	0.0024
Venus	-33559-11-28 00:57 J	-10535670.66	-10535670.46	-10535670.23	0.0136	0.0037
Venus	-33558-07-12 10:19 J	-10535444.27	-10535444.07	-10535443.86	0.0136	0.0048
Venus	-33557-02-23 18:57 J	-10535217.89	-10535217.71	-10535217.49	0.0136	0.0060
Venus	-33557-10-07 04:04 J	-10534991.52	-10534991.33	-10534991.14	0.0135	0.0071
Venus	-33556-05-21 12:14 J	-10534765.15	-10534764.99	-10534764.80	0.0135	0.0082
Venus	-33555-01-02 20:38 J	-10534538.79	-10534538.64	-10534538.46	0.0135	0.0093
Venus	-33555-08-17 05:02 J	-10534312.42	-10534312.29	-10534312.13	0.0135	0.0104
Venus	-33554-03-31 13:26 J	-10534086.06	-10534085.94	-10534085.82	0.0134	0.0114
Earth	-33554-10-26 10:47 J	-10533877.28	-10533877.05	-10533876.80	0.0134	0.0047
Moon	-33554-10-26 12:57 J	-10533877.21	-10533876.96	-10533876.72	0.0134	0.0049 *
Venus	-33554-11-12 20:52 J	-10533859.69	-10533859.63	-10533859.53	0.0134	0.0124
Venus	-33553-06-26 04:47 J	-10533633.30	-10533633.30	-10533633.28	0.0134	0.0134
Moon	-33553-10-29 17:45 J	-10533507.98	-10533507.76	-10533507.52	0.0134	0.0052
Earth	-33553-10-29 19:55 J	-10533507.89	-10533507.67	-10533507.42	0.0134	0.0055 *
Mercury	-33552-02-04 13:26 J	-10533410.00	-10533409.94	-10533409.88	0.0134	0.0123
Mercury	-33552-05-03 18:28 J	-10533321.83	-10533321.73	-10533321.61	0.0134	0.0101
Mercury	-33552-07-30 23:45 J	-10533233.64	-10533233.51	-10533233.37	0.0134	0.0078
Mercury	-33552-10-27 04:47 J	-10533145.44	-10533145.30	-10533145.14	0.0134	0.0056
Mercury	-33551-01-23 09:50 J	-10533057.24	-10533057.09	-10533056.92	0.0134	0.0034

Mercury -33551-04-21 15:07 J -10532969.04 -10532968.87 -10532968.71 0.0133 0.0011

Mercury -33551-07-18 19:55 J -10532880.83 -10532880.67 -10532880.50 0.0133 0.0012

Mercury -33551-10-15 00:57 J -10532792.62 -10532792.46 -10532792.30 0.0133 0.0032

Mercury -33550-01-11 05:45 J -10532704.40 -10532704.26 -10532704.11 0.0133 0.0054

Mercury -33550-04-09 10:33 J -10532616.19 -10532616.06 -10532615.92 0.0133 0.0075

Mercury -33550-07-06 15:21 J -10532527.96 -10532527.86 -10532527.74 0.0133 0.0096

Mercury -33550-10-02 20:09 J -10532439.73 -10532439.66 -10532439.58 0.0133 0.0117

Mars -33540-02-22 03:21 J -10529009.60 -10529009.36 -10529009.06 0.0132 0.0077

Venus -33523-03-20 17:31 J -10522773.78 -10522773.77 -10522773.74 0.0138 0.0137

Venus -33523-11-01 23:31 J -10522547.59 -10522547.52 -10522547.42 0.0138 0.0127

Venus -33522-06-16 05:45 J -10522321.36 -10522321.26 -10522321.13 0.0138 0.0117

Venus -33521-01-28 12:14 J -10522095.11 -10522094.99 -10522094.84 0.0139 0.0106

Venus -33521-09-10 18:43 J -10521868.86 -10521868.72 -10521868.55 0.0139 0.0095

Venus -33520-04-25 01:26 J -10521642.60 -10521642.44 -10521642.26 0.0139 0.0083

Venus -33520-12-07 08:09 J -10521416.33 -10521416.16 -10521415.97 0.0140 0.0072

Venus -33519-07-21 15:07 J -10521190.05 -10521189.87 -10521189.67 0.0140 0.0060

Venus -33518-03-04 22:04 J -10520963.77 -10520963.58 -10520963.37 0.0140 0.0048

Venus -33518-10-17 05:31 J -10520737.47 -10520737.27 -10520737.06 0.0140 0.0036

Venus -33517-05-30 12:57 J -10520511.17 -10520510.96 -10520510.75 0.0141 0.0023

Venus -33516-01-11 20:52 J -10520284.84 -10520284.63 -10520284.42 0.0141 0.0011

Venus -33516-08-26 04:33 J -10520058.52 -10520058.31 -10520058.10 0.0141 0.0002

Venus -33515-04-09 12:28 J -10519832.19 -10519831.98 -10519831.77 0.0142 0.0015

Venus -33515-11-21 20:23 J -10519605.85 -10519605.65 -10519605.44 0.0142 0.0028

Venus -33514-07-06 04:33 J -10519379.50 -10519379.31 -10519379.10 0.0142 0.0042

Venus -33513-02-17 13:11 J -10519153.14 -10519152.95 -10519152.75 0.0143 0.0055

Venus -33513-09-30 21:50 J -10518926.77 -10518926.59 -10518926.40 0.0143 0.0067

Venus -33512-05-15 06:28 J -10518700.40 -10518700.23 -10518700.05 0.0143 0.0081

Venus -33512-12-27 15:21 J -10518474.01 -10518473.86 -10518473.69 0.0144 0.0094

Venus -33511-08-11 00:28 J -10518247.61 -10518247.48 -10518247.33 0.0144 0.0106

Venus -33510-03-25 09:35 J -10518021.20 -10518021.10 -10518020.97 0.0144 0.0119

Moon -33510-04-22 03:07 J -10517993.56 -10517993.37 -10517993.15 0.0144 0.0088
 Earth -33510-04-22 04:04 J -10517993.52 -10517993.33 -10517993.14 0.0144 0.0095 *
 Venus -33510-11-06 18:57 J -10517794.78 -10517794.71 -10517794.61 0.0144 0.0132
 Earth -33509-04-26 02:09 J -10517623.65 -10517623.41 -10517623.15 0.0145 0.0031
 Moon -33509-04-26 02:38 J -10517623.62 -10517623.39 -10517623.14 0.0145 0.0024 *
 Venus -33509-06-20 04:33 J -10517568.32 -10517568.31 -10517568.27 0.0145 0.0144
 Mercury -33509-07-15 23:16 J -10517542.55 -10517542.53 -10517542.50 0.0145 0.0142
 Mercury -33509-10-12 03:50 J -10517454.41 -10517454.34 -10517454.24 0.0145 0.0118
 Mercury -33508-01-08 08:52 J -10517366.24 -10517366.13 -10517366.02 0.0145 0.0093
 Mercury -33508-04-06 13:26 J -10517278.07 -10517277.94 -10517277.81 0.0145 0.0069
 Mercury -33508-07-03 18:14 J -10517189.88 -10517189.74 -10517189.60 0.0145 0.0043
 Mercury -33508-09-29 23:02 J -10517101.68 -10517101.54 -10517101.39 0.0145 0.0019
 Mercury -33508-12-27 04:04 J -10517013.48 -10517013.33 -10517013.18 0.0145 0.0008
 Mercury -33507-03-25 08:52 J -10516925.28 -10516925.13 -10516924.98 0.0145 0.0033
 Mercury -33507-06-21 13:40 J -10516837.06 -10516836.93 -10516836.79 0.0145 0.0060
 Mercury -33507-09-17 18:43 J -10516748.84 -10516748.72 -10516748.59 0.0145 0.0086
 Mercury -33507-12-14 23:45 J -10516660.60 -10516660.51 -10516660.41 0.0145 0.0112
 Mercury -33506-03-13 04:47 J -10516572.33 -10516572.30 -10516572.25 0.0145 0.0139
 Mars -33498-06-26 17:02 J -10513545.07 -10513544.79 -10513544.51 0.0146 0.0033
 Venus -33484-11-22 06:57 J -10508282.21 -10508282.21 -10508282.20 0.0141 0.0140
 Venus -33483-07-06 18:14 J -10508055.82 -10508055.74 -10508055.64 0.0140 0.0129
 Venus -33482-02-18 05:31 J -10507829.39 -10507829.27 -10507829.14 0.0140 0.0117
 Venus -33482-10-02 16:04 J -10507602.95 -10507602.83 -10507602.66 0.0140 0.0105
 Venus -33481-05-16 03:21 J -10507376.52 -10507376.36 -10507376.19 0.0139 0.0092
 Venus -33481-12-28 14:09 J -10507150.09 -10507149.91 -10507149.72 0.0139 0.0079
 Venus -33480-08-12 00:28 J -10506923.66 -10506923.48 -10506923.27 0.0139 0.0067
 Venus -33479-03-26 10:47 J -10506697.24 -10506697.05 -10506696.83 0.0138 0.0055
 Venus -33479-11-07 21:21 J -10506470.82 -10506470.61 -10506470.40 0.0138 0.0042
 Venus -33478-06-22 07:26 J -10506244.40 -10506244.19 -10506243.96 0.0138 0.0029
 Venus -33477-02-03 17:31 J -10506017.99 -10506017.77 -10506017.54 0.0137 0.0017

Venus	-33477-09-17 03:21 J	-10505791.58	-10505791.36	-10505791.14	0.0137	0.0004
Venus	-33476-05-01 12:57 J	-10505565.18	-10505564.96	-10505564.74	0.0137	0.0008
Venus	-33476-12-13 22:19 J	-10505338.79	-10505338.57	-10505338.34	0.0137	0.0021
Venus	-33475-07-28 07:55 J	-10505112.39	-10505112.17	-10505111.95	0.0136	0.0033
Venus	-33474-03-11 16:47 J	-10504886.00	-10504885.80	-10504885.58	0.0136	0.0045
Venus	-33474-10-24 01:40 J	-10504659.62	-10504659.43	-10504659.21	0.0136	0.0057
Venus	-33473-06-06 10:47 J	-10504433.24	-10504433.05	-10504432.86	0.0135	0.0068
Venus	-33472-01-18 19:11 J	-10504206.87	-10504206.70	-10504206.51	0.0135	0.0080
Venus	-33472-09-02 04:04 J	-10503980.50	-10503980.33	-10503980.16	0.0135	0.0090
Venus	-33471-04-16 11:59 J	-10503754.13	-10503754.00	-10503753.84	0.0135	0.0102
Venus	-33471-11-28 20:23 J	-10503527.77	-10503527.65	-10503527.52	0.0134	0.0112
Venus	-33470-07-13 04:04 J	-10503301.40	-10503301.33	-10503301.22	0.0134	0.0123
Earth	-33470-10-26 19:11 J	-10503195.94	-10503195.70	-10503195.45	0.0134	0.0044
Moon	-33470-10-26 20:52 J	-10503195.87	-10503195.63	-10503195.36	0.0134	0.0043 *
Venus	-33469-02-24 11:59 J	-10503075.02	-10503075.00	-10503074.95	0.0134	0.0132
Moon	-33469-10-30 03:07 J	-10502826.59	-10502826.37	-10502826.14	0.0134	0.0058
Earth	-33469-10-30 04:19 J	-10502826.54	-10502826.32	-10502826.08	0.0134	0.0058 *
Mercury	-33468-02-24 19:55 J	-10502708.74	-10502708.67	-10502708.59	0.0134	0.0119
Mercury	-33468-05-24 01:11 J	-10502620.56	-10502620.45	-10502620.33	0.0134	0.0096
Mercury	-33468-08-20 06:14 J	-10502532.37	-10502532.24	-10502532.09	0.0134	0.0074
Mercury	-33468-11-16 11:31 J	-10502444.17	-10502444.02	-10502443.86	0.0134	0.0051
Mercury	-33467-02-12 16:33 J	-10502355.97	-10502355.81	-10502355.65	0.0134	0.0029
Mercury	-33467-05-11 21:35 J	-10502267.76	-10502267.60	-10502267.43	0.0133	0.0007
Mercury	-33467-08-08 02:38 J	-10502179.55	-10502179.39	-10502179.23	0.0133	0.0015
Mercury	-33467-11-04 07:40 J	-10502091.34	-10502091.18	-10502091.03	0.0133	0.0037
Mercury	-33466-01-31 12:14 J	-10502003.13	-10502002.99	-10502002.83	0.0133	0.0059
Mercury	-33466-04-29 17:16 J	-10501914.91	-10501914.78	-10501914.65	0.0133	0.0079
Mercury	-33466-07-26 22:04 J	-10501826.68	-10501826.58	-10501826.47	0.0133	0.0100
Mercury	-33466-10-23 02:38 J	-10501738.44	-10501738.39	-10501738.32	0.0133	0.0121
Mars	-33456-10-18 07:26 J	-10498090.52	-10498090.19	-10498089.85	0.0132	0.0007

Venus	-33439-07-02 07:55 J	-10491989.22	-10491989.17	-10491989.09	0.0138	0.0131
Venus	-33438-02-13 14:23 J	-10491763.00	-10491762.90	-10491762.79	0.0138	0.0120
Venus	-33438-09-27 20:38 J	-10491536.76	-10491536.64	-10491536.50	0.0138	0.0110
Venus	-33437-05-11 03:07 J	-10491310.51	-10491310.37	-10491310.21	0.0139	0.0099
Venus	-33437-12-23 09:50 J	-10491084.25	-10491084.09	-10491083.92	0.0139	0.0087
Venus	-33436-08-06 16:47 J	-10490857.98	-10490857.80	-10490857.62	0.0139	0.0076
Venus	-33435-03-20 23:31 J	-10490631.70	-10490631.52	-10490631.33	0.0140	0.0064
Venus	-33435-11-02 06:28 J	-10490405.42	-10490405.23	-10490405.03	0.0140	0.0052
Venus	-33434-06-16 13:55 J	-10490179.13	-10490178.92	-10490178.72	0.0140	0.0040
Venus	-33433-01-28 21:21 J	-10489952.82	-10489952.61	-10489952.40	0.0141	0.0027
Venus	-33433-09-11 04:47 J	-10489726.50	-10489726.30	-10489726.08	0.0141	0.0015
Venus	-33432-04-25 12:43 J	-10489500.18	-10489499.97	-10489499.76	0.0141	0.0002
Venus	-33432-12-07 20:38 J	-10489273.85	-10489273.64	-10489273.43	0.0142	0.0012
Venus	-33431-07-22 04:33 J	-10489047.52	-10489047.31	-10489047.10	0.0142	0.0024
Venus	-33430-03-05 12:43 J	-10488821.17	-10488820.97	-10488820.76	0.0142	0.0038
Venus	-33430-10-17 21:07 J	-10488594.82	-10488594.62	-10488594.42	0.0143	0.0051
Venus	-33429-05-31 05:31 J	-10488368.45	-10488368.27	-10488368.07	0.0143	0.0064
Venus	-33428-01-12 14:09 J	-10488142.07	-10488141.91	-10488141.72	0.0143	0.0078
Venus	-33428-08-26 23:02 J	-10487915.69	-10487915.54	-10487915.36	0.0143	0.0090
Venus	-33427-04-10 08:09 J	-10487689.30	-10487689.16	-10487689.01	0.0144	0.0103
Venus	-33427-11-22 17:02 J	-10487462.90	-10487462.79	-10487462.65	0.0144	0.0116
Moon	-33426-04-22 11:02 J	-10487312.22	-10487312.04	-10487311.83	0.0144	0.0096
Earth	-33426-04-22 12:57 J	-10487312.14	-10487311.96	-10487311.75	0.0144	0.0090 *
Venus	-33426-07-07 02:23 J	-10487236.48	-10487236.40	-10487236.29	0.0144	0.0129
Venus	-33425-02-18 12:14 J	-10487010.03	-10487009.99	-10487009.94	0.0145	0.0141
Earth	-33425-04-26 11:31 J	-10486942.26	-10486942.02	-10486941.77	0.0145	0.0035
Moon	-33425-04-26 11:59 J	-10486942.23	-10486942.00	-10486941.76	0.0145	0.0042 *
Mercury	-33425-08-05 06:28 J	-10486841.27	-10486841.23	-10486841.18	0.0145	0.0136
Mercury	-33425-11-01 11:02 J	-10486753.12	-10486753.04	-10486752.94	0.0145	0.0112
Mercury	-33424-01-28 15:50 J	-10486664.95	-10486664.84	-10486664.72	0.0145	0.0087

Mercury -33424-04-26 20:38 J -10486576.77 -10486576.64 -10486576.51 0.0145 0.0062

Mercury -33424-07-24 01:26 J -10486488.58 -10486488.44 -10486488.30 0.0145 0.0037

Mercury -33424-10-20 06:14 J -10486400.39 -10486400.24 -10486400.09 0.0145 0.0012

Mercury -33423-01-16 11:02 J -10486312.19 -10486312.04 -10486311.89 0.0145 0.0014

Mercury -33423-04-14 16:04 J -10486223.98 -10486223.83 -10486223.69 0.0145 0.0040

Mercury -33423-07-11 20:52 J -10486135.76 -10486135.63 -10486135.49 0.0145 0.0066

Mercury -33423-10-08 01:40 J -10486047.53 -10486047.43 -10486047.30 0.0145 0.0093

Mercury -33422-01-04 06:57 J -10485959.29 -10485959.21 -10485959.12 0.0145 0.0118

Mercury -33422-04-02 11:59 J -10485871.00 -10485871.00 -10485870.99 0.0145 0.0145

Mars -33415-03-20 00:57 J -10483327.48 -10483327.46 -10483327.43 0.0146 0.0146

Mars -33413-02-19 16:33 J -10482625.91 -10482625.81 -10482625.65 0.0146 0.0129

Venus -33399-03-05 23:59 J -10477497.55 -10477497.50 -10477497.42 0.0141 0.0133

Venus -33399-10-18 11:16 J -10477271.13 -10477271.03 -10477270.91 0.0140 0.0121

Venus -33398-06-01 22:19 J -10477044.69 -10477044.57 -10477044.41 0.0140 0.0109

Venus -33397-01-14 09:21 J -10476818.26 -10476818.11 -10476817.94 0.0140 0.0097

Venus -33397-08-27 20:23 J -10476591.83 -10476591.65 -10476591.47 0.0139 0.0084

Venus -33396-04-11 06:43 J -10476365.40 -10476365.22 -10476365.02 0.0139 0.0071

Venus -33396-11-23 17:16 J -10476138.98 -10476138.78 -10476138.57 0.0139 0.0058

Venus -33395-07-08 03:50 J -10475912.55 -10475912.34 -10475912.13 0.0138 0.0046

Venus -33394-02-19 13:55 J -10475686.13 -10475685.92 -10475685.70 0.0138 0.0033

Venus -33394-10-03 23:59 J -10475459.72 -10475459.50 -10475459.28 0.0138 0.0020

Venus -33393-05-17 09:50 J -10475233.31 -10475233.09 -10475232.86 0.0137 0.0008

Venus -33393-12-29 19:40 J -10475006.90 -10475006.68 -10475006.46 0.0137 0.0005

Venus -33392-08-13 05:16 J -10474780.50 -10474780.28 -10474780.06 0.0137 0.0017

Venus -33391-03-27 14:38 J -10474554.11 -10474553.89 -10474553.67 0.0136 0.0029

Venus -33391-11-08 23:59 J -10474327.72 -10474327.50 -10474327.29 0.0136 0.0041

Venus -33390-06-23 08:52 J -10474101.33 -10474101.13 -10474100.92 0.0136 0.0054

Venus -33389-02-04 17:45 J -10473874.94 -10473874.76 -10473874.55 0.0136 0.0066

Venus -33389-09-18 02:52 J -10473648.57 -10473648.38 -10473648.20 0.0135 0.0077

Venus -33388-05-02 11:02 J -10473422.20 -10473422.04 -10473421.86 0.0135 0.0088

Venus -33388-12-14 19:26 J -10473195.83 -10473195.69 -10473195.53 0.0135 0.0099
 Venus -33387-07-29 03:50 J -10472969.46 -10472969.34 -10472969.20 0.0135 0.0110
 Venus -33386-03-12 11:45 J -10472743.09 -10472743.01 -10472742.90 0.0134 0.0121
 Venus -33386-10-24 19:40 J -10472516.72 -10472516.68 -10472516.62 0.0134 0.0131
 Earth -33386-10-27 04:19 J -10472514.57 -10472514.32 -10472514.08 0.0134 0.0040
 Moon -33386-10-27 04:47 J -10472514.55 -10472514.30 -10472514.04 0.0134 0.0043 *
 Moon -33385-10-30 11:59 J -10472145.21 -10472145.00 -10472144.77 0.0134 0.0060
 Earth -33385-10-30 13:26 J -10472145.16 -10472144.94 -10472144.71 0.0134 0.0061 *
 Mercury -33384-03-17 02:38 J -10472007.47 -10472007.39 -10472007.30 0.0134 0.0114
 Mercury -33384-06-13 07:55 J -10471919.29 -10471919.17 -10471919.05 0.0134 0.0091
 Mercury -33384-09-09 12:57 J -10471831.09 -10471830.96 -10471830.81 0.0134 0.0069
 Mercury -33384-12-06 17:59 J -10471742.89 -10471742.75 -10471742.58 0.0134 0.0047
 Mercury -33383-03-04 23:16 J -10471654.69 -10471654.53 -10471654.36 0.0133 0.0024
 Mercury -33383-06-01 04:19 J -10471566.48 -10471566.32 -10471566.15 0.0133 0.0003
 Mercury -33383-08-28 09:21 J -10471478.27 -10471478.11 -10471477.95 0.0133 0.0020
 Mercury -33383-11-24 14:23 J -10471390.06 -10471389.90 -10471389.75 0.0133 0.0042
 Mercury -33382-02-20 18:57 J -10471301.84 -10471301.71 -10471301.56 0.0133 0.0063
 Mercury -33382-05-19 23:59 J -10471213.62 -10471213.50 -10471213.37 0.0133 0.0084
 Mercury -33382-08-16 04:47 J -10471125.39 -10471125.30 -10471125.20 0.0133 0.0105
 Mercury -33382-11-12 09:21 J -10471037.15 -10471037.11 -10471037.05 0.0133 0.0126
 Mars -33371-06-13 11:59 J -10467171.21 -10467171.00 -10467170.72 0.0132 0.0091
 Venus -33355-03-01 16:33 J -10461430.84 -10461430.81 -10461430.76 0.0138 0.0135
 Venus -33355-10-13 22:33 J -10461204.63 -10461204.56 -10461204.46 0.0138 0.0125
 Venus -33354-05-28 04:47 J -10460978.40 -10460978.30 -10460978.17 0.0138 0.0114
 Venus -33353-01-09 11:45 J -10460752.15 -10460752.01 -10460751.87 0.0139 0.0103
 Venus -33353-08-22 17:59 J -10460525.90 -10460525.75 -10460525.58 0.0139 0.0092
 Venus -33352-04-06 00:43 J -10460299.64 -10460299.47 -10460299.29 0.0139 0.0080
 Venus -33352-11-18 07:26 J -10460073.36 -10460073.19 -10460072.99 0.0139 0.0069
 Venus -33351-07-02 14:23 J -10459847.08 -10459846.90 -10459846.69 0.0140 0.0057
 Venus -33350-02-13 21:50 J -10459620.79 -10459620.59 -10459620.38 0.0140 0.0044

Venus	-33350-09-28 05:16 J	-10459394.49	-10459394.28	-10459394.07	0.0140	0.0031
Venus	-33349-05-11 12:43 J	-10459168.18	-10459167.97	-10459167.76	0.0141	0.0019
Venus	-33349-12-23 20:23 J	-10458941.86	-10458941.65	-10458941.43	0.0141	0.0006
Venus	-33348-08-07 04:19 J	-10458715.53	-10458715.32	-10458715.11	0.0141	0.0007
Venus	-33347-03-21 11:59 J	-10458489.20	-10458489.00	-10458488.78	0.0142	0.0021
Venus	-33347-11-02 20:09 J	-10458262.86	-10458262.66	-10458262.45	0.0142	0.0034
Venus	-33346-06-17 04:33 J	-10458036.51	-10458036.31	-10458036.11	0.0142	0.0047
Venus	-33345-01-29 12:43 J	-10457810.15	-10457809.97	-10457809.76	0.0143	0.0061
Venus	-33345-09-11 21:35 J	-10457583.78	-10457583.60	-10457583.42	0.0143	0.0073
Venus	-33344-04-26 06:14 J	-10457357.40	-10457357.24	-10457357.07	0.0143	0.0087
Venus	-33344-12-08 14:52 J	-10457131.02	-10457130.88	-10457130.71	0.0144	0.0100
Venus	-33343-07-22 23:59 J	-10456904.62	-10456904.50	-10456904.36	0.0144	0.0113
Venus	-33342-03-06 09:21 J	-10456678.20	-10456678.11	-10456677.99	0.0144	0.0126
Moon	-33342-04-22 19:11 J	-10456630.90	-10456630.70	-10456630.47	0.0144	0.0081
Earth	-33342-04-22 21:07 J	-10456630.81	-10456630.62	-10456630.41	0.0144	0.0087 *
Venus	-33342-10-18 18:57 J	-10456451.76	-10456451.71	-10456451.64	0.0144	0.0138
Earth	-33341-04-26 19:40 J	-10456260.92	-10456260.68	-10456260.43	0.0145	0.0038
Moon	-33341-04-26 21:35 J	-10456260.84	-10456260.60	-10456260.36	0.0145	0.0031 *
Mercury	-33341-08-25 13:26 J	-10456140.00	-10456139.94	-10456139.88	0.0145	0.0131
Mercury	-33341-11-21 17:59 J	-10456051.84	-10456051.75	-10456051.65	0.0145	0.0107
Mercury	-33340-02-17 22:47 J	-10455963.67	-10455963.55	-10455963.43	0.0145	0.0082
Mercury	-33340-05-17 03:35 J	-10455875.49	-10455875.35	-10455875.22	0.0145	0.0057
Mercury	-33340-08-13 08:23 J	-10455787.30	-10455787.15	-10455787.01	0.0145	0.0032
Mercury	-33340-11-09 13:11 J	-10455699.10	-10455698.95	-10455698.80	0.0145	0.0007
Mercury	-33339-02-05 17:59 J	-10455610.90	-10455610.75	-10455610.60	0.0145	0.0019
Mercury	-33339-05-04 22:47 J	-10455522.69	-10455522.55	-10455522.40	0.0145	0.0045
Mercury	-33339-08-01 03:50 J	-10455434.47	-10455434.34	-10455434.20	0.0145	0.0071
Mercury	-33339-10-28 08:52 J	-10455346.24	-10455346.13	-10455346.02	0.0145	0.0098
Mercury	-33338-01-24 13:40 J	-10455257.99	-10455257.93	-10455257.84	0.0145	0.0125
Mars	-33331-11-12 23:59 J	-10452408.76	-10452408.50	-10452408.22	0.0146	0.0050

Venus	-33316-11-03 05:59 J	-10446939.28	-10446939.25	-10446939.20	0.0141	0.0138
Venus	-33315-06-17 17:31 J	-10446712.86	-10446712.77	-10446712.67	0.0140	0.0126
Venus	-33314-01-30 04:33 J	-10446486.43	-10446486.31	-10446486.17	0.0140	0.0113
Venus	-33314-09-13 15:21 J	-10446260.00	-10446259.86	-10446259.69	0.0140	0.0101
Venus	-33313-04-27 02:09 J	-10446033.57	-10446033.41	-10446033.22	0.0139	0.0089
Venus	-33313-12-09 13:11 J	-10445807.14	-10445806.95	-10445806.76	0.0139	0.0075
Venus	-33312-07-23 23:31 J	-10445580.71	-10445580.52	-10445580.31	0.0139	0.0063
Venus	-33311-03-07 10:19 J	-10445354.28	-10445354.07	-10445353.87	0.0138	0.0050
Venus	-33311-10-19 20:23 J	-10445127.86	-10445127.65	-10445127.43	0.0138	0.0037
Venus	-33310-06-03 06:43 J	-10444901.44	-10444901.22	-10444901.00	0.0138	0.0024
Venus	-33309-01-15 16:33 J	-10444675.03	-10444674.81	-10444674.58	0.0137	0.0012
Venus	-33309-08-29 02:23 J	-10444448.62	-10444448.40	-10444448.17	0.0137	0.0003
Venus	-33308-04-12 11:59 J	-10444222.22	-10444222.00	-10444221.77	0.0137	0.0014
Venus	-33308-11-24 21:21 J	-10443995.82	-10443995.61	-10443995.38	0.0136	0.0027
Venus	-33307-07-09 06:57 J	-10443769.42	-10443769.21	-10443768.99	0.0136	0.0038
Venus	-33306-02-20 15:50 J	-10443543.03	-10443542.84	-10443542.62	0.0136	0.0051
Venus	-33306-10-05 00:57 J	-10443316.65	-10443316.46	-10443316.25	0.0136	0.0063
Venus	-33305-05-18 09:35 J	-10443090.27	-10443090.10	-10443089.90	0.0135	0.0074
Venus	-33305-12-30 18:28 J	-10442863.90	-10442863.73	-10442863.56	0.0135	0.0086
Venus	-33304-08-14 02:38 J	-10442637.53	-10442637.39	-10442637.22	0.0135	0.0097
Venus	-33303-03-28 11:02 J	-10442411.16	-10442411.04	-10442410.90	0.0135	0.0108
Venus	-33303-11-09 18:57 J	-10442184.80	-10442184.71	-10442184.59	0.0134	0.0119
Venus	-33302-06-24 03:07 J	-10441958.43	-10441958.37	-10441958.31	0.0134	0.0129
Earth	-33302-10-27 12:43 J	-10441833.20	-10441832.97	-10441832.71	0.0134	0.0037
Moon	-33302-10-27 13:26 J	-10441833.19	-10441832.94	-10441832.67	0.0134	0.0034 *
Moon	-33301-10-30 21:35 J	-10441463.81	-10441463.60	-10441463.37	0.0134	0.0064
Earth	-33301-10-30 21:35 J	-10441463.80	-10441463.60	-10441463.36	0.0134	0.0065 *
Mercury	-33300-01-08 04:04 J	-10441394.35	-10441394.33	-10441394.30	0.0134	0.0132
Mercury	-33300-04-06 09:21 J	-10441306.20	-10441306.11	-10441306.01	0.0134	0.0109
Mercury	-33300-07-03 14:23 J	-10441218.02	-10441217.90	-10441217.76	0.0134	0.0087

Mercury -33300-09-29 19:40 J -10441129.82 -10441129.68 -10441129.53 0.0134 0.0064
 Mercury -33300-12-27 00:57 J -10441041.62 -10441041.46 -10441041.30 0.0133 0.0041
 Mercury -33299-03-25 05:59 J -10440953.41 -10440953.25 -10440953.08 0.0133 0.0019
 Mercury -33299-06-21 11:02 J -10440865.20 -10440865.04 -10440864.87 0.0133 0.0003
 Mercury -33299-09-17 16:04 J -10440776.99 -10440776.83 -10440776.67 0.0133 0.0025
 Mercury -33299-12-14 20:52 J -10440688.78 -10440688.63 -10440688.47 0.0133 0.0046
 Mercury -33298-03-13 01:55 J -10440600.56 -10440600.42 -10440600.28 0.0133 0.0067
 Mercury -33298-06-09 06:28 J -10440512.34 -10440512.23 -10440512.10 0.0133 0.0089
 Mercury -33298-09-05 11:16 J -10440424.11 -10440424.03 -10440423.93 0.0133 0.0110
 Mercury -33298-12-02 16:19 J -10440335.85 -10440335.82 -10440335.79 0.0133 0.0130
 Mars -33288-03-05 00:14 J -10436955.77 -10436955.49 -10436955.20 0.0132 0.0069
 Jupiter -33280-02-18 02:23 J -10434048.88 -10434048.40 -10434047.92 0.0134 0.0028
 Venus -33271-06-13 06:28 J -10430646.29 -10430646.23 -10430646.15 0.0138 0.0129
 Venus -33270-01-25 12:43 J -10430420.07 -10430419.97 -10430419.85 0.0138 0.0118
 Venus -33270-09-08 18:57 J -10430193.83 -10430193.71 -10430193.56 0.0138 0.0108
 Venus -33269-04-22 01:55 J -10429967.58 -10429967.42 -10429967.27 0.0139 0.0096
 Venus -33269-12-04 08:09 J -10429741.31 -10429741.16 -10429740.98 0.0139 0.0085
 Venus -33268-07-18 15:21 J -10429515.04 -10429514.86 -10429514.68 0.0139 0.0073
 Venus -33267-03-01 22:04 J -10429288.76 -10429288.58 -10429288.38 0.0140 0.0061
 Venus -33267-10-14 05:16 J -10429062.47 -10429062.28 -10429062.08 0.0140 0.0048
 Venus -33266-05-28 12:43 J -10428836.18 -10428835.97 -10428835.77 0.0140 0.0036
 Venus -33265-01-09 20:09 J -10428609.87 -10428609.66 -10428609.45 0.0141 0.0023
 Venus -33265-08-23 03:50 J -10428383.55 -10428383.34 -10428383.13 0.0141 0.0010
 Venus -33264-04-06 11:31 J -10428157.24 -10428157.02 -10428156.81 0.0141 0.0004
 Venus -33264-11-18 19:11 J -10427930.91 -10427930.70 -10427930.49 0.0142 0.0016
 Venus -33263-07-03 03:07 J -10427704.57 -10427704.37 -10427704.16 0.0142 0.0030
 Venus -33262-02-14 11:16 J -10427478.22 -10427478.03 -10427477.82 0.0142 0.0043
 Venus -33262-09-28 19:40 J -10427251.87 -10427251.68 -10427251.48 0.0143 0.0056
 Venus -33261-05-12 04:04 J -10427025.51 -10427025.33 -10427025.14 0.0143 0.0070
 Venus -33261-12-24 12:43 J -10426799.13 -10426798.97 -10426798.79 0.0143 0.0083

Venus -33260-08-07 21:21 J -10426572.75 -10426572.61 -10426572.44 0.0143 0.0097
 Venus -33259-03-22 06:43 J -10426346.35 -10426346.22 -10426346.08 0.0144 0.0109
 Venus -33259-11-03 15:35 J -10426119.95 -10426119.85 -10426119.72 0.0144 0.0122
 Moon -33258-04-23 01:40 J -10425949.63 -10425949.43 -10425949.22 0.0144 0.0089
 Earth -33258-04-23 04:33 J -10425949.51 -10425949.31 -10425949.10 0.0144 0.0085 *
 Venus -33258-06-18 01:11 J -10425893.52 -10425893.45 -10425893.37 0.0144 0.0135
 Earth -33257-04-27 02:52 J -10425579.61 -10425579.38 -10425579.13 0.0145 0.0041
 Moon -33257-04-27 04:47 J -10425579.53 -10425579.30 -10425579.06 0.0145 0.0048 *
 Mercury -33257-09-14 19:55 J -10425438.73 -10425438.67 -10425438.59 0.0145 0.0127
 Mercury -33257-12-12 00:43 J -10425350.57 -10425350.47 -10425350.36 0.0145 0.0102
 Mercury -33256-03-10 05:16 J -10425262.39 -10425262.28 -10425262.15 0.0145 0.0078
 Mercury -33256-06-06 10:04 J -10425174.21 -10425174.08 -10425173.93 0.0145 0.0053
 Mercury -33256-09-02 15:07 J -10425086.02 -10425085.87 -10425085.73 0.0145 0.0027
 Mercury -33256-11-29 19:55 J -10424997.82 -10424997.67 -10424997.52 0.0145 0.0002
 Mercury -33255-02-26 00:43 J -10424909.61 -10424909.47 -10424909.32 0.0145 0.0024
 Mercury -33255-05-25 05:45 J -10424821.40 -10424821.26 -10424821.12 0.0145 0.0050
 Mercury -33255-08-21 10:33 J -10424733.18 -10424733.06 -10424732.93 0.0145 0.0076
 Mercury -33255-11-17 15:35 J -10424644.95 -10424644.85 -10424644.74 0.0145 0.0103
 Mercury -33254-02-13 20:38 J -10424556.70 -10424556.64 -10424556.56 0.0145 0.0129
 Mars -33246-07-08 23:02 J -10421489.82 -10421489.54 -10421489.27 0.0146 0.0044
 Venus -33231-02-14 23:02 J -10416154.60 -10416154.54 -10416154.44 0.0141 0.0131
 Venus -33231-09-29 10:19 J -10415928.17 -10415928.07 -10415927.94 0.0140 0.0118
 Venus -33230-05-13 21:35 J -10415701.74 -10415701.60 -10415701.45 0.0140 0.0105
 Venus -33230-12-26 08:23 J -10415475.30 -10415475.15 -10415474.97 0.0140 0.0093
 Venus -33229-08-08 19:11 J -10415248.87 -10415248.70 -10415248.50 0.0139 0.0080
 Venus -33228-03-23 05:59 J -10415022.44 -10415022.25 -10415022.05 0.0139 0.0067
 Venus -33228-11-04 16:33 J -10414796.01 -10414795.81 -10414795.60 0.0139 0.0054
 Venus -33227-06-19 02:52 J -10414569.58 -10414569.38 -10414569.16 0.0138 0.0041
 Venus -33226-01-31 13:26 J -10414343.16 -10414342.94 -10414342.72 0.0138 0.0028
 Venus -33226-09-14 23:16 J -10414116.75 -10414116.53 -10414116.30 0.0138 0.0016

Venus	-33225-04-28 09:21 J	-10413890.34	-10413890.11	-10413889.89	0.0137	0.0003
Venus	-33225-12-10 18:57 J	-10413663.93	-10413663.71	-10413663.48	0.0137	0.0010
Venus	-33224-07-25 04:33 J	-10413437.52	-10413437.31	-10413437.08	0.0137	0.0023
Venus	-33223-03-08 13:55 J	-10413211.13	-10413210.92	-10413210.70	0.0136	0.0036
Venus	-33223-10-20 23:16 J	-10412984.74	-10412984.53	-10412984.32	0.0136	0.0048
Venus	-33222-06-04 08:09 J	-10412758.35	-10412758.16	-10412757.95	0.0136	0.0060
Venus	-33221-01-16 17:02 J	-10412531.97	-10412531.79	-10412531.59	0.0136	0.0072
Venus	-33221-08-30 01:40 J	-10412305.59	-10412305.43	-10412305.24	0.0135	0.0083
Venus	-33220-04-13 10:04 J	-10412079.22	-10412079.08	-10412078.91	0.0135	0.0095
Venus	-33220-11-25 18:14 J	-10411852.86	-10411852.74	-10411852.58	0.0135	0.0106
Venus	-33219-07-10 02:38 J	-10411626.49	-10411626.39	-10411626.27	0.0135	0.0117
Moon	-33219-10-23 12:28 J	-10411521.05	-10411520.98	-10411520.90	0.0134	0.0128
Earth	-33219-10-23 11:45 J	-10411521.01	-10411521.01	-10411520.96	0.0134	0.0134 *
Venus	-33218-02-21 10:19 J	-10411400.11	-10411400.07	-10411399.97	0.0134	0.0128
Moon	-33218-10-27 21:21 J	-10411151.86	-10411151.61	-10411151.35	0.0134	0.0036
Earth	-33218-10-27 21:50 J	-10411151.83	-10411151.59	-10411151.33	0.0134	0.0032 *
Earth	-33217-10-31 06:57 J	-10410782.42	-10410782.21	-10410781.98	0.0134	0.0069
Moon	-33217-10-31 06:57 J	-10410782.41	-10410782.21	-10410781.99	0.0134	0.0069 *
Mercury	-33216-01-28 10:47 J	-10410693.09	-10410693.05	-10410692.99	0.0134	0.0127
Mercury	-33216-04-26 16:04 J	-10410604.93	-10410604.83	-10410604.72	0.0134	0.0104
Mercury	-33216-07-23 21:07 J	-10410516.74	-10410516.62	-10410516.47	0.0134	0.0082
Mercury	-33216-10-20 02:38 J	-10410428.54	-10410428.39	-10410428.24	0.0133	0.0058
Mercury	-33215-01-16 07:40 J	-10410340.34	-10410340.18	-10410340.02	0.0133	0.0036
Mercury	-33215-04-14 12:43 J	-10410252.13	-10410251.97	-10410251.80	0.0133	0.0015
Mercury	-33215-07-11 17:59 J	-10410163.92	-10410163.75	-10410163.59	0.0133	0.0009
Mercury	-33215-10-07 22:47 J	-10410075.71	-10410075.55	-10410075.39	0.0133	0.0030
Mercury	-33214-01-04 03:50 J	-10409987.49	-10409987.34	-10409987.19	0.0133	0.0051
Mercury	-33214-04-02 08:23 J	-10409899.27	-10409899.15	-10409899.00	0.0133	0.0074
Mercury	-33214-06-29 13:26 J	-10409811.05	-10409810.94	-10409810.82	0.0133	0.0094
Mercury	-33214-09-25 18:14 J	-10409722.81	-10409722.74	-10409722.65	0.0133	0.0115

Mars	-33204-10-29 05:16 J	-10406036.61	-10406036.28	-10406035.94	0.0132	0.0014
Venus	-33187-02-10 14:23 J	-10400087.93	-10400087.90	-10400087.83	0.0138	0.0134
Venus	-33187-09-24 20:38 J	-10399861.72	-10399861.64	-10399861.53	0.0138	0.0123
Venus	-33186-05-09 02:52 J	-10399635.48	-10399635.38	-10399635.23	0.0138	0.0113
Venus	-33186-12-21 09:50 J	-10399409.23	-10399409.09	-10399408.94	0.0138	0.0101
Venus	-33185-08-03 16:19 J	-10399182.97	-10399182.82	-10399182.65	0.0139	0.0089
Venus	-33184-03-17 23:02 J	-10398956.71	-10398956.54	-10398956.36	0.0139	0.0077
Venus	-33184-10-30 05:45 J	-10398730.43	-10398730.26	-10398730.06	0.0139	0.0066
Venus	-33183-06-13 12:57 J	-10398504.15	-10398503.96	-10398503.76	0.0140	0.0053
Venus	-33182-01-25 20:23 J	-10398277.85	-10398277.65	-10398277.45	0.0140	0.0040
Venus	-33182-09-09 03:35 J	-10398051.56	-10398051.35	-10398051.14	0.0140	0.0027
Venus	-33181-04-22 11:02 J	-10397825.25	-10397825.04	-10397824.83	0.0141	0.0015
Venus	-33181-12-04 18:43 J	-10397598.94	-10397598.72	-10397598.51	0.0141	0.0003
Venus	-33180-07-19 02:23 J	-10397372.61	-10397372.40	-10397372.19	0.0141	0.0012
Venus	-33179-03-02 10:04 J	-10397146.28	-10397146.08	-10397145.86	0.0142	0.0026
Venus	-33179-10-14 17:59 J	-10396919.94	-10396919.75	-10396919.53	0.0142	0.0040
Venus	-33178-05-29 02:09 J	-10396693.59	-10396693.41	-10396693.20	0.0142	0.0053
Venus	-33177-01-10 10:47 J	-10396467.23	-10396467.05	-10396466.86	0.0143	0.0066
Venus	-33177-08-23 19:11 J	-10396240.86	-10396240.70	-10396240.51	0.0143	0.0079
Venus	-33176-04-07 03:50 J	-10396014.49	-10396014.34	-10396014.16	0.0143	0.0093
Venus	-33176-11-19 12:43 J	-10395788.10	-10395787.97	-10395787.81	0.0144	0.0106
Venus	-33175-07-03 22:04 J	-10395561.70	-10395561.58	-10395561.46	0.0144	0.0118
Venus	-33174-02-15 07:11 J	-10395335.27	-10395335.20	-10395335.10	0.0144	0.0132
Moon	-33174-04-23 08:52 J	-10395268.35	-10395268.13	-10395267.91	0.0144	0.0078
Earth	-33174-04-23 11:31 J	-10395268.22	-10395268.02	-10395267.81	0.0144	0.0083 *
Venus	-33174-09-29 16:47 J	-10395108.81	-10395108.80	-10395108.77	0.0144	0.0144
Earth	-33173-04-27 10:04 J	-10394898.32	-10394898.08	-10394897.83	0.0145	0.0043
Moon	-33173-04-27 12:57 J	-10394898.20	-10394897.96	-10394897.72	0.0145	0.0036 *
Mercury	-33173-10-05 02:38 J	-10394737.46	-10394737.39	-10394737.30	0.0145	0.0123
Mercury	-33172-01-01 07:11 J	-10394649.29	-10394649.20	-10394649.08	0.0145	0.0099

Mercury -33172-03-30 11:59 J -10394561.12 -10394561.00 -10394560.86 0.0145 0.0074

Mercury -33172-06-26 16:47 J -10394472.93 -10394472.80 -10394472.65 0.0145 0.0049

Mercury -33172-09-22 21:50 J -10394384.74 -10394384.59 -10394384.45 0.0145 0.0023

Mercury -33172-12-20 02:38 J -10394296.54 -10394296.39 -10394296.24 0.0145 0.0002

Mercury -33171-03-18 07:26 J -10394208.33 -10394208.19 -10394208.04 0.0145 0.0028

Mercury -33171-06-14 12:14 J -10394120.12 -10394119.99 -10394119.84 0.0145 0.0054

Mercury -33171-09-10 17:16 J -10394031.90 -10394031.78 -10394031.65 0.0145 0.0080

Mercury -33171-12-07 22:19 J -10393943.67 -10393943.57 -10393943.46 0.0145 0.0107

Mercury -33170-03-06 03:21 J -10393855.41 -10393855.36 -10393855.29 0.0145 0.0133

Mars -33163-04-01 02:09 J -10391272.49 -10391272.41 -10391272.31 0.0146 0.0139

Mars -33161-03-02 21:07 J -10390570.72 -10390570.62 -10390570.51 0.0146 0.0136

Jupiter -33156-08-19 15:07 J -10388575.02 -10388574.87 -10388574.63 0.0145 0.0135

Venus -33148-10-15 04:33 J -10385596.35 -10385596.31 -10385596.23 0.0141 0.0136

Venus -33147-05-29 16:19 J -10385369.92 -10385369.82 -10385369.71 0.0141 0.0123

Venus -33146-01-11 03:21 J -10385143.48 -10385143.36 -10385143.21 0.0140 0.0110

Venus -33146-08-25 14:09 J -10384917.05 -10384916.91 -10384916.73 0.0140 0.0098

Venus -33145-04-08 01:11 J -10384690.61 -10384690.45 -10384690.26 0.0139 0.0085

Venus -33145-11-20 12:14 J -10384464.18 -10384463.99 -10384463.80 0.0139 0.0071

Venus -33144-07-04 22:47 J -10384237.74 -10384237.55 -10384237.34 0.0139 0.0059

Venus -33143-02-16 09:21 J -10384011.31 -10384011.11 -10384010.89 0.0138 0.0046

Venus -33143-09-30 19:40 J -10383784.89 -10383784.68 -10383784.46 0.0138 0.0032

Venus -33142-05-15 05:45 J -10383558.47 -10383558.26 -10383558.03 0.0138 0.0020

Venus -33142-12-27 16:04 J -10383332.06 -10383331.83 -10383331.61 0.0137 0.0007

Venus -33141-08-10 01:55 J -10383105.65 -10383105.42 -10383105.20 0.0137 0.0007

Venus -33140-03-24 11:31 J -10382879.24 -10382879.02 -10382878.80 0.0137 0.0019

Venus -33140-11-05 20:52 J -10382652.84 -10382652.63 -10382652.41 0.0137 0.0032

Venus -33139-06-20 06:14 J -10382426.45 -10382426.24 -10382426.02 0.0136 0.0045

Venus -33138-02-01 15:07 J -10382200.06 -10382199.87 -10382199.65 0.0136 0.0058

Venus -33138-09-16 00:14 J -10381973.67 -10381973.49 -10381973.29 0.0136 0.0069

Venus -33137-04-29 08:52 J -10381747.30 -10381747.13 -10381746.94 0.0135 0.0081

Venus -33137-12-11 17:16 J -10381520.93 -10381520.78 -10381520.60 0.0135 0.0093
 Venus -33136-07-26 02:09 J -10381294.55 -10381294.41 -10381294.27 0.0135 0.0103
 Venus -33135-03-09 10:04 J -10381068.18 -10381068.08 -10381067.95 0.0135 0.0115
 Venus -33135-10-21 17:59 J -10380841.81 -10380841.75 -10380841.65 0.0134 0.0125
 Earth -33135-10-23 20:52 J -10380839.68 -10380839.63 -10380839.54 0.0134 0.0130
 Moon -33134-10-28 06:28 J -10380470.49 -10380470.23 -10380469.97 0.0134 0.0024
 Earth -33134-10-28 06:57 J -10380470.45 -10380470.21 -10380469.95 0.0134 0.0029 *
 Earth -33133-10-31 15:50 J -10380101.04 -10380100.84 -10380100.61 0.0134 0.0073
 Moon -33133-10-31 17:02 J -10380100.99 -10380100.79 -10380100.57 0.0134 0.0071 *
 Mercury -33132-02-17 17:31 J -10379991.83 -10379991.77 -10379991.69 0.0134 0.0122
 Mercury -33132-05-16 22:47 J -10379903.65 -10379903.55 -10379903.43 0.0134 0.0099
 Mercury -33132-08-13 04:04 J -10379815.46 -10379815.33 -10379815.18 0.0134 0.0076
 Mercury -33132-11-09 09:21 J -10379727.26 -10379727.11 -10379726.95 0.0133 0.0053
 Mercury -33131-02-05 14:23 J -10379639.05 -10379638.90 -10379638.73 0.0133 0.0031
 Mercury -33131-05-04 19:40 J -10379550.85 -10379550.68 -10379550.51 0.0133 0.0009
 Mercury -33131-08-01 00:43 J -10379462.64 -10379462.47 -10379462.31 0.0133 0.0013
 Mercury -33131-10-28 05:31 J -10379374.42 -10379374.27 -10379374.10 0.0133 0.0035
 Mercury -33130-01-24 10:33 J -10379286.20 -10379286.06 -10379285.91 0.0133 0.0057
 Mercury -33130-04-22 15:21 J -10379197.98 -10379197.86 -10379197.72 0.0133 0.0078
 Mercury -33130-07-19 20:09 J -10379109.76 -10379109.66 -10379109.54 0.0133 0.0099
 Mercury -33130-10-16 00:57 J -10379021.51 -10379021.46 -10379021.38 0.0133 0.0120
 Mars -33119-06-24 09:21 J -10375117.30 -10375117.11 -10375116.85 0.0132 0.0098
 Venus -33103-05-25 05:31 J -10369303.35 -10369303.27 -10369303.19 0.0138 0.0127
 Venus -33102-01-06 11:45 J -10369077.12 -10369077.01 -10369076.89 0.0138 0.0116
 Venus -33102-08-20 17:59 J -10368850.88 -10368850.75 -10368850.60 0.0138 0.0105
 Venus -33101-04-03 00:28 J -10368624.63 -10368624.48 -10368624.31 0.0139 0.0094
 Venus -33101-11-15 07:11 J -10368398.36 -10368398.20 -10368398.02 0.0139 0.0082
 Venus -33100-06-29 14:09 J -10368172.09 -10368171.91 -10368171.73 0.0139 0.0070
 Venus -33099-02-10 20:52 J -10367945.81 -10367945.63 -10367945.43 0.0140 0.0058
 Venus -33099-09-25 04:04 J -10367719.53 -10367719.33 -10367719.13 0.0140 0.0045

Venus -33098-05-09 11:16 J -10367493.23 -10367493.03 -10367492.82 0.0140 0.0032
 Venus -33098-12-21 18:43 J -10367266.93 -10367266.72 -10367266.51 0.0141 0.0019
 Venus -33097-08-04 02:09 J -10367040.62 -10367040.41 -10367040.20 0.0141 0.0006
 Venus -33096-03-18 09:35 J -10366814.31 -10366814.10 -10366813.88 0.0141 0.0009
 Venus -33096-10-30 17:31 J -10366587.98 -10366587.77 -10366587.56 0.0142 0.0021
 Venus -33095-06-14 01:26 J -10366361.65 -10366361.44 -10366361.24 0.0142 0.0034
 Venus -33094-01-26 09:21 J -10366135.30 -10366135.11 -10366134.90 0.0142 0.0049
 Venus -33094-09-09 17:45 J -10365908.94 -10365908.76 -10365908.56 0.0143 0.0062
 Venus -33093-04-23 02:09 J -10365682.58 -10365682.41 -10365682.22 0.0143 0.0075
 Venus -33093-12-05 10:33 J -10365456.21 -10365456.06 -10365455.88 0.0143 0.0089
 Venus -33092-07-19 19:26 J -10365229.83 -10365229.69 -10365229.53 0.0143 0.0102
 Venus -33091-03-03 04:33 J -10365003.43 -10365003.31 -10365003.17 0.0144 0.0115
 Venus -33091-10-15 13:40 J -10364777.01 -10364776.93 -10364776.82 0.0144 0.0128
 Moon -33090-04-23 15:35 J -10364587.05 -10364586.85 -10364586.64 0.0144 0.0083
 Earth -33090-04-23 19:11 J -10364586.91 -10364586.70 -10364586.49 0.0144 0.0079 *
 Venus -33090-05-29 23:02 J -10364550.57 -10364550.54 -10364550.48 0.0144 0.0141
 Earth -33089-04-27 17:31 J -10364217.00 -10364216.77 -10364216.52 0.0145 0.0046
 Moon -33089-04-27 20:23 J -10364216.87 -10364216.65 -10364216.41 0.0145 0.0052 *
 Mercury -33089-07-29 04:47 J -10364124.31 -10364124.30 -10364124.27 0.0145 0.0143
 Mercury -33089-10-25 09:35 J -10364036.18 -10364036.10 -10364036.01 0.0145 0.0118
 Mercury -33088-01-21 14:09 J -10363948.01 -10363947.91 -10363947.79 0.0145 0.0094
 Mercury -33088-04-19 18:57 J -10363859.84 -10363859.71 -10363859.58 0.0145 0.0069
 Mercury -33088-07-16 23:45 J -10363771.65 -10363771.51 -10363771.37 0.0145 0.0044
 Mercury -33088-10-13 04:33 J -10363683.46 -10363683.31 -10363683.16 0.0145 0.0019
 Mercury -33087-01-09 09:21 J -10363595.26 -10363595.11 -10363594.96 0.0145 0.0007
 Mercury -33087-04-07 14:09 J -10363507.05 -10363506.91 -10363506.76 0.0145 0.0033
 Mercury -33087-07-04 19:11 J -10363418.83 -10363418.70 -10363418.56 0.0145 0.0059
 Mercury -33087-09-30 23:59 J -10363330.61 -10363330.50 -10363330.37 0.0145 0.0085
 Mercury -33087-12-28 05:02 J -10363242.38 -10363242.29 -10363242.19 0.0145 0.0112
 Mercury -33086-03-26 10:04 J -10363154.11 -10363154.08 -10363154.03 0.0146 0.0138

Mars	-33079-11-25 01:26 J	-10360353.70	-10360353.44	-10360353.16	0.0146	0.0045
Venus	-33064-06-14 10:33 J	-10355038.06	-10355038.06	-10355038.04	0.0141	0.0141
Venus	-33063-01-26 22:04 J	-10354811.67	-10354811.58	-10354811.49	0.0141	0.0128
Venus	-33063-09-10 09:07 J	-10354585.23	-10354585.12	-10354584.99	0.0140	0.0116
Venus	-33062-04-24 19:55 J	-10354358.80	-10354358.67	-10354358.50	0.0140	0.0104
Venus	-33062-12-07 07:11 J	-10354132.36	-10354132.20	-10354132.02	0.0140	0.0090
Venus	-33061-07-20 18:14 J	-10353905.92	-10353905.74	-10353905.54	0.0139	0.0077
Venus	-33060-03-04 05:02 J	-10353679.48	-10353679.29	-10353679.09	0.0139	0.0063
Venus	-33060-10-16 15:35 J	-10353453.05	-10353452.85	-10353452.64	0.0139	0.0050
Venus	-33059-05-31 02:09 J	-10353226.62	-10353226.41	-10353226.19	0.0138	0.0037
Venus	-33058-01-12 12:28 J	-10353000.20	-10352999.98	-10352999.76	0.0138	0.0024
Venus	-33058-08-26 22:33 J	-10352773.78	-10352773.56	-10352773.33	0.0138	0.0011
Venus	-33057-04-09 08:38 J	-10352547.37	-10352547.14	-10352546.92	0.0137	0.0003
Venus	-33057-11-21 18:14 J	-10352320.96	-10352320.74	-10352320.51	0.0137	0.0016
Venus	-33056-07-06 03:50 J	-10352094.55	-10352094.34	-10352094.11	0.0137	0.0029
Venus	-33055-02-17 13:11 J	-10351868.15	-10351867.95	-10351867.73	0.0137	0.0042
Venus	-33055-10-01 22:33 J	-10351641.76	-10351641.56	-10351641.35	0.0136	0.0054
Venus	-33054-05-16 07:26 J	-10351415.38	-10351415.19	-10351414.99	0.0136	0.0066
Venus	-33054-12-28 16:19 J	-10351189.00	-10351188.82	-10351188.63	0.0136	0.0078
Venus	-33053-08-11 00:57 J	-10350962.62	-10350962.46	-10350962.28	0.0135	0.0090
Venus	-33052-03-25 09:21 J	-10350736.25	-10350736.11	-10350735.95	0.0135	0.0101
Venus	-33052-11-06 17:45 J	-10350509.88	-10350509.76	-10350509.63	0.0135	0.0112
Venus	-33051-06-21 01:55 J	-10350283.50	-10350283.42	-10350283.33	0.0135	0.0123
Earth	-33051-10-24 06:28 J	-10350158.31	-10350158.23	-10350158.13	0.0135	0.0125
Moon	-33051-10-24 07:55 J	-10350158.27	-10350158.17	-10350158.05	0.0135	0.0119 *
Venus	-33050-02-02 09:50 J	-10350057.10	-10350057.09	-10350057.06	0.0134	0.0134
Moon	-33050-10-28 14:38 J	-10349789.15	-10349788.89	-10349788.63	0.0134	0.0029
Earth	-33050-10-28 16:33 J	-10349789.06	-10349788.81	-10349788.56	0.0134	0.0023 *
Earth	-33049-11-01 01:26 J	-10349419.63	-10349419.44	-10349419.22	0.0134	0.0077
Moon	-33049-11-01 02:38 J	-10349419.58	-10349419.39	-10349419.18	0.0134	0.0079 *

Mercury -33048-03-10 00:28 J -10349290.55 -10349290.48 -10349290.39 0.0134 0.0116

Mercury -33048-06-06 05:45 J -10349202.37 -10349202.26 -10349202.13 0.0134 0.0093

Mercury -33048-09-02 11:16 J -10349114.17 -10349114.03 -10349113.89 0.0134 0.0070

Mercury -33048-11-29 16:19 J -10349025.97 -10349025.82 -10349025.66 0.0133 0.0048

Mercury -33047-02-25 21:21 J -10348937.77 -10348937.61 -10348937.44 0.0133 0.0026

Mercury -33047-05-25 02:38 J -10348849.56 -10348849.39 -10348849.23 0.0133 0.0003

Mercury -33047-08-21 07:40 J -10348761.34 -10348761.18 -10348761.02 0.0133 0.0019

Mercury -33047-11-17 12:43 J -10348673.13 -10348672.97 -10348672.82 0.0133 0.0041

Mercury -33046-02-13 17:31 J -10348584.91 -10348584.77 -10348584.62 0.0133 0.0062

Mercury -33046-05-12 22:33 J -10348496.69 -10348496.56 -10348496.43 0.0133 0.0083

Mercury -33046-08-09 03:07 J -10348408.46 -10348408.37 -10348408.26 0.0133 0.0105

Mercury -33046-11-05 07:55 J -10348320.21 -10348320.17 -10348320.11 0.0133 0.0126

Mars -33036-03-16 01:55 J -10344901.70 -10344901.42 -10344901.10 0.0132 0.0060

Venus -33019-01-22 14:52 J -10338744.93 -10338744.88 -10338744.81 0.0137 0.0132

Venus -33019-09-05 20:52 J -10338518.71 -10338518.63 -10338518.51 0.0138 0.0121

Venus -33018-04-20 03:35 J -10338292.48 -10338292.35 -10338292.22 0.0138 0.0109

Venus -33018-12-02 10:04 J -10338066.22 -10338066.08 -10338065.93 0.0138 0.0098

Venus -33017-07-15 16:33 J -10337839.97 -10337839.81 -10337839.64 0.0139 0.0086

Venus -33016-02-26 23:02 J -10337613.70 -10337613.54 -10337613.35 0.0139 0.0075

Venus -33016-10-11 05:59 J -10337387.43 -10337387.25 -10337387.05 0.0139 0.0062

Venus -33015-05-25 12:57 J -10337161.15 -10337160.96 -10337160.75 0.0140 0.0049

Venus -33014-01-06 20:09 J -10336934.86 -10336934.66 -10336934.45 0.0140 0.0036

Venus -33014-08-21 03:21 J -10336708.56 -10336708.36 -10336708.14 0.0140 0.0024

Venus -33013-04-03 10:47 J -10336482.26 -10336482.05 -10336481.84 0.0141 0.0010

Venus -33013-11-15 18:14 J -10336255.95 -10336255.74 -10336255.53 0.0141 0.0004

Venus -33012-06-30 01:55 J -10336029.63 -10336029.42 -10336029.21 0.0141 0.0017

Venus -33011-02-11 09:50 J -10335803.30 -10335803.09 -10335802.88 0.0142 0.0030

Venus -33011-09-25 17:45 J -10335576.96 -10335576.76 -10335576.56 0.0142 0.0044

Venus -33010-05-10 01:55 J -10335350.61 -10335350.42 -10335350.22 0.0142 0.0057

Venus -33010-12-22 10:19 J -10335124.25 -10335124.07 -10335123.89 0.0143 0.0071

Venus	-33009-08-04 18:28 J	-10334897.89	-10334897.73	-10334897.55	0.0143	0.0085
Venus	-33008-03-19 03:07 J	-10334671.51	-10334671.37	-10334671.20	0.0143	0.0099
Venus	-33008-10-31 11:59 J	-10334445.11	-10334445.00	-10334444.85	0.0144	0.0112
Venus	-33007-06-14 21:35 J	-10334218.71	-10334218.60	-10334218.50	0.0144	0.0124
Venus	-33006-01-27 06:43 J	-10333992.27	-10333992.22	-10333992.15	0.0144	0.0137
Moon	-33006-04-24 00:57 J	-10333905.67	-10333905.46	-10333905.23	0.0144	0.0071
Earth	-33006-04-24 04:33 J	-10333905.52	-10333905.31	-10333905.09	0.0144	0.0075 *
Earth	-33005-04-28 02:52 J	-10333535.60	-10333535.38	-10333535.13	0.0145	0.0051
Moon	-33005-04-28 06:28 J	-10333535.46	-10333535.23	-10333534.98	0.0145	0.0044 *
Mercury	-33005-08-18 11:59 J	-10333423.04	-10333423.00	-10333422.95	0.0145	0.0137
Mercury	-33005-11-14 16:47 J	-10333334.89	-10333334.80	-10333334.71	0.0145	0.0112
Mercury	-33004-02-10 21:21 J	-10333246.72	-10333246.61	-10333246.49	0.0145	0.0088
Mercury	-33004-05-10 02:09 J	-10333158.54	-10333158.41	-10333158.28	0.0145	0.0063
Mercury	-33004-08-06 06:57 J	-10333070.35	-10333070.21	-10333070.07	0.0145	0.0038
Mercury	-33004-11-02 11:45 J	-10332982.16	-10332982.01	-10332981.86	0.0145	0.0012
Mercury	-33003-01-29 16:33 J	-10332893.96	-10332893.81	-10332893.66	0.0145	0.0013
Mercury	-33003-04-27 21:21 J	-10332805.75	-10332805.61	-10332805.46	0.0145	0.0039
Mercury	-33003-07-25 02:09 J	-10332717.54	-10332717.41	-10332717.27	0.0145	0.0065
Mercury	-33003-10-21 07:11 J	-10332629.31	-10332629.20	-10332629.08	0.0145	0.0091
Mercury	-33002-01-17 12:14 J	-10332541.07	-10332540.99	-10332540.90	0.0145	0.0118
Mercury	-33002-04-15 17:16 J	-10332452.79	-10332452.78	-10332452.76	0.0146	0.0144

33RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 33rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-32994-07-21 00:28 J	-10329434.74	-10329434.48	-10329434.20	0.0146	0.0050		
Venus	-32980-09-26 03:35 J	-10324253.40	-10324253.35	-10324253.27	0.0141	0.0134		
Venus	-32979-05-10 15:07 J	-10324026.97	-10324026.87	-10324026.75	0.0141	0.0121		
Venus	-32979-12-23 02:38 J	-10323800.53	-10323800.39	-10323800.25	0.0140	0.0108		
Venus	-32978-08-06 13:26 J	-10323574.09	-10323573.94	-10323573.76	0.0140	0.0095		
Venus	-32977-03-20 00:28 J	-10323347.65	-10323347.48	-10323347.29	0.0140	0.0082		
Venus	-32977-11-01 11:16 J	-10323121.21	-10323121.03	-10323120.82	0.0139	0.0068		
Venus	-32976-06-15 22:04 J	-10322894.77	-10322894.58	-10322894.36	0.0139	0.0055		
Venus	-32975-01-28 08:52 J	-10322668.34	-10322668.13	-10322667.91	0.0139	0.0041		
Venus	-32975-09-11 19:11 J	-10322441.91	-10322441.70	-10322441.48	0.0138	0.0028		
Venus	-32974-04-26 05:16 J	-10322215.49	-10322215.28	-10322215.05	0.0138	0.0015		
Venus	-32974-12-08 15:35 J	-10321989.08	-10321988.85	-10321988.63	0.0138	0.0003		
Venus	-32973-07-22 01:26 J	-10321762.66	-10321762.44	-10321762.22	0.0137	0.0012		
Venus	-32972-03-05 11:02 J	-10321536.26	-10321536.04	-10321535.82	0.0137	0.0025		
Venus	-32972-10-17 20:23 J	-10321309.86	-10321309.65	-10321309.43	0.0137	0.0038		
Venus	-32971-06-01 05:31 J	-10321083.47	-10321083.27	-10321083.05	0.0136	0.0051		
Venus	-32970-01-13 14:38 J	-10320857.08	-10320856.89	-10320856.68	0.0136	0.0063		
Venus	-32970-08-27 23:45 J	-10320630.69	-10320630.51	-10320630.32	0.0136	0.0075		
Venus	-32969-04-10 08:23 J	-10320404.31	-10320404.15	-10320403.97	0.0136	0.0087		
Venus	-32969-11-22 16:47 J	-10320177.94	-10320177.80	-10320177.63	0.0135	0.0099		
Venus	-32968-07-07 01:11 J	-10319951.56	-10319951.45	-10319951.30	0.0135	0.0110		
Venus	-32967-02-18 09:35 J	-10319725.18	-10319725.10	-10319724.99	0.0135	0.0121		
Venus	-32967-10-02 17:45 J	-10319498.79	-10319498.76	-10319498.71	0.0135	0.0132		
Earth	-32967-10-24 16:04 J	-10319476.94	-10319476.83	-10319476.71	0.0135	0.0120		
Moon	-32967-10-24 18:28 J	-10319476.80	-10319476.73	-10319476.64	0.0135	0.0127	*	
Moon	-32966-10-29 00:28 J	-10319107.74	-10319107.48	-10319107.22	0.0134	0.0014		
Earth	-32966-10-29 02:23 J	-10319107.66	-10319107.40	-10319107.15	0.0134	0.0018	*	

Earth -32965-11-01 11:16 J -10318738.22 -10318738.03 -10318737.82 0.0134 0.0082
 Moon -32965-11-01 13:26 J -10318738.13 -10318737.94 -10318737.74 0.0134 0.0079 *
 Mercury -32964-01-01 02:09 J -10318677.42 -10318677.41 -10318677.38 0.0134 0.0133
 Mercury -32964-03-30 07:26 J -10318589.27 -10318589.19 -10318589.08 0.0134 0.0110
 Mercury -32964-06-26 12:43 J -10318501.09 -10318500.97 -10318500.83 0.0134 0.0087
 Mercury -32964-09-22 18:14 J -10318412.89 -10318412.74 -10318412.59 0.0134 0.0064
 Mercury -32964-12-19 23:16 J -10318324.68 -10318324.53 -10318324.37 0.0133 0.0042
 Mercury -32963-03-18 04:33 J -10318236.48 -10318236.31 -10318236.15 0.0133 0.0019
 Mercury -32963-06-14 09:35 J -10318148.27 -10318148.10 -10318147.93 0.0133 0.0003
 Mercury -32963-09-10 14:38 J -10318060.05 -10318059.89 -10318059.73 0.0133 0.0025
 Mercury -32963-12-07 19:40 J -10317971.83 -10317971.68 -10317971.53 0.0133 0.0047
 Mercury -32962-03-06 00:28 J -10317883.61 -10317883.48 -10317883.33 0.0133 0.0068
 Mercury -32962-06-02 05:31 J -10317795.39 -10317795.27 -10317795.15 0.0133 0.0089
 Mercury -32962-08-29 10:19 J -10317707.16 -10317707.07 -10317706.98 0.0133 0.0110
 Mercury -32962-11-25 15:07 J -10317618.89 -10317618.87 -10317618.84 0.0133 0.0131
 Mars -32952-11-09 08:38 J -10313982.46 -10313982.14 -10313981.80 0.0132 0.0025
 Venus -32936-09-22 00:28 J -10308186.51 -10308186.48 -10308186.45 0.0137 0.0136
 Venus -32935-05-06 06:28 J -10307960.31 -10307960.23 -10307960.14 0.0138 0.0125
 Venus -32935-12-18 12:43 J -10307734.07 -10307733.97 -10307733.84 0.0138 0.0114
 Venus -32934-08-01 19:11 J -10307507.83 -10307507.70 -10307507.55 0.0138 0.0102
 Venus -32933-03-15 01:40 J -10307281.58 -10307281.43 -10307281.26 0.0139 0.0091
 Venus -32933-10-27 08:09 J -10307055.32 -10307055.16 -10307054.97 0.0139 0.0079
 Venus -32932-06-10 15:07 J -10306829.05 -10306828.87 -10306828.68 0.0139 0.0066
 Venus -32931-01-22 22:04 J -10306602.77 -10306602.58 -10306602.38 0.0140 0.0054
 Venus -32931-09-06 05:02 J -10306376.48 -10306376.29 -10306376.08 0.0140 0.0041
 Venus -32930-04-20 12:14 J -10306150.19 -10306149.99 -10306149.78 0.0140 0.0028
 Venus -32930-12-02 19:26 J -10305923.89 -10305923.69 -10305923.47 0.0141 0.0015
 Venus -32929-07-16 03:07 J -10305697.58 -10305697.37 -10305697.16 0.0141 0.0002
 Venus -32928-02-27 10:33 J -10305471.27 -10305471.06 -10305470.84 0.0141 0.0013
 Venus -32928-10-11 18:14 J -10305244.94 -10305244.74 -10305244.52 0.0142 0.0027

Venus	-32927-05-26 02:09 J	-10305018.61	-10305018.41	-10305018.20	0.0142	0.0040
Venus	-32926-01-07 10:33 J	-10304792.26	-10304792.06	-10304791.87	0.0142	0.0054
Venus	-32926-08-21 18:28 J	-10304565.90	-10304565.73	-10304565.53	0.0143	0.0068
Venus	-32925-04-04 02:52 J	-10304339.54	-10304339.38	-10304339.19	0.0143	0.0081
Venus	-32925-11-16 11:31 J	-10304113.17	-10304113.02	-10304112.85	0.0143	0.0095
Venus	-32924-06-30 20:23 J	-10303886.78	-10303886.65	-10303886.50	0.0143	0.0108
Venus	-32923-02-12 05:45 J	-10303660.37	-10303660.26	-10303660.14	0.0144	0.0121
Venus	-32923-09-26 14:52 J	-10303433.95	-10303433.88	-10303433.80	0.0144	0.0134
Moon	-32922-04-24 11:02 J	-10303224.25	-10303224.04	-10303223.81	0.0144	0.0071
Earth	-32922-04-24 14:52 J	-10303224.09	-10303223.88	-10303223.65	0.0144	0.0069 *
Earth	-32921-04-28 13:40 J	-10302854.16	-10302853.93	-10302853.69	0.0145	0.0056
Moon	-32921-04-28 16:47 J	-10302854.01	-10302853.80	-10302853.56	0.0145	0.0063 *
Mercury	-32921-09-07 19:11 J	-10302721.75	-10302721.70	-10302721.62	0.0145	0.0130
Mercury	-32921-12-04 23:59 J	-10302633.59	-10302633.50	-10302633.39	0.0145	0.0105
Mercury	-32920-03-03 04:47 J	-10302545.42	-10302545.30	-10302545.18	0.0145	0.0080
Mercury	-32920-05-30 09:21 J	-10302457.24	-10302457.11	-10302456.97	0.0145	0.0056
Mercury	-32920-08-26 14:09 J	-10302369.05	-10302368.91	-10302368.76	0.0145	0.0031
Mercury	-32920-11-22 18:57 J	-10302280.85	-10302280.71	-10302280.56	0.0145	0.0007
Mercury	-32919-02-18 23:59 J	-10302192.65	-10302192.50	-10302192.36	0.0145	0.0021
Mercury	-32919-05-18 04:47 J	-10302104.44	-10302104.30	-10302104.16	0.0145	0.0046
Mercury	-32919-08-14 09:35 J	-10302016.22	-10302016.10	-10302015.97	0.0145	0.0073
Mercury	-32919-11-10 14:38 J	-10301928.00	-10301927.89	-10301927.78	0.0145	0.0099
Mercury	-32918-02-06 19:26 J	-10301839.75	-10301839.69	-10301839.60	0.0146	0.0126
Mars	-32911-04-13 09:21 J	-10299217.24	-10299217.11	-10299216.96	0.0146	0.0128
Venus	-32896-05-26 10:47 J	-10293695.08	-10293695.05	-10293695.00	0.0141	0.0138
Venus	-32895-01-07 22:04 J	-10293468.66	-10293468.58	-10293468.47	0.0141	0.0126
Venus	-32895-08-22 09:21 J	-10293242.23	-10293242.11	-10293241.96	0.0140	0.0113
Venus	-32894-04-05 20:38 J	-10293015.79	-10293015.64	-10293015.47	0.0140	0.0099
Venus	-32894-11-18 07:40 J	-10292789.35	-10292789.18	-10292789.00	0.0140	0.0086
Venus	-32893-07-01 18:43 J	-10292562.90	-10292562.72	-10292562.52	0.0139	0.0073

Venus	-32892-02-13 05:31 J	-10292336.46	-10292336.27	-10292336.06	0.0139	0.0059
Venus	-32892-09-27 16:04 J	-10292110.03	-10292109.83	-10292109.61	0.0139	0.0046
Venus	-32891-05-12 02:38 J	-10291883.60	-10291883.39	-10291883.17	0.0138	0.0032
Venus	-32891-12-24 12:57 J	-10291657.18	-10291656.96	-10291656.74	0.0138	0.0019
Venus	-32890-08-07 23:02 J	-10291430.76	-10291430.54	-10291430.31	0.0138	0.0006
Venus	-32889-03-21 08:52 J	-10291204.35	-10291204.13	-10291203.90	0.0137	0.0009
Venus	-32889-11-02 18:43 J	-10290977.94	-10290977.72	-10290977.50	0.0137	0.0021
Venus	-32888-06-17 04:19 J	-10290751.54	-10290751.32	-10290751.10	0.0137	0.0034
Venus	-32887-01-29 13:26 J	-10290525.14	-10290524.94	-10290524.72	0.0137	0.0047
Venus	-32887-09-12 22:33 J	-10290298.75	-10290298.56	-10290298.35	0.0136	0.0060
Venus	-32886-04-27 07:40 J	-10290072.36	-10290072.18	-10290071.99	0.0136	0.0072
Venus	-32886-12-09 16:33 J	-10289845.98	-10289845.81	-10289845.63	0.0136	0.0084
Venus	-32885-07-23 00:57 J	-10289619.60	-10289619.46	-10289619.28	0.0135	0.0097
Venus	-32884-03-06 09:50 J	-10289393.22	-10289393.09	-10289392.95	0.0135	0.0107
Venus	-32884-10-18 17:45 J	-10289166.84	-10289166.76	-10289166.63	0.0135	0.0119
Venus	-32883-06-02 02:09 J	-10288940.46	-10288940.41	-10288940.34	0.0135	0.0130
Earth	-32883-10-25 02:52 J	-10288795.51	-10288795.38	-10288795.24	0.0134	0.0114
Moon	-32883-10-25 05:02 J	-10288795.42	-10288795.29	-10288795.13	0.0134	0.0108 *
Moon	-32882-10-29 10:04 J	-10288426.34	-10288426.08	-10288425.82	0.0134	0.0019
Earth	-32882-10-29 12:57 J	-10288426.21	-10288425.96	-10288425.70	0.0134	0.0013 *
Earth	-32881-11-01 21:50 J	-10288056.76	-10288056.59	-10288056.38	0.0134	0.0088
Moon	-32881-11-02 00:14 J	-10288056.67	-10288056.49	-10288056.30	0.0134	0.0090 *
Mercury	-32880-01-21 09:21 J	-10287976.15	-10287976.11	-10287976.04	0.0134	0.0126
Mercury	-32880-04-19 14:38 J	-10287887.98	-10287887.89	-10287887.77	0.0134	0.0103
Mercury	-32880-07-16 20:09 J	-10287799.79	-10287799.66	-10287799.52	0.0134	0.0080
Mercury	-32880-10-13 01:11 J	-10287711.59	-10287711.45	-10287711.29	0.0133	0.0058
Mercury	-32879-01-09 06:43 J	-10287623.39	-10287623.22	-10287623.06	0.0133	0.0035
Mercury	-32879-04-07 11:45 J	-10287535.18	-10287535.01	-10287534.84	0.0133	0.0012
Mercury	-32879-07-04 16:47 J	-10287446.96	-10287446.80	-10287446.63	0.0133	0.0010
Mercury	-32879-09-30 21:50 J	-10287358.75	-10287358.59	-10287358.43	0.0133	0.0032

Mercury -32879-12-28 02:52 J -10287270.53 -10287270.38 -10287270.23 0.0133 0.0053

Mercury -32878-03-26 07:40 J -10287182.31 -10287182.18 -10287182.04 0.0133 0.0075

Mercury -32878-06-22 12:28 J -10287094.08 -10287093.98 -10287093.86 0.0133 0.0096

Mercury -32878-09-18 17:16 J -10287005.84 -10287005.78 -10287005.69 0.0133 0.0117

Mars -32869-08-01 01:55 J -10283766.46 -10283766.42 -10283766.32 0.0132 0.0129

Mars -32867-07-05 16:47 J -10283062.95 -10283062.80 -10283062.59 0.0132 0.0111

Venus -32851-01-03 16:04 J -10277401.88 -10277401.83 -10277401.74 0.0137 0.0130

Venus -32851-08-17 22:33 J -10277175.66 -10277175.56 -10277175.45 0.0138 0.0118

Venus -32850-04-01 04:33 J -10276949.43 -10276949.31 -10276949.16 0.0138 0.0107

Venus -32850-11-13 11:16 J -10276723.18 -10276723.03 -10276722.87 0.0138 0.0095

Venus -32849-06-26 17:45 J -10276496.92 -10276496.76 -10276496.58 0.0139 0.0083

Venus -32848-02-08 00:28 J -10276270.65 -10276270.48 -10276270.29 0.0139 0.0070

Venus -32848-09-22 07:26 J -10276044.38 -10276044.19 -10276044.00 0.0139 0.0058

Venus -32847-05-06 14:09 J -10275818.10 -10275817.91 -10275817.70 0.0140 0.0045

Venus -32847-12-18 21:21 J -10275591.81 -10275591.61 -10275591.40 0.0140 0.0032

Venus -32846-08-02 04:33 J -10275365.51 -10275365.31 -10275365.09 0.0140 0.0019

Venus -32845-03-15 11:59 J -10275139.21 -10275139.00 -10275138.79 0.0141 0.0005

Venus -32845-10-27 19:26 J -10274912.90 -10274912.69 -10274912.48 0.0141 0.0009

Venus -32844-06-11 03:07 J -10274686.58 -10274686.37 -10274686.16 0.0141 0.0022

Venus -32843-01-23 11:16 J -10274460.24 -10274460.03 -10274459.83 0.0142 0.0036

Venus -32843-09-06 18:57 J -10274233.90 -10274233.71 -10274233.50 0.0142 0.0050

Venus -32842-04-21 03:07 J -10274007.55 -10274007.37 -10274007.17 0.0142 0.0064

Venus -32842-12-03 11:45 J -10273781.19 -10273781.01 -10273780.83 0.0143 0.0077

Venus -32841-07-16 20:09 J -10273554.81 -10273554.66 -10273554.49 0.0143 0.0091

Venus -32840-02-28 05:02 J -10273328.42 -10273328.29 -10273328.14 0.0143 0.0105

Venus -32840-10-12 14:09 J -10273102.02 -10273101.91 -10273101.79 0.0144 0.0118

Venus -32839-05-26 23:16 J -10272875.61 -10272875.53 -10272875.44 0.0144 0.0131

Venus -32838-01-08 08:52 J -10272649.13 -10272649.13 -10272649.13 0.0144 0.0144

Moon -32838-04-24 22:19 J -10272542.79 -10272542.57 -10272542.34 0.0144 0.0059

Earth -32838-04-25 01:40 J -10272542.65 -10272542.43 -10272542.19 0.0144 0.0063 *

Earth -32837-04-29 00:14 J -10272172.70 -10272172.49 -10272172.25 0.0145 0.0063
 Moon -32837-04-29 04:19 J -10272172.55 -10272172.32 -10272172.08 0.0145 0.0056 *
 Mercury -32837-09-28 02:52 J -10272020.45 -10272020.38 -10272020.30 0.0145 0.0122
 Mercury -32837-12-25 07:26 J -10271932.29 -10271932.19 -10271932.08 0.0145 0.0098
 Mercury -32836-03-23 12:14 J -10271844.12 -10271843.99 -10271843.86 0.0145 0.0073
 Mercury -32836-06-19 16:47 J -10271755.93 -10271755.80 -10271755.65 0.0145 0.0049
 Mercury -32836-09-15 21:35 J -10271667.74 -10271667.60 -10271667.45 0.0145 0.0023
 Mercury -32836-12-13 02:23 J -10271579.54 -10271579.40 -10271579.25 0.0145 0.0005
 Mercury -32835-03-11 07:26 J -10271491.34 -10271491.19 -10271491.05 0.0145 0.0028
 Mercury -32835-06-07 12:14 J -10271403.13 -10271402.99 -10271402.85 0.0145 0.0054
 Mercury -32835-09-03 17:02 J -10271314.91 -10271314.79 -10271314.66 0.0145 0.0080
 Mercury -32835-11-30 22:04 J -10271226.68 -10271226.58 -10271226.48 0.0146 0.0107
 Mercury -32834-02-27 02:52 J -10271138.43 -10271138.38 -10271138.31 0.0146 0.0134
 Mars -32827-12-07 12:28 J -10268298.26 -10268297.98 -10268297.70 0.0146 0.0030
 Venus -32812-09-07 05:02 J -10262910.35 -10262910.29 -10262910.19 0.0141 0.0131
 Venus -32811-04-21 16:33 J -10262683.91 -10262683.81 -10262683.67 0.0141 0.0118
 Venus -32811-12-04 03:50 J -10262457.47 -10262457.34 -10262457.18 0.0140 0.0104
 Venus -32810-07-18 15:07 J -10262231.03 -10262230.87 -10262230.69 0.0140 0.0091
 Venus -32809-03-01 01:55 J -10262004.59 -10262004.42 -10262004.22 0.0140 0.0078
 Venus -32809-10-13 13:11 J -10261778.15 -10261777.95 -10261777.75 0.0139 0.0064
 Venus -32808-05-27 23:45 J -10261551.71 -10261551.51 -10261551.30 0.0139 0.0050
 Venus -32807-01-09 10:19 J -10261325.28 -10261325.07 -10261324.85 0.0139 0.0036
 Venus -32807-08-23 20:38 J -10261098.86 -10261098.64 -10261098.42 0.0138 0.0023
 Venus -32806-04-07 06:43 J -10260872.44 -10260872.22 -10260871.99 0.0138 0.0009
 Venus -32806-11-19 16:47 J -10260646.03 -10260645.80 -10260645.58 0.0138 0.0005
 Venus -32805-07-03 02:38 J -10260419.61 -10260419.39 -10260419.17 0.0137 0.0018
 Venus -32804-02-14 12:14 J -10260193.21 -10260192.99 -10260192.77 0.0137 0.0031
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 Venus -32803-05-13 06:43 J -10259740.42 -10259740.22 -10259740.01 0.0136 0.0057
 Venus -32803-12-25 15:35 J -10259514.03 -10259513.85 -10259513.64 0.0136 0.0069

Venus -32802-08-09 00:28 J -10259287.64 -10259287.48 -10259287.28 0.0136 0.0082
 Venus -32801-03-22 09:21 J -10259061.26 -10259061.11 -10259060.93 0.0135 0.0094
 Venus -32801-11-03 17:45 J -10258834.88 -10258834.76 -10258834.60 0.0135 0.0106
 Venus -32800-06-18 02:38 J -10258608.50 -10258608.39 -10258608.28 0.0135 0.0116
 Venus -32799-01-30 10:33 J -10258382.11 -10258382.06 -10258381.97 0.0135 0.0128
 Earth -32799-10-25 13:26 J -10258114.08 -10258113.94 -10258113.77 0.0134 0.0108
 Moon -32799-10-25 16:33 J -10258113.92 -10258113.81 -10258113.66 0.0134 0.0115 *
 Moon -32798-10-29 21:21 J -10257744.88 -10257744.61 -10257744.35 0.0134 0.0003
 Earth -32798-10-29 23:59 J -10257744.76 -10257744.50 -10257744.25 0.0134 0.0007 *
 Earth -32797-11-02 08:38 J -10257375.30 -10257375.14 -10257374.94 0.0134 0.0094
 Moon -32797-11-02 11:59 J -10257375.18 -10257375.00 -10257374.81 0.0134 0.0090 *
 Mercury -32796-02-10 16:33 J -10257274.87 -10257274.81 -10257274.72 0.0134 0.0119
 Mercury -32796-05-09 22:04 J -10257186.69 -10257186.58 -10257186.46 0.0134 0.0096
 Mercury -32796-08-06 03:21 J -10257098.50 -10257098.36 -10257098.22 0.0133 0.0073
 Mercury -32796-11-02 08:38 J -10257010.29 -10257010.14 -10257009.98 0.0133 0.0050
 Mercury -32795-01-29 13:55 J -10256922.09 -10256921.92 -10256921.76 0.0133 0.0028
 Mercury -32795-04-27 18:57 J -10256833.87 -10256833.71 -10256833.54 0.0133 0.0006
 Mercury -32795-07-24 23:59 J -10256745.66 -10256745.50 -10256745.33 0.0133 0.0017
 Mercury -32795-10-21 05:02 J -10256657.44 -10256657.29 -10256657.13 0.0133 0.0038
 Mercury -32794-01-17 09:50 J -10256569.23 -10256569.09 -10256568.93 0.0133 0.0061
 Mercury -32794-04-15 14:52 J -10256481.00 -10256480.88 -10256480.74 0.0133 0.0081
 Mercury -32794-07-12 19:55 J -10256392.77 -10256392.67 -10256392.56 0.0133 0.0102
 Mercury -32794-10-09 00:28 J -10256304.52 -10256304.48 -10256304.41 0.0133 0.0124
 Mars -32784-03-27 10:19 J -10252847.38 -10252847.07 -10252846.75 0.0132 0.0044
 Venus -32768-09-03 01:11 J -10246843.49 -10246843.45 -10246843.40 0.0137 0.0134
 Venus -32767-04-17 07:11 J -10246617.28 -10246617.20 -10246617.10 0.0138 0.0123
 Venus -32767-11-29 13:26 J -10246391.05 -10246390.94 -10246390.80 0.0138 0.0111
 Venus -32766-07-13 19:55 J -10246164.81 -10246164.67 -10246164.51 0.0138 0.0099
 Venus -32765-02-25 02:09 J -10245938.56 -10245938.41 -10245938.23 0.0139 0.0088
 Venus -32765-10-08 08:52 J -10245712.30 -10245712.13 -10245711.94 0.0139 0.0075

Venus	-32764-05-22 15:35 J	-10245486.03	-10245485.85	-10245485.65	0.0139	0.0062
Venus	-32763-01-03 22:33 J	-10245259.75	-10245259.56	-10245259.35	0.0140	0.0050
Venus	-32763-08-18 05:45 J	-10245033.46	-10245033.26	-10245033.05	0.0140	0.0036
Venus	-32762-04-01 12:43 J	-10244807.17	-10244806.97	-10244806.75	0.0140	0.0023
Venus	-32762-11-13 20:09 J	-10244580.87	-10244580.66	-10244580.45	0.0141	0.0010
Venus	-32761-06-27 03:35 J	-10244354.56	-10244354.35	-10244354.14	0.0141	0.0004
Venus	-32760-02-08 11:16 J	-10244128.24	-10244128.03	-10244127.82	0.0141	0.0018
Venus	-32760-09-22 18:57 J	-10243901.91	-10243901.71	-10243901.50	0.0142	0.0032
Venus	-32759-05-07 03:07 J	-10243675.57	-10243675.37	-10243675.17	0.0142	0.0045
Venus	-32759-12-19 11:02 J	-10243449.22	-10243449.04	-10243448.84	0.0142	0.0059
Venus	-32758-08-02 19:40 J	-10243222.86	-10243222.68	-10243222.50	0.0143	0.0073
Venus	-32757-03-16 03:50 J	-10242996.49	-10242996.34	-10242996.16	0.0143	0.0087
Venus	-32757-10-28 12:43 J	-10242770.11	-10242769.97	-10242769.81	0.0143	0.0101
Venus	-32756-06-11 21:21 J	-10242543.72	-10242543.61	-10242543.46	0.0143	0.0115
Venus	-32755-01-24 06:43 J	-10242317.30	-10242317.22	-10242317.11	0.0144	0.0128
Venus	-32755-09-07 16:04 J	-10242090.86	-10242090.83	-10242090.78	0.0144	0.0141
Moon	-32754-04-25 07:26 J	-10241861.40	-10241861.19	-10241860.95	0.0144	0.0060
Earth	-32754-04-25 11:16 J	-10241861.26	-10241861.03	-10241860.80	0.0144	0.0057 *
Earth	-32753-04-29 09:50 J	-10241491.30	-10241491.09	-10241490.86	0.0145	0.0067
Moon	-32753-04-29 13:26 J	-10241491.15	-10241490.94	-10241490.72	0.0145	0.0073 *
Mercury	-32753-07-22 05:31 J	-10241407.30	-10241407.27	-10241407.24	0.0145	0.0140
Mercury	-32753-10-18 10:04 J	-10241319.16	-10241319.08	-10241318.99	0.0145	0.0116
Mercury	-32752-01-14 14:23 J	-10241231.00	-10241230.90	-10241230.77	0.0145	0.0092
Mercury	-32752-04-12 19:11 J	-10241142.82	-10241142.70	-10241142.56	0.0145	0.0067
Mercury	-32752-07-09 23:59 J	-10241054.64	-10241054.50	-10241054.35	0.0145	0.0042
Mercury	-32752-10-06 04:47 J	-10240966.44	-10240966.30	-10240966.15	0.0145	0.0017
Mercury	-32751-01-02 09:35 J	-10240878.24	-10240878.10	-10240877.95	0.0145	0.0010
Mercury	-32751-03-31 14:23 J	-10240790.04	-10240789.90	-10240789.75	0.0145	0.0035
Mercury	-32751-06-27 19:26 J	-10240701.83	-10240701.69	-10240701.56	0.0145	0.0061
Mercury	-32751-09-24 00:14 J	-10240613.60	-10240613.49	-10240613.36	0.0146	0.0087

Mercury -32751-12-21 05:02 J -10240525.37 -10240525.29 -10240525.18 0.0146 0.0114

Mercury -32750-03-19 10:19 J -10240437.11 -10240437.07 -10240437.03 0.0146 0.0140

Mars -32742-08-02 15:21 J -10237379.09 -10237378.86 -10237378.59 0.0146 0.0069

Venus -32728-05-07 12:43 J -10232352.01 -10232351.97 -10232351.89 0.0141 0.0136

Venus -32728-12-20 00:28 J -10232125.58 -10232125.48 -10232125.37 0.0141 0.0122

Venus -32727-08-03 11:45 J -10231899.14 -10231899.01 -10231898.86 0.0140 0.0109

Venus -32726-03-17 22:47 J -10231672.70 -10231672.55 -10231672.38 0.0140 0.0095

Venus -32726-10-30 09:50 J -10231446.26 -10231446.09 -10231445.90 0.0140 0.0082

Venus -32725-06-12 21:07 J -10231219.81 -10231219.62 -10231219.43 0.0139 0.0068

Venus -32724-01-25 07:40 J -10230993.38 -10230993.18 -10230992.97 0.0139 0.0054

Venus -32724-09-08 18:14 J -10230766.95 -10230766.74 -10230766.52 0.0139 0.0040

Venus -32723-04-23 04:33 J -10230540.52 -10230540.31 -10230540.09 0.0138 0.0027

Venus -32723-12-05 14:52 J -10230314.10 -10230313.88 -10230313.66 0.0138 0.0013

Venus -32722-07-20 00:57 J -10230087.68 -10230087.46 -10230087.23 0.0138 0.0001

Venus -32721-03-02 10:47 J -10229861.27 -10229861.05 -10229860.83 0.0137 0.0014

Venus -32721-10-14 20:23 J -10229634.87 -10229634.65 -10229634.43 0.0137 0.0028

Venus -32720-05-29 05:45 J -10229408.47 -10229408.26 -10229408.04 0.0137 0.0041

Venus -32719-01-10 15:07 J -10229182.07 -10229181.87 -10229181.66 0.0137 0.0054

Venus -32719-08-25 00:14 J -10228955.68 -10228955.49 -10228955.28 0.0136 0.0067

Venus -32718-04-08 09:07 J -10228729.29 -10228729.12 -10228728.92 0.0136 0.0079

Venus -32718-11-20 17:59 J -10228502.90 -10228502.75 -10228502.57 0.0136 0.0091

Venus -32717-07-04 02:52 J -10228276.52 -10228276.38 -10228276.23 0.0135 0.0103

Venus -32716-02-15 11:31 J -10228050.13 -10228050.02 -10228049.90 0.0135 0.0114

Venus -32716-09-29 19:40 J -10227823.74 -10227823.68 -10227823.59 0.0135 0.0126

Earth -32715-10-26 01:11 J -10227432.61 -10227432.45 -10227432.27 0.0134 0.0101

Moon -32715-10-26 03:50 J -10227432.49 -10227432.34 -10227432.14 0.0134 0.0095 *

Moon -32714-10-30 07:55 J -10227063.43 -10227063.17 -10227062.91 0.0134 0.0007

Earth -32714-10-30 11:31 J -10227063.28 -10227063.02 -10227062.77 0.0134 0.0002 *

Earth -32713-11-02 20:09 J -10226693.81 -10226693.66 -10226693.47 0.0134 0.0100

Moon -32713-11-02 23:16 J -10226693.68 -10226693.53 -10226693.36 0.0134 0.0103 *

Mercury -32712-03-03 00:14 J -10226573.58 -10226573.49 -10226573.40 0.0134 0.0111

Mercury -32712-05-30 05:31 J -10226485.39 -10226485.27 -10226485.14 0.0133 0.0088

Mercury -32712-08-26 10:47 J -10226397.19 -10226397.05 -10226396.90 0.0133 0.0065

Mercury -32712-11-22 16:04 J -10226308.99 -10226308.83 -10226308.67 0.0133 0.0043

Mercury -32711-02-18 21:07 J -10226220.78 -10226220.62 -10226220.45 0.0133 0.0021

Mercury -32711-05-18 02:23 J -10226132.57 -10226132.40 -10226132.24 0.0133 0.0002

Mercury -32711-08-14 07:26 J -10226044.35 -10226044.19 -10226044.03 0.0133 0.0024

Mercury -32711-11-10 12:28 J -10225956.14 -10225955.98 -10225955.82 0.0133 0.0045

Mercury -32710-02-06 17:16 J -10225867.91 -10225867.78 -10225867.63 0.0133 0.0067

Mercury -32710-05-05 22:19 J -10225779.69 -10225779.57 -10225779.45 0.0133 0.0088

Mercury -32710-08-02 03:21 J -10225691.45 -10225691.36 -10225691.27 0.0133 0.0109

Mercury -32710-10-29 08:09 J -10225603.19 -10225603.16 -10225603.13 0.0133 0.0130

Mars -32700-11-20 19:26 J -10221928.00 -10221927.69 -10221927.37 0.0132 0.0040

Venus -32684-12-15 16:47 J -10216058.88 -10216058.80 -10216058.72 0.0137 0.0127

Venus -32683-07-29 22:33 J -10215832.66 -10215832.56 -10215832.43 0.0138 0.0116

Venus -32682-03-13 04:47 J -10215606.42 -10215606.30 -10215606.14 0.0138 0.0104

Venus -32682-10-25 11:31 J -10215380.18 -10215380.02 -10215379.86 0.0138 0.0092

Venus -32681-06-07 17:45 J -10215153.92 -10215153.76 -10215153.57 0.0139 0.0080

Venus -32680-01-20 00:28 J -10214927.65 -10214927.48 -10214927.28 0.0139 0.0067

Venus -32680-09-03 07:26 J -10214701.38 -10214701.19 -10214700.99 0.0139 0.0054

Venus -32679-04-17 14:09 J -10214475.10 -10214474.91 -10214474.70 0.0140 0.0041

Venus -32679-11-29 21:21 J -10214248.81 -10214248.61 -10214248.40 0.0140 0.0028

Venus -32678-07-14 04:33 J -10214022.52 -10214022.31 -10214022.09 0.0140 0.0014

Venus -32677-02-25 11:59 J -10213796.21 -10213796.00 -10213795.79 0.0141 0.0001

Venus -32677-10-08 19:26 J -10213569.90 -10213569.69 -10213569.47 0.0141 0.0014

Venus -32676-05-23 03:07 J -10213343.57 -10213343.37 -10213343.15 0.0141 0.0028

Venus -32675-01-04 11:16 J -10213117.23 -10213117.03 -10213116.83 0.0142 0.0041

Venus -32675-08-18 19:11 J -10212890.89 -10212890.70 -10212890.50 0.0142 0.0055

Venus -32674-04-02 03:21 J -10212664.53 -10212664.36 -10212664.16 0.0142 0.0069

Venus -32674-11-14 11:59 J -10212438.17 -10212438.00 -10212437.83 0.0143 0.0083

Venus -32673-06-27 20:23 J -10212211.79 -10212211.65 -10212211.48 0.0143 0.0097
 Venus -32672-02-09 05:31 J -10211985.39 -10211985.27 -10211985.13 0.0143 0.0111
 Venus -32672-09-23 14:09 J -10211758.99 -10211758.91 -10211758.78 0.0144 0.0125
 Venus -32671-05-07 23:31 J -10211532.56 -10211532.52 -10211532.45 0.0144 0.0138
 Moon -32670-04-25 17:02 J -10211180.01 -10211179.79 -10211179.54 0.0144 0.0052
 Earth -32670-04-25 20:23 J -10211179.88 -10211179.65 -10211179.41 0.0144 0.0053 *
 Earth -32669-04-29 19:11 J -10210809.92 -10210809.70 -10210809.48 0.0145 0.0071
 Moon -32669-04-29 22:47 J -10210809.77 -10210809.55 -10210809.32 0.0145 0.0065 *
 Mercury -32669-08-11 12:14 J -10210706.03 -10210705.99 -10210705.92 0.0145 0.0135
 Mercury -32669-11-07 17:02 J -10210617.88 -10210617.79 -10210617.69 0.0145 0.0110
 Mercury -32668-02-03 21:35 J -10210529.71 -10210529.60 -10210529.47 0.0145 0.0086
 Mercury -32668-05-03 02:23 J -10210441.53 -10210441.40 -10210441.26 0.0145 0.0061
 Mercury -32668-07-30 07:11 J -10210353.34 -10210353.20 -10210353.06 0.0145 0.0036
 Mercury -32668-10-26 11:59 J -10210265.15 -10210265.00 -10210264.85 0.0145 0.0011
 Mercury -32667-01-22 16:47 J -10210176.95 -10210176.80 -10210176.65 0.0145 0.0015
 Mercury -32667-04-20 21:35 J -10210088.74 -10210088.60 -10210088.46 0.0145 0.0041
 Mercury -32667-07-18 02:23 J -10210000.53 -10210000.40 -10210000.26 0.0146 0.0067
 Mercury -32667-10-14 07:26 J -10209912.31 -10209912.19 -10209912.08 0.0146 0.0093
 Mercury -32666-01-10 12:14 J -10209824.07 -10209823.99 -10209823.90 0.0146 0.0119
 Mars -32659-04-25 21:35 J -10207161.76 -10207161.60 -10207161.39 0.0146 0.0112
 Venus -32644-01-04 19:55 J -10201793.68 -10201793.67 -10201793.63 0.0141 0.0141
 Venus -32644-08-19 07:26 J -10201567.27 -10201567.19 -10201567.08 0.0141 0.0127
 Venus -32643-04-02 18:57 J -10201340.83 -10201340.71 -10201340.57 0.0141 0.0114
 Venus -32643-11-15 05:59 J -10201114.39 -10201114.25 -10201114.08 0.0140 0.0101
 Venus -32642-06-29 17:31 J -10200887.94 -10200887.77 -10200887.59 0.0140 0.0086
 Venus -32641-02-11 04:19 J -10200661.50 -10200661.32 -10200661.11 0.0140 0.0073
 Venus -32641-09-24 15:21 J -10200435.06 -10200434.86 -10200434.66 0.0139 0.0058
 Venus -32640-05-09 01:40 J -10200208.63 -10200208.43 -10200208.21 0.0139 0.0045
 Venus -32640-12-21 12:14 J -10199982.20 -10199981.99 -10199981.76 0.0139 0.0031
 Venus -32639-08-04 22:47 J -10199755.77 -10199755.55 -10199755.33 0.0138 0.0017

Venus	-32638-03-19 08:52 J	-10199529.36	-10199529.13	-10199528.91	0.0138	0.0003
Venus	-32638-10-31 18:43 J	-10199302.94	-10199302.72	-10199302.50	0.0138	0.0011
Venus	-32637-06-14 04:19 J	-10199076.53	-10199076.32	-10199076.09	0.0137	0.0025
Venus	-32636-01-26 14:09 J	-10198850.13	-10198849.91	-10198849.70	0.0137	0.0037
Venus	-32636-09-09 23:16 J	-10198623.72	-10198623.53	-10198623.31	0.0137	0.0051
Venus	-32635-04-24 08:38 J	-10198397.33	-10198397.14	-10198396.94	0.0136	0.0063
Venus	-32635-12-06 17:31 J	-10198170.94	-10198170.77	-10198170.57	0.0136	0.0076
Venus	-32634-07-21 02:52 J	-10197944.54	-10197944.38	-10197944.21	0.0136	0.0088
Venus	-32633-03-03 11:31 J	-10197718.16	-10197718.02	-10197717.86	0.0135	0.0101
Venus	-32633-10-15 20:09 J	-10197491.77	-10197491.66	-10197491.52	0.0135	0.0112
Venus	-32632-05-30 04:19 J	-10197265.38	-10197265.32	-10197265.21	0.0135	0.0124
Earth	-32631-10-26 12:28 J	-10196751.14	-10196750.98	-10196750.78	0.0134	0.0094
Moon	-32631-10-26 16:04 J	-10196750.98	-10196750.83	-10196750.65	0.0134	0.0102 *
Moon	-32630-10-30 19:40 J	-10196381.93	-10196381.68	-10196381.42	0.0134	0.0012
Earth	-32630-10-30 23:02 J	-10196381.80	-10196381.54	-10196381.28	0.0134	0.0006 *
Earth	-32629-11-03 07:55 J	-10196012.31	-10196012.17	-10196012.00	0.0134	0.0106
Moon	-32629-11-03 11:31 J	-10196012.17	-10196012.02	-10196011.85	0.0134	0.0102 *
Mercury	-32629-12-25 01:55 J	-10195960.45	-10195960.42	-10195960.35	0.0134	0.0127
Mercury	-32628-03-23 07:26 J	-10195872.29	-10195872.19	-10195872.07	0.0134	0.0104
Mercury	-32628-06-19 12:43 J	-10195784.09	-10195783.97	-10195783.83	0.0133	0.0081
Mercury	-32628-09-15 18:14 J	-10195695.89	-10195695.74	-10195695.59	0.0133	0.0058
Mercury	-32628-12-12 23:16 J	-10195607.68	-10195607.53	-10195607.36	0.0133	0.0036
Mercury	-32627-03-11 04:33 J	-10195519.47	-10195519.31	-10195519.14	0.0133	0.0013
Mercury	-32627-06-07 09:35 J	-10195431.26	-10195431.10	-10195430.93	0.0133	0.0010
Mercury	-32627-09-03 14:38 J	-10195343.05	-10195342.89	-10195342.72	0.0133	0.0031
Mercury	-32627-11-30 19:40 J	-10195254.83	-10195254.68	-10195254.52	0.0133	0.0053
Mercury	-32626-02-27 00:43 J	-10195166.60	-10195166.47	-10195166.33	0.0133	0.0074
Mercury	-32626-05-26 05:31 J	-10195078.38	-10195078.27	-10195078.15	0.0133	0.0095
Mercury	-32626-08-22 10:33 J	-10194990.14	-10194990.06	-10194989.98	0.0133	0.0116
Mars	-32617-08-12 14:23 J	-10191712.06	-10191711.90	-10191711.71	0.0132	0.0112

Mars	-32615-07-17 03:35 J	-10191008.43	-10191008.35	-10191008.22	0.0132	0.0125
Venus	-32600-08-15 01:26 J	-10185500.49	-10185500.44	-10185500.37	0.0137	0.0131
Venus	-32599-03-29 07:11 J	-10185274.28	-10185274.20	-10185274.08	0.0137	0.0121
Venus	-32599-11-10 13:26 J	-10185048.06	-10185047.94	-10185047.80	0.0138	0.0109
Venus	-32598-06-24 19:55 J	-10184821.82	-10184821.67	-10184821.51	0.0138	0.0096
Venus	-32597-02-06 02:23 J	-10184595.57	-10184595.40	-10184595.23	0.0138	0.0084
Venus	-32597-09-19 08:38 J	-10184369.31	-10184369.14	-10184368.94	0.0139	0.0072
Venus	-32596-05-03 15:35 J	-10184143.04	-10184142.85	-10184142.66	0.0139	0.0059
Venus	-32596-12-15 22:19 J	-10183916.76	-10183916.57	-10183916.36	0.0140	0.0046
Venus	-32595-07-30 05:31 J	-10183690.48	-10183690.27	-10183690.07	0.0140	0.0032
Venus	-32594-03-13 12:28 J	-10183464.19	-10183463.98	-10183463.77	0.0140	0.0019
Venus	-32594-10-25 19:40 J	-10183237.89	-10183237.68	-10183237.46	0.0141	0.0006
Venus	-32593-06-08 03:07 J	-10183011.58	-10183011.37	-10183011.15	0.0141	0.0009
Venus	-32592-01-20 11:02 J	-10182785.25	-10182785.04	-10182784.83	0.0141	0.0023
Venus	-32592-09-03 18:43 J	-10182558.92	-10182558.72	-10182558.51	0.0141	0.0037
Venus	-32591-04-18 02:38 J	-10182332.58	-10182332.39	-10182332.19	0.0142	0.0051
Venus	-32591-11-30 11:02 J	-10182106.23	-10182106.04	-10182105.85	0.0142	0.0065
Venus	-32590-07-14 19:11 J	-10181879.87	-10181879.70	-10181879.52	0.0142	0.0079
Venus	-32589-02-26 03:50 J	-10181653.49	-10181653.34	-10181653.17	0.0143	0.0093
Venus	-32589-10-09 12:43 J	-10181427.11	-10181426.97	-10181426.83	0.0143	0.0106
Venus	-32588-05-23 21:21 J	-10181200.71	-10181200.61	-10181200.48	0.0143	0.0120
Venus	-32587-01-05 06:28 J	-10180974.29	-10180974.23	-10180974.15	0.0144	0.0134
Moon	-32586-04-26 01:40 J	-10180498.66	-10180498.43	-10180498.20	0.0144	0.0050
Earth	-32586-04-26 04:33 J	-10180498.54	-10180498.31	-10180498.07	0.0144	0.0050 *
Earth	-32585-04-30 03:07 J	-10180128.58	-10180128.37	-10180128.15	0.0145	0.0074
Moon	-32585-04-30 05:59 J	-10180128.44	-10180128.25	-10180128.02	0.0145	0.0080 *
Mercury	-32585-08-31 19:11 J	-10180004.75	-10180004.70	-10180004.63	0.0145	0.0130
Mercury	-32585-11-27 23:59 J	-10179916.60	-10179916.50	-10179916.40	0.0145	0.0105
Mercury	-32584-02-24 04:33 J	-10179828.42	-10179828.31	-10179828.18	0.0145	0.0081
Mercury	-32584-05-23 09:21 J	-10179740.24	-10179740.11	-10179739.97	0.0145	0.0056

Mercury -32584-08-19 13:55 J -10179652.06 -10179651.92 -10179651.77 0.0145 0.0032
 Mercury -32584-11-15 18:43 J -10179563.86 -10179563.72 -10179563.57 0.0145 0.0007
 Mercury -32583-02-11 23:31 J -10179475.66 -10179475.52 -10179475.37 0.0145 0.0020
 Mercury -32583-05-11 04:19 J -10179387.46 -10179387.32 -10179387.17 0.0145 0.0046
 Mercury -32583-08-07 09:21 J -10179299.24 -10179299.11 -10179298.98 0.0146 0.0072
 Mercury -32583-11-03 14:09 J -10179211.02 -10179210.91 -10179210.80 0.0146 0.0098
 Mercury -32582-01-30 18:57 J -10179122.77 -10179122.71 -10179122.62 0.0146 0.0125
 Mars -32575-12-19 23:02 J -10176242.83 -10176242.54 -10176242.26 0.0147 0.0016
 Venus -32560-04-18 14:38 J -10171008.95 -10171008.89 -10171008.80 0.0141 0.0132
 Venus -32560-12-01 01:55 J -10170782.52 -10170782.42 -10170782.28 0.0141 0.0119
 Venus -32559-07-15 13:40 J -10170556.07 -10170555.93 -10170555.78 0.0141 0.0105
 Venus -32558-02-27 00:43 J -10170329.63 -10170329.47 -10170329.29 0.0140 0.0091
 Venus -32558-10-11 11:45 J -10170103.18 -10170103.01 -10170102.81 0.0140 0.0077
 Venus -32557-05-24 23:02 J -10169876.74 -10169876.54 -10169876.34 0.0140 0.0063
 Venus -32556-01-06 09:21 J -10169650.30 -10169650.11 -10169649.89 0.0139 0.0050
 Venus -32556-08-20 20:09 J -10169423.87 -10169423.66 -10169423.44 0.0139 0.0035
 Venus -32555-04-04 06:28 J -10169197.45 -10169197.23 -10169197.01 0.0139 0.0021
 Venus -32555-11-16 16:47 J -10168971.03 -10168970.80 -10168970.58 0.0138 0.0007
 Venus -32554-07-01 02:52 J -10168744.60 -10168744.38 -10168744.16 0.0138 0.0007
 Venus -32553-02-12 12:43 J -10168518.19 -10168517.97 -10168517.75 0.0138 0.0021
 Venus -32553-09-25 22:19 J -10168291.78 -10168291.57 -10168291.35 0.0137 0.0034
 Venus -32552-05-10 07:55 J -10168065.38 -10168065.17 -10168064.96 0.0137 0.0047
 Venus -32552-12-22 17:02 J -10167838.98 -10167838.79 -10167838.58 0.0137 0.0061
 Venus -32551-08-06 02:23 J -10167612.58 -10167612.40 -10167612.20 0.0136 0.0073
 Venus -32550-03-20 11:16 J -10167386.18 -10167386.03 -10167385.84 0.0136 0.0086
 Venus -32550-11-01 20:23 J -10167159.79 -10167159.65 -10167159.49 0.0136 0.0098
 Venus -32549-06-15 04:47 J -10166933.40 -10166933.30 -10166933.15 0.0135 0.0111
 Venus -32548-01-27 13:55 J -10166707.01 -10166706.92 -10166706.82 0.0135 0.0122
 Venus -32548-09-10 22:19 J -10166480.60 -10166480.57 -10166480.53 0.0135 0.0133
 Earth -32547-10-27 00:28 J -10166069.65 -10166069.48 -10166069.27 0.0134 0.0088

Moon -32547-10-27 04:04 J -10166069.52 -10166069.33 -10166069.11 0.0134 0.0080 *
 Moon -32546-10-31 07:11 J -10165700.46 -10165700.20 -10165699.94 0.0134 0.0007
 Earth -32546-10-31 10:47 J -10165700.30 -10165700.05 -10165699.79 0.0134 0.0014 *
 Earth -32545-11-03 19:26 J -10165330.80 -10165330.69 -10165330.53 0.0134 0.0113
 Moon -32545-11-03 23:16 J -10165330.65 -10165330.53 -10165330.40 0.0134 0.0116 *
 Mercury -32544-01-14 09:35 J -10165259.17 -10165259.10 -10165259.01 0.0134 0.0119
 Mercury -32544-04-12 14:52 J -10165170.98 -10165170.88 -10165170.75 0.0134 0.0096
 Mercury -32544-07-09 20:23 J -10165082.79 -10165082.65 -10165082.51 0.0133 0.0073
 Mercury -32544-10-06 01:26 J -10164994.58 -10164994.44 -10164994.27 0.0133 0.0051
 Mercury -32543-01-02 06:57 J -10164906.38 -10164906.21 -10164906.05 0.0133 0.0028
 Mercury -32543-03-31 11:59 J -10164818.16 -10164818.00 -10164817.83 0.0133 0.0006
 Mercury -32543-06-27 17:02 J -10164729.95 -10164729.79 -10164729.62 0.0133 0.0017
 Mercury -32543-09-23 22:19 J -10164641.73 -10164641.57 -10164641.42 0.0133 0.0039
 Mercury -32543-12-21 03:07 J -10164553.51 -10164553.37 -10164553.22 0.0133 0.0060
 Mercury -32542-03-19 08:09 J -10164465.29 -10164465.16 -10164465.03 0.0133 0.0081
 Mercury -32542-06-15 12:43 J -10164377.06 -10164376.97 -10164376.85 0.0133 0.0103
 Mercury -32542-09-11 17:45 J -10164288.81 -10164288.76 -10164288.69 0.0133 0.0124
 Mars -32532-04-08 01:26 J -10160792.76 -10160792.44 -10160792.11 0.0132 0.0027
 Venus -32516-04-14 11:31 J -10154942.03 -10154942.02 -10154941.98 0.0137 0.0136
 Venus -32516-11-26 17:31 J -10154715.84 -10154715.77 -10154715.67 0.0137 0.0125
 Venus -32515-07-10 23:31 J -10154489.62 -10154489.52 -10154489.38 0.0138 0.0113
 Venus -32514-02-22 05:45 J -10154263.39 -10154263.26 -10154263.10 0.0138 0.0101
 Venus -32514-10-06 11:59 J -10154037.15 -10154037.00 -10154036.82 0.0138 0.0089
 Venus -32513-05-19 18:28 J -10153810.90 -10153810.73 -10153810.54 0.0139 0.0076
 Venus -32512-01-01 01:11 J -10153584.63 -10153584.45 -10153584.25 0.0139 0.0063
 Venus -32512-08-15 07:55 J -10153358.36 -10153358.17 -10153357.96 0.0139 0.0050
 Venus -32511-03-29 14:52 J -10153132.08 -10153131.88 -10153131.67 0.0140 0.0037
 Venus -32511-11-10 21:50 J -10152905.80 -10152905.59 -10152905.38 0.0140 0.0023
 Venus -32510-06-25 05:02 J -10152679.50 -10152679.29 -10152679.07 0.0140 0.0010
 Venus -32509-02-06 12:28 J -10152453.19 -10152452.98 -10152452.76 0.0141 0.0006

Venus	-32509-09-19 20:09 J	-10152226.87	-10152226.66	-10152226.45	0.0141	0.0018
Venus	-32508-05-04 03:50 J	-10152000.55	-10152000.34	-10152000.13	0.0141	0.0032
Venus	-32508-12-16 11:31 J	-10151774.21	-10151774.02	-10151773.81	0.0142	0.0047
Venus	-32507-07-30 19:40 J	-10151547.86	-10151547.68	-10151547.48	0.0142	0.0061
Venus	-32506-03-14 04:04 J	-10151321.51	-10151321.33	-10151321.15	0.0142	0.0075
Venus	-32506-10-26 12:14 J	-10151095.14	-10151094.99	-10151094.81	0.0143	0.0089
Venus	-32505-06-08 20:52 J	-10150868.77	-10150868.63	-10150868.47	0.0143	0.0103
Venus	-32504-01-21 05:59 J	-10150642.37	-10150642.25	-10150642.13	0.0143	0.0117
Venus	-32504-09-04 14:38 J	-10150415.96	-10150415.89	-10150415.79	0.0144	0.0131
Moon	-32502-04-26 11:59 J	-10149817.24	-10149817.00	-10149816.77	0.0144	0.0044
Earth	-32502-04-26 14:38 J	-10149817.13	-10149816.89	-10149816.65	0.0144	0.0045 *
Earth	-32501-04-30 12:43 J	-10149447.17	-10149446.97	-10149446.75	0.0145	0.0079
Moon	-32501-04-30 15:50 J	-10149447.05	-10149446.84	-10149446.61	0.0145	0.0074 *
Mercury	-32501-09-21 02:38 J	-10149303.46	-10149303.39	-10149303.31	0.0145	0.0123
Mercury	-32501-12-18 07:11 J	-10149215.30	-10149215.20	-10149215.09	0.0145	0.0099
Mercury	-32500-03-16 11:45 J	-10149127.13	-10149127.01	-10149126.88	0.0145	0.0075
Mercury	-32500-06-12 16:33 J	-10149038.95	-10149038.81	-10149038.67	0.0145	0.0050
Mercury	-32500-09-08 21:07 J	-10148950.76	-10148950.62	-10148950.47	0.0145	0.0025
Mercury	-32500-12-06 01:55 J	-10148862.56	-10148862.42	-10148862.27	0.0145	0.0004
Mercury	-32499-03-04 06:43 J	-10148774.36	-10148774.22	-10148774.07	0.0145	0.0026
Mercury	-32499-05-31 11:31 J	-10148686.15	-10148686.02	-10148685.88	0.0146	0.0052
Mercury	-32499-08-27 16:19 J	-10148597.94	-10148597.82	-10148597.69	0.0146	0.0079
Mercury	-32499-11-23 21:21 J	-10148509.71	-10148509.61	-10148509.50	0.0146	0.0104
Mercury	-32498-02-20 02:23 J	-10148421.46	-10148421.40	-10148421.33	0.0146	0.0131
Mars	-32490-08-15 00:14 J	-10145323.72	-10145323.49	-10145323.24	0.0146	0.0080
Venus	-32477-12-16 21:35 J	-10140450.64	-10140450.60	-10140450.55	0.0141	0.0138
Venus	-32476-07-31 08:52 J	-10140224.22	-10140224.13	-10140224.01	0.0141	0.0125
Venus	-32475-03-14 20:38 J	-10139997.77	-10139997.64	-10139997.50	0.0141	0.0110
Venus	-32475-10-27 07:40 J	-10139771.33	-10139771.18	-10139771.01	0.0140	0.0097
Venus	-32474-06-10 18:57 J	-10139544.88	-10139544.71	-10139544.52	0.0140	0.0082

Venus	-32473-01-23 05:59 J	-10139318.44	-10139318.25	-10139318.05	0.0140	0.0068
Venus	-32473-09-05 16:47 J	-10139092.00	-10139091.80	-10139091.59	0.0139	0.0054
Venus	-32472-04-20 03:35 J	-10138865.57	-10138865.35	-10138865.14	0.0139	0.0039
Venus	-32472-12-02 13:55 J	-10138639.14	-10138638.92	-10138638.70	0.0139	0.0025
Venus	-32471-07-17 00:28 J	-10138412.70	-10138412.48	-10138412.26	0.0138	0.0011
Venus	-32470-02-28 10:33 J	-10138186.28	-10138186.06	-10138185.83	0.0138	0.0003
Venus	-32470-10-12 20:23 J	-10137959.86	-10137959.65	-10137959.42	0.0138	0.0017
Venus	-32469-05-26 06:14 J	-10137733.45	-10137733.24	-10137733.01	0.0137	0.0030
Venus	-32468-01-07 16:04 J	-10137507.04	-10137506.83	-10137506.62	0.0137	0.0044
Venus	-32468-08-22 01:26 J	-10137280.63	-10137280.44	-10137280.23	0.0137	0.0057
Venus	-32467-04-05 11:02 J	-10137054.23	-10137054.04	-10137053.85	0.0136	0.0070
Venus	-32467-11-17 20:09 J	-10136827.83	-10136827.66	-10136827.48	0.0136	0.0083
Venus	-32466-07-02 05:16 J	-10136601.43	-10136601.28	-10136601.12	0.0136	0.0095
Venus	-32465-02-13 13:55 J	-10136375.04	-10136374.92	-10136374.77	0.0136	0.0108
Venus	-32465-09-26 22:47 J	-10136148.64	-10136148.55	-10136148.44	0.0135	0.0120
Venus	-32464-05-11 07:11 J	-10135922.24	-10135922.20	-10135922.14	0.0135	0.0131
Earth	-32463-10-27 12:43 J	-10135388.18	-10135387.97	-10135387.77	0.0134	0.0080
Moon	-32463-10-27 15:50 J	-10135388.01	-10135387.84	-10135387.62	0.0134	0.0088 *
Moon	-32462-10-31 19:11 J	-10135018.95	-10135018.70	-10135018.45	0.0134	0.0026
Earth	-32462-10-31 22:33 J	-10135018.81	-10135018.56	-10135018.30	0.0134	0.0021 *
Earth	-32461-11-04 07:40 J	-10134649.29	-10134649.18	-10134649.06	0.0134	0.0119
Moon	-32461-11-04 11:16 J	-10134649.14	-10134649.03	-10134648.89	0.0134	0.0115 *
Mercury	-32460-02-03 17:02 J	-10134557.87	-10134557.79	-10134557.69	0.0134	0.0111
Mercury	-32460-05-02 22:33 J	-10134469.68	-10134469.56	-10134469.43	0.0134	0.0088
Mercury	-32460-07-30 03:50 J	-10134381.48	-10134381.34	-10134381.19	0.0134	0.0065
Mercury	-32460-10-26 09:07 J	-10134293.28	-10134293.12	-10134292.96	0.0133	0.0042
Mercury	-32459-01-22 14:23 J	-10134205.07	-10134204.90	-10134204.74	0.0133	0.0020
Mercury	-32459-04-20 19:26 J	-10134116.85	-10134116.69	-10134116.52	0.0133	0.0003
Mercury	-32459-07-18 00:28 J	-10134028.64	-10134028.48	-10134028.31	0.0133	0.0024
Mercury	-32459-10-14 05:31 J	-10133940.42	-10133940.27	-10133940.11	0.0133	0.0046

Mercury -32458-01-10 10:33 J -10133852.20 -10133852.06 -10133851.91 0.0133 0.0068

Mercury -32458-04-08 15:21 J -10133763.97 -10133763.86 -10133763.73 0.0133 0.0089

Mercury -32458-07-05 20:23 J -10133675.73 -10133675.65 -10133675.55 0.0133 0.0110

Mercury -32458-10-02 01:11 J -10133587.47 -10133587.45 -10133587.42 0.0133 0.0131

Mars -32448-12-02 12:14 J -10129873.28 -10129872.99 -10129872.68 0.0132 0.0059

Venus -32432-07-27 04:04 J -10124157.40 -10124157.33 -10124157.26 0.0137 0.0129

Venus -32431-03-10 09:35 J -10123931.19 -10123931.10 -10123930.97 0.0137 0.0117

Venus -32431-10-22 15:50 J -10123704.97 -10123704.84 -10123704.69 0.0138 0.0105

Venus -32430-06-05 21:50 J -10123478.73 -10123478.59 -10123478.41 0.0138 0.0093

Venus -32429-01-18 04:33 J -10123252.47 -10123252.31 -10123252.13 0.0138 0.0080

Venus -32429-08-31 11:02 J -10123026.22 -10123026.04 -10123025.85 0.0139 0.0068

Venus -32428-04-14 17:45 J -10122799.95 -10122799.76 -10122799.56 0.0139 0.0054

Venus -32428-11-27 00:28 J -10122573.68 -10122573.48 -10122573.27 0.0139 0.0041

Venus -32427-07-11 07:26 J -10122347.39 -10122347.19 -10122346.98 0.0140 0.0028

Venus -32426-02-22 14:38 J -10122121.10 -10122120.89 -10122120.67 0.0140 0.0014

Venus -32426-10-06 22:04 J -10121894.80 -10121894.58 -10121894.37 0.0140 0.0002

Venus -32425-05-20 05:31 J -10121668.48 -10121668.27 -10121668.06 0.0141 0.0014

Venus -32424-01-01 13:11 J -10121442.16 -10121441.95 -10121441.74 0.0141 0.0028

Venus -32424-08-15 20:52 J -10121215.83 -10121215.63 -10121215.42 0.0141 0.0042

Venus -32423-03-30 04:47 J -10120989.49 -10120989.30 -10120989.10 0.0142 0.0057

Venus -32423-11-11 12:43 J -10120763.14 -10120762.97 -10120762.77 0.0142 0.0071

Venus -32422-06-25 21:21 J -10120536.78 -10120536.61 -10120536.44 0.0142 0.0085

Venus -32421-02-07 05:45 J -10120310.40 -10120310.26 -10120310.10 0.0143 0.0099

Venus -32421-09-20 14:23 J -10120084.02 -10120083.90 -10120083.76 0.0143 0.0113

Venus -32420-05-04 22:47 J -10119857.62 -10119857.55 -10119857.43 0.0143 0.0128

Venus -32420-12-17 07:55 J -10119631.19 -10119631.17 -10119631.11 0.0144 0.0141

Moon -32418-04-26 22:47 J -10119135.79 -10119135.55 -10119135.31 0.0144 0.0039

Earth -32418-04-27 00:57 J -10119135.70 -10119135.46 -10119135.22 0.0144 0.0039 *

Earth -32417-04-30 23:02 J -10118765.73 -10118765.54 -10118765.32 0.0145 0.0085

Moon -32417-05-01 01:55 J -10118765.62 -10118765.42 -10118765.21 0.0145 0.0089 *

Mercury -32417-07-15 05:16 J -10118690.30 -10118690.28 -10118690.24 0.0145 0.0141
 Mercury -32417-10-11 09:50 J -10118602.17 -10118602.09 -10118602.00 0.0145 0.0117
 Mercury -32416-01-07 14:23 J -10118514.00 -10118513.90 -10118513.78 0.0145 0.0093
 Mercury -32416-04-05 19:11 J -10118425.83 -10118425.70 -10118425.57 0.0145 0.0068
 Mercury -32416-07-02 23:45 J -10118337.65 -10118337.51 -10118337.36 0.0145 0.0043
 Mercury -32416-09-29 04:33 J -10118249.45 -10118249.31 -10118249.16 0.0145 0.0018
 Mercury -32416-12-26 09:21 J -10118161.26 -10118161.11 -10118160.96 0.0145 0.0008
 Mercury -32415-03-24 14:09 J -10118073.06 -10118072.91 -10118072.77 0.0145 0.0033
 Mercury -32415-06-20 18:57 J -10117984.84 -10117984.71 -10117984.57 0.0146 0.0059
 Mercury -32415-09-16 23:45 J -10117896.63 -10117896.51 -10117896.38 0.0146 0.0086
 Mercury -32415-12-14 04:47 J -10117808.39 -10117808.30 -10117808.20 0.0146 0.0112
 Mercury -32414-03-12 09:35 J -10117720.14 -10117720.10 -10117720.05 0.0146 0.0139
 Mars -32407-05-08 07:40 J -10115106.39 -10115106.18 -10115105.97 0.0147 0.0097
 Venus -32392-03-30 16:19 J -10109665.89 -10109665.82 -10109665.71 0.0141 0.0130
 Venus -32392-11-12 04:04 J -10109439.45 -10109439.33 -10109439.19 0.0141 0.0115
 Venus -32391-06-26 15:50 J -10109212.99 -10109212.84 -10109212.69 0.0141 0.0101
 Venus -32390-02-08 02:38 J -10108986.55 -10108986.39 -10108986.20 0.0140 0.0088
 Venus -32390-09-22 13:40 J -10108760.10 -10108759.93 -10108759.72 0.0140 0.0073
 Venus -32389-05-06 00:43 J -10108533.66 -10108533.47 -10108533.26 0.0140 0.0059
 Venus -32389-12-18 11:31 J -10108307.23 -10108307.02 -10108306.80 0.0139 0.0044
 Venus -32388-08-01 22:04 J -10108080.79 -10108080.58 -10108080.35 0.0139 0.0030
 Venus -32387-03-16 08:38 J -10107854.36 -10107854.14 -10107853.91 0.0139 0.0016
 Venus -32387-10-28 18:57 J -10107627.93 -10107627.71 -10107627.49 0.0138 0.0001
 Venus -32386-06-12 05:02 J -10107401.51 -10107401.29 -10107401.06 0.0138 0.0013
 Venus -32385-01-24 15:07 J -10107175.09 -10107174.87 -10107174.65 0.0138 0.0027
 Venus -32385-09-07 00:57 J -10106948.67 -10106948.46 -10106948.25 0.0137 0.0040
 Venus -32384-04-21 10:19 J -10106722.26 -10106722.07 -10106721.85 0.0137 0.0054
 Venus -32384-12-03 19:55 J -10106495.86 -10106495.67 -10106495.47 0.0137 0.0067
 Venus -32383-07-18 05:16 J -10106269.45 -10106269.28 -10106269.09 0.0136 0.0080
 Venus -32382-03-01 14:23 J -10106043.05 -10106042.90 -10106042.72 0.0136 0.0093

Venus -32382-10-13 23:31 J -10105816.65 -10105816.52 -10105816.37 0.0136 0.0105
 Venus -32381-05-27 07:55 J -10105590.26 -10105590.17 -10105590.04 0.0135 0.0118
 Venus -32380-01-08 16:33 J -10105363.85 -10105363.81 -10105363.73 0.0135 0.0130
 Earth -32379-10-28 01:11 J -10104706.66 -10104706.45 -10104706.23 0.0134 0.0073
 Moon -32379-10-28 04:33 J -10104706.51 -10104706.31 -10104706.07 0.0134 0.0066 *
 Moon -32378-11-01 07:26 J -10104337.43 -10104337.19 -10104336.93 0.0134 0.0021
 Earth -32378-11-01 11:16 J -10104337.28 -10104337.03 -10104336.77 0.0134 0.0028 *
 Earth -32377-11-04 20:09 J -10103967.73 -10103967.66 -10103967.57 0.0134 0.0126
 Moon -32377-11-04 23:45 J -10103967.56 -10103967.51 -10103967.45 0.0134 0.0130
 Mercury -32377-11-27 19:40 J -10103944.74 -10103944.68 -10103944.63 0.0134 0.0125
 Mercury -32376-02-24 00:57 J -10103856.57 -10103856.46 -10103856.35 0.0134 0.0102
 Mercury -32376-05-23 05:59 J -10103768.37 -10103768.25 -10103768.10 0.0134 0.0080
 Mercury -32376-08-19 11:31 J -10103680.17 -10103680.02 -10103679.86 0.0134 0.0057
 Mercury -32376-11-15 16:47 J -10103591.96 -10103591.80 -10103591.64 0.0133 0.0034
 Mercury -32375-02-11 22:04 J -10103503.75 -10103503.58 -10103503.42 0.0133 0.0012
 Mercury -32375-05-11 03:07 J -10103415.54 -10103415.37 -10103415.20 0.0133 0.0011
 Mercury -32375-08-07 08:09 J -10103327.32 -10103327.16 -10103327.00 0.0133 0.0033
 Mercury -32375-11-03 13:11 J -10103239.10 -10103238.95 -10103238.80 0.0133 0.0054
 Mercury -32374-01-30 17:59 J -10103150.87 -10103150.75 -10103150.60 0.0133 0.0076
 Mercury -32374-04-28 23:02 J -10103062.64 -10103062.54 -10103062.42 0.0133 0.0097
 Mercury -32374-07-26 04:04 J -10102974.40 -10102974.33 -10102974.25 0.0133 0.0118
 Mars -32365-08-24 11:59 J -10099657.23 -10099657.00 -10099656.74 0.0132 0.0090
 Venus -32348-03-26 14:52 J -10093598.92 -10093598.88 -10093598.82 0.0137 0.0133
 Venus -32348-11-07 20:52 J -10093372.72 -10093372.63 -10093372.52 0.0137 0.0121
 Venus -32347-06-22 02:52 J -10093146.50 -10093146.38 -10093146.24 0.0138 0.0109
 Venus -32346-02-03 09:07 J -10092920.26 -10092920.12 -10092919.96 0.0138 0.0097
 Venus -32346-09-17 15:35 J -10092694.01 -10092693.85 -10092693.68 0.0138 0.0084
 Venus -32345-04-30 21:50 J -10092467.76 -10092467.59 -10092467.40 0.0138 0.0072
 Venus -32345-12-13 04:33 J -10092241.49 -10092241.31 -10092241.11 0.0139 0.0059
 Venus -32344-07-27 11:31 J -10092015.22 -10092015.02 -10092014.82 0.0139 0.0045

Venus	-32343-03-10 18:28 J	-10091788.94	-10091788.73	-10091788.52	0.0139	0.0032
Venus	-32343-10-23 01:26 J	-10091562.65	-10091562.44	-10091562.23	0.0140	0.0018
Venus	-32342-06-06 08:38 J	-10091336.35	-10091336.14	-10091335.92	0.0140	0.0005
Venus	-32341-01-18 16:19 J	-10091110.03	-10091109.82	-10091109.61	0.0141	0.0010
Venus	-32341-08-31 23:45 J	-10090883.71	-10090883.51	-10090883.30	0.0141	0.0024
Venus	-32340-04-15 07:26 J	-10090657.39	-10090657.19	-10090656.98	0.0141	0.0039
Venus	-32340-11-27 15:21 J	-10090431.05	-10090430.86	-10090430.66	0.0142	0.0053
Venus	-32339-07-11 23:16 J	-10090204.71	-10090204.53	-10090204.34	0.0142	0.0067
Venus	-32338-02-23 07:40 J	-10089978.35	-10089978.18	-10089978.00	0.0142	0.0081
Venus	-32338-10-07 15:50 J	-10089751.98	-10089751.84	-10089751.67	0.0143	0.0096
Venus	-32337-05-21 00:14 J	-10089525.61	-10089525.49	-10089525.34	0.0143	0.0110
Venus	-32336-01-02 08:52 J	-10089299.21	-10089299.13	-10089299.01	0.0143	0.0125
Venus	-32336-08-16 17:59 J	-10089072.80	-10089072.75	-10089072.69	0.0144	0.0138
Moon	-32334-04-27 11:59 J	-10088454.23	-10088454.00	-10088453.75	0.0144	0.0030
Earth	-32334-04-27 13:55 J	-10088454.16	-10088453.92	-10088453.67	0.0144	0.0030 *
Earth	-32333-05-01 11:59 J	-10088084.18	-10088084.00	-10088083.79	0.0145	0.0094
Moon	-32333-05-01 14:38 J	-10088084.08	-10088083.89	-10088083.67	0.0145	0.0089 *
Mercury	-32333-08-04 12:57 J	-10087989.00	-10087988.96	-10087988.89	0.0145	0.0132
Mercury	-32333-10-31 17:45 J	-10087900.85	-10087900.76	-10087900.66	0.0145	0.0107
Mercury	-32332-01-27 22:19 J	-10087812.68	-10087812.57	-10087812.45	0.0145	0.0083
Mercury	-32332-04-26 02:52 J	-10087724.51	-10087724.38	-10087724.24	0.0145	0.0059
Mercury	-32332-07-23 07:40 J	-10087636.32	-10087636.18	-10087636.04	0.0145	0.0033
Mercury	-32332-10-19 12:28 J	-10087548.13	-10087547.98	-10087547.83	0.0145	0.0008
Mercury	-32331-01-15 17:16 J	-10087459.93	-10087459.78	-10087459.64	0.0145	0.0018
Mercury	-32331-04-13 21:50 J	-10087371.72	-10087371.59	-10087371.44	0.0145	0.0044
Mercury	-32331-07-11 02:38 J	-10087283.51	-10087283.39	-10087283.25	0.0146	0.0070
Mercury	-32331-10-07 07:40 J	-10087195.29	-10087195.18	-10087195.06	0.0146	0.0095
Mercury	-32330-01-03 12:28 J	-10087107.05	-10087106.98	-10087106.89	0.0146	0.0122
Mars	-32322-01-01 14:09 J	-10084187.20	-10084186.91	-10084186.62	0.0147	0.0003
Venus	-32309-11-28 00:28 J	-10079107.53	-10079107.48	-10079107.39	0.0142	0.0135

Venus	-32308-07-12 12:14 J	-10078881.09	-10078880.99	-10078880.86	0.0141	0.0121
Venus	-32307-02-23 23:45 J	-10078654.65	-10078654.51	-10078654.36	0.0141	0.0106
Venus	-32307-10-08 11:02 J	-10078428.20	-10078428.04	-10078427.87	0.0141	0.0092
Venus	-32306-05-22 22:04 J	-10078201.75	-10078201.58	-10078201.38	0.0140	0.0078
Venus	-32305-01-04 09:07 J	-10077975.31	-10077975.12	-10077974.91	0.0140	0.0063
Venus	-32305-08-17 19:55 J	-10077748.87	-10077748.67	-10077748.45	0.0139	0.0049
Venus	-32304-04-01 06:43 J	-10077522.43	-10077522.22	-10077522.00	0.0139	0.0034
Venus	-32304-11-13 17:16 J	-10077296.00	-10077295.78	-10077295.56	0.0139	0.0020
Venus	-32303-06-28 03:50 J	-10077069.56	-10077069.34	-10077069.12	0.0138	0.0005
Venus	-32302-02-09 13:55 J	-10076843.14	-10076842.92	-10076842.69	0.0138	0.0010
Venus	-32302-09-23 23:59 J	-10076616.72	-10076616.50	-10076616.27	0.0138	0.0023
Venus	-32301-05-07 09:50 J	-10076390.30	-10076390.09	-10076389.87	0.0137	0.0037
Venus	-32301-12-19 19:40 J	-10076163.89	-10076163.68	-10076163.47	0.0137	0.0050
Venus	-32300-08-03 05:16 J	-10075937.47	-10075937.28	-10075937.07	0.0137	0.0064
Venus	-32299-03-17 14:23 J	-10075711.06	-10075710.90	-10075710.70	0.0136	0.0078
Venus	-32299-10-29 23:45 J	-10075484.66	-10075484.51	-10075484.33	0.0136	0.0090
Venus	-32298-06-13 08:52 J	-10075258.26	-10075258.13	-10075257.97	0.0136	0.0103
Venus	-32297-01-25 17:59 J	-10075031.86	-10075031.75	-10075031.63	0.0136	0.0115
Venus	-32297-09-08 02:23 J	-10074805.45	-10074805.40	-10074805.31	0.0135	0.0128
Earth	-32295-10-28 13:55 J	-10074025.13	-10074024.92	-10074024.68	0.0134	0.0064
Moon	-32295-10-28 17:31 J	-10074024.98	-10074024.77	-10074024.54	0.0134	0.0071 *
Moon	-32294-11-01 20:23 J	-10073655.88	-10073655.65	-10073655.39	0.0134	0.0042
Earth	-32294-11-02 00:14 J	-10073655.74	-10073655.49	-10073655.24	0.0134	0.0036 *
Moon	-32293-11-05 12:57 J	-10073286.02	-10073285.96	-10073285.89	0.0134	0.0129
Mercury	-32293-12-18 02:52 J	-10073243.44	-10073243.38	-10073243.28	0.0134	0.0117
Mercury	-32292-03-16 08:23 J	-10073155.26	-10073155.15	-10073155.02	0.0134	0.0094
Mercury	-32292-06-12 13:55 J	-10073067.06	-10073066.92	-10073066.77	0.0134	0.0070
Mercury	-32292-09-08 19:11 J	-10072978.85	-10072978.70	-10072978.54	0.0133	0.0048
Mercury	-32292-12-06 00:28 J	-10072890.64	-10072890.48	-10072890.31	0.0133	0.0025
Mercury	-32291-03-04 05:45 J	-10072802.43	-10072802.26	-10072802.09	0.0133	0.0003

Mercury -32291-05-31 10:47 J -10072714.21 -10072714.05 -10072713.88 0.0133 0.0019

Mercury -32291-08-27 15:50 J -10072625.99 -10072625.84 -10072625.68 0.0133 0.0041

Mercury -32291-11-23 20:52 J -10072537.77 -10072537.63 -10072537.48 0.0133 0.0063

Mercury -32290-02-20 01:55 J -10072449.54 -10072449.42 -10072449.29 0.0133 0.0084

Mercury -32290-05-19 06:43 J -10072361.31 -10072361.22 -10072361.11 0.0133 0.0106

Mercury -32290-08-15 11:31 J -10072273.05 -10072273.02 -10072272.96 0.0133 0.0127

Mars -32280-04-19 23:59 J -10068737.83 -10068737.50 -10068737.16 0.0132 0.0004

Venus -32264-07-08 07:11 J -10062814.28 -10062814.20 -10062814.11 0.0137 0.0125

Venus -32263-02-19 12:57 J -10062588.06 -10062587.96 -10062587.83 0.0137 0.0114

Venus -32263-10-03 19:26 J -10062361.83 -10062361.69 -10062361.55 0.0138 0.0101

Venus -32262-05-18 01:26 J -10062135.59 -10062135.44 -10062135.27 0.0138 0.0089

Venus -32262-12-30 07:55 J -10061909.33 -10061909.17 -10061908.98 0.0138 0.0076

Venus -32261-08-12 14:38 J -10061683.07 -10061682.89 -10061682.70 0.0139 0.0063

Venus -32260-03-26 21:07 J -10061456.81 -10061456.62 -10061456.41 0.0139 0.0050

Venus -32260-11-08 04:04 J -10061230.53 -10061230.33 -10061230.12 0.0139 0.0036

Venus -32259-06-22 11:02 J -10061004.24 -10061004.04 -10061003.82 0.0140 0.0023

Venus -32258-02-03 18:28 J -10060777.94 -10060777.73 -10060777.51 0.0140 0.0009

Venus -32258-09-18 01:55 J -10060551.63 -10060551.42 -10060551.21 0.0140 0.0006

Venus -32257-05-01 09:21 J -10060325.32 -10060325.11 -10060324.90 0.0141 0.0020

Venus -32257-12-13 17:02 J -10060099.00 -10060098.79 -10060098.59 0.0141 0.0034

Venus -32256-07-28 00:43 J -10059872.67 -10059872.47 -10059872.27 0.0141 0.0049

Venus -32255-03-11 08:23 J -10059646.33 -10059646.15 -10059645.95 0.0142 0.0064

Venus -32255-10-23 16:33 J -10059419.98 -10059419.81 -10059419.62 0.0142 0.0078

Venus -32254-06-07 00:43 J -10059193.62 -10059193.47 -10059193.29 0.0142 0.0093

Venus -32253-01-19 09:07 J -10058967.24 -10058967.12 -10058966.96 0.0143 0.0107

Venus -32253-09-01 18:14 J -10058740.85 -10058740.74 -10058740.63 0.0143 0.0120

Venus -32252-04-16 02:38 J -10058514.45 -10058514.39 -10058514.31 0.0143 0.0135

Moon -32250-04-27 23:31 J -10057772.75 -10057772.52 -10057772.27 0.0144 0.0024

Earth -32250-04-28 01:11 J -10057772.70 -10057772.45 -10057772.20 0.0144 0.0023 *

Earth -32249-05-01 23:31 J -10057402.69 -10057402.52 -10057402.33 0.0145 0.0100

Moon -32249-05-02 01:11 J -10057402.61 -10057402.45 -10057402.25 0.0145 0.0104 *
 Mercury -32249-08-24 20:38 J -10057287.71 -10057287.64 -10057287.56 0.0145 0.0124
 Mercury -32249-11-21 01:26 J -10057199.55 -10057199.44 -10057199.34 0.0145 0.0100
 Mercury -32248-02-17 05:45 J -10057111.38 -10057111.26 -10057111.13 0.0145 0.0075
 Mercury -32248-05-16 10:33 J -10057023.20 -10057023.06 -10057022.92 0.0145 0.0050
 Mercury -32248-08-12 15:21 J -10056935.01 -10056934.86 -10056934.72 0.0145 0.0025
 Mercury -32248-11-08 19:55 J -10056846.81 -10056846.67 -10056846.52 0.0145 0.0003
 Mercury -32247-02-05 00:43 J -10056758.61 -10056758.47 -10056758.32 0.0145 0.0026
 Mercury -32247-05-04 05:31 J -10056670.41 -10056670.27 -10056670.13 0.0146 0.0052
 Mercury -32247-07-31 10:19 J -10056582.19 -10056582.07 -10056581.94 0.0146 0.0078
 Mercury -32247-10-27 15:21 J -10056493.96 -10056493.86 -10056493.75 0.0146 0.0104
 Mercury -32246-01-23 20:09 J -10056405.72 -10056405.66 -10056405.59 0.0146 0.0131
 Mars -32238-08-27 19:40 J -10053267.87 -10053267.68 -10053267.47 0.0147 0.0103
 Venus -32225-07-28 09:07 J -10048549.14 -10048549.12 -10048549.06 0.0142 0.0139
 Venus -32224-03-11 20:52 J -10048322.72 -10048322.63 -10048322.52 0.0141 0.0125
 Venus -32224-10-24 08:09 J -10048096.28 -10048096.16 -10048096.01 0.0141 0.0111
 Venus -32223-06-07 19:55 J -10047869.83 -10047869.67 -10047869.50 0.0141 0.0096
 Venus -32222-01-20 07:11 J -10047643.38 -10047643.20 -10047643.02 0.0140 0.0082
 Venus -32222-09-03 17:59 J -10047416.93 -10047416.75 -10047416.54 0.0140 0.0067
 Venus -32221-04-17 05:02 J -10047190.49 -10047190.29 -10047190.08 0.0140 0.0053
 Venus -32221-11-29 15:35 J -10046964.05 -10046963.85 -10046963.62 0.0139 0.0039
 Venus -32220-07-14 02:38 J -10046737.61 -10046737.39 -10046737.17 0.0139 0.0023
 Venus -32219-02-25 13:11 J -10046511.17 -10046510.95 -10046510.73 0.0139 0.0009
 Venus -32219-10-09 23:31 J -10046284.74 -10046284.52 -10046284.30 0.0138 0.0005
 Venus -32218-05-24 09:35 J -10046058.32 -10046058.10 -10046057.88 0.0138 0.0020
 Venus -32217-01-05 19:26 J -10045831.90 -10045831.69 -10045831.46 0.0138 0.0034
 Venus -32217-08-19 05:31 J -10045605.48 -10045605.27 -10045605.06 0.0137 0.0047
 Venus -32216-04-02 15:07 J -10045379.06 -10045378.87 -10045378.66 0.0137 0.0061
 Venus -32216-11-15 00:28 J -10045152.66 -10045152.48 -10045152.28 0.0137 0.0075
 Venus -32215-06-29 10:04 J -10044926.25 -10044926.08 -10044925.91 0.0136 0.0088

Venus -32214-02-10 19:11 J -10044699.84 -10044699.70 -10044699.54 0.0136 0.0101
 Venus -32214-09-25 04:04 J -10044473.44 -10044473.33 -10044473.20 0.0136 0.0113
 Venus -32213-05-08 12:43 J -10044247.04 -10044246.97 -10044246.87 0.0135 0.0126
 Earth -32211-10-29 03:50 J -10043343.57 -10043343.34 -10043343.11 0.0134 0.0056
 Moon -32211-10-29 07:11 J -10043343.43 -10043343.20 -10043342.95 0.0134 0.0049 *
 Moon -32210-11-02 10:04 J -10042974.31 -10042974.08 -10042973.83 0.0134 0.0037
 Earth -32210-11-02 13:26 J -10042974.17 -10042973.94 -10042973.68 0.0134 0.0045 *
 Mercury -32209-10-11 05:45 J -10042630.29 -10042630.26 -10042630.22 0.0134 0.0130
 Mercury -32208-01-07 11:02 J -10042542.13 -10042542.04 -10042541.93 0.0134 0.0107
 Mercury -32208-04-05 16:33 J -10042453.94 -10042453.81 -10042453.68 0.0134 0.0084
 Mercury -32208-07-02 21:50 J -10042365.74 -10042365.59 -10042365.44 0.0133 0.0061
 Mercury -32208-09-29 03:07 J -10042277.53 -10042277.37 -10042277.20 0.0133 0.0038
 Mercury -32208-12-26 08:23 J -10042189.32 -10042189.15 -10042188.98 0.0133 0.0016
 Mercury -32207-03-24 13:40 J -10042101.10 -10042100.93 -10042100.77 0.0133 0.0007
 Mercury -32207-06-20 18:43 J -10042012.88 -10042012.72 -10042012.56 0.0133 0.0029
 Mercury -32207-09-16 23:45 J -10041924.66 -10041924.51 -10041924.35 0.0133 0.0050
 Mercury -32207-12-14 04:47 J -10041836.44 -10041836.30 -10041836.16 0.0133 0.0072
 Mercury -32206-03-12 09:50 J -10041748.20 -10041748.09 -10041747.97 0.0133 0.0093
 Mercury -32206-06-08 14:38 J -10041659.96 -10041659.89 -10041659.80 0.0133 0.0115
 Mars -32196-12-14 12:43 J -10037818.21 -10037817.97 -10037817.69 0.0132 0.0083
 Jupiter -32189-04-22 13:11 J -10035497.09 -10035496.95 -10035496.70 0.0133 0.0123
 Venus -32180-03-07 17:45 J -10032255.81 -10032255.76 -10032255.67 0.0137 0.0130
 Venus -32180-10-19 23:45 J -10032029.60 -10032029.51 -10032029.39 0.0137 0.0118
 Venus -32179-06-03 05:59 J -10031803.37 -10031803.25 -10031803.10 0.0137 0.0106
 Venus -32178-01-15 12:28 J -10031577.13 -10031576.98 -10031576.82 0.0138 0.0093
 Venus -32178-08-29 18:43 J -10031350.88 -10031350.72 -10031350.54 0.0138 0.0080
 Venus -32177-04-12 01:11 J -10031124.63 -10031124.45 -10031124.26 0.0138 0.0067
 Venus -32177-11-24 07:55 J -10030898.36 -10030898.17 -10030897.97 0.0139 0.0054
 Venus -32176-07-08 14:52 J -10030672.09 -10030671.88 -10030671.68 0.0139 0.0040
 Venus -32175-02-19 21:50 J -10030445.80 -10030445.59 -10030445.38 0.0139 0.0026

Venus	-32175-10-04 04:47 J	-10030219.51	-10030219.30	-10030219.08	0.0140	0.0013
Venus	-32174-05-18 11:59 J	-10029993.21	-10029993.00	-10029992.78	0.0140	0.0004
Venus	-32174-12-30 19:26 J	-10029766.89	-10029766.69	-10029766.47	0.0140	0.0017
Venus	-32173-08-13 02:52 J	-10029540.58	-10029540.38	-10029540.16	0.0141	0.0031
Venus	-32172-03-27 10:33 J	-10029314.25	-10029314.06	-10029313.85	0.0141	0.0045
Venus	-32172-11-08 18:14 J	-10029087.92	-10029087.74	-10029087.54	0.0142	0.0060
Venus	-32171-06-23 02:23 J	-10028861.58	-10028861.40	-10028861.21	0.0142	0.0074
Venus	-32170-02-04 10:33 J	-10028635.21	-10028635.06	-10028634.88	0.0142	0.0089
Venus	-32170-09-18 18:57 J	-10028408.85	-10028408.71	-10028408.56	0.0143	0.0103
Venus	-32169-05-02 03:21 J	-10028182.47	-10028182.36	-10028182.23	0.0143	0.0117
Venus	-32169-12-14 11:45 J	-10027956.07	-10027956.01	-10027955.91	0.0143	0.0132
Moon	-32167-04-23 15:21 J	-10027460.95	-10027460.86	-10027460.74	0.0144	0.0132
Earth	-32167-04-23 15:21 J	-10027460.93	-10027460.86	-10027460.78	0.0144	0.0137 *
Moon	-32166-04-28 12:14 J	-10027091.23	-10027090.99	-10027090.75	0.0144	0.0016
Earth	-32166-04-28 12:57 J	-10027091.20	-10027090.96	-10027090.70	0.0144	0.0017 *
Earth	-32165-05-02 11:31 J	-10026721.17	-10026721.02	-10026720.84	0.0145	0.0108
Moon	-32165-05-02 13:26 J	-10026721.12	-10026720.94	-10026720.75	0.0145	0.0103 *
Mercury	-32165-06-17 23:45 J	-10026674.54	-10026674.51	-10026674.47	0.0145	0.0140
Mercury	-32165-09-14 04:33 J	-10026586.40	-10026586.31	-10026586.23	0.0145	0.0115
Mercury	-32165-12-11 08:52 J	-10026498.24	-10026498.13	-10026498.01	0.0145	0.0091
Mercury	-32164-03-09 13:40 J	-10026410.06	-10026409.93	-10026409.80	0.0145	0.0066
Mercury	-32164-06-05 18:14 J	-10026321.88	-10026321.74	-10026321.60	0.0145	0.0041
Mercury	-32164-09-01 23:02 J	-10026233.69	-10026233.54	-10026233.40	0.0145	0.0016
Mercury	-32164-11-29 03:35 J	-10026145.49	-10026145.35	-10026145.20	0.0145	0.0011
Mercury	-32163-02-25 08:23 J	-10026057.29	-10026057.15	-10026057.00	0.0145	0.0035
Mercury	-32163-05-24 13:11 J	-10025969.08	-10025968.95	-10025968.81	0.0146	0.0061
Mercury	-32163-08-20 18:14 J	-10025880.86	-10025880.74	-10025880.62	0.0146	0.0087
Mercury	-32163-11-16 23:02 J	-10025792.63	-10025792.54	-10025792.44	0.0146	0.0113
Mercury	-32162-02-13 04:04 J	-10025704.37	-10025704.33	-10025704.29	0.0146	0.0140
Mars	-32155-05-21 05:31 J	-10023050.50	-10023050.27	-10023050.01	0.0147	0.0073

Venus	-32141-11-09 05:16 J	-10017764.36	-10017764.28	-10017764.18	0.0142	0.0130
Venus	-32140-06-23 17:02 J	-10017537.91	-10017537.79	-10017537.66	0.0141	0.0116
Venus	-32139-02-05 04:19 J	-10017311.46	-10017311.32	-10017311.15	0.0141	0.0101
Venus	-32139-09-19 15:35 J	-10017085.01	-10017084.85	-10017084.66	0.0141	0.0087
Venus	-32138-05-04 02:38 J	-10016858.57	-10016858.39	-10016858.18	0.0140	0.0072
Venus	-32138-12-16 13:55 J	-10016632.12	-10016631.92	-10016631.71	0.0140	0.0057
Venus	-32137-07-30 00:43 J	-10016405.67	-10016405.47	-10016405.25	0.0140	0.0043
Venus	-32136-03-13 11:31 J	-10016179.23	-10016179.02	-10016178.79	0.0139	0.0028
Venus	-32136-10-25 22:19 J	-10015952.80	-10015952.57	-10015952.35	0.0139	0.0013
Venus	-32135-06-09 08:38 J	-10015726.36	-10015726.14	-10015725.91	0.0138	0.0004
Venus	-32134-01-21 18:57 J	-10015499.93	-10015499.71	-10015499.48	0.0138	0.0016
Venus	-32134-09-05 05:16 J	-10015273.50	-10015273.28	-10015273.06	0.0138	0.0030
Venus	-32133-04-18 14:52 J	-10015047.08	-10015046.88	-10015046.66	0.0137	0.0045
Venus	-32133-12-01 00:43 J	-10014820.67	-10014820.47	-10014820.26	0.0137	0.0058
Venus	-32132-07-15 10:19 J	-10014594.25	-10014594.07	-10014593.87	0.0137	0.0072
Venus	-32131-02-26 19:55 J	-10014367.84	-10014367.67	-10014367.49	0.0137	0.0085
Venus	-32131-10-11 04:47 J	-10014141.44	-10014141.30	-10014141.13	0.0136	0.0099
Venus	-32130-05-25 13:55 J	-10013915.04	-10013914.92	-10013914.78	0.0136	0.0111
Venus	-32129-01-06 22:33 J	-10013688.63	-10013688.56	-10013688.45	0.0136	0.0124
Venus	-32129-08-20 07:40 J	-10013462.18	-10013462.18	-10013462.17	0.0135	0.0135
Earth	-32127-10-29 17:02 J	-10012662.02	-10012661.79	-10012661.54	0.0134	0.0048
Moon	-32127-10-29 20:09 J	-10012661.88	-10012661.66	-10012661.41	0.0134	0.0055 *
Moon	-32126-11-02 23:45 J	-10012292.73	-10012292.51	-10012292.27	0.0134	0.0058
Earth	-32126-11-03 02:52 J	-10012292.60	-10012292.38	-10012292.13	0.0134	0.0053 *
Saturn	-32125-06-25 04:19 J	-10012057.92	-10012057.32	-10012056.69	0.0134	0.0018
Mercury	-32125-10-31 13:26 J	-10011929.00	-10011928.94	-10011928.85	0.0134	0.0121
Mercury	-32124-01-27 18:57 J	-10011840.82	-10011840.71	-10011840.59	0.0134	0.0097
Mercury	-32124-04-26 00:14 J	-10011752.62	-10011752.49	-10011752.34	0.0133	0.0075
Mercury	-32124-07-23 05:45 J	-10011664.41	-10011664.26	-10011664.10	0.0133	0.0051
Mercury	-32124-10-19 11:02 J	-10011576.20	-10011576.04	-10011575.87	0.0133	0.0029

Mercury -32123-01-15 16:19 J -10011487.99 -10011487.82 -10011487.65 0.0133 0.0006

Mercury -32123-04-13 21:21 J -10011399.77 -10011399.61 -10011399.44 0.0133 0.0016

Mercury -32123-07-11 02:23 J -10011311.55 -10011311.40 -10011311.23 0.0133 0.0038

Mercury -32123-10-07 07:26 J -10011223.33 -10011223.19 -10011223.03 0.0133 0.0060

Mercury -32122-01-03 12:43 J -10011135.10 -10011134.97 -10011134.84 0.0133 0.0081

Mercury -32122-04-01 17:31 J -10011046.86 -10011046.77 -10011046.66 0.0133 0.0103

Mercury -32122-06-28 22:19 J -10010958.61 -10010958.57 -10010958.50 0.0133 0.0124

Mars -32113-09-05 14:09 J -10007602.18 -10007601.91 -10007601.60 0.0132 0.0065

Venus -32097-11-05 04:04 J -10001697.36 -10001697.33 -10001697.28 0.0137 0.0134

Venus -32096-06-19 09:50 J -10001471.17 -10001471.09 -10001470.98 0.0137 0.0122

Venus -32095-01-31 15:50 J -10001244.95 -10001244.84 -10001244.70 0.0137 0.0110

Venus -32095-09-14 21:50 J -10001018.72 -10001018.59 -10001018.42 0.0137 0.0098

Venus -32094-04-29 04:04 J -10000792.48 -10000792.33 -10000792.14 0.0138 0.0085

Venus -32094-12-11 10:47 J -10000566.22 -10000566.05 -10000565.86 0.0138 0.0072

Venus -32093-07-24 17:16 J -10000339.96 -10000339.78 -10000339.58 0.0138 0.0059

Venus -32092-03-07 23:59 J -10000113.69 -10000113.50 -10000113.29 0.0139 0.0045

Venus -32092-10-20 06:43 J -9999887.42 -9999887.22 -9999887.00 0.0139 0.0032

Venus -32091-06-03 13:55 J -9999661.13 -9999660.92 -9999660.71 0.0140 0.0017

Venus -32090-01-15 21:07 J -9999434.83 -9999434.62 -9999434.40 0.0140 0.0004

Venus -32090-08-30 04:19 J -9999208.53 -9999208.32 -9999208.10 0.0140 0.0012

Venus -32089-04-12 11:45 J -9998982.22 -9998982.01 -9998981.80 0.0141 0.0026

Venus -32089-11-24 19:11 J -9998755.90 -9998755.70 -9998755.49 0.0141 0.0041

Venus -32088-07-09 02:52 J -9998529.57 -9998529.38 -9998529.18 0.0141 0.0055

Venus -32087-02-20 10:47 J -9998303.23 -9998303.05 -9998302.86 0.0142 0.0070

Venus -32087-10-04 18:57 J -9998076.88 -9998076.71 -9998076.54 0.0142 0.0084

Venus -32086-05-19 03:07 J -9997850.52 -9997850.37 -9997850.22 0.0142 0.0099

Venus -32086-12-31 11:31 J -9997624.14 -9997624.02 -9997623.89 0.0143 0.0113

Venus -32085-08-13 19:55 J -9997397.75 -9997397.67 -9997397.56 0.0143 0.0127

Venus -32084-03-28 04:33 J -9997171.33 -9997171.31 -9997171.26 0.0143 0.0142

Earth -32083-04-24 00:28 J -9996779.55 -9996779.48 -9996779.36 0.0144 0.0133

Moon	-32083-04-24 00:28 J	-9996779.54	-9996779.48	-9996779.38	0.0144	0.0137	*
Moon	-32082-04-28 22:04 J	-9996409.82	-9996409.58	-9996409.33	0.0144	0.0011	
Earth	-32082-04-28 22:33 J	-9996409.81	-9996409.56	-9996409.31	0.0144	0.0011	*
Earth	-32081-05-02 21:07 J	-9996039.77	-9996039.62	-9996039.45	0.0145	0.0112	
Moon	-32081-05-02 21:50 J	-9996039.73	-9996039.59	-9996039.42	0.0145	0.0115	*
Mercury	-32081-07-08 06:43 J	-9995973.26	-9995973.22	-9995973.15	0.0145	0.0134	
Mercury	-32081-10-04 11:31 J	-9995885.11	-9995885.02	-9995884.92	0.0145	0.0109	
Mercury	-32081-12-31 16:04 J	-9995796.94	-9995796.83	-9995796.71	0.0145	0.0085	
Mercury	-32080-03-29 20:38 J	-9995708.76	-9995708.64	-9995708.50	0.0145	0.0060	
Mercury	-32080-06-26 01:26 J	-9995620.58	-9995620.44	-9995620.30	0.0145	0.0035	
Mercury	-32080-09-22 06:14 J	-9995532.39	-9995532.24	-9995532.10	0.0145	0.0010	
Mercury	-32080-12-19 10:47 J	-9995444.19	-9995444.05	-9995443.90	0.0145	0.0016	
Mercury	-32079-03-17 15:35 J	-9995355.99	-9995355.85	-9995355.70	0.0145	0.0042	
Mercury	-32079-06-13 20:23 J	-9995267.78	-9995267.65	-9995267.51	0.0146	0.0067	
Mercury	-32079-09-10 01:11 J	-9995179.55	-9995179.45	-9995179.33	0.0146	0.0094	
Mercury	-32079-12-07 06:14 J	-9995091.32	-9995091.24	-9995091.15	0.0146	0.0120	
Mars	-32070-01-14 09:35 J	-9992131.37	-9992131.10	-9992130.81	0.0147	0.0025	
Jupiter	-32065-09-23 18:57 J	-9990052.04	-9990051.71	-9990051.34	0.0146	0.0112	
Venus	-32057-07-09 13:11 J	-9987206.00	-9987205.95	-9987205.87	0.0142	0.0135	
Venus	-32056-02-21 00:57 J	-9986979.56	-9986979.46	-9986979.33	0.0142	0.0121	
Venus	-32056-10-05 12:28 J	-9986753.11	-9986752.98	-9986752.82	0.0141	0.0106	
Venus	-32055-05-19 23:59 J	-9986526.66	-9986526.50	-9986526.32	0.0141	0.0091	
Venus	-32054-01-01 11:16 J	-9986300.20	-9986300.03	-9986299.83	0.0141	0.0077	
Venus	-32054-08-15 22:33 J	-9986073.75	-9986073.56	-9986073.35	0.0140	0.0062	
Venus	-32053-03-29 09:35 J	-9985847.30	-9985847.10	-9985846.88	0.0140	0.0047	
Venus	-32053-11-10 20:38 J	-9985620.86	-9985620.64	-9985620.42	0.0139	0.0032	
Venus	-32052-06-25 07:26 J	-9985394.41	-9985394.19	-9985393.97	0.0139	0.0017	
Venus	-32051-02-06 17:59 J	-9985167.97	-9985167.75	-9985167.52	0.0139	0.0003	
Venus	-32051-09-21 04:33 J	-9984941.54	-9984941.31	-9984941.09	0.0138	0.0013	
Venus	-32050-05-05 14:38 J	-9984715.11	-9984714.89	-9984714.67	0.0138	0.0027	

Venus	-32050-12-18 00:43 J	-9984488.68	-9984488.47	-9984488.26	0.0138	0.0041
Venus	-32049-07-31 10:33 J	-9984262.26	-9984262.06	-9984261.85	0.0137	0.0055
Venus	-32048-03-14 20:09 J	-9984035.84	-9984035.66	-9984035.46	0.0137	0.0069
Venus	-32048-10-27 05:31 J	-9983809.43	-9983809.27	-9983809.08	0.0137	0.0083
Venus	-32047-06-10 15:07 J	-9983583.03	-9983582.87	-9983582.71	0.0136	0.0096
Venus	-32046-01-22 23:45 J	-9983356.62	-9983356.51	-9983356.35	0.0136	0.0110
Venus	-32046-09-06 08:52 J	-9983130.21	-9983130.13	-9983130.02	0.0136	0.0122
Venus	-32045-04-19 17:45 J	-9982903.78	-9982903.76	-9982903.72	0.0136	0.0134
Earth	-32043-10-30 07:11 J	-9981980.44	-9981980.20	-9981979.95	0.0134	0.0039
Moon	-32043-10-30 10:19 J	-9981980.32	-9981980.07	-9981979.81	0.0134	0.0032 *
Moon	-32042-11-03 13:40 J	-9981611.14	-9981610.93	-9981610.68	0.0134	0.0054
Earth	-32042-11-03 16:47 J	-9981611.01	-9981610.80	-9981610.56	0.0134	0.0061 *
Mercury	-32041-08-24 16:19 J	-9981315.82	-9981315.82	-9981315.82	0.0134	0.0134
Mercury	-32041-11-20 21:35 J	-9981227.68	-9981227.60	-9981227.50	0.0134	0.0111
Mercury	-32040-02-17 02:52 J	-9981139.49	-9981139.38	-9981139.24	0.0134	0.0088
Mercury	-32040-05-16 08:23 J	-9981051.29	-9981051.15	-9981050.99	0.0133	0.0065
Mercury	-32040-08-12 13:55 J	-9980963.08	-9980962.92	-9980962.76	0.0133	0.0042
Mercury	-32040-11-08 19:11 J	-9980874.87	-9980874.70	-9980874.54	0.0133	0.0019
Mercury	-32039-02-05 00:14 J	-9980786.65	-9980786.49	-9980786.32	0.0133	0.0005
Mercury	-32039-05-04 05:31 J	-9980698.43	-9980698.27	-9980698.11	0.0133	0.0026
Mercury	-32039-07-31 10:33 J	-9980610.21	-9980610.06	-9980609.90	0.0133	0.0048
Mercury	-32039-10-27 15:35 J	-9980521.99	-9980521.85	-9980521.70	0.0133	0.0069
Mercury	-32038-01-23 20:38 J	-9980433.75	-9980433.64	-9980433.51	0.0133	0.0091
Mercury	-32038-04-22 01:40 J	-9980345.51	-9980345.43	-9980345.34	0.0133	0.0112
Mars	-32028-05-02 04:04 J	-9976682.66	-9976682.33	-9976682.00	0.0132	0.0022
Venus	-32012-02-16 20:52 J	-9970912.69	-9970912.63	-9970912.53	0.0137	0.0127
Venus	-32012-10-01 02:52 J	-9970686.48	-9970686.38	-9970686.25	0.0137	0.0114
Venus	-32011-05-15 09:07 J	-9970460.26	-9970460.12	-9970459.97	0.0137	0.0102
Venus	-32011-12-27 15:21 J	-9970234.01	-9970233.86	-9970233.69	0.0138	0.0089
Venus	-32010-08-10 21:35 J	-9970007.77	-9970007.60	-9970007.41	0.0138	0.0076

Venus	-32009-03-24 04:04 J	-9969781.51	-9969781.33	-9969781.13	0.0138	0.0063
Venus	-32009-11-05 10:47 J	-9969555.25	-9969555.05	-9969554.85	0.0139	0.0049
Venus	-32008-06-19 17:31 J	-9969328.98	-9969328.77	-9969328.57	0.0139	0.0035
Venus	-32007-02-01 00:28 J	-9969102.69	-9969102.48	-9969102.27	0.0139	0.0021
Venus	-32007-09-15 07:26 J	-9968876.40	-9968876.19	-9968875.98	0.0140	0.0007
Venus	-32006-04-29 14:23 J	-9968650.11	-9968649.90	-9968649.68	0.0140	0.0008
Venus	-32006-12-11 21:35 J	-9968423.80	-9968423.60	-9968423.38	0.0140	0.0022
Venus	-32005-07-25 05:02 J	-9968197.49	-9968197.29	-9968197.08	0.0141	0.0036
Venus	-32004-03-08 12:28 J	-9967971.17	-9967970.98	-9967970.77	0.0141	0.0052
Venus	-32004-10-20 20:23 J	-9967744.84	-9967744.65	-9967744.46	0.0141	0.0066
Venus	-32003-06-04 04:19 J	-9967518.49	-9967518.32	-9967518.14	0.0142	0.0080
Venus	-32002-01-16 12:14 J	-9967292.13	-9967291.99	-9967291.82	0.0142	0.0095
Venus	-32002-08-30 20:23 J	-9967065.77	-9967065.65	-9967065.50	0.0143	0.0110
Venus	-32001-04-13 04:47 J	-9966839.39	-9966839.30	-9966839.18	0.0143	0.0124
Venus	-32001-11-25 13:26 J	-9966612.98	-9966612.94	-9966612.87	0.0143	0.0138

32ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 32nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-31999-04-24 10:47 J	-9966098.17	-9966098.05	-9966097.89	0.0144	0.0120		
Earth	-31999-04-24 11:45 J	-9966098.11	-9966098.01	-9966097.87	0.0144	0.0126	*	
Earth	-31998-04-29 09:50 J	-9965728.34	-9965728.09	-9965727.83	0.0144	0.0005		

Moon	-31998-04-29 10:04 J	-9965728.32	-9965728.08	-9965727.84	0.0144	0.0006 *
Earth	-31997-05-03 08:23 J	-9965358.28	-9965358.15	-9965357.99	0.0145	0.0119
Moon	-31997-05-03 09:07 J	-9965358.26	-9965358.12	-9965357.95	0.0145	0.0115 *
Mercury	-31997-07-28 14:23 J	-9965271.96	-9965271.90	-9965271.82	0.0145	0.0126
Mercury	-31997-10-24 19:11 J	-9965183.80	-9965183.70	-9965183.60	0.0145	0.0101
Mercury	-31996-01-20 23:31 J	-9965095.63	-9965095.52	-9965095.39	0.0145	0.0077
Mercury	-31996-04-19 04:19 J	-9965007.45	-9965007.32	-9965007.18	0.0145	0.0052
Mercury	-31996-07-16 09:07 J	-9964919.27	-9964919.12	-9964918.98	0.0145	0.0027
Mercury	-31996-10-12 13:40 J	-9964831.08	-9964830.93	-9964830.78	0.0145	0.0003
Mercury	-31995-01-08 18:28 J	-9964742.88	-9964742.73	-9964742.58	0.0145	0.0024
Mercury	-31995-04-06 23:16 J	-9964654.67	-9964654.53	-9964654.39	0.0145	0.0049
Mercury	-31995-07-04 03:50 J	-9964566.46	-9964566.34	-9964566.20	0.0146	0.0076
Mercury	-31995-09-30 08:52 J	-9964478.23	-9964478.13	-9964478.02	0.0146	0.0102
Mercury	-31995-12-27 13:55 J	-9964389.99	-9964389.92	-9964389.85	0.0146	0.0128
Mars	-31986-09-09 13:11 J	-9961212.09	-9961211.95	-9961211.78	0.0147	0.0122
Venus	-31973-03-08 21:07 J	-9956647.65	-9956647.62	-9956647.59	0.0142	0.0141
Venus	-31973-10-21 08:38 J	-9956421.23	-9956421.14	-9956421.03	0.0142	0.0126
Venus	-31972-06-04 20:23 J	-9956194.77	-9956194.65	-9956194.50	0.0142	0.0112
Venus	-31971-01-17 08:09 J	-9955968.31	-9955968.16	-9955967.99	0.0141	0.0097
Venus	-31971-08-31 19:26 J	-9955741.86	-9955741.69	-9955741.50	0.0141	0.0082
Venus	-31970-04-15 06:43 J	-9955515.41	-9955515.22	-9955515.01	0.0140	0.0067
Venus	-31970-11-27 17:59 J	-9955288.95	-9955288.75	-9955288.54	0.0140	0.0052
Venus	-31969-07-11 05:02 J	-9955062.50	-9955062.29	-9955062.07	0.0140	0.0037
Venus	-31968-02-22 16:04 J	-9954836.05	-9954835.83	-9954835.61	0.0139	0.0021
Venus	-31968-10-07 02:52 J	-9954609.61	-9954609.38	-9954609.16	0.0139	0.0007
Venus	-31967-05-21 13:11 J	-9954383.17	-9954382.95	-9954382.72	0.0139	0.0009
Venus	-31966-01-02 23:31 J	-9954156.73	-9954156.52	-9954156.29	0.0138	0.0023
Venus	-31966-08-17 09:35 J	-9953930.30	-9953930.10	-9953929.87	0.0138	0.0038
Venus	-31965-03-30 19:40 J	-9953703.88	-9953703.68	-9953703.47	0.0138	0.0052
Venus	-31965-11-12 05:31 J	-9953477.46	-9953477.27	-9953477.07	0.0137	0.0066

Venus	-31964-06-26 14:52 J	-9953251.04	-9953250.88	-9953250.68	0.0137	0.0080
Venus	-31963-02-08 00:43 J	-9953024.63	-9953024.47	-9953024.30	0.0137	0.0093
Venus	-31963-09-22 09:35 J	-9952798.22	-9952798.10	-9952797.95	0.0136	0.0107
Venus	-31962-05-06 18:43 J	-9952571.82	-9952571.72	-9952571.60	0.0136	0.0119
Venus	-31962-12-19 03:21 J	-9952345.39	-9952345.36	-9952345.29	0.0136	0.0132
Moon	-31960-10-26 06:57 J	-9951668.29	-9951668.21	-9951668.10	0.0135	0.0125
Earth	-31960-10-26 09:35 J	-9951668.14	-9951668.10	-9951668.02	0.0135	0.0131 *
Earth	-31959-10-30 20:23 J	-9951298.89	-9951298.65	-9951298.39	0.0135	0.0031
Moon	-31959-10-30 23:02 J	-9951298.78	-9951298.54	-9951298.27	0.0135	0.0038 *
Moon	-31958-11-04 03:50 J	-9950929.54	-9950929.34	-9950929.13	0.0134	0.0075
Earth	-31958-11-04 06:28 J	-9950929.44	-9950929.23	-9950929.00	0.0134	0.0069 *
Mercury	-31957-09-14 00:14 J	-9950614.55	-9950614.49	-9950614.42	0.0134	0.0124
Mercury	-31957-12-11 05:31 J	-9950526.37	-9950526.27	-9950526.15	0.0134	0.0101
Mercury	-31956-03-09 11:02 J	-9950438.17	-9950438.04	-9950437.89	0.0134	0.0078
Mercury	-31956-06-05 16:33 J	-9950349.96	-9950349.81	-9950349.65	0.0134	0.0054
Mercury	-31956-09-01 21:50 J	-9950261.75	-9950261.59	-9950261.42	0.0133	0.0032
Mercury	-31956-11-29 03:07 J	-9950173.54	-9950173.37	-9950173.20	0.0133	0.0009
Mercury	-31955-02-25 08:23 J	-9950085.32	-9950085.15	-9950084.98	0.0133	0.0013
Mercury	-31955-05-24 13:26 J	-9949997.10	-9949996.94	-9949996.78	0.0133	0.0035
Mercury	-31955-08-20 18:28 J	-9949908.87	-9949908.73	-9949908.57	0.0133	0.0057
Mercury	-31955-11-16 23:31 J	-9949820.64	-9949820.52	-9949820.38	0.0133	0.0079
Mercury	-31954-02-13 04:33 J	-9949732.41	-9949732.31	-9949732.19	0.0133	0.0100
Mercury	-31954-05-12 09:21 J	-9949644.16	-9949644.11	-9949644.03	0.0133	0.0122
Mars	-31945-01-23 08:52 J	-9946466.22	-9946466.13	-9946465.99	0.0132	0.0124
Mars	-31944-12-26 18:28 J	-9945762.89	-9945762.73	-9945762.53	0.0132	0.0110
Venus	-31929-10-17 08:09 J	-9940354.20	-9940354.16	-9940354.08	0.0136	0.0131
Venus	-31928-05-31 13:55 J	-9940128.00	-9940127.92	-9940127.79	0.0137	0.0119
Venus	-31927-01-12 20:09 J	-9939901.78	-9939901.66	-9939901.51	0.0137	0.0106
Venus	-31927-08-27 02:09 J	-9939675.55	-9939675.41	-9939675.24	0.0137	0.0094
Venus	-31926-04-10 08:38 J	-9939449.31	-9939449.14	-9939448.96	0.0138	0.0080

Venus	-31926-11-22 14:52 J	-9939223.06	-9939222.88	-9939222.68	0.0138	0.0067
Venus	-31925-07-05 21:21 J	-9938996.80	-9938996.61	-9938996.41	0.0138	0.0053
Venus	-31924-02-17 03:50 J	-9938770.53	-9938770.34	-9938770.12	0.0139	0.0040
Venus	-31924-10-01 10:47 J	-9938544.26	-9938544.05	-9938543.84	0.0139	0.0025
Venus	-31923-05-15 17:31 J	-9938317.98	-9938317.77	-9938317.56	0.0139	0.0011
Venus	-31923-12-28 00:43 J	-9938091.69	-9938091.47	-9938091.26	0.0140	0.0004
Venus	-31922-08-11 07:40 J	-9937865.39	-9937865.18	-9937864.97	0.0140	0.0018
Venus	-31921-03-24 14:52 J	-9937639.08	-9937638.88	-9937638.67	0.0141	0.0032
Venus	-31921-11-05 22:19 J	-9937412.77	-9937412.57	-9937412.37	0.0141	0.0047
Venus	-31920-06-20 05:59 J	-9937186.44	-9937186.25	-9937186.06	0.0141	0.0062
Venus	-31919-02-01 13:26 J	-9936960.10	-9936959.94	-9936959.75	0.0142	0.0077
Venus	-31919-09-15 21:35 J	-9936733.76	-9936733.60	-9936733.43	0.0142	0.0091
Venus	-31918-04-30 05:31 J	-9936507.40	-9936507.27	-9936507.12	0.0142	0.0106
Venus	-31918-12-12 13:55 J	-9936281.03	-9936280.92	-9936280.80	0.0143	0.0120
Venus	-31917-07-25 22:19 J	-9936054.63	-9936054.57	-9936054.49	0.0143	0.0134
Moon	-31915-04-24 21:07 J	-9935416.72	-9935416.62	-9935416.46	0.0144	0.0125
Earth	-31915-04-24 22:33 J	-9935416.68	-9935416.56	-9935416.41	0.0144	0.0120 *
Earth	-31914-04-29 20:38 J	-9935046.89	-9935046.64	-9935046.39	0.0144	0.0001
Moon	-31914-04-29 21:07 J	-9935046.86	-9935046.62	-9935046.37	0.0144	0.0004 *
Moon	-31913-05-03 18:43 J	-9934676.83	-9934676.72	-9934676.58	0.0145	0.0126
Earth	-31913-05-03 19:11 J	-9934676.82	-9934676.70	-9934676.56	0.0145	0.0124 *
Mercury	-31913-05-21 17:16 J	-9934658.79	-9934658.78	-9934658.75	0.0145	0.0143
Mercury	-31913-08-17 21:50 J	-9934570.66	-9934570.59	-9934570.50	0.0145	0.0119
Mercury	-31913-11-14 02:23 J	-9934482.50	-9934482.40	-9934482.29	0.0145	0.0095
Mercury	-31912-02-10 06:57 J	-9934394.33	-9934394.21	-9934394.08	0.0145	0.0070
Mercury	-31912-05-09 11:45 J	-9934306.15	-9934306.01	-9934305.87	0.0145	0.0045
Mercury	-31912-08-05 16:19 J	-9934217.96	-9934217.82	-9934217.67	0.0145	0.0020
Mercury	-31912-11-01 21:07 J	-9934129.77	-9934129.62	-9934129.47	0.0145	0.0005
Mercury	-31911-01-29 01:40 J	-9934041.57	-9934041.43	-9934041.28	0.0145	0.0031
Mercury	-31911-04-27 06:28 J	-9933953.36	-9933953.23	-9933953.09	0.0145	0.0057

Mercury	-31911-07-24 11:16 J	-9933865.14	-9933865.03	-9933864.90	0.0146	0.0083
Mercury	-31911-10-20 16:04 J	-9933776.92	-9933776.83	-9933776.72	0.0146	0.0109
Mercury	-31910-01-16 21:07 J	-9933688.67	-9933688.62	-9933688.56	0.0146	0.0135
Mars	-31903-06-02 18:28 J	-9930994.99	-9930994.73	-9930994.46	0.0147	0.0056
Venus	-31889-06-20 16:19 J	-9925862.90	-9925862.82	-9925862.73	0.0142	0.0132
Venus	-31888-02-02 04:04 J	-9925636.45	-9925636.33	-9925636.20	0.0142	0.0117
Venus	-31888-09-16 15:50 J	-9925409.99	-9925409.84	-9925409.68	0.0141	0.0102
Venus	-31887-05-01 03:07 J	-9925183.53	-9925183.37	-9925183.18	0.0141	0.0087
Venus	-31887-12-13 14:38 J	-9924957.07	-9924956.89	-9924956.68	0.0141	0.0072
Venus	-31886-07-28 02:09 J	-9924730.60	-9924730.41	-9924730.20	0.0140	0.0057
Venus	-31885-03-10 13:26 J	-9924504.15	-9924503.94	-9924503.72	0.0140	0.0041
Venus	-31885-10-23 00:28 J	-9924277.70	-9924277.48	-9924277.26	0.0140	0.0026
Venus	-31884-06-06 11:16 J	-9924051.25	-9924051.03	-9924050.80	0.0139	0.0011
Venus	-31883-01-18 22:04 J	-9923824.80	-9923824.58	-9923824.36	0.0139	0.0004
Venus	-31883-09-02 08:23 J	-9923598.36	-9923598.15	-9923597.92	0.0139	0.0020
Venus	-31882-04-16 18:43 J	-9923371.93	-9923371.72	-9923371.50	0.0138	0.0034
Venus	-31882-11-29 04:47 J	-9923145.50	-9923145.30	-9923145.08	0.0138	0.0049
Venus	-31881-07-12 14:52 J	-9922919.07	-9922918.88	-9922918.67	0.0138	0.0063
Venus	-31880-02-24 00:28 J	-9922692.65	-9922692.48	-9922692.28	0.0137	0.0077
Venus	-31880-10-08 09:50 J	-9922466.24	-9922466.09	-9922465.90	0.0137	0.0091
Venus	-31879-05-22 19:26 J	-9922239.83	-9922239.69	-9922239.54	0.0137	0.0104
Venus	-31878-01-04 04:19 J	-9922013.42	-9922013.32	-9922013.19	0.0136	0.0117
Venus	-31878-08-18 13:11 J	-9921786.99	-9921786.95	-9921786.86	0.0136	0.0130
Moon	-31876-10-26 21:50 J	-9920986.66	-9920986.59	-9920986.50	0.0135	0.0127
Earth	-31876-10-26 23:16 J	-9920986.61	-9920986.53	-9920986.40	0.0135	0.0122 *
Earth	-31875-10-31 10:33 J	-9920617.31	-9920617.06	-9920616.80	0.0135	0.0021
Moon	-31875-10-31 13:11 J	-9920617.21	-9920616.95	-9920616.69	0.0135	0.0014 *
Moon	-31874-11-04 17:59 J	-9920247.95	-9920247.75	-9920247.53	0.0134	0.0072
Earth	-31874-11-04 20:23 J	-9920247.84	-9920247.65	-9920247.43	0.0134	0.0079 *
Mercury	-31873-10-04 08:09 J	-9919913.23	-9919913.16	-9919913.06	0.0134	0.0114

Mercury	-31873-12-31 13:40 J	-9919825.04	-9919824.93	-9919824.79	0.0134	0.0091
Mercury	-31872-03-29 19:11 J	-9919736.84	-9919736.70	-9919736.55	0.0134	0.0067
Mercury	-31872-06-26 00:28 J	-9919648.63	-9919648.48	-9919648.31	0.0134	0.0045
Mercury	-31872-09-22 05:59 J	-9919560.42	-9919560.25	-9919560.08	0.0133	0.0022
Mercury	-31872-12-19 11:16 J	-9919472.20	-9919472.03	-9919471.86	0.0133	0.0001
Mercury	-31871-03-17 16:19 J	-9919383.98	-9919383.82	-9919383.65	0.0133	0.0024
Mercury	-31871-06-13 21:35 J	-9919295.76	-9919295.60	-9919295.44	0.0133	0.0045
Mercury	-31871-09-10 02:38 J	-9919207.53	-9919207.39	-9919207.24	0.0133	0.0067
Mercury	-31871-12-07 07:40 J	-9919119.30	-9919119.18	-9919119.05	0.0133	0.0089
Mercury	-31870-03-05 12:43 J	-9919031.05	-9919030.97	-9919030.87	0.0133	0.0110
Mercury	-31870-06-01 17:45 J	-9918942.78	-9918942.76	-9918942.74	0.0133	0.0131
Mars	-31861-09-18 00:43 J	-9915546.78	-9915546.47	-9915546.14	0.0132	0.0036
Venus	-31845-06-16 21:07 J	-9909795.64	-9909795.62	-9909795.58	0.0136	0.0134
Venus	-31844-01-29 02:38 J	-9909569.46	-9909569.39	-9909569.28	0.0136	0.0123
Venus	-31844-09-12 08:52 J	-9909343.25	-9909343.13	-9909343.00	0.0137	0.0110
Venus	-31843-04-26 14:52 J	-9909117.02	-9909116.88	-9909116.72	0.0137	0.0097
Venus	-31843-12-08 20:52 J	-9908890.78	-9908890.63	-9908890.45	0.0137	0.0085
Venus	-31842-07-23 03:21 J	-9908664.54	-9908664.36	-9908664.17	0.0138	0.0071
Venus	-31841-03-05 09:35 J	-9908438.29	-9908438.10	-9908437.90	0.0138	0.0057
Venus	-31841-10-17 16:04 J	-9908212.03	-9908211.83	-9908211.62	0.0138	0.0044
Venus	-31840-05-31 22:47 J	-9907985.76	-9907985.55	-9907985.34	0.0139	0.0029
Venus	-31839-01-13 05:45 J	-9907759.47	-9907759.26	-9907759.05	0.0139	0.0015
Venus	-31839-08-27 12:28 J	-9907533.19	-9907532.98	-9907532.76	0.0140	0.0002
Venus	-31838-04-10 19:26 J	-9907306.90	-9907306.69	-9907306.48	0.0140	0.0014
Venus	-31838-11-23 02:38 J	-9907080.60	-9907080.39	-9907080.18	0.0140	0.0029
Venus	-31837-07-06 09:50 J	-9906854.29	-9906854.09	-9906853.88	0.0141	0.0043
Venus	-31836-02-17 17:16 J	-9906627.96	-9906627.78	-9906627.58	0.0141	0.0058
Venus	-31836-10-02 01:11 J	-9906401.63	-9906401.45	-9906401.27	0.0141	0.0073
Venus	-31835-05-16 08:38 J	-9906175.29	-9906175.14	-9906174.96	0.0142	0.0088
Venus	-31835-12-28 16:47 J	-9905948.93	-9905948.80	-9905948.64	0.0142	0.0102

Venus	-31834-08-12 01:11 J	-9905722.57	-9905722.45	-9905722.33	0.0142	0.0117
Venus	-31833-03-25 09:35 J	-9905496.18	-9905496.10	-9905496.02	0.0143	0.0131
Moon	-31831-04-25 11:31 J	-9904735.19	-9904735.02	-9904734.82	0.0144	0.0103
Earth	-31831-04-25 13:26 J	-9904735.09	-9904734.94	-9904734.77	0.0144	0.0109 *
Earth	-31830-04-30 11:16 J	-9904365.28	-9904365.03	-9904364.77	0.0144	0.0012
Moon	-31830-04-30 12:28 J	-9904365.22	-9904364.98	-9904364.74	0.0144	0.0010 *
Moon	-31829-05-04 09:35 J	-9903995.20	-9903995.10	-9903994.98	0.0145	0.0131
Earth	-31829-05-04 10:04 J	-9903995.17	-9903995.08	-9903994.99	0.0145	0.0134 *
Mercury	-31829-06-11 01:40 J	-9903957.49	-9903957.43	-9903957.38	0.0145	0.0132
Mercury	-31829-09-07 05:59 J	-9903869.34	-9903869.25	-9903869.15	0.0145	0.0108
Mercury	-31829-12-04 10:33 J	-9903781.17	-9903781.06	-9903780.94	0.0145	0.0084
Mercury	-31828-03-02 15:07 J	-9903693.00	-9903692.87	-9903692.73	0.0145	0.0059
Mercury	-31828-05-29 19:55 J	-9903604.81	-9903604.67	-9903604.53	0.0145	0.0035
Mercury	-31828-08-26 00:28 J	-9903516.63	-9903516.48	-9903516.33	0.0145	0.0009
Mercury	-31828-11-22 05:16 J	-9903428.43	-9903428.28	-9903428.14	0.0145	0.0016
Mercury	-31827-02-18 09:50 J	-9903340.23	-9903340.09	-9903339.94	0.0145	0.0042
Mercury	-31827-05-17 14:38 J	-9903252.02	-9903251.89	-9903251.75	0.0146	0.0068
Mercury	-31827-08-13 19:26 J	-9903163.80	-9903163.69	-9903163.57	0.0146	0.0094
Mercury	-31827-11-10 00:14 J	-9903075.56	-9903075.49	-9903075.40	0.0146	0.0120
Mars	-31818-01-27 03:07 J	-9900075.64	-9900075.37	-9900075.09	0.0147	0.0045
Venus	-31805-02-19 00:28 J	-9895304.52	-9895304.48	-9895304.41	0.0142	0.0137
Venus	-31805-10-02 12:43 J	-9895078.08	-9895077.97	-9895077.86	0.0142	0.0122
Venus	-31804-05-17 00:14 J	-9894851.62	-9894851.49	-9894851.33	0.0142	0.0108
Venus	-31804-12-29 11:59 J	-9894625.16	-9894625.00	-9894624.82	0.0141	0.0092
Venus	-31803-08-12 23:31 J	-9894398.69	-9894398.52	-9894398.32	0.0141	0.0077
Venus	-31802-03-27 10:47 J	-9894172.23	-9894172.05	-9894171.83	0.0141	0.0062
Venus	-31802-11-08 22:04 J	-9893945.78	-9893945.58	-9893945.36	0.0140	0.0047
Venus	-31801-06-22 09:35 J	-9893719.31	-9893719.10	-9893718.88	0.0140	0.0030
Venus	-31800-02-03 20:38 J	-9893492.86	-9893492.64	-9893492.42	0.0139	0.0015
Venus	-31800-09-18 07:26 J	-9893266.42	-9893266.19	-9893265.97	0.0139	0.0002

Venus	-31799-05-02 17:45 J	-9893039.98	-9893039.76	-9893039.53	0.0139	0.0015
Venus	-31799-12-15 04:04 J	-9892813.54	-9892813.33	-9892813.10	0.0138	0.0030
Venus	-31798-07-29 14:23 J	-9892587.10	-9892586.90	-9892586.68	0.0138	0.0045
Venus	-31797-03-12 00:14 J	-9892360.68	-9892360.49	-9892360.27	0.0138	0.0060
Venus	-31797-10-24 10:04 J	-9892134.26	-9892134.08	-9892133.88	0.0137	0.0074
Venus	-31796-06-07 19:55 J	-9891907.84	-9891907.67	-9891907.50	0.0137	0.0088
Venus	-31795-01-20 05:16 J	-9891681.42	-9891681.28	-9891681.12	0.0137	0.0101
Venus	-31795-09-03 14:23 J	-9891455.00	-9891454.90	-9891454.76	0.0137	0.0115
Venus	-31794-04-17 23:31 J	-9891228.58	-9891228.52	-9891228.43	0.0136	0.0128
Moon	-31792-10-27 11:31 J	-9890305.15	-9890305.02	-9890304.85	0.0135	0.0107
Earth	-31792-10-27 13:55 J	-9890305.06	-9890304.92	-9890304.78	0.0135	0.0112 *
Earth	-31791-11-01 00:57 J	-9889935.72	-9889935.46	-9889935.21	0.0135	0.0012
Moon	-31791-11-01 02:52 J	-9889935.64	-9889935.38	-9889935.12	0.0135	0.0019 *
Moon	-31790-11-05 08:52 J	-9889566.31	-9889566.13	-9889565.95	0.0134	0.0094
Earth	-31790-11-05 10:47 J	-9889566.23	-9889566.05	-9889565.85	0.0134	0.0087 *
Mercury	-31789-07-28 10:47 J	-9889300.09	-9889300.05	-9889299.98	0.0134	0.0127
Mercury	-31789-10-24 16:33 J	-9889211.91	-9889211.81	-9889211.70	0.0134	0.0103
Mercury	-31788-01-20 22:04 J	-9889123.71	-9889123.58	-9889123.44	0.0134	0.0080
Mercury	-31788-04-19 03:21 J	-9889035.51	-9889035.36	-9889035.20	0.0134	0.0057
Mercury	-31788-07-16 08:52 J	-9888947.29	-9888947.13	-9888946.97	0.0134	0.0034
Mercury	-31788-10-12 14:09 J	-9888859.08	-9888858.91	-9888858.74	0.0133	0.0011
Mercury	-31787-01-08 19:26 J	-9888770.86	-9888770.69	-9888770.52	0.0133	0.0011
Mercury	-31787-04-07 00:43 J	-9888682.64	-9888682.47	-9888682.31	0.0133	0.0034
Mercury	-31787-07-04 05:45 J	-9888594.41	-9888594.26	-9888594.11	0.0133	0.0055
Mercury	-31787-09-30 10:47 J	-9888506.18	-9888506.05	-9888505.91	0.0133	0.0077
Mercury	-31787-12-27 15:35 J	-9888417.94	-9888417.85	-9888417.73	0.0133	0.0100
Mercury	-31786-03-25 20:52 J	-9888329.69	-9888329.63	-9888329.56	0.0133	0.0120
Mars	-31776-05-14 16:19 J	-9884627.11	-9884626.82	-9884626.49	0.0132	0.0053
Venus	-31761-09-28 14:52 J	-9879010.94	-9879010.88	-9879010.79	0.0136	0.0126
Venus	-31760-05-12 20:52 J	-9878784.74	-9878784.63	-9878784.50	0.0137	0.0114

Venus	-31760-12-25 02:52 J	-9878558.51	-9878558.38	-9878558.22	0.0137	0.0101
Venus	-31759-08-08 08:52 J	-9878332.28	-9878332.13	-9878331.95	0.0137	0.0088
Venus	-31758-03-22 15:07 J	-9878106.04	-9878105.87	-9878105.68	0.0138	0.0075
Venus	-31758-11-03 21:21 J	-9877879.79	-9877879.61	-9877879.41	0.0138	0.0061
Venus	-31757-06-17 03:50 J	-9877653.54	-9877653.34	-9877653.14	0.0138	0.0047
Venus	-31756-01-29 10:19 J	-9877427.27	-9877427.07	-9877426.86	0.0139	0.0034
Venus	-31756-09-12 17:02 J	-9877201.00	-9877200.79	-9877200.58	0.0139	0.0019
Venus	-31755-04-26 23:45 J	-9876974.72	-9876974.51	-9876974.29	0.0139	0.0005
Venus	-31755-12-09 06:43 J	-9876748.43	-9876748.22	-9876748.01	0.0140	0.0010
Venus	-31754-07-23 13:40 J	-9876522.13	-9876521.93	-9876521.72	0.0140	0.0025
Venus	-31753-03-05 20:52 J	-9876295.83	-9876295.63	-9876295.42	0.0140	0.0040
Venus	-31753-10-18 04:04 J	-9876069.51	-9876069.33	-9876069.12	0.0141	0.0055
Venus	-31752-06-01 11:45 J	-9875843.18	-9875843.01	-9875842.82	0.0141	0.0069
Venus	-31751-01-13 19:55 J	-9875616.84	-9875616.67	-9875616.50	0.0141	0.0084
Venus	-31751-08-28 03:35 J	-9875390.49	-9875390.35	-9875390.19	0.0142	0.0099
Venus	-31750-04-11 11:45 J	-9875164.13	-9875164.01	-9875163.88	0.0142	0.0113
Venus	-31750-11-23 19:55 J	-9874937.75	-9874937.67	-9874937.57	0.0142	0.0128
Venus	-31749-07-07 04:33 J	-9874711.32	-9874711.31	-9874711.29	0.0143	0.0142
Moon	-31747-04-26 01:26 J	-9874053.62	-9874053.44	-9874053.27	0.0144	0.0105
Earth	-31747-04-26 03:07 J	-9874053.54	-9874053.37	-9874053.18	0.0144	0.0100 *
Earth	-31746-05-01 00:57 J	-9873683.71	-9873683.46	-9873683.21	0.0144	0.0021
Moon	-31746-05-01 02:23 J	-9873683.64	-9873683.40	-9873683.16	0.0144	0.0023 *
Moon	-31745-05-04 21:50 J	-9873313.60	-9873313.59	-9873313.55	0.0145	0.0144
Earth	-31745-05-04 23:02 J	-9873313.56	-9873313.54	-9873313.48	0.0145	0.0143 *
Mercury	-31745-07-01 09:21 J	-9873256.18	-9873256.11	-9873256.03	0.0145	0.0123
Mercury	-31745-09-27 13:55 J	-9873168.02	-9873167.92	-9873167.81	0.0145	0.0099
Mercury	-31745-12-24 18:28 J	-9873079.85	-9873079.73	-9873079.60	0.0145	0.0074
Mercury	-31744-03-22 23:02 J	-9872991.67	-9872991.54	-9872991.40	0.0145	0.0050
Mercury	-31744-06-19 03:50 J	-9872903.49	-9872903.34	-9872903.20	0.0145	0.0025
Mercury	-31744-09-15 08:23 J	-9872815.30	-9872815.15	-9872815.00	0.0145	0.0001

Mercury	-31744-12-12 12:57 J	-9872727.10	-9872726.96	-9872726.81	0.0145	0.0027
Mercury	-31743-03-10 17:45 J	-9872638.89	-9872638.76	-9872638.62	0.0145	0.0052
Mercury	-31743-06-06 22:33 J	-9872550.68	-9872550.56	-9872550.43	0.0146	0.0077
Mercury	-31743-09-03 03:21 J	-9872462.46	-9872462.36	-9872462.25	0.0146	0.0103
Mercury	-31743-11-30 08:09 J	-9872374.22	-9872374.16	-9872374.08	0.0146	0.0130
Mars	-31736-10-20 10:47 J	-9869858.16	-9869858.05	-9869857.90	0.0147	0.0130
Mars	-31734-09-22 11:16 J	-9869156.06	-9869156.03	-9869155.99	0.0147	0.0145
Venus	-31722-10-19 09:07 J	-9864746.12	-9864746.12	-9864746.11	0.0143	0.0142
Venus	-31721-06-01 21:07 J	-9864519.70	-9864519.62	-9864519.51	0.0142	0.0128
Venus	-31720-01-14 09:21 J	-9864293.24	-9864293.11	-9864292.97	0.0142	0.0112
Venus	-31720-08-28 21:07 J	-9864066.78	-9864066.62	-9864066.46	0.0141	0.0097
Venus	-31719-04-12 08:38 J	-9863840.32	-9863840.14	-9863839.95	0.0141	0.0081
Venus	-31719-11-24 20:09 J	-9863613.85	-9863613.66	-9863613.46	0.0141	0.0066
Venus	-31718-07-09 07:26 J	-9863387.39	-9863387.19	-9863386.97	0.0140	0.0051
Venus	-31717-02-20 18:43 J	-9863160.93	-9863160.72	-9863160.50	0.0140	0.0035
Venus	-31717-10-04 05:45 J	-9862934.47	-9862934.26	-9862934.03	0.0140	0.0020
Venus	-31716-05-18 16:47 J	-9862708.02	-9862707.80	-9862707.58	0.0139	0.0004
Venus	-31716-12-31 03:21 J	-9862481.58	-9862481.36	-9862481.13	0.0139	0.0012
Venus	-31715-08-14 13:55 J	-9862255.14	-9862254.92	-9862254.70	0.0139	0.0027
Venus	-31714-03-29 00:14 J	-9862028.70	-9862028.49	-9862028.28	0.0138	0.0042
Venus	-31714-11-10 10:19 J	-9861802.27	-9861802.07	-9861801.87	0.0138	0.0056
Venus	-31713-06-23 20:09 J	-9861575.84	-9861575.66	-9861575.46	0.0138	0.0071
Venus	-31712-02-05 05:45 J	-9861349.42	-9861349.26	-9861349.07	0.0137	0.0085
Venus	-31712-09-19 15:21 J	-9861123.00	-9861122.86	-9861122.69	0.0137	0.0099
Venus	-31711-05-04 00:57 J	-9860896.58	-9860896.46	-9860896.33	0.0137	0.0112
Venus	-31711-12-16 09:50 J	-9860670.16	-9860670.09	-9860669.99	0.0136	0.0126
Moon	-31708-10-28 03:21 J	-9859623.50	-9859623.36	-9859623.20	0.0135	0.0108
Earth	-31708-10-28 04:19 J	-9859623.47	-9859623.32	-9859623.14	0.0135	0.0103 *
Earth	-31707-11-01 15:50 J	-9859254.10	-9859253.84	-9859253.59	0.0135	0.0003
Moon	-31707-11-01 17:45 J	-9859254.03	-9859253.76	-9859253.50	0.0135	0.0005 *

Moon	-31706-11-05 23:59 J	-9858884.67	-9858884.50	-9858884.31	0.0134	0.0090
Earth	-31706-11-06 01:40 J	-9858884.59	-9858884.43	-9858884.24	0.0134	0.0097 *
Mercury	-31705-08-17 19:11 J	-9858598.77	-9858598.70	-9858598.60	0.0134	0.0116
Mercury	-31705-11-14 00:57 J	-9858510.58	-9858510.46	-9858510.34	0.0134	0.0092
Mercury	-31704-02-10 06:14 J	-9858422.38	-9858422.24	-9858422.09	0.0134	0.0069
Mercury	-31704-05-09 11:45 J	-9858334.17	-9858334.01	-9858333.85	0.0134	0.0046
Mercury	-31704-08-05 17:02 J	-9858245.95	-9858245.79	-9858245.62	0.0134	0.0024
Mercury	-31704-11-01 22:33 J	-9858157.73	-9858157.56	-9858157.39	0.0133	0.0003
Mercury	-31703-01-29 03:35 J	-9858069.51	-9858069.35	-9858069.18	0.0133	0.0022
Mercury	-31703-04-27 08:52 J	-9857981.29	-9857981.13	-9857980.97	0.0133	0.0044
Mercury	-31703-07-24 13:55 J	-9857893.06	-9857892.92	-9857892.77	0.0133	0.0066
Mercury	-31703-10-20 18:57 J	-9857804.82	-9857804.71	-9857804.58	0.0133	0.0088
Mercury	-31702-01-16 23:59 J	-9857716.58	-9857716.50	-9857716.40	0.0133	0.0110
Mercury	-31702-04-15 04:47 J	-9857628.31	-9857628.30	-9857628.25	0.0133	0.0131
Mars	-31693-02-05 00:28 J	-9854410.70	-9854410.48	-9854410.22	0.0132	0.0092
Venus	-31677-05-29 03:35 J	-9848452.40	-9848452.35	-9848452.28	0.0136	0.0130
Venus	-31676-01-10 09:21 J	-9848226.20	-9848226.11	-9848225.99	0.0136	0.0118
Venus	-31676-08-24 15:35 J	-9847999.99	-9847999.85	-9847999.72	0.0137	0.0105
Venus	-31675-04-07 21:21 J	-9847773.76	-9847773.61	-9847773.45	0.0137	0.0092
Venus	-31675-11-20 03:35 J	-9847547.53	-9847547.35	-9847547.18	0.0137	0.0079
Venus	-31674-07-04 09:21 J	-9847321.28	-9847321.11	-9847320.91	0.0138	0.0066
Venus	-31673-02-15 15:50 J	-9847095.03	-9847094.84	-9847094.63	0.0138	0.0051
Venus	-31673-09-28 22:19 J	-9846868.77	-9846868.57	-9846868.36	0.0138	0.0037
Venus	-31672-05-13 04:47 J	-9846642.50	-9846642.30	-9846642.08	0.0139	0.0023
Venus	-31672-12-25 11:45 J	-9846416.22	-9846416.01	-9846415.80	0.0139	0.0008
Venus	-31671-08-08 18:28 J	-9846189.94	-9846189.73	-9846189.51	0.0139	0.0006
Venus	-31670-03-23 01:26 J	-9845963.65	-9845963.44	-9845963.23	0.0140	0.0021
Venus	-31670-11-04 08:38 J	-9845737.35	-9845737.14	-9845736.94	0.0140	0.0036
Venus	-31669-06-17 15:50 J	-9845511.03	-9845510.84	-9845510.64	0.0141	0.0051
Venus	-31668-01-29 23:16 J	-9845284.70	-9845284.53	-9845284.33	0.0141	0.0066

Venus	-31668-09-13 06:57 J	-9845058.37	-9845058.21	-9845058.02	0.0141	0.0081
Venus	-31667-04-27 15:07 J	-9844832.03	-9844831.87	-9844831.71	0.0142	0.0095
Venus	-31667-12-09 22:47 J	-9844605.67	-9844605.55	-9844605.40	0.0142	0.0110
Venus	-31666-07-24 07:11 J	-9844379.29	-9844379.20	-9844379.09	0.0142	0.0125
Venus	-31665-03-06 15:35 J	-9844152.88	-9844152.85	-9844152.79	0.0143	0.0139
Moon	-31663-04-26 15:35 J	-9843372.05	-9843371.85	-9843371.63	0.0144	0.0083
Earth	-31663-04-26 18:14 J	-9843371.93	-9843371.74	-9843371.54	0.0144	0.0089 *
Earth	-31662-05-01 15:50 J	-9843002.08	-9843001.84	-9843001.59	0.0144	0.0031
Moon	-31662-05-01 17:45 J	-9843002.00	-9843001.76	-9843001.52	0.0144	0.0029 *
Mercury	-31661-04-24 13:11 J	-9842642.99	-9842642.95	-9842642.90	0.0145	0.0136
Mercury	-31661-07-21 17:31 J	-9842554.85	-9842554.77	-9842554.67	0.0145	0.0112
Mercury	-31661-10-17 22:04 J	-9842466.69	-9842466.58	-9842466.46	0.0145	0.0088
Mercury	-31660-01-14 02:52 J	-9842378.51	-9842378.38	-9842378.25	0.0145	0.0063
Mercury	-31660-04-12 07:26 J	-9842290.33	-9842290.19	-9842290.05	0.0145	0.0039
Mercury	-31660-07-09 11:59 J	-9842202.15	-9842202.00	-9842201.85	0.0145	0.0014
Mercury	-31660-10-05 16:33 J	-9842113.95	-9842113.81	-9842113.66	0.0145	0.0013
Mercury	-31659-01-01 21:21 J	-9842025.75	-9842025.61	-9842025.47	0.0145	0.0037
Mercury	-31659-03-31 02:09 J	-9841937.54	-9841937.41	-9841937.28	0.0145	0.0063
Mercury	-31659-06-27 06:57 J	-9841849.33	-9841849.21	-9841849.09	0.0146	0.0089
Mercury	-31659-09-23 11:45 J	-9841761.10	-9841761.01	-9841760.92	0.0146	0.0115
Mercury	-31659-12-20 16:47 J	-9841672.84	-9841672.80	-9841672.77	0.0146	0.0141
Mars	-31651-06-15 23:31 J	-9838938.79	-9838938.52	-9838938.23	0.0147	0.0027
Venus	-31637-01-31 06:43 J	-9833961.29	-9833961.22	-9833961.13	0.0142	0.0133
Venus	-31637-09-13 18:43 J	-9833734.84	-9833734.72	-9833734.59	0.0142	0.0117
Venus	-31636-04-28 06:28 J	-9833508.38	-9833508.23	-9833508.07	0.0142	0.0102
Venus	-31636-12-10 18:14 J	-9833281.91	-9833281.74	-9833281.56	0.0141	0.0086
Venus	-31635-07-25 05:45 J	-9833055.44	-9833055.26	-9833055.06	0.0141	0.0071
Venus	-31634-03-08 17:16 J	-9832828.98	-9832828.78	-9832828.57	0.0141	0.0055
Venus	-31634-10-21 04:33 J	-9832602.52	-9832602.31	-9832602.09	0.0140	0.0039
Venus	-31633-06-03 15:35 J	-9832376.06	-9832375.85	-9832375.62	0.0140	0.0024

Venus	-31632-01-16 02:38 J	-9832149.61	-9832149.39	-9832149.16	0.0140	0.0008
Venus	-31632-08-30 13:26 J	-9831923.16	-9831922.94	-9831922.72	0.0139	0.0008
Venus	-31631-04-13 23:45 J	-9831696.72	-9831696.51	-9831696.28	0.0139	0.0023
Venus	-31631-11-26 10:19 J	-9831470.29	-9831470.07	-9831469.86	0.0139	0.0038
Venus	-31630-07-10 20:23 J	-9831243.85	-9831243.65	-9831243.44	0.0138	0.0053
Venus	-31629-02-22 06:14 J	-9831017.42	-9831017.24	-9831017.03	0.0138	0.0068
Venus	-31629-10-05 16:19 J	-9830791.00	-9830790.82	-9830790.64	0.0138	0.0082
Venus	-31628-05-20 01:40 J	-9830564.58	-9830564.43	-9830564.26	0.0137	0.0096
Venus	-31627-01-01 11:02 J	-9830338.15	-9830338.04	-9830337.89	0.0137	0.0110
Venus	-31627-08-15 20:38 J	-9830111.72	-9830111.64	-9830111.53	0.0137	0.0123
Venus	-31626-03-30 05:45 J	-9829885.26	-9829885.26	-9829885.23	0.0136	0.0136
Moon	-31624-10-28 18:14 J	-9828941.92	-9828941.74	-9828941.54	0.0135	0.0087
Earth	-31624-10-28 19:11 J	-9828941.86	-9828941.70	-9828941.49	0.0135	0.0093 *
Earth	-31623-11-02 06:43 J	-9828572.47	-9828572.22	-9828571.96	0.0135	0.0009
Moon	-31623-11-02 07:55 J	-9828572.43	-9828572.17	-9828571.90	0.0135	0.0003 *
Moon	-31622-11-06 15:07 J	-9828202.98	-9828202.87	-9828202.72	0.0134	0.0113
Earth	-31622-11-06 17:02 J	-9828202.94	-9828202.79	-9828202.63	0.0134	0.0106 *
Mercury	-31621-06-10 22:04 J	-9827985.62	-9827985.58	-9827985.52	0.0134	0.0128
Mercury	-31621-09-07 03:50 J	-9827897.44	-9827897.34	-9827897.23	0.0134	0.0104
Mercury	-31621-12-04 09:21 J	-9827809.25	-9827809.11	-9827808.97	0.0134	0.0081
Mercury	-31620-03-02 14:38 J	-9827721.04	-9827720.89	-9827720.73	0.0134	0.0058
Mercury	-31620-05-29 20:09 J	-9827632.82	-9827632.66	-9827632.50	0.0134	0.0035
Mercury	-31620-08-26 01:26 J	-9827544.61	-9827544.44	-9827544.27	0.0133	0.0012
Mercury	-31620-11-22 06:43 J	-9827456.39	-9827456.22	-9827456.05	0.0133	0.0011
Mercury	-31619-02-18 11:59 J	-9827368.16	-9827368.00	-9827367.84	0.0133	0.0033
Mercury	-31619-05-17 17:02 J	-9827279.94	-9827279.79	-9827279.63	0.0133	0.0055
Mercury	-31619-08-13 22:19 J	-9827191.71	-9827191.57	-9827191.43	0.0133	0.0077
Mercury	-31619-11-10 03:21 J	-9827103.47	-9827103.36	-9827103.25	0.0133	0.0098
Mercury	-31618-02-06 08:09 J	-9827015.22	-9827015.16	-9827015.08	0.0133	0.0120
Mars	-31609-09-30 17:16 J	-9823491.11	-9823490.78	-9823490.45	0.0132	0.0004

Venus	-31593-01-27 15:35 J	-9817893.87	-9817893.85	-9817893.82	0.0136	0.0134
Venus	-31593-09-09 20:52 J	-9817667.70	-9817667.63	-9817667.52	0.0136	0.0123
Venus	-31592-04-24 02:38 J	-9817441.50	-9817441.39	-9817441.24	0.0137	0.0110
Venus	-31592-12-06 08:52 J	-9817215.27	-9817215.13	-9817214.97	0.0137	0.0096
Venus	-31591-07-20 14:38 J	-9816989.04	-9816988.89	-9816988.70	0.0137	0.0083
Venus	-31590-03-03 20:38 J	-9816762.81	-9816762.64	-9816762.44	0.0138	0.0070
Venus	-31590-10-16 02:52 J	-9816536.56	-9816536.38	-9816536.17	0.0138	0.0056
Venus	-31589-05-29 09:21 J	-9816310.31	-9816310.11	-9816309.90	0.0138	0.0041
Venus	-31588-01-10 16:04 J	-9816084.04	-9816083.83	-9816083.62	0.0139	0.0027
Venus	-31588-08-24 22:33 J	-9815857.77	-9815857.56	-9815857.35	0.0139	0.0013
Venus	-31587-04-08 05:16 J	-9815631.49	-9815631.28	-9815631.07	0.0139	0.0002
Venus	-31587-11-20 12:14 J	-9815405.21	-9815404.99	-9815404.78	0.0140	0.0017
Venus	-31586-07-04 18:57 J	-9815178.91	-9815178.71	-9815178.49	0.0140	0.0032
Venus	-31585-02-16 02:23 J	-9814952.60	-9814952.40	-9814952.20	0.0140	0.0047
Venus	-31585-09-29 09:35 J	-9814726.28	-9814726.10	-9814725.90	0.0141	0.0062
Venus	-31584-05-13 17:31 J	-9814499.95	-9814499.77	-9814499.60	0.0141	0.0076
Venus	-31584-12-26 00:57 J	-9814273.61	-9814273.46	-9814273.29	0.0141	0.0092
Venus	-31583-08-09 08:52 J	-9814047.26	-9814047.13	-9814046.98	0.0142	0.0107
Venus	-31582-03-23 17:02 J	-9813820.89	-9813820.79	-9813820.67	0.0142	0.0121
Venus	-31582-11-05 01:26 J	-9813594.49	-9813594.44	-9813594.37	0.0142	0.0136
Moon	-31579-04-27 03:35 J	-9812690.54	-9812690.35	-9812690.14	0.0144	0.0088
Earth	-31579-04-27 06:14 J	-9812690.44	-9812690.24	-9812690.02	0.0144	0.0082 *
Earth	-31578-05-02 03:50 J	-9812320.58	-9812320.34	-9812320.09	0.0144	0.0038
Moon	-31578-05-02 05:59 J	-9812320.48	-9812320.25	-9812320.01	0.0144	0.0040 *
Mercury	-31577-05-14 20:52 J	-9811941.69	-9811941.63	-9811941.56	0.0145	0.0128
Mercury	-31577-08-11 01:11 J	-9811853.54	-9811853.45	-9811853.34	0.0145	0.0104
Mercury	-31577-11-07 05:45 J	-9811765.38	-9811765.26	-9811765.14	0.0145	0.0080
Mercury	-31576-02-03 10:19 J	-9811677.20	-9811677.07	-9811676.93	0.0145	0.0055
Mercury	-31576-05-02 14:52 J	-9811589.02	-9811588.88	-9811588.73	0.0145	0.0031
Mercury	-31576-07-29 19:40 J	-9811500.83	-9811500.68	-9811500.54	0.0145	0.0007

Mercury	-31576-10-26 00:14 J	-9811412.63	-9811412.49	-9811412.34	0.0145	0.0020
Mercury	-31575-01-22 04:47 J	-9811324.43	-9811324.30	-9811324.15	0.0145	0.0046
Mercury	-31575-04-20 09:35 J	-9811236.22	-9811236.10	-9811235.97	0.0145	0.0071
Mercury	-31575-07-17 14:23 J	-9811148.00	-9811147.90	-9811147.78	0.0146	0.0097
Mercury	-31575-10-13 19:26 J	-9811059.77	-9811059.69	-9811059.61	0.0146	0.0123
Mars	-31566-02-09 06:57 J	-9808019.44	-9808019.21	-9808018.94	0.0147	0.0073
Venus	-31554-09-30 15:07 J	-9803402.92	-9803402.87	-9803402.82	0.0143	0.0138
Venus	-31553-05-14 03:07 J	-9803176.47	-9803176.37	-9803176.25	0.0142	0.0123
Venus	-31553-12-26 14:52 J	-9802950.01	-9802949.88	-9802949.72	0.0142	0.0107
Venus	-31552-08-10 02:38 J	-9802723.54	-9802723.39	-9802723.21	0.0142	0.0092
Venus	-31551-03-24 14:23 J	-9802497.08	-9802496.90	-9802496.70	0.0141	0.0076
Venus	-31551-11-06 01:55 J	-9802270.61	-9802270.42	-9802270.21	0.0141	0.0060
Venus	-31550-06-20 13:26 J	-9802044.14	-9802043.94	-9802043.72	0.0141	0.0044
Venus	-31549-02-02 00:43 J	-9801817.68	-9801817.47	-9801817.25	0.0140	0.0028
Venus	-31549-09-15 11:45 J	-9801591.23	-9801591.01	-9801590.79	0.0140	0.0012
Venus	-31548-04-29 22:33 J	-9801364.78	-9801364.56	-9801364.34	0.0140	0.0004
Venus	-31548-12-12 09:07 J	-9801138.34	-9801138.12	-9801137.90	0.0139	0.0019
Venus	-31547-07-26 19:40 J	-9800911.89	-9800911.68	-9800911.46	0.0139	0.0034
Venus	-31546-03-10 05:59 J	-9800685.46	-9800685.25	-9800685.04	0.0138	0.0050
Venus	-31546-10-22 16:04 J	-9800459.03	-9800458.83	-9800458.63	0.0138	0.0064
Venus	-31545-06-05 01:55 J	-9800232.60	-9800232.42	-9800232.23	0.0138	0.0079
Venus	-31544-01-17 11:31 J	-9800006.17	-9800006.02	-9800005.84	0.0137	0.0094
Venus	-31544-08-31 21:21 J	-9799779.74	-9799779.61	-9799779.46	0.0137	0.0107
Venus	-31543-04-15 06:43 J	-9799553.31	-9799553.22	-9799553.11	0.0137	0.0121
Venus	-31543-11-27 16:04 J	-9799326.86	-9799326.83	-9799326.78	0.0136	0.0134
Moon	-31540-10-29 09:50 J	-9798260.26	-9798260.09	-9798259.89	0.0135	0.0088
Earth	-31540-10-29 10:04 J	-9798260.26	-9798260.08	-9798259.86	0.0135	0.0083 *
Earth	-31539-11-02 21:35 J	-9797890.86	-9797890.60	-9797890.35	0.0135	0.0017
Moon	-31539-11-02 22:33 J	-9797890.82	-9797890.56	-9797890.29	0.0135	0.0024 *
Moon	-31538-11-07 06:28 J	-9797521.36	-9797521.23	-9797521.07	0.0134	0.0109

Earth	-31538-11-07 07:55 J	-9797521.30	-9797521.17	-9797521.04	0.0134	0.0116 *
Mercury	-31537-07-01 06:28 J	-9797284.30	-9797284.23	-9797284.14	0.0134	0.0117
Mercury	-31537-09-27 11:59 J	-9797196.11	-9797196.00	-9797195.87	0.0134	0.0094
Mercury	-31537-12-24 17:16 J	-9797107.91	-9797107.78	-9797107.62	0.0134	0.0071
Mercury	-31536-03-22 22:47 J	-9797019.70	-9797019.55	-9797019.38	0.0134	0.0048
Mercury	-31536-06-19 04:19 J	-9796931.48	-9796931.32	-9796931.15	0.0134	0.0024
Mercury	-31536-09-15 09:35 J	-9796843.26	-9796843.10	-9796842.93	0.0134	0.0004
Mercury	-31536-12-12 14:52 J	-9796755.04	-9796754.88	-9796754.71	0.0133	0.0021
Mercury	-31535-03-10 20:09 J	-9796666.82	-9796666.66	-9796666.50	0.0133	0.0043
Mercury	-31535-06-07 01:11 J	-9796578.59	-9796578.45	-9796578.30	0.0133	0.0065
Mercury	-31535-09-03 06:28 J	-9796490.36	-9796490.23	-9796490.10	0.0133	0.0087
Mercury	-31535-11-30 11:16 J	-9796402.11	-9796402.03	-9796401.92	0.0133	0.0109
Mercury	-31534-02-26 16:33 J	-9796313.84	-9796313.81	-9796313.77	0.0133	0.0130
Mars	-31524-05-27 08:52 J	-9792571.38	-9792571.13	-9792570.86	0.0132	0.0084
Venus	-31509-05-10 09:07 J	-9787109.19	-9787109.12	-9787109.04	0.0136	0.0126
Venus	-31509-12-22 14:52 J	-9786882.99	-9786882.88	-9786882.76	0.0136	0.0114
Venus	-31508-08-05 20:23 J	-9786656.78	-9786656.65	-9786656.49	0.0137	0.0101
Venus	-31507-03-20 02:23 J	-9786430.56	-9786430.40	-9786430.23	0.0137	0.0087
Venus	-31507-11-01 08:23 J	-9786204.33	-9786204.15	-9786203.97	0.0137	0.0074
Venus	-31506-06-15 14:23 J	-9785978.09	-9785977.90	-9785977.70	0.0138	0.0060
Venus	-31505-01-27 20:38 J	-9785751.83	-9785751.64	-9785751.43	0.0138	0.0046
Venus	-31505-09-10 03:07 J	-9785525.58	-9785525.37	-9785525.16	0.0138	0.0031
Venus	-31504-04-24 09:35 J	-9785299.31	-9785299.10	-9785298.89	0.0139	0.0017
Venus	-31504-12-06 16:19 J	-9785073.03	-9785072.82	-9785072.61	0.0139	0.0003
Venus	-31503-07-20 23:02 J	-9784846.75	-9784846.54	-9784846.33	0.0139	0.0012
Venus	-31502-03-04 05:59 J	-9784620.46	-9784620.25	-9784620.04	0.0140	0.0027
Venus	-31502-10-16 13:11 J	-9784394.15	-9784393.95	-9784393.75	0.0140	0.0042
Venus	-31501-05-29 20:09 J	-9784167.84	-9784167.66	-9784167.45	0.0140	0.0058
Venus	-31500-01-11 03:50 J	-9783941.51	-9783941.34	-9783941.15	0.0141	0.0073
Venus	-31500-08-25 11:45 J	-9783715.18	-9783715.01	-9783714.84	0.0141	0.0087

Venus	-31499-04-08 19:11 J	-9783488.83	-9783488.70	-9783488.54	0.0141	0.0103
Venus	-31499-11-21 03:35 J	-9783262.47	-9783262.35	-9783262.23	0.0142	0.0117
Venus	-31498-07-05 11:31 J	-9783036.08	-9783036.02	-9783035.93	0.0142	0.0132
Moon	-31495-04-27 16:04 J	-9782009.05	-9782008.83	-9782008.60	0.0144	0.0067
Earth	-31495-04-27 18:57 J	-9782008.91	-9782008.71	-9782008.48	0.0144	0.0074 *
Earth	-31494-05-02 16:19 J	-9781639.05	-9781638.82	-9781638.57	0.0144	0.0046
Moon	-31494-05-02 18:57 J	-9781638.94	-9781638.71	-9781638.47	0.0144	0.0043 *
Mercury	-31493-03-08 00:14 J	-9781328.51	-9781328.49	-9781328.47	0.0145	0.0143
Mercury	-31493-06-04 04:19 J	-9781240.39	-9781240.32	-9781240.23	0.0145	0.0120
Mercury	-31493-08-31 09:07 J	-9781152.23	-9781152.12	-9781152.01	0.0145	0.0095
Mercury	-31493-11-27 13:26 J	-9781064.06	-9781063.94	-9781063.81	0.0145	0.0071
Mercury	-31492-02-23 17:59 J	-9780975.88	-9780975.75	-9780975.61	0.0145	0.0047
Mercury	-31492-05-22 22:47 J	-9780887.70	-9780887.55	-9780887.41	0.0145	0.0022
Mercury	-31492-08-19 03:21 J	-9780799.51	-9780799.36	-9780799.21	0.0145	0.0003
Mercury	-31492-11-15 07:55 J	-9780711.31	-9780711.17	-9780711.02	0.0145	0.0029
Mercury	-31491-02-11 12:43 J	-9780623.11	-9780622.97	-9780622.83	0.0145	0.0054
Mercury	-31491-05-10 17:31 J	-9780534.89	-9780534.77	-9780534.65	0.0145	0.0080
Mercury	-31491-08-06 22:19 J	-9780446.67	-9780446.57	-9780446.47	0.0146	0.0106
Mercury	-31491-11-03 03:07 J	-9780358.43	-9780358.37	-9780358.31	0.0146	0.0132
Mars	-31484-11-02 13:40 J	-9777802.11	-9777801.93	-9777801.71	0.0147	0.0104
Venus	-31469-01-12 11:31 J	-9772618.10	-9772618.02	-9772617.91	0.0143	0.0129
Venus	-31469-08-25 23:59 J	-9772391.64	-9772391.50	-9772391.37	0.0142	0.0113
Venus	-31468-04-09 11:31 J	-9772165.17	-9772165.02	-9772164.85	0.0142	0.0097
Venus	-31468-11-21 23:31 J	-9771938.70	-9771938.52	-9771938.34	0.0142	0.0081
Venus	-31467-07-06 10:47 J	-9771712.23	-9771712.05	-9771711.84	0.0141	0.0066
Venus	-31466-02-17 22:33 J	-9771485.77	-9771485.56	-9771485.35	0.0141	0.0049
Venus	-31466-10-02 09:50 J	-9771259.31	-9771259.09	-9771258.87	0.0140	0.0033
Venus	-31465-05-15 20:52 J	-9771032.85	-9771032.63	-9771032.41	0.0140	0.0017
Venus	-31465-12-28 07:55 J	-9770806.40	-9770806.17	-9770805.95	0.0140	0.0003
Venus	-31464-08-11 18:28 J	-9770579.95	-9770579.73	-9770579.50	0.0139	0.0015

Venus	-31463-03-26 05:02 J	-9770353.50	-9770353.29	-9770353.07	0.0139	0.0031
Venus	-31463-11-07 15:21 J	-9770127.06	-9770126.86	-9770126.64	0.0139	0.0046
Venus	-31462-06-22 01:55 J	-9769900.62	-9769900.42	-9769900.22	0.0138	0.0061
Venus	-31461-02-03 11:31 J	-9769674.19	-9769674.02	-9769673.81	0.0138	0.0076
Venus	-31461-09-16 21:50 J	-9769447.76	-9769447.59	-9769447.42	0.0138	0.0090
Venus	-31460-05-01 07:11 J	-9769221.33	-9769221.20	-9769221.04	0.0137	0.0105
Venus	-31460-12-13 16:47 J	-9768994.90	-9768994.80	-9768994.67	0.0137	0.0118
Venus	-31459-07-28 02:09 J	-9768768.44	-9768768.41	-9768768.33	0.0137	0.0132
Moon	-31456-10-30 00:28 J	-9767578.69	-9767578.48	-9767578.26	0.0135	0.0068
Earth	-31456-10-30 00:43 J	-9767578.67	-9767578.47	-9767578.24	0.0135	0.0074 *
Earth	-31455-11-03 12:14 J	-9767209.24	-9767208.99	-9767208.74	0.0135	0.0027
Moon	-31455-11-03 12:28 J	-9767209.24	-9767208.98	-9767208.71	0.0135	0.0020 *
Earth	-31454-11-07 21:50 J	-9766839.65	-9766839.59	-9766839.47	0.0134	0.0126
Moon	-31454-11-07 21:21 J	-9766839.64	-9766839.61	-9766839.54	0.0134	0.0132 *
Mercury	-31453-04-24 09:07 J	-9766671.15	-9766671.12	-9766671.07	0.0134	0.0130
Mercury	-31453-07-21 14:52 J	-9766582.98	-9766582.88	-9766582.78	0.0134	0.0106
Mercury	-31453-10-17 20:09 J	-9766494.78	-9766494.66	-9766494.52	0.0134	0.0083
Mercury	-31452-01-14 01:40 J	-9766406.58	-9766406.43	-9766406.27	0.0134	0.0060
Mercury	-31452-04-12 07:11 J	-9766318.36	-9766318.20	-9766318.03	0.0134	0.0037
Mercury	-31452-07-09 12:28 J	-9766230.14	-9766229.98	-9766229.81	0.0134	0.0014
Mercury	-31452-10-05 17:45 J	-9766141.92	-9766141.76	-9766141.59	0.0134	0.0010
Mercury	-31451-01-01 23:02 J	-9766053.70	-9766053.54	-9766053.37	0.0133	0.0031
Mercury	-31451-03-31 04:04 J	-9765965.47	-9765965.33	-9765965.17	0.0133	0.0054
Mercury	-31451-06-27 09:21 J	-9765877.24	-9765877.11	-9765876.97	0.0133	0.0075
Mercury	-31451-09-23 14:23 J	-9765789.00	-9765788.90	-9765788.78	0.0133	0.0097
Mercury	-31451-12-20 19:26 J	-9765700.75	-9765700.69	-9765700.61	0.0133	0.0118
Mars	-31441-02-17 17:16 J	-9762355.06	-9762354.78	-9762354.47	0.0132	0.0061
Venus	-31425-01-08 20:52 J	-9756550.66	-9756550.63	-9756550.55	0.0136	0.0131
Venus	-31425-08-22 02:38 J	-9756324.48	-9756324.39	-9756324.27	0.0136	0.0118
Venus	-31424-04-05 08:09 J	-9756098.28	-9756098.16	-9756098.01	0.0136	0.0105

Venus	-31424-11-17 13:55 J	-9755872.06	-9755871.92	-9755871.75	0.0137	0.0092
Venus	-31423-07-01 19:55 J	-9755645.84	-9755645.67	-9755645.49	0.0137	0.0078
Venus	-31422-02-13 01:40 J	-9755419.60	-9755419.43	-9755419.23	0.0137	0.0065
Venus	-31422-09-27 08:09 J	-9755193.36	-9755193.16	-9755192.96	0.0138	0.0050
Venus	-31421-05-10 14:09 J	-9754967.11	-9754966.91	-9754966.70	0.0138	0.0036
Venus	-31421-12-22 20:38 J	-9754740.85	-9754740.64	-9754740.43	0.0138	0.0021
Venus	-31420-08-06 03:07 J	-9754514.58	-9754514.37	-9754514.15	0.0139	0.0007
Venus	-31419-03-20 09:50 J	-9754288.30	-9754288.09	-9754287.88	0.0139	0.0008
Venus	-31419-11-01 16:33 J	-9754062.02	-9754061.81	-9754061.60	0.0139	0.0023
Venus	-31418-06-15 23:31 J	-9753835.72	-9753835.52	-9753835.31	0.0140	0.0038
Venus	-31417-01-28 06:43 J	-9753609.41	-9753609.22	-9753609.01	0.0140	0.0054
Venus	-31417-09-10 14:09 J	-9753383.09	-9753382.91	-9753382.72	0.0140	0.0068
Venus	-31416-04-24 21:50 J	-9753156.76	-9753156.59	-9753156.42	0.0141	0.0083
Venus	-31416-12-07 05:16 J	-9752930.42	-9752930.28	-9752930.12	0.0141	0.0099
Venus	-31415-07-21 12:57 J	-9752704.07	-9752703.96	-9752703.82	0.0141	0.0114
Venus	-31414-03-04 21:35 J	-9752477.69	-9752477.60	-9752477.51	0.0142	0.0128
Moon	-31411-04-28 03:07 J	-9751327.58	-9751327.37	-9751327.15	0.0144	0.0074
Earth	-31411-04-28 05:59 J	-9751327.46	-9751327.25	-9751327.01	0.0144	0.0068 *
Earth	-31410-05-03 03:07 J	-9750957.59	-9750957.37	-9750957.12	0.0144	0.0052
Moon	-31410-05-03 06:14 J	-9750957.47	-9750957.24	-9750957.01	0.0144	0.0055 *
Mercury	-31409-03-28 07:11 J	-9750627.23	-9750627.20	-9750627.14	0.0145	0.0137
Mercury	-31409-06-24 11:45 J	-9750539.09	-9750539.01	-9750538.91	0.0145	0.0113
Mercury	-31409-09-20 16:19 J	-9750450.93	-9750450.82	-9750450.70	0.0145	0.0088
Mercury	-31409-12-17 20:52 J	-9750362.76	-9750362.63	-9750362.50	0.0145	0.0064
Mercury	-31408-03-16 01:26 J	-9750274.58	-9750274.44	-9750274.30	0.0145	0.0040
Mercury	-31408-06-12 05:59 J	-9750186.39	-9750186.25	-9750186.10	0.0145	0.0015
Mercury	-31408-09-08 10:47 J	-9750098.20	-9750098.05	-9750097.91	0.0145	0.0011
Mercury	-31408-12-05 15:21 J	-9750010.00	-9750009.86	-9750009.72	0.0145	0.0036
Mercury	-31407-03-03 19:55 J	-9749921.80	-9749921.67	-9749921.53	0.0145	0.0061
Mercury	-31407-05-31 00:43 J	-9749833.58	-9749833.47	-9749833.35	0.0145	0.0087

Mercury	-31407-08-27 05:31 J	-9749745.36	-9749745.27	-9749745.17	0.0145	0.0113
Mercury	-31407-11-23 10:04 J	-9749657.10	-9749657.08	-9749657.02	0.0146	0.0140
Mars	-31399-06-28 17:45 J	-9746883.05	-9746882.76	-9746882.47	0.0147	0.0007
Venus	-31386-09-11 18:14 J	-9742059.79	-9742059.74	-9742059.66	0.0143	0.0135
Venus	-31385-04-25 06:14 J	-9741833.34	-9741833.24	-9741833.10	0.0142	0.0120
Venus	-31385-12-07 18:28 J	-9741606.87	-9741606.73	-9741606.57	0.0142	0.0103
Venus	-31384-07-22 06:28 J	-9741380.40	-9741380.23	-9741380.05	0.0142	0.0087
Venus	-31383-03-05 18:14 J	-9741153.93	-9741153.74	-9741153.55	0.0141	0.0071
Venus	-31383-10-18 05:45 J	-9740927.46	-9740927.26	-9740927.05	0.0141	0.0054
Venus	-31382-06-01 17:16 J	-9740701.00	-9740700.78	-9740700.57	0.0141	0.0038
Venus	-31381-01-14 04:19 J	-9740474.53	-9740474.32	-9740474.09	0.0140	0.0022
Venus	-31381-08-27 15:35 J	-9740248.07	-9740247.85	-9740247.63	0.0140	0.0006
Venus	-31380-04-11 02:23 J	-9740021.62	-9740021.40	-9740021.18	0.0140	0.0010
Venus	-31380-11-23 12:57 J	-9739795.17	-9739794.96	-9739794.73	0.0139	0.0026
Venus	-31379-07-07 23:45 J	-9739568.72	-9739568.51	-9739568.29	0.0139	0.0041
Venus	-31378-02-19 10:04 J	-9739342.28	-9739342.08	-9739341.87	0.0139	0.0057
Venus	-31378-10-03 20:23 J	-9739115.84	-9739115.65	-9739115.46	0.0138	0.0072
Venus	-31377-05-17 06:14 J	-9738889.40	-9738889.24	-9738889.05	0.0138	0.0087
Venus	-31377-12-29 16:19 J	-9738662.96	-9738662.82	-9738662.66	0.0138	0.0101
Venus	-31376-08-13 01:55 J	-9738436.52	-9738436.42	-9738436.28	0.0137	0.0115
Venus	-31375-03-27 11:31 J	-9738210.08	-9738210.02	-9738209.93	0.0137	0.0129
Earth	-31372-10-30 14:23 J	-9736897.11	-9736896.90	-9736896.66	0.0135	0.0065
Moon	-31372-10-30 14:52 J	-9736897.08	-9736896.88	-9736896.66	0.0135	0.0070 *
Earth	-31371-11-04 01:40 J	-9736527.67	-9736527.43	-9736527.18	0.0135	0.0035
Moon	-31371-11-04 01:55 J	-9736527.67	-9736527.42	-9736527.16	0.0135	0.0041 *
Moon	-31370-11-08 11:31 J	-9736158.08	-9736158.02	-9736157.92	0.0134	0.0127
Earth	-31370-11-08 11:45 J	-9736158.02	-9736158.01	-9736157.96	0.0134	0.0133 *
Mercury	-31369-05-14 17:02 J	-9735969.85	-9735969.79	-9735969.70	0.0134	0.0121
Mercury	-31369-08-10 22:33 J	-9735881.66	-9735881.56	-9735881.43	0.0134	0.0097
Mercury	-31369-11-07 04:19 J	-9735793.46	-9735793.32	-9735793.18	0.0134	0.0073

Mercury	-31368-02-03 09:50 J	-9735705.25	-9735705.09	-9735704.93	0.0134	0.0050
Mercury	-31368-05-02 15:07 J	-9735617.03	-9735616.87	-9735616.70	0.0134	0.0027
Mercury	-31368-07-29 20:38 J	-9735528.81	-9735528.64	-9735528.47	0.0134	0.0005
Mercury	-31368-10-26 01:55 J	-9735440.59	-9735440.42	-9735440.25	0.0134	0.0018
Mercury	-31367-01-22 06:57 J	-9735352.36	-9735352.21	-9735352.04	0.0134	0.0041
Mercury	-31367-04-20 12:14 J	-9735264.13	-9735263.99	-9735263.84	0.0133	0.0063
Mercury	-31367-07-17 17:16 J	-9735175.90	-9735175.78	-9735175.64	0.0133	0.0085
Mercury	-31367-10-13 22:19 J	-9735087.66	-9735087.57	-9735087.46	0.0133	0.0107
Mercury	-31366-01-10 03:35 J	-9734999.39	-9734999.35	-9734999.30	0.0133	0.0128
Mars	-31357-10-13 09:35 J	-9731435.42	-9731435.10	-9731434.77	0.0132	0.0027
Venus	-31342-09-08 09:50 J	-9725992.10	-9725992.09	-9725992.07	0.0136	0.0135
Venus	-31341-04-21 15:21 J	-9725765.95	-9725765.86	-9725765.76	0.0136	0.0122
Venus	-31341-12-03 20:52 J	-9725539.75	-9725539.63	-9725539.49	0.0136	0.0109
Venus	-31340-07-18 02:38 J	-9725313.54	-9725313.39	-9725313.23	0.0137	0.0096
Venus	-31339-03-01 08:23 J	-9725087.32	-9725087.15	-9725086.98	0.0137	0.0082
Venus	-31339-10-13 14:09 J	-9724861.09	-9724860.91	-9724860.72	0.0137	0.0069
Venus	-31338-05-27 20:09 J	-9724634.85	-9724634.66	-9724634.46	0.0137	0.0055
Venus	-31337-01-09 02:38 J	-9724408.59	-9724408.39	-9724408.19	0.0138	0.0040
Venus	-31337-08-22 08:52 J	-9724182.34	-9724182.13	-9724181.92	0.0138	0.0026
Venus	-31336-04-05 15:07 J	-9723956.08	-9723955.87	-9723955.65	0.0138	0.0011
Venus	-31336-11-17 21:50 J	-9723729.80	-9723729.59	-9723729.38	0.0139	0.0004
Venus	-31335-07-02 04:33 J	-9723503.52	-9723503.31	-9723503.10	0.0139	0.0019
Venus	-31334-02-13 11:31 J	-9723277.22	-9723277.02	-9723276.81	0.0139	0.0034
Venus	-31334-09-27 18:28 J	-9723050.92	-9723050.73	-9723050.52	0.0140	0.0049
Venus	-31333-05-11 01:40 J	-9722824.61	-9722824.43	-9722824.23	0.0140	0.0064
Venus	-31333-12-23 09:07 J	-9722598.28	-9722598.12	-9722597.94	0.0141	0.0080
Venus	-31332-08-06 16:33 J	-9722371.95	-9722371.81	-9722371.64	0.0141	0.0095
Venus	-31331-03-21 00:14 J	-9722145.60	-9722145.49	-9722145.34	0.0141	0.0110
Venus	-31331-11-02 08:23 J	-9721919.24	-9721919.15	-9721919.05	0.0142	0.0125
Venus	-31330-06-16 16:19 J	-9721692.84	-9721692.82	-9721692.77	0.0142	0.0140

Moon	-31327-04-28 16:19 J	-9720646.05	-9720645.82	-9720645.57	0.0144	0.0052
Earth	-31327-04-28 19:55 J	-9720645.89	-9720645.67	-9720645.43	0.0144	0.0059 *
Earth	-31326-05-03 16:33 J	-9720276.02	-9720275.81	-9720275.57	0.0144	0.0061
Moon	-31326-05-03 19:55 J	-9720275.89	-9720275.67	-9720275.44	0.0144	0.0057 *
Mercury	-31325-04-17 15:21 J	-9719925.92	-9719925.86	-9719925.79	0.0145	0.0127
Mercury	-31325-07-14 19:55 J	-9719837.77	-9719837.67	-9719837.57	0.0145	0.0103
Mercury	-31325-10-11 00:14 J	-9719749.61	-9719749.49	-9719749.36	0.0145	0.0079
Mercury	-31324-01-07 04:47 J	-9719661.43	-9719661.30	-9719661.16	0.0145	0.0055
Mercury	-31324-04-05 09:21 J	-9719573.25	-9719573.11	-9719572.97	0.0145	0.0030
Mercury	-31324-07-02 13:55 J	-9719485.06	-9719484.92	-9719484.77	0.0145	0.0005
Mercury	-31324-09-28 18:28 J	-9719396.87	-9719396.73	-9719396.58	0.0145	0.0021
Mercury	-31324-12-25 23:16 J	-9719308.67	-9719308.53	-9719308.39	0.0145	0.0045
Mercury	-31323-03-24 03:50 J	-9719220.46	-9719220.34	-9719220.21	0.0145	0.0071
Mercury	-31323-06-20 08:38 J	-9719132.24	-9719132.14	-9719132.03	0.0145	0.0097
Mercury	-31323-09-16 13:26 J	-9719044.01	-9719043.94	-9719043.86	0.0145	0.0123
Mars	-31314-02-22 01:55 J	-9715963.63	-9715963.42	-9715963.19	0.0147	0.0092
Venus	-31302-05-12 02:09 J	-9711501.43	-9711501.41	-9711501.37	0.0143	0.0141
Venus	-31302-12-24 14:09 J	-9711274.99	-9711274.91	-9711274.79	0.0143	0.0126
Venus	-31301-08-07 02:23 J	-9711048.53	-9711048.40	-9711048.25	0.0142	0.0109
Venus	-31300-03-21 14:09 J	-9710822.06	-9710821.91	-9710821.73	0.0142	0.0093
Venus	-31300-11-03 01:55 J	-9710595.59	-9710595.42	-9710595.22	0.0142	0.0077
Venus	-31299-06-17 13:40 J	-9710369.12	-9710368.93	-9710368.71	0.0141	0.0061
Venus	-31298-01-30 01:26 J	-9710142.65	-9710142.44	-9710142.22	0.0141	0.0044
Venus	-31298-09-13 12:43 J	-9709916.18	-9709915.97	-9709915.75	0.0141	0.0027
Venus	-31297-04-26 23:59 J	-9709689.73	-9709689.50	-9709689.28	0.0140	0.0011
Venus	-31297-12-09 10:47 J	-9709463.27	-9709463.05	-9709462.82	0.0140	0.0006
Venus	-31296-07-23 21:50 J	-9709236.81	-9709236.59	-9709236.37	0.0140	0.0021
Venus	-31295-03-07 08:23 J	-9709010.36	-9709010.15	-9709009.93	0.0139	0.0037
Venus	-31295-10-19 19:11 J	-9708783.91	-9708783.70	-9708783.50	0.0139	0.0052
Venus	-31294-06-03 05:16 J	-9708557.46	-9708557.28	-9708557.07	0.0139	0.0068

Venus	-31293-01-15 15:21 J	-9708331.02	-9708330.86	-9708330.66	0.0138	0.0083
Venus	-31293-08-29 01:26 J	-9708104.58	-9708104.44	-9708104.26	0.0138	0.0098
Venus	-31292-04-12 11:31 J	-9707878.14	-9707878.02	-9707877.88	0.0137	0.0112
Venus	-31292-11-24 21:07 J	-9707651.69	-9707651.62	-9707651.52	0.0137	0.0126
Earth	-31288-10-31 04:19 J	-9706215.55	-9706215.32	-9706215.08	0.0135	0.0056
Moon	-31288-10-31 04:33 J	-9706215.53	-9706215.31	-9706215.07	0.0135	0.0052 *
Moon	-31287-11-04 14:52 J	-9705846.13	-9705845.88	-9705845.62	0.0135	0.0037
Earth	-31287-11-04 15:21 J	-9705846.09	-9705845.86	-9705845.60	0.0135	0.0044 *
Mercury	-31285-03-07 19:40 J	-9705356.68	-9705356.68	-9705356.67	0.0134	0.0134
Mercury	-31285-06-04 01:11 J	-9705268.54	-9705268.45	-9705268.35	0.0134	0.0110
Mercury	-31285-08-31 06:43 J	-9705180.34	-9705180.22	-9705180.08	0.0134	0.0087
Mercury	-31285-11-27 12:28 J	-9705092.13	-9705091.98	-9705091.83	0.0134	0.0063
Mercury	-31284-02-23 17:45 J	-9705003.92	-9705003.76	-9705003.59	0.0134	0.0040
Mercury	-31284-05-22 23:02 J	-9704915.70	-9704915.54	-9704915.36	0.0134	0.0018
Mercury	-31284-08-19 04:33 J	-9704827.48	-9704827.31	-9704827.14	0.0134	0.0005
Mercury	-31284-11-15 09:50 J	-9704739.25	-9704739.09	-9704738.92	0.0134	0.0028
Mercury	-31283-02-11 14:52 J	-9704651.02	-9704650.88	-9704650.71	0.0134	0.0051
Mercury	-31283-05-10 20:09 J	-9704562.79	-9704562.66	-9704562.51	0.0134	0.0073
Mercury	-31283-08-07 01:11 J	-9704474.55	-9704474.45	-9704474.32	0.0133	0.0095
Mercury	-31283-11-03 06:14 J	-9704386.30	-9704386.24	-9704386.15	0.0133	0.0117
Mars	-31274-07-06 18:28 J	-9701218.88	-9701218.73	-9701218.57	0.0132	0.0116
Mars	-31272-06-09 01:26 J	-9700515.58	-9700515.44	-9700515.25	0.0132	0.0115
Venus	-31258-12-21 04:04 J	-9695207.39	-9695207.33	-9695207.24	0.0136	0.0127
Venus	-31257-08-03 09:50 J	-9694981.20	-9694981.09	-9694980.97	0.0136	0.0113
Venus	-31256-03-17 15:07 J	-9694755.00	-9694754.87	-9694754.71	0.0136	0.0101
Venus	-31256-10-29 20:52 J	-9694528.78	-9694528.63	-9694528.45	0.0137	0.0087
Venus	-31255-06-13 02:52 J	-9694302.55	-9694302.38	-9694302.19	0.0137	0.0073
Venus	-31254-01-25 09:07 J	-9694076.31	-9694076.12	-9694075.93	0.0137	0.0059
Venus	-31254-09-08 15:07 J	-9693850.07	-9693849.87	-9693849.66	0.0138	0.0044
Venus	-31253-04-21 21:21 J	-9693623.82	-9693623.61	-9693623.40	0.0138	0.0030

Venus	-31253-12-04 03:50 J	-9693397.55	-9693397.34	-9693397.13	0.0138	0.0015
Venus	-31252-07-18 10:19 J	-9693171.28	-9693171.07	-9693170.86	0.0139	0.0001
Venus	-31251-03-01 17:02 J	-9692945.00	-9692944.79	-9692944.58	0.0139	0.0015
Venus	-31251-10-13 23:45 J	-9692718.72	-9692718.51	-9692718.30	0.0139	0.0030
Venus	-31250-05-28 06:28 J	-9692492.42	-9692492.23	-9692492.02	0.0140	0.0046
Venus	-31249-01-09 13:40 J	-9692266.11	-9692265.93	-9692265.72	0.0140	0.0061
Venus	-31249-08-22 21:21 J	-9692039.79	-9692039.61	-9692039.43	0.0140	0.0076
Venus	-31248-04-06 04:33 J	-9691813.46	-9691813.31	-9691813.14	0.0141	0.0091
Venus	-31248-11-18 12:14 J	-9691587.13	-9691586.99	-9691586.85	0.0141	0.0106
Venus	-31247-07-02 19:40 J	-9691360.77	-9691360.68	-9691360.56	0.0141	0.0122
Venus	-31246-02-14 03:35 J	-9691134.38	-9691134.35	-9691134.27	0.0142	0.0137
Moon	-31243-04-29 06:28 J	-9689964.45	-9689964.23	-9689963.98	0.0143	0.0056
Earth	-31243-04-29 10:04 J	-9689964.31	-9689964.08	-9689963.84	0.0143	0.0049 *
Earth	-31242-05-04 06:43 J	-9689594.43	-9689594.22	-9689593.99	0.0144	0.0070
Moon	-31242-05-04 10:04 J	-9689594.28	-9689594.08	-9689593.86	0.0144	0.0073 *
Mercury	-31241-02-09 18:57 J	-9689312.73	-9689312.71	-9689312.67	0.0144	0.0140
Mercury	-31241-05-07 23:31 J	-9689224.60	-9689224.52	-9689224.44	0.0144	0.0117
Mercury	-31241-08-04 03:50 J	-9689136.45	-9689136.34	-9689136.23	0.0145	0.0093
Mercury	-31241-10-31 08:23 J	-9689048.28	-9689048.15	-9689048.03	0.0145	0.0069
Mercury	-31240-01-27 12:43 J	-9688960.10	-9688959.97	-9688959.83	0.0145	0.0045
Mercury	-31240-04-25 17:16 J	-9688871.92	-9688871.78	-9688871.63	0.0145	0.0020
Mercury	-31240-07-22 21:50 J	-9688783.73	-9688783.59	-9688783.44	0.0145	0.0007
Mercury	-31240-10-19 02:38 J	-9688695.54	-9688695.39	-9688695.25	0.0145	0.0030
Mercury	-31239-01-15 07:11 J	-9688607.33	-9688607.20	-9688607.06	0.0145	0.0056
Mercury	-31239-04-13 11:45 J	-9688519.12	-9688519.01	-9688518.88	0.0145	0.0082
Mercury	-31239-07-10 16:33 J	-9688430.90	-9688430.81	-9688430.70	0.0145	0.0107
Mercury	-31239-10-06 21:21 J	-9688342.66	-9688342.61	-9688342.54	0.0145	0.0133
Mars	-31232-11-15 07:40 J	-9685746.39	-9685746.18	-9685745.92	0.0147	0.0084
Venus	-31218-08-23 21:21 J	-9680716.67	-9680716.61	-9680716.51	0.0143	0.0132
Venus	-31217-04-06 09:35 J	-9680490.22	-9680490.10	-9680489.96	0.0143	0.0116

Venus	-31217-11-18 21:35 J	-9680263.75	-9680263.60	-9680263.43	0.0142	0.0099
Venus	-31216-07-03 09:21 J	-9680037.27	-9680037.11	-9680036.91	0.0142	0.0083
Venus	-31215-02-14 21:07 J	-9679810.80	-9679810.62	-9679810.41	0.0142	0.0067
Venus	-31215-09-29 08:52 J	-9679584.33	-9679584.13	-9679583.92	0.0141	0.0050
Venus	-31214-05-13 20:23 J	-9679357.87	-9679357.65	-9679357.43	0.0141	0.0033
Venus	-31214-12-26 07:40 J	-9679131.40	-9679131.18	-9679130.96	0.0141	0.0017
Venus	-31213-08-08 18:43 J	-9678904.94	-9678904.72	-9678904.49	0.0140	0.0003
Venus	-31212-03-23 05:45 J	-9678678.48	-9678678.26	-9678678.04	0.0140	0.0016
Venus	-31212-11-04 16:33 J	-9678452.02	-9678451.81	-9678451.59	0.0139	0.0032
Venus	-31211-06-19 03:07 J	-9678225.57	-9678225.37	-9678225.15	0.0139	0.0049
Venus	-31210-01-31 13:40 J	-9677999.11	-9677998.93	-9677998.72	0.0139	0.0064
Venus	-31210-09-15 00:14 J	-9677772.67	-9677772.49	-9677772.30	0.0138	0.0079
Venus	-31209-04-28 10:04 J	-9677546.22	-9677546.08	-9677545.90	0.0138	0.0094
Venus	-31209-12-10 20:09 J	-9677319.78	-9677319.66	-9677319.51	0.0138	0.0109
Venus	-31208-07-25 06:28 J	-9677093.32	-9677093.23	-9677093.13	0.0137	0.0123
Venus	-31207-03-08 16:19 J	-9676866.84	-9676866.82	-9676866.80	0.0137	0.0137
Earth	-31204-10-31 17:16 J	-9675534.01	-9675533.78	-9675533.53	0.0135	0.0049
Moon	-31204-10-31 18:28 J	-9675533.94	-9675533.73	-9675533.49	0.0135	0.0054 *
Moon	-31203-11-05 04:04 J	-9675164.57	-9675164.33	-9675164.09	0.0135	0.0057
Earth	-31203-11-05 04:47 J	-9675164.54	-9675164.30	-9675164.06	0.0135	0.0051 *
Mercury	-31201-03-28 03:35 J	-9674655.41	-9674655.35	-9674655.29	0.0134	0.0125
Mercury	-31201-06-24 08:52 J	-9674567.23	-9674567.13	-9674567.00	0.0134	0.0102
Mercury	-31201-09-20 14:38 J	-9674479.02	-9674478.89	-9674478.74	0.0134	0.0078
Mercury	-31201-12-17 20:09 J	-9674390.81	-9674390.66	-9674390.50	0.0134	0.0054
Mercury	-31200-03-16 01:40 J	-9674302.59	-9674302.43	-9674302.26	0.0134	0.0031
Mercury	-31200-06-12 07:11 J	-9674214.37	-9674214.20	-9674214.03	0.0134	0.0008
Mercury	-31200-09-08 12:28 J	-9674126.15	-9674125.98	-9674125.81	0.0134	0.0015
Mercury	-31200-12-05 17:31 J	-9674037.92	-9674037.77	-9674037.60	0.0134	0.0038
Mercury	-31199-03-03 22:47 J	-9673949.69	-9673949.55	-9673949.39	0.0134	0.0060
Mercury	-31199-05-31 04:04 J	-9673861.45	-9673861.33	-9673861.19	0.0134	0.0082

Mercury	-31199-08-27 09:21 J	-9673773.21	-9673773.11	-9673773.00	0.0133	0.0104
Mercury	-31199-11-23 14:09 J	-9673684.95	-9673684.91	-9673684.84	0.0133	0.0126
Mars	-31189-03-01 09:21 J	-9670299.43	-9670299.11	-9670298.78	0.0132	0.0030
Venus	-31174-08-20 16:47 J	-9664648.84	-9664648.80	-9664648.73	0.0136	0.0131
Venus	-31173-04-02 22:19 J	-9664422.66	-9664422.57	-9664422.46	0.0136	0.0118
Venus	-31173-11-15 04:04 J	-9664196.46	-9664196.33	-9664196.19	0.0136	0.0105
Venus	-31172-06-29 09:50 J	-9663970.25	-9663970.09	-9663969.93	0.0136	0.0091
Venus	-31171-02-10 15:35 J	-9663744.02	-9663743.85	-9663743.67	0.0137	0.0077
Venus	-31171-09-24 21:21 J	-9663517.79	-9663517.61	-9663517.41	0.0137	0.0063
Venus	-31170-05-09 03:35 J	-9663291.55	-9663291.35	-9663291.15	0.0137	0.0049
Venus	-31170-12-21 09:50 J	-9663065.30	-9663065.09	-9663064.88	0.0138	0.0034
Venus	-31169-08-03 16:19 J	-9662839.04	-9662838.82	-9662838.61	0.0138	0.0020
Venus	-31168-03-17 22:33 J	-9662612.77	-9662612.56	-9662612.34	0.0138	0.0005
Venus	-31168-10-30 05:16 J	-9662386.49	-9662386.28	-9662386.07	0.0139	0.0011
Venus	-31167-06-13 11:59 J	-9662160.21	-9662160.00	-9662159.79	0.0139	0.0026
Venus	-31166-01-25 18:57 J	-9661933.91	-9661933.71	-9661933.50	0.0139	0.0041
Venus	-31166-09-09 01:55 J	-9661707.60	-9661707.42	-9661707.22	0.0140	0.0057
Venus	-31165-04-22 09:07 J	-9661481.29	-9661481.12	-9661480.93	0.0140	0.0072
Venus	-31165-12-04 16:19 J	-9661254.97	-9661254.82	-9661254.64	0.0140	0.0088
Venus	-31164-07-18 23:45 J	-9661028.64	-9661028.51	-9661028.35	0.0141	0.0103
Venus	-31163-03-02 07:40 J	-9660802.28	-9660802.18	-9660802.05	0.0141	0.0118
Venus	-31163-10-14 15:21 J	-9660575.91	-9660575.86	-9660575.77	0.0142	0.0134
Moon	-31159-04-29 21:35 J	-9659282.84	-9659282.60	-9659282.35	0.0143	0.0031
Earth	-31159-04-30 01:26 J	-9659282.68	-9659282.44	-9659282.20	0.0143	0.0038 *
Earth	-31158-05-04 21:50 J	-9658912.79	-9658912.59	-9658912.37	0.0144	0.0081
Moon	-31158-05-05 01:11 J	-9658912.65	-9658912.45	-9658912.23	0.0144	0.0077 *
Mercury	-31157-03-01 03:07 J	-9658611.42	-9658611.37	-9658611.30	0.0144	0.0130
Mercury	-31157-05-28 07:40 J	-9658523.27	-9658523.18	-9658523.08	0.0144	0.0106
Mercury	-31157-08-24 11:59 J	-9658435.11	-9658435.00	-9658434.88	0.0145	0.0082
Mercury	-31157-11-20 16:33 J	-9658346.94	-9658346.81	-9658346.68	0.0145	0.0058

Mercury	-31156-02-16 21:07 J	-9658258.76	-9658258.62	-9658258.48	0.0145	0.0033
Mercury	-31156-05-16 01:40 J	-9658170.58	-9658170.43	-9658170.28	0.0145	0.0008
Mercury	-31156-08-12 06:14 J	-9658082.38	-9658082.24	-9658082.09	0.0145	0.0017
Mercury	-31156-11-08 10:47 J	-9657994.19	-9657994.05	-9657993.90	0.0145	0.0042
Mercury	-31155-02-04 15:35 J	-9657905.98	-9657905.85	-9657905.72	0.0145	0.0067
Mercury	-31155-05-03 20:09 J	-9657817.76	-9657817.66	-9657817.54	0.0145	0.0093
Mercury	-31155-07-31 00:57 J	-9657729.54	-9657729.46	-9657729.37	0.0145	0.0119
Mercury	-31155-10-27 05:45 J	-9657641.26	-9657641.26	-9657641.25	0.0145	0.0145
Mars	-31147-07-11 19:55 J	-9654826.95	-9654826.67	-9654826.38	0.0147	0.0019
Venus	-31134-04-23 06:28 J	-9650158.28	-9650158.23	-9650158.17	0.0143	0.0138
Venus	-31134-12-05 18:43 J	-9649931.83	-9649931.72	-9649931.60	0.0143	0.0121
Venus	-31133-07-19 06:43 J	-9649705.37	-9649705.22	-9649705.07	0.0142	0.0105
Venus	-31132-03-02 18:28 J	-9649478.90	-9649478.73	-9649478.55	0.0142	0.0088
Venus	-31132-10-15 05:59 J	-9649252.43	-9649252.25	-9649252.04	0.0142	0.0072
Venus	-31131-05-29 17:59 J	-9649025.95	-9649025.75	-9649025.54	0.0141	0.0055
Venus	-31130-01-11 05:31 J	-9648799.48	-9648799.27	-9648799.06	0.0141	0.0038
Venus	-31130-08-25 16:47 J	-9648573.02	-9648572.80	-9648572.58	0.0141	0.0022
Venus	-31129-04-08 04:04 J	-9648346.55	-9648346.33	-9648346.11	0.0140	0.0005
Venus	-31129-11-20 15:07 J	-9648120.09	-9648119.87	-9648119.65	0.0140	0.0011
Venus	-31128-07-05 02:09 J	-9647893.63	-9647893.41	-9647893.19	0.0140	0.0028
Venus	-31127-02-16 12:57 J	-9647667.17	-9647666.96	-9647666.75	0.0139	0.0044
Venus	-31127-09-30 23:16 J	-9647440.72	-9647440.53	-9647440.31	0.0139	0.0060
Venus	-31126-05-15 09:50 J	-9647214.27	-9647214.09	-9647213.89	0.0139	0.0075
Venus	-31126-12-27 19:55 J	-9646987.82	-9646987.67	-9646987.48	0.0138	0.0091
Venus	-31125-08-10 06:14 J	-9646761.37	-9646761.24	-9646761.08	0.0138	0.0105
Venus	-31124-03-24 16:04 J	-9646534.92	-9646534.83	-9646534.70	0.0138	0.0120
Venus	-31124-11-06 02:09 J	-9646308.45	-9646308.41	-9646308.36	0.0137	0.0134
Earth	-31120-11-01 07:26 J	-9644852.43	-9644852.19	-9644851.94	0.0135	0.0039
Moon	-31120-11-01 08:38 J	-9644852.37	-9644852.14	-9644851.89	0.0135	0.0035 *
Moon	-31119-11-05 17:02 J	-9644483.02	-9644482.79	-9644482.53	0.0135	0.0054

Earth	-31119-11-05 18:43 J	-9644482.94	-9644482.72	-9644482.48	0.0135	0.0060 *
Mercury	-31117-04-17 11:31 J	-9643954.10	-9643954.02	-9643953.92	0.0134	0.0115
Mercury	-31117-07-14 17:16 J	-9643865.90	-9643865.78	-9643865.65	0.0134	0.0091
Mercury	-31117-10-10 22:47 J	-9643777.69	-9643777.55	-9643777.40	0.0134	0.0067
Mercury	-31116-01-07 04:19 J	-9643689.48	-9643689.32	-9643689.16	0.0134	0.0044
Mercury	-31116-04-05 09:50 J	-9643601.26	-9643601.09	-9643600.92	0.0134	0.0021
Mercury	-31116-07-02 15:07 J	-9643513.04	-9643512.87	-9643512.70	0.0134	0.0004
Mercury	-31116-09-28 20:38 J	-9643424.81	-9643424.64	-9643424.48	0.0134	0.0025
Mercury	-31116-12-26 01:40 J	-9643336.58	-9643336.43	-9643336.27	0.0134	0.0048
Mercury	-31115-03-24 06:57 J	-9643248.35	-9643248.21	-9643248.06	0.0134	0.0070
Mercury	-31115-06-20 12:14 J	-9643160.11	-9643159.99	-9643159.87	0.0133	0.0092
Mercury	-31115-09-16 17:16 J	-9643071.86	-9643071.78	-9643071.69	0.0133	0.0114
Mars	-31105-10-25 23:45 J	-9639379.79	-9639379.51	-9639379.19	0.0132	0.0057
Jupiter	-31098-07-19 22:33 J	-9636921.85	-9636921.56	-9636921.20	0.0133	0.0100
Venus	-31090-04-20 05:16 J	-9634090.28	-9634090.28	-9634090.27	0.0135	0.0135
Venus	-31090-12-02 10:19 J	-9633864.14	-9633864.07	-9633863.95	0.0136	0.0123
Venus	-31089-07-15 16:04 J	-9633637.94	-9633637.83	-9633637.69	0.0136	0.0109
Venus	-31088-02-26 21:50 J	-9633411.73	-9633411.59	-9633411.43	0.0136	0.0095
Venus	-31088-10-11 03:35 J	-9633185.51	-9633185.35	-9633185.17	0.0137	0.0082
Venus	-31087-05-25 09:21 J	-9632959.28	-9632959.11	-9632958.91	0.0137	0.0068
Venus	-31086-01-06 15:35 J	-9632733.04	-9632732.85	-9632732.64	0.0137	0.0053
Venus	-31086-08-20 21:50 J	-9632506.79	-9632506.59	-9632506.38	0.0137	0.0039
Venus	-31085-04-03 04:04 J	-9632280.54	-9632280.33	-9632280.12	0.0138	0.0024
Venus	-31085-11-15 10:33 J	-9632054.27	-9632054.06	-9632053.85	0.0138	0.0009
Venus	-31084-06-29 17:02 J	-9631828.00	-9631827.79	-9631827.57	0.0138	0.0006
Venus	-31083-02-10 23:45 J	-9631601.72	-9631601.51	-9631601.29	0.0139	0.0022
Venus	-31083-09-25 06:28 J	-9631375.43	-9631375.23	-9631375.02	0.0139	0.0037
Venus	-31082-05-09 13:26 J	-9631149.13	-9631148.94	-9631148.74	0.0140	0.0053
Venus	-31082-12-21 20:38 J	-9630922.82	-9630922.64	-9630922.45	0.0140	0.0068
Venus	-31081-08-04 03:50 J	-9630696.50	-9630696.34	-9630696.16	0.0140	0.0083

Venus	-31080-03-18 11:16 J	-9630470.18	-9630470.03	-9630469.88	0.0141	0.0099
Venus	-31080-10-30 18:43 J	-9630243.84	-9630243.72	-9630243.59	0.0141	0.0114
Venus	-31079-06-14 02:23 J	-9630017.47	-9630017.40	-9630017.31	0.0141	0.0130
Moon	-31076-04-25 22:19 J	-9628970.62	-9628970.57	-9628970.48	0.0143	0.0137
Moon	-31075-04-30 11:16 J	-9628601.27	-9628601.03	-9628600.78	0.0143	0.0036
Earth	-31075-04-30 14:52 J	-9628601.13	-9628600.88	-9628600.63	0.0143	0.0029 *
Earth	-31074-05-05 11:16 J	-9628231.21	-9628231.03	-9628230.82	0.0144	0.0090
Moon	-31074-05-05 14:52 J	-9628231.05	-9628230.88	-9628230.67	0.0144	0.0093 *
Mercury	-31074-12-24 06:43 J	-9627998.22	-9627998.22	-9627998.20	0.0144	0.0143
Mercury	-31073-03-21 11:02 J	-9627910.11	-9627910.04	-9627909.95	0.0144	0.0120
Mercury	-31073-06-17 15:21 J	-9627821.95	-9627821.86	-9627821.74	0.0144	0.0097
Mercury	-31073-09-13 19:55 J	-9627733.79	-9627733.67	-9627733.54	0.0144	0.0072
Mercury	-31073-12-11 00:28 J	-9627645.61	-9627645.48	-9627645.34	0.0145	0.0048
Mercury	-31072-03-09 05:02 J	-9627557.43	-9627557.29	-9627557.15	0.0145	0.0023
Mercury	-31072-06-05 09:35 J	-9627469.24	-9627469.10	-9627468.95	0.0145	0.0002
Mercury	-31072-09-01 14:09 J	-9627381.05	-9627380.91	-9627380.76	0.0145	0.0027
Mercury	-31072-11-28 18:43 J	-9627292.85	-9627292.72	-9627292.58	0.0145	0.0052
Mercury	-31071-02-24 23:31 J	-9627204.64	-9627204.52	-9627204.39	0.0145	0.0077
Mercury	-31071-05-24 04:04 J	-9627116.42	-9627116.33	-9627116.22	0.0145	0.0103
Mercury	-31071-08-20 08:52 J	-9627028.19	-9627028.13	-9627028.05	0.0145	0.0129
Mars	-31062-03-07 04:47 J	-9623907.45	-9623907.30	-9623907.11	0.0147	0.0118
Venus	-31050-08-05 01:40 J	-9619373.51	-9619373.43	-9619373.31	0.0143	0.0128
Venus	-31049-03-18 14:09 J	-9619147.05	-9619146.91	-9619146.77	0.0143	0.0111
Venus	-31049-10-31 01:55 J	-9618920.58	-9618920.42	-9618920.25	0.0142	0.0094
Venus	-31048-06-14 13:40 J	-9618694.10	-9618693.93	-9618693.73	0.0142	0.0078
Venus	-31047-01-27 01:40 J	-9618467.63	-9618467.43	-9618467.23	0.0142	0.0061
Venus	-31047-09-10 12:57 J	-9618241.16	-9618240.96	-9618240.74	0.0141	0.0045
Venus	-31046-04-25 00:43 J	-9618014.69	-9618014.47	-9618014.26	0.0141	0.0027
Venus	-31046-12-07 11:59 J	-9617788.22	-9617788.00	-9617787.78	0.0141	0.0011
Venus	-31045-07-20 23:16 J	-9617561.75	-9617561.53	-9617561.31	0.0140	0.0006

Venus	-31044-03-04 10:19 J	-9617335.29	-9617335.07	-9617334.85	0.0140	0.0022
Venus	-31044-10-16 21:07 J	-9617108.83	-9617108.62	-9617108.40	0.0139	0.0039
Venus	-31043-05-31 07:40 J	-9616882.37	-9616882.18	-9616881.96	0.0139	0.0055
Venus	-31042-01-12 18:14 J	-9616655.92	-9616655.74	-9616655.54	0.0139	0.0071
Venus	-31042-08-27 04:33 J	-9616429.47	-9616429.31	-9616429.12	0.0138	0.0087
Venus	-31041-04-09 14:52 J	-9616203.02	-9616202.88	-9616202.72	0.0138	0.0101
Venus	-31041-11-22 00:57 J	-9615976.57	-9615976.46	-9615976.33	0.0138	0.0116
Venus	-31040-07-06 10:47 J	-9615750.10	-9615750.05	-9615749.97	0.0137	0.0131
Moon	-31037-10-28 05:16 J	-9614540.32	-9614540.28	-9614540.18	0.0136	0.0131
Earth	-31037-10-28 07:26 J	-9614540.22	-9614540.19	-9614540.12	0.0136	0.0133 *
Earth	-31036-11-01 19:55 J	-9614170.91	-9614170.67	-9614170.41	0.0135	0.0032
Moon	-31036-11-01 22:04 J	-9614170.81	-9614170.58	-9614170.33	0.0135	0.0037 *
Moon	-31035-11-06 05:45 J	-9613801.47	-9613801.26	-9613801.03	0.0135	0.0073
Earth	-31035-11-06 07:11 J	-9613801.41	-9613801.20	-9613800.96	0.0135	0.0068 *
Mercury	-31033-02-09 13:40 J	-9613340.97	-9613340.93	-9613340.88	0.0134	0.0129
Mercury	-31033-05-07 19:26 J	-9613252.79	-9613252.69	-9613252.58	0.0134	0.0105
Mercury	-31033-08-04 00:43 J	-9613164.59	-9613164.47	-9613164.32	0.0134	0.0083
Mercury	-31033-10-31 06:28 J	-9613076.38	-9613076.23	-9613076.07	0.0134	0.0058
Mercury	-31032-01-27 11:59 J	-9612988.16	-9612988.00	-9612987.83	0.0134	0.0035
Mercury	-31032-04-25 17:31 J	-9612899.94	-9612899.77	-9612899.60	0.0134	0.0012
Mercury	-31032-07-22 23:02 J	-9612811.71	-9612811.54	-9612811.37	0.0134	0.0011
Mercury	-31032-10-19 04:19 J	-9612723.48	-9612723.32	-9612723.16	0.0134	0.0034
Mercury	-31031-01-15 09:21 J	-9612635.25	-9612635.11	-9612634.95	0.0134	0.0057
Mercury	-31031-04-13 14:38 J	-9612547.01	-9612546.89	-9612546.74	0.0134	0.0079
Mercury	-31031-07-10 19:55 J	-9612458.77	-9612458.67	-9612458.55	0.0133	0.0101
Mercury	-31031-10-07 00:57 J	-9612370.51	-9612370.46	-9612370.38	0.0133	0.0123
Mars	-31022-07-19 06:14 J	-9609163.47	-9609163.24	-9609162.98	0.0132	0.0088
Venus	-31006-08-01 22:04 J	-9603305.63	-9603305.58	-9603305.49	0.0136	0.0128
Venus	-31005-03-15 03:35 J	-9603079.45	-9603079.35	-9603079.22	0.0136	0.0114
Venus	-31005-10-27 09:21 J	-9602853.25	-9602853.11	-9602852.96	0.0136	0.0100

Venus	-31004-06-10 15:07 J	-9602627.03	-9602626.87	-9602626.70	0.0136	0.0086
Venus	-31003-01-22 20:52 J	-9602400.80	-9602400.63	-9602400.44	0.0137	0.0073
Venus	-31003-09-06 02:52 J	-9602174.56	-9602174.38	-9602174.18	0.0137	0.0058
Venus	-31002-04-20 09:07 J	-9601948.32	-9601948.12	-9601947.92	0.0137	0.0043
Venus	-31002-12-02 15:21 J	-9601722.07	-9601721.86	-9601721.65	0.0138	0.0029
Venus	-31001-07-15 21:35 J	-9601495.81	-9601495.60	-9601495.38	0.0138	0.0014

31ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 31st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-31000-02-27 04:19 J	-9601269.54	-9601269.32	-9601269.11	0.0138	0.0003		
Venus	-31000-10-11 10:47 J	-9601043.26	-9601043.05	-9601042.84	0.0139	0.0017		
Venus	-30999-05-25 17:31 J	-9600816.98	-9600816.77	-9600816.56	0.0139	0.0032		
Venus	-30998-01-07 00:14 J	-9600590.68	-9600590.49	-9600590.28	0.0139	0.0048		
Venus	-30998-08-21 07:11 J	-9600364.38	-9600364.20	-9600364.00	0.0140	0.0064		
Venus	-30997-04-03 14:23 J	-9600138.07	-9600137.90	-9600137.72	0.0140	0.0079		
Venus	-30997-11-15 21:35 J	-9599911.75	-9599911.60	-9599911.44	0.0140	0.0095		
Venus	-30996-06-30 05:02 J	-9599685.41	-9599685.29	-9599685.15	0.0141	0.0110		
Venus	-30995-02-11 12:43 J	-9599459.05	-9599458.97	-9599458.87	0.0141	0.0126		
Venus	-30995-09-25 20:23 J	-9599232.66	-9599232.65	-9599232.62	0.0141	0.0141		
Earth	-30992-04-26 06:57 J	-9598289.26	-9598289.21	-9598289.12	0.0143	0.0137		
Moon	-30991-04-30 23:31 J	-9597919.76	-9597919.52	-9597919.27	0.0143	0.0014		

Earth	-30991-05-01 03:07 J	-9597919.61	-9597919.37	-9597919.11	0.0143	0.0022 *
Earth	-30990-05-05 23:45 J	-9597549.68	-9597549.51	-9597549.31	0.0144	0.0098
Moon	-30990-05-06 03:35 J	-9597549.54	-9597549.35	-9597549.16	0.0144	0.0093 *
Mercury	-30989-01-13 14:23 J	-9597296.94	-9597296.90	-9597296.84	0.0144	0.0135
Mercury	-30989-04-10 18:57 J	-9597208.80	-9597208.71	-9597208.62	0.0144	0.0111
Mercury	-30989-07-07 23:16 J	-9597120.64	-9597120.53	-9597120.41	0.0144	0.0088
Mercury	-30989-10-04 03:50 J	-9597032.47	-9597032.34	-9597032.21	0.0144	0.0063
Mercury	-30989-12-31 08:09 J	-9596944.29	-9596944.16	-9596944.01	0.0145	0.0039
Mercury	-30988-03-29 12:43 J	-9596856.11	-9596855.97	-9596855.82	0.0145	0.0015
Mercury	-30988-06-25 17:16 J	-9596767.92	-9596767.78	-9596767.63	0.0145	0.0012
Mercury	-30988-09-21 21:50 J	-9596679.72	-9596679.59	-9596679.44	0.0145	0.0036
Mercury	-30988-12-19 02:38 J	-9596591.52	-9596591.39	-9596591.26	0.0145	0.0061
Mercury	-30987-03-17 07:26 J	-9596503.31	-9596503.19	-9596503.07	0.0145	0.0086
Mercury	-30987-06-13 11:59 J	-9596415.09	-9596415.00	-9596414.90	0.0145	0.0112
Mercury	-30987-09-09 16:47 J	-9596326.84	-9596326.80	-9596326.75	0.0145	0.0138
Mars	-30980-11-28 11:31 J	-9593690.27	-9593690.02	-9593689.74	0.0147	0.0057
Venus	-30966-04-04 09:50 J	-9588815.15	-9588815.09	-9588815.00	0.0143	0.0134
Venus	-30966-11-16 22:04 J	-9588588.70	-9588588.58	-9588588.45	0.0143	0.0117
Venus	-30965-06-30 10:04 J	-9588362.22	-9588362.08	-9588361.91	0.0142	0.0101
Venus	-30964-02-11 22:19 J	-9588135.75	-9588135.57	-9588135.39	0.0142	0.0084
Venus	-30964-09-26 09:50 J	-9587909.28	-9587909.09	-9587908.89	0.0142	0.0067
Venus	-30963-05-10 21:35 J	-9587682.81	-9587682.60	-9587682.39	0.0141	0.0050
Venus	-30963-12-23 09:07 J	-9587456.33	-9587456.12	-9587455.90	0.0141	0.0033
Venus	-30962-08-06 20:38 J	-9587229.86	-9587229.64	-9587229.42	0.0141	0.0016
Venus	-30961-03-20 07:55 J	-9587003.39	-9587003.17	-9587002.95	0.0140	0.0001
Venus	-30961-11-01 18:57 J	-9586776.93	-9586776.71	-9586776.49	0.0140	0.0018
Venus	-30960-06-16 05:59 J	-9586550.46	-9586550.25	-9586550.03	0.0140	0.0034
Venus	-30959-01-28 16:47 J	-9586324.00	-9586323.80	-9586323.58	0.0139	0.0051
Venus	-30959-09-12 03:35 J	-9586097.54	-9586097.35	-9586097.15	0.0139	0.0066
Venus	-30958-04-26 14:09 J	-9585871.09	-9585870.91	-9585870.73	0.0139	0.0082

Venus	-30958-12-09 00:14 J	-9585644.64	-9585644.49	-9585644.33	0.0138	0.0098
Venus	-30957-07-22 10:19 J	-9585418.18	-9585418.07	-9585417.93	0.0138	0.0113
Venus	-30956-03-05 20:09 J	-9585191.72	-9585191.66	-9585191.56	0.0138	0.0128
Moon	-30953-10-28 17:45 J	-9583858.84	-9583858.76	-9583858.64	0.0136	0.0125
Earth	-30953-10-28 20:38 J	-9583858.72	-9583858.64	-9583858.52	0.0136	0.0125 *
Earth	-30952-11-02 09:21 J	-9583489.36	-9583489.11	-9583488.86	0.0135	0.0024
Moon	-30952-11-02 11:16 J	-9583489.27	-9583489.03	-9583488.78	0.0135	0.0019 *
Moon	-30951-11-06 17:59 J	-9583119.96	-9583119.75	-9583119.51	0.0135	0.0069
Earth	-30951-11-06 20:23 J	-9583119.85	-9583119.65	-9583119.42	0.0135	0.0076 *
Mercury	-30949-02-29 21:35 J	-9582639.67	-9582639.60	-9582639.51	0.0134	0.0120
Mercury	-30949-05-28 03:07 J	-9582551.48	-9582551.37	-9582551.24	0.0134	0.0096
Mercury	-30949-08-24 08:52 J	-9582463.27	-9582463.13	-9582462.98	0.0134	0.0072
Mercury	-30949-11-20 14:23 J	-9582375.05	-9582374.90	-9582374.73	0.0134	0.0049
Mercury	-30948-02-16 20:09 J	-9582286.83	-9582286.66	-9582286.50	0.0134	0.0025
Mercury	-30948-05-16 01:26 J	-9582198.61	-9582198.44	-9582198.27	0.0134	0.0003
Mercury	-30948-08-12 06:57 J	-9582110.38	-9582110.21	-9582110.04	0.0134	0.0021
Mercury	-30948-11-08 11:59 J	-9582022.15	-9582022.00	-9582021.83	0.0134	0.0044
Mercury	-30947-02-04 17:31 J	-9581933.91	-9581933.77	-9581933.62	0.0134	0.0066
Mercury	-30947-05-03 22:47 J	-9581845.68	-9581845.55	-9581845.42	0.0134	0.0088
Mercury	-30947-07-31 03:50 J	-9581757.43	-9581757.34	-9581757.24	0.0133	0.0110
Mercury	-30947-10-27 08:52 J	-9581669.14	-9581669.13	-9581669.09	0.0133	0.0132
Mars	-30937-03-13 18:14 J	-9578244.07	-9578243.74	-9578243.40	0.0132	0.0004
Venus	-30922-04-01 09:21 J	-9572747.13	-9572747.11	-9572747.05	0.0135	0.0133
Venus	-30922-11-13 15:07 J	-9572520.96	-9572520.87	-9572520.76	0.0136	0.0119
Venus	-30921-06-26 20:52 J	-9572294.76	-9572294.63	-9572294.50	0.0136	0.0105
Venus	-30920-02-08 02:23 J	-9572068.55	-9572068.40	-9572068.24	0.0136	0.0091
Venus	-30920-09-22 07:55 J	-9571842.33	-9571842.17	-9571841.98	0.0136	0.0078
Venus	-30919-05-06 13:55 J	-9571616.10	-9571615.92	-9571615.72	0.0137	0.0063
Venus	-30919-12-18 20:09 J	-9571389.86	-9571389.66	-9571389.46	0.0137	0.0048
Venus	-30918-08-02 02:23 J	-9571163.61	-9571163.40	-9571163.19	0.0137	0.0033

Venus	-30917-03-15 08:23 J	-9570937.36	-9570937.15	-9570936.93	0.0138	0.0019
Venus	-30917-10-27 14:52 J	-9570711.09	-9570710.88	-9570710.67	0.0138	0.0003
Venus	-30916-06-10 21:21 J	-9570484.82	-9570484.61	-9570484.40	0.0138	0.0012
Venus	-30915-01-23 04:04 J	-9570258.54	-9570258.33	-9570258.12	0.0139	0.0028
Venus	-30915-09-06 10:33 J	-9570032.25	-9570032.06	-9570031.85	0.0139	0.0044
Venus	-30914-04-20 17:31 J	-9569805.96	-9569805.77	-9569805.57	0.0139	0.0059
Venus	-30914-12-03 00:14 J	-9569579.66	-9569579.49	-9569579.30	0.0140	0.0075
Venus	-30913-07-16 07:26 J	-9569353.34	-9569353.19	-9569353.02	0.0140	0.0090
Venus	-30912-02-27 14:52 J	-9569127.01	-9569126.88	-9569126.73	0.0141	0.0106
Venus	-30912-10-11 22:19 J	-9568900.67	-9568900.57	-9568900.45	0.0141	0.0121
Venus	-30911-05-26 05:45 J	-9568674.30	-9568674.26	-9568674.19	0.0141	0.0137
Earth	-30908-04-26 18:28 J	-9567607.82	-9567607.73	-9567607.62	0.0143	0.0130
Moon	-30908-04-26 21:50 J	-9567607.71	-9567607.59	-9567607.45	0.0143	0.0122 *
Moon	-30907-05-01 11:02 J	-9567238.28	-9567238.04	-9567237.79	0.0143	0.0022
Earth	-30907-05-01 14:23 J	-9567238.15	-9567237.90	-9567237.65	0.0143	0.0014 *
Earth	-30906-05-06 10:47 J	-9566868.20	-9566868.05	-9566867.86	0.0144	0.0104
Moon	-30906-05-06 14:38 J	-9566868.04	-9566867.89	-9566867.71	0.0144	0.0107 *
Mercury	-30905-02-02 22:04 J	-9566595.65	-9566595.58	-9566595.52	0.0144	0.0128
Mercury	-30905-05-01 02:09 J	-9566507.50	-9566507.41	-9566507.30	0.0144	0.0104
Mercury	-30905-07-28 06:43 J	-9566419.33	-9566419.22	-9566419.10	0.0144	0.0080
Mercury	-30905-10-24 11:02 J	-9566331.16	-9566331.04	-9566330.90	0.0144	0.0057
Mercury	-30904-01-20 15:50 J	-9566242.99	-9566242.84	-9566242.70	0.0144	0.0032
Mercury	-30904-04-18 20:09 J	-9566154.80	-9566154.66	-9566154.51	0.0145	0.0008
Mercury	-30904-07-16 00:43 J	-9566066.61	-9566066.47	-9566066.32	0.0145	0.0018
Mercury	-30904-10-12 05:31 J	-9565978.41	-9565978.27	-9565978.13	0.0145	0.0043
Mercury	-30903-01-08 10:04 J	-9565890.21	-9565890.08	-9565889.95	0.0145	0.0068
Mercury	-30903-04-06 14:38 J	-9565802.00	-9565801.89	-9565801.77	0.0145	0.0094
Mercury	-30903-07-03 19:26 J	-9565713.77	-9565713.69	-9565713.60	0.0145	0.0119
Mars	-30895-07-24 14:38 J	-9562771.16	-9562770.89	-9562770.61	0.0147	0.0039
Venus	-30883-12-02 15:35 J	-9558256.87	-9558256.85	-9558256.80	0.0143	0.0142

Venus	-30882-07-17 04:19 J	-9558030.43	-9558030.32	-9558030.22	0.0143	0.0125
Venus	-30881-02-28 16:04 J	-9557803.97	-9557803.83	-9557803.68	0.0143	0.0108
Venus	-30881-10-12 04:04 J	-9557577.49	-9557577.33	-9557577.15	0.0142	0.0091
Venus	-30880-05-26 15:50 J	-9557351.01	-9557350.84	-9557350.64	0.0142	0.0074
Venus	-30879-01-08 03:50 J	-9557124.54	-9557124.34	-9557124.13	0.0142	0.0057
Venus	-30879-08-22 15:35 J	-9556898.06	-9556897.85	-9556897.63	0.0141	0.0039
Venus	-30878-04-06 03:07 J	-9556671.59	-9556671.37	-9556671.15	0.0141	0.0022
Venus	-30878-11-18 14:38 J	-9556445.12	-9556444.89	-9556444.67	0.0141	0.0006
Venus	-30877-07-02 01:55 J	-9556218.64	-9556218.42	-9556218.20	0.0140	0.0012
Venus	-30876-02-13 12:57 J	-9555992.17	-9555991.96	-9555991.74	0.0140	0.0029
Venus	-30876-09-27 23:59 J	-9555765.71	-9555765.50	-9555765.29	0.0140	0.0045
Venus	-30875-05-12 10:33 J	-9555539.25	-9555539.06	-9555538.85	0.0139	0.0061
Venus	-30875-12-24 21:07 J	-9555312.80	-9555312.62	-9555312.43	0.0139	0.0077
Venus	-30874-08-08 07:40 J	-9555086.34	-9555086.18	-9555086.01	0.0139	0.0093
Venus	-30873-03-21 17:45 J	-9554859.88	-9554859.76	-9554859.61	0.0138	0.0109
Venus	-30873-11-03 03:50 J	-9554633.43	-9554633.34	-9554633.23	0.0138	0.0123
Moon	-30869-10-29 04:47 J	-9553177.41	-9553177.30	-9553177.14	0.0136	0.0117
Earth	-30869-10-29 07:55 J	-9553177.29	-9553177.17	-9553177.04	0.0136	0.0118 *
Earth	-30868-11-02 20:23 J	-9552807.90	-9552807.65	-9552807.39	0.0135	0.0017
Moon	-30868-11-02 23:16 J	-9552807.78	-9552807.53	-9552807.28	0.0135	0.0022 *
Moon	-30867-11-07 05:02 J	-9552438.47	-9552438.29	-9552438.07	0.0135	0.0088
Earth	-30867-11-07 07:40 J	-9552438.37	-9552438.18	-9552437.96	0.0135	0.0082 *
Mercury	-30865-03-21 05:16 J	-9551938.38	-9551938.28	-9551938.19	0.0134	0.0112
Mercury	-30865-06-17 10:33 J	-9551850.18	-9551850.06	-9551849.92	0.0134	0.0089
Mercury	-30865-09-13 16:19 J	-9551761.96	-9551761.82	-9551761.66	0.0134	0.0064
Mercury	-30865-12-10 21:50 J	-9551673.74	-9551673.59	-9551673.42	0.0134	0.0041
Mercury	-30864-03-09 03:21 J	-9551585.52	-9551585.36	-9551585.18	0.0134	0.0018
Mercury	-30864-06-05 08:52 J	-9551497.30	-9551497.13	-9551496.96	0.0134	0.0007
Mercury	-30864-09-01 14:23 J	-9551409.07	-9551408.90	-9551408.73	0.0134	0.0028
Mercury	-30864-11-28 19:40 J	-9551320.83	-9551320.68	-9551320.52	0.0134	0.0051

Mercury	-30863-02-25 00:43 J	-9551232.60	-9551232.47	-9551232.32	0.0134	0.0074
Mercury	-30863-05-24 05:59 J	-9551144.35	-9551144.25	-9551144.12	0.0134	0.0096
Mercury	-30863-08-20 11:16 J	-9551056.10	-9551056.03	-9551055.94	0.0133	0.0118
Mars	-30853-11-07 04:47 J	-9547324.55	-9547324.30	-9547324.03	0.0132	0.0081
Venus	-30838-07-14 02:09 J	-9541962.47	-9541962.41	-9541962.30	0.0135	0.0125
Venus	-30837-02-25 07:40 J	-9541736.28	-9541736.18	-9541736.04	0.0136	0.0111
Venus	-30837-10-08 13:26 J	-9541510.08	-9541509.94	-9541509.78	0.0136	0.0097
Venus	-30836-05-22 19:11 J	-9541283.86	-9541283.70	-9541283.52	0.0136	0.0083
Venus	-30835-01-04 01:11 J	-9541057.63	-9541057.45	-9541057.26	0.0137	0.0068
Venus	-30835-08-18 06:57 J	-9540831.39	-9540831.21	-9540831.00	0.0137	0.0054
Venus	-30834-04-01 13:11 J	-9540605.15	-9540604.95	-9540604.74	0.0137	0.0039
Venus	-30834-11-13 19:11 J	-9540378.90	-9540378.70	-9540378.48	0.0137	0.0024
Venus	-30833-06-27 01:26 J	-9540152.65	-9540152.44	-9540152.22	0.0138	0.0009
Venus	-30832-02-08 07:55 J	-9539926.38	-9539926.17	-9539925.95	0.0138	0.0008
Venus	-30832-09-22 14:23 J	-9539700.11	-9539699.90	-9539699.69	0.0139	0.0023
Venus	-30831-05-06 21:07 J	-9539473.83	-9539473.62	-9539473.42	0.0139	0.0038
Venus	-30831-12-19 03:35 J	-9539247.54	-9539247.35	-9539247.15	0.0139	0.0054
Venus	-30830-08-02 10:19 J	-9539021.24	-9539021.07	-9539020.87	0.0140	0.0070
Venus	-30829-03-15 17:31 J	-9538794.93	-9538794.77	-9538794.60	0.0140	0.0085
Venus	-30829-10-28 00:28 J	-9538568.61	-9538568.48	-9538568.32	0.0140	0.0101
Venus	-30828-06-11 07:40 J	-9538342.28	-9538342.18	-9538342.04	0.0141	0.0117
Venus	-30827-01-23 15:21 J	-9538115.92	-9538115.86	-9538115.77	0.0141	0.0132
Earth	-30824-04-27 05:02 J	-9536926.39	-9536926.29	-9536926.14	0.0143	0.0124
Moon	-30824-04-27 07:55 J	-9536926.25	-9536926.17	-9536926.04	0.0143	0.0131 *
Moon	-30823-05-01 22:04 J	-9536556.83	-9536556.58	-9536556.33	0.0143	0.0001
Earth	-30823-05-02 01:26 J	-9536556.69	-9536556.44	-9536556.19	0.0143	0.0008 *
Earth	-30822-05-06 21:50 J	-9536186.73	-9536186.59	-9536186.41	0.0144	0.0110
Moon	-30822-05-07 01:11 J	-9536186.61	-9536186.45	-9536186.26	0.0144	0.0105 *
Mercury	-30822-11-27 01:11 J	-9535982.45	-9535982.45	-9535982.45	0.0144	0.0144
Mercury	-30821-02-23 05:31 J	-9535894.35	-9535894.27	-9535894.20	0.0144	0.0121

Mercury	-30821-05-21 09:35 J	-9535806.20	-9535806.10	-9535805.99	0.0144	0.0097
Mercury	-30821-08-17 14:09 J	-9535718.03	-9535717.91	-9535717.78	0.0144	0.0073
Mercury	-30821-11-13 18:28 J	-9535629.86	-9535629.73	-9535629.59	0.0144	0.0049
Mercury	-30820-02-09 23:02 J	-9535541.68	-9535541.54	-9535541.39	0.0144	0.0025
Mercury	-30820-05-09 03:35 J	-9535453.49	-9535453.35	-9535453.20	0.0145	0.0002
Mercury	-30820-08-05 08:09 J	-9535365.30	-9535365.16	-9535365.01	0.0145	0.0025
Mercury	-30820-11-01 12:43 J	-9535277.10	-9535276.97	-9535276.83	0.0145	0.0050
Mercury	-30819-01-28 17:31 J	-9535188.90	-9535188.77	-9535188.65	0.0145	0.0075
Mercury	-30819-04-26 22:04 J	-9535100.68	-9535100.58	-9535100.47	0.0145	0.0101
Mercury	-30819-07-24 02:38 J	-9535012.45	-9535012.39	-9535012.31	0.0145	0.0127
Mars	-30812-04-16 16:47 J	-9532553.88	-9532553.80	-9532553.71	0.0147	0.0139
Mars	-30810-03-19 17:59 J	-9531851.85	-9531851.75	-9531851.62	0.0147	0.0134
Venus	-30798-03-16 09:50 J	-9527472.15	-9527472.09	-9527471.98	0.0143	0.0133
Venus	-30798-10-28 22:19 J	-9527245.69	-9527245.57	-9527245.43	0.0143	0.0115
Venus	-30797-06-11 10:33 J	-9527019.21	-9527019.06	-9527018.89	0.0143	0.0098
Venus	-30796-01-23 22:47 J	-9526792.73	-9526792.55	-9526792.37	0.0142	0.0081
Venus	-30796-09-07 10:33 J	-9526566.25	-9526566.06	-9526565.86	0.0142	0.0063
Venus	-30795-04-21 22:19 J	-9526339.78	-9526339.57	-9526339.36	0.0142	0.0046
Venus	-30795-12-04 09:50 J	-9526113.30	-9526113.09	-9526112.86	0.0141	0.0029
Venus	-30794-07-18 21:35 J	-9525886.82	-9525886.60	-9525886.38	0.0141	0.0012
Venus	-30793-03-01 09:07 J	-9525660.35	-9525660.12	-9525659.90	0.0141	0.0006
Venus	-30793-10-13 20:09 J	-9525433.88	-9525433.66	-9525433.44	0.0140	0.0023
Venus	-30792-05-28 06:57 J	-9525207.41	-9525207.21	-9525206.98	0.0140	0.0040
Venus	-30791-01-09 18:14 J	-9524980.95	-9524980.74	-9524980.54	0.0139	0.0056
Venus	-30791-08-24 04:47 J	-9524754.48	-9524754.30	-9524754.10	0.0139	0.0072
Venus	-30790-04-07 15:21 J	-9524528.03	-9524527.86	-9524527.69	0.0139	0.0088
Venus	-30790-11-20 01:40 J	-9524301.57	-9524301.43	-9524301.28	0.0138	0.0104
Venus	-30789-07-03 11:45 J	-9524075.11	-9524075.01	-9524074.89	0.0138	0.0119
Venus	-30788-02-14 21:50 J	-9523848.63	-9523848.59	-9523848.54	0.0138	0.0134
Moon	-30785-10-29 15:50 J	-9522495.97	-9522495.84	-9522495.68	0.0136	0.0111

Earth	-30785-10-29 19:11 J	-9522495.82	-9522495.70	-9522495.54	0.0136	0.0112	*
Earth	-30784-11-03 08:09 J	-9522126.42	-9522126.16	-9522125.90	0.0135	0.0011	
Moon	-30784-11-03 11:02 J	-9522126.29	-9522126.04	-9522125.79	0.0135	0.0007	*
Moon	-30783-11-07 16:19 J	-9521757.01	-9521756.82	-9521756.59	0.0135	0.0082	
Earth	-30783-11-07 19:26 J	-9521756.87	-9521756.69	-9521756.48	0.0135	0.0089	*
Mercury	-30781-01-13 06:57 J	-9521325.26	-9521325.21	-9521325.15	0.0135	0.0128	
Mercury	-30781-04-10 12:43 J	-9521237.07	-9521236.97	-9521236.86	0.0134	0.0104	
Mercury	-30781-07-07 18:28 J	-9521148.87	-9521148.73	-9521148.59	0.0134	0.0080	
Mercury	-30781-10-03 23:59 J	-9521060.65	-9521060.50	-9521060.34	0.0134	0.0056	
Mercury	-30781-12-31 05:31 J	-9520972.43	-9520972.27	-9520972.10	0.0134	0.0033	
Mercury	-30780-03-29 11:02 J	-9520884.21	-9520884.04	-9520883.87	0.0134	0.0010	
Mercury	-30780-06-25 16:33 J	-9520795.98	-9520795.81	-9520795.64	0.0134	0.0014	
Mercury	-30780-09-21 21:50 J	-9520707.75	-9520707.59	-9520707.42	0.0134	0.0037	
Mercury	-30780-12-19 03:07 J	-9520619.51	-9520619.37	-9520619.21	0.0134	0.0060	
Mercury	-30779-03-17 08:23 J	-9520531.27	-9520531.15	-9520531.01	0.0134	0.0082	
Mercury	-30779-06-13 13:40 J	-9520443.03	-9520442.93	-9520442.82	0.0134	0.0104	
Mercury	-30779-09-09 18:57 J	-9520354.76	-9520354.71	-9520354.65	0.0134	0.0126	
Mars	-30770-07-31 09:21 J	-9517108.37	-9517108.11	-9517107.79	0.0132	0.0065	
Venus	-30754-03-13 14:09 J	-9511403.95	-9511403.91	-9511403.83	0.0135	0.0129	
Venus	-30754-10-25 19:40 J	-9511177.77	-9511177.68	-9511177.55	0.0135	0.0116	
Venus	-30753-06-08 01:26 J	-9510951.57	-9510951.44	-9510951.29	0.0136	0.0102	
Venus	-30752-01-20 07:26 J	-9510725.35	-9510725.19	-9510725.03	0.0136	0.0087	
Venus	-30752-09-03 12:57 J	-9510499.13	-9510498.96	-9510498.77	0.0136	0.0073	
Venus	-30751-04-17 18:43 J	-9510272.90	-9510272.72	-9510272.52	0.0137	0.0059	
Venus	-30751-11-30 00:43 J	-9510046.66	-9510046.47	-9510046.26	0.0137	0.0044	
Venus	-30750-07-14 06:57 J	-9509820.42	-9509820.21	-9509820.00	0.0137	0.0028	
Venus	-30749-02-25 12:57 J	-9509594.17	-9509593.96	-9509593.74	0.0138	0.0014	
Venus	-30749-10-08 19:11 J	-9509367.91	-9509367.70	-9509367.48	0.0138	0.0004	
Venus	-30748-05-23 01:40 J	-9509141.64	-9509141.43	-9509141.22	0.0138	0.0018	
Venus	-30747-01-04 08:09 J	-9508915.36	-9508915.16	-9508914.95	0.0139	0.0034	

Venus	-30747-08-18 14:52 J	-9508689.08	-9508688.88	-9508688.68	0.0139	0.0049
Venus	-30746-04-01 21:21 J	-9508462.79	-9508462.61	-9508462.41	0.0139	0.0065
Venus	-30746-11-14 04:04 J	-9508236.49	-9508236.33	-9508236.14	0.0140	0.0081
Venus	-30745-06-27 11:16 J	-9508010.17	-9508010.03	-9508009.87	0.0140	0.0096
Venus	-30744-02-08 18:28 J	-9507783.84	-9507783.73	-9507783.59	0.0140	0.0112
Venus	-30744-09-23 01:55 J	-9507557.49	-9507557.42	-9507557.32	0.0141	0.0128
Earth	-30740-04-27 17:45 J	-9506244.89	-9506244.76	-9506244.59	0.0143	0.0116
Moon	-30740-04-27 20:38 J	-9506244.79	-9506244.64	-9506244.45	0.0143	0.0108 *
Moon	-30739-05-02 11:16 J	-9505875.28	-9505875.03	-9505874.79	0.0143	0.0007
Earth	-30739-05-02 13:55 J	-9505875.17	-9505874.92	-9505874.67	0.0143	0.0000 *
Earth	-30738-05-07 10:19 J	-9505505.21	-9505505.07	-9505504.92	0.0144	0.0117
Moon	-30738-05-07 13:40 J	-9505505.05	-9505504.93	-9505504.78	0.0144	0.0121 *
Mercury	-30738-12-17 08:38 J	-9505281.18	-9505281.14	-9505281.09	0.0144	0.0136
Mercury	-30737-03-14 12:57 J	-9505193.04	-9505192.96	-9505192.87	0.0144	0.0112
Mercury	-30737-06-10 17:16 J	-9505104.89	-9505104.78	-9505104.66	0.0144	0.0089
Mercury	-30737-09-06 21:35 J	-9505016.72	-9505016.60	-9505016.46	0.0144	0.0065
Mercury	-30737-12-04 02:09 J	-9504928.54	-9504928.41	-9504928.27	0.0144	0.0041
Mercury	-30736-03-02 06:43 J	-9504840.36	-9504840.22	-9504840.08	0.0144	0.0016
Mercury	-30736-05-29 11:16 J	-9504752.18	-9504752.03	-9504751.89	0.0145	0.0008
Mercury	-30736-08-25 15:35 J	-9504663.98	-9504663.85	-9504663.70	0.0145	0.0034
Mercury	-30736-11-21 20:23 J	-9504575.78	-9504575.65	-9504575.52	0.0145	0.0058
Mercury	-30735-02-18 00:57 J	-9504487.58	-9504487.46	-9504487.34	0.0145	0.0084
Mercury	-30735-05-17 05:31 J	-9504399.36	-9504399.27	-9504399.17	0.0145	0.0109
Mercury	-30735-08-13 10:04 J	-9504311.12	-9504311.08	-9504311.01	0.0145	0.0135
Mars	-30728-12-10 20:09 J	-9501634.93	-9501634.66	-9501634.38	0.0147	0.0043
Venus	-30715-11-13 15:21 J	-9496913.90	-9496913.86	-9496913.80	0.0143	0.0140
Venus	-30714-06-28 04:04 J	-9496687.45	-9496687.33	-9496687.22	0.0143	0.0122
Venus	-30713-02-09 15:50 J	-9496460.97	-9496460.84	-9496460.68	0.0143	0.0106
Venus	-30713-09-23 03:50 J	-9496234.50	-9496234.34	-9496234.15	0.0142	0.0089
Venus	-30712-05-07 15:50 J	-9496008.02	-9496007.84	-9496007.64	0.0142	0.0071

Venus	-30712-12-20 03:50 J	-9495781.54	-9495781.34	-9495781.13	0.0142	0.0053
Venus	-30711-08-03 15:50 J	-9495555.06	-9495554.84	-9495554.63	0.0141	0.0036
Venus	-30710-03-18 03:21 J	-9495328.58	-9495328.36	-9495328.14	0.0141	0.0018
Venus	-30710-10-30 14:52 J	-9495102.11	-9495101.88	-9495101.66	0.0141	0.0003
Venus	-30709-06-13 02:09 J	-9494875.63	-9494875.41	-9494875.19	0.0140	0.0016
Venus	-30708-01-25 13:11 J	-9494649.16	-9494648.95	-9494648.73	0.0140	0.0033
Venus	-30708-09-09 00:14 J	-9494422.69	-9494422.49	-9494422.28	0.0140	0.0050
Venus	-30707-04-23 11:02 J	-9494196.23	-9494196.04	-9494195.84	0.0139	0.0067
Venus	-30707-12-05 21:21 J	-9493969.78	-9493969.61	-9493969.42	0.0139	0.0083
Venus	-30706-07-20 07:55 J	-9493743.31	-9493743.17	-9493743.00	0.0139	0.0099
Venus	-30705-03-02 18:14 J	-9493516.85	-9493516.74	-9493516.60	0.0138	0.0115
Venus	-30705-10-15 04:33 J	-9493290.38	-9493290.31	-9493290.23	0.0138	0.0129
Moon	-30701-10-30 01:26 J	-9491814.58	-9491814.44	-9491814.25	0.0136	0.0106
Earth	-30701-10-30 05:16 J	-9491814.43	-9491814.28	-9491814.12	0.0136	0.0106 *
Earth	-30700-11-03 17:59 J	-9491445.01	-9491444.75	-9491444.49	0.0136	0.0006
Moon	-30700-11-03 21:21 J	-9491444.86	-9491444.61	-9491444.35	0.0136	0.0009 *
Moon	-30699-11-08 02:23 J	-9491075.56	-9491075.40	-9491075.21	0.0135	0.0100
Earth	-30699-11-08 05:31 J	-9491075.44	-9491075.27	-9491075.07	0.0135	0.0094 *
Mercury	-30697-02-02 14:09 J	-9490623.98	-9490623.91	-9490623.83	0.0135	0.0121
Mercury	-30697-04-30 19:55 J	-9490535.79	-9490535.67	-9490535.55	0.0134	0.0097
Mercury	-30697-07-28 01:26 J	-9490447.58	-9490447.44	-9490447.29	0.0134	0.0073
Mercury	-30697-10-24 07:11 J	-9490359.36	-9490359.20	-9490359.04	0.0134	0.0049
Mercury	-30696-01-20 12:43 J	-9490271.14	-9490270.97	-9490270.80	0.0134	0.0026
Mercury	-30696-04-18 18:14 J	-9490182.91	-9490182.74	-9490182.57	0.0134	0.0003
Mercury	-30696-07-15 23:45 J	-9490094.68	-9490094.51	-9490094.34	0.0134	0.0021
Mercury	-30696-10-12 05:02 J	-9490006.45	-9490006.29	-9490006.13	0.0134	0.0044
Mercury	-30695-01-08 10:19 J	-9489918.21	-9489918.07	-9489917.92	0.0134	0.0066
Mercury	-30695-04-06 15:35 J	-9489829.97	-9489829.85	-9489829.72	0.0134	0.0089
Mercury	-30695-07-03 20:52 J	-9489741.71	-9489741.63	-9489741.53	0.0134	0.0111
Mercury	-30695-09-30 01:55 J	-9489653.42	-9489653.42	-9489653.39	0.0134	0.0133

Mars	-30685-03-25 18:43 J	-9486189.04	-9486188.72	-9486188.39	0.0132	0.0019
Venus	-30671-11-11 01:55 J	-9480845.43	-9480845.42	-9480845.38	0.0135	0.0134
Venus	-30670-06-25 07:40 J	-9480619.27	-9480619.18	-9480619.08	0.0135	0.0121
Venus	-30669-02-06 13:11 J	-9480393.07	-9480392.95	-9480392.81	0.0136	0.0107
Venus	-30669-09-19 18:43 J	-9480166.87	-9480166.72	-9480166.55	0.0136	0.0093
Venus	-30668-05-04 00:28 J	-9479940.65	-9479940.48	-9479940.30	0.0136	0.0078
Venus	-30668-12-16 06:28 J	-9479714.41	-9479714.23	-9479714.04	0.0136	0.0064
Venus	-30667-07-30 12:14 J	-9479488.18	-9479487.99	-9479487.78	0.0137	0.0049
Venus	-30666-03-13 18:14 J	-9479261.94	-9479261.74	-9479261.53	0.0137	0.0034
Venus	-30666-10-26 00:14 J	-9479035.70	-9479035.49	-9479035.27	0.0137	0.0019
Venus	-30665-06-08 06:28 J	-9478809.44	-9478809.23	-9478809.01	0.0138	0.0004
Venus	-30664-01-20 12:57 J	-9478583.17	-9478582.96	-9478582.74	0.0138	0.0013
Venus	-30664-09-03 19:26 J	-9478356.90	-9478356.69	-9478356.48	0.0138	0.0029
Venus	-30663-04-18 01:40 J	-9478130.62	-9478130.43	-9478130.22	0.0139	0.0045
Venus	-30663-11-30 08:23 J	-9477904.33	-9477904.15	-9477903.95	0.0139	0.0060
Venus	-30662-07-14 15:07 J	-9477678.04	-9477677.87	-9477677.68	0.0139	0.0076
Venus	-30661-02-25 22:19 J	-9477451.72	-9477451.57	-9477451.40	0.0140	0.0092
Venus	-30661-10-09 05:31 J	-9477225.40	-9477225.27	-9477225.13	0.0140	0.0108
Venus	-30660-05-23 12:28 J	-9476999.06	-9476998.98	-9476998.86	0.0140	0.0124
Venus	-30659-01-04 20:09 J	-9476772.68	-9476772.66	-9476772.62	0.0141	0.0139
Earth	-30656-04-28 06:57 J	-9475563.35	-9475563.21	-9475563.02	0.0143	0.0107
Moon	-30656-04-28 09:35 J	-9475563.25	-9475563.10	-9475562.94	0.0143	0.0113 *
Moon	-30655-05-03 00:14 J	-9475193.73	-9475193.49	-9475193.24	0.0143	0.0016
Earth	-30655-05-03 03:07 J	-9475193.62	-9475193.37	-9475193.11	0.0143	0.0009 *
Earth	-30654-05-07 23:02 J	-9474823.63	-9474823.54	-9474823.39	0.0144	0.0126
Moon	-30654-05-08 02:23 J	-9474823.53	-9474823.40	-9474823.25	0.0144	0.0120 *
Mercury	-30653-01-06 16:19 J	-9474579.87	-9474579.82	-9474579.74	0.0144	0.0127
Mercury	-30653-04-03 20:52 J	-9474491.73	-9474491.63	-9474491.53	0.0144	0.0103
Mercury	-30653-07-01 00:57 J	-9474403.57	-9474403.46	-9474403.33	0.0144	0.0081
Mercury	-30653-09-27 05:31 J	-9474315.40	-9474315.27	-9474315.13	0.0144	0.0056

Mercury	-30653-12-24 10:04 J	-9474227.22	-9474227.08	-9474226.94	0.0144	0.0032
Mercury	-30652-03-22 14:38 J	-9474139.04	-9474138.89	-9474138.75	0.0144	0.0008
Mercury	-30652-06-18 18:57 J	-9474050.85	-9474050.71	-9474050.56	0.0145	0.0018
Mercury	-30652-09-14 23:31 J	-9473962.66	-9473962.52	-9473962.38	0.0145	0.0042
Mercury	-30652-12-12 04:04 J	-9473874.45	-9473874.33	-9473874.20	0.0145	0.0067
Mercury	-30651-03-10 08:38 J	-9473786.24	-9473786.14	-9473786.02	0.0145	0.0093
Mercury	-30651-06-06 13:26 J	-9473698.02	-9473697.94	-9473697.85	0.0145	0.0118
Mercury	-30651-09-02 17:59 J	-9473609.75	-9473609.75	-9473609.72	0.0145	0.0144
Mars	-30643-08-06 02:52 J	-9470715.63	-9470715.38	-9470715.10	0.0147	0.0055
Venus	-30630-02-25 10:47 J	-9466129.14	-9466129.05	-9466128.96	0.0143	0.0130
Venus	-30630-10-09 22:33 J	-9465902.67	-9465902.56	-9465902.41	0.0143	0.0113
Venus	-30629-05-23 11:16 J	-9465676.20	-9465676.03	-9465675.87	0.0143	0.0095
Venus	-30628-01-04 23:02 J	-9465449.72	-9465449.54	-9465449.35	0.0142	0.0078
Venus	-30628-08-19 11:02 J	-9465223.24	-9465223.04	-9465222.83	0.0142	0.0060
Venus	-30627-04-02 22:47 J	-9464996.76	-9464996.55	-9464996.34	0.0142	0.0042
Venus	-30627-11-15 10:19 J	-9464770.28	-9464770.07	-9464769.84	0.0141	0.0025
Venus	-30626-06-29 22:04 J	-9464543.80	-9464543.58	-9464543.35	0.0141	0.0007
Venus	-30625-02-11 09:35 J	-9464317.32	-9464317.10	-9464316.88	0.0141	0.0010
Venus	-30625-09-24 20:38 J	-9464090.86	-9464090.64	-9464090.42	0.0140	0.0027
Venus	-30624-05-09 07:26 J	-9463864.39	-9463864.19	-9463863.97	0.0140	0.0045
Venus	-30624-12-21 18:14 J	-9463637.93	-9463637.74	-9463637.53	0.0140	0.0062
Venus	-30623-08-05 05:02 J	-9463411.46	-9463411.29	-9463411.09	0.0139	0.0078
Venus	-30622-03-19 15:35 J	-9463185.00	-9463184.85	-9463184.68	0.0139	0.0094
Venus	-30622-11-01 01:55 J	-9462958.55	-9462958.42	-9462958.28	0.0139	0.0110
Venus	-30621-06-14 11:59 J	-9462732.08	-9462732.00	-9462731.90	0.0138	0.0125
Moon	-30617-10-30 12:28 J	-9461133.13	-9461132.98	-9461132.78	0.0136	0.0099
Earth	-30617-10-30 16:19 J	-9461132.97	-9461132.82	-9461132.63	0.0136	0.0100 *
Earth	-30616-11-04 05:31 J	-9460763.53	-9460763.27	-9460763.01	0.0136	0.0001
Moon	-30616-11-04 08:52 J	-9460763.39	-9460763.13	-9460762.88	0.0136	0.0005 *
Moon	-30615-11-08 13:26 J	-9460394.11	-9460393.94	-9460393.74	0.0135	0.0094

Earth	-30615-11-08 17:16 J	-9460393.94	-9460393.78	-9460393.60	0.0135	0.0100	*
Mercury	-30613-02-22 21:35 J	-9459922.69	-9459922.60	-9459922.50	0.0135	0.0113	
Mercury	-30613-05-21 03:21 J	-9459834.48	-9459834.36	-9459834.23	0.0134	0.0089	
Mercury	-30613-08-17 08:52 J	-9459746.27	-9459746.13	-9459745.97	0.0134	0.0065	
Mercury	-30613-11-13 14:38 J	-9459658.05	-9459657.89	-9459657.72	0.0134	0.0041	
Mercury	-30612-02-09 20:09 J	-9459569.83	-9459569.66	-9459569.49	0.0134	0.0018	
Mercury	-30612-05-09 01:40 J	-9459481.60	-9459481.43	-9459481.26	0.0134	0.0006	
Mercury	-30612-08-05 07:11 J	-9459393.36	-9459393.20	-9459393.03	0.0134	0.0028	
Mercury	-30612-11-01 12:28 J	-9459305.13	-9459304.98	-9459304.82	0.0134	0.0051	
Mercury	-30611-01-28 17:45 J	-9459216.89	-9459216.76	-9459216.61	0.0134	0.0074	
Mercury	-30611-04-26 23:16 J	-9459128.65	-9459128.53	-9459128.41	0.0134	0.0096	
Mercury	-30611-07-24 04:33 J	-9459040.39	-9459040.31	-9459040.24	0.0134	0.0118	
Mars	-30603-12-16 22:19 J	-9455972.64	-9455972.57	-9455972.46	0.0132	0.0127	
Mars	-30601-11-19 04:19 J	-9455269.52	-9455269.32	-9455269.10	0.0132	0.0102	
Venus	-30586-02-22 18:43 J	-9450060.78	-9450060.72	-9450060.62	0.0135	0.0126	
Venus	-30586-10-07 00:43 J	-9449834.59	-9449834.47	-9449834.35	0.0135	0.0112	
Venus	-30585-05-20 05:59 J	-9449608.38	-9449608.25	-9449608.09	0.0136	0.0098	
Venus	-30584-01-01 11:59 J	-9449382.16	-9449382.00	-9449381.83	0.0136	0.0083	
Venus	-30584-08-15 17:45 J	-9449155.94	-9449155.76	-9449155.57	0.0136	0.0069	
Venus	-30583-03-29 23:31 J	-9448929.71	-9448929.52	-9448929.32	0.0137	0.0054	
Venus	-30583-11-11 05:16 J	-9448703.48	-9448703.28	-9448703.07	0.0137	0.0039	
Venus	-30582-06-25 11:31 J	-9448477.23	-9448477.02	-9448476.81	0.0137	0.0023	
Venus	-30581-02-06 17:45 J	-9448250.97	-9448250.76	-9448250.55	0.0138	0.0008	
Venus	-30581-09-19 23:59 J	-9448024.71	-9448024.50	-9448024.29	0.0138	0.0008	
Venus	-30580-05-04 06:14 J	-9447798.45	-9447798.24	-9447798.03	0.0138	0.0024	
Venus	-30580-12-16 12:43 J	-9447572.17	-9447571.97	-9447571.76	0.0139	0.0040	
Venus	-30579-07-30 19:26 J	-9447345.88	-9447345.69	-9447345.49	0.0139	0.0055	
Venus	-30578-03-14 02:09 J	-9447119.59	-9447119.41	-9447119.22	0.0139	0.0071	
Venus	-30578-10-26 08:52 J	-9446893.28	-9446893.13	-9446892.95	0.0140	0.0088	
Venus	-30577-06-08 16:04 J	-9446666.96	-9446666.83	-9446666.68	0.0140	0.0103	

Venus	-30576-01-20 23:16 J	-9446440.62	-9446440.53	-9446440.40	0.0140	0.0119
Venus	-30576-09-04 06:43 J	-9446214.26	-9446214.22	-9446214.15	0.0141	0.0135
Earth	-30572-04-28 20:38 J	-9444881.81	-9444881.64	-9444881.45	0.0143	0.0098
Moon	-30572-04-28 22:47 J	-9444881.74	-9444881.55	-9444881.34	0.0143	0.0090 *
Moon	-30571-05-03 14:23 J	-9444512.15	-9444511.90	-9444511.66	0.0143	0.0010
Earth	-30571-05-03 16:19 J	-9444512.06	-9444511.82	-9444511.56	0.0143	0.0017 *
Earth	-30570-05-08 12:28 J	-9444142.06	-9444141.98	-9444141.88	0.0144	0.0134
Moon	-30570-05-08 15:21 J	-9444141.91	-9444141.86	-9444141.77	0.0144	0.0138 *
Mercury	-30570-10-30 19:55 J	-9443966.69	-9443966.67	-9443966.64	0.0144	0.0141
Mercury	-30569-01-27 00:14 J	-9443878.56	-9443878.49	-9443878.40	0.0144	0.0118
Mercury	-30569-04-24 04:47 J	-9443790.41	-9443790.30	-9443790.20	0.0144	0.0094
Mercury	-30569-07-21 08:52 J	-9443702.25	-9443702.13	-9443702.00	0.0144	0.0071
Mercury	-30569-10-17 13:26 J	-9443614.08	-9443613.94	-9443613.80	0.0144	0.0047
Mercury	-30568-01-13 17:45 J	-9443525.90	-9443525.76	-9443525.61	0.0144	0.0023
Mercury	-30568-04-11 22:19 J	-9443437.71	-9443437.57	-9443437.42	0.0144	0.0002
Mercury	-30568-07-09 02:52 J	-9443349.52	-9443349.38	-9443349.24	0.0145	0.0027
Mercury	-30568-10-05 07:26 J	-9443261.33	-9443261.19	-9443261.05	0.0145	0.0051
Mercury	-30567-01-01 11:59 J	-9443173.12	-9443173.00	-9443172.88	0.0145	0.0077
Mercury	-30567-03-30 16:33 J	-9443084.91	-9443084.81	-9443084.70	0.0145	0.0102
Mercury	-30567-06-26 21:07 J	-9442996.68	-9442996.62	-9442996.54	0.0145	0.0128
Mars	-30560-04-29 08:09 J	-9440498.31	-9440498.16	-9440497.97	0.0146	0.0119
Venus	-30547-10-25 16:47 J	-9435570.85	-9435570.80	-9435570.72	0.0143	0.0137
Venus	-30546-06-09 05:02 J	-9435344.39	-9435344.29	-9435344.15	0.0143	0.0120
Venus	-30545-01-21 17:45 J	-9435117.91	-9435117.76	-9435117.61	0.0143	0.0102
Venus	-30545-09-04 05:31 J	-9434891.44	-9434891.27	-9434891.08	0.0142	0.0085
Venus	-30544-04-18 17:16 J	-9434664.96	-9434664.78	-9434664.57	0.0142	0.0067
Venus	-30544-12-01 05:16 J	-9434438.48	-9434438.28	-9434438.07	0.0142	0.0049
Venus	-30543-07-15 17:02 J	-9434212.00	-9434211.79	-9434211.57	0.0141	0.0032
Venus	-30542-02-27 04:33 J	-9433985.53	-9433985.31	-9433985.08	0.0141	0.0014
Venus	-30542-10-11 16:04 J	-9433759.05	-9433758.83	-9433758.61	0.0141	0.0004

Venus	-30541-05-25 03:07 J	-9433532.58	-9433532.37	-9433532.14	0.0140	0.0022
Venus	-30540-01-06 14:23 J	-9433306.12	-9433305.90	-9433305.69	0.0140	0.0039
Venus	-30540-08-21 00:57 J	-9433079.65	-9433079.46	-9433079.24	0.0140	0.0056
Venus	-30539-04-04 11:45 J	-9432853.19	-9432853.01	-9432852.81	0.0139	0.0072
Venus	-30539-11-16 22:04 J	-9432626.73	-9432626.58	-9432626.39	0.0139	0.0089
Venus	-30538-07-01 08:38 J	-9432400.27	-9432400.14	-9432399.98	0.0139	0.0105
Venus	-30537-02-12 18:57 J	-9432173.80	-9432173.71	-9432173.59	0.0138	0.0121
Venus	-30537-09-26 04:47 J	-9431947.31	-9431947.30	-9431947.24	0.0138	0.0136
Moon	-30533-10-30 23:02 J	-9430451.71	-9430451.54	-9430451.34	0.0136	0.0094
Earth	-30533-10-31 02:38 J	-9430451.56	-9430451.39	-9430451.20	0.0136	0.0094 *
Earth	-30532-11-04 15:35 J	-9430082.10	-9430081.85	-9430081.59	0.0136	0.0006
Moon	-30532-11-04 19:26 J	-9430081.95	-9430081.69	-9430081.43	0.0136	0.0003 *
Moon	-30531-11-08 23:59 J	-9429712.63	-9429712.50	-9429712.34	0.0135	0.0110
Earth	-30531-11-09 03:21 J	-9429712.50	-9429712.36	-9429712.18	0.0135	0.0105 *
Mercury	-30530-12-16 22:47 J	-9429309.58	-9429309.55	-9429309.50	0.0135	0.0131
Mercury	-30529-03-14 04:33 J	-9429221.40	-9429221.31	-9429221.19	0.0135	0.0107
Mercury	-30529-06-10 10:19 J	-9429133.20	-9429133.07	-9429132.92	0.0134	0.0083
Mercury	-30529-09-06 16:04 J	-9429044.98	-9429044.83	-9429044.67	0.0134	0.0059
Mercury	-30529-12-03 21:50 J	-9428956.76	-9428956.59	-9428956.42	0.0134	0.0035
Mercury	-30528-03-02 03:21 J	-9428868.53	-9428868.36	-9428868.19	0.0134	0.0011
Mercury	-30528-05-29 08:52 J	-9428780.30	-9428780.13	-9428779.96	0.0134	0.0012
Mercury	-30528-08-25 14:09 J	-9428692.07	-9428691.91	-9428691.74	0.0134	0.0035
Mercury	-30528-11-21 19:26 J	-9428603.83	-9428603.69	-9428603.53	0.0134	0.0058
Mercury	-30527-02-18 00:57 J	-9428515.59	-9428515.46	-9428515.32	0.0134	0.0080
Mercury	-30527-05-17 05:59 J	-9428427.34	-9428427.25	-9428427.13	0.0134	0.0103
Mercury	-30527-08-13 11:16 J	-9428339.07	-9428339.03	-9428338.96	0.0134	0.0125
Mars	-30518-08-12 05:16 J	-9425053.58	-9425053.28	-9425052.96	0.0132	0.0046
Venus	-30503-10-23 05:31 J	-9419502.30	-9419502.27	-9419502.21	0.0135	0.0132
Venus	-30502-06-06 11:02 J	-9419276.13	-9419276.04	-9419275.92	0.0135	0.0118
Venus	-30501-01-18 16:33 J	-9419049.93	-9419049.81	-9419049.65	0.0136	0.0104

Venus	-30501-08-31 22:19 J	-9418823.72	-9418823.57	-9418823.40	0.0136	0.0089
Venus	-30500-04-15 04:04 J	-9418597.50	-9418597.33	-9418597.14	0.0136	0.0074
Venus	-30500-11-27 09:50 J	-9418371.27	-9418371.09	-9418370.89	0.0137	0.0059
Venus	-30499-07-11 15:50 J	-9418145.04	-9418144.84	-9418144.64	0.0137	0.0044
Venus	-30498-02-22 21:50 J	-9417918.80	-9417918.59	-9417918.38	0.0137	0.0029
Venus	-30498-10-07 03:50 J	-9417692.55	-9417692.34	-9417692.13	0.0137	0.0013
Venus	-30497-05-20 10:04 J	-9417466.29	-9417466.08	-9417465.87	0.0138	0.0003
Venus	-30496-01-01 16:19 J	-9417240.03	-9417239.82	-9417239.60	0.0138	0.0019
Venus	-30496-08-15 22:47 J	-9417013.75	-9417013.55	-9417013.34	0.0138	0.0034
Venus	-30495-03-30 05:02 J	-9416787.47	-9416787.29	-9416787.08	0.0139	0.0051
Venus	-30495-11-11 11:59 J	-9416561.18	-9416561.00	-9416560.81	0.0139	0.0066
Venus	-30494-06-25 18:43 J	-9416334.88	-9416334.72	-9416334.54	0.0139	0.0082
Venus	-30493-02-07 02:09 J	-9416108.56	-9416108.41	-9416108.26	0.0140	0.0098
Venus	-30493-09-20 09:07 J	-9415882.23	-9415882.12	-9415881.99	0.0140	0.0114
Venus	-30492-05-04 16:33 J	-9415655.88	-9415655.81	-9415655.73	0.0140	0.0130
Earth	-30488-04-29 07:55 J	-9414200.35	-9414200.17	-9414199.97	0.0143	0.0091
Moon	-30488-04-29 09:07 J	-9414200.29	-9414200.12	-9414199.91	0.0143	0.0098 *
Moon	-30487-05-04 01:26 J	-9413830.67	-9413830.44	-9413830.19	0.0143	0.0031
Earth	-30487-05-04 03:35 J	-9413830.59	-9413830.35	-9413830.10	0.0143	0.0024 *
Earth	-30486-05-08 23:31 J	-9413460.55	-9413460.52	-9413460.44	0.0144	0.0140
Moon	-30486-05-09 01:55 J	-9413460.50	-9413460.42	-9413460.32	0.0144	0.0134 *
Mercury	-30486-11-20 03:21 J	-9413265.40	-9413265.36	-9413265.30	0.0144	0.0134
Mercury	-30485-02-16 07:40 J	-9413177.26	-9413177.18	-9413177.08	0.0144	0.0111
Mercury	-30485-05-14 11:59 J	-9413089.11	-9413089.00	-9413088.88	0.0144	0.0087
Mercury	-30485-08-10 16:33 J	-9413000.94	-9413000.81	-9413000.68	0.0144	0.0063
Mercury	-30485-11-06 20:52 J	-9412912.77	-9412912.63	-9412912.49	0.0144	0.0039
Mercury	-30484-02-03 01:26 J	-9412824.59	-9412824.44	-9412824.30	0.0144	0.0015
Mercury	-30484-05-02 05:45 J	-9412736.40	-9412736.26	-9412736.11	0.0144	0.0010
Mercury	-30484-07-29 10:19 J	-9412648.21	-9412648.07	-9412647.93	0.0145	0.0034
Mercury	-30484-10-25 14:52 J	-9412560.01	-9412559.88	-9412559.75	0.0145	0.0059

Mercury	-30483-01-21 19:26 J	-9412471.81	-9412471.69	-9412471.57	0.0145	0.0084
Mercury	-30483-04-19 23:59 J	-9412383.59	-9412383.50	-9412383.40	0.0145	0.0110
Mercury	-30483-07-17 04:47 J	-9412295.35	-9412295.30	-9412295.25	0.0145	0.0135
Mars	-30476-12-23 15:07 J	-9409579.15	-9409578.87	-9409578.58	0.0146	0.0022
Venus	-30462-02-06 11:59 J	-9404786.08	-9404786.00	-9404785.88	0.0143	0.0128
Venus	-30462-09-21 00:43 J	-9404559.61	-9404559.47	-9404559.33	0.0143	0.0109
Venus	-30461-05-04 12:28 J	-9404333.14	-9404332.98	-9404332.80	0.0143	0.0092
Venus	-30461-12-17 00:14 J	-9404106.66	-9404106.49	-9404106.28	0.0142	0.0075
Venus	-30460-07-31 12:14 J	-9403880.18	-9403879.99	-9403879.77	0.0142	0.0056
Venus	-30459-03-15 00:14 J	-9403653.71	-9403653.49	-9403653.28	0.0142	0.0038
Venus	-30459-10-27 11:45 J	-9403427.23	-9403427.01	-9403426.79	0.0141	0.0020
Venus	-30458-06-10 23:16 J	-9403200.75	-9403200.53	-9403200.31	0.0141	0.0003
Venus	-30457-01-23 10:33 J	-9402974.28	-9402974.06	-9402973.84	0.0141	0.0015
Venus	-30457-09-05 21:21 J	-9402747.82	-9402747.61	-9402747.38	0.0140	0.0033
Venus	-30456-04-20 08:23 J	-9402521.35	-9402521.15	-9402520.94	0.0140	0.0050
Venus	-30456-12-02 19:11 J	-9402294.89	-9402294.70	-9402294.50	0.0140	0.0067
Venus	-30455-07-17 05:59 J	-9402068.42	-9402068.25	-9402068.07	0.0139	0.0084
Venus	-30454-02-28 16:19 J	-9401841.96	-9401841.82	-9401841.66	0.0139	0.0100
Venus	-30454-10-13 02:38 J	-9401615.50	-9401615.39	-9401615.26	0.0139	0.0116
Venus	-30453-05-26 12:43 J	-9401389.03	-9401388.97	-9401388.89	0.0138	0.0131
Moon	-30449-10-31 10:04 J	-9399770.27	-9399770.08	-9399769.87	0.0136	0.0086
Earth	-30449-10-31 13:40 J	-9399770.11	-9399769.93	-9399769.72	0.0136	0.0088 *
Earth	-30448-11-05 02:52 J	-9399400.64	-9399400.38	-9399400.13	0.0135	0.0012
Moon	-30448-11-05 06:14 J	-9399400.49	-9399400.24	-9399399.98	0.0135	0.0016 *
Moon	-30447-11-09 10:47 J	-9399031.20	-9399031.05	-9399030.88	0.0135	0.0105
Earth	-30447-11-09 14:23 J	-9399031.03	-9399030.90	-9399030.74	0.0135	0.0111 *
Saturn	-30446-02-12 21:21 J	-9398936.20	-9398935.61	-9398934.99	0.0135	0.0023
Mercury	-30445-01-06 06:28 J	-9398608.30	-9398608.23	-9398608.16	0.0135	0.0123
Mercury	-30445-04-03 12:14 J	-9398520.11	-9398519.99	-9398519.88	0.0135	0.0099
Mercury	-30445-06-30 17:31 J	-9398431.90	-9398431.77	-9398431.61	0.0134	0.0076

Mercury	-30445-09-26 23:16 J	-9398343.68	-9398343.53	-9398343.36	0.0134	0.0052
Mercury	-30445-12-24 05:02 J	-9398255.45	-9398255.29	-9398255.12	0.0134	0.0028
Mercury	-30444-03-22 10:33 J	-9398167.23	-9398167.06	-9398166.88	0.0134	0.0006
Mercury	-30444-06-18 16:04 J	-9398079.00	-9398078.83	-9398078.66	0.0134	0.0019
Mercury	-30444-09-14 21:21 J	-9397990.76	-9397990.61	-9397990.44	0.0134	0.0042
Mercury	-30444-12-12 02:38 J	-9397902.52	-9397902.39	-9397902.23	0.0134	0.0065
Mercury	-30443-03-10 08:09 J	-9397814.28	-9397814.16	-9397814.03	0.0134	0.0087
Mercury	-30443-06-06 13:40 J	-9397726.03	-9397725.93	-9397725.84	0.0134	0.0109
Mercury	-30443-09-02 18:43 J	-9397637.74	-9397637.72	-9397637.69	0.0134	0.0131
Mars	-30433-04-06 12:28 J	-9394134.29	-9394133.98	-9394133.65	0.0132	0.0036
Venus	-30418-02-03 21:07 J	-9388717.69	-9388717.62	-9388717.52	0.0135	0.0124
Venus	-30418-09-18 02:23 J	-9388491.50	-9388491.40	-9388491.25	0.0136	0.0110
Venus	-30417-05-01 08:09 J	-9388265.30	-9388265.16	-9388265.00	0.0136	0.0095
Venus	-30417-12-13 13:55 J	-9388039.08	-9388038.92	-9388038.74	0.0136	0.0080
Venus	-30416-07-27 19:40 J	-9387812.86	-9387812.68	-9387812.48	0.0136	0.0065
Venus	-30415-03-11 01:26 J	-9387586.63	-9387586.44	-9387586.23	0.0137	0.0050
Venus	-30415-10-23 07:11 J	-9387360.40	-9387360.20	-9387359.98	0.0137	0.0035
Venus	-30414-06-06 13:26 J	-9387134.15	-9387133.94	-9387133.73	0.0137	0.0019
Venus	-30413-01-18 19:40 J	-9386907.89	-9386907.68	-9386907.46	0.0138	0.0003
Venus	-30413-09-01 01:55 J	-9386681.63	-9386681.42	-9386681.21	0.0138	0.0013
Venus	-30412-04-15 08:09 J	-9386455.36	-9386455.16	-9386454.95	0.0138	0.0029
Venus	-30412-11-27 14:38 J	-9386229.09	-9386228.89	-9386228.68	0.0139	0.0045
Venus	-30411-07-11 21:07 J	-9386002.80	-9386002.62	-9386002.42	0.0139	0.0061
Venus	-30410-02-23 04:04 J	-9385776.50	-9385776.33	-9385776.14	0.0139	0.0077
Venus	-30410-10-07 11:16 J	-9385550.19	-9385550.03	-9385549.87	0.0140	0.0093
Venus	-30409-05-20 18:14 J	-9385323.86	-9385323.74	-9385323.60	0.0140	0.0109
Venus	-30408-01-02 01:26 J	-9385097.52	-9385097.44	-9385097.33	0.0140	0.0125
Venus	-30408-08-16 09:21 J	-9384871.11	-9384871.11	-9384871.11	0.0141	0.0140
Earth	-30404-04-29 17:59 J	-9383518.94	-9383518.75	-9383518.54	0.0142	0.0086
Moon	-30404-04-29 18:57 J	-9383518.91	-9383518.71	-9383518.47	0.0142	0.0079 *

Moon	-30403-05-04 12:28 J	-9383149.22	-9383148.98	-9383148.74	0.0143	0.0022
Earth	-30403-05-04 13:26 J	-9383149.18	-9383148.94	-9383148.68	0.0143	0.0029 *
Saturn	-30402-02-07 09:50 J	-9382870.43	-9382870.09	-9382869.64	0.0143	0.0117
Mercury	-30402-12-10 10:33 J	-9382564.11	-9382564.06	-9382563.99	0.0144	0.0128
Mercury	-30401-03-07 14:52 J	-9382475.97	-9382475.88	-9382475.78	0.0144	0.0105
Mercury	-30401-06-03 19:11 J	-9382387.81	-9382387.70	-9382387.58	0.0144	0.0081
Mercury	-30401-08-30 23:45 J	-9382299.64	-9382299.51	-9382299.38	0.0144	0.0057
Mercury	-30401-11-27 04:04 J	-9382211.47	-9382211.33	-9382211.19	0.0144	0.0033
Mercury	-30400-02-23 08:23 J	-9382123.29	-9382123.15	-9382123.00	0.0144	0.0010
Mercury	-30400-05-22 12:57 J	-9382035.10	-9382034.96	-9382034.81	0.0144	0.0016
Mercury	-30400-08-18 17:31 J	-9381946.91	-9381946.77	-9381946.63	0.0145	0.0040
Mercury	-30400-11-14 21:50 J	-9381858.71	-9381858.59	-9381858.45	0.0145	0.0066
Mercury	-30399-02-11 02:23 J	-9381770.50	-9381770.40	-9381770.28	0.0145	0.0091
Mercury	-30399-05-10 07:11 J	-9381682.28	-9381682.20	-9381682.11	0.0145	0.0116
Mercury	-30399-08-06 11:59 J	-9381594.03	-9381594.00	-9381593.97	0.0145	0.0141
Mars	-30391-08-18 17:59 J	-9378659.99	-9378659.75	-9378659.50	0.0146	0.0073
Venus	-30379-10-06 17:59 J	-9374227.82	-9374227.75	-9374227.67	0.0143	0.0134
Venus	-30378-05-21 05:59 J	-9374001.36	-9374001.25	-9374001.11	0.0143	0.0117
Venus	-30377-01-02 18:28 J	-9373774.89	-9373774.73	-9373774.57	0.0143	0.0099
Venus	-30377-08-16 06:14 J	-9373548.41	-9373548.24	-9373548.05	0.0142	0.0081
Venus	-30376-03-30 17:59 J	-9373321.94	-9373321.75	-9373321.54	0.0142	0.0063
Venus	-30376-11-12 05:59 J	-9373095.46	-9373095.25	-9373095.04	0.0142	0.0045
Venus	-30375-06-26 17:31 J	-9372868.98	-9372868.77	-9372868.54	0.0141	0.0027
Venus	-30374-02-08 05:02 J	-9372642.51	-9372642.29	-9372642.06	0.0141	0.0010
Venus	-30374-09-22 16:19 J	-9372416.04	-9372415.82	-9372415.59	0.0141	0.0009
Venus	-30373-05-06 03:21 J	-9372189.57	-9372189.36	-9372189.14	0.0140	0.0027
Venus	-30373-12-18 14:09 J	-9371963.11	-9371962.91	-9371962.68	0.0140	0.0045
Venus	-30372-08-02 01:11 J	-9371736.64	-9371736.45	-9371736.24	0.0140	0.0061
Venus	-30371-03-16 11:59 J	-9371510.18	-9371510.00	-9371509.81	0.0139	0.0078
Venus	-30371-10-28 22:33 J	-9371283.72	-9371283.56	-9371283.39	0.0139	0.0094

Venus	-30370-06-12 08:38 J	-9371057.25	-9371057.14	-9371056.99	0.0139	0.0111
Venus	-30369-01-24 18:57 J	-9370830.78	-9370830.71	-9370830.60	0.0138	0.0127
Moon	-30365-10-31 19:40 J	-9369088.87	-9369088.68	-9369088.47	0.0136	0.0084
Earth	-30365-10-31 22:47 J	-9369088.73	-9369088.55	-9369088.33	0.0136	0.0084 *
Earth	-30364-11-05 11:59 J	-9368719.25	-9368719.00	-9368718.74	0.0136	0.0017
Moon	-30364-11-05 15:35 J	-9368719.10	-9368718.85	-9368718.58	0.0136	0.0015 *
Moon	-30363-11-09 20:09 J	-9368349.75	-9368349.66	-9368349.52	0.0135	0.0120
Earth	-30363-11-09 23:45 J	-9368349.63	-9368349.51	-9368349.36	0.0135	0.0115 *
Mercury	-30361-01-26 12:57 J	-9367907.03	-9367906.96	-9367906.86	0.0135	0.0118
Mercury	-30361-04-23 18:43 J	-9367818.83	-9367818.72	-9367818.58	0.0135	0.0094
Mercury	-30361-07-21 00:28 J	-9367730.62	-9367730.48	-9367730.32	0.0134	0.0070
Mercury	-30361-10-17 06:14 J	-9367642.40	-9367642.24	-9367642.07	0.0134	0.0046
Mercury	-30360-01-13 11:45 J	-9367554.17	-9367554.01	-9367553.83	0.0134	0.0023
Mercury	-30360-04-11 17:31 J	-9367465.94	-9367465.77	-9367465.60	0.0134	0.0002
Mercury	-30360-07-08 23:02 J	-9367377.71	-9367377.54	-9367377.38	0.0134	0.0024
Mercury	-30360-10-05 04:19 J	-9367289.48	-9367289.32	-9367289.16	0.0134	0.0047
Mercury	-30359-01-01 09:35 J	-9367201.24	-9367201.10	-9367200.95	0.0134	0.0070
Mercury	-30359-03-30 15:07 J	-9367112.99	-9367112.87	-9367112.75	0.0134	0.0092
Mercury	-30359-06-26 20:09 J	-9367024.73	-9367024.66	-9367024.56	0.0134	0.0115
Mars	-30351-12-28 11:45 J	-9363918.16	-9363918.01	-9363917.81	0.0132	0.0112
Mars	-30349-11-30 16:19 J	-9363214.94	-9363214.82	-9363214.64	0.0132	0.0117
Venus	-30335-10-04 06:43 J	-9358159.27	-9358159.22	-9358159.15	0.0135	0.0129
Venus	-30334-05-18 11:59 J	-9357933.09	-9357933.00	-9357932.87	0.0135	0.0116
Venus	-30334-12-30 17:45 J	-9357706.89	-9357706.76	-9357706.61	0.0136	0.0101
Venus	-30333-08-12 23:16 J	-9357480.68	-9357480.53	-9357480.35	0.0136	0.0086
Venus	-30332-03-27 04:47 J	-9357254.47	-9357254.30	-9357254.11	0.0136	0.0072
Venus	-30332-11-08 10:47 J	-9357028.25	-9357028.05	-9357027.86	0.0136	0.0056
Venus	-30331-06-22 16:33 J	-9356802.01	-9356801.81	-9356801.60	0.0137	0.0041
Venus	-30330-02-03 22:33 J	-9356575.77	-9356575.56	-9356575.35	0.0137	0.0025
Venus	-30330-09-18 04:33 J	-9356349.52	-9356349.31	-9356349.09	0.0137	0.0010

Venus	-30329-05-01 10:47 J	-9356123.26	-9356123.05	-9356122.84	0.0138	0.0007
Venus	-30329-12-13 17:02 J	-9355897.00	-9355896.79	-9355896.58	0.0138	0.0023
Venus	-30328-07-27 23:31 J	-9355670.72	-9355670.52	-9355670.31	0.0138	0.0039
Venus	-30327-03-11 05:59 J	-9355444.44	-9355444.25	-9355444.05	0.0139	0.0055
Venus	-30327-10-23 12:43 J	-9355218.15	-9355217.97	-9355217.78	0.0139	0.0071
Venus	-30326-06-06 19:26 J	-9354991.84	-9354991.69	-9354991.51	0.0139	0.0088
Venus	-30325-01-19 02:38 J	-9354765.52	-9354765.39	-9354765.24	0.0140	0.0104
Venus	-30325-09-01 10:04 J	-9354539.19	-9354539.08	-9354538.97	0.0140	0.0119
Venus	-30324-04-15 17:02 J	-9354312.83	-9354312.79	-9354312.72	0.0140	0.0136
Earth	-30320-04-30 02:23 J	-9352837.59	-9352837.40	-9352837.18	0.0142	0.0082
Moon	-30320-04-30 02:38 J	-9352837.58	-9352837.39	-9352837.17	0.0142	0.0088 *
Moon	-30319-05-04 20:38 J	-9352467.87	-9352467.64	-9352467.40	0.0143	0.0039
Earth	-30319-05-04 21:35 J	-9352467.83	-9352467.60	-9352467.34	0.0143	0.0032 *
Moon	-30318-05-09 18:43 J	-9352097.75	-9352097.72	-9352097.66	0.0143	0.0141
Mercury	-30318-12-30 17:16 J	-9351862.84	-9351862.78	-9351862.69	0.0144	0.0124
Mercury	-30317-03-27 21:50 J	-9351774.69	-9351774.59	-9351774.49	0.0144	0.0100
Mercury	-30317-06-24 01:55 J	-9351686.53	-9351686.42	-9351686.29	0.0144	0.0077
Mercury	-30317-09-20 06:28 J	-9351598.36	-9351598.23	-9351598.09	0.0144	0.0053
Mercury	-30317-12-17 10:47 J	-9351510.19	-9351510.05	-9351509.90	0.0144	0.0029
Mercury	-30316-03-15 15:21 J	-9351422.00	-9351421.86	-9351421.72	0.0144	0.0004
Mercury	-30316-06-11 19:55 J	-9351333.82	-9351333.67	-9351333.53	0.0144	0.0020
Mercury	-30316-09-08 00:14 J	-9351245.62	-9351245.49	-9351245.35	0.0144	0.0045
Mercury	-30316-12-05 04:47 J	-9351157.42	-9351157.30	-9351157.17	0.0145	0.0070
Mercury	-30315-03-03 09:21 J	-9351069.21	-9351069.11	-9351068.99	0.0145	0.0095
Mercury	-30315-05-30 13:55 J	-9350980.99	-9350980.92	-9350980.83	0.0145	0.0121
Mars	-30308-05-11 14:38 J	-9348443.06	-9348442.89	-9348442.67	0.0146	0.0107
Venus	-30295-06-05 23:02 J	-9343669.55	-9343669.54	-9343669.51	0.0143	0.0143
Venus	-30294-01-18 11:16 J	-9343443.12	-9343443.03	-9343442.91	0.0143	0.0125
Venus	-30294-09-01 23:31 J	-9343216.66	-9343216.52	-9343216.37	0.0143	0.0107
Venus	-30293-04-15 11:16 J	-9342990.18	-9342990.03	-9342989.84	0.0143	0.0090

Venus	-30293-11-27 23:16 J	-9342763.71	-9342763.53	-9342763.33	0.0142	0.0071
Venus	-30292-07-12 11:16 J	-9342537.23	-9342537.03	-9342536.82	0.0142	0.0053
Venus	-30291-02-23 23:02 J	-9342310.75	-9342310.54	-9342310.32	0.0142	0.0035
Venus	-30291-10-08 10:33 J	-9342084.28	-9342084.06	-9342083.84	0.0141	0.0017
Venus	-30290-05-22 22:04 J	-9341857.80	-9341857.58	-9341857.36	0.0141	0.0002
Venus	-30289-01-04 09:07 J	-9341631.33	-9341631.12	-9341630.89	0.0141	0.0020
Venus	-30289-08-17 20:09 J	-9341404.86	-9341404.66	-9341404.43	0.0140	0.0038
Venus	-30288-04-01 06:57 J	-9341178.40	-9341178.21	-9341177.99	0.0140	0.0055
Venus	-30288-11-13 17:59 J	-9340951.93	-9340951.75	-9340951.55	0.0140	0.0072
Venus	-30287-06-28 04:47 J	-9340725.46	-9340725.30	-9340725.12	0.0139	0.0089
Venus	-30286-02-09 15:21 J	-9340499.00	-9340498.86	-9340498.71	0.0139	0.0105
Venus	-30286-09-24 01:55 J	-9340272.53	-9340272.42	-9340272.31	0.0139	0.0121
Venus	-30285-05-07 11:31 J	-9340046.02	-9340046.02	-9340045.97	0.0138	0.0138
Moon	-30281-11-01 05:45 J	-9338407.47	-9338407.26	-9338407.05	0.0136	0.0077
Earth	-30281-11-01 08:38 J	-9338407.34	-9338407.14	-9338406.92	0.0136	0.0079 *
Earth	-30280-11-05 21:35 J	-9338037.84	-9338037.60	-9338037.34	0.0136	0.0022
Moon	-30280-11-06 00:57 J	-9338037.71	-9338037.46	-9338037.19	0.0136	0.0024 *
Moon	-30279-11-10 05:59 J	-9337668.38	-9337668.25	-9337668.11	0.0135	0.0114
Earth	-30279-11-10 09:35 J	-9337668.21	-9337668.10	-9337667.97	0.0135	0.0120 *
Mercury	-30277-02-15 19:55 J	-9337205.75	-9337205.67	-9337205.56	0.0135	0.0112
Mercury	-30277-05-14 01:40 J	-9337117.55	-9337117.43	-9337117.29	0.0135	0.0088
Mercury	-30277-08-10 07:26 J	-9337029.33	-9337029.19	-9337029.03	0.0135	0.0064
Mercury	-30277-11-06 13:11 J	-9336941.11	-9336940.95	-9336940.78	0.0134	0.0040
Mercury	-30276-02-02 18:57 J	-9336852.88	-9336852.71	-9336852.54	0.0134	0.0017
Mercury	-30276-05-02 00:28 J	-9336764.65	-9336764.48	-9336764.31	0.0134	0.0008
Mercury	-30276-07-29 05:45 J	-9336676.42	-9336676.26	-9336676.09	0.0134	0.0031
Mercury	-30276-10-25 11:16 J	-9336588.18	-9336588.03	-9336587.87	0.0134	0.0053
Mercury	-30275-01-21 16:33 J	-9336499.94	-9336499.81	-9336499.66	0.0134	0.0076
Mercury	-30275-04-19 21:50 J	-9336411.69	-9336411.59	-9336411.47	0.0134	0.0098
Mercury	-30275-07-17 03:21 J	-9336323.43	-9336323.36	-9336323.29	0.0134	0.0120

Mars	-30266-08-23 16:47 J	-9332999.10	-9332998.80	-9332998.46	0.0132	0.0032
Venus	-30250-01-15 22:04 J	-9327374.66	-9327374.58	-9327374.47	0.0135	0.0122
Venus	-30250-08-30 03:50 J	-9327148.47	-9327148.34	-9327148.21	0.0135	0.0107
Venus	-30249-04-12 08:52 J	-9326922.27	-9326922.13	-9326921.96	0.0136	0.0093
Venus	-30249-11-24 14:38 J	-9326696.06	-9326695.89	-9326695.70	0.0136	0.0077
Venus	-30248-07-08 20:23 J	-9326469.83	-9326469.65	-9326469.45	0.0136	0.0062
Venus	-30247-02-20 02:09 J	-9326243.61	-9326243.41	-9326243.20	0.0137	0.0047
Venus	-30247-10-04 08:09 J	-9326017.37	-9326017.16	-9326016.95	0.0137	0.0031
Venus	-30246-05-18 14:09 J	-9325791.13	-9325790.91	-9325790.70	0.0137	0.0015
Venus	-30246-12-30 20:23 J	-9325564.87	-9325564.65	-9325564.44	0.0137	0.0002
Venus	-30245-08-13 02:23 J	-9325338.61	-9325338.40	-9325338.18	0.0138	0.0017
Venus	-30244-03-27 08:38 J	-9325112.34	-9325112.14	-9325111.92	0.0138	0.0033
Venus	-30244-11-08 15:07 J	-9324886.06	-9324885.87	-9324885.66	0.0138	0.0049
Venus	-30243-06-22 22:04 J	-9324659.77	-9324659.58	-9324659.40	0.0139	0.0065
Venus	-30242-02-04 04:47 J	-9324433.47	-9324433.30	-9324433.12	0.0139	0.0082
Venus	-30242-09-18 11:45 J	-9324207.16	-9324207.01	-9324206.85	0.0139	0.0098
Venus	-30241-05-01 18:43 J	-9323980.83	-9323980.72	-9323980.59	0.0140	0.0114
Venus	-30241-12-14 01:55 J	-9323754.49	-9323754.42	-9323754.33	0.0140	0.0130
Moon	-30236-04-30 11:16 J	-9322156.24	-9322156.03	-9322155.79	0.0142	0.0072
Earth	-30236-04-30 11:16 J	-9322156.22	-9322156.03	-9322155.80	0.0142	0.0079 *
Earth	-30235-05-05 06:28 J	-9321786.46	-9321786.23	-9321785.97	0.0143	0.0036
Moon	-30235-05-05 06:43 J	-9321786.45	-9321786.22	-9321785.98	0.0143	0.0029 *
Mercury	-30234-10-23 20:09 J	-9321249.67	-9321249.66	-9321249.63	0.0144	0.0142
Mercury	-30233-01-20 00:14 J	-9321161.55	-9321161.49	-9321161.40	0.0144	0.0119
Mercury	-30233-04-17 04:47 J	-9321073.40	-9321073.30	-9321073.19	0.0144	0.0095
Mercury	-30233-07-14 08:52 J	-9320985.24	-9320985.13	-9320985.00	0.0144	0.0072
Mercury	-30233-10-10 13:26 J	-9320897.07	-9320896.94	-9320896.80	0.0144	0.0048
Mercury	-30232-01-06 17:45 J	-9320808.90	-9320808.76	-9320808.61	0.0144	0.0024
Mercury	-30232-04-04 22:19 J	-9320720.72	-9320720.57	-9320720.43	0.0144	0.0001
Mercury	-30232-07-02 02:38 J	-9320632.53	-9320632.39	-9320632.24	0.0144	0.0026

Mercury	-30232-09-28 07:11 J	-9320544.33	-9320544.20	-9320544.06	0.0144	0.0050
Mercury	-30232-12-25 11:45 J	-9320456.13	-9320456.01	-9320455.88	0.0145	0.0075
Mercury	-30231-03-23 16:19 J	-9320367.92	-9320367.82	-9320367.71	0.0145	0.0100
Mercury	-30231-06-19 20:52 J	-9320279.69	-9320279.63	-9320279.55	0.0145	0.0126
Mars	-30223-01-04 14:52 J	-9317524.16	-9317523.88	-9317523.58	0.0146	0.0015
Venus	-30211-09-17 15:35 J	-9312884.92	-9312884.85	-9312884.77	0.0143	0.0134
Venus	-30210-05-02 03:21 J	-9312658.47	-9312658.36	-9312658.21	0.0143	0.0116
Venus	-30210-12-14 15:35 J	-9312432.00	-9312431.85	-9312431.68	0.0143	0.0098
Venus	-30209-07-28 03:35 J	-9312205.52	-9312205.35	-9312205.15	0.0142	0.0080
Venus	-30208-03-11 15:21 J	-9311979.05	-9311978.86	-9311978.65	0.0142	0.0062
Venus	-30208-10-24 03:07 J	-9311752.57	-9311752.37	-9311752.15	0.0142	0.0043
Venus	-30207-06-07 14:52 J	-9311526.09	-9311525.88	-9311525.65	0.0142	0.0025
Venus	-30206-01-20 02:38 J	-9311299.62	-9311299.39	-9311299.17	0.0141	0.0007
Venus	-30206-09-03 13:55 J	-9311073.14	-9311072.92	-9311072.70	0.0141	0.0012
Venus	-30205-04-17 00:57 J	-9310846.68	-9310846.46	-9310846.24	0.0141	0.0030
Venus	-30205-11-29 11:59 J	-9310620.21	-9310620.00	-9310619.79	0.0140	0.0048
Venus	-30204-07-13 23:02 J	-9310393.73	-9310393.54	-9310393.34	0.0140	0.0065
Venus	-30203-02-25 09:35 J	-9310167.26	-9310167.10	-9310166.91	0.0140	0.0083
Venus	-30203-10-09 20:09 J	-9309940.80	-9309940.66	-9309940.49	0.0139	0.0099
Venus	-30202-05-24 06:57 J	-9309714.33	-9309714.21	-9309714.08	0.0139	0.0115
Venus	-30201-01-05 17:02 J	-9309487.84	-9309487.79	-9309487.70	0.0139	0.0132
Moon	-30197-11-01 13:11 J	-9307726.13	-9307725.95	-9307725.72	0.0136	0.0079
Earth	-30197-11-01 16:19 J	-9307726.02	-9307725.82	-9307725.59	0.0136	0.0076 *
Earth	-30196-11-06 05:31 J	-9307356.53	-9307356.27	-9307356.02	0.0136	0.0024
Moon	-30196-11-06 08:38 J	-9307356.39	-9307356.14	-9307355.88	0.0136	0.0023 *
Moon	-30195-11-10 14:09 J	-9306986.98	-9306986.91	-9306986.81	0.0135	0.0126
Earth	-30195-11-10 17:02 J	-9306986.88	-9306986.79	-9306986.66	0.0135	0.0123 *
Mercury	-30194-12-09 20:38 J	-9306592.66	-9306592.64	-9306592.60	0.0135	0.0132
Mercury	-30193-03-07 02:23 J	-9306504.49	-9306504.40	-9306504.29	0.0135	0.0108
Mercury	-30193-06-03 08:09 J	-9306416.29	-9306416.16	-9306416.02	0.0135	0.0084

Mercury	-30193-08-30 13:55 J	-9306328.07	-9306327.92	-9306327.76	0.0135	0.0060
Mercury	-30193-11-26 19:40 J	-9306239.84	-9306239.68	-9306239.51	0.0134	0.0036
Mercury	-30192-02-23 01:11 J	-9306151.62	-9306151.45	-9306151.27	0.0134	0.0013
Mercury	-30192-05-22 06:57 J	-9306063.38	-9306063.21	-9306063.04	0.0134	0.0012
Mercury	-30192-08-18 12:28 J	-9305975.15	-9305974.98	-9305974.82	0.0134	0.0035
Mercury	-30192-11-14 17:45 J	-9305886.91	-9305886.76	-9305886.60	0.0134	0.0057
Mercury	-30191-02-10 23:02 J	-9305798.67	-9305798.54	-9305798.40	0.0134	0.0080
Mercury	-30191-05-10 04:33 J	-9305710.42	-9305710.31	-9305710.20	0.0134	0.0102
Mercury	-30191-08-06 09:35 J	-9305622.15	-9305622.10	-9305622.03	0.0134	0.0125
Mars	-30181-04-17 19:55 J	-9302079.96	-9302079.67	-9302079.35	0.0132	0.0048
Venus	-30167-09-15 08:09 J	-9296816.22	-9296816.16	-9296816.08	0.0135	0.0127
Venus	-30166-04-29 13:40 J	-9296590.04	-9296589.93	-9296589.81	0.0135	0.0113
Venus	-30166-12-11 18:57 J	-9296363.84	-9296363.71	-9296363.55	0.0136	0.0099
Venus	-30165-07-25 00:43 J	-9296137.63	-9296137.47	-9296137.29	0.0136	0.0083
Venus	-30164-03-08 06:14 J	-9295911.42	-9295911.24	-9295911.05	0.0136	0.0068
Venus	-30164-10-20 11:59 J	-9295685.19	-9295685.00	-9295684.80	0.0136	0.0053
Venus	-30163-06-03 17:59 J	-9295458.96	-9295458.75	-9295458.54	0.0137	0.0037
Venus	-30162-01-15 23:59 J	-9295232.71	-9295232.50	-9295232.28	0.0137	0.0021
Venus	-30162-08-30 06:14 J	-9295006.46	-9295006.24	-9295006.03	0.0137	0.0006
Venus	-30161-04-12 12:14 J	-9294780.20	-9294779.99	-9294779.77	0.0138	0.0011
Venus	-30161-11-24 18:28 J	-9294553.93	-9294553.73	-9294553.52	0.0138	0.0027
Venus	-30160-07-09 00:57 J	-9294327.66	-9294327.46	-9294327.25	0.0138	0.0043
Venus	-30159-02-20 07:40 J	-9294101.37	-9294101.18	-9294100.98	0.0139	0.0060
Venus	-30159-10-04 14:23 J	-9293875.07	-9293874.90	-9293874.72	0.0139	0.0076
Venus	-30158-05-18 21:07 J	-9293648.77	-9293648.62	-9293648.45	0.0139	0.0093
Venus	-30158-12-31 04:19 J	-9293422.45	-9293422.32	-9293422.18	0.0140	0.0109
Venus	-30157-08-13 11:16 J	-9293196.11	-9293196.03	-9293195.93	0.0140	0.0125
Moon	-30152-04-30 20:38 J	-9291474.86	-9291474.64	-9291474.42	0.0142	0.0078
Earth	-30152-04-30 21:50 J	-9291474.81	-9291474.59	-9291474.38	0.0142	0.0073 *
Earth	-30151-05-05 16:33 J	-9291105.05	-9291104.81	-9291104.57	0.0143	0.0040

Moon	-30151-05-05 16:19 J	-9291105.04	-9291104.82	-9291104.58	0.0143	0.0048 *
Mercury	-30150-11-13 03:21 J	-9290548.40	-9290548.36	-9290548.31	0.0144	0.0136
Mercury	-30149-02-09 07:40 J	-9290460.26	-9290460.18	-9290460.09	0.0144	0.0112
Mercury	-30149-05-07 11:59 J	-9290372.11	-9290372.00	-9290371.89	0.0144	0.0089
Mercury	-30149-08-03 16:04 J	-9290283.95	-9290283.83	-9290283.69	0.0144	0.0066
Mercury	-30149-10-30 20:38 J	-9290195.78	-9290195.64	-9290195.50	0.0144	0.0042
Mercury	-30148-01-27 00:57 J	-9290107.60	-9290107.46	-9290107.31	0.0144	0.0018
Mercury	-30148-04-25 05:31 J	-9290019.42	-9290019.27	-9290019.13	0.0144	0.0007
Mercury	-30148-07-22 09:50 J	-9289931.23	-9289931.09	-9289930.94	0.0144	0.0032
Mercury	-30148-10-18 14:23 J	-9289843.03	-9289842.90	-9289842.76	0.0144	0.0056
Mercury	-30147-01-14 18:43 J	-9289754.83	-9289754.72	-9289754.59	0.0144	0.0082
Mercury	-30147-04-12 23:31 J	-9289666.61	-9289666.52	-9289666.42	0.0145	0.0106
Mercury	-30147-07-10 04:04 J	-9289578.38	-9289578.33	-9289578.26	0.0145	0.0132
Mars	-30139-08-30 15:07 J	-9286605.10	-9286604.87	-9286604.61	0.0146	0.0079
Venus	-30127-05-17 20:38 J	-9282326.67	-9282326.64	-9282326.61	0.0143	0.0142
Venus	-30127-12-30 08:23 J	-9282100.24	-9282100.15	-9282100.03	0.0143	0.0124
Venus	-30126-08-13 20:23 J	-9281873.78	-9281873.65	-9281873.49	0.0143	0.0106
Venus	-30125-03-27 08:23 J	-9281647.31	-9281647.15	-9281646.96	0.0143	0.0088
Venus	-30125-11-08 20:23 J	-9281420.84	-9281420.65	-9281420.45	0.0142	0.0069
Venus	-30124-06-23 08:09 J	-9281194.35	-9281194.16	-9281193.94	0.0142	0.0051
Venus	-30123-02-04 20:09 J	-9280967.88	-9280967.66	-9280967.45	0.0142	0.0032
Venus	-30123-09-19 07:40 J	-9280741.40	-9280741.18	-9280740.96	0.0141	0.0014
Venus	-30122-05-03 18:57 J	-9280514.93	-9280514.71	-9280514.49	0.0141	0.0004
Venus	-30122-12-16 06:14 J	-9280288.46	-9280288.24	-9280288.02	0.0141	0.0023
Venus	-30121-07-29 17:31 J	-9280061.98	-9280061.77	-9280061.56	0.0140	0.0040
Venus	-30120-03-13 04:19 J	-9279835.51	-9279835.32	-9279835.11	0.0140	0.0058
Venus	-30120-10-25 15:07 J	-9279609.04	-9279608.87	-9279608.67	0.0140	0.0076
Venus	-30119-06-09 02:09 J	-9279382.57	-9279382.41	-9279382.24	0.0139	0.0093
Venus	-30118-01-21 12:43 J	-9279156.10	-9279155.97	-9279155.82	0.0139	0.0109
Venus	-30118-09-04 23:16 J	-9278929.61	-9278929.53	-9278929.43	0.0139	0.0126

Moon	-30113-11-01 22:19 J	-9277044.77	-9277044.57	-9277044.34	0.0136	0.0070
Earth	-30113-11-02 00:57 J	-9277044.67	-9277044.46	-9277044.23	0.0136	0.0072 *
Earth	-30112-11-06 13:55 J	-9276675.16	-9276674.92	-9276674.66	0.0136	0.0028
Moon	-30112-11-06 16:47 J	-9276675.05	-9276674.80	-9276674.54	0.0136	0.0029 *
Moon	-30111-11-10 22:47 J	-9276305.64	-9276305.55	-9276305.42	0.0135	0.0122
Earth	-30111-11-11 02:09 J	-9276305.50	-9276305.41	-9276305.31	0.0135	0.0126 *
Mercury	-30110-12-30 03:21 J	-9275891.41	-9275891.36	-9275891.30	0.0135	0.0127
Mercury	-30109-03-27 09:07 J	-9275803.22	-9275803.12	-9275803.00	0.0135	0.0103
Mercury	-30109-06-23 15:07 J	-9275715.01	-9275714.87	-9275714.73	0.0135	0.0078
Mercury	-30109-09-19 20:38 J	-9275626.79	-9275626.64	-9275626.47	0.0135	0.0054
Mercury	-30109-12-17 02:23 J	-9275538.57	-9275538.40	-9275538.23	0.0135	0.0030
Mercury	-30108-03-15 08:09 J	-9275450.33	-9275450.16	-9275449.99	0.0134	0.0007
Mercury	-30108-06-11 13:40 J	-9275362.10	-9275361.93	-9275361.76	0.0134	0.0017
Mercury	-30108-09-07 19:11 J	-9275273.86	-9275273.70	-9275273.54	0.0134	0.0040
Mercury	-30108-12-05 00:28 J	-9275185.62	-9275185.48	-9275185.32	0.0134	0.0063
Mercury	-30107-03-03 05:59 J	-9275097.38	-9275097.25	-9275097.12	0.0134	0.0085
Mercury	-30107-05-30 11:02 J	-9275009.12	-9275009.04	-9275008.93	0.0134	0.0108
Mercury	-30107-08-26 16:33 J	-9274920.84	-9274920.81	-9274920.77	0.0134	0.0130
Mars	-30098-01-08 20:09 J	-9271863.85	-9271863.66	-9271863.42	0.0132	0.0101
Mars	-30097-12-12 00:28 J	-9271160.56	-9271160.48	-9271160.39	0.0132	0.0128
Jupiter	-30090-11-01 00:43 J	-9268645.70	-9268645.47	-9268645.15	0.0133	0.0111
Venus	-30083-05-15 18:14 J	-9266257.76	-9266257.74	-9266257.70	0.0135	0.0133
Venus	-30083-12-27 23:31 J	-9266031.60	-9266031.52	-9266031.40	0.0135	0.0119
Venus	-30082-08-11 05:02 J	-9265805.41	-9265805.29	-9265805.14	0.0135	0.0105
Venus	-30081-03-24 10:33 J	-9265579.21	-9265579.06	-9265578.88	0.0136	0.0090
Venus	-30081-11-05 16:19 J	-9265352.99	-9265352.82	-9265352.63	0.0136	0.0074
Venus	-30080-06-19 22:19 J	-9265126.76	-9265126.57	-9265126.38	0.0136	0.0059
Venus	-30079-02-01 04:04 J	-9264900.53	-9264900.33	-9264900.12	0.0137	0.0043
Venus	-30079-09-15 10:04 J	-9264674.29	-9264674.08	-9264673.87	0.0137	0.0027
Venus	-30078-04-29 16:04 J	-9264448.04	-9264447.83	-9264447.61	0.0137	0.0012

Venus	-30078-12-11 22:19 J	-9264221.78	-9264221.57	-9264221.35	0.0137	0.0005
Venus	-30077-07-25 04:33 J	-9263995.51	-9263995.31	-9263995.09	0.0138	0.0022
Venus	-30076-03-08 11:02 J	-9263769.24	-9263769.04	-9263768.83	0.0138	0.0038
Venus	-30076-10-20 17:31 J	-9263542.96	-9263542.77	-9263542.57	0.0138	0.0054
Venus	-30075-06-04 00:14 J	-9263316.67	-9263316.49	-9263316.30	0.0139	0.0071
Venus	-30074-01-16 07:11 J	-9263090.36	-9263090.20	-9263090.03	0.0139	0.0087
Venus	-30074-08-30 14:09 J	-9262864.05	-9262863.91	-9262863.76	0.0139	0.0103
Venus	-30073-04-12 21:07 J	-9262637.72	-9262637.62	-9262637.51	0.0140	0.0120
Venus	-30073-11-25 04:04 J	-9262411.36	-9262411.33	-9262411.27	0.0140	0.0136
Moon	-30068-05-01 07:26 J	-9260793.41	-9260793.19	-9260792.94	0.0142	0.0060
Earth	-30068-05-01 08:38 J	-9260793.35	-9260793.14	-9260792.91	0.0142	0.0067 *
Earth	-30067-05-06 03:35 J	-9260423.58	-9260423.35	-9260423.10	0.0143	0.0047
Moon	-30067-05-06 04:47 J	-9260423.53	-9260423.30	-9260423.06	0.0143	0.0040 *
Mercury	-30066-12-03 10:47 J	-9259847.10	-9259847.05	-9259846.98	0.0144	0.0128
Mercury	-30065-02-29 15:07 J	-9259758.96	-9259758.87	-9259758.77	0.0144	0.0105
Mercury	-30065-05-27 19:26 J	-9259670.80	-9259670.69	-9259670.57	0.0144	0.0082
Mercury	-30065-08-23 23:45 J	-9259582.64	-9259582.51	-9259582.38	0.0144	0.0058
Mercury	-30065-11-20 04:04 J	-9259494.47	-9259494.33	-9259494.19	0.0144	0.0034
Mercury	-30064-02-16 08:38 J	-9259406.29	-9259406.14	-9259406.00	0.0144	0.0010
Mercury	-30064-05-15 12:57 J	-9259318.10	-9259317.96	-9259317.81	0.0144	0.0014
Mercury	-30064-08-11 17:16 J	-9259229.91	-9259229.78	-9259229.63	0.0144	0.0040
Mercury	-30064-11-07 21:50 J	-9259141.71	-9259141.59	-9259141.45	0.0144	0.0064
Mercury	-30063-02-04 02:38 J	-9259053.51	-9259053.39	-9259053.28	0.0144	0.0089
Mercury	-30063-05-03 06:57 J	-9258965.29	-9258965.21	-9258965.11	0.0145	0.0114
Mercury	-30063-07-30 11:31 J	-9258877.04	-9258877.02	-9258876.97	0.0145	0.0140
Mars	-30056-05-23 16:47 J	-9256388.00	-9256387.80	-9256387.56	0.0146	0.0097
Venus	-30043-08-29 13:55 J	-9251541.99	-9251541.92	-9251541.82	0.0143	0.0132
Venus	-30042-04-13 01:55 J	-9251315.54	-9251315.42	-9251315.27	0.0143	0.0114
Venus	-30042-11-25 13:55 J	-9251089.07	-9251088.92	-9251088.75	0.0143	0.0096
Venus	-30041-07-09 02:09 J	-9250862.59	-9250862.41	-9250862.22	0.0142	0.0077

Venus	-30040-02-20 13:55 J	-9250636.12	-9250635.92	-9250635.72	0.0142	0.0058
Venus	-30040-10-05 01:26 J	-9250409.65	-9250409.44	-9250409.22	0.0142	0.0040
Venus	-30039-05-19 12:57 J	-9250183.17	-9250182.96	-9250182.74	0.0141	0.0022
Venus	-30038-01-01 00:28 J	-9249956.70	-9249956.48	-9249956.26	0.0141	0.0003
Venus	-30038-08-15 11:45 J	-9249730.22	-9249730.01	-9249729.78	0.0141	0.0016
Venus	-30037-03-28 23:02 J	-9249503.75	-9249503.54	-9249503.32	0.0140	0.0034
Venus	-30037-11-10 10:04 J	-9249277.28	-9249277.08	-9249276.87	0.0140	0.0051
Venus	-30036-06-24 21:07 J	-9249050.81	-9249050.62	-9249050.42	0.0140	0.0069
Venus	-30035-02-06 07:55 J	-9248824.33	-9248824.17	-9248823.99	0.0139	0.0087
Venus	-30035-09-20 18:43 J	-9248597.86	-9248597.72	-9248597.57	0.0139	0.0104
Venus	-30034-05-05 05:16 J	-9248371.39	-9248371.28	-9248371.17	0.0139	0.0120
Venus	-30034-12-17 15:21 J	-9248144.88	-9248144.86	-9248144.81	0.0138	0.0137
Moon	-30029-11-02 06:57 J	-9246363.40	-9246363.21	-9246362.98	0.0136	0.0072
Earth	-30029-11-02 09:07 J	-9246363.33	-9246363.12	-9246362.89	0.0136	0.0069 *
Earth	-30028-11-06 22:04 J	-9245993.82	-9245993.58	-9245993.32	0.0136	0.0031
Moon	-30028-11-07 00:43 J	-9245993.72	-9245993.47	-9245993.21	0.0136	0.0030 *
Moon	-30027-11-11 07:55 J	-9245624.21	-9245624.17	-9245624.11	0.0135	0.0132
Earth	-30027-11-11 10:04 J	-9245624.14	-9245624.08	-9245623.99	0.0135	0.0129 *
Mercury	-30025-01-19 10:04 J	-9245190.15	-9245190.08	-9245190.01	0.0135	0.0122
Mercury	-30025-04-16 15:50 J	-9245101.96	-9245101.84	-9245101.72	0.0135	0.0098
Mercury	-30025-07-13 21:35 J	-9245013.74	-9245013.60	-9245013.45	0.0135	0.0074
Mercury	-30025-10-10 03:21 J	-9244925.52	-9244925.36	-9244925.20	0.0135	0.0050
Mercury	-30024-01-06 09:07 J	-9244837.29	-9244837.12	-9244836.95	0.0134	0.0026
Mercury	-30024-04-04 14:38 J	-9244749.06	-9244748.89	-9244748.72	0.0134	0.0002
Mercury	-30024-07-01 20:09 J	-9244660.83	-9244660.66	-9244660.49	0.0134	0.0021
Mercury	-30024-09-28 01:40 J	-9244572.59	-9244572.43	-9244572.27	0.0134	0.0044
Mercury	-30024-12-25 07:11 J	-9244484.35	-9244484.20	-9244484.05	0.0134	0.0067
Mercury	-30023-03-23 12:28 J	-9244396.10	-9244395.98	-9244395.85	0.0134	0.0090
Mercury	-30023-06-19 17:59 J	-9244307.84	-9244307.75	-9244307.66	0.0134	0.0112
Mars	-30014-09-03 21:35 J	-9240944.92	-9240944.60	-9240944.26	0.0132	0.0022

30TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 30th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-29999-08-27 09:07 J		-9235473.18	-9235473.12	-9235473.03	0.0135	0.0125	
Venus	-29998-04-10 14:38 J		-9235247.00	-9235246.89	-9235246.76	0.0135	0.0111	
Venus	-29998-11-22 20:09 J		-9235020.80	-9235020.66	-9235020.50	0.0136	0.0096	
Venus	-29997-07-06 02:09 J		-9234794.58	-9234794.41	-9234794.24	0.0136	0.0080	
Venus	-29996-02-17 07:40 J		-9234568.36	-9234568.18	-9234567.98	0.0136	0.0065	
Venus	-29996-10-01 13:26 J		-9234342.13	-9234341.94	-9234341.73	0.0136	0.0050	
Venus	-29995-05-15 19:26 J		-9234115.89	-9234115.69	-9234115.47	0.0137	0.0034	
Venus	-29995-12-28 01:40 J		-9233889.64	-9233889.43	-9233889.21	0.0137	0.0017	
Venus	-29994-08-11 07:55 J		-9233663.38	-9233663.17	-9233662.95	0.0137	0.0001	
Venus	-29993-03-24 14:09 J		-9233437.12	-9233436.91	-9233436.70	0.0138	0.0015	
Venus	-29993-11-05 20:23 J		-9233210.85	-9233210.65	-9233210.43	0.0138	0.0032	
Venus	-29992-06-20 03:07 J		-9232984.57	-9232984.37	-9232984.17	0.0138	0.0048	
Venus	-29991-02-01 09:50 J		-9232758.27	-9232758.09	-9232757.90	0.0139	0.0065	
Venus	-29991-09-15 16:19 J		-9232531.98	-9232531.82	-9232531.63	0.0139	0.0082	
Venus	-29990-04-29 23:02 J		-9232305.67	-9232305.54	-9232305.37	0.0139	0.0099	
Venus	-29990-12-12 06:14 J		-9232079.35	-9232079.24	-9232079.11	0.0140	0.0115	
Venus	-29989-07-25 13:11 J		-9231853.01	-9231852.95	-9231852.86	0.0140	0.0131	
Moon	-29984-05-01 17:02 J		-9230112.01	-9230111.79	-9230111.55	0.0142	0.0065	

Earth	-29984-05-01 19:26 J	-9230111.92	-9230111.69	-9230111.46	0.0142	0.0061 *
Earth	-29983-05-06 14:09 J	-9229742.14	-9229741.91	-9229741.67	0.0143	0.0052
Moon	-29983-05-06 15:07 J	-9229742.08	-9229741.87	-9229741.64	0.0143	0.0060 *
Mercury	-29982-12-23 18:14 J	-9229145.81	-9229145.74	-9229145.66	0.0144	0.0122
Mercury	-29981-03-20 22:19 J	-9229057.66	-9229057.57	-9229057.46	0.0144	0.0099
Mercury	-29981-06-17 02:52 J	-9228969.50	-9228969.38	-9228969.26	0.0144	0.0075
Mercury	-29981-09-13 07:11 J	-9228881.33	-9228881.20	-9228881.07	0.0144	0.0051
Mercury	-29981-12-10 11:31 J	-9228793.16	-9228793.02	-9228792.88	0.0144	0.0027
Mercury	-29980-03-08 16:04 J	-9228704.98	-9228704.83	-9228704.69	0.0144	0.0005
Mercury	-29980-06-04 20:23 J	-9228616.79	-9228616.65	-9228616.51	0.0144	0.0022
Mercury	-29980-09-01 00:43 J	-9228528.60	-9228528.47	-9228528.33	0.0144	0.0047
Mercury	-29980-11-28 05:16 J	-9228440.40	-9228440.28	-9228440.15	0.0144	0.0071
Mercury	-29979-02-24 09:50 J	-9228352.19	-9228352.09	-9228351.98	0.0144	0.0096
Mercury	-29979-05-23 14:23 J	-9228263.97	-9228263.90	-9228263.82	0.0145	0.0122
Mars	-29971-01-16 22:33 J	-9225468.85	-9225468.56	-9225468.27	0.0146	0.0002
Jupiter	-29965-02-18 21:07 J	-9223245.11	-9223244.62	-9223244.14	0.0146	0.0064
Venus	-29959-04-28 19:40 J	-9220983.71	-9220983.68	-9220983.62	0.0143	0.0141
Venus	-29959-12-11 07:40 J	-9220757.27	-9220757.18	-9220757.05	0.0143	0.0122
Venus	-29958-07-25 20:09 J	-9220530.81	-9220530.66	-9220530.51	0.0143	0.0103
Venus	-29957-03-08 07:55 J	-9220304.34	-9220304.17	-9220303.99	0.0143	0.0085
Venus	-29957-10-20 19:26 J	-9220077.87	-9220077.69	-9220077.48	0.0142	0.0067
Venus	-29956-06-04 07:40 J	-9219851.39	-9219851.18	-9219850.98	0.0142	0.0047
Venus	-29955-01-16 19:11 J	-9219624.92	-9219624.70	-9219624.48	0.0142	0.0029
Venus	-29955-08-31 06:43 J	-9219398.44	-9219398.22	-9219398.00	0.0141	0.0010
Venus	-29954-04-14 17:59 J	-9219171.97	-9219171.75	-9219171.53	0.0141	0.0008
Venus	-29954-11-27 05:16 J	-9218945.50	-9218945.28	-9218945.06	0.0141	0.0027
Venus	-29953-07-10 16:19 J	-9218719.02	-9218718.82	-9218718.60	0.0140	0.0046
Venus	-29952-02-22 03:21 J	-9218492.54	-9218492.36	-9218492.15	0.0140	0.0063
Venus	-29952-10-06 14:09 J	-9218266.07	-9218265.91	-9218265.71	0.0140	0.0081
Venus	-29951-05-21 01:11 J	-9218039.60	-9218039.45	-9218039.29	0.0139	0.0098

Venus	-29950-01-02 11:59 J	-9217813.13	-9217813.00	-9217812.88	0.0139	0.0114
Venus	-29950-08-16 22:19 J	-9217586.63	-9217586.57	-9217586.49	0.0139	0.0131
Moon	-29945-11-02 16:47 J	-9215682.01	-9215681.80	-9215681.57	0.0136	0.0061
Earth	-29945-11-02 17:59 J	-9215681.96	-9215681.75	-9215681.50	0.0136	0.0066 *
Earth	-29944-11-07 07:11 J	-9215312.44	-9215312.20	-9215311.94	0.0136	0.0035
Moon	-29944-11-07 08:52 J	-9215312.38	-9215312.13	-9215311.86	0.0136	0.0035 *
Moon	-29943-11-11 17:02 J	-9214942.85	-9214942.79	-9214942.71	0.0135	0.0129
Earth	-29943-11-11 19:11 J	-9214942.73	-9214942.70	-9214942.63	0.0135	0.0133 *
Mercury	-29941-02-08 16:33 J	-9214488.88	-9214488.81	-9214488.71	0.0135	0.0117
Mercury	-29941-05-06 22:47 J	-9214400.68	-9214400.55	-9214400.43	0.0135	0.0092
Mercury	-29941-08-03 04:33 J	-9214312.46	-9214312.31	-9214312.16	0.0135	0.0068
Mercury	-29941-10-30 10:19 J	-9214224.24	-9214224.07	-9214223.91	0.0134	0.0044
Mercury	-29940-01-26 15:50 J	-9214136.01	-9214135.84	-9214135.67	0.0134	0.0020
Mercury	-29940-04-24 21:35 J	-9214047.77	-9214047.60	-9214047.43	0.0134	0.0004
Mercury	-29940-07-22 03:07 J	-9213959.54	-9213959.37	-9213959.20	0.0134	0.0027
Mercury	-29940-10-18 08:23 J	-9213871.30	-9213871.15	-9213870.98	0.0134	0.0050
Mercury	-29939-01-14 13:55 J	-9213783.05	-9213782.92	-9213782.77	0.0134	0.0073
Mercury	-29939-04-12 19:11 J	-9213694.80	-9213694.70	-9213694.57	0.0134	0.0096
Mercury	-29939-07-10 00:43 J	-9213606.54	-9213606.47	-9213606.38	0.0134	0.0118
Mars	-29929-04-29 00:14 J	-9210025.77	-9210025.49	-9210025.18	0.0132	0.0058
Venus	-29915-04-26 17:59 J	-9204914.77	-9204914.75	-9204914.68	0.0135	0.0132
Venus	-29915-12-08 23:45 J	-9204688.60	-9204688.51	-9204688.39	0.0135	0.0117
Venus	-29914-07-23 05:16 J	-9204462.40	-9204462.28	-9204462.12	0.0135	0.0103
Venus	-29913-03-05 11:02 J	-9204236.20	-9204236.04	-9204235.87	0.0136	0.0087
Venus	-29913-10-17 17:02 J	-9204009.98	-9204009.79	-9204009.61	0.0136	0.0071
Venus	-29912-05-31 22:47 J	-9203783.75	-9203783.55	-9203783.36	0.0136	0.0056
Venus	-29911-01-13 04:47 J	-9203557.50	-9203557.30	-9203557.09	0.0137	0.0040
Venus	-29911-08-27 10:47 J	-9203331.26	-9203331.05	-9203330.84	0.0137	0.0024
Venus	-29910-04-10 17:02 J	-9203105.01	-9203104.79	-9203104.58	0.0137	0.0008
Venus	-29910-11-22 23:16 J	-9202878.75	-9202878.53	-9202878.32	0.0137	0.0009

Venus	-29909-07-06 05:31 J	-9202652.48	-9202652.27	-9202652.06	0.0138	0.0026
Venus	-29908-02-17 11:59 J	-9202426.20	-9202426.00	-9202425.79	0.0138	0.0042
Venus	-29908-10-01 18:43 J	-9202199.92	-9202199.72	-9202199.53	0.0138	0.0059
Venus	-29907-05-16 00:57 J	-9201973.62	-9201973.46	-9201973.27	0.0139	0.0076
Venus	-29907-12-28 07:55 J	-9201747.32	-9201747.17	-9201747.00	0.0139	0.0092
Venus	-29906-08-11 14:38 J	-9201521.00	-9201520.89	-9201520.74	0.0139	0.0110
Venus	-29905-03-24 21:35 J	-9201294.67	-9201294.60	-9201294.49	0.0140	0.0126
Moon	-29900-05-02 02:23 J	-9199430.64	-9199430.40	-9199430.16	0.0142	0.0051
Earth	-29900-05-02 04:19 J	-9199430.54	-9199430.32	-9199430.08	0.0142	0.0057 *
Earth	-29899-05-06 23:16 J	-9199060.75	-9199060.53	-9199060.29	0.0143	0.0057
Moon	-29899-05-07 01:40 J	-9199060.66	-9199060.43	-9199060.20	0.0143	0.0050 *
Mercury	-29898-10-16 21:07 J	-9198532.65	-9198532.62	-9198532.58	0.0143	0.0139
Mercury	-29897-01-13 01:26 J	-9198444.52	-9198444.44	-9198444.35	0.0144	0.0116
Mercury	-29897-04-10 05:31 J	-9198356.37	-9198356.27	-9198356.15	0.0144	0.0093
Mercury	-29897-07-07 10:04 J	-9198268.21	-9198268.08	-9198267.96	0.0144	0.0069
Mercury	-29897-10-03 14:23 J	-9198180.04	-9198179.90	-9198179.77	0.0144	0.0045
Mercury	-29897-12-30 18:43 J	-9198091.86	-9198091.72	-9198091.58	0.0144	0.0021
Mercury	-29896-03-28 23:02 J	-9198003.68	-9198003.54	-9198003.39	0.0144	0.0005
Mercury	-29896-06-25 03:35 J	-9197915.49	-9197915.35	-9197915.21	0.0144	0.0028
Mercury	-29896-09-21 07:55 J	-9197827.30	-9197827.17	-9197827.03	0.0144	0.0053
Mercury	-29896-12-18 12:28 J	-9197739.10	-9197738.98	-9197738.85	0.0144	0.0077
Mercury	-29895-03-16 17:02 J	-9197650.89	-9197650.79	-9197650.68	0.0144	0.0102
Mercury	-29895-06-12 21:35 J	-9197562.66	-9197562.60	-9197562.53	0.0145	0.0128
Mars	-29887-09-12 02:09 J	-9194549.63	-9194549.41	-9194549.19	0.0146	0.0093
Venus	-29875-08-10 13:55 J	-9190199.01	-9190198.92	-9190198.83	0.0143	0.0130
Venus	-29874-03-25 01:40 J	-9189972.56	-9189972.43	-9189972.29	0.0143	0.0111
Venus	-29874-11-06 13:26 J	-9189746.10	-9189745.94	-9189745.76	0.0143	0.0093
Venus	-29873-06-20 01:40 J	-9189519.62	-9189519.43	-9189519.24	0.0142	0.0074
Venus	-29872-02-01 13:11 J	-9189293.14	-9189292.95	-9189292.74	0.0142	0.0055
Venus	-29872-09-16 00:43 J	-9189066.67	-9189066.47	-9189066.24	0.0142	0.0037

Venus	-29871-04-30 12:28 J	-9188840.20	-9188839.98	-9188839.76	0.0141	0.0018
Venus	-29871-12-12 23:59 J	-9188613.72	-9188613.50	-9188613.28	0.0141	0.0001
Venus	-29870-07-27 11:16 J	-9188387.24	-9188387.03	-9188386.80	0.0141	0.0020
Venus	-29869-03-09 22:19 J	-9188160.77	-9188160.57	-9188160.34	0.0140	0.0039
Venus	-29869-10-22 09:35 J	-9187934.30	-9187934.10	-9187933.89	0.0140	0.0056
Venus	-29868-06-05 20:23 J	-9187707.83	-9187707.65	-9187707.45	0.0140	0.0074
Venus	-29867-01-18 07:11 J	-9187481.35	-9187481.20	-9187481.02	0.0139	0.0092
Venus	-29867-09-01 17:45 J	-9187254.88	-9187254.76	-9187254.61	0.0139	0.0109
Venus	-29866-04-16 04:19 J	-9187028.40	-9187028.32	-9187028.21	0.0139	0.0126
Moon	-29861-11-03 01:40 J	-9185000.64	-9185000.43	-9185000.20	0.0136	0.0065
Earth	-29861-11-03 02:38 J	-9185000.61	-9185000.39	-9185000.15	0.0136	0.0061 *
Earth	-29860-11-07 15:35 J	-9184631.09	-9184630.85	-9184630.60	0.0136	0.0038
Moon	-29860-11-07 16:47 J	-9184631.04	-9184630.80	-9184630.53	0.0136	0.0039 *
Mercury	-29857-02-28 23:16 J	-9183787.62	-9183787.53	-9183787.42	0.0135	0.0112
Mercury	-29857-05-27 05:02 J	-9183699.41	-9183699.29	-9183699.15	0.0135	0.0088
Mercury	-29857-08-23 10:47 J	-9183611.19	-9183611.05	-9183610.88	0.0134	0.0064
Mercury	-29857-11-19 16:47 J	-9183522.96	-9183522.80	-9183522.63	0.0134	0.0039
Mercury	-29856-02-15 22:33 J	-9183434.73	-9183434.56	-9183434.39	0.0134	0.0015
Mercury	-29856-05-15 04:04 J	-9183346.50	-9183346.33	-9183346.16	0.0134	0.0008
Mercury	-29856-08-11 09:35 J	-9183258.26	-9183258.10	-9183257.93	0.0134	0.0032
Mercury	-29856-11-07 15:07 J	-9183170.02	-9183169.87	-9183169.71	0.0134	0.0055
Mercury	-29855-02-03 20:38 J	-9183081.77	-9183081.64	-9183081.50	0.0134	0.0077
Mercury	-29855-05-03 01:55 J	-9182993.52	-9182993.42	-9182993.30	0.0134	0.0100
Mercury	-29855-07-30 07:11 J	-9182905.25	-9182905.20	-9182905.12	0.0134	0.0123
Mars	-29846-01-19 22:04 J	-9179809.80	-9179809.58	-9179809.33	0.0132	0.0093
Venus	-29831-08-08 08:09 J	-9174130.22	-9174130.16	-9174130.06	0.0135	0.0124
Venus	-29830-03-22 13:40 J	-9173904.04	-9173903.93	-9173903.79	0.0135	0.0109
Venus	-29830-11-03 19:26 J	-9173677.83	-9173677.69	-9173677.53	0.0136	0.0094
Venus	-29829-06-17 01:26 J	-9173451.62	-9173451.44	-9173451.27	0.0136	0.0078
Venus	-29828-01-29 07:11 J	-9173225.39	-9173225.20	-9173225.01	0.0136	0.0063

Venus	-29828-09-12 13:11 J	-9172999.15	-9172998.95	-9172998.75	0.0136	0.0047
Venus	-29827-04-26 18:57 J	-9172772.91	-9172772.71	-9172772.49	0.0137	0.0031
Venus	-29827-12-09 01:11 J	-9172546.66	-9172546.45	-9172546.23	0.0137	0.0014
Venus	-29826-07-23 07:26 J	-9172320.40	-9172320.19	-9172319.97	0.0137	0.0003
Venus	-29825-03-05 13:40 J	-9172094.14	-9172093.93	-9172093.72	0.0138	0.0019
Venus	-29825-10-17 19:55 J	-9171867.87	-9171867.67	-9171867.46	0.0138	0.0036
Venus	-29824-06-01 02:23 J	-9171641.59	-9171641.40	-9171641.19	0.0138	0.0053
Venus	-29823-01-13 09:07 J	-9171415.30	-9171415.12	-9171414.93	0.0139	0.0070
Venus	-29823-08-27 15:50 J	-9171189.00	-9171188.84	-9171188.67	0.0139	0.0086
Venus	-29822-04-10 22:19 J	-9170962.69	-9170962.57	-9170962.41	0.0139	0.0104
Venus	-29822-11-23 05:16 J	-9170736.37	-9170736.28	-9170736.15	0.0140	0.0120
Venus	-29821-07-06 12:28 J	-9170510.01	-9170509.98	-9170509.92	0.0140	0.0136
Moon	-29816-05-02 09:21 J	-9168749.35	-9168749.11	-9168748.88	0.0142	0.0057
Earth	-29816-05-02 12:14 J	-9168749.22	-9168748.99	-9168748.75	0.0142	0.0053 *
Earth	-29815-05-07 07:26 J	-9168379.42	-9168379.19	-9168378.96	0.0143	0.0059
Moon	-29815-05-07 09:21 J	-9168379.32	-9168379.11	-9168378.88	0.0143	0.0067 *
Mercury	-29814-11-06 04:04 J	-9167831.37	-9167831.33	-9167831.28	0.0143	0.0135
Mercury	-29813-02-02 08:09 J	-9167743.24	-9167743.16	-9167743.07	0.0144	0.0112
Mercury	-29813-04-30 12:28 J	-9167655.09	-9167654.98	-9167654.86	0.0144	0.0088
Mercury	-29813-07-27 16:47 J	-9167566.92	-9167566.80	-9167566.67	0.0144	0.0065
Mercury	-29813-10-23 21:07 J	-9167478.75	-9167478.62	-9167478.48	0.0144	0.0041
Mercury	-29812-01-20 01:26 J	-9167390.58	-9167390.44	-9167390.29	0.0144	0.0017
Mercury	-29812-04-18 05:59 J	-9167302.40	-9167302.25	-9167302.11	0.0144	0.0008
Mercury	-29812-07-15 10:19 J	-9167214.21	-9167214.07	-9167213.93	0.0144	0.0032
Mercury	-29812-10-11 14:52 J	-9167126.01	-9167125.88	-9167125.75	0.0144	0.0057
Mercury	-29811-01-07 19:11 J	-9167037.81	-9167037.70	-9167037.57	0.0144	0.0082
Mercury	-29811-04-05 23:45 J	-9166949.60	-9166949.51	-9166949.41	0.0145	0.0107
Mercury	-29811-07-03 04:33 J	-9166861.37	-9166861.31	-9166861.25	0.0145	0.0132
Mars	-29804-06-04 22:19 J	-9164332.79	-9164332.57	-9164332.32	0.0146	0.0086
Venus	-29791-04-09 18:28 J	-9159640.76	-9159640.73	-9159640.65	0.0144	0.0139

Venus	-29791-11-22 06:28 J	-9159414.33	-9159414.23	-9159414.09	0.0143	0.0121
Venus	-29790-07-06 18:57 J	-9159187.86	-9159187.71	-9159187.55	0.0143	0.0101
Venus	-29789-02-18 06:43 J	-9158961.39	-9158961.22	-9158961.03	0.0143	0.0083
Venus	-29789-10-01 18:28 J	-9158734.92	-9158734.73	-9158734.52	0.0142	0.0064
Venus	-29788-05-16 06:28 J	-9158508.44	-9158508.23	-9158508.02	0.0142	0.0044
Venus	-29788-12-28 17:59 J	-9158281.97	-9158281.75	-9158281.53	0.0142	0.0026
Venus	-29787-08-12 05:31 J	-9158055.49	-9158055.27	-9158055.04	0.0141	0.0007
Venus	-29786-03-26 17:02 J	-9157829.01	-9157828.79	-9157828.57	0.0141	0.0012
Venus	-29786-11-08 04:04 J	-9157602.54	-9157602.33	-9157602.10	0.0141	0.0031
Venus	-29785-06-21 15:21 J	-9157376.06	-9157375.86	-9157375.64	0.0140	0.0049
Venus	-29784-02-03 02:23 J	-9157149.59	-9157149.40	-9157149.20	0.0140	0.0067
Venus	-29784-09-17 13:26 J	-9156923.11	-9156922.94	-9156922.76	0.0140	0.0085
Venus	-29783-05-01 23:59 J	-9156696.64	-9156696.50	-9156696.35	0.0139	0.0103
Venus	-29783-12-14 10:19 J	-9156470.17	-9156470.07	-9156469.94	0.0139	0.0120
Venus	-29782-07-28 20:52 J	-9156243.65	-9156243.63	-9156243.58	0.0139	0.0137
Moon	-29777-11-03 10:47 J	-9154319.27	-9154319.05	-9154318.81	0.0136	0.0053
Earth	-29777-11-03 11:02 J	-9154319.26	-9154319.04	-9154318.79	0.0136	0.0058 *
Earth	-29776-11-08 00:14 J	-9153949.73	-9153949.49	-9153949.24	0.0136	0.0042
Moon	-29776-11-08 00:43 J	-9153949.72	-9153949.47	-9153949.21	0.0136	0.0040 *
Mercury	-29774-12-23 00:14 J	-9153174.52	-9153174.49	-9153174.45	0.0135	0.0131
Mercury	-29773-03-20 05:59 J	-9153086.35	-9153086.25	-9153086.13	0.0135	0.0107
Mercury	-29773-06-16 11:45 J	-9152998.13	-9152998.01	-9152997.86	0.0135	0.0083
Mercury	-29773-09-12 17:31 J	-9152909.91	-9152909.77	-9152909.60	0.0134	0.0059
Mercury	-29773-12-09 23:31 J	-9152821.69	-9152821.52	-9152821.35	0.0134	0.0034
Mercury	-29772-03-08 05:16 J	-9152733.45	-9152733.28	-9152733.11	0.0134	0.0010
Mercury	-29772-06-04 10:47 J	-9152645.22	-9152645.05	-9152644.87	0.0134	0.0014
Mercury	-29772-08-31 16:19 J	-9152556.98	-9152556.82	-9152556.65	0.0134	0.0037
Mercury	-29772-11-27 21:50 J	-9152468.74	-9152468.59	-9152468.43	0.0134	0.0060
Mercury	-29771-02-24 03:07 J	-9152380.49	-9152380.37	-9152380.22	0.0134	0.0083
Mercury	-29771-05-23 08:52 J	-9152292.23	-9152292.13	-9152292.03	0.0134	0.0105

Mercury	-29771-08-19 13:55 J	-9152203.95	-9152203.92	-9152203.86	0.0134	0.0128
Mars	-29762-09-14 23:31 J	-9148890.85	-9148890.52	-9148890.19	0.0132	0.0015
Venus	-29747-04-07 16:47 J	-9143571.83	-9143571.80	-9143571.74	0.0135	0.0131
Venus	-29747-11-19 22:19 J	-9143345.66	-9143345.57	-9143345.45	0.0135	0.0116
Venus	-29746-07-04 04:04 J	-9143119.46	-9143119.33	-9143119.18	0.0135	0.0101
Venus	-29745-02-15 09:35 J	-9142893.25	-9142893.10	-9142892.92	0.0136	0.0086
Venus	-29745-09-28 15:21 J	-9142667.03	-9142666.86	-9142666.66	0.0136	0.0070
Venus	-29744-05-12 21:35 J	-9142440.80	-9142440.60	-9142440.41	0.0136	0.0054
Venus	-29744-12-25 03:21 J	-9142214.56	-9142214.36	-9142214.15	0.0136	0.0038
Venus	-29743-08-08 09:35 J	-9141988.31	-9141988.10	-9141987.89	0.0137	0.0021
Venus	-29742-03-22 15:35 J	-9141762.07	-9141761.85	-9141761.64	0.0137	0.0005
Venus	-29742-11-03 21:35 J	-9141535.81	-9141535.60	-9141535.38	0.0137	0.0012
Venus	-29741-06-17 03:50 J	-9141309.54	-9141309.34	-9141309.12	0.0138	0.0029
Venus	-29740-01-29 10:19 J	-9141083.26	-9141083.07	-9141082.86	0.0138	0.0046
Venus	-29740-09-12 16:47 J	-9140856.98	-9140856.80	-9140856.60	0.0138	0.0063
Venus	-29739-04-26 23:16 J	-9140630.69	-9140630.53	-9140630.35	0.0139	0.0080
Venus	-29739-12-09 06:14 J	-9140404.39	-9140404.24	-9140404.09	0.0139	0.0096
Venus	-29738-07-23 12:43 J	-9140178.08	-9140177.97	-9140177.83	0.0139	0.0114
Venus	-29737-03-05 19:55 J	-9139951.73	-9139951.67	-9139951.58	0.0140	0.0130
Moon	-29732-05-02 15:50 J	-9138068.06	-9138067.84	-9138067.58	0.0142	0.0048
Earth	-29732-05-02 19:11 J	-9138067.93	-9138067.70	-9138067.46	0.0142	0.0051 *
Earth	-29731-05-07 14:23 J	-9137698.12	-9137697.90	-9137697.67	0.0143	0.0061
Moon	-29731-05-07 17:16 J	-9137697.99	-9137697.78	-9137697.54	0.0143	0.0055 *
Mercury	-29730-11-26 10:33 J	-9137130.10	-9137130.06	-9137130.00	0.0144	0.0131
Mercury	-29729-02-22 14:38 J	-9137041.97	-9137041.89	-9137041.78	0.0144	0.0109
Mercury	-29729-05-20 19:11 J	-9136953.81	-9136953.70	-9136953.58	0.0144	0.0085
Mercury	-29729-08-16 23:31 J	-9136865.65	-9136865.52	-9136865.39	0.0144	0.0061
Mercury	-29729-11-13 03:50 J	-9136777.48	-9136777.34	-9136777.20	0.0144	0.0037
Mercury	-29728-02-09 08:09 J	-9136689.30	-9136689.16	-9136689.02	0.0144	0.0013
Mercury	-29728-05-08 12:28 J	-9136601.12	-9136600.98	-9136600.83	0.0144	0.0011

Mercury	-29728-08-04 17:02 J	-9136512.93	-9136512.79	-9136512.65	0.0144	0.0035
Mercury	-29728-10-31 21:21 J	-9136424.74	-9136424.61	-9136424.47	0.0144	0.0060
Mercury	-29727-01-28 01:40 J	-9136336.53	-9136336.43	-9136336.30	0.0144	0.0086
Mercury	-29727-04-26 06:28 J	-9136248.32	-9136248.23	-9136248.13	0.0145	0.0110
Mercury	-29727-07-23 10:47 J	-9136160.08	-9136160.05	-9136159.99	0.0145	0.0136
Mars	-29719-01-28 20:23 J	-9133413.94	-9133413.65	-9133413.36	0.0146	0.0005
Venus	-29707-07-22 10:47 J	-9128856.12	-9128856.05	-9128855.94	0.0143	0.0130
Venus	-29706-03-05 23:02 J	-9128629.67	-9128629.54	-9128629.39	0.0143	0.0110
Venus	-29706-10-18 11:16 J	-9128403.20	-9128403.03	-9128402.86	0.0143	0.0091
Venus	-29705-05-31 22:47 J	-9128176.72	-9128176.55	-9128176.34	0.0142	0.0073
Venus	-29704-01-13 10:47 J	-9127950.25	-9127950.05	-9127949.84	0.0142	0.0053
Venus	-29704-08-27 22:33 J	-9127723.77	-9127723.56	-9127723.34	0.0142	0.0034
Venus	-29703-04-11 10:19 J	-9127497.29	-9127497.07	-9127496.85	0.0142	0.0015
Venus	-29703-11-23 21:35 J	-9127270.82	-9127270.60	-9127270.37	0.0141	0.0006
Venus	-29702-07-08 09:07 J	-9127044.33	-9127044.12	-9127043.90	0.0141	0.0023
Venus	-29701-02-19 20:23 J	-9126817.86	-9126817.65	-9126817.43	0.0141	0.0042
Venus	-29701-10-03 07:26 J	-9126591.38	-9126591.19	-9126590.98	0.0140	0.0060
Venus	-29700-05-17 18:28 J	-9126364.91	-9126364.73	-9126364.55	0.0140	0.0078
Venus	-29700-12-30 05:16 J	-9126138.44	-9126138.28	-9126138.12	0.0140	0.0096
Venus	-29699-08-13 15:50 J	-9125911.96	-9125911.84	-9125911.71	0.0139	0.0114
Venus	-29698-03-28 01:55 J	-9125685.47	-9125685.42	-9125685.33	0.0139	0.0131
Earth	-29693-11-03 18:28 J	-9123637.95	-9123637.73	-9123637.48	0.0136	0.0055
Moon	-29693-11-03 18:57 J	-9123637.92	-9123637.71	-9123637.48	0.0136	0.0060 *
Moon	-29692-11-08 07:55 J	-9123268.42	-9123268.17	-9123267.92	0.0136	0.0046
Earth	-29692-11-08 07:55 J	-9123268.41	-9123268.17	-9123267.93	0.0136	0.0044 *
Mercury	-29689-01-12 06:43 J	-9122473.27	-9122473.22	-9122473.16	0.0135	0.0127
Mercury	-29689-04-09 12:28 J	-9122385.08	-9122384.98	-9122384.86	0.0135	0.0103
Mercury	-29689-07-06 18:28 J	-9122296.87	-9122296.73	-9122296.59	0.0135	0.0078
Mercury	-29689-10-03 00:14 J	-9122208.65	-9122208.49	-9122208.33	0.0134	0.0054
Mercury	-29689-12-30 05:59 J	-9122120.42	-9122120.25	-9122120.08	0.0134	0.0030

Mercury	-29688-03-28 11:45 J	-9122032.18	-9122032.01	-9122031.84	0.0134	0.0006
Mercury	-29688-06-24 17:16 J	-9121943.95	-9121943.78	-9121943.61	0.0134	0.0018
Mercury	-29688-09-20 22:47 J	-9121855.71	-9121855.55	-9121855.38	0.0134	0.0041
Mercury	-29688-12-18 04:19 J	-9121767.46	-9121767.32	-9121767.16	0.0134	0.0064
Mercury	-29687-03-16 09:35 J	-9121679.21	-9121679.10	-9121678.96	0.0134	0.0087
Mercury	-29687-06-12 15:21 J	-9121590.96	-9121590.86	-9121590.76	0.0134	0.0109
Mercury	-29687-09-08 20:23 J	-9121502.66	-9121502.65	-9121502.61	0.0134	0.0132
Mars	-29677-05-09 23:31 J	-9117971.81	-9117971.52	-9117971.23	0.0132	0.0063
Venus	-29663-07-20 06:57 J	-9112787.27	-9112787.21	-9112787.10	0.0135	0.0123
Venus	-29662-03-03 12:57 J	-9112561.09	-9112560.96	-9112560.83	0.0135	0.0108
Venus	-29662-10-15 18:14 J	-9112334.88	-9112334.74	-9112334.57	0.0135	0.0093
Venus	-29661-05-28 23:59 J	-9112108.66	-9112108.50	-9112108.31	0.0136	0.0077
Venus	-29660-01-10 06:14 J	-9111882.43	-9111882.24	-9111882.04	0.0136	0.0061
Venus	-29660-08-24 11:59 J	-9111656.20	-9111656.00	-9111655.79	0.0136	0.0044
Venus	-29659-04-07 17:59 J	-9111429.96	-9111429.75	-9111429.54	0.0137	0.0028
Venus	-29659-11-19 23:59 J	-9111203.71	-9111203.50	-9111203.29	0.0137	0.0011
Venus	-29658-07-04 05:59 J	-9110977.46	-9110977.25	-9110977.03	0.0137	0.0007
Venus	-29657-02-15 12:14 J	-9110751.19	-9110750.99	-9110750.77	0.0138	0.0023
Venus	-29657-09-28 18:43 J	-9110524.93	-9110524.72	-9110524.52	0.0138	0.0039
Venus	-29656-05-13 00:57 J	-9110298.65	-9110298.46	-9110298.26	0.0138	0.0056
Venus	-29656-12-25 07:11 J	-9110072.36	-9110072.20	-9110072.00	0.0139	0.0074
Venus	-29655-08-08 14:09 J	-9109846.07	-9109845.91	-9109845.74	0.0139	0.0090
Venus	-29654-03-22 20:38 J	-9109619.76	-9109619.64	-9109619.49	0.0139	0.0107
Venus	-29654-11-04 03:50 J	-9109393.43	-9109393.34	-9109393.24	0.0139	0.0124
Moon	-29648-05-02 23:16 J	-9107386.75	-9107386.53	-9107386.28	0.0142	0.0051
Earth	-29648-05-03 03:07 J	-9107386.61	-9107386.37	-9107386.13	0.0142	0.0049 *
Earth	-29647-05-07 22:04 J	-9107016.80	-9107016.58	-9107016.35	0.0143	0.0063
Moon	-29647-05-08 00:43 J	-9107016.67	-9107016.47	-9107016.24	0.0143	0.0071 *
Mercury	-29646-12-16 17:16 J	-9106428.83	-9106428.78	-9106428.71	0.0144	0.0128
Mercury	-29645-03-13 21:35 J	-9106340.69	-9106340.60	-9106340.50	0.0144	0.0104

Mercury	-29645-06-10 01:55 J	-9106252.53	-9106252.42	-9106252.30	0.0144	0.0081
Mercury	-29645-09-06 05:59 J	-9106164.37	-9106164.25	-9106164.11	0.0144	0.0058
Mercury	-29645-12-03 10:33 J	-9106076.20	-9106076.06	-9106075.92	0.0144	0.0034
Mercury	-29644-03-01 14:52 J	-9105988.02	-9105987.88	-9105987.74	0.0144	0.0010
Mercury	-29644-05-28 19:11 J	-9105899.84	-9105899.70	-9105899.55	0.0144	0.0015
Mercury	-29644-08-24 23:31 J	-9105811.65	-9105811.52	-9105811.37	0.0144	0.0040
Mercury	-29644-11-21 04:04 J	-9105723.46	-9105723.33	-9105723.20	0.0144	0.0064
Mercury	-29643-02-17 08:38 J	-9105635.25	-9105635.14	-9105635.02	0.0144	0.0089
Mercury	-29643-05-16 12:57 J	-9105547.04	-9105546.96	-9105546.86	0.0145	0.0114
Mercury	-29643-08-12 17:45 J	-9105458.80	-9105458.76	-9105458.72	0.0145	0.0139
Mars	-29635-09-23 18:28 J	-9102494.93	-9102494.73	-9102494.49	0.0146	0.0094
Venus	-29623-03-21 14:38 J	-9098297.93	-9098297.89	-9098297.82	0.0144	0.0139
Venus	-29623-11-03 02:52 J	-9098071.49	-9098071.38	-9098071.25	0.0143	0.0120
Venus	-29622-06-17 14:52 J	-9097845.02	-9097844.88	-9097844.71	0.0143	0.0101
Venus	-29621-01-30 02:52 J	-9097618.54	-9097618.38	-9097618.18	0.0143	0.0082
Venus	-29621-09-12 14:52 J	-9097392.07	-9097391.88	-9097391.67	0.0142	0.0062
Venus	-29620-04-27 02:38 J	-9097165.59	-9097165.39	-9097165.17	0.0142	0.0043
Venus	-29620-12-09 14:23 J	-9096939.11	-9096938.90	-9096938.67	0.0142	0.0024
Venus	-29619-07-24 02:09 J	-9096712.63	-9096712.41	-9096712.18	0.0141	0.0005
Venus	-29618-03-07 13:40 J	-9096486.15	-9096485.93	-9096485.71	0.0141	0.0015
Venus	-29618-10-20 00:57 J	-9096259.67	-9096259.46	-9096259.24	0.0141	0.0034
Venus	-29617-06-02 11:59 J	-9096033.20	-9096033.00	-9096032.79	0.0140	0.0053
Venus	-29616-01-14 22:47 J	-9095806.72	-9095806.55	-9095806.34	0.0140	0.0072
Venus	-29616-08-29 09:50 J	-9095580.25	-9095580.09	-9095579.91	0.0140	0.0089
Venus	-29615-04-12 20:38 J	-9095353.78	-9095353.64	-9095353.49	0.0140	0.0107
Venus	-29615-11-25 06:57 J	-9095127.29	-9095127.21	-9095127.10	0.0139	0.0124
Earth	-29609-11-04 02:09 J	-9092956.64	-9092956.41	-9092956.17	0.0136	0.0052
Moon	-29609-11-04 03:21 J	-9092956.60	-9092956.36	-9092956.13	0.0136	0.0047 *
Moon	-29608-11-08 14:09 J	-9092587.15	-9092586.91	-9092586.64	0.0136	0.0044
Earth	-29608-11-08 15:21 J	-9092587.09	-9092586.86	-9092586.61	0.0136	0.0047 *

Mercury	-29605-02-01 12:57 J	-9091772.02	-9091771.96	-9091771.88	0.0135	0.0123
Mercury	-29605-04-29 19:11 J	-9091683.82	-9091683.70	-9091683.58	0.0135	0.0098
Mercury	-29605-07-27 00:57 J	-9091595.60	-9091595.46	-9091595.31	0.0135	0.0074
Mercury	-29605-10-23 06:43 J	-9091507.38	-9091507.22	-9091507.05	0.0135	0.0050
Mercury	-29604-01-19 12:28 J	-9091419.15	-9091418.98	-9091418.81	0.0134	0.0026
Mercury	-29604-04-17 18:14 J	-9091330.91	-9091330.74	-9091330.57	0.0134	0.0002
Mercury	-29604-07-14 23:45 J	-9091242.67	-9091242.51	-9091242.33	0.0134	0.0022
Mercury	-29604-10-11 05:16 J	-9091154.43	-9091154.28	-9091154.11	0.0134	0.0045
Mercury	-29603-01-07 10:47 J	-9091066.19	-9091066.05	-9091065.89	0.0134	0.0068
Mercury	-29603-04-05 16:19 J	-9090977.94	-9090977.82	-9090977.69	0.0134	0.0091
Mercury	-29603-07-02 21:35 J	-9090889.67	-9090889.60	-9090889.50	0.0134	0.0114
Mars	-29594-01-30 23:45 J	-9087755.76	-9087755.51	-9087755.26	0.0132	0.0086
Venus	-29579-03-19 16:19 J	-9082228.85	-9082228.82	-9082228.74	0.0135	0.0130
Venus	-29579-10-31 22:19 J	-9082002.68	-9082002.57	-9082002.45	0.0135	0.0114
Venus	-29578-06-15 03:35 J	-9081776.48	-9081776.35	-9081776.18	0.0135	0.0100
Venus	-29577-01-27 09:35 J	-9081550.26	-9081550.10	-9081549.92	0.0136	0.0084
Venus	-29577-09-09 15:35 J	-9081324.04	-9081323.85	-9081323.66	0.0136	0.0067
Venus	-29576-04-23 21:07 J	-9081097.81	-9081097.62	-9081097.41	0.0136	0.0052
Venus	-29576-12-06 03:21 J	-9080871.57	-9080871.36	-9080871.15	0.0136	0.0035
Venus	-29575-07-20 09:07 J	-9080645.33	-9080645.12	-9080644.90	0.0137	0.0018
Venus	-29574-03-03 15:21 J	-9080419.08	-9080418.86	-9080418.65	0.0137	0.0002
Venus	-29574-10-15 21:21 J	-9080192.82	-9080192.61	-9080192.40	0.0137	0.0016
Venus	-29573-05-29 03:35 J	-9079966.56	-9079966.35	-9079966.14	0.0138	0.0033
Venus	-29572-01-10 09:50 J	-9079740.28	-9079740.09	-9079739.88	0.0138	0.0050
Venus	-29572-08-24 16:33 J	-9079514.00	-9079513.81	-9079513.63	0.0138	0.0067
Venus	-29571-04-07 22:47 J	-9079287.71	-9079287.55	-9079287.37	0.0139	0.0084
Venus	-29571-11-20 05:16 J	-9079061.41	-9079061.28	-9079061.12	0.0139	0.0101
Venus	-29570-07-04 12:28 J	-9078835.09	-9078834.98	-9078834.87	0.0139	0.0118
Venus	-29569-02-15 19:26 J	-9078608.73	-9078608.69	-9078608.63	0.0140	0.0135
Moon	-29564-05-03 08:52 J	-9076705.37	-9076705.13	-9076704.88	0.0142	0.0041

Earth	-29564-05-03 12:14 J	-9076705.22	-9076704.99	-9076704.74	0.0142	0.0045 *
Earth	-29563-05-08 07:11 J	-9076335.41	-9076335.20	-9076334.97	0.0143	0.0068
Moon	-29563-05-08 10:47 J	-9076335.27	-9076335.05	-9076334.82	0.0143	0.0062 *
Mercury	-29561-01-06 00:14 J	-9075727.55	-9075727.49	-9075727.40	0.0144	0.0123
Mercury	-29561-04-03 04:47 J	-9075639.40	-9075639.30	-9075639.20	0.0144	0.0099
Mercury	-29561-06-30 08:52 J	-9075551.24	-9075551.13	-9075551.00	0.0144	0.0076
Mercury	-29561-09-26 13:11 J	-9075463.08	-9075462.95	-9075462.81	0.0144	0.0052
Mercury	-29561-12-23 17:31 J	-9075374.91	-9075374.77	-9075374.63	0.0144	0.0029
Mercury	-29560-03-21 21:50 J	-9075286.73	-9075286.59	-9075286.44	0.0144	0.0006
Mercury	-29560-06-18 02:09 J	-9075198.55	-9075198.41	-9075198.26	0.0144	0.0021
Mercury	-29560-09-14 06:43 J	-9075110.36	-9075110.22	-9075110.08	0.0144	0.0044
Mercury	-29560-12-11 11:02 J	-9075022.16	-9075022.04	-9075021.91	0.0144	0.0069
Mercury	-29559-03-09 15:35 J	-9074933.96	-9074933.85	-9074933.74	0.0144	0.0094
Mercury	-29559-06-05 20:09 J	-9074845.74	-9074845.66	-9074845.58	0.0145	0.0119
Mercury	-29559-09-02 00:43 J	-9074757.48	-9074757.47	-9074757.46	0.0145	0.0144
Mars	-29552-06-16 15:21 J	-9072278.10	-9072277.86	-9072277.62	0.0146	0.0083
Venus	-29539-07-03 07:55 J	-9067513.26	-9067513.17	-9067513.07	0.0143	0.0129
Venus	-29538-02-14 20:09 J	-9067286.80	-9067286.66	-9067286.52	0.0143	0.0109
Venus	-29538-09-29 08:09 J	-9067060.33	-9067060.16	-9067059.99	0.0143	0.0090
Venus	-29537-05-12 19:55 J	-9066833.86	-9066833.67	-9066833.47	0.0142	0.0071
Venus	-29537-12-25 07:40 J	-9066607.38	-9066607.18	-9066606.97	0.0142	0.0052
Venus	-29536-08-08 19:26 J	-9066380.90	-9066380.69	-9066380.47	0.0142	0.0032
Venus	-29535-03-23 07:11 J	-9066154.42	-9066154.20	-9066153.98	0.0142	0.0013
Venus	-29535-11-04 18:28 J	-9065927.95	-9065927.73	-9065927.50	0.0141	0.0007
Venus	-29534-06-19 05:59 J	-9065701.47	-9065701.25	-9065701.03	0.0141	0.0026
Venus	-29533-01-31 17:16 J	-9065474.99	-9065474.78	-9065474.57	0.0141	0.0045
Venus	-29533-09-14 04:19 J	-9065248.52	-9065248.32	-9065248.12	0.0140	0.0064
Venus	-29532-04-28 14:52 J	-9065022.05	-9065021.88	-9065021.69	0.0140	0.0082
Venus	-29532-12-11 01:55 J	-9064795.57	-9064795.42	-9064795.27	0.0140	0.0100
Venus	-29531-07-25 12:28 J	-9064569.09	-9064568.98	-9064568.86	0.0139	0.0118

Venus	-29530-03-08 22:47 J	-9064342.59	-9064342.55	-9064342.49	0.0139	0.0135
Earth	-29525-11-04 09:35 J	-9062275.33	-9062275.10	-9062274.85	0.0136	0.0050
Moon	-29525-11-04 11:16 J	-9062275.24	-9062275.03	-9062274.79	0.0136	0.0056 *
Moon	-29524-11-08 21:50 J	-9061905.83	-9061905.59	-9061905.34	0.0136	0.0053
Earth	-29524-11-08 23:02 J	-9061905.77	-9061905.54	-9061905.29	0.0136	0.0050 *
Mercury	-29521-02-21 19:26 J	-9061070.76	-9061070.69	-9061070.60	0.0135	0.0119
Mercury	-29521-05-20 01:26 J	-9060982.56	-9060982.44	-9060982.31	0.0135	0.0094
Mercury	-29521-08-16 07:11 J	-9060894.34	-9060894.20	-9060894.04	0.0135	0.0070
Mercury	-29521-11-12 13:11 J	-9060806.11	-9060805.95	-9060805.78	0.0135	0.0045
Mercury	-29520-02-08 18:57 J	-9060717.88	-9060717.71	-9060717.54	0.0134	0.0022
Mercury	-29520-05-08 00:43 J	-9060629.64	-9060629.47	-9060629.30	0.0134	0.0002
Mercury	-29520-08-04 06:14 J	-9060541.40	-9060541.24	-9060541.07	0.0134	0.0026
Mercury	-29520-10-31 11:45 J	-9060453.16	-9060453.01	-9060452.84	0.0134	0.0049
Mercury	-29519-01-27 17:16 J	-9060364.92	-9060364.78	-9060364.63	0.0134	0.0072
Mercury	-29519-04-25 22:47 J	-9060276.66	-9060276.55	-9060276.43	0.0134	0.0095
Mercury	-29519-07-23 04:19 J	-9060188.40	-9060188.32	-9060188.24	0.0134	0.0117
Mars	-29510-09-25 23:31 J	-9056836.84	-9056836.52	-9056836.19	0.0132	0.0009
Venus	-29495-07-01 07:26 J	-9051444.28	-9051444.19	-9051444.09	0.0135	0.0121
Venus	-29494-02-12 12:43 J	-9051218.08	-9051217.97	-9051217.82	0.0135	0.0107
Venus	-29494-09-26 18:28 J	-9050991.87	-9050991.73	-9050991.55	0.0135	0.0091
Venus	-29493-05-10 00:28 J	-9050765.65	-9050765.48	-9050765.30	0.0136	0.0074
Venus	-29493-12-22 06:14 J	-9050539.42	-9050539.24	-9050539.03	0.0136	0.0058
Venus	-29492-08-05 12:14 J	-9050313.19	-9050312.99	-9050312.78	0.0136	0.0042
Venus	-29491-03-19 18:14 J	-9050086.95	-9050086.74	-9050086.53	0.0137	0.0025
Venus	-29491-11-01 00:14 J	-9049860.71	-9049860.49	-9049860.28	0.0137	0.0008
Venus	-29490-06-15 06:14 J	-9049634.45	-9049634.24	-9049634.02	0.0137	0.0009
Venus	-29489-01-27 12:28 J	-9049408.18	-9049407.98	-9049407.76	0.0138	0.0027
Venus	-29489-09-09 18:57 J	-9049181.91	-9049181.71	-9049181.51	0.0138	0.0043
Venus	-29488-04-24 01:11 J	-9048955.64	-9048955.45	-9048955.25	0.0138	0.0060
Venus	-29488-12-06 07:40 J	-9048729.35	-9048729.18	-9048728.99	0.0138	0.0078

Venus	-29487-07-20 14:23 J	-9048503.05	-9048502.90	-9048502.74	0.0139	0.0095
Venus	-29486-03-03 21:07 J	-9048276.73	-9048276.62	-9048276.48	0.0139	0.0112
Venus	-29486-10-16 04:19 J	-9048050.39	-9048050.32	-9048050.24	0.0139	0.0129
Moon	-29480-05-03 19:11 J	-9046023.94	-9046023.70	-9046023.46	0.0142	0.0041
Earth	-29480-05-03 22:33 J	-9046023.79	-9046023.56	-9046023.31	0.0142	0.0039 *
Earth	-29479-05-08 17:16 J	-9045653.98	-9045653.78	-9045653.55	0.0143	0.0073
Moon	-29479-05-08 20:52 J	-9045653.83	-9045653.63	-9045653.42	0.0143	0.0079 *
Mercury	-29478-10-30 03:35 J	-9045114.38	-9045114.35	-9045114.31	0.0143	0.0139
Mercury	-29477-01-26 07:55 J	-9045026.25	-9045026.17	-9045026.09	0.0144	0.0116
Mercury	-29477-04-23 11:59 J	-9044938.11	-9044938.00	-9044937.89	0.0144	0.0093
Mercury	-29477-07-20 16:04 J	-9044849.95	-9044849.83	-9044849.70	0.0144	0.0070
Mercury	-29477-10-16 20:23 J	-9044761.78	-9044761.65	-9044761.51	0.0144	0.0046
Mercury	-29476-01-13 00:43 J	-9044673.61	-9044673.47	-9044673.32	0.0144	0.0023
Mercury	-29476-04-11 05:16 J	-9044585.43	-9044585.28	-9044585.14	0.0144	0.0005
Mercury	-29476-07-08 09:35 J	-9044497.24	-9044497.10	-9044496.96	0.0144	0.0026
Mercury	-29476-10-04 13:55 J	-9044409.05	-9044408.92	-9044408.78	0.0144	0.0051
Mercury	-29476-12-31 18:14 J	-9044320.85	-9044320.74	-9044320.61	0.0144	0.0076
Mercury	-29475-03-29 22:47 J	-9044232.65	-9044232.55	-9044232.44	0.0145	0.0100
Mercury	-29475-06-26 03:07 J	-9044144.43	-9044144.37	-9044144.29	0.0145	0.0126
Mars	-29467-02-09 20:52 J	-9041358.92	-9041358.63	-9041358.34	0.0146	0.0011
Venus	-29455-03-02 13:11 J	-9036954.99	-9036954.95	-9036954.87	0.0143	0.0138
Venus	-29455-10-15 01:26 J	-9036728.55	-9036728.44	-9036728.31	0.0143	0.0118
Venus	-29454-05-29 13:26 J	-9036502.08	-9036501.94	-9036501.77	0.0143	0.0099
Venus	-29453-01-11 01:26 J	-9036275.61	-9036275.44	-9036275.25	0.0143	0.0080
Venus	-29453-08-24 13:26 J	-9036049.14	-9036048.94	-9036048.74	0.0142	0.0060
Venus	-29452-04-08 01:11 J	-9035822.66	-9035822.45	-9035822.24	0.0142	0.0040
Venus	-29452-11-20 12:43 J	-9035596.19	-9035595.97	-9035595.75	0.0142	0.0021
Venus	-29451-07-05 00:28 J	-9035369.70	-9035369.48	-9035369.26	0.0141	0.0001
Venus	-29450-02-16 11:45 J	-9035143.23	-9035143.01	-9035142.79	0.0141	0.0018
Venus	-29450-09-30 22:47 J	-9034916.75	-9034916.55	-9034916.33	0.0141	0.0038

Venus	-29449-05-14 09:50 J	-9034690.28	-9034690.09	-9034689.88	0.0140	0.0056
Venus	-29449-12-26 20:38 J	-9034463.81	-9034463.64	-9034463.44	0.0140	0.0075
Venus	-29448-08-10 07:40 J	-9034237.34	-9034237.18	-9034237.01	0.0140	0.0093
Venus	-29447-03-24 17:59 J	-9034010.86	-9034010.75	-9034010.60	0.0139	0.0112
Venus	-29447-11-06 05:02 J	-9033784.37	-9033784.29	-9033784.21	0.0139	0.0129
Earth	-29441-11-04 18:14 J	-9031593.97	-9031593.74	-9031593.48	0.0136	0.0046
Moon	-29441-11-04 20:38 J	-9031593.88	-9031593.64	-9031593.40	0.0136	0.0039 *
Moon	-29440-11-09 05:16 J	-9031224.51	-9031224.28	-9031224.02	0.0136	0.0049
Earth	-29440-11-09 07:55 J	-9031224.41	-9031224.17	-9031223.93	0.0136	0.0053 *
Mercury	-29437-03-13 02:09 J	-9030369.49	-9030369.41	-9030369.31	0.0135	0.0114
Mercury	-29437-06-09 08:09 J	-9030281.28	-9030281.16	-9030281.02	0.0135	0.0089
Mercury	-29437-09-05 13:55 J	-9030193.06	-9030192.92	-9030192.76	0.0135	0.0065
Mercury	-29437-12-02 19:55 J	-9030104.83	-9030104.67	-9030104.50	0.0135	0.0040
Mercury	-29436-03-01 01:40 J	-9030016.60	-9030016.43	-9030016.26	0.0134	0.0017
Mercury	-29436-05-28 07:26 J	-9029928.37	-9029928.19	-9029928.02	0.0134	0.0007
Mercury	-29436-08-24 12:57 J	-9029840.13	-9029839.96	-9029839.79	0.0134	0.0031
Mercury	-29436-11-20 18:28 J	-9029751.88	-9029751.73	-9029751.57	0.0134	0.0054
Mercury	-29435-02-16 23:59 J	-9029663.63	-9029663.50	-9029663.35	0.0134	0.0077
Mercury	-29435-05-16 05:16 J	-9029575.38	-9029575.28	-9029575.15	0.0134	0.0100
Mercury	-29435-08-12 10:47 J	-9029487.11	-9029487.05	-9029486.97	0.0134	0.0122
Mars	-29425-05-21 00:43 J	-9025917.72	-9025917.47	-9025917.16	0.0132	0.0070
Venus	-29411-02-28 16:33 J	-9020885.87	-9020885.81	-9020885.74	0.0135	0.0128
Venus	-29411-10-12 21:50 J	-9020659.69	-9020659.59	-9020659.46	0.0135	0.0113
Venus	-29410-05-27 03:35 J	-9020433.49	-9020433.35	-9020433.19	0.0135	0.0097
Venus	-29409-01-08 09:21 J	-9020207.27	-9020207.11	-9020206.93	0.0136	0.0082
Venus	-29409-08-21 15:07 J	-9019981.05	-9019980.87	-9019980.67	0.0136	0.0065
Venus	-29408-04-04 21:07 J	-9019754.82	-9019754.62	-9019754.42	0.0136	0.0048
Venus	-29408-11-17 03:07 J	-9019528.58	-9019528.37	-9019528.16	0.0136	0.0032
Venus	-29407-07-01 09:07 J	-9019302.34	-9019302.12	-9019301.91	0.0137	0.0015
Venus	-29406-02-12 15:07 J	-9019076.08	-9019075.87	-9019075.65	0.0137	0.0003

Venus	-29406-09-26 21:21 J	-9018849.82	-9018849.61	-9018849.40	0.0137	0.0019
Venus	-29405-05-10 03:21 J	-9018623.56	-9018623.36	-9018623.15	0.0138	0.0037
Venus	-29405-12-22 09:50 J	-9018397.28	-9018397.09	-9018396.89	0.0138	0.0054
Venus	-29404-08-05 16:19 J	-9018170.99	-9018170.82	-9018170.63	0.0138	0.0071
Venus	-29403-03-19 22:47 J	-9017944.70	-9017944.55	-9017944.37	0.0139	0.0089
Venus	-29403-11-01 05:31 J	-9017718.39	-9017718.27	-9017718.12	0.0139	0.0106
Venus	-29402-06-15 12:43 J	-9017492.06	-9017491.97	-9017491.86	0.0139	0.0123
Moon	-29397-04-29 17:16 J	-9015711.80	-9015711.78	-9015711.76	0.0142	0.0141
Moon	-29396-05-04 04:33 J	-9015342.55	-9015342.31	-9015342.06	0.0142	0.0032
Earth	-29396-05-04 08:09 J	-9015342.40	-9015342.16	-9015341.91	0.0142	0.0035 *
Earth	-29395-05-09 02:38 J	-9014972.59	-9014972.39	-9014972.17	0.0143	0.0077
Moon	-29395-05-09 06:14 J	-9014972.44	-9014972.24	-9014972.01	0.0143	0.0072 *
Mercury	-29394-11-19 10:33 J	-9014413.10	-9014413.06	-9014413.00	0.0144	0.0134
Mercury	-29393-02-15 14:52 J	-9014324.96	-9014324.88	-9014324.79	0.0144	0.0111
Mercury	-29393-05-13 18:57 J	-9014236.81	-9014236.71	-9014236.59	0.0144	0.0088
Mercury	-29393-08-09 23:16 J	-9014148.65	-9014148.53	-9014148.40	0.0144	0.0064
Mercury	-29393-11-06 03:35 J	-9014060.48	-9014060.35	-9014060.21	0.0144	0.0040
Mercury	-29392-02-02 07:55 J	-9013972.31	-9013972.17	-9013972.03	0.0144	0.0017
Mercury	-29392-05-01 12:14 J	-9013884.13	-9013883.99	-9013883.84	0.0144	0.0008
Mercury	-29392-07-28 16:33 J	-9013795.94	-9013795.81	-9013795.66	0.0144	0.0032
Mercury	-29392-10-24 21:07 J	-9013707.75	-9013707.62	-9013707.49	0.0144	0.0056
Mercury	-29391-01-21 01:26 J	-9013619.55	-9013619.44	-9013619.31	0.0144	0.0081
Mercury	-29391-04-19 05:59 J	-9013531.34	-9013531.25	-9013531.15	0.0145	0.0106
Mercury	-29391-07-16 10:19 J	-9013443.12	-9013443.07	-9013443.00	0.0145	0.0132
Mars	-29383-10-06 01:26 J	-9010439.64	-9010439.44	-9010439.24	0.0146	0.0105
Venus	-29371-06-14 07:40 J	-9006170.27	-9006170.18	-9006170.07	0.0143	0.0127
Venus	-29370-01-26 19:40 J	-9005943.81	-9005943.68	-9005943.52	0.0143	0.0107
Venus	-29370-09-10 07:40 J	-9005717.35	-9005717.18	-9005717.00	0.0143	0.0088
Venus	-29369-04-23 19:11 J	-9005490.88	-9005490.70	-9005490.49	0.0142	0.0069
Venus	-29369-12-06 07:11 J	-9005264.40	-9005264.20	-9005263.99	0.0142	0.0048

Venus	-29368-07-20 18:57 J	-9005037.92	-9005037.71	-9005037.49	0.0142	0.0029
Venus	-29367-03-04 06:28 J	-9004811.45	-9004811.23	-9004811.01	0.0142	0.0009
Venus	-29367-10-16 17:45 J	-9004584.98	-9004584.76	-9004584.53	0.0141	0.0011
Venus	-29366-05-31 05:02 J	-9004358.50	-9004358.29	-9004358.07	0.0141	0.0030
Venus	-29365-01-12 16:19 J	-9004132.03	-9004131.82	-9004131.61	0.0141	0.0049
Venus	-29365-08-26 02:52 J	-9003905.56	-9003905.38	-9003905.17	0.0140	0.0069
Venus	-29364-04-09 13:40 J	-9003679.09	-9003678.93	-9003678.74	0.0140	0.0087
Venus	-29364-11-22 00:28 J	-9003452.62	-9003452.48	-9003452.33	0.0140	0.0105
Venus	-29363-07-06 11:16 J	-9003226.13	-9003226.03	-9003225.92	0.0139	0.0123
Moon	-29358-11-01 09:50 J	-9001282.13	-9001282.09	-9001282.03	0.0137	0.0134
Earth	-29357-11-05 03:07 J	-9000912.60	-9000912.37	-9000912.11	0.0136	0.0042
Moon	-29357-11-05 05:59 J	-9000912.48	-9000912.25	-9000912.01	0.0136	0.0048 *
Moon	-29356-11-09 14:09 J	-9000543.13	-9000542.91	-9000542.66	0.0136	0.0061
Earth	-29356-11-09 16:33 J	-9000543.04	-9000542.81	-9000542.57	0.0136	0.0057 *
Mercury	-29353-01-05 03:07 J	-8999756.39	-8999756.37	-8999756.35	0.0135	0.0133
Mercury	-29353-04-02 08:52 J	-8999668.22	-8999668.13	-8999668.02	0.0135	0.0109
Mercury	-29353-06-29 14:52 J	-8999580.01	-8999579.88	-8999579.74	0.0135	0.0084
Mercury	-29353-09-25 20:38 J	-8999491.79	-8999491.64	-8999491.48	0.0135	0.0060
Mercury	-29353-12-23 02:38 J	-8999403.56	-8999403.39	-8999403.22	0.0134	0.0036
Mercury	-29352-03-21 08:09 J	-8999315.33	-8999315.16	-8999314.98	0.0134	0.0013
Mercury	-29352-06-17 13:55 J	-8999227.09	-8999226.92	-8999226.75	0.0134	0.0012
Mercury	-29352-09-13 19:26 J	-8999138.85	-8999138.69	-8999138.52	0.0134	0.0035
Mercury	-29352-12-11 01:11 J	-8999050.61	-8999050.45	-8999050.30	0.0134	0.0058
Mercury	-29351-03-09 06:43 J	-8998962.36	-8998962.22	-8998962.08	0.0134	0.0081
Mercury	-29351-06-05 11:59 J	-8998874.10	-8998874.00	-8998873.89	0.0134	0.0104
Mercury	-29351-09-01 17:31 J	-8998785.82	-8998785.77	-8998785.71	0.0134	0.0126
Mars	-29342-02-11 01:26 J	-8995701.70	-8995701.44	-8995701.18	0.0132	0.0080
Venus	-29327-06-12 06:14 J	-8990101.32	-8990101.24	-8990101.13	0.0135	0.0121
Venus	-29326-01-24 11:59 J	-8989875.13	-8989875.00	-8989874.86	0.0135	0.0105
Venus	-29326-09-07 17:31 J	-8989648.92	-8989648.77	-8989648.60	0.0136	0.0089

Venus	-29325-04-20 23:31 J	-8989422.70	-8989422.52	-8989422.34	0.0136	0.0072
Venus	-29325-12-03 05:02 J	-8989196.47	-8989196.29	-8989196.08	0.0136	0.0056
Venus	-29324-07-17 11:02 J	-8988970.24	-8988970.04	-8988969.83	0.0136	0.0039
Venus	-29323-02-28 17:02 J	-8988744.00	-8988743.79	-8988743.58	0.0137	0.0022
Venus	-29323-10-12 23:02 J	-8988517.75	-8988517.54	-8988517.32	0.0137	0.0005
Venus	-29322-05-27 05:16 J	-8988291.50	-8988291.28	-8988291.07	0.0137	0.0012
Venus	-29321-01-08 11:31 J	-8988065.23	-8988065.02	-8988064.81	0.0138	0.0030
Venus	-29321-08-21 17:45 J	-8987838.95	-8987838.76	-8987838.55	0.0138	0.0047
Venus	-29320-04-05 00:14 J	-8987612.67	-8987612.49	-8987612.29	0.0138	0.0064
Venus	-29320-11-17 06:43 J	-8987386.38	-8987386.22	-8987386.04	0.0138	0.0082
Venus	-29319-07-01 13:26 J	-8987160.07	-8987159.94	-8987159.78	0.0139	0.0099
Venus	-29318-02-12 20:38 J	-8986933.75	-8986933.64	-8986933.52	0.0139	0.0116
Venus	-29318-09-27 03:35 J	-8986707.40	-8986707.35	-8986707.28	0.0139	0.0134
Earth	-29313-04-29 21:35 J	-8985030.60	-8985030.60	-8985030.55	0.0142	0.0141
Moon	-29312-05-04 12:57 J	-8984661.20	-8984660.96	-8984660.71	0.0142	0.0032
Earth	-29312-05-04 16:04 J	-8984661.07	-8984660.83	-8984660.58	0.0142	0.0032 *
Earth	-29311-05-09 10:33 J	-8984291.25	-8984291.06	-8984290.83	0.0143	0.0080
Moon	-29311-05-09 14:23 J	-8984291.10	-8984290.90	-8984290.69	0.0143	0.0085 *
Mercury	-29310-12-09 17:31 J	-8983711.82	-8983711.77	-8983711.70	0.0144	0.0129
Mercury	-29309-03-06 21:35 J	-8983623.68	-8983623.60	-8983623.50	0.0144	0.0107
Mercury	-29309-06-03 01:55 J	-8983535.53	-8983535.42	-8983535.30	0.0144	0.0083
Mercury	-29309-08-30 06:14 J	-8983447.37	-8983447.24	-8983447.11	0.0144	0.0060
Mercury	-29309-11-26 10:33 J	-8983359.20	-8983359.06	-8983358.92	0.0144	0.0036
Mercury	-29308-02-22 14:52 J	-8983271.02	-8983270.88	-8983270.74	0.0144	0.0012
Mercury	-29308-05-21 19:11 J	-8983182.84	-8983182.70	-8983182.56	0.0144	0.0012
Mercury	-29308-08-17 23:31 J	-8983094.66	-8983094.52	-8983094.38	0.0144	0.0037
Mercury	-29308-11-14 03:50 J	-8983006.46	-8983006.34	-8983006.20	0.0144	0.0062
Mercury	-29307-02-10 08:09 J	-8982918.26	-8982918.16	-8982918.03	0.0144	0.0087
Mercury	-29307-05-09 12:57 J	-8982830.05	-8982829.96	-8982829.87	0.0145	0.0111
Mercury	-29307-08-05 17:16 J	-8982741.82	-8982741.78	-8982741.72	0.0145	0.0137

Mars	-29300-06-28 22:04 J	-8980222.82	-8980222.58	-8980222.31	0.0146	0.0071
Venus	-29287-02-11 13:26 J	-8975611.99	-8975611.94	-8975611.85	0.0143	0.0136
Venus	-29287-09-26 01:26 J	-8975385.55	-8975385.44	-8975385.30	0.0143	0.0117
Venus	-29286-05-10 13:40 J	-8975159.09	-8975158.93	-8975158.76	0.0143	0.0096
Venus	-29286-12-23 01:26 J	-8974932.62	-8974932.44	-8974932.25	0.0143	0.0077
Venus	-29285-08-05 13:26 J	-8974706.14	-8974705.94	-8974705.74	0.0142	0.0057
Venus	-29284-03-20 00:43 J	-8974479.67	-8974479.47	-8974479.25	0.0142	0.0037
Venus	-29284-11-01 12:28 J	-8974253.20	-8974252.98	-8974252.76	0.0142	0.0017
Venus	-29283-06-15 23:59 J	-8974026.72	-8974026.50	-8974026.28	0.0141	0.0003
Venus	-29282-01-28 11:16 J	-8973800.25	-8973800.03	-8973799.81	0.0141	0.0022
Venus	-29282-09-11 22:04 J	-8973573.78	-8973573.58	-8973573.36	0.0141	0.0042
Venus	-29281-04-25 09:07 J	-8973347.31	-8973347.12	-8973346.91	0.0140	0.0061
Venus	-29281-12-07 20:09 J	-8973120.84	-8973120.66	-8973120.48	0.0140	0.0080
Venus	-29280-07-22 06:57 J	-8972894.36	-8972894.21	-8972894.05	0.0140	0.0098
Venus	-29279-03-05 17:16 J	-8972667.88	-8972667.78	-8972667.64	0.0139	0.0117
Venus	-29279-10-18 03:35 J	-8972441.39	-8972441.35	-8972441.27	0.0139	0.0134
Earth	-29273-11-05 12:14 J	-8970231.23	-8970230.99	-8970230.73	0.0136	0.0038
Moon	-29273-11-05 15:21 J	-8970231.10	-8970230.86	-8970230.61	0.0136	0.0031 *
Moon	-29272-11-09 22:19 J	-8969861.80	-8969861.57	-8969861.32	0.0136	0.0055
Earth	-29272-11-10 01:26 J	-8969861.66	-8969861.44	-8969861.20	0.0136	0.0061 *
Mercury	-29269-01-25 09:35 J	-8969055.14	-8969055.10	-8969055.04	0.0135	0.0128
Mercury	-29269-04-22 15:21 J	-8968966.95	-8968966.86	-8968966.73	0.0135	0.0104
Mercury	-29269-07-19 21:35 J	-8968878.74	-8968878.60	-8968878.46	0.0135	0.0079
Mercury	-29269-10-16 03:21 J	-8968790.52	-8968790.36	-8968790.20	0.0134	0.0055
Mercury	-29268-01-12 09:07 J	-8968702.28	-8968702.12	-8968701.95	0.0134	0.0031
Mercury	-29268-04-10 14:52 J	-8968614.05	-8968613.88	-8968613.70	0.0134	0.0007
Mercury	-29268-07-07 20:38 J	-8968525.81	-8968525.64	-8968525.47	0.0134	0.0017
Mercury	-29268-10-04 02:09 J	-8968437.57	-8968437.41	-8968437.24	0.0134	0.0040
Mercury	-29268-12-31 07:40 J	-8968349.32	-8968349.18	-8968349.02	0.0134	0.0063
Mercury	-29267-03-29 13:11 J	-8968261.07	-8968260.95	-8968260.81	0.0134	0.0086

Mercury	-29267-06-25 18:28 J	-8968172.81	-8968172.73	-8968172.62	0.0134	0.0109
Mercury	-29267-09-22 00:14 J	-8968084.52	-8968084.49	-8968084.46	0.0134	0.0131
Mars	-29258-10-07 01:11 J	-8964782.77	-8964782.45	-8964782.12	0.0132	0.0004
Venus	-29243-02-09 14:23 J	-8959542.95	-8959542.90	-8959542.82	0.0135	0.0128
Venus	-29243-09-23 19:55 J	-8959316.78	-8959316.67	-8959316.54	0.0135	0.0112
Venus	-29242-05-08 01:26 J	-8959090.58	-8959090.44	-8959090.27	0.0135	0.0096
Venus	-29242-12-20 07:26 J	-8958864.36	-8958864.19	-8958864.01	0.0136	0.0080
Venus	-29241-08-02 13:11 J	-8958638.14	-8958637.95	-8958637.76	0.0136	0.0063
Venus	-29240-03-16 18:57 J	-8958411.91	-8958411.71	-8958411.51	0.0136	0.0047
Venus	-29240-10-29 00:43 J	-8958185.68	-8958185.47	-8958185.26	0.0136	0.0030
Venus	-29239-06-12 06:43 J	-8957959.43	-8957959.22	-8957959.00	0.0137	0.0013
Venus	-29238-01-24 12:57 J	-8957733.17	-8957732.96	-8957732.74	0.0137	0.0005
Venus	-29238-09-07 18:57 J	-8957506.91	-8957506.71	-8957506.49	0.0137	0.0023
Venus	-29237-04-21 01:11 J	-8957280.65	-8957280.45	-8957280.24	0.0138	0.0040
Venus	-29237-12-03 07:40 J	-8957054.37	-8957054.18	-8957053.98	0.0138	0.0057
Venus	-29236-07-17 14:09 J	-8956828.08	-8956827.91	-8956827.72	0.0138	0.0075
Venus	-29235-02-28 21:07 J	-8956601.77	-8956601.62	-8956601.46	0.0139	0.0092
Venus	-29235-10-13 04:04 J	-8956375.46	-8956375.33	-8956375.20	0.0139	0.0109
Venus	-29234-05-27 11:02 J	-8956149.12	-8956149.04	-8956148.95	0.0139	0.0127
Earth	-29229-04-30 04:33 J	-8954349.34	-8954349.31	-8954349.25	0.0142	0.0139
Moon	-29229-04-30 07:11 J	-8954349.26	-8954349.20	-8954349.11	0.0142	0.0135 *
Moon	-29228-05-04 19:40 J	-8953979.92	-8953979.68	-8953979.43	0.0142	0.0029
Earth	-29228-05-04 22:47 J	-8953979.79	-8953979.55	-8953979.30	0.0142	0.0030 *
Earth	-29227-05-09 17:16 J	-8953609.98	-8953609.78	-8953609.56	0.0143	0.0081
Moon	-29227-05-09 20:38 J	-8953609.85	-8953609.64	-8953609.42	0.0143	0.0076 *
Mercury	-29226-12-29 23:59 J	-8953010.55	-8953010.50	-8953010.42	0.0144	0.0127
Mercury	-29225-03-27 04:19 J	-8952922.41	-8952922.32	-8952922.22	0.0144	0.0103
Mercury	-29225-06-23 08:38 J	-8952834.26	-8952834.14	-8952834.02	0.0144	0.0080
Mercury	-29225-09-19 12:43 J	-8952746.09	-8952745.97	-8952745.83	0.0144	0.0057
Mercury	-29225-12-16 17:02 J	-8952657.93	-8952657.79	-8952657.65	0.0144	0.0033

Mercury	-29224-03-14 21:21 J	-8952569.75	-8952569.61	-8952569.46	0.0144	0.0009
Mercury	-29224-06-11 01:40 J	-8952481.57	-8952481.43	-8952481.28	0.0144	0.0016
Mercury	-29224-09-07 05:59 J	-8952393.38	-8952393.25	-8952393.11	0.0144	0.0040
Mercury	-29224-12-04 10:33 J	-8952305.19	-8952305.06	-8952304.93	0.0144	0.0064
Mercury	-29223-03-02 14:52 J	-8952216.99	-8952216.88	-8952216.76	0.0144	0.0089
Mercury	-29223-05-29 19:26 J	-8952128.77	-8952128.69	-8952128.60	0.0145	0.0114
Mercury	-29223-08-25 23:59 J	-8952040.53	-8952040.50	-8952040.46	0.0145	0.0140
Mars	-29215-02-21 22:19 J	-8949303.85	-8949303.57	-8949303.27	0.0146	0.0019
Venus	-29203-05-26 06:43 J	-8944827.31	-8944827.22	-8944827.10	0.0143	0.0126
Venus	-29202-01-07 18:57 J	-8944600.85	-8944600.71	-8944600.56	0.0143	0.0106
Venus	-29202-08-22 06:28 J	-8944374.39	-8944374.23	-8944374.04	0.0143	0.0086
Venus	-29201-04-04 18:28 J	-8944147.92	-8944147.73	-8944147.53	0.0143	0.0066
Venus	-29201-11-17 06:14 J	-8943921.45	-8943921.24	-8943921.03	0.0142	0.0046
Venus	-29200-07-01 17:45 J	-8943694.97	-8943694.76	-8943694.53	0.0142	0.0026
Venus	-29199-02-13 05:31 J	-8943468.49	-8943468.27	-8943468.05	0.0142	0.0006
Venus	-29199-09-27 16:47 J	-8943242.02	-8943241.80	-8943241.58	0.0141	0.0014
Venus	-29198-05-12 03:50 J	-8943015.55	-8943015.34	-8943015.12	0.0141	0.0034
Venus	-29198-12-24 14:52 J	-8942789.08	-8942788.88	-8942788.67	0.0141	0.0053
Venus	-29197-08-07 01:40 J	-8942562.61	-8942562.43	-8942562.23	0.0140	0.0073
Venus	-29196-03-21 12:28 J	-8942336.13	-8942335.98	-8942335.80	0.0140	0.0091
Venus	-29196-11-02 23:02 J	-8942109.66	-8942109.54	-8942109.38	0.0140	0.0110
Venus	-29195-06-17 09:50 J	-8941883.17	-8941883.09	-8941882.99	0.0139	0.0128
Moon	-29190-11-02 03:07 J	-8939919.46	-8939919.37	-8939919.26	0.0137	0.0126
Earth	-29190-11-02 06:28 J	-8939919.26	-8939919.23	-8939919.15	0.0137	0.0134 *
Earth	-29189-11-05 20:52 J	-8939549.87	-8939549.63	-8939549.38	0.0136	0.0034
Moon	-29189-11-06 00:14 J	-8939549.73	-8939549.49	-8939549.24	0.0136	0.0041 *
Moon	-29188-11-10 06:43 J	-8939180.43	-8939180.22	-8939179.98	0.0136	0.0069
Earth	-29188-11-10 09:50 J	-8939180.30	-8939180.09	-8939179.85	0.0136	0.0064 *
Mercury	-29185-02-14 16:04 J	-8938353.89	-8938353.83	-8938353.75	0.0135	0.0124
Mercury	-29185-05-12 22:04 J	-8938265.69	-8938265.58	-8938265.45	0.0135	0.0099

Mercury	-29185-08-09 04:04 J	-8938177.47	-8938177.33	-8938177.18	0.0135	0.0075
Mercury	-29185-11-05 09:50 J	-8938089.24	-8938089.09	-8938088.92	0.0134	0.0051
Mercury	-29184-02-01 15:50 J	-8938001.01	-8938000.84	-8938000.67	0.0134	0.0026
Mercury	-29184-04-30 21:35 J	-8937912.78	-8937912.60	-8937912.43	0.0134	0.0004
Mercury	-29184-07-28 03:07 J	-8937824.54	-8937824.37	-8937824.20	0.0134	0.0021
Mercury	-29184-10-24 08:52 J	-8937736.30	-8937736.13	-8937735.97	0.0134	0.0044
Mercury	-29183-01-20 14:23 J	-8937648.05	-8937647.90	-8937647.75	0.0134	0.0068
Mercury	-29183-04-18 19:55 J	-8937559.80	-8937559.67	-8937559.54	0.0134	0.0090
Mercury	-29183-07-16 01:11 J	-8937471.53	-8937471.45	-8937471.35	0.0134	0.0113
Mars	-29173-06-01 00:28 J	-8933863.73	-8933863.48	-8933863.19	0.0132	0.0073
Venus	-29159-05-24 03:35 J	-8928758.43	-8928758.35	-8928758.23	0.0135	0.0120
Venus	-29158-01-05 09:21 J	-8928532.23	-8928532.11	-8928531.96	0.0135	0.0104
Venus	-29158-08-19 15:07 J	-8928306.03	-8928305.87	-8928305.70	0.0135	0.0088
Venus	-29157-04-01 20:52 J	-8928079.81	-8928079.63	-8928079.45	0.0136	0.0071
Venus	-29157-11-14 02:38 J	-8927853.59	-8927853.39	-8927853.19	0.0136	0.0054
Venus	-29156-06-28 08:23 J	-8927627.35	-8927627.15	-8927626.94	0.0136	0.0037
Venus	-29155-02-09 14:23 J	-8927401.11	-8927400.90	-8927400.69	0.0137	0.0020
Venus	-29155-09-23 20:23 J	-8927174.86	-8927174.65	-8927174.43	0.0137	0.0003
Venus	-29154-05-08 02:38 J	-8926948.61	-8926948.39	-8926948.18	0.0137	0.0014
Venus	-29154-12-20 08:52 J	-8926722.34	-8926722.13	-8926721.92	0.0137	0.0032
Venus	-29153-08-02 14:52 J	-8926496.06	-8926495.88	-8926495.67	0.0138	0.0050
Venus	-29152-03-16 21:35 J	-8926269.78	-8926269.60	-8926269.41	0.0138	0.0067
Venus	-29152-10-29 04:04 J	-8926043.49	-8926043.33	-8926043.15	0.0138	0.0085
Venus	-29151-06-12 11:02 J	-8925817.18	-8925817.04	-8925816.89	0.0139	0.0102
Venus	-29150-01-24 17:45 J	-8925590.85	-8925590.76	-8925590.64	0.0139	0.0120
Venus	-29150-09-08 00:43 J	-8925364.48	-8925364.47	-8925364.41	0.0139	0.0138
Earth	-29145-04-30 10:33 J	-8923668.10	-8923668.06	-8923667.98	0.0142	0.0138
Moon	-29145-04-30 12:57 J	-8923667.96	-8923667.96	-8923667.90	0.0142	0.0141
Moon	-29144-05-05 02:23 J	-8923298.63	-8923298.40	-8923298.15	0.0142	0.0029
Earth	-29144-05-05 04:47 J	-8923298.54	-8923298.30	-8923298.05	0.0142	0.0029 *

Earth	-29143-05-09 23:31 J	-8922928.73	-8922928.52	-8922928.31	0.0143	0.0081
Moon	-29143-05-10 02:09 J	-8922928.60	-8922928.41	-8922928.19	0.0143	0.0086 *
Mercury	-29141-01-19 06:43 J	-8922309.29	-8922309.22	-8922309.15	0.0144	0.0124
Mercury	-29141-04-16 10:47 J	-8922221.14	-8922221.05	-8922220.95	0.0144	0.0101
Mercury	-29141-07-13 14:52 J	-8922132.99	-8922132.88	-8922132.75	0.0144	0.0078
Mercury	-29141-10-09 19:11 J	-8922044.83	-8922044.70	-8922044.56	0.0144	0.0054
Mercury	-29140-01-05 23:31 J	-8921956.66	-8921956.52	-8921956.38	0.0144	0.0030
Mercury	-29140-04-04 03:50 J	-8921868.48	-8921868.34	-8921868.19	0.0144	0.0007
Mercury	-29140-07-01 08:09 J	-8921780.30	-8921780.16	-8921780.01	0.0144	0.0018
Mercury	-29140-09-27 12:43 J	-8921692.11	-8921691.97	-8921691.84	0.0144	0.0043
Mercury	-29140-12-24 17:02 J	-8921603.92	-8921603.79	-8921603.66	0.0144	0.0067
Mercury	-29139-03-22 21:21 J	-8921515.71	-8921515.61	-8921515.49	0.0144	0.0092
Mercury	-29139-06-19 01:40 J	-8921427.50	-8921427.43	-8921427.33	0.0145	0.0118
Mercury	-29139-09-15 06:14 J	-8921339.25	-8921339.24	-8921339.20	0.0145	0.0143
Mars	-29131-10-17 19:11 J	-8918384.87	-8918384.70	-8918384.48	0.0146	0.0108
Venus	-29119-01-23 11:16 J	-8914269.10	-8914269.03	-8914268.96	0.0144	0.0135
Venus	-29119-09-06 23:02 J	-8914042.66	-8914042.54	-8914042.40	0.0143	0.0116
Venus	-29118-04-21 11:02 J	-8913816.20	-8913816.04	-8913815.87	0.0143	0.0095
Venus	-29118-12-03 23:02 J	-8913589.73	-8913589.54	-8913589.35	0.0143	0.0075
Venus	-29117-07-17 10:47 J	-8913363.25	-8913363.05	-8913362.84	0.0143	0.0055
Venus	-29116-02-28 22:19 J	-8913136.78	-8913136.57	-8913136.35	0.0142	0.0035
Venus	-29116-10-13 09:50 J	-8912910.30	-8912910.09	-8912909.86	0.0142	0.0015
Venus	-29115-05-27 21:21 J	-8912683.83	-8912683.61	-8912683.39	0.0142	0.0006
Venus	-29114-01-09 08:38 J	-8912457.36	-8912457.14	-8912456.92	0.0141	0.0025
Venus	-29114-08-23 19:40 J	-8912230.88	-8912230.68	-8912230.46	0.0141	0.0045
Venus	-29113-04-06 06:43 J	-8912004.41	-8912004.22	-8912004.01	0.0141	0.0065
Venus	-29113-11-18 17:45 J	-8911777.93	-8911777.76	-8911777.58	0.0140	0.0083
Venus	-29112-07-03 04:33 J	-8911551.45	-8911551.31	-8911551.15	0.0140	0.0102
Venus	-29111-02-14 15:07 J	-8911324.96	-8911324.87	-8911324.74	0.0140	0.0121
Venus	-29111-09-29 01:55 J	-8911098.43	-8911098.42	-8911098.39	0.0139	0.0138

Moon	-29106-11-02 11:16 J	-8909238.04	-8909238.03	-8909238.00	0.0137	0.0136
Earth	-29106-11-02 14:38 J	-8909237.95	-8909237.89	-8909237.79	0.0137	0.0130
Earth	-29105-11-06 05:02 J	-8908868.54	-8908868.29	-8908868.04	0.0136	0.0031
Moon	-29105-11-06 08:38 J	-8908868.39	-8908868.14	-8908867.89	0.0136	0.0024 *
Moon	-29104-11-10 14:23 J	-8908499.12	-8908498.90	-8908498.66	0.0136	0.0061
Earth	-29104-11-10 17:59 J	-8908498.96	-8908498.75	-8908498.51	0.0136	0.0067 *
Mercury	-29101-03-05 22:47 J	-8907652.63	-8907652.55	-8907652.46	0.0135	0.0119
Mercury	-29101-06-02 04:33 J	-8907564.42	-8907564.31	-8907564.17	0.0135	0.0095
Mercury	-29101-08-29 10:33 J	-8907476.20	-8907476.06	-8907475.90	0.0135	0.0070
Mercury	-29101-11-25 16:33 J	-8907387.97	-8907387.81	-8907387.65	0.0135	0.0046
Mercury	-29100-02-21 22:19 J	-8907299.74	-8907299.57	-8907299.40	0.0134	0.0022
Mercury	-29100-05-21 04:04 J	-8907211.50	-8907211.33	-8907211.16	0.0134	0.0002
Mercury	-29100-08-17 09:35 J	-8907123.26	-8907123.10	-8907122.92	0.0134	0.0026
Mercury	-29100-11-13 15:21 J	-8907035.02	-8907034.86	-8907034.70	0.0134	0.0049
Mercury	-29099-02-09 20:52 J	-8906946.77	-8906946.63	-8906946.48	0.0134	0.0072
Mercury	-29099-05-09 02:23 J	-8906858.51	-8906858.40	-8906858.27	0.0134	0.0095
Mercury	-29099-08-05 07:40 J	-8906770.24	-8906770.18	-8906770.09	0.0134	0.0118
Mars	-29090-02-22 03:35 J	-8903647.62	-8903647.35	-8903647.08	0.0132	0.0074
Venus	-29075-01-21 12:57 J	-8898200.02	-8898199.96	-8898199.89	0.0135	0.0127
Venus	-29075-09-04 18:14 J	-8897973.85	-8897973.74	-8897973.61	0.0135	0.0111
Venus	-29074-04-18 23:45 J	-8897747.65	-8897747.51	-8897747.35	0.0135	0.0095
Venus	-29074-12-01 05:31 J	-8897521.44	-8897521.27	-8897521.09	0.0136	0.0079
Venus	-29073-07-14 11:16 J	-8897295.22	-8897295.03	-8897294.84	0.0136	0.0062
Venus	-29072-02-25 17:02 J	-8897068.99	-8897068.79	-8897068.58	0.0136	0.0045
Venus	-29072-10-09 23:02 J	-8896842.75	-8896842.54	-8896842.33	0.0136	0.0028
Venus	-29071-05-24 05:02 J	-8896616.51	-8896616.29	-8896616.08	0.0137	0.0011
Venus	-29070-01-05 11:02 J	-8896390.25	-8896390.04	-8896389.82	0.0137	0.0008
Venus	-29070-08-19 17:16 J	-8896163.99	-8896163.78	-8896163.57	0.0137	0.0025
Venus	-29069-04-01 23:16 J	-8895937.72	-8895937.53	-8895937.31	0.0138	0.0043
Venus	-29069-11-14 05:45 J	-8895711.44	-8895711.26	-8895711.06	0.0138	0.0060

Venus	-29068-06-28 12:28 J	-8895485.15	-8895484.98	-8895484.80	0.0138	0.0078
Venus	-29067-02-09 19:11 J	-8895258.84	-8895258.70	-8895258.53	0.0138	0.0095
Venus	-29067-09-24 01:55 J	-8895032.53	-8895032.42	-8895032.28	0.0139	0.0113
Venus	-29066-05-08 08:52 J	-8894806.19	-8894806.13	-8894806.05	0.0139	0.0131
Earth	-29061-04-30 18:28 J	-8892986.80	-8892986.73	-8892986.66	0.0142	0.0135
Moon	-29061-04-30 19:40 J	-8892986.77	-8892986.68	-8892986.57	0.0142	0.0130 *
Moon	-29060-05-05 09:50 J	-8892617.32	-8892617.09	-8892616.84	0.0142	0.0027
Earth	-29060-05-05 11:59 J	-8892617.24	-8892617.00	-8892616.74	0.0142	0.0027 *
Earth	-29059-05-10 06:14 J	-8892247.43	-8892247.24	-8892247.02	0.0143	0.0084
Moon	-29059-05-10 08:52 J	-8892247.33	-8892247.13	-8892246.91	0.0143	0.0080 *
Mercury	-29058-11-12 09:21 J	-8891696.12	-8891696.11	-8891696.10	0.0144	0.0143
Mercury	-29057-02-08 13:11 J	-8891608.01	-8891607.95	-8891607.86	0.0144	0.0121
Mercury	-29057-05-06 17:16 J	-8891519.87	-8891519.78	-8891519.66	0.0144	0.0098
Mercury	-29057-08-02 21:35 J	-8891431.71	-8891431.60	-8891431.47	0.0144	0.0074
Mercury	-29057-10-30 01:55 J	-8891343.55	-8891343.42	-8891343.28	0.0144	0.0050
Mercury	-29056-01-26 06:14 J	-8891255.38	-8891255.24	-8891255.10	0.0144	0.0027
Mercury	-29056-04-24 10:33 J	-8891167.20	-8891167.06	-8891166.92	0.0144	0.0003
Mercury	-29056-07-21 14:52 J	-8891079.02	-8891078.88	-8891078.74	0.0144	0.0022
Mercury	-29056-10-17 19:11 J	-8890990.83	-8890990.70	-8890990.56	0.0144	0.0046
Mercury	-29055-01-13 23:45 J	-8890902.64	-8890902.51	-8890902.39	0.0144	0.0071
Mercury	-29055-04-12 04:04 J	-8890814.43	-8890814.33	-8890814.22	0.0144	0.0096
Mercury	-29055-07-09 08:38 J	-8890726.21	-8890726.14	-8890726.06	0.0145	0.0121
Mars	-29048-07-10 11:16 J	-8888168.28	-8888168.03	-8888167.77	0.0146	0.0072
Venus	-29035-05-07 03:07 J	-8883484.46	-8883484.37	-8883484.25	0.0144	0.0126
Venus	-29035-12-19 15:07 J	-8883258.00	-8883257.87	-8883257.70	0.0143	0.0106
Venus	-29034-08-03 03:07 J	-8883031.53	-8883031.37	-8883031.18	0.0143	0.0085
Venus	-29033-03-16 14:52 J	-8882805.06	-8882804.88	-8882804.67	0.0143	0.0065
Venus	-29033-10-29 02:38 J	-8882578.59	-8882578.39	-8882578.17	0.0142	0.0044
Venus	-29032-06-12 14:23 J	-8882352.11	-8882351.90	-8882351.68	0.0142	0.0024
Venus	-29031-01-25 01:55 J	-8882125.64	-8882125.42	-8882125.19	0.0142	0.0005

Venus	-29031-09-08 13:26 J	-8881899.16	-8881898.94	-8881898.72	0.0141	0.0017
Venus	-29030-04-23 00:43 J	-8881672.69	-8881672.47	-8881672.26	0.0141	0.0036
Venus	-29030-12-05 11:45 J	-8881446.21	-8881446.01	-8881445.80	0.0141	0.0056
Venus	-29029-07-18 22:47 J	-8881219.73	-8881219.55	-8881219.35	0.0140	0.0076
Venus	-29028-03-02 09:50 J	-8880993.25	-8880993.09	-8880992.92	0.0140	0.0095
Venus	-29028-10-14 20:38 J	-8880766.76	-8880766.64	-8880766.51	0.0140	0.0113
Venus	-29027-05-29 07:11 J	-8880540.26	-8880540.20	-8880540.12	0.0139	0.0132
Moon	-29022-11-02 18:43 J	-8878556.82	-8878556.72	-8878556.58	0.0137	0.0120
Earth	-29022-11-02 22:33 J	-8878556.64	-8878556.56	-8878556.45	0.0137	0.0127 *
Earth	-29021-11-06 12:28 J	-8878187.22	-8878186.98	-8878186.71	0.0136	0.0029
Moon	-29021-11-06 16:04 J	-8878187.07	-8878186.83	-8878186.57	0.0136	0.0036 *
Moon	-29020-11-10 22:19 J	-8877817.78	-8877817.57	-8877817.35	0.0136	0.0075
Earth	-29020-11-11 02:09 J	-8877817.63	-8877817.41	-8877817.19	0.0136	0.0069 *
Mercury	-29017-03-26 05:02 J	-8876951.37	-8876951.29	-8876951.18	0.0135	0.0115
Mercury	-29017-06-22 11:16 J	-8876863.16	-8876863.03	-8876862.90	0.0135	0.0090
Mercury	-29017-09-18 17:02 J	-8876774.93	-8876774.79	-8876774.63	0.0135	0.0066
Mercury	-29017-12-15 23:02 J	-8876686.71	-8876686.54	-8876686.37	0.0135	0.0041
Mercury	-29016-03-14 04:47 J	-8876598.47	-8876598.30	-8876598.12	0.0134	0.0017
Mercury	-29016-06-10 10:33 J	-8876510.23	-8876510.06	-8876509.88	0.0134	0.0007
Mercury	-29016-09-06 16:19 J	-8876421.99	-8876421.82	-8876421.65	0.0134	0.0030
Mercury	-29016-12-03 21:50 J	-8876333.74	-8876333.59	-8876333.43	0.0134	0.0054
Mercury	-29015-03-02 03:21 J	-8876245.49	-8876245.36	-8876245.21	0.0134	0.0077
Mercury	-29015-05-29 08:38 J	-8876157.23	-8876157.14	-8876157.01	0.0134	0.0100
Mercury	-29015-08-25 14:23 J	-8876068.96	-8876068.90	-8876068.82	0.0134	0.0122
Mars	-29006-10-18 02:52 J	-8872728.70	-8872728.38	-8872728.05	0.0132	0.0003

29TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 29th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Jupiter	-28999-12-22 21:50 J		-8870105.79	-8870105.59	-8870105.39	0.0133	0.0121	
Venus	-28992-09-20 21:35 J		-8867641.60	-8867641.60	-8867641.58	0.0135	0.0135	
Venus	-28991-05-05 02:52 J		-8867415.46	-8867415.38	-8867415.26	0.0135	0.0119	
Venus	-28991-12-17 08:52 J		-8867189.26	-8867189.13	-8867188.99	0.0135	0.0102	
Venus	-28990-07-31 14:38 J		-8866963.06	-8866962.89	-8866962.73	0.0135	0.0086	
Venus	-28989-03-13 19:55 J		-8866736.84	-8866736.67	-8866736.47	0.0136	0.0070	
Venus	-28989-10-26 01:55 J		-8866510.62	-8866510.42	-8866510.22	0.0136	0.0052	
Venus	-28988-06-09 07:40 J		-8866284.38	-8866284.18	-8866283.97	0.0136	0.0035	
Venus	-28987-01-21 13:55 J		-8866058.13	-8866057.92	-8866057.71	0.0136	0.0018	
Venus	-28987-09-04 19:55 J		-8865831.88	-8865831.67	-8865831.45	0.0137	0.0002	
Venus	-28986-04-19 02:09 J		-8865605.62	-8865605.41	-8865605.20	0.0137	0.0017	
Venus	-28986-12-01 08:23 J		-8865379.35	-8865379.15	-8865378.94	0.0137	0.0035	
Venus	-28985-07-14 14:52 J		-8865153.08	-8865152.88	-8865152.68	0.0138	0.0053	
Venus	-28984-02-25 21:07 J		-8864926.79	-8864926.62	-8864926.42	0.0138	0.0071	
Venus	-28984-10-10 03:50 J		-8864700.49	-8864700.34	-8864700.16	0.0138	0.0089	
Venus	-28983-05-24 10:33 J		-8864474.18	-8864474.06	-8864473.91	0.0139	0.0107	
Venus	-28982-01-05 17:31 J		-8864247.85	-8864247.77	-8864247.66	0.0139	0.0124	
Earth	-28977-05-01 03:21 J		-8862305.44	-8862305.36	-8862305.25	0.0142	0.0131	
Moon	-28977-05-01 04:47 J		-8862305.36	-8862305.30	-8862305.21	0.0142	0.0135	*
Moon	-28976-05-05 19:55 J		-8861935.91	-8861935.67	-8861935.43	0.0142	0.0021	
Earth	-28976-05-05 21:07 J		-8861935.86	-8861935.62	-8861935.37	0.0142	0.0023	*

Earth	-28975-05-10 15:21 J	-8861566.04	-8861565.86	-8861565.64	0.0143	0.0088
Moon	-28975-05-10 17:31 J	-8861565.95	-8861565.77	-8861565.55	0.0143	0.0091 *
Mercury	-28974-12-02 16:19 J	-8860994.85	-8860994.82	-8860994.78	0.0144	0.0138
Mercury	-28973-02-28 20:23 J	-8860906.73	-8860906.65	-8860906.56	0.0144	0.0115
Mercury	-28973-05-27 00:28 J	-8860818.58	-8860818.48	-8860818.36	0.0144	0.0092
Mercury	-28973-08-23 04:47 J	-8860730.42	-8860730.30	-8860730.17	0.0144	0.0068
Mercury	-28973-11-19 09:07 J	-8860642.25	-8860642.12	-8860641.98	0.0144	0.0045
Mercury	-28972-02-15 13:26 J	-8860554.08	-8860553.94	-8860553.80	0.0144	0.0021
Mercury	-28972-05-14 17:45 J	-8860465.90	-8860465.76	-8860465.62	0.0144	0.0003
Mercury	-28972-08-10 22:04 J	-8860377.72	-8860377.58	-8860377.44	0.0144	0.0027
Mercury	-28972-11-07 02:23 J	-8860289.53	-8860289.40	-8860289.26	0.0144	0.0052
Mercury	-28971-02-03 06:43 J	-8860201.33	-8860201.22	-8860201.09	0.0144	0.0077
Mercury	-28971-05-02 11:16 J	-8860113.13	-8860113.03	-8860112.93	0.0145	0.0101
Mercury	-28971-07-29 15:35 J	-8860024.91	-8860024.85	-8860024.77	0.0145	0.0127
Mars	-28963-03-05 15:35 J	-8857249.14	-8857248.85	-8857248.56	0.0146	0.0021
Jupiter	-28957-05-08 06:43 J	-8854993.72	-8854993.22	-8854992.67	0.0146	0.0033
Venus	-28951-01-04 08:38 J	-8852926.20	-8852926.14	-8852926.05	0.0144	0.0135
Venus	-28951-08-18 20:38 J	-8852699.76	-8852699.64	-8852699.50	0.0143	0.0115
Venus	-28950-04-02 08:23 J	-8852473.30	-8852473.15	-8852472.97	0.0143	0.0094
Venus	-28950-11-14 20:09 J	-8852246.83	-8852246.66	-8852246.46	0.0143	0.0074
Venus	-28949-06-28 08:09 J	-8852020.36	-8852020.16	-8852019.95	0.0143	0.0053
Venus	-28948-02-09 19:55 J	-8851793.88	-8851793.67	-8851793.45	0.0142	0.0033
Venus	-28948-09-24 07:26 J	-8851567.41	-8851567.19	-8851566.97	0.0142	0.0013
Venus	-28947-05-08 18:57 J	-8851340.93	-8851340.71	-8851340.49	0.0142	0.0008
Venus	-28947-12-21 06:14 J	-8851114.46	-8851114.24	-8851114.02	0.0141	0.0028
Venus	-28946-08-04 17:31 J	-8850887.97	-8850887.77	-8850887.56	0.0141	0.0048
Venus	-28945-03-18 04:33 J	-8850661.50	-8850661.31	-8850661.11	0.0141	0.0068
Venus	-28945-10-30 15:21 J	-8850435.02	-8850434.86	-8850434.67	0.0140	0.0087
Venus	-28944-06-14 02:23 J	-8850208.53	-8850208.40	-8850208.24	0.0140	0.0106
Venus	-28943-01-26 13:11 J	-8849982.04	-8849981.95	-8849981.84	0.0140	0.0125

Moon	-28938-11-03 03:35 J	-8847875.41	-8847875.35	-8847875.25	0.0137	0.0129
Earth	-28938-11-03 06:57 J	-8847875.30	-8847875.21	-8847875.08	0.0137	0.0123 *
Earth	-28937-11-06 21:21 J	-8847505.86	-8847505.61	-8847505.35	0.0136	0.0025
Moon	-28937-11-07 01:11 J	-8847505.70	-8847505.45	-8847505.19	0.0136	0.0017 *
Moon	-28936-11-11 06:57 J	-8847136.42	-8847136.21	-8847135.98	0.0136	0.0066
Earth	-28936-11-11 10:33 J	-8847136.26	-8847136.06	-8847135.83	0.0136	0.0073 *
Mercury	-28933-01-18 05:59 J	-8846338.26	-8846338.25	-8846338.23	0.0135	0.0134
Mercury	-28933-04-15 11:45 J	-8846250.10	-8846250.01	-8846249.89	0.0135	0.0110
Mercury	-28933-07-12 17:59 J	-8846161.88	-8846161.75	-8846161.61	0.0135	0.0085
Mercury	-28933-10-08 23:45 J	-8846073.66	-8846073.51	-8846073.34	0.0135	0.0061
Mercury	-28932-01-05 05:45 J	-8845985.43	-8845985.26	-8845985.09	0.0134	0.0036
Mercury	-28932-04-03 11:31 J	-8845897.19	-8845897.02	-8845896.84	0.0134	0.0012
Mercury	-28932-06-30 17:16 J	-8845808.95	-8845808.78	-8845808.60	0.0134	0.0012
Mercury	-28932-09-26 23:02 J	-8845720.70	-8845720.54	-8845720.37	0.0134	0.0036
Mercury	-28932-12-24 04:33 J	-8845632.46	-8845632.31	-8845632.15	0.0134	0.0059
Mercury	-28931-03-22 10:04 J	-8845544.20	-8845544.08	-8845543.93	0.0134	0.0082
Mercury	-28931-06-18 15:35 J	-8845455.94	-8845455.85	-8845455.73	0.0134	0.0105
Mercury	-28931-09-14 21:07 J	-8845367.66	-8845367.62	-8845367.56	0.0134	0.0128
Mars	-28921-06-12 03:50 J	-8841809.60	-8841809.34	-8841809.07	0.0132	0.0080
Venus	-28907-01-02 12:28 J	-8836857.04	-8836856.98	-8836856.89	0.0135	0.0126
Venus	-28907-08-16 17:59 J	-8836630.86	-8836630.75	-8836630.61	0.0135	0.0110
Venus	-28906-03-30 23:45 J	-8836404.66	-8836404.51	-8836404.35	0.0135	0.0093
Venus	-28906-11-12 05:16 J	-8836178.44	-8836178.28	-8836178.09	0.0135	0.0077
Venus	-28905-06-25 11:16 J	-8835952.22	-8835952.03	-8835951.83	0.0136	0.0060
Venus	-28904-02-06 17:16 J	-8835725.98	-8835725.78	-8835725.57	0.0136	0.0042
Venus	-28904-09-20 23:16 J	-8835499.74	-8835499.53	-8835499.32	0.0136	0.0025
Venus	-28903-05-05 05:16 J	-8835273.49	-8835273.28	-8835273.06	0.0137	0.0008
Venus	-28903-12-17 11:31 J	-8835047.23	-8835047.02	-8835046.80	0.0137	0.0011
Venus	-28902-07-31 17:45 J	-8834820.96	-8834820.76	-8834820.54	0.0137	0.0028
Venus	-28901-03-13 23:59 J	-8834594.69	-8834594.50	-8834594.29	0.0137	0.0047

Venus	-28901-10-26 06:28 J	-8834368.41	-8834368.23	-8834368.03	0.0138	0.0064
Venus	-28900-06-09 12:57 J	-8834142.12	-8834141.96	-8834141.77	0.0138	0.0082
Venus	-28899-01-21 20:09 J	-8833915.81	-8833915.66	-8833915.51	0.0138	0.0100
Venus	-28899-09-05 02:38 J	-8833689.49	-8833689.39	-8833689.27	0.0139	0.0118
Venus	-28898-04-19 09:35 J	-8833463.14	-8833463.10	-8833463.05	0.0139	0.0136
Moon	-28893-05-01 13:40 J	-8831624.05	-8831623.93	-8831623.77	0.0142	0.0120
Earth	-28893-05-01 13:26 J	-8831624.04	-8831623.94	-8831623.81	0.0142	0.0126 *
Moon	-28892-05-06 06:28 J	-8831254.47	-8831254.23	-8831253.99	0.0142	0.0019
Earth	-28892-05-06 07:26 J	-8831254.44	-8831254.19	-8831253.94	0.0142	0.0017 *
Earth	-28891-05-11 01:55 J	-8830884.60	-8830884.42	-8830884.22	0.0143	0.0093
Moon	-28891-05-11 03:35 J	-8830884.55	-8830884.35	-8830884.15	0.0143	0.0090 *
Mercury	-28890-12-22 23:31 J	-8830293.56	-8830293.52	-8830293.46	0.0144	0.0132
Mercury	-28889-03-20 03:35 J	-8830205.43	-8830205.35	-8830205.25	0.0144	0.0109
Mercury	-28889-06-16 08:09 J	-8830117.28	-8830117.16	-8830117.05	0.0144	0.0085
Mercury	-28889-09-12 12:14 J	-8830029.12	-8830028.99	-8830028.86	0.0144	0.0062
Mercury	-28889-12-09 16:33 J	-8829940.95	-8829940.81	-8829940.68	0.0144	0.0038
Mercury	-28888-03-07 20:38 J	-8829852.78	-8829852.64	-8829852.49	0.0144	0.0015
Mercury	-28888-06-04 00:57 J	-8829764.60	-8829764.46	-8829764.31	0.0144	0.0011
Mercury	-28888-08-31 05:16 J	-8829676.41	-8829676.28	-8829676.13	0.0144	0.0035
Mercury	-28888-11-27 09:50 J	-8829588.22	-8829588.09	-8829587.96	0.0144	0.0059
Mercury	-28887-02-23 14:09 J	-8829500.02	-8829499.91	-8829499.79	0.0144	0.0084
Mercury	-28887-05-22 18:28 J	-8829411.81	-8829411.73	-8829411.63	0.0145	0.0109
Mercury	-28887-08-18 23:02 J	-8829323.58	-8829323.54	-8829323.48	0.0145	0.0134
Mars	-28879-10-29 21:21 J	-8826329.77	-8826329.61	-8826329.42	0.0146	0.0114
Venus	-28868-09-03 14:52 J	-8822367.88	-8822367.88	-8822367.86	0.0144	0.0144
Venus	-28867-04-18 02:38 J	-8822141.48	-8822141.39	-8822141.26	0.0144	0.0124
Venus	-28867-11-30 14:38 J	-8821915.03	-8821914.89	-8821914.73	0.0143	0.0103
Venus	-28866-07-15 02:38 J	-8821688.56	-8821688.39	-8821688.20	0.0143	0.0083
Venus	-28865-02-26 14:38 J	-8821462.09	-8821461.89	-8821461.69	0.0143	0.0062
Venus	-28865-10-10 02:09 J	-8821235.62	-8821235.41	-8821235.19	0.0142	0.0042

Venus	-28864-05-24 13:55 J	-8821009.14	-8821008.92	-8821008.70	0.0142	0.0021
Venus	-28863-01-06 01:26 J	-8820782.66	-8820782.44	-8820782.22	0.0142	0.0000
Venus	-28863-08-20 12:43 J	-8820556.18	-8820555.97	-8820555.74	0.0141	0.0021
Venus	-28862-04-03 23:59 J	-8820329.71	-8820329.50	-8820329.28	0.0141	0.0040
Venus	-28862-11-16 11:16 J	-8820103.23	-8820103.03	-8820102.83	0.0141	0.0060
Venus	-28861-06-29 22:33 J	-8819876.74	-8819876.56	-8819876.38	0.0140	0.0080
Venus	-28860-02-11 09:21 J	-8819650.26	-8819650.11	-8819649.95	0.0140	0.0099
Venus	-28860-09-25 20:09 J	-8819423.77	-8819423.66	-8819423.54	0.0140	0.0118
Venus	-28859-05-10 06:43 J	-8819197.25	-8819197.22	-8819197.17	0.0139	0.0137
Moon	-28854-11-03 13:11 J	-8817194.08	-8817193.95	-8817193.79	0.0137	0.0112
Earth	-28854-11-03 17:02 J	-8817193.92	-8817193.79	-8817193.66	0.0137	0.0118 *
Earth	-28853-11-07 06:57 J	-8816824.47	-8816824.21	-8816823.96	0.0136	0.0020
Moon	-28853-11-07 10:04 J	-8816824.33	-8816824.08	-8816823.82	0.0136	0.0027 *
Moon	-28852-11-11 16:19 J	-8816455.01	-8816454.82	-8816454.61	0.0136	0.0084
Earth	-28852-11-11 20:09 J	-8816454.87	-8816454.66	-8816454.45	0.0136	0.0077 *
Mercury	-28849-02-07 12:57 J	-8815637.01	-8815636.96	-8815636.91	0.0135	0.0128
Mercury	-28849-05-05 18:43 J	-8815548.82	-8815548.72	-8815548.60	0.0135	0.0104
Mercury	-28849-08-02 00:43 J	-8815460.60	-8815460.47	-8815460.32	0.0135	0.0079
Mercury	-28849-10-29 06:43 J	-8815372.37	-8815372.22	-8815372.05	0.0134	0.0054
Mercury	-28848-01-25 12:43 J	-8815284.14	-8815283.97	-8815283.80	0.0134	0.0030
Mercury	-28848-04-23 18:28 J	-8815195.90	-8815195.73	-8815195.55	0.0134	0.0006
Mercury	-28848-07-21 00:14 J	-8815107.66	-8815107.49	-8815107.31	0.0134	0.0018
Mercury	-28848-10-17 05:59 J	-8815019.41	-8815019.25	-8815019.08	0.0134	0.0041
Mercury	-28847-01-13 11:31 J	-8814931.16	-8814931.02	-8814930.86	0.0134	0.0065
Mercury	-28847-04-11 17:02 J	-8814842.91	-8814842.79	-8814842.65	0.0134	0.0088
Mercury	-28847-07-08 22:33 J	-8814754.64	-8814754.56	-8814754.45	0.0134	0.0111
Mercury	-28847-10-05 04:19 J	-8814666.33	-8814666.32	-8814666.31	0.0134	0.0133
Mars	-28838-03-05 07:40 J	-8811593.44	-8811593.18	-8811592.87	0.0132	0.0067
Venus	-28824-09-01 21:07 J	-8806298.63	-8806298.62	-8806298.57	0.0135	0.0134
Venus	-28823-04-16 02:52 J	-8806072.47	-8806072.38	-8806072.26	0.0135	0.0117

Venus	-28823-11-28 08:23 J	-8805846.28	-8805846.15	-8805845.99	0.0135	0.0101
Venus	-28822-07-12 14:09 J	-8805620.06	-8805619.91	-8805619.73	0.0135	0.0084
Venus	-28821-02-23 20:09 J	-8805393.84	-8805393.66	-8805393.47	0.0136	0.0067
Venus	-28821-10-07 01:55 J	-8805167.61	-8805167.42	-8805167.21	0.0136	0.0050
Venus	-28820-05-21 07:55 J	-8804941.37	-8804941.17	-8804940.96	0.0136	0.0033
Venus	-28819-01-02 14:09 J	-8804715.12	-8804714.91	-8804714.69	0.0136	0.0015
Venus	-28819-08-16 20:23 J	-8804488.87	-8804488.65	-8804488.44	0.0137	0.0003
Venus	-28818-03-31 02:23 J	-8804262.60	-8804262.40	-8804262.18	0.0137	0.0021
Venus	-28818-11-12 08:52 J	-8804036.34	-8804036.13	-8804035.92	0.0137	0.0039
Venus	-28817-06-25 15:07 J	-8803810.06	-8803809.87	-8803809.67	0.0138	0.0057
Venus	-28816-02-06 21:50 J	-8803583.76	-8803583.59	-8803583.40	0.0138	0.0075
Venus	-28816-09-21 04:19 J	-8803357.46	-8803357.32	-8803357.15	0.0138	0.0093
Venus	-28815-05-05 11:16 J	-8803131.15	-8803131.03	-8803130.90	0.0139	0.0111
Venus	-28815-12-17 17:45 J	-8802904.82	-8802904.76	-8802904.67	0.0139	0.0129
Earth	-28809-05-01 22:47 J	-8800942.66	-8800942.55	-8800942.41	0.0142	0.0121
Moon	-28809-05-01 22:47 J	-8800942.64	-8800942.55	-8800942.41	0.0142	0.0126 *
Moon	-28808-05-06 16:33 J	-8800573.05	-8800572.81	-8800572.56	0.0142	0.0010
Earth	-28808-05-06 16:47 J	-8800573.05	-8800572.80	-8800572.55	0.0142	0.0013 *
Earth	-28807-05-11 11:45 J	-8800203.19	-8800203.01	-8800202.82	0.0143	0.0097
Moon	-28807-05-11 12:28 J	-8800203.16	-8800202.98	-8800202.78	0.0143	0.0099 *
Mercury	-28805-01-12 06:43 J	-8799592.28	-8799592.22	-8799592.14	0.0144	0.0126
Mercury	-28805-04-09 10:47 J	-8799504.13	-8799504.05	-8799503.94	0.0144	0.0103
Mercury	-28805-07-06 15:21 J	-8799415.98	-8799415.86	-8799415.75	0.0144	0.0079
Mercury	-28805-10-02 19:26 J	-8799327.82	-8799327.69	-8799327.56	0.0144	0.0056
Mercury	-28805-12-29 23:45 J	-8799239.65	-8799239.51	-8799239.37	0.0144	0.0032
Mercury	-28804-03-28 04:04 J	-8799151.47	-8799151.33	-8799151.19	0.0144	0.0008
Mercury	-28804-06-24 08:23 J	-8799063.29	-8799063.15	-8799063.01	0.0144	0.0016
Mercury	-28804-09-20 12:43 J	-8798975.11	-8798974.97	-8798974.83	0.0144	0.0041
Mercury	-28804-12-17 17:02 J	-8798886.92	-8798886.79	-8798886.66	0.0144	0.0065
Mercury	-28803-03-15 21:35 J	-8798798.71	-8798798.60	-8798798.49	0.0145	0.0090

Mercury	-28803-06-12 01:55 J	-8798710.50	-8798710.42	-8798710.33	0.0145	0.0115
Mercury	-28803-09-08 06:28 J	-8798622.26	-8798622.23	-8798622.20	0.0145	0.0140
Mars	-28796-07-22 18:57 J	-8796112.97	-8796112.71	-8796112.43	0.0146	0.0059
Venus	-28784-12-16 09:50 J	-8791583.17	-8791583.09	-8791583.00	0.0144	0.0132
Venus	-28783-07-30 21:35 J	-8791356.73	-8791356.60	-8791356.45	0.0143	0.0112
Venus	-28782-03-14 09:21 J	-8791130.27	-8791130.11	-8791129.93	0.0143	0.0092
Venus	-28782-10-26 21:07 J	-8790903.80	-8790903.62	-8790903.42	0.0143	0.0071
Venus	-28781-06-09 09:07 J	-8790677.32	-8790677.12	-8790676.91	0.0143	0.0050
Venus	-28780-01-21 20:52 J	-8790450.84	-8790450.63	-8790450.41	0.0142	0.0029
Venus	-28780-09-05 08:23 J	-8790224.37	-8790224.15	-8790223.93	0.0142	0.0009
Venus	-28779-04-19 19:55 J	-8789997.89	-8789997.67	-8789997.45	0.0142	0.0012
Venus	-28779-12-02 07:11 J	-8789771.41	-8789771.20	-8789770.98	0.0141	0.0033
Venus	-28778-07-16 18:28 J	-8789544.93	-8789544.73	-8789544.52	0.0141	0.0053
Venus	-28777-02-28 05:31 J	-8789318.45	-8789318.27	-8789318.07	0.0141	0.0073
Venus	-28777-10-11 16:33 J	-8789091.97	-8789091.81	-8789091.63	0.0140	0.0092
Venus	-28776-05-26 03:35 J	-8788865.48	-8788865.35	-8788865.22	0.0140	0.0111
Venus	-28775-01-07 13:55 J	-8788638.98	-8788638.92	-8788638.82	0.0140	0.0131
Moon	-28770-11-04 00:14 J	-8786512.61	-8786512.49	-8786512.36	0.0137	0.0118
Earth	-28770-11-04 02:38 J	-8786512.51	-8786512.39	-8786512.22	0.0137	0.0113 *
Earth	-28769-11-07 17:16 J	-8786143.04	-8786142.78	-8786142.53	0.0136	0.0015
Moon	-28769-11-07 20:38 J	-8786142.90	-8786142.64	-8786142.38	0.0136	0.0007 *
Moon	-28768-11-12 02:52 J	-8785773.57	-8785773.38	-8785773.15	0.0136	0.0076
Earth	-28768-11-12 06:14 J	-8785773.43	-8785773.24	-8785773.02	0.0136	0.0083 *
Mercury	-28765-02-27 19:40 J	-8784935.73	-8784935.68	-8784935.59	0.0135	0.0122
Mercury	-28765-05-26 01:55 J	-8784847.53	-8784847.42	-8784847.29	0.0135	0.0097
Mercury	-28765-08-22 08:09 J	-8784759.31	-8784759.16	-8784759.01	0.0134	0.0072
Mercury	-28765-11-18 13:55 J	-8784671.08	-8784670.92	-8784670.75	0.0134	0.0048
Mercury	-28764-02-14 19:55 J	-8784582.84	-8784582.67	-8784582.50	0.0134	0.0023
Mercury	-28764-05-14 01:40 J	-8784494.60	-8784494.43	-8784494.26	0.0134	0.0001
Mercury	-28764-08-10 07:26 J	-8784406.36	-8784406.19	-8784406.02	0.0134	0.0024

Mercury	-28764-11-06 12:57 J	-8784318.11	-8784317.96	-8784317.79	0.0134	0.0048
Mercury	-28763-02-02 18:43 J	-8784229.86	-8784229.72	-8784229.57	0.0134	0.0071
Mercury	-28763-05-02 00:14 J	-8784141.60	-8784141.49	-8784141.36	0.0134	0.0094
Mercury	-28763-07-29 05:45 J	-8784053.33	-8784053.26	-8784053.17	0.0134	0.0117
Mars	-28754-10-29 09:50 J	-8780674.41	-8780674.09	-8780673.75	0.0132	0.0012
Venus	-28740-12-14 11:59 J	-8775514.07	-8775514.00	-8775513.91	0.0135	0.0125
Venus	-28739-07-28 17:45 J	-8775287.88	-8775287.76	-8775287.63	0.0135	0.0108
Venus	-28738-03-11 23:16 J	-8775061.68	-8775061.53	-8775061.36	0.0135	0.0092
Venus	-28738-10-24 05:02 J	-8774835.46	-8774835.29	-8774835.10	0.0135	0.0075
Venus	-28737-06-06 10:47 J	-8774609.23	-8774609.05	-8774608.84	0.0136	0.0058
Venus	-28736-01-18 17:02 J	-8774382.99	-8774382.79	-8774382.58	0.0136	0.0040
Venus	-28736-09-01 23:02 J	-8774156.75	-8774156.54	-8774156.33	0.0136	0.0022
Venus	-28735-04-16 05:02 J	-8773930.50	-8773930.29	-8773930.07	0.0137	0.0005
Venus	-28735-11-28 11:16 J	-8773704.24	-8773704.03	-8773703.81	0.0137	0.0014
Venus	-28734-07-12 17:31 J	-8773477.97	-8773477.77	-8773477.56	0.0137	0.0032
Venus	-28733-02-23 23:59 J	-8773251.70	-8773251.50	-8773251.30	0.0138	0.0050
Venus	-28733-10-07 06:14 J	-8773025.42	-8773025.24	-8773025.04	0.0138	0.0068
Venus	-28732-05-21 12:43 J	-8772799.12	-8772798.97	-8772798.79	0.0138	0.0086
Venus	-28731-01-02 19:26 J	-8772572.82	-8772572.69	-8772572.54	0.0138	0.0105
Venus	-28731-08-17 02:23 J	-8772346.49	-8772346.40	-8772346.30	0.0139	0.0122
Moon	-28725-05-02 06:43 J	-8770261.38	-8770261.22	-8770261.05	0.0142	0.0110
Earth	-28725-05-02 07:40 J	-8770261.31	-8770261.18	-8770261.03	0.0142	0.0117 *
Earth	-28724-05-07 01:40 J	-8769891.68	-8769891.43	-8769891.18	0.0142	0.0009
Moon	-28724-05-07 01:55 J	-8769891.67	-8769891.42	-8769891.18	0.0142	0.0012 *
Earth	-28723-05-11 20:38 J	-8769521.81	-8769521.64	-8769521.46	0.0143	0.0101
Moon	-28723-05-11 20:38 J	-8769521.81	-8769521.64	-8769521.44	0.0143	0.0100 *
Mercury	-28722-11-05 09:50 J	-8768979.09	-8768979.09	-8768979.08	0.0144	0.0143
Mercury	-28721-02-01 13:40 J	-8768890.99	-8768890.93	-8768890.84	0.0144	0.0121
Mercury	-28721-04-29 17:59 J	-8768802.85	-8768802.75	-8768802.64	0.0144	0.0097
Mercury	-28721-07-26 22:19 J	-8768714.69	-8768714.57	-8768714.45	0.0144	0.0074

Mercury	-28721-10-23 02:23 J	-8768626.53	-8768626.40	-8768626.26	0.0144	0.0051
Mercury	-28720-01-19 06:43 J	-8768538.36	-8768538.22	-8768538.08	0.0144	0.0027
Mercury	-28720-04-17 11:02 J	-8768450.18	-8768450.04	-8768449.90	0.0144	0.0003
Mercury	-28720-07-14 15:21 J	-8768362.00	-8768361.86	-8768361.72	0.0144	0.0021
Mercury	-28720-10-10 19:40 J	-8768273.81	-8768273.68	-8768273.54	0.0144	0.0046
Mercury	-28719-01-06 23:59 J	-8768185.62	-8768185.50	-8768185.37	0.0144	0.0071
Mercury	-28719-04-05 04:19 J	-8768097.42	-8768097.32	-8768097.20	0.0145	0.0096
Mercury	-28719-07-02 08:52 J	-8768009.20	-8768009.13	-8768009.05	0.0145	0.0120
Mars	-28711-03-17 23:59 J	-8765193.78	-8765193.50	-8765193.21	0.0146	0.0035
Venus	-28700-08-15 16:19 J	-8761024.85	-8761024.82	-8761024.78	0.0144	0.0141
Venus	-28699-03-30 04:04 J	-8760798.44	-8760798.33	-8760798.20	0.0144	0.0121
Venus	-28699-11-11 15:50 J	-8760571.98	-8760571.84	-8760571.67	0.0143	0.0101
Venus	-28698-06-26 04:04 J	-8760345.50	-8760345.33	-8760345.14	0.0143	0.0079
Venus	-28697-02-07 15:50 J	-8760119.03	-8760118.84	-8760118.63	0.0143	0.0059
Venus	-28697-09-21 03:35 J	-8759892.56	-8759892.35	-8759892.13	0.0142	0.0038
Venus	-28696-05-05 15:21 J	-8759666.08	-8759665.86	-8759665.64	0.0142	0.0017
Venus	-28696-12-18 02:52 J	-8759439.60	-8759439.38	-8759439.16	0.0142	0.0004
Venus	-28695-08-01 14:23 J	-8759213.12	-8759212.90	-8759212.68	0.0141	0.0025
Venus	-28694-03-16 01:26 J	-8758986.64	-8758986.44	-8758986.22	0.0141	0.0046
Venus	-28694-10-28 12:57 J	-8758760.16	-8758759.96	-8758759.77	0.0141	0.0065
Venus	-28693-06-10 23:31 J	-8758533.68	-8758533.52	-8758533.33	0.0140	0.0086
Venus	-28692-01-23 10:47 J	-8758307.19	-8758307.05	-8758306.90	0.0140	0.0105
Venus	-28692-09-06 21:21 J	-8758080.70	-8758080.61	-8758080.50	0.0140	0.0124
Moon	-28686-11-04 10:19 J	-8755831.22	-8755831.07	-8755830.89	0.0137	0.0102
Earth	-28686-11-04 13:40 J	-8755831.09	-8755830.93	-8755830.78	0.0137	0.0107 *
Earth	-28685-11-08 03:35 J	-8755461.61	-8755461.35	-8755461.09	0.0136	0.0009
Moon	-28685-11-08 06:14 J	-8755461.50	-8755461.24	-8755460.97	0.0136	0.0016 *
Moon	-28684-11-12 13:40 J	-8755092.11	-8755091.93	-8755091.75	0.0136	0.0094
Earth	-28684-11-12 16:33 J	-8755091.99	-8755091.81	-8755091.60	0.0136	0.0088 *
Mercury	-28681-03-19 02:52 J	-8754234.45	-8754234.38	-8754234.27	0.0135	0.0115

Mercury	-28681-06-15 09:07 J	-8754146.24	-8754146.12	-8754145.98	0.0135	0.0090
Mercury	-28681-09-11 15:07 J	-8754058.02	-8754057.87	-8754057.71	0.0134	0.0065
Mercury	-28681-12-08 21:07 J	-8753969.79	-8753969.62	-8753969.45	0.0134	0.0041
Mercury	-28680-03-07 02:52 J	-8753881.55	-8753881.38	-8753881.20	0.0134	0.0017
Mercury	-28680-06-03 08:52 J	-8753793.31	-8753793.13	-8753792.96	0.0134	0.0008
Mercury	-28680-08-30 14:23 J	-8753705.06	-8753704.90	-8753704.72	0.0134	0.0031
Mercury	-28680-11-26 20:09 J	-8753616.81	-8753616.66	-8753616.50	0.0134	0.0054
Mercury	-28679-02-23 01:40 J	-8753528.56	-8753528.43	-8753528.28	0.0134	0.0078
Mercury	-28679-05-22 07:11 J	-8753440.30	-8753440.20	-8753440.08	0.0134	0.0101
Mercury	-28679-08-18 12:57 J	-8753352.02	-8753351.96	-8753351.89	0.0134	0.0123
Mars	-28671-07-21 16:04 J	-8750457.83	-8750457.83	-8750457.79	0.0132	0.0132
Mars	-28669-06-23 10:19 J	-8749755.29	-8749755.07	-8749754.80	0.0132	0.0089
Venus	-28656-08-13 20:09 J	-8744955.67	-8744955.66	-8744955.60	0.0135	0.0133
Venus	-28655-03-28 01:55 J	-8744729.52	-8744729.42	-8744729.30	0.0135	0.0116
Venus	-28655-11-09 07:40 J	-8744503.32	-8744503.18	-8744503.03	0.0135	0.0099
Venus	-28654-06-23 13:11 J	-8744277.11	-8744276.95	-8744276.77	0.0135	0.0083
Venus	-28653-02-04 18:57 J	-8744050.88	-8744050.71	-8744050.51	0.0136	0.0066
Venus	-28653-09-18 00:57 J	-8743824.65	-8743824.46	-8743824.25	0.0136	0.0048
Venus	-28652-05-02 06:57 J	-8743598.41	-8743598.21	-8743598.00	0.0136	0.0030
Venus	-28652-12-14 13:11 J	-8743372.17	-8743371.95	-8743371.74	0.0136	0.0012
Venus	-28651-07-28 19:11 J	-8743145.91	-8743145.70	-8743145.48	0.0137	0.0006
Venus	-28650-03-12 01:11 J	-8742919.65	-8742919.45	-8742919.23	0.0137	0.0024
Venus	-28650-10-24 07:26 J	-8742693.39	-8742693.19	-8742692.98	0.0137	0.0042
Venus	-28649-06-06 13:40 J	-8742467.11	-8742466.93	-8742466.73	0.0138	0.0061
Venus	-28648-01-18 20:09 J	-8742240.82	-8742240.66	-8742240.47	0.0138	0.0079
Venus	-28648-09-02 03:07 J	-8742014.52	-8742014.37	-8742014.22	0.0138	0.0097
Venus	-28647-04-16 09:35 J	-8741788.21	-8741788.10	-8741787.98	0.0139	0.0115
Venus	-28647-11-28 16:19 J	-8741561.87	-8741561.82	-8741561.75	0.0139	0.0133
Moon	-28641-05-02 13:40 J	-8739580.06	-8739579.93	-8739579.79	0.0142	0.0120
Earth	-28641-05-02 14:23 J	-8739580.02	-8739579.90	-8739579.73	0.0142	0.0115 *

Earth	-28640-05-07 08:52 J	-8739210.38	-8739210.13	-8739209.88	0.0142	0.0007
Moon	-28640-05-07 09:50 J	-8739210.33	-8739210.09	-8739209.84	0.0142	0.0004 *
Moon	-28639-05-12 03:21 J	-8738840.53	-8738840.36	-8738840.17	0.0143	0.0103
Earth	-28639-05-12 03:50 J	-8738840.50	-8738840.34	-8738840.16	0.0143	0.0103 *
Mercury	-28638-11-25 16:33 J	-8738277.84	-8738277.81	-8738277.78	0.0144	0.0140
Mercury	-28637-02-21 20:38 J	-8738189.72	-8738189.64	-8738189.56	0.0144	0.0117
Mercury	-28637-05-20 00:43 J	-8738101.57	-8738101.47	-8738101.36	0.0144	0.0094
Mercury	-28637-08-16 05:02 J	-8738013.41	-8738013.29	-8738013.17	0.0144	0.0070
Mercury	-28637-11-12 09:07 J	-8737925.25	-8737925.12	-8737924.98	0.0144	0.0047
Mercury	-28636-02-08 13:26 J	-8737837.08	-8737836.94	-8737836.80	0.0144	0.0023
Mercury	-28636-05-07 17:45 J	-8737748.90	-8737748.76	-8737748.62	0.0144	0.0001
Mercury	-28636-08-03 22:04 J	-8737660.72	-8737660.58	-8737660.44	0.0144	0.0025
Mercury	-28636-10-31 02:23 J	-8737572.53	-8737572.40	-8737572.26	0.0144	0.0050
Mercury	-28635-01-27 06:43 J	-8737484.34	-8737484.22	-8737484.09	0.0145	0.0074
Mercury	-28635-04-25 11:16 J	-8737396.13	-8737396.03	-8737395.93	0.0145	0.0099
Mercury	-28635-07-22 15:35 J	-8737307.92	-8737307.85	-8737307.77	0.0145	0.0124
Mars	-28629-12-08 13:11 J	-8734976.98	-8734976.95	-8734976.86	0.0146	0.0144
Mars	-28627-11-11 01:11 J	-8734274.57	-8734274.45	-8734274.27	0.0146	0.0126
Venus	-28616-11-27 09:50 J	-8730240.16	-8730240.09	-8730239.98	0.0144	0.0131
Venus	-28615-07-11 22:04 J	-8730013.71	-8730013.58	-8730013.43	0.0144	0.0110
Venus	-28614-02-23 10:19 J	-8729787.24	-8729787.07	-8729786.90	0.0143	0.0089
Venus	-28614-10-07 22:04 J	-8729560.77	-8729560.58	-8729560.38	0.0143	0.0068
Venus	-28613-05-21 09:50 J	-8729334.29	-8729334.09	-8729333.87	0.0143	0.0047
Venus	-28612-01-02 21:50 J	-8729107.81	-8729107.59	-8729107.37	0.0142	0.0025
Venus	-28612-08-17 09:21 J	-8728881.33	-8728881.11	-8728880.88	0.0142	0.0005
Venus	-28611-03-31 20:52 J	-8728654.85	-8728654.63	-8728654.41	0.0142	0.0017
Venus	-28611-11-13 08:09 J	-8728428.37	-8728428.16	-8728427.94	0.0141	0.0037
Venus	-28610-06-27 19:26 J	-8728201.88	-8728201.69	-8728201.48	0.0141	0.0058
Venus	-28609-02-09 06:43 J	-8727975.40	-8727975.22	-8727975.03	0.0141	0.0078
Venus	-28609-09-22 17:45 J	-8727748.91	-8727748.76	-8727748.60	0.0140	0.0098

Venus	-28608-05-07 04:19 J	-8727522.43	-8727522.32	-8727522.19	0.0140	0.0117
Venus	-28608-12-19 15:07 J	-8727295.91	-8727295.87	-8727295.81	0.0140	0.0136
Moon	-28602-11-04 21:50 J	-8725149.74	-8725149.59	-8725149.43	0.0137	0.0106
Earth	-28602-11-04 23:31 J	-8725149.68	-8725149.52	-8725149.33	0.0137	0.0102 *
Earth	-28601-11-08 13:55 J	-8724780.17	-8724779.92	-8724779.66	0.0136	0.0004
Moon	-28601-11-08 16:47 J	-8724780.06	-8724779.80	-8724779.53	0.0136	0.0004 *
Moon	-28600-11-13 00:43 J	-8724410.66	-8724410.47	-8724410.27	0.0136	0.0086
Earth	-28600-11-13 03:21 J	-8724410.54	-8724410.36	-8724410.17	0.0136	0.0093 *
Mercury	-28597-01-11 04:33 J	-8723621.34	-8723621.31	-8723621.28	0.0135	0.0132
Mercury	-28597-04-08 10:19 J	-8723533.17	-8723533.07	-8723532.96	0.0135	0.0107
Mercury	-28597-07-05 16:19 J	-8723444.95	-8723444.82	-8723444.67	0.0135	0.0083
Mercury	-28597-10-01 22:19 J	-8723356.72	-8723356.57	-8723356.40	0.0134	0.0058
Mercury	-28597-12-29 04:19 J	-8723268.49	-8723268.32	-8723268.15	0.0134	0.0034
Mercury	-28596-03-27 10:04 J	-8723180.25	-8723180.08	-8723179.90	0.0134	0.0011
Mercury	-28596-06-23 16:04 J	-8723092.01	-8723091.83	-8723091.66	0.0134	0.0014
Mercury	-28596-09-19 21:35 J	-8723003.76	-8723003.60	-8723003.43	0.0134	0.0038
Mercury	-28596-12-17 03:21 J	-8722915.51	-8722915.36	-8722915.20	0.0134	0.0061
Mercury	-28595-03-15 09:07 J	-8722827.25	-8722827.12	-8722826.99	0.0134	0.0084
Mercury	-28595-06-11 14:38 J	-8722738.99	-8722738.89	-8722738.79	0.0134	0.0107
Mercury	-28595-09-07 19:55 J	-8722650.70	-8722650.67	-8722650.62	0.0134	0.0130
Mars	-28586-03-16 18:57 J	-8719539.00	-8719538.71	-8719538.41	0.0132	0.0054
Venus	-28572-11-25 11:16 J	-8714171.10	-8714171.03	-8714170.94	0.0135	0.0124
Venus	-28571-07-09 16:47 J	-8713944.92	-8713944.80	-8713944.66	0.0135	0.0107
Venus	-28570-02-20 22:33 J	-8713718.71	-8713718.56	-8713718.39	0.0135	0.0090
Venus	-28570-10-05 04:19 J	-8713492.50	-8713492.32	-8713492.13	0.0135	0.0073
Venus	-28569-05-18 10:04 J	-8713266.27	-8713266.08	-8713265.88	0.0136	0.0055
Venus	-28569-12-30 16:04 J	-8713040.03	-8713039.83	-8713039.62	0.0136	0.0038
Venus	-28568-08-13 22:04 J	-8712813.79	-8712813.58	-8712813.37	0.0136	0.0020
Venus	-28567-03-28 04:04 J	-8712587.55	-8712587.33	-8712587.12	0.0136	0.0003
Venus	-28567-11-09 10:04 J	-8712361.29	-8712361.08	-8712360.87	0.0137	0.0016

Venus	-28566-06-23 16:19 J	-8712135.03	-8712134.82	-8712134.62	0.0137	0.0035
Venus	-28565-02-04 22:33 J	-8711908.76	-8711908.56	-8711908.36	0.0137	0.0053
Venus	-28565-09-18 04:47 J	-8711682.48	-8711682.30	-8711682.11	0.0138	0.0071
Venus	-28564-05-02 11:16 J	-8711456.19	-8711456.03	-8711455.87	0.0138	0.0089
Venus	-28564-12-14 17:45 J	-8711229.89	-8711229.76	-8711229.62	0.0138	0.0108
Venus	-28563-07-29 00:28 J	-8711003.56	-8711003.48	-8711003.39	0.0139	0.0126
Moon	-28557-05-02 20:23 J	-8708898.82	-8708898.65	-8708898.47	0.0142	0.0104
Earth	-28557-05-02 22:19 J	-8708898.70	-8708898.57	-8708898.40	0.0142	0.0112 *
Earth	-28556-05-07 16:47 J	-8708529.05	-8708528.80	-8708528.55	0.0142	0.0005
Moon	-28556-05-07 17:59 J	-8708528.99	-8708528.75	-8708528.50	0.0142	0.0008 *
Moon	-28555-05-12 10:33 J	-8708159.23	-8708159.06	-8708158.88	0.0143	0.0105
Earth	-28555-05-12 11:31 J	-8708159.18	-8708159.02	-8708158.85	0.0143	0.0105 *
Mercury	-28554-12-15 23:16 J	-8707576.57	-8707576.53	-8707576.48	0.0144	0.0136
Mercury	-28553-03-13 03:35 J	-8707488.44	-8707488.35	-8707488.27	0.0144	0.0113
Mercury	-28553-06-09 07:26 J	-8707400.29	-8707400.19	-8707400.07	0.0144	0.0090
Mercury	-28553-09-05 11:45 J	-8707312.13	-8707312.01	-8707311.89	0.0144	0.0067
Mercury	-28553-12-02 15:50 J	-8707223.97	-8707223.84	-8707223.70	0.0144	0.0044
Mercury	-28552-02-28 20:09 J	-8707135.80	-8707135.66	-8707135.52	0.0144	0.0020
Mercury	-28552-05-28 00:28 J	-8707047.62	-8707047.48	-8707047.34	0.0144	0.0005
Mercury	-28552-08-24 04:47 J	-8706959.44	-8706959.30	-8706959.16	0.0144	0.0029
Mercury	-28552-11-20 09:07 J	-8706871.25	-8706871.12	-8706870.99	0.0144	0.0053
Mercury	-28551-02-16 13:26 J	-8706783.06	-8706782.94	-8706782.82	0.0145	0.0078
Mercury	-28551-05-15 17:45 J	-8706694.85	-8706694.76	-8706694.65	0.0145	0.0103
Mercury	-28551-08-11 22:19 J	-8706606.63	-8706606.57	-8706606.50	0.0145	0.0128
Mars	-28544-08-03 15:07 J	-8704058.14	-8704057.87	-8704057.59	0.0146	0.0053
Venus	-28532-07-27 14:38 J	-8699681.91	-8699681.89	-8699681.82	0.0144	0.0142
Venus	-28531-03-11 03:07 J	-8699455.48	-8699455.37	-8699455.24	0.0144	0.0120
Venus	-28531-10-23 15:07 J	-8699229.02	-8699228.87	-8699228.70	0.0143	0.0099
Venus	-28530-06-07 03:21 J	-8699002.54	-8699002.36	-8699002.17	0.0143	0.0078
Venus	-28529-01-19 15:21 J	-8698776.06	-8698775.86	-8698775.65	0.0143	0.0056

Venus	-28529-09-02 03:07 J	-8698549.58	-8698549.37	-8698549.15	0.0143	0.0035
Venus	-28528-04-16 14:52 J	-8698323.10	-8698322.88	-8698322.66	0.0142	0.0014
Venus	-28528-11-29 02:38 J	-8698096.61	-8698096.39	-8698096.17	0.0142	0.0008
Venus	-28527-07-13 14:09 J	-8697870.12	-8697869.91	-8697869.69	0.0142	0.0029
Venus	-28526-02-25 01:26 J	-8697643.64	-8697643.44	-8697643.23	0.0141	0.0049
Venus	-28526-10-09 12:28 J	-8697417.16	-8697416.98	-8697416.77	0.0141	0.0070
Venus	-28525-05-22 23:45 J	-8697190.68	-8697190.51	-8697190.34	0.0141	0.0090
Venus	-28524-01-04 10:33 J	-8696964.19	-8696964.06	-8696963.91	0.0140	0.0110
Venus	-28524-08-18 21:21 J	-8696737.68	-8696737.61	-8696737.51	0.0140	0.0129
Moon	-28518-11-05 07:11 J	-8694468.37	-8694468.20	-8694468.00	0.0137	0.0092
Earth	-28518-11-05 09:07 J	-8694468.28	-8694468.12	-8694467.92	0.0137	0.0097 *
Earth	-28517-11-08 23:59 J	-8694098.76	-8694098.50	-8694098.24	0.0136	0.0002
Moon	-28517-11-09 01:55 J	-8694098.69	-8694098.42	-8694098.16	0.0136	0.0005 *
Moon	-28516-11-13 10:33 J	-8693729.20	-8693729.06	-8693728.89	0.0136	0.0105
Earth	-28516-11-13 12:57 J	-8693729.12	-8693728.96	-8693728.77	0.0136	0.0098 *
Mercury	-28513-01-31 11:16 J	-8692920.08	-8692920.03	-8692919.96	0.0135	0.0126
Mercury	-28513-04-28 17:31 J	-8692831.88	-8692831.77	-8692831.65	0.0135	0.0101
Mercury	-28513-07-25 23:31 J	-8692743.66	-8692743.52	-8692743.37	0.0135	0.0076
Mercury	-28513-10-22 05:31 J	-8692655.43	-8692655.27	-8692655.11	0.0134	0.0051
Mercury	-28512-01-18 11:31 J	-8692567.19	-8692567.02	-8692566.85	0.0134	0.0027
Mercury	-28512-04-16 17:16 J	-8692478.95	-8692478.78	-8692478.60	0.0134	0.0004
Mercury	-28512-07-13 23:02 J	-8692390.71	-8692390.54	-8692390.36	0.0134	0.0021
Mercury	-28512-10-10 04:47 J	-8692302.46	-8692302.30	-8692302.13	0.0134	0.0044
Mercury	-28511-01-06 10:33 J	-8692214.21	-8692214.06	-8692213.91	0.0134	0.0068
Mercury	-28511-04-04 15:50 J	-8692125.95	-8692125.84	-8692125.70	0.0134	0.0091
Mercury	-28511-07-01 21:21 J	-8692037.68	-8692037.61	-8692037.50	0.0134	0.0114
Mars	-28502-11-09 21:35 J	-8688619.92	-8688619.60	-8688619.28	0.0132	0.0023
Venus	-28488-07-25 20:52 J	-8683612.67	-8683612.63	-8683612.57	0.0134	0.0131
Venus	-28487-03-09 02:09 J	-8683386.50	-8683386.41	-8683386.28	0.0135	0.0115
Venus	-28487-10-21 08:09 J	-8683160.31	-8683160.16	-8683160.01	0.0135	0.0097

Venus	-28486-06-04 13:40 J	-8682934.10	-8682933.93	-8682933.75	0.0135	0.0080
Venus	-28485-01-16 19:40 J	-8682707.87	-8682707.68	-8682707.49	0.0135	0.0063
Venus	-28485-08-30 01:11 J	-8682481.64	-8682481.45	-8682481.24	0.0136	0.0046
Venus	-28484-04-13 07:11 J	-8682255.41	-8682255.20	-8682254.99	0.0136	0.0027
Venus	-28484-11-25 13:11 J	-8682029.17	-8682028.95	-8682028.74	0.0136	0.0010
Venus	-28483-07-09 18:57 J	-8681802.92	-8681802.71	-8681802.49	0.0137	0.0010
Venus	-28482-02-21 01:11 J	-8681576.66	-8681576.45	-8681576.24	0.0137	0.0027
Venus	-28482-10-05 07:26 J	-8681350.39	-8681350.19	-8681349.99	0.0137	0.0046
Venus	-28481-05-18 13:40 J	-8681124.12	-8681123.93	-8681123.74	0.0138	0.0064
Venus	-28481-12-30 19:40 J	-8680897.83	-8680897.68	-8680897.49	0.0138	0.0083
Venus	-28480-08-14 02:09 J	-8680671.54	-8680671.41	-8680671.25	0.0138	0.0101
Venus	-28479-03-28 08:38 J	-8680445.22	-8680445.14	-8680445.01	0.0139	0.0120
Venus	-28479-11-09 15:50 J	-8680218.86	-8680218.84	-8680218.81	0.0139	0.0137
Moon	-28473-05-03 05:16 J	-8678217.42	-8678217.28	-8678217.12	0.0142	0.0114
Earth	-28473-05-03 07:11 J	-8678217.34	-8678217.20	-8678217.01	0.0142	0.0108 *
Earth	-28472-05-08 01:26 J	-8677847.69	-8677847.44	-8677847.19	0.0142	0.0002
Moon	-28472-05-08 03:35 J	-8677847.59	-8677847.35	-8677847.10	0.0142	0.0005 *
Moon	-28471-05-12 18:14 J	-8677477.90	-8677477.74	-8677477.56	0.0143	0.0107
Earth	-28471-05-12 19:55 J	-8677477.82	-8677477.67	-8677477.49	0.0143	0.0109 *
Mercury	-28469-01-05 05:59 J	-8676875.29	-8676875.25	-8676875.18	0.0144	0.0132
Mercury	-28469-04-02 10:19 J	-8676787.16	-8676787.07	-8676786.98	0.0144	0.0109
Mercury	-28469-06-29 14:23 J	-8676699.01	-8676698.90	-8676698.78	0.0144	0.0086
Mercury	-28469-09-25 18:43 J	-8676610.85	-8676610.72	-8676610.59	0.0144	0.0062
Mercury	-28469-12-22 22:47 J	-8676522.68	-8676522.55	-8676522.41	0.0144	0.0039
Mercury	-28468-03-21 03:07 J	-8676434.51	-8676434.37	-8676434.23	0.0144	0.0015
Mercury	-28468-06-17 07:26 J	-8676346.33	-8676346.19	-8676346.05	0.0144	0.0009
Mercury	-28468-09-13 11:45 J	-8676258.15	-8676258.01	-8676257.87	0.0144	0.0033
Mercury	-28468-12-10 16:04 J	-8676169.96	-8676169.83	-8676169.70	0.0145	0.0058
Mercury	-28467-03-08 20:09 J	-8676081.77	-8676081.66	-8676081.53	0.0145	0.0083
Mercury	-28467-06-05 00:43 J	-8675993.56	-8675993.47	-8675993.37	0.0145	0.0107

Mercury	-28467-09-01 05:02 J	-8675905.33	-8675905.29	-8675905.22	0.0145	0.0133
Mars	-28459-03-29 20:09 J	-8673138.94	-8673138.66	-8673138.37	0.0146	0.0040
Venus	-28448-11-08 09:07 J	-8668897.22	-8668897.12	-8668897.03	0.0144	0.0129
Venus	-28447-06-22 20:52 J	-8668670.75	-8668670.63	-8668670.47	0.0144	0.0109
Venus	-28446-02-04 09:07 J	-8668444.28	-8668444.12	-8668443.93	0.0143	0.0087
Venus	-28446-09-18 21:21 J	-8668217.81	-8668217.61	-8668217.42	0.0143	0.0066
Venus	-28445-05-02 09:07 J	-8667991.33	-8667991.12	-8667990.91	0.0143	0.0044
Venus	-28445-12-14 20:52 J	-8667764.84	-8667764.63	-8667764.41	0.0142	0.0023
Venus	-28444-07-29 08:52 J	-8667538.36	-8667538.13	-8667537.91	0.0142	0.0003
Venus	-28443-03-12 20:23 J	-8667311.87	-8667311.65	-8667311.43	0.0142	0.0020
Venus	-28443-10-25 07:40 J	-8667085.39	-8667085.18	-8667084.96	0.0142	0.0041
Venus	-28442-06-08 18:43 J	-8666858.90	-8666858.72	-8666858.51	0.0141	0.0062
Venus	-28441-01-21 06:14 J	-8666632.42	-8666632.24	-8666632.06	0.0141	0.0082
Venus	-28441-09-03 17:02 J	-8666405.93	-8666405.79	-8666405.63	0.0141	0.0103
Venus	-28440-04-18 03:50 J	-8666179.44	-8666179.34	-8666179.22	0.0140	0.0122
Moon	-28434-11-05 18:43 J	-8663786.88	-8663786.72	-8663786.53	0.0137	0.0095
Earth	-28434-11-05 19:40 J	-8663786.86	-8663786.68	-8663786.47	0.0137	0.0091 *
Earth	-28433-11-09 10:19 J	-8663417.32	-8663417.07	-8663416.81	0.0136	0.0007
Moon	-28433-11-09 12:14 J	-8663417.25	-8663416.99	-8663416.72	0.0136	0.0014 *
Moon	-28432-11-13 22:04 J	-8663047.74	-8663047.58	-8663047.39	0.0136	0.0096
Earth	-28432-11-13 23:45 J	-8663047.67	-8663047.51	-8663047.34	0.0136	0.0103 *
Mercury	-28429-02-20 18:28 J	-8662218.80	-8662218.73	-8662218.63	0.0135	0.0119
Mercury	-28429-05-19 00:43 J	-8662130.59	-8662130.47	-8662130.34	0.0135	0.0094
Mercury	-28429-08-15 06:57 J	-8662042.37	-8662042.21	-8662042.06	0.0135	0.0069
Mercury	-28429-11-11 12:43 J	-8661954.13	-8661953.97	-8661953.80	0.0135	0.0045
Mercury	-28428-02-07 18:43 J	-8661865.90	-8661865.72	-8661865.55	0.0134	0.0020
Mercury	-28428-05-07 00:28 J	-8661777.65	-8661777.48	-8661777.30	0.0134	0.0004
Mercury	-28428-08-03 06:14 J	-8661689.41	-8661689.24	-8661689.07	0.0134	0.0028
Mercury	-28428-10-30 11:59 J	-8661601.16	-8661601.00	-8661600.84	0.0134	0.0051
Mercury	-28427-01-26 17:31 J	-8661512.91	-8661512.77	-8661512.62	0.0134	0.0075

Mercury	-28427-04-24 23:16 J	-8661424.64	-8661424.53	-8661424.41	0.0134	0.0097
Mercury	-28427-07-22 04:47 J	-8661336.37	-8661336.30	-8661336.22	0.0134	0.0120
Mars	-28419-08-02 08:52 J	-8658403.26	-8658403.13	-8658402.97	0.0132	0.0117
Mars	-28417-07-05 01:40 J	-8657700.61	-8657700.43	-8657700.20	0.0132	0.0102
Venus	-28404-11-06 12:57 J	-8652828.04	-8652827.96	-8652827.85	0.0134	0.0122
Venus	-28403-06-20 18:28 J	-8652601.85	-8652601.73	-8652601.58	0.0135	0.0105
Venus	-28402-02-02 00:28 J	-8652375.64	-8652375.48	-8652375.31	0.0135	0.0087
Venus	-28402-09-16 05:59 J	-8652149.42	-8652149.25	-8652149.05	0.0135	0.0070
Venus	-28401-04-29 11:45 J	-8651923.20	-8651923.01	-8651922.80	0.0136	0.0052
Venus	-28401-12-11 17:45 J	-8651696.97	-8651696.76	-8651696.55	0.0136	0.0034
Venus	-28400-07-25 23:31 J	-8651470.73	-8651470.52	-8651470.30	0.0136	0.0016
Venus	-28399-03-09 05:31 J	-8651244.48	-8651244.27	-8651244.05	0.0136	0.0002
Venus	-28399-10-21 11:31 J	-8651018.23	-8651018.02	-8651017.81	0.0137	0.0020
Venus	-28398-06-04 17:31 J	-8650791.97	-8650791.77	-8650791.56	0.0137	0.0039
Venus	-28397-01-16 23:45 J	-8650565.69	-8650565.51	-8650565.30	0.0137	0.0058
Venus	-28397-08-30 06:14 J	-8650339.41	-8650339.24	-8650339.06	0.0138	0.0076
Venus	-28396-04-13 12:28 J	-8650113.12	-8650112.98	-8650112.81	0.0138	0.0094
Venus	-28396-11-25 19:11 J	-8649886.82	-8649886.70	-8649886.57	0.0138	0.0113
Venus	-28395-07-10 01:55 J	-8649660.48	-8649660.42	-8649660.35	0.0139	0.0131
Moon	-28389-05-03 16:19 J	-8647536.00	-8647535.82	-8647535.62	0.0142	0.0093
Earth	-28389-05-03 19:11 J	-8647535.86	-8647535.70	-8647535.51	0.0142	0.0101 *
Earth	-28388-05-08 13:11 J	-8647166.20	-8647165.95	-8647165.69	0.0142	0.0007
Moon	-28388-05-08 15:35 J	-8647166.09	-8647165.85	-8647165.60	0.0142	0.0003 *
Moon	-28387-05-13 05:45 J	-8646796.40	-8646796.26	-8646796.10	0.0143	0.0116
Earth	-28387-05-13 07:40 J	-8646796.31	-8646796.18	-8646796.02	0.0143	0.0115 *
Mercury	-28385-01-25 13:40 J	-8646173.99	-8646173.93	-8646173.86	0.0144	0.0124
Mercury	-28385-04-22 17:45 J	-8646085.85	-8646085.76	-8646085.66	0.0144	0.0102
Mercury	-28385-07-19 22:04 J	-8645997.70	-8645997.58	-8645997.47	0.0144	0.0078
Mercury	-28385-10-16 02:09 J	-8645909.54	-8645909.41	-8645909.28	0.0144	0.0055
Mercury	-28384-01-12 06:28 J	-8645821.37	-8645821.23	-8645821.10	0.0144	0.0032

Mercury	-28384-04-10 10:33 J	-8645733.20	-8645733.06	-8645732.92	0.0144	0.0008
Mercury	-28384-07-07 14:52 J	-8645645.02	-8645644.88	-8645644.74	0.0144	0.0017
Mercury	-28384-10-03 19:11 J	-8645556.84	-8645556.70	-8645556.56	0.0144	0.0041
Mercury	-28384-12-30 23:31 J	-8645468.65	-8645468.52	-8645468.39	0.0145	0.0065
Mercury	-28383-03-29 03:50 J	-8645380.45	-8645380.34	-8645380.23	0.0145	0.0090
Mercury	-28383-06-25 08:09 J	-8645292.24	-8645292.16	-8645292.07	0.0145	0.0115
Mercury	-28383-09-21 12:43 J	-8645204.00	-8645203.97	-8645203.93	0.0145	0.0140
Mars	-28377-12-20 13:26 J	-8642922.03	-8642921.94	-8642921.80	0.0146	0.0135
Mars	-28375-11-23 03:35 J	-8642219.46	-8642219.35	-8642219.22	0.0147	0.0134
Venus	-28364-07-08 15:21 J	-8638338.89	-8638338.86	-8638338.78	0.0144	0.0140
Venus	-28363-02-20 03:35 J	-8638112.46	-8638112.35	-8638112.21	0.0144	0.0118
Venus	-28363-10-04 15:50 J	-8637885.99	-8637885.84	-8637885.67	0.0144	0.0097
Venus	-28362-05-19 04:04 J	-8637659.51	-8637659.33	-8637659.14	0.0143	0.0075
Venus	-28362-12-31 16:04 J	-8637433.03	-8637432.83	-8637432.62	0.0143	0.0053
Venus	-28361-08-14 03:50 J	-8637206.55	-8637206.34	-8637206.12	0.0143	0.0032
Venus	-28360-03-28 15:35 J	-8636980.07	-8636979.85	-8636979.63	0.0142	0.0010
Venus	-28360-11-10 03:07 J	-8636753.59	-8636753.37	-8636753.15	0.0142	0.0012
Venus	-28359-06-24 14:52 J	-8636527.10	-8636526.88	-8636526.67	0.0142	0.0033
Venus	-28358-02-06 02:09 J	-8636300.61	-8636300.41	-8636300.20	0.0141	0.0054
Venus	-28358-09-20 12:57 J	-8636074.13	-8636073.96	-8636073.75	0.0141	0.0075
Venus	-28357-05-04 00:14 J	-8635847.65	-8635847.49	-8635847.32	0.0141	0.0095
Venus	-28357-12-16 10:47 J	-8635621.15	-8635621.05	-8635620.90	0.0140	0.0116
Venus	-28356-07-30 22:04 J	-8635394.63	-8635394.58	-8635394.52	0.0140	0.0135
Moon	-28350-11-06 06:14 J	-8633105.44	-8633105.24	-8633105.04	0.0137	0.0080
Earth	-28350-11-06 06:43 J	-8633105.40	-8633105.22	-8633105.00	0.0137	0.0085 *
Earth	-28349-11-09 21:35 J	-8632735.85	-8632735.60	-8632735.34	0.0136	0.0013
Moon	-28349-11-09 22:33 J	-8632735.83	-8632735.56	-8632735.30	0.0136	0.0008 *
Moon	-28348-11-14 09:21 J	-8632366.23	-8632366.11	-8632365.97	0.0136	0.0116
Earth	-28348-11-14 10:47 J	-8632366.19	-8632366.05	-8632365.88	0.0136	0.0109 *
Mercury	-28345-03-12 01:55 J	-8631517.51	-8631517.42	-8631517.31	0.0135	0.0111

Mercury	-28345-06-08 08:09 J	-8631429.29	-8631429.16	-8631429.02	0.0135	0.0086
Mercury	-28345-09-04 13:55 J	-8631341.06	-8631340.92	-8631340.75	0.0135	0.0062
Mercury	-28345-12-01 20:09 J	-8631252.83	-8631252.66	-8631252.49	0.0135	0.0037
Mercury	-28344-02-28 01:55 J	-8631164.59	-8631164.42	-8631164.24	0.0134	0.0013
Mercury	-28344-05-27 07:55 J	-8631076.35	-8631076.17	-8631076.00	0.0134	0.0011
Mercury	-28344-08-23 13:26 J	-8630988.10	-8630987.94	-8630987.76	0.0134	0.0035
Mercury	-28344-11-19 19:26 J	-8630899.85	-8630899.69	-8630899.54	0.0134	0.0058
Mercury	-28343-02-16 00:43 J	-8630811.59	-8630811.47	-8630811.32	0.0134	0.0082
Mercury	-28343-05-15 06:14 J	-8630723.33	-8630723.24	-8630723.12	0.0134	0.0105
Mercury	-28343-08-11 12:14 J	-8630635.04	-8630634.99	-8630634.94	0.0134	0.0127
Mars	-28334-03-28 12:57 J	-8627484.26	-8627483.96	-8627483.64	0.0132	0.0039
Venus	-28320-07-06 23:16 J	-8622269.58	-8622269.53	-8622269.46	0.0134	0.0129
Venus	-28319-02-18 04:47 J	-8622043.41	-8622043.30	-8622043.17	0.0135	0.0112
Venus	-28319-10-02 10:33 J	-8621817.21	-8621817.06	-8621816.90	0.0135	0.0094
Venus	-28318-05-16 16:04 J	-8621591.00	-8621590.83	-8621590.64	0.0135	0.0077
Venus	-28318-12-28 21:50 J	-8621364.77	-8621364.59	-8621364.39	0.0135	0.0059
Venus	-28317-08-11 03:35 J	-8621138.55	-8621138.35	-8621138.14	0.0136	0.0042
Venus	-28316-03-25 09:35 J	-8620912.31	-8620912.10	-8620911.89	0.0136	0.0023
Venus	-28316-11-06 15:21 J	-8620686.07	-8620685.86	-8620685.64	0.0136	0.0005
Venus	-28315-06-20 21:21 J	-8620459.82	-8620459.61	-8620459.39	0.0137	0.0013
Venus	-28314-02-02 03:35 J	-8620233.56	-8620233.35	-8620233.14	0.0137	0.0032
Venus	-28314-09-16 09:35 J	-8620007.29	-8620007.10	-8620006.89	0.0137	0.0051
Venus	-28313-04-29 16:04 J	-8619781.02	-8619780.83	-8619780.65	0.0137	0.0069
Venus	-28313-12-11 22:04 J	-8619554.73	-8619554.58	-8619554.40	0.0138	0.0088
Venus	-28312-07-26 04:47 J	-8619328.42	-8619328.30	-8619328.15	0.0138	0.0106
Venus	-28311-03-09 11:31 J	-8619102.10	-8619102.02	-8619101.92	0.0138	0.0125
Moon	-28305-05-04 03:50 J	-8616854.51	-8616854.34	-8616854.15	0.0142	0.0101
Earth	-28305-05-04 06:43 J	-8616854.39	-8616854.22	-8616854.02	0.0142	0.0094 *
Earth	-28304-05-09 00:43 J	-8616484.72	-8616484.47	-8616484.22	0.0142	0.0013
Moon	-28304-05-09 03:35 J	-8616484.60	-8616484.35	-8616484.11	0.0142	0.0018 *

Moon	-28303-05-13 16:04 J	-8616114.95	-8616114.83	-8616114.67	0.0143	0.0119
Earth	-28303-05-13 19:11 J	-8616114.83	-8616114.70	-8616114.57	0.0143	0.0121 *
Mercury	-28302-11-18 17:02 J	-8615560.81	-8615560.79	-8615560.75	0.0144	0.0140
Mercury	-28301-02-14 21:21 J	-8615472.69	-8615472.61	-8615472.53	0.0144	0.0117
Mercury	-28301-05-13 01:26 J	-8615384.55	-8615384.44	-8615384.34	0.0144	0.0094
Mercury	-28301-08-09 05:31 J	-8615296.39	-8615296.27	-8615296.15	0.0144	0.0071
Mercury	-28301-11-05 09:35 J	-8615208.23	-8615208.10	-8615207.96	0.0144	0.0048
Mercury	-28300-02-01 13:55 J	-8615120.06	-8615119.92	-8615119.78	0.0144	0.0024
Mercury	-28300-04-30 18:14 J	-8615031.89	-8615031.74	-8615031.60	0.0144	0.0004
Mercury	-28300-07-27 22:19 J	-8614943.71	-8614943.57	-8614943.43	0.0144	0.0025
Mercury	-28300-10-24 02:38 J	-8614855.52	-8614855.39	-8614855.25	0.0145	0.0049
Mercury	-28299-01-20 06:57 J	-8614767.33	-8614767.21	-8614767.08	0.0145	0.0073
Mercury	-28299-04-18 11:31 J	-8614679.13	-8614679.02	-8614678.92	0.0145	0.0098
Mercury	-28299-07-15 15:50 J	-8614590.91	-8614590.84	-8614590.76	0.0145	0.0123
Mars	-28292-08-16 01:26 J	-8612002.72	-8612002.44	-8612002.15	0.0147	0.0037
Venus	-28280-10-20 11:45 J	-8607554.10	-8607554.01	-8607553.90	0.0144	0.0126
Venus	-28279-06-03 23:59 J	-8607327.64	-8607327.50	-8607327.34	0.0144	0.0105
Venus	-28278-01-16 11:59 J	-8607101.17	-8607101.00	-8607100.81	0.0143	0.0083
Venus	-28278-08-30 23:59 J	-8606874.69	-8606874.50	-8606874.29	0.0143	0.0062
Venus	-28277-04-13 11:45 J	-8606648.21	-8606648.01	-8606647.79	0.0143	0.0040
Venus	-28277-11-25 23:45 J	-8606421.73	-8606421.51	-8606421.29	0.0143	0.0018
Venus	-28276-07-10 11:31 J	-8606195.24	-8606195.02	-8606194.80	0.0142	0.0004
Venus	-28275-02-21 23:02 J	-8605968.75	-8605968.54	-8605968.32	0.0142	0.0025
Venus	-28275-10-06 10:19 J	-8605742.27	-8605742.07	-8605741.86	0.0142	0.0047
Venus	-28274-05-20 21:35 J	-8605515.79	-8605515.60	-8605515.40	0.0141	0.0068
Venus	-28273-01-02 08:38 J	-8605289.31	-8605289.14	-8605288.96	0.0141	0.0088
Venus	-28273-08-15 19:26 J	-8605062.81	-8605062.69	-8605062.53	0.0141	0.0109
Venus	-28272-03-30 06:14 J	-8604836.31	-8604836.24	-8604836.14	0.0140	0.0129
Earth	-28266-11-06 19:40 J	-8602423.88	-8602423.68	-8602423.46	0.0137	0.0077
Moon	-28266-11-06 19:55 J	-8602423.86	-8602423.67	-8602423.46	0.0137	0.0080 *

Earth	-28265-11-10 10:19 J	-8602054.32	-8602054.07	-8602053.82	0.0136	0.0020
Moon	-28265-11-10 11:02 J	-8602054.30	-8602054.04	-8602053.77	0.0136	0.0027 *
Moon	-28264-11-14 22:33 J	-8601684.68	-8601684.56	-8601684.39	0.0136	0.0110
Earth	-28264-11-14 23:45 J	-8601684.64	-8601684.51	-8601684.37	0.0136	0.0116 *
Mercury	-28261-01-04 03:35 J	-8600904.40	-8600904.35	-8600904.28	0.0135	0.0127
Mercury	-28261-04-01 09:50 J	-8600816.20	-8600816.09	-8600815.97	0.0135	0.0102
Mercury	-28261-06-28 15:35 J	-8600727.98	-8600727.85	-8600727.69	0.0135	0.0078
Mercury	-28261-09-24 21:50 J	-8600639.75	-8600639.59	-8600639.42	0.0135	0.0053
Mercury	-28261-12-22 03:50 J	-8600551.51	-8600551.34	-8600551.17	0.0134	0.0028
Mercury	-28260-03-20 09:35 J	-8600463.27	-8600463.10	-8600462.92	0.0134	0.0005
Mercury	-28260-06-16 15:21 J	-8600375.03	-8600374.86	-8600374.68	0.0134	0.0020
Mercury	-28260-09-12 21:07 J	-8600286.78	-8600286.62	-8600286.45	0.0134	0.0044
Mercury	-28260-12-10 02:52 J	-8600198.52	-8600198.38	-8600198.22	0.0134	0.0067
Mercury	-28259-03-08 08:23 J	-8600110.27	-8600110.15	-8600110.01	0.0134	0.0090
Mercury	-28259-06-04 14:09 J	-8600021.99	-8600021.91	-8600021.81	0.0134	0.0113
Mars	-28250-11-21 18:57 J	-8596565.01	-8596564.71	-8596564.38	0.0132	0.0041
Venus	-28236-10-18 15:35 J	-8591484.94	-8591484.85	-8591484.74	0.0134	0.0119
Venus	-28235-06-01 20:52 J	-8591258.75	-8591258.63	-8591258.47	0.0135	0.0102
Venus	-28234-01-14 02:52 J	-8591032.54	-8591032.38	-8591032.20	0.0135	0.0084
Venus	-28234-08-28 08:23 J	-8590806.33	-8590806.15	-8590805.95	0.0135	0.0067
Venus	-28233-04-10 14:09 J	-8590580.10	-8590579.91	-8590579.70	0.0136	0.0049
Venus	-28233-11-22 20:09 J	-8590353.87	-8590353.66	-8590353.45	0.0136	0.0030
Venus	-28232-07-07 01:55 J	-8590127.63	-8590127.42	-8590127.20	0.0136	0.0012
Venus	-28231-02-18 07:55 J	-8589901.38	-8589901.17	-8589900.95	0.0136	0.0007
Venus	-28231-10-02 13:55 J	-8589675.13	-8589674.92	-8589674.71	0.0137	0.0025
Venus	-28230-05-16 19:55 J	-8589448.87	-8589448.67	-8589448.46	0.0137	0.0044
Venus	-28230-12-29 02:23 J	-8589222.59	-8589222.40	-8589222.21	0.0137	0.0062
Venus	-28229-08-11 08:52 J	-8588996.30	-8588996.13	-8588995.96	0.0138	0.0081
Venus	-28228-03-25 14:52 J	-8588770.01	-8588769.88	-8588769.71	0.0138	0.0100
Venus	-28228-11-06 21:35 J	-8588543.69	-8588543.60	-8588543.48	0.0138	0.0119

Venus	-28227-06-21 04:33 J	-8588317.33	-8588317.31	-8588317.27	0.0139	0.0137
Moon	-28221-05-04 15:21 J	-8586173.07	-8586172.86	-8586172.65	0.0142	0.0079
Earth	-28221-05-04 18:57 J	-8586172.91	-8586172.71	-8586172.51	0.0142	0.0087 *
Earth	-28220-05-09 12:28 J	-8585803.22	-8585802.98	-8585802.73	0.0142	0.0020
Moon	-28220-05-09 15:35 J	-8585803.10	-8585802.85	-8585802.60	0.0142	0.0014 *
Moon	-28219-05-14 03:50 J	-8585433.42	-8585433.34	-8585433.21	0.0143	0.0130
Earth	-28219-05-14 06:57 J	-8585433.31	-8585433.21	-8585433.09	0.0143	0.0128 *
Mercury	-28218-12-09 00:28 J	-8584859.52	-8584859.48	-8584859.41	0.0144	0.0133
Mercury	-28217-03-06 04:47 J	-8584771.38	-8584771.30	-8584771.21	0.0144	0.0110
Mercury	-28217-06-02 08:52 J	-8584683.24	-8584683.13	-8584683.01	0.0144	0.0087
Mercury	-28217-08-29 13:11 J	-8584595.08	-8584594.95	-8584594.83	0.0144	0.0063
Mercury	-28217-11-25 17:16 J	-8584506.91	-8584506.78	-8584506.64	0.0144	0.0040
Mercury	-28216-02-21 21:35 J	-8584418.74	-8584418.60	-8584418.46	0.0144	0.0016
Mercury	-28216-05-21 01:40 J	-8584330.57	-8584330.43	-8584330.28	0.0144	0.0009
Mercury	-28216-08-17 05:59 J	-8584242.39	-8584242.25	-8584242.11	0.0144	0.0032
Mercury	-28216-11-13 10:19 J	-8584154.20	-8584154.07	-8584153.94	0.0145	0.0057
Mercury	-28215-02-09 14:38 J	-8584066.00	-8584065.89	-8584065.77	0.0145	0.0082
Mercury	-28215-05-08 18:57 J	-8583977.80	-8583977.71	-8583977.61	0.0145	0.0107
Mercury	-28215-08-04 23:16 J	-8583889.57	-8583889.53	-8583889.46	0.0145	0.0132
Mars	-28207-04-11 13:11 J	-8581083.20	-8581082.95	-8581082.67	0.0147	0.0061
Venus	-28196-06-19 19:55 J	-8576995.73	-8576995.67	-8576995.58	0.0144	0.0136
Venus	-28195-02-01 08:09 J	-8576769.28	-8576769.16	-8576769.01	0.0144	0.0114
Venus	-28195-09-15 20:23 J	-8576542.81	-8576542.65	-8576542.48	0.0144	0.0092
Venus	-28194-04-30 08:09 J	-8576316.34	-8576316.16	-8576315.96	0.0143	0.0070
Venus	-28194-12-12 20:09 J	-8576089.86	-8576089.66	-8576089.45	0.0143	0.0048
Venus	-28193-07-26 08:09 J	-8575863.38	-8575863.16	-8575862.94	0.0143	0.0026
Venus	-28192-03-09 19:55 J	-8575636.89	-8575636.67	-8575636.45	0.0142	0.0005
Venus	-28192-10-22 07:11 J	-8575410.41	-8575410.20	-8575409.97	0.0142	0.0018
Venus	-28191-06-05 18:43 J	-8575183.93	-8575183.72	-8575183.50	0.0142	0.0039
Venus	-28190-01-18 05:45 J	-8574957.45	-8574957.26	-8574957.05	0.0141	0.0061

Venus	-28190-09-01 17:02 J	-8574730.96	-8574730.79	-8574730.60	0.0141	0.0081
Venus	-28189-04-15 04:04 J	-8574504.47	-8574504.33	-8574504.17	0.0141	0.0102
Venus	-28189-11-27 15:07 J	-8574277.98	-8574277.87	-8574277.76	0.0140	0.0122
Earth	-28182-11-07 08:38 J	-8571742.35	-8571742.14	-8571741.90	0.0137	0.0069
Moon	-28182-11-07 08:52 J	-8571742.34	-8571742.13	-8571741.91	0.0137	0.0065 *
Moon	-28181-11-10 23:02 J	-8571372.80	-8571372.54	-8571372.27	0.0136	0.0023
Earth	-28181-11-10 23:16 J	-8571372.78	-8571372.53	-8571372.27	0.0136	0.0028 *
Earth	-28180-11-15 11:59 J	-8571003.08	-8571003.00	-8571002.87	0.0136	0.0124
Moon	-28180-11-15 11:59 J	-8571003.06	-8571003.00	-8571002.93	0.0136	0.0130 *
Saturn	-28178-03-23 09:21 J	-8570510.72	-8570510.11	-8570509.49	0.0135	0.0004
Mercury	-28177-01-24 11:16 J	-8570203.10	-8570203.03	-8570202.93	0.0135	0.0118
Mercury	-28177-04-21 17:31 J	-8570114.89	-8570114.77	-8570114.64	0.0135	0.0093
Mercury	-28177-07-18 23:31 J	-8570026.67	-8570026.52	-8570026.36	0.0135	0.0068
Mercury	-28177-10-15 05:31 J	-8569938.43	-8569938.27	-8569938.10	0.0134	0.0044
Mercury	-28176-01-11 11:31 J	-8569850.19	-8569850.02	-8569849.85	0.0134	0.0019
Mercury	-28176-04-09 17:16 J	-8569761.95	-8569761.78	-8569761.60	0.0134	0.0006
Mercury	-28176-07-06 23:16 J	-8569673.70	-8569673.53	-8569673.36	0.0134	0.0028
Mercury	-28176-10-03 04:47 J	-8569585.45	-8569585.30	-8569585.13	0.0134	0.0052
Mercury	-28176-12-30 10:33 J	-8569497.20	-8569497.06	-8569496.91	0.0134	0.0075
Mercury	-28175-03-28 16:19 J	-8569408.94	-8569408.82	-8569408.70	0.0134	0.0098
Mercury	-28175-06-24 21:35 J	-8569320.66	-8569320.60	-8569320.52	0.0134	0.0122
Mars	-28167-08-14 09:21 J	-8566348.30	-8566348.11	-8566347.87	0.0132	0.0098
Mars	-28165-07-17 00:28 J	-8565645.59	-8565645.48	-8565645.32	0.0132	0.0120
Venus	-28152-06-18 01:40 J	-8560926.50	-8560926.43	-8560926.35	0.0134	0.0126
Venus	-28151-01-30 06:57 J	-8560700.32	-8560700.21	-8560700.07	0.0135	0.0109
Venus	-28151-09-13 12:43 J	-8560474.13	-8560473.97	-8560473.81	0.0135	0.0091
Venus	-28150-04-27 18:14 J	-8560247.92	-8560247.74	-8560247.56	0.0135	0.0074
Venus	-28150-12-09 23:45 J	-8560021.70	-8560021.51	-8560021.31	0.0135	0.0056
Venus	-28149-07-23 05:31 J	-8559795.47	-8559795.27	-8559795.06	0.0136	0.0038
Venus	-28148-03-06 11:16 J	-8559569.24	-8559569.03	-8559568.81	0.0136	0.0019

Venus	-28148-10-18 17:16 J	-8559343.00	-8559342.78	-8559342.57	0.0136	0.0001
Venus	-28147-06-01 23:16 J	-8559116.75	-8559116.53	-8559116.32	0.0137	0.0018
Venus	-28146-01-14 05:16 J	-8558890.48	-8558890.28	-8558890.07	0.0137	0.0037
Venus	-28146-08-28 11:31 J	-8558664.21	-8558664.02	-8558663.82	0.0137	0.0055
Venus	-28145-04-10 17:31 J	-8558437.93	-8558437.77	-8558437.57	0.0137	0.0075
Venus	-28145-11-22 23:59 J	-8558211.64	-8558211.50	-8558211.33	0.0138	0.0093
Venus	-28144-07-07 06:57 J	-8557985.33	-8557985.21	-8557985.08	0.0138	0.0111
Venus	-28143-02-18 13:26 J	-8557758.99	-8557758.94	-8557758.85	0.0138	0.0131
Moon	-28137-05-05 00:57 J	-8555491.65	-8555491.46	-8555491.26	0.0142	0.0090
Earth	-28137-05-05 04:04 J	-8555491.52	-8555491.33	-8555491.11	0.0142	0.0083 *
Earth	-28136-05-09 22:04 J	-8555121.83	-8555121.58	-8555121.33	0.0142	0.0023
Moon	-28136-05-10 01:26 J	-8555121.68	-8555121.44	-8555121.19	0.0142	0.0030 *
Moon	-28135-05-14 12:57 J	-8554752.05	-8554751.96	-8554751.83	0.0143	0.0128
Earth	-28135-05-14 16:04 J	-8554751.90	-8554751.83	-8554751.71	0.0143	0.0132 *
Mercury	-28134-12-29 07:55 J	-8554158.23	-8554158.17	-8554158.11	0.0144	0.0127
Mercury	-28133-03-26 11:59 J	-8554070.09	-8554070.00	-8554069.90	0.0144	0.0104
Mercury	-28133-06-22 16:04 J	-8553981.94	-8553981.83	-8553981.71	0.0144	0.0081
Mercury	-28133-09-18 20:09 J	-8553893.78	-8553893.66	-8553893.53	0.0144	0.0058
Mercury	-28133-12-16 00:28 J	-8553805.62	-8553805.48	-8553805.34	0.0144	0.0034
Mercury	-28132-03-14 04:33 J	-8553717.45	-8553717.31	-8553717.16	0.0144	0.0011
Mercury	-28132-06-10 08:52 J	-8553629.27	-8553629.13	-8553628.99	0.0144	0.0014
Mercury	-28132-09-06 13:11 J	-8553541.09	-8553540.95	-8553540.81	0.0144	0.0038
Mercury	-28132-12-03 17:31 J	-8553452.90	-8553452.77	-8553452.64	0.0145	0.0063
Mercury	-28131-03-01 21:50 J	-8553364.70	-8553364.59	-8553364.47	0.0145	0.0088
Mercury	-28131-05-29 02:09 J	-8553276.49	-8553276.41	-8553276.31	0.0145	0.0113
Mercury	-28131-08-25 06:28 J	-8553188.26	-8553188.23	-8553188.18	0.0145	0.0138
Mars	-28124-01-02 05:45 J	-8550866.43	-8550866.26	-8550866.06	0.0147	0.0114
Venus	-28112-02-17 04:04 J	-8546437.33	-8546437.33	-8546437.31	0.0144	0.0144
Venus	-28112-10-01 16:19 J	-8546210.93	-8546210.82	-8546210.70	0.0144	0.0122
Venus	-28111-05-16 04:33 J	-8545984.46	-8545984.31	-8545984.15	0.0144	0.0100

Venus	-28111-12-28 16:19 J	-8545757.99	-8545757.82	-8545757.62	0.0144	0.0079
Venus	-28110-08-12 04:19 J	-8545531.51	-8545531.32	-8545531.11	0.0143	0.0057
Venus	-28109-03-25 16:19 J	-8545305.03	-8545304.82	-8545304.60	0.0143	0.0034
Venus	-28109-11-07 04:04 J	-8545078.55	-8545078.33	-8545078.11	0.0143	0.0012
Venus	-28108-06-21 15:50 J	-8544852.06	-8544851.84	-8544851.62	0.0142	0.0010
Venus	-28107-02-03 03:07 J	-8544625.58	-8544625.37	-8544625.15	0.0142	0.0032
Venus	-28107-09-17 14:38 J	-8544399.09	-8544398.89	-8544398.69	0.0142	0.0053
Venus	-28106-05-02 01:40 J	-8544172.61	-8544172.43	-8544172.24	0.0141	0.0074
Venus	-28106-12-14 12:43 J	-8543946.12	-8543945.97	-8543945.80	0.0141	0.0095
Venus	-28105-07-27 23:45 J	-8543719.62	-8543719.51	-8543719.37	0.0141	0.0116
Venus	-28104-03-11 10:47 J	-8543493.10	-8543493.05	-8543492.99	0.0140	0.0136
Earth	-28098-11-07 22:04 J	-8541060.80	-8541060.58	-8541060.34	0.0137	0.0061
Moon	-28098-11-07 23:31 J	-8541060.74	-8541060.52	-8541060.30	0.0137	0.0063 *
Moon	-28097-11-11 11:59 J	-8540691.24	-8540691.00	-8540690.73	0.0136	0.0042
Earth	-28097-11-11 12:14 J	-8540691.22	-8540690.99	-8540690.73	0.0136	0.0037 *
Moon	-28096-11-16 01:55 J	-8540321.51	-8540321.42	-8540321.31	0.0136	0.0124
Earth	-28096-11-16 01:26 J	-8540321.49	-8540321.44	-8540321.36	0.0136	0.0131 *
Mercury	-28094-11-17 13:26 J	-8539589.97	-8539589.94	-8539589.92	0.0135	0.0133
Mercury	-28093-02-13 19:26 J	-8539501.79	-8539501.69	-8539501.58	0.0135	0.0108
Mercury	-28093-05-12 01:11 J	-8539413.57	-8539413.45	-8539413.30	0.0135	0.0084
Mercury	-28093-08-08 07:26 J	-8539325.34	-8539325.19	-8539325.03	0.0135	0.0059
Mercury	-28093-11-04 13:26 J	-8539237.11	-8539236.94	-8539236.77	0.0134	0.0034
Mercury	-28092-01-31 19:26 J	-8539148.87	-8539148.69	-8539148.52	0.0134	0.0010
Mercury	-28092-04-30 01:11 J	-8539060.62	-8539060.45	-8539060.27	0.0134	0.0014
Mercury	-28092-07-27 06:57 J	-8538972.37	-8538972.21	-8538972.04	0.0134	0.0038
Mercury	-28092-10-23 12:43 J	-8538884.12	-8538883.97	-8538883.81	0.0134	0.0061
Mercury	-28091-01-19 18:28 J	-8538795.86	-8538795.73	-8538795.59	0.0134	0.0084
Mercury	-28091-04-17 23:45 J	-8538707.59	-8538707.51	-8538707.39	0.0134	0.0108
Mercury	-28091-07-15 05:45 J	-8538619.30	-8538619.26	-8538619.22	0.0134	0.0130
Mars	-28082-04-09 15:50 J	-8535429.16	-8535428.84	-8535428.51	0.0132	0.0019

Venus	-28068-02-15 11:45 J	-8530368.01	-8530368.01	-8530367.96	0.0134	0.0133
Venus	-28068-09-29 17:31 J	-8530141.87	-8530141.77	-8530141.66	0.0134	0.0116
Venus	-28067-05-13 22:33 J	-8529915.69	-8529915.56	-8529915.39	0.0135	0.0099
Venus	-28067-12-26 04:19 J	-8529689.48	-8529689.32	-8529689.14	0.0135	0.0081
Venus	-28066-08-09 09:50 J	-8529463.27	-8529463.09	-8529462.89	0.0135	0.0063
Venus	-28065-03-22 15:35 J	-8529237.05	-8529236.85	-8529236.64	0.0135	0.0045
Venus	-28065-11-03 21:21 J	-8529010.82	-8529010.61	-8529010.40	0.0136	0.0027
Venus	-28064-06-18 03:07 J	-8528784.58	-8528784.37	-8528784.15	0.0136	0.0008
Venus	-28063-01-30 09:07 J	-8528558.33	-8528558.12	-8528557.90	0.0136	0.0011
Venus	-28063-09-13 15:07 J	-8528332.07	-8528331.87	-8528331.65	0.0137	0.0029
Venus	-28062-04-27 21:07 J	-8528105.81	-8528105.62	-8528105.41	0.0137	0.0048
Venus	-28062-12-10 03:21 J	-8527879.54	-8527879.36	-8527879.16	0.0137	0.0067
Venus	-28061-07-23 09:50 J	-8527653.25	-8527653.09	-8527652.92	0.0138	0.0086
Venus	-28060-03-06 16:19 J	-8527426.95	-8527426.82	-8527426.67	0.0138	0.0105
Venus	-28060-10-18 23:02 J	-8527200.63	-8527200.54	-8527200.44	0.0138	0.0123
Moon	-28053-05-05 10:33 J	-8524810.28	-8524810.06	-8524809.84	0.0142	0.0070
Earth	-28053-05-05 14:09 J	-8524810.11	-8524809.91	-8524809.70	0.0142	0.0078 *
Earth	-28052-05-10 07:26 J	-8524440.43	-8524440.19	-8524439.93	0.0142	0.0029
Moon	-28052-05-10 11:02 J	-8524440.28	-8524440.04	-8524439.79	0.0142	0.0022 *
Moon	-28051-05-14 22:19 J	-8524070.60	-8524070.57	-8524070.49	0.0143	0.0139
Earth	-28051-05-15 01:55 J	-8524070.48	-8524070.42	-8524070.33	0.0143	0.0136
Mercury	-28049-01-18 15:07 J	-8523456.94	-8523456.87	-8523456.80	0.0144	0.0121
Mercury	-28049-04-15 19:11 J	-8523368.80	-8523368.70	-8523368.60	0.0144	0.0098
Mercury	-28049-07-12 23:16 J	-8523280.65	-8523280.53	-8523280.41	0.0144	0.0075
Mercury	-28049-10-09 03:21 J	-8523192.49	-8523192.36	-8523192.22	0.0144	0.0052
Mercury	-28048-01-05 07:40 J	-8523104.32	-8523104.18	-8523104.04	0.0144	0.0028
Mercury	-28048-04-03 11:45 J	-8523016.15	-8523016.01	-8523015.86	0.0144	0.0007
Mercury	-28048-06-30 16:04 J	-8522927.97	-8522927.83	-8522927.69	0.0144	0.0020
Mercury	-28048-09-26 20:23 J	-8522839.78	-8522839.65	-8522839.51	0.0144	0.0044
Mercury	-28048-12-24 00:43 J	-8522751.59	-8522751.47	-8522751.34	0.0145	0.0069

Mercury	-28047-03-22 05:02 J	-8522663.39	-8522663.29	-8522663.18	0.0145	0.0094
Mercury	-28047-06-18 09:21 J	-8522575.18	-8522575.11	-8522575.02	0.0145	0.0119
Mercury	-28047-09-14 13:55 J	-8522486.93	-8522486.92	-8522486.90	0.0145	0.0144
Mars	-28040-08-28 12:14 J	-8519947.27	-8519946.99	-8519946.69	0.0147	0.0021
Venus	-28028-05-31 22:47 J	-8515652.61	-8515652.55	-8515652.44	0.0144	0.0133
Venus	-28027-01-13 11:16 J	-8515426.16	-8515426.03	-8515425.88	0.0144	0.0110
Venus	-28027-08-27 23:16 J	-8515199.69	-8515199.53	-8515199.34	0.0144	0.0088
Venus	-28026-04-11 11:16 J	-8514973.21	-8514973.03	-8514972.82	0.0144	0.0066
Venus	-28026-11-23 23:16 J	-8514746.73	-8514746.53	-8514746.31	0.0143	0.0043
Venus	-28025-07-07 11:16 J	-8514520.24	-8514520.03	-8514519.81	0.0143	0.0021
Venus	-28024-02-18 23:02 J	-8514293.76	-8514293.54	-8514293.32	0.0143	0.0003
Venus	-28024-10-03 10:33 J	-8514067.27	-8514067.06	-8514066.84	0.0142	0.0023
Venus	-28023-05-17 22:04 J	-8513840.79	-8513840.58	-8513840.37	0.0142	0.0045
Venus	-28023-12-30 09:07 J	-8513614.30	-8513614.12	-8513613.91	0.0142	0.0067
Venus	-28022-08-13 20:38 J	-8513387.81	-8513387.64	-8513387.46	0.0141	0.0088
Venus	-28021-03-27 07:55 J	-8513161.31	-8513161.17	-8513161.03	0.0141	0.0108
Venus	-28021-11-08 18:43 J	-8512934.80	-8512934.72	-8512934.63	0.0141	0.0129
Earth	-28014-11-08 10:47 J	-8510379.28	-8510379.05	-8510378.81	0.0137	0.0053
Moon	-28014-11-08 11:45 J	-8510379.24	-8510379.01	-8510378.77	0.0137	0.0050 *
Moon	-28013-11-11 23:31 J	-8510009.76	-8510009.52	-8510009.25	0.0136	0.0039
Earth	-28013-11-12 00:57 J	-8510009.70	-8510009.46	-8510009.21	0.0136	0.0043 *
Mercury	-28010-12-07 21:07 J	-8508888.69	-8508888.62	-8508888.55	0.0135	0.0124
Mercury	-28009-03-05 03:07 J	-8508800.48	-8508800.37	-8508800.25	0.0135	0.0099
Mercury	-28009-06-01 09:07 J	-8508712.26	-8508712.12	-8508711.96	0.0135	0.0074
Mercury	-28009-08-28 15:21 J	-8508624.03	-8508623.86	-8508623.70	0.0135	0.0050
Mercury	-28009-11-24 21:07 J	-8508535.79	-8508535.62	-8508535.44	0.0134	0.0026
Mercury	-28008-02-21 03:07 J	-8508447.54	-8508447.37	-8508447.19	0.0134	0.0002
Mercury	-28008-05-20 08:52 J	-8508359.30	-8508359.13	-8508358.95	0.0134	0.0023
Mercury	-28008-08-16 14:52 J	-8508271.05	-8508270.88	-8508270.72	0.0134	0.0047
Mercury	-28008-11-12 20:23 J	-8508182.79	-8508182.65	-8508182.50	0.0134	0.0070

Mercury -28007-02-09 02:09 J -8508094.53 -8508094.41 -8508094.28 0.0134 0.0093

Mercury -28007-05-08 07:55 J -8508006.25 -8508006.17 -8508006.09 0.0134 0.0116

28TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 28th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-27998-12-03 21:50 J	-8504509.85	-8504509.59	-8504509.27	0.0132	0.0061		
Jupiter	-27990-04-03 13:11 J	-8501832.40	-8501831.95	-8501831.47	0.0132	0.0048		
Venus	-27984-05-30 03:21 J	-8499583.42	-8499583.36	-8499583.25	0.0134	0.0124		
Venus	-27983-01-11 09:07 J	-8499357.24	-8499357.12	-8499356.98	0.0134	0.0106		
Venus	-27983-08-25 14:38 J	-8499131.05	-8499130.89	-8499130.72	0.0135	0.0088		
Venus	-27982-04-08 19:55 J	-8498904.85	-8498904.67	-8498904.48	0.0135	0.0070		
Venus	-27982-11-21 01:26 J	-8498678.63	-8498678.44	-8498678.23	0.0135	0.0052		
Venus	-27981-07-04 07:11 J	-8498452.40	-8498452.20	-8498451.99	0.0135	0.0034		
Venus	-27980-02-15 12:57 J	-8498226.17	-8498225.96	-8498225.74	0.0136	0.0016		
Venus	-27980-09-29 18:57 J	-8497999.93	-8497999.71	-8497999.50	0.0136	0.0004		
Venus	-27979-05-14 00:43 J	-8497773.68	-8497773.47	-8497773.25	0.0136	0.0022		
Venus	-27979-12-26 06:57 J	-8497547.42	-8497547.21	-8497547.01	0.0137	0.0041		
Venus	-27978-08-09 12:57 J	-8497321.15	-8497320.96	-8497320.76	0.0137	0.0060		
Venus	-27977-03-22 19:11 J	-8497094.87	-8497094.70	-8497094.52	0.0137	0.0079		
Venus	-27977-11-04 01:26 J	-8496868.58	-8496868.44	-8496868.28	0.0138	0.0098		
Venus	-27976-06-18 08:23 J	-8496642.27	-8496642.15	-8496642.04	0.0138	0.0116		

Venus	-27975-01-30 14:52 J	-8496415.91	-8496415.88	-8496415.83	0.0138	0.0135
Moon	-27969-05-05 19:11 J	-8494128.89	-8494128.70	-8494128.49	0.0142	0.0082
Earth	-27969-05-05 22:33 J	-8494128.76	-8494128.56	-8494128.34	0.0142	0.0075 *
Earth	-27968-05-10 15:50 J	-8493759.07	-8493758.84	-8493758.58	0.0142	0.0032
Moon	-27968-05-10 19:55 J	-8493758.91	-8493758.67	-8493758.43	0.0142	0.0038 *
Moon	-27967-05-15 06:57 J	-8493389.29	-8493389.21	-8493389.12	0.0143	0.0134
Earth	-27967-05-15 10:19 J	-8493389.11	-8493389.07	-8493389.00	0.0143	0.0139
Mercury	-27966-11-11 17:45 J	-8492843.78	-8492843.76	-8492843.72	0.0144	0.0140
Mercury	-27965-02-07 21:50 J	-8492755.66	-8492755.59	-8492755.50	0.0144	0.0117
Mercury	-27965-05-06 01:55 J	-8492667.52	-8492667.42	-8492667.31	0.0144	0.0094
Mercury	-27965-08-02 05:59 J	-8492579.36	-8492579.25	-8492579.12	0.0144	0.0071
Mercury	-27965-10-29 10:19 J	-8492491.20	-8492491.07	-8492490.93	0.0144	0.0047
Mercury	-27964-01-25 14:38 J	-8492403.03	-8492402.89	-8492402.75	0.0144	0.0023
Mercury	-27964-04-23 18:43 J	-8492314.86	-8492314.72	-8492314.57	0.0144	0.0004
Mercury	-27964-07-20 23:02 J	-8492226.68	-8492226.54	-8492226.40	0.0144	0.0025
Mercury	-27964-10-17 03:21 J	-8492138.49	-8492138.36	-8492138.23	0.0144	0.0049
Mercury	-27963-01-13 07:40 J	-8492050.30	-8492050.18	-8492050.06	0.0145	0.0074
Mercury	-27963-04-11 11:59 J	-8491962.10	-8491962.00	-8491961.89	0.0145	0.0098
Mercury	-27963-07-08 16:19 J	-8491873.88	-8491873.82	-8491873.74	0.0145	0.0124
Mars	-27955-04-23 17:31 J	-8489028.01	-8489027.77	-8489027.50	0.0147	0.0072
Venus	-27944-01-29 05:16 J	-8485094.31	-8485094.28	-8485094.24	0.0145	0.0142
Venus	-27944-09-12 17:31 J	-8484867.89	-8484867.77	-8484867.65	0.0144	0.0120
Venus	-27943-04-27 05:45 J	-8484641.42	-8484641.26	-8484641.10	0.0144	0.0097
Venus	-27943-12-09 17:45 J	-8484414.94	-8484414.76	-8484414.57	0.0144	0.0075
Venus	-27942-07-24 05:45 J	-8484188.46	-8484188.26	-8484188.05	0.0144	0.0053
Venus	-27941-03-06 17:45 J	-8483961.97	-8483961.76	-8483961.54	0.0143	0.0030
Venus	-27941-10-19 05:45 J	-8483735.48	-8483735.26	-8483735.04	0.0143	0.0008
Venus	-27940-06-02 17:31 J	-8483508.99	-8483508.77	-8483508.55	0.0143	0.0015
Venus	-27939-01-15 05:02 J	-8483282.50	-8483282.29	-8483282.08	0.0142	0.0037
Venus	-27939-08-29 16:19 J	-8483056.01	-8483055.82	-8483055.61	0.0142	0.0059

Venus	-27938-04-13 03:50 J	-8482829.52	-8482829.34	-8482829.15	0.0142	0.0080
Venus	-27938-11-25 14:52 J	-8482603.02	-8482602.88	-8482602.71	0.0141	0.0101
Venus	-27937-07-09 02:09 J	-8482376.50	-8482376.41	-8482376.28	0.0141	0.0122
Earth	-27930-11-08 23:16 J	-8479697.77	-8479697.53	-8479697.29	0.0137	0.0046
Moon	-27930-11-09 01:11 J	-8479697.68	-8479697.45	-8479697.21	0.0137	0.0048 *
Moon	-27929-11-12 11:59 J	-8479328.23	-8479328.00	-8479327.74	0.0136	0.0056
Earth	-27929-11-12 13:11 J	-8479328.18	-8479327.95	-8479327.70	0.0136	0.0051 *
Mercury	-27926-12-28 04:47 J	-8478187.39	-8478187.30	-8478187.20	0.0135	0.0115
Mercury	-27925-03-25 11:02 J	-8478099.17	-8478099.04	-8478098.91	0.0135	0.0090
Mercury	-27925-06-21 16:47 J	-8478010.94	-8478010.80	-8478010.63	0.0135	0.0066
Mercury	-27925-09-17 23:02 J	-8477922.71	-8477922.54	-8477922.37	0.0135	0.0041
Mercury	-27925-12-15 05:02 J	-8477834.46	-8477834.29	-8477834.11	0.0134	0.0016
Mercury	-27924-03-13 11:02 J	-8477746.22	-8477746.04	-8477745.87	0.0134	0.0008
Mercury	-27924-06-09 16:47 J	-8477657.97	-8477657.80	-8477657.63	0.0134	0.0032
Mercury	-27924-09-05 22:33 J	-8477569.71	-8477569.56	-8477569.40	0.0134	0.0056
Mercury	-27924-12-03 04:19 J	-8477481.46	-8477481.32	-8477481.18	0.0134	0.0079
Mercury	-27923-03-01 10:04 J	-8477393.19	-8477393.08	-8477392.97	0.0134	0.0102
Mercury	-27923-05-28 15:50 J	-8477304.90	-8477304.84	-8477304.79	0.0134	0.0125
Mars	-27915-08-26 16:47 J	-8474293.05	-8474292.80	-8474292.52	0.0132	0.0076
Venus	-27900-01-27 15:07 J	-8469024.90	-8469024.87	-8469024.79	0.0134	0.0130
Venus	-27900-09-10 20:38 J	-8468798.74	-8468798.64	-8468798.51	0.0134	0.0113
Venus	-27899-04-25 02:09 J	-8468572.56	-8468572.41	-8468572.25	0.0134	0.0095
Venus	-27899-12-07 07:40 J	-8468346.35	-8468346.18	-8468346.00	0.0135	0.0077
Venus	-27898-07-21 13:11 J	-8468120.14	-8468119.95	-8468119.75	0.0135	0.0059
Venus	-27897-03-03 18:57 J	-8467893.92	-8467893.71	-8467893.51	0.0135	0.0041
Venus	-27897-10-16 00:28 J	-8467667.69	-8467667.48	-8467667.26	0.0135	0.0022
Venus	-27896-05-30 06:14 J	-8467441.45	-8467441.24	-8467441.02	0.0136	0.0005
Venus	-27895-01-11 12:28 J	-8467215.20	-8467214.98	-8467214.77	0.0136	0.0015
Venus	-27895-08-25 18:14 J	-8466988.94	-8466988.74	-8466988.53	0.0136	0.0034
Venus	-27894-04-09 00:28 J	-8466762.68	-8466762.48	-8466762.28	0.0137	0.0053

Venus	-27894-11-21 06:28 J	-8466536.40	-8466536.23	-8466536.04	0.0137	0.0072
Venus	-27893-07-04 12:43 J	-8466310.12	-8466309.97	-8466309.80	0.0137	0.0091
Venus	-27892-02-15 19:40 J	-8466083.81	-8466083.68	-8466083.56	0.0138	0.0110
Venus	-27892-09-30 01:55 J	-8465857.48	-8465857.42	-8465857.34	0.0138	0.0129
Moon	-27885-05-06 07:26 J	-8463447.41	-8463447.19	-8463446.96	0.0142	0.0060
Earth	-27885-05-06 10:47 J	-8463447.25	-8463447.05	-8463446.81	0.0142	0.0068 *
Earth	-27884-05-11 04:04 J	-8463077.56	-8463077.33	-8463077.08	0.0142	0.0039
Moon	-27884-05-11 07:40 J	-8463077.42	-8463077.18	-8463076.93	0.0142	0.0032 *
Mercury	-27882-12-02 01:26 J	-8462142.49	-8462142.44	-8462142.38	0.0144	0.0132
Mercury	-27881-02-28 05:31 J	-8462054.35	-8462054.27	-8462054.17	0.0144	0.0109
Mercury	-27881-05-26 09:35 J	-8461966.21	-8461966.10	-8461965.98	0.0144	0.0086
Mercury	-27881-08-22 13:40 J	-8461878.05	-8461877.93	-8461877.80	0.0144	0.0063
Mercury	-27881-11-18 17:59 J	-8461789.88	-8461789.75	-8461789.61	0.0144	0.0039
Mercury	-27880-02-14 22:04 J	-8461701.71	-8461701.58	-8461701.43	0.0144	0.0016
Mercury	-27880-05-14 02:23 J	-8461613.54	-8461613.40	-8461613.26	0.0144	0.0009
Mercury	-27880-08-10 06:43 J	-8461525.36	-8461525.22	-8461525.08	0.0144	0.0033
Mercury	-27880-11-06 10:47 J	-8461437.17	-8461437.05	-8461436.91	0.0144	0.0058
Mercury	-27879-02-02 15:21 J	-8461348.98	-8461348.86	-8461348.74	0.0145	0.0082
Mercury	-27879-05-01 19:26 J	-8461260.77	-8461260.69	-8461260.58	0.0145	0.0107
Mercury	-27879-07-28 23:45 J	-8461172.55	-8461172.51	-8461172.44	0.0145	0.0132
Mars	-27872-01-14 09:35 J	-8458811.30	-8458811.10	-8458810.88	0.0147	0.0102
Venus	-27860-05-13 00:14 J	-8454309.58	-8454309.49	-8454309.39	0.0145	0.0130
Venus	-27860-12-25 12:14 J	-8454083.12	-8454082.99	-8454082.83	0.0144	0.0108
Venus	-27859-08-09 00:28 J	-8453856.65	-8453856.48	-8453856.29	0.0144	0.0085
Venus	-27858-03-23 12:43 J	-8453630.17	-8453629.97	-8453629.77	0.0144	0.0062
Venus	-27858-11-05 00:43 J	-8453403.68	-8453403.47	-8453403.26	0.0143	0.0039
Venus	-27857-06-18 12:43 J	-8453177.19	-8453176.97	-8453176.75	0.0143	0.0017
Venus	-27856-01-31 00:28 J	-8452950.70	-8452950.48	-8452950.26	0.0143	0.0006
Venus	-27856-09-14 12:14 J	-8452724.21	-8452723.99	-8452723.77	0.0142	0.0028
Venus	-27855-04-28 23:45 J	-8452497.71	-8452497.51	-8452497.30	0.0142	0.0050

Venus	-27855-12-11 11:16 J	-8452271.22	-8452271.03	-8452270.84	0.0142	0.0072
Venus	-27854-07-25 22:33 J	-8452044.71	-8452044.56	-8452044.38	0.0141	0.0094
Venus	-27853-03-08 10:04 J	-8451818.20	-8451818.08	-8451817.95	0.0141	0.0114
Venus	-27853-10-20 21:07 J	-8451591.67	-8451591.62	-8451591.55	0.0141	0.0135
Moon	-27847-11-04 16:33 J	-8449385.84	-8449385.81	-8449385.73	0.0137	0.0135
Earth	-27847-11-04 19:55 J	-8449385.68	-8449385.67	-8449385.64	0.0137	0.0137
Earth	-27846-11-09 11:16 J	-8449016.28	-8449016.03	-8449015.78	0.0137	0.0039
Moon	-27846-11-09 12:57 J	-8449016.19	-8449015.96	-8449015.71	0.0137	0.0037 *
Moon	-27845-11-12 23:02 J	-8448646.77	-8448646.54	-8448646.28	0.0136	0.0053
Earth	-27845-11-13 01:26 J	-8448646.66	-8448646.44	-8448646.19	0.0136	0.0057 *
Mercury	-27842-10-21 06:14 J	-8447574.27	-8447574.24	-8447574.19	0.0135	0.0131
Mercury	-27841-01-17 12:28 J	-8447486.08	-8447485.98	-8447485.86	0.0135	0.0106
Mercury	-27841-04-14 18:43 J	-8447397.86	-8447397.72	-8447397.57	0.0135	0.0081
Mercury	-27841-07-12 00:57 J	-8447309.62	-8447309.46	-8447309.30	0.0135	0.0056
Mercury	-27841-10-08 06:43 J	-8447221.38	-8447221.22	-8447221.04	0.0135	0.0032
Mercury	-27840-01-04 12:57 J	-8447133.14	-8447132.96	-8447132.79	0.0134	0.0007
Mercury	-27840-04-02 18:43 J	-8447044.89	-8447044.72	-8447044.54	0.0134	0.0017
Mercury	-27840-06-30 00:28 J	-8446956.64	-8446956.48	-8446956.31	0.0134	0.0042
Mercury	-27840-09-26 06:14 J	-8446868.38	-8446868.24	-8446868.08	0.0134	0.0065
Mercury	-27840-12-23 12:14 J	-8446780.12	-8446779.99	-8446779.86	0.0134	0.0088
Mercury	-27839-03-21 17:59 J	-8446691.85	-8446691.75	-8446691.66	0.0134	0.0111
Mars	-27830-04-21 23:45 J	-8443373.83	-8443373.51	-8443373.18	0.0132	0.0004
Venus	-27816-05-11 08:09 J	-8438240.24	-8438240.16	-8438240.04	0.0134	0.0119
Venus	-27816-12-23 13:40 J	-8438014.06	-8438013.93	-8438013.77	0.0134	0.0102
Venus	-27815-08-06 19:11 J	-8437787.86	-8437787.70	-8437787.52	0.0135	0.0084
Venus	-27814-03-21 00:28 J	-8437561.65	-8437561.48	-8437561.28	0.0135	0.0066
Venus	-27814-11-02 06:14 J	-8437335.44	-8437335.24	-8437335.03	0.0135	0.0047
Venus	-27813-06-15 11:59 J	-8437109.21	-8437109.00	-8437108.79	0.0135	0.0029
Venus	-27812-01-27 17:59 J	-8436882.97	-8436882.75	-8436882.54	0.0136	0.0010
Venus	-27812-09-10 23:45 J	-8436656.72	-8436656.51	-8436656.29	0.0136	0.0009

Venus	-27811-04-25 05:31 J	-8436430.47	-8436430.27	-8436430.05	0.0136	0.0028
Venus	-27811-12-07 11:45 J	-8436204.21	-8436204.01	-8436203.81	0.0136	0.0047
Venus	-27810-07-21 17:45 J	-8435977.94	-8435977.76	-8435977.56	0.0137	0.0066
Venus	-27809-03-03 23:59 J	-8435751.65	-8435751.50	-8435751.32	0.0137	0.0085
Venus	-27809-10-16 06:14 J	-8435525.36	-8435525.24	-8435525.09	0.0137	0.0105
Venus	-27808-05-30 12:57 J	-8435299.05	-8435298.96	-8435298.86	0.0138	0.0123
Moon	-27801-05-06 20:38 J	-8432765.86	-8432765.64	-8432765.43	0.0142	0.0067
Earth	-27801-05-06 23:31 J	-8432765.74	-8432765.52	-8432765.29	0.0142	0.0060 *
Earth	-27800-05-11 17:02 J	-8432396.03	-8432395.79	-8432395.56	0.0142	0.0046
Moon	-27800-05-11 20:23 J	-8432395.88	-8432395.65	-8432395.41	0.0142	0.0053 *
Mercury	-27798-12-22 09:07 J	-8431441.18	-8431441.12	-8431441.04	0.0144	0.0124
Mercury	-27797-03-19 13:11 J	-8431353.04	-8431352.95	-8431352.84	0.0144	0.0101
Mercury	-27797-06-15 17:16 J	-8431264.89	-8431264.78	-8431264.66	0.0144	0.0078
Mercury	-27797-09-11 21:35 J	-8431176.73	-8431176.60	-8431176.47	0.0144	0.0054
Mercury	-27797-12-09 01:40 J	-8431088.56	-8431088.43	-8431088.29	0.0144	0.0031
Mercury	-27796-03-07 05:59 J	-8431000.39	-8431000.25	-8431000.11	0.0144	0.0007
Mercury	-27796-06-03 10:04 J	-8430912.22	-8430912.08	-8430911.94	0.0144	0.0017
Mercury	-27796-08-30 14:23 J	-8430824.03	-8430823.90	-8430823.76	0.0144	0.0041
Mercury	-27796-11-26 18:43 J	-8430735.85	-8430735.72	-8430735.59	0.0144	0.0066
Mercury	-27795-02-22 22:47 J	-8430647.65	-8430647.55	-8430647.43	0.0145	0.0091
Mercury	-27795-05-22 03:21 J	-8430559.44	-8430559.36	-8430559.27	0.0145	0.0115
Mercury	-27795-08-18 07:40 J	-8430471.20	-8430471.18	-8430471.14	0.0145	0.0140
Mars	-27788-09-09 22:19 J	-8427891.86	-8427891.57	-8427891.27	0.0147	0.0005
Venus	-27776-01-10 07:55 J	-8423751.22	-8423751.17	-8423751.10	0.0145	0.0139
Venus	-27776-08-24 19:55 J	-8423524.78	-8423524.67	-8423524.52	0.0145	0.0117
Venus	-27775-04-08 08:23 J	-8423298.31	-8423298.15	-8423297.98	0.0144	0.0094
Venus	-27775-11-20 20:23 J	-8423071.83	-8423071.65	-8423071.45	0.0144	0.0071
Venus	-27774-07-05 08:52 J	-8422845.34	-8422845.13	-8422844.92	0.0144	0.0048
Venus	-27773-02-16 20:52 J	-8422618.85	-8422618.63	-8422618.41	0.0143	0.0025
Venus	-27773-09-30 08:52 J	-8422392.35	-8422392.13	-8422391.91	0.0143	0.0004

Venus	-27772-05-14 20:23 J	-8422165.86	-8422165.65	-8422165.43	0.0143	0.0021
Venus	-27772-12-27 08:09 J	-8421939.37	-8421939.16	-8421938.94	0.0142	0.0043
Venus	-27771-08-10 19:40 J	-8421712.86	-8421712.68	-8421712.47	0.0142	0.0065
Venus	-27770-03-25 07:11 J	-8421486.36	-8421486.20	-8421486.01	0.0142	0.0087
Venus	-27770-11-06 18:43 J	-8421259.86	-8421259.72	-8421259.57	0.0141	0.0108
Venus	-27769-06-20 05:45 J	-8421033.33	-8421033.26	-8421033.16	0.0141	0.0129
Moon	-27763-11-05 06:28 J	-8418704.30	-8418704.23	-8418704.13	0.0137	0.0130
Earth	-27763-11-05 09:21 J	-8418704.19	-8418704.11	-8418704.01	0.0137	0.0129 *
Earth	-27762-11-10 00:57 J	-8418334.71	-8418334.46	-8418334.21	0.0137	0.0031
Moon	-27762-11-10 03:35 J	-8418334.59	-8418334.35	-8418334.10	0.0137	0.0033 *
Moon	-27761-11-13 13:26 J	-8417965.17	-8417964.94	-8417964.71	0.0136	0.0070
Earth	-27761-11-13 15:07 J	-8417965.08	-8417964.87	-8417964.63	0.0136	0.0066 *
Mercury	-27758-11-10 14:38 J	-8416872.96	-8416872.89	-8416872.81	0.0135	0.0120
Mercury	-27757-02-06 20:52 J	-8416784.75	-8416784.63	-8416784.50	0.0135	0.0095
Mercury	-27757-05-05 03:07 J	-8416696.52	-8416696.37	-8416696.22	0.0135	0.0070
Mercury	-27757-08-01 08:52 J	-8416608.29	-8416608.13	-8416607.95	0.0135	0.0046
Mercury	-27757-10-28 15:07 J	-8416520.04	-8416519.87	-8416519.69	0.0135	0.0021
Mercury	-27756-01-24 21:07 J	-8416431.80	-8416431.62	-8416431.44	0.0134	0.0004
Mercury	-27756-04-23 02:52 J	-8416343.55	-8416343.38	-8416343.20	0.0134	0.0028
Mercury	-27756-07-20 08:52 J	-8416255.29	-8416255.13	-8416254.97	0.0134	0.0052
Mercury	-27756-10-16 14:23 J	-8416167.03	-8416166.90	-8416166.75	0.0134	0.0076
Mercury	-27755-01-12 20:09 J	-8416078.77	-8416078.66	-8416078.53	0.0134	0.0099
Mercury	-27755-04-11 01:40 J	-8415990.48	-8415990.43	-8415990.34	0.0134	0.0122
Mars	-27747-01-12 22:33 J	-8413156.59	-8413156.56	-8413156.50	0.0132	0.0130
Mars	-27746-12-16 08:23 J	-8412454.37	-8412454.15	-8412453.88	0.0132	0.0085
Venus	-27732-01-08 20:52 J	-8407681.70	-8407681.63	-8407681.55	0.0134	0.0125
Venus	-27732-08-23 01:55 J	-8407455.53	-8407455.42	-8407455.28	0.0134	0.0108
Venus	-27731-04-06 07:11 J	-8407229.34	-8407229.20	-8407229.02	0.0134	0.0091
Venus	-27731-11-18 13:11 J	-8407003.13	-8407002.95	-8407002.77	0.0135	0.0072
Venus	-27730-07-02 18:28 J	-8406776.92	-8406776.73	-8406776.52	0.0135	0.0054

Venus	-27729-02-14 00:28 J	-8406550.69	-8406550.48	-8406550.27	0.0135	0.0035
Venus	-27729-09-27 06:14 J	-8406324.45	-8406324.24	-8406324.03	0.0135	0.0016
Venus	-27728-05-11 11:59 J	-8406098.21	-8406098.00	-8406097.78	0.0136	0.0003
Venus	-27728-12-23 17:59 J	-8405871.96	-8405871.75	-8405871.54	0.0136	0.0022
Venus	-27727-08-06 23:59 J	-8405645.70	-8405645.50	-8405645.29	0.0136	0.0041
Venus	-27726-03-21 05:59 J	-8405419.44	-8405419.25	-8405419.05	0.0137	0.0060
Venus	-27726-11-02 12:14 J	-8405193.16	-8405192.99	-8405192.81	0.0137	0.0079
Venus	-27725-06-15 18:28 J	-8404966.87	-8404966.73	-8404966.57	0.0137	0.0098
Venus	-27724-01-28 00:43 J	-8404740.56	-8404740.47	-8404740.34	0.0138	0.0118
Venus	-27724-09-11 07:11 J	-8404514.21	-8404514.20	-8404514.15	0.0138	0.0137
Moon	-27717-05-07 11:02 J	-8402084.26	-8402084.04	-8402083.79	0.0142	0.0043
Earth	-27717-05-07 14:38 J	-8402084.13	-8402083.89	-8402083.66	0.0142	0.0050 *
Earth	-27716-05-12 07:55 J	-8401714.40	-8401714.17	-8401713.94	0.0142	0.0056
Moon	-27716-05-12 10:47 J	-8401714.28	-8401714.05	-8401713.80	0.0142	0.0049 *
Mercury	-27714-10-15 13:26 J	-8400827.98	-8400827.94	-8400827.90	0.0143	0.0136
Mercury	-27713-01-11 17:31 J	-8400739.85	-8400739.77	-8400739.69	0.0144	0.0113
Mercury	-27713-04-08 21:35 J	-8400651.71	-8400651.60	-8400651.49	0.0144	0.0090
Mercury	-27713-07-06 01:40 J	-8400563.55	-8400563.43	-8400563.31	0.0144	0.0067
Mercury	-27713-10-02 05:45 J	-8400475.39	-8400475.26	-8400475.12	0.0144	0.0044
Mercury	-27713-12-29 09:50 J	-8400387.22	-8400387.09	-8400386.95	0.0144	0.0021
Mercury	-27712-03-27 14:09 J	-8400299.05	-8400298.91	-8400298.77	0.0144	0.0004
Mercury	-27712-06-23 18:14 J	-8400210.87	-8400210.74	-8400210.59	0.0144	0.0029
Mercury	-27712-09-19 22:33 J	-8400122.69	-8400122.56	-8400122.42	0.0144	0.0052
Mercury	-27712-12-17 02:52 J	-8400034.50	-8400034.38	-8400034.26	0.0145	0.0077
Mercury	-27711-03-15 07:11 J	-8399946.30	-8399946.20	-8399946.09	0.0145	0.0101
Mercury	-27711-06-11 11:45 J	-8399858.08	-8399858.01	-8399857.94	0.0145	0.0126
Mars	-27703-05-06 15:35 J	-8396972.06	-8396971.85	-8396971.61	0.0147	0.0096
Venus	-27692-04-24 05:16 J	-8392966.38	-8392966.28	-8392966.16	0.0145	0.0125
Venus	-27692-12-06 17:16 J	-8392739.92	-8392739.78	-8392739.61	0.0144	0.0103
Venus	-27691-07-21 05:45 J	-8392513.44	-8392513.26	-8392513.07	0.0144	0.0079

Venus	-27690-03-04 17:45 J	-8392286.95	-8392286.76	-8392286.55	0.0144	0.0057
Venus	-27690-10-17 05:59 J	-8392060.46	-8392060.25	-8392060.03	0.0143	0.0033
Venus	-27689-05-30 17:59 J	-8391833.97	-8391833.75	-8391833.53	0.0143	0.0011
Venus	-27688-01-12 05:45 J	-8391607.47	-8391607.26	-8391607.03	0.0143	0.0013
Venus	-27688-08-26 17:45 J	-8391380.97	-8391380.76	-8391380.55	0.0142	0.0035
Venus	-27687-04-10 05:16 J	-8391154.48	-8391154.28	-8391154.07	0.0142	0.0057
Venus	-27687-11-22 17:02 J	-8390927.98	-8390927.79	-8390927.61	0.0142	0.0079
Venus	-27686-07-07 04:04 J	-8390701.46	-8390701.33	-8390701.16	0.0141	0.0102
Venus	-27685-02-18 15:35 J	-8390474.95	-8390474.85	-8390474.73	0.0141	0.0122
Moon	-27679-11-05 20:09 J	-8388022.77	-8388022.66	-8388022.50	0.0137	0.0117
Earth	-27679-11-05 23:45 J	-8388022.62	-8388022.51	-8388022.37	0.0137	0.0120 *
Earth	-27678-11-10 15:21 J	-8387653.11	-8387652.86	-8387652.61	0.0137	0.0022
Moon	-27678-11-10 17:45 J	-8387653.00	-8387652.76	-8387652.50	0.0137	0.0020 *
Moon	-27677-11-14 02:38 J	-8387283.60	-8387283.39	-8387283.15	0.0136	0.0070
Earth	-27677-11-14 05:31 J	-8387283.47	-8387283.27	-8387283.04	0.0136	0.0075 *
Mercury	-27674-09-03 16:47 J	-8386259.81	-8386259.80	-8386259.78	0.0135	0.0134
Mercury	-27674-11-30 23:02 J	-8386171.64	-8386171.54	-8386171.43	0.0135	0.0109
Mercury	-27673-02-27 05:02 J	-8386083.42	-8386083.29	-8386083.14	0.0135	0.0084
Mercury	-27673-05-25 11:16 J	-8385995.18	-8385995.03	-8385994.87	0.0135	0.0059
Mercury	-27673-08-21 17:16 J	-8385906.94	-8385906.78	-8385906.60	0.0135	0.0035
Mercury	-27673-11-17 23:31 J	-8385818.70	-8385818.52	-8385818.35	0.0134	0.0010
Mercury	-27672-02-14 05:16 J	-8385730.45	-8385730.28	-8385730.10	0.0134	0.0015
Mercury	-27672-05-13 11:16 J	-8385642.20	-8385642.03	-8385641.86	0.0134	0.0039
Mercury	-27672-08-09 17:02 J	-8385553.94	-8385553.79	-8385553.63	0.0134	0.0062
Mercury	-27672-11-05 22:47 J	-8385465.68	-8385465.55	-8385465.41	0.0134	0.0086
Mercury	-27671-02-02 04:33 J	-8385377.40	-8385377.31	-8385377.21	0.0134	0.0109
Mercury	-27671-05-01 10:19 J	-8385289.09	-8385289.07	-8385289.04	0.0134	0.0132
Mars	-27663-09-08 06:43 J	-8382237.50	-8382237.22	-8382236.90	0.0132	0.0050
Venus	-27649-09-08 08:23 J	-8377123.17	-8377123.15	-8377123.10	0.0134	0.0132
Venus	-27648-04-22 13:55 J	-8376897.02	-8376896.92	-8376896.80	0.0134	0.0114

Venus	-27648-12-04 19:26 J	-8376670.84	-8376670.69	-8376670.54	0.0134	0.0097
Venus	-27647-07-19 00:43 J	-8376444.63	-8376444.47	-8376444.28	0.0134	0.0079
Venus	-27646-03-02 06:28 J	-8376218.42	-8376218.23	-8376218.04	0.0135	0.0060
Venus	-27646-10-14 11:45 J	-8375992.20	-8375992.01	-8375991.79	0.0135	0.0042
Venus	-27645-05-27 17:31 J	-8375765.97	-8375765.77	-8375765.55	0.0135	0.0024
Venus	-27644-01-08 23:45 J	-8375539.73	-8375539.51	-8375539.30	0.0136	0.0005
Venus	-27644-08-23 05:31 J	-8375313.49	-8375313.27	-8375313.06	0.0136	0.0015
Venus	-27643-04-06 11:16 J	-8375087.23	-8375087.03	-8375086.82	0.0136	0.0034
Venus	-27643-11-18 17:16 J	-8374860.97	-8374860.78	-8374860.58	0.0136	0.0054
Venus	-27642-07-02 23:16 J	-8374634.70	-8374634.53	-8374634.34	0.0137	0.0073
Venus	-27641-02-14 05:31 J	-8374408.42	-8374408.27	-8374408.10	0.0137	0.0092
Venus	-27641-09-27 11:45 J	-8374182.12	-8374182.01	-8374181.87	0.0137	0.0112
Venus	-27640-05-11 17:59 J	-8373955.80	-8373955.75	-8373955.67	0.0138	0.0131
Moon	-27634-05-04 12:43 J	-8371771.98	-8371771.97	-8371771.92	0.0141	0.0140
Moon	-27633-05-08 00:14 J	-8371402.71	-8371402.49	-8371402.26	0.0142	0.0050
Earth	-27633-05-08 02:52 J	-8371402.62	-8371402.38	-8371402.14	0.0142	0.0043 *
Earth	-27632-05-12 20:23 J	-8371032.87	-8371032.65	-8371032.42	0.0142	0.0062
Moon	-27632-05-12 23:31 J	-8371032.73	-8371032.52	-8371032.28	0.0142	0.0070 *
Mercury	-27630-11-04 21:07 J	-8370126.68	-8370126.62	-8370126.56	0.0144	0.0128
Mercury	-27629-02-01 00:57 J	-8370038.54	-8370038.46	-8370038.36	0.0144	0.0106
Mercury	-27629-04-29 05:16 J	-8369950.39	-8369950.28	-8369950.17	0.0144	0.0082
Mercury	-27629-07-26 09:21 J	-8369862.24	-8369862.11	-8369861.98	0.0144	0.0059
Mercury	-27629-10-22 13:26 J	-8369774.07	-8369773.94	-8369773.80	0.0144	0.0036
Mercury	-27628-01-18 17:31 J	-8369685.90	-8369685.77	-8369685.62	0.0144	0.0013
Mercury	-27628-04-16 21:50 J	-8369597.73	-8369597.59	-8369597.45	0.0144	0.0012
Mercury	-27628-07-14 01:55 J	-8369509.55	-8369509.42	-8369509.28	0.0144	0.0037
Mercury	-27628-10-10 06:14 J	-8369421.36	-8369421.24	-8369421.11	0.0144	0.0061
Mercury	-27627-01-06 10:33 J	-8369333.17	-8369333.06	-8369332.94	0.0145	0.0085
Mercury	-27627-04-04 14:52 J	-8369244.97	-8369244.88	-8369244.78	0.0145	0.0110
Mercury	-27627-07-01 19:11 J	-8369156.74	-8369156.70	-8369156.64	0.0145	0.0135

Mars	-27620-01-27 09:50 J	-8366755.33	-8366755.09	-8366754.82	0.0147	0.0076
Venus	-27609-12-22 13:55 J	-8362407.99	-8362407.92	-8362407.83	0.0145	0.0134
Venus	-27608-08-06 02:23 J	-8362181.54	-8362181.40	-8362181.26	0.0145	0.0111
Venus	-27607-03-20 14:23 J	-8361955.06	-8361954.90	-8361954.72	0.0144	0.0088
Venus	-27607-11-02 02:38 J	-8361728.58	-8361728.39	-8361728.19	0.0144	0.0065
Venus	-27606-06-16 14:52 J	-8361502.08	-8361501.88	-8361501.66	0.0144	0.0042
Venus	-27605-01-29 03:07 J	-8361275.59	-8361275.37	-8361275.15	0.0143	0.0018
Venus	-27605-09-11 15:07 J	-8361049.09	-8361048.87	-8361048.65	0.0143	0.0005
Venus	-27604-04-26 02:52 J	-8360822.59	-8360822.38	-8360822.16	0.0143	0.0027
Venus	-27604-12-08 14:23 J	-8360596.09	-8360595.90	-8360595.68	0.0142	0.0051
Venus	-27603-07-23 02:23 J	-8360369.58	-8360369.40	-8360369.21	0.0142	0.0072
Venus	-27602-03-06 13:40 J	-8360143.08	-8360142.93	-8360142.75	0.0142	0.0095
Venus	-27602-10-19 00:57 J	-8359916.57	-8359916.46	-8359916.32	0.0141	0.0117
Venus	-27601-06-01 12:14 J	-8359690.02	-8359689.99	-8359689.93	0.0141	0.0137
Moon	-27595-11-06 11:16 J	-8357341.17	-8357341.03	-8357340.86	0.0137	0.0112
Earth	-27595-11-06 14:23 J	-8357341.03	-8357340.90	-8357340.73	0.0137	0.0110 *
Earth	-27594-11-11 06:14 J	-8356971.49	-8356971.24	-8356970.98	0.0137	0.0013
Moon	-27594-11-11 09:35 J	-8356971.35	-8356971.10	-8356970.85	0.0137	0.0014 *
Moon	-27593-11-14 17:59 J	-8356601.94	-8356601.75	-8356601.54	0.0136	0.0088
Earth	-27593-11-14 20:38 J	-8356601.83	-8356601.64	-8356601.42	0.0136	0.0083 *
Mercury	-27590-09-24 00:57 J	-8355558.51	-8355558.46	-8355558.37	0.0135	0.0123
Mercury	-27590-12-21 07:40 J	-8355470.30	-8355470.18	-8355470.06	0.0135	0.0097
Mercury	-27589-03-18 13:26 J	-8355382.08	-8355381.94	-8355381.78	0.0135	0.0073
Mercury	-27589-06-14 19:40 J	-8355293.84	-8355293.68	-8355293.51	0.0135	0.0048
Mercury	-27589-09-11 01:55 J	-8355205.59	-8355205.42	-8355205.24	0.0135	0.0023
Saturn	-27589-11-02 10:04 J	-8355153.63	-8355153.08	-8355152.49	0.0134	0.0048
Mercury	-27589-12-08 07:55 J	-8355117.35	-8355117.17	-8355116.99	0.0134	0.0002
Mercury	-27588-03-06 13:40 J	-8355029.10	-8355028.93	-8355028.75	0.0134	0.0026
Mercury	-27588-06-02 19:26 J	-8354940.84	-8354940.69	-8354940.51	0.0134	0.0051
Mercury	-27588-08-30 01:26 J	-8354852.58	-8354852.44	-8354852.29	0.0134	0.0074

Mercury	-27588-11-26 07:11 J	-8354764.31	-8354764.20	-8354764.07	0.0134	0.0097
Mercury	-27587-02-22 12:57 J	-8354676.03	-8354675.96	-8354675.88	0.0134	0.0120
Mars	-27578-05-04 16:19 J	-8351318.13	-8351317.82	-8351317.50	0.0132	0.0031
Venus	-27565-12-21 01:55 J	-8346338.50	-8346338.42	-8346338.32	0.0134	0.0121
Venus	-27564-08-04 07:26 J	-8346112.33	-8346112.19	-8346112.05	0.0134	0.0103
Venus	-27563-03-18 12:28 J	-8345886.13	-8345885.98	-8345885.80	0.0134	0.0086
Venus	-27563-10-30 18:14 J	-8345659.93	-8345659.74	-8345659.55	0.0135	0.0067
Venus	-27562-06-13 23:31 J	-8345433.71	-8345433.52	-8345433.30	0.0135	0.0049
Venus	-27561-01-26 05:31 J	-8345207.48	-8345207.27	-8345207.06	0.0135	0.0030
Venus	-27561-09-08 11:16 J	-8344981.24	-8344981.03	-8344980.81	0.0135	0.0011
Venus	-27560-04-22 17:02 J	-8344755.01	-8344754.79	-8344754.58	0.0136	0.0008
Venus	-27560-12-04 22:47 J	-8344528.76	-8344528.55	-8344528.34	0.0136	0.0028
Venus	-27559-07-19 04:33 J	-8344302.50	-8344302.31	-8344302.10	0.0136	0.0047
Venus	-27558-03-02 10:33 J	-8344076.23	-8344076.06	-8344075.86	0.0137	0.0067
Venus	-27558-10-14 16:33 J	-8343849.96	-8343849.81	-8343849.63	0.0137	0.0086
Venus	-27557-05-27 22:47 J	-8343623.67	-8343623.55	-8343623.40	0.0137	0.0105
Venus	-27556-01-09 05:16 J	-8343397.36	-8343397.28	-8343397.18	0.0138	0.0125
Earth	-27550-05-04 23:02 J	-8341090.57	-8341090.54	-8341090.47	0.0141	0.0138
Moon	-27549-05-08 13:26 J	-8340721.18	-8340720.94	-8340720.70	0.0142	0.0028
Earth	-27549-05-08 16:04 J	-8340721.07	-8340720.83	-8340720.59	0.0142	0.0035 *
Earth	-27548-05-13 09:21 J	-8340351.32	-8340351.11	-8340350.88	0.0142	0.0070
Moon	-27548-05-13 11:59 J	-8340351.22	-8340351.00	-8340350.76	0.0142	0.0063 *
Mercury	-27546-08-29 00:43 J	-8339513.47	-8339513.47	-8339513.45	0.0143	0.0142
Mercury	-27546-11-25 04:47 J	-8339425.37	-8339425.30	-8339425.22	0.0144	0.0120
Mercury	-27545-02-21 08:52 J	-8339337.23	-8339337.13	-8339337.02	0.0144	0.0097
Saturn	-27545-05-06 11:59 J	-8339262.62	-8339262.00	-8339261.30	0.0144	0.0037
Mercury	-27545-05-19 12:57 J	-8339249.08	-8339248.96	-8339248.84	0.0144	0.0074
Mercury	-27545-08-15 17:02 J	-8339160.92	-8339160.79	-8339160.66	0.0144	0.0051
Mercury	-27545-11-11 21:21 J	-8339072.75	-8339072.61	-8339072.48	0.0144	0.0027
Mercury	-27544-02-08 01:26 J	-8338984.58	-8338984.44	-8338984.30	0.0144	0.0003

Mercury	-27544-05-07 05:31 J	-8338896.41	-8338896.27	-8338896.13	0.0144	0.0021
Mercury	-27544-08-03 09:50 J	-8338808.22	-8338808.09	-8338807.95	0.0144	0.0045
Mercury	-27544-10-30 13:55 J	-8338720.04	-8338719.92	-8338719.79	0.0145	0.0070
Mercury	-27543-01-26 18:14 J	-8338631.84	-8338631.74	-8338631.62	0.0145	0.0094
Mercury	-27543-04-24 22:33 J	-8338543.63	-8338543.56	-8338543.47	0.0145	0.0119
Mercury	-27543-07-22 02:52 J	-8338455.38	-8338455.38	-8338455.35	0.0145	0.0144
Mars	-27536-09-23 00:14 J	-8335835.77	-8335835.49	-8335835.19	0.0147	0.0023
Venus	-27525-08-21 22:33 J	-8331849.58	-8331849.56	-8331849.52	0.0145	0.0143
Venus	-27524-04-05 11:02 J	-8331623.16	-8331623.04	-8331622.91	0.0145	0.0120
Venus	-27524-11-17 23:31 J	-8331396.68	-8331396.52	-8331396.36	0.0144	0.0097
Venus	-27523-07-02 11:59 J	-8331170.19	-8331170.00	-8331169.82	0.0144	0.0074
Venus	-27522-02-14 00:14 J	-8330943.70	-8330943.49	-8330943.29	0.0144	0.0050
Venus	-27522-09-28 12:14 J	-8330717.21	-8330716.99	-8330716.77	0.0144	0.0027
Venus	-27521-05-12 00:14 J	-8330490.71	-8330490.49	-8330490.27	0.0143	0.0004
Venus	-27521-12-24 11:59 J	-8330264.21	-8330264.00	-8330263.77	0.0143	0.0020
Venus	-27520-08-07 23:59 J	-8330037.71	-8330037.50	-8330037.29	0.0143	0.0042
Venus	-27519-03-22 11:31 J	-8329811.20	-8329811.02	-8329810.81	0.0142	0.0065
Venus	-27519-11-03 23:16 J	-8329584.70	-8329584.53	-8329584.35	0.0142	0.0087
Venus	-27518-06-18 10:33 J	-8329358.18	-8329358.06	-8329357.91	0.0142	0.0110
Venus	-27517-01-30 22:19 J	-8329131.65	-8329131.57	-8329131.49	0.0141	0.0131
Moon	-27511-11-07 01:26 J	-8326659.61	-8326659.44	-8326659.24	0.0137	0.0098
Earth	-27511-11-07 05:16 J	-8326659.45	-8326659.28	-8326659.10	0.0137	0.0101 *
Earth	-27510-11-11 20:52 J	-8326289.88	-8326289.63	-8326289.37	0.0137	0.0004
Moon	-27510-11-11 23:59 J	-8326289.75	-8326289.50	-8326289.24	0.0137	0.0002 *
Moon	-27509-11-15 08:09 J	-8325920.36	-8325920.16	-8325919.96	0.0136	0.0088
Earth	-27509-11-15 11:16 J	-8325920.20	-8325920.03	-8325919.82	0.0136	0.0093 *
Mercury	-27506-10-14 09:35 J	-8324857.19	-8324857.10	-8324856.99	0.0135	0.0111
Mercury	-27505-01-10 15:50 J	-8324768.97	-8324768.84	-8324768.69	0.0135	0.0086
Mercury	-27505-04-07 22:04 J	-8324680.73	-8324680.58	-8324680.42	0.0135	0.0061
Mercury	-27505-07-05 04:19 J	-8324592.49	-8324592.32	-8324592.15	0.0135	0.0036

Mercury	-27505-10-01 10:19 J	-8324504.25	-8324504.07	-8324503.89	0.0134	0.0011
Mercury	-27505-12-28 16:19 J	-8324416.00	-8324415.82	-8324415.64	0.0134	0.0013
Mercury	-27504-03-26 22:04 J	-8324327.74	-8324327.58	-8324327.40	0.0134	0.0037
Mercury	-27504-06-23 03:50 J	-8324239.49	-8324239.34	-8324239.17	0.0134	0.0061
Mercury	-27504-09-19 09:50 J	-8324151.22	-8324151.09	-8324150.95	0.0134	0.0084
Mercury	-27504-12-16 15:21 J	-8324062.95	-8324062.86	-8324062.75	0.0134	0.0108
Mercury	-27503-03-14 21:07 J	-8323974.64	-8323974.62	-8323974.57	0.0134	0.0131
Mars	-27495-01-25 16:33 J	-8321101.00	-8321100.81	-8321100.60	0.0132	0.0102
Mars	-27494-12-29 01:40 J	-8320398.57	-8320398.43	-8320398.23	0.0132	0.0112
Venus	-27481-08-20 13:40 J	-8315779.99	-8315779.93	-8315779.87	0.0134	0.0128
Venus	-27480-04-03 18:57 J	-8315553.83	-8315553.71	-8315553.59	0.0134	0.0110
Venus	-27480-11-15 23:59 J	-8315327.64	-8315327.50	-8315327.33	0.0134	0.0092
Venus	-27479-06-30 05:16 J	-8315101.44	-8315101.28	-8315101.08	0.0134	0.0075
Venus	-27478-02-11 11:02 J	-8314875.23	-8314875.04	-8314874.83	0.0135	0.0056
Venus	-27478-09-25 16:33 J	-8314649.01	-8314648.81	-8314648.59	0.0135	0.0037
Venus	-27477-05-08 22:04 J	-8314422.78	-8314422.58	-8314422.36	0.0135	0.0019
Venus	-27477-12-21 04:04 J	-8314196.55	-8314196.33	-8314196.12	0.0135	0.0002
Venus	-27476-08-04 09:35 J	-8313970.31	-8313970.10	-8313969.88	0.0136	0.0021
Venus	-27475-03-18 15:21 J	-8313744.06	-8313743.86	-8313743.65	0.0136	0.0040
Venus	-27475-10-30 21:07 J	-8313517.80	-8313517.62	-8313517.42	0.0136	0.0060
Venus	-27474-06-14 03:07 J	-8313291.54	-8313291.37	-8313291.19	0.0137	0.0079
Venus	-27473-01-26 09:21 J	-8313065.25	-8313065.11	-8313064.96	0.0137	0.0098
Venus	-27473-09-08 15:35 J	-8312838.95	-8312838.85	-8312838.74	0.0137	0.0118
Venus	-27472-04-22 21:50 J	-8312612.60	-8312612.59	-8312612.57	0.0138	0.0137
Earth	-27466-05-05 09:21 J	-8310409.17	-8310409.11	-8310409.01	0.0141	0.0133
Moon	-27466-05-05 11:16 J	-8310409.12	-8310409.03	-8310408.90	0.0141	0.0127 *
Moon	-27465-05-09 00:28 J	-8310039.72	-8310039.48	-8310039.25	0.0142	0.0037
Earth	-27465-05-09 02:09 J	-8310039.65	-8310039.41	-8310039.16	0.0142	0.0030 *
Earth	-27464-05-13 19:40 J	-8309669.89	-8309669.68	-8309669.46	0.0142	0.0074
Moon	-27464-05-13 22:19 J	-8309669.77	-8309669.57	-8309669.35	0.0142	0.0081 *

Mercury	-27462-09-18 08:09 J	-8308812.20	-8308812.16	-8308812.13	0.0143	0.0137
Mercury	-27462-12-15 11:45 J	-8308724.08	-8308724.01	-8308723.91	0.0144	0.0115
Mercury	-27461-03-12 16:04 J	-8308635.93	-8308635.83	-8308635.72	0.0144	0.0091
Mercury	-27461-06-08 19:55 J	-8308547.78	-8308547.67	-8308547.54	0.0144	0.0069
Mercury	-27461-09-05 00:14 J	-8308459.62	-8308459.49	-8308459.36	0.0144	0.0045
Mercury	-27461-12-02 04:19 J	-8308371.46	-8308371.32	-8308371.18	0.0144	0.0022
Mercury	-27460-02-28 08:38 J	-8308283.28	-8308283.14	-8308283.00	0.0144	0.0004
Mercury	-27460-05-27 12:43 J	-8308195.11	-8308194.97	-8308194.83	0.0144	0.0026
Mercury	-27460-08-23 16:47 J	-8308106.92	-8308106.80	-8308106.66	0.0144	0.0051
Mercury	-27460-11-19 21:07 J	-8308018.74	-8308018.62	-8308018.49	0.0145	0.0075
Mercury	-27459-02-16 01:26 J	-8307930.54	-8307930.44	-8307930.33	0.0145	0.0099
Mercury	-27459-05-15 05:45 J	-8307842.32	-8307842.26	-8307842.18	0.0145	0.0124
Mars	-27451-05-19 08:09 J	-8304916.33	-8304916.16	-8304915.97	0.0147	0.0115
Venus	-27441-12-03 17:31 J	-8301064.86	-8301064.77	-8301064.67	0.0145	0.0130
Venus	-27440-07-18 05:59 J	-8300838.39	-8300838.25	-8300838.10	0.0145	0.0107
Venus	-27439-03-01 18:28 J	-8300611.90	-8300611.73	-8300611.55	0.0144	0.0084
Venus	-27439-10-14 06:43 J	-8300385.41	-8300385.22	-8300385.01	0.0144	0.0060
Venus	-27438-05-28 18:57 J	-8300158.91	-8300158.71	-8300158.49	0.0144	0.0037
Venus	-27437-01-10 07:26 J	-8299932.41	-8299932.19	-8299931.97	0.0144	0.0013
Venus	-27437-08-23 19:26 J	-8299705.91	-8299705.69	-8299705.47	0.0143	0.0011
Venus	-27436-04-07 07:26 J	-8299479.40	-8299479.19	-8299478.97	0.0143	0.0034
Venus	-27436-11-19 19:11 J	-8299252.90	-8299252.70	-8299252.49	0.0143	0.0057
Venus	-27435-07-04 06:57 J	-8299026.38	-8299026.21	-8299026.02	0.0142	0.0080
Venus	-27434-02-15 18:28 J	-8298799.87	-8298799.73	-8298799.56	0.0142	0.0102
Venus	-27434-09-30 05:59 J	-8298573.35	-8298573.25	-8298573.14	0.0142	0.0124
Moon	-27427-11-07 15:21 J	-8295978.04	-8295977.86	-8295977.67	0.0138	0.0094
Earth	-27427-11-07 18:43 J	-8295977.90	-8295977.72	-8295977.52	0.0138	0.0092 *
Earth	-27426-11-12 10:47 J	-8295608.31	-8295608.05	-8295607.79	0.0137	0.0005
Moon	-27426-11-12 14:23 J	-8295608.15	-8295607.90	-8295607.64	0.0137	0.0004 *
Moon	-27425-11-15 22:19 J	-8295238.73	-8295238.57	-8295238.40	0.0136	0.0105

Earth	-27425-11-16 01:11 J	-8295238.60	-8295238.45	-8295238.26	0.0136	0.0101 *
Mercury	-27422-08-07 11:31 J	-8294244.07	-8294244.02	-8294243.94	0.0135	0.0126
Mercury	-27422-11-03 17:59 J	-8294155.86	-8294155.75	-8294155.63	0.0135	0.0100
Mercury	-27421-01-31 00:14 J	-8294067.63	-8294067.49	-8294067.34	0.0135	0.0075
Mercury	-27421-04-28 06:28 J	-8293979.40	-8293979.23	-8293979.06	0.0135	0.0050
Mercury	-27421-07-25 12:28 J	-8293891.15	-8293890.98	-8293890.80	0.0135	0.0026
Mercury	-27421-10-21 18:28 J	-8293802.90	-8293802.73	-8293802.55	0.0135	0.0003
Mercury	-27420-01-18 00:28 J	-8293714.65	-8293714.48	-8293714.30	0.0134	0.0023
Mercury	-27420-04-16 06:28 J	-8293626.39	-8293626.23	-8293626.07	0.0134	0.0047
Mercury	-27420-07-13 12:14 J	-8293538.13	-8293537.99	-8293537.84	0.0134	0.0071
Mercury	-27420-10-09 17:45 J	-8293449.87	-8293449.76	-8293449.62	0.0134	0.0095
Mercury	-27419-01-05 23:31 J	-8293361.58	-8293361.52	-8293361.42	0.0134	0.0119
Mars	-27411-09-21 02:09 J	-8290181.73	-8290181.41	-8290181.09	0.0132	0.0022
Venus	-27397-12-02 07:11 J	-8284995.29	-8284995.20	-8284995.09	0.0134	0.0117
Venus	-27396-07-16 12:28 J	-8284769.12	-8284768.98	-8284768.83	0.0134	0.0099
Venus	-27395-02-27 17:59 J	-8284542.92	-8284542.75	-8284542.58	0.0134	0.0081
Venus	-27395-10-11 23:02 J	-8284316.72	-8284316.54	-8284316.33	0.0134	0.0063
Venus	-27394-05-26 04:33 J	-8284090.50	-8284090.31	-8284090.09	0.0135	0.0044
Venus	-27393-01-07 10:19 J	-8283864.28	-8283864.07	-8283863.85	0.0135	0.0025
Venus	-27393-08-20 15:50 J	-8283638.05	-8283637.84	-8283637.62	0.0135	0.0006
Venus	-27392-04-03 21:21 J	-8283411.82	-8283411.61	-8283411.39	0.0135	0.0015
Venus	-27392-11-16 02:52 J	-8283185.58	-8283185.38	-8283185.16	0.0136	0.0034
Venus	-27391-06-30 08:38 J	-8282959.32	-8282959.14	-8282958.93	0.0136	0.0053
Venus	-27390-02-11 14:38 J	-8282733.06	-8282732.89	-8282732.69	0.0136	0.0073
Venus	-27390-09-25 20:38 J	-8282506.79	-8282506.64	-8282506.47	0.0137	0.0092
Venus	-27389-05-09 02:38 J	-8282280.50	-8282280.39	-8282280.25	0.0137	0.0111
Venus	-27389-12-21 08:52 J	-8282054.18	-8282054.13	-8282054.05	0.0137	0.0131
Earth	-27382-05-05 22:19 J	-8279727.68	-8279727.57	-8279727.45	0.0141	0.0125
Moon	-27382-05-05 23:02 J	-8279727.61	-8279727.54	-8279727.41	0.0141	0.0130 *
Moon	-27381-05-09 12:57 J	-8279358.20	-8279357.96	-8279357.71	0.0142	0.0016

Earth	-27381-05-09 14:38 J	-8279358.13	-8279357.89	-8279357.64	0.0142	0.0023 *
Earth	-27380-05-14 07:55 J	-8278988.37	-8278988.17	-8278987.96	0.0142	0.0081
Moon	-27380-05-14 09:35 J	-8278988.31	-8278988.10	-8278987.87	0.0142	0.0074 *
Mercury	-27378-10-08 15:35 J	-8278110.91	-8278110.85	-8278110.79	0.0143	0.0130
Mercury	-27377-01-04 19:40 J	-8278022.77	-8278022.68	-8278022.59	0.0144	0.0107
Mercury	-27377-04-01 23:31 J	-8277934.63	-8277934.52	-8277934.40	0.0144	0.0084
Mercury	-27377-06-29 03:35 J	-8277846.47	-8277846.35	-8277846.22	0.0144	0.0061
Mercury	-27377-09-25 07:40 J	-8277758.31	-8277758.18	-8277758.04	0.0144	0.0038
Mercury	-27377-12-22 11:59 J	-8277670.14	-8277670.00	-8277669.86	0.0144	0.0015
Mercury	-27376-03-20 16:04 J	-8277581.97	-8277581.83	-8277581.69	0.0144	0.0009
Mercury	-27376-06-16 20:09 J	-8277493.79	-8277493.66	-8277493.52	0.0144	0.0034
Mercury	-27376-09-13 00:28 J	-8277405.61	-8277405.48	-8277405.35	0.0144	0.0058
Mercury	-27376-12-10 04:47 J	-8277317.42	-8277317.30	-8277317.18	0.0144	0.0082
Mercury	-27375-03-08 08:52 J	-8277229.22	-8277229.13	-8277229.03	0.0145	0.0107
Mercury	-27375-06-04 13:11 J	-8277141.00	-8277140.95	-8277140.88	0.0145	0.0132
Mars	-27368-02-08 22:04 J	-8274699.84	-8274699.58	-8274699.29	0.0147	0.0059
Venus	-27357-08-02 23:59 J	-8270506.53	-8270506.50	-8270506.43	0.0145	0.0141
Venus	-27356-03-17 12:57 J	-8270280.08	-8270279.96	-8270279.83	0.0145	0.0117
Venus	-27356-10-30 01:11 J	-8270053.60	-8270053.45	-8270053.27	0.0145	0.0094
Venus	-27355-06-13 13:40 J	-8269827.11	-8269826.93	-8269826.72	0.0144	0.0071
Venus	-27354-01-26 02:23 J	-8269600.61	-8269600.40	-8269600.19	0.0144	0.0046
Venus	-27354-09-09 14:38 J	-8269374.11	-8269373.89	-8269373.67	0.0144	0.0023
Venus	-27353-04-23 02:38 J	-8269147.61	-8269147.39	-8269147.17	0.0143	0.0002
Venus	-27353-12-05 14:38 J	-8268921.10	-8268920.89	-8268920.67	0.0143	0.0025
Venus	-27352-07-20 02:38 J	-8268694.59	-8268694.39	-8268694.17	0.0143	0.0048
Venus	-27351-03-03 14:38 J	-8268468.08	-8268467.89	-8268467.70	0.0142	0.0071
Venus	-27351-10-16 02:23 J	-8268241.57	-8268241.40	-8268241.24	0.0142	0.0094
Venus	-27350-05-30 13:26 J	-8268015.05	-8268014.94	-8268014.80	0.0142	0.0116
Venus	-27349-01-12 00:57 J	-8267788.50	-8267788.46	-8267788.40	0.0141	0.0138
Moon	-27343-11-08 04:04 J	-8265296.53	-8265296.33	-8265296.11	0.0138	0.0081

Earth	-27343-11-08 07:40 J	-8265296.37	-8265296.18	-8265295.96	0.0138	0.0085 *
Earth	-27342-11-12 23:59 J	-8264926.76	-8264926.50	-8264926.24	0.0137	0.0013
Moon	-27342-11-13 03:21 J	-8264926.61	-8264926.36	-8264926.10	0.0137	0.0015 *
Moon	-27341-11-16 11:02 J	-8264557.20	-8264557.04	-8264556.87	0.0136	0.0104
Earth	-27341-11-16 14:23 J	-8264557.03	-8264556.90	-8264556.72	0.0136	0.0109 *
Mercury	-27338-08-27 19:55 J	-8263542.76	-8263542.67	-8263542.58	0.0135	0.0116
Mercury	-27338-11-24 02:09 J	-8263454.54	-8263454.41	-8263454.28	0.0135	0.0090
Mercury	-27337-02-20 08:23 J	-8263366.31	-8263366.15	-8263365.99	0.0135	0.0065
Mercury	-27337-05-18 14:23 J	-8263278.06	-8263277.90	-8263277.72	0.0135	0.0040
Mercury	-27337-08-14 20:38 J	-8263189.82	-8263189.64	-8263189.46	0.0135	0.0015
Mercury	-27337-11-11 02:38 J	-8263101.57	-8263101.39	-8263101.21	0.0135	0.0009
Mercury	-27336-02-07 08:23 J	-8263013.31	-8263013.15	-8263012.97	0.0135	0.0034
Mercury	-27336-05-06 14:23 J	-8262925.05	-8262924.90	-8262924.74	0.0134	0.0057
Mercury	-27336-08-02 20:09 J	-8262836.79	-8262836.66	-8262836.51	0.0134	0.0081
Mercury	-27336-10-30 02:09 J	-8262748.52	-8262748.41	-8262748.30	0.0134	0.0105
Mercury	-27335-01-26 07:26 J	-8262660.22	-8262660.19	-8262660.12	0.0134	0.0129
Mars	-27326-05-17 11:02 J	-8259262.32	-8259262.04	-8259261.74	0.0132	0.0058
Venus	-27313-08-01 19:55 J	-8254436.74	-8254436.67	-8254436.57	0.0133	0.0124
Venus	-27312-03-16 00:57 J	-8254210.57	-8254210.46	-8254210.31	0.0134	0.0106
Venus	-27312-10-28 06:28 J	-8253984.38	-8253984.23	-8253984.06	0.0134	0.0087
Venus	-27311-06-11 11:59 J	-8253758.18	-8253758.00	-8253757.81	0.0134	0.0068
Venus	-27310-01-23 17:31 J	-8253531.97	-8253531.77	-8253531.57	0.0134	0.0050
Venus	-27310-09-06 22:47 J	-8253305.75	-8253305.55	-8253305.33	0.0135	0.0031
Venus	-27309-04-20 04:19 J	-8253079.53	-8253079.32	-8253079.10	0.0135	0.0012
Venus	-27309-12-02 09:50 J	-8252853.30	-8252853.09	-8252852.87	0.0135	0.0008
Venus	-27308-07-16 15:21 J	-8252627.06	-8252626.86	-8252626.64	0.0136	0.0028
Venus	-27307-02-27 21:07 J	-8252400.81	-8252400.62	-8252400.41	0.0136	0.0047
Venus	-27307-10-12 02:52 J	-8252174.56	-8252174.38	-8252174.19	0.0136	0.0066
Venus	-27306-05-26 08:52 J	-8251948.29	-8251948.13	-8251947.96	0.0136	0.0086
Venus	-27305-01-07 15:07 J	-8251722.01	-8251721.87	-8251721.74	0.0137	0.0105

Venus	-27305-08-20 20:38 J	-8251495.71	-8251495.64	-8251495.53	0.0137	0.0125
Earth	-27298-05-06 11:45 J	-8249046.13	-8249046.01	-8249045.86	0.0141	0.0117
Moon	-27298-05-06 12:28 J	-8249046.12	-8249045.98	-8249045.81	0.0141	0.0112 *
Moon	-27297-05-10 03:07 J	-8248676.61	-8248676.37	-8248676.13	0.0141	0.0022
Earth	-27297-05-10 03:50 J	-8248676.58	-8248676.34	-8248676.08	0.0141	0.0016 *
Earth	-27296-05-14 20:52 J	-8248306.82	-8248306.63	-8248306.43	0.0142	0.0088
Moon	-27296-05-14 22:47 J	-8248306.74	-8248306.55	-8248306.36	0.0142	0.0095 *
Mercury	-27294-10-28 23:16 J	-8247409.60	-8247409.53	-8247409.46	0.0143	0.0122
Mercury	-27293-01-25 03:07 J	-8247321.46	-8247321.37	-8247321.27	0.0143	0.0099
Mercury	-27293-04-22 07:11 J	-8247233.31	-8247233.20	-8247233.08	0.0144	0.0076
Mercury	-27293-07-19 11:16 J	-8247145.16	-8247145.03	-8247144.90	0.0144	0.0053
Mercury	-27293-10-15 15:21 J	-8247056.99	-8247056.86	-8247056.72	0.0144	0.0030
Mercury	-27292-01-11 19:26 J	-8246968.83	-8246968.69	-8246968.55	0.0144	0.0007
Mercury	-27292-04-09 23:45 J	-8246880.65	-8246880.51	-8246880.37	0.0144	0.0018
Mercury	-27292-07-07 03:50 J	-8246792.47	-8246792.34	-8246792.20	0.0144	0.0041
Mercury	-27292-10-03 07:55 J	-8246704.29	-8246704.17	-8246704.04	0.0144	0.0066
Mercury	-27292-12-30 12:14 J	-8246616.09	-8246615.99	-8246615.87	0.0144	0.0090
Mercury	-27291-03-28 16:33 J	-8246527.89	-8246527.81	-8246527.72	0.0145	0.0114
Mercury	-27291-06-24 20:52 J	-8246439.66	-8246439.63	-8246439.59	0.0145	0.0139
Mars	-27284-10-05 09:07 J	-8243780.39	-8243780.12	-8243779.82	0.0147	0.0037
Venus	-27273-11-14 19:11 J	-8239721.79	-8239721.70	-8239721.58	0.0145	0.0128
Venus	-27272-06-29 08:09 J	-8239495.31	-8239495.16	-8239495.00	0.0145	0.0104
Venus	-27271-02-10 20:23 J	-8239268.82	-8239268.65	-8239268.45	0.0145	0.0081
Venus	-27271-09-25 08:52 J	-8239042.32	-8239042.13	-8239041.92	0.0144	0.0057
Venus	-27270-05-09 21:21 J	-8238815.82	-8238815.61	-8238815.39	0.0144	0.0032
Venus	-27270-12-22 09:35 J	-8238589.32	-8238589.10	-8238588.88	0.0144	0.0008
Venus	-27269-08-04 21:50 J	-8238362.81	-8238362.59	-8238362.37	0.0143	0.0015
Venus	-27268-03-19 09:35 J	-8238136.30	-8238136.10	-8238135.88	0.0143	0.0039
Venus	-27268-10-31 21:21 J	-8237909.79	-8237909.61	-8237909.40	0.0143	0.0063
Venus	-27267-06-15 09:07 J	-8237683.28	-8237683.12	-8237682.93	0.0142	0.0086

Venus	-27266-01-27 20:52 J	-8237456.76	-8237456.63	-8237456.48	0.0142	0.0108
Venus	-27266-09-11 08:38 J	-8237230.23	-8237230.14	-8237230.06	0.0142	0.0130
Moon	-27259-11-08 17:02 J	-8234615.00	-8234614.79	-8234614.58	0.0138	0.0079
Earth	-27259-11-08 20:38 J	-8234614.85	-8234614.64	-8234614.42	0.0138	0.0077 *
Earth	-27258-11-13 12:43 J	-8234245.22	-8234244.97	-8234244.71	0.0137	0.0021
Moon	-27258-11-13 16:33 J	-8234245.06	-8234244.81	-8234244.55	0.0137	0.0020 *
Moon	-27257-11-17 00:14 J	-8233875.60	-8233875.49	-8233875.35	0.0137	0.0120
Earth	-27257-11-17 03:35 J	-8233875.46	-8233875.35	-8233875.19	0.0137	0.0116 *
Mercury	-27254-06-20 21:21 J	-8232929.63	-8232929.61	-8232929.55	0.0135	0.0132
Mercury	-27254-09-17 04:04 J	-8232841.44	-8232841.33	-8232841.22	0.0135	0.0106
Mercury	-27254-12-14 10:04 J	-8232753.22	-8232753.08	-8232752.93	0.0135	0.0081
Mercury	-27253-03-11 16:19 J	-8232664.98	-8232664.82	-8232664.65	0.0135	0.0055
Mercury	-27253-06-07 22:33 J	-8232576.73	-8232576.56	-8232576.39	0.0135	0.0030
Mercury	-27253-09-04 04:33 J	-8232488.48	-8232488.31	-8232488.13	0.0135	0.0006
Mercury	-27253-12-01 10:33 J	-8232400.23	-8232400.06	-8232399.88	0.0135	0.0019
Mercury	-27252-02-27 16:33 J	-8232311.98	-8232311.81	-8232311.64	0.0135	0.0043
Mercury	-27252-05-26 22:19 J	-8232223.71	-8232223.57	-8232223.41	0.0135	0.0067
Mercury	-27252-08-23 04:19 J	-8232135.45	-8232135.32	-8232135.19	0.0134	0.0091
Mercury	-27252-11-19 09:50 J	-8232047.17	-8232047.09	-8232046.99	0.0134	0.0115
Mars	-27243-02-07 12:43 J	-8229045.21	-8229044.97	-8229044.69	0.0132	0.0075
Venus	-27229-04-01 09:21 J	-8223878.15	-8223878.11	-8223878.06	0.0133	0.0130
Venus	-27229-11-13 14:23 J	-8223652.00	-8223651.90	-8223651.77	0.0134	0.0112
Venus	-27228-06-27 19:40 J	-8223425.82	-8223425.68	-8223425.51	0.0134	0.0094
Venus	-27227-02-09 00:57 J	-8223199.62	-8223199.46	-8223199.26	0.0134	0.0075
Venus	-27227-09-23 06:28 J	-8222973.42	-8222973.23	-8222973.03	0.0134	0.0056
Venus	-27226-05-07 11:59 J	-8222747.21	-8222747.00	-8222746.79	0.0135	0.0037
Venus	-27226-12-19 17:31 J	-8222520.98	-8222520.77	-8222520.56	0.0135	0.0018
Venus	-27225-08-01 23:02 J	-8222294.76	-8222294.54	-8222294.32	0.0135	0.0002
Venus	-27224-03-16 04:33 J	-8222068.52	-8222068.31	-8222068.10	0.0135	0.0021
Venus	-27224-10-28 10:04 J	-8221842.28	-8221842.08	-8221841.87	0.0136	0.0041

Venus	-27223-06-11 15:50 J	-8221616.03	-8221615.84	-8221615.64	0.0136	0.0060
Venus	-27222-01-23 21:35 J	-8221389.76	-8221389.60	-8221389.41	0.0136	0.0080
Venus	-27222-09-07 03:35 J	-8221163.48	-8221163.35	-8221163.19	0.0137	0.0100
Venus	-27221-04-20 09:35 J	-8220937.19	-8220937.10	-8220936.98	0.0137	0.0119
Earth	-27214-05-07 03:50 J	-8218364.49	-8218364.34	-8218364.17	0.0141	0.0106
Moon	-27214-05-07 04:04 J	-8218364.47	-8218364.33	-8218364.15	0.0141	0.0110 *
Moon	-27213-05-10 19:11 J	-8217994.94	-8217994.70	-8217994.46	0.0141	0.0003
Earth	-27213-05-10 20:09 J	-8217994.91	-8217994.66	-8217994.41	0.0141	0.0005 *
Earth	-27212-05-15 12:43 J	-8217625.14	-8217624.97	-8217624.78	0.0142	0.0099
Moon	-27212-05-15 13:26 J	-8217625.12	-8217624.94	-8217624.72	0.0142	0.0092 *
Mercury	-27210-08-22 03:21 J	-8216796.40	-8216796.36	-8216796.30	0.0143	0.0134
Mercury	-27210-11-18 07:26 J	-8216708.27	-8216708.19	-8216708.10	0.0143	0.0111
Mercury	-27209-02-14 11:31 J	-8216620.13	-8216620.02	-8216619.91	0.0143	0.0088
Mercury	-27209-05-12 15:21 J	-8216531.97	-8216531.86	-8216531.73	0.0144	0.0066
Mercury	-27209-08-08 19:26 J	-8216443.82	-8216443.69	-8216443.55	0.0144	0.0043
Mercury	-27209-11-04 23:45 J	-8216355.65	-8216355.51	-8216355.37	0.0144	0.0019
Mercury	-27208-02-01 03:50 J	-8216267.48	-8216267.34	-8216267.20	0.0144	0.0005
Mercury	-27208-04-30 07:55 J	-8216179.30	-8216179.17	-8216179.03	0.0144	0.0029
Mercury	-27208-07-27 12:14 J	-8216091.12	-8216090.99	-8216090.86	0.0144	0.0053
Mercury	-27208-10-23 16:19 J	-8216002.94	-8216002.82	-8216002.70	0.0144	0.0077
Mercury	-27207-01-19 20:23 J	-8215914.74	-8215914.65	-8215914.54	0.0144	0.0102
Mercury	-27207-04-18 00:57 J	-8215826.52	-8215826.46	-8215826.39	0.0145	0.0126
Mars	-27201-06-28 04:47 J	-8213563.40	-8213563.30	-8213563.15	0.0147	0.0133
Mars	-27199-06-01 03:50 J	-8212860.44	-8212860.34	-8212860.23	0.0147	0.0136
Venus	-27189-07-15 04:19 J	-8209163.37	-8209163.32	-8209163.23	0.0145	0.0138
Venus	-27188-02-26 17:16 J	-8208936.91	-8208936.78	-8208936.65	0.0145	0.0113
Venus	-27188-10-11 05:31 J	-8208710.43	-8208710.27	-8208710.09	0.0145	0.0090
Venus	-27187-05-25 17:59 J	-8208483.94	-8208483.75	-8208483.55	0.0144	0.0066
Venus	-27186-01-07 06:28 J	-8208257.44	-8208257.23	-8208257.02	0.0144	0.0041
Venus	-27186-08-21 18:43 J	-8208030.94	-8208030.72	-8208030.50	0.0144	0.0017

Venus	-27185-04-04 06:43 J	-8207804.43	-8207804.22	-8207803.99	0.0144	0.0008
Venus	-27185-11-16 18:43 J	-8207577.93	-8207577.72	-8207577.50	0.0143	0.0031
Venus	-27184-07-01 06:57 J	-8207351.41	-8207351.21	-8207351.01	0.0143	0.0054
Venus	-27183-02-12 18:28 J	-8207124.90	-8207124.73	-8207124.53	0.0143	0.0078
Venus	-27183-09-27 06:14 J	-8206898.39	-8206898.24	-8206898.08	0.0142	0.0101
Venus	-27182-05-11 17:31 J	-8206671.86	-8206671.77	-8206671.65	0.0142	0.0123
Moon	-27175-11-09 07:40 J	-8203933.39	-8203933.18	-8203932.94	0.0138	0.0064
Earth	-27175-11-09 11:16 J	-8203933.25	-8203933.03	-8203932.80	0.0138	0.0068 *
Earth	-27174-11-14 03:35 J	-8203563.60	-8203563.35	-8203563.10	0.0137	0.0029
Moon	-27174-11-14 07:11 J	-8203563.45	-8203563.20	-8203562.95	0.0137	0.0031 *
Moon	-27173-11-17 14:23 J	-8203194.00	-8203193.90	-8203193.76	0.0137	0.0121
Earth	-27173-11-17 18:14 J	-8203193.82	-8203193.74	-8203193.61	0.0137	0.0125 *
Mercury	-27170-07-11 05:45 J	-8202228.33	-8202228.26	-8202228.16	0.0135	0.0120
Mercury	-27170-10-07 12:14 J	-8202140.11	-8202139.99	-8202139.86	0.0135	0.0095
Mercury	-27169-01-03 18:28 J	-8202051.88	-8202051.73	-8202051.57	0.0135	0.0069
Mercury	-27169-04-01 00:43 J	-8201963.64	-8201963.47	-8201963.30	0.0135	0.0044
Mercury	-27169-06-28 06:57 J	-8201875.39	-8201875.21	-8201875.04	0.0135	0.0019
Mercury	-27169-09-24 12:57 J	-8201787.14	-8201786.96	-8201786.78	0.0135	0.0005
Mercury	-27169-12-21 18:57 J	-8201698.88	-8201698.71	-8201698.54	0.0135	0.0030
Mercury	-27168-03-20 00:57 J	-8201610.62	-8201610.46	-8201610.30	0.0135	0.0054
Mercury	-27168-06-16 06:43 J	-8201522.36	-8201522.22	-8201522.07	0.0135	0.0078
Mercury	-27168-09-12 12:28 J	-8201434.09	-8201433.98	-8201433.86	0.0134	0.0102
Mercury	-27168-12-09 17:59 J	-8201345.79	-8201345.75	-8201345.67	0.0134	0.0126
Mars	-27159-10-03 22:19 J	-8198125.89	-8198125.57	-8198125.25	0.0132	0.0006
Venus	-27145-07-14 03:21 J	-8193093.44	-8193093.36	-8193093.24	0.0134	0.0119
Venus	-27144-02-25 08:52 J	-8192867.27	-8192867.13	-8192866.98	0.0134	0.0100
Venus	-27144-10-09 14:09 J	-8192641.08	-8192640.91	-8192640.73	0.0134	0.0081
Venus	-27143-05-23 19:26 J	-8192414.88	-8192414.69	-8192414.49	0.0134	0.0062
Venus	-27142-01-05 00:43 J	-8192188.66	-8192188.47	-8192188.25	0.0134	0.0044
Venus	-27142-08-19 06:28 J	-8191962.45	-8191962.23	-8191962.02	0.0135	0.0024

Venus	-27141-04-01 11:45 J	-8191736.22	-8191736.01	-8191735.79	0.0135	0.0005
Venus	-27141-11-13 17:16 J	-8191509.99	-8191509.78	-8191509.56	0.0135	0.0015
Venus	-27140-06-27 22:47 J	-8191283.75	-8191283.55	-8191283.34	0.0136	0.0035
Venus	-27139-02-09 04:47 J	-8191057.50	-8191057.30	-8191057.10	0.0136	0.0054
Venus	-27139-09-23 10:19 J	-8190831.24	-8190831.07	-8190830.88	0.0136	0.0074
Venus	-27138-05-07 16:19 J	-8190604.97	-8190604.82	-8190604.66	0.0136	0.0093
Venus	-27138-12-19 22:33 J	-8190378.68	-8190378.56	-8190378.44	0.0137	0.0113
Venus	-27137-08-02 04:19 J	-8190152.35	-8190152.32	-8190152.25	0.0137	0.0133
Moon	-27130-05-07 18:57 J	-8187682.90	-8187682.71	-8187682.51	0.0141	0.0092
Earth	-27130-05-07 18:43 J	-8187682.88	-8187682.72	-8187682.52	0.0141	0.0097 *
Moon	-27129-05-11 10:47 J	-8187313.29	-8187313.05	-8187312.81	0.0141	0.0002
Earth	-27129-05-11 11:02 J	-8187313.29	-8187313.04	-8187312.79	0.0141	0.0005 *
Earth	-27128-05-16 03:21 J	-8186943.51	-8186943.36	-8186943.18	0.0142	0.0108
Moon	-27128-05-16 04:19 J	-8186943.45	-8186943.32	-8186943.15	0.0142	0.0115 *
Mercury	-27126-09-11 11:16 J	-8186095.08	-8186095.03	-8186094.95	0.0143	0.0125
Mercury	-27126-12-08 15:21 J	-8186006.95	-8186006.86	-8186006.75	0.0143	0.0102
Mercury	-27125-03-05 19:26 J	-8185918.80	-8185918.69	-8185918.57	0.0143	0.0079
Mercury	-27125-06-01 23:31 J	-8185830.64	-8185830.52	-8185830.39	0.0144	0.0056
Mercury	-27125-08-29 03:35 J	-8185742.48	-8185742.35	-8185742.21	0.0144	0.0033
Mercury	-27125-11-25 07:40 J	-8185654.32	-8185654.18	-8185654.04	0.0144	0.0010
Mercury	-27124-02-21 11:59 J	-8185566.14	-8185566.00	-8185565.86	0.0144	0.0015
Mercury	-27124-05-20 16:04 J	-8185477.97	-8185477.83	-8185477.69	0.0144	0.0039
Mercury	-27124-08-16 20:09 J	-8185389.78	-8185389.66	-8185389.53	0.0144	0.0063
Mercury	-27124-11-13 00:28 J	-8185301.59	-8185301.48	-8185301.37	0.0144	0.0087
Mercury	-27123-02-09 04:47 J	-8185213.39	-8185213.30	-8185213.21	0.0144	0.0112
Mercury	-27123-05-08 08:52 J	-8185125.16	-8185125.13	-8185125.07	0.0144	0.0137
Mars	-27116-02-21 23:02 J	-8182643.83	-8182643.54	-8182643.25	0.0147	0.0033
Venus	-27105-10-27 01:11 J	-8178378.55	-8178378.45	-8178378.32	0.0145	0.0123
Venus	-27104-06-10 13:55 J	-8178152.07	-8178151.92	-8178151.75	0.0145	0.0099
Venus	-27103-01-23 02:23 J	-8177925.58	-8177925.40	-8177925.20	0.0145	0.0075

Venus	-27103-09-06 14:52 J	-8177699.08	-8177698.88	-8177698.67	0.0144	0.0050
Venus	-27102-04-21 03:07 J	-8177472.58	-8177472.37	-8177472.15	0.0144	0.0026
Venus	-27102-12-03 15:21 J	-8177246.08	-8177245.86	-8177245.64	0.0144	0.0003
Venus	-27101-07-17 03:21 J	-8177019.57	-8177019.36	-8177019.14	0.0143	0.0023
Venus	-27100-02-28 15:21 J	-8176793.06	-8176792.86	-8176792.65	0.0143	0.0046
Venus	-27100-10-13 03:07 J	-8176566.56	-8176566.37	-8176566.17	0.0143	0.0070
Venus	-27099-05-27 14:52 J	-8176340.04	-8176339.88	-8176339.71	0.0142	0.0093
Venus	-27098-01-09 02:23 J	-8176113.52	-8176113.40	-8176113.27	0.0142	0.0116
Venus	-27098-08-23 13:55 J	-8175886.96	-8175886.92	-8175886.86	0.0142	0.0138
Moon	-27091-11-09 22:19 J	-8173251.80	-8173251.57	-8173251.34	0.0138	0.0061
Earth	-27091-11-10 01:40 J	-8173251.65	-8173251.43	-8173251.19	0.0138	0.0059 *
Earth	-27090-11-14 17:45 J	-8172882.00	-8172881.76	-8172881.50	0.0137	0.0038
Moon	-27090-11-14 21:35 J	-8172881.85	-8172881.60	-8172881.35	0.0137	0.0038 *
Earth	-27089-11-18 08:38 J	-8172512.18	-8172512.14	-8172512.06	0.0137	0.0133
Mercury	-27086-05-04 07:55 J	-8171615.18	-8171615.17	-8171615.15	0.0135	0.0135
Mercury	-27086-07-31 14:09 J	-8171527.00	-8171526.91	-8171526.79	0.0135	0.0109
Mercury	-27086-10-27 20:38 J	-8171438.78	-8171438.64	-8171438.50	0.0135	0.0084
Mercury	-27085-01-24 02:52 J	-8171350.54	-8171350.38	-8171350.22	0.0135	0.0058
Mercury	-27085-04-21 09:07 J	-8171262.30	-8171262.12	-8171261.95	0.0135	0.0033
Mercury	-27085-07-18 15:07 J	-8171174.05	-8171173.87	-8171173.69	0.0135	0.0009
Mercury	-27085-10-14 21:07 J	-8171085.79	-8171085.62	-8171085.44	0.0135	0.0016
Mercury	-27084-01-11 03:07 J	-8170997.54	-8170997.37	-8170997.20	0.0135	0.0041
Mercury	-27084-04-09 08:52 J	-8170909.27	-8170909.13	-8170908.97	0.0135	0.0065
Mercury	-27084-07-06 14:52 J	-8170821.00	-8170820.88	-8170820.74	0.0135	0.0089
Mercury	-27084-10-02 20:38 J	-8170732.72	-8170732.64	-8170732.54	0.0134	0.0112
Mars	-27076-06-27 00:57 J	-8167908.52	-8167908.46	-8167908.33	0.0132	0.0127
Mars	-27074-05-30 08:23 J	-8167206.39	-8167206.15	-8167205.91	0.0132	0.0086
Venus	-27061-03-13 16:33 J	-8162534.88	-8162534.81	-8162534.74	0.0133	0.0125
Venus	-27061-10-25 21:21 J	-8162308.72	-8162308.61	-8162308.47	0.0134	0.0107
Venus	-27060-06-09 02:38 J	-8162082.54	-8162082.39	-8162082.21	0.0134	0.0088

Venus	-27059-01-21 08:09 J	-8161856.34	-8161856.16	-8161855.97	0.0134	0.0069
Venus	-27059-09-04 13:26 J	-8161630.13	-8161629.94	-8161629.73	0.0134	0.0050
Venus	-27058-04-18 18:43 J	-8161403.92	-8161403.72	-8161403.50	0.0135	0.0031
Venus	-27058-12-01 00:14 J	-8161177.70	-8161177.49	-8161177.27	0.0135	0.0012
Venus	-27057-07-14 05:45 J	-8160951.47	-8160951.26	-8160951.04	0.0135	0.0008
Venus	-27056-02-25 11:16 J	-8160725.23	-8160725.03	-8160724.81	0.0135	0.0028
Venus	-27056-10-09 17:02 J	-8160498.99	-8160498.79	-8160498.59	0.0136	0.0048
Venus	-27055-05-23 22:33 J	-8160272.73	-8160272.56	-8160272.36	0.0136	0.0068
Venus	-27054-01-05 04:33 J	-8160046.46	-8160046.31	-8160046.13	0.0136	0.0088
Venus	-27054-08-19 10:47 J	-8159820.18	-8159820.05	-8159819.92	0.0137	0.0107
Venus	-27053-04-01 16:33 J	-8159593.87	-8159593.81	-8159593.72	0.0137	0.0127
Moon	-27046-05-08 08:52 J	-8157001.31	-8157001.13	-8157000.92	0.0141	0.0091
Earth	-27046-05-08 09:50 J	-8157001.29	-8157001.09	-8157000.90	0.0141	0.0087 *
Moon	-27045-05-12 01:26 J	-8156631.68	-8156631.44	-8156631.20	0.0141	0.0021
Earth	-27045-05-12 01:40 J	-8156631.68	-8156631.43	-8156631.18	0.0141	0.0014 *
Moon	-27044-05-16 18:28 J	-8156261.89	-8156261.73	-8156261.57	0.0142	0.0109
Earth	-27044-05-16 17:59 J	-8156261.87	-8156261.75	-8156261.59	0.0142	0.0117 *
Mercury	-27042-07-05 15:35 J	-8155481.88	-8155481.85	-8155481.80	0.0143	0.0136
Mercury	-27042-10-01 19:26 J	-8155393.76	-8155393.69	-8155393.60	0.0143	0.0114
Mercury	-27042-12-28 23:31 J	-8155305.62	-8155305.52	-8155305.41	0.0143	0.0092
Mercury	-27041-03-26 03:35 J	-8155217.47	-8155217.35	-8155217.23	0.0143	0.0069
Mercury	-27041-06-22 07:40 J	-8155129.31	-8155129.18	-8155129.05	0.0144	0.0045
Mercury	-27041-09-18 11:45 J	-8155041.15	-8155041.01	-8155040.87	0.0144	0.0022
Mercury	-27041-12-15 15:50 J	-8154952.98	-8154952.84	-8154952.70	0.0144	0.0003
Mercury	-27040-03-13 19:55 J	-8154864.80	-8154864.67	-8154864.53	0.0144	0.0026
Mercury	-27040-06-10 00:14 J	-8154776.62	-8154776.49	-8154776.36	0.0144	0.0049
Mercury	-27040-09-06 04:19 J	-8154688.44	-8154688.32	-8154688.19	0.0144	0.0074
Mercury	-27040-12-03 08:38 J	-8154600.24	-8154600.14	-8154600.03	0.0144	0.0098
Mercury	-27039-03-01 12:43 J	-8154512.03	-8154511.97	-8154511.88	0.0144	0.0123
Mars	-27032-10-18 16:47 J	-8151724.06	-8151723.80	-8151723.53	0.0147	0.0067

Venus	-27021-06-26 11:02 J	-8147820.11	-8147820.04	-8147819.94	0.0145	0.0132
Venus	-27020-02-07 23:31 J	-8147593.65	-8147593.52	-8147593.36	0.0145	0.0108
Venus	-27020-09-22 11:59 J	-8147367.17	-8147367.00	-8147366.81	0.0145	0.0084
Venus	-27019-05-07 00:14 J	-8147140.68	-8147140.49	-8147140.28	0.0145	0.0060
Venus	-27019-12-19 12:28 J	-8146914.18	-8146913.98	-8146913.76	0.0144	0.0036
Venus	-27018-08-03 00:57 J	-8146687.68	-8146687.46	-8146687.24	0.0144	0.0010
Venus	-27017-03-16 12:57 J	-8146461.17	-8146460.96	-8146460.74	0.0144	0.0014
Venus	-27017-10-29 00:57 J	-8146234.67	-8146234.46	-8146234.24	0.0143	0.0038
Venus	-27016-06-12 12:43 J	-8146008.16	-8146007.97	-8146007.76	0.0143	0.0062
Venus	-27015-01-25 00:28 J	-8145781.65	-8145781.48	-8145781.29	0.0143	0.0086
Venus	-27015-09-08 11:59 J	-8145555.13	-8145555.00	-8145554.84	0.0142	0.0109
Venus	-27014-04-22 23:31 J	-8145328.59	-8145328.52	-8145328.42	0.0142	0.0131
Moon	-27007-11-10 13:55 J	-8142570.16	-8142569.92	-8142569.68	0.0138	0.0045
Earth	-27007-11-10 17:02 J	-8142570.03	-8142569.79	-8142569.55	0.0138	0.0049 *
Earth	-27006-11-15 09:07 J	-8142200.36	-8142200.12	-8142199.88	0.0137	0.0047
Moon	-27006-11-15 12:28 J	-8142200.22	-8142199.98	-8142199.73	0.0137	0.0049 *
Mercury	-27002-05-24 16:19 J	-8140913.88	-8140913.82	-8140913.74	0.0135	0.0123
Mercury	-27002-08-20 22:47 J	-8140825.67	-8140825.55	-8140825.42	0.0135	0.0098
Mercury	-27002-11-17 05:02 J	-8140737.44	-8140737.29	-8140737.14	0.0135	0.0072
Mercury	-27001-02-13 11:16 J	-8140649.20	-8140649.03	-8140648.86	0.0135	0.0047
Mercury	-27001-05-11 17:31 J	-8140560.95	-8140560.77	-8140560.60	0.0135	0.0022
Mercury	-27001-08-07 23:31 J	-8140472.70	-8140472.52	-8140472.34	0.0135	0.0003
Mercury	-27001-11-04 05:31 J	-8140384.44	-8140384.27	-8140384.09	0.0135	0.0028

27TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 27th millennium

BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-27000-01-31 11:31 J	-8140296.18	-8140296.02	-8140295.85	0.0135	0.0052		
Mercury	-27000-04-29 17:31 J	-8140207.91	-8140207.77	-8140207.63	0.0135	0.0076		
Mercury	-27000-07-26 23:16 J	-8140119.64	-8140119.53	-8140119.41	0.0134	0.0100		
Mercury	-27000-10-23 04:47 J	-8140031.35	-8140031.30	-8140031.21	0.0134	0.0124		
Saturn	-26999-07-02 23:45 J	-8139779.09	-8139778.51	-8139777.90	0.0134	0.0026		
Mars	-26991-02-20 09:50 J	-8136989.38	-8136989.09	-8136988.77	0.0132	0.0046		
Venus	-26978-11-12 05:02 J	-8131976.32	-8131976.29	-8131976.27	0.0133	0.0132		
Venus	-26977-06-25 09:50 J	-8131750.19	-8131750.09	-8131749.97	0.0133	0.0114		
Venus	-26976-02-06 15:07 J	-8131524.01	-8131523.87	-8131523.71	0.0134	0.0095		
Venus	-26976-09-20 20:09 J	-8131297.83	-8131297.66	-8131297.47	0.0134	0.0076		
Venus	-26975-05-05 01:26 J	-8131071.63	-8131071.44	-8131071.24	0.0134	0.0057		
Venus	-26975-12-17 06:57 J	-8130845.42	-8130845.21	-8130845.00	0.0134	0.0038		
Venus	-26974-07-31 12:14 J	-8130619.20	-8130618.99	-8130618.77	0.0135	0.0018		
Venus	-26973-03-13 17:45 J	-8130392.98	-8130392.76	-8130392.54	0.0135	0.0001		
Venus	-26973-10-25 23:16 J	-8130166.74	-8130166.53	-8130166.32	0.0135	0.0021		
Venus	-26972-06-09 04:47 J	-8129940.50	-8129940.30	-8129940.09	0.0135	0.0041		
Venus	-26971-01-21 10:33 J	-8129714.24	-8129714.06	-8129713.86	0.0136	0.0061		
Venus	-26971-09-04 16:33 J	-8129487.98	-8129487.81	-8129487.64	0.0136	0.0081		
Venus	-26970-04-18 22:04 J	-8129261.71	-8129261.58	-8129261.42	0.0136	0.0101		
Venus	-26970-12-01 04:04 J	-8129035.41	-8129035.33	-8129035.21	0.0137	0.0121		
Moon	-26962-05-08 21:07 J	-8126319.82	-8126319.62	-8126319.39	0.0141	0.0076		
Earth	-26962-05-08 22:19 J	-8126319.77	-8126319.57	-8126319.36	0.0141	0.0080	*	
Earth	-26961-05-12 14:09 J	-8125950.16	-8125949.91	-8125949.67	0.0141	0.0021		
Moon	-26961-05-12 14:38 J	-8125950.12	-8125949.89	-8125949.64	0.0141	0.0016	*	
Earth	-26960-05-17 06:14 J	-8125580.35	-8125580.24	-8125580.10	0.0142	0.0123		

Moon	-26960-05-17 06:28 J	-8125580.32	-8125580.23	-8125580.12	0.0142	0.0130	*
Mercury	-26958-07-25 23:02 J	-8124780.58	-8124780.54	-8124780.47	0.0143	0.0129	
Mercury	-26958-10-22 03:07 J	-8124692.45	-8124692.37	-8124692.27	0.0143	0.0107	
Mercury	-26957-01-18 07:11 J	-8124604.31	-8124604.20	-8124604.08	0.0143	0.0084	
Mercury	-26957-04-15 11:16 J	-8124516.16	-8124516.03	-8124515.90	0.0143	0.0061	
Mercury	-26957-07-12 15:21 J	-8124428.00	-8124427.86	-8124427.73	0.0144	0.0038	
Mercury	-26957-10-08 19:26 J	-8124339.83	-8124339.69	-8124339.55	0.0144	0.0014	
Mercury	-26956-01-04 23:31 J	-8124251.66	-8124251.52	-8124251.38	0.0144	0.0009	
Mercury	-26956-04-03 03:35 J	-8124163.48	-8124163.35	-8124163.21	0.0144	0.0033	
Mercury	-26956-06-30 07:40 J	-8124075.30	-8124075.18	-8124075.04	0.0144	0.0057	
Mercury	-26956-09-26 11:59 J	-8123987.11	-8123987.00	-8123986.88	0.0144	0.0081	
Mercury	-26956-12-23 16:19 J	-8123898.91	-8123898.82	-8123898.72	0.0144	0.0106	
Saturn	-26955-02-13 20:09 J	-8123847.27	-8123846.66	-8123845.98	0.0144	0.0046	
Mercury	-26955-03-21 20:23 J	-8123810.70	-8123810.65	-8123810.58	0.0144	0.0130	
Mars	-26949-07-11 04:04 J	-8121507.52	-8121507.33	-8121507.11	0.0147	0.0107	
Venus	-26937-02-24 18:14 J	-8117261.77	-8117261.74	-8117261.70	0.0145	0.0143	
Venus	-26937-10-08 06:43 J	-8117035.34	-8117035.22	-8117035.09	0.0145	0.0119	
Venus	-26936-05-22 19:11 J	-8116808.86	-8116808.70	-8116808.53	0.0145	0.0094	
Venus	-26935-01-04 07:26 J	-8116582.37	-8116582.19	-8116581.99	0.0145	0.0070	
Venus	-26935-08-18 19:55 J	-8116355.87	-8116355.67	-8116355.46	0.0144	0.0045	
Venus	-26934-04-02 08:09 J	-8116129.37	-8116129.16	-8116128.94	0.0144	0.0020	
Venus	-26934-11-14 20:23 J	-8115902.87	-8115902.65	-8115902.43	0.0144	0.0004	
Venus	-26933-06-28 08:23 J	-8115676.36	-8115676.15	-8115675.93	0.0144	0.0029	
Venus	-26932-02-09 20:09 J	-8115449.85	-8115449.66	-8115449.44	0.0143	0.0054	
Venus	-26932-09-24 07:55 J	-8115223.34	-8115223.17	-8115222.97	0.0143	0.0077	
Venus	-26931-05-08 19:55 J	-8114996.82	-8114996.67	-8114996.51	0.0143	0.0100	
Venus	-26931-12-21 07:11 J	-8114770.29	-8114770.20	-8114770.07	0.0142	0.0124	
Moon	-26924-11-06 14:52 J	-8112257.93	-8112257.88	-8112257.78	0.0138	0.0133	
Moon	-26923-11-11 02:52 J	-8111888.61	-8111888.38	-8111888.13	0.0138	0.0044	
Earth	-26923-11-11 06:14 J	-8111888.49	-8111888.24	-8111887.99	0.0138	0.0041	*

Earth	-26922-11-15 21:50 J	-8111518.81	-8111518.59	-8111518.34	0.0137	0.0055
Moon	-26922-11-16 01:11 J	-8111518.68	-8111518.45	-8111518.20	0.0137	0.0055 *
Mercury	-26918-06-14 00:14 J	-8110212.57	-8110212.49	-8110212.38	0.0135	0.0114
Mercury	-26918-09-10 06:43 J	-8110124.35	-8110124.22	-8110124.08	0.0135	0.0088
Mercury	-26918-12-07 12:57 J	-8110036.11	-8110035.96	-8110035.79	0.0135	0.0062
Mercury	-26917-03-04 19:11 J	-8109947.87	-8109947.70	-8109947.52	0.0135	0.0037
Mercury	-26917-06-01 01:26 J	-8109859.62	-8109859.44	-8109859.26	0.0135	0.0012
Mercury	-26917-08-28 07:26 J	-8109771.36	-8109771.19	-8109771.01	0.0135	0.0013
Mercury	-26917-11-24 13:26 J	-8109683.10	-8109682.94	-8109682.76	0.0135	0.0038
Mercury	-26916-02-20 19:26 J	-8109594.84	-8109594.69	-8109594.53	0.0135	0.0062
Mercury	-26916-05-20 01:26 J	-8109506.57	-8109506.44	-8109506.30	0.0135	0.0086
Mercury	-26916-08-16 07:11 J	-8109418.29	-8109418.20	-8109418.09	0.0134	0.0109
Mercury	-26916-11-12 13:11 J	-8109329.97	-8109329.95	-8109329.92	0.0134	0.0133
Mars	-26907-10-16 17:02 J	-8106070.09	-8106069.79	-8106069.46	0.0132	0.0033
Jupiter	-26899-07-02 00:28 J	-8103254.85	-8103254.48	-8103254.07	0.0132	0.0083
Venus	-26893-02-23 21:50 J	-8101191.67	-8101191.59	-8101191.49	0.0133	0.0121
Venus	-26893-10-07 03:07 J	-8100965.51	-8100965.37	-8100965.23	0.0134	0.0102
Venus	-26892-05-21 08:09 J	-8100739.33	-8100739.16	-8100738.99	0.0134	0.0083
Venus	-26891-01-02 13:26 J	-8100513.13	-8100512.94	-8100512.75	0.0134	0.0064
Venus	-26891-08-16 18:28 J	-8100286.92	-8100286.73	-8100286.52	0.0134	0.0045
Venus	-26890-03-30 23:59 J	-8100060.71	-8100060.50	-8100060.29	0.0134	0.0025
Venus	-26890-11-12 05:16 J	-8099834.49	-8099834.28	-8099834.06	0.0135	0.0006
Venus	-26889-06-25 10:47 J	-8099608.26	-8099608.05	-8099607.83	0.0135	0.0014
Venus	-26888-02-06 16:19 J	-8099382.02	-8099381.82	-8099381.60	0.0135	0.0034
Venus	-26888-09-20 21:50 J	-8099155.78	-8099155.59	-8099155.38	0.0135	0.0054
Venus	-26887-05-05 03:35 J	-8098929.52	-8098929.35	-8098929.16	0.0136	0.0074
Venus	-26887-12-17 09:35 J	-8098703.25	-8098703.10	-8098702.94	0.0136	0.0093
Venus	-26886-07-31 15:21 J	-8098476.96	-8098476.86	-8098476.73	0.0136	0.0114
Venus	-26885-03-13 21:21 J	-8098250.63	-8098250.61	-8098250.55	0.0137	0.0134
Moon	-26878-05-09 08:09 J	-8095638.36	-8095638.16	-8095637.93	0.0141	0.0077

Earth	-26878-05-09 09:50 J	-8095638.29	-8095638.09	-8095637.87	0.0141	0.0074 *
Earth	-26877-05-13 01:26 J	-8095268.68	-8095268.44	-8095268.19	0.0141	0.0027
Moon	-26877-05-13 02:23 J	-8095268.64	-8095268.40	-8095268.16	0.0141	0.0034 *
Moon	-26876-05-17 16:47 J	-8094898.92	-8094898.80	-8094898.65	0.0142	0.0122
Earth	-26876-05-17 17:59 J	-8094898.84	-8094898.75	-8094898.64	0.0142	0.0129 *
Mercury	-26874-08-15 06:43 J	-8094079.29	-8094079.22	-8094079.15	0.0143	0.0122
Mercury	-26874-11-11 10:33 J	-8093991.15	-8093991.06	-8093990.95	0.0143	0.0100
Mercury	-26873-02-07 14:38 J	-8093903.00	-8093902.89	-8093902.77	0.0143	0.0077
Mercury	-26873-05-05 18:43 J	-8093814.85	-8093814.72	-8093814.59	0.0143	0.0054
Mercury	-26873-08-01 22:47 J	-8093726.69	-8093726.55	-8093726.41	0.0143	0.0030
Mercury	-26873-10-29 02:52 J	-8093638.52	-8093638.38	-8093638.24	0.0144	0.0007
Mercury	-26872-01-25 06:57 J	-8093550.35	-8093550.21	-8093550.07	0.0144	0.0017
Mercury	-26872-04-23 11:02 J	-8093462.17	-8093462.04	-8093461.90	0.0144	0.0041
Mercury	-26872-07-20 15:21 J	-8093373.98	-8093373.86	-8093373.73	0.0144	0.0064
Mercury	-26872-10-16 19:40 J	-8093285.79	-8093285.68	-8093285.57	0.0144	0.0089
Mercury	-26871-01-12 23:45 J	-8093197.59	-8093197.51	-8093197.42	0.0144	0.0113
Mercury	-26871-04-11 04:04 J	-8093109.37	-8093109.33	-8093109.29	0.0144	0.0138
Mars	-26864-03-06 16:04 J	-8090588.12	-8090587.83	-8090587.53	0.0147	0.0012
Jupiter	-26858-10-12 22:47 J	-8088176.73	-8088176.55	-8088176.30	0.0147	0.0134
Venus	-26853-06-07 13:26 J	-8086477.02	-8086476.94	-8086476.83	0.0145	0.0130
Venus	-26852-01-20 01:55 J	-8086250.55	-8086250.42	-8086250.25	0.0145	0.0105
Venus	-26852-09-03 14:23 J	-8086024.07	-8086023.90	-8086023.71	0.0145	0.0080
Venus	-26851-04-18 02:38 J	-8085797.58	-8085797.39	-8085797.17	0.0145	0.0056
Venus	-26851-11-30 15:07 J	-8085571.08	-8085570.87	-8085570.65	0.0144	0.0031
Venus	-26850-07-15 03:35 J	-8085344.57	-8085344.35	-8085344.13	0.0144	0.0006
Venus	-26849-02-26 15:50 J	-8085118.06	-8085117.84	-8085117.62	0.0144	0.0019
Venus	-26849-10-10 03:35 J	-8084891.55	-8084891.35	-8084891.13	0.0143	0.0044
Venus	-26848-05-24 15:35 J	-8084665.04	-8084664.85	-8084664.65	0.0143	0.0067
Venus	-26847-01-06 03:35 J	-8084438.52	-8084438.35	-8084438.18	0.0143	0.0091
Venus	-26847-08-20 15:07 J	-8084211.98	-8084211.87	-8084211.73	0.0142	0.0115

Venus	-26846-04-04 02:52 J	-8083985.42	-8083985.38	-8083985.32	0.0142	0.0138
Earth	-26840-11-07 01:40 J	-8081576.50	-8081576.43	-8081576.34	0.0138	0.0131
Moon	-26840-11-07 04:19 J	-8081576.35	-8081576.32	-8081576.26	0.0138	0.0136 *
Moon	-26839-11-11 16:33 J	-8081207.05	-8081206.81	-8081206.56	0.0138	0.0029
Earth	-26839-11-11 18:57 J	-8081206.95	-8081206.71	-8081206.45	0.0138	0.0034 *
Earth	-26838-11-16 11:02 J	-8080837.26	-8080837.04	-8080836.80	0.0137	0.0063
Moon	-26838-11-16 14:09 J	-8080837.14	-8080836.91	-8080836.67	0.0137	0.0064 *
Mercury	-26834-04-07 02:09 J	-8079599.46	-8079599.41	-8079599.36	0.0136	0.0129
Mercury	-26834-07-04 08:09 J	-8079511.26	-8079511.16	-8079511.03	0.0135	0.0104
Mercury	-26834-09-30 14:52 J	-8079423.03	-8079422.88	-8079422.73	0.0135	0.0078
Mercury	-26834-12-27 20:52 J	-8079334.78	-8079334.63	-8079334.45	0.0135	0.0053
Mercury	-26833-03-25 03:21 J	-8079246.54	-8079246.36	-8079246.19	0.0135	0.0027
Mercury	-26833-06-21 09:35 J	-8079158.28	-8079158.10	-8079157.93	0.0135	0.0004
Mercury	-26833-09-17 15:35 J	-8079070.03	-8079069.85	-8079069.67	0.0135	0.0023
Mercury	-26833-12-14 21:35 J	-8078981.76	-8078981.60	-8078981.43	0.0135	0.0047
Mercury	-26832-03-13 03:21 J	-8078893.50	-8078893.36	-8078893.20	0.0135	0.0072
Mercury	-26832-06-09 09:21 J	-8078805.22	-8078805.11	-8078804.98	0.0135	0.0096
Mercury	-26832-09-05 15:07 J	-8078716.93	-8078716.87	-8078716.78	0.0134	0.0120
Mars	-26824-07-09 18:43 J	-8075852.90	-8075852.72	-8075852.48	0.0132	0.0100
Mars	-26822-06-11 23:59 J	-8075150.66	-8075150.50	-8075150.32	0.0132	0.0111
Venus	-26810-10-24 10:19 J	-8070633.13	-8070633.07	-8070633.01	0.0133	0.0128
Venus	-26809-06-06 14:52 J	-8070406.98	-8070406.88	-8070406.74	0.0133	0.0110
Venus	-26808-01-18 20:09 J	-8070180.80	-8070180.66	-8070180.48	0.0134	0.0091
Venus	-26808-09-02 01:40 J	-8069954.61	-8069954.43	-8069954.24	0.0134	0.0071
Venus	-26807-04-16 06:43 J	-8069728.41	-8069728.22	-8069728.01	0.0134	0.0052
Venus	-26807-11-28 12:14 J	-8069502.20	-8069501.99	-8069501.78	0.0134	0.0032
Venus	-26806-07-12 17:31 J	-8069275.98	-8069275.77	-8069275.55	0.0134	0.0013
Venus	-26805-02-23 23:02 J	-8069049.76	-8069049.54	-8069049.32	0.0135	0.0007
Venus	-26805-10-07 04:19 J	-8068823.52	-8068823.32	-8068823.10	0.0135	0.0027
Venus	-26804-05-21 10:04 J	-8068597.28	-8068597.08	-8068596.88	0.0135	0.0047

Venus	-26803-01-02 15:50 J	-8068371.03	-8068370.84	-8068370.65	0.0136	0.0067
Venus	-26803-08-16 21:21 J	-8068144.76	-8068144.61	-8068144.43	0.0136	0.0087
Venus	-26802-03-31 03:07 J	-8067918.48	-8067918.37	-8067918.22	0.0136	0.0107
Venus	-26802-11-12 09:21 J	-8067692.18	-8067692.11	-8067692.03	0.0136	0.0127
Moon	-26794-05-09 20:23 J	-8064956.88	-8064956.65	-8064956.41	0.0141	0.0063
Earth	-26794-05-09 22:04 J	-8064956.79	-8064956.58	-8064956.35	0.0141	0.0067 *
Earth	-26793-05-13 13:26 J	-8064587.17	-8064586.94	-8064586.69	0.0141	0.0034
Moon	-26793-05-13 15:21 J	-8064587.09	-8064586.86	-8064586.62	0.0141	0.0028 *
Earth	-26792-05-18 05:31 J	-8064217.32	-8064217.27	-8064217.18	0.0142	0.0136
Mercury	-26790-06-08 10:19 J	-8063466.10	-8063466.07	-8063466.03	0.0143	0.0137
Mercury	-26790-09-04 14:09 J	-8063377.98	-8063377.91	-8063377.82	0.0143	0.0115
Mercury	-26790-12-01 18:14 J	-8063289.84	-8063289.74	-8063289.63	0.0143	0.0092
Mercury	-26789-02-27 22:19 J	-8063201.69	-8063201.57	-8063201.45	0.0143	0.0069
Mercury	-26789-05-26 02:09 J	-8063113.54	-8063113.41	-8063113.27	0.0143	0.0047
Mercury	-26789-08-22 06:14 J	-8063025.38	-8063025.24	-8063025.10	0.0143	0.0024
Mercury	-26789-11-18 10:19 J	-8062937.21	-8062937.07	-8062936.93	0.0144	0.0003
Mercury	-26788-02-14 14:23 J	-8062849.03	-8062848.90	-8062848.76	0.0144	0.0024
Mercury	-26788-05-13 18:28 J	-8062760.86	-8062760.73	-8062760.59	0.0144	0.0048
Mercury	-26788-08-09 22:47 J	-8062672.67	-8062672.55	-8062672.43	0.0144	0.0071
Mercury	-26788-11-06 02:52 J	-8062584.48	-8062584.38	-8062584.27	0.0144	0.0096
Mercury	-26787-02-02 07:11 J	-8062496.27	-8062496.20	-8062496.12	0.0144	0.0120
Mars	-26780-10-31 01:11 J	-8059668.69	-8059668.45	-8059668.20	0.0147	0.0081
Venus	-26769-02-05 18:28 J	-8055918.76	-8055918.73	-8055918.67	0.0145	0.0141
Venus	-26769-09-19 07:11 J	-8055692.33	-8055692.20	-8055692.07	0.0145	0.0117
Venus	-26768-05-03 19:26 J	-8055465.85	-8055465.69	-8055465.51	0.0145	0.0092
Venus	-26768-12-16 07:55 J	-8055239.36	-8055239.17	-8055238.97	0.0145	0.0067
Venus	-26767-07-30 20:23 J	-8055012.86	-8055012.65	-8055012.44	0.0145	0.0042
Venus	-26766-03-14 08:38 J	-8054786.35	-8054786.14	-8054785.92	0.0144	0.0017
Venus	-26766-10-26 20:52 J	-8054559.85	-8054559.63	-8054559.41	0.0144	0.0008
Venus	-26765-06-09 08:52 J	-8054333.33	-8054333.13	-8054332.91	0.0144	0.0033

Venus	-26764-01-21 20:52 J	-8054106.82	-8054106.63	-8054106.42	0.0143	0.0057
Venus	-26764-09-05 08:52 J	-8053880.30	-8053880.13	-8053879.94	0.0143	0.0081
Venus	-26763-04-19 20:52 J	-8053653.77	-8053653.63	-8053653.48	0.0143	0.0105
Venus	-26763-12-02 08:23 J	-8053427.23	-8053427.15	-8053427.04	0.0142	0.0128
Earth	-26756-11-07 11:31 J	-8050895.11	-8050895.02	-8050894.90	0.0139	0.0126
Moon	-26756-11-07 13:11 J	-8050895.07	-8050894.95	-8050894.80	0.0139	0.0119 *
Moon	-26755-11-12 02:38 J	-8050525.63	-8050525.39	-8050525.14	0.0138	0.0032
Earth	-26755-11-12 05:16 J	-8050525.53	-8050525.28	-8050525.03	0.0138	0.0028 *
Earth	-26754-11-16 21:07 J	-8050155.83	-8050155.62	-8050155.38	0.0137	0.0068
Moon	-26754-11-16 23:45 J	-8050155.72	-8050155.51	-8050155.27	0.0137	0.0068 *
Mercury	-26750-04-27 09:07 J	-8048898.18	-8048898.12	-8048898.02	0.0136	0.0122
Mercury	-26750-07-24 15:35 J	-8048809.96	-8048809.85	-8048809.71	0.0136	0.0096
Mercury	-26750-10-20 22:19 J	-8048721.72	-8048721.57	-8048721.42	0.0135	0.0070
Mercury	-26749-01-17 04:33 J	-8048633.48	-8048633.31	-8048633.14	0.0135	0.0044
Mercury	-26749-04-14 10:47 J	-8048545.23	-8048545.05	-8048544.87	0.0135	0.0019
Mercury	-26749-07-11 16:47 J	-8048456.97	-8048456.80	-8048456.62	0.0135	0.0007
Mercury	-26749-10-07 23:02 J	-8048368.71	-8048368.54	-8048368.37	0.0135	0.0031
Mercury	-26748-01-04 05:02 J	-8048280.45	-8048280.29	-8048280.13	0.0135	0.0055
Mercury	-26748-04-02 10:47 J	-8048192.18	-8048192.05	-8048191.89	0.0135	0.0080
Mercury	-26748-06-29 16:47 J	-8048103.90	-8048103.80	-8048103.68	0.0135	0.0104
Mercury	-26748-09-25 22:33 J	-8048015.60	-8048015.56	-8048015.49	0.0135	0.0128
Mars	-26739-03-04 23:16 J	-8044933.84	-8044933.53	-8044933.21	0.0132	0.0023
Venus	-26725-02-05 03:35 J	-8039848.44	-8039848.35	-8039848.23	0.0133	0.0116
Venus	-26725-09-18 08:38 J	-8039622.27	-8039622.14	-8039621.98	0.0133	0.0098
Venus	-26724-05-02 13:40 J	-8039396.09	-8039395.93	-8039395.74	0.0134	0.0079
Venus	-26724-12-14 19:11 J	-8039169.88	-8039169.70	-8039169.50	0.0134	0.0059
Venus	-26723-07-29 00:43 J	-8038943.68	-8038943.47	-8038943.26	0.0134	0.0039
Venus	-26722-03-12 05:59 J	-8038717.46	-8038717.25	-8038717.03	0.0134	0.0020
Venus	-26722-10-24 11:31 J	-8038491.24	-8038491.02	-8038490.81	0.0135	0.0002
Venus	-26721-06-06 17:02 J	-8038265.01	-8038264.79	-8038264.58	0.0135	0.0020

Venus	-26720-01-18 22:33 J	-8038038.76	-8038038.56	-8038038.35	0.0135	0.0040
Venus	-26720-09-02 04:04 J	-8037812.51	-8037812.33	-8037812.13	0.0135	0.0060
Venus	-26719-04-16 09:35 J	-8037586.25	-8037586.10	-8037585.91	0.0136	0.0081
Venus	-26719-11-28 15:50 J	-8037359.98	-8037359.84	-8037359.70	0.0136	0.0100
Venus	-26718-07-12 21:35 J	-8037133.69	-8037133.60	-8037133.49	0.0136	0.0120
Moon	-26710-05-10 10:04 J	-8034275.31	-8034275.08	-8034274.84	0.0141	0.0060
Earth	-26710-05-10 12:28 J	-8034275.20	-8034274.98	-8034274.75	0.0141	0.0058 *
Earth	-26709-05-14 03:35 J	-8033905.58	-8033905.35	-8033905.10	0.0141	0.0042
Moon	-26709-05-14 05:16 J	-8033905.50	-8033905.28	-8033905.04	0.0141	0.0049 *
Moon	-26708-05-18 17:45 J	-8033535.80	-8033535.76	-8033535.67	0.0142	0.0137
Mercury	-26706-06-28 18:14 J	-8032764.79	-8032764.74	-8032764.68	0.0143	0.0128
Mercury	-26706-09-24 22:19 J	-8032676.66	-8032676.57	-8032676.48	0.0143	0.0105
Mercury	-26706-12-22 02:09 J	-8032588.52	-8032588.41	-8032588.29	0.0143	0.0083
Mercury	-26705-03-19 06:14 J	-8032500.37	-8032500.24	-8032500.12	0.0143	0.0060
Mercury	-26705-06-15 10:04 J	-8032412.21	-8032412.08	-8032411.94	0.0143	0.0038
Mercury	-26705-09-11 14:09 J	-8032324.05	-8032323.91	-8032323.77	0.0143	0.0014
Mercury	-26705-12-08 18:14 J	-8032235.88	-8032235.74	-8032235.60	0.0144	0.0010
Mercury	-26704-03-06 22:19 J	-8032147.70	-8032147.57	-8032147.43	0.0144	0.0033
Mercury	-26704-06-03 02:23 J	-8032059.52	-8032059.40	-8032059.26	0.0144	0.0057
Mercury	-26704-08-30 06:28 J	-8031971.34	-8031971.23	-8031971.10	0.0144	0.0081
Mercury	-26704-11-26 10:47 J	-8031883.14	-8031883.05	-8031882.95	0.0144	0.0105
Mercury	-26703-02-22 15:07 J	-8031794.93	-8031794.87	-8031794.81	0.0144	0.0129
Mars	-26697-07-23 13:55 J	-8029452.13	-8029451.92	-8029451.67	0.0146	0.0090
Venus	-26685-05-19 14:09 J	-8025134.00	-8025133.91	-8025133.80	0.0145	0.0128
Venus	-26684-01-01 02:52 J	-8024907.53	-8024907.38	-8024907.23	0.0145	0.0102
Venus	-26684-08-15 14:52 J	-8024681.05	-8024680.88	-8024680.68	0.0145	0.0078
Venus	-26683-03-30 03:21 J	-8024454.55	-8024454.36	-8024454.15	0.0145	0.0053
Venus	-26683-11-11 15:50 J	-8024228.05	-8024227.84	-8024227.62	0.0144	0.0027
Venus	-26682-06-26 04:19 J	-8024001.54	-8024001.32	-8024001.10	0.0144	0.0003
Venus	-26681-02-07 16:19 J	-8023775.03	-8023774.82	-8023774.60	0.0144	0.0023

Venus	-26681-09-21 04:19 J	-8023548.52	-8023548.32	-8023548.10	0.0143	0.0048
Venus	-26680-05-05 16:33 J	-8023322.00	-8023321.81	-8023321.62	0.0143	0.0072
Venus	-26680-12-18 04:04 J	-8023095.48	-8023095.33	-8023095.15	0.0143	0.0096
Venus	-26679-08-01 16:04 J	-8022868.93	-8022868.83	-8022868.69	0.0142	0.0120
Earth	-26672-11-07 23:31 J	-8020213.64	-8020213.52	-8020213.38	0.0139	0.0119
Moon	-26672-11-08 01:11 J	-8020213.54	-8020213.45	-8020213.32	0.0139	0.0125 *
Moon	-26671-11-12 15:21 J	-8019844.10	-8019843.86	-8019843.61	0.0138	0.0017
Earth	-26671-11-12 17:02 J	-8019844.04	-8019843.79	-8019843.53	0.0138	0.0022 *
Earth	-26670-11-17 09:07 J	-8019474.32	-8019474.12	-8019473.89	0.0137	0.0075
Moon	-26670-11-17 11:31 J	-8019474.23	-8019474.02	-8019473.78	0.0137	0.0075 *
Mercury	-26666-05-17 17:16 J	-8018196.88	-8018196.78	-8018196.67	0.0136	0.0112
Mercury	-26666-08-13 23:31 J	-8018108.65	-8018108.52	-8018108.37	0.0136	0.0086
Mercury	-26666-11-10 05:59 J	-8018020.41	-8018020.25	-8018020.08	0.0135	0.0061
Mercury	-26665-02-06 12:14 J	-8017932.16	-8017931.99	-8017931.81	0.0135	0.0035
Mercury	-26665-05-04 18:28 J	-8017843.90	-8017843.73	-8017843.55	0.0135	0.0011
Mercury	-26665-08-01 00:43 J	-8017755.64	-8017755.47	-8017755.29	0.0135	0.0015
Mercury	-26665-10-28 06:43 J	-8017667.38	-8017667.22	-8017667.04	0.0135	0.0040
Mercury	-26664-01-24 12:43 J	-8017579.12	-8017578.97	-8017578.81	0.0135	0.0065
Mercury	-26664-04-22 18:43 J	-8017490.84	-8017490.72	-8017490.58	0.0135	0.0089
Mercury	-26664-07-20 00:43 J	-8017402.56	-8017402.47	-8017402.37	0.0135	0.0113
Mars	-26655-10-29 04:33 J	-8014014.60	-8014014.31	-8014014.01	0.0132	0.0056
Venus	-26642-10-05 16:04 J	-8009289.90	-8009289.83	-8009289.74	0.0133	0.0123
Venus	-26641-05-18 21:07 J	-8009063.74	-8009063.62	-8009063.47	0.0133	0.0105
Venus	-26641-12-31 02:23 J	-8008837.55	-8008837.40	-8008837.22	0.0134	0.0086
Venus	-26640-08-14 07:55 J	-8008611.35	-8008611.17	-8008610.98	0.0134	0.0066
Venus	-26639-03-28 13:11 J	-8008385.15	-8008384.95	-8008384.74	0.0134	0.0046
Venus	-26639-11-09 18:43 J	-8008158.94	-8008158.72	-8008158.51	0.0134	0.0027
Venus	-26638-06-23 23:59 J	-8007932.71	-8007932.50	-8007932.28	0.0134	0.0007
Venus	-26637-02-05 05:45 J	-8007706.48	-8007706.26	-8007706.04	0.0135	0.0013
Venus	-26637-09-18 11:16 J	-8007480.24	-8007480.03	-8007479.82	0.0135	0.0033

Venus	-26636-05-02 16:47 J	-8007253.99	-8007253.80	-8007253.60	0.0135	0.0054
Venus	-26636-12-14 22:33 J	-8007027.73	-8007027.56	-8007027.37	0.0136	0.0074
Venus	-26635-07-29 04:19 J	-8006801.46	-8006801.32	-8006801.16	0.0136	0.0094
Venus	-26634-03-12 10:19 J	-8006575.18	-8006575.07	-8006574.95	0.0136	0.0114
Venus	-26634-10-24 16:04 J	-8006348.85	-8006348.83	-8006348.78	0.0136	0.0135
Moon	-26626-05-11 01:11 J	-8003593.70	-8003593.45	-8003593.21	0.0140	0.0044
Earth	-26626-05-11 03:35 J	-8003593.58	-8003593.35	-8003593.11	0.0140	0.0048 *
Earth	-26625-05-14 18:57 J	-8003223.94	-8003223.71	-8003223.47	0.0141	0.0052
Moon	-26625-05-14 21:21 J	-8003223.83	-8003223.61	-8003223.37	0.0141	0.0047 *
Mercury	-26622-04-21 22:33 J	-8002151.58	-8002151.56	-8002151.53	0.0143	0.0140
Mercury	-26622-07-19 02:23 J	-8002063.47	-8002063.40	-8002063.32	0.0143	0.0118
Mercury	-26622-10-15 06:28 J	-8001975.33	-8001975.23	-8001975.13	0.0143	0.0095
Mercury	-26621-01-11 10:19 J	-8001887.19	-8001887.07	-8001886.95	0.0143	0.0073
Mercury	-26621-04-08 14:09 J	-8001799.03	-8001798.91	-8001798.77	0.0143	0.0050
Mercury	-26621-07-05 18:14 J	-8001710.87	-8001710.74	-8001710.60	0.0143	0.0027
Mercury	-26621-10-01 22:19 J	-8001622.71	-8001622.57	-8001622.43	0.0143	0.0005
Mercury	-26621-12-29 02:23 J	-8001534.54	-8001534.40	-8001534.26	0.0143	0.0020
Mercury	-26620-03-27 06:28 J	-8001446.36	-8001446.23	-8001446.09	0.0144	0.0044
Mercury	-26620-06-23 10:47 J	-8001358.18	-8001358.05	-8001357.93	0.0144	0.0067
Mercury	-26620-09-19 14:52 J	-8001269.99	-8001269.88	-8001269.77	0.0144	0.0091
Mercury	-26620-12-16 19:11 J	-8001181.79	-8001181.70	-8001181.62	0.0144	0.0115
Mercury	-26619-03-14 23:02 J	-8001093.56	-8001093.54	-8001093.50	0.0144	0.0140
Mars	-26612-03-19 07:26 J	-7998532.49	-7998532.19	-7998531.89	0.0146	0.0009
Venus	-26601-01-17 21:07 J	-7994575.67	-7994575.62	-7994575.54	0.0145	0.0139
Venus	-26601-08-31 09:35 J	-7994349.22	-7994349.10	-7994348.95	0.0145	0.0113
Venus	-26600-04-14 22:04 J	-7994122.75	-7994122.58	-7994122.40	0.0145	0.0088
Venus	-26600-11-27 10:33 J	-7993896.26	-7993896.06	-7993895.86	0.0145	0.0063
Venus	-26599-07-11 23:02 J	-7993669.75	-7993669.54	-7993669.33	0.0144	0.0038
Venus	-26598-02-23 11:16 J	-7993443.25	-7993443.03	-7993442.81	0.0144	0.0013
Venus	-26598-10-07 23:31 J	-7993216.74	-7993216.52	-7993216.30	0.0144	0.0012

Venus	-26597-05-21 11:31 J	-7992990.23	-7992990.02	-7992989.80	0.0144	0.0037
Venus	-26596-01-02 23:31 J	-7992763.71	-7992763.52	-7992763.31	0.0143	0.0062
Venus	-26596-08-17 11:45 J	-7992537.18	-7992537.01	-7992536.83	0.0143	0.0086
Venus	-26595-03-31 23:16 J	-7992310.65	-7992310.53	-7992310.37	0.0143	0.0111
Venus	-26595-11-13 11:16 J	-7992084.09	-7992084.03	-7992083.95	0.0142	0.0134
Earth	-26588-11-08 10:33 J	-7989532.19	-7989532.06	-7989531.90	0.0139	0.0113
Moon	-26588-11-08 11:02 J	-7989532.19	-7989532.04	-7989531.85	0.0139	0.0106 *
Moon	-26587-11-13 02:52 J	-7989162.63	-7989162.38	-7989162.14	0.0138	0.0019
Earth	-26587-11-13 04:19 J	-7989162.57	-7989162.32	-7989162.06	0.0138	0.0015 *
Earth	-26586-11-17 20:38 J	-7988792.84	-7988792.64	-7988792.42	0.0137	0.0081
Moon	-26586-11-17 22:19 J	-7988792.77	-7988792.57	-7988792.34	0.0137	0.0082 *
Mercury	-26582-03-10 18:14 J	-7987583.78	-7987583.74	-7987583.68	0.0136	0.0130
Mercury	-26582-06-07 00:43 J	-7987495.57	-7987495.47	-7987495.34	0.0136	0.0104
Mercury	-26582-09-03 07:11 J	-7987407.34	-7987407.20	-7987407.05	0.0136	0.0078
Mercury	-26582-11-30 13:40 J	-7987319.09	-7987318.93	-7987318.76	0.0135	0.0052
Mercury	-26581-02-26 19:55 J	-7987230.84	-7987230.67	-7987230.49	0.0135	0.0027
Mercury	-26581-05-25 02:09 J	-7987142.59	-7987142.41	-7987142.23	0.0135	0.0002
Mercury	-26581-08-21 08:23 J	-7987054.33	-7987054.15	-7987053.98	0.0135	0.0024
Mercury	-26581-11-17 14:23 J	-7986966.06	-7986965.90	-7986965.73	0.0135	0.0048
Mercury	-26580-02-13 20:23 J	-7986877.79	-7986877.65	-7986877.50	0.0135	0.0073
Mercury	-26580-05-13 02:23 J	-7986789.51	-7986789.40	-7986789.27	0.0135	0.0097
Mercury	-26580-08-09 08:23 J	-7986701.22	-7986701.15	-7986701.07	0.0135	0.0121
Mars	-26572-07-22 03:35 J	-7983797.59	-7983797.35	-7983797.07	0.0132	0.0078
Venus	-26558-06-05 04:19 J	-7978731.36	-7978731.32	-7978731.28	0.0133	0.0131
Venus	-26557-01-17 09:35 J	-7978505.22	-7978505.10	-7978504.98	0.0133	0.0112
Venus	-26557-08-30 14:38 J	-7978279.04	-7978278.89	-7978278.73	0.0134	0.0093
Venus	-26556-04-13 19:40 J	-7978052.85	-7978052.68	-7978052.48	0.0134	0.0074
Venus	-26556-11-26 01:11 J	-7977826.64	-7977826.45	-7977826.24	0.0134	0.0054
Venus	-26555-07-10 06:43 J	-7977600.43	-7977600.22	-7977600.01	0.0134	0.0034
Venus	-26554-02-21 12:14 J	-7977374.20	-7977373.99	-7977373.77	0.0134	0.0014

Venus	-26554-10-05 17:45 J	-7977147.98	-7977147.76	-7977147.54	0.0135	0.0006
Venus	-26553-05-18 23:16 J	-7976921.74	-7976921.53	-7976921.32	0.0135	0.0026
Venus	-26553-12-31 04:47 J	-7976695.49	-7976695.30	-7976695.09	0.0135	0.0047
Venus	-26552-08-14 10:33 J	-7976469.24	-7976469.06	-7976468.86	0.0135	0.0067
Venus	-26551-03-28 16:04 J	-7976242.98	-7976242.83	-7976242.65	0.0136	0.0088
Venus	-26551-11-09 21:50 J	-7976016.70	-7976016.59	-7976016.44	0.0136	0.0108
Venus	-26550-06-24 03:50 J	-7975790.39	-7975790.34	-7975790.25	0.0136	0.0128
Earth	-26543-05-07 03:21 J	-7973281.41	-7973281.36	-7973281.30	0.0140	0.0136
Moon	-26543-05-07 06:14 J	-7973281.27	-7973281.24	-7973281.17	0.0140	0.0137
Moon	-26542-05-11 14:52 J	-7972912.12	-7972911.88	-7972911.63	0.0140	0.0041
Earth	-26542-05-11 17:59 J	-7972911.99	-7972911.75	-7972911.51	0.0140	0.0039 *
Earth	-26541-05-15 09:07 J	-7972542.33	-7972542.12	-7972541.88	0.0141	0.0061
Moon	-26541-05-15 11:31 J	-7972542.22	-7972542.02	-7972541.79	0.0141	0.0068 *
Mercury	-26538-05-12 06:28 J	-7971450.28	-7971450.23	-7971450.17	0.0143	0.0130
Mercury	-26538-08-08 10:33 J	-7971362.15	-7971362.06	-7971361.97	0.0143	0.0108
Mercury	-26538-11-04 14:23 J	-7971274.01	-7971273.90	-7971273.79	0.0143	0.0086
Mercury	-26537-01-31 18:14 J	-7971185.86	-7971185.74	-7971185.61	0.0143	0.0063
Mercury	-26537-04-28 22:19 J	-7971097.70	-7971097.57	-7971097.43	0.0143	0.0040
Mercury	-26537-07-26 02:23 J	-7971009.54	-7971009.40	-7971009.26	0.0143	0.0017
Mercury	-26537-10-22 06:28 J	-7970921.37	-7970921.23	-7970921.09	0.0143	0.0006
Mercury	-26536-01-18 10:33 J	-7970833.20	-7970833.06	-7970832.92	0.0144	0.0030
Mercury	-26536-04-16 14:23 J	-7970745.02	-7970744.90	-7970744.76	0.0144	0.0054
Mercury	-26536-07-13 18:43 J	-7970656.84	-7970656.72	-7970656.60	0.0144	0.0077
Mercury	-26536-10-09 23:02 J	-7970568.64	-7970568.54	-7970568.44	0.0144	0.0101
Mercury	-26535-01-06 03:07 J	-7970480.43	-7970480.37	-7970480.30	0.0144	0.0125
Mars	-26528-11-13 00:28 J	-7967612.68	-7967612.48	-7967612.28	0.0146	0.0107
Venus	-26517-04-30 18:14 J	-7963790.84	-7963790.74	-7963790.62	0.0145	0.0123
Venus	-26517-12-13 06:43 J	-7963564.37	-7963564.22	-7963564.06	0.0145	0.0098
Venus	-26516-07-27 19:11 J	-7963337.89	-7963337.70	-7963337.51	0.0145	0.0073
Venus	-26515-03-11 07:26 J	-7963111.39	-7963111.19	-7963110.98	0.0145	0.0048

Venus	-26515-10-23 19:55 J	-7962884.89	-7962884.67	-7962884.46	0.0144	0.0022
Venus	-26514-06-07 08:09 J	-7962658.38	-7962658.16	-7962657.94	0.0144	0.0003
Venus	-26513-01-19 20:23 J	-7962431.87	-7962431.65	-7962431.44	0.0144	0.0028
Venus	-26513-09-02 08:09 J	-7962205.35	-7962205.16	-7962204.94	0.0143	0.0054
Venus	-26512-04-16 20:23 J	-7961978.83	-7961978.65	-7961978.46	0.0143	0.0078
Venus	-26512-11-29 08:09 J	-7961752.30	-7961752.16	-7961752.00	0.0143	0.0102
Venus	-26511-07-13 20:09 J	-7961525.75	-7961525.66	-7961525.55	0.0142	0.0126
Earth	-26504-11-08 23:45 J	-7958850.66	-7958850.51	-7958850.33	0.0138	0.0105
Moon	-26504-11-09 00:28 J	-7958850.62	-7958850.48	-7958850.30	0.0138	0.0111 *
Moon	-26503-11-13 16:47 J	-7958481.05	-7958480.80	-7958480.55	0.0138	0.0002
Earth	-26503-11-13 17:31 J	-7958481.03	-7958480.77	-7958480.51	0.0138	0.0007 *
Earth	-26502-11-18 09:35 J	-7958111.28	-7958111.10	-7958110.88	0.0137	0.0089
Moon	-26502-11-18 11:16 J	-7958111.22	-7958111.03	-7958110.81	0.0137	0.0087 *
Mercury	-26498-03-31 02:09 J	-7956882.48	-7956882.41	-7956882.31	0.0136	0.0120
Mercury	-26498-06-27 08:38 J	-7956794.25	-7956794.14	-7956793.99	0.0136	0.0094
Mercury	-26498-09-23 15:21 J	-7956706.01	-7956705.86	-7956705.70	0.0135	0.0067
Mercury	-26498-12-20 21:35 J	-7956617.77	-7956617.60	-7956617.42	0.0135	0.0042
Mercury	-26497-03-18 03:50 J	-7956529.51	-7956529.34	-7956529.16	0.0135	0.0017
Mercury	-26497-06-14 10:04 J	-7956441.25	-7956441.08	-7956440.90	0.0135	0.0009
Mercury	-26497-09-10 16:19 J	-7956352.99	-7956352.82	-7956352.64	0.0135	0.0034
Mercury	-26497-12-07 22:19 J	-7956264.72	-7956264.57	-7956264.40	0.0135	0.0058
Mercury	-26496-03-06 04:19 J	-7956176.45	-7956176.32	-7956176.17	0.0135	0.0083
Mercury	-26496-06-02 10:19 J	-7956088.17	-7956088.07	-7956087.96	0.0135	0.0107
Mercury	-26496-08-29 16:04 J	-7955999.85	-7955999.83	-7955999.77	0.0135	0.0131
Mars	-26487-03-17 08:52 J	-7952878.45	-7952878.13	-7952877.81	0.0132	0.0000
Venus	-26474-09-16 21:07 J	-7947946.71	-7947946.62	-7947946.52	0.0133	0.0119
Venus	-26473-04-30 02:09 J	-7947720.54	-7947720.41	-7947720.26	0.0133	0.0101
Venus	-26473-12-12 07:40 J	-7947494.35	-7947494.18	-7947494.00	0.0134	0.0081
Venus	-26472-07-26 13:11 J	-7947268.14	-7947267.95	-7947267.76	0.0134	0.0061
Venus	-26471-03-09 18:28 J	-7947041.94	-7947041.73	-7947041.52	0.0134	0.0041

Venus	-26471-10-21 23:45 J	-7946815.72	-7946815.51	-7946815.29	0.0134	0.0022
Venus	-26470-06-05 05:16 J	-7946589.49	-7946589.28	-7946589.06	0.0135	0.0003
Venus	-26469-01-17 11:02 J	-7946363.25	-7946363.04	-7946362.83	0.0135	0.0019
Venus	-26469-08-30 16:33 J	-7946137.01	-7946136.81	-7946136.60	0.0135	0.0039
Venus	-26468-04-13 21:50 J	-7945910.77	-7945910.59	-7945910.38	0.0135	0.0060
Venus	-26468-11-26 03:35 J	-7945684.51	-7945684.35	-7945684.16	0.0136	0.0081
Venus	-26467-07-10 09:21 J	-7945458.24	-7945458.11	-7945457.95	0.0136	0.0101
Venus	-26466-02-21 15:21 J	-7945231.94	-7945231.86	-7945231.75	0.0136	0.0121
Earth	-26459-05-07 16:33 J	-7942599.90	-7942599.81	-7942599.71	0.0140	0.0128
Moon	-26459-05-07 19:40 J	-7942599.77	-7942599.68	-7942599.57	0.0140	0.0127 *
Moon	-26458-05-12 03:50 J	-7942230.58	-7942230.34	-7942230.08	0.0140	0.0028
Earth	-26458-05-12 07:11 J	-7942230.45	-7942230.20	-7942229.96	0.0140	0.0031 *
Earth	-26457-05-15 22:19 J	-7941860.77	-7941860.57	-7941860.34	0.0141	0.0069
Moon	-26457-05-16 01:26 J	-7941860.65	-7941860.44	-7941860.21	0.0141	0.0064 *
Mercury	-26454-06-01 14:23 J	-7940748.97	-7940748.90	-7940748.83	0.0143	0.0122
Mercury	-26454-08-28 18:14 J	-7940660.84	-7940660.74	-7940660.64	0.0143	0.0100
Mercury	-26454-11-24 22:04 J	-7940572.69	-7940572.58	-7940572.46	0.0143	0.0077
Mercury	-26453-02-21 01:55 J	-7940484.54	-7940484.42	-7940484.28	0.0143	0.0055
Mercury	-26453-05-19 05:59 J	-7940396.38	-7940396.25	-7940396.11	0.0143	0.0032
Mercury	-26453-08-15 10:04 J	-7940308.22	-7940308.08	-7940307.94	0.0143	0.0009
Mercury	-26453-11-11 14:09 J	-7940220.05	-7940219.91	-7940219.77	0.0143	0.0014
Mercury	-26452-02-07 18:14 J	-7940131.87	-7940131.74	-7940131.60	0.0144	0.0038
Mercury	-26452-05-06 22:19 J	-7940043.69	-7940043.57	-7940043.44	0.0144	0.0062
Mercury	-26452-08-03 02:23 J	-7939955.51	-7939955.40	-7939955.28	0.0144	0.0086
Mercury	-26452-10-30 06:28 J	-7939867.31	-7939867.23	-7939867.13	0.0144	0.0110
Mercury	-26451-01-26 10:47 J	-7939779.09	-7939779.05	-7939779.00	0.0144	0.0134
Mars	-26445-08-05 12:43 J	-7937396.22	-7937395.97	-7937395.68	0.0146	0.0064
Venus	-26434-12-30 01:26 J	-7933232.51	-7933232.44	-7933232.35	0.0145	0.0134
Venus	-26433-08-12 13:40 J	-7933006.05	-7933005.93	-7933005.77	0.0145	0.0110
Venus	-26432-03-27 02:09 J	-7932779.58	-7932779.41	-7932779.22	0.0145	0.0084

Venus	-26432-11-08 14:23 J	-7932553.08	-7932552.90	-7932552.68	0.0145	0.0059
Venus	-26431-06-23 03:07 J	-7932326.58	-7932326.37	-7932326.15	0.0144	0.0033
Venus	-26430-02-04 15:35 J	-7932100.07	-7932099.85	-7932099.63	0.0144	0.0008
Venus	-26430-09-19 03:35 J	-7931873.56	-7931873.35	-7931873.13	0.0144	0.0018
Venus	-26429-05-02 15:35 J	-7931647.05	-7931646.85	-7931646.64	0.0144	0.0043
Venus	-26429-12-15 03:35 J	-7931420.54	-7931420.35	-7931420.15	0.0143	0.0068
Venus	-26428-07-29 15:21 J	-7931194.01	-7931193.86	-7931193.67	0.0143	0.0093
Venus	-26427-03-13 03:21 J	-7930967.47	-7930967.36	-7930967.22	0.0143	0.0117
Venus	-26427-10-25 15:07 J	-7930740.89	-7930740.87	-7930740.83	0.0142	0.0141
Moon	-26420-11-09 10:33 J	-7928169.26	-7928169.06	-7928168.85	0.0138	0.0091
Earth	-26420-11-09 10:33 J	-7928169.22	-7928169.06	-7928168.86	0.0138	0.0099 *
Moon	-26419-11-14 04:04 J	-7927799.58	-7927799.33	-7927799.08	0.0138	0.0006
Earth	-26419-11-14 04:33 J	-7927799.56	-7927799.31	-7927799.05	0.0138	0.0003 *
Earth	-26418-11-18 20:52 J	-7927429.80	-7927429.63	-7927429.42	0.0137	0.0095
Moon	-26418-11-18 22:04 J	-7927429.77	-7927429.58	-7927429.38	0.0137	0.0096 *
Mercury	-26414-04-20 09:35 J	-7926181.18	-7926181.10	-7926180.98	0.0136	0.0112
Mercury	-26414-07-17 16:19 J	-7926092.95	-7926092.82	-7926092.67	0.0136	0.0085
Mercury	-26414-10-13 22:47 J	-7926004.71	-7926004.55	-7926004.39	0.0135	0.0059
Mercury	-26413-01-10 05:02 J	-7925916.46	-7925916.29	-7925916.11	0.0135	0.0034
Mercury	-26413-04-07 11:31 J	-7925828.20	-7925828.02	-7925827.84	0.0135	0.0009
Mercury	-26413-07-04 17:31 J	-7925739.94	-7925739.77	-7925739.59	0.0135	0.0017
Mercury	-26413-09-30 23:45 J	-7925651.68	-7925651.51	-7925651.34	0.0135	0.0041
Mercury	-26413-12-28 05:45 J	-7925563.41	-7925563.26	-7925563.10	0.0135	0.0066
Mercury	-26412-03-26 11:45 J	-7925475.13	-7925475.01	-7925474.87	0.0135	0.0090
Mercury	-26412-06-22 17:59 J	-7925386.84	-7925386.75	-7925386.66	0.0135	0.0114
Mars	-26403-11-10 10:47 J	-7921959.32	-7921959.05	-7921958.79	0.0132	0.0076
Venus	-26390-05-17 07:40 J	-7917388.23	-7917388.18	-7917388.11	0.0133	0.0128
Venus	-26390-12-29 12:57 J	-7917162.07	-7917161.96	-7917161.82	0.0133	0.0109
Venus	-26389-08-11 18:28 J	-7916935.89	-7916935.73	-7916935.56	0.0133	0.0089
Venus	-26388-03-25 23:31 J	-7916709.69	-7916709.52	-7916709.32	0.0134	0.0070

Venus	-26388-11-07 04:47 J	-7916483.49	-7916483.30	-7916483.08	0.0134	0.0050
Venus	-26387-06-21 10:33 J	-7916257.27	-7916257.06	-7916256.85	0.0134	0.0029
Venus	-26386-02-02 16:04 J	-7916031.04	-7916030.83	-7916030.61	0.0134	0.0009
Venus	-26386-09-16 21:21 J	-7915804.82	-7915804.61	-7915804.39	0.0135	0.0012
Venus	-26385-04-30 02:52 J	-7915578.58	-7915578.38	-7915578.16	0.0135	0.0032
Venus	-26385-12-12 08:23 J	-7915352.34	-7915352.15	-7915351.94	0.0135	0.0052
Venus	-26384-07-26 14:09 J	-7915126.09	-7915125.91	-7915125.72	0.0135	0.0073
Venus	-26383-03-09 19:55 J	-7914899.82	-7914899.67	-7914899.51	0.0136	0.0093
Venus	-26383-10-22 01:11 J	-7914673.54	-7914673.45	-7914673.31	0.0136	0.0114
Venus	-26382-06-05 07:11 J	-7914447.22	-7914447.20	-7914447.15	0.0136	0.0134
Earth	-26375-05-08 03:21 J	-7911918.48	-7911918.36	-7911918.24	0.0140	0.0122
Moon	-26375-05-08 06:57 J	-7911918.32	-7911918.21	-7911918.09	0.0140	0.0123 *
Moon	-26374-05-12 14:38 J	-7911549.14	-7911548.89	-7911548.64	0.0140	0.0027
Earth	-26374-05-12 17:45 J	-7911549.00	-7911548.76	-7911548.50	0.0140	0.0026 *
Earth	-26373-05-16 09:07 J	-7911179.32	-7911179.12	-7911178.90	0.0141	0.0074
Moon	-26373-05-16 12:28 J	-7911179.18	-7911178.98	-7911178.78	0.0141	0.0080 *
Mercury	-26370-03-25 17:31 J	-7910135.79	-7910135.77	-7910135.73	0.0143	0.0139
Mercury	-26370-06-21 21:35 J	-7910047.68	-7910047.60	-7910047.52	0.0143	0.0116
Mercury	-26370-09-18 01:26 J	-7909959.54	-7909959.44	-7909959.33	0.0143	0.0094
Mercury	-26370-12-15 05:16 J	-7909871.39	-7909871.28	-7909871.15	0.0143	0.0072
Mercury	-26369-03-12 09:21 J	-7909783.24	-7909783.11	-7909782.98	0.0143	0.0049
Mercury	-26369-06-08 13:26 J	-7909695.08	-7909694.94	-7909694.81	0.0143	0.0026
Mercury	-26369-09-04 17:16 J	-7909606.92	-7909606.78	-7909606.64	0.0143	0.0005
Mercury	-26369-12-01 21:21 J	-7909518.75	-7909518.61	-7909518.47	0.0143	0.0021
Mercury	-26368-02-28 01:26 J	-7909430.57	-7909430.44	-7909430.30	0.0144	0.0044
Mercury	-26368-05-27 05:31 J	-7909342.39	-7909342.27	-7909342.14	0.0144	0.0068
Mercury	-26368-08-23 09:35 J	-7909254.20	-7909254.10	-7909253.98	0.0144	0.0092
Mercury	-26368-11-19 13:40 J	-7909166.00	-7909165.93	-7909165.84	0.0144	0.0116
Mercury	-26367-02-15 17:59 J	-7909077.77	-7909077.75	-7909077.71	0.0144	0.0140
Mars	-26360-04-01 00:28 J	-7906476.77	-7906476.48	-7906476.19	0.0146	0.0030

Venus	-26349-04-11 20:23 J	-7902447.76	-7902447.65	-7902447.52	0.0145	0.0121
Venus	-26349-11-24 08:52 J	-7902221.28	-7902221.13	-7902220.96	0.0145	0.0095
Venus	-26348-07-08 21:21 J	-7901994.79	-7901994.61	-7901994.41	0.0145	0.0070
Venus	-26347-02-20 10:04 J	-7901768.29	-7901768.08	-7901767.87	0.0145	0.0044
Venus	-26347-10-04 22:19 J	-7901541.79	-7901541.57	-7901541.35	0.0144	0.0018
Venus	-26346-05-19 10:33 J	-7901315.28	-7901315.06	-7901314.84	0.0144	0.0007
Venus	-26346-12-31 22:33 J	-7901088.77	-7901088.56	-7901088.34	0.0144	0.0033
Venus	-26345-08-14 10:33 J	-7900862.25	-7900862.06	-7900861.85	0.0143	0.0059
Venus	-26344-03-28 22:33 J	-7900635.73	-7900635.56	-7900635.37	0.0143	0.0083
Venus	-26344-11-10 10:47 J	-7900409.20	-7900409.05	-7900408.91	0.0143	0.0107
Venus	-26343-06-24 22:19 J	-7900182.64	-7900182.57	-7900182.48	0.0143	0.0132
Moon	-26336-11-09 22:04 J	-7897487.76	-7897487.58	-7897487.38	0.0139	0.0098
Earth	-26336-11-09 22:19 J	-7897487.74	-7897487.57	-7897487.36	0.0139	0.0092 *
Earth	-26335-11-14 16:19 J	-7897118.07	-7897117.82	-7897117.56	0.0138	0.0006
Moon	-26335-11-14 16:47 J	-7897118.05	-7897117.80	-7897117.55	0.0138	0.0011 *
Earth	-26334-11-19 08:52 J	-7896748.29	-7896748.13	-7896747.94	0.0137	0.0101
Moon	-26334-11-19 09:07 J	-7896748.29	-7896748.12	-7896747.92	0.0137	0.0099 *
Mercury	-26330-02-11 11:02 J	-7895568.09	-7895568.04	-7895567.98	0.0136	0.0129
Mercury	-26330-05-10 17:31 J	-7895479.88	-7895479.77	-7895479.65	0.0136	0.0103
Mercury	-26330-08-06 23:59 J	-7895391.64	-7895391.50	-7895391.35	0.0136	0.0077
Mercury	-26330-11-03 06:14 J	-7895303.40	-7895303.24	-7895303.06	0.0135	0.0051
Mercury	-26329-01-30 12:43 J	-7895215.14	-7895214.97	-7895214.79	0.0135	0.0026
Mercury	-26329-04-27 18:57 J	-7895126.89	-7895126.71	-7895126.53	0.0135	0.0002
Mercury	-26329-07-25 01:11 J	-7895038.62	-7895038.45	-7895038.27	0.0135	0.0025
Mercury	-26329-10-21 07:26 J	-7894950.36	-7894950.19	-7894950.03	0.0135	0.0049
Mercury	-26328-01-17 13:11 J	-7894862.09	-7894861.95	-7894861.79	0.0135	0.0074
Mercury	-26328-04-15 19:26 J	-7894773.81	-7894773.69	-7894773.57	0.0135	0.0098
Mercury	-26328-07-13 01:26 J	-7894685.51	-7894685.44	-7894685.37	0.0135	0.0122
Mars	-26320-08-03 08:52 J	-7891742.40	-7891742.13	-7891741.83	0.0132	0.0059
Venus	-26306-08-28 23:59 J	-7886603.60	-7886603.50	-7886603.40	0.0133	0.0117

Venus	-26305-04-11 04:47 J	-7886377.43	-7886377.30	-7886377.14	0.0133	0.0098
Venus	-26305-11-23 10:19 J	-7886151.24	-7886151.07	-7886150.89	0.0134	0.0078
Venus	-26304-07-07 15:35 J	-7885925.04	-7885924.85	-7885924.65	0.0134	0.0058
Venus	-26303-02-18 21:07 J	-7885698.82	-7885698.62	-7885698.41	0.0134	0.0038
Venus	-26303-10-03 02:38 J	-7885472.61	-7885472.39	-7885472.18	0.0134	0.0018
Venus	-26302-05-17 07:55 J	-7885246.39	-7885246.17	-7885245.95	0.0134	0.0003
Venus	-26302-12-29 13:11 J	-7885020.15	-7885019.95	-7885019.73	0.0135	0.0024
Venus	-26301-08-11 18:43 J	-7884793.92	-7884793.72	-7884793.51	0.0135	0.0044
Venus	-26300-03-26 00:14 J	-7884567.67	-7884567.49	-7884567.29	0.0135	0.0065
Venus	-26300-11-07 05:31 J	-7884341.42	-7884341.27	-7884341.08	0.0135	0.0086
Venus	-26299-06-21 11:16 J	-7884115.15	-7884115.03	-7884114.88	0.0136	0.0106
Venus	-26298-02-02 17:16 J	-7883888.84	-7883888.78	-7883888.69	0.0136	0.0126
Earth	-26291-05-08 13:40 J	-7881237.06	-7881236.93	-7881236.79	0.0140	0.0117
Moon	-26291-05-08 16:33 J	-7881236.93	-7881236.81	-7881236.65	0.0140	0.0116 *
Moon	-26290-05-13 00:28 J	-7880867.73	-7880867.48	-7880867.23	0.0140	0.0018
Earth	-26290-05-13 03:50 J	-7880867.58	-7880867.34	-7880867.08	0.0140	0.0021 *
Earth	-26289-05-16 19:11 J	-7880497.91	-7880497.70	-7880497.49	0.0141	0.0078
Moon	-26289-05-16 22:19 J	-7880497.76	-7880497.57	-7880497.34	0.0141	0.0074 *
Mercury	-26286-04-15 00:43 J	-7879434.51	-7879434.47	-7879434.42	0.0143	0.0133
Mercury	-26286-07-12 04:33 J	-7879346.39	-7879346.31	-7879346.22	0.0143	0.0111
Mercury	-26286-10-08 08:23 J	-7879258.25	-7879258.15	-7879258.04	0.0143	0.0089
Mercury	-26285-01-04 12:14 J	-7879170.10	-7879169.99	-7879169.86	0.0143	0.0067
Mercury	-26285-04-01 16:19 J	-7879081.95	-7879081.82	-7879081.68	0.0143	0.0044
Mercury	-26285-06-28 20:23 J	-7878993.79	-7878993.65	-7878993.51	0.0143	0.0021
Mercury	-26285-09-25 00:28 J	-7878905.62	-7878905.48	-7878905.34	0.0143	0.0003
Mercury	-26285-12-22 04:33 J	-7878817.45	-7878817.31	-7878817.18	0.0143	0.0026
Mercury	-26284-03-20 08:23 J	-7878729.28	-7878729.15	-7878729.01	0.0143	0.0049
Mercury	-26284-06-16 12:28 J	-7878641.09	-7878640.98	-7878640.85	0.0144	0.0073
Mercury	-26284-09-12 16:33 J	-7878552.90	-7878552.81	-7878552.70	0.0144	0.0097
Mercury	-26284-12-09 20:38 J	-7878464.70	-7878464.64	-7878464.55	0.0144	0.0121

Mars	-26278-12-23 02:52 J	-7876260.39	-7876260.38	-7876260.33	0.0146	0.0145
Mars	-26276-11-25 06:28 J	-7875557.38	-7875557.23	-7875557.04	0.0146	0.0121
Venus	-26266-12-11 00:43 J	-7871889.54	-7871889.47	-7871889.37	0.0145	0.0133
Venus	-26265-07-24 13:26 J	-7871663.08	-7871662.94	-7871662.79	0.0145	0.0108
Venus	-26264-03-08 01:55 J	-7871436.59	-7871436.42	-7871436.24	0.0145	0.0082
Venus	-26264-10-20 14:23 J	-7871210.10	-7871209.90	-7871209.70	0.0145	0.0056
Venus	-26263-06-04 02:38 J	-7870983.60	-7870983.39	-7870983.17	0.0144	0.0031
Venus	-26262-01-16 15:07 J	-7870757.09	-7870756.87	-7870756.65	0.0144	0.0005
Venus	-26262-08-31 03:21 J	-7870530.58	-7870530.36	-7870530.14	0.0144	0.0021
Venus	-26261-04-13 15:21 J	-7870304.06	-7870303.86	-7870303.65	0.0144	0.0047
Venus	-26261-11-26 03:21 J	-7870077.54	-7870077.36	-7870077.17	0.0143	0.0072
Venus	-26260-07-10 15:07 J	-7869851.01	-7869850.87	-7869850.69	0.0143	0.0097
Venus	-26259-02-22 03:21 J	-7869624.47	-7869624.36	-7869624.24	0.0143	0.0121
Moon	-26252-11-10 05:16 J	-7866806.49	-7866806.28	-7866806.06	0.0139	0.0080
Earth	-26252-11-10 06:43 J	-7866806.41	-7866806.22	-7866806.01	0.0139	0.0088 *
Earth	-26251-11-15 00:43 J	-7866436.72	-7866436.47	-7866436.21	0.0138	0.0010
Moon	-26251-11-15 01:26 J	-7866436.69	-7866436.44	-7866436.19	0.0138	0.0004 *
Moon	-26250-11-19 17:02 J	-7866066.94	-7866066.79	-7866066.61	0.0137	0.0107
Earth	-26250-11-19 17:16 J	-7866066.93	-7866066.78	-7866066.59	0.0137	0.0105 *
Mercury	-26246-03-03 17:59 J	-7864866.83	-7864866.75	-7864866.68	0.0136	0.0123
Mercury	-26246-05-31 00:28 J	-7864778.61	-7864778.48	-7864778.36	0.0136	0.0097
Mercury	-26246-08-27 06:43 J	-7864690.37	-7864690.22	-7864690.06	0.0136	0.0071
Mercury	-26246-11-23 13:11 J	-7864602.12	-7864601.95	-7864601.78	0.0136	0.0046
Mercury	-26245-02-19 19:26 J	-7864513.86	-7864513.69	-7864513.51	0.0135	0.0020
Mercury	-26245-05-18 01:40 J	-7864425.60	-7864425.43	-7864425.25	0.0135	0.0006
Mercury	-26245-08-14 07:55 J	-7864337.34	-7864337.17	-7864336.99	0.0135	0.0030
Mercury	-26245-11-10 13:55 J	-7864249.07	-7864248.92	-7864248.75	0.0135	0.0055
Mercury	-26244-02-06 20:09 J	-7864160.80	-7864160.66	-7864160.51	0.0135	0.0079
Mercury	-26244-05-06 01:55 J	-7864072.52	-7864072.42	-7864072.29	0.0135	0.0104
Mercury	-26244-08-02 07:55 J	-7863984.21	-7863984.17	-7863984.10	0.0135	0.0128

Mars	-26235-03-29 08:09 J	-7860823.47	-7860823.16	-7860822.84	0.0132	0.0015
Saturn	-26229-07-01 19:26 J	-7858537.16	-7858536.69	-7858536.21	0.0132	0.0082
Venus	-26222-04-28 10:04 J	-7856045.13	-7856045.08	-7856044.99	0.0133	0.0125
Venus	-26222-12-10 15:35 J	-7855818.97	-7855818.85	-7855818.71	0.0133	0.0105
Venus	-26221-07-23 21:07 J	-7855592.78	-7855592.62	-7855592.45	0.0133	0.0086
Venus	-26220-03-07 02:09 J	-7855366.59	-7855366.41	-7855366.21	0.0134	0.0066
Venus	-26220-10-19 07:26 J	-7855140.38	-7855140.19	-7855139.98	0.0134	0.0046
Venus	-26219-06-02 12:57 J	-7854914.17	-7854913.96	-7854913.75	0.0134	0.0026
Venus	-26218-01-14 18:28 J	-7854687.95	-7854687.73	-7854687.51	0.0134	0.0005
Venus	-26218-08-28 23:45 J	-7854461.72	-7854461.51	-7854461.29	0.0135	0.0016
Venus	-26217-04-11 05:02 J	-7854235.49	-7854235.29	-7854235.07	0.0135	0.0036
Venus	-26217-11-23 10:19 J	-7854009.25	-7854009.07	-7854008.86	0.0135	0.0057
Venus	-26216-07-07 16:04 J	-7853783.00	-7853782.83	-7853782.64	0.0135	0.0077
Venus	-26215-02-18 21:50 J	-7853556.73	-7853556.59	-7853556.43	0.0136	0.0098
Venus	-26215-10-03 03:21 J	-7853330.45	-7853330.36	-7853330.24	0.0136	0.0119
Earth	-26207-05-08 23:45 J	-7850555.64	-7850555.51	-7850555.34	0.0140	0.0112
Moon	-26207-05-09 03:50 J	-7850555.48	-7850555.34	-7850555.19	0.0140	0.0113 *
Moon	-26206-05-13 10:47 J	-7850186.29	-7850186.05	-7850185.80	0.0140	0.0016
Earth	-26206-05-13 14:23 J	-7850186.15	-7850185.90	-7850185.65	0.0140	0.0015 *
Earth	-26205-05-17 05:02 J	-7849816.48	-7849816.29	-7849816.07	0.0141	0.0083
Moon	-26205-05-17 08:38 J	-7849816.32	-7849816.14	-7849815.94	0.0141	0.0089 *
Mercury	-26202-05-05 07:40 J	-7848733.22	-7848733.18	-7848733.11	0.0142	0.0129
Mercury	-26202-08-01 11:45 J	-7848645.10	-7848645.01	-7848644.92	0.0143	0.0106
Mercury	-26202-10-28 15:35 J	-7848556.96	-7848556.85	-7848556.73	0.0143	0.0084
Mercury	-26201-01-24 19:26 J	-7848468.81	-7848468.69	-7848468.56	0.0143	0.0062
Mercury	-26201-04-21 23:31 J	-7848380.65	-7848380.52	-7848380.39	0.0143	0.0039
Mercury	-26201-07-19 03:35 J	-7848292.49	-7848292.35	-7848292.22	0.0143	0.0017
Mercury	-26201-10-15 07:26 J	-7848204.33	-7848204.19	-7848204.05	0.0143	0.0008
Mercury	-26200-01-11 11:31 J	-7848116.16	-7848116.02	-7848115.88	0.0143	0.0030
Mercury	-26200-04-09 15:21 J	-7848027.98	-7848027.86	-7848027.72	0.0143	0.0055

Mercury	-26200-07-06 19:40 J	-7847939.80	-7847939.68	-7847939.56	0.0144	0.0078
Mercury	-26200-10-02 23:45 J	-7847851.61	-7847851.51	-7847851.41	0.0144	0.0102
Mercury	-26200-12-30 03:50 J	-7847763.40	-7847763.34	-7847763.27	0.0144	0.0126
Mars	-26193-08-17 11:31 J	-7845341.29	-7845341.02	-7845340.74	0.0146	0.0054
Saturn	-26182-03-29 23:16 J	-7841465.17	-7841464.53	-7841463.84	0.0146	0.0023
Venus	-26181-03-23 17:59 J	-7841104.86	-7841104.75	-7841104.62	0.0145	0.0120
Venus	-26181-11-05 06:43 J	-7840878.38	-7840878.22	-7840878.05	0.0145	0.0094
Venus	-26180-06-19 18:57 J	-7840651.89	-7840651.71	-7840651.50	0.0145	0.0069
Venus	-26179-02-01 07:40 J	-7840425.39	-7840425.18	-7840424.97	0.0145	0.0043
Venus	-26179-09-15 19:55 J	-7840198.89	-7840198.67	-7840198.45	0.0144	0.0017
Venus	-26178-04-30 08:09 J	-7839972.38	-7839972.16	-7839971.94	0.0144	0.0009
Venus	-26178-12-12 20:09 J	-7839745.87	-7839745.66	-7839745.44	0.0144	0.0035
Venus	-26177-07-26 08:09 J	-7839519.35	-7839519.16	-7839518.95	0.0144	0.0061
Venus	-26176-03-09 20:23 J	-7839292.82	-7839292.65	-7839292.47	0.0143	0.0086
Venus	-26176-10-22 08:09 J	-7839066.29	-7839066.16	-7839066.01	0.0143	0.0110
Venus	-26175-06-05 19:40 J	-7838839.73	-7838839.68	-7838839.59	0.0143	0.0135
Moon	-26168-11-10 13:55 J	-7836125.12	-7836124.92	-7836124.71	0.0139	0.0090
Earth	-26168-11-10 15:21 J	-7836125.05	-7836124.86	-7836124.64	0.0139	0.0084 *
Earth	-26167-11-15 09:50 J	-7835755.35	-7835755.09	-7835754.84	0.0138	0.0013
Moon	-26167-11-15 11:16 J	-7835755.28	-7835755.03	-7835754.78	0.0138	0.0019 *
Moon	-26166-11-20 01:26 J	-7835385.60	-7835385.44	-7835385.26	0.0138	0.0105
Earth	-26166-11-20 02:09 J	-7835385.54	-7835385.41	-7835385.23	0.0138	0.0109 *
Mercury	-26162-03-24 00:28 J	-7834165.55	-7834165.48	-7834165.38	0.0136	0.0118
Mercury	-26162-06-20 06:57 J	-7834077.33	-7834077.21	-7834077.06	0.0136	0.0092
Mercury	-26162-09-16 13:26 J	-7833989.09	-7833988.94	-7833988.77	0.0136	0.0066
Mercury	-26162-12-13 20:09 J	-7833900.83	-7833900.66	-7833900.49	0.0136	0.0040
Mercury	-26161-03-11 02:23 J	-7833812.58	-7833812.40	-7833812.22	0.0136	0.0014
Mercury	-26161-06-07 08:38 J	-7833724.32	-7833724.14	-7833723.96	0.0135	0.0011
Mercury	-26161-09-03 14:38 J	-7833636.05	-7833635.89	-7833635.71	0.0135	0.0037
Mercury	-26161-11-30 20:52 J	-7833547.78	-7833547.63	-7833547.47	0.0135	0.0061

Mercury	-26160-02-27 02:52 J	-7833459.51	-7833459.38	-7833459.23	0.0135	0.0086
Mercury	-26160-05-26 09:07 J	-7833371.22	-7833371.12	-7833371.02	0.0135	0.0110
Mercury	-26160-08-22 14:38 J	-7833282.89	-7833282.89	-7833282.85	0.0135	0.0134
Mars	-26153-12-20 05:59 J	-7830606.37	-7830606.25	-7830606.10	0.0133	0.0120
Mars	-26151-11-22 07:55 J	-7829904.40	-7829904.17	-7829903.93	0.0132	0.0090
Saturn	-26139-08-23 09:50 J	-7825612.70	-7825612.09	-7825611.47	0.0133	0.0019
Venus	-26139-12-26 21:35 J	-7825486.60	-7825486.60	-7825486.60	0.0133	0.0133
Venus	-26138-08-10 02:52 J	-7825260.49	-7825260.38	-7825260.27	0.0133	0.0114
Venus	-26137-03-23 07:40 J	-7825034.32	-7825034.18	-7825034.01	0.0133	0.0094
Venus	-26137-11-04 12:57 J	-7824808.13	-7824807.96	-7824807.77	0.0134	0.0074
Venus	-26136-06-18 18:28 J	-7824581.92	-7824581.73	-7824581.53	0.0134	0.0054
Venus	-26135-01-30 23:45 J	-7824355.71	-7824355.51	-7824355.29	0.0134	0.0034
Venus	-26135-09-14 05:16 J	-7824129.49	-7824129.28	-7824129.06	0.0134	0.0013
Venus	-26134-04-28 10:33 J	-7823903.27	-7823903.06	-7823902.84	0.0134	0.0008
Venus	-26134-12-10 16:04 J	-7823677.04	-7823676.83	-7823676.62	0.0135	0.0028
Venus	-26133-07-23 21:21 J	-7823450.80	-7823450.61	-7823450.40	0.0135	0.0049
Venus	-26132-03-07 03:07 J	-7823224.55	-7823224.37	-7823224.18	0.0135	0.0070
Venus	-26132-10-19 08:23 J	-7822998.29	-7822998.15	-7822997.97	0.0135	0.0091
Venus	-26131-06-02 14:23 J	-7822772.02	-7822771.90	-7822771.77	0.0136	0.0111
Venus	-26130-01-14 19:55 J	-7822545.70	-7822545.67	-7822545.60	0.0136	0.0132
Earth	-26123-05-09 12:14 J	-7819874.14	-7819873.99	-7819873.81	0.0140	0.0105
Moon	-26123-05-09 15:50 J	-7819874.00	-7819873.84	-7819873.66	0.0140	0.0102 *
Moon	-26122-05-13 23:02 J	-7819504.79	-7819504.54	-7819504.29	0.0140	0.0006
Earth	-26122-05-14 02:38 J	-7819504.64	-7819504.39	-7819504.14	0.0140	0.0008 *
Earth	-26121-05-17 17:16 J	-7819134.96	-7819134.78	-7819134.57	0.0141	0.0090
Moon	-26121-05-17 21:07 J	-7819134.82	-7819134.62	-7819134.42	0.0141	0.0085 *
Mercury	-26118-05-25 15:35 J	-7818031.92	-7818031.85	-7818031.78	0.0142	0.0121
Mercury	-26118-08-21 19:11 J	-7817943.79	-7817943.70	-7817943.60	0.0143	0.0099
Mercury	-26118-11-17 23:02 J	-7817855.65	-7817855.54	-7817855.42	0.0143	0.0077
Mercury	-26117-02-14 03:07 J	-7817767.50	-7817767.37	-7817767.24	0.0143	0.0054

Mercury	-26117-05-12 06:57 J	-7817679.34	-7817679.21	-7817679.07	0.0143	0.0032
Mercury	-26117-08-08 11:02 J	-7817591.18	-7817591.04	-7817590.90	0.0143	0.0009
Mercury	-26117-11-04 15:07 J	-7817503.01	-7817502.87	-7817502.74	0.0143	0.0015
Mercury	-26116-01-31 18:57 J	-7817414.84	-7817414.71	-7817414.57	0.0143	0.0038
Mercury	-26116-04-29 23:02 J	-7817326.66	-7817326.54	-7817326.41	0.0143	0.0062
Mercury	-26116-07-27 03:07 J	-7817238.48	-7817238.37	-7817238.25	0.0143	0.0085
Mercury	-26116-10-23 07:26 J	-7817150.28	-7817150.19	-7817150.10	0.0144	0.0109
Mercury	-26115-01-19 11:31 J	-7817062.07	-7817062.02	-7817061.97	0.0144	0.0133
Mars	-26108-04-12 23:02 J	-7814421.82	-7814421.54	-7814421.24	0.0146	0.0039
Venus	-26098-11-21 23:16 J	-7810546.60	-7810546.53	-7810546.42	0.0145	0.0133
Venus	-26097-07-05 12:14 J	-7810320.13	-7810319.99	-7810319.84	0.0145	0.0107
Venus	-26096-02-17 00:28 J	-7810093.65	-7810093.48	-7810093.29	0.0145	0.0081
Venus	-26096-10-01 12:43 J	-7809867.16	-7809866.97	-7809866.76	0.0145	0.0055
Venus	-26095-05-16 01:11 J	-7809640.67	-7809640.45	-7809640.24	0.0144	0.0029
Venus	-26095-12-28 13:26 J	-7809414.16	-7809413.94	-7809413.72	0.0144	0.0003
Venus	-26094-08-12 01:26 J	-7809187.65	-7809187.44	-7809187.22	0.0144	0.0024
Venus	-26093-03-25 13:40 J	-7808961.14	-7808960.93	-7808960.73	0.0144	0.0049
Venus	-26093-11-07 01:26 J	-7808734.62	-7808734.44	-7808734.25	0.0143	0.0075
Venus	-26092-06-21 13:11 J	-7808508.09	-7808507.95	-7808507.78	0.0143	0.0100
Venus	-26091-02-03 00:43 J	-7808281.55	-7808281.47	-7808281.34	0.0143	0.0125
Moon	-26084-11-10 20:52 J	-7805443.85	-7805443.63	-7805443.39	0.0139	0.0073
Earth	-26084-11-10 23:45 J	-7805443.72	-7805443.51	-7805443.30	0.0139	0.0080 *
Earth	-26083-11-15 17:45 J	-7805074.01	-7805073.76	-7805073.50	0.0138	0.0017
Moon	-26083-11-15 19:40 J	-7805073.93	-7805073.68	-7805073.43	0.0138	0.0011 *
Moon	-26082-11-20 08:52 J	-7804704.25	-7804704.13	-7804703.96	0.0138	0.0115
Earth	-26082-11-20 10:47 J	-7804704.19	-7804704.05	-7804703.89	0.0138	0.0111 *
Mercury	-26078-04-13 07:11 J	-7803464.29	-7803464.20	-7803464.09	0.0136	0.0113
Mercury	-26078-07-10 13:40 J	-7803376.06	-7803375.93	-7803375.78	0.0136	0.0087
Mercury	-26078-10-06 20:09 J	-7803287.82	-7803287.66	-7803287.49	0.0136	0.0061
Mercury	-26077-01-03 02:38 J	-7803199.56	-7803199.39	-7803199.22	0.0136	0.0035

Mercury	-26077-03-31 08:52 J	-7803111.31	-7803111.13	-7803110.95	0.0136	0.0010
Mercury	-26077-06-27 15:07 J	-7803023.04	-7803022.87	-7803022.69	0.0135	0.0016
Mercury	-26077-09-23 21:21 J	-7802934.78	-7802934.61	-7802934.44	0.0135	0.0041
Mercury	-26077-12-21 03:35 J	-7802846.51	-7802846.35	-7802846.20	0.0135	0.0066
Mercury	-26076-03-19 09:21 J	-7802758.23	-7802758.11	-7802757.96	0.0135	0.0091
Mercury	-26076-06-15 15:35 J	-7802669.94	-7802669.85	-7802669.75	0.0135	0.0114
Mars	-26068-08-15 02:38 J	-7799687.69	-7799687.39	-7799687.09	0.0133	0.0047
Venus	-26054-04-09 12:43 J	-7794702.04	-7794701.97	-7794701.87	0.0133	0.0123
Venus	-26054-11-21 18:14 J	-7794475.87	-7794475.74	-7794475.59	0.0133	0.0103
Venus	-26053-07-04 23:31 J	-7794249.68	-7794249.52	-7794249.34	0.0134	0.0083
Venus	-26052-02-16 04:47 J	-7794023.48	-7794023.30	-7794023.09	0.0134	0.0063
Venus	-26052-09-30 10:19 J	-7793797.27	-7793797.07	-7793796.86	0.0134	0.0042
Venus	-26051-05-14 15:35 J	-7793571.06	-7793570.85	-7793570.63	0.0134	0.0022
Venus	-26051-12-26 21:07 J	-7793344.83	-7793344.62	-7793344.40	0.0134	0.0002
Venus	-26050-08-10 02:38 J	-7793118.60	-7793118.39	-7793118.18	0.0135	0.0020
Venus	-26049-03-23 07:55 J	-7792892.37	-7792892.17	-7792891.96	0.0135	0.0041
Venus	-26049-11-04 13:26 J	-7792666.12	-7792665.94	-7792665.74	0.0135	0.0062
Saturn	-26049-11-18 14:38 J	-7792652.33	-7792651.89	-7792651.35	0.0135	0.0084
Venus	-26048-06-18 19:11 J	-7792439.87	-7792439.70	-7792439.53	0.0135	0.0083
Venus	-26047-01-31 00:43 J	-7792213.59	-7792213.47	-7792213.32	0.0136	0.0104
Venus	-26047-09-14 06:43 J	-7791987.30	-7791987.22	-7791987.13	0.0136	0.0124
Earth	-26039-05-10 00:28 J	-7789192.64	-7789192.48	-7789192.29	0.0140	0.0098
Moon	-26039-05-10 04:04 J	-7789192.49	-7789192.33	-7789192.14	0.0140	0.0100 *
Moon	-26038-05-14 11:31 J	-7788823.26	-7788823.02	-7788822.77	0.0140	0.0003
Earth	-26038-05-14 14:52 J	-7788823.13	-7788822.88	-7788822.63	0.0140	0.0002 *
Earth	-26037-05-18 05:31 J	-7788453.44	-7788453.27	-7788453.08	0.0141	0.0096
Moon	-26037-05-18 08:52 J	-7788453.28	-7788453.13	-7788452.94	0.0141	0.0102 *
Mercury	-26034-03-18 19:11 J	-7787418.74	-7787418.70	-7787418.66	0.0142	0.0135
Mercury	-26034-06-14 23:02 J	-7787330.62	-7787330.54	-7787330.46	0.0142	0.0113
Mercury	-26034-09-11 02:52 J	-7787242.48	-7787242.38	-7787242.27	0.0143	0.0091

Mercury -26034-12-08 06:43 J -7787154.34 -7787154.22 -7787154.09 0.0143 0.0069

Mercury -26033-03-05 10:33 J -7787066.18 -7787066.06 -7787065.92 0.0143 0.0047

Mercury -26033-06-01 14:38 J -7786978.02 -7786977.89 -7786977.75 0.0143 0.0024

Mercury -26033-08-28 18:43 J -7786889.86 -7786889.72 -7786889.58 0.0143 0.0002

Mercury -26033-11-24 22:33 J -7786801.69 -7786801.56 -7786801.42 0.0143 0.0023

Mercury -26032-02-21 02:38 J -7786713.52 -7786713.39 -7786713.26 0.0143 0.0046

Mercury -26032-05-20 06:43 J -7786625.34 -7786625.22 -7786625.10 0.0143 0.0069

Mercury -26032-08-16 10:47 J -7786537.15 -7786537.05 -7786536.94 0.0143 0.0093

Mercury -26032-11-12 15:07 J -7786448.95 -7786448.87 -7786448.79 0.0144 0.0117

Mercury -26031-02-08 19:11 J -7786360.72 -7786360.70 -7786360.68 0.0144 0.0141

Mars -26025-01-04 08:23 J -7784205.26 -7784205.15 -7784205.00 0.0146 0.0131

Mars -26024-12-07 10:47 J -7783502.14 -7783502.05 -7783501.90 0.0146 0.0134

Venus -26014-07-22 05:59 J -7779988.25 -7779988.25 -7779988.20 0.0145 0.0145

Venus -26013-03-04 18:43 J -7779761.84 -7779761.72 -7779761.59 0.0145 0.0118

Venus -26013-10-17 07:11 J -7779535.37 -7779535.20 -7779535.03 0.0145 0.0092

Venus -26012-05-31 19:26 J -7779308.88 -7779308.69 -7779308.49 0.0145 0.0066

Venus -26011-01-13 07:40 J -7779082.38 -7779082.18 -7779081.96 0.0145 0.0040

Venus -26011-08-27 19:55 J -7778855.89 -7778855.67 -7778855.45 0.0144 0.0014

Venus -26010-04-11 07:55 J -7778629.38 -7778629.17 -7778628.95 0.0144 0.0013

Venus -26010-11-23 19:55 J -7778402.88 -7778402.67 -7778402.45 0.0144 0.0038

Venus -26009-07-07 08:09 J -7778176.36 -7778176.16 -7778175.96 0.0144 0.0064

Venus -26008-02-18 19:55 J -7777949.84 -7777949.67 -7777949.49 0.0143 0.0089

Venus -26008-10-03 07:40 J -7777723.31 -7777723.18 -7777723.05 0.0143 0.0114

Venus -26007-05-17 19:11 J -7777496.74 -7777496.70 -7777496.65 0.0143 0.0139

26TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 26th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-26000-11-11 06:57 J		-7774762.41	-7774762.21	-7774761.98	0.0139	0.0082	
Earth	-26000-11-11 09:35 J		-7774762.30	-7774762.10	-7774761.86	0.0139	0.0075	*
Earth	-25999-11-16 04:04 J		-7774392.59	-7774392.33	-7774392.08	0.0138	0.0021	
Moon	-25999-11-16 06:28 J		-7774392.47	-7774392.23	-7774391.98	0.0138	0.0028	*
Moon	-25998-11-20 18:14 J		-7774022.88	-7774022.74	-7774022.57	0.0138	0.0112	
Earth	-25998-11-20 20:52 J		-7774022.76	-7774022.63	-7774022.49	0.0138	0.0116	*
Mercury	-25994-02-04 07:26 J		-7772851.21	-7772851.19	-7772851.13	0.0136	0.0133	
Mercury	-25994-05-03 14:23 J		-7772763.01	-7772762.90	-7772762.79	0.0136	0.0106	
Mercury	-25994-07-30 20:52 J		-7772674.77	-7772674.63	-7772674.48	0.0136	0.0080	
Mercury	-25994-10-27 03:21 J		-7772586.53	-7772586.36	-7772586.19	0.0136	0.0054	
Mercury	-25993-01-23 09:35 J		-7772498.27	-7772498.10	-7772497.92	0.0136	0.0029	
Mercury	-25993-04-20 16:04 J		-7772410.01	-7772409.83	-7772409.65	0.0136	0.0003	
Mercury	-25993-07-17 22:19 J		-7772321.75	-7772321.57	-7772321.39	0.0135	0.0022	
Mercury	-25993-10-14 04:19 J		-7772233.48	-7772233.32	-7772233.14	0.0135	0.0048	
Mercury	-25992-01-10 10:33 J		-7772145.21	-7772145.06	-7772144.90	0.0135	0.0072	
Mercury	-25992-04-08 16:47 J		-7772056.92	-7772056.80	-7772056.68	0.0135	0.0097	
Mercury	-25992-07-05 22:33 J		-7771968.63	-7771968.56	-7771968.47	0.0135	0.0121	
Mars	-25983-04-10 01:26 J		-7768768.74	-7768768.44	-7768768.12	0.0133	0.0027	
Venus	-25971-12-07 23:02 J		-7764143.56	-7764143.54	-7764143.48	0.0133	0.0131	
Venus	-25970-07-22 04:19 J		-7763917.42	-7763917.32	-7763917.18	0.0133	0.0112	
Venus	-25969-03-04 09:35 J		-7763691.24	-7763691.10	-7763690.92	0.0133	0.0092	
Venus	-25969-10-16 15:07 J		-7763465.05	-7763464.87	-7763464.68	0.0134	0.0071	
Venus	-25968-05-30 20:23 J		-7763238.84	-7763238.65	-7763238.44	0.0134	0.0051	
Venus	-25967-01-12 01:55 J		-7763012.63	-7763012.42	-7763012.20	0.0134	0.0030	

Venus	-25967-08-26 07:26 J	-7762786.41	-7762786.19	-7762785.97	0.0134	0.0009
Venus	-25966-04-09 12:43 J	-7762560.18	-7762559.97	-7762559.75	0.0135	0.0012
Venus	-25966-11-21 17:59 J	-7762333.95	-7762333.75	-7762333.53	0.0135	0.0033
Venus	-25965-07-04 23:45 J	-7762107.70	-7762107.51	-7762107.31	0.0135	0.0053
Venus	-25964-02-16 05:31 J	-7761881.45	-7761881.27	-7761881.09	0.0135	0.0074
Venus	-25964-09-30 11:02 J	-7761655.18	-7761655.04	-7761654.88	0.0135	0.0096
Venus	-25963-05-14 17:02 J	-7761428.90	-7761428.79	-7761428.68	0.0136	0.0116
Earth	-25955-05-10 11:59 J	-7758511.17	-7758511.00	-7758510.80	0.0140	0.0092
Moon	-25955-05-10 14:52 J	-7758511.06	-7758510.88	-7758510.66	0.0140	0.0089 *
Moon	-25954-05-14 23:02 J	-7758141.79	-7758141.54	-7758141.29	0.0140	0.0006
Earth	-25954-05-15 02:23 J	-7758141.65	-7758141.40	-7758141.15	0.0140	0.0005 *
Earth	-25953-05-18 17:02 J	-7757771.95	-7757771.79	-7757771.61	0.0141	0.0102
Moon	-25953-05-18 20:23 J	-7757771.82	-7757771.65	-7757771.46	0.0141	0.0098 *
Mercury	-25950-04-08 02:38 J	-7756717.44	-7756717.39	-7756717.33	0.0142	0.0128
Mercury	-25950-07-05 06:28 J	-7756629.31	-7756629.23	-7756629.13	0.0142	0.0106
Mercury	-25950-10-01 10:19 J	-7756541.17	-7756541.07	-7756540.95	0.0143	0.0084
Mercury	-25950-12-28 14:23 J	-7756453.02	-7756452.90	-7756452.78	0.0143	0.0062
Mercury	-25949-03-25 18:14 J	-7756364.87	-7756364.74	-7756364.61	0.0143	0.0039
Mercury	-25949-06-21 22:19 J	-7756276.71	-7756276.57	-7756276.44	0.0143	0.0017
Mercury	-25949-09-18 02:09 J	-7756188.55	-7756188.41	-7756188.27	0.0143	0.0007
Mercury	-25949-12-15 06:14 J	-7756100.38	-7756100.24	-7756100.10	0.0143	0.0030
Mercury	-25948-03-13 10:19 J	-7756012.20	-7756012.07	-7756011.94	0.0143	0.0053
Mercury	-25948-06-09 14:09 J	-7755924.02	-7755923.91	-7755923.78	0.0143	0.0078
Mercury	-25948-09-05 18:28 J	-7755835.83	-7755835.73	-7755835.63	0.0143	0.0101
Mercury	-25948-12-02 22:33 J	-7755747.62	-7755747.56	-7755747.49	0.0144	0.0125
Mars	-25941-08-29 22:33 J	-7753285.84	-7753285.56	-7753285.26	0.0146	0.0036
Venus	-25930-11-03 01:40 J	-7749203.52	-7749203.43	-7749203.33	0.0145	0.0130
Venus	-25929-06-16 14:09 J	-7748977.06	-7748976.91	-7748976.76	0.0145	0.0104
Venus	-25928-01-29 02:09 J	-7748750.58	-7748750.41	-7748750.22	0.0145	0.0078
Venus	-25928-09-12 14:09 J	-7748524.10	-7748523.91	-7748523.69	0.0145	0.0052

Venus	-25927-04-27 02:38 J	-7748297.61	-7748297.39	-7748297.18	0.0144	0.0025
Venus	-25927-12-09 14:38 J	-7748071.11	-7748070.89	-7748070.67	0.0144	0.0001
Venus	-25926-07-24 02:38 J	-7747844.60	-7747844.39	-7747844.17	0.0144	0.0028
Venus	-25925-03-06 14:23 J	-7747618.09	-7747617.90	-7747617.68	0.0144	0.0054
Venus	-25925-10-19 02:09 J	-7747391.58	-7747391.41	-7747391.21	0.0143	0.0080
Venus	-25924-06-02 14:09 J	-7747165.06	-7747164.91	-7747164.76	0.0143	0.0104
Venus	-25923-01-15 01:40 J	-7746938.51	-7746938.43	-7746938.33	0.0143	0.0129
Moon	-25916-11-11 15:50 J	-7744081.06	-7744080.84	-7744080.59	0.0139	0.0063
Earth	-25916-11-11 19:40 J	-7744080.90	-7744080.68	-7744080.46	0.0139	0.0070 *
Earth	-25915-11-16 13:11 J	-7743711.20	-7743710.95	-7743710.69	0.0138	0.0026
Moon	-25915-11-16 16:04 J	-7743711.08	-7743710.83	-7743710.58	0.0138	0.0020 *
Moon	-25914-11-21 03:35 J	-7743341.46	-7743341.35	-7743341.23	0.0138	0.0124
Earth	-25914-11-21 05:59 J	-7743341.36	-7743341.25	-7743341.11	0.0138	0.0120 *
Mercury	-25910-02-24 14:23 J	-7742149.95	-7742149.90	-7742149.83	0.0136	0.0127
Mercury	-25910-05-23 20:52 J	-7742061.74	-7742061.63	-7742061.50	0.0136	0.0101
Mercury	-25910-08-20 03:21 J	-7741973.50	-7741973.36	-7741973.19	0.0136	0.0075
Mercury	-25910-11-16 10:04 J	-7741885.25	-7741885.08	-7741884.91	0.0136	0.0049
Mercury	-25909-02-12 16:33 J	-7741796.99	-7741796.81	-7741796.63	0.0136	0.0023
Mercury	-25909-05-10 22:47 J	-7741708.73	-7741708.55	-7741708.37	0.0135	0.0003
Mercury	-25909-08-07 05:02 J	-7741620.46	-7741620.29	-7741620.11	0.0135	0.0028
Mercury	-25909-11-03 11:02 J	-7741532.19	-7741532.04	-7741531.86	0.0135	0.0053
Mercury	-25908-01-30 17:31 J	-7741443.92	-7741443.77	-7741443.63	0.0135	0.0078
Mercury	-25908-04-28 23:16 J	-7741355.63	-7741355.53	-7741355.40	0.0135	0.0102
Mercury	-25908-07-26 05:31 J	-7741267.32	-7741267.27	-7741267.21	0.0135	0.0126
Mars	-25901-12-31 21:50 J	-7738551.76	-7738551.59	-7738551.40	0.0133	0.0109
Mars	-25899-12-03 23:02 J	-7737849.74	-7737849.54	-7737849.32	0.0132	0.0100
Venus	-25886-03-21 13:40 J	-7733359.00	-7733358.93	-7733358.82	0.0133	0.0121
Venus	-25886-11-02 18:57 J	-7733132.83	-7733132.71	-7733132.55	0.0133	0.0101
Venus	-25885-06-16 00:28 J	-7732906.65	-7732906.48	-7732906.30	0.0134	0.0080
Venus	-25884-01-28 05:45 J	-7732680.44	-7732680.26	-7732680.05	0.0134	0.0060

Venus	-25884-09-11 11:16 J	-7732454.23	-7732454.03	-7732453.82	0.0134	0.0039
Venus	-25883-04-25 16:33 J	-7732228.02	-7732227.81	-7732227.59	0.0134	0.0019
Venus	-25883-12-07 22:04 J	-7732001.79	-7732001.58	-7732001.36	0.0134	0.0004
Venus	-25882-07-22 03:35 J	-7731775.56	-7731775.35	-7731775.13	0.0135	0.0024
Venus	-25881-03-04 09:07 J	-7731549.32	-7731549.12	-7731548.91	0.0135	0.0045
Venus	-25881-10-16 14:38 J	-7731323.07	-7731322.89	-7731322.69	0.0135	0.0066
Venus	-25880-05-30 20:09 J	-7731096.81	-7731096.66	-7731096.48	0.0135	0.0087
Venus	-25879-01-12 02:23 J	-7730870.53	-7730870.40	-7730870.27	0.0136	0.0108
Venus	-25879-08-26 07:55 J	-7730644.22	-7730644.17	-7730644.09	0.0136	0.0129
Earth	-25871-05-10 21:50 J	-7727829.78	-7727829.59	-7727829.39	0.0140	0.0087
Moon	-25871-05-11 00:43 J	-7727829.64	-7727829.47	-7727829.25	0.0140	0.0090 *
Moon	-25870-05-15 09:21 J	-7727460.35	-7727460.11	-7727459.86	0.0140	0.0009
Earth	-25870-05-15 12:14 J	-7727460.24	-7727459.99	-7727459.74	0.0140	0.0009 *
Earth	-25869-05-19 02:38 J	-7727090.54	-7727090.39	-7727090.21	0.0141	0.0106
Moon	-25869-05-19 05:45 J	-7727090.39	-7727090.26	-7727090.08	0.0141	0.0111 *
Mercury	-25866-04-28 09:35 J	-7726016.15	-7726016.10	-7726016.02	0.0142	0.0124
Mercury	-25866-07-25 13:26 J	-7725928.02	-7725927.94	-7725927.83	0.0142	0.0102
Mercury	-25866-10-21 17:31 J	-7725839.88	-7725839.77	-7725839.65	0.0143	0.0079
Mercury	-25865-01-17 21:21 J	-7725751.73	-7725751.61	-7725751.48	0.0143	0.0057
Mercury	-25865-04-15 01:26 J	-7725663.57	-7725663.44	-7725663.30	0.0143	0.0034
Mercury	-25865-07-12 05:16 J	-7725575.41	-7725575.28	-7725575.14	0.0143	0.0012
Mercury	-25865-10-08 09:21 J	-7725487.25	-7725487.11	-7725486.97	0.0143	0.0013
Mercury	-25864-01-04 13:26 J	-7725399.08	-7725398.94	-7725398.81	0.0143	0.0036
Mercury	-25864-04-02 17:31 J	-7725310.90	-7725310.77	-7725310.64	0.0143	0.0059
Mercury	-25864-06-29 21:35 J	-7725222.71	-7725222.60	-7725222.49	0.0143	0.0083
Mercury	-25864-09-26 01:40 J	-7725134.52	-7725134.43	-7725134.34	0.0143	0.0107
Mercury	-25864-12-23 05:45 J	-7725046.31	-7725046.26	-7725046.20	0.0144	0.0131
Mars	-25856-04-25 08:38 J	-7722366.40	-7722366.14	-7722365.84	0.0146	0.0056
Venus	-25846-07-03 08:09 J	-7718645.20	-7718645.16	-7718645.11	0.0145	0.0142
Venus	-25845-02-14 20:23 J	-7718418.77	-7718418.65	-7718418.51	0.0145	0.0116

Venus	-25845-09-28 08:38 J	-7718192.31	-7718192.14	-7718191.97	0.0145	0.0089
Venus	-25844-05-12 20:38 J	-7717965.83	-7717965.64	-7717965.44	0.0145	0.0063
Venus	-25844-12-25 08:52 J	-7717739.34	-7717739.13	-7717738.92	0.0145	0.0037
Venus	-25843-08-08 21:07 J	-7717512.84	-7717512.62	-7717512.40	0.0144	0.0010
Venus	-25842-03-23 09:07 J	-7717286.34	-7717286.12	-7717285.91	0.0144	0.0016
Venus	-25842-11-04 20:38 J	-7717059.84	-7717059.64	-7717059.42	0.0144	0.0043
Venus	-25841-06-18 08:38 J	-7716833.32	-7716833.14	-7716832.94	0.0144	0.0069
Venus	-25840-01-30 20:23 J	-7716606.80	-7716606.65	-7716606.47	0.0143	0.0094
Venus	-25840-09-14 08:09 J	-7716380.27	-7716380.16	-7716380.03	0.0143	0.0119
Moon	-25832-11-12 01:55 J	-7713399.63	-7713399.42	-7713399.18	0.0139	0.0072
Earth	-25832-11-12 05:16 J	-7713399.49	-7713399.28	-7713399.04	0.0139	0.0065 *
Earth	-25831-11-16 23:16 J	-7713029.78	-7713029.53	-7713029.28	0.0138	0.0031
Moon	-25831-11-17 02:23 J	-7713029.63	-7713029.40	-7713029.15	0.0138	0.0038 *
Moon	-25830-11-21 12:43 J	-7712660.09	-7712659.97	-7712659.83	0.0138	0.0119
Earth	-25830-11-21 15:35 J	-7712659.94	-7712659.85	-7712659.72	0.0138	0.0125 *
Mercury	-25826-03-16 21:21 J	-7711448.68	-7711448.61	-7711448.51	0.0136	0.0121
Mercury	-25826-06-13 04:04 J	-7711360.45	-7711360.33	-7711360.19	0.0136	0.0094
Mercury	-25826-09-09 10:33 J	-7711272.21	-7711272.06	-7711271.90	0.0136	0.0068
Mercury	-25826-12-06 17:02 J	-7711183.96	-7711183.79	-7711183.61	0.0136	0.0042
Mercury	-25825-03-03 23:31 J	-7711095.70	-7711095.52	-7711095.34	0.0135	0.0017
Mercury	-25825-05-31 05:45 J	-7711007.44	-7711007.26	-7711007.08	0.0135	0.0009
Mercury	-25825-08-27 11:59 J	-7710919.17	-7710919.00	-7710918.82	0.0135	0.0034
Mercury	-25825-11-23 18:14 J	-7710830.90	-7710830.74	-7710830.58	0.0135	0.0059
Mercury	-25824-02-20 00:14 J	-7710742.62	-7710742.49	-7710742.34	0.0135	0.0084
Mercury	-25824-05-19 06:28 J	-7710654.33	-7710654.23	-7710654.12	0.0135	0.0108
Mercury	-25824-08-15 12:43 J	-7710566.00	-7710565.97	-7710565.94	0.0135	0.0132
Mars	-25816-08-26 18:43 J	-7707633.02	-7707632.72	-7707632.41	0.0133	0.0037
Jupiter	-25808-09-07 15:07 J	-7704699.37	-7704698.87	-7704698.37	0.0132	0.0011
Venus	-25803-11-18 23:02 J	-7702800.58	-7702800.54	-7702800.48	0.0133	0.0130
Venus	-25802-07-03 04:19 J	-7702574.43	-7702574.32	-7702574.19	0.0133	0.0110

Venus	-25801-02-14 09:21 J	-7702348.25	-7702348.11	-7702347.93	0.0133	0.0090
Venus	-25801-09-27 14:52 J	-7702122.06	-7702121.88	-7702121.69	0.0134	0.0069
Venus	-25800-05-11 19:55 J	-7701895.86	-7701895.67	-7701895.45	0.0134	0.0049
Venus	-25800-12-24 01:40 J	-7701669.64	-7701669.43	-7701669.22	0.0134	0.0028
Venus	-25799-08-07 07:11 J	-7701443.42	-7701443.20	-7701442.99	0.0134	0.0007
Venus	-25798-03-21 12:28 J	-7701217.19	-7701216.98	-7701216.76	0.0134	0.0014
Venus	-25798-11-02 17:45 J	-7700990.96	-7700990.76	-7700990.54	0.0135	0.0036
Venus	-25797-06-15 23:16 J	-7700764.71	-7700764.53	-7700764.32	0.0135	0.0057
Venus	-25796-01-28 05:02 J	-7700538.45	-7700538.29	-7700538.10	0.0135	0.0078
Venus	-25796-09-11 11:02 J	-7700312.18	-7700312.04	-7700311.89	0.0135	0.0099
Venus	-25795-04-25 16:47 J	-7700085.89	-7700085.80	-7700085.69	0.0136	0.0120
Earth	-25787-05-11 05:45 J	-7697148.44	-7697148.26	-7697148.05	0.0140	0.0085
Moon	-25787-05-11 08:23 J	-7697148.36	-7697148.15	-7697147.94	0.0140	0.0080 *
Moon	-25786-05-15 17:16 J	-7696779.02	-7696778.78	-7696778.54	0.0140	0.0012
Earth	-25786-05-15 20:09 J	-7696778.91	-7696778.66	-7696778.41	0.0140	0.0011 *
Earth	-25785-05-19 10:19 J	-7696409.21	-7696409.07	-7696408.89	0.0141	0.0109
Moon	-25785-05-19 13:26 J	-7696409.10	-7696408.94	-7696408.76	0.0141	0.0105 *
Mercury	-25782-02-19 12:43 J	-7695402.97	-7695402.97	-7695402.94	0.0142	0.0141
Mercury	-25782-05-18 16:33 J	-7695314.87	-7695314.81	-7695314.73	0.0142	0.0120
Mercury	-25782-08-14 20:38 J	-7695226.74	-7695226.64	-7695226.54	0.0142	0.0097
Mercury	-25782-11-11 00:28 J	-7695138.60	-7695138.48	-7695138.36	0.0143	0.0075
Mercury	-25781-02-07 04:19 J	-7695050.44	-7695050.32	-7695050.19	0.0143	0.0052
Mercury	-25781-05-05 08:23 J	-7694962.29	-7694962.15	-7694962.02	0.0143	0.0030
Mercury	-25781-08-01 12:14 J	-7694874.13	-7694873.99	-7694873.85	0.0143	0.0007
Mercury	-25781-10-28 16:19 J	-7694785.96	-7694785.82	-7694785.68	0.0143	0.0016
Mercury	-25780-01-24 20:09 J	-7694697.79	-7694697.66	-7694697.52	0.0143	0.0040
Mercury	-25780-04-23 00:14 J	-7694609.61	-7694609.49	-7694609.36	0.0143	0.0063
Mercury	-25780-07-20 04:19 J	-7694521.42	-7694521.32	-7694521.20	0.0143	0.0087
Mercury	-25780-10-16 08:38 J	-7694433.23	-7694433.14	-7694433.05	0.0143	0.0111
Mercury	-25779-01-12 12:43 J	-7694345.01	-7694344.97	-7694344.92	0.0144	0.0135

Mars	-25773-01-16 09:21 J	-7692150.27	-7692150.11	-7692149.93	0.0146	0.0119
Mars	-25772-12-19 15:07 J	-7691446.90	-7691446.87	-7691446.81	0.0146	0.0145
Jupiter	-25767-11-17 07:11 J	-7689653.41	-7689653.20	-7689652.93	0.0146	0.0131
Venus	-25762-10-15 00:57 J	-7687860.55	-7687860.46	-7687860.35	0.0145	0.0129
Venus	-25761-05-28 13:11 J	-7687634.09	-7687633.95	-7687633.78	0.0145	0.0102
Venus	-25760-01-10 01:26 J	-7687407.61	-7687407.44	-7687407.24	0.0145	0.0076
Venus	-25760-08-24 13:40 J	-7687181.13	-7687180.93	-7687180.72	0.0145	0.0049
Venus	-25759-04-08 01:40 J	-7686954.64	-7686954.43	-7686954.21	0.0144	0.0023
Venus	-25759-11-20 13:55 J	-7686728.14	-7686727.92	-7686727.70	0.0144	0.0004
Venus	-25758-07-05 01:55 J	-7686501.63	-7686501.42	-7686501.20	0.0144	0.0031
Venus	-25757-02-16 13:55 J	-7686275.12	-7686274.92	-7686274.72	0.0144	0.0057
Venus	-25757-09-30 01:40 J	-7686048.60	-7686048.43	-7686048.25	0.0143	0.0083
Venus	-25756-05-14 13:11 J	-7685822.08	-7685821.95	-7685821.79	0.0143	0.0108
Venus	-25756-12-27 00:57 J	-7685595.52	-7685595.46	-7685595.37	0.0143	0.0133
Moon	-25748-11-12 09:35 J	-7682718.33	-7682718.10	-7682717.85	0.0139	0.0055
Earth	-25748-11-12 13:26 J	-7682718.16	-7682717.94	-7682717.70	0.0139	0.0062 *
Earth	-25747-11-17 07:11 J	-7682348.45	-7682348.20	-7682347.95	0.0138	0.0034
Moon	-25747-11-17 10:19 J	-7682348.31	-7682348.07	-7682347.81	0.0138	0.0027 *
Moon	-25746-11-21 20:23 J	-7681978.71	-7681978.65	-7681978.57	0.0138	0.0132
Earth	-25746-11-21 23:31 J	-7681978.60	-7681978.52	-7681978.40	0.0138	0.0127 *
Mercury	-25742-04-06 03:50 J	-7680747.42	-7680747.34	-7680747.23	0.0136	0.0116
Mercury	-25742-07-03 10:33 J	-7680659.19	-7680659.06	-7680658.92	0.0136	0.0090
Mercury	-25742-09-29 17:02 J	-7680570.94	-7680570.79	-7680570.62	0.0136	0.0064
Mercury	-25742-12-26 23:31 J	-7680482.69	-7680482.52	-7680482.34	0.0136	0.0038
Mercury	-25741-03-24 05:59 J	-7680394.43	-7680394.25	-7680394.07	0.0135	0.0012
Mercury	-25741-06-20 12:14 J	-7680306.16	-7680305.99	-7680305.81	0.0135	0.0014
Mercury	-25741-09-16 18:28 J	-7680217.89	-7680217.73	-7680217.55	0.0135	0.0039
Mercury	-25741-12-14 00:43 J	-7680129.62	-7680129.47	-7680129.31	0.0135	0.0064
Mercury	-25740-03-12 06:57 J	-7680041.34	-7680041.21	-7680041.07	0.0135	0.0088
Mercury	-25740-06-08 12:57 J	-7679953.05	-7679952.96	-7679952.86	0.0135	0.0113

Mars	-25731-04-21 12:43 J	-7676714.26	-7676713.97	-7676713.65	0.0132	0.0035
Venus	-25718-03-02 12:43 J	-7672016.05	-7672015.97	-7672015.86	0.0133	0.0119
Venus	-25718-10-14 18:14 J	-7671789.88	-7671789.74	-7671789.59	0.0133	0.0099
Venus	-25717-05-27 23:16 J	-7671563.69	-7671563.53	-7671563.34	0.0133	0.0079
Venus	-25716-01-09 04:47 J	-7671337.49	-7671337.30	-7671337.10	0.0134	0.0058
Venus	-25716-08-23 10:19 J	-7671111.28	-7671111.07	-7671110.86	0.0134	0.0037
Venus	-25715-04-06 15:35 J	-7670885.06	-7670884.85	-7670884.63	0.0134	0.0016
Venus	-25715-11-18 21:07 J	-7670658.84	-7670658.62	-7670658.40	0.0134	0.0005
Venus	-25714-07-03 02:23 J	-7670432.60	-7670432.40	-7670432.18	0.0134	0.0027
Venus	-25713-02-14 08:09 J	-7670206.36	-7670206.16	-7670205.95	0.0135	0.0047
Venus	-25713-09-27 13:40 J	-7669980.11	-7669979.93	-7669979.73	0.0135	0.0069
Venus	-25712-05-11 19:11 J	-7669753.84	-7669753.70	-7669753.52	0.0135	0.0090
Venus	-25712-12-24 01:26 J	-7669527.56	-7669527.44	-7669527.32	0.0135	0.0111
Venus	-25711-08-07 07:11 J	-7669301.24	-7669301.20	-7669301.15	0.0136	0.0132
Earth	-25703-05-11 12:43 J	-7666467.15	-7666466.97	-7666466.75	0.0140	0.0083
Moon	-25703-05-11 15:07 J	-7666467.06	-7666466.87	-7666466.65	0.0140	0.0086 *
Moon	-25702-05-16 01:11 J	-7666097.69	-7666097.45	-7666097.21	0.0140	0.0015
Earth	-25702-05-16 02:52 J	-7666097.62	-7666097.38	-7666097.12	0.0140	0.0014 *
Earth	-25701-05-19 17:31 J	-7665727.91	-7665727.77	-7665727.60	0.0141	0.0110
Moon	-25701-05-19 19:55 J	-7665727.80	-7665727.67	-7665727.50	0.0141	0.0114 *
Mercury	-25698-03-11 19:26 J	-7664701.71	-7664701.69	-7664701.65	0.0142	0.0138
Mercury	-25698-06-07 23:16 J	-7664613.60	-7664613.53	-7664613.44	0.0142	0.0117
Mercury	-25698-09-04 03:07 J	-7664525.46	-7664525.37	-7664525.26	0.0142	0.0095
Mercury	-25698-12-01 07:11 J	-7664437.32	-7664437.20	-7664437.08	0.0143	0.0072
Mercury	-25697-02-27 11:02 J	-7664349.17	-7664349.04	-7664348.91	0.0143	0.0049
Mercury	-25697-05-25 14:52 J	-7664261.01	-7664260.88	-7664260.74	0.0143	0.0027
Mercury	-25697-08-21 18:57 J	-7664172.85	-7664172.71	-7664172.57	0.0143	0.0004
Mercury	-25697-11-17 22:47 J	-7664084.68	-7664084.55	-7664084.41	0.0143	0.0020
Mercury	-25696-02-14 02:52 J	-7663996.51	-7663996.38	-7663996.25	0.0143	0.0042
Mercury	-25696-05-13 06:43 J	-7663908.33	-7663908.22	-7663908.09	0.0143	0.0067

Mercury	-25696-08-09 11:02 J	-7663820.15	-7663820.04	-7663819.93	0.0143	0.0090
Mercury	-25696-11-05 15:07 J	-7663731.95	-7663731.87	-7663731.78	0.0143	0.0113
Mercury	-25695-02-01 19:11 J	-7663643.73	-7663643.70	-7663643.66	0.0144	0.0137
Mars	-25689-09-10 13:40 J	-7661231.22	-7661230.93	-7661230.63	0.0146	0.0032
Venus	-25678-06-14 04:19 J	-7657302.34	-7657302.32	-7657302.26	0.0145	0.0143
Venus	-25677-01-26 16:33 J	-7657075.92	-7657075.81	-7657075.66	0.0145	0.0116
Venus	-25677-09-09 05:02 J	-7656849.46	-7656849.29	-7656849.12	0.0145	0.0089
Venus	-25676-04-23 17:02 J	-7656622.98	-7656622.79	-7656622.59	0.0145	0.0063
Venus	-25676-12-06 05:16 J	-7656396.49	-7656396.28	-7656396.07	0.0145	0.0036
Venus	-25675-07-20 17:31 J	-7656169.99	-7656169.77	-7656169.55	0.0144	0.0009
Venus	-25674-03-04 05:31 J	-7655943.48	-7655943.27	-7655943.05	0.0144	0.0017
Venus	-25674-10-16 17:31 J	-7655716.98	-7655716.77	-7655716.56	0.0144	0.0044
Venus	-25673-05-30 05:31 J	-7655490.46	-7655490.27	-7655490.08	0.0144	0.0070
Venus	-25672-01-11 17:02 J	-7655263.94	-7655263.79	-7655263.61	0.0143	0.0096
Venus	-25672-08-26 05:16 J	-7655037.39	-7655037.28	-7655037.16	0.0143	0.0121
Moon	-25664-11-12 16:47 J	-7652037.02	-7652036.80	-7652036.57	0.0139	0.0066
Earth	-25664-11-12 20:09 J	-7652036.88	-7652036.66	-7652036.41	0.0139	0.0060 *
Earth	-25663-11-17 14:09 J	-7651667.16	-7651666.91	-7651666.66	0.0138	0.0036
Moon	-25663-11-17 17:45 J	-7651666.99	-7651666.76	-7651666.51	0.0138	0.0044 *
Moon	-25662-11-22 03:21 J	-7651297.46	-7651297.36	-7651297.23	0.0138	0.0123
Earth	-25662-11-22 07:11 J	-7651297.28	-7651297.20	-7651297.11	0.0138	0.0129 *
Mercury	-25658-04-26 10:33 J	-7650046.16	-7650046.06	-7650045.95	0.0136	0.0111
Mercury	-25658-07-23 17:02 J	-7649957.92	-7649957.79	-7649957.64	0.0136	0.0085
Mercury	-25658-10-19 23:31 J	-7649869.68	-7649869.52	-7649869.35	0.0136	0.0059
Mercury	-25657-01-16 06:14 J	-7649781.42	-7649781.24	-7649781.07	0.0136	0.0033
Mercury	-25657-04-13 12:28 J	-7649693.16	-7649692.98	-7649692.80	0.0136	0.0008
Mercury	-25657-07-10 18:43 J	-7649604.89	-7649604.72	-7649604.53	0.0135	0.0019
Mercury	-25657-10-07 01:11 J	-7649516.62	-7649516.45	-7649516.28	0.0135	0.0043
Mercury	-25656-01-03 07:11 J	-7649428.34	-7649428.20	-7649428.04	0.0135	0.0069
Mercury	-25656-04-01 13:26 J	-7649340.06	-7649339.94	-7649339.81	0.0135	0.0093

Mercury	-25656-06-28 19:40 J	-7649251.76	-7649251.68	-7649251.59	0.0135	0.0117
Mars	-25648-01-12 09:35 J	-7646497.28	-7646497.10	-7646496.88	0.0133	0.0102
Mars	-25647-12-15 07:40 J	-7645795.34	-7645795.18	-7645794.96	0.0132	0.0107
Venus	-25635-10-30 22:04 J	-7641457.62	-7641457.58	-7641457.52	0.0133	0.0129
Venus	-25634-06-14 03:21 J	-7641231.48	-7641231.36	-7641231.23	0.0133	0.0108
Venus	-25633-01-26 08:52 J	-7641005.29	-7641005.13	-7641004.96	0.0133	0.0088
Venus	-25633-09-08 13:55 J	-7640779.09	-7640778.92	-7640778.72	0.0134	0.0068
Venus	-25632-04-22 19:11 J	-7640552.89	-7640552.70	-7640552.48	0.0134	0.0047
Venus	-25632-12-05 00:43 J	-7640326.67	-7640326.47	-7640326.25	0.0134	0.0026
Venus	-25631-07-19 06:28 J	-7640100.45	-7640100.23	-7640100.02	0.0134	0.0005
Venus	-25630-03-02 11:45 J	-7639874.22	-7639874.01	-7639873.79	0.0134	0.0018
Venus	-25630-10-14 17:16 J	-7639647.98	-7639647.78	-7639647.56	0.0135	0.0039
Venus	-25629-05-27 22:47 J	-7639421.73	-7639421.55	-7639421.34	0.0135	0.0060
Venus	-25628-01-09 04:33 J	-7639195.47	-7639195.31	-7639195.12	0.0135	0.0081
Venus	-25628-08-23 10:19 J	-7638969.19	-7638969.07	-7638968.91	0.0135	0.0103
Venus	-25627-04-06 16:04 J	-7638742.90	-7638742.83	-7638742.73	0.0136	0.0124
Earth	-25619-05-11 21:35 J	-7635785.79	-7635785.60	-7635785.38	0.0140	0.0079
Moon	-25619-05-11 22:47 J	-7635785.76	-7635785.55	-7635785.32	0.0140	0.0074 *
Moon	-25618-05-16 09:50 J	-7635416.33	-7635416.09	-7635415.84	0.0140	0.0016
Earth	-25618-05-16 11:45 J	-7635416.26	-7635416.01	-7635415.76	0.0140	0.0017 *
Earth	-25617-05-20 02:23 J	-7635046.55	-7635046.40	-7635046.25	0.0141	0.0113
Moon	-25617-05-20 03:50 J	-7635046.48	-7635046.34	-7635046.17	0.0141	0.0111 *
Mercury	-25614-04-01 02:23 J	-7634000.43	-7634000.40	-7634000.35	0.0142	0.0134
Mercury	-25614-06-28 06:14 J	-7633912.31	-7633912.24	-7633912.15	0.0142	0.0112
Mercury	-25614-09-24 10:04 J	-7633824.18	-7633824.08	-7633823.97	0.0142	0.0090
Mercury	-25614-12-21 14:09 J	-7633736.03	-7633735.91	-7633735.79	0.0143	0.0068
Mercury	-25613-03-18 17:59 J	-7633647.88	-7633647.75	-7633647.62	0.0143	0.0045
Mercury	-25613-06-14 21:50 J	-7633559.72	-7633559.59	-7633559.45	0.0143	0.0023
Mercury	-25613-09-11 01:55 J	-7633471.56	-7633471.42	-7633471.29	0.0143	0.0004
Mercury	-25613-12-08 05:45 J	-7633383.40	-7633383.26	-7633383.12	0.0143	0.0023

Mercury	-25612-03-06 09:50 J	-7633295.22	-7633295.09	-7633294.96	0.0143	0.0046
Mercury	-25612-06-02 13:40 J	-7633207.04	-7633206.93	-7633206.80	0.0143	0.0070
Mercury	-25612-08-29 17:45 J	-7633118.86	-7633118.76	-7633118.65	0.0143	0.0094
Mercury	-25612-11-25 21:50 J	-7633030.66	-7633030.59	-7633030.50	0.0143	0.0118
Mercury	-25611-02-22 01:55 J	-7632942.43	-7632942.42	-7632942.39	0.0144	0.0142
Mars	-25604-05-06 20:09 J	-7630311.94	-7630311.66	-7630311.38	0.0146	0.0056
Venus	-25594-09-25 20:23 J	-7626517.73	-7626517.65	-7626517.54	0.0145	0.0130
Venus	-25593-05-09 08:38 J	-7626291.28	-7626291.14	-7626290.98	0.0145	0.0103
Venus	-25593-12-21 20:52 J	-7626064.81	-7626064.63	-7626064.44	0.0145	0.0076
Venus	-25592-08-05 08:52 J	-7625838.32	-7625838.13	-7625837.91	0.0145	0.0050
Venus	-25591-03-19 21:07 J	-7625611.83	-7625611.62	-7625611.40	0.0144	0.0023
Venus	-25591-11-01 09:21 J	-7625385.33	-7625385.11	-7625384.89	0.0144	0.0005
Venus	-25590-06-15 21:21 J	-7625158.82	-7625158.61	-7625158.39	0.0144	0.0031
Venus	-25589-01-28 09:07 J	-7624932.31	-7624932.12	-7624931.91	0.0144	0.0058
Venus	-25589-09-10 21:07 J	-7624705.79	-7624705.62	-7624705.43	0.0143	0.0084
Venus	-25588-04-25 08:52 J	-7624479.26	-7624479.13	-7624478.98	0.0143	0.0110
Venus	-25588-12-07 20:38 J	-7624252.70	-7624252.64	-7624252.56	0.0143	0.0135
Moon	-25580-11-12 22:19 J	-7621355.79	-7621355.57	-7621355.32	0.0139	0.0052
Earth	-25580-11-13 02:23 J	-7621355.63	-7621355.40	-7621355.16	0.0139	0.0058 *
Earth	-25579-11-17 19:55 J	-7620985.91	-7620985.67	-7620985.41	0.0138	0.0038
Moon	-25579-11-17 23:31 J	-7620985.76	-7620985.52	-7620985.26	0.0138	0.0030 *
Moon	-25578-11-22 09:35 J	-7620616.13	-7620616.10	-7620616.06	0.0138	0.0136
Earth	-25578-11-22 13:11 J	-7620616.02	-7620615.95	-7620615.86	0.0138	0.0130
Mercury	-25574-02-17 09:50 J	-7619433.10	-7619433.09	-7619433.06	0.0136	0.0135
Mercury	-25574-05-16 16:33 J	-7619344.91	-7619344.81	-7619344.69	0.0136	0.0108
Mercury	-25574-08-12 23:02 J	-7619256.67	-7619256.54	-7619256.38	0.0136	0.0082
Mercury	-25574-11-09 05:45 J	-7619168.42	-7619168.26	-7619168.09	0.0136	0.0056
Mercury	-25573-02-05 12:14 J	-7619080.16	-7619079.99	-7619079.81	0.0136	0.0030
Mercury	-25573-05-03 18:43 J	-7618991.90	-7618991.72	-7618991.54	0.0136	0.0004
Mercury	-25573-07-31 00:57 J	-7618903.63	-7618903.46	-7618903.28	0.0135	0.0022

Mercury	-25573-10-27 07:26 J	-7618815.36	-7618815.19	-7618815.02	0.0135	0.0047
Mercury	-25572-01-23 13:40 J	-7618727.08	-7618726.93	-7618726.78	0.0135	0.0072
Mercury	-25572-04-21 19:40 J	-7618638.80	-7618638.68	-7618638.55	0.0135	0.0096
Mercury	-25572-07-19 01:40 J	-7618550.50	-7618550.43	-7618550.34	0.0135	0.0121
Mars	-25564-09-07 01:40 J	-7615578.73	-7615578.43	-7615578.12	0.0133	0.0032
Venus	-25550-02-11 12:43 J	-7610673.07	-7610672.97	-7610672.87	0.0133	0.0118
Venus	-25550-09-25 17:45 J	-7610446.89	-7610446.76	-7610446.60	0.0133	0.0098
Venus	-25549-05-08 23:16 J	-7610220.70	-7610220.53	-7610220.35	0.0133	0.0077
Venus	-25549-12-21 04:47 J	-7609994.49	-7609994.30	-7609994.10	0.0134	0.0056
Venus	-25548-08-04 10:04 J	-7609768.28	-7609768.08	-7609767.86	0.0134	0.0035
Venus	-25547-03-18 15:35 J	-7609542.06	-7609541.85	-7609541.63	0.0134	0.0014
Venus	-25547-10-30 21:07 J	-7609315.83	-7609315.62	-7609315.40	0.0134	0.0009
Venus	-25546-06-14 02:38 J	-7609089.59	-7609089.39	-7609089.17	0.0134	0.0030
Venus	-25545-01-26 08:23 J	-7608863.34	-7608863.15	-7608862.94	0.0135	0.0051
Venus	-25545-09-08 14:09 J	-7608637.08	-7608636.91	-7608636.72	0.0135	0.0072
Venus	-25544-04-22 19:55 J	-7608410.82	-7608410.67	-7608410.51	0.0135	0.0094
Venus	-25544-12-05 01:26 J	-7608184.53	-7608184.44	-7608184.31	0.0135	0.0116
Earth	-25535-05-12 07:55 J	-7605104.37	-7605104.17	-7605103.94	0.0140	0.0074
Moon	-25535-05-12 09:07 J	-7605104.32	-7605104.12	-7605103.89	0.0140	0.0078 *
Moon	-25534-05-16 21:07 J	-7604734.86	-7604734.62	-7604734.38	0.0140	0.0024
Earth	-25534-05-16 21:50 J	-7604734.83	-7604734.59	-7604734.34	0.0140	0.0022 *
Earth	-25533-05-20 12:28 J	-7604365.10	-7604364.98	-7604364.83	0.0141	0.0118
Moon	-25533-05-20 14:09 J	-7604365.03	-7604364.91	-7604364.76	0.0141	0.0120 *
Mercury	-25530-04-21 09:50 J	-7603299.14	-7603299.09	-7603299.03	0.0142	0.0128
Mercury	-25530-07-18 13:40 J	-7603211.02	-7603210.93	-7603210.84	0.0142	0.0106
Mercury	-25530-10-14 17:16 J	-7603122.88	-7603122.78	-7603122.66	0.0142	0.0085
Mercury	-25529-01-10 21:07 J	-7603034.73	-7603034.62	-7603034.49	0.0143	0.0063
Mercury	-25529-04-08 01:11 J	-7602946.58	-7602946.45	-7602946.32	0.0143	0.0040
Mercury	-25529-07-05 05:02 J	-7602858.42	-7602858.29	-7602858.15	0.0143	0.0017
Mercury	-25529-10-01 09:07 J	-7602770.26	-7602770.12	-7602769.98	0.0143	0.0006

Mercury	-25529-12-28 12:57 J	-7602682.09	-7602681.96	-7602681.82	0.0143	0.0029
Mercury	-25528-03-26 17:02 J	-7602593.92	-7602593.79	-7602593.66	0.0143	0.0052
Mercury	-25528-06-22 21:07 J	-7602505.74	-7602505.62	-7602505.50	0.0143	0.0076
Mercury	-25528-09-19 00:57 J	-7602417.55	-7602417.46	-7602417.35	0.0143	0.0100
Mercury	-25528-12-16 05:02 J	-7602329.35	-7602329.29	-7602329.21	0.0143	0.0123
Mars	-25521-01-27 21:50 J	-7600095.75	-7600095.59	-7600095.39	0.0146	0.0117
Venus	-25510-05-26 01:26 J	-7595959.47	-7595959.44	-7595959.39	0.0145	0.0143
Venus	-25509-01-07 13:26 J	-7595733.05	-7595732.94	-7595732.80	0.0145	0.0117
Venus	-25509-08-21 01:40 J	-7595506.59	-7595506.43	-7595506.25	0.0145	0.0089
Venus	-25508-04-04 13:40 J	-7595280.11	-7595279.93	-7595279.72	0.0145	0.0063
Venus	-25508-11-17 01:55 J	-7595053.62	-7595053.42	-7595053.20	0.0145	0.0036
Venus	-25507-07-01 14:23 J	-7594827.12	-7594826.90	-7594826.68	0.0144	0.0008
Venus	-25506-02-13 02:23 J	-7594600.62	-7594600.40	-7594600.18	0.0144	0.0018
Venus	-25506-09-27 14:23 J	-7594374.11	-7594373.90	-7594373.69	0.0144	0.0045
Venus	-25505-05-11 02:09 J	-7594147.59	-7594147.41	-7594147.21	0.0143	0.0072
Venus	-25505-12-23 14:09 J	-7593921.07	-7593920.91	-7593920.75	0.0143	0.0098
Venus	-25504-08-07 02:09 J	-7593694.52	-7593694.41	-7593694.30	0.0143	0.0123
Saturn	-25501-03-08 23:16 J	-7592749.95	-7592749.53	-7592749.02	0.0142	0.0098
Moon	-25496-11-13 06:28 J	-7590674.45	-7590674.23	-7590674.00	0.0139	0.0061
Earth	-25496-11-13 09:50 J	-7590674.33	-7590674.09	-7590673.86	0.0139	0.0055 *
Earth	-25495-11-18 03:50 J	-7590304.59	-7590304.34	-7590304.10	0.0138	0.0040
Moon	-25495-11-18 07:26 J	-7590304.43	-7590304.19	-7590303.94	0.0138	0.0047 *
Moon	-25494-11-22 17:31 J	-7589934.87	-7589934.77	-7589934.67	0.0138	0.0126
Earth	-25494-11-22 20:52 J	-7589934.68	-7589934.63	-7589934.56	0.0138	0.0133 *
Mercury	-25490-03-09 16:19 J	-7588731.86	-7588731.82	-7588731.76	0.0136	0.0131
Mercury	-25490-06-05 23:02 J	-7588643.65	-7588643.54	-7588643.41	0.0136	0.0104
Mercury	-25490-09-02 05:45 J	-7588555.40	-7588555.26	-7588555.11	0.0136	0.0077
Mercury	-25490-11-29 12:14 J	-7588467.15	-7588466.99	-7588466.82	0.0136	0.0051
Mercury	-25489-02-25 18:43 J	-7588378.89	-7588378.72	-7588378.54	0.0136	0.0025
Mercury	-25489-05-24 01:11 J	-7588290.63	-7588290.45	-7588290.27	0.0136	0.0003

Mercury	-25489-08-20 07:26 J	-7588202.36	-7588202.19	-7588202.00	0.0135	0.0027
Mercury	-25489-11-16 13:55 J	-7588114.09	-7588113.92	-7588113.75	0.0135	0.0051
Mercury	-25488-02-12 19:55 J	-7588025.81	-7588025.67	-7588025.51	0.0135	0.0077
Mercury	-25488-05-12 02:09 J	-7587937.52	-7587937.41	-7587937.28	0.0135	0.0101
Mercury	-25488-08-08 08:23 J	-7587849.21	-7587849.15	-7587849.08	0.0135	0.0125
Mars	-25479-05-02 20:09 J	-7584659.96	-7584659.66	-7584659.35	0.0133	0.0040
Venus	-25467-10-11 21:50 J	-7580114.64	-7580114.59	-7580114.52	0.0133	0.0127
Venus	-25466-05-26 02:52 J	-7579888.49	-7579888.38	-7579888.23	0.0133	0.0108
Venus	-25465-01-07 08:38 J	-7579662.29	-7579662.14	-7579661.96	0.0133	0.0086
Venus	-25465-08-20 13:55 J	-7579436.09	-7579435.92	-7579435.71	0.0134	0.0066
Venus	-25464-04-03 19:40 J	-7579209.88	-7579209.68	-7579209.47	0.0134	0.0044
Venus	-25464-11-16 01:11 J	-7578983.66	-7578983.45	-7578983.23	0.0134	0.0023
Venus	-25463-06-30 06:43 J	-7578757.43	-7578757.22	-7578757.00	0.0134	0.0003
Venus	-25462-02-11 12:28 J	-7578531.19	-7578530.98	-7578530.76	0.0134	0.0020
Venus	-25462-09-25 17:59 J	-7578304.95	-7578304.75	-7578304.54	0.0135	0.0042
Venus	-25461-05-08 23:45 J	-7578078.70	-7578078.51	-7578078.32	0.0135	0.0063
Venus	-25461-12-21 05:16 J	-7577852.43	-7577852.28	-7577852.10	0.0135	0.0085
Venus	-25460-08-04 11:16 J	-7577626.15	-7577626.03	-7577625.89	0.0135	0.0106
Venus	-25459-03-18 17:16 J	-7577399.85	-7577399.78	-7577399.71	0.0136	0.0128
Moon	-25451-05-12 18:43 J	-7574422.95	-7574422.72	-7574422.49	0.0140	0.0062
Earth	-25451-05-12 18:43 J	-7574422.93	-7574422.72	-7574422.50	0.0140	0.0068 *
Moon	-25450-05-17 07:55 J	-7574053.40	-7574053.17	-7574052.93	0.0140	0.0025
Earth	-25450-05-17 08:38 J	-7574053.38	-7574053.14	-7574052.89	0.0140	0.0027 *
Earth	-25449-05-20 23:31 J	-7573683.63	-7573683.52	-7573683.39	0.0141	0.0123
Moon	-25449-05-20 23:59 J	-7573683.60	-7573683.50	-7573683.35	0.0141	0.0122 *
Mercury	-25446-05-11 17:02 J	-7572597.85	-7572597.79	-7572597.71	0.0142	0.0122
Mercury	-25446-08-07 20:52 J	-7572509.72	-7572509.63	-7572509.53	0.0142	0.0100
Mercury	-25446-11-04 00:43 J	-7572421.58	-7572421.47	-7572421.35	0.0142	0.0078
Mercury	-25445-01-31 04:33 J	-7572333.43	-7572333.31	-7572333.18	0.0143	0.0056
Mercury	-25445-04-28 08:38 J	-7572245.28	-7572245.14	-7572245.01	0.0143	0.0033

Mercury	-25445-07-25 12:28 J	-7572157.12	-7572156.98	-7572156.84	0.0143	0.0011
Mercury	-25445-10-21 16:33 J	-7572068.95	-7572068.81	-7572068.68	0.0143	0.0013
Mercury	-25444-01-17 20:23 J	-7571980.78	-7571980.65	-7571980.51	0.0143	0.0036
Mercury	-25444-04-16 00:14 J	-7571892.61	-7571892.49	-7571892.35	0.0143	0.0059
Mercury	-25444-07-13 04:19 J	-7571804.43	-7571804.32	-7571804.20	0.0143	0.0083
Mercury	-25444-10-09 08:23 J	-7571716.24	-7571716.15	-7571716.05	0.0143	0.0106
Mercury	-25443-01-05 12:43 J	-7571628.03	-7571627.97	-7571627.92	0.0144	0.0130
Mars	-25437-09-22 11:31 J	-7569176.31	-7569176.02	-7569175.72	0.0146	0.0023
Venus	-25426-09-06 19:55 J	-7565174.76	-7565174.67	-7565174.56	0.0145	0.0128
Venus	-25425-04-20 08:09 J	-7564948.31	-7564948.16	-7564948.01	0.0145	0.0102
Venus	-25425-12-02 19:55 J	-7564721.84	-7564721.67	-7564721.47	0.0145	0.0075
Venus	-25424-07-17 08:23 J	-7564495.35	-7564495.15	-7564494.94	0.0145	0.0048
Venus	-25423-02-28 20:38 J	-7564268.86	-7564268.64	-7564268.43	0.0144	0.0020
Venus	-25423-10-13 08:38 J	-7564042.36	-7564042.14	-7564041.92	0.0144	0.0007
Venus	-25422-05-27 20:23 J	-7563815.85	-7563815.65	-7563815.43	0.0144	0.0034
Venus	-25421-01-09 08:09 J	-7563589.34	-7563589.16	-7563588.95	0.0144	0.0061
Venus	-25421-08-22 20:23 J	-7563362.82	-7563362.65	-7563362.47	0.0143	0.0087
Venus	-25420-04-06 07:55 J	-7563136.29	-7563136.17	-7563136.02	0.0143	0.0113
Venus	-25420-11-18 19:55 J	-7562909.72	-7562909.67	-7562909.62	0.0143	0.0138
Moon	-25412-11-13 14:52 J	-7559993.11	-7559992.88	-7559992.63	0.0139	0.0046
Earth	-25412-11-13 17:59 J	-7559992.97	-7559992.75	-7559992.50	0.0139	0.0052 *
Earth	-25411-11-18 12:14 J	-7559623.23	-7559622.99	-7559622.74	0.0138	0.0043
Moon	-25411-11-18 15:21 J	-7559623.11	-7559622.86	-7559622.60	0.0138	0.0037 *
Earth	-25410-11-23 05:31 J	-7559253.30	-7559253.27	-7559253.23	0.0138	0.0136
Mercury	-25406-03-29 23:02 J	-7558030.60	-7558030.54	-7558030.46	0.0136	0.0125
Mercury	-25406-06-26 05:31 J	-7557942.38	-7557942.27	-7557942.13	0.0136	0.0099
Mercury	-25406-09-22 12:28 J	-7557854.13	-7557853.98	-7557853.82	0.0136	0.0072
Mercury	-25406-12-19 18:57 J	-7557765.88	-7557765.71	-7557765.54	0.0136	0.0046
Mercury	-25405-03-17 01:26 J	-7557677.62	-7557677.44	-7557677.26	0.0136	0.0020
Mercury	-25405-06-13 07:55 J	-7557589.35	-7557589.17	-7557588.99	0.0135	0.0006

Mercury	-25405-09-09 14:09 J	-7557501.08	-7557500.91	-7557500.73	0.0135	0.0031
Mercury	-25405-12-06 20:23 J	-7557412.81	-7557412.65	-7557412.48	0.0135	0.0056
Mercury	-25404-03-05 02:38 J	-7557324.52	-7557324.39	-7557324.24	0.0135	0.0081
Mercury	-25404-06-01 08:38 J	-7557236.23	-7557236.14	-7557236.02	0.0135	0.0106
Mercury	-25404-08-28 14:52 J	-7557147.91	-7557147.88	-7557147.82	0.0135	0.0130
Mars	-25396-01-23 17:02 J	-7554442.98	-7554442.79	-7554442.55	0.0133	0.0097
Mars	-25395-12-26 15:07 J	-7553741.02	-7553740.87	-7553740.67	0.0133	0.0111
Venus	-25382-01-23 12:14 J	-7549330.09	-7549329.99	-7549329.88	0.0133	0.0117
Venus	-25382-09-06 17:16 J	-7549103.91	-7549103.78	-7549103.61	0.0133	0.0097
Venus	-25381-04-19 22:47 J	-7548877.71	-7548877.55	-7548877.36	0.0134	0.0076
Venus	-25381-12-02 04:33 J	-7548651.50	-7548651.31	-7548651.10	0.0134	0.0054
Venus	-25380-07-16 10:04 J	-7548425.28	-7548425.08	-7548424.86	0.0134	0.0033
Venus	-25379-02-27 15:50 J	-7548199.05	-7548198.84	-7548198.62	0.0134	0.0011
Venus	-25379-10-11 21:21 J	-7547972.82	-7547972.61	-7547972.39	0.0134	0.0011
Venus	-25378-05-26 02:52 J	-7547746.58	-7547746.38	-7547746.16	0.0135	0.0033
Venus	-25377-01-07 08:52 J	-7547520.33	-7547520.13	-7547519.93	0.0135	0.0054
Venus	-25377-08-20 14:23 J	-7547294.07	-7547293.90	-7547293.71	0.0135	0.0076
Venus	-25376-04-03 20:09 J	-7547067.80	-7547067.66	-7547067.50	0.0135	0.0098
Venus	-25376-11-16 01:40 J	-7546841.51	-7546841.43	-7546841.31	0.0136	0.0120
Moon	-25367-05-13 04:19 J	-7543741.53	-7543741.32	-7543741.08	0.0140	0.0069
Earth	-25367-05-13 04:19 J	-7543741.52	-7543741.32	-7543741.08	0.0140	0.0064 *
Earth	-25366-05-17 18:28 J	-7543371.96	-7543371.73	-7543371.47	0.0140	0.0032
Moon	-25366-05-17 18:57 J	-7543371.94	-7543371.71	-7543371.47	0.0140	0.0034 *
Earth	-25365-05-21 09:35 J	-7543002.20	-7543002.10	-7543001.99	0.0141	0.0127
Moon	-25365-05-21 10:04 J	-7543002.18	-7543002.08	-7543001.97	0.0141	0.0128 *
Mercury	-25362-03-04 20:38 J	-7541984.67	-7541984.64	-7541984.61	0.0142	0.0138
Mercury	-25362-06-01 00:28 J	-7541896.56	-7541896.48	-7541896.40	0.0142	0.0117
Mercury	-25362-08-28 04:04 J	-7541808.42	-7541808.33	-7541808.22	0.0142	0.0095
Mercury	-25362-11-24 07:55 J	-7541720.28	-7541720.17	-7541720.05	0.0143	0.0073
Mercury	-25361-02-20 11:45 J	-7541632.13	-7541632.01	-7541631.87	0.0143	0.0051

Mercury	-25361-05-18 15:50 J	-7541543.98	-7541543.84	-7541543.71	0.0143	0.0028
Mercury	-25361-08-14 19:40 J	-7541455.82	-7541455.68	-7541455.54	0.0143	0.0005
Mercury	-25361-11-10 23:45 J	-7541367.65	-7541367.51	-7541367.38	0.0143	0.0018
Mercury	-25360-02-07 03:35 J	-7541279.48	-7541279.35	-7541279.21	0.0143	0.0041
Mercury	-25360-05-06 07:40 J	-7541191.30	-7541191.18	-7541191.06	0.0143	0.0065
Mercury	-25360-08-02 11:31 J	-7541103.12	-7541103.02	-7541102.90	0.0143	0.0088
Mercury	-25360-10-29 15:50 J	-7541014.93	-7541014.84	-7541014.76	0.0143	0.0112
Mercury	-25359-01-25 19:40 J	-7540926.71	-7540926.68	-7540926.63	0.0144	0.0136
Mars	-25352-05-19 00:43 J	-7538256.73	-7538256.47	-7538256.20	0.0146	0.0069
Venus	-25342-05-07 02:38 J	-7534616.44	-7534616.39	-7534616.34	0.0145	0.0141
Venus	-25342-12-19 14:23 J	-7534390.02	-7534389.90	-7534389.75	0.0145	0.0114
Venus	-25341-08-02 02:38 J	-7534163.55	-7534163.39	-7534163.21	0.0145	0.0087
Venus	-25340-03-16 14:52 J	-7533937.08	-7533936.88	-7533936.68	0.0145	0.0060
Venus	-25340-10-29 02:52 J	-7533710.59	-7533710.38	-7533710.16	0.0144	0.0033
Venus	-25339-06-12 15:07 J	-7533484.09	-7533483.87	-7533483.65	0.0144	0.0005
Venus	-25338-01-25 03:07 J	-7533257.58	-7533257.37	-7533257.15	0.0144	0.0022
Venus	-25338-09-08 14:52 J	-7533031.08	-7533030.88	-7533030.66	0.0144	0.0049
Venus	-25337-04-22 02:38 J	-7532804.56	-7532804.39	-7532804.19	0.0143	0.0076
Venus	-25337-12-04 14:23 J	-7532578.04	-7532577.90	-7532577.73	0.0143	0.0102
Venus	-25336-07-19 02:09 J	-7532351.49	-7532351.41	-7532351.29	0.0143	0.0128
Moon	-25328-11-14 00:57 J	-7529311.68	-7529311.46	-7529311.22	0.0139	0.0052
Earth	-25328-11-14 03:21 J	-7529311.59	-7529311.36	-7529311.10	0.0139	0.0047 *
Earth	-25327-11-18 21:21 J	-7528941.84	-7528941.61	-7528941.35	0.0138	0.0049
Moon	-25327-11-19 00:57 J	-7528941.69	-7528941.46	-7528941.21	0.0138	0.0055 *
Moon	-25326-11-23 11:31 J	-7528572.06	-7528572.02	-7528571.94	0.0138	0.0134
Mercury	-25322-04-19 05:59 J	-7527329.33	-7527329.25	-7527329.16	0.0136	0.0119
Mercury	-25322-07-16 12:28 J	-7527241.10	-7527240.98	-7527240.83	0.0136	0.0093
Mercury	-25322-10-12 19:26 J	-7527152.85	-7527152.69	-7527152.53	0.0136	0.0066
Mercury	-25321-01-09 01:40 J	-7527064.59	-7527064.43	-7527064.25	0.0136	0.0041
Mercury	-25321-04-06 08:23 J	-7526976.33	-7526976.15	-7526975.97	0.0136	0.0014

Mercury	-25321-07-03 14:38 J	-7526888.07	-7526887.89	-7526887.70	0.0135	0.0012
Mercury	-25321-09-29 21:07 J	-7526799.79	-7526799.62	-7526799.45	0.0135	0.0037
Mercury	-25321-12-27 03:21 J	-7526711.52	-7526711.36	-7526711.20	0.0135	0.0062
Mercury	-25320-03-25 09:35 J	-7526623.23	-7526623.10	-7526622.96	0.0135	0.0087
Mercury	-25320-06-21 15:35 J	-7526534.94	-7526534.85	-7526534.74	0.0135	0.0111
Mars	-25312-09-18 12:14 J	-7523524.29	-7523523.99	-7523523.67	0.0133	0.0026
Venus	-25299-09-22 21:07 J	-7518771.68	-7518771.62	-7518771.56	0.0133	0.0127
Venus	-25298-05-07 02:09 J	-7518545.53	-7518545.41	-7518545.26	0.0133	0.0106
Venus	-25298-12-19 07:40 J	-7518319.33	-7518319.18	-7518319.00	0.0133	0.0086
Venus	-25297-08-01 13:26 J	-7518093.13	-7518092.94	-7518092.74	0.0134	0.0064
Venus	-25296-03-15 18:43 J	-7517866.91	-7517866.72	-7517866.50	0.0134	0.0043
Venus	-25296-10-28 00:28 J	-7517640.69	-7517640.48	-7517640.26	0.0134	0.0021
Venus	-25295-06-11 06:14 J	-7517414.46	-7517414.24	-7517414.03	0.0134	0.0002
Venus	-25294-01-23 11:45 J	-7517188.22	-7517188.01	-7517187.79	0.0134	0.0023
Venus	-25294-09-06 17:16 J	-7516961.98	-7516961.78	-7516961.57	0.0135	0.0045
Venus	-25293-04-19 23:02 J	-7516735.73	-7516735.54	-7516735.35	0.0135	0.0066
Venus	-25293-12-02 04:33 J	-7516509.46	-7516509.31	-7516509.14	0.0135	0.0088
Venus	-25292-07-16 10:33 J	-7516283.18	-7516283.06	-7516282.93	0.0135	0.0110
Venus	-25291-02-27 16:04 J	-7516056.86	-7516056.83	-7516056.76	0.0136	0.0132
Moon	-25283-05-13 11:31 J	-7513060.24	-7513060.02	-7513059.77	0.0140	0.0054
Earth	-25283-05-13 13:11 J	-7513060.18	-7513059.95	-7513059.73	0.0140	0.0060 *
Earth	-25282-05-18 03:07 J	-7512690.61	-7512690.37	-7512690.12	0.0140	0.0034
Moon	-25282-05-18 03:35 J	-7512690.58	-7512690.35	-7512690.11	0.0140	0.0032 *
Moon	-25281-05-21 17:16 J	-7512320.85	-7512320.78	-7512320.66	0.0141	0.0130
Earth	-25281-05-21 17:59 J	-7512320.83	-7512320.75	-7512320.65	0.0141	0.0130 *
Mercury	-25278-03-25 03:35 J	-7511283.39	-7511283.35	-7511283.31	0.0142	0.0134
Mercury	-25278-06-21 07:26 J	-7511195.27	-7511195.19	-7511195.11	0.0142	0.0113
Mercury	-25278-09-17 11:02 J	-7511107.14	-7511107.04	-7511106.93	0.0142	0.0091
Mercury	-25278-12-14 14:52 J	-7511019.00	-7511018.88	-7511018.76	0.0143	0.0069
Mercury	-25277-03-11 18:43 J	-7510930.85	-7510930.72	-7510930.59	0.0143	0.0046

Mercury	-25277-06-07 22:47 J	-7510842.69	-7510842.55	-7510842.42	0.0143	0.0024
Mercury	-25277-09-04 02:38 J	-7510754.53	-7510754.39	-7510754.25	0.0143	0.0001
Mercury	-25277-12-01 06:28 J	-7510666.36	-7510666.23	-7510666.09	0.0143	0.0022
Mercury	-25276-02-27 10:33 J	-7510578.19	-7510578.06	-7510577.93	0.0143	0.0045
Mercury	-25276-05-26 14:38 J	-7510490.01	-7510489.89	-7510489.77	0.0143	0.0069
Mercury	-25276-08-22 18:28 J	-7510401.83	-7510401.73	-7510401.62	0.0143	0.0092
Mercury	-25276-11-18 22:19 J	-7510313.64	-7510313.57	-7510313.47	0.0144	0.0117
Mercury	-25275-02-15 02:38 J	-7510225.41	-7510225.39	-7510225.36	0.0144	0.0140
Mars	-25269-02-09 00:43 J	-7508040.67	-7508040.47	-7508040.24	0.0146	0.0104
Venus	-25258-08-18 20:38 J	-7503831.74	-7503831.64	-7503831.53	0.0145	0.0127
Venus	-25257-04-01 08:52 J	-7503605.29	-7503605.13	-7503604.97	0.0145	0.0099
Venus	-25257-11-13 20:52 J	-7503378.81	-7503378.63	-7503378.44	0.0145	0.0072
Venus	-25256-06-28 09:07 J	-7503152.32	-7503152.12	-7503151.91	0.0145	0.0045
Venus	-25255-02-09 21:21 J	-7502925.83	-7502925.61	-7502925.39	0.0144	0.0017
Venus	-25255-09-24 09:21 J	-7502699.33	-7502699.11	-7502698.89	0.0144	0.0010
Venus	-25254-05-08 21:07 J	-7502472.83	-7502472.62	-7502472.40	0.0144	0.0037
Venus	-25254-12-21 09:07 J	-7502246.31	-7502246.12	-7502245.92	0.0144	0.0064
Venus	-25253-08-03 20:52 J	-7502019.79	-7502019.63	-7502019.45	0.0143	0.0091
Venus	-25252-03-18 08:23 J	-7501793.26	-7501793.15	-7501793.01	0.0143	0.0117
Venus	-25252-10-30 20:23 J	-7501566.65	-7501566.65	-7501566.65	0.0143	0.0143
Earth	-25245-11-09 17:16 J	-7498999.79	-7498999.78	-7498999.73	0.0139	0.0138
Moon	-25244-11-14 10:04 J	-7498630.31	-7498630.08	-7498629.83	0.0139	0.0038
Earth	-25244-11-14 12:28 J	-7498630.21	-7498629.98	-7498629.72	0.0139	0.0043 *
Earth	-25243-11-19 06:43 J	-7498260.45	-7498260.22	-7498259.97	0.0138	0.0052
Moon	-25243-11-19 09:07 J	-7498260.36	-7498260.12	-7498259.86	0.0138	0.0045 *
Mercury	-25238-05-09 12:43 J	-7496628.06	-7496627.97	-7496627.86	0.0136	0.0114
Mercury	-25238-08-05 19:11 J	-7496539.83	-7496539.70	-7496539.55	0.0136	0.0088
Mercury	-25238-11-02 02:09 J	-7496451.58	-7496451.41	-7496451.25	0.0136	0.0061
Mercury	-25237-01-29 08:23 J	-7496363.32	-7496363.15	-7496362.97	0.0136	0.0035
Mercury	-25237-04-26 15:07 J	-7496275.06	-7496274.87	-7496274.69	0.0135	0.0010

Mercury	-25237-07-23 21:21 J	-7496186.79	-7496186.61	-7496186.43	0.0135	0.0016
Mercury	-25237-10-20 03:35 J	-7496098.52	-7496098.35	-7496098.17	0.0135	0.0042
Mercury	-25236-01-16 10:04 J	-7496010.24	-7496010.08	-7496009.93	0.0135	0.0067
Mercury	-25236-04-14 16:04 J	-7495921.95	-7495921.83	-7495921.69	0.0135	0.0091
Mercury	-25236-07-11 22:04 J	-7495833.65	-7495833.58	-7495833.48	0.0135	0.0116
Mars	-25227-05-14 05:16 J	-7492605.57	-7492605.28	-7492604.97	0.0132	0.0045
Venus	-25214-01-04 10:19 J	-7487987.16	-7487987.07	-7487986.95	0.0133	0.0117
Venus	-25214-08-18 15:50 J	-7487760.98	-7487760.84	-7487760.68	0.0133	0.0096
Venus	-25213-03-31 21:07 J	-7487534.78	-7487534.62	-7487534.42	0.0133	0.0075
Venus	-25213-11-13 02:52 J	-7487308.57	-7487308.38	-7487308.17	0.0134	0.0053
Venus	-25212-06-27 08:23 J	-7487082.36	-7487082.15	-7487081.93	0.0134	0.0031
Venus	-25211-02-08 14:09 J	-7486856.13	-7486855.91	-7486855.69	0.0134	0.0010
Venus	-25211-09-22 19:40 J	-7486629.90	-7486629.68	-7486629.46	0.0134	0.0012
Venus	-25210-05-07 00:57 J	-7486403.66	-7486403.46	-7486403.24	0.0135	0.0035
Venus	-25210-12-19 06:43 J	-7486177.41	-7486177.22	-7486177.02	0.0135	0.0056
Venus	-25209-08-01 12:14 J	-7485951.15	-7485950.99	-7485950.80	0.0135	0.0078
Venus	-25208-03-15 17:45 J	-7485724.88	-7485724.76	-7485724.60	0.0135	0.0101
Venus	-25208-10-27 23:45 J	-7485498.59	-7485498.51	-7485498.41	0.0136	0.0122
Moon	-25199-05-13 18:14 J	-7482378.95	-7482378.74	-7482378.49	0.0140	0.0065
Earth	-25199-05-13 19:40 J	-7482378.89	-7482378.68	-7482378.44	0.0140	0.0059 *
Earth	-25198-05-18 09:50 J	-7482009.33	-7482009.09	-7482008.84	0.0140	0.0036
Moon	-25198-05-18 11:16 J	-7482009.26	-7482009.03	-7482008.79	0.0140	0.0040 *
Moon	-25197-05-21 23:45 J	-7481639.60	-7481639.51	-7481639.41	0.0141	0.0130
Earth	-25197-05-22 00:28 J	-7481639.55	-7481639.48	-7481639.38	0.0141	0.0131 *
Mercury	-25194-04-14 10:04 J	-7480582.12	-7480582.08	-7480582.03	0.0142	0.0132
Mercury	-25194-07-11 13:55 J	-7480494.00	-7480493.92	-7480493.83	0.0142	0.0110
Mercury	-25194-10-07 17:31 J	-7480405.87	-7480405.77	-7480405.65	0.0143	0.0089
Mercury	-25193-01-03 21:21 J	-7480317.72	-7480317.61	-7480317.48	0.0143	0.0067
Mercury	-25193-04-01 01:26 J	-7480229.57	-7480229.44	-7480229.31	0.0143	0.0044
Mercury	-25193-06-28 05:16 J	-7480141.42	-7480141.28	-7480141.14	0.0143	0.0021

Mercury	-25193-09-24 09:07 J	-7480053.26	-7480053.12	-7480052.98	0.0143	0.0003
Mercury	-25193-12-21 12:57 J	-7479965.09	-7479964.96	-7479964.82	0.0143	0.0026
Mercury	-25192-03-19 17:02 J	-7479876.92	-7479876.79	-7479876.66	0.0143	0.0048
Mercury	-25192-06-15 20:52 J	-7479788.74	-7479788.63	-7479788.50	0.0143	0.0072
Mercury	-25192-09-12 01:11 J	-7479700.56	-7479700.45	-7479700.35	0.0143	0.0095
Mercury	-25192-12-09 05:02 J	-7479612.36	-7479612.29	-7479612.21	0.0144	0.0119
Mercury	-25191-03-07 09:07 J	-7479524.13	-7479524.12	-7479524.10	0.0144	0.0143
Mars	-25185-10-04 06:57 J	-7477121.51	-7477121.21	-7477120.91	0.0146	0.0017
Venus	-25174-04-18 00:57 J	-7473273.51	-7473273.46	-7473273.40	0.0145	0.0141
Venus	-25174-11-30 13:11 J	-7473047.08	-7473046.95	-7473046.81	0.0145	0.0113
Venus	-25173-07-14 01:26 J	-7472820.61	-7472820.44	-7472820.26	0.0145	0.0086
Venus	-25172-02-25 13:26 J	-7472594.12	-7472593.94	-7472593.73	0.0145	0.0059
Venus	-25172-10-10 01:55 J	-7472367.63	-7472367.42	-7472367.21	0.0145	0.0031
Venus	-25171-05-24 13:55 J	-7472141.14	-7472140.92	-7472140.70	0.0144	0.0003
Venus	-25170-01-06 01:55 J	-7471914.63	-7471914.42	-7471914.20	0.0144	0.0024
Venus	-25170-08-20 13:40 J	-7471688.12	-7471687.93	-7471687.71	0.0144	0.0052
Venus	-25169-04-03 01:26 J	-7471461.61	-7471461.44	-7471461.24	0.0144	0.0079
Venus	-25169-11-15 13:11 J	-7471235.08	-7471234.95	-7471234.79	0.0143	0.0105
Venus	-25168-06-30 01:11 J	-7471008.53	-7471008.45	-7471008.36	0.0143	0.0131
Earth	-25161-11-10 01:26 J	-7468318.49	-7468318.44	-7468318.36	0.0139	0.0134
Moon	-25161-11-10 03:07 J	-7468318.44	-7468318.37	-7468318.29	0.0139	0.0133 *
Moon	-25160-11-14 19:26 J	-7467948.93	-7467948.69	-7467948.45	0.0139	0.0043
Earth	-25160-11-14 20:52 J	-7467948.88	-7467948.63	-7467948.38	0.0139	0.0039 *
Earth	-25159-11-19 14:52 J	-7467579.11	-7467578.88	-7467578.63	0.0138	0.0055
Moon	-25159-11-19 17:16 J	-7467579.00	-7467578.78	-7467578.53	0.0138	0.0063 *
Mercury	-25154-03-02 12:28 J	-7466014.98	-7466014.98	-7466014.95	0.0136	0.0136
Mercury	-25154-05-29 19:11 J	-7465926.80	-7465926.70	-7465926.58	0.0136	0.0109
Mercury	-25154-08-26 01:55 J	-7465838.56	-7465838.42	-7465838.27	0.0136	0.0083
Mercury	-25154-11-22 08:23 J	-7465750.31	-7465750.15	-7465749.97	0.0136	0.0057
Mercury	-25153-02-18 15:07 J	-7465662.05	-7465661.87	-7465661.69	0.0136	0.0030

Mercury	-25153-05-16 21:35 J	-7465573.78	-7465573.60	-7465573.42	0.0136	0.0005
Mercury	-25153-08-13 03:50 J	-7465485.51	-7465485.34	-7465485.16	0.0135	0.0021
Mercury	-25153-11-09 10:04 J	-7465397.24	-7465397.08	-7465396.90	0.0135	0.0047
Mercury	-25152-02-05 16:19 J	-7465308.96	-7465308.82	-7465308.66	0.0135	0.0072
Mercury	-25152-05-04 22:33 J	-7465220.67	-7465220.56	-7465220.43	0.0135	0.0096
Mercury	-25152-08-01 04:47 J	-7465132.37	-7465132.30	-7465132.21	0.0135	0.0120
Mars	-25144-02-04 04:04 J	-7462388.53	-7462388.33	-7462388.08	0.0133	0.0091
Mars	-25142-01-06 23:31 J	-7461686.65	-7461686.52	-7461686.34	0.0132	0.0115
Venus	-25131-09-03 19:11 J	-7457428.76	-7457428.70	-7457428.64	0.0133	0.0126
Venus	-25130-04-18 00:28 J	-7457202.61	-7457202.48	-7457202.34	0.0133	0.0106
Venus	-25130-11-30 05:45 J	-7456976.41	-7456976.26	-7456976.08	0.0133	0.0085
Venus	-25129-07-13 11:16 J	-7456750.21	-7456750.03	-7456749.83	0.0133	0.0063
Venus	-25128-02-24 16:47 J	-7456524.00	-7456523.80	-7456523.58	0.0134	0.0042
Venus	-25128-10-08 22:19 J	-7456297.78	-7456297.57	-7456297.35	0.0134	0.0020
Venus	-25127-05-23 03:50 J	-7456071.56	-7456071.34	-7456071.12	0.0134	0.0002
Venus	-25126-01-04 09:21 J	-7455845.32	-7455845.11	-7455844.89	0.0134	0.0024
Venus	-25126-08-18 15:07 J	-7455619.08	-7455618.87	-7455618.67	0.0135	0.0046
Venus	-25125-03-31 20:23 J	-7455392.83	-7455392.65	-7455392.46	0.0135	0.0068
Venus	-25125-11-13 01:55 J	-7455166.57	-7455166.42	-7455166.25	0.0135	0.0090
Venus	-25124-06-27 07:26 J	-7454940.29	-7454940.19	-7454940.05	0.0135	0.0113
Venus	-25123-02-08 13:40 J	-7454713.95	-7454713.93	-7454713.89	0.0136	0.0134
Moon	-25115-05-13 23:59 J	-7451697.73	-7451697.50	-7451697.25	0.0140	0.0050
Earth	-25115-05-14 02:23 J	-7451697.62	-7451697.40	-7451697.16	0.0140	0.0057 *
Earth	-25114-05-18 16:04 J	-7451328.06	-7451327.83	-7451327.57	0.0140	0.0038
Moon	-25114-05-18 17:59 J	-7451327.98	-7451327.75	-7451327.51	0.0140	0.0033 *
Moon	-25113-05-22 05:02 J	-7450958.36	-7450958.29	-7450958.19	0.0141	0.0133
Earth	-25113-05-22 06:43 J	-7450958.29	-7450958.22	-7450958.12	0.0141	0.0132 *
Mercury	-25110-05-04 16:33 J	-7449880.86	-7449880.81	-7449880.75	0.0142	0.0130
Mercury	-25110-07-31 20:23 J	-7449792.74	-7449792.65	-7449792.56	0.0142	0.0109
Mercury	-25110-10-28 00:14 J	-7449704.60	-7449704.49	-7449704.38	0.0143	0.0087

Mercury	-25109-01-24 03:50 J	-7449616.45	-7449616.34	-7449616.21	0.0143	0.0065
Mercury	-25109-04-21 07:55 J	-7449528.30	-7449528.17	-7449528.04	0.0143	0.0042
Mercury	-25109-07-18 11:45 J	-7449440.15	-7449440.01	-7449439.88	0.0143	0.0020
Mercury	-25109-10-14 15:35 J	-7449351.99	-7449351.85	-7449351.71	0.0143	0.0004
Mercury	-25108-01-10 19:26 J	-7449263.82	-7449263.69	-7449263.55	0.0143	0.0027
Mercury	-25108-04-08 23:31 J	-7449175.65	-7449175.52	-7449175.39	0.0143	0.0050
Mercury	-25108-07-06 03:21 J	-7449087.47	-7449087.36	-7449087.23	0.0143	0.0073
Mercury	-25108-10-02 07:26 J	-7448999.29	-7448999.19	-7448999.08	0.0143	0.0097
Mercury	-25108-12-29 11:31 J	-7448911.09	-7448911.02	-7448910.94	0.0144	0.0120
Mars	-25100-05-30 10:04 J	-7446202.32	-7446202.08	-7446201.79	0.0146	0.0070
Venus	-25090-07-30 16:33 J	-7442488.90	-7442488.81	-7442488.69	0.0145	0.0128
Venus	-25089-03-13 05:02 J	-7442262.44	-7442262.29	-7442262.13	0.0145	0.0100
Venus	-25089-10-25 17:02 J	-7442035.97	-7442035.79	-7442035.59	0.0145	0.0073
Venus	-25088-06-09 05:31 J	-7441809.48	-7441809.27	-7441809.06	0.0145	0.0045
Venus	-25087-01-21 17:31 J	-7441582.98	-7441582.77	-7441582.55	0.0144	0.0017
Venus	-25087-09-05 05:31 J	-7441356.48	-7441356.27	-7441356.05	0.0144	0.0011
Venus	-25086-04-19 17:31 J	-7441129.98	-7441129.77	-7441129.56	0.0144	0.0038
Venus	-25086-12-02 05:31 J	-7440903.47	-7440903.27	-7440903.08	0.0144	0.0065
Venus	-25085-07-15 17:02 J	-7440676.94	-7440676.79	-7440676.61	0.0143	0.0093
Venus	-25084-02-27 04:47 J	-7440450.40	-7440450.30	-7440450.16	0.0143	0.0119
Earth	-25077-11-10 07:40 J	-7437637.23	-7437637.18	-7437637.07	0.0139	0.0133
Moon	-25077-11-10 08:38 J	-7437637.22	-7437637.14	-7437637.05	0.0139	0.0132 *
Moon	-25076-11-15 02:09 J	-7437267.65	-7437267.41	-7437267.16	0.0139	0.0033
Earth	-25076-11-15 03:35 J	-7437267.60	-7437267.35	-7437267.10	0.0139	0.0037 *
Earth	-25075-11-19 21:50 J	-7436897.82	-7436897.59	-7436897.35	0.0138	0.0057
Moon	-25075-11-19 23:02 J	-7436897.78	-7436897.54	-7436897.28	0.0138	0.0051 *
Mercury	-25070-03-22 18:43 J	-7435313.75	-7435313.72	-7435313.67	0.0136	0.0132
Mercury	-25070-06-19 01:26 J	-7435225.54	-7435225.44	-7435225.32	0.0136	0.0106
Mercury	-25070-09-15 08:09 J	-7435137.30	-7435137.16	-7435137.01	0.0136	0.0079
Mercury	-25070-12-12 14:52 J	-7435049.05	-7435048.88	-7435048.71	0.0136	0.0053

Mercury	-25069-03-09 21:21 J	-7434960.79	-7434960.61	-7434960.43	0.0136	0.0027
Mercury	-25069-06-06 03:50 J	-7434872.52	-7434872.34	-7434872.16	0.0136	0.0002
Mercury	-25069-09-02 10:04 J	-7434784.25	-7434784.08	-7434783.90	0.0135	0.0024
Mercury	-25069-11-29 16:19 J	-7434695.98	-7434695.82	-7434695.64	0.0135	0.0050
Mercury	-25068-02-25 22:47 J	-7434607.70	-7434607.55	-7434607.40	0.0135	0.0075
Mercury	-25068-05-25 04:47 J	-7434519.41	-7434519.30	-7434519.17	0.0135	0.0100
Mercury	-25068-08-21 10:47 J	-7434431.10	-7434431.05	-7434430.96	0.0135	0.0124
Mars	-25060-09-29 19:40 J	-7431469.98	-7431469.68	-7431469.36	0.0133	0.0022
Venus	-25047-12-16 08:52 J	-7426644.22	-7426644.13	-7426644.01	0.0133	0.0116
Venus	-25046-07-30 14:38 J	-7426418.04	-7426417.89	-7426417.74	0.0133	0.0095
Venus	-25045-03-12 19:40 J	-7426191.85	-7426191.68	-7426191.48	0.0133	0.0074
Venus	-25045-10-25 01:11 J	-7425965.64	-7425965.45	-7425965.24	0.0134	0.0052
Venus	-25044-06-08 06:43 J	-7425739.43	-7425739.22	-7425739.00	0.0134	0.0030
Venus	-25043-01-20 12:28 J	-7425513.20	-7425512.98	-7425512.76	0.0134	0.0008
Venus	-25043-09-03 17:45 J	-7425286.97	-7425286.76	-7425286.54	0.0134	0.0015
Venus	-25042-04-17 23:16 J	-7425060.73	-7425060.53	-7425060.32	0.0134	0.0036
Venus	-25042-11-30 04:33 J	-7424834.49	-7424834.31	-7424834.10	0.0135	0.0059
Venus	-25041-07-13 10:33 J	-7424608.23	-7424608.06	-7424607.88	0.0135	0.0080
Venus	-25040-02-24 16:19 J	-7424381.96	-7424381.82	-7424381.68	0.0135	0.0102
Venus	-25040-10-08 21:50 J	-7424155.66	-7424155.59	-7424155.49	0.0135	0.0125
Moon	-25032-05-10 00:57 J	-7421385.48	-7421385.46	-7421385.44	0.0139	0.0138
Moon	-25031-05-14 08:09 J	-7421016.38	-7421016.16	-7421015.92	0.0140	0.0061
Earth	-25031-05-14 10:47 J	-7421016.28	-7421016.05	-7421015.82	0.0140	0.0054 *
Earth	-25030-05-19 00:28 J	-7420646.72	-7420646.48	-7420646.24	0.0140	0.0039
Moon	-25030-05-19 02:52 J	-7420646.61	-7420646.38	-7420646.14	0.0140	0.0045 *
Moon	-25029-05-22 12:14 J	-7420277.06	-7420276.99	-7420276.88	0.0141	0.0132
Earth	-25029-05-22 14:52 J	-7420276.95	-7420276.88	-7420276.80	0.0141	0.0134 *
Mercury	-25026-05-24 23:16 J	-7419179.58	-7419179.53	-7419179.46	0.0142	0.0127
Mercury	-25026-08-21 03:07 J	-7419091.46	-7419091.37	-7419091.28	0.0142	0.0105
Mercury	-25026-11-17 06:43 J	-7419003.32	-7419003.22	-7419003.10	0.0143	0.0084

Mercury	-25025-02-13 10:47 J	-7418915.17	-7418915.05	-7418914.93	0.0143	0.0061
Mercury	-25025-05-11 14:38 J	-7418827.02	-7418826.89	-7418826.76	0.0143	0.0039
Mercury	-25025-08-07 18:28 J	-7418738.87	-7418738.73	-7418738.59	0.0143	0.0016
Mercury	-25025-11-03 22:19 J	-7418650.70	-7418650.57	-7418650.43	0.0143	0.0008
Mercury	-25024-01-31 02:23 J	-7418562.54	-7418562.40	-7418562.27	0.0143	0.0030
Mercury	-25024-04-29 06:14 J	-7418474.37	-7418474.24	-7418474.11	0.0143	0.0053
Mercury	-25024-07-26 10:19 J	-7418386.19	-7418386.07	-7418385.95	0.0143	0.0076
Mercury	-25024-10-22 14:09 J	-7418298.00	-7418297.91	-7418297.80	0.0143	0.0100
Mercury	-25023-01-18 18:14 J	-7418209.80	-7418209.74	-7418209.66	0.0143	0.0124
Mars	-25017-02-20 05:59 J	-7415986.45	-7415986.25	-7415986.04	0.0146	0.0106
Venus	-25006-03-29 20:38 J	-7411930.67	-7411930.64	-7411930.58	0.0145	0.0142
Venus	-25006-11-11 09:07 J	-7411704.25	-7411704.12	-7411703.99	0.0145	0.0115
Venus	-25005-06-24 21:07 J	-7411477.78	-7411477.62	-7411477.43	0.0145	0.0087
Venus	-25004-02-06 09:35 J	-7411251.30	-7411251.10	-7411250.90	0.0145	0.0059
Venus	-25004-09-20 21:35 J	-7411024.81	-7411024.60	-7411024.39	0.0145	0.0031
Venus	-25003-05-05 09:35 J	-7410798.32	-7410798.10	-7410797.88	0.0144	0.0003
Venus	-25003-12-17 21:35 J	-7410571.82	-7410571.60	-7410571.39	0.0144	0.0024
Venus	-25002-08-01 09:21 J	-7410345.30	-7410345.11	-7410344.90	0.0144	0.0052
Venus	-25001-03-14 21:07 J	-7410118.79	-7410118.62	-7410118.42	0.0144	0.0080
Venus	-25001-10-27 08:52 J	-7409892.26	-7409892.13	-7409891.97	0.0143	0.0106

25TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 25th millennium BCE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Venus	-25000-06-10 20:23 J	-7409665.71	-7409665.65	-7409665.55	0.0143	0.0133
Moon	-24993-11-10 14:38 J	-7406955.97	-7406955.89	-7406955.77	0.0139	0.0130
Earth	-24993-11-10 14:52 J	-7406955.96	-7406955.88	-7406955.78	0.0139	0.0129 *
Moon	-24992-11-15 10:04 J	-7406586.31	-7406586.08	-7406585.83	0.0139	0.0038
Earth	-24992-11-15 10:19 J	-7406586.31	-7406586.07	-7406585.81	0.0139	0.0035 *
Earth	-24991-11-20 04:33 J	-7406216.53	-7406216.31	-7406216.07	0.0138	0.0059
Moon	-24991-11-20 05:59 J	-7406216.48	-7406216.25	-7406216.01	0.0138	0.0065 *
Mercury	-24986-04-12 00:43 J	-7404612.51	-7404612.47	-7404612.39	0.0136	0.0130
Mercury	-24986-07-09 07:40 J	-7404524.29	-7404524.18	-7404524.05	0.0136	0.0102
Mercury	-24986-10-05 14:09 J	-7404436.05	-7404435.91	-7404435.74	0.0136	0.0076
Mercury	-24985-01-01 20:52 J	-7404347.79	-7404347.63	-7404347.45	0.0136	0.0050
Mercury	-24985-03-30 03:35 J	-7404259.53	-7404259.35	-7404259.17	0.0136	0.0023
Mercury	-24985-06-26 10:04 J	-7404171.26	-7404171.08	-7404170.90	0.0136	0.0003
Mercury	-24985-09-22 16:19 J	-7404082.99	-7404082.82	-7404082.64	0.0136	0.0028
Mercury	-24985-12-19 22:33 J	-7403994.72	-7403994.56	-7403994.38	0.0135	0.0054
Mercury	-24984-03-18 04:47 J	-7403906.43	-7403906.30	-7403906.14	0.0135	0.0079
Mercury	-24984-06-14 11:02 J	-7403818.14	-7403818.04	-7403817.91	0.0135	0.0103
Mercury	-24984-09-10 17:31 J	-7403729.82	-7403729.77	-7403729.71	0.0135	0.0128
Mars	-24975-05-25 12:14 J	-7400551.27	-7400550.99	-7400550.68	0.0133	0.0049
Venus	-24963-08-15 17:59 J	-7396085.80	-7396085.75	-7396085.66	0.0133	0.0126
Venus	-24962-03-29 23:45 J	-7395859.64	-7395859.51	-7395859.38	0.0133	0.0105
Venus	-24962-11-11 04:47 J	-7395633.45	-7395633.30	-7395633.11	0.0133	0.0084
Venus	-24961-06-24 10:33 J	-7395407.25	-7395407.06	-7395406.86	0.0134	0.0062
Venus	-24960-02-05 16:04 J	-7395181.03	-7395180.83	-7395180.62	0.0134	0.0040
Venus	-24960-09-19 21:35 J	-7394954.82	-7394954.60	-7394954.38	0.0134	0.0018
Venus	-24959-05-04 03:07 J	-7394728.59	-7394728.37	-7394728.16	0.0134	0.0005
Venus	-24959-12-16 08:38 J	-7394502.35	-7394502.14	-7394501.93	0.0134	0.0026
Venus	-24958-07-30 14:09 J	-7394276.11	-7394275.91	-7394275.71	0.0135	0.0049
Venus	-24957-03-12 19:40 J	-7394049.86	-7394049.68	-7394049.49	0.0135	0.0071

Venus	-24957-10-25 01:11 J	-7393823.59	-7393823.45	-7393823.28	0.0135	0.0093
Venus	-24956-06-08 06:57 J	-7393597.31	-7393597.21	-7393597.09	0.0135	0.0115
Moon	-24947-05-14 17:16 J	-7390335.01	-7390334.78	-7390334.53	0.0140	0.0042
Earth	-24947-05-14 20:23 J	-7390334.87	-7390334.65	-7390334.40	0.0140	0.0050 *
Earth	-24946-05-19 10:04 J	-7389965.31	-7389965.08	-7389964.83	0.0140	0.0044
Moon	-24946-05-19 12:43 J	-7389965.20	-7389964.97	-7389964.73	0.0140	0.0039 *
Moon	-24945-05-22 21:50 J	-7389595.60	-7389595.59	-7389595.55	0.0141	0.0140
Earth	-24945-05-23 00:28 J	-7389595.51	-7389595.48	-7389595.42	0.0141	0.0138
Mercury	-24942-06-14 06:14 J	-7388478.29	-7388478.24	-7388478.16	0.0142	0.0123
Mercury	-24942-09-10 10:04 J	-7388390.16	-7388390.08	-7388389.97	0.0142	0.0101
Mercury	-24942-12-07 14:09 J	-7388302.02	-7388301.91	-7388301.80	0.0142	0.0078
Mercury	-24941-03-04 17:59 J	-7388213.88	-7388213.75	-7388213.63	0.0143	0.0056
Mercury	-24941-05-31 21:50 J	-7388125.72	-7388125.59	-7388125.46	0.0143	0.0033
Mercury	-24941-08-28 01:40 J	-7388037.57	-7388037.43	-7388037.29	0.0143	0.0010
Mercury	-24941-11-24 05:31 J	-7387949.40	-7387949.27	-7387949.13	0.0143	0.0013
Mercury	-24940-02-20 09:35 J	-7387861.24	-7387861.10	-7387860.97	0.0143	0.0036
Mercury	-24940-05-19 13:26 J	-7387773.06	-7387772.94	-7387772.81	0.0143	0.0059
Mercury	-24940-08-15 17:16 J	-7387684.88	-7387684.78	-7387684.66	0.0143	0.0083
Mercury	-24940-11-11 21:35 J	-7387596.69	-7387596.60	-7387596.51	0.0143	0.0106
Mercury	-24939-02-08 01:26 J	-7387508.49	-7387508.44	-7387508.37	0.0143	0.0130
Mars	-24933-10-15 16:33 J	-7385067.11	-7385066.81	-7385066.51	0.0146	0.0015
Venus	-24922-07-11 14:23 J	-7381145.98	-7381145.90	-7381145.78	0.0145	0.0129
Venus	-24921-02-23 02:52 J	-7380919.53	-7380919.38	-7380919.22	0.0145	0.0100
Venus	-24921-10-06 14:38 J	-7380693.06	-7380692.89	-7380692.69	0.0145	0.0073
Venus	-24920-05-21 02:52 J	-7380466.58	-7380466.38	-7380466.17	0.0145	0.0045
Venus	-24919-01-02 15:07 J	-7380240.09	-7380239.87	-7380239.66	0.0145	0.0016
Venus	-24919-08-17 03:07 J	-7380013.59	-7380013.37	-7380013.15	0.0144	0.0012
Venus	-24918-03-31 14:52 J	-7379787.09	-7379786.88	-7379786.67	0.0144	0.0039
Venus	-24918-11-13 02:38 J	-7379560.58	-7379560.39	-7379560.19	0.0144	0.0067
Venus	-24917-06-26 14:23 J	-7379334.05	-7379333.90	-7379333.73	0.0144	0.0094

Venus	-24916-02-08 01:55 J	-7379107.52	-7379107.42	-7379107.29	0.0143	0.0122
Moon	-24909-11-10 22:19 J	-7376274.69	-7376274.57	-7376274.45	0.0139	0.0124
Earth	-24909-11-10 23:16 J	-7376274.63	-7376274.53	-7376274.42	0.0139	0.0126 *
Moon	-24908-11-15 18:28 J	-7375904.97	-7375904.73	-7375904.48	0.0139	0.0028
Earth	-24908-11-15 18:43 J	-7375904.97	-7375904.72	-7375904.47	0.0139	0.0031 *
Moon	-24907-11-20 12:43 J	-7375535.20	-7375534.97	-7375534.71	0.0138	0.0057
Earth	-24907-11-20 12:43 J	-7375535.19	-7375534.97	-7375534.73	0.0138	0.0063 *
Mercury	-24902-05-02 07:26 J	-7373911.25	-7373911.19	-7373911.11	0.0136	0.0124
Mercury	-24902-07-29 13:55 J	-7373823.03	-7373822.92	-7373822.78	0.0136	0.0098
Mercury	-24902-10-25 20:52 J	-7373734.78	-7373734.63	-7373734.47	0.0136	0.0071
Mercury	-24901-01-22 03:21 J	-7373646.52	-7373646.36	-7373646.18	0.0136	0.0045
Mercury	-24901-04-19 10:04 J	-7373558.26	-7373558.08	-7373557.90	0.0136	0.0019
Mercury	-24901-07-16 16:33 J	-7373469.99	-7373469.81	-7373469.63	0.0136	0.0007
Mercury	-24901-10-12 22:47 J	-7373381.72	-7373381.55	-7373381.37	0.0135	0.0033
Mercury	-24900-01-09 05:16 J	-7373293.44	-7373293.28	-7373293.12	0.0135	0.0058
Mercury	-24900-04-07 11:16 J	-7373205.16	-7373205.03	-7373204.87	0.0135	0.0083
Mercury	-24900-07-04 17:45 J	-7373116.86	-7373116.76	-7373116.65	0.0135	0.0108
Mercury	-24900-09-30 23:45 J	-7373028.53	-7373028.51	-7373028.46	0.0135	0.0132
Mars	-24892-02-15 11:59 J	-7370334.23	-7370334.00	-7370333.76	0.0133	0.0086
Mars	-24890-01-18 05:59 J	-7369632.36	-7369632.25	-7369632.08	0.0133	0.0119
Venus	-24879-11-27 08:09 J	-7365301.25	-7365301.16	-7365301.03	0.0133	0.0115
Venus	-24878-07-11 13:40 J	-7365075.07	-7365074.93	-7365074.76	0.0133	0.0094
Venus	-24877-02-22 19:11 J	-7364848.87	-7364848.70	-7364848.51	0.0134	0.0072
Venus	-24877-10-06 00:43 J	-7364622.67	-7364622.47	-7364622.26	0.0134	0.0050
Venus	-24876-05-20 06:14 J	-7364396.45	-7364396.24	-7364396.02	0.0134	0.0028
Venus	-24875-01-01 11:59 J	-7364170.22	-7364170.00	-7364169.79	0.0134	0.0006
Venus	-24875-08-15 17:31 J	-7363943.99	-7363943.77	-7363943.56	0.0134	0.0017
Venus	-24874-03-29 23:02 J	-7363717.75	-7363717.54	-7363717.33	0.0134	0.0039
Venus	-24874-11-11 04:33 J	-7363491.50	-7363491.31	-7363491.12	0.0135	0.0061
Venus	-24873-06-24 10:19 J	-7363265.24	-7363265.07	-7363264.90	0.0135	0.0083

Venus	-24872-02-05 16:19 J	-7363038.96	-7363038.82	-7363038.69	0.0135	0.0106
Venus	-24872-09-19 22:04 J	-7362812.65	-7362812.58	-7362812.51	0.0135	0.0128
Earth	-24864-05-10 17:16 J	-7360022.81	-7360022.78	-7360022.71	0.0139	0.0136
Moon	-24864-05-10 20:52 J	-7360022.71	-7360022.63	-7360022.53	0.0139	0.0129 *
Moon	-24863-05-15 03:21 J	-7359653.59	-7359653.36	-7359653.12	0.0140	0.0052
Earth	-24863-05-15 06:28 J	-7359653.46	-7359653.23	-7359652.99	0.0140	0.0045 *
Earth	-24862-05-19 19:55 J	-7359283.89	-7359283.67	-7359283.42	0.0140	0.0048
Moon	-24862-05-19 23:16 J	-7359283.75	-7359283.53	-7359283.29	0.0140	0.0054 *
Moon	-24861-05-23 07:11 J	-7358914.22	-7358914.20	-7358914.14	0.0141	0.0139
Mercury	-24858-04-07 10:04 J	-7357865.11	-7357865.08	-7357865.05	0.0142	0.0138
Mercury	-24858-07-04 13:40 J	-7357777.00	-7357776.93	-7357776.85	0.0142	0.0116
Mercury	-24858-09-30 17:31 J	-7357688.87	-7357688.77	-7357688.66	0.0142	0.0094
Mercury	-24858-12-27 21:21 J	-7357600.72	-7357600.61	-7357600.49	0.0143	0.0072
Mercury	-24857-03-25 01:11 J	-7357512.58	-7357512.45	-7357512.32	0.0143	0.0050
Mercury	-24857-06-21 05:02 J	-7357424.42	-7357424.29	-7357424.15	0.0143	0.0027
Mercury	-24857-09-17 09:07 J	-7357336.26	-7357336.12	-7357335.99	0.0143	0.0006
Mercury	-24857-12-14 12:57 J	-7357248.10	-7357247.96	-7357247.82	0.0143	0.0019
Mercury	-24856-03-12 16:47 J	-7357159.93	-7357159.80	-7357159.66	0.0143	0.0042
Mercury	-24856-06-08 20:52 J	-7357071.75	-7357071.63	-7357071.51	0.0143	0.0065
Mercury	-24856-09-05 00:57 J	-7356983.57	-7356983.46	-7356983.35	0.0143	0.0089
Mercury	-24856-12-02 04:47 J	-7356895.38	-7356895.30	-7356895.21	0.0143	0.0112
Mercury	-24855-02-28 08:52 J	-7356807.16	-7356807.13	-7356807.08	0.0144	0.0136
Mars	-24848-06-11 06:14 J	-7354147.48	-7354147.24	-7354146.97	0.0146	0.0077
Venus	-24838-03-10 21:35 J	-7350587.65	-7350587.60	-7350587.55	0.0145	0.0141
Venus	-24838-10-23 09:21 J	-7350361.24	-7350361.11	-7350360.97	0.0145	0.0113
Venus	-24837-06-05 21:35 J	-7350134.77	-7350134.60	-7350134.42	0.0145	0.0085
Venus	-24836-01-18 09:35 J	-7349908.29	-7349908.10	-7349907.89	0.0145	0.0057
Venus	-24836-09-01 21:35 J	-7349681.81	-7349681.60	-7349681.38	0.0145	0.0029
Venus	-24835-04-16 09:35 J	-7349455.32	-7349455.10	-7349454.88	0.0144	0.0002
Venus	-24835-11-28 21:21 J	-7349228.82	-7349228.61	-7349228.39	0.0144	0.0027

Venus	-24834-07-13 09:21 J	-7349002.31	-7349002.11	-7349001.91	0.0144	0.0055
Venus	-24833-02-24 20:52 J	-7348775.80	-7348775.63	-7348775.44	0.0144	0.0083
Venus	-24833-10-08 08:38 J	-7348549.27	-7348549.14	-7348548.99	0.0143	0.0110
Venus	-24832-05-22 20:09 J	-7348322.71	-7348322.66	-7348322.59	0.0143	0.0136
Moon	-24825-11-11 07:40 J	-7345593.30	-7345593.18	-7345593.04	0.0139	0.0122
Earth	-24825-11-11 08:52 J	-7345593.25	-7345593.13	-7345592.99	0.0139	0.0121 *
Earth	-24824-11-16 04:04 J	-7345223.57	-7345223.33	-7345223.06	0.0139	0.0027
Moon	-24824-11-16 05:31 J	-7345223.52	-7345223.27	-7345223.03	0.0139	0.0028 *
Moon	-24823-11-20 22:04 J	-7344853.79	-7344853.58	-7344853.34	0.0138	0.0073
Earth	-24823-11-20 22:19 J	-7344853.79	-7344853.57	-7344853.34	0.0138	0.0067 *
Mercury	-24818-05-22 14:23 J	-7343209.98	-7343209.90	-7343209.81	0.0136	0.0118
Mercury	-24818-08-18 20:52 J	-7343121.75	-7343121.63	-7343121.48	0.0136	0.0092
Mercury	-24818-11-15 03:50 J	-7343033.50	-7343033.34	-7343033.18	0.0136	0.0065
Mercury	-24817-02-11 10:19 J	-7342945.24	-7342945.07	-7342944.89	0.0136	0.0039
Mercury	-24817-05-09 16:47 J	-7342856.98	-7342856.80	-7342856.61	0.0136	0.0014
Mercury	-24817-08-05 23:16 J	-7342768.71	-7342768.53	-7342768.34	0.0135	0.0013
Mercury	-24817-11-02 05:45 J	-7342680.43	-7342680.26	-7342680.08	0.0135	0.0038
Mercury	-24816-01-29 12:14 J	-7342592.15	-7342591.99	-7342591.83	0.0135	0.0064
Mercury	-24816-04-27 18:28 J	-7342503.86	-7342503.73	-7342503.59	0.0135	0.0089
Mercury	-24816-07-25 00:43 J	-7342415.56	-7342415.47	-7342415.37	0.0135	0.0113
Mars	-24808-10-11 06:43 J	-7339415.53	-7339415.22	-7339414.90	0.0133	0.0016
Jupiter	-24800-11-28 08:23 J	-7336445.45	-7336445.15	-7336444.78	0.0132	0.0100
Venus	-24795-07-27 17:16 J	-7334742.83	-7334742.78	-7334742.69	0.0133	0.0125
Venus	-24794-03-10 22:47 J	-7334516.68	-7334516.55	-7334516.40	0.0133	0.0104
Venus	-24794-10-23 04:19 J	-7334290.49	-7334290.32	-7334290.14	0.0133	0.0082
Venus	-24793-06-05 09:50 J	-7334064.28	-7334064.09	-7334063.90	0.0134	0.0060
Venus	-24792-01-17 15:21 J	-7333838.07	-7333837.86	-7333837.65	0.0134	0.0038
Venus	-24792-08-31 20:52 J	-7333611.85	-7333611.63	-7333611.41	0.0134	0.0016
Venus	-24791-04-15 02:23 J	-7333385.62	-7333385.40	-7333385.18	0.0134	0.0007
Venus	-24791-11-27 07:55 J	-7333159.38	-7333159.17	-7333158.96	0.0134	0.0029

Venus	-24790-07-11 13:26 J	-7332933.13	-7332932.94	-7332932.73	0.0135	0.0051
Venus	-24789-02-22 19:11 J	-7332706.87	-7332706.70	-7332706.51	0.0135	0.0074
Venus	-24789-10-06 00:57 J	-7332480.60	-7332480.46	-7332480.30	0.0135	0.0096
Venus	-24788-05-20 06:43 J	-7332254.31	-7332254.22	-7332254.10	0.0135	0.0119
Earth	-24780-05-11 02:23 J	-7329341.45	-7329341.40	-7329341.29	0.0139	0.0133
Moon	-24780-05-11 06:14 J	-7329341.24	-7329341.24	-7329341.22	0.0139	0.0139
Moon	-24779-05-15 11:59 J	-7328972.23	-7328972.00	-7328971.74	0.0140	0.0034
Earth	-24779-05-15 15:50 J	-7328972.07	-7328971.84	-7328971.60	0.0140	0.0041 *
Earth	-24778-05-20 05:16 J	-7328602.50	-7328602.28	-7328602.04	0.0140	0.0052
Moon	-24778-05-20 08:38 J	-7328602.37	-7328602.14	-7328601.90	0.0140	0.0046 *
Mercury	-24774-04-27 17:16 J	-7327163.83	-7327163.78	-7327163.73	0.0142	0.0133
Mercury	-24774-07-24 20:52 J	-7327075.71	-7327075.63	-7327075.54	0.0142	0.0111
Mercury	-24774-10-21 00:43 J	-7326987.57	-7326987.47	-7326987.36	0.0142	0.0089
Mercury	-24773-01-17 04:33 J	-7326899.43	-7326899.31	-7326899.19	0.0143	0.0067
Mercury	-24773-04-14 08:23 J	-7326811.28	-7326811.15	-7326811.02	0.0143	0.0044
Mercury	-24773-07-11 12:14 J	-7326723.12	-7326722.99	-7326722.85	0.0143	0.0022
Mercury	-24773-10-07 16:04 J	-7326634.96	-7326634.83	-7326634.69	0.0143	0.0005
Mercury	-24772-01-03 20:09 J	-7326546.80	-7326546.66	-7326546.52	0.0143	0.0024
Mercury	-24772-04-01 23:59 J	-7326458.63	-7326458.50	-7326458.37	0.0143	0.0048
Mercury	-24772-06-29 04:04 J	-7326370.45	-7326370.33	-7326370.21	0.0143	0.0071
Mercury	-24772-09-25 07:55 J	-7326282.27	-7326282.17	-7326282.06	0.0143	0.0095
Mercury	-24772-12-22 11:59 J	-7326194.07	-7326194.00	-7326193.92	0.0143	0.0118
Mercury	-24771-03-20 16:04 J	-7326105.84	-7326105.83	-7326105.80	0.0144	0.0142
Mars	-24765-03-03 06:43 J	-7323931.44	-7323931.22	-7323930.98	0.0146	0.0094
Jupiter	-24758-02-07 11:45 J	-7321399.54	-7321399.01	-7321398.48	0.0146	0.0009
Venus	-24754-06-22 16:33 J	-7319802.92	-7319802.81	-7319802.70	0.0145	0.0126
Venus	-24753-02-04 04:19 J	-7319576.47	-7319576.32	-7319576.15	0.0145	0.0098
Venus	-24753-09-17 16:19 J	-7319350.00	-7319349.82	-7319349.62	0.0145	0.0070
Venus	-24752-05-02 04:19 J	-7319123.52	-7319123.32	-7319123.10	0.0145	0.0041
Venus	-24752-12-14 16:19 J	-7318897.03	-7318896.82	-7318896.60	0.0145	0.0013

Venus	-24751-07-29 04:19 J	-7318670.53	-7318670.32	-7318670.10	0.0144	0.0015
Venus	-24750-03-12 16:04 J	-7318444.03	-7318443.83	-7318443.62	0.0144	0.0043
Venus	-24750-10-25 03:50 J	-7318217.52	-7318217.34	-7318217.14	0.0144	0.0071
Venus	-24749-06-07 15:21 J	-7317991.00	-7317990.86	-7317990.69	0.0144	0.0099
Venus	-24748-01-20 03:07 J	-7317764.46	-7317764.37	-7317764.26	0.0143	0.0126
Moon	-24741-11-11 17:02 J	-7314911.93	-7314911.79	-7314911.62	0.0139	0.0112
Earth	-24741-11-11 19:11 J	-7314911.83	-7314911.70	-7314911.54	0.0139	0.0115 *
Earth	-24740-11-16 14:23 J	-7314542.15	-7314541.90	-7314541.64	0.0139	0.0021
Moon	-24740-11-16 15:21 J	-7314542.10	-7314541.86	-7314541.60	0.0139	0.0019 *
Moon	-24739-11-21 07:11 J	-7314172.43	-7314172.20	-7314171.96	0.0138	0.0066
Earth	-24739-11-21 08:23 J	-7314172.36	-7314172.15	-7314171.92	0.0138	0.0071 *
Mercury	-24734-06-11 21:07 J	-7312508.71	-7312508.62	-7312508.50	0.0136	0.0112
Mercury	-24734-09-08 04:04 J	-7312420.47	-7312420.33	-7312420.18	0.0136	0.0085
Mercury	-24734-12-05 10:47 J	-7312332.21	-7312332.05	-7312331.88	0.0136	0.0059
Mercury	-24733-03-02 17:16 J	-7312243.95	-7312243.78	-7312243.60	0.0136	0.0033
Mercury	-24733-05-29 23:59 J	-7312155.69	-7312155.50	-7312155.32	0.0135	0.0007
Mercury	-24733-08-26 06:14 J	-7312067.41	-7312067.24	-7312067.05	0.0135	0.0019
Mercury	-24733-11-22 12:43 J	-7311979.14	-7311978.97	-7311978.80	0.0135	0.0044
Mercury	-24732-02-18 18:57 J	-7311890.86	-7311890.71	-7311890.55	0.0135	0.0070
Mercury	-24732-05-18 01:11 J	-7311802.57	-7311802.45	-7311802.31	0.0135	0.0095
Mercury	-24732-08-14 07:40 J	-7311714.26	-7311714.18	-7311714.10	0.0135	0.0119
Mars	-24723-06-05 23:31 J	-7308496.79	-7308496.52	-7308496.22	0.0133	0.0055
Venus	-24711-11-08 06:57 J	-7303958.31	-7303958.21	-7303958.09	0.0133	0.0114
Venus	-24710-06-22 12:28 J	-7303732.13	-7303731.98	-7303731.82	0.0133	0.0093
Venus	-24709-02-03 17:59 J	-7303505.93	-7303505.75	-7303505.56	0.0133	0.0071
Venus	-24709-09-16 23:16 J	-7303279.72	-7303279.53	-7303279.32	0.0134	0.0049
Venus	-24708-05-01 04:47 J	-7303053.51	-7303053.30	-7303053.08	0.0134	0.0027
Venus	-24708-12-13 10:33 J	-7302827.28	-7302827.06	-7302826.84	0.0134	0.0004
Venus	-24707-07-27 16:04 J	-7302601.04	-7302600.83	-7302600.61	0.0134	0.0018
Venus	-24706-03-10 21:50 J	-7302374.80	-7302374.59	-7302374.39	0.0134	0.0041

Venus	-24706-10-23 03:07 J	-7302148.55	-7302148.37	-7302148.17	0.0135	0.0064
Venus	-24705-06-05 08:52 J	-7301922.28	-7301922.13	-7301921.95	0.0135	0.0086
Venus	-24704-01-17 14:52 J	-7301696.00	-7301695.88	-7301695.74	0.0135	0.0109
Venus	-24704-08-31 21:07 J	-7301469.67	-7301469.62	-7301469.57	0.0135	0.0131
Earth	-24696-05-11 10:19 J	-7298660.15	-7298660.07	-7298659.97	0.0139	0.0129
Moon	-24696-05-11 14:09 J	-7298660.02	-7298659.91	-7298659.79	0.0139	0.0123 *
Moon	-24695-05-15 19:55 J	-7298290.90	-7298290.67	-7298290.43	0.0140	0.0046
Earth	-24695-05-15 23:16 J	-7298290.76	-7298290.53	-7298290.28	0.0140	0.0039 *
Earth	-24694-05-20 12:57 J	-7297921.18	-7297920.96	-7297920.72	0.0140	0.0054
Moon	-24694-05-20 16:47 J	-7297921.02	-7297920.80	-7297920.58	0.0140	0.0061 *
Mercury	-24690-05-17 23:59 J	-7296462.55	-7296462.50	-7296462.44	0.0142	0.0129
Mercury	-24690-08-14 03:50 J	-7296374.42	-7296374.34	-7296374.25	0.0142	0.0107
Mercury	-24690-11-10 07:26 J	-7296286.29	-7296286.19	-7296286.07	0.0143	0.0086
Mercury	-24689-02-06 11:31 J	-7296198.14	-7296198.02	-7296197.90	0.0143	0.0063
Mercury	-24689-05-04 15:21 J	-7296109.99	-7296109.86	-7296109.73	0.0143	0.0040
Mercury	-24689-07-31 19:11 J	-7296021.84	-7296021.70	-7296021.56	0.0143	0.0018
Mercury	-24689-10-27 23:02 J	-7295933.68	-7295933.54	-7295933.40	0.0143	0.0006
Mercury	-24688-01-24 03:07 J	-7295845.51	-7295845.37	-7295845.24	0.0143	0.0028
Mercury	-24688-04-22 06:57 J	-7295757.34	-7295757.21	-7295757.08	0.0143	0.0051
Mercury	-24688-07-19 11:02 J	-7295669.16	-7295669.04	-7295668.93	0.0143	0.0075
Mercury	-24688-10-15 14:52 J	-7295580.98	-7295580.88	-7295580.78	0.0143	0.0098
Mercury	-24687-01-11 18:43 J	-7295492.78	-7295492.72	-7295492.64	0.0144	0.0123
Mars	-24681-10-27 17:31 J	-7293012.07	-7293011.77	-7293011.46	0.0146	0.0004
Venus	-24670-02-19 22:19 J	-7289244.61	-7289244.57	-7289244.49	0.0146	0.0139
Venus	-24670-10-04 10:19 J	-7289018.19	-7289018.07	-7289017.91	0.0145	0.0112
Venus	-24669-05-17 22:19 J	-7288791.73	-7288791.57	-7288791.37	0.0145	0.0083
Venus	-24669-12-30 10:33 J	-7288565.25	-7288565.06	-7288564.85	0.0145	0.0054
Venus	-24668-08-13 22:33 J	-7288338.77	-7288338.56	-7288338.34	0.0145	0.0026
Venus	-24667-03-28 10:33 J	-7288112.28	-7288112.06	-7288111.84	0.0144	0.0003
Venus	-24667-11-09 22:19 J	-7287885.78	-7287885.57	-7287885.35	0.0144	0.0031

Venus	-24666-06-24 10:19 J	-7287659.26	-7287659.07	-7287658.87	0.0144	0.0059
Venus	-24665-02-05 22:04 J	-7287432.75	-7287432.58	-7287432.40	0.0144	0.0087
Venus	-24665-09-19 09:35 J	-7287206.22	-7287206.10	-7287205.96	0.0143	0.0114
Venus	-24664-05-03 21:07 J	-7286979.64	-7286979.62	-7286979.57	0.0143	0.0141
Moon	-24657-11-12 03:21 J	-7284230.52	-7284230.36	-7284230.21	0.0139	0.0112
Earth	-24657-11-12 05:31 J	-7284230.43	-7284230.27	-7284230.11	0.0139	0.0110 *
Earth	-24656-11-17 00:14 J	-7283860.74	-7283860.49	-7283860.23	0.0139	0.0017
Moon	-24656-11-17 02:38 J	-7283860.64	-7283860.39	-7283860.14	0.0139	0.0017 *
Moon	-24655-11-21 17:02 J	-7283491.01	-7283490.79	-7283490.57	0.0138	0.0081
Earth	-24655-11-21 17:45 J	-7283490.95	-7283490.76	-7283490.52	0.0138	0.0077 *
Mercury	-24650-04-04 21:35 J	-7281895.63	-7281895.60	-7281895.55	0.0136	0.0132
Mercury	-24650-07-02 04:33 J	-7281807.42	-7281807.31	-7281807.19	0.0136	0.0105
Mercury	-24650-09-28 11:02 J	-7281719.18	-7281719.04	-7281718.88	0.0136	0.0079
Mercury	-24650-12-25 17:45 J	-7281630.92	-7281630.76	-7281630.59	0.0136	0.0052
Mercury	-24649-03-23 00:14 J	-7281542.66	-7281542.49	-7281542.30	0.0136	0.0027
Mercury	-24649-06-19 06:57 J	-7281454.39	-7281454.21	-7281454.03	0.0135	0.0000
Mercury	-24649-09-15 13:26 J	-7281366.12	-7281365.94	-7281365.76	0.0135	0.0025
Mercury	-24649-12-12 19:40 J	-7281277.84	-7281277.68	-7281277.51	0.0135	0.0051
Mercury	-24648-03-11 01:55 J	-7281189.56	-7281189.42	-7281189.26	0.0135	0.0076
Mercury	-24648-06-07 08:09 J	-7281101.26	-7281101.16	-7281101.03	0.0135	0.0101
Mercury	-24648-09-03 14:23 J	-7281012.95	-7281012.90	-7281012.82	0.0135	0.0126
Mars	-24640-02-27 02:38 J	-7278279.62	-7278279.39	-7278279.12	0.0133	0.0079
Mars	-24638-01-29 17:31 J	-7277577.85	-7277577.77	-7277577.64	0.0132	0.0125
Venus	-24627-07-08 15:50 J	-7273399.91	-7273399.84	-7273399.77	0.0133	0.0124
Venus	-24626-02-19 20:52 J	-7273173.75	-7273173.63	-7273173.48	0.0133	0.0103
Venus	-24626-10-04 02:09 J	-7272947.57	-7272947.41	-7272947.22	0.0133	0.0082
Venus	-24625-05-17 07:40 J	-7272721.36	-7272721.18	-7272720.97	0.0133	0.0059
Venus	-24625-12-29 13:26 J	-7272495.15	-7272494.94	-7272494.73	0.0134	0.0037
Venus	-24624-08-12 18:57 J	-7272268.93	-7272268.71	-7272268.49	0.0134	0.0015
Venus	-24623-03-27 00:28 J	-7272042.70	-7272042.48	-7272042.27	0.0134	0.0008

Venus	-24623-11-08 05:59 J	-7271816.46	-7271816.25	-7271816.04	0.0134	0.0030
Venus	-24622-06-22 11:16 J	-7271590.21	-7271590.03	-7271589.82	0.0134	0.0054
Venus	-24621-02-03 17:16 J	-7271363.95	-7271363.78	-7271363.59	0.0135	0.0076
Venus	-24621-09-16 23:02 J	-7271137.68	-7271137.54	-7271137.38	0.0135	0.0098
Venus	-24620-05-01 05:02 J	-7270911.38	-7270911.29	-7270911.19	0.0135	0.0121
Earth	-24612-05-11 17:02 J	-7267978.88	-7267978.79	-7267978.69	0.0139	0.0127
Moon	-24612-05-11 20:09 J	-7267978.70	-7267978.66	-7267978.57	0.0139	0.0135 *
Moon	-24611-05-16 02:09 J	-7267609.64	-7267609.41	-7267609.16	0.0140	0.0030
Earth	-24611-05-16 05:59 J	-7267609.49	-7267609.25	-7267609.01	0.0140	0.0037 *
Earth	-24610-05-20 19:26 J	-7267239.92	-7267239.69	-7267239.46	0.0140	0.0056
Moon	-24610-05-20 22:33 J	-7267239.78	-7267239.56	-7267239.31	0.0140	0.0050 *
Mercury	-24606-06-07 06:43 J	-7265761.28	-7265761.22	-7265761.16	0.0142	0.0127
Mercury	-24606-09-03 10:33 J	-7265673.15	-7265673.06	-7265672.97	0.0142	0.0105
Mercury	-24606-11-30 14:09 J	-7265585.01	-7265584.91	-7265584.79	0.0143	0.0083
Mercury	-24605-02-26 17:59 J	-7265496.87	-7265496.75	-7265496.62	0.0143	0.0061
Mercury	-24605-05-24 21:50 J	-7265408.72	-7265408.59	-7265408.46	0.0143	0.0038
Mercury	-24605-08-21 01:40 J	-7265320.56	-7265320.43	-7265320.29	0.0143	0.0016
Mercury	-24605-11-17 05:45 J	-7265232.40	-7265232.26	-7265232.13	0.0143	0.0008
Mercury	-24604-02-13 09:35 J	-7265144.24	-7265144.10	-7265143.97	0.0143	0.0030
Mercury	-24604-05-12 13:26 J	-7265056.06	-7265055.94	-7265055.81	0.0143	0.0054
Mercury	-24604-08-08 17:16 J	-7264967.89	-7264967.78	-7264967.65	0.0143	0.0078
Mercury	-24604-11-04 21:21 J	-7264879.70	-7264879.61	-7264879.51	0.0143	0.0101
Mercury	-24603-02-01 01:26 J	-7264791.50	-7264791.44	-7264791.37	0.0144	0.0124
Mars	-24596-06-22 23:02 J	-7262092.77	-7262092.54	-7262092.28	0.0146	0.0083
Venus	-24586-06-03 14:38 J	-7258459.98	-7258459.89	-7258459.76	0.0146	0.0126
Venus	-24585-01-16 02:52 J	-7258233.53	-7258233.38	-7258233.21	0.0145	0.0097
Venus	-24585-08-29 15:07 J	-7258007.06	-7258006.87	-7258006.68	0.0145	0.0068
Venus	-24584-04-13 03:07 J	-7257780.58	-7257780.37	-7257780.16	0.0145	0.0040
Venus	-24584-11-25 15:07 J	-7257554.09	-7257553.87	-7257553.65	0.0145	0.0011
Venus	-24583-07-10 03:07 J	-7257327.58	-7257327.37	-7257327.15	0.0144	0.0018

Venus	-24582-02-21 14:52 J	-7257101.07	-7257100.88	-7257100.66	0.0144	0.0047
Venus	-24582-10-06 02:52 J	-7256874.56	-7256874.38	-7256874.18	0.0144	0.0074
Venus	-24581-05-19 14:38 J	-7256648.03	-7256647.89	-7256647.73	0.0144	0.0102
Venus	-24580-01-01 02:38 J	-7256421.48	-7256421.39	-7256421.30	0.0143	0.0129
Moon	-24573-11-12 10:33 J	-7253549.22	-7253549.06	-7253548.86	0.0139	0.0102
Earth	-24573-11-12 13:40 J	-7253549.08	-7253548.93	-7253548.75	0.0139	0.0106 *
Earth	-24572-11-17 08:52 J	-7253179.39	-7253179.13	-7253178.87	0.0139	0.0013
Moon	-24572-11-17 11:02 J	-7253179.29	-7253179.04	-7253178.79	0.0139	0.0011 *
Moon	-24571-11-22 00:14 J	-7252809.70	-7252809.49	-7252809.25	0.0138	0.0076
Earth	-24571-11-22 02:52 J	-7252809.59	-7252809.38	-7252809.16	0.0138	0.0079 *
Mercury	-24566-04-25 04:33 J	-7251194.37	-7251194.31	-7251194.24	0.0136	0.0126
Mercury	-24566-07-22 11:31 J	-7251106.15	-7251106.02	-7251105.90	0.0136	0.0099
Mercury	-24566-10-18 17:59 J	-7251017.90	-7251017.75	-7251017.59	0.0136	0.0073
Mercury	-24565-01-15 00:28 J	-7250929.64	-7250929.48	-7250929.30	0.0136	0.0047
Mercury	-24565-04-12 07:11 J	-7250841.38	-7250841.20	-7250841.02	0.0136	0.0021
Mercury	-24565-07-09 13:40 J	-7250753.11	-7250752.93	-7250752.74	0.0135	0.0007
Mercury	-24565-10-05 20:09 J	-7250664.83	-7250664.66	-7250664.48	0.0135	0.0031
Mercury	-24564-01-02 02:38 J	-7250576.55	-7250576.39	-7250576.22	0.0135	0.0057
Mercury	-24564-03-31 08:38 J	-7250488.27	-7250488.14	-7250487.98	0.0135	0.0082
Mercury	-24564-06-27 15:21 J	-7250399.97	-7250399.86	-7250399.75	0.0135	0.0106
Mercury	-24564-09-23 21:21 J	-7250311.64	-7250311.61	-7250311.56	0.0135	0.0131
Mars	-24556-10-22 19:11 J	-7247361.01	-7247360.70	-7247360.38	0.0133	0.0009
Venus	-24543-10-20 05:31 J	-7242615.38	-7242615.27	-7242615.16	0.0133	0.0113
Venus	-24542-06-03 10:19 J	-7242389.21	-7242389.07	-7242388.89	0.0133	0.0093
Venus	-24541-01-15 16:19 J	-7242163.00	-7242162.82	-7242162.63	0.0133	0.0070
Venus	-24541-08-28 21:35 J	-7241936.80	-7241936.60	-7241936.39	0.0133	0.0048
Venus	-24540-04-12 02:52 J	-7241710.58	-7241710.38	-7241710.16	0.0134	0.0026
Venus	-24540-11-24 08:38 J	-7241484.36	-7241484.14	-7241483.92	0.0134	0.0003
Venus	-24539-07-08 14:09 J	-7241258.12	-7241257.91	-7241257.69	0.0134	0.0020
Venus	-24538-02-19 19:55 J	-7241031.88	-7241031.67	-7241031.46	0.0134	0.0042

Venus	-24538-10-04 01:11 J	-7240805.62	-7240805.45	-7240805.24	0.0134	0.0066
Venus	-24537-05-17 06:57 J	-7240579.36	-7240579.21	-7240579.03	0.0135	0.0088
Venus	-24537-12-29 12:43 J	-7240353.07	-7240352.97	-7240352.83	0.0135	0.0111
Venus	-24536-08-12 18:43 J	-7240126.74	-7240126.72	-7240126.67	0.0135	0.0133
Earth	-24528-05-11 23:45 J	-7237297.61	-7237297.51	-7237297.40	0.0139	0.0126
Moon	-24528-05-12 02:52 J	-7237297.50	-7237297.38	-7237297.24	0.0139	0.0120 *
Moon	-24527-05-16 08:52 J	-7236928.35	-7236928.13	-7236927.88	0.0140	0.0043
Earth	-24527-05-16 12:28 J	-7236928.22	-7236927.98	-7236927.74	0.0140	0.0035 *
Earth	-24526-05-21 01:40 J	-7236558.65	-7236558.43	-7236558.19	0.0140	0.0057
Moon	-24526-05-21 05:16 J	-7236558.49	-7236558.28	-7236558.04	0.0140	0.0065 *
Mercury	-24522-06-27 13:11 J	-7235060.01	-7235059.95	-7235059.88	0.0142	0.0125
Mercury	-24522-09-23 17:02 J	-7234971.88	-7234971.79	-7234971.70	0.0142	0.0103
Mercury	-24522-12-20 20:38 J	-7234883.74	-7234883.64	-7234883.52	0.0143	0.0081
Mercury	-24521-03-18 00:28 J	-7234795.60	-7234795.48	-7234795.35	0.0143	0.0059
Mercury	-24521-06-14 04:19 J	-7234707.45	-7234707.32	-7234707.18	0.0143	0.0036
Mercury	-24521-09-10 08:09 J	-7234619.29	-7234619.16	-7234619.02	0.0143	0.0014
Mercury	-24521-12-07 12:14 J	-7234531.13	-7234530.99	-7234530.86	0.0143	0.0010
Mercury	-24520-03-05 16:04 J	-7234442.96	-7234442.83	-7234442.70	0.0143	0.0032
Mercury	-24520-06-01 19:55 J	-7234354.79	-7234354.67	-7234354.54	0.0143	0.0056
Mercury	-24520-08-28 23:45 J	-7234266.62	-7234266.51	-7234266.39	0.0143	0.0080
Mercury	-24520-11-25 03:50 J	-7234178.43	-7234178.34	-7234178.24	0.0144	0.0103
Mercury	-24519-02-21 07:40 J	-7234090.23	-7234090.18	-7234090.10	0.0144	0.0127
Mars	-24513-03-14 13:11 J	-7231877.17	-7231876.95	-7231876.71	0.0146	0.0094
Venus	-24502-01-31 18:28 J	-7227901.77	-7227901.73	-7227901.66	0.0146	0.0141
Venus	-24502-09-15 06:57 J	-7227675.35	-7227675.21	-7227675.07	0.0145	0.0112
Venus	-24501-04-28 18:43 J	-7227448.89	-7227448.72	-7227448.53	0.0145	0.0084
Venus	-24501-12-11 06:57 J	-7227222.41	-7227222.21	-7227222.01	0.0145	0.0055
Venus	-24500-07-25 19:11 J	-7226995.91	-7226995.70	-7226995.49	0.0145	0.0026
Venus	-24499-03-09 07:11 J	-7226769.42	-7226769.20	-7226768.98	0.0145	0.0003
Venus	-24499-10-21 19:11 J	-7226542.91	-7226542.70	-7226542.49	0.0144	0.0032

Venus	-24498-06-05 06:57 J	-7226316.40	-7226316.21	-7226316.00	0.0144	0.0060
Venus	-24497-01-17 18:57 J	-7226089.87	-7226089.71	-7226089.53	0.0144	0.0088
Venus	-24497-08-31 06:57 J	-7225863.33	-7225863.21	-7225863.08	0.0144	0.0116
Venus	-24496-04-14 18:43 J	-7225636.72	-7225636.72	-7225636.71	0.0143	0.0143
Moon	-24489-11-12 17:45 J	-7222867.91	-7222867.76	-7222867.58	0.0139	0.0107
Earth	-24489-11-12 20:52 J	-7222867.79	-7222867.63	-7222867.44	0.0139	0.0104 *
Earth	-24488-11-17 16:19 J	-7222498.08	-7222497.82	-7222497.56	0.0139	0.0010
Moon	-24488-11-17 19:26 J	-7222497.94	-7222497.69	-7222497.44	0.0139	0.0010 *
Moon	-24487-11-22 07:55 J	-7222128.36	-7222128.17	-7222127.95	0.0138	0.0086
Earth	-24487-11-22 10:19 J	-7222128.26	-7222128.07	-7222127.85	0.0138	0.0082 *
Mercury	-24482-05-15 11:02 J	-7220493.11	-7220493.04	-7220492.95	0.0136	0.0121
Mercury	-24482-08-11 17:59 J	-7220404.88	-7220404.75	-7220404.62	0.0136	0.0094
Mercury	-24482-11-08 00:28 J	-7220316.63	-7220316.48	-7220316.31	0.0136	0.0068
Mercury	-24481-02-04 07:11 J	-7220228.37	-7220228.20	-7220228.02	0.0136	0.0042
Mercury	-24481-05-02 13:55 J	-7220140.10	-7220139.92	-7220139.74	0.0136	0.0015
Mercury	-24481-07-29 20:23 J	-7220051.83	-7220051.65	-7220051.47	0.0135	0.0011
Mercury	-24481-10-26 02:52 J	-7219963.55	-7219963.38	-7219963.20	0.0135	0.0036
Mercury	-24480-01-22 09:21 J	-7219875.27	-7219875.11	-7219874.95	0.0135	0.0062
Mercury	-24480-04-20 15:21 J	-7219786.98	-7219786.86	-7219786.71	0.0135	0.0087
Mercury	-24480-07-17 22:04 J	-7219698.68	-7219698.58	-7219698.48	0.0135	0.0112
Mars	-24471-06-17 11:59 J	-7216442.26	-7216442.00	-7216441.71	0.0132	0.0062
Venus	-24459-06-19 14:23 J	-7212056.96	-7212056.90	-7212056.80	0.0133	0.0124
Venus	-24458-01-31 19:55 J	-7211830.79	-7211830.67	-7211830.51	0.0133	0.0102
Venus	-24458-09-15 01:26 J	-7211604.60	-7211604.44	-7211604.25	0.0133	0.0080
Venus	-24457-04-28 06:57 J	-7211378.40	-7211378.21	-7211378.01	0.0133	0.0058
Venus	-24457-12-10 12:28 J	-7211152.18	-7211151.98	-7211151.76	0.0133	0.0035
Venus	-24456-07-24 18:14 J	-7210925.96	-7210925.74	-7210925.53	0.0134	0.0013
Venus	-24455-03-07 23:45 J	-7210699.73	-7210699.51	-7210699.29	0.0134	0.0010
Venus	-24455-10-20 05:02 J	-7210473.49	-7210473.29	-7210473.07	0.0134	0.0033
Venus	-24454-06-03 10:47 J	-7210247.24	-7210247.05	-7210246.85	0.0134	0.0056

Venus	-24453-01-15 16:33 J	-7210020.98	-7210020.81	-7210020.62	0.0135	0.0078
Venus	-24453-08-28 22:19 J	-7209794.70	-7209794.57	-7209794.42	0.0135	0.0101
Venus	-24452-04-12 03:50 J	-7209568.40	-7209568.34	-7209568.24	0.0135	0.0124
Earth	-24444-05-12 08:52 J	-7206616.24	-7206616.13	-7206615.99	0.0139	0.0121
Moon	-24444-05-12 11:45 J	-7206616.09	-7206616.01	-7206615.88	0.0139	0.0127 *
Moon	-24443-05-16 18:43 J	-7206246.96	-7206246.72	-7206246.48	0.0140	0.0024
Earth	-24443-05-16 21:35 J	-7206246.83	-7206246.60	-7206246.34	0.0140	0.0032 *
Earth	-24442-05-21 11:02 J	-7205877.25	-7205877.04	-7205876.80	0.0140	0.0061
Moon	-24442-05-21 14:09 J	-7205877.13	-7205876.91	-7205876.66	0.0140	0.0054 *
Mercury	-24438-04-20 16:33 J	-7204446.81	-7204446.81	-7204446.80	0.0142	0.0142
Mercury	-24438-07-17 20:09 J	-7204358.72	-7204358.66	-7204358.58	0.0142	0.0120
Mercury	-24438-10-13 23:59 J	-7204270.60	-7204270.50	-7204270.40	0.0142	0.0098
Mercury	-24437-01-10 03:35 J	-7204182.46	-7204182.35	-7204182.23	0.0143	0.0077
Mercury	-24437-04-07 07:26 J	-7204094.31	-7204094.19	-7204094.06	0.0143	0.0054
Mercury	-24437-07-04 11:16 J	-7204006.16	-7204006.03	-7204005.89	0.0143	0.0032
Mercury	-24437-09-30 15:21 J	-7203918.00	-7203917.86	-7203917.73	0.0143	0.0010
Mercury	-24437-12-27 19:11 J	-7203829.84	-7203829.70	-7203829.57	0.0143	0.0014
Mercury	-24436-03-25 23:02 J	-7203741.67	-7203741.54	-7203741.41	0.0143	0.0037
Mercury	-24436-06-22 02:52 J	-7203653.50	-7203653.38	-7203653.25	0.0143	0.0060
Mercury	-24436-09-18 06:43 J	-7203565.32	-7203565.22	-7203565.10	0.0143	0.0084
Mercury	-24436-12-15 10:47 J	-7203477.14	-7203477.05	-7203476.95	0.0144	0.0107
Mercury	-24435-03-13 14:52 J	-7203388.93	-7203388.88	-7203388.82	0.0144	0.0131
Mars	-24429-11-07 22:19 J	-7200957.87	-7200957.57	-7200957.26	0.0146	0.0005
Venus	-24418-05-15 11:16 J	-7197117.12	-7197117.03	-7197116.91	0.0146	0.0127
Venus	-24418-12-27 23:31 J	-7196890.67	-7196890.52	-7196890.36	0.0145	0.0098
Venus	-24417-08-10 11:31 J	-7196664.20	-7196664.02	-7196663.82	0.0145	0.0069
Venus	-24416-03-24 23:45 J	-7196437.71	-7196437.51	-7196437.30	0.0145	0.0040
Venus	-24416-11-06 11:59 J	-7196211.22	-7196211.00	-7196210.79	0.0145	0.0011
Venus	-24415-06-20 23:59 J	-7195984.71	-7195984.50	-7195984.28	0.0144	0.0018
Venus	-24414-02-02 11:59 J	-7195758.20	-7195758.00	-7195757.79	0.0144	0.0047

Venus	-24414-09-16 23:45 J	-7195531.68	-7195531.51	-7195531.31	0.0144	0.0075
Venus	-24413-04-30 11:45 J	-7195305.15	-7195305.01	-7195304.85	0.0144	0.0103
Venus	-24413-12-12 23:31 J	-7195078.60	-7195078.52	-7195078.42	0.0143	0.0131
Moon	-24405-11-13 01:26 J	-7192186.63	-7192186.44	-7192186.25	0.0139	0.0095
Earth	-24405-11-13 04:33 J	-7192186.47	-7192186.31	-7192186.11	0.0139	0.0101 *
Earth	-24404-11-17 23:59 J	-7191816.75	-7191816.50	-7191816.24	0.0139	0.0007
Moon	-24404-11-18 03:07 J	-7191816.62	-7191816.37	-7191816.11	0.0139	0.0006 *
Moon	-24403-11-22 15:07 J	-7191447.07	-7191446.87	-7191446.65	0.0138	0.0082
Earth	-24403-11-22 18:28 J	-7191446.92	-7191446.73	-7191446.52	0.0138	0.0086 *
Mercury	-24398-06-04 17:45 J	-7189791.85	-7189791.76	-7189791.66	0.0136	0.0116
Mercury	-24398-09-01 00:28 J	-7189703.61	-7189703.48	-7189703.33	0.0136	0.0089
Mercury	-24398-11-28 07:11 J	-7189615.35	-7189615.20	-7189615.03	0.0136	0.0063
Mercury	-24397-02-24 13:55 J	-7189527.09	-7189526.92	-7189526.74	0.0136	0.0036
Mercury	-24397-05-22 20:38 J	-7189438.82	-7189438.64	-7189438.46	0.0136	0.0010
Mercury	-24397-08-19 03:07 J	-7189350.55	-7189350.37	-7189350.19	0.0135	0.0016
Mercury	-24397-11-15 09:35 J	-7189262.27	-7189262.10	-7189261.92	0.0135	0.0042
Mercury	-24396-02-11 15:50 J	-7189173.99	-7189173.84	-7189173.67	0.0135	0.0067
Mercury	-24396-05-10 22:04 J	-7189085.70	-7189085.58	-7189085.43	0.0135	0.0093
Mercury	-24396-08-07 04:19 J	-7188997.39	-7188997.32	-7188997.21	0.0135	0.0118
Mars	-24388-03-10 16:04 J	-7186225.07	-7186224.83	-7186224.54	0.0133	0.0071
Mars	-24386-02-10 06:28 J	-7185523.24	-7185523.23	-7185523.17	0.0132	0.0132
Venus	-24375-10-01 05:16 J	-7181272.38	-7181272.28	-7181272.15	0.0133	0.0112
Venus	-24374-05-15 10:47 J	-7181046.20	-7181046.05	-7181045.88	0.0133	0.0090
Venus	-24374-12-27 16:33 J	-7180820.00	-7180819.81	-7180819.62	0.0133	0.0068
Venus	-24373-08-09 21:50 J	-7180593.78	-7180593.59	-7180593.37	0.0133	0.0046
Venus	-24372-03-24 03:35 J	-7180367.57	-7180367.35	-7180367.14	0.0134	0.0023
Venus	-24372-11-05 09:07 J	-7180141.34	-7180141.12	-7180140.90	0.0134	0.0000
Venus	-24371-06-19 14:38 J	-7179915.10	-7179914.89	-7179914.67	0.0134	0.0023
Venus	-24370-01-31 20:09 J	-7179688.85	-7179688.66	-7179688.44	0.0134	0.0046
Venus	-24370-09-15 01:55 J	-7179462.60	-7179462.42	-7179462.22	0.0134	0.0069

Venus	-24369-04-28 07:26 J	-7179236.33	-7179236.19	-7179236.01	0.0135	0.0092
Venus	-24369-12-10 13:26 J	-7179010.04	-7179009.94	-7179009.82	0.0135	0.0114
Earth	-24360-05-12 19:11 J	-7175934.82	-7175934.70	-7175934.55	0.0139	0.0116
Moon	-24360-05-12 22:04 J	-7175934.73	-7175934.58	-7175934.42	0.0139	0.0110 *
Moon	-24359-05-17 05:16 J	-7175565.51	-7175565.28	-7175565.03	0.0140	0.0033
Earth	-24359-05-17 08:09 J	-7175565.41	-7175565.16	-7175564.91	0.0140	0.0026 *
Earth	-24358-05-21 21:50 J	-7175195.81	-7175195.59	-7175195.37	0.0140	0.0065
Moon	-24358-05-22 00:43 J	-7175195.67	-7175195.47	-7175195.24	0.0140	0.0073 *
Mercury	-24354-05-10 23:45 J	-7173745.54	-7173745.51	-7173745.47	0.0142	0.0136
Mercury	-24354-08-07 03:21 J	-7173657.43	-7173657.36	-7173657.27	0.0142	0.0115
Mercury	-24354-11-03 07:11 J	-7173569.30	-7173569.20	-7173569.09	0.0142	0.0093
Mercury	-24353-01-30 11:02 J	-7173481.16	-7173481.04	-7173480.92	0.0143	0.0070
Mercury	-24353-04-27 14:52 J	-7173393.01	-7173392.88	-7173392.75	0.0143	0.0048
Mercury	-24353-07-24 18:43 J	-7173304.86	-7173304.72	-7173304.59	0.0143	0.0026
Mercury	-24353-10-20 22:33 J	-7173216.70	-7173216.56	-7173216.42	0.0143	0.0003
Mercury	-24352-01-17 02:23 J	-7173128.53	-7173128.40	-7173128.26	0.0143	0.0020
Mercury	-24352-04-15 06:14 J	-7173040.37	-7173040.24	-7173040.10	0.0143	0.0043
Mercury	-24352-07-12 10:04 J	-7172952.19	-7172952.08	-7172951.95	0.0143	0.0066
Mercury	-24352-10-08 14:09 J	-7172864.01	-7172863.91	-7172863.80	0.0143	0.0089
Mercury	-24351-01-04 18:14 J	-7172775.82	-7172775.74	-7172775.66	0.0144	0.0113
Mercury	-24351-04-02 22:04 J	-7172687.61	-7172687.58	-7172687.53	0.0144	0.0137
Mars	-24344-07-04 13:11 J	-7170038.18	-7170037.95	-7170037.70	0.0146	0.0088
Venus	-24334-01-12 17:45 J	-7166558.80	-7166558.76	-7166558.69	0.0146	0.0140
Venus	-24334-08-27 06:14 J	-7166332.38	-7166332.24	-7166332.10	0.0146	0.0111
Venus	-24333-04-09 17:59 J	-7166105.92	-7166105.75	-7166105.56	0.0145	0.0082
Venus	-24333-11-22 06:14 J	-7165879.44	-7165879.24	-7165879.03	0.0145	0.0053
Venus	-24332-07-06 18:43 J	-7165652.94	-7165652.72	-7165652.51	0.0145	0.0024
Venus	-24331-02-18 06:43 J	-7165426.44	-7165426.22	-7165426.00	0.0145	0.0005
Venus	-24331-10-02 18:43 J	-7165199.93	-7165199.72	-7165199.51	0.0144	0.0034
Venus	-24330-05-17 06:28 J	-7164973.42	-7164973.23	-7164973.02	0.0144	0.0063

Venus	-24330-12-29 18:28 J	-7164746.89	-7164746.73	-7164746.56	0.0144	0.0091
Venus	-24329-08-12 06:14 J	-7164520.34	-7164520.24	-7164520.10	0.0144	0.0120
Saturn	-24322-06-05 23:31 J	-7162032.00	-7162031.52	-7162030.96	0.0140	0.0080
Moon	-24321-11-13 11:02 J	-7161505.21	-7161505.04	-7161504.84	0.0139	0.0099
Earth	-24321-11-13 14:38 J	-7161505.07	-7161504.89	-7161504.69	0.0139	0.0095 *
Earth	-24320-11-18 10:19 J	-7161135.33	-7161135.07	-7161134.81	0.0139	0.0002
Moon	-24320-11-18 13:55 J	-7161135.18	-7161134.92	-7161134.67	0.0139	0.0001 *
Moon	-24319-11-23 01:26 J	-7160765.62	-7160765.44	-7160765.24	0.0138	0.0094
Earth	-24319-11-23 04:33 J	-7160765.49	-7160765.31	-7160765.10	0.0138	0.0090 *
Mercury	-24314-03-28 18:28 J	-7159178.75	-7159178.73	-7159178.72	0.0136	0.0136
Mercury	-24314-06-25 00:57 J	-7159090.56	-7159090.46	-7159090.34	0.0136	0.0109
Mercury	-24314-09-21 07:40 J	-7159002.32	-7159002.18	-7159002.02	0.0136	0.0082
Mercury	-24314-12-18 14:23 J	-7158914.06	-7158913.90	-7158913.72	0.0136	0.0056
Mercury	-24313-03-15 21:07 J	-7158825.79	-7158825.62	-7158825.44	0.0136	0.0029
Mercury	-24313-06-12 03:50 J	-7158737.52	-7158737.34	-7158737.16	0.0136	0.0003
Mercury	-24313-09-08 10:19 J	-7158649.25	-7158649.07	-7158648.89	0.0135	0.0023
Mercury	-24313-12-05 16:47 J	-7158560.97	-7158560.80	-7158560.63	0.0135	0.0048
Mercury	-24312-03-03 23:16 J	-7158472.68	-7158472.53	-7158472.38	0.0135	0.0074
Mercury	-24312-05-31 05:31 J	-7158384.39	-7158384.27	-7158384.14	0.0135	0.0099
Mercury	-24312-08-27 11:45 J	-7158296.07	-7158296.01	-7158295.93	0.0135	0.0123
Mars	-24304-11-03 12:28 J	-7155306.30	-7155305.98	-7155305.67	0.0133	0.0002
Venus	-24291-05-31 15:21 J	-7150713.93	-7150713.86	-7150713.76	0.0133	0.0122
Venus	-24290-01-12 20:52 J	-7150487.76	-7150487.63	-7150487.47	0.0133	0.0100
Venus	-24290-08-27 02:38 J	-7150261.57	-7150261.39	-7150261.21	0.0133	0.0078
Venus	-24289-04-09 07:55 J	-7150035.36	-7150035.17	-7150034.96	0.0133	0.0055
Venus	-24289-11-21 13:26 J	-7149809.14	-7149808.94	-7149808.72	0.0134	0.0033
Venus	-24288-07-05 19:11 J	-7149582.91	-7149582.70	-7149582.48	0.0134	0.0010
Venus	-24287-02-17 00:57 J	-7149356.68	-7149356.46	-7149356.24	0.0134	0.0013
Venus	-24287-10-01 06:28 J	-7149130.44	-7149130.23	-7149130.02	0.0134	0.0036
Venus	-24286-05-15 11:59 J	-7148904.19	-7148904.00	-7148903.80	0.0134	0.0059

Venus	-24286-12-27 17:31 J	-7148677.92	-7148677.77	-7148677.58	0.0135	0.0083
Venus	-24285-08-09 23:31 J	-7148451.65	-7148451.52	-7148451.38	0.0135	0.0105
Venus	-24284-03-24 05:16 J	-7148225.34	-7148225.28	-7148225.21	0.0135	0.0128
Earth	-24276-05-13 06:28 J	-7145253.37	-7145253.23	-7145253.06	0.0139	0.0110
Moon	-24276-05-13 08:52 J	-7145253.26	-7145253.13	-7145252.97	0.0139	0.0115 *
Moon	-24275-05-17 17:16 J	-7144884.03	-7144883.78	-7144883.54	0.0140	0.0013
Earth	-24275-05-17 19:40 J	-7144883.92	-7144883.68	-7144883.43	0.0140	0.0020 *
Earth	-24274-05-22 09:21 J	-7144514.32	-7144514.11	-7144513.89	0.0140	0.0071
Moon	-24274-05-22 11:59 J	-7144514.23	-7144514.00	-7144513.77	0.0140	0.0064 *
Mercury	-24270-05-31 07:11 J	-7143044.25	-7143044.20	-7143044.14	0.0142	0.0130
Mercury	-24270-08-27 11:02 J	-7142956.13	-7142956.04	-7142955.95	0.0142	0.0108
Mercury	-24270-11-23 14:52 J	-7142867.99	-7142867.88	-7142867.78	0.0143	0.0086
Mercury	-24269-02-19 18:28 J	-7142779.85	-7142779.73	-7142779.60	0.0143	0.0064
Mercury	-24269-05-17 22:19 J	-7142691.70	-7142691.57	-7142691.44	0.0143	0.0041
Mercury	-24269-08-14 02:09 J	-7142603.55	-7142603.41	-7142603.27	0.0143	0.0019
Mercury	-24269-11-10 05:59 J	-7142515.39	-7142515.25	-7142515.11	0.0143	0.0004
Mercury	-24268-02-06 09:50 J	-7142427.22	-7142427.09	-7142426.95	0.0143	0.0027
Mercury	-24268-05-05 13:40 J	-7142339.05	-7142338.93	-7142338.79	0.0143	0.0050
Mercury	-24268-08-01 17:31 J	-7142250.88	-7142250.77	-7142250.64	0.0143	0.0074
Mercury	-24268-10-28 21:35 J	-7142162.70	-7142162.60	-7142162.49	0.0144	0.0097
Mercury	-24267-01-25 01:40 J	-7142074.50	-7142074.43	-7142074.35	0.0144	0.0120
Mars	-24261-03-26 13:40 J	-7139822.16	-7139821.93	-7139821.65	0.0146	0.0082
Venus	-24250-04-26 13:26 J	-7135774.04	-7135773.94	-7135773.82	0.0146	0.0124
Venus	-24250-12-09 01:40 J	-7135547.59	-7135547.43	-7135547.26	0.0145	0.0095
Venus	-24249-07-22 13:40 J	-7135321.11	-7135320.93	-7135320.72	0.0145	0.0066
Venus	-24248-03-06 02:09 J	-7135094.62	-7135094.41	-7135094.20	0.0145	0.0036
Venus	-24248-10-18 14:09 J	-7134868.12	-7134867.91	-7134867.69	0.0145	0.0008
Venus	-24247-06-02 02:09 J	-7134641.62	-7134641.41	-7134641.19	0.0145	0.0022
Venus	-24246-01-14 14:09 J	-7134415.11	-7134414.91	-7134414.70	0.0144	0.0051
Venus	-24246-08-29 01:55 J	-7134188.59	-7134188.42	-7134188.22	0.0144	0.0080

Venus	-24245-04-11 13:55 J	-7133962.05	-7133961.92	-7133961.77	0.0144	0.0108
Venus	-24245-11-24 01:55 J	-7133735.49	-7133735.42	-7133735.35	0.0143	0.0136
Moon	-24237-11-13 22:33 J	-7130823.75	-7130823.56	-7130823.34	0.0139	0.0083
Earth	-24237-11-14 02:09 J	-7130823.59	-7130823.41	-7130823.19	0.0139	0.0088 *
Earth	-24236-11-18 21:50 J	-7130453.85	-7130453.59	-7130453.33	0.0139	0.0005
Moon	-24236-11-19 01:11 J	-7130453.70	-7130453.45	-7130453.19	0.0139	0.0006 *
Moon	-24235-11-23 12:14 J	-7130084.16	-7130083.99	-7130083.78	0.0138	0.0095
Earth	-24235-11-23 16:19 J	-7130084.00	-7130083.82	-7130083.63	0.0138	0.0097 *
Mercury	-24230-04-18 01:40 J	-7128477.48	-7128477.43	-7128477.36	0.0136	0.0127
Mercury	-24230-07-15 08:23 J	-7128389.26	-7128389.15	-7128389.02	0.0136	0.0101
Mercury	-24230-10-11 15:07 J	-7128301.01	-7128300.87	-7128300.70	0.0136	0.0074
Mercury	-24229-01-07 21:50 J	-7128212.75	-7128212.59	-7128212.41	0.0136	0.0048
Mercury	-24229-04-05 04:33 J	-7128124.49	-7128124.31	-7128124.12	0.0136	0.0022
Mercury	-24229-07-02 11:16 J	-7128036.21	-7128036.03	-7128035.85	0.0135	0.0005
Mercury	-24229-09-28 17:45 J	-7127947.94	-7127947.76	-7127947.58	0.0135	0.0030
Mercury	-24229-12-25 23:59 J	-7127859.66	-7127859.50	-7127859.33	0.0135	0.0056
Mercury	-24228-03-24 06:28 J	-7127771.37	-7127771.23	-7127771.08	0.0135	0.0081
Mercury	-24228-06-20 12:43 J	-7127683.07	-7127682.97	-7127682.85	0.0135	0.0106
Mercury	-24228-09-16 18:57 J	-7127594.74	-7127594.71	-7127594.66	0.0135	0.0131
Mars	-24221-07-27 21:07 J	-7125088.68	-7125088.62	-7125088.52	0.0133	0.0128
Mars	-24219-06-29 08:38 J	-7124387.38	-7124387.14	-7124386.85	0.0132	0.0073
Venus	-24207-01-29 00:57 J	-7120155.46	-7120155.46	-7120155.42	0.0133	0.0132
Venus	-24207-09-12 06:28 J	-7119929.34	-7119929.23	-7119929.09	0.0133	0.0110
Venus	-24206-04-26 11:45 J	-7119703.15	-7119703.01	-7119702.83	0.0133	0.0088
Venus	-24206-12-08 17:31 J	-7119476.95	-7119476.77	-7119476.57	0.0133	0.0065
Venus	-24205-07-21 23:16 J	-7119250.73	-7119250.53	-7119250.32	0.0133	0.0043
Venus	-24204-03-05 04:47 J	-7119024.51	-7119024.30	-7119024.08	0.0134	0.0020
Venus	-24204-10-17 10:19 J	-7118798.29	-7118798.07	-7118797.85	0.0134	0.0004
Venus	-24203-05-31 15:50 J	-7118572.05	-7118571.84	-7118571.62	0.0134	0.0026
Venus	-24202-01-12 21:35 J	-7118345.80	-7118345.60	-7118345.40	0.0134	0.0049

Venus	-24202-08-27 03:07 J	-7118119.54	-7118119.37	-7118119.18	0.0134	0.0073
Venus	-24201-04-09 08:38 J	-7117893.28	-7117893.14	-7117892.98	0.0135	0.0096
Venus	-24201-11-21 14:09 J	-7117666.99	-7117666.91	-7117666.79	0.0135	0.0119
Earth	-24192-05-13 16:33 J	-7114571.96	-7114571.81	-7114571.63	0.0139	0.0105
Moon	-24192-05-13 18:28 J	-7114571.90	-7114571.73	-7114571.54	0.0139	0.0100 *
Moon	-24191-05-18 03:50 J	-7114202.58	-7114202.34	-7114202.10	0.0140	0.0022
Earth	-24191-05-18 05:45 J	-7114202.51	-7114202.26	-7114202.01	0.0140	0.0015 *
Earth	-24190-05-22 19:26 J	-7113832.90	-7113832.69	-7113832.48	0.0140	0.0076
Moon	-24190-05-22 21:35 J	-7113832.79	-7113832.60	-7113832.37	0.0140	0.0084 *
Mercury	-24186-06-20 14:23 J	-7112342.96	-7112342.90	-7112342.83	0.0142	0.0124
Mercury	-24186-09-16 18:14 J	-7112254.83	-7112254.74	-7112254.65	0.0143	0.0102
Mercury	-24186-12-13 21:50 J	-7112166.69	-7112166.59	-7112166.47	0.0143	0.0081
Mercury	-24185-03-11 01:40 J	-7112078.55	-7112078.43	-7112078.30	0.0143	0.0058
Mercury	-24185-06-07 05:31 J	-7111990.40	-7111990.27	-7111990.13	0.0143	0.0036
Mercury	-24185-09-03 09:21 J	-7111902.24	-7111902.11	-7111901.97	0.0143	0.0014
Mercury	-24185-11-30 13:11 J	-7111814.08	-7111813.95	-7111813.81	0.0143	0.0010
Mercury	-24184-02-26 17:02 J	-7111725.92	-7111725.79	-7111725.65	0.0143	0.0033
Mercury	-24184-05-25 21:07 J	-7111637.75	-7111637.62	-7111637.49	0.0143	0.0056
Mercury	-24184-08-22 00:57 J	-7111549.57	-7111549.46	-7111549.34	0.0143	0.0079
Mercury	-24184-11-18 04:47 J	-7111461.39	-7111461.30	-7111461.20	0.0144	0.0103
Mercury	-24183-02-14 08:52 J	-7111373.19	-7111373.13	-7111373.06	0.0144	0.0126
Mars	-24177-11-20 07:40 J	-7108902.48	-7108902.18	-7108901.87	0.0146	0.0013
Venus	-24167-12-24 21:07 J	-7105215.67	-7105215.62	-7105215.52	0.0146	0.0137
Venus	-24166-08-08 09:35 J	-7104989.23	-7104989.10	-7104988.94	0.0146	0.0107
Venus	-24165-03-21 21:50 J	-7104762.76	-7104762.59	-7104762.40	0.0145	0.0078
Venus	-24165-11-03 10:19 J	-7104536.28	-7104536.07	-7104535.87	0.0145	0.0049
Venus	-24164-06-17 22:19 J	-7104309.78	-7104309.57	-7104309.35	0.0145	0.0019
Venus	-24163-01-30 10:33 J	-7104083.28	-7104083.06	-7104082.84	0.0145	0.0010
Venus	-24163-09-13 22:33 J	-7103856.77	-7103856.56	-7103856.35	0.0144	0.0040
Venus	-24162-04-28 10:19 J	-7103630.26	-7103630.07	-7103629.87	0.0144	0.0069

Venus	-24162-12-10 22:04 J	-7103403.73	-7103403.58	-7103403.41	0.0144	0.0097
Venus	-24161-07-24 09:50 J	-7103177.17	-7103177.09	-7103176.97	0.0144	0.0126
Moon	-24153-11-14 11:16 J	-7100142.23	-7100142.03	-7100141.82	0.0139	0.0085
Earth	-24153-11-14 14:38 J	-7100142.08	-7100141.89	-7100141.66	0.0139	0.0081 *
Earth	-24152-11-19 10:19 J	-7099772.33	-7099772.07	-7099771.81	0.0139	0.0012
Moon	-24152-11-19 14:09 J	-7099772.17	-7099771.91	-7099771.65	0.0139	0.0014 *
Moon	-24151-11-24 00:57 J	-7099402.60	-7099402.46	-7099402.27	0.0138	0.0107
Earth	-24151-11-24 04:33 J	-7099402.46	-7099402.31	-7099402.12	0.0138	0.0104 *
Mercury	-24146-05-08 09:35 J	-7097776.19	-7097776.10	-7097776.01	0.0136	0.0118
Mercury	-24146-08-04 16:04 J	-7097687.95	-7097687.83	-7097687.68	0.0136	0.0092
Mercury	-24146-10-31 23:02 J	-7097599.70	-7097599.54	-7097599.38	0.0136	0.0065
Mercury	-24145-01-28 05:45 J	-7097511.44	-7097511.26	-7097511.08	0.0136	0.0039
Mercury	-24145-04-25 12:14 J	-7097423.17	-7097422.99	-7097422.80	0.0136	0.0013
Mercury	-24145-07-22 18:57 J	-7097334.89	-7097334.71	-7097334.53	0.0135	0.0013
Mercury	-24145-10-19 01:11 J	-7097246.62	-7097246.45	-7097246.27	0.0135	0.0039
Mercury	-24144-01-15 07:40 J	-7097158.33	-7097158.18	-7097158.01	0.0135	0.0064
Mercury	-24144-04-13 14:09 J	-7097070.04	-7097069.91	-7097069.77	0.0135	0.0089
Mercury	-24144-07-10 20:23 J	-7096981.74	-7096981.65	-7096981.55	0.0135	0.0114
Mars	-24136-03-22 18:28 J	-7094170.00	-7094169.73	-7094169.43	0.0133	0.0057
Venus	-24123-05-12 16:33 J	-7089370.89	-7089370.81	-7089370.71	0.0133	0.0120
Venus	-24123-12-24 21:50 J	-7089144.72	-7089144.59	-7089144.42	0.0133	0.0098
Venus	-24122-08-08 03:35 J	-7088918.52	-7088918.35	-7088918.16	0.0133	0.0075
Venus	-24121-03-21 09:07 J	-7088692.32	-7088692.12	-7088691.91	0.0133	0.0052
Venus	-24121-11-02 14:38 J	-7088466.10	-7088465.89	-7088465.68	0.0133	0.0030
Venus	-24120-06-16 20:09 J	-7088239.88	-7088239.66	-7088239.44	0.0134	0.0007
Venus	-24119-01-29 01:40 J	-7088013.64	-7088013.43	-7088013.21	0.0134	0.0017
Venus	-24119-09-12 06:57 J	-7087787.40	-7087787.21	-7087786.99	0.0134	0.0040
Venus	-24118-04-26 12:43 J	-7087561.16	-7087560.97	-7087560.77	0.0134	0.0063
Venus	-24118-12-08 18:14 J	-7087334.90	-7087334.74	-7087334.57	0.0135	0.0086
Venus	-24117-07-21 23:59 J	-7087108.62	-7087108.50	-7087108.37	0.0135	0.0109

Venus	-24116-03-05 05:45 J	-7086882.29	-7086882.26	-7086882.21	0.0135	0.0132
Earth	-24108-05-14 02:38 J	-7083890.57	-7083890.39	-7083890.22	0.0139	0.0101
Moon	-24108-05-14 03:21 J	-7083890.51	-7083890.36	-7083890.17	0.0139	0.0105 *
Moon	-24107-05-18 13:40 J	-7083521.17	-7083520.93	-7083520.68	0.0140	0.0005
Earth	-24107-05-18 15:21 J	-7083521.11	-7083520.86	-7083520.61	0.0140	0.0011 *
Earth	-24106-05-23 04:33 J	-7083151.50	-7083151.31	-7083151.09	0.0140	0.0080
Moon	-24106-05-23 06:28 J	-7083151.44	-7083151.23	-7083151.00	0.0140	0.0073 *
Mercury	-24102-04-13 17:45 J	-7081729.76	-7081729.76	-7081729.74	0.0142	0.0141
Mercury	-24102-07-10 21:35 J	-7081641.67	-7081641.60	-7081641.53	0.0142	0.0120
Mercury	-24102-10-07 01:11 J	-7081553.54	-7081553.45	-7081553.35	0.0143	0.0098
Mercury	-24101-01-03 05:02 J	-7081465.40	-7081465.29	-7081465.17	0.0143	0.0076
Mercury	-24101-03-31 08:52 J	-7081377.26	-7081377.13	-7081377.00	0.0143	0.0053
Mercury	-24101-06-27 12:43 J	-7081289.10	-7081288.97	-7081288.84	0.0143	0.0031
Mercury	-24101-09-23 16:33 J	-7081200.95	-7081200.81	-7081200.68	0.0143	0.0009
Mercury	-24101-12-20 20:23 J	-7081112.79	-7081112.65	-7081112.51	0.0143	0.0014
Mercury	-24100-03-19 00:14 J	-7081024.62	-7081024.49	-7081024.36	0.0143	0.0037
Mercury	-24100-06-15 04:04 J	-7080936.45	-7080936.33	-7080936.20	0.0143	0.0061
Mercury	-24100-09-11 08:09 J	-7080848.27	-7080848.16	-7080848.05	0.0143	0.0084
Mercury	-24100-12-08 11:59 J	-7080760.09	-7080760.00	-7080759.90	0.0144	0.0108
Mercury	-24099-03-06 15:50 J	-7080671.88	-7080671.84	-7080671.77	0.0144	0.0132
Mars	-24092-07-16 21:35 J	-7077982.81	-7077982.60	-7077982.39	0.0146	0.0104
Venus	-24082-04-07 16:19 J	-7074430.92	-7074430.82	-7074430.68	0.0146	0.0121
Venus	-24082-11-20 04:33 J	-7074204.46	-7074204.31	-7074204.13	0.0146	0.0092
Venus	-24081-07-03 17:16 J	-7073977.97	-7073977.78	-7073977.58	0.0145	0.0062
Venus	-24080-02-15 05:31 J	-7073751.48	-7073751.27	-7073751.06	0.0145	0.0032
Venus	-24080-09-29 17:31 J	-7073524.98	-7073524.77	-7073524.55	0.0145	0.0003
Venus	-24079-05-14 05:31 J	-7073298.48	-7073298.27	-7073298.05	0.0145	0.0027
Venus	-24079-12-26 17:31 J	-7073071.97	-7073071.77	-7073071.56	0.0144	0.0056
Venus	-24078-08-10 05:31 J	-7072845.44	-7072845.27	-7072845.09	0.0144	0.0085
Venus	-24077-03-23 17:16 J	-7072618.90	-7072618.78	-7072618.64	0.0144	0.0114

Venus	-24077-11-05 05:16 J	-7072392.31	-7072392.28	-7072392.25	0.0144	0.0142
Moon	-24069-11-14 23:31 J	-7069460.74	-7069460.52	-7069460.30	0.0139	0.0068
Earth	-24069-11-15 02:52 J	-7069460.59	-7069460.38	-7069460.16	0.0139	0.0074 *
Earth	-24068-11-19 22:19 J	-7069090.82	-7069090.57	-7069090.31	0.0139	0.0019
Moon	-24068-11-20 01:55 J	-7069090.67	-7069090.42	-7069090.16	0.0139	0.0019 *
Moon	-24067-11-24 12:57 J	-7068721.11	-7068720.96	-7068720.79	0.0138	0.0108
Earth	-24067-11-24 17:02 J	-7068720.95	-7068720.79	-7068720.64	0.0138	0.0110 *
Mercury	-24062-05-28 17:02 J	-7067074.89	-7067074.79	-7067074.67	0.0136	0.0110
Mercury	-24062-08-24 23:59 J	-7066986.65	-7066986.50	-7066986.35	0.0136	0.0083
Mercury	-24062-11-21 06:28 J	-7066898.39	-7066898.23	-7066898.05	0.0136	0.0057
Mercury	-24061-02-17 13:11 J	-7066810.12	-7066809.95	-7066809.77	0.0136	0.0031
Mercury	-24061-05-15 19:55 J	-7066721.85	-7066721.67	-7066721.49	0.0136	0.0004
Mercury	-24061-08-12 02:23 J	-7066633.58	-7066633.40	-7066633.22	0.0135	0.0022
Mercury	-24061-11-08 08:52 J	-7066545.30	-7066545.13	-7066544.96	0.0135	0.0047
Mercury	-24060-02-04 15:21 J	-7066457.01	-7066456.86	-7066456.71	0.0135	0.0072
Mercury	-24060-05-03 21:35 J	-7066368.72	-7066368.60	-7066368.47	0.0135	0.0097
Mercury	-24060-07-31 03:50 J	-7066280.41	-7066280.34	-7066280.26	0.0135	0.0122
Mars	-24052-11-15 15:21 J	-7063251.17	-7063250.86	-7063250.55	0.0132	0.0015
Venus	-24039-01-10 02:09 J	-7058812.44	-7058812.41	-7058812.36	0.0133	0.0130
Venus	-24039-08-24 07:26 J	-7058586.30	-7058586.19	-7058586.05	0.0133	0.0108
Venus	-24038-04-07 12:57 J	-7058360.12	-7058359.96	-7058359.79	0.0133	0.0085
Venus	-24038-11-19 18:28 J	-7058133.92	-7058133.73	-7058133.54	0.0133	0.0063
Venus	-24037-07-02 23:31 J	-7057907.71	-7057907.52	-7057907.30	0.0133	0.0041
Venus	-24036-02-14 05:16 J	-7057681.49	-7057681.28	-7057681.06	0.0133	0.0017
Venus	-24036-09-28 10:47 J	-7057455.27	-7057455.05	-7057454.84	0.0134	0.0006
Venus	-24035-05-12 15:50 J	-7057229.04	-7057228.84	-7057228.62	0.0134	0.0030
Venus	-24035-12-24 21:21 J	-7057002.80	-7057002.61	-7057002.40	0.0134	0.0053
Venus	-24034-08-08 03:07 J	-7056776.54	-7056776.37	-7056776.19	0.0134	0.0076
Venus	-24033-03-21 08:52 J	-7056550.28	-7056550.13	-7056549.99	0.0135	0.0099
Venus	-24033-11-02 14:09 J	-7056323.99	-7056323.91	-7056323.81	0.0135	0.0122

Earth	-24024-05-14 09:50 J	-7053209.25	-7053209.09	-7053208.90	0.0139	0.0098
Moon	-24024-05-14 10:33 J	-7053209.24	-7053209.06	-7053208.86	0.0139	0.0094 *
Moon	-24023-05-18 21:50 J	-7052839.83	-7052839.59	-7052839.34	0.0140	0.0015
Earth	-24023-05-18 22:33 J	-7052839.80	-7052839.56	-7052839.30	0.0140	0.0010 *
Earth	-24022-05-23 11:59 J	-7052470.19	-7052470.00	-7052469.79	0.0140	0.0081
Moon	-24022-05-23 13:26 J	-7052470.13	-7052469.94	-7052469.73	0.0140	0.0089 *
Mercury	-24018-05-04 00:28 J	-7051028.50	-7051028.48	-7051028.45	0.0142	0.0139
Mercury	-24018-07-31 04:04 J	-7050940.40	-7050940.33	-7050940.25	0.0142	0.0117
Mercury	-24018-10-27 07:55 J	-7050852.27	-7050852.17	-7050852.07	0.0143	0.0095
Mercury	-24017-01-23 11:45 J	-7050764.13	-7050764.01	-7050763.89	0.0143	0.0073
Mercury	-24017-04-20 15:21 J	-7050675.98	-7050675.86	-7050675.73	0.0143	0.0051
Mercury	-24017-07-17 19:11 J	-7050587.83	-7050587.70	-7050587.56	0.0143	0.0029
Mercury	-24017-10-13 23:02 J	-7050499.67	-7050499.54	-7050499.40	0.0143	0.0007
Mercury	-24016-01-10 02:52 J	-7050411.51	-7050411.38	-7050411.24	0.0143	0.0018
Mercury	-24016-04-08 06:57 J	-7050323.34	-7050323.21	-7050323.08	0.0143	0.0040
Mercury	-24016-07-05 10:47 J	-7050235.17	-7050235.05	-7050234.93	0.0143	0.0063
Mercury	-24016-10-01 14:52 J	-7050146.99	-7050146.88	-7050146.78	0.0144	0.0087
Mercury	-24016-12-28 18:28 J	-7050058.80	-7050058.73	-7050058.63	0.0144	0.0111
Mercury	-24015-03-26 22:47 J	-7049970.60	-7049970.55	-7049970.50	0.0144	0.0134
Mars	-24009-04-07 11:02 J	-7047767.31	-7047767.04	-7047766.77	0.0146	0.0071

24TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 24th millennium BCE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Venus	-23999-12-05 21:35 J	-7043872.66	-7043872.60	-7043872.50	0.0146	0.0135
Venus	-23998-07-20 10:04 J	-7043646.21	-7043646.08	-7043645.91	0.0146	0.0106
Venus	-23997-03-02 22:33 J	-7043419.74	-7043419.56	-7043419.37	0.0146	0.0076
Venus	-23997-10-15 10:47 J	-7043193.25	-7043193.05	-7043192.83	0.0145	0.0046
Venus	-23996-05-29 23:16 J	-7042966.75	-7042966.53	-7042966.32	0.0145	0.0016
Venus	-23995-01-11 11:16 J	-7042740.24	-7042740.03	-7042739.81	0.0145	0.0014
Venus	-23995-08-25 23:16 J	-7042513.73	-7042513.53	-7042513.31	0.0145	0.0044
Venus	-23994-04-09 11:31 J	-7042287.21	-7042287.02	-7042286.83	0.0144	0.0073
Venus	-23994-11-21 23:02 J	-7042060.68	-7042060.54	-7042060.37	0.0144	0.0102
Venus	-23993-07-05 11:02 J	-7041834.11	-7041834.04	-7041833.93	0.0144	0.0131
Moon	-23985-11-15 10:19 J	-7038779.27	-7038779.07	-7038778.84	0.0139	0.0073
Earth	-23985-11-15 13:55 J	-7038779.14	-7038778.92	-7038778.69	0.0139	0.0068 *
Earth	-23984-11-20 09:35 J	-7038409.35	-7038409.10	-7038408.84	0.0139	0.0025
Moon	-23984-11-20 13:11 J	-7038409.20	-7038408.95	-7038408.69	0.0139	0.0027 *
Moon	-23983-11-25 00:28 J	-7038039.60	-7038039.48	-7038039.33	0.0138	0.0118
Earth	-23983-11-25 03:50 J	-7038039.46	-7038039.34	-7038039.18	0.0138	0.0116 *
Mercury	-23978-03-21 17:31 J	-7036461.81	-7036461.77	-7036461.70	0.0136	0.0129
Mercury	-23978-06-18 00:28 J	-7036373.59	-7036373.48	-7036373.35	0.0136	0.0102
Mercury	-23978-09-14 07:26 J	-7036285.34	-7036285.19	-7036285.04	0.0136	0.0075
Mercury	-23978-12-11 13:55 J	-7036197.08	-7036196.92	-7036196.74	0.0136	0.0049
Mercury	-23977-03-08 20:38 J	-7036108.81	-7036108.64	-7036108.45	0.0136	0.0023
Mercury	-23977-06-05 03:21 J	-7036020.54	-7036020.36	-7036020.18	0.0136	0.0004
Mercury	-23977-09-01 09:50 J	-7035932.27	-7035932.09	-7035931.91	0.0135	0.0029
Mercury	-23977-11-28 16:04 J	-7035843.98	-7035843.83	-7035843.65	0.0135	0.0056
Mercury	-23976-02-24 22:33 J	-7035755.69	-7035755.56	-7035755.40	0.0135	0.0081
Mercury	-23976-05-24 05:02 J	-7035667.39	-7035667.29	-7035667.17	0.0135	0.0105
Mercury	-23976-08-20 11:16 J	-7035579.06	-7035579.03	-7035578.97	0.0135	0.0130
Mars	-23969-08-09 03:35 J	-7033033.49	-7033033.35	-7033033.16	0.0133	0.0112
Mars	-23967-07-11 12:28 J	-7032332.22	-7032331.98	-7032331.75	0.0132	0.0087

Venus	-23955-04-23 17:45 J	-7028027.84	-7028027.76	-7028027.64	0.0133	0.0118
Venus	-23955-12-05 23:16 J	-7027801.67	-7027801.53	-7027801.37	0.0133	0.0095
Venus	-23954-07-20 04:47 J	-7027575.48	-7027575.30	-7027575.11	0.0133	0.0072
Venus	-23953-03-02 10:04 J	-7027349.27	-7027349.08	-7027348.87	0.0133	0.0050
Venus	-23953-10-14 15:35 J	-7027123.07	-7027122.85	-7027122.64	0.0133	0.0026
Venus	-23952-05-28 20:52 J	-7026896.85	-7026896.63	-7026896.41	0.0133	0.0003
Venus	-23951-01-10 02:23 J	-7026670.62	-7026670.40	-7026670.18	0.0134	0.0020
Venus	-23951-08-24 07:40 J	-7026444.38	-7026444.18	-7026443.97	0.0134	0.0043
Venus	-23950-04-07 12:57 J	-7026218.14	-7026217.96	-7026217.76	0.0134	0.0067
Venus	-23950-11-19 18:28 J	-7025991.88	-7025991.73	-7025991.56	0.0134	0.0090
Venus	-23949-07-02 23:59 J	-7025765.60	-7025765.50	-7025765.37	0.0135	0.0113
Moon	-23940-05-14 19:40 J	-7022527.85	-7022527.68	-7022527.48	0.0139	0.0096
Earth	-23940-05-14 19:26 J	-7022527.85	-7022527.69	-7022527.49	0.0139	0.0094 *
Moon	-23939-05-19 07:55 J	-7022158.42	-7022158.17	-7022157.93	0.0140	0.0002
Earth	-23939-05-19 08:23 J	-7022158.40	-7022158.15	-7022157.90	0.0140	0.0005 *
Earth	-23938-05-23 21:07 J	-7021788.80	-7021788.62	-7021788.40	0.0140	0.0086
Moon	-23938-05-23 21:35 J	-7021788.80	-7021788.60	-7021788.37	0.0140	0.0078 *
Mercury	-23934-05-24 07:26 J	-7020327.23	-7020327.19	-7020327.14	0.0142	0.0134
Mercury	-23934-08-20 11:16 J	-7020239.11	-7020239.03	-7020238.95	0.0142	0.0113
Mercury	-23934-11-16 14:52 J	-7020150.98	-7020150.88	-7020150.77	0.0143	0.0091
Mercury	-23933-02-12 18:43 J	-7020062.84	-7020062.72	-7020062.60	0.0143	0.0069
Mercury	-23933-05-10 22:19 J	-7019974.69	-7019974.57	-7019974.43	0.0143	0.0047
Mercury	-23933-08-07 02:09 J	-7019886.54	-7019886.41	-7019886.27	0.0143	0.0025
Mercury	-23933-11-03 05:59 J	-7019798.38	-7019798.25	-7019798.11	0.0143	0.0005
Mercury	-23932-01-30 09:50 J	-7019710.22	-7019710.09	-7019709.95	0.0143	0.0022
Mercury	-23932-04-28 13:55 J	-7019622.05	-7019621.92	-7019621.79	0.0143	0.0045
Mercury	-23932-07-25 17:45 J	-7019533.88	-7019533.76	-7019533.64	0.0143	0.0068
Mercury	-23932-10-21 21:35 J	-7019445.70	-7019445.60	-7019445.49	0.0143	0.0091
Mercury	-23931-01-18 01:40 J	-7019357.51	-7019357.43	-7019357.35	0.0144	0.0115
Mercury	-23931-04-16 05:31 J	-7019269.29	-7019269.27	-7019269.23	0.0144	0.0139

Mars	-23925-12-01 21:50 J	-7016847.89	-7016847.59	-7016847.28	0.0146	0.0018
Venus	-23914-03-19 15:21 J	-7013087.98	-7013087.86	-7013087.74	0.0146	0.0120
Venus	-23914-11-01 03:21 J	-7012861.51	-7012861.36	-7012861.18	0.0146	0.0091
Venus	-23913-06-14 15:50 J	-7012635.03	-7012634.84	-7012634.63	0.0145	0.0061
Venus	-23912-01-27 04:19 J	-7012408.53	-7012408.32	-7012408.11	0.0145	0.0030
Venus	-23912-09-10 16:19 J	-7012182.03	-7012181.82	-7012181.60	0.0145	0.0003
Venus	-23911-04-25 04:19 J	-7011955.53	-7011955.32	-7011955.10	0.0145	0.0030
Venus	-23911-12-07 16:33 J	-7011729.01	-7011728.81	-7011728.61	0.0145	0.0059
Venus	-23910-07-22 04:33 J	-7011502.47	-7011502.31	-7011502.13	0.0144	0.0089
Venus	-23909-03-04 16:33 J	-7011275.93	-7011275.81	-7011275.68	0.0144	0.0117
Moon	-23901-11-15 20:38 J	-7008097.87	-7008097.64	-7008097.41	0.0139	0.0057
Earth	-23901-11-15 23:16 J	-7008097.75	-7008097.53	-7008097.29	0.0139	0.0063 *
Earth	-23900-11-20 19:26 J	-7007727.95	-7007727.69	-7007727.44	0.0139	0.0029
Moon	-23900-11-20 22:47 J	-7007727.81	-7007727.55	-7007727.30	0.0139	0.0028 *
Moon	-23899-11-25 09:50 J	-7007358.20	-7007358.09	-7007357.94	0.0138	0.0119
Earth	-23899-11-25 13:40 J	-7007358.04	-7007357.93	-7007357.79	0.0138	0.0120 *
Mercury	-23894-04-11 00:43 J	-7005760.54	-7005760.47	-7005760.38	0.0136	0.0122
Mercury	-23894-07-08 07:40 J	-7005672.30	-7005672.18	-7005672.04	0.0136	0.0095
Mercury	-23894-10-04 14:38 J	-7005584.05	-7005583.89	-7005583.73	0.0136	0.0068
Mercury	-23894-12-31 21:07 J	-7005495.79	-7005495.62	-7005495.44	0.0136	0.0042
Mercury	-23893-03-29 03:50 J	-7005407.52	-7005407.34	-7005407.15	0.0136	0.0016
Mercury	-23893-06-25 10:33 J	-7005319.24	-7005319.06	-7005318.88	0.0136	0.0011
Mercury	-23893-09-21 17:02 J	-7005230.96	-7005230.79	-7005230.61	0.0135	0.0037
Mercury	-23893-12-18 23:31 J	-7005142.68	-7005142.52	-7005142.35	0.0135	0.0062
Mercury	-23892-03-17 05:59 J	-7005054.39	-7005054.25	-7005054.11	0.0135	0.0087
Mercury	-23892-06-13 12:14 J	-7004966.08	-7004965.99	-7004965.88	0.0135	0.0113
Mars	-23884-04-03 23:16 J	-7002114.82	-7002114.53	-7002114.23	0.0133	0.0041
Venus	-23872-12-22 04:33 J	-6997469.36	-6997469.31	-6997469.23	0.0132	0.0127
Venus	-23871-08-05 09:50 J	-6997243.21	-6997243.09	-6997242.94	0.0133	0.0105
Venus	-23870-03-19 15:07 J	-6997017.03	-6997016.87	-6997016.68	0.0133	0.0082

Venus	-23870-10-31 20:23 J	-6996790.83	-6996790.65	-6996790.44	0.0133	0.0059
Venus	-23869-06-14 01:55 J	-6996564.63	-6996564.42	-6996564.21	0.0133	0.0036
Venus	-23868-01-26 07:26 J	-6996338.41	-6996338.19	-6996337.97	0.0133	0.0013
Venus	-23868-09-09 12:43 J	-6996112.19	-6996111.97	-6996111.75	0.0134	0.0011
Venus	-23867-04-23 17:59 J	-6995885.96	-6995885.75	-6995885.54	0.0134	0.0034
Venus	-23867-12-05 23:31 J	-6995659.71	-6995659.52	-6995659.32	0.0134	0.0057
Venus	-23866-07-20 04:47 J	-6995433.46	-6995433.30	-6995433.12	0.0134	0.0081
Venus	-23865-03-02 10:33 J	-6995207.19	-6995207.06	-6995206.92	0.0134	0.0104
Venus	-23865-10-14 16:04 J	-6994980.89	-6994980.83	-6994980.75	0.0135	0.0127
Moon	-23856-05-15 06:14 J	-6991846.44	-6991846.24	-6991846.04	0.0139	0.0085
Earth	-23856-05-15 06:14 J	-6991846.41	-6991846.24	-6991846.03	0.0139	0.0089 *
Earth	-23855-05-19 18:57 J	-6991476.96	-6991476.71	-6991476.46	0.0139	0.0001
Moon	-23855-05-19 19:26 J	-6991476.94	-6991476.69	-6991476.45	0.0139	0.0006 *
Earth	-23854-05-24 07:55 J	-6991107.36	-6991107.17	-6991106.97	0.0140	0.0089
Moon	-23854-05-24 08:09 J	-6991107.33	-6991107.16	-6991106.96	0.0140	0.0096 *
Mercury	-23850-06-13 14:38 J	-6989625.94	-6989625.89	-6989625.83	0.0142	0.0129
Mercury	-23850-09-09 18:14 J	-6989537.82	-6989537.74	-6989537.64	0.0142	0.0108
Mercury	-23850-12-06 22:04 J	-6989449.68	-6989449.58	-6989449.47	0.0142	0.0085
Mercury	-23849-03-04 01:55 J	-6989361.54	-6989361.42	-6989361.30	0.0143	0.0063
Mercury	-23849-05-31 05:45 J	-6989273.39	-6989273.26	-6989273.13	0.0143	0.0041
Mercury	-23849-08-27 09:35 J	-6989185.24	-6989185.10	-6989184.97	0.0143	0.0018
Mercury	-23849-11-23 13:26 J	-6989097.08	-6989096.94	-6989096.81	0.0143	0.0005
Mercury	-23848-02-19 17:16 J	-6989008.92	-6989008.78	-6989008.65	0.0143	0.0027
Mercury	-23848-05-18 21:07 J	-6988920.75	-6988920.62	-6988920.49	0.0143	0.0050
Mercury	-23848-08-15 00:57 J	-6988832.57	-6988832.46	-6988832.34	0.0143	0.0074
Mercury	-23848-11-11 04:47 J	-6988744.39	-6988744.30	-6988744.19	0.0143	0.0098
Mercury	-23847-02-07 08:52 J	-6988656.20	-6988656.13	-6988656.05	0.0144	0.0121
Mars	-23840-07-28 11:02 J	-6985928.22	-6985928.04	-6985927.81	0.0146	0.0110
Venus	-23831-11-16 21:21 J	-6982529.68	-6982529.61	-6982529.51	0.0146	0.0134
Venus	-23830-07-01 09:50 J	-6982303.23	-6982303.09	-6982302.93	0.0146	0.0104

Venus	-23829-02-12 22:19 J	-6982076.75	-6982076.57	-6982076.38	0.0146	0.0074
Venus	-23829-09-26 10:33 J	-6981850.26	-6981850.06	-6981849.85	0.0145	0.0044
Venus	-23828-05-10 22:47 J	-6981623.77	-6981623.55	-6981623.34	0.0145	0.0014
Venus	-23828-12-23 10:47 J	-6981397.26	-6981397.05	-6981396.83	0.0145	0.0017
Venus	-23827-08-06 22:47 J	-6981170.74	-6981170.55	-6981170.33	0.0145	0.0047
Venus	-23826-03-21 10:47 J	-6980944.22	-6980944.05	-6980943.85	0.0145	0.0077
Venus	-23826-11-02 22:47 J	-6980717.68	-6980717.55	-6980717.39	0.0144	0.0106
Venus	-23825-06-16 10:47 J	-6980491.12	-6980491.05	-6980490.96	0.0144	0.0134
Moon	-23817-11-16 07:40 J	-6977416.40	-6977416.18	-6977415.95	0.0140	0.0063
Earth	-23817-11-16 10:19 J	-6977416.29	-6977416.07	-6977415.82	0.0140	0.0058 *
Earth	-23816-11-21 06:14 J	-6977046.48	-6977046.24	-6977045.98	0.0139	0.0035
Moon	-23816-11-21 09:21 J	-6977046.35	-6977046.11	-6977045.85	0.0139	0.0038 *
Moon	-23815-11-25 21:35 J	-6976676.68	-6976676.60	-6976676.48	0.0138	0.0127
Earth	-23815-11-26 00:43 J	-6976676.56	-6976676.47	-6976676.34	0.0138	0.0126 *
Mercury	-23810-05-01 08:23 J	-6975059.24	-6975059.15	-6975059.04	0.0136	0.0114
Mercury	-23810-07-28 15:07 J	-6974971.00	-6974970.87	-6974970.72	0.0136	0.0087
Mercury	-23810-10-24 22:04 J	-6974882.74	-6974882.58	-6974882.41	0.0136	0.0060
Mercury	-23809-01-21 04:47 J	-6974794.48	-6974794.30	-6974794.12	0.0136	0.0033
Mercury	-23809-04-18 11:31 J	-6974706.20	-6974706.02	-6974705.84	0.0136	0.0007
Mercury	-23809-07-15 17:59 J	-6974617.93	-6974617.75	-6974617.56	0.0136	0.0019
Mercury	-23809-10-12 00:43 J	-6974529.64	-6974529.47	-6974529.30	0.0135	0.0045
Mercury	-23808-01-08 06:57 J	-6974441.36	-6974441.21	-6974441.04	0.0135	0.0071
Mercury	-23808-04-06 13:40 J	-6974353.06	-6974352.93	-6974352.80	0.0135	0.0096
Mercury	-23808-07-03 19:40 J	-6974264.74	-6974264.68	-6974264.59	0.0135	0.0121
Mars	-23800-11-27 22:19 J	-6971195.86	-6971195.57	-6971195.26	0.0133	0.0032
Venus	-23787-04-04 21:07 J	-6966684.71	-6966684.62	-6966684.49	0.0133	0.0114
Venus	-23787-11-17 02:38 J	-6966458.54	-6966458.39	-6966458.22	0.0133	0.0091
Venus	-23786-07-01 07:55 J	-6966232.35	-6966232.17	-6966231.97	0.0133	0.0068
Venus	-23785-02-12 13:26 J	-6966006.14	-6966005.94	-6966005.73	0.0133	0.0045
Venus	-23785-09-25 18:43 J	-6965779.93	-6965779.72	-6965779.50	0.0133	0.0022

Venus	-23784-05-10 00:14 J	-6965553.71	-6965553.49	-6965553.27	0.0133	0.0002
Venus	-23784-12-22 05:31 J	-6965327.48	-6965327.27	-6965327.05	0.0134	0.0025
Venus	-23783-08-05 11:02 J	-6965101.24	-6965101.04	-6965100.83	0.0134	0.0048
Venus	-23782-03-19 16:19 J	-6964874.99	-6964874.82	-6964874.62	0.0134	0.0072
Venus	-23782-10-31 21:50 J	-6964648.73	-6964648.59	-6964648.42	0.0134	0.0095
Venus	-23781-06-14 03:21 J	-6964422.44	-6964422.36	-6964422.24	0.0135	0.0119
Moon	-23772-05-15 18:57 J	-6961164.90	-6961164.71	-6961164.49	0.0139	0.0083
Earth	-23772-05-15 19:55 J	-6961164.86	-6961164.67	-6961164.45	0.0139	0.0081 *
Earth	-23771-05-20 08:38 J	-6960795.39	-6960795.14	-6960794.89	0.0139	0.0007
Moon	-23771-05-20 09:07 J	-6960795.36	-6960795.12	-6960794.88	0.0139	0.0013 *
Moon	-23770-05-24 20:38 J	-6960425.82	-6960425.64	-6960425.42	0.0140	0.0091
Earth	-23770-05-24 21:21 J	-6960425.77	-6960425.61	-6960425.41	0.0140	0.0097 *
Mercury	-23766-04-06 18:57 J	-6959012.71	-6959012.71	-6959012.70	0.0142	0.0142
Mercury	-23766-07-03 22:33 J	-6958924.62	-6958924.56	-6958924.48	0.0142	0.0120
Mercury	-23766-09-30 02:23 J	-6958836.50	-6958836.40	-6958836.30	0.0142	0.0098
Mercury	-23766-12-27 05:59 J	-6958748.36	-6958748.25	-6958748.13	0.0143	0.0077
Mercury	-23765-03-24 09:50 J	-6958660.21	-6958660.09	-6958659.96	0.0143	0.0054
Mercury	-23765-06-20 13:40 J	-6958572.06	-6958571.93	-6958571.80	0.0143	0.0032
Mercury	-23765-09-16 17:31 J	-6958483.91	-6958483.77	-6958483.64	0.0143	0.0009
Mercury	-23765-12-13 21:21 J	-6958395.75	-6958395.61	-6958395.47	0.0143	0.0014
Mercury	-23764-03-12 01:11 J	-6958307.58	-6958307.45	-6958307.32	0.0143	0.0036
Mercury	-23764-06-08 05:02 J	-6958219.41	-6958219.29	-6958219.16	0.0143	0.0060
Mercury	-23764-09-04 08:52 J	-6958131.24	-6958131.13	-6958131.01	0.0143	0.0083
Mercury	-23764-12-01 12:43 J	-6958043.05	-6958042.97	-6958042.87	0.0143	0.0107
Mercury	-23763-02-27 17:02 J	-6957954.85	-6957954.79	-6957954.73	0.0144	0.0130
Mars	-23757-04-19 12:28 J	-6955712.26	-6955711.98	-6955711.70	0.0146	0.0059
Venus	-23746-02-28 17:59 J	-6951744.87	-6951744.75	-6951744.61	0.0146	0.0117
Venus	-23746-10-13 06:14 J	-6951518.41	-6951518.24	-6951518.06	0.0146	0.0087
Venus	-23745-05-26 18:28 J	-6951291.92	-6951291.73	-6951291.52	0.0146	0.0057
Venus	-23744-01-08 06:43 J	-6951065.43	-6951065.22	-6951065.00	0.0145	0.0026

Venus	-23744-08-22 18:57 J	-6950838.93	-6950838.71	-6950838.49	0.0145	0.0004
Venus	-23743-04-06 06:57 J	-6950612.42	-6950612.21	-6950612.00	0.0145	0.0034
Venus	-23743-11-18 18:43 J	-6950385.90	-6950385.72	-6950385.51	0.0145	0.0065
Venus	-23742-07-03 07:11 J	-6950159.37	-6950159.20	-6950159.04	0.0144	0.0094
Venus	-23741-02-14 18:43 J	-6949932.81	-6949932.72	-6949932.59	0.0144	0.0123
Moon	-23733-11-16 21:07 J	-6946734.85	-6946734.62	-6946734.37	0.0140	0.0044
Earth	-23733-11-16 23:31 J	-6946734.76	-6946734.52	-6946734.27	0.0140	0.0050 *
Earth	-23732-11-21 19:11 J	-6946364.94	-6946364.70	-6946364.45	0.0139	0.0042
Moon	-23732-11-21 22:04 J	-6946364.83	-6946364.58	-6946364.32	0.0139	0.0040 *
Moon	-23731-11-26 10:47 J	-6945995.13	-6945995.05	-6945994.97	0.0138	0.0131
Earth	-23731-11-26 13:40 J	-6945995.00	-6945994.93	-6945994.84	0.0138	0.0132 *
Mercury	-23726-02-22 09:35 J	-6944446.15	-6944446.10	-6944446.05	0.0136	0.0131
Mercury	-23726-05-21 16:33 J	-6944357.93	-6944357.81	-6944357.69	0.0136	0.0104
Mercury	-23726-08-17 23:02 J	-6944269.68	-6944269.54	-6944269.37	0.0136	0.0077
Mercury	-23726-11-14 05:59 J	-6944181.42	-6944181.25	-6944181.07	0.0136	0.0050
Mercury	-23725-02-10 12:43 J	-6944093.15	-6944092.97	-6944092.78	0.0136	0.0024
Mercury	-23725-05-08 19:26 J	-6944004.87	-6944004.69	-6944004.50	0.0136	0.0003
Mercury	-23725-08-05 02:09 J	-6943916.59	-6943916.41	-6943916.23	0.0136	0.0029
Mercury	-23725-11-01 08:38 J	-6943828.31	-6943828.14	-6943827.97	0.0135	0.0054
Mercury	-23724-01-28 14:52 J	-6943740.02	-6943739.88	-6943739.72	0.0135	0.0080
Mercury	-23724-04-26 21:21 J	-6943651.71	-6943651.61	-6943651.49	0.0135	0.0105
Mercury	-23724-07-24 03:50 J	-6943563.38	-6943563.34	-6943563.29	0.0135	0.0130
Mars	-23717-08-21 13:55 J	-6940978.12	-6940977.92	-6940977.68	0.0133	0.0094
Mars	-23715-07-23 21:21 J	-6940276.77	-6940276.61	-6940276.39	0.0132	0.0105
Jupiter	-23708-01-19 00:28 J	-6937905.91	-6937905.48	-6937904.98	0.0132	0.0053
Venus	-23704-12-03 08:38 J	-6936126.21	-6936126.14	-6936126.05	0.0133	0.0123
Venus	-23703-07-17 14:09 J	-6935900.05	-6935899.91	-6935899.76	0.0133	0.0100
Venus	-23702-02-28 19:26 J	-6935673.86	-6935673.69	-6935673.51	0.0133	0.0077
Venus	-23702-10-13 00:28 J	-6935447.67	-6935447.48	-6935447.27	0.0133	0.0054
Venus	-23701-05-26 05:45 J	-6935221.46	-6935221.26	-6935221.04	0.0133	0.0032

Venus	-23700-01-07 11:31 J	-6934995.24	-6934995.02	-6934994.80	0.0133	0.0008
Venus	-23700-08-21 16:47 J	-6934769.01	-6934768.80	-6934768.58	0.0134	0.0016
Venus	-23699-04-04 22:04 J	-6934542.78	-6934542.58	-6934542.37	0.0134	0.0040
Venus	-23699-11-17 03:21 J	-6934316.54	-6934316.36	-6934316.15	0.0134	0.0063
Venus	-23698-07-01 09:07 J	-6934090.28	-6934090.12	-6934089.95	0.0134	0.0086
Venus	-23697-02-12 14:38 J	-6933864.00	-6933863.89	-6933863.75	0.0134	0.0110
Venus	-23697-09-25 20:09 J	-6933637.66	-6933637.66	-6933637.61	0.0135	0.0134
Moon	-23688-05-16 06:57 J	-6930483.41	-6930483.21	-6930482.97	0.0139	0.0072
Earth	-23688-05-16 08:23 J	-6930483.34	-6930483.15	-6930482.92	0.0139	0.0075 *
Earth	-23687-05-20 20:52 J	-6930113.87	-6930113.63	-6930113.37	0.0139	0.0014
Moon	-23687-05-20 22:19 J	-6930113.81	-6930113.57	-6930113.33	0.0139	0.0009 *
Moon	-23686-05-25 09:07 J	-6929744.26	-6929744.12	-6929743.94	0.0140	0.0110
Earth	-23686-05-25 09:50 J	-6929744.24	-6929744.09	-6929743.91	0.0140	0.0103 *
Mercury	-23682-04-27 02:38 J	-6928311.43	-6928311.39	-6928311.34	0.0142	0.0134
Mercury	-23682-07-24 06:14 J	-6928223.31	-6928223.24	-6928223.15	0.0142	0.0113
Mercury	-23682-10-20 10:04 J	-6928135.18	-6928135.08	-6928134.97	0.0142	0.0091
Mercury	-23681-01-16 13:40 J	-6928047.04	-6928046.93	-6928046.80	0.0143	0.0069
Mercury	-23681-04-13 17:31 J	-6927958.89	-6927958.77	-6927958.64	0.0143	0.0047
Mercury	-23681-07-10 21:21 J	-6927870.74	-6927870.61	-6927870.47	0.0143	0.0024
Mercury	-23681-10-07 01:11 J	-6927782.59	-6927782.45	-6927782.31	0.0143	0.0002
Mercury	-23680-01-03 05:02 J	-6927694.42	-6927694.29	-6927694.15	0.0143	0.0022
Mercury	-23680-04-01 08:52 J	-6927606.26	-6927606.13	-6927606.00	0.0143	0.0045
Mercury	-23680-06-28 12:43 J	-6927518.08	-6927517.97	-6927517.84	0.0143	0.0068
Mercury	-23680-09-24 16:33 J	-6927429.90	-6927429.81	-6927429.69	0.0143	0.0092
Mercury	-23680-12-21 20:38 J	-6927341.72	-6927341.64	-6927341.55	0.0144	0.0115
Mercury	-23679-03-20 00:28 J	-6927253.50	-6927253.48	-6927253.43	0.0144	0.0139
Mars	-23673-12-14 11:16 J	-6924792.32	-6924792.03	-6924791.73	0.0146	0.0039
Venus	-23663-10-29 02:38 J	-6921186.47	-6921186.39	-6921186.27	0.0146	0.0130
Venus	-23662-06-12 15:07 J	-6920960.02	-6920959.87	-6920959.70	0.0146	0.0099
Venus	-23661-01-25 03:21 J	-6920733.54	-6920733.36	-6920733.16	0.0146	0.0069

Venus	-23661-09-07 15:50 J	-6920507.05	-6920506.84	-6920506.63	0.0146	0.0038
Venus	-23660-04-22 03:50 J	-6920280.55	-6920280.34	-6920280.12	0.0145	0.0008
Venus	-23660-12-04 15:50 J	-6920054.05	-6920053.84	-6920053.62	0.0145	0.0024
Venus	-23659-07-19 04:19 J	-6919827.52	-6919827.32	-6919827.12	0.0145	0.0053
Venus	-23658-03-02 16:19 J	-6919601.00	-6919600.82	-6919600.64	0.0145	0.0083
Venus	-23658-10-15 04:04 J	-6919374.46	-6919374.33	-6919374.19	0.0144	0.0113
Venus	-23657-05-28 15:35 J	-6919147.86	-6919147.85	-6919147.79	0.0144	0.0142
Earth	-23650-11-13 17:02 J	-6916422.84	-6916422.79	-6916422.69	0.0140	0.0134
Moon	-23650-11-13 18:28 J	-6916422.83	-6916422.73	-6916422.60	0.0140	0.0126 *
Moon	-23649-11-17 11:59 J	-6916053.23	-6916053.00	-6916052.76	0.0140	0.0046
Earth	-23649-11-17 14:23 J	-6916053.15	-6916052.90	-6916052.65	0.0140	0.0041 *
Earth	-23648-11-22 09:50 J	-6915683.33	-6915683.09	-6915682.85	0.0139	0.0050
Moon	-23648-11-22 12:14 J	-6915683.23	-6915682.99	-6915682.74	0.0139	0.0053 *
Mercury	-23642-03-14 17:45 J	-6913744.83	-6913744.76	-6913744.65	0.0136	0.0120
Mercury	-23642-06-11 00:43 J	-6913656.59	-6913656.47	-6913656.32	0.0136	0.0092
Mercury	-23642-09-07 07:40 J	-6913568.34	-6913568.18	-6913568.01	0.0136	0.0065
Mercury	-23642-12-04 14:23 J	-6913480.07	-6913479.90	-6913479.72	0.0136	0.0039
Mercury	-23641-03-01 21:07 J	-6913391.80	-6913391.62	-6913391.43	0.0136	0.0013
Mercury	-23641-05-29 03:50 J	-6913303.52	-6913303.34	-6913303.15	0.0136	0.0014
Mercury	-23641-08-25 10:19 J	-6913215.24	-6913215.07	-6913214.89	0.0135	0.0041
Mercury	-23641-11-21 17:02 J	-6913126.95	-6913126.79	-6913126.63	0.0135	0.0066
Mercury	-23640-02-17 23:16 J	-6913038.65	-6913038.53	-6913038.39	0.0135	0.0091
Mercury	-23640-05-17 05:45 J	-6912950.34	-6912950.26	-6912950.16	0.0135	0.0116
Mars	-23632-04-16 15:07 J	-6910059.17	-6910058.87	-6910058.55	0.0133	0.0021
Venus	-23620-08-02 20:38 J	-6905567.65	-6905567.64	-6905567.61	0.0133	0.0132
Venus	-23619-03-17 01:55 J	-6905341.54	-6905341.42	-6905341.29	0.0133	0.0109
Venus	-23619-10-29 07:11 J	-6905115.36	-6905115.20	-6905115.03	0.0133	0.0086
Venus	-23618-06-12 12:28 J	-6904889.17	-6904888.98	-6904888.78	0.0133	0.0063
Venus	-23617-01-24 17:45 J	-6904662.96	-6904662.76	-6904662.54	0.0133	0.0040
Venus	-23617-09-06 23:16 J	-6904436.75	-6904436.53	-6904436.31	0.0133	0.0017

Venus	-23616-04-21 04:33 J	-6904210.53	-6904210.31	-6904210.09	0.0133	0.0007
Venus	-23616-12-03 09:50 J	-6903984.30	-6903984.09	-6903983.87	0.0134	0.0031
Venus	-23615-07-17 15:21 J	-6903758.05	-6903757.86	-6903757.66	0.0134	0.0054
Venus	-23614-02-28 20:52 J	-6903531.80	-6903531.63	-6903531.44	0.0134	0.0078
Venus	-23614-10-13 02:23 J	-6903305.53	-6903305.40	-6903305.25	0.0134	0.0102
Venus	-23613-05-26 08:09 J	-6903079.23	-6903079.16	-6903079.08	0.0134	0.0125
Moon	-23604-05-16 19:55 J	-6899801.89	-6899801.67	-6899801.44	0.0139	0.0068
Earth	-23604-05-16 21:50 J	-6899801.80	-6899801.59	-6899801.36	0.0139	0.0067 *
Earth	-23603-05-21 10:19 J	-6899432.32	-6899432.07	-6899431.82	0.0139	0.0021
Moon	-23603-05-21 11:31 J	-6899432.25	-6899432.02	-6899431.78	0.0139	0.0027 *
Moon	-23602-05-25 21:50 J	-6899062.76	-6899062.59	-6899062.41	0.0140	0.0103
Earth	-23602-05-25 23:16 J	-6899062.67	-6899062.53	-6899062.37	0.0140	0.0110 *
Mercury	-23598-05-17 10:19 J	-6897610.12	-6897610.07	-6897610.00	0.0142	0.0126
Mercury	-23598-08-13 14:09 J	-6897522.00	-6897521.91	-6897521.81	0.0142	0.0104
Mercury	-23598-11-09 17:45 J	-6897433.86	-6897433.76	-6897433.64	0.0142	0.0083
Mercury	-23597-02-05 21:35 J	-6897345.72	-6897345.60	-6897345.47	0.0143	0.0060
Mercury	-23597-05-04 01:26 J	-6897257.57	-6897257.44	-6897257.31	0.0143	0.0038
Mercury	-23597-07-31 05:16 J	-6897169.41	-6897169.28	-6897169.14	0.0143	0.0015
Mercury	-23597-10-27 09:07 J	-6897081.26	-6897081.12	-6897080.98	0.0143	0.0008
Mercury	-23596-01-23 12:57 J	-6896993.09	-6896992.96	-6896992.83	0.0143	0.0030
Mercury	-23596-04-21 16:47 J	-6896904.93	-6896904.80	-6896904.67	0.0143	0.0053
Mercury	-23596-07-18 20:38 J	-6896816.75	-6896816.64	-6896816.52	0.0143	0.0077
Mercury	-23596-10-15 00:28 J	-6896728.57	-6896728.48	-6896728.37	0.0143	0.0101
Mercury	-23595-01-11 04:33 J	-6896640.37	-6896640.31	-6896640.24	0.0144	0.0124
Mars	-23590-09-06 09:07 J	-6894576.26	-6894576.12	-6894575.98	0.0146	0.0129
Mars	-23588-08-10 10:33 J	-6893872.15	-6893872.06	-6893871.93	0.0146	0.0136
Venus	-23579-06-28 11:59 J	-6890628.04	-6890628.00	-6890627.93	0.0146	0.0142
Venus	-23578-02-10 00:14 J	-6890401.61	-6890401.49	-6890401.33	0.0146	0.0112
Venus	-23578-09-24 12:28 J	-6890175.14	-6890174.98	-6890174.78	0.0146	0.0081
Venus	-23577-05-08 00:57 J	-6889948.66	-6889948.46	-6889948.25	0.0146	0.0050

Venus	-23577-12-20 13:11 J	-6889722.17	-6889721.95	-6889721.74	0.0146	0.0019
Venus	-23576-08-04 01:26 J	-6889495.66	-6889495.44	-6889495.22	0.0145	0.0011
Venus	-23575-03-18 13:26 J	-6889269.14	-6889268.94	-6889268.73	0.0145	0.0042
Venus	-23575-10-31 01:26 J	-6889042.62	-6889042.44	-6889042.24	0.0145	0.0072
Venus	-23574-06-14 13:40 J	-6888816.08	-6888815.93	-6888815.78	0.0145	0.0102
Venus	-23573-01-27 01:26 J	-6888589.52	-6888589.44	-6888589.34	0.0144	0.0131
Earth	-23566-11-14 08:09 J	-6885741.27	-6885741.16	-6885741.03	0.0140	0.0124
Moon	-23566-11-14 09:21 J	-6885741.18	-6885741.11	-6885741.00	0.0140	0.0131 *
Moon	-23565-11-18 03:21 J	-6885371.60	-6885371.36	-6885371.10	0.0140	0.0026
Earth	-23565-11-18 05:02 J	-6885371.54	-6885371.29	-6885371.04	0.0140	0.0032 *
Earth	-23564-11-23 00:14 J	-6885001.71	-6885001.49	-6885001.25	0.0139	0.0059
Moon	-23564-11-23 02:23 J	-6885001.63	-6885001.40	-6885001.14	0.0139	0.0057 *
Mercury	-23558-01-05 19:40 J	-6883131.70	-6883131.68	-6883131.65	0.0136	0.0134
Mercury	-23558-04-04 02:23 J	-6883043.50	-6883043.40	-6883043.28	0.0136	0.0107
Mercury	-23558-07-01 09:21 J	-6882955.25	-6882955.11	-6882954.95	0.0136	0.0080
Mercury	-23558-09-27 16:04 J	-6882866.99	-6882866.83	-6882866.65	0.0136	0.0054
Mercury	-23558-12-24 23:02 J	-6882778.72	-6882778.54	-6882778.36	0.0136	0.0027
Mercury	-23557-03-22 05:45 J	-6882690.44	-6882690.26	-6882690.08	0.0136	0.0001
Mercury	-23557-06-18 12:14 J	-6882602.16	-6882601.99	-6882601.80	0.0135	0.0026
Mercury	-23557-09-14 18:57 J	-6882513.88	-6882513.71	-6882513.54	0.0135	0.0051
Mercury	-23557-12-12 01:11 J	-6882425.59	-6882425.45	-6882425.29	0.0135	0.0077
Mercury	-23556-03-10 07:40 J	-6882337.29	-6882337.18	-6882337.05	0.0135	0.0103
Mercury	-23556-06-06 14:09 J	-6882248.96	-6882248.91	-6882248.84	0.0135	0.0127
Mars	-23548-12-10 15:21 J	-6879140.13	-6879139.86	-6879139.56	0.0132	0.0054
Venus	-23536-11-14 12:43 J	-6874783.04	-6874782.97	-6874782.85	0.0132	0.0119
Venus	-23535-06-28 17:59 J	-6874556.88	-6874556.75	-6874556.58	0.0133	0.0096
Venus	-23534-02-09 23:45 J	-6874330.69	-6874330.51	-6874330.33	0.0133	0.0072
Venus	-23534-09-24 04:47 J	-6874104.50	-6874104.30	-6874104.09	0.0133	0.0049
Venus	-23533-05-07 10:04 J	-6873878.29	-6873878.08	-6873877.86	0.0133	0.0026
Venus	-23533-12-19 15:35 J	-6873652.07	-6873651.85	-6873651.63	0.0133	0.0002

Venus	-23532-08-02 20:52 J	-6873425.84	-6873425.63	-6873425.41	0.0133	0.0021
Venus	-23531-03-17 02:23 J	-6873199.61	-6873199.40	-6873199.20	0.0134	0.0045
Venus	-23531-10-29 07:26 J	-6872973.36	-6872973.19	-6872972.99	0.0134	0.0069
Venus	-23530-06-12 13:11 J	-6872747.10	-6872746.95	-6872746.79	0.0134	0.0092
Venus	-23529-01-24 18:43 J	-6872520.81	-6872520.72	-6872520.60	0.0134	0.0116
Moon	-23520-05-17 05:59 J	-6869120.48	-6869120.25	-6869120.01	0.0139	0.0060
Earth	-23520-05-17 08:09 J	-6869120.37	-6869120.16	-6869119.93	0.0139	0.0063 *
Earth	-23519-05-21 20:23 J	-6868750.89	-6868750.65	-6868750.39	0.0139	0.0026
Moon	-23519-05-21 22:47 J	-6868750.79	-6868750.55	-6868750.31	0.0139	0.0021 *
Moon	-23518-05-26 07:40 J	-6868381.29	-6868381.18	-6868381.03	0.0140	0.0121
Earth	-23518-05-26 09:35 J	-6868381.24	-6868381.10	-6868380.95	0.0140	0.0114 *
Mercury	-23514-03-10 14:09 J	-6866996.91	-6866996.91	-6866996.91	0.0142	0.0142
Mercury	-23514-06-06 17:45 J	-6866908.83	-6866908.76	-6866908.69	0.0142	0.0120
Mercury	-23514-09-02 21:35 J	-6866820.70	-6866820.60	-6866820.51	0.0142	0.0099
Mercury	-23514-11-30 01:11 J	-6866732.56	-6866732.45	-6866732.34	0.0142	0.0077
Mercury	-23513-02-26 04:47 J	-6866644.42	-6866644.30	-6866644.17	0.0143	0.0055
Mercury	-23513-05-24 08:38 J	-6866556.27	-6866556.14	-6866556.00	0.0143	0.0032
Mercury	-23513-08-20 12:28 J	-6866468.11	-6866467.98	-6866467.84	0.0143	0.0010
Mercury	-23513-11-16 16:19 J	-6866379.95	-6866379.82	-6866379.68	0.0143	0.0013
Mercury	-23512-02-12 20:09 J	-6866291.79	-6866291.66	-6866291.53	0.0143	0.0036
Mercury	-23512-05-11 23:59 J	-6866203.62	-6866203.50	-6866203.37	0.0143	0.0059
Mercury	-23512-08-08 03:50 J	-6866115.45	-6866115.34	-6866115.22	0.0143	0.0082
Mercury	-23512-11-04 07:55 J	-6866027.26	-6866027.17	-6866027.08	0.0144	0.0106
Mercury	-23511-01-31 11:45 J	-6865939.06	-6865939.01	-6865938.95	0.0144	0.0129
Mars	-23505-05-02 03:21 J	-6863656.66	-6863656.36	-6863656.06	0.0146	0.0037
Venus	-23495-10-10 07:26 J	-6859843.29	-6859843.19	-6859843.06	0.0146	0.0125
Venus	-23494-05-24 20:09 J	-6859616.83	-6859616.66	-6859616.50	0.0146	0.0094
Venus	-23493-01-06 08:09 J	-6859390.34	-6859390.16	-6859389.95	0.0146	0.0063
Venus	-23493-08-19 20:38 J	-6859163.85	-6859163.64	-6859163.42	0.0146	0.0032
Venus	-23492-04-03 08:52 J	-6858937.34	-6858937.13	-6858936.91	0.0146	0.0003

Venus	-23492-11-15 21:07 J	-6858710.83	-6858710.62	-6858710.40	0.0145	0.0030
Venus	-23491-06-30 09:35 J	-6858484.30	-6858484.10	-6858483.90	0.0145	0.0060
Venus	-23490-02-11 21:21 J	-6858257.76	-6858257.61	-6858257.42	0.0145	0.0091
Venus	-23490-09-26 09:21 J	-6858031.21	-6858031.11	-6858030.97	0.0144	0.0121
Moon	-23482-11-14 22:19 J	-6855059.71	-6855059.57	-6855059.38	0.0140	0.0109
Earth	-23482-11-14 22:04 J	-6855059.70	-6855059.58	-6855059.42	0.0140	0.0117 *
Moon	-23481-11-18 17:45 J	-6854690.00	-6854689.76	-6854689.51	0.0140	0.0029
Earth	-23481-11-18 19:11 J	-6854689.95	-6854689.70	-6854689.44	0.0140	0.0024 *
Earth	-23480-11-23 14:23 J	-6854320.11	-6854319.90	-6854319.66	0.0139	0.0067
Moon	-23480-11-23 16:04 J	-6854320.04	-6854319.83	-6854319.58	0.0139	0.0070 *
Mercury	-23474-01-26 04:19 J	-6852430.40	-6852430.32	-6852430.24	0.0136	0.0123
Mercury	-23474-04-24 11:16 J	-6852342.16	-6852342.03	-6852341.90	0.0136	0.0095
Mercury	-23474-07-21 17:45 J	-6852253.91	-6852253.76	-6852253.59	0.0136	0.0069
Mercury	-23474-10-18 00:43 J	-6852165.64	-6852165.47	-6852165.29	0.0136	0.0042
Mercury	-23473-01-14 07:26 J	-6852077.37	-6852077.19	-6852077.00	0.0136	0.0016
Mercury	-23473-04-11 14:09 J	-6851989.09	-6851988.91	-6851988.72	0.0136	0.0011
Mercury	-23473-07-08 20:52 J	-6851900.81	-6851900.63	-6851900.45	0.0135	0.0037
Mercury	-23473-10-05 03:21 J	-6851812.52	-6851812.36	-6851812.19	0.0135	0.0063
Mercury	-23472-01-01 09:50 J	-6851724.22	-6851724.09	-6851723.95	0.0135	0.0088
Mercury	-23472-03-30 16:19 J	-6851635.91	-6851635.82	-6851635.72	0.0135	0.0113
Mars	-23465-09-03 11:02 J	-6848922.29	-6848922.04	-6848921.77	0.0133	0.0070
Mars	-23463-08-05 15:35 J	-6848220.90	-6848220.85	-6848220.73	0.0132	0.0128
Venus	-23452-07-15 00:28 J	-6844224.52	-6844224.48	-6844224.40	0.0132	0.0128
Venus	-23451-02-26 05:45 J	-6843998.38	-6843998.26	-6843998.11	0.0132	0.0105
Venus	-23451-10-10 11:02 J	-6843772.20	-6843772.04	-6843771.86	0.0133	0.0082
Venus	-23450-05-24 16:04 J	-6843546.01	-6843545.83	-6843545.62	0.0133	0.0059
Venus	-23449-01-05 21:35 J	-6843319.80	-6843319.60	-6843319.38	0.0133	0.0035
Venus	-23449-08-19 02:52 J	-6843093.59	-6843093.38	-6843093.16	0.0133	0.0012
Venus	-23448-04-02 08:23 J	-6842867.37	-6842867.15	-6842866.94	0.0133	0.0012
Venus	-23448-11-14 13:40 J	-6842641.14	-6842640.93	-6842640.72	0.0133	0.0036

Venus	-23447-06-28 18:57 J	-6842414.90	-6842414.71	-6842414.51	0.0134	0.0060
Venus	-23446-02-10 00:43 J	-6842188.64	-6842188.47	-6842188.30	0.0134	0.0083
Venus	-23446-09-24 05:45 J	-6841962.37	-6841962.26	-6841962.11	0.0134	0.0107
Venus	-23445-05-07 11:31 J	-6841736.06	-6841736.02	-6841735.96	0.0134	0.0131
Moon	-23436-05-17 16:33 J	-6838439.03	-6838438.81	-6838438.57	0.0139	0.0057
Earth	-23436-05-17 19:26 J	-6838438.91	-6838438.69	-6838438.45	0.0139	0.0057 *
Earth	-23435-05-22 07:26 J	-6838069.43	-6838069.19	-6838068.94	0.0139	0.0031
Moon	-23435-05-22 09:35 J	-6838069.33	-6838069.10	-6838068.85	0.0139	0.0036 *
Moon	-23434-05-26 17:45 J	-6837699.89	-6837699.76	-6837699.59	0.0140	0.0113
Earth	-23434-05-26 20:52 J	-6837699.76	-6837699.63	-6837699.50	0.0140	0.0119 *
Mercury	-23430-03-30 21:21 J	-6836295.64	-6836295.61	-6836295.57	0.0142	0.0136
Mercury	-23430-06-27 00:57 J	-6836207.53	-6836207.46	-6836207.38	0.0142	0.0115
Mercury	-23430-09-23 04:33 J	-6836119.40	-6836119.31	-6836119.20	0.0142	0.0093
Mercury	-23430-12-20 08:23 J	-6836031.26	-6836031.15	-6836031.03	0.0143	0.0071
Mercury	-23429-03-17 12:14 J	-6835943.12	-6835942.99	-6835942.86	0.0143	0.0049
Mercury	-23429-06-13 16:04 J	-6835854.97	-6835854.83	-6835854.70	0.0143	0.0027
Mercury	-23429-09-09 19:40 J	-6835766.81	-6835766.68	-6835766.54	0.0143	0.0006
Mercury	-23429-12-06 23:31 J	-6835678.65	-6835678.52	-6835678.38	0.0143	0.0019
Mercury	-23428-03-05 03:21 J	-6835590.49	-6835590.36	-6835590.22	0.0143	0.0042
Mercury	-23428-06-01 07:26 J	-6835502.32	-6835502.19	-6835502.07	0.0143	0.0065
Mercury	-23428-08-28 11:16 J	-6835414.14	-6835414.03	-6835413.92	0.0143	0.0088
Mercury	-23428-11-24 15:07 J	-6835325.95	-6835325.87	-6835325.78	0.0144	0.0111
Mercury	-23427-02-20 18:57 J	-6835237.75	-6835237.71	-6835237.66	0.0144	0.0135
Mars	-23421-12-26 18:57 J	-6832736.97	-6832736.71	-6832736.41	0.0146	0.0057
Venus	-23411-06-09 13:55 J	-6829284.98	-6829284.92	-6829284.85	0.0146	0.0139
Venus	-23410-01-22 02:09 J	-6829058.54	-6829058.41	-6829058.25	0.0146	0.0108
Venus	-23410-09-05 14:23 J	-6828832.07	-6828831.90	-6828831.70	0.0146	0.0078
Venus	-23409-04-19 02:52 J	-6828605.58	-6828605.38	-6828605.17	0.0146	0.0046
Venus	-23409-12-01 15:21 J	-6828379.08	-6828378.86	-6828378.64	0.0146	0.0015
Venus	-23408-07-16 03:50 J	-6828152.55	-6828152.34	-6828152.12	0.0145	0.0016

Venus	-23407-02-27 16:04 J	-6827926.03	-6827925.83	-6827925.62	0.0145	0.0047
Venus	-23407-10-12 04:04 J	-6827699.50	-6827699.33	-6827699.13	0.0145	0.0078
Venus	-23406-05-26 16:19 J	-6827472.95	-6827472.82	-6827472.66	0.0145	0.0108
Venus	-23405-01-08 04:33 J	-6827246.36	-6827246.31	-6827246.24	0.0144	0.0138
Earth	-23398-11-15 10:19 J	-6824378.22	-6824378.07	-6824377.90	0.0140	0.0110
Moon	-23398-11-15 10:33 J	-6824378.19	-6824378.06	-6824377.89	0.0140	0.0117 *
Moon	-23397-11-19 06:43 J	-6824008.47	-6824008.22	-6824007.97	0.0140	0.0011
Earth	-23397-11-19 07:11 J	-6824008.45	-6824008.20	-6824007.94	0.0140	0.0017 *
Earth	-23396-11-24 02:52 J	-6823638.59	-6823638.38	-6823638.15	0.0139	0.0074
Moon	-23396-11-24 03:50 J	-6823638.55	-6823638.34	-6823638.09	0.0139	0.0072 *
Mercury	-23390-02-15 12:14 J	-6821729.09	-6821728.99	-6821728.88	0.0136	0.0113
Mercury	-23390-05-14 19:11 J	-6821640.84	-6821640.70	-6821640.55	0.0136	0.0085
Mercury	-23390-08-11 02:09 J	-6821552.58	-6821552.41	-6821552.24	0.0136	0.0058
Mercury	-23390-11-07 08:52 J	-6821464.31	-6821464.13	-6821463.95	0.0136	0.0032
Mercury	-23389-02-03 15:35 J	-6821376.03	-6821375.85	-6821375.66	0.0136	0.0006
Mercury	-23389-05-01 22:19 J	-6821287.75	-6821287.57	-6821287.39	0.0136	0.0021
Mercury	-23389-07-29 04:47 J	-6821199.46	-6821199.30	-6821199.12	0.0136	0.0047
Mercury	-23389-10-25 11:31 J	-6821111.17	-6821111.02	-6821110.87	0.0135	0.0073
Mercury	-23388-01-21 17:45 J	-6821022.87	-6821022.76	-6821022.62	0.0135	0.0099
Mercury	-23388-04-20 00:14 J	-6820934.55	-6820934.49	-6820934.41	0.0135	0.0124
Mars	-23380-04-29 10:04 J	-6818003.39	-6818003.08	-6818002.77	0.0132	0.0003
Venus	-23368-10-26 17:31 J	-6813439.87	-6813439.77	-6813439.65	0.0132	0.0113
Venus	-23367-06-09 22:47 J	-6813213.70	-6813213.55	-6813213.38	0.0132	0.0090
Venus	-23366-01-22 04:04 J	-6812987.51	-6812987.33	-6812987.13	0.0132	0.0067
Venus	-23366-09-05 09:21 J	-6812761.31	-6812761.11	-6812760.90	0.0133	0.0044
Venus	-23365-04-18 14:38 J	-6812535.10	-6812534.89	-6812534.67	0.0133	0.0020
Venus	-23365-11-30 19:55 J	-6812308.89	-6812308.67	-6812308.45	0.0133	0.0004
Venus	-23364-07-15 01:11 J	-6812082.66	-6812082.45	-6812082.23	0.0133	0.0027
Venus	-23363-02-26 06:28 J	-6811856.42	-6811856.23	-6811856.02	0.0133	0.0051
Venus	-23363-10-10 11:59 J	-6811630.17	-6811630.00	-6811629.81	0.0134	0.0075

Venus	-23362-05-24 17:16 J	-6811403.91	-6811403.78	-6811403.62	0.0134	0.0099
Venus	-23361-01-05 22:47 J	-6811177.62	-6811177.55	-6811177.45	0.0134	0.0122
Earth	-23353-05-13 19:26 J	-6808126.72	-6808126.69	-6808126.65	0.0138	0.0137
Moon	-23353-05-13 22:19 J	-6808126.61	-6808126.57	-6808126.50	0.0138	0.0134
Moon	-23352-05-18 03:35 J	-6807757.58	-6807757.35	-6807757.11	0.0139	0.0050
Earth	-23352-05-18 06:28 J	-6807757.45	-6807757.23	-6807756.99	0.0139	0.0052 *
Earth	-23351-05-22 18:43 J	-6807387.96	-6807387.72	-6807387.48	0.0139	0.0036
Moon	-23351-05-22 21:35 J	-6807387.84	-6807387.60	-6807387.36	0.0139	0.0032 *
Moon	-23350-05-27 05:02 J	-6807018.37	-6807018.29	-6807018.19	0.0140	0.0130
Earth	-23350-05-27 07:11 J	-6807018.29	-6807018.20	-6807018.06	0.0140	0.0124 *
Mercury	-23346-04-20 04:33 J	-6805594.36	-6805594.31	-6805594.26	0.0142	0.0131
Mercury	-23346-07-17 08:09 J	-6805506.24	-6805506.16	-6805506.07	0.0142	0.0110
Mercury	-23346-10-13 11:45 J	-6805418.11	-6805418.01	-6805417.90	0.0142	0.0088
Mercury	-23345-01-09 15:35 J	-6805329.97	-6805329.85	-6805329.73	0.0142	0.0066
Mercury	-23345-04-06 19:26 J	-6805241.82	-6805241.69	-6805241.56	0.0143	0.0044
Mercury	-23345-07-03 23:02 J	-6805153.67	-6805153.54	-6805153.40	0.0143	0.0022
Mercury	-23345-09-30 02:52 J	-6805065.51	-6805065.38	-6805065.24	0.0143	0.0002
Mercury	-23345-12-27 06:43 J	-6804977.35	-6804977.22	-6804977.08	0.0143	0.0023
Mercury	-23344-03-25 10:33 J	-6804889.19	-6804889.06	-6804888.93	0.0143	0.0046
Mercury	-23344-06-21 14:23 J	-6804801.02	-6804800.90	-6804800.78	0.0143	0.0069
Mercury	-23344-09-17 18:14 J	-6804712.84	-6804712.74	-6804712.63	0.0143	0.0093
Mercury	-23344-12-14 22:04 J	-6804624.65	-6804624.58	-6804624.49	0.0144	0.0116
Mercury	-23343-03-13 02:09 J	-6804536.44	-6804536.41	-6804536.38	0.0144	0.0140
Mars	-23338-09-18 04:47 J	-6802521.47	-6802521.30	-6802521.11	0.0146	0.0119
Mars	-23336-08-22 08:23 J	-6801817.16	-6801817.15	-6801817.10	0.0146	0.0146
Venus	-23327-09-21 07:40 J	-6798500.29	-6798500.18	-6798500.06	0.0146	0.0123
Venus	-23326-05-05 19:40 J	-6798273.83	-6798273.68	-6798273.49	0.0146	0.0093
Venus	-23326-12-18 08:09 J	-6798047.34	-6798047.16	-6798046.95	0.0146	0.0061
Venus	-23325-07-31 20:52 J	-6797820.84	-6797820.63	-6797820.41	0.0146	0.0030
Venus	-23324-03-15 09:21 J	-6797594.32	-6797594.11	-6797593.89	0.0146	0.0003

Venus	-23324-10-27 21:35 J	-6797367.80	-6797367.60	-6797367.38	0.0145	0.0034
Venus	-23323-06-11 10:04 J	-6797141.27	-6797141.08	-6797140.88	0.0145	0.0064
Venus	-23322-01-23 22:04 J	-6796914.73	-6796914.58	-6796914.40	0.0145	0.0095
Venus	-23322-09-07 10:33 J	-6796688.16	-6796688.06	-6796687.94	0.0145	0.0125
Moon	-23314-11-15 19:55 J	-6793696.84	-6793696.67	-6793696.45	0.0140	0.0098
Earth	-23314-11-15 20:52 J	-6793696.79	-6793696.63	-6793696.44	0.0140	0.0105 *
Moon	-23313-11-19 17:59 J	-6793327.00	-6793326.75	-6793326.50	0.0140	0.0018
Earth	-23313-11-19 18:14 J	-6793326.99	-6793326.74	-6793326.48	0.0140	0.0012 *
Earth	-23312-11-24 14:09 J	-6792957.11	-6792956.91	-6792956.69	0.0139	0.0079
Moon	-23312-11-24 14:38 J	-6792957.08	-6792956.89	-6792956.65	0.0139	0.0083 *
Mercury	-23307-12-09 12:57 J	-6791115.99	-6791115.96	-6791115.89	0.0136	0.0131
Mercury	-23306-03-07 19:55 J	-6791027.77	-6791027.67	-6791027.53	0.0136	0.0104
Mercury	-23306-06-04 02:52 J	-6790939.52	-6790939.38	-6790939.21	0.0136	0.0077
Mercury	-23306-08-31 09:50 J	-6790851.25	-6790851.09	-6790850.91	0.0136	0.0049
Mercury	-23306-11-27 16:47 J	-6790762.98	-6790762.80	-6790762.61	0.0136	0.0022
Mercury	-23305-02-23 23:31 J	-6790674.70	-6790674.52	-6790674.33	0.0136	0.0005
Mercury	-23305-05-22 06:14 J	-6790586.42	-6790586.24	-6790586.06	0.0136	0.0031
Mercury	-23305-08-18 12:43 J	-6790498.13	-6790497.97	-6790497.80	0.0136	0.0057
Mercury	-23305-11-14 19:11 J	-6790409.83	-6790409.70	-6790409.54	0.0136	0.0083
Mercury	-23304-02-11 01:55 J	-6790321.53	-6790321.42	-6790321.31	0.0135	0.0108
Mercury	-23304-05-10 08:23 J	-6790233.18	-6790233.15	-6790233.12	0.0135	0.0133
Mars	-23297-01-22 06:28 J	-6787785.34	-6787785.23	-6787785.08	0.0133	0.0120
Mars	-23296-12-23 10:19 J	-6787084.30	-6787084.07	-6787083.79	0.0132	0.0077
Venus	-23284-06-26 05:59 J	-6782881.31	-6782881.25	-6782881.15	0.0132	0.0123
Venus	-23283-02-07 11:16 J	-6782655.16	-6782655.03	-6782654.87	0.0132	0.0100
Venus	-23283-09-21 16:47 J	-6782428.98	-6782428.80	-6782428.62	0.0132	0.0076
Venus	-23282-05-05 21:50 J	-6782202.78	-6782202.59	-6782202.38	0.0133	0.0053
Venus	-23282-12-18 03:21 J	-6781976.57	-6781976.36	-6781976.14	0.0133	0.0029
Venus	-23281-07-31 08:38 J	-6781750.35	-6781750.14	-6781749.92	0.0133	0.0006
Venus	-23280-03-14 13:55 J	-6781524.13	-6781523.92	-6781523.70	0.0133	0.0019

Venus	-23280-10-26 19:11 J	-6781297.90	-6781297.70	-6781297.49	0.0133	0.0043
Venus	-23279-06-10 00:28 J	-6781071.66	-6781071.48	-6781071.28	0.0133	0.0067
Venus	-23278-01-22 05:59 J	-6780845.40	-6780845.25	-6780845.08	0.0134	0.0091
Venus	-23278-09-05 11:31 J	-6780619.12	-6780619.02	-6780618.90	0.0134	0.0114
Earth	-23269-05-14 10:19 J	-6777445.16	-6777445.07	-6777444.97	0.0138	0.0128
Moon	-23269-05-14 13:26 J	-6777445.00	-6777444.94	-6777444.84	0.0138	0.0130 *
Moon	-23268-05-18 18:14 J	-6777075.97	-6777075.74	-6777075.49	0.0139	0.0043
Earth	-23268-05-18 21:35 J	-6777075.83	-6777075.60	-6777075.36	0.0139	0.0043 *
Earth	-23267-05-23 09:21 J	-6776706.34	-6776706.11	-6776705.86	0.0139	0.0044
Moon	-23267-05-23 12:14 J	-6776706.21	-6776705.99	-6776705.75	0.0139	0.0049 *
Moon	-23266-05-27 18:57 J	-6776336.80	-6776336.71	-6776336.58	0.0140	0.0126
Earth	-23266-05-27 22:19 J	-6776336.63	-6776336.57	-6776336.47	0.0140	0.0132 *
Mercury	-23262-05-10 12:28 J	-6774893.04	-6774892.98	-6774892.91	0.0142	0.0122
Mercury	-23262-08-06 16:04 J	-6774804.92	-6774804.83	-6774804.73	0.0142	0.0101
Mercury	-23262-11-02 19:40 J	-6774716.78	-6774716.68	-6774716.56	0.0142	0.0080
Mercury	-23261-01-29 23:31 J	-6774628.64	-6774628.52	-6774628.39	0.0142	0.0057
Mercury	-23261-04-27 03:21 J	-6774540.49	-6774540.36	-6774540.23	0.0143	0.0035
Mercury	-23261-07-24 06:57 J	-6774452.34	-6774452.21	-6774452.07	0.0143	0.0014
Mercury	-23261-10-20 10:47 J	-6774364.18	-6774364.05	-6774363.91	0.0143	0.0010
Mercury	-23260-01-16 14:38 J	-6774276.02	-6774275.89	-6774275.76	0.0143	0.0033
Mercury	-23260-04-14 18:28 J	-6774187.85	-6774187.73	-6774187.60	0.0143	0.0055
Mercury	-23260-07-11 22:19 J	-6774099.68	-6774099.57	-6774099.45	0.0143	0.0079
Mercury	-23260-10-08 01:55 J	-6774011.50	-6774011.42	-6774011.31	0.0143	0.0103
Mercury	-23259-01-04 05:59 J	-6773923.31	-6773923.25	-6773923.18	0.0143	0.0126
Mars	-23253-05-14 05:31 J	-6771601.56	-6771601.27	-6771600.95	0.0146	0.0023
Venus	-23243-05-21 15:07 J	-6767941.93	-6767941.87	-6767941.78	0.0146	0.0137
Venus	-23242-01-03 03:35 J	-6767715.49	-6767715.35	-6767715.19	0.0146	0.0106
Venus	-23242-08-17 16:04 J	-6767489.01	-6767488.83	-6767488.63	0.0146	0.0074
Venus	-23241-03-31 04:33 J	-6767262.51	-6767262.31	-6767262.09	0.0146	0.0043
Venus	-23241-11-12 17:02 J	-6767036.00	-6767035.79	-6767035.57	0.0146	0.0012

Venus	-23240-06-27 05:31 J	-6766809.48	-6766809.27	-6766809.05	0.0146	0.0021
Venus	-23239-02-08 17:59 J	-6766582.95	-6766582.75	-6766582.54	0.0145	0.0051
Venus	-23239-09-23 06:14 J	-6766356.41	-6766356.24	-6766356.05	0.0145	0.0082
Venus	-23238-05-07 18:28 J	-6766129.86	-6766129.73	-6766129.59	0.0145	0.0113
Venus	-23238-12-20 06:43 J	-6765903.24	-6765903.22	-6765903.18	0.0145	0.0143
Moon	-23230-11-16 08:52 J	-6763015.30	-6763015.13	-6763014.94	0.0140	0.0104
Earth	-23230-11-16 09:50 J	-6763015.27	-6763015.09	-6763014.90	0.0140	0.0097 *
Earth	-23229-11-20 06:57 J	-6762645.47	-6762645.21	-6762644.95	0.0140	0.0005
Moon	-23229-11-20 07:26 J	-6762645.44	-6762645.19	-6762644.94	0.0140	0.0002 *
Earth	-23228-11-25 02:52 J	-6762275.57	-6762275.38	-6762275.16	0.0139	0.0087
Moon	-23228-11-25 03:21 J	-6762275.57	-6762275.36	-6762275.14	0.0139	0.0083 *
Mercury	-23223-12-29 21:07 J	-6760414.69	-6760414.62	-6760414.52	0.0136	0.0121
Mercury	-23222-03-28 04:19 J	-6760326.45	-6760326.32	-6760326.18	0.0136	0.0093
Mercury	-23222-06-24 11:16 J	-6760238.19	-6760238.03	-6760237.86	0.0136	0.0066
Mercury	-23222-09-20 17:59 J	-6760149.92	-6760149.75	-6760149.56	0.0136	0.0039
Mercury	-23222-12-18 00:57 J	-6760061.64	-6760061.46	-6760061.28	0.0136	0.0012
Mercury	-23221-03-15 07:40 J	-6759973.36	-6759973.18	-6759973.00	0.0136	0.0014
Mercury	-23221-06-11 14:09 J	-6759885.08	-6759884.91	-6759884.73	0.0136	0.0041
Mercury	-23221-09-07 20:52 J	-6759796.78	-6759796.63	-6759796.47	0.0136	0.0067
Mercury	-23221-12-05 03:07 J	-6759708.49	-6759708.37	-6759708.22	0.0136	0.0093
Mercury	-23220-03-03 09:50 J	-6759620.17	-6759620.09	-6759619.99	0.0135	0.0118
Mars	-23213-09-16 06:28 J	-6756866.51	-6756866.23	-6756865.93	0.0133	0.0047
Venus	-23200-02-23 19:11 J	-6752322.73	-6752322.70	-6752322.67	0.0132	0.0131
Venus	-23200-10-08 00:14 J	-6752096.61	-6752096.49	-6752096.36	0.0132	0.0108
Venus	-23199-05-22 05:16 J	-6751870.44	-6751870.28	-6751870.10	0.0132	0.0085
Venus	-23198-01-03 10:47 J	-6751644.24	-6751644.05	-6751643.85	0.0133	0.0061
Venus	-23198-08-17 16:04 J	-6751418.03	-6751417.83	-6751417.62	0.0133	0.0037
Venus	-23197-03-30 21:21 J	-6751191.82	-6751191.61	-6751191.39	0.0133	0.0014
Venus	-23197-11-12 02:38 J	-6750965.60	-6750965.39	-6750965.17	0.0133	0.0011
Venus	-23196-06-26 07:55 J	-6750739.37	-6750739.17	-6750738.95	0.0133	0.0035

Venus	-23195-02-07 13:26 J	-6750513.13	-6750512.94	-6750512.74	0.0133	0.0058
Venus	-23195-09-21 18:28 J	-6750286.88	-6750286.73	-6750286.54	0.0134	0.0083
Venus	-23194-05-06 00:14 J	-6750060.62	-6750060.49	-6750060.36	0.0134	0.0106
Venus	-23194-12-18 05:31 J	-6749834.31	-6749834.27	-6749834.21	0.0134	0.0130
Earth	-23185-05-15 00:57 J	-6746763.57	-6746763.46	-6746763.32	0.0138	0.0119
Moon	-23185-05-15 04:33 J	-6746763.44	-6746763.31	-6746763.18	0.0138	0.0116 *
Moon	-23184-05-19 08:38 J	-6746394.37	-6746394.14	-6746393.88	0.0139	0.0034
Earth	-23184-05-19 12:14 J	-6746394.22	-6746393.99	-6746393.74	0.0139	0.0035 *
Earth	-23183-05-24 00:14 J	-6746024.71	-6746024.49	-6746024.25	0.0139	0.0052
Moon	-23183-05-24 03:50 J	-6746024.57	-6746024.34	-6746024.11	0.0139	0.0048 *
Earth	-23182-05-28 13:11 J	-6745654.95	-6745654.95	-6745654.93	0.0140	0.0139
Mercury	-23178-03-03 16:47 J	-6744279.83	-6744279.80	-6744279.76	0.0142	0.0135
Mercury	-23178-05-30 20:23 J	-6744191.72	-6744191.65	-6744191.56	0.0142	0.0114
Mercury	-23178-08-26 23:59 J	-6744103.59	-6744103.50	-6744103.39	0.0142	0.0092
Mercury	-23178-11-23 03:50 J	-6744015.46	-6744015.34	-6744015.22	0.0142	0.0070
Mercury	-23177-02-19 07:26 J	-6743927.31	-6743927.19	-6743927.06	0.0142	0.0049
Mercury	-23177-05-17 11:16 J	-6743839.16	-6743839.03	-6743838.90	0.0143	0.0026
Mercury	-23177-08-13 15:07 J	-6743751.01	-6743750.87	-6743750.74	0.0143	0.0005
Mercury	-23177-11-09 18:43 J	-6743662.85	-6743662.72	-6743662.58	0.0143	0.0019
Mercury	-23176-02-05 22:33 J	-6743574.69	-6743574.56	-6743574.43	0.0143	0.0042
Mercury	-23176-05-05 02:23 J	-6743486.52	-6743486.40	-6743486.27	0.0143	0.0065
Mercury	-23176-08-01 06:14 J	-6743398.34	-6743398.24	-6743398.13	0.0143	0.0088
Mercury	-23176-10-28 10:04 J	-6743310.16	-6743310.08	-6743309.99	0.0143	0.0111
Mercury	-23175-01-24 13:55 J	-6743221.95	-6743221.92	-6743221.86	0.0143	0.0135
Mars	-23168-01-08 06:43 J	-6740681.47	-6740681.22	-6740680.94	0.0146	0.0074
Venus	-23159-09-02 11:59 J	-6737157.12	-6737157.00	-6737156.86	0.0146	0.0118
Venus	-23158-04-17 00:14 J	-6736930.65	-6736930.49	-6736930.30	0.0146	0.0088
Venus	-23158-11-29 12:57 J	-6736704.16	-6736703.96	-6736703.75	0.0146	0.0056
Venus	-23157-07-13 01:40 J	-6736477.64	-6736477.43	-6736477.21	0.0146	0.0024
Venus	-23156-02-24 14:09 J	-6736251.13	-6736250.91	-6736250.69	0.0146	0.0008

Venus	-23156-10-09 02:23 J	-6736024.60	-6736024.40	-6736024.18	0.0145	0.0039
Venus	-23155-05-23 14:38 J	-6735798.07	-6735797.89	-6735797.69	0.0145	0.0071
Venus	-23154-01-05 02:52 J	-6735571.52	-6735571.38	-6735571.21	0.0145	0.0101
Venus	-23154-08-19 15:07 J	-6735344.94	-6735344.87	-6735344.77	0.0145	0.0132
Moon	-23146-11-16 21:50 J	-6732333.79	-6732333.59	-6732333.36	0.0140	0.0082
Earth	-23146-11-16 23:45 J	-6732333.70	-6732333.51	-6732333.30	0.0140	0.0089 *
Earth	-23145-11-20 21:07 J	-6731963.87	-6731963.62	-6731963.36	0.0140	0.0005
Moon	-23145-11-20 21:50 J	-6731963.84	-6731963.59	-6731963.34	0.0140	0.0002 *
Moon	-23144-11-25 17:02 J	-6731593.96	-6731593.79	-6731593.58	0.0139	0.0099
Earth	-23144-11-25 17:16 J	-6731593.95	-6731593.78	-6731593.57	0.0139	0.0095 *
Mercury	-23139-10-22 22:48 J	-6729801.55	-6729801.55	-6729801.52	0.0137	0.0136
Mercury	-23138-01-19 05:45 J	-6729713.36	-6729713.26	-6729713.13	0.0136	0.0109
Mercury	-23138-04-17 12:43 J	-6729625.11	-6729624.97	-6729624.81	0.0136	0.0081
Mercury	-23138-07-14 19:40 J	-6729536.84	-6729536.68	-6729536.50	0.0136	0.0054
Mercury	-23138-10-11 02:38 J	-6729448.57	-6729448.39	-6729448.21	0.0136	0.0027
Mercury	-23137-01-07 09:21 J	-6729360.29	-6729360.11	-6729359.92	0.0136	0.0003
Mercury	-23137-04-04 16:04 J	-6729272.01	-6729271.83	-6729271.64	0.0136	0.0026
Mercury	-23137-07-01 22:48 J	-6729183.72	-6729183.55	-6729183.38	0.0136	0.0052
Mercury	-23137-09-28 05:16 J	-6729095.42	-6729095.28	-6729095.12	0.0136	0.0078
Mercury	-23137-12-25 11:45 J	-6729007.12	-6729007.01	-6729006.88	0.0136	0.0104
Mercury	-23136-03-23 18:14 J	-6728918.78	-6728918.74	-6728918.68	0.0135	0.0129
Mars	-23128-05-12 08:38 J	-6725947.43	-6725947.14	-6725946.82	0.0133	0.0028
Venus	-23116-06-07 13:11 J	-6721538.04	-6721537.95	-6721537.84	0.0132	0.0116
Venus	-23115-01-19 18:28 J	-6721311.87	-6721311.73	-6721311.56	0.0132	0.0093
Venus	-23115-09-02 23:45 J	-6721085.69	-6721085.51	-6721085.31	0.0132	0.0070
Venus	-23114-04-17 05:16 J	-6720859.49	-6720859.28	-6720859.08	0.0133	0.0046
Venus	-23114-11-29 10:33 J	-6720633.28	-6720633.06	-6720632.84	0.0133	0.0022
Venus	-23113-07-12 15:50 J	-6720407.06	-6720406.84	-6720406.62	0.0133	0.0002
Venus	-23112-02-23 21:07 J	-6720180.83	-6720180.62	-6720180.40	0.0133	0.0026
Venus	-23112-10-08 02:23 J	-6719954.59	-6719954.40	-6719954.19	0.0133	0.0050

Venus	-23111-05-22 07:26 J	-6719728.35	-6719728.19	-6719727.99	0.0134	0.0075
Venus	-23110-01-03 13:26 J	-6719502.09	-6719501.94	-6719501.80	0.0134	0.0098
Venus	-23110-08-17 18:28 J	-6719275.80	-6719275.73	-6719275.63	0.0134	0.0122
Earth	-23101-05-15 17:02 J	-6716081.93	-6716081.79	-6716081.63	0.0138	0.0109
Moon	-23101-05-15 20:23 J	-6716081.78	-6716081.65	-6716081.49	0.0138	0.0112 *
Saturn	-23101-10-28 21:36 J	-6715915.85	-6715915.60	-6715915.22	0.0138	0.0121
Moon	-23100-05-20 00:57 J	-6715712.71	-6715712.46	-6715712.21	0.0139	0.0025
Earth	-23100-05-20 04:33 J	-6715712.56	-6715712.31	-6715712.07	0.0139	0.0025 *
Earth	-23099-05-24 16:04 J	-6715343.04	-6715342.83	-6715342.59	0.0139	0.0062
Moon	-23099-05-24 19:40 J	-6715342.90	-6715342.68	-6715342.46	0.0139	0.0067 *
Mercury	-23094-03-24 00:57 J	-6713578.51	-6713578.46	-6713578.39	0.0142	0.0125
Mercury	-23094-06-20 04:48 J	-6713490.39	-6713490.30	-6713490.21	0.0142	0.0103
Mercury	-23094-09-16 08:23 J	-6713402.26	-6713402.15	-6713402.04	0.0142	0.0082
Mercury	-23094-12-13 12:00 J	-6713314.12	-6713314.00	-6713313.87	0.0142	0.0060
Mercury	-23093-03-10 15:50 J	-6713225.97	-6713225.84	-6713225.71	0.0143	0.0038
Mercury	-23093-06-06 19:26 J	-6713137.82	-6713137.69	-6713137.55	0.0143	0.0016
Mercury	-23093-09-02 23:16 J	-6713049.66	-6713049.53	-6713049.39	0.0143	0.0007
Mercury	-23093-11-30 03:07 J	-6712961.50	-6712961.37	-6712961.24	0.0143	0.0030
Mercury	-23092-02-26 06:57 J	-6712873.34	-6712873.21	-6712873.08	0.0143	0.0052
Mercury	-23092-05-25 10:48 J	-6712785.17	-6712785.05	-6712784.94	0.0143	0.0075
Mercury	-23092-08-21 14:38 J	-6712696.99	-6712696.89	-6712696.79	0.0143	0.0099
Mercury	-23092-11-17 18:14 J	-6712608.80	-6712608.74	-6712608.66	0.0143	0.0123
Mars	-23086-10-01 07:11 J	-6710465.42	-6710465.20	-6710464.93	0.0146	0.0090
Venus	-23075-05-02 22:04 J	-6706598.66	-6706598.58	-6706598.46	0.0146	0.0131
Venus	-23075-12-15 11:02 J	-6706372.20	-6706372.04	-6706371.88	0.0146	0.0099
Venus	-23074-07-29 23:31 J	-6706145.71	-6706145.52	-6706145.33	0.0146	0.0067
Venus	-23073-03-12 11:45 J	-6705919.21	-6705919.01	-6705918.79	0.0146	0.0036
Venus	-23073-10-25 00:28 J	-6705692.70	-6705692.48	-6705692.26	0.0146	0.0004
Venus	-23072-06-08 12:57 J	-6705466.18	-6705465.96	-6705465.75	0.0146	0.0028
Venus	-23071-01-21 00:57 J	-6705239.65	-6705239.46	-6705239.25	0.0145	0.0060

Venus	-23071-09-04 13:26 J	-6705013.11	-6705012.94	-6705012.77	0.0145	0.0091
Venus	-23070-04-19 01:40 J	-6704786.54	-6704786.43	-6704786.31	0.0145	0.0121
Moon	-23062-11-17 14:09 J	-6701652.11	-6701651.91	-6701651.68	0.0140	0.0085
Earth	-23062-11-17 15:36 J	-6701652.05	-6701651.85	-6701651.62	0.0140	0.0079 *
Earth	-23061-11-21 13:11 J	-6701282.20	-6701281.95	-6701281.69	0.0140	0.0014
Moon	-23061-11-21 14:38 J	-6701282.14	-6701281.89	-6701281.64	0.0140	0.0021 *
Moon	-23060-11-26 08:38 J	-6700912.31	-6700912.14	-6700911.94	0.0139	0.0100
Earth	-23060-11-26 09:21 J	-6700912.26	-6700912.11	-6700911.92	0.0139	0.0104 *
Mercury	-23055-11-12 07:40 J	-6699100.25	-6699100.18	-6699100.09	0.0137	0.0123
Mercury	-23054-02-08 14:38 J	-6699012.01	-6699011.89	-6699011.75	0.0136	0.0096
Mercury	-23054-05-07 21:36 J	-6698923.75	-6698923.60	-6698923.43	0.0136	0.0068
Mercury	-23054-08-04 04:33 J	-6698835.48	-6698835.31	-6698835.13	0.0136	0.0041
Mercury	-23054-10-31 11:16 J	-6698747.21	-6698747.03	-6698746.84	0.0136	0.0016
Mercury	-23053-01-27 18:14 J	-6698658.93	-6698658.74	-6698658.56	0.0136	0.0012
Mercury	-23053-04-25 00:57 J	-6698570.64	-6698570.46	-6698570.29	0.0136	0.0038
Mercury	-23053-07-22 07:11 J	-6698482.35	-6698482.20	-6698482.02	0.0136	0.0065
Mercury	-23053-10-18 14:09 J	-6698394.05	-6698393.91	-6698393.78	0.0136	0.0090
Mercury	-23052-01-14 20:23 J	-6698305.73	-6698305.65	-6698305.55	0.0136	0.0116
Mars	-23045-02-04 08:38 J	-6695729.34	-6695729.14	-6695728.90	0.0133	0.0094
Mars	-23043-01-05 12:00 J	-6695028.18	-6695028.00	-6695027.79	0.0132	0.0102
Venus	-23032-02-05 01:55 J	-6690979.47	-6690979.42	-6690979.33	0.0132	0.0125
Venus	-23032-09-19 07:26 J	-6690753.32	-6690753.19	-6690753.04	0.0132	0.0102
Venus	-23031-05-03 12:28 J	-6690527.14	-6690526.98	-6690526.79	0.0132	0.0079
Venus	-23031-12-15 18:00 J	-6690300.94	-6690300.75	-6690300.54	0.0133	0.0054
Venus	-23030-07-29 23:16 J	-6690074.74	-6690074.53	-6690074.31	0.0133	0.0031
Venus	-23029-03-12 04:33 J	-6689848.52	-6689848.31	-6689848.09	0.0133	0.0007
Venus	-23029-10-24 09:50 J	-6689622.30	-6689622.09	-6689621.87	0.0133	0.0018
Venus	-23028-06-07 14:52 J	-6689396.08	-6689395.88	-6689395.66	0.0133	0.0042
Venus	-23027-01-19 20:09 J	-6689169.83	-6689169.66	-6689169.45	0.0133	0.0067
Venus	-23027-09-03 01:40 J	-6688943.58	-6688943.43	-6688943.26	0.0134	0.0090

Venus	-23026-04-17 06:57 J	-6688717.31	-6688717.21	-6688717.09	0.0134	0.0114
Earth	-23017-05-16 06:57 J	-6685400.36	-6685400.21	-6685400.03	0.0138	0.0102
Moon	-23017-05-16 10:19 J	-6685400.22	-6685400.07	-6685399.88	0.0138	0.0099 *
Moon	-23016-05-20 14:38 J	-6685031.13	-6685030.89	-6685030.64	0.0139	0.0016
Earth	-23016-05-20 18:14 J	-6685030.98	-6685030.74	-6685030.49	0.0139	0.0018 *
Earth	-23015-05-25 06:00 J	-6684661.46	-6684661.25	-6684661.02	0.0139	0.0069
Moon	-23015-05-25 09:36 J	-6684661.31	-6684661.10	-6684660.87	0.0139	0.0065 *
Mercury	-23010-01-15 05:02 J	-6682965.31	-6682965.29	-6682965.26	0.0142	0.0139
Mercury	-23010-04-13 08:38 J	-6682877.20	-6682877.14	-6682877.06	0.0142	0.0117
Mercury	-23010-07-10 12:28 J	-6682789.08	-6682788.98	-6682788.88	0.0142	0.0096
Mercury	-23010-10-06 16:04 J	-6682700.94	-6682700.83	-6682700.71	0.0142	0.0074
Mercury	-23009-01-02 19:40 J	-6682612.80	-6682612.68	-6682612.55	0.0142	0.0052
Mercury	-23009-03-30 23:31 J	-6682524.65	-6682524.52	-6682524.39	0.0142	0.0030
Mercury	-23009-06-27 03:21 J	-6682436.50	-6682436.36	-6682436.23	0.0143	0.0008
Mercury	-23009-09-23 06:57 J	-6682348.34	-6682348.21	-6682348.07	0.0143	0.0016
Mercury	-23009-12-20 10:48 J	-6682260.18	-6682260.05	-6682259.92	0.0143	0.0038
Mercury	-23008-03-18 14:38 J	-6682172.01	-6682171.89	-6682171.76	0.0143	0.0061
Mercury	-23008-06-14 18:14 J	-6682083.84	-6682083.74	-6682083.62	0.0143	0.0085
Mercury	-23008-09-10 22:19 J	-6681995.66	-6681995.57	-6681995.48	0.0143	0.0107
Mercury	-23008-12-08 02:09 J	-6681907.46	-6681907.41	-6681907.35	0.0143	0.0130
Mars	-23001-05-27 07:40 J	-6679545.49	-6679545.18	-6679544.87	0.0146	0.0006

23RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 23rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-22992-12-31 06:43 J		-6676040.24	-6676040.22	-6676040.16	0.0147	0.0144	
Venus	-22991-08-14 19:26 J		-6675813.82	-6675813.69	-6675813.54	0.0146	0.0112	
Venus	-22990-03-29 07:55 J		-6675587.34	-6675587.17	-6675586.98	0.0146	0.0080	
Venus	-22990-11-10 20:23 J		-6675360.85	-6675360.65	-6675360.44	0.0146	0.0049	
Venus	-22989-06-24 09:07 J		-6675134.33	-6675134.12	-6675133.90	0.0146	0.0016	
Venus	-22988-02-05 21:36 J		-6674907.82	-6674907.60	-6674907.38	0.0146	0.0016	
Venus	-22988-09-20 09:50 J		-6674681.29	-6674681.09	-6674680.88	0.0146	0.0047	
Venus	-22987-05-04 22:19 J		-6674454.75	-6674454.57	-6674454.39	0.0145	0.0079	
Venus	-22987-12-17 10:19 J		-6674228.20	-6674228.07	-6674227.92	0.0145	0.0110	
Venus	-22986-07-31 22:33 J		-6674001.59	-6674001.56	-6674001.50	0.0145	0.0141	
Moon	-22978-11-18 04:19 J		-6670970.55	-6670970.32	-6670970.07	0.0140	0.0062	
Earth	-22978-11-18 06:28 J		-6670970.44	-6670970.23	-6670969.99	0.0140	0.0070	*
Earth	-22977-11-22 04:19 J		-6670600.57	-6670600.32	-6670600.06	0.0140	0.0023	
Moon	-22977-11-22 05:45 J		-6670600.51	-6670600.26	-6670600.01	0.0140	0.0017	*
Moon	-22976-11-26 23:31 J		-6670230.65	-6670230.52	-6670230.36	0.0139	0.0117	
Earth	-22976-11-27 00:28 J		-6670230.61	-6670230.48	-6670230.31	0.0139	0.0113	*
Mercury	-22971-12-02 16:19 J		-6668398.92	-6668398.82	-6668398.70	0.0137	0.0111	
Mercury	-22970-02-28 23:16 J		-6668310.67	-6668310.53	-6668310.37	0.0136	0.0084	
Mercury	-22970-05-28 06:14 J		-6668222.40	-6668222.24	-6668222.06	0.0136	0.0056	
Mercury	-22970-08-24 13:11 J		-6668134.13	-6668133.95	-6668133.77	0.0136	0.0029	
Mercury	-22970-11-20 19:55 J		-6668045.85	-6668045.67	-6668045.48	0.0136	0.0005	
Mercury	-22969-02-17 02:38 J		-6667957.57	-6667957.39	-6667957.20	0.0136	0.0024	
Mercury	-22969-05-15 09:21 J		-6667869.28	-6667869.11	-6667868.93	0.0136	0.0050	
Mercury	-22969-08-11 15:50 J		-6667780.98	-6667780.84	-6667780.68	0.0136	0.0076	
Mercury	-22969-11-07 22:19 J		-6667692.67	-6667692.57	-6667692.44	0.0136	0.0102	
Mercury	-22968-02-04 05:02 J		-6667604.34	-6667604.29	-6667604.22	0.0135	0.0127	
Mars	-22961-09-29 10:04 J		-6664810.37	-6664810.08	-6664809.76	0.0133	0.0021	

Venus	-22948-05-19 19:55 J	-6660194.78	-6660194.67	-6660194.54	0.0132	0.0111
Venus	-22947-01-01 00:57 J	-6659968.60	-6659968.46	-6659968.28	0.0132	0.0088
Venus	-22947-08-15 06:28 J	-6659742.42	-6659742.23	-6659742.03	0.0132	0.0063
Venus	-22946-03-29 11:31 J	-6659516.22	-6659516.02	-6659515.80	0.0133	0.0040
Venus	-22946-11-10 16:48 J	-6659290.01	-6659289.80	-6659289.58	0.0133	0.0016
Venus	-22945-06-23 22:04 J	-6659063.80	-6659063.58	-6659063.36	0.0133	0.0009
Venus	-22944-02-05 03:21 J	-6658837.57	-6658837.36	-6658837.14	0.0133	0.0033
Venus	-22944-09-19 08:23 J	-6658611.34	-6658611.15	-6658610.94	0.0133	0.0057
Venus	-22943-05-03 13:26 J	-6658385.10	-6658384.94	-6658384.75	0.0133	0.0082
Venus	-22943-12-15 18:43 J	-6658158.83	-6658158.72	-6658158.57	0.0134	0.0106
Venus	-22942-07-30 00:00 J	-6657932.53	-6657932.50	-6657932.43	0.0134	0.0130
Earth	-22933-05-16 20:09 J	-6654718.83	-6654718.66	-6654718.47	0.0138	0.0094
Moon	-22933-05-16 23:45 J	-6654718.67	-6654718.51	-6654718.32	0.0138	0.0097 *
Moon	-22932-05-21 03:50 J	-6654349.58	-6654349.34	-6654349.09	0.0139	0.0010
Earth	-22932-05-21 07:26 J	-6654349.44	-6654349.19	-6654348.94	0.0139	0.0010 *
Earth	-22931-05-25 18:43 J	-6653979.92	-6653979.72	-6653979.50	0.0139	0.0075
Moon	-22931-05-25 22:19 J	-6653979.76	-6653979.57	-6653979.36	0.0139	0.0080 *
Mercury	-22926-02-04 12:43 J	-6652264.01	-6652263.97	-6652263.92	0.0142	0.0131
Mercury	-22926-05-03 16:19 J	-6652175.90	-6652175.82	-6652175.73	0.0142	0.0110
Mercury	-22926-07-30 19:55 J	-6652087.77	-6652087.67	-6652087.56	0.0142	0.0089
Mercury	-22926-10-26 23:45 J	-6651999.63	-6651999.51	-6651999.39	0.0142	0.0066
Mercury	-22925-01-23 03:21 J	-6651911.48	-6651911.36	-6651911.23	0.0142	0.0045
Mercury	-22925-04-20 07:11 J	-6651823.33	-6651823.20	-6651823.07	0.0142	0.0022
Mercury	-22925-07-17 11:02 J	-6651735.18	-6651735.04	-6651734.91	0.0143	0.0004
Mercury	-22925-10-13 14:38 J	-6651647.02	-6651646.89	-6651646.75	0.0143	0.0023
Mercury	-22924-01-09 18:28 J	-6651558.86	-6651558.73	-6651558.60	0.0143	0.0045
Mercury	-22924-04-07 22:19 J	-6651470.69	-6651470.57	-6651470.45	0.0143	0.0068
Mercury	-22924-07-05 02:09 J	-6651382.51	-6651382.41	-6651382.30	0.0143	0.0092
Mercury	-22924-10-01 05:45 J	-6651294.33	-6651294.26	-6651294.16	0.0143	0.0116
Mercury	-22924-12-28 09:50 J	-6651206.11	-6651206.09	-6651206.05	0.0143	0.0138

Mars	-22916-01-21 05:02 J	-6648625.49	-6648625.29	-6648625.05	0.0146	0.0101
Venus	-22907-04-14 03:21 J	-6645255.46	-6645255.36	-6645255.24	0.0147	0.0126
Venus	-22907-11-26 16:04 J	-6645028.99	-6645028.83	-6645028.66	0.0146	0.0094
Venus	-22906-07-11 04:48 J	-6644802.49	-6644802.30	-6644802.10	0.0146	0.0062
Venus	-22905-02-22 17:31 J	-6644575.99	-6644575.77	-6644575.56	0.0146	0.0030
Venus	-22905-10-06 05:45 J	-6644349.47	-6644349.26	-6644349.04	0.0146	0.0004
Venus	-22904-05-20 18:14 J	-6644122.95	-6644122.74	-6644122.53	0.0146	0.0035
Venus	-22903-01-02 06:28 J	-6643896.42	-6643896.23	-6643896.03	0.0146	0.0067
Venus	-22903-08-16 18:43 J	-6643669.86	-6643669.72	-6643669.54	0.0145	0.0098
Venus	-22902-03-31 06:57 J	-6643443.29	-6643443.21	-6643443.10	0.0145	0.0130
Moon	-22894-11-18 19:11 J	-6640288.93	-6640288.70	-6640288.46	0.0140	0.0067
Earth	-22894-11-18 21:21 J	-6640288.83	-6640288.61	-6640288.36	0.0140	0.0060 *
Earth	-22893-11-22 19:11 J	-6639918.95	-6639918.70	-6639918.45	0.0140	0.0031
Moon	-22893-11-22 21:07 J	-6639918.86	-6639918.62	-6639918.37	0.0140	0.0039 *
Moon	-22892-11-27 13:40 J	-6639549.06	-6639548.93	-6639548.77	0.0139	0.0117
Earth	-22892-11-27 15:07 J	-6639548.97	-6639548.87	-6639548.72	0.0139	0.0122 *
Mercury	-22887-09-25 17:45 J	-6637785.82	-6637785.76	-6637785.68	0.0137	0.0127
Mercury	-22887-12-23 00:57 J	-6637697.58	-6637697.46	-6637697.33	0.0137	0.0099
Mercury	-22886-03-21 07:55 J	-6637609.32	-6637609.17	-6637609.01	0.0136	0.0072
Mercury	-22886-06-17 14:52 J	-6637521.06	-6637520.88	-6637520.70	0.0136	0.0045
Mercury	-22886-09-13 21:36 J	-6637432.78	-6637432.60	-6637432.41	0.0136	0.0018
Mercury	-22886-12-11 04:33 J	-6637344.50	-6637344.31	-6637344.13	0.0136	0.0009
Mercury	-22885-03-08 11:16 J	-6637256.21	-6637256.03	-6637255.85	0.0136	0.0035
Mercury	-22885-06-04 17:45 J	-6637167.92	-6637167.76	-6637167.59	0.0136	0.0062
Mercury	-22885-09-01 00:14 J	-6637079.62	-6637079.49	-6637079.34	0.0136	0.0088
Mercury	-22885-11-28 06:57 J	-6636991.30	-6636991.21	-6636991.10	0.0136	0.0113
Mars	-22876-05-25 10:04 J	-6633891.34	-6633891.08	-6633890.78	0.0132	0.0054
Venus	-22864-01-17 08:23 J	-6629636.23	-6629636.15	-6629636.05	0.0132	0.0119
Venus	-22864-08-31 13:26 J	-6629410.08	-6629409.94	-6629409.78	0.0132	0.0096
Venus	-22863-04-14 18:43 J	-6629183.90	-6629183.72	-6629183.53	0.0132	0.0072

Venus	-22863-11-26 23:45 J	-6628957.70	-6628957.51	-6628957.30	0.0132	0.0049
Venus	-22862-07-11 05:02 J	-6628731.50	-6628731.29	-6628731.07	0.0133	0.0025
Venus	-22861-02-22 10:19 J	-6628505.29	-6628505.07	-6628504.85	0.0133	0.0001
Venus	-22861-10-05 15:21 J	-6628279.07	-6628278.86	-6628278.64	0.0133	0.0024
Venus	-22860-05-19 20:23 J	-6628052.85	-6628052.65	-6628052.44	0.0133	0.0048
Venus	-22859-01-01 01:40 J	-6627826.61	-6627826.43	-6627826.24	0.0133	0.0073
Venus	-22859-08-15 06:57 J	-6627600.36	-6627600.21	-6627600.06	0.0133	0.0097
Venus	-22858-03-29 12:00 J	-6627374.08	-6627374.00	-6627373.90	0.0134	0.0121
Earth	-22849-05-17 07:55 J	-6624037.34	-6624037.17	-6624036.96	0.0138	0.0089
Moon	-22849-05-17 11:31 J	-6624037.21	-6624037.02	-6624036.82	0.0138	0.0085 *
Moon	-22848-05-21 15:21 J	-6623668.11	-6623667.86	-6623667.61	0.0138	0.0004
Earth	-22848-05-21 18:57 J	-6623667.96	-6623667.71	-6623667.46	0.0138	0.0005 *
Earth	-22847-05-26 06:00 J	-6623298.44	-6623298.25	-6623298.03	0.0139	0.0081
Moon	-22847-05-26 09:36 J	-6623298.29	-6623298.10	-6623297.87	0.0139	0.0077 *
Mercury	-22842-02-24 19:55 J	-6621562.72	-6621562.67	-6621562.60	0.0142	0.0126
Mercury	-22842-05-23 23:31 J	-6621474.60	-6621474.52	-6621474.42	0.0142	0.0105
Mercury	-22842-08-20 03:07 J	-6621386.47	-6621386.37	-6621386.25	0.0142	0.0083
Mercury	-22842-11-16 06:57 J	-6621298.33	-6621298.21	-6621298.09	0.0142	0.0061
Mercury	-22841-02-12 10:33 J	-6621210.19	-6621210.06	-6621209.93	0.0142	0.0039
Mercury	-22841-05-10 14:23 J	-6621122.03	-6621121.90	-6621121.77	0.0142	0.0017
Mercury	-22841-08-06 18:14 J	-6621033.88	-6621033.74	-6621033.61	0.0143	0.0007
Mercury	-22841-11-02 21:50 J	-6620945.72	-6620945.59	-6620945.45	0.0143	0.0028
Mercury	-22840-01-30 01:40 J	-6620857.56	-6620857.43	-6620857.30	0.0143	0.0051
Mercury	-22840-04-28 05:31 J	-6620769.39	-6620769.27	-6620769.15	0.0143	0.0074
Mercury	-22840-07-25 09:07 J	-6620681.21	-6620681.12	-6620681.01	0.0143	0.0097
Mercury	-22840-10-21 13:11 J	-6620593.02	-6620592.95	-6620592.87	0.0143	0.0120
Mars	-22834-10-13 12:57 J	-6618410.22	-6618409.96	-6618409.68	0.0146	0.0073
Venus	-22824-12-12 08:09 J	-6614697.19	-6614697.16	-6614697.08	0.0147	0.0142
Venus	-22823-07-26 21:07 J	-6614470.75	-6614470.62	-6614470.47	0.0147	0.0110
Venus	-22822-03-10 09:36 J	-6614244.27	-6614244.10	-6614243.91	0.0146	0.0078

Venus	-22822-10-22 22:04 J	-6614017.78	-6614017.58	-6614017.36	0.0146	0.0046
Venus	-22821-06-05 10:48 J	-6613791.26	-6613791.05	-6613790.83	0.0146	0.0013
Venus	-22820-01-17 23:16 J	-6613564.74	-6613564.53	-6613564.31	0.0146	0.0020
Venus	-22820-09-01 11:31 J	-6613338.21	-6613338.02	-6613337.81	0.0146	0.0052
Venus	-22819-04-16 00:00 J	-6613111.67	-6613111.50	-6613111.32	0.0146	0.0084
Venus	-22819-11-28 12:00 J	-6612885.11	-6612885.00	-6612884.85	0.0145	0.0116
Moon	-22810-11-19 04:48 J	-6609607.53	-6609607.30	-6609607.04	0.0141	0.0048
Earth	-22810-11-19 08:09 J	-6609607.39	-6609607.16	-6609606.92	0.0141	0.0055 *
Earth	-22809-11-23 05:45 J	-6609237.50	-6609237.26	-6609237.00	0.0140	0.0037
Moon	-22809-11-23 08:09 J	-6609237.40	-6609237.16	-6609236.91	0.0140	0.0030 *
Moon	-22808-11-28 00:28 J	-6608867.56	-6608867.48	-6608867.37	0.0139	0.0131
Earth	-22808-11-28 02:09 J	-6608867.49	-6608867.41	-6608867.28	0.0139	0.0127 *
Mercury	-22803-10-16 01:26 J	-6607084.52	-6607084.44	-6607084.33	0.0137	0.0118
Mercury	-22802-01-12 08:23 J	-6606996.27	-6606996.15	-6606996.00	0.0137	0.0091
Mercury	-22802-04-10 15:36 J	-6606908.01	-6606907.85	-6606907.68	0.0137	0.0063
Mercury	-22802-07-07 22:33 J	-6606819.74	-6606819.56	-6606819.38	0.0136	0.0036
Mercury	-22802-10-04 05:31 J	-6606731.46	-6606731.27	-6606731.09	0.0136	0.0009
Mercury	-22802-12-31 12:14 J	-6606643.17	-6606642.99	-6606642.80	0.0136	0.0018
Mercury	-22801-03-28 18:57 J	-6606554.88	-6606554.71	-6606554.53	0.0136	0.0044
Mercury	-22801-06-25 01:40 J	-6606466.58	-6606466.43	-6606466.27	0.0136	0.0070
Mercury	-22801-09-21 08:23 J	-6606378.28	-6606378.15	-6606378.02	0.0136	0.0096
Mercury	-22801-12-18 14:52 J	-6606289.95	-6606289.88	-6606289.80	0.0136	0.0122
Mars	-22793-02-17 08:09 J	-6603673.41	-6603673.16	-6603672.89	0.0133	0.0069
Mars	-22791-01-18 10:19 J	-6602972.14	-6602972.07	-6602971.94	0.0132	0.0126
Venus	-22781-09-16 21:07 J	-6599077.67	-6599077.62	-6599077.57	0.0132	0.0128
Venus	-22780-05-01 01:55 J	-6598851.54	-6598851.42	-6598851.27	0.0132	0.0105
Venus	-22780-12-13 07:11 J	-6598625.36	-6598625.20	-6598625.02	0.0132	0.0081
Venus	-22779-07-27 12:28 J	-6598399.17	-6598398.98	-6598398.78	0.0132	0.0057
Venus	-22778-03-10 17:31 J	-6598172.97	-6598172.77	-6598172.55	0.0132	0.0033
Venus	-22778-10-22 22:33 J	-6597946.77	-6597946.56	-6597946.33	0.0133	0.0010

Venus	-22777-06-05 03:50 J	-6597720.56	-6597720.34	-6597720.12	0.0133	0.0015
Venus	-22776-01-17 08:52 J	-6597494.33	-6597494.13	-6597493.91	0.0133	0.0040
Venus	-22776-08-31 13:55 J	-6597268.10	-6597267.92	-6597267.72	0.0133	0.0064
Venus	-22775-04-14 18:57 J	-6597041.86	-6597041.71	-6597041.53	0.0133	0.0089
Venus	-22775-11-27 00:14 J	-6596815.59	-6596815.49	-6596815.36	0.0133	0.0113
Earth	-22765-05-17 21:36 J	-6593355.79	-6593355.60	-6593355.38	0.0138	0.0081
Moon	-22765-05-18 01:11 J	-6593355.64	-6593355.45	-6593355.24	0.0138	0.0084 *
Moon	-22764-05-22 05:16 J	-6592986.52	-6592986.28	-6592986.03	0.0138	0.0003
Earth	-22764-05-22 08:23 J	-6592986.39	-6592986.15	-6592985.89	0.0138	0.0004 *
Earth	-22763-05-26 19:26 J	-6592616.87	-6592616.69	-6592616.48	0.0139	0.0087
Moon	-22763-05-26 23:02 J	-6592616.72	-6592616.54	-6592616.34	0.0139	0.0091 *
Mercury	-22759-12-19 00:00 J	-6590949.51	-6590949.50	-6590949.47	0.0142	0.0140
Mercury	-22758-03-17 03:36 J	-6590861.42	-6590861.35	-6590861.27	0.0142	0.0118
Mercury	-22758-06-13 07:11 J	-6590773.29	-6590773.20	-6590773.10	0.0142	0.0097
Mercury	-22758-09-09 11:02 J	-6590685.16	-6590685.04	-6590684.93	0.0142	0.0075
Mercury	-22758-12-06 14:38 J	-6590597.01	-6590596.89	-6590596.76	0.0142	0.0054
Mercury	-22757-03-03 18:14 J	-6590508.87	-6590508.74	-6590508.60	0.0142	0.0032
Mercury	-22757-05-30 22:04 J	-6590420.72	-6590420.58	-6590420.45	0.0142	0.0009
Mercury	-22757-08-27 01:55 J	-6590332.56	-6590332.42	-6590332.29	0.0142	0.0014
Mercury	-22757-11-23 05:31 J	-6590244.40	-6590244.27	-6590244.14	0.0143	0.0036
Mercury	-22756-02-19 09:21 J	-6590156.23	-6590156.11	-6590155.98	0.0143	0.0058
Mercury	-22756-05-18 13:11 J	-6590068.06	-6590067.95	-6590067.84	0.0143	0.0081
Mercury	-22756-08-14 17:02 J	-6589979.88	-6589979.79	-6589979.70	0.0143	0.0104
Mercury	-22756-11-10 20:52 J	-6589891.69	-6589891.63	-6589891.57	0.0143	0.0127
Mars	-22749-06-08 09:07 J	-6587490.42	-6587490.12	-6587489.81	0.0146	0.0020
Venus	-22739-03-26 03:21 J	-6583912.45	-6583912.36	-6583912.23	0.0147	0.0125
Venus	-22739-11-07 16:04 J	-6583685.99	-6583685.83	-6583685.65	0.0146	0.0092
Venus	-22738-06-22 04:48 J	-6583459.49	-6583459.30	-6583459.10	0.0146	0.0060
Venus	-22737-02-03 17:16 J	-6583232.99	-6583232.78	-6583232.56	0.0146	0.0028
Venus	-22737-09-17 05:45 J	-6583006.47	-6583006.26	-6583006.04	0.0146	0.0005

Venus	-22736-05-01 18:00 J	-6582779.95	-6582779.75	-6582779.53	0.0146	0.0038
Venus	-22736-12-14 06:14 J	-6582553.42	-6582553.24	-6582553.04	0.0146	0.0070
Venus	-22735-07-28 18:43 J	-6582326.86	-6582326.72	-6582326.55	0.0145	0.0102
Venus	-22734-03-12 06:57 J	-6582100.28	-6582100.21	-6582100.11	0.0145	0.0133
Moon	-22727-11-14 23:45 J	-6579295.55	-6579295.51	-6579295.43	0.0141	0.0137
Moon	-22726-11-19 16:04 J	-6578926.06	-6578925.83	-6578925.57	0.0141	0.0056
Earth	-22726-11-19 19:26 J	-6578925.93	-6578925.69	-6578925.44	0.0141	0.0049 *
Earth	-22725-11-23 17:16 J	-6578556.02	-6578555.78	-6578555.53	0.0140	0.0042
Moon	-22725-11-23 19:55 J	-6578555.89	-6578555.67	-6578555.42	0.0140	0.0051 *
Moon	-22724-11-28 11:02 J	-6578186.13	-6578186.04	-6578185.91	0.0140	0.0127
Earth	-22724-11-28 13:55 J	-6578185.99	-6578185.92	-6578185.83	0.0140	0.0132 *
Mercury	-22719-08-09 02:09 J	-6576471.41	-6576471.41	-6576471.39	0.0137	0.0137
Mercury	-22719-11-05 09:21 J	-6576383.22	-6576383.11	-6576382.99	0.0137	0.0109
Mercury	-22718-02-01 16:33 J	-6576294.96	-6576294.81	-6576294.66	0.0137	0.0081
Mercury	-22718-04-30 23:31 J	-6576206.69	-6576206.52	-6576206.35	0.0137	0.0054
Mercury	-22718-07-28 06:28 J	-6576118.42	-6576118.23	-6576118.05	0.0136	0.0027
Mercury	-22718-10-24 13:11 J	-6576030.13	-6576029.95	-6576029.76	0.0136	0.0002
Mercury	-22717-01-20 19:55 J	-6575941.84	-6575941.67	-6575941.48	0.0136	0.0027
Mercury	-22717-04-18 02:52 J	-6575853.55	-6575853.38	-6575853.21	0.0136	0.0053
Mercury	-22717-07-15 09:07 J	-6575765.25	-6575765.12	-6575764.95	0.0136	0.0080
Mercury	-22717-10-11 15:50 J	-6575676.94	-6575676.84	-6575676.71	0.0136	0.0106
Mercury	-22716-01-07 22:33 J	-6575588.60	-6575588.56	-6575588.51	0.0136	0.0131
Mars	-22709-10-12 06:43 J	-6572754.52	-6572754.22	-6572753.91	0.0133	0.0003
Venus	-22697-12-29 14:38 J	-6568292.98	-6568292.89	-6568292.76	0.0132	0.0114
Venus	-22696-08-12 19:55 J	-6568066.81	-6568066.67	-6568066.50	0.0132	0.0090
Venus	-22695-03-27 00:57 J	-6567840.63	-6567840.46	-6567840.25	0.0132	0.0067
Venus	-22695-11-08 06:14 J	-6567614.44	-6567614.24	-6567614.02	0.0132	0.0042
Venus	-22694-06-22 11:31 J	-6567388.24	-6567388.02	-6567387.80	0.0133	0.0018
Venus	-22693-02-03 16:48 J	-6567162.02	-6567161.80	-6567161.58	0.0133	0.0007
Venus	-22693-09-16 21:50 J	-6566935.80	-6566935.59	-6566935.38	0.0133	0.0031

Venus	-22692-05-01 02:52 J	-6566709.57	-6566709.38	-6566709.18	0.0133	0.0055
Venus	-22692-12-13 07:55 J	-6566483.33	-6566483.17	-6566482.98	0.0133	0.0080
Venus	-22691-07-27 13:11 J	-6566257.07	-6566256.95	-6566256.80	0.0133	0.0104
Venus	-22690-03-10 18:28 J	-6566030.77	-6566030.73	-6566030.66	0.0134	0.0129
Earth	-22681-05-18 13:11 J	-6562674.16	-6562673.95	-6562673.74	0.0138	0.0072
Moon	-22681-05-18 15:50 J	-6562674.05	-6562673.84	-6562673.61	0.0138	0.0069 *
Moon	-22680-05-22 20:09 J	-6562304.90	-6562304.66	-6562304.41	0.0138	0.0011
Earth	-22680-05-22 23:31 J	-6562304.77	-6562304.52	-6562304.27	0.0138	0.0011 *
Earth	-22679-05-27 10:19 J	-6561935.23	-6561935.07	-6561934.87	0.0139	0.0095
Moon	-22679-05-27 13:40 J	-6561935.10	-6561934.93	-6561934.73	0.0139	0.0092 *
Mercury	-22674-01-08 07:55 J	-6560248.21	-6560248.17	-6560248.11	0.0141	0.0131
Mercury	-22674-04-06 11:31 J	-6560160.09	-6560160.02	-6560159.93	0.0142	0.0110
Mercury	-22674-07-03 15:21 J	-6560071.96	-6560071.86	-6560071.76	0.0142	0.0088
Mercury	-22674-09-29 18:57 J	-6559983.83	-6559983.71	-6559983.59	0.0142	0.0066
Mercury	-22674-12-26 22:33 J	-6559895.68	-6559895.56	-6559895.43	0.0142	0.0045
Mercury	-22673-03-24 02:23 J	-6559807.54	-6559807.40	-6559807.27	0.0142	0.0022
Mercury	-22673-06-20 06:00 J	-6559719.38	-6559719.25	-6559719.11	0.0142	0.0003
Mercury	-22673-09-16 09:50 J	-6559631.23	-6559631.09	-6559630.96	0.0142	0.0022
Mercury	-22673-12-13 13:40 J	-6559543.06	-6559542.93	-6559542.80	0.0142	0.0045
Mercury	-22672-03-11 17:16 J	-6559454.90	-6559454.78	-6559454.66	0.0143	0.0068
Mercury	-22672-06-07 21:07 J	-6559366.72	-6559366.62	-6559366.51	0.0143	0.0090
Mercury	-22672-09-04 00:43 J	-6559278.54	-6559278.47	-6559278.37	0.0143	0.0114
Mercury	-22672-12-01 04:33 J	-6559190.33	-6559190.31	-6559190.26	0.0143	0.0137
Mars	-22664-02-02 07:26 J	-6556570.36	-6556570.19	-6556569.98	0.0146	0.0114
Jupiter	-22659-06-30 23:31 J	-6554596.04	-6554595.52	-6554594.99	0.0147	0.0006
Venus	-22656-11-23 10:19 J	-6553354.13	-6553354.07	-6553353.99	0.0147	0.0139
Venus	-22655-07-07 23:02 J	-6553127.68	-6553127.54	-6553127.39	0.0147	0.0107
Venus	-22654-02-19 11:16 J	-6552901.20	-6552901.03	-6552900.83	0.0146	0.0075
Venus	-22654-10-03 23:45 J	-6552674.71	-6552674.51	-6552674.29	0.0146	0.0042
Venus	-22653-05-17 12:14 J	-6552448.20	-6552447.99	-6552447.77	0.0146	0.0010

Venus	-22653-12-30 00:43 J	-6552221.69	-6552221.47	-6552221.26	0.0146	0.0023
Venus	-22652-08-13 12:57 J	-6551995.15	-6551994.96	-6551994.75	0.0146	0.0056
Venus	-22651-03-28 01:11 J	-6551768.61	-6551768.45	-6551768.26	0.0146	0.0088
Venus	-22651-11-09 13:26 J	-6551542.05	-6551541.94	-6551541.80	0.0145	0.0120
Earth	-22643-11-15 06:57 J	-6548614.26	-6548614.21	-6548614.12	0.0141	0.0136
Moon	-22643-11-15 10:19 J	-6548614.07	-6548614.07	-6548614.02	0.0141	0.0141
Moon	-22642-11-20 02:52 J	-6548244.63	-6548244.38	-6548244.13	0.0141	0.0036
Earth	-22642-11-20 06:28 J	-6548244.47	-6548244.23	-6548243.98	0.0141	0.0043 *
Earth	-22641-11-24 04:04 J	-6547874.56	-6547874.33	-6547874.08	0.0140	0.0048
Moon	-22641-11-24 07:11 J	-6547874.44	-6547874.20	-6547873.95	0.0140	0.0041 *
Earth	-22640-11-29 00:57 J	-6547504.50	-6547504.46	-6547504.40	0.0140	0.0137
Mercury	-22635-08-29 09:50 J	-6545770.14	-6545770.09	-6545770.02	0.0137	0.0128
Mercury	-22635-11-25 17:02 J	-6545681.91	-6545681.79	-6545681.66	0.0137	0.0100
Mercury	-22634-02-22 00:00 J	-6545593.65	-6545593.50	-6545593.33	0.0137	0.0073
Mercury	-22634-05-21 07:11 J	-6545505.38	-6545505.20	-6545505.02	0.0137	0.0045
Mercury	-22634-08-17 14:09 J	-6545417.10	-6545416.91	-6545416.73	0.0137	0.0018
Mercury	-22634-11-13 20:52 J	-6545328.81	-6545328.63	-6545328.44	0.0136	0.0010
Mercury	-22633-02-10 03:36 J	-6545240.52	-6545240.35	-6545240.16	0.0136	0.0036
Mercury	-22633-05-08 10:33 J	-6545152.22	-6545152.06	-6545151.90	0.0136	0.0062
Mercury	-22633-08-04 17:16 J	-6545063.92	-6545063.78	-6545063.64	0.0136	0.0088
Mercury	-22633-11-01 00:00 J	-6544975.60	-6544975.50	-6544975.41	0.0136	0.0114
Mars	-22626-07-07 03:36 J	-6542536.45	-6542536.35	-6542536.19	0.0133	0.0121
Mars	-22624-06-07 05:02 J	-6541835.54	-6541835.29	-6541835.03	0.0133	0.0074
Jupiter	-22617-04-09 00:00 J	-6539337.98	-6539337.50	-6539337.00	0.0132	0.0034
Venus	-22613-08-29 03:21 J	-6537734.42	-6537734.36	-6537734.27	0.0132	0.0123
Venus	-22612-04-12 08:23 J	-6537508.28	-6537508.15	-6537507.99	0.0132	0.0100
Venus	-22612-11-24 13:40 J	-6537282.10	-6537281.93	-6537281.74	0.0132	0.0075
Venus	-22611-07-08 18:57 J	-6537055.90	-6537055.71	-6537055.50	0.0132	0.0051
Venus	-22610-02-20 00:14 J	-6536829.70	-6536829.49	-6536829.27	0.0133	0.0027
Venus	-22610-10-04 05:31 J	-6536603.49	-6536603.27	-6536603.05	0.0133	0.0003

Venus	-22609-05-17 10:33 J	-6536377.27	-6536377.06	-6536376.84	0.0133	0.0022
Venus	-22609-12-29 15:36 J	-6536151.04	-6536150.85	-6536150.63	0.0133	0.0047
Venus	-22608-08-12 20:52 J	-6535924.80	-6535924.63	-6535924.44	0.0133	0.0072
Venus	-22607-03-27 01:55 J	-6535698.55	-6535698.42	-6535698.25	0.0133	0.0097
Venus	-22607-11-08 07:11 J	-6535472.27	-6535472.20	-6535472.09	0.0133	0.0121
Earth	-22597-05-19 04:48 J	-6531992.52	-6531992.30	-6531992.08	0.0138	0.0063
Moon	-22597-05-19 07:40 J	-6531992.39	-6531992.18	-6531991.94	0.0138	0.0066 *
Moon	-22596-05-23 12:28 J	-6531623.22	-6531622.98	-6531622.73	0.0138	0.0021
Earth	-22596-05-23 15:21 J	-6531623.11	-6531622.86	-6531622.61	0.0138	0.0020 *
Earth	-22595-05-28 02:09 J	-6531253.56	-6531253.41	-6531253.23	0.0139	0.0104
Moon	-22595-05-28 05:31 J	-6531253.41	-6531253.27	-6531253.10	0.0139	0.0108 *
Mercury	-22591-11-01 12:43 J	-6529634.97	-6529634.97	-6529634.96	0.0141	0.0141
Mercury	-22590-01-28 16:19 J	-6529546.88	-6529546.82	-6529546.75	0.0141	0.0120
Mercury	-22590-04-26 19:55 J	-6529458.76	-6529458.67	-6529458.57	0.0142	0.0099
Mercury	-22590-07-23 23:31 J	-6529370.63	-6529370.52	-6529370.40	0.0142	0.0077
Mercury	-22590-10-20 03:07 J	-6529282.49	-6529282.37	-6529282.24	0.0142	0.0056
Mercury	-22589-01-16 06:57 J	-6529194.34	-6529194.21	-6529194.08	0.0142	0.0034
Mercury	-22589-04-13 10:33 J	-6529106.19	-6529106.06	-6529105.92	0.0142	0.0013
Mercury	-22589-07-10 14:23 J	-6529018.04	-6529017.90	-6529017.76	0.0142	0.0011
Mercury	-22589-10-06 18:00 J	-6528929.88	-6528929.75	-6528929.61	0.0142	0.0034
Mercury	-22588-01-02 21:50 J	-6528841.71	-6528841.59	-6528841.46	0.0143	0.0056
Mercury	-22588-04-01 01:40 J	-6528753.54	-6528753.43	-6528753.32	0.0143	0.0078
Mercury	-22588-06-28 05:16 J	-6528665.36	-6528665.28	-6528665.17	0.0143	0.0102
Mercury	-22588-09-24 09:07 J	-6528577.17	-6528577.12	-6528577.04	0.0143	0.0125
Mars	-22582-10-26 06:14 J	-6526354.52	-6526354.24	-6526353.94	0.0146	0.0050
Venus	-22571-03-07 08:23 J	-6522569.26	-6522569.15	-6522569.02	0.0147	0.0120
Venus	-22571-10-19 20:38 J	-6522342.80	-6522342.64	-6522342.45	0.0146	0.0088
Venus	-22570-06-03 09:21 J	-6522116.31	-6522116.11	-6522115.91	0.0146	0.0055
Venus	-22569-01-15 21:36 J	-6521889.81	-6521889.60	-6521889.38	0.0146	0.0022
Venus	-22569-08-29 10:04 J	-6521663.30	-6521663.08	-6521662.86	0.0146	0.0011

Venus	-22568-04-12 22:19 J	-6521436.78	-6521436.57	-6521436.36	0.0146	0.0043
Venus	-22568-11-25 10:19 J	-6521210.24	-6521210.07	-6521209.87	0.0146	0.0076
Venus	-22567-07-09 22:48 J	-6520983.68	-6520983.55	-6520983.39	0.0145	0.0108
Venus	-22566-02-21 11:02 J	-6520757.08	-6520757.04	-6520756.97	0.0145	0.0139
Earth	-22559-11-15 21:36 J	-6517932.69	-6517932.60	-6517932.46	0.0141	0.0127
Moon	-22559-11-16 01:26 J	-6517932.54	-6517932.44	-6517932.29	0.0141	0.0123 *
Moon	-22558-11-20 17:31 J	-6517563.01	-6517562.77	-6517562.51	0.0141	0.0041
Earth	-22558-11-20 21:07 J	-6517562.87	-6517562.62	-6517562.37	0.0141	0.0034 *
Earth	-22557-11-24 18:43 J	-6517192.95	-6517192.72	-6517192.48	0.0140	0.0056
Moon	-22557-11-24 22:04 J	-6517192.80	-6517192.58	-6517192.35	0.0140	0.0064 *
Moon	-22556-11-29 12:14 J	-6516823.01	-6516822.99	-6516822.97	0.0140	0.0139
Mercury	-22551-09-18 18:28 J	-6515068.82	-6515068.73	-6515068.63	0.0137	0.0116
Mercury	-22551-12-16 01:40 J	-6514980.57	-6514980.43	-6514980.29	0.0137	0.0088
Mercury	-22550-03-14 08:38 J	-6514892.31	-6514892.14	-6514891.97	0.0137	0.0061
Mercury	-22550-06-10 15:36 J	-6514804.03	-6514803.85	-6514803.67	0.0137	0.0033
Mercury	-22550-09-06 22:33 J	-6514715.75	-6514715.56	-6514715.37	0.0136	0.0006
Mercury	-22550-12-04 05:31 J	-6514627.46	-6514627.27	-6514627.09	0.0136	0.0021
Mercury	-22549-03-01 12:14 J	-6514539.16	-6514538.99	-6514538.82	0.0136	0.0047
Mercury	-22549-05-28 18:43 J	-6514450.86	-6514450.72	-6514450.55	0.0136	0.0074
Mercury	-22549-08-25 01:26 J	-6514362.55	-6514362.44	-6514362.31	0.0136	0.0100
Mercury	-22549-11-21 07:55 J	-6514274.22	-6514274.17	-6514274.08	0.0136	0.0126
Mars	-22541-03-01 04:33 J	-6511617.60	-6511617.31	-6511617.02	0.0133	0.0048
Venus	-22529-12-10 21:21 J	-6506949.72	-6506949.61	-6506949.47	0.0132	0.0108
Venus	-22528-07-25 02:23 J	-6506723.55	-6506723.40	-6506723.21	0.0132	0.0085
Venus	-22527-03-08 07:55 J	-6506497.36	-6506497.17	-6506496.97	0.0132	0.0060
Venus	-22527-10-20 12:57 J	-6506271.17	-6506270.96	-6506270.75	0.0133	0.0036
Venus	-22526-06-03 18:14 J	-6506044.96	-6506044.74	-6506044.52	0.0133	0.0011
Venus	-22525-01-15 23:31 J	-6505818.74	-6505818.52	-6505818.30	0.0133	0.0014
Venus	-22525-08-29 04:33 J	-6505592.51	-6505592.31	-6505592.09	0.0133	0.0038
Venus	-22524-04-12 09:36 J	-6505366.28	-6505366.10	-6505365.90	0.0133	0.0063

Venus	-22524-11-24 14:52 J	-6505140.03	-6505139.88	-6505139.70	0.0133	0.0088
Venus	-22523-07-08 20:23 J	-6504913.76	-6504913.65	-6504913.53	0.0133	0.0112
Earth	-22514-05-16 10:04 J	-6501680.10	-6501680.08	-6501680.02	0.0137	0.0135
Earth	-22513-05-19 19:55 J	-6501310.89	-6501310.67	-6501310.43	0.0138	0.0055
Moon	-22513-05-19 22:19 J	-6501310.79	-6501310.57	-6501310.32	0.0138	0.0051 *
Moon	-22512-05-24 03:36 J	-6500941.59	-6500941.35	-6500941.11	0.0138	0.0029
Earth	-22512-05-24 06:28 J	-6500941.47	-6500941.23	-6500940.98	0.0138	0.0029 *
Earth	-22511-05-28 17:45 J	-6500571.90	-6500571.76	-6500571.61	0.0139	0.0112
Moon	-22511-05-28 20:23 J	-6500571.79	-6500571.65	-6500571.48	0.0139	0.0109 *
Mercury	-22507-11-21 20:52 J	-6498933.67	-6498933.63	-6498933.58	0.0141	0.0132
Mercury	-22506-02-18 00:28 J	-6498845.56	-6498845.48	-6498845.39	0.0141	0.0110
Mercury	-22506-05-17 04:04 J	-6498757.43	-6498757.33	-6498757.22	0.0142	0.0089
Mercury	-22506-08-13 07:40 J	-6498669.29	-6498669.18	-6498669.06	0.0142	0.0068
Mercury	-22506-11-09 11:16 J	-6498581.15	-6498581.03	-6498580.90	0.0142	0.0046
Mercury	-22505-02-05 15:07 J	-6498493.00	-6498492.87	-6498492.74	0.0142	0.0024
Mercury	-22505-05-03 18:43 J	-6498404.85	-6498404.72	-6498404.58	0.0142	0.0004
Mercury	-22505-07-30 22:33 J	-6498316.70	-6498316.56	-6498316.43	0.0142	0.0021
Mercury	-22505-10-27 02:09 J	-6498228.53	-6498228.41	-6498228.28	0.0142	0.0043
Mercury	-22504-01-23 06:00 J	-6498140.37	-6498140.25	-6498140.13	0.0143	0.0066
Mercury	-22504-04-21 09:36 J	-6498052.20	-6498052.10	-6498051.98	0.0143	0.0089
Mercury	-22504-07-18 13:26 J	-6497964.01	-6497963.94	-6497963.85	0.0143	0.0112
Mercury	-22504-10-14 17:16 J	-6497875.81	-6497875.78	-6497875.73	0.0143	0.0135
Mars	-22497-06-21 10:33 J	-6495434.35	-6495434.06	-6495433.76	0.0146	0.0049
Venus	-22488-11-04 17:16 J	-6492010.87	-6492010.78	-6492010.69	0.0147	0.0133
Venus	-22487-06-19 05:31 J	-6491784.42	-6491784.27	-6491784.11	0.0146	0.0101
Venus	-22486-01-31 17:45 J	-6491557.94	-6491557.76	-6491557.56	0.0146	0.0068
Venus	-22486-09-15 06:14 J	-6491331.45	-6491331.24	-6491331.03	0.0146	0.0035
Venus	-22485-04-28 18:28 J	-6491104.94	-6491104.73	-6491104.51	0.0146	0.0003
Venus	-22485-12-11 06:43 J	-6490878.43	-6490878.22	-6490878.00	0.0146	0.0030
Venus	-22484-07-25 19:11 J	-6490651.89	-6490651.70	-6490651.50	0.0146	0.0063

Venus	-22483-03-09 07:11 J	-6490425.35	-6490425.20	-6490425.02	0.0145	0.0096
Venus	-22483-10-21 19:26 J	-6490198.78	-6490198.69	-6490198.57	0.0145	0.0127
Earth	-22475-11-16 10:48 J	-6487251.16	-6487251.05	-6487250.88	0.0141	0.0119
Moon	-22475-11-16 14:52 J	-6487251.00	-6487250.88	-6487250.75	0.0141	0.0123 *
Moon	-22474-11-21 06:14 J	-6486881.49	-6486881.24	-6486880.98	0.0141	0.0020
Earth	-22474-11-21 10:04 J	-6486881.33	-6486881.08	-6486880.82	0.0141	0.0027 *
Earth	-22473-11-25 07:26 J	-6486511.41	-6486511.19	-6486510.95	0.0140	0.0064
Moon	-22473-11-25 10:48 J	-6486511.27	-6486511.05	-6486510.80	0.0140	0.0057 *
Mercury	-22467-07-12 19:26 J	-6484455.72	-6484455.69	-6484455.64	0.0137	0.0133
Mercury	-22467-10-09 02:23 J	-6484367.50	-6484367.40	-6484367.27	0.0137	0.0106
Mercury	-22466-01-05 09:36 J	-6484279.25	-6484279.10	-6484278.94	0.0137	0.0078
Mercury	-22466-04-03 16:48 J	-6484190.97	-6484190.80	-6484190.63	0.0137	0.0050
Mercury	-22466-06-30 23:45 J	-6484102.69	-6484102.51	-6484102.32	0.0137	0.0023
Mercury	-22466-09-27 06:43 J	-6484014.41	-6484014.22	-6484014.03	0.0136	0.0004
Mercury	-22466-12-24 13:26 J	-6483926.11	-6483925.94	-6483925.75	0.0136	0.0031
Mercury	-22465-03-21 20:23 J	-6483837.82	-6483837.65	-6483837.48	0.0136	0.0058
Mercury	-22465-06-18 02:52 J	-6483749.51	-6483749.38	-6483749.22	0.0136	0.0084
Mercury	-22465-09-14 09:36 J	-6483661.20	-6483661.10	-6483660.98	0.0136	0.0110
Mercury	-22465-12-11 16:33 J	-6483572.81	-6483572.81	-6483572.81	0.0136	0.0136
Mars	-22457-10-25 02:09 J	-6480698.70	-6480698.41	-6480698.10	0.0133	0.0025
Venus	-22445-08-10 09:36 J	-6476391.19	-6476391.10	-6476390.99	0.0132	0.0118
Venus	-22444-03-24 14:38 J	-6476165.03	-6476164.89	-6476164.72	0.0132	0.0094
Venus	-22444-11-05 19:40 J	-6475938.85	-6475938.68	-6475938.48	0.0132	0.0070
Venus	-22443-06-20 01:11 J	-6475712.65	-6475712.45	-6475712.24	0.0132	0.0045
Venus	-22442-02-01 06:28 J	-6475486.45	-6475486.23	-6475486.01	0.0133	0.0020
Venus	-22442-09-15 11:45 J	-6475260.23	-6475260.01	-6475259.79	0.0133	0.0005
Venus	-22441-04-28 16:48 J	-6475034.01	-6475033.80	-6475033.58	0.0133	0.0029
Venus	-22441-12-10 21:50 J	-6474807.78	-6474807.59	-6474807.38	0.0133	0.0054
Venus	-22440-07-25 03:21 J	-6474581.53	-6474581.36	-6474581.18	0.0133	0.0078
Venus	-22439-03-08 08:23 J	-6474355.27	-6474355.15	-6474355.00	0.0133	0.0104

Venus	-22439-10-20 13:55 J	-6474128.97	-6474128.92	-6474128.85	0.0134	0.0128
Moon	-22430-05-16 21:50 J	-6470998.68	-6470998.59	-6470998.47	0.0137	0.0123
Earth	-22430-05-17 00:00 J	-6470998.58	-6470998.50	-6470998.40	0.0137	0.0128 *
Earth	-22429-05-20 09:36 J	-6470629.33	-6470629.10	-6470628.86	0.0138	0.0047
Moon	-22429-05-20 12:00 J	-6470629.22	-6470629.00	-6470628.74	0.0138	0.0050 *
Moon	-22428-05-24 17:45 J	-6470259.98	-6470259.76	-6470259.51	0.0138	0.0038
Earth	-22428-05-24 19:55 J	-6470259.90	-6470259.67	-6470259.41	0.0138	0.0037 *
Earth	-22427-05-29 06:57 J	-6469890.31	-6469890.21	-6469890.06	0.0139	0.0120
Moon	-22427-05-29 09:50 J	-6469890.18	-6469890.09	-6469889.95	0.0139	0.0124 *
Mercury	-22423-12-12 04:33 J	-6468232.36	-6468232.31	-6468232.24	0.0141	0.0124
Mercury	-22422-03-10 08:09 J	-6468144.24	-6468144.16	-6468144.06	0.0141	0.0103
Mercury	-22422-06-06 12:00 J	-6468056.11	-6468056.00	-6468055.89	0.0142	0.0081
Mercury	-22422-09-02 15:36 J	-6467967.97	-6467967.85	-6467967.73	0.0142	0.0059
Mercury	-22422-11-29 19:11 J	-6467879.83	-6467879.70	-6467879.57	0.0142	0.0037
Mercury	-22421-02-25 23:02 J	-6467791.68	-6467791.54	-6467791.41	0.0142	0.0016
Mercury	-22421-05-24 02:38 J	-6467703.53	-6467703.39	-6467703.25	0.0142	0.0007
Mercury	-22421-08-20 06:14 J	-6467615.37	-6467615.24	-6467615.10	0.0142	0.0030
Mercury	-22421-11-16 10:04 J	-6467527.20	-6467527.08	-6467526.95	0.0142	0.0052
Mercury	-22420-02-12 13:40 J	-6467439.04	-6467438.93	-6467438.80	0.0143	0.0075
Mercury	-22420-05-11 17:45 J	-6467350.86	-6467350.76	-6467350.66	0.0143	0.0097
Mercury	-22420-08-07 21:36 J	-6467262.67	-6467262.60	-6467262.53	0.0143	0.0120
Mars	-22414-03-14 02:09 J	-6465218.57	-6465218.41	-6465218.21	0.0145	0.0118
Mars	-22412-02-15 11:31 J	-6464514.06	-6464514.02	-6464513.98	0.0146	0.0144
Venus	-22404-07-05 01:55 J	-6461452.42	-6461452.42	-6461452.39	0.0147	0.0147
Venus	-22403-02-16 14:23 J	-6461226.03	-6461225.90	-6461225.76	0.0147	0.0114
Venus	-22403-10-01 02:38 J	-6460999.56	-6460999.39	-6460999.20	0.0146	0.0081
Venus	-22402-05-15 15:07 J	-6460773.07	-6460772.87	-6460772.67	0.0146	0.0048
Venus	-22402-12-28 03:21 J	-6460546.57	-6460546.36	-6460546.14	0.0146	0.0016
Venus	-22401-08-10 15:50 J	-6460320.05	-6460319.84	-6460319.62	0.0146	0.0018
Venus	-22400-03-25 04:19 J	-6460093.53	-6460093.32	-6460093.12	0.0146	0.0050

Venus	-22400-11-06 16:19 J	-6459866.99	-6459866.82	-6459866.63	0.0146	0.0083
Venus	-22399-06-21 04:33 J	-6459640.43	-6459640.31	-6459640.16	0.0145	0.0115
Earth	-22391-11-17 01:40 J	-6456569.58	-6456569.43	-6456569.25	0.0141	0.0110
Moon	-22391-11-17 05:31 J	-6456569.43	-6456569.27	-6456569.09	0.0141	0.0105 *
Moon	-22390-11-21 21:07 J	-6456199.87	-6456199.62	-6456199.36	0.0141	0.0024
Earth	-22390-11-22 00:43 J	-6456199.73	-6456199.47	-6456199.21	0.0141	0.0018 *
Earth	-22389-11-25 21:50 J	-6455829.79	-6455829.59	-6455829.35	0.0140	0.0072
Moon	-22389-11-26 01:55 J	-6455829.63	-6455829.42	-6455829.21	0.0140	0.0080 *
Mercury	-22383-08-02 03:36 J	-6453754.41	-6453754.35	-6453754.25	0.0137	0.0122
Mercury	-22383-10-29 11:02 J	-6453666.17	-6453666.04	-6453665.90	0.0137	0.0094
Mercury	-22382-01-25 18:14 J	-6453577.90	-6453577.74	-6453577.57	0.0137	0.0066
Mercury	-22382-04-24 01:11 J	-6453489.63	-6453489.45	-6453489.27	0.0137	0.0039
Mercury	-22382-07-21 08:09 J	-6453401.34	-6453401.16	-6453400.97	0.0136	0.0012
Mercury	-22382-10-17 15:07 J	-6453313.05	-6453312.87	-6453312.68	0.0136	0.0016
Mercury	-22381-01-13 21:50 J	-6453224.76	-6453224.59	-6453224.41	0.0136	0.0043
Mercury	-22381-04-11 04:33 J	-6453136.46	-6453136.31	-6453136.14	0.0136	0.0069
Mercury	-22381-07-08 11:16 J	-6453048.15	-6453048.03	-6453047.89	0.0136	0.0095
Mercury	-22381-10-04 18:00 J	-6452959.82	-6452959.75	-6452959.66	0.0136	0.0121
Mars	-22374-07-20 00:57 J	-6450480.64	-6450480.46	-6450480.23	0.0133	0.0098
Mars	-22372-06-20 00:00 J	-6449779.69	-6449779.50	-6449779.27	0.0133	0.0097
Venus	-22361-04-09 21:07 J	-6445832.66	-6445832.62	-6445832.55	0.0132	0.0127
Venus	-22361-11-22 02:23 J	-6445606.53	-6445606.40	-6445606.26	0.0132	0.0103
Venus	-22360-07-06 07:26 J	-6445380.35	-6445380.19	-6445380.00	0.0132	0.0079
Venus	-22359-02-17 12:57 J	-6445154.16	-6445153.96	-6445153.76	0.0132	0.0054
Venus	-22359-10-01 18:00 J	-6444927.96	-6444927.75	-6444927.53	0.0132	0.0030
Venus	-22358-05-15 23:16 J	-6444701.75	-6444701.53	-6444701.31	0.0133	0.0005
Venus	-22358-12-28 04:33 J	-6444475.52	-6444475.31	-6444475.09	0.0133	0.0020
Venus	-22357-08-10 09:50 J	-6444249.30	-6444249.09	-6444248.88	0.0133	0.0044
Venus	-22356-03-24 14:52 J	-6444023.06	-6444022.88	-6444022.68	0.0133	0.0069
Venus	-22356-11-05 19:55 J	-6443796.80	-6443796.67	-6443796.50	0.0133	0.0095

Venus	-22355-06-20 01:26 J	-6443570.53	-6443570.44	-6443570.33	0.0133	0.0119
Moon	-22346-05-17 10:19 J	-6440317.15	-6440317.07	-6440316.97	0.0137	0.0127
Earth	-22346-05-17 12:00 J	-6440317.10	-6440317.00	-6440316.87	0.0137	0.0121 *
Earth	-22345-05-20 21:36 J	-6439947.82	-6439947.60	-6439947.35	0.0138	0.0041
Moon	-22345-05-20 23:31 J	-6439947.76	-6439947.52	-6439947.27	0.0138	0.0036 *
Moon	-22344-05-25 05:45 J	-6439578.48	-6439578.26	-6439578.02	0.0138	0.0043
Earth	-22344-05-25 08:09 J	-6439578.39	-6439578.16	-6439577.91	0.0138	0.0042 *
Earth	-22343-05-29 19:26 J	-6439208.79	-6439208.69	-6439208.58	0.0139	0.0125
Moon	-22343-05-29 21:07 J	-6439208.71	-6439208.62	-6439208.48	0.0139	0.0123 *
Mercury	-22339-10-05 08:23 J	-6437619.16	-6437619.15	-6437619.11	0.0141	0.0139
Mercury	-22338-01-01 12:00 J	-6437531.06	-6437531.00	-6437530.92	0.0141	0.0117
Mercury	-22338-03-30 15:50 J	-6437442.94	-6437442.84	-6437442.74	0.0141	0.0096
Mercury	-22338-06-26 19:11 J	-6437354.80	-6437354.70	-6437354.58	0.0142	0.0075
Mercury	-22338-09-22 23:02 J	-6437266.67	-6437266.54	-6437266.42	0.0142	0.0053
Mercury	-22338-12-20 02:38 J	-6437178.52	-6437178.39	-6437178.26	0.0142	0.0031
Mercury	-22337-03-17 06:14 J	-6437090.37	-6437090.24	-6437090.10	0.0142	0.0010
Mercury	-22337-06-13 10:04 J	-6437002.22	-6437002.08	-6437001.95	0.0142	0.0013
Mercury	-22337-09-09 13:40 J	-6436914.06	-6436913.93	-6436913.79	0.0142	0.0036
Mercury	-22337-12-06 17:16 J	-6436825.89	-6436825.78	-6436825.65	0.0142	0.0059
Mercury	-22336-03-04 21:07 J	-6436737.72	-6436737.62	-6436737.50	0.0143	0.0081
Mercury	-22336-06-01 00:57 J	-6436649.55	-6436649.46	-6436649.36	0.0143	0.0104
Mercury	-22336-08-28 04:48 J	-6436561.35	-6436561.30	-6436561.23	0.0143	0.0127
Mars	-22330-11-07 21:36 J	-6434298.90	-6434298.60	-6434298.28	0.0145	0.0026
Venus	-22320-10-16 19:55 J	-6430667.75	-6430667.67	-6430667.55	0.0147	0.0130
Venus	-22319-05-31 08:23 J	-6430441.30	-6430441.15	-6430440.98	0.0146	0.0097
Venus	-22318-01-12 20:52 J	-6430214.82	-6430214.63	-6430214.43	0.0146	0.0064
Venus	-22318-08-27 09:21 J	-6429988.32	-6429988.11	-6429987.90	0.0146	0.0031
Venus	-22317-04-09 21:36 J	-6429761.81	-6429761.60	-6429761.38	0.0146	0.0004
Venus	-22317-11-22 10:04 J	-6429535.29	-6429535.08	-6429534.87	0.0146	0.0035
Venus	-22316-07-06 22:19 J	-6429308.75	-6429308.57	-6429308.37	0.0146	0.0069

Venus	-22315-02-18 10:48 J	-6429082.20	-6429082.05	-6429081.89	0.0145	0.0101
Venus	-22315-10-02 22:48 J	-6428855.61	-6428855.55	-6428855.44	0.0145	0.0134
Earth	-22307-11-17 12:14 J	-6425888.16	-6425887.99	-6425887.81	0.0141	0.0104
Moon	-22307-11-17 15:07 J	-6425888.01	-6425887.87	-6425887.68	0.0141	0.0109 *
Moon	-22306-11-22 07:11 J	-6425518.45	-6425518.20	-6425517.94	0.0141	0.0007
Earth	-22306-11-22 11:02 J	-6425518.29	-6425518.04	-6425517.78	0.0141	0.0013 *
Earth	-22305-11-26 08:23 J	-6425148.36	-6425148.15	-6425147.92	0.0140	0.0077
Moon	-22305-11-26 11:45 J	-6425148.22	-6425148.01	-6425147.77	0.0140	0.0071 *
Mercury	-22299-08-22 11:31 J	-6423053.12	-6423053.02	-6423052.91	0.0137	0.0113
Mercury	-22299-11-18 18:43 J	-6422964.86	-6422964.72	-6422964.57	0.0137	0.0085
Mercury	-22298-02-15 01:40 J	-6422876.59	-6422876.43	-6422876.25	0.0137	0.0058
Mercury	-22298-05-14 08:38 J	-6422788.31	-6422788.14	-6422787.95	0.0137	0.0031
Mercury	-22298-08-10 15:50 J	-6422700.03	-6422699.84	-6422699.65	0.0137	0.0003
Mercury	-22298-11-06 22:33 J	-6422611.74	-6422611.56	-6422611.37	0.0136	0.0024
Mercury	-22297-02-03 05:31 J	-6422523.44	-6422523.27	-6422523.10	0.0136	0.0051
Mercury	-22297-05-01 12:14 J	-6422435.14	-6422434.99	-6422434.83	0.0136	0.0077
Mercury	-22297-07-28 18:57 J	-6422346.82	-6422346.71	-6422346.59	0.0136	0.0103
Mercury	-22297-10-25 01:40 J	-6422258.48	-6422258.43	-6422258.37	0.0136	0.0129
Mars	-22289-03-13 20:09 J	-6419561.95	-6419561.66	-6419561.35	0.0133	0.0027
Venus	-22277-07-22 13:26 J	-6415048.03	-6415047.94	-6415047.81	0.0132	0.0113
Venus	-22276-03-05 18:43 J	-6414821.87	-6414821.72	-6414821.54	0.0132	0.0089
Venus	-22276-10-18 00:00 J	-6414595.68	-6414595.50	-6414595.30	0.0132	0.0064
Venus	-22275-06-01 05:16 J	-6414369.49	-6414369.28	-6414369.07	0.0132	0.0040
Venus	-22274-01-13 10:33 J	-6414143.27	-6414143.06	-6414142.84	0.0132	0.0015
Venus	-22274-08-27 15:50 J	-6413917.06	-6413916.84	-6413916.62	0.0133	0.0010
Venus	-22273-04-09 20:52 J	-6413690.83	-6413690.63	-6413690.41	0.0133	0.0035
Venus	-22273-11-22 01:55 J	-6413464.60	-6413464.42	-6413464.21	0.0133	0.0060
Venus	-22272-07-06 07:26 J	-6413238.35	-6413238.19	-6413238.02	0.0133	0.0084
Venus	-22271-02-17 12:43 J	-6413012.08	-6413011.97	-6413011.83	0.0133	0.0109
Moon	-22262-05-17 22:04 J	-6409635.70	-6409635.58	-6409635.41	0.0137	0.0111

Earth	-22262-05-17 23:31 J	-6409635.64	-6409635.52	-6409635.38	0.0137	0.0115 *
Earth	-22261-05-21 09:07 J	-6409266.36	-6409266.12	-6409265.88	0.0138	0.0035
Moon	-22261-05-21 10:33 J	-6409266.29	-6409266.06	-6409265.80	0.0138	0.0039 *
Moon	-22260-05-25 17:45 J	-6408896.97	-6408896.76	-6408896.52	0.0138	0.0049
Earth	-22260-05-25 19:11 J	-6408896.93	-6408896.70	-6408896.46	0.0138	0.0047 *
Earth	-22259-05-30 06:14 J	-6408527.31	-6408527.24	-6408527.14	0.0139	0.0130
Moon	-22259-05-30 08:23 J	-6408527.21	-6408527.15	-6408527.07	0.0139	0.0133 *
Mercury	-22255-10-25 15:36 J	-6406917.88	-6406917.85	-6406917.79	0.0141	0.0134
Mercury	-22254-01-21 19:11 J	-6406829.77	-6406829.70	-6406829.61	0.0141	0.0112
Mercury	-22254-04-19 23:02 J	-6406741.64	-6406741.54	-6406741.44	0.0141	0.0091
Mercury	-22254-07-17 02:23 J	-6406653.51	-6406653.40	-6406653.27	0.0142	0.0070
Mercury	-22254-10-13 06:14 J	-6406565.37	-6406565.24	-6406565.11	0.0142	0.0048
Mercury	-22253-01-09 09:50 J	-6406477.22	-6406477.09	-6406476.96	0.0142	0.0026
Mercury	-22253-04-06 13:26 J	-6406389.07	-6406388.94	-6406388.80	0.0142	0.0005
Mercury	-22253-07-03 17:16 J	-6406300.92	-6406300.78	-6406300.65	0.0142	0.0018
Mercury	-22253-09-29 20:52 J	-6406212.76	-6406212.63	-6406212.50	0.0142	0.0040
Mercury	-22253-12-27 00:28 J	-6406124.59	-6406124.48	-6406124.35	0.0142	0.0063
Mercury	-22252-03-25 04:19 J	-6406036.42	-6406036.32	-6406036.21	0.0143	0.0086
Mercury	-22252-06-21 07:55 J	-6405948.24	-6405948.17	-6405948.07	0.0143	0.0109
Mercury	-22252-09-17 12:00 J	-6405860.05	-6405860.00	-6405859.95	0.0143	0.0131
Mars	-22245-07-03 13:40 J	-6403379.19	-6403378.93	-6403378.64	0.0146	0.0065
Venus	-22236-06-16 01:11 J	-6400109.45	-6400109.45	-6400109.41	0.0147	0.0146
Venus	-22235-01-28 13:40 J	-6399883.05	-6399882.93	-6399882.78	0.0147	0.0113
Venus	-22235-09-12 02:09 J	-6399656.59	-6399656.41	-6399656.23	0.0146	0.0080
Venus	-22234-04-26 14:09 J	-6399430.10	-6399429.91	-6399429.69	0.0146	0.0048
Venus	-22234-12-09 02:52 J	-6399203.59	-6399203.38	-6399203.16	0.0146	0.0014
Venus	-22233-07-22 15:21 J	-6398977.07	-6398976.86	-6398976.64	0.0146	0.0020
Venus	-22232-03-06 03:50 J	-6398750.54	-6398750.34	-6398750.13	0.0146	0.0053
Venus	-22232-10-18 16:04 J	-6398523.99	-6398523.83	-6398523.64	0.0146	0.0086
Venus	-22231-06-02 04:19 J	-6398297.43	-6398297.32	-6398297.18	0.0145	0.0118

Earth	-22223-11-17 21:21 J	-6395206.78	-6395206.61	-6395206.42	0.0141	0.0100
Moon	-22223-11-18 00:28 J	-6395206.65	-6395206.48	-6395206.27	0.0141	0.0097 *
Moon	-22222-11-22 17:16 J	-6394837.04	-6394836.78	-6394836.53	0.0141	0.0014
Earth	-22222-11-22 20:23 J	-6394836.90	-6394836.65	-6394836.39	0.0141	0.0009 *
Earth	-22221-11-26 18:14 J	-6394466.94	-6394466.74	-6394466.52	0.0140	0.0082
Moon	-22221-11-26 22:04 J	-6394466.77	-6394466.58	-6394466.37	0.0140	0.0089 *
Mercury	-22215-06-15 11:45 J	-6392440.04	-6392440.01	-6392439.96	0.0137	0.0134
Mercury	-22215-09-11 18:57 J	-6392351.82	-6392351.71	-6392351.59	0.0137	0.0105
Mercury	-22215-12-09 01:55 J	-6392263.56	-6392263.42	-6392263.25	0.0137	0.0078
Mercury	-22214-03-07 09:07 J	-6392175.29	-6392175.12	-6392174.94	0.0137	0.0050
Mercury	-22214-06-03 16:04 J	-6392087.01	-6392086.83	-6392086.64	0.0137	0.0023
Mercury	-22214-08-30 23:16 J	-6391998.72	-6391998.53	-6391998.34	0.0137	0.0005
Mercury	-22214-11-27 06:14 J	-6391910.42	-6391910.24	-6391910.06	0.0137	0.0032
Mercury	-22213-02-23 12:57 J	-6391822.13	-6391821.96	-6391821.79	0.0136	0.0059
Mercury	-22213-05-21 19:26 J	-6391733.82	-6391733.69	-6391733.53	0.0136	0.0086
Mercury	-22213-08-18 02:09 J	-6391645.50	-6391645.41	-6391645.29	0.0136	0.0112
Mars	-22205-11-06 15:21 J	-6388643.14	-6388642.86	-6388642.56	0.0133	0.0043
Venus	-22193-03-22 00:57 J	-6384489.52	-6384489.46	-6384489.37	0.0132	0.0123
Venus	-22193-11-03 06:00 J	-6384263.37	-6384263.25	-6384263.09	0.0132	0.0099
Venus	-22192-06-17 11:31 J	-6384037.19	-6384037.02	-6384036.83	0.0132	0.0074
Venus	-22191-01-29 17:02 J	-6383810.99	-6383810.79	-6383810.59	0.0132	0.0050
Venus	-22191-09-12 22:04 J	-6383584.79	-6383584.58	-6383584.36	0.0132	0.0025
Venus	-22190-04-27 03:21 J	-6383358.58	-6383358.36	-6383358.14	0.0132	0.0002
Venus	-22190-12-09 08:38 J	-6383132.35	-6383132.14	-6383131.92	0.0133	0.0025
Venus	-22189-07-22 13:55 J	-6382906.12	-6382905.92	-6382905.71	0.0133	0.0050
Venus	-22188-03-05 19:11 J	-6382679.87	-6382679.70	-6382679.51	0.0133	0.0075
Venus	-22188-10-18 00:14 J	-6382453.62	-6382453.49	-6382453.33	0.0133	0.0100
Venus	-22187-06-01 05:45 J	-6382227.33	-6382227.26	-6382227.18	0.0133	0.0125
Moon	-22178-05-18 11:02 J	-6378954.14	-6378954.04	-6378953.88	0.0137	0.0115
Earth	-22178-05-18 12:14 J	-6378954.13	-6378953.99	-6378953.82	0.0137	0.0108 *

Earth	-22177-05-21 22:04 J	-6378584.83	-6378584.58	-6378584.34	0.0138	0.0028
Moon	-22177-05-21 22:33 J	-6378584.81	-6378584.56	-6378584.30	0.0138	0.0024 *
Moon	-22176-05-26 06:43 J	-6378215.43	-6378215.22	-6378214.99	0.0138	0.0053
Earth	-22176-05-26 08:23 J	-6378215.38	-6378215.15	-6378214.92	0.0138	0.0054 *
Earth	-22175-05-30 19:26 J	-6377845.73	-6377845.69	-6377845.65	0.0139	0.0136
Moon	-22175-05-30 20:23 J	-6377845.70	-6377845.65	-6377845.57	0.0139	0.0134 *
Mercury	-22171-11-14 23:16 J	-6376216.58	-6376216.53	-6376216.47	0.0141	0.0126
Mercury	-22170-02-11 02:52 J	-6376128.46	-6376128.38	-6376128.29	0.0141	0.0105
Mercury	-22170-05-10 06:28 J	-6376040.33	-6376040.23	-6376040.12	0.0141	0.0084
Mercury	-22170-08-06 10:04 J	-6375952.20	-6375952.08	-6375951.96	0.0142	0.0063
Mercury	-22170-11-02 13:40 J	-6375864.06	-6375863.93	-6375863.80	0.0142	0.0041
Mercury	-22169-01-29 17:16 J	-6375775.91	-6375775.78	-6375775.64	0.0142	0.0020
Mercury	-22169-04-26 20:52 J	-6375687.76	-6375687.63	-6375687.49	0.0142	0.0006
Mercury	-22169-07-24 00:43 J	-6375599.61	-6375599.47	-6375599.34	0.0142	0.0025
Mercury	-22169-10-20 04:19 J	-6375511.45	-6375511.32	-6375511.19	0.0142	0.0047
Mercury	-22168-01-16 08:09 J	-6375423.28	-6375423.16	-6375423.04	0.0142	0.0069
Mercury	-22168-04-14 11:45 J	-6375335.11	-6375335.01	-6375334.90	0.0142	0.0092
Mercury	-22168-07-11 15:36 J	-6375246.93	-6375246.85	-6375246.77	0.0143	0.0115
Mercury	-22168-10-07 19:11 J	-6375158.72	-6375158.70	-6375158.66	0.0143	0.0138
Mars	-22162-03-25 22:04 J	-6373163.79	-6373163.58	-6373163.37	0.0145	0.0106
Venus	-22152-09-27 18:28 J	-6369324.81	-6369324.73	-6369324.61	0.0146	0.0130
Venus	-22151-05-12 06:43 J	-6369098.36	-6369098.22	-6369098.04	0.0146	0.0097
Venus	-22151-12-24 19:11 J	-6368871.88	-6368871.70	-6368871.49	0.0146	0.0063
Venus	-22150-08-08 07:40 J	-6368645.38	-6368645.18	-6368644.96	0.0146	0.0030
Venus	-22149-03-21 20:23 J	-6368418.87	-6368418.65	-6368418.44	0.0146	0.0004
Venus	-22149-11-03 08:38 J	-6368192.35	-6368192.14	-6368191.93	0.0146	0.0037
Venus	-22148-06-17 20:52 J	-6367965.81	-6367965.63	-6367965.43	0.0146	0.0070
Venus	-22147-01-30 09:21 J	-6367739.26	-6367739.11	-6367738.95	0.0145	0.0103
Venus	-22147-09-13 21:21 J	-6367512.67	-6367512.61	-6367512.51	0.0145	0.0136
Earth	-22139-11-18 04:19 J	-6364525.50	-6364525.32	-6364525.12	0.0141	0.0097

Moon	-22139-11-18 06:57 J	-6364525.38	-6364525.21	-6364525.00	0.0141	0.0100 *
Moon	-22138-11-23 00:28 J	-6364155.74	-6364155.48	-6364155.23	0.0141	0.0001
Earth	-22138-11-23 03:50 J	-6364155.60	-6364155.34	-6364155.08	0.0141	0.0006 *
Earth	-22137-11-27 01:40 J	-6363785.63	-6363785.43	-6363785.22	0.0140	0.0085
Moon	-22137-11-27 04:48 J	-6363785.50	-6363785.30	-6363785.07	0.0140	0.0078 *
Mercury	-22131-07-05 18:14 J	-6361738.79	-6361738.74	-6361738.66	0.0137	0.0129
Mercury	-22131-10-02 01:26 J	-6361650.55	-6361650.44	-6361650.30	0.0137	0.0101
Mercury	-22131-12-29 08:52 J	-6361562.29	-6361562.13	-6361561.97	0.0137	0.0072
Mercury	-22130-03-27 15:50 J	-6361474.01	-6361473.84	-6361473.66	0.0137	0.0045
Mercury	-22130-06-23 22:48 J	-6361385.73	-6361385.55	-6361385.36	0.0137	0.0018
Mercury	-22130-09-20 05:45 J	-6361297.44	-6361297.26	-6361297.07	0.0137	0.0011
Mercury	-22130-12-17 12:43 J	-6361209.14	-6361208.97	-6361208.79	0.0137	0.0037
Mercury	-22129-03-14 19:40 J	-6361120.84	-6361120.68	-6361120.52	0.0137	0.0064
Mercury	-22129-06-11 02:09 J	-6361032.53	-6361032.41	-6361032.26	0.0136	0.0091
Mercury	-22129-09-07 08:52 J	-6360944.21	-6360944.13	-6360944.02	0.0136	0.0117
Mars	-22122-08-01 08:09 J	-6358425.38	-6358425.16	-6358424.90	0.0133	0.0083
Mars	-22120-07-02 08:23 J	-6357724.31	-6357724.15	-6357723.98	0.0133	0.0111
Venus	-22109-07-03 17:16 J	-6353704.89	-6353704.78	-6353704.65	0.0132	0.0109
Venus	-22108-02-14 22:48 J	-6353478.71	-6353478.55	-6353478.38	0.0132	0.0085
Venus	-22108-09-29 04:04 J	-6353252.52	-6353252.33	-6353252.13	0.0132	0.0060
Venus	-22107-05-13 09:21 J	-6353026.32	-6353026.11	-6353025.89	0.0132	0.0035
Venus	-22107-12-25 14:52 J	-6352800.10	-6352799.88	-6352799.66	0.0132	0.0010
Venus	-22106-08-08 20:09 J	-6352573.88	-6352573.66	-6352573.44	0.0133	0.0015
Venus	-22105-03-22 01:11 J	-6352347.65	-6352347.45	-6352347.23	0.0133	0.0041
Venus	-22105-11-03 06:28 J	-6352121.41	-6352121.23	-6352121.03	0.0133	0.0066
Venus	-22104-06-17 12:00 J	-6351895.15	-6351895.00	-6351894.84	0.0133	0.0091
Venus	-22103-01-29 17:16 J	-6351668.88	-6351668.78	-6351668.66	0.0133	0.0116
Moon	-22094-05-19 01:55 J	-6348272.58	-6348272.42	-6348272.23	0.0137	0.0095
Earth	-22094-05-19 01:55 J	-6348272.57	-6348272.42	-6348272.23	0.0137	0.0101 *
Earth	-22093-05-22 11:45 J	-6347903.25	-6347903.01	-6347902.76	0.0137	0.0021

Moon	-22093-05-22 12:43 J	-6347903.22	-6347902.97	-6347902.71	0.0137	0.0024 *
Moon	-22092-05-26 21:21 J	-6347533.81	-6347533.61	-6347533.38	0.0138	0.0063
Earth	-22092-05-26 21:50 J	-6347533.80	-6347533.59	-6347533.35	0.0138	0.0061 *
Mercury	-22087-09-08 03:36 J	-6345603.36	-6345603.35	-6345603.33	0.0141	0.0139
Mercury	-22087-12-05 07:11 J	-6345515.27	-6345515.20	-6345515.13	0.0141	0.0118
Mercury	-22086-03-03 10:33 J	-6345427.15	-6345427.06	-6345426.96	0.0141	0.0098
Mercury	-22086-05-30 14:09 J	-6345339.02	-6345338.91	-6345338.79	0.0141	0.0076
Mercury	-22086-08-26 17:45 J	-6345250.88	-6345250.76	-6345250.63	0.0142	0.0055
Mercury	-22086-11-22 21:21 J	-6345162.74	-6345162.61	-6345162.47	0.0142	0.0034
Mercury	-22085-02-19 01:11 J	-6345074.59	-6345074.45	-6345074.32	0.0142	0.0012
Mercury	-22085-05-17 04:48 J	-6344986.44	-6344986.30	-6344986.17	0.0142	0.0011
Mercury	-22085-08-13 08:23 J	-6344898.28	-6344898.15	-6344898.02	0.0142	0.0033
Mercury	-22085-11-09 12:00 J	-6344810.12	-6344810.00	-6344809.87	0.0142	0.0055
Mercury	-22084-02-05 15:50 J	-6344721.95	-6344721.84	-6344721.72	0.0142	0.0078
Mercury	-22084-05-04 19:26 J	-6344633.78	-6344633.69	-6344633.58	0.0142	0.0101
Mercury	-22084-07-31 23:31 J	-6344545.59	-6344545.52	-6344545.46	0.0143	0.0123
Mars	-22078-11-19 22:48 J	-6342243.86	-6342243.55	-6342243.24	0.0145	0.0012
Venus	-22068-05-28 01:26 J	-6338766.45	-6338766.44	-6338766.38	0.0146	0.0145
Venus	-22067-01-09 13:55 J	-6338540.05	-6338539.92	-6338539.77	0.0146	0.0112
Venus	-22067-08-24 02:09 J	-6338313.58	-6338313.41	-6338313.21	0.0146	0.0079
Venus	-22066-04-07 14:38 J	-6338087.09	-6338086.89	-6338086.68	0.0146	0.0045
Venus	-22066-11-20 03:07 J	-6337860.58	-6337860.37	-6337860.15	0.0146	0.0012
Venus	-22065-07-03 15:36 J	-6337634.06	-6337633.85	-6337633.63	0.0146	0.0022
Venus	-22064-02-15 03:50 J	-6337407.53	-6337407.34	-6337407.13	0.0146	0.0056
Venus	-22064-09-29 16:04 J	-6337180.99	-6337180.83	-6337180.65	0.0146	0.0089
Venus	-22063-05-14 04:19 J	-6336954.42	-6336954.32	-6336954.19	0.0145	0.0121
Earth	-22055-11-18 15:07 J	-6333844.06	-6333843.87	-6333843.66	0.0141	0.0091
Moon	-22055-11-18 17:31 J	-6333843.96	-6333843.77	-6333843.55	0.0141	0.0088 *
Moon	-22054-11-23 11:45 J	-6333474.27	-6333474.01	-6333473.76	0.0141	0.0005
Earth	-22054-11-23 14:23 J	-6333474.16	-6333473.90	-6333473.64	0.0141	0.0002 *

Earth	-22053-11-27 12:28 J	-6333104.18	-6333103.98	-6333103.78	0.0140	0.0090
Moon	-22053-11-27 15:50 J	-6333104.02	-6333103.84	-6333103.64	0.0140	0.0097 *
Mercury	-22047-07-26 01:55 J	-6331037.51	-6331037.42	-6331037.33	0.0137	0.0121
Mercury	-22047-10-22 09:07 J	-6330949.26	-6330949.12	-6330948.98	0.0137	0.0093
Mercury	-22046-01-18 16:04 J	-6330860.99	-6330860.83	-6330860.66	0.0137	0.0065
Mercury	-22046-04-16 23:16 J	-6330772.71	-6330772.53	-6330772.35	0.0137	0.0037
Mercury	-22046-07-14 06:14 J	-6330684.42	-6330684.24	-6330684.05	0.0137	0.0010
Mercury	-22046-10-10 13:11 J	-6330596.13	-6330595.95	-6330595.76	0.0137	0.0018
Mercury	-22045-01-06 20:09 J	-6330507.83	-6330507.66	-6330507.48	0.0137	0.0045
Mercury	-22045-04-04 02:52 J	-6330419.53	-6330419.38	-6330419.22	0.0137	0.0071
Mercury	-22045-07-01 09:50 J	-6330331.22	-6330331.09	-6330330.96	0.0136	0.0098
Mercury	-22045-09-27 16:04 J	-6330242.88	-6330242.83	-6330242.74	0.0136	0.0125
Mars	-22037-03-26 03:21 J	-6327506.66	-6327506.36	-6327506.05	0.0133	0.0013
Venus	-22025-03-03 04:48 J	-6323146.39	-6323146.30	-6323146.21	0.0132	0.0119
Venus	-22025-10-15 09:50 J	-6322920.23	-6322920.09	-6322919.92	0.0132	0.0095
Venus	-22024-05-29 15:07 J	-6322694.04	-6322693.87	-6322693.67	0.0132	0.0071
Venus	-22023-01-10 20:52 J	-6322467.83	-6322467.63	-6322467.42	0.0132	0.0045
Venus	-22023-08-25 02:23 J	-6322241.62	-6322241.40	-6322241.19	0.0133	0.0020
Venus	-22022-04-08 07:40 J	-6322015.40	-6322015.18	-6322014.96	0.0133	0.0005
Venus	-22022-11-20 12:43 J	-6321789.17	-6321788.97	-6321788.75	0.0133	0.0031
Venus	-22021-07-03 18:00 J	-6321562.94	-6321562.75	-6321562.54	0.0133	0.0056
Venus	-22020-02-14 23:31 J	-6321336.68	-6321336.52	-6321336.34	0.0133	0.0081
Venus	-22020-09-29 04:33 J	-6321110.42	-6321110.31	-6321110.16	0.0133	0.0107
Venus	-22019-05-13 09:50 J	-6320884.11	-6320884.09	-6320884.03	0.0133	0.0132
Earth	-22010-05-19 16:33 J	-6317591.00	-6317590.81	-6317590.63	0.0137	0.0092
Moon	-22010-05-19 16:04 J	-6317590.98	-6317590.83	-6317590.65	0.0137	0.0099 *
Moon	-22009-05-23 01:40 J	-6317221.69	-6317221.43	-6317221.17	0.0138	0.0008
Earth	-22009-05-23 01:55 J	-6317221.67	-6317221.42	-6317221.17	0.0138	0.0013 *
Moon	-22008-05-27 11:31 J	-6316852.22	-6316852.02	-6316851.80	0.0138	0.0068
Earth	-22008-05-27 12:14 J	-6316852.20	-6316851.99	-6316851.77	0.0138	0.0068 *

Mercury	-22003-09-28 11:16 J	-6314902.06	-6314902.03	-6314901.97	0.0141	0.0131
Mercury	-22003-12-25 14:52 J	-6314813.95	-6314813.88	-6314813.79	0.0141	0.0110
Mercury	-22002-03-23 18:43 J	-6314725.83	-6314725.72	-6314725.62	0.0141	0.0089
Mercury	-22002-06-19 22:04 J	-6314637.69	-6314637.58	-6314637.46	0.0141	0.0068
Mercury	-22002-09-16 01:40 J	-6314549.55	-6314549.43	-6314549.30	0.0142	0.0046
Mercury	-22002-12-13 05:16 J	-6314461.41	-6314461.28	-6314461.14	0.0142	0.0025
Mercury	-22001-03-10 09:07 J	-6314373.26	-6314373.12	-6314372.99	0.0142	0.0003
Mercury	-22001-06-06 12:43 J	-6314285.10	-6314284.97	-6314284.84	0.0142	0.0020
Mercury	-22001-09-02 16:19 J	-6314196.95	-6314196.82	-6314196.69	0.0142	0.0042
Mercury	-22001-11-29 20:09 J	-6314108.78	-6314108.66	-6314108.54	0.0142	0.0064

22ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 22nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-22000-02-25 23:45 J	-6314020.61	-6314020.51	-6314020.40	0.0142	0.0087		
Mercury	-22000-05-25 03:36 J	-6313932.43	-6313932.35	-6313932.26	0.0142	0.0109		
Mercury	-22000-08-21 07:11 J	-6313844.24	-6313844.20	-6313844.14	0.0143	0.0133		
Mars	-21993-07-16 01:55 J	-6311323.66	-6311323.42	-6311323.16	0.0145	0.0085		
Venus	-21984-09-08 22:04 J	-6307981.68	-6307981.58	-6307981.46	0.0146	0.0125		
Venus	-21983-04-23 10:19 J	-6307755.23	-6307755.07	-6307754.89	0.0146	0.0092		
Venus	-21983-12-05 22:33 J	-6307528.75	-6307528.56	-6307528.35	0.0146	0.0059		
Venus	-21982-07-20 11:16 J	-6307302.25	-6307302.03	-6307301.82	0.0146	0.0025		

Venus	-21981-03-02 23:31 J	-6307075.74	-6307075.52	-6307075.30	0.0146	0.0008
Venus	-21981-10-15 11:31 J	-6306849.22	-6306849.02	-6306848.80	0.0146	0.0042
Venus	-21980-05-29 23:45 J	-6306622.69	-6306622.51	-6306622.31	0.0146	0.0075
Venus	-21979-01-11 12:00 J	-6306396.14	-6306396.00	-6306395.85	0.0145	0.0108
Venus	-21979-08-26 00:14 J	-6306169.53	-6306169.49	-6306169.43	0.0145	0.0140
Earth	-21971-11-19 01:40 J	-6303162.63	-6303162.43	-6303162.22	0.0141	0.0085
Moon	-21971-11-19 03:21 J	-6303162.55	-6303162.36	-6303162.13	0.0141	0.0087 *
Moon	-21970-11-23 22:19 J	-6302792.82	-6302792.57	-6302792.31	0.0141	0.0012
Earth	-21970-11-24 00:57 J	-6302792.72	-6302792.46	-6302792.20	0.0141	0.0006 *
Earth	-21969-11-27 22:48 J	-6302422.72	-6302422.55	-6302422.34	0.0140	0.0096
Moon	-21969-11-28 01:40 J	-6302422.62	-6302422.43	-6302422.21	0.0140	0.0088 *
Mercury	-21963-08-15 08:52 J	-6300336.22	-6300336.13	-6300336.01	0.0137	0.0114
Mercury	-21963-11-11 16:04 J	-6300247.97	-6300247.83	-6300247.67	0.0137	0.0086
Mercury	-21962-02-07 23:31 J	-6300159.69	-6300159.52	-6300159.35	0.0137	0.0058
Mercury	-21962-05-07 06:28 J	-6300071.41	-6300071.23	-6300071.05	0.0137	0.0030
Mercury	-21962-08-03 13:26 J	-6299983.12	-6299982.94	-6299982.75	0.0137	0.0003
Mercury	-21962-10-30 20:23 J	-6299894.83	-6299894.65	-6299894.46	0.0137	0.0025
Mercury	-21961-01-27 03:07 J	-6299806.53	-6299806.37	-6299806.19	0.0137	0.0052
Mercury	-21961-04-24 09:50 J	-6299718.23	-6299718.09	-6299717.92	0.0136	0.0079
Mercury	-21961-07-21 16:48 J	-6299629.91	-6299629.80	-6299629.67	0.0136	0.0105
Mercury	-21961-10-17 23:45 J	-6299541.56	-6299541.51	-6299541.46	0.0136	0.0131
Mars	-21953-11-18 20:52 J	-6296587.89	-6296587.63	-6296587.34	0.0133	0.0057
Venus	-21942-11-01 15:07 J	-6292587.89	-6292587.87	-6292587.81	0.0132	0.0131
Venus	-21941-06-14 20:38 J	-6292361.76	-6292361.64	-6292361.49	0.0132	0.0106
Venus	-21940-01-27 02:23 J	-6292135.57	-6292135.40	-6292135.22	0.0132	0.0081
Venus	-21940-09-10 07:40 J	-6291909.37	-6291909.18	-6291908.97	0.0132	0.0056
Venus	-21939-04-24 12:57 J	-6291683.16	-6291682.96	-6291682.74	0.0133	0.0031
Venus	-21939-12-06 18:28 J	-6291456.94	-6291456.73	-6291456.51	0.0133	0.0006
Venus	-21938-07-20 23:45 J	-6291230.72	-6291230.51	-6291230.29	0.0133	0.0021
Venus	-21937-03-03 05:02 J	-6291004.48	-6291004.29	-6291004.07	0.0133	0.0046

Venus	-21937-10-15 10:19 J	-6290778.24	-6290778.07	-6290777.87	0.0133	0.0071
Venus	-21936-05-29 15:36 J	-6290551.99	-6290551.85	-6290551.69	0.0133	0.0097
Venus	-21935-01-10 21:07 J	-6290325.70	-6290325.62	-6290325.52	0.0133	0.0122
Earth	-21926-05-20 04:48 J	-6286909.47	-6286909.30	-6286909.09	0.0137	0.0086
Moon	-21926-05-20 05:45 J	-6286909.44	-6286909.26	-6286909.05	0.0137	0.0080 *
Moon	-21925-05-23 14:38 J	-6286540.14	-6286539.89	-6286539.63	0.0138	0.0011
Earth	-21925-05-23 14:52 J	-6286540.13	-6286539.88	-6286539.63	0.0138	0.0006 *
Earth	-21924-05-28 00:43 J	-6286170.66	-6286170.47	-6286170.24	0.0138	0.0075
Moon	-21924-05-28 01:26 J	-6286170.63	-6286170.44	-6286170.23	0.0138	0.0077 *
Mercury	-21919-10-18 19:11 J	-6284200.76	-6284200.70	-6284200.64	0.0141	0.0123
Mercury	-21918-01-14 22:48 J	-6284112.64	-6284112.55	-6284112.46	0.0141	0.0103
Mercury	-21918-04-13 02:09 J	-6284024.51	-6284024.41	-6284024.30	0.0141	0.0082
Mercury	-21918-07-10 05:45 J	-6283936.38	-6283936.26	-6283936.13	0.0141	0.0060
Mercury	-21918-10-06 09:21 J	-6283848.23	-6283848.11	-6283847.98	0.0142	0.0039
Mercury	-21917-01-02 12:57 J	-6283760.09	-6283759.96	-6283759.82	0.0142	0.0018
Mercury	-21917-03-30 16:48 J	-6283671.94	-6283671.80	-6283671.67	0.0142	0.0006
Mercury	-21917-06-26 20:23 J	-6283583.78	-6283583.65	-6283583.52	0.0142	0.0027
Mercury	-21917-09-23 00:00 J	-6283495.62	-6283495.50	-6283495.37	0.0142	0.0050
Mercury	-21917-12-20 03:50 J	-6283407.46	-6283407.34	-6283407.22	0.0142	0.0072
Mercury	-21916-03-18 07:40 J	-6283319.28	-6283319.18	-6283319.08	0.0142	0.0095
Mercury	-21916-06-14 11:16 J	-6283231.10	-6283231.03	-6283230.95	0.0142	0.0117
Mercury	-21916-09-10 14:52 J	-6283142.89	-6283142.88	-6283142.85	0.0143	0.0141
Mars	-21910-04-07 15:36 J	-6281108.09	-6281107.85	-6281107.57	0.0145	0.0081
Venus	-21900-05-09 06:28 J	-6277423.28	-6277423.23	-6277423.15	0.0146	0.0140
Venus	-21900-12-21 18:43 J	-6277196.86	-6277196.72	-6277196.56	0.0146	0.0106
Venus	-21899-08-05 06:57 J	-6276970.38	-6276970.21	-6276970.01	0.0146	0.0074
Venus	-21898-03-19 19:26 J	-6276743.89	-6276743.69	-6276743.48	0.0146	0.0040
Venus	-21898-11-01 07:40 J	-6276517.39	-6276517.18	-6276516.96	0.0146	0.0007
Venus	-21897-06-14 19:55 J	-6276290.88	-6276290.67	-6276290.45	0.0146	0.0028
Venus	-21896-01-27 08:09 J	-6276064.35	-6276064.16	-6276063.96	0.0146	0.0061

Venus	-21896-09-10 20:23 J	-6275837.81	-6275837.65	-6275837.48	0.0145	0.0094
Venus	-21895-04-25 08:23 J	-6275611.24	-6275611.15	-6275611.04	0.0145	0.0127
Earth	-21887-11-19 14:09 J	-6272481.11	-6272480.91	-6272480.68	0.0141	0.0078
Moon	-21887-11-19 15:50 J	-6272481.05	-6272480.84	-6272480.60	0.0141	0.0076 *
Moon	-21886-11-24 11:45 J	-6272111.26	-6272111.01	-6272110.76	0.0141	0.0009
Earth	-21886-11-24 13:40 J	-6272111.19	-6272110.93	-6272110.67	0.0141	0.0013 *
Earth	-21885-11-28 11:16 J	-6271741.18	-6271741.03	-6271740.83	0.0140	0.0103
Moon	-21885-11-28 14:23 J	-6271741.05	-6271740.90	-6271740.72	0.0140	0.0109 *
Mercury	-21879-06-08 09:21 J	-6269723.14	-6269723.11	-6269723.05	0.0137	0.0133
Mercury	-21879-09-04 16:33 J	-6269634.92	-6269634.81	-6269634.68	0.0137	0.0105
Mercury	-21879-12-02 00:00 J	-6269546.65	-6269546.50	-6269546.34	0.0137	0.0076
Mercury	-21878-02-28 06:57 J	-6269458.38	-6269458.21	-6269458.03	0.0137	0.0049
Mercury	-21878-05-27 14:09 J	-6269370.09	-6269369.91	-6269369.72	0.0137	0.0021
Mercury	-21878-08-23 21:07 J	-6269281.80	-6269281.62	-6269281.43	0.0137	0.0006
Mercury	-21878-11-20 04:04 J	-6269193.51	-6269193.33	-6269193.15	0.0137	0.0033
Mercury	-21877-02-16 10:48 J	-6269105.21	-6269105.05	-6269104.88	0.0137	0.0060
Mercury	-21877-05-14 17:45 J	-6269016.90	-6269016.76	-6269016.61	0.0136	0.0087
Mercury	-21877-08-11 00:14 J	-6268928.57	-6268928.49	-6268928.37	0.0136	0.0114
Mars	-21870-08-13 17:02 J	-6266370.03	-6266369.79	-6266369.51	0.0133	0.0068
Mars	-21868-07-14 14:38 J	-6265668.96	-6265668.89	-6265668.77	0.0133	0.0126
Venus	-21857-02-13 07:26 J	-6261803.28	-6261803.19	-6261803.08	0.0132	0.0116
Venus	-21857-09-26 12:43 J	-6261577.11	-6261576.97	-6261576.80	0.0132	0.0092
Venus	-21856-05-10 18:14 J	-6261350.92	-6261350.74	-6261350.54	0.0132	0.0066
Venus	-21856-12-22 23:31 J	-6261124.71	-6261124.52	-6261124.30	0.0132	0.0042
Venus	-21855-08-06 05:16 J	-6260898.50	-6260898.28	-6260898.06	0.0133	0.0016
Venus	-21854-03-20 10:33 J	-6260672.28	-6260672.06	-6260671.84	0.0133	0.0010
Venus	-21854-11-01 15:50 J	-6260446.05	-6260445.84	-6260445.63	0.0133	0.0035
Venus	-21853-06-14 20:52 J	-6260219.82	-6260219.63	-6260219.43	0.0133	0.0061
Venus	-21852-01-27 02:09 J	-6259993.56	-6259993.41	-6259993.23	0.0133	0.0086
Venus	-21852-09-10 07:26 J	-6259767.29	-6259767.19	-6259767.06	0.0133	0.0112

Earth	-21842-05-20 16:33 J	-6256228.01	-6256227.81	-6256227.60	0.0137	0.0080
Moon	-21842-05-20 17:16 J	-6256227.95	-6256227.78	-6256227.58	0.0137	0.0087 *
Moon	-21841-05-24 00:43 J	-6255858.72	-6255858.47	-6255858.21	0.0138	0.0005
Earth	-21841-05-24 02:09 J	-6255858.66	-6255858.41	-6255858.16	0.0138	0.0001 *
Earth	-21840-05-28 12:00 J	-6255489.19	-6255489.00	-6255488.78	0.0138	0.0080
Moon	-21840-05-28 12:43 J	-6255489.16	-6255488.97	-6255488.77	0.0138	0.0078 *
Mercury	-21835-08-11 23:02 J	-6253587.56	-6253587.54	-6253587.52	0.0141	0.0138
Mercury	-21835-11-08 02:38 J	-6253499.46	-6253499.39	-6253499.32	0.0141	0.0118
Mercury	-21834-02-04 06:00 J	-6253411.34	-6253411.25	-6253411.15	0.0141	0.0097
Mercury	-21834-05-03 09:36 J	-6253323.21	-6253323.10	-6253322.98	0.0141	0.0075
Mercury	-21834-07-30 13:11 J	-6253235.07	-6253234.95	-6253234.82	0.0141	0.0054
Mercury	-21834-10-26 16:48 J	-6253146.93	-6253146.80	-6253146.67	0.0142	0.0032
Mercury	-21833-01-22 20:23 J	-6253058.78	-6253058.65	-6253058.51	0.0142	0.0011
Mercury	-21833-04-20 00:14 J	-6252970.63	-6252970.49	-6252970.36	0.0142	0.0012
Mercury	-21833-07-17 03:50 J	-6252882.47	-6252882.34	-6252882.21	0.0142	0.0034
Mercury	-21833-10-13 07:26 J	-6252794.31	-6252794.19	-6252794.06	0.0142	0.0056
Mercury	-21832-01-09 11:16 J	-6252706.14	-6252706.03	-6252705.92	0.0142	0.0078
Mercury	-21832-04-07 14:52 J	-6252617.97	-6252617.88	-6252617.78	0.0142	0.0101
Mercury	-21832-07-04 18:43 J	-6252529.78	-6252529.72	-6252529.65	0.0142	0.0124
Mars	-21826-12-02 12:57 J	-6250188.27	-6250187.96	-6250187.65	0.0145	0.0012
Venus	-21816-08-21 01:40 J	-6246638.53	-6246638.43	-6246638.30	0.0146	0.0121
Venus	-21815-04-04 13:55 J	-6246412.08	-6246411.92	-6246411.74	0.0146	0.0088
Venus	-21815-11-17 02:23 J	-6246185.60	-6246185.40	-6246185.20	0.0146	0.0054
Venus	-21814-07-01 14:38 J	-6245959.10	-6245958.89	-6245958.67	0.0146	0.0021
Venus	-21813-02-13 02:52 J	-6245732.59	-6245732.38	-6245732.16	0.0146	0.0014
Venus	-21813-09-26 15:07 J	-6245506.07	-6245505.87	-6245505.66	0.0146	0.0047
Venus	-21812-05-11 03:07 J	-6245279.54	-6245279.37	-6245279.18	0.0146	0.0080
Venus	-21812-12-23 15:07 J	-6245052.99	-6245052.87	-6245052.72	0.0145	0.0114
Earth	-21803-11-20 00:57 J	-6241799.68	-6241799.46	-6241799.23	0.0141	0.0072
Moon	-21803-11-20 01:40 J	-6241799.65	-6241799.43	-6241799.19	0.0141	0.0073 *

Moon	-21802-11-24 22:19 J	-6241429.81	-6241429.57	-6241429.32	0.0141	0.0024
Earth	-21802-11-25 00:14 J	-6241429.75	-6241429.49	-6241429.23	0.0141	0.0018 *
Earth	-21801-11-28 22:19 J	-6241059.73	-6241059.57	-6241059.40	0.0140	0.0107
Moon	-21801-11-29 00:00 J	-6241059.68	-6241059.50	-6241059.30	0.0140	0.0100 *
Mercury	-21795-06-28 16:48 J	-6239021.88	-6239021.80	-6239021.73	0.0137	0.0126
Mercury	-21795-09-25 00:00 J	-6238933.63	-6238933.50	-6238933.37	0.0137	0.0098
Mercury	-21795-12-22 06:43 J	-6238845.37	-6238845.22	-6238845.04	0.0137	0.0070
Mercury	-21794-03-20 14:09 J	-6238757.09	-6238756.91	-6238756.73	0.0137	0.0042
Mercury	-21794-06-16 21:07 J	-6238668.80	-6238668.62	-6238668.43	0.0137	0.0015
Mercury	-21794-09-13 04:19 J	-6238580.51	-6238580.32	-6238580.14	0.0137	0.0013
Mercury	-21794-12-10 11:16 J	-6238492.21	-6238492.03	-6238491.86	0.0137	0.0040
Mercury	-21793-03-07 18:00 J	-6238403.91	-6238403.75	-6238403.59	0.0136	0.0067
Mercury	-21793-06-04 00:43 J	-6238315.60	-6238315.47	-6238315.33	0.0136	0.0093
Mercury	-21793-08-31 07:26 J	-6238227.27	-6238227.19	-6238227.09	0.0136	0.0120
Mars	-21785-04-07 07:40 J	-6235451.49	-6235451.18	-6235450.88	0.0133	0.0001
Venus	-21774-10-13 17:02 J	-6231244.84	-6231244.79	-6231244.73	0.0132	0.0127
Venus	-21773-05-26 22:19 J	-6231018.70	-6231018.57	-6231018.42	0.0132	0.0103
Venus	-21772-01-08 03:50 J	-6230792.51	-6230792.34	-6230792.15	0.0132	0.0078
Venus	-21772-08-22 09:07 J	-6230566.31	-6230566.12	-6230565.91	0.0132	0.0053
Venus	-21771-04-05 14:38 J	-6230340.10	-6230339.89	-6230339.67	0.0132	0.0027
Venus	-21771-11-17 19:55 J	-6230113.89	-6230113.67	-6230113.45	0.0133	0.0001
Venus	-21770-07-02 01:11 J	-6229887.67	-6229887.45	-6229887.23	0.0133	0.0024
Venus	-21769-02-13 06:14 J	-6229661.43	-6229661.24	-6229661.02	0.0133	0.0050
Venus	-21769-09-26 11:31 J	-6229435.19	-6229435.02	-6229434.83	0.0133	0.0075
Venus	-21768-05-10 16:48 J	-6229208.93	-6229208.80	-6229208.65	0.0133	0.0101
Venus	-21768-12-22 22:19 J	-6228982.64	-6228982.57	-6228982.50	0.0133	0.0126
Earth	-21758-05-21 01:11 J	-6225546.64	-6225546.45	-6225546.22	0.0137	0.0078
Moon	-21758-05-21 03:21 J	-6225546.56	-6225546.36	-6225546.14	0.0137	0.0070 *
Moon	-21757-05-24 09:50 J	-6225177.35	-6225177.09	-6225176.83	0.0138	0.0003
Earth	-21757-05-24 11:02 J	-6225177.29	-6225177.04	-6225176.79	0.0138	0.0003 *

Earth	-21756-05-28 21:07 J	-6224807.82	-6224807.62	-6224807.42	0.0138	0.0083
Moon	-21756-05-28 22:19 J	-6224807.74	-6224807.57	-6224807.37	0.0138	0.0086 *
Mercury	-21751-09-01 05:45 J	-6222886.29	-6222886.26	-6222886.21	0.0141	0.0135
Mercury	-21751-11-28 09:21 J	-6222798.18	-6222798.11	-6222798.03	0.0141	0.0114
Mercury	-21750-02-24 12:57 J	-6222710.06	-6222709.96	-6222709.86	0.0141	0.0093
Mercury	-21750-05-23 16:33 J	-6222621.92	-6222621.81	-6222621.69	0.0141	0.0072
Mercury	-21750-08-19 20:09 J	-6222533.79	-6222533.66	-6222533.53	0.0141	0.0050
Mercury	-21750-11-15 23:45 J	-6222445.64	-6222445.51	-6222445.38	0.0142	0.0029
Mercury	-21749-02-12 03:21 J	-6222357.49	-6222357.36	-6222357.22	0.0142	0.0007
Mercury	-21749-05-10 06:57 J	-6222269.34	-6222269.21	-6222269.07	0.0142	0.0016
Mercury	-21749-08-06 10:33 J	-6222181.18	-6222181.06	-6222180.92	0.0142	0.0038
Mercury	-21749-11-02 14:23 J	-6222093.02	-6222092.90	-6222092.78	0.0142	0.0060
Mercury	-21748-01-29 18:00 J	-6222004.85	-6222004.75	-6222004.63	0.0142	0.0082
Mercury	-21748-04-27 21:50 J	-6221916.68	-6221916.59	-6221916.50	0.0142	0.0105
Mercury	-21748-07-25 01:40 J	-6221828.49	-6221828.43	-6221828.37	0.0142	0.0128
Mars	-21741-07-28 02:09 J	-6219268.63	-6219268.41	-6219268.17	0.0145	0.0099
Venus	-21732-04-20 06:28 J	-6216080.28	-6216080.23	-6216080.15	0.0146	0.0138
Venus	-21732-12-02 18:57 J	-6215853.86	-6215853.71	-6215853.56	0.0146	0.0105
Venus	-21731-07-17 07:11 J	-6215627.38	-6215627.20	-6215627.00	0.0146	0.0071
Venus	-21730-02-28 19:26 J	-6215400.89	-6215400.69	-6215400.47	0.0146	0.0038
Venus	-21730-10-13 07:40 J	-6215174.39	-6215174.18	-6215173.96	0.0146	0.0004
Venus	-21729-05-26 19:55 J	-6214947.88	-6214947.67	-6214947.46	0.0146	0.0030
Venus	-21728-01-08 08:09 J	-6214721.35	-6214721.16	-6214720.97	0.0146	0.0064
Venus	-21728-08-22 20:09 J	-6214494.81	-6214494.66	-6214494.49	0.0146	0.0098
Venus	-21727-04-06 08:23 J	-6214268.23	-6214268.15	-6214268.05	0.0145	0.0131
Earth	-21719-11-20 09:50 J	-6211118.31	-6211118.09	-6211117.86	0.0141	0.0068
Moon	-21719-11-20 10:19 J	-6211118.30	-6211118.07	-6211117.83	0.0141	0.0067 *
Moon	-21718-11-25 08:23 J	-6210748.39	-6210748.15	-6210747.90	0.0141	0.0019
Earth	-21718-11-25 09:07 J	-6210748.37	-6210748.12	-6210747.86	0.0141	0.0022 *
Earth	-21717-11-29 06:57 J	-6210378.35	-6210378.21	-6210378.03	0.0140	0.0111

Moon	-21717-11-29 08:52 J	-6210378.26	-6210378.13	-6210377.97	0.0140	0.0118 *
Mercury	-21711-07-18 23:31 J	-6208320.60	-6208320.52	-6208320.42	0.0137	0.0120
Mercury	-21711-10-15 06:43 J	-6208232.35	-6208232.22	-6208232.07	0.0137	0.0092
Mercury	-21710-01-11 13:55 J	-6208144.08	-6208143.92	-6208143.75	0.0137	0.0064
Mercury	-21710-04-09 21:07 J	-6208055.80	-6208055.62	-6208055.44	0.0137	0.0036
Mercury	-21710-07-07 04:04 J	-6207967.51	-6207967.33	-6207967.14	0.0137	0.0009
Mercury	-21710-10-03 11:02 J	-6207879.22	-6207879.04	-6207878.85	0.0137	0.0020
Mercury	-21710-12-30 18:00 J	-6207790.92	-6207790.75	-6207790.57	0.0137	0.0046
Mercury	-21709-03-28 00:43 J	-6207702.61	-6207702.47	-6207702.30	0.0136	0.0074
Mercury	-21709-06-24 07:40 J	-6207614.30	-6207614.18	-6207614.05	0.0136	0.0100
Mercury	-21709-09-20 14:23 J	-6207525.95	-6207525.90	-6207525.82	0.0136	0.0126
Mars	-21703-12-31 03:21 J	-6205233.46	-6205233.36	-6205233.23	0.0134	0.0124
Mars	-21701-11-30 23:16 J	-6204532.77	-6204532.53	-6204532.25	0.0133	0.0069
Venus	-21689-01-25 07:55 J	-6200460.26	-6200460.17	-6200460.04	0.0132	0.0114
Venus	-21689-09-07 13:26 J	-6200234.09	-6200233.94	-6200233.77	0.0132	0.0089
Venus	-21688-04-21 18:57 J	-6200007.90	-6200007.71	-6200007.52	0.0132	0.0064
Venus	-21688-12-04 00:14 J	-6199781.70	-6199781.49	-6199781.28	0.0132	0.0038
Venus	-21687-07-18 05:31 J	-6199555.49	-6199555.27	-6199555.05	0.0132	0.0013
Venus	-21686-03-01 10:48 J	-6199329.26	-6199329.05	-6199328.83	0.0133	0.0013
Venus	-21686-10-13 15:50 J	-6199103.04	-6199102.84	-6199102.62	0.0133	0.0039
Venus	-21685-05-26 21:07 J	-6198876.80	-6198876.62	-6198876.42	0.0133	0.0064
Venus	-21684-01-08 02:38 J	-6198650.55	-6198650.39	-6198650.23	0.0133	0.0089
Venus	-21684-08-22 07:26 J	-6198424.28	-6198424.19	-6198424.06	0.0133	0.0116
Earth	-21674-05-21 10:33 J	-6194865.26	-6194865.06	-6194864.84	0.0137	0.0073
Moon	-21674-05-21 12:28 J	-6194865.17	-6194864.98	-6194864.77	0.0137	0.0080 *
Moon	-21673-05-24 17:31 J	-6194496.02	-6194495.77	-6194495.51	0.0138	0.0012
Earth	-21673-05-24 19:55 J	-6194495.92	-6194495.67	-6194495.42	0.0138	0.0006 *
Earth	-21672-05-29 05:45 J	-6194126.45	-6194126.26	-6194126.06	0.0138	0.0086
Moon	-21672-05-29 07:11 J	-6194126.38	-6194126.20	-6194125.99	0.0138	0.0083 *
Mercury	-21667-09-21 12:43 J	-6192185.01	-6192184.97	-6192184.92	0.0141	0.0132

Mercury	-21667-12-18 16:04 J	-6192096.90	-6192096.83	-6192096.74	0.0141	0.0111
Mercury	-21666-03-16 19:55 J	-6192008.77	-6192008.67	-6192008.57	0.0141	0.0089
Mercury	-21666-06-12 23:16 J	-6191920.64	-6191920.53	-6191920.41	0.0141	0.0069
Mercury	-21666-09-09 02:52 J	-6191832.50	-6191832.38	-6191832.25	0.0141	0.0047
Mercury	-21666-12-06 06:28 J	-6191744.36	-6191744.23	-6191744.09	0.0141	0.0026
Mercury	-21665-03-03 10:19 J	-6191656.21	-6191656.07	-6191655.94	0.0142	0.0005
Mercury	-21665-05-30 13:55 J	-6191568.06	-6191567.92	-6191567.79	0.0142	0.0019
Mercury	-21665-08-26 17:31 J	-6191479.90	-6191479.77	-6191479.64	0.0142	0.0041
Mercury	-21665-11-22 21:07 J	-6191391.73	-6191391.62	-6191391.49	0.0142	0.0063
Mercury	-21664-02-19 00:57 J	-6191303.57	-6191303.46	-6191303.35	0.0142	0.0085
Mercury	-21664-05-18 04:33 J	-6191215.39	-6191215.31	-6191215.22	0.0142	0.0108
Mercury	-21664-08-14 08:23 J	-6191127.20	-6191127.15	-6191127.09	0.0142	0.0131
Mars	-21658-04-19 01:40 J	-6189053.68	-6189053.43	-6189053.14	0.0145	0.0075
Venus	-21648-08-01 22:33 J	-6185295.66	-6185295.56	-6185295.43	0.0146	0.0123
Venus	-21647-03-16 10:33 J	-6185069.21	-6185069.06	-6185068.87	0.0146	0.0089
Venus	-21647-10-28 22:48 J	-6184842.74	-6184842.55	-6184842.34	0.0146	0.0056
Venus	-21646-06-12 11:16 J	-6184616.24	-6184616.03	-6184615.82	0.0146	0.0021
Venus	-21645-01-24 23:31 J	-6184389.74	-6184389.52	-6184389.31	0.0146	0.0013
Venus	-21645-09-07 11:31 J	-6184163.22	-6184163.02	-6184162.81	0.0146	0.0047
Venus	-21644-04-21 23:31 J	-6183936.69	-6183936.52	-6183936.33	0.0146	0.0081
Venus	-21644-12-04 11:31 J	-6183710.14	-6183710.02	-6183709.87	0.0145	0.0114
Moon	-21635-11-20 14:23 J	-6180437.12	-6180436.90	-6180436.64	0.0141	0.0066
Earth	-21635-11-20 15:07 J	-6180437.08	-6180436.87	-6180436.63	0.0141	0.0067 *
Moon	-21634-11-25 14:09 J	-6180067.15	-6180066.91	-6180066.66	0.0141	0.0028
Earth	-21634-11-25 14:38 J	-6180067.14	-6180066.89	-6180066.63	0.0141	0.0024 *
Earth	-21633-11-29 12:43 J	-6179697.11	-6179696.97	-6179696.80	0.0140	0.0112
Moon	-21633-11-29 13:11 J	-6179697.11	-6179696.95	-6179696.75	0.0140	0.0105 *
Mercury	-21627-08-08 05:31 J	-6177619.36	-6177619.27	-6177619.17	0.0137	0.0117
Mercury	-21627-11-04 12:43 J	-6177531.11	-6177530.97	-6177530.82	0.0137	0.0089
Mercury	-21626-01-31 20:09 J	-6177442.83	-6177442.66	-6177442.49	0.0137	0.0061

Mercury	-21626-04-30 03:07 J	-6177354.55	-6177354.37	-6177354.18	0.0137	0.0033
Mercury	-21626-07-27 10:19 J	-6177266.26	-6177266.07	-6177265.88	0.0137	0.0005
Mercury	-21626-10-23 17:16 J	-6177177.96	-6177177.78	-6177177.59	0.0137	0.0022
Mercury	-21625-01-20 00:00 J	-6177089.66	-6177089.50	-6177089.31	0.0137	0.0050
Mercury	-21625-04-17 06:57 J	-6177001.35	-6177001.21	-6177001.05	0.0137	0.0077
Mercury	-21625-07-14 13:55 J	-6176913.03	-6176912.92	-6176912.79	0.0136	0.0103
Mercury	-21625-10-10 20:38 J	-6176824.69	-6176824.64	-6176824.57	0.0136	0.0129
Mars	-21618-08-25 13:55 J	-6174315.19	-6174314.92	-6174314.65	0.0134	0.0059
Mars	-21616-07-26 11:16 J	-6173614.03	-6173614.03	-6173614.01	0.0133	0.0133
Venus	-21606-09-24 17:02 J	-6169901.84	-6169901.79	-6169901.71	0.0132	0.0126
Venus	-21605-05-07 22:48 J	-6169675.69	-6169675.55	-6169675.41	0.0132	0.0101
Venus	-21605-12-20 04:04 J	-6169449.50	-6169449.33	-6169449.14	0.0132	0.0075
Venus	-21604-08-03 09:36 J	-6169223.30	-6169223.10	-6169222.90	0.0132	0.0050
Venus	-21603-03-17 14:38 J	-6168997.10	-6168996.89	-6168996.66	0.0132	0.0025
Venus	-21603-10-29 20:09 J	-6168770.88	-6168770.66	-6168770.44	0.0133	0.0002
Venus	-21602-06-13 01:11 J	-6168544.66	-6168544.45	-6168544.23	0.0133	0.0027
Venus	-21601-01-25 06:28 J	-6168318.42	-6168318.23	-6168318.02	0.0133	0.0053
Venus	-21601-09-07 11:31 J	-6168092.17	-6168092.02	-6168091.82	0.0133	0.0079
Venus	-21600-04-21 17:02 J	-6167865.91	-6167865.79	-6167865.65	0.0133	0.0104
Venus	-21600-12-03 22:19 J	-6167639.61	-6167639.57	-6167639.51	0.0133	0.0130
Earth	-21590-05-21 20:23 J	-6164183.85	-6164183.65	-6164183.42	0.0137	0.0069
Moon	-21590-05-21 23:16 J	-6164183.73	-6164183.53	-6164183.30	0.0137	0.0062 *
Moon	-21589-05-25 03:36 J	-6163814.60	-6163814.35	-6163814.09	0.0137	0.0004
Earth	-21589-05-25 06:00 J	-6163814.50	-6163814.25	-6163814.00	0.0137	0.0010 *
Earth	-21588-05-29 15:36 J	-6163445.03	-6163444.85	-6163444.65	0.0138	0.0089
Moon	-21588-05-29 18:00 J	-6163444.91	-6163444.75	-6163444.56	0.0138	0.0093 *
Mercury	-21583-10-11 19:55 J	-6161483.72	-6161483.67	-6161483.61	0.0141	0.0127
Mercury	-21582-01-07 23:16 J	-6161395.61	-6161395.53	-6161395.43	0.0141	0.0106
Mercury	-21582-04-06 02:52 J	-6161307.48	-6161307.38	-6161307.27	0.0141	0.0085
Mercury	-21582-07-03 06:28 J	-6161219.35	-6161219.23	-6161219.11	0.0141	0.0064

Mercury	-21582-09-29 10:04 J	-6161131.21	-6161131.08	-6161130.95	0.0141	0.0042
Mercury	-21582-12-26 13:40 J	-6161043.06	-6161042.93	-6161042.79	0.0141	0.0021
Mercury	-21581-03-23 17:16 J	-6160954.91	-6160954.78	-6160954.64	0.0142	0.0004
Mercury	-21581-06-19 20:52 J	-6160866.76	-6160866.63	-6160866.49	0.0142	0.0024
Mercury	-21581-09-16 00:43 J	-6160778.60	-6160778.47	-6160778.34	0.0142	0.0045
Mercury	-21581-12-13 04:19 J	-6160690.44	-6160690.32	-6160690.20	0.0142	0.0068
Mercury	-21580-03-11 07:55 J	-6160602.27	-6160602.17	-6160602.06	0.0142	0.0090
Mercury	-21580-06-07 11:45 J	-6160514.09	-6160514.01	-6160513.93	0.0142	0.0113
Mercury	-21580-09-03 15:21 J	-6160425.89	-6160425.86	-6160425.81	0.0142	0.0136
Mars	-21574-12-13 17:02 J	-6158134.10	-6158133.79	-6158133.47	0.0145	0.0013
Venus	-21564-04-01 02:38 J	-6154737.43	-6154737.39	-6154737.31	0.0146	0.0140
Venus	-21564-11-13 14:52 J	-6154511.02	-6154510.88	-6154510.72	0.0146	0.0107
Venus	-21563-06-28 03:21 J	-6154284.55	-6154284.36	-6154284.17	0.0146	0.0072
Venus	-21562-02-09 15:21 J	-6154058.06	-6154057.86	-6154057.65	0.0146	0.0038
Venus	-21562-09-24 03:36 J	-6153831.57	-6153831.35	-6153831.14	0.0146	0.0005
Venus	-21561-05-07 15:36 J	-6153605.06	-6153604.85	-6153604.64	0.0146	0.0030
Venus	-21561-12-20 03:36 J	-6153378.54	-6153378.35	-6153378.15	0.0146	0.0064
Venus	-21560-08-03 15:36 J	-6153151.99	-6153151.85	-6153151.67	0.0145	0.0098
Venus	-21559-03-18 03:50 J	-6152925.42	-6152925.34	-6152925.24	0.0145	0.0131
Moon	-21551-11-20 20:38 J	-6149755.87	-6149755.64	-6149755.40	0.0141	0.0065
Earth	-21551-11-20 21:21 J	-6149755.82	-6149755.61	-6149755.36	0.0141	0.0065 *
Earth	-21550-11-25 21:07 J	-6149385.88	-6149385.62	-6149385.37	0.0141	0.0025
Moon	-21550-11-25 21:50 J	-6149385.83	-6149385.59	-6149385.34	0.0141	0.0023 *
Earth	-21549-11-29 19:11 J	-6149015.85	-6149015.70	-6149015.55	0.0140	0.0113
Moon	-21549-11-29 19:11 J	-6149015.82	-6149015.70	-6149015.54	0.0140	0.0120 *
Mercury	-21543-08-28 11:31 J	-6146918.11	-6146918.02	-6146917.90	0.0137	0.0114
Mercury	-21543-11-24 19:11 J	-6146829.85	-6146829.70	-6146829.55	0.0137	0.0085
Mercury	-21542-02-21 02:09 J	-6146741.57	-6146741.41	-6146741.23	0.0137	0.0057
Mercury	-21542-05-20 09:21 J	-6146653.29	-6146653.11	-6146652.92	0.0137	0.0029
Mercury	-21542-08-16 16:33 J	-6146565.00	-6146564.81	-6146564.62	0.0137	0.0001

Mercury	-21542-11-12 23:31 J	-6146476.70	-6146476.52	-6146476.33	0.0137	0.0026
Mercury	-21541-02-09 06:28 J	-6146388.40	-6146388.23	-6146388.05	0.0137	0.0054
Mercury	-21541-05-07 13:11 J	-6146300.09	-6146299.95	-6146299.79	0.0137	0.0081
Mercury	-21541-08-03 20:23 J	-6146211.76	-6146211.65	-6146211.54	0.0136	0.0107
Mercury	-21541-10-31 02:52 J	-6146123.40	-6146123.38	-6146123.33	0.0136	0.0134
Mars	-21533-04-19 02:23 J	-6143396.71	-6143396.40	-6143396.10	0.0134	0.0006
Jupiter	-21526-06-14 21:50 J	-6140783.70	-6140783.59	-6140783.43	0.0132	0.0128
Venus	-21521-01-06 08:09 J	-6139117.27	-6139117.16	-6139117.04	0.0132	0.0113
Venus	-21521-08-19 13:26 J	-6138891.09	-6138890.94	-6138890.76	0.0132	0.0087
Venus	-21520-04-02 18:57 J	-6138664.90	-6138664.71	-6138664.51	0.0132	0.0062
Venus	-21520-11-15 00:14 J	-6138438.70	-6138438.49	-6138438.27	0.0133	0.0036
Venus	-21519-06-29 05:31 J	-6138212.48	-6138212.27	-6138212.04	0.0133	0.0011
Venus	-21518-02-10 11:02 J	-6137986.26	-6137986.04	-6137985.82	0.0133	0.0016
Venus	-21518-09-24 16:04 J	-6137760.02	-6137759.83	-6137759.61	0.0133	0.0042
Venus	-21517-05-07 21:36 J	-6137533.78	-6137533.60	-6137533.41	0.0133	0.0067
Venus	-21517-12-20 02:52 J	-6137307.53	-6137307.38	-6137307.22	0.0133	0.0093
Venus	-21516-08-03 08:23 J	-6137081.24	-6137081.15	-6137081.05	0.0133	0.0119
Moon	-21507-05-17 19:40 J	-6133871.70	-6133871.68	-6133871.61	0.0136	0.0135
Earth	-21506-05-22 07:26 J	-6133502.39	-6133502.19	-6133501.95	0.0137	0.0064
Moon	-21506-05-22 10:19 J	-6133502.27	-6133502.07	-6133501.85	0.0137	0.0071 *
Moon	-21505-05-25 13:40 J	-6133133.17	-6133132.93	-6133132.67	0.0137	0.0022
Earth	-21505-05-25 17:02 J	-6133133.04	-6133132.79	-6133132.54	0.0137	0.0015 *
Earth	-21504-05-30 02:38 J	-6132763.56	-6132763.39	-6132763.20	0.0138	0.0094
Moon	-21504-05-30 05:02 J	-6132763.46	-6132763.29	-6132763.09	0.0138	0.0091 *
Mercury	-21499-11-01 03:07 J	-6130782.42	-6130782.37	-6130782.29	0.0141	0.0121
Mercury	-21498-01-28 06:43 J	-6130694.30	-6130694.22	-6130694.12	0.0141	0.0100
Mercury	-21498-04-26 10:33 J	-6130606.17	-6130606.06	-6130605.95	0.0141	0.0079
Mercury	-21498-07-23 13:55 J	-6130518.04	-6130517.92	-6130517.79	0.0141	0.0057
Mercury	-21498-10-19 17:31 J	-6130429.90	-6130429.77	-6130429.64	0.0141	0.0036
Mercury	-21497-01-15 21:07 J	-6130341.75	-6130341.62	-6130341.48	0.0141	0.0015

Mercury	-21497-04-13 00:43 J	-6130253.60	-6130253.47	-6130253.33	0.0142	0.0009
Mercury	-21497-07-10 04:33 J	-6130165.44	-6130165.31	-6130165.18	0.0142	0.0030
Mercury	-21497-10-06 08:09 J	-6130077.29	-6130077.16	-6130077.03	0.0142	0.0052
Mercury	-21496-01-02 11:45 J	-6129989.12	-6129989.01	-6129988.89	0.0142	0.0074
Mercury	-21496-03-31 15:36 J	-6129900.95	-6129900.85	-6129900.75	0.0142	0.0096
Mercury	-21496-06-27 19:11 J	-6129812.77	-6129812.70	-6129812.62	0.0142	0.0119
Mercury	-21496-09-23 23:02 J	-6129724.55	-6129724.54	-6129724.53	0.0142	0.0142
Mars	-21489-08-08 13:40 J	-6127214.12	-6127213.93	-6127213.69	0.0145	0.0104
Venus	-21480-07-13 21:07 J	-6123952.73	-6123952.62	-6123952.49	0.0146	0.0123
Venus	-21479-02-25 09:21 J	-6123726.28	-6123726.11	-6123725.94	0.0146	0.0089
Venus	-21479-10-09 21:07 J	-6123499.81	-6123499.62	-6123499.41	0.0146	0.0055
Venus	-21478-05-24 09:07 J	-6123273.33	-6123273.12	-6123272.90	0.0146	0.0021
Venus	-21477-01-05 21:21 J	-6123046.83	-6123046.61	-6123046.40	0.0146	0.0014
Venus	-21477-08-19 09:21 J	-6122820.31	-6122820.11	-6122819.90	0.0146	0.0048
Venus	-21476-04-02 21:21 J	-6122593.78	-6122593.61	-6122593.42	0.0146	0.0082
Venus	-21476-11-15 09:07 J	-6122367.23	-6122367.12	-6122366.97	0.0145	0.0116
Moon	-21467-11-21 03:07 J	-6119074.60	-6119074.37	-6119074.11	0.0141	0.0059
Earth	-21467-11-21 05:31 J	-6119074.50	-6119074.27	-6119074.04	0.0141	0.0061 *
Earth	-21466-11-26 04:33 J	-6118704.56	-6118704.31	-6118704.05	0.0141	0.0028
Moon	-21466-11-26 05:31 J	-6118704.52	-6118704.27	-6118704.03	0.0141	0.0031 *
Moon	-21465-11-30 01:40 J	-6118334.59	-6118334.43	-6118334.26	0.0140	0.0110
Earth	-21465-11-30 02:23 J	-6118334.53	-6118334.40	-6118334.24	0.0140	0.0116 *
Mercury	-21459-06-21 10:48 J	-6116305.05	-6116305.05	-6116305.03	0.0137	0.0137
Mercury	-21459-09-17 18:14 J	-6116216.85	-6116216.74	-6116216.62	0.0137	0.0109
Mercury	-21459-12-15 01:26 J	-6116128.59	-6116128.44	-6116128.28	0.0137	0.0080
Mercury	-21458-03-13 08:38 J	-6116040.31	-6116040.14	-6116039.96	0.0137	0.0052
Mercury	-21458-06-09 15:50 J	-6115952.02	-6115951.84	-6115951.65	0.0137	0.0025
Mercury	-21458-09-05 23:02 J	-6115863.73	-6115863.54	-6115863.35	0.0137	0.0003
Mercury	-21458-12-03 06:00 J	-6115775.43	-6115775.25	-6115775.07	0.0137	0.0030
Mercury	-21457-02-29 12:57 J	-6115687.13	-6115686.96	-6115686.79	0.0137	0.0058

Mercury	-21457-05-27 19:40 J	-6115598.81	-6115598.68	-6115598.52	0.0137	0.0085
Mercury	-21457-08-24 02:23 J	-6115510.49	-6115510.40	-6115510.28	0.0136	0.0112
Mars	-21450-01-11 18:28 J	-6113178.84	-6113178.73	-6113178.58	0.0134	0.0120
Mars	-21449-12-12 13:40 J	-6112478.18	-6112477.93	-6112477.67	0.0133	0.0072
Venus	-21438-09-05 17:02 J	-6108558.85	-6108558.79	-6108558.71	0.0132	0.0125
Venus	-21437-04-18 22:19 J	-6108332.70	-6108332.57	-6108332.41	0.0132	0.0100
Venus	-21437-12-01 03:50 J	-6108106.51	-6108106.34	-6108106.15	0.0132	0.0074
Venus	-21436-07-15 09:21 J	-6107880.31	-6107880.11	-6107879.90	0.0133	0.0048
Venus	-21435-02-26 14:52 J	-6107654.10	-6107653.88	-6107653.66	0.0133	0.0022
Venus	-21435-10-10 20:09 J	-6107427.88	-6107427.66	-6107427.44	0.0133	0.0004
Venus	-21434-05-25 01:26 J	-6107201.65	-6107201.44	-6107201.22	0.0133	0.0030
Venus	-21433-01-06 06:57 J	-6106975.40	-6106975.21	-6106975.01	0.0133	0.0056
Venus	-21433-08-19 12:14 J	-6106749.15	-6106748.99	-6106748.81	0.0133	0.0082
Venus	-21432-04-02 18:00 J	-6106522.88	-6106522.75	-6106522.63	0.0133	0.0108
Earth	-21423-05-18 09:36 J	-6103190.11	-6103190.10	-6103190.05	0.0137	0.0136
Earth	-21422-05-22 18:14 J	-6102820.95	-6102820.74	-6102820.50	0.0137	0.0059
Moon	-21422-05-22 21:36 J	-6102820.81	-6102820.60	-6102820.36	0.0137	0.0052 *
Saturn	-21422-06-06 10:33 J	-6102806.69	-6102806.06	-6102805.43	0.0137	0.0003
Moon	-21421-05-26 00:57 J	-6102451.71	-6102451.46	-6102451.21	0.0138	0.0013
Earth	-21421-05-26 03:50 J	-6102451.58	-6102451.34	-6102451.09	0.0138	0.0020 *
Earth	-21420-05-30 13:26 J	-6102082.09	-6102081.94	-6102081.75	0.0138	0.0099
Moon	-21420-05-30 17:02 J	-6102081.95	-6102081.79	-6102081.62	0.0138	0.0103 *
Mercury	-21415-08-25 07:26 J	-6100169.22	-6100169.19	-6100169.16	0.0141	0.0135
Mercury	-21415-11-21 10:33 J	-6100081.12	-6100081.06	-6100080.97	0.0141	0.0115
Mercury	-21414-02-17 14:23 J	-6099993.00	-6099992.90	-6099992.80	0.0141	0.0093
Mercury	-21414-05-16 17:45 J	-6099904.87	-6099904.76	-6099904.64	0.0141	0.0073
Mercury	-21414-08-12 21:21 J	-6099816.73	-6099816.61	-6099816.48	0.0141	0.0051
Mercury	-21414-11-09 00:57 J	-6099728.59	-6099728.46	-6099728.32	0.0141	0.0030
Mercury	-21413-02-05 04:33 J	-6099640.44	-6099640.31	-6099640.17	0.0142	0.0009
Mercury	-21413-05-03 08:23 J	-6099552.29	-6099552.15	-6099552.02	0.0142	0.0015

Mercury	-21413-07-30 12:00 J	-6099464.13	-6099464.00	-6099463.87	0.0142	0.0036
Mercury	-21413-10-26 15:36 J	-6099375.97	-6099375.85	-6099375.73	0.0142	0.0058
Mercury	-21412-01-22 19:11 J	-6099287.81	-6099287.70	-6099287.58	0.0142	0.0081
Mercury	-21412-04-20 22:48 J	-6099199.63	-6099199.55	-6099199.45	0.0142	0.0104
Mercury	-21412-07-18 02:52 J	-6099111.45	-6099111.38	-6099111.32	0.0142	0.0126
Mars	-21406-04-30 23:02 J	-6096998.80	-6096998.54	-6096998.24	0.0145	0.0063
Venus	-21396-03-13 04:04 J	-6093394.39	-6093394.33	-6093394.25	0.0146	0.0138
Venus	-21396-10-25 16:04 J	-6093167.97	-6093167.83	-6093167.67	0.0146	0.0104
Venus	-21395-06-09 04:04 J	-6092941.51	-6092941.33	-6092941.13	0.0146	0.0070
Venus	-21394-01-21 16:04 J	-6092715.03	-6092714.83	-6092714.61	0.0146	0.0036
Venus	-21394-09-05 04:04 J	-6092488.54	-6092488.33	-6092488.11	0.0146	0.0004
Venus	-21393-04-18 16:04 J	-6092262.04	-6092261.83	-6092261.61	0.0146	0.0033
Venus	-21393-12-01 04:04 J	-6092035.52	-6092035.33	-6092035.13	0.0146	0.0067
Venus	-21392-07-15 16:04 J	-6091808.97	-6091808.83	-6091808.66	0.0145	0.0101
Venus	-21391-02-27 04:04 J	-6091582.40	-6091582.33	-6091582.23	0.0145	0.0134
Moon	-21384-11-16 17:31 J	-6088762.79	-6088762.77	-6088762.71	0.0142	0.0140
Moon	-21383-11-21 12:57 J	-6088393.20	-6088392.96	-6088392.71	0.0141	0.0058
Earth	-21383-11-21 15:07 J	-6088393.10	-6088392.87	-6088392.63	0.0141	0.0056 *
Earth	-21382-11-26 14:09 J	-6088023.16	-6088022.91	-6088022.65	0.0141	0.0033
Moon	-21382-11-26 16:04 J	-6088023.07	-6088022.83	-6088022.58	0.0141	0.0032 *
Moon	-21381-11-30 11:16 J	-6087653.15	-6087653.03	-6087652.91	0.0140	0.0125
Earth	-21381-11-30 12:00 J	-6087653.12	-6087653.00	-6087652.86	0.0140	0.0120 *
Mercury	-21375-07-11 17:45 J	-6085603.81	-6085603.76	-6085603.69	0.0137	0.0131
Mercury	-21375-10-08 00:57 J	-6085515.57	-6085515.46	-6085515.32	0.0137	0.0103
Mercury	-21374-01-04 08:23 J	-6085427.30	-6085427.15	-6085426.99	0.0137	0.0074
Mercury	-21374-04-02 15:36 J	-6085339.02	-6085338.85	-6085338.67	0.0137	0.0046
Mercury	-21374-06-29 22:48 J	-6085250.73	-6085250.55	-6085250.36	0.0137	0.0018
Mercury	-21374-09-26 06:00 J	-6085162.44	-6085162.25	-6085162.06	0.0137	0.0009
Mercury	-21374-12-23 12:57 J	-6085074.14	-6085073.96	-6085073.78	0.0137	0.0037
Mercury	-21373-03-20 19:55 J	-6084985.83	-6084985.67	-6084985.50	0.0137	0.0064

Mercury	-21373-06-17 02:52 J	-6084897.51	-6084897.38	-6084897.24	0.0136	0.0091
Mercury	-21373-09-13 09:36 J	-6084809.18	-6084809.10	-6084809.00	0.0136	0.0117
Mars	-21366-09-06 07:40 J	-6082260.44	-6082260.18	-6082259.89	0.0134	0.0054
Venus	-21354-12-18 07:40 J	-6077774.28	-6077774.18	-6077774.05	0.0132	0.0112
Venus	-21353-07-31 13:11 J	-6077548.10	-6077547.95	-6077547.77	0.0132	0.0086
Venus	-21352-03-14 18:43 J	-6077321.91	-6077321.72	-6077321.52	0.0133	0.0060
Venus	-21352-10-27 00:14 J	-6077095.70	-6077095.49	-6077095.28	0.0133	0.0034
Venus	-21351-06-10 05:31 J	-6076869.48	-6076869.27	-6076869.05	0.0133	0.0008
Venus	-21350-01-22 11:02 J	-6076643.25	-6076643.04	-6076642.82	0.0133	0.0018
Venus	-21350-09-05 16:33 J	-6076417.02	-6076416.81	-6076416.60	0.0133	0.0044
Venus	-21349-04-18 21:50 J	-6076190.77	-6076190.59	-6076190.40	0.0133	0.0070
Venus	-21349-12-01 03:07 J	-6075964.51	-6075964.37	-6075964.21	0.0133	0.0097
Venus	-21348-07-15 08:38 J	-6075738.21	-6075738.14	-6075738.04	0.0133	0.0122
Moon	-21339-05-18 16:04 J	-6072508.90	-6072508.83	-6072508.71	0.0137	0.0126
Earth	-21339-05-18 20:09 J	-6072508.73	-6072508.66	-6072508.59	0.0137	0.0131 *
Earth	-21338-05-23 04:33 J	-6072139.53	-6072139.31	-6072139.07	0.0137	0.0054
Moon	-21338-05-23 07:40 J	-6072139.39	-6072139.18	-6072138.95	0.0137	0.0062 *
Moon	-21337-05-26 10:33 J	-6071770.31	-6071770.06	-6071769.81	0.0138	0.0031
Earth	-21337-05-26 14:09 J	-6071770.16	-6071769.91	-6071769.66	0.0138	0.0024 *
Earth	-21336-05-31 00:00 J	-6071400.66	-6071400.50	-6071400.33	0.0138	0.0103
Moon	-21336-05-31 02:52 J	-6071400.53	-6071400.38	-6071400.19	0.0138	0.0099 *
Mercury	-21331-09-14 14:38 J	-6069467.94	-6069467.89	-6069467.84	0.0141	0.0130
Mercury	-21331-12-11 18:00 J	-6069379.82	-6069379.75	-6069379.66	0.0141	0.0109
Mercury	-21330-03-09 21:36 J	-6069291.70	-6069291.60	-6069291.49	0.0141	0.0088
Mercury	-21330-06-06 01:11 J	-6069203.57	-6069203.45	-6069203.33	0.0141	0.0067
Mercury	-21330-09-02 04:48 J	-6069115.43	-6069115.30	-6069115.17	0.0141	0.0045
Mercury	-21330-11-29 08:23 J	-6069027.28	-6069027.15	-6069027.02	0.0141	0.0024
Mercury	-21329-02-25 12:00 J	-6068939.14	-6068939.00	-6068938.87	0.0142	0.0002
Mercury	-21329-05-23 15:36 J	-6068850.98	-6068850.85	-6068850.72	0.0142	0.0020
Mercury	-21329-08-19 19:11 J	-6068762.83	-6068762.70	-6068762.57	0.0142	0.0042

Mercury	-21329-11-15 22:48 J	-6068674.67	-6068674.55	-6068674.43	0.0142	0.0064
Mercury	-21328-02-12 02:38 J	-6068586.50	-6068586.39	-6068586.28	0.0142	0.0086
Mercury	-21328-05-11 06:14 J	-6068498.32	-6068498.24	-6068498.15	0.0142	0.0109
Mercury	-21328-08-07 10:04 J	-6068410.13	-6068410.08	-6068410.03	0.0142	0.0131
Mars	-21322-12-25 20:52 J	-6066078.94	-6066078.63	-6066078.32	0.0145	0.0029
Venus	-21312-06-24 23:16 J	-6062609.64	-6062609.53	-6062609.39	0.0146	0.0120
Venus	-21311-02-06 11:16 J	-6062383.20	-6062383.03	-6062382.85	0.0146	0.0085
Venus	-21311-09-20 23:16 J	-6062156.73	-6062156.53	-6062156.32	0.0146	0.0051
Venus	-21310-05-05 11:16 J	-6061930.24	-6061930.03	-6061929.81	0.0146	0.0017
Venus	-21310-12-17 23:16 J	-6061703.75	-6061703.53	-6061703.32	0.0146	0.0018
Venus	-21309-07-31 11:16 J	-6061477.22	-6061477.03	-6061476.82	0.0146	0.0052
Venus	-21308-03-14 23:31 J	-6061250.69	-6061250.52	-6061250.35	0.0145	0.0086
Venus	-21308-10-27 11:16 J	-6061024.14	-6061024.03	-6061023.90	0.0145	0.0120
Earth	-21300-11-17 01:11 J	-6058081.48	-6058081.45	-6058081.40	0.0142	0.0140
Moon	-21299-11-21 22:04 J	-6057711.82	-6057711.58	-6057711.32	0.0141	0.0048
Earth	-21299-11-22 00:57 J	-6057711.69	-6057711.46	-6057711.21	0.0141	0.0052 *
Earth	-21298-11-26 23:45 J	-6057341.75	-6057341.51	-6057341.25	0.0141	0.0037
Moon	-21298-11-27 01:55 J	-6057341.66	-6057341.42	-6057341.18	0.0141	0.0039 *
Moon	-21297-11-30 19:40 J	-6056971.81	-6056971.68	-6056971.53	0.0140	0.0119
Earth	-21297-11-30 21:50 J	-6056971.70	-6056971.59	-6056971.46	0.0140	0.0124 *
Mercury	-21291-08-01 00:43 J	-6054902.54	-6054902.47	-6054902.38	0.0137	0.0124
Mercury	-21291-10-28 07:55 J	-6054814.29	-6054814.17	-6054814.02	0.0137	0.0096
Mercury	-21290-01-24 15:07 J	-6054726.02	-6054725.87	-6054725.69	0.0137	0.0069
Mercury	-21290-04-22 22:33 J	-6054637.74	-6054637.56	-6054637.38	0.0137	0.0040
Mercury	-21290-07-20 05:45 J	-6054549.45	-6054549.26	-6054549.07	0.0137	0.0012
Mercury	-21290-10-16 12:43 J	-6054461.15	-6054460.97	-6054460.78	0.0137	0.0016
Mercury	-21289-01-12 19:55 J	-6054372.85	-6054372.67	-6054372.49	0.0137	0.0043
Mercury	-21289-04-10 02:52 J	-6054284.54	-6054284.38	-6054284.22	0.0136	0.0070
Mercury	-21289-07-07 09:36 J	-6054196.22	-6054196.10	-6054195.96	0.0136	0.0097
Mercury	-21289-10-03 16:19 J	-6054107.88	-6054107.82	-6054107.73	0.0136	0.0123

Mars	-21281-04-30 18:57 J	-6051342.01	-6051341.71	-6051341.41	0.0133	0.0012
Venus	-21270-08-17 16:19 J	-6047215.89	-6047215.82	-6047215.74	0.0132	0.0124
Venus	-21269-03-30 21:21 J	-6046989.73	-6046989.61	-6046989.44	0.0132	0.0099
Venus	-21269-11-12 02:52 J	-6046763.55	-6046763.38	-6046763.18	0.0132	0.0073
Venus	-21268-06-26 08:23 J	-6046537.34	-6046537.15	-6046536.93	0.0133	0.0047
Venus	-21267-02-07 14:09 J	-6046311.12	-6046310.91	-6046310.69	0.0133	0.0020
Venus	-21267-09-21 19:40 J	-6046084.90	-6046084.68	-6046084.46	0.0133	0.0006
Venus	-21266-05-06 00:57 J	-6045858.67	-6045858.46	-6045858.24	0.0133	0.0032
Venus	-21266-12-18 06:28 J	-6045632.42	-6045632.23	-6045632.03	0.0133	0.0058
Venus	-21265-07-31 12:00 J	-6045406.16	-6045406.00	-6045405.83	0.0133	0.0084
Venus	-21264-03-14 17:31 J	-6045179.88	-6045179.77	-6045179.64	0.0133	0.0111
Moon	-21255-05-19 00:14 J	-6041827.51	-6041827.49	-6041827.42	0.0137	0.0135
Earth	-21255-05-19 04:04 J	-6041827.40	-6041827.33	-6041827.23	0.0137	0.0128
Earth	-21254-05-23 12:57 J	-6041458.19	-6041457.96	-6041457.73	0.0137	0.0051
Moon	-21254-05-23 16:19 J	-6041458.04	-6041457.82	-6041457.57	0.0137	0.0044 *
Moon	-21253-05-26 18:57 J	-6041088.95	-6041088.71	-6041088.46	0.0138	0.0020
Earth	-21253-05-26 22:19 J	-6041088.81	-6041088.57	-6041088.32	0.0138	0.0027 *
Earth	-21252-05-31 08:09 J	-6040719.30	-6040719.16	-6040718.98	0.0138	0.0106
Moon	-21252-05-31 12:00 J	-6040719.13	-6040719.00	-6040718.84	0.0138	0.0111 *
Mercury	-21247-10-04 21:36 J	-6038766.65	-6038766.60	-6038766.54	0.0141	0.0126
Mercury	-21246-01-01 01:11 J	-6038678.54	-6038678.45	-6038678.37	0.0141	0.0105
Mercury	-21246-03-30 04:33 J	-6038590.41	-6038590.31	-6038590.20	0.0141	0.0084
Mercury	-21246-06-26 08:09 J	-6038502.28	-6038502.16	-6038502.04	0.0141	0.0063
Mercury	-21246-09-22 11:45 J	-6038414.14	-6038414.01	-6038413.88	0.0141	0.0042
Mercury	-21246-12-19 15:21 J	-6038326.00	-6038325.86	-6038325.73	0.0142	0.0021
Mercury	-21245-03-16 18:57 J	-6038237.85	-6038237.71	-6038237.58	0.0142	0.0004
Mercury	-21245-06-12 22:33 J	-6038149.70	-6038149.56	-6038149.43	0.0142	0.0024
Mercury	-21245-09-09 02:09 J	-6038061.54	-6038061.41	-6038061.28	0.0142	0.0045
Mercury	-21245-12-06 05:45 J	-6037973.38	-6037973.26	-6037973.14	0.0142	0.0068
Mercury	-21244-03-04 09:21 J	-6037885.21	-6037885.11	-6037885.00	0.0142	0.0090

Mercury	-21244-05-31 13:11 J	-6037797.03	-6037796.95	-6037796.87	0.0142	0.0113
Mercury	-21244-08-27 16:48 J	-6037708.83	-6037708.80	-6037708.75	0.0142	0.0135
Mars	-21239-09-15 19:11 J	-6035863.73	-6035863.70	-6035863.60	0.0145	0.0142
Mars	-21237-08-20 12:28 J	-6035159.14	-6035158.98	-6035158.78	0.0145	0.0117
Venus	-21228-02-22 04:48 J	-6032051.36	-6032051.30	-6032051.21	0.0146	0.0136
Venus	-21228-10-06 16:48 J	-6031824.94	-6031824.80	-6031824.64	0.0146	0.0102
Venus	-21227-05-21 04:48 J	-6031598.48	-6031598.30	-6031598.10	0.0146	0.0068
Venus	-21226-01-02 17:02 J	-6031372.00	-6031371.79	-6031371.58	0.0146	0.0033
Venus	-21226-08-17 05:02 J	-6031145.51	-6031145.29	-6031145.07	0.0146	0.0002
Venus	-21225-03-30 17:02 J	-6030919.00	-6030918.79	-6030918.58	0.0146	0.0036
Venus	-21225-11-12 05:16 J	-6030692.47	-6030692.28	-6030692.09	0.0146	0.0070
Venus	-21224-06-26 17:02 J	-6030465.93	-6030465.79	-6030465.63	0.0145	0.0104
Venus	-21223-02-08 05:02 J	-6030239.34	-6030239.29	-6030239.21	0.0145	0.0138
Earth	-21216-11-17 10:04 J	-6027400.14	-6027400.08	-6027399.99	0.0142	0.0136
Moon	-21216-11-17 13:40 J	-6027400.03	-6027399.93	-6027399.82	0.0142	0.0129 *
Moon	-21215-11-22 07:11 J	-6027030.45	-6027030.20	-6027029.95	0.0141	0.0050
Earth	-21215-11-22 10:19 J	-6027030.32	-6027030.07	-6027029.83	0.0141	0.0047 *
Earth	-21214-11-27 08:52 J	-6026660.37	-6026660.13	-6026659.87	0.0141	0.0041
Moon	-21214-11-27 11:45 J	-6026660.24	-6026660.01	-6026659.76	0.0141	0.0041 *
Moon	-21213-12-01 04:33 J	-6026290.38	-6026290.31	-6026290.20	0.0140	0.0132
Earth	-21213-12-01 06:43 J	-6026290.31	-6026290.22	-6026290.10	0.0140	0.0128 *
Mercury	-21207-08-21 07:26 J	-6024201.27	-6024201.19	-6024201.08	0.0137	0.0119
Mercury	-21207-11-17 14:52 J	-6024113.01	-6024112.88	-6024112.73	0.0137	0.0090
Mercury	-21206-02-13 22:04 J	-6024024.73	-6024024.58	-6024024.40	0.0137	0.0062
Mercury	-21206-05-13 05:31 J	-6023936.45	-6023936.27	-6023936.08	0.0137	0.0034
Mercury	-21206-08-09 12:43 J	-6023848.16	-6023847.97	-6023847.78	0.0137	0.0006
Mercury	-21206-11-05 19:40 J	-6023759.86	-6023759.68	-6023759.49	0.0137	0.0022
Mercury	-21205-02-02 02:38 J	-6023671.56	-6023671.39	-6023671.21	0.0137	0.0049
Mercury	-21205-04-30 09:36 J	-6023583.25	-6023583.10	-6023582.94	0.0136	0.0076
Mercury	-21205-07-27 16:19 J	-6023494.93	-6023494.82	-6023494.68	0.0136	0.0103

Mercury	-21205-10-23 23:31 J	-6023406.58	-6023406.52	-6023406.46	0.0136	0.0129
Mars	-21198-01-23 14:23 J	-6021124.05	-6021123.90	-6021123.72	0.0134	0.0112
Mars	-21197-12-24 07:40 J	-6020423.41	-6020423.18	-6020422.92	0.0133	0.0079
Venus	-21186-11-29 06:14 J	-6016431.35	-6016431.24	-6016431.12	0.0132	0.0110
Venus	-21185-07-12 11:45 J	-6016205.17	-6016205.01	-6016204.84	0.0132	0.0085
Venus	-21184-02-23 17:16 J	-6015978.97	-6015978.78	-6015978.58	0.0132	0.0059
Venus	-21184-10-07 22:33 J	-6015752.77	-6015752.56	-6015752.34	0.0132	0.0033
Venus	-21183-05-22 04:04 J	-6015526.55	-6015526.33	-6015526.11	0.0133	0.0007
Venus	-21182-01-03 09:36 J	-6015300.31	-6015300.10	-6015299.88	0.0133	0.0020
Venus	-21182-08-17 15:07 J	-6015074.08	-6015073.87	-6015073.66	0.0133	0.0046
Venus	-21181-03-30 20:23 J	-6014847.83	-6014847.65	-6014847.46	0.0133	0.0072
Venus	-21181-11-12 01:55 J	-6014621.56	-6014621.42	-6014621.27	0.0133	0.0098
Venus	-21180-06-26 07:11 J	-6014395.26	-6014395.20	-6014395.11	0.0133	0.0125
Moon	-21171-05-19 07:55 J	-6011146.27	-6011146.17	-6011146.04	0.0137	0.0121
Earth	-21171-05-19 11:16 J	-6011146.11	-6011146.03	-6011145.92	0.0137	0.0126 *
Earth	-21170-05-23 19:55 J	-6010776.89	-6010776.67	-6010776.43	0.0137	0.0049
Moon	-21170-05-23 23:31 J	-6010776.74	-6010776.52	-6010776.29	0.0137	0.0056 *
Moon	-21169-05-27 01:40 J	-6010407.66	-6010407.43	-6010407.18	0.0138	0.0037
Earth	-21169-05-27 05:31 J	-6010407.51	-6010407.27	-6010407.02	0.0138	0.0029 *
Earth	-21168-05-31 15:36 J	-6010038.00	-6010037.85	-6010037.69	0.0138	0.0107
Moon	-21168-05-31 18:43 J	-6010037.87	-6010037.72	-6010037.54	0.0138	0.0102 *
Mercury	-21163-10-25 04:04 J	-6008065.38	-6008065.33	-6008065.27	0.0141	0.0125
Mercury	-21162-01-21 07:26 J	-6007977.27	-6007977.19	-6007977.09	0.0141	0.0104
Mercury	-21162-04-19 11:02 J	-6007889.14	-6007889.04	-6007888.93	0.0141	0.0083
Mercury	-21162-07-16 14:38 J	-6007801.01	-6007800.89	-6007800.77	0.0141	0.0062
Mercury	-21162-10-12 18:14 J	-6007712.87	-6007712.74	-6007712.61	0.0141	0.0040
Mercury	-21161-01-08 21:50 J	-6007624.72	-6007624.59	-6007624.46	0.0142	0.0019
Mercury	-21161-04-06 01:26 J	-6007536.58	-6007536.44	-6007536.31	0.0142	0.0004
Mercury	-21161-07-03 05:02 J	-6007448.42	-6007448.29	-6007448.16	0.0142	0.0025
Mercury	-21161-09-29 08:38 J	-6007360.27	-6007360.14	-6007360.01	0.0142	0.0047

Mercury	-21161-12-26 12:14 J	-6007272.10	-6007271.99	-6007271.87	0.0142	0.0069
Mercury	-21160-03-24 15:50 J	-6007183.94	-6007183.84	-6007183.73	0.0142	0.0092
Mercury	-21160-06-20 19:40 J	-6007095.76	-6007095.68	-6007095.60	0.0142	0.0114
Mercury	-21160-09-16 23:31 J	-6007007.56	-6007007.52	-6007007.49	0.0142	0.0137
Mars	-21154-05-12 08:23 J	-6004944.44	-6004944.15	-6004943.86	0.0145	0.0056
Venus	-21144-06-05 20:23 J	-6001266.75	-6001266.65	-6001266.51	0.0146	0.0121
Venus	-21143-01-18 08:23 J	-6001040.31	-6001040.15	-6001039.96	0.0146	0.0086
Venus	-21143-09-01 20:38 J	-6000813.84	-6000813.64	-6000813.43	0.0146	0.0051
Venus	-21142-04-16 08:38 J	-6000587.35	-6000587.14	-6000586.92	0.0146	0.0017
Venus	-21142-11-28 20:52 J	-6000360.84	-6000360.63	-6000360.41	0.0146	0.0018
Venus	-21141-07-12 09:07 J	-6000134.32	-6000134.12	-6000133.91	0.0146	0.0053
Venus	-21140-02-23 20:52 J	-5999907.78	-5999907.63	-5999907.44	0.0145	0.0088
Venus	-21140-10-08 09:07 J	-5999681.23	-5999681.12	-5999680.99	0.0145	0.0121
Earth	-21132-11-17 16:19 J	-5996718.88	-5996718.82	-5996718.71	0.0142	0.0134
Moon	-21132-11-17 20:23 J	-5996718.68	-5996718.65	-5996718.61	0.0142	0.0140
Moon	-21131-11-22 13:26 J	-5996349.20	-5996348.94	-5996348.69	0.0141	0.0040
Earth	-21131-11-22 16:48 J	-5996349.04	-5996348.80	-5996348.55	0.0141	0.0045 *
Earth	-21130-11-27 15:36 J	-5995979.09	-5995978.85	-5995978.60	0.0141	0.0043
Moon	-21130-11-27 18:14 J	-5995978.96	-5995978.74	-5995978.48	0.0141	0.0045 *
Moon	-21129-12-01 10:33 J	-5995609.16	-5995609.06	-5995608.93	0.0140	0.0126
Earth	-21129-12-01 13:40 J	-5995609.01	-5995608.93	-5995608.82	0.0140	0.0130 *
Mercury	-21123-09-10 13:55 J	-5993500.01	-5993499.92	-5993499.80	0.0137	0.0115
Mercury	-21123-12-07 21:07 J	-5993411.75	-5993411.62	-5993411.46	0.0137	0.0087
Mercury	-21122-03-06 04:33 J	-5993323.47	-5993323.31	-5993323.13	0.0137	0.0058
Mercury	-21122-06-02 11:45 J	-5993235.19	-5993235.01	-5993234.82	0.0137	0.0030
Mercury	-21122-08-29 18:57 J	-5993146.89	-5993146.71	-5993146.52	0.0137	0.0004
Mercury	-21122-11-26 02:09 J	-5993058.60	-5993058.41	-5993058.23	0.0137	0.0025
Mercury	-21121-02-22 08:52 J	-5992970.29	-5992970.13	-5992969.95	0.0137	0.0053
Mercury	-21121-05-20 15:50 J	-5992881.98	-5992881.84	-5992881.68	0.0137	0.0080
Mercury	-21121-08-16 23:02 J	-5992793.66	-5992793.54	-5992793.43	0.0136	0.0106

Mercury	-21121-11-13 05:31 J	-5992705.30	-5992705.27	-5992705.21	0.0136	0.0133
Mars	-21114-09-18 00:00 J	-5990205.78	-5990205.50	-5990205.21	0.0134	0.0048
Venus	-21102-07-29 14:09 J	-5985872.97	-5985872.91	-5985872.82	0.0132	0.0124
Venus	-21101-03-11 19:40 J	-5985646.82	-5985646.68	-5985646.52	0.0132	0.0098
Venus	-21101-10-24 01:11 J	-5985420.63	-5985420.45	-5985420.26	0.0132	0.0072
Venus	-21100-06-07 06:43 J	-5985194.42	-5985194.22	-5985194.01	0.0132	0.0045
Venus	-21099-01-19 12:14 J	-5984968.20	-5984967.99	-5984967.77	0.0132	0.0020
Venus	-21099-09-02 17:45 J	-5984741.98	-5984741.76	-5984741.54	0.0133	0.0008
Venus	-21098-04-16 23:02 J	-5984515.74	-5984515.54	-5984515.32	0.0133	0.0034
Venus	-21098-11-29 04:33 J	-5984289.50	-5984289.31	-5984289.11	0.0133	0.0060
Venus	-21097-07-12 10:04 J	-5984063.24	-5984063.08	-5984062.91	0.0133	0.0086
Venus	-21096-02-23 15:36 J	-5983836.96	-5983836.85	-5983836.73	0.0133	0.0112
Moon	-21087-05-19 15:21 J	-5980464.93	-5980464.86	-5980464.77	0.0136	0.0129
Earth	-21087-05-19 18:57 J	-5980464.81	-5980464.71	-5980464.60	0.0136	0.0123 *
Earth	-21086-05-24 03:21 J	-5980095.59	-5980095.36	-5980095.12	0.0137	0.0047
Moon	-21086-05-24 06:43 J	-5980095.45	-5980095.22	-5980094.97	0.0137	0.0040 *
Moon	-21085-05-27 09:21 J	-5979726.35	-5979726.11	-5979725.86	0.0137	0.0024
Earth	-21085-05-27 12:43 J	-5979726.21	-5979725.97	-5979725.72	0.0137	0.0031 *
Earth	-21084-05-31 22:33 J	-5979356.70	-5979356.56	-5979356.39	0.0138	0.0109
Moon	-21084-06-01 02:09 J	-5979356.53	-5979356.41	-5979356.25	0.0138	0.0115 *
Mercury	-21079-11-14 10:33 J	-5977364.11	-5977364.06	-5977363.99	0.0141	0.0123
Mercury	-21078-02-10 14:09 J	-5977276.00	-5977275.91	-5977275.82	0.0141	0.0102
Mercury	-21078-05-09 17:31 J	-5977187.87	-5977187.77	-5977187.65	0.0141	0.0081
Mercury	-21078-08-05 21:07 J	-5977099.74	-5977099.62	-5977099.49	0.0141	0.0060
Mercury	-21078-11-02 00:43 J	-5977011.60	-5977011.47	-5977011.34	0.0141	0.0039
Mercury	-21077-01-29 04:19 J	-5976923.45	-5976923.32	-5976923.19	0.0142	0.0017
Mercury	-21077-04-26 07:55 J	-5976835.30	-5976835.17	-5976835.04	0.0142	0.0005
Mercury	-21077-07-23 11:31 J	-5976747.15	-5976747.02	-5976746.89	0.0142	0.0027
Mercury	-21077-10-19 15:07 J	-5976658.99	-5976658.87	-5976658.74	0.0142	0.0049
Mercury	-21076-01-15 18:43 J	-5976570.83	-5976570.72	-5976570.60	0.0142	0.0071

Mercury	-21076-04-13 22:19 J	-5976482.66	-5976482.57	-5976482.46	0.0142	0.0093
Mercury	-21076-07-11 02:09 J	-5976394.49	-5976394.41	-5976394.33	0.0142	0.0116
Mercury	-21076-10-07 05:45 J	-5976306.28	-5976306.26	-5976306.22	0.0142	0.0138
Mars	-21069-01-05 19:11 J	-5974025.01	-5974024.70	-5974024.39	0.0145	0.0027
Venus	-21060-02-02 23:31 J	-5970708.57	-5970708.52	-5970708.44	0.0146	0.0139
Venus	-21060-09-17 11:31 J	-5970482.16	-5970482.02	-5970481.86	0.0146	0.0105
Venus	-21059-05-01 23:31 J	-5970255.70	-5970255.52	-5970255.32	0.0146	0.0071
Venus	-21059-12-14 11:31 J	-5970029.22	-5970029.02	-5970028.80	0.0146	0.0036
Venus	-21058-07-29 00:00 J	-5969802.71	-5969802.50	-5969802.28	0.0146	0.0001
Venus	-21057-03-11 12:14 J	-5969576.20	-5969575.99	-5969575.78	0.0146	0.0034
Venus	-21057-10-24 00:00 J	-5969349.68	-5969349.50	-5969349.30	0.0146	0.0069
Venus	-21056-06-07 12:00 J	-5969123.14	-5969123.00	-5969122.84	0.0145	0.0103
Venus	-21055-01-20 00:00 J	-5968896.55	-5968896.50	-5968896.41	0.0145	0.0137
Earth	-21048-11-17 20:52 J	-5966037.70	-5966037.63	-5966037.52	0.0142	0.0133
Moon	-21048-11-18 00:43 J	-5966037.58	-5966037.47	-5966037.34	0.0142	0.0126 *
Moon	-21047-11-22 17:31 J	-5965668.00	-5965667.77	-5965667.51	0.0141	0.0048
Earth	-21047-11-22 21:21 J	-5965667.85	-5965667.61	-5965667.36	0.0141	0.0044 *
Earth	-21046-11-27 20:23 J	-5965297.89	-5965297.65	-5965297.40	0.0141	0.0044
Moon	-21046-11-28 00:00 J	-5965297.73	-5965297.50	-5965297.25	0.0141	0.0045 *
Moon	-21045-12-01 15:50 J	-5964927.91	-5964927.84	-5964927.76	0.0140	0.0134
Earth	-21045-12-01 18:43 J	-5964927.80	-5964927.72	-5964927.61	0.0140	0.0130 *
Mercury	-21039-09-30 20:09 J	-5962798.77	-5962798.66	-5962798.55	0.0137	0.0112
Mercury	-21039-12-28 03:21 J	-5962710.51	-5962710.36	-5962710.21	0.0137	0.0083
Mercury	-21038-03-26 10:33 J	-5962622.23	-5962622.06	-5962621.88	0.0137	0.0055
Mercury	-21038-06-22 17:45 J	-5962533.94	-5962533.76	-5962533.57	0.0137	0.0028
Mercury	-21038-09-19 00:57 J	-5962445.65	-5962445.46	-5962445.27	0.0137	0.0001
Mercury	-21038-12-16 07:55 J	-5962357.35	-5962357.17	-5962356.98	0.0137	0.0028
Mercury	-21037-03-13 15:07 J	-5962269.04	-5962268.87	-5962268.70	0.0137	0.0055
Mercury	-21037-06-09 21:50 J	-5962180.73	-5962180.59	-5962180.43	0.0137	0.0082
Mercury	-21037-09-06 04:48 J	-5962092.40	-5962092.30	-5962092.18	0.0137	0.0109

Mercury	-21037-12-03 11:45 J	-5962004.03	-5962004.01	-5962003.98	0.0136	0.0135
Mars	-21029-05-12 09:36 J	-5959287.40	-5959287.10	-5959286.80	0.0133	0.0016
Venus	-21018-11-10 04:19 J	-5955088.43	-5955088.32	-5955088.19	0.0132	0.0110
Venus	-21017-06-23 09:50 J	-5954862.25	-5954862.09	-5954861.91	0.0132	0.0084
Venus	-21016-02-04 15:21 J	-5954636.04	-5954635.86	-5954635.65	0.0132	0.0059
Venus	-21016-09-18 21:07 J	-5954409.83	-5954409.62	-5954409.40	0.0132	0.0032
Venus	-21015-05-03 02:38 J	-5954183.61	-5954183.39	-5954183.17	0.0132	0.0005
Venus	-21015-12-15 08:09 J	-5953957.38	-5953957.16	-5953956.94	0.0133	0.0021
Venus	-21014-07-29 13:26 J	-5953731.13	-5953730.94	-5953730.72	0.0133	0.0048
Venus	-21013-03-11 19:11 J	-5953504.88	-5953504.70	-5953504.52	0.0133	0.0074
Venus	-21013-10-24 00:43 J	-5953278.61	-5953278.47	-5953278.33	0.0133	0.0100
Venus	-21012-06-07 05:31 J	-5953052.31	-5953052.27	-5953052.18	0.0133	0.0127
Moon	-21003-05-20 01:11 J	-5949783.58	-5949783.45	-5949783.32	0.0136	0.0115
Earth	-21003-05-20 04:04 J	-5949783.45	-5949783.33	-5949783.21	0.0136	0.0119 *
Earth	-21002-05-24 12:28 J	-5949414.21	-5949413.98	-5949413.73	0.0137	0.0043
Moon	-21002-05-24 15:50 J	-5949414.07	-5949413.84	-5949413.60	0.0137	0.0050 *
Moon	-21001-05-27 18:43 J	-5949044.95	-5949044.72	-5949044.48	0.0137	0.0041
Earth	-21001-05-27 22:04 J	-5949044.82	-5949044.58	-5949044.34	0.0137	0.0034 *

21ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 21st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Earth	-21000-06-01 07:40 J	-5948675.31	-5948675.18	-5948675.02	0.0138	0.0112
Moon	-21000-06-01 10:48 J	-5948675.19	-5948675.05	-5948674.87	0.0138	0.0106 *
Mercury	-20995-09-07 14:09 J	-5946750.92	-5946750.91	-5946750.90	0.0141	0.0140
Mercury	-20995-12-04 17:31 J	-5946662.83	-5946662.77	-5946662.70	0.0141	0.0119
Mercury	-20994-03-02 20:52 J	-5946574.71	-5946574.63	-5946574.52	0.0141	0.0099
Mercury	-20994-05-30 00:43 J	-5946486.58	-5946486.47	-5946486.36	0.0141	0.0078
Mercury	-20994-08-26 04:04 J	-5946398.45	-5946398.33	-5946398.20	0.0141	0.0056
Mercury	-20994-11-22 07:40 J	-5946310.31	-5946310.18	-5946310.05	0.0141	0.0035
Mercury	-20993-02-18 11:16 J	-5946222.17	-5946222.03	-5946221.90	0.0141	0.0014
Mercury	-20993-05-16 14:52 J	-5946134.02	-5946133.88	-5946133.75	0.0142	0.0008
Mercury	-20993-08-12 18:28 J	-5946045.86	-5946045.73	-5946045.60	0.0142	0.0030
Mercury	-20993-11-08 22:04 J	-5945957.71	-5945957.58	-5945957.46	0.0142	0.0052
Mercury	-20992-02-05 01:40 J	-5945869.54	-5945869.43	-5945869.31	0.0142	0.0074
Mercury	-20992-05-04 05:16 J	-5945781.37	-5945781.28	-5945781.18	0.0142	0.0097
Mercury	-20992-07-31 08:52 J	-5945693.19	-5945693.13	-5945693.05	0.0142	0.0119
Mercury	-20992-10-27 12:43 J	-5945604.97	-5945604.97	-5945604.96	0.0142	0.0142
Mars	-20987-09-26 14:38 J	-5943809.89	-5943809.89	-5943809.88	0.0144	0.0144
Mars	-20985-08-31 09:36 J	-5943105.28	-5943105.10	-5943104.89	0.0145	0.0114
Venus	-20976-05-17 15:36 J	-5939923.95	-5939923.85	-5939923.72	0.0146	0.0124
Venus	-20976-12-30 04:04 J	-5939697.50	-5939697.33	-5939697.16	0.0146	0.0088
Venus	-20975-08-13 15:50 J	-5939471.03	-5939470.84	-5939470.63	0.0146	0.0054
Venus	-20974-03-28 04:04 J	-5939244.54	-5939244.33	-5939244.11	0.0146	0.0019
Venus	-20974-11-09 16:19 J	-5939018.04	-5939017.82	-5939017.61	0.0146	0.0016
Venus	-20973-06-23 04:04 J	-5938791.52	-5938791.33	-5938791.11	0.0146	0.0052
Venus	-20972-02-04 16:19 J	-5938564.99	-5938564.82	-5938564.64	0.0145	0.0086
Venus	-20972-09-19 04:04 J	-5938338.43	-5938338.33	-5938338.19	0.0145	0.0121
Earth	-20964-11-18 02:23 J	-5935356.48	-5935356.40	-5935356.28	0.0142	0.0131
Moon	-20964-11-18 06:14 J	-5935356.28	-5935356.24	-5935356.17	0.0142	0.0138 *
Moon	-20963-11-22 23:02 J	-5934986.77	-5934986.54	-5934986.28	0.0141	0.0037
Earth	-20963-11-23 02:52 J	-5934986.62	-5934986.38	-5934986.13	0.0141	0.0042 *

Earth	-20962-11-28 01:55 J	-5934616.65	-5934616.42	-5934616.16	0.0141	0.0046
Moon	-20962-11-28 05:45 J	-5934616.50	-5934616.26	-5934616.02	0.0141	0.0045 *
Moon	-20961-12-01 20:52 J	-5934246.72	-5934246.63	-5934246.52	0.0140	0.0129
Earth	-20961-12-02 00:28 J	-5934246.55	-5934246.48	-5934246.37	0.0140	0.0132 *
Mercury	-20955-10-21 01:40 J	-5932097.53	-5932097.43	-5932097.30	0.0137	0.0110
Mercury	-20954-01-17 09:07 J	-5932009.27	-5932009.12	-5932008.96	0.0137	0.0081
Mercury	-20954-04-15 16:19 J	-5931920.99	-5931920.82	-5931920.64	0.0137	0.0053
Mercury	-20954-07-12 23:45 J	-5931832.70	-5931832.51	-5931832.33	0.0137	0.0025
Mercury	-20954-10-09 06:57 J	-5931744.40	-5931744.21	-5931744.03	0.0137	0.0004
Mercury	-20953-01-05 13:55 J	-5931656.10	-5931655.92	-5931655.74	0.0137	0.0030
Mercury	-20953-04-02 20:38 J	-5931567.80	-5931567.64	-5931567.46	0.0137	0.0058
Mercury	-20953-06-30 03:36 J	-5931479.48	-5931479.35	-5931479.19	0.0137	0.0085
Mercury	-20953-09-26 10:48 J	-5931391.15	-5931391.05	-5931390.94	0.0137	0.0111
Mars	-20946-02-04 01:55 J	-5929069.56	-5929069.42	-5929069.22	0.0134	0.0111
Mars	-20944-01-04 18:57 J	-5928368.93	-5928368.71	-5928368.44	0.0133	0.0080
Venus	-20934-07-10 12:28 J	-5924530.04	-5924529.98	-5924529.89	0.0132	0.0124
Venus	-20933-02-21 18:14 J	-5924303.88	-5924303.74	-5924303.58	0.0132	0.0097
Venus	-20933-10-05 00:00 J	-5924077.68	-5924077.50	-5924077.31	0.0132	0.0071
Venus	-20932-05-19 05:31 J	-5923851.47	-5923851.27	-5923851.06	0.0132	0.0045
Venus	-20932-12-31 11:16 J	-5923625.25	-5923625.03	-5923624.81	0.0133	0.0018
Venus	-20931-08-14 16:48 J	-5923399.02	-5923398.80	-5923398.58	0.0133	0.0009
Venus	-20930-03-28 22:19 J	-5923172.78	-5923172.57	-5923172.36	0.0133	0.0035
Venus	-20930-11-10 03:36 J	-5922946.54	-5922946.35	-5922946.15	0.0133	0.0062
Venus	-20929-06-23 09:07 J	-5922720.28	-5922720.12	-5922719.95	0.0133	0.0088
Venus	-20928-02-04 14:23 J	-5922493.99	-5922493.90	-5922493.77	0.0133	0.0115
Moon	-20919-05-20 11:02 J	-5919102.15	-5919102.04	-5919101.92	0.0136	0.0120
Earth	-20919-05-20 13:40 J	-5919102.05	-5919101.93	-5919101.78	0.0136	0.0115 *
Earth	-20918-05-24 22:33 J	-5918732.79	-5918732.56	-5918732.31	0.0137	0.0039
Moon	-20918-05-25 01:40 J	-5918732.68	-5918732.43	-5918732.18	0.0137	0.0032 *
Moon	-20917-05-28 05:02 J	-5918363.52	-5918363.29	-5918363.04	0.0137	0.0031

Earth	-20917-05-28 07:55 J	-5918363.40	-5918363.17	-5918362.92	0.0137	0.0038 *
Earth	-20916-06-01 17:31 J	-5917993.88	-5917993.77	-5917993.61	0.0138	0.0116
Moon	-20916-06-01 21:07 J	-5917993.72	-5917993.62	-5917993.49	0.0138	0.0122 *
Mercury	-20911-09-27 21:21 J	-5916049.64	-5916049.61	-5916049.57	0.0141	0.0135
Mercury	-20911-12-25 00:43 J	-5915961.54	-5915961.47	-5915961.39	0.0141	0.0115
Mercury	-20910-03-23 04:19 J	-5915873.42	-5915873.32	-5915873.22	0.0141	0.0093
Mercury	-20910-06-19 07:55 J	-5915785.29	-5915785.17	-5915785.06	0.0141	0.0072
Mercury	-20910-09-15 11:16 J	-5915697.15	-5915697.03	-5915696.90	0.0141	0.0051
Mercury	-20910-12-12 14:52 J	-5915609.01	-5915608.88	-5915608.75	0.0141	0.0030
Mercury	-20909-03-09 18:28 J	-5915520.86	-5915520.73	-5915520.60	0.0142	0.0008
Mercury	-20909-06-05 22:04 J	-5915432.71	-5915432.58	-5915432.45	0.0142	0.0014
Mercury	-20909-09-02 01:40 J	-5915344.56	-5915344.43	-5915344.30	0.0142	0.0036
Mercury	-20909-11-29 05:16 J	-5915256.40	-5915256.28	-5915256.16	0.0142	0.0058
Mercury	-20908-02-25 08:52 J	-5915168.24	-5915168.13	-5915168.01	0.0142	0.0080
Mercury	-20908-05-24 12:28 J	-5915080.06	-5915079.98	-5915079.88	0.0142	0.0102
Mercury	-20908-08-20 16:19 J	-5914991.88	-5914991.82	-5914991.75	0.0142	0.0125
Mars	-20902-05-23 12:43 J	-5912890.25	-5912889.97	-5912889.67	0.0145	0.0055
Venus	-20892-01-14 21:50 J	-5909365.63	-5909365.59	-5909365.52	0.0146	0.0140
Venus	-20892-08-29 09:50 J	-5909139.23	-5909139.09	-5909138.93	0.0146	0.0105
Venus	-20891-04-12 21:50 J	-5908912.77	-5908912.59	-5908912.39	0.0146	0.0071
Venus	-20891-11-25 09:50 J	-5908686.29	-5908686.09	-5908685.87	0.0146	0.0036
Venus	-20890-07-09 22:19 J	-5908459.79	-5908459.57	-5908459.36	0.0146	0.0003
Venus	-20889-02-21 10:04 J	-5908233.28	-5908233.08	-5908232.86	0.0146	0.0035
Venus	-20889-10-04 22:04 J	-5908006.76	-5908006.58	-5908006.38	0.0146	0.0069
Venus	-20888-05-19 09:50 J	-5907780.23	-5907780.09	-5907779.93	0.0145	0.0104
Venus	-20888-12-31 21:50 J	-5907553.64	-5907553.59	-5907553.51	0.0145	0.0138
Earth	-20880-11-18 10:33 J	-5904675.15	-5904675.06	-5904674.92	0.0142	0.0127
Moon	-20880-11-18 13:55 J	-5904675.04	-5904674.92	-5904674.76	0.0142	0.0119 *
Moon	-20879-11-23 07:26 J	-5904305.43	-5904305.19	-5904304.94	0.0141	0.0043
Earth	-20879-11-23 11:02 J	-5904305.28	-5904305.04	-5904304.78	0.0141	0.0038 *

Earth	-20878-11-28 10:19 J	-5903935.30	-5903935.07	-5903934.82	0.0141	0.0049
Moon	-20878-11-28 14:09 J	-5903935.14	-5903934.91	-5903934.66	0.0141	0.0051 *
Moon	-20877-12-02 05:02 J	-5903565.32	-5903565.29	-5903565.21	0.0140	0.0138
Earth	-20877-12-02 08:52 J	-5903565.19	-5903565.13	-5903565.05	0.0140	0.0135
Mercury	-20871-08-14 00:43 J	-5901484.50	-5901484.47	-5901484.41	0.0137	0.0134
Mercury	-20871-11-10 08:23 J	-5901396.27	-5901396.15	-5901396.03	0.0137	0.0105
Mercury	-20870-02-06 15:36 J	-5901308.00	-5901307.85	-5901307.69	0.0137	0.0077
Mercury	-20870-05-05 23:02 J	-5901219.72	-5901219.54	-5901219.37	0.0137	0.0048
Mercury	-20870-08-02 06:00 J	-5901131.43	-5901131.25	-5901131.06	0.0137	0.0021
Mercury	-20870-10-29 13:11 J	-5901043.13	-5901042.95	-5901042.76	0.0137	0.0008
Mercury	-20869-01-25 20:09 J	-5900954.83	-5900954.66	-5900954.47	0.0137	0.0035
Mercury	-20869-04-23 03:21 J	-5900866.52	-5900866.36	-5900866.19	0.0137	0.0062
Mercury	-20869-07-20 10:19 J	-5900778.21	-5900778.07	-5900777.93	0.0137	0.0089
Mercury	-20869-10-16 17:02 J	-5900689.87	-5900689.79	-5900689.68	0.0136	0.0116
Mars	-20862-09-29 13:26 J	-5898151.21	-5898150.94	-5898150.65	0.0134	0.0046
Venus	-20850-10-22 03:21 J	-5893745.48	-5893745.36	-5893745.23	0.0132	0.0110
Venus	-20849-06-04 08:52 J	-5893519.29	-5893519.13	-5893518.95	0.0132	0.0084
Venus	-20848-01-16 14:23 J	-5893293.08	-5893292.90	-5893292.69	0.0132	0.0058
Venus	-20848-08-30 20:09 J	-5893066.87	-5893066.66	-5893066.44	0.0133	0.0031
Venus	-20847-04-14 01:55 J	-5892840.64	-5892840.42	-5892840.20	0.0133	0.0004
Venus	-20847-11-26 07:11 J	-5892614.41	-5892614.20	-5892613.98	0.0133	0.0023
Venus	-20846-07-10 12:43 J	-5892388.17	-5892387.97	-5892387.76	0.0133	0.0050
Venus	-20845-02-21 18:14 J	-5892161.91	-5892161.74	-5892161.55	0.0133	0.0077
Venus	-20845-10-04 23:31 J	-5891935.64	-5891935.52	-5891935.37	0.0133	0.0103
Venus	-20844-05-19 05:02 J	-5891709.33	-5891709.29	-5891709.23	0.0133	0.0130
Moon	-20835-05-20 21:50 J	-5888420.73	-5888420.59	-5888420.42	0.0136	0.0107
Earth	-20835-05-21 00:14 J	-5888420.63	-5888420.49	-5888420.34	0.0136	0.0110 *
Earth	-20834-05-25 08:52 J	-5888051.37	-5888051.13	-5888050.89	0.0137	0.0034
Moon	-20834-05-25 11:16 J	-5888051.26	-5888051.03	-5888050.77	0.0137	0.0041 *
Moon	-20833-05-28 15:36 J	-5887682.07	-5887681.85	-5887681.62	0.0137	0.0050

Earth	-20833-05-28 18:14 J	-5887681.97	-5887681.74	-5887681.50	0.0137	0.0042 *
Earth	-20832-06-02 04:04 J	-5887312.44	-5887312.33	-5887312.20	0.0138	0.0120
Moon	-20832-06-02 06:28 J	-5887312.35	-5887312.23	-5887312.07	0.0138	0.0114 *
Mercury	-20827-10-18 04:33 J	-5885348.35	-5885348.31	-5885348.26	0.0141	0.0130
Mercury	-20826-01-14 08:09 J	-5885260.24	-5885260.16	-5885260.08	0.0141	0.0109
Mercury	-20826-04-12 11:31 J	-5885172.12	-5885172.02	-5885171.91	0.0141	0.0088
Mercury	-20826-07-09 14:52 J	-5885083.99	-5885083.88	-5885083.75	0.0141	0.0068
Mercury	-20826-10-05 18:43 J	-5884995.85	-5884995.72	-5884995.60	0.0141	0.0046
Mercury	-20825-01-01 22:04 J	-5884907.71	-5884907.58	-5884907.44	0.0141	0.0025
Mercury	-20825-03-30 01:40 J	-5884819.56	-5884819.43	-5884819.29	0.0142	0.0004
Mercury	-20825-06-26 05:16 J	-5884731.41	-5884731.28	-5884731.14	0.0142	0.0020
Mercury	-20825-09-22 08:52 J	-5884643.25	-5884643.13	-5884643.00	0.0142	0.0042
Mercury	-20825-12-19 12:28 J	-5884555.09	-5884554.98	-5884554.85	0.0142	0.0064
Mercury	-20824-03-17 16:04 J	-5884466.93	-5884466.83	-5884466.71	0.0142	0.0086
Mercury	-20824-06-13 19:55 J	-5884378.75	-5884378.67	-5884378.58	0.0142	0.0108
Mercury	-20824-09-09 23:45 J	-5884290.56	-5884290.51	-5884290.46	0.0142	0.0131
Mars	-20817-01-17 12:00 J	-5881970.30	-5881970.00	-5881969.69	0.0145	0.0037
Venus	-20808-04-28 17:16 J	-5878580.89	-5878580.78	-5878580.65	0.0146	0.0121
Venus	-20808-12-11 05:16 J	-5878354.45	-5878354.28	-5878354.10	0.0146	0.0086
Venus	-20807-07-25 17:31 J	-5878127.97	-5878127.77	-5878127.57	0.0146	0.0051
Venus	-20806-03-09 05:31 J	-5877901.49	-5877901.27	-5877901.06	0.0146	0.0016
Venus	-20806-10-21 17:31 J	-5877674.99	-5877674.77	-5877674.56	0.0146	0.0019
Venus	-20805-06-04 05:16 J	-5877448.48	-5877448.28	-5877448.07	0.0146	0.0054
Venus	-20804-01-16 17:16 J	-5877221.95	-5877221.78	-5877221.61	0.0145	0.0089
Venus	-20804-08-31 05:02 J	-5876995.39	-5876995.29	-5876995.16	0.0145	0.0124
Earth	-20796-11-18 20:52 J	-5873993.75	-5873993.63	-5873993.48	0.0142	0.0121
Moon	-20796-11-19 00:14 J	-5873993.59	-5873993.49	-5873993.36	0.0142	0.0128 *
Moon	-20795-11-23 18:00 J	-5873623.99	-5873623.75	-5873623.49	0.0141	0.0027
Earth	-20795-11-23 21:07 J	-5873623.86	-5873623.62	-5873623.36	0.0141	0.0034 *
Earth	-20794-11-28 20:23 J	-5873253.88	-5873253.65	-5873253.40	0.0141	0.0054

Moon	-20794-11-29 00:00 J	-5873253.73	-5873253.50	-5873253.25	0.0141	0.0053 *
Moon	-20793-12-02 14:52 J	-5872883.91	-5872883.88	-5872883.81	0.0140	0.0137
Earth	-20793-12-02 18:43 J	-5872883.73	-5872883.72	-5872883.67	0.0140	0.0139
Mercury	-20787-09-03 07:40 J	-5870783.24	-5870783.18	-5870783.10	0.0137	0.0127
Mercury	-20787-11-30 14:52 J	-5870694.99	-5870694.88	-5870694.73	0.0137	0.0100
Mercury	-20786-02-26 22:33 J	-5870606.72	-5870606.56	-5870606.40	0.0137	0.0071
Mercury	-20786-05-26 05:31 J	-5870518.44	-5870518.27	-5870518.08	0.0137	0.0043
Mercury	-20786-08-22 12:57 J	-5870430.15	-5870429.96	-5870429.77	0.0137	0.0015
Mercury	-20786-11-18 20:09 J	-5870341.85	-5870341.66	-5870341.47	0.0137	0.0013
Mercury	-20785-02-15 03:07 J	-5870253.55	-5870253.37	-5870253.19	0.0137	0.0040
Mercury	-20785-05-13 10:04 J	-5870165.24	-5870165.08	-5870164.91	0.0137	0.0068
Mercury	-20785-08-09 17:02 J	-5870076.92	-5870076.79	-5870076.65	0.0136	0.0094
Mercury	-20785-11-05 23:45 J	-5869988.58	-5869988.51	-5869988.41	0.0136	0.0121
Mars	-20777-05-24 00:28 J	-5867232.78	-5867232.48	-5867232.18	0.0134	0.0020
Venus	-20766-06-21 12:00 J	-5863187.07	-5863187.00	-5863186.91	0.0132	0.0123
Venus	-20765-02-02 17:31 J	-5862960.90	-5862960.77	-5862960.60	0.0132	0.0097
Venus	-20765-09-15 23:31 J	-5862734.71	-5862734.52	-5862734.34	0.0132	0.0070
Venus	-20764-04-30 04:48 J	-5862508.50	-5862508.30	-5862508.08	0.0133	0.0043
Venus	-20764-12-12 10:33 J	-5862282.28	-5862282.06	-5862281.84	0.0133	0.0016
Venus	-20763-07-26 16:04 J	-5862056.05	-5862055.83	-5862055.61	0.0133	0.0010
Venus	-20762-03-09 21:36 J	-5861829.81	-5861829.60	-5861829.39	0.0133	0.0037
Venus	-20762-10-22 02:52 J	-5861603.56	-5861603.38	-5861603.18	0.0133	0.0064
Venus	-20761-06-04 08:09 J	-5861377.31	-5861377.16	-5861376.99	0.0133	0.0091
Venus	-20760-01-16 13:55 J	-5861151.01	-5861150.92	-5861150.81	0.0133	0.0117
Moon	-20751-05-21 06:57 J	-5857739.34	-5857739.21	-5857739.05	0.0137	0.0111
Earth	-20751-05-21 09:21 J	-5857739.26	-5857739.11	-5857738.95	0.0137	0.0106 *
Earth	-20750-05-25 18:00 J	-5857369.99	-5857369.75	-5857369.50	0.0137	0.0031
Moon	-20750-05-25 20:09 J	-5857369.91	-5857369.66	-5857369.41	0.0137	0.0024 *
Moon	-20749-05-29 01:11 J	-5857000.67	-5857000.45	-5857000.21	0.0138	0.0039
Earth	-20749-05-29 03:21 J	-5857000.59	-5857000.36	-5857000.12	0.0138	0.0046 *

Earth	-20748-06-02 12:57 J	-5856631.05	-5856630.96	-5856630.83	0.0138	0.0123
Moon	-20748-06-02 15:50 J	-5856630.91	-5856630.84	-5856630.74	0.0138	0.0129 *
Mercury	-20743-11-07 11:31 J	-5854647.07	-5854647.02	-5854646.95	0.0141	0.0126
Mercury	-20742-02-03 15:07 J	-5854558.95	-5854558.87	-5854558.78	0.0141	0.0105
Mercury	-20742-05-02 18:43 J	-5854470.83	-5854470.72	-5854470.61	0.0141	0.0084
Mercury	-20742-07-29 22:04 J	-5854382.69	-5854382.58	-5854382.45	0.0141	0.0063
Mercury	-20742-10-26 01:40 J	-5854294.55	-5854294.43	-5854294.30	0.0141	0.0041
Mercury	-20741-01-22 05:16 J	-5854206.41	-5854206.28	-5854206.14	0.0141	0.0020
Mercury	-20741-04-19 08:52 J	-5854118.26	-5854118.13	-5854117.99	0.0142	0.0003
Mercury	-20741-07-16 12:28 J	-5854030.11	-5854029.98	-5854029.85	0.0142	0.0024
Mercury	-20741-10-12 16:04 J	-5853941.95	-5853941.83	-5853941.70	0.0142	0.0046
Mercury	-20740-01-08 19:40 J	-5853853.79	-5853853.68	-5853853.56	0.0142	0.0069
Mercury	-20740-04-06 23:16 J	-5853765.62	-5853765.53	-5853765.42	0.0142	0.0091
Mercury	-20740-07-04 03:07 J	-5853677.45	-5853677.37	-5853677.29	0.0142	0.0113
Mercury	-20740-09-30 06:43 J	-5853589.25	-5853589.22	-5853589.17	0.0142	0.0136
Mars	-20735-10-08 11:45 J	-5851755.14	-5851755.01	-5851754.87	0.0145	0.0131
Mars	-20733-09-12 07:40 J	-5851050.30	-5851050.18	-5851050.00	0.0145	0.0127
Venus	-20725-12-27 00:14 J	-5848022.54	-5848022.49	-5848022.40	0.0146	0.0138
Venus	-20724-08-10 12:28 J	-5847796.12	-5847795.98	-5847795.82	0.0146	0.0102
Venus	-20723-03-25 00:28 J	-5847569.66	-5847569.48	-5847569.28	0.0146	0.0067
Venus	-20723-11-06 12:28 J	-5847343.19	-5847342.98	-5847342.76	0.0146	0.0032
Venus	-20722-06-21 00:28 J	-5847116.69	-5847116.48	-5847116.26	0.0146	0.0005
Venus	-20721-02-02 12:28 J	-5846890.18	-5846889.98	-5846889.77	0.0146	0.0039
Venus	-20721-09-16 00:14 J	-5846663.67	-5846663.49	-5846663.29	0.0146	0.0074
Venus	-20720-04-30 12:14 J	-5846437.13	-5846436.99	-5846436.84	0.0145	0.0109
Venus	-20720-12-12 23:45 J	-5846210.52	-5846210.51	-5846210.45	0.0145	0.0144
Earth	-20712-11-19 07:40 J	-5843312.31	-5843312.18	-5843312.01	0.0142	0.0115
Moon	-20712-11-19 10:33 J	-5843312.23	-5843312.06	-5843311.89	0.0142	0.0107 *
Moon	-20711-11-24 04:48 J	-5842942.54	-5842942.30	-5842942.05	0.0141	0.0033
Earth	-20711-11-24 07:55 J	-5842942.42	-5842942.17	-5842941.91	0.0141	0.0027 *

Earth	-20710-11-29 07:11 J	-5842572.43	-5842572.20	-5842571.96	0.0141	0.0059
Moon	-20710-11-29 10:33 J	-5842572.28	-5842572.06	-5842571.81	0.0141	0.0062 *
Mercury	-20703-09-23 14:52 J	-5840081.96	-5840081.88	-5840081.78	0.0137	0.0121
Mercury	-20703-12-20 22:04 J	-5839993.71	-5839993.58	-5839993.43	0.0137	0.0092
Mercury	-20702-03-19 05:31 J	-5839905.43	-5839905.27	-5839905.10	0.0137	0.0064
Mercury	-20702-06-15 12:43 J	-5839817.15	-5839816.97	-5839816.78	0.0137	0.0036
Mercury	-20702-09-11 19:55 J	-5839728.85	-5839728.67	-5839728.48	0.0137	0.0009
Mercury	-20702-12-09 03:07 J	-5839640.55	-5839640.37	-5839640.18	0.0137	0.0020
Mercury	-20701-03-06 10:04 J	-5839552.25	-5839552.08	-5839551.90	0.0137	0.0047
Mercury	-20701-06-02 17:16 J	-5839463.94	-5839463.78	-5839463.62	0.0136	0.0074
Mercury	-20701-08-30 00:14 J	-5839375.61	-5839375.49	-5839375.36	0.0136	0.0101
Mercury	-20701-11-26 06:57 J	-5839287.26	-5839287.21	-5839287.14	0.0136	0.0127
Mars	-20694-02-15 22:19 J	-5837014.73	-5837014.57	-5837014.35	0.0134	0.0104
Mars	-20692-01-16 12:57 J	-5836314.17	-5836313.96	-5836313.70	0.0133	0.0086
Venus	-20682-10-03 02:09 J	-5832402.52	-5832402.41	-5832402.27	0.0132	0.0109
Venus	-20681-05-16 07:55 J	-5832176.33	-5832176.17	-5832175.99	0.0132	0.0083
Venus	-20681-12-28 13:40 J	-5831950.13	-5831949.93	-5831949.73	0.0132	0.0056
Venus	-20680-08-11 19:11 J	-5831723.91	-5831723.70	-5831723.48	0.0133	0.0029
Venus	-20679-03-26 00:43 J	-5831497.69	-5831497.47	-5831497.25	0.0133	0.0002
Venus	-20679-11-07 06:00 J	-5831271.46	-5831271.25	-5831271.03	0.0133	0.0025
Venus	-20678-06-21 11:16 J	-5831045.22	-5831045.03	-5831044.82	0.0133	0.0052
Venus	-20677-02-02 17:02 J	-5830818.96	-5830818.79	-5830818.61	0.0133	0.0078
Venus	-20677-09-15 22:04 J	-5830592.69	-5830592.58	-5830592.43	0.0133	0.0106
Venus	-20676-04-30 03:50 J	-5830366.37	-5830366.34	-5830366.31	0.0133	0.0132
Moon	-20667-05-21 16:04 J	-5827057.98	-5827057.83	-5827057.65	0.0137	0.0101
Earth	-20667-05-21 17:31 J	-5827057.93	-5827057.77	-5827057.61	0.0137	0.0103 *
Earth	-20666-05-26 01:55 J	-5826688.66	-5826688.42	-5826688.17	0.0137	0.0028
Moon	-20666-05-26 03:21 J	-5826688.60	-5826688.36	-5826688.10	0.0137	0.0034 *
Moon	-20665-05-29 09:21 J	-5826319.32	-5826319.11	-5826318.88	0.0138	0.0055
Earth	-20665-05-29 11:16 J	-5826319.26	-5826319.03	-5826318.80	0.0138	0.0048 *

Earth	-20664-06-02 20:52 J	-5825949.72	-5825949.63	-5825949.51	0.0138	0.0125
Moon	-20664-06-02 22:33 J	-5825949.68	-5825949.56	-5825949.42	0.0138	0.0118 *
Mercury	-20659-11-27 18:14 J	-5823945.79	-5823945.74	-5823945.66	0.0141	0.0123
Mercury	-20658-02-23 21:50 J	-5823857.67	-5823857.59	-5823857.49	0.0141	0.0102
Mercury	-20658-05-23 01:26 J	-5823769.54	-5823769.44	-5823769.33	0.0141	0.0081
Mercury	-20658-08-19 05:02 J	-5823681.41	-5823681.29	-5823681.17	0.0141	0.0059
Mercury	-20658-11-15 08:38 J	-5823593.27	-5823593.14	-5823593.01	0.0141	0.0038
Mercury	-20657-02-11 12:14 J	-5823505.13	-5823504.99	-5823504.86	0.0142	0.0017
Mercury	-20657-05-09 15:50 J	-5823416.98	-5823416.84	-5823416.71	0.0142	0.0007
Mercury	-20657-08-05 19:26 J	-5823328.82	-5823328.69	-5823328.56	0.0142	0.0028
Mercury	-20657-11-01 22:48 J	-5823240.67	-5823240.55	-5823240.42	0.0142	0.0050
Mercury	-20656-01-29 02:23 J	-5823152.51	-5823152.40	-5823152.27	0.0142	0.0072
Mercury	-20656-04-27 06:14 J	-5823064.34	-5823064.24	-5823064.14	0.0142	0.0094
Mercury	-20656-07-24 10:04 J	-5822976.16	-5822976.08	-5822976.01	0.0142	0.0116
Mercury	-20656-10-20 13:40 J	-5822887.95	-5822887.93	-5822887.90	0.0142	0.0139
Mars	-20650-06-04 04:19 J	-5820835.62	-5820835.32	-5820835.01	0.0145	0.0044
Venus	-20640-04-09 18:00 J	-5817237.87	-5817237.75	-5817237.62	0.0146	0.0120
Venus	-20640-11-22 06:00 J	-5817011.42	-5817011.25	-5817011.07	0.0146	0.0084
Venus	-20639-07-06 18:00 J	-5816784.94	-5816784.75	-5816784.54	0.0146	0.0049
Venus	-20638-02-18 06:14 J	-5816558.46	-5816558.24	-5816558.03	0.0146	0.0014
Venus	-20638-10-02 18:00 J	-5816331.96	-5816331.75	-5816331.53	0.0146	0.0022
Venus	-20637-05-16 05:45 J	-5816105.45	-5816105.26	-5816105.05	0.0146	0.0058
Venus	-20637-12-28 17:45 J	-5815878.92	-5815878.76	-5815878.58	0.0146	0.0093
Venus	-20636-08-12 05:45 J	-5815652.35	-5815652.26	-5815652.14	0.0145	0.0127
Earth	-20628-11-19 17:16 J	-5812630.93	-5812630.78	-5812630.60	0.0142	0.0110
Moon	-20628-11-19 19:55 J	-5812630.80	-5812630.67	-5812630.51	0.0142	0.0117 *
Moon	-20627-11-24 15:07 J	-5812261.12	-5812260.87	-5812260.62	0.0141	0.0016
Earth	-20627-11-24 17:45 J	-5812261.01	-5812260.76	-5812260.50	0.0141	0.0023 *
Earth	-20626-11-29 16:33 J	-5811891.02	-5811890.81	-5811890.56	0.0141	0.0064
Moon	-20626-11-29 19:55 J	-5811890.89	-5811890.67	-5811890.42	0.0141	0.0062 *

Mercury	-20619-10-13 21:50 J	-5809380.69	-5809380.59	-5809380.48	0.0137	0.0114
Mercury	-20618-01-10 05:02 J	-5809292.43	-5809292.29	-5809292.13	0.0137	0.0086
Mercury	-20618-04-08 12:28 J	-5809204.15	-5809203.98	-5809203.80	0.0137	0.0058
Mercury	-20618-07-05 19:40 J	-5809115.86	-5809115.68	-5809115.49	0.0137	0.0030
Mercury	-20618-10-02 02:52 J	-5809027.56	-5809027.38	-5809027.19	0.0137	0.0004
Mercury	-20618-12-29 10:04 J	-5808939.26	-5808939.08	-5808938.89	0.0137	0.0025
Mercury	-20617-03-26 17:02 J	-5808850.96	-5808850.79	-5808850.61	0.0137	0.0053
Mercury	-20617-06-23 00:14 J	-5808762.64	-5808762.49	-5808762.34	0.0136	0.0080
Mercury	-20617-09-19 06:57 J	-5808674.31	-5808674.21	-5808674.08	0.0136	0.0107
Mercury	-20617-12-16 13:55 J	-5808585.95	-5808585.92	-5808585.88	0.0136	0.0133
Mars	-20610-10-11 09:36 J	-5806096.38	-5806096.10	-5806095.80	0.0134	0.0039
Venus	-20598-06-02 10:19 J	-5801844.14	-5801844.07	-5801843.97	0.0132	0.0122
Venus	-20597-01-14 16:04 J	-5801617.97	-5801617.83	-5801617.67	0.0132	0.0096
Venus	-20597-08-27 21:21 J	-5801391.78	-5801391.61	-5801391.40	0.0132	0.0070
Venus	-20596-04-11 03:07 J	-5801165.57	-5801165.37	-5801165.16	0.0132	0.0042
Venus	-20596-11-23 08:38 J	-5800939.36	-5800939.14	-5800938.92	0.0132	0.0015
Venus	-20595-07-07 13:55 J	-5800713.13	-5800712.92	-5800712.70	0.0133	0.0012
Venus	-20594-02-18 19:26 J	-5800486.90	-5800486.69	-5800486.48	0.0133	0.0039
Venus	-20594-10-03 00:28 J	-5800260.65	-5800260.48	-5800260.27	0.0133	0.0066
Venus	-20593-05-16 06:00 J	-5800034.40	-5800034.25	-5800034.08	0.0133	0.0092
Venus	-20593-12-28 11:16 J	-5799808.11	-5799808.03	-5799807.91	0.0133	0.0119
Moon	-20583-05-21 22:48 J	-5796376.69	-5796376.55	-5796376.38	0.0137	0.0105
Earth	-20583-05-21 23:31 J	-5796376.67	-5796376.52	-5796376.33	0.0137	0.0102 *
Earth	-20582-05-26 08:09 J	-5796007.39	-5796007.16	-5796006.90	0.0137	0.0027
Moon	-20582-05-26 09:07 J	-5796007.37	-5796007.12	-5796006.86	0.0137	0.0022 *
Moon	-20581-05-29 16:48 J	-5795638.03	-5795637.80	-5795637.57	0.0138	0.0043
Earth	-20581-05-29 17:16 J	-5795638.00	-5795637.78	-5795637.54	0.0138	0.0049 *
Earth	-20580-06-03 03:21 J	-5795268.46	-5795268.36	-5795268.26	0.0138	0.0126
Moon	-20580-06-03 04:33 J	-5795268.37	-5795268.31	-5795268.22	0.0138	0.0132 *
Mercury	-20575-12-18 00:57 J	-5793244.52	-5793244.46	-5793244.39	0.0141	0.0121

Mercury	-20574-03-16 04:33 J	-5793156.40	-5793156.31	-5793156.22	0.0141	0.0100
Mercury	-20574-06-12 07:55 J	-5793068.27	-5793068.17	-5793068.05	0.0141	0.0079
Mercury	-20574-09-08 11:31 J	-5792980.14	-5792980.02	-5792979.90	0.0141	0.0058
Mercury	-20574-12-05 15:07 J	-5792892.00	-5792891.87	-5792891.74	0.0141	0.0036
Mercury	-20573-03-02 18:43 J	-5792803.85	-5792803.72	-5792803.59	0.0142	0.0015
Mercury	-20573-05-29 22:19 J	-5792715.71	-5792715.57	-5792715.44	0.0142	0.0007
Mercury	-20573-08-26 01:55 J	-5792627.55	-5792627.42	-5792627.29	0.0142	0.0029
Mercury	-20573-11-22 05:31 J	-5792539.40	-5792539.27	-5792539.15	0.0142	0.0051
Mercury	-20572-02-18 09:07 J	-5792451.23	-5792451.12	-5792451.00	0.0142	0.0073
Mercury	-20572-05-17 12:43 J	-5792363.06	-5792362.97	-5792362.87	0.0142	0.0096
Mercury	-20572-08-13 16:19 J	-5792274.89	-5792274.82	-5792274.74	0.0142	0.0118
Mercury	-20572-11-09 20:09 J	-5792186.67	-5792186.66	-5792186.64	0.0142	0.0141
Mars	-20565-01-28 16:19 J	-5789916.11	-5789915.82	-5789915.51	0.0145	0.0040
Jupiter	-20560-11-14 19:40 J	-5787799.00	-5787798.68	-5787798.35	0.0146	0.0114
Venus	-20557-12-07 21:36 J	-5786679.65	-5786679.60	-5786679.52	0.0146	0.0139
Venus	-20556-07-22 09:50 J	-5786453.23	-5786453.09	-5786452.93	0.0146	0.0103
Venus	-20555-03-05 21:50 J	-5786226.77	-5786226.59	-5786226.39	0.0146	0.0068
Venus	-20555-10-18 09:50 J	-5786000.30	-5786000.09	-5785999.87	0.0146	0.0032
Venus	-20554-06-01 21:50 J	-5785773.80	-5785773.59	-5785773.37	0.0146	0.0004
Venus	-20553-01-14 09:50 J	-5785547.30	-5785547.09	-5785546.88	0.0146	0.0039
Venus	-20553-08-27 21:36 J	-5785320.77	-5785320.60	-5785320.40	0.0146	0.0075
Venus	-20552-04-11 09:36 J	-5785094.23	-5785094.10	-5785093.95	0.0146	0.0110
Venus	-20552-11-23 21:21 J	-5784867.61	-5784867.61	-5784867.57	0.0145	0.0145
Earth	-20544-11-20 00:28 J	-5781949.64	-5781949.48	-5781949.31	0.0142	0.0107
Moon	-20544-11-20 01:40 J	-5781949.60	-5781949.43	-5781949.23	0.0142	0.0100 *
Moon	-20543-11-24 22:19 J	-5781579.81	-5781579.57	-5781579.32	0.0141	0.0026
Earth	-20543-11-25 00:43 J	-5781579.72	-5781579.47	-5781579.21	0.0141	0.0020 *
Earth	-20542-11-29 23:45 J	-5781209.73	-5781209.51	-5781209.27	0.0141	0.0066
Moon	-20542-11-30 02:52 J	-5781209.61	-5781209.38	-5781209.15	0.0141	0.0069 *
Mercury	-20535-11-03 04:19 J	-5778679.43	-5778679.32	-5778679.20	0.0137	0.0110

Mercury	-20534-01-30 11:45 J	-5778591.16	-5778591.01	-5778590.86	0.0137	0.0081
Mercury	-20534-04-28 18:57 J	-5778502.88	-5778502.71	-5778502.53	0.0137	0.0053
Mercury	-20534-07-26 02:23 J	-5778414.59	-5778414.40	-5778414.22	0.0137	0.0025
Mercury	-20534-10-22 09:36 J	-5778326.29	-5778326.10	-5778325.91	0.0137	0.0003
Mercury	-20533-01-18 16:33 J	-5778237.99	-5778237.81	-5778237.62	0.0137	0.0030
Mercury	-20533-04-15 23:31 J	-5778149.68	-5778149.52	-5778149.34	0.0137	0.0058
Mercury	-20533-07-13 06:43 J	-5778061.36	-5778061.22	-5778061.07	0.0136	0.0085
Mercury	-20533-10-09 13:26 J	-5777973.03	-5777972.94	-5777972.82	0.0136	0.0112
Mars	-20525-06-04 20:38 J	-5775177.93	-5775177.64	-5775177.34	0.0133	0.0025
Jupiter	-20518-09-04 11:31 J	-5772530.49	-5772530.02	-5772529.53	0.0132	0.0046
Venus	-20514-09-14 00:43 J	-5771059.58	-5771059.47	-5771059.34	0.0132	0.0109
Venus	-20513-04-27 06:00 J	-5770833.41	-5770833.25	-5770833.06	0.0132	0.0082
Venus	-20513-12-09 11:31 J	-5770607.20	-5770607.02	-5770606.81	0.0132	0.0056
Venus	-20512-07-23 17:16 J	-5770380.99	-5770380.78	-5770380.56	0.0132	0.0028
Venus	-20511-03-06 22:48 J	-5770154.77	-5770154.55	-5770154.33	0.0132	0.0002
Venus	-20511-10-19 04:04 J	-5769928.54	-5769928.33	-5769928.11	0.0133	0.0026
Venus	-20510-06-02 09:21 J	-5769702.31	-5769702.11	-5769701.90	0.0133	0.0053
Venus	-20509-01-14 14:38 J	-5769476.05	-5769475.89	-5769475.70	0.0133	0.0080
Venus	-20509-08-27 19:55 J	-5769249.78	-5769249.67	-5769249.52	0.0133	0.0107
Earth	-20499-05-22 07:26 J	-5765695.35	-5765695.19	-5765695.00	0.0136	0.0099
Moon	-20499-05-22 07:26 J	-5765695.34	-5765695.19	-5765695.00	0.0136	0.0098 *
Earth	-20498-05-26 15:50 J	-5765326.08	-5765325.84	-5765325.59	0.0137	0.0025
Moon	-20498-05-26 15:50 J	-5765326.08	-5765325.84	-5765325.57	0.0137	0.0029 *
Moon	-20497-05-30 00:28 J	-5764956.70	-5764956.48	-5764956.26	0.0137	0.0058
Earth	-20497-05-30 00:57 J	-5764956.69	-5764956.46	-5764956.23	0.0137	0.0051 *
Moon	-20496-06-03 10:33 J	-5764587.17	-5764587.06	-5764586.92	0.0138	0.0120
Earth	-20496-06-03 10:33 J	-5764587.15	-5764587.06	-5764586.96	0.0138	0.0127 *
Mercury	-20491-10-11 04:04 J	-5762631.33	-5762631.33	-5762631.31	0.0141	0.0140
Mercury	-20490-01-07 07:40 J	-5762543.25	-5762543.18	-5762543.11	0.0141	0.0119
Mercury	-20490-04-05 11:02 J	-5762455.13	-5762455.04	-5762454.94	0.0141	0.0098

Mercury	-20490-07-02 14:38 J	-5762367.00	-5762366.89	-5762366.78	0.0141	0.0077
Mercury	-20490-09-28 18:00 J	-5762278.86	-5762278.75	-5762278.62	0.0141	0.0056
Mercury	-20490-12-25 21:50 J	-5762190.72	-5762190.59	-5762190.46	0.0141	0.0035
Mercury	-20489-03-23 01:11 J	-5762102.58	-5762102.45	-5762102.31	0.0141	0.0014
Mercury	-20489-06-19 04:48 J	-5762014.43	-5762014.30	-5762014.16	0.0142	0.0009
Mercury	-20489-09-15 08:23 J	-5761926.28	-5761926.15	-5761926.02	0.0142	0.0031
Mercury	-20489-12-12 12:00 J	-5761838.12	-5761838.00	-5761837.87	0.0142	0.0053
Mercury	-20488-03-10 15:36 J	-5761749.96	-5761749.85	-5761749.73	0.0142	0.0075
Mercury	-20488-06-06 19:11 J	-5761661.79	-5761661.70	-5761661.59	0.0142	0.0098
Mercury	-20488-09-02 23:02 J	-5761573.61	-5761573.54	-5761573.47	0.0142	0.0120
Mercury	-20488-11-30 02:38 J	-5761485.39	-5761485.39	-5761485.38	0.0142	0.0142
Mars	-20483-10-19 04:04 J	-5759701.43	-5759701.33	-5759701.21	0.0145	0.0135
Mars	-20481-09-23 04:04 J	-5758996.48	-5758996.33	-5758996.15	0.0145	0.0124
Venus	-20472-03-21 13:11 J	-5755895.06	-5755894.95	-5755894.83	0.0146	0.0123
Venus	-20472-11-03 00:57 J	-5755668.62	-5755668.46	-5755668.27	0.0146	0.0088
Venus	-20471-06-17 13:11 J	-5755442.15	-5755441.95	-5755441.74	0.0146	0.0052
Venus	-20470-01-30 01:11 J	-5755215.66	-5755215.45	-5755215.23	0.0146	0.0016
Venus	-20470-09-13 13:11 J	-5754989.17	-5754988.95	-5754988.74	0.0146	0.0020
Venus	-20469-04-27 00:57 J	-5754762.65	-5754762.46	-5754762.25	0.0146	0.0056
Venus	-20469-12-09 12:57 J	-5754536.12	-5754535.96	-5754535.79	0.0146	0.0091
Venus	-20468-07-24 00:43 J	-5754309.55	-5754309.47	-5754309.34	0.0145	0.0127
Earth	-20460-11-20 06:00 J	-5751268.42	-5751268.25	-5751268.08	0.0142	0.0106
Moon	-20460-11-20 06:57 J	-5751268.36	-5751268.21	-5751268.04	0.0142	0.0112 *
Moon	-20459-11-25 04:48 J	-5750898.55	-5750898.30	-5750898.05	0.0142	0.0012
Earth	-20459-11-25 06:14 J	-5750898.50	-5750898.24	-5750897.98	0.0142	0.0019 *
Earth	-20458-11-30 05:16 J	-5750528.49	-5750528.28	-5750528.04	0.0141	0.0067
Moon	-20458-11-30 07:26 J	-5750528.41	-5750528.19	-5750527.93	0.0141	0.0064 *
Mercury	-20451-08-27 02:38 J	-5748066.40	-5748066.39	-5748066.34	0.0137	0.0136
Mercury	-20451-11-23 10:19 J	-5747978.18	-5747978.07	-5747977.94	0.0137	0.0107
Mercury	-20450-02-19 17:45 J	-5747889.91	-5747889.76	-5747889.60	0.0137	0.0078

Mercury	-20450-05-19 00:57 J	-5747801.63	-5747801.46	-5747801.27	0.0137	0.0050
Mercury	-20450-08-15 08:23 J	-5747713.33	-5747713.15	-5747712.96	0.0137	0.0022
Mercury	-20450-11-11 15:36 J	-5747625.04	-5747624.85	-5747624.66	0.0137	0.0006
Mercury	-20449-02-07 22:48 J	-5747536.73	-5747536.55	-5747536.37	0.0137	0.0034
Mercury	-20449-05-06 06:00 J	-5747448.42	-5747448.25	-5747448.08	0.0137	0.0061
Mercury	-20449-08-02 12:57 J	-5747360.10	-5747359.96	-5747359.82	0.0136	0.0088
Mercury	-20449-10-29 19:55 J	-5747271.77	-5747271.67	-5747271.57	0.0136	0.0115
Mars	-20442-02-27 16:48 J	-5744959.98	-5744959.80	-5744959.58	0.0134	0.0099
Mars	-20440-01-28 05:31 J	-5744259.48	-5744259.27	-5744259.03	0.0133	0.0089
Venus	-20430-05-14 09:07 J	-5740501.20	-5740501.12	-5740501.03	0.0132	0.0122
Venus	-20430-12-26 14:23 J	-5740275.03	-5740274.90	-5740274.73	0.0132	0.0096
Venus	-20429-08-08 20:09 J	-5740048.84	-5740048.66	-5740048.46	0.0132	0.0068
Venus	-20428-03-23 01:26 J	-5739822.64	-5739822.44	-5739822.22	0.0132	0.0042
Venus	-20428-11-04 06:57 J	-5739596.42	-5739596.21	-5739595.98	0.0132	0.0015
Venus	-20427-06-18 12:28 J	-5739370.20	-5739369.98	-5739369.76	0.0133	0.0013
Venus	-20426-01-30 18:00 J	-5739143.96	-5739143.75	-5739143.54	0.0133	0.0040
Venus	-20426-09-13 23:16 J	-5738917.71	-5738917.53	-5738917.33	0.0133	0.0067
Venus	-20425-04-27 04:33 J	-5738691.45	-5738691.31	-5738691.14	0.0133	0.0094
Venus	-20425-12-09 10:04 J	-5738465.16	-5738465.08	-5738464.98	0.0133	0.0121
Earth	-20415-05-22 16:04 J	-5735013.99	-5735013.83	-5735013.64	0.0136	0.0096
Moon	-20415-05-22 16:19 J	-5735013.96	-5735013.82	-5735013.63	0.0136	0.0098 *
Moon	-20414-05-27 00:14 J	-5734644.74	-5734644.49	-5734644.23	0.0137	0.0017
Earth	-20414-05-27 00:43 J	-5734644.71	-5734644.47	-5734644.22	0.0137	0.0021 *
Earth	-20413-05-30 09:21 J	-5734275.32	-5734275.11	-5734274.86	0.0137	0.0055
Moon	-20413-05-30 10:04 J	-5734275.30	-5734275.08	-5734274.85	0.0137	0.0049 *
Earth	-20412-06-03 19:11 J	-5733905.77	-5733905.70	-5733905.61	0.0138	0.0130
Moon	-20412-06-03 19:11 J	-5733905.71	-5733905.70	-5733905.65	0.0138	0.0137 *
Mercury	-20407-10-31 11:02 J	-5731930.06	-5731930.04	-5731930.00	0.0141	0.0136
Mercury	-20406-01-27 14:38 J	-5731841.96	-5731841.89	-5731841.81	0.0141	0.0115
Mercury	-20406-04-25 18:14 J	-5731753.84	-5731753.74	-5731753.64	0.0141	0.0094

Mercury	-20406-07-22 21:36 J	-5731665.71	-5731665.60	-5731665.48	0.0141	0.0073
Mercury	-20406-10-19 01:11 J	-5731577.57	-5731577.45	-5731577.33	0.0141	0.0052
Mercury	-20405-01-15 04:48 J	-5731489.43	-5731489.30	-5731489.17	0.0141	0.0031
Mercury	-20405-04-12 08:09 J	-5731401.29	-5731401.16	-5731401.02	0.0142	0.0010
Mercury	-20405-07-09 11:45 J	-5731313.14	-5731313.01	-5731312.87	0.0142	0.0014
Mercury	-20405-10-05 15:21 J	-5731224.99	-5731224.86	-5731224.73	0.0142	0.0035
Mercury	-20404-01-01 18:57 J	-5731136.83	-5731136.71	-5731136.58	0.0142	0.0057
Mercury	-20404-03-30 22:33 J	-5731048.67	-5731048.56	-5731048.44	0.0142	0.0079
Mercury	-20404-06-27 02:09 J	-5730960.49	-5730960.41	-5730960.31	0.0142	0.0102
Mercury	-20404-09-23 06:00 J	-5730872.31	-5730872.25	-5730872.18	0.0142	0.0124
Mars	-20398-06-14 23:16 J	-5728781.83	-5728781.53	-5728781.23	0.0145	0.0047
Venus	-20389-11-18 18:00 J	-5725336.80	-5725336.75	-5725336.69	0.0146	0.0141
Venus	-20388-07-03 06:00 J	-5725110.39	-5725110.25	-5725110.10	0.0146	0.0105
Venus	-20387-02-14 17:45 J	-5724883.94	-5724883.76	-5724883.56	0.0146	0.0070
Venus	-20387-09-29 05:45 J	-5724657.46	-5724657.26	-5724657.04	0.0146	0.0034
Venus	-20386-05-13 17:45 J	-5724430.97	-5724430.76	-5724430.54	0.0146	0.0002
Venus	-20386-12-26 05:31 J	-5724204.47	-5724204.27	-5724204.05	0.0146	0.0038
Venus	-20385-08-08 17:31 J	-5723977.94	-5723977.77	-5723977.57	0.0146	0.0074
Venus	-20384-03-23 05:45 J	-5723751.40	-5723751.26	-5723751.11	0.0146	0.0109
Venus	-20384-11-04 17:45 J	-5723524.79	-5723524.76	-5723524.73	0.0145	0.0144
Moon	-20376-11-20 12:28 J	-5720587.16	-5720586.98	-5720586.76	0.0142	0.0096
Earth	-20376-11-20 12:28 J	-5720587.14	-5720586.98	-5720586.78	0.0142	0.0103 *
Moon	-20375-11-25 12:00 J	-5720217.24	-5720217.00	-5720216.75	0.0142	0.0023
Earth	-20375-11-25 13:11 J	-5720217.21	-5720216.95	-5720216.69	0.0142	0.0016 *
Earth	-20374-11-30 12:14 J	-5719847.21	-5719846.99	-5719846.76	0.0141	0.0069
Moon	-20374-11-30 13:40 J	-5719847.14	-5719846.93	-5719846.68	0.0141	0.0075 *
Mercury	-20367-09-16 09:21 J	-5717365.16	-5717365.11	-5717365.05	0.0137	0.0131
Mercury	-20367-12-13 16:33 J	-5717276.92	-5717276.81	-5717276.67	0.0137	0.0103
Mercury	-20366-03-12 00:00 J	-5717188.65	-5717188.50	-5717188.33	0.0137	0.0074
Mercury	-20366-06-08 07:40 J	-5717100.36	-5717100.18	-5717100.00	0.0137	0.0046

Mercury	-20366-09-04 14:52 J	-5717012.07	-5717011.88	-5717011.69	0.0137	0.0017
Mercury	-20366-12-01 22:04 J	-5716923.77	-5716923.58	-5716923.39	0.0137	0.0010
Mercury	-20365-02-28 05:16 J	-5716835.46	-5716835.28	-5716835.10	0.0137	0.0038
Mercury	-20365-05-26 12:14 J	-5716747.15	-5716746.99	-5716746.82	0.0137	0.0065
Mercury	-20365-08-22 19:11 J	-5716658.83	-5716658.70	-5716658.55	0.0137	0.0093
Mercury	-20365-11-19 02:09 J	-5716570.49	-5716570.41	-5716570.31	0.0136	0.0119
Mars	-20358-10-23 02:52 J	-5714041.66	-5714041.38	-5714041.08	0.0134	0.0035
Venus	-20346-08-25 23:16 J	-5709716.63	-5709716.53	-5709716.38	0.0132	0.0109
Venus	-20345-04-08 05:02 J	-5709490.45	-5709490.29	-5709490.11	0.0132	0.0081
Venus	-20345-11-20 10:33 J	-5709264.25	-5709264.06	-5709263.85	0.0132	0.0054
Venus	-20344-07-04 16:19 J	-5709038.04	-5709037.82	-5709037.61	0.0132	0.0027
Venus	-20343-02-15 21:50 J	-5708811.81	-5708811.59	-5708811.37	0.0133	0.0001
Venus	-20343-09-30 03:07 J	-5708585.58	-5708585.37	-5708585.15	0.0133	0.0028
Venus	-20342-05-14 08:23 J	-5708359.34	-5708359.15	-5708358.94	0.0133	0.0055
Venus	-20342-12-26 13:55 J	-5708133.08	-5708132.92	-5708132.74	0.0133	0.0082
Venus	-20341-08-08 19:26 J	-5707906.80	-5707906.69	-5707906.55	0.0133	0.0109
Earth	-20331-05-23 02:23 J	-5704332.57	-5704332.40	-5704332.20	0.0136	0.0091
Moon	-20331-05-23 03:36 J	-5704332.51	-5704332.35	-5704332.15	0.0136	0.0090 *
Moon	-20330-05-27 09:50 J	-5703963.34	-5703963.09	-5703962.83	0.0137	0.0020
Earth	-20330-05-27 11:02 J	-5703963.29	-5703963.04	-5703962.79	0.0137	0.0017 *
Earth	-20329-05-30 19:55 J	-5703593.89	-5703593.67	-5703593.43	0.0137	0.0059
Moon	-20329-05-30 20:23 J	-5703593.85	-5703593.65	-5703593.42	0.0137	0.0066 *
Moon	-20328-06-04 04:48 J	-5703224.39	-5703224.30	-5703224.19	0.0138	0.0127
Earth	-20328-06-04 05:31 J	-5703224.30	-5703224.27	-5703224.20	0.0138	0.0135 *
Mercury	-20323-11-20 18:43 J	-5701228.77	-5701228.72	-5701228.68	0.0141	0.0130
Mercury	-20322-02-16 22:04 J	-5701140.66	-5701140.58	-5701140.50	0.0141	0.0109
Mercury	-20322-05-16 01:26 J	-5701052.54	-5701052.44	-5701052.33	0.0141	0.0089
Mercury	-20322-08-12 05:02 J	-5700964.41	-5700964.29	-5700964.17	0.0141	0.0067
Mercury	-20322-11-08 08:23 J	-5700876.27	-5700876.15	-5700876.02	0.0141	0.0046
Mercury	-20321-02-04 12:00 J	-5700788.13	-5700788.00	-5700787.87	0.0141	0.0025

Mercury	-20321-05-02 15:36 J	-5700699.98	-5700699.85	-5700699.72	0.0142	0.0003
Mercury	-20321-07-29 19:11 J	-5700611.83	-5700611.70	-5700611.57	0.0142	0.0019
Mercury	-20321-10-25 22:48 J	-5700523.68	-5700523.55	-5700523.42	0.0142	0.0040
Mercury	-20320-01-22 02:09 J	-5700435.52	-5700435.41	-5700435.28	0.0142	0.0063
Mercury	-20320-04-20 05:45 J	-5700347.36	-5700347.26	-5700347.14	0.0142	0.0085
Mercury	-20320-07-17 09:36 J	-5700259.18	-5700259.10	-5700259.01	0.0142	0.0107
Mercury	-20320-10-13 13:11 J	-5700171.00	-5700170.95	-5700170.89	0.0142	0.0130
Mars	-20313-02-08 23:02 J	-5697861.83	-5697861.54	-5697861.23	0.0145	0.0044
Venus	-20304-03-02 12:28 J	-5694552.08	-5694551.98	-5694551.85	0.0146	0.0122
Venus	-20304-10-15 00:28 J	-5694325.65	-5694325.48	-5694325.30	0.0146	0.0087
Venus	-20303-05-29 12:14 J	-5694099.19	-5694098.99	-5694098.78	0.0146	0.0051
Venus	-20302-01-11 00:14 J	-5693872.70	-5693872.49	-5693872.27	0.0146	0.0015
Venus	-20302-08-25 12:14 J	-5693646.20	-5693645.99	-5693645.78	0.0146	0.0021
Venus	-20301-04-08 00:00 J	-5693419.69	-5693419.50	-5693419.29	0.0146	0.0057
Venus	-20301-11-20 12:00 J	-5693193.16	-5693193.00	-5693192.83	0.0146	0.0093
Venus	-20300-07-04 23:45 J	-5692966.59	-5692966.51	-5692966.39	0.0145	0.0129
Moon	-20292-11-20 21:50 J	-5689905.75	-5689905.59	-5689905.38	0.0142	0.0104
Earth	-20292-11-20 22:04 J	-5689905.75	-5689905.58	-5689905.37	0.0142	0.0098 *
Moon	-20291-11-25 22:19 J	-5689535.82	-5689535.57	-5689535.32	0.0142	0.0005
Earth	-20291-11-25 22:33 J	-5689535.81	-5689535.56	-5689535.30	0.0142	0.0012 *
Earth	-20290-11-30 21:36 J	-5689165.81	-5689165.60	-5689165.37	0.0141	0.0074
Moon	-20290-11-30 22:33 J	-5689165.78	-5689165.56	-5689165.31	0.0141	0.0069 *
Mercury	-20283-10-06 16:19 J	-5686663.89	-5686663.82	-5686663.73	0.0137	0.0124
Mercury	-20282-01-03 00:00 J	-5686575.64	-5686575.50	-5686575.37	0.0137	0.0096
Mercury	-20282-04-01 07:11 J	-5686487.36	-5686487.20	-5686487.03	0.0137	0.0067
Mercury	-20282-06-28 14:23 J	-5686399.07	-5686398.90	-5686398.71	0.0137	0.0039
Mercury	-20282-09-24 21:50 J	-5686310.78	-5686310.59	-5686310.40	0.0137	0.0011
Mercury	-20282-12-22 05:02 J	-5686222.48	-5686222.29	-5686222.10	0.0137	0.0017
Mercury	-20281-03-19 12:14 J	-5686134.17	-5686133.99	-5686133.81	0.0137	0.0044
Mercury	-20281-06-15 19:11 J	-5686045.85	-5686045.70	-5686045.53	0.0137	0.0071

Mercury	-20281-09-12 02:09 J	-5685957.53	-5685957.41	-5685957.27	0.0136	0.0099
Mercury	-20281-12-09 09:07 J	-5685869.18	-5685869.12	-5685869.04	0.0136	0.0125
Mars	-20273-06-16 13:26 J	-5683123.22	-5683122.94	-5683122.63	0.0134	0.0031
Venus	-20262-04-25 08:38 J	-5679158.22	-5679158.14	-5679158.05	0.0132	0.0121
Venus	-20262-12-07 14:09 J	-5678932.06	-5678931.91	-5678931.75	0.0132	0.0094
Venus	-20261-07-20 19:40 J	-5678705.86	-5678705.68	-5678705.48	0.0132	0.0067
Venus	-20260-03-04 01:11 J	-5678479.65	-5678479.45	-5678479.23	0.0132	0.0040
Venus	-20260-10-16 06:43 J	-5678253.44	-5678253.22	-5678253.00	0.0133	0.0012
Venus	-20259-05-30 12:14 J	-5678027.21	-5678026.99	-5678026.77	0.0133	0.0015
Venus	-20258-01-11 17:45 J	-5677800.96	-5677800.76	-5677800.55	0.0133	0.0042
Venus	-20258-08-25 23:02 J	-5677574.71	-5677574.54	-5677574.34	0.0133	0.0070
Venus	-20257-04-08 04:33 J	-5677348.44	-5677348.31	-5677348.15	0.0133	0.0097
Venus	-20257-11-20 10:04 J	-5677122.14	-5677122.08	-5677121.99	0.0133	0.0124
Earth	-20247-05-23 12:00 J	-5673651.18	-5673651.00	-5673650.79	0.0137	0.0087
Moon	-20247-05-23 13:55 J	-5673651.10	-5673650.92	-5673650.73	0.0137	0.0087 *
Moon	-20246-05-27 19:26 J	-5673281.95	-5673281.69	-5673281.43	0.0137	0.0009
Earth	-20246-05-27 20:52 J	-5673281.88	-5673281.63	-5673281.38	0.0137	0.0013 *
Earth	-20245-05-31 06:00 J	-5672912.47	-5672912.25	-5672912.02	0.0137	0.0063
Moon	-20245-05-31 07:40 J	-5672912.40	-5672912.18	-5672911.96	0.0137	0.0058 *
Mercury	-20239-12-11 01:40 J	-5670527.48	-5670527.43	-5670527.36	0.0141	0.0125
Mercury	-20238-03-09 05:16 J	-5670439.36	-5670439.28	-5670439.19	0.0141	0.0104
Mercury	-20238-06-05 08:38 J	-5670351.24	-5670351.14	-5670351.03	0.0141	0.0084
Mercury	-20238-09-01 12:14 J	-5670263.11	-5670262.99	-5670262.87	0.0141	0.0062
Mercury	-20238-11-28 15:50 J	-5670174.97	-5670174.84	-5670174.71	0.0141	0.0041
Mercury	-20237-02-24 19:26 J	-5670086.83	-5670086.69	-5670086.56	0.0142	0.0019
Mercury	-20237-05-22 22:48 J	-5669998.68	-5669998.55	-5669998.41	0.0142	0.0005
Mercury	-20237-08-19 02:23 J	-5669910.53	-5669910.40	-5669910.26	0.0142	0.0024
Mercury	-20237-11-15 06:00 J	-5669822.37	-5669822.25	-5669822.12	0.0142	0.0046
Mercury	-20236-02-11 09:36 J	-5669734.21	-5669734.10	-5669733.98	0.0142	0.0068
Mercury	-20236-05-10 13:26 J	-5669646.05	-5669645.94	-5669645.84	0.0142	0.0091

Mercury	-20236-08-06 16:48 J	-5669557.87	-5669557.80	-5669557.71	0.0142	0.0113
Mercury	-20236-11-02 20:38 J	-5669469.68	-5669469.64	-5669469.60	0.0142	0.0135
Mars	-20231-10-30 23:02 J	-5667646.71	-5667646.54	-5667646.37	0.0145	0.0122
Mars	-20229-10-05 00:00 J	-5666941.58	-5666941.50	-5666941.36	0.0145	0.0137
Venus	-20221-10-30 20:09 J	-5663993.71	-5663993.66	-5663993.57	0.0146	0.0138
Venus	-20220-06-14 08:09 J	-5663767.30	-5663767.16	-5663767.00	0.0146	0.0103
Venus	-20219-01-26 20:09 J	-5663540.85	-5663540.66	-5663540.46	0.0146	0.0067
Venus	-20219-09-10 08:09 J	-5663314.37	-5663314.16	-5663313.95	0.0146	0.0030
Venus	-20218-04-24 20:09 J	-5663087.88	-5663087.66	-5663087.45	0.0146	0.0006
Venus	-20218-12-07 07:55 J	-5662861.37	-5662861.17	-5662860.96	0.0146	0.0042
Venus	-20217-07-20 19:55 J	-5662634.84	-5662634.67	-5662634.48	0.0146	0.0078
Venus	-20216-03-04 07:40 J	-5662408.29	-5662408.18	-5662408.03	0.0146	0.0114
Moon	-20208-11-21 08:23 J	-5659224.34	-5659224.15	-5659223.91	0.0142	0.0085
Earth	-20208-11-21 10:04 J	-5659224.28	-5659224.08	-5659223.88	0.0142	0.0091 *
Earth	-20207-11-26 10:04 J	-5658854.34	-5658854.08	-5658853.82	0.0142	0.0005
Moon	-20207-11-26 10:04 J	-5658854.32	-5658854.08	-5658853.83	0.0142	0.0013 *
Earth	-20206-12-01 08:52 J	-5658484.33	-5658484.13	-5658483.91	0.0141	0.0079
Moon	-20206-12-01 09:36 J	-5658484.31	-5658484.10	-5658483.88	0.0141	0.0084 *
Mercury	-20199-10-26 23:45 J	-5655962.60	-5655962.51	-5655962.40	0.0137	0.0116
Mercury	-20198-01-23 07:26 J	-5655874.34	-5655874.19	-5655874.04	0.0137	0.0087
Mercury	-20198-04-21 14:38 J	-5655786.06	-5655785.89	-5655785.71	0.0137	0.0059
Mercury	-20198-07-18 22:04 J	-5655697.77	-5655697.58	-5655697.40	0.0137	0.0031
Mercury	-20198-10-15 05:16 J	-5655609.47	-5655609.28	-5655609.09	0.0137	0.0003
Mercury	-20197-01-11 12:28 J	-5655521.16	-5655520.98	-5655520.79	0.0137	0.0024
Mercury	-20197-04-08 19:40 J	-5655432.85	-5655432.68	-5655432.51	0.0137	0.0052
Mercury	-20197-07-06 02:23 J	-5655344.54	-5655344.40	-5655344.23	0.0136	0.0080
Mercury	-20197-10-02 09:21 J	-5655256.21	-5655256.11	-5655255.98	0.0136	0.0107
Mercury	-20197-12-29 16:33 J	-5655167.84	-5655167.81	-5655167.76	0.0136	0.0133
Mars	-20190-03-11 16:19 J	-5652905.03	-5652904.82	-5652904.59	0.0134	0.0090
Mars	-20188-02-09 03:36 J	-5652204.54	-5652204.35	-5652204.12	0.0133	0.0097

Venus	-20178-08-06 23:31 J	-5648373.63	-5648373.52	-5648373.37	0.0132	0.0107
Venus	-20177-03-20 05:02 J	-5648147.45	-5648147.29	-5648147.10	0.0132	0.0080
Venus	-20177-11-01 10:33 J	-5647921.25	-5647921.06	-5647920.84	0.0132	0.0052
Venus	-20176-06-15 16:19 J	-5647695.03	-5647694.82	-5647694.60	0.0132	0.0025
Venus	-20175-01-27 22:04 J	-5647468.80	-5647468.58	-5647468.36	0.0133	0.0004
Venus	-20175-09-11 03:21 J	-5647242.57	-5647242.36	-5647242.14	0.0133	0.0030
Venus	-20174-04-25 08:38 J	-5647016.32	-5647016.14	-5647015.93	0.0133	0.0058
Venus	-20174-12-07 14:09 J	-5646790.06	-5646789.91	-5646789.73	0.0133	0.0085
Venus	-20173-07-20 19:55 J	-5646563.78	-5646563.67	-5646563.55	0.0133	0.0112
Earth	-20163-05-23 22:19 J	-5642969.77	-5642969.57	-5642969.37	0.0137	0.0082
Moon	-20163-05-24 00:14 J	-5642969.67	-5642969.49	-5642969.28	0.0137	0.0082 *
Moon	-20162-05-28 04:33 J	-5642600.56	-5642600.31	-5642600.05	0.0137	0.0010
Earth	-20162-05-28 06:57 J	-5642600.46	-5642600.21	-5642599.96	0.0137	0.0008 *
Earth	-20161-05-31 15:50 J	-5642231.05	-5642230.84	-5642230.61	0.0137	0.0067
Moon	-20161-05-31 17:16 J	-5642230.97	-5642230.78	-5642230.56	0.0137	0.0074 *
Moon	-20160-06-05 00:00 J	-5641861.54	-5641861.50	-5641861.45	0.0138	0.0135
Mercury	-20155-12-31 09:07 J	-5639826.19	-5639826.12	-5639826.05	0.0141	0.0120
Mercury	-20154-03-29 12:28 J	-5639738.07	-5639737.98	-5639737.88	0.0141	0.0099
Mercury	-20154-06-25 16:04 J	-5639649.94	-5639649.83	-5639649.72	0.0141	0.0078
Mercury	-20154-09-21 19:26 J	-5639561.81	-5639561.69	-5639561.57	0.0141	0.0057
Mercury	-20154-12-18 23:02 J	-5639473.67	-5639473.54	-5639473.41	0.0141	0.0036
Mercury	-20153-03-16 02:38 J	-5639385.53	-5639385.39	-5639385.26	0.0142	0.0015
Mercury	-20153-06-12 06:00 J	-5639297.38	-5639297.25	-5639297.11	0.0142	0.0009
Mercury	-20153-09-08 09:36 J	-5639209.23	-5639209.10	-5639208.96	0.0142	0.0030
Mercury	-20153-12-05 13:11 J	-5639121.07	-5639120.95	-5639120.82	0.0142	0.0051
Mercury	-20152-03-03 16:48 J	-5639032.91	-5639032.80	-5639032.68	0.0142	0.0073
Mercury	-20152-05-30 20:38 J	-5638944.74	-5638944.64	-5638944.54	0.0142	0.0096
Mercury	-20152-08-27 00:00 J	-5638856.56	-5638856.50	-5638856.42	0.0142	0.0118
Mercury	-20152-11-23 03:50 J	-5638768.35	-5638768.34	-5638768.32	0.0142	0.0141
Mars	-20146-06-26 22:19 J	-5636726.87	-5636726.57	-5636726.25	0.0145	0.0032

Venus	-20136-02-11 15:36 J	-5633208.97	-5633208.85	-5633208.72	0.0146	0.0119
Venus	-20136-09-26 03:36 J	-5632982.53	-5632982.35	-5632982.17	0.0146	0.0083
Venus	-20135-05-10 15:21 J	-5632756.06	-5632755.86	-5632755.65	0.0146	0.0047
Venus	-20135-12-23 03:21 J	-5632529.57	-5632529.36	-5632529.14	0.0146	0.0010
Venus	-20134-08-06 15:36 J	-5632303.06	-5632302.85	-5632302.64	0.0146	0.0026
Venus	-20133-03-20 03:36 J	-5632076.54	-5632076.35	-5632076.15	0.0146	0.0062
Venus	-20133-11-01 15:36 J	-5631850.01	-5631849.85	-5631849.69	0.0146	0.0098
Venus	-20132-06-16 03:21 J	-5631623.43	-5631623.36	-5631623.26	0.0145	0.0134
Moon	-20124-11-21 20:09 J	-5628542.85	-5628542.66	-5628542.44	0.0142	0.0091
Earth	-20124-11-21 21:21 J	-5628542.80	-5628542.61	-5628542.38	0.0142	0.0086 *
Earth	-20123-11-26 21:36 J	-5628172.86	-5628172.60	-5628172.34	0.0142	0.0002
Moon	-20123-11-26 22:33 J	-5628172.81	-5628172.56	-5628172.31	0.0142	0.0008 *
Moon	-20122-12-01 20:09 J	-5627802.86	-5627802.66	-5627802.42	0.0141	0.0080
Earth	-20122-12-01 20:38 J	-5627802.84	-5627802.64	-5627802.43	0.0141	0.0085 *
Mercury	-20115-08-19 23:45 J	-5625349.51	-5625349.51	-5625349.47	0.0137	0.0137
Mercury	-20115-11-16 07:26 J	-5625261.30	-5625261.19	-5625261.06	0.0137	0.0108
Mercury	-20114-02-12 14:52 J	-5625173.03	-5625172.88	-5625172.72	0.0137	0.0079
Mercury	-20114-05-11 22:04 J	-5625084.74	-5625084.58	-5625084.39	0.0137	0.0051
Mercury	-20114-08-08 05:31 J	-5624996.45	-5624996.27	-5624996.08	0.0137	0.0023
Mercury	-20114-11-04 12:57 J	-5624908.15	-5624907.96	-5624907.77	0.0137	0.0006
Mercury	-20113-01-31 19:55 J	-5624819.85	-5624819.67	-5624819.48	0.0137	0.0033
Mercury	-20113-04-29 03:07 J	-5624731.54	-5624731.37	-5624731.20	0.0137	0.0060
Mercury	-20113-07-26 09:50 J	-5624643.22	-5624643.09	-5624642.93	0.0136	0.0088
Mercury	-20113-10-22 17:16 J	-5624554.88	-5624554.78	-5624554.68	0.0136	0.0114
Mars	-20106-11-04 05:16 J	-5621986.56	-5621986.28	-5621985.97	0.0134	0.0025
Venus	-20094-04-06 08:23 J	-5617815.23	-5617815.15	-5617815.04	0.0132	0.0119
Venus	-20094-11-18 13:55 J	-5617589.06	-5617588.92	-5617588.75	0.0132	0.0092
Venus	-20093-07-01 19:40 J	-5617362.87	-5617362.68	-5617362.48	0.0132	0.0065
Venus	-20092-02-13 01:11 J	-5617136.65	-5617136.45	-5617136.23	0.0132	0.0038
Venus	-20092-09-27 06:43 J	-5616910.44	-5616910.22	-5616910.00	0.0132	0.0010

Venus	-20091-05-11 12:14 J	-5616684.21	-5616683.99	-5616683.77	0.0132	0.0017
Venus	-20091-12-23 17:45 J	-5616457.96	-5616457.76	-5616457.55	0.0133	0.0045
Venus	-20090-08-06 23:02 J	-5616231.71	-5616231.54	-5616231.34	0.0133	0.0073
Venus	-20089-03-20 04:33 J	-5616005.44	-5616005.31	-5616005.15	0.0133	0.0100
Venus	-20089-11-01 10:04 J	-5615779.13	-5615779.08	-5615779.00	0.0133	0.0127
Earth	-20079-05-24 06:00 J	-5612288.45	-5612288.25	-5612288.04	0.0136	0.0079
Moon	-20079-05-24 08:23 J	-5612288.34	-5612288.15	-5612287.94	0.0136	0.0078 *
Moon	-20078-05-28 12:00 J	-5611919.25	-5611919.00	-5611918.74	0.0137	0.0003
Earth	-20078-05-28 14:38 J	-5611919.14	-5611918.89	-5611918.64	0.0137	0.0006 *
Earth	-20077-05-31 23:31 J	-5611549.72	-5611549.52	-5611549.29	0.0137	0.0070
Moon	-20077-06-01 02:23 J	-5611549.61	-5611549.40	-5611549.18	0.0137	0.0065 *
Mercury	-20071-10-24 12:28 J	-5609213.00	-5609212.98	-5609212.96	0.0141	0.0138
Mercury	-20070-01-20 15:36 J	-5609124.91	-5609124.85	-5609124.77	0.0141	0.0118
Mercury	-20070-04-18 19:11 J	-5609036.79	-5609036.70	-5609036.60	0.0141	0.0097
Mercury	-20070-07-15 22:48 J	-5608948.66	-5608948.55	-5608948.44	0.0141	0.0076
Mercury	-20070-10-12 02:09 J	-5608860.53	-5608860.41	-5608860.28	0.0141	0.0055
Mercury	-20069-01-08 05:45 J	-5608772.39	-5608772.26	-5608772.13	0.0142	0.0033
Mercury	-20069-04-05 09:21 J	-5608684.25	-5608684.11	-5608683.98	0.0142	0.0012
Mercury	-20069-07-02 12:57 J	-5608596.10	-5608595.96	-5608595.83	0.0142	0.0011
Mercury	-20069-09-28 16:33 J	-5608507.95	-5608507.81	-5608507.68	0.0142	0.0032
Mercury	-20069-12-25 19:55 J	-5608419.79	-5608419.67	-5608419.54	0.0142	0.0054
Mercury	-20068-03-23 23:31 J	-5608331.63	-5608331.52	-5608331.40	0.0142	0.0076
Mercury	-20068-06-20 03:07 J	-5608243.46	-5608243.37	-5608243.27	0.0142	0.0099
Mercury	-20068-09-16 06:57 J	-5608155.28	-5608155.21	-5608155.14	0.0142	0.0121
Mars	-20061-02-20 18:14 J	-5605807.03	-5605806.74	-5605806.44	0.0145	0.0056
Venus	-20053-10-11 21:07 J	-5602650.68	-5602650.62	-5602650.53	0.0146	0.0136
Venus	-20052-05-26 09:07 J	-5602424.27	-5602424.12	-5602423.95	0.0146	0.0100
Venus	-20051-01-07 21:07 J	-5602197.80	-5602197.62	-5602197.42	0.0146	0.0064
Venus	-20051-08-22 09:21 J	-5601971.32	-5601971.11	-5601970.89	0.0146	0.0028
Venus	-20050-04-05 21:36 J	-5601744.82	-5601744.60	-5601744.39	0.0146	0.0009

Venus	-20050-11-18 09:21 J	-5601518.30	-5601518.11	-5601517.89	0.0146	0.0046
Venus	-20049-07-01 21:36 J	-5601291.77	-5601291.60	-5601291.41	0.0146	0.0082
Venus	-20048-02-13 09:50 J	-5601065.21	-5601065.09	-5601064.96	0.0146	0.0118
Moon	-20040-11-22 06:00 J	-5597861.47	-5597861.25	-5597861.02	0.0142	0.0073
Earth	-20040-11-22 07:55 J	-5597861.36	-5597861.17	-5597860.94	0.0142	0.0080 *
Earth	-20039-11-27 08:23 J	-5597491.41	-5597491.15	-5597490.89	0.0142	0.0006
Moon	-20039-11-27 09:36 J	-5597491.35	-5597491.10	-5597490.85	0.0142	0.0003 *
Moon	-20038-12-02 06:43 J	-5597121.40	-5597121.22	-5597121.01	0.0141	0.0096
Earth	-20038-12-02 07:40 J	-5597121.38	-5597121.18	-5597120.98	0.0141	0.0090 *
Mercury	-20031-09-09 07:11 J	-5594648.25	-5594648.20	-5594648.11	0.0137	0.0129
Mercury	-20031-12-06 14:52 J	-5594560.00	-5594559.88	-5594559.74	0.0137	0.0100
Mercury	-20030-03-04 22:19 J	-5594471.73	-5594471.57	-5594471.40	0.0137	0.0071
Mercury	-20030-06-01 05:45 J	-5594383.44	-5594383.26	-5594383.08	0.0137	0.0043
Mercury	-20030-08-28 13:11 J	-5594295.14	-5594294.95	-5594294.77	0.0137	0.0015
Mercury	-20030-11-24 20:23 J	-5594206.84	-5594206.65	-5594206.47	0.0137	0.0013
Mercury	-20029-02-21 03:21 J	-5594118.54	-5594118.36	-5594118.18	0.0137	0.0040
Mercury	-20029-05-19 10:19 J	-5594030.22	-5594030.07	-5594029.90	0.0137	0.0068
Mercury	-20029-08-15 17:31 J	-5593941.90	-5593941.77	-5593941.63	0.0136	0.0095
Mercury	-20029-11-12 00:14 J	-5593853.56	-5593853.49	-5593853.39	0.0136	0.0122
Mars	-20021-06-28 19:26 J	-5591067.97	-5591067.69	-5591067.40	0.0133	0.0042
Venus	-20011-12-04 18:00 J	-5587256.76	-5587256.75	-5587256.72	0.0132	0.0131
Venus	-20010-07-18 23:31 J	-5587030.64	-5587030.52	-5587030.38	0.0132	0.0104
Venus	-20009-03-01 05:02 J	-5586804.46	-5586804.29	-5586804.10	0.0132	0.0077
Venus	-20009-10-13 10:19 J	-5586578.26	-5586578.07	-5586577.85	0.0132	0.0051
Venus	-20008-05-27 16:04 J	-5586352.04	-5586351.83	-5586351.61	0.0132	0.0022
Venus	-20007-01-08 21:50 J	-5586125.81	-5586125.59	-5586125.37	0.0132	0.0006
Venus	-20007-08-23 03:07 J	-5585899.58	-5585899.37	-5585899.15	0.0132	0.0033
Venus	-20006-04-06 08:38 J	-5585673.33	-5585673.14	-5585672.94	0.0132	0.0060
Venus	-20006-11-18 13:40 J	-5585447.08	-5585446.93	-5585446.75	0.0133	0.0088
Venus	-20005-07-01 19:11 J	-5585220.79	-5585220.70	-5585220.58	0.0133	0.0115

20TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 20th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-19995-05-24 13:55 J		-5581607.11	-5581606.92	-5581606.70	0.0136	0.0076	
Moon	-19995-05-24 17:02 J		-5581606.98	-5581606.79	-5581606.57	0.0136	0.0077	*
Moon	-19994-05-28 19:40 J		-5581237.93	-5581237.68	-5581237.43	0.0137	0.0004	
Earth	-19994-05-28 22:48 J		-5581237.80	-5581237.55	-5581237.30	0.0137	0.0003	*
Earth	-19993-06-01 07:26 J		-5580868.39	-5580868.19	-5580867.96	0.0137	0.0072	
Moon	-19993-06-01 10:04 J		-5580868.27	-5580868.08	-5580867.86	0.0137	0.0078	*
Mercury	-19987-11-13 18:43 J		-5578511.74	-5578511.72	-5578511.68	0.0141	0.0137	
Mercury	-19986-02-09 22:19 J		-5578423.64	-5578423.57	-5578423.49	0.0141	0.0116	
Mercury	-19986-05-09 01:40 J		-5578335.52	-5578335.43	-5578335.32	0.0141	0.0095	
Mercury	-19986-08-05 05:16 J		-5578247.39	-5578247.28	-5578247.16	0.0141	0.0074	
Mercury	-19986-11-01 08:52 J		-5578159.25	-5578159.13	-5578159.01	0.0141	0.0053	
Mercury	-19985-01-28 12:14 J		-5578071.11	-5578070.99	-5578070.85	0.0142	0.0032	
Mercury	-19985-04-25 15:50 J		-5577982.97	-5577982.84	-5577982.70	0.0142	0.0010	
Mercury	-19985-07-22 19:26 J		-5577894.82	-5577894.69	-5577894.56	0.0142	0.0012	
Mercury	-19985-10-18 23:02 J		-5577806.67	-5577806.54	-5577806.41	0.0142	0.0034	
Mercury	-19984-01-15 02:38 J		-5577718.51	-5577718.39	-5577718.27	0.0142	0.0056	
Mercury	-19984-04-13 06:00 J		-5577630.35	-5577630.25	-5577630.13	0.0142	0.0079	
Mercury	-19984-07-10 09:50 J		-5577542.18	-5577542.09	-5577541.99	0.0142	0.0100	

Mercury	-19984-10-06 13:26 J	-5577454.00	-5577453.94	-5577453.87	0.0142	0.0123
Mars	-19979-11-11 03:07 J	-5575592.53	-5575592.37	-5575592.16	0.0145	0.0118
Mars	-19977-10-16 08:52 J	-5574887.21	-5574887.13	-5574887.06	0.0145	0.0141
Venus	-19968-01-23 12:57 J	-5571866.07	-5571865.96	-5571865.82	0.0146	0.0120
Venus	-19968-09-07 00:57 J	-5571639.62	-5571639.46	-5571639.27	0.0146	0.0084
Venus	-19967-04-21 13:26 J	-5571413.15	-5571412.94	-5571412.74	0.0146	0.0047
Venus	-19967-12-04 01:26 J	-5571186.65	-5571186.44	-5571186.22	0.0146	0.0010
Venus	-19966-07-18 13:40 J	-5570960.14	-5570959.93	-5570959.71	0.0146	0.0027
Venus	-19965-03-01 01:55 J	-5570733.61	-5570733.42	-5570733.22	0.0146	0.0063
Venus	-19965-10-13 13:40 J	-5570507.07	-5570506.93	-5570506.76	0.0146	0.0100
Venus	-19964-05-28 01:40 J	-5570280.49	-5570280.43	-5570280.33	0.0146	0.0136
Moon	-19956-11-22 13:26 J	-5567180.16	-5567179.94	-5567179.73	0.0142	0.0082
Earth	-19956-11-22 15:36 J	-5567180.06	-5567179.85	-5567179.62	0.0142	0.0077 *
Earth	-19955-11-27 15:50 J	-5566810.09	-5566809.84	-5566809.58	0.0142	0.0010
Moon	-19955-11-27 18:00 J	-5566810.00	-5566809.75	-5566809.50	0.0142	0.0017 *
Moon	-19954-12-02 13:40 J	-5566440.12	-5566439.93	-5566439.70	0.0141	0.0088
Earth	-19954-12-02 15:07 J	-5566440.04	-5566439.87	-5566439.66	0.0141	0.0094 *
Mercury	-19947-09-29 14:09 J	-5563946.98	-5563946.91	-5563946.81	0.0137	0.0123
Mercury	-19947-12-26 21:36 J	-5563858.72	-5563858.60	-5563858.45	0.0137	0.0094
Mercury	-19946-03-25 05:16 J	-5563770.45	-5563770.28	-5563770.11	0.0137	0.0065
Mercury	-19946-06-21 12:28 J	-5563682.16	-5563681.98	-5563681.79	0.0137	0.0038
Mercury	-19946-09-17 19:55 J	-5563593.86	-5563593.67	-5563593.48	0.0137	0.0009
Mercury	-19946-12-15 03:07 J	-5563505.56	-5563505.37	-5563505.18	0.0137	0.0018
Mercury	-19945-03-12 10:19 J	-5563417.25	-5563417.07	-5563416.89	0.0137	0.0046
Mercury	-19945-06-08 17:02 J	-5563328.93	-5563328.79	-5563328.62	0.0137	0.0074
Mercury	-19945-09-05 00:14 J	-5563240.61	-5563240.49	-5563240.35	0.0136	0.0100
Mercury	-19945-12-02 06:57 J	-5563152.25	-5563152.21	-5563152.12	0.0136	0.0128
Mars	-19938-03-23 21:36 J	-5560849.82	-5560849.60	-5560849.34	0.0134	0.0079
Mars	-19936-02-21 08:09 J	-5560149.33	-5560149.16	-5560148.97	0.0133	0.0106
Venus	-19926-03-18 08:38 J	-5556472.23	-5556472.14	-5556472.02	0.0132	0.0117

Venus	-19926-10-30 14:09 J	-5556246.06	-5556245.91	-5556245.74	0.0132	0.0090
Venus	-19925-06-12 19:55 J	-5556019.86	-5556019.67	-5556019.48	0.0132	0.0062
Venus	-19924-01-25 01:26 J	-5555793.65	-5555793.44	-5555793.22	0.0132	0.0035
Venus	-19924-09-08 06:57 J	-5555567.43	-5555567.21	-5555566.99	0.0132	0.0007
Venus	-19923-04-22 12:14 J	-5555341.20	-5555340.99	-5555340.77	0.0132	0.0020
Venus	-19923-12-04 17:45 J	-5555114.96	-5555114.76	-5555114.55	0.0132	0.0048
Venus	-19922-07-18 22:48 J	-5554888.71	-5554888.55	-5554888.35	0.0132	0.0076
Venus	-19921-03-01 04:33 J	-5554662.44	-5554662.31	-5554662.17	0.0133	0.0103
Venus	-19921-10-13 09:50 J	-5554436.12	-5554436.09	-5554436.04	0.0133	0.0130
Earth	-19911-05-24 22:48 J	-5550925.76	-5550925.55	-5550925.34	0.0136	0.0073
Moon	-19911-05-25 01:40 J	-5550925.63	-5550925.43	-5550925.20	0.0136	0.0071 *
Moon	-19910-05-29 03:50 J	-5550556.59	-5550556.34	-5550556.08	0.0137	0.0003
Earth	-19910-05-29 07:11 J	-5550556.45	-5550556.20	-5550555.95	0.0137	0.0000 *
Earth	-19909-06-01 15:50 J	-5550187.04	-5550186.84	-5550186.62	0.0137	0.0074
Moon	-19909-06-01 19:11 J	-5550186.90	-5550186.70	-5550186.48	0.0137	0.0070 *
Mercury	-19903-12-04 01:40 J	-5547810.47	-5547810.43	-5547810.39	0.0141	0.0134
Mercury	-19902-03-02 05:02 J	-5547722.36	-5547722.29	-5547722.21	0.0141	0.0113
Mercury	-19902-05-29 08:38 J	-5547634.24	-5547634.14	-5547634.04	0.0141	0.0092
Mercury	-19902-08-25 12:00 J	-5547546.11	-5547546.00	-5547545.88	0.0141	0.0072
Mercury	-19902-11-21 15:21 J	-5547457.98	-5547457.86	-5547457.73	0.0141	0.0051
Mercury	-19901-02-17 18:57 J	-5547369.84	-5547369.71	-5547369.58	0.0141	0.0029
Mercury	-19901-05-15 22:33 J	-5547281.69	-5547281.56	-5547281.43	0.0142	0.0007
Mercury	-19901-08-12 02:09 J	-5547193.54	-5547193.41	-5547193.28	0.0142	0.0014
Mercury	-19901-11-08 05:45 J	-5547105.39	-5547105.26	-5547105.13	0.0142	0.0036
Mercury	-19900-02-04 09:07 J	-5547017.24	-5547017.12	-5547016.99	0.0142	0.0058
Mercury	-19900-05-03 12:43 J	-5546929.07	-5546928.97	-5546928.85	0.0142	0.0081
Mercury	-19900-07-30 16:33 J	-5546840.90	-5546840.81	-5546840.72	0.0142	0.0102
Mercury	-19900-10-26 19:55 J	-5546752.72	-5546752.67	-5546752.60	0.0142	0.0126
Mars	-19894-07-07 19:40 J	-5544672.97	-5544672.68	-5544672.35	0.0145	0.0033
Venus	-19885-09-22 17:16 J	-5541307.84	-5541307.78	-5541307.70	0.0146	0.0139

Venus	-19884-05-07 05:02 J	-5541081.42	-5541081.29	-5541081.12	0.0146	0.0103
Venus	-19884-12-19 17:31 J	-5540854.96	-5540854.77	-5540854.57	0.0146	0.0066
Venus	-19883-08-03 05:45 J	-5540628.47	-5540628.26	-5540628.04	0.0146	0.0029
Venus	-19882-03-17 18:00 J	-5540401.96	-5540401.75	-5540401.53	0.0146	0.0008
Venus	-19882-10-30 06:00 J	-5540175.45	-5540175.25	-5540175.04	0.0146	0.0045
Venus	-19881-06-12 18:14 J	-5539948.92	-5539948.74	-5539948.56	0.0146	0.0081
Venus	-19880-01-25 06:14 J	-5539722.36	-5539722.24	-5539722.10	0.0146	0.0118
Moon	-19872-11-22 19:11 J	-5536498.92	-5536498.70	-5536498.46	0.0142	0.0068
Earth	-19872-11-22 22:33 J	-5536498.77	-5536498.56	-5536498.33	0.0142	0.0074 *
Earth	-19871-11-27 23:02 J	-5536128.79	-5536128.54	-5536128.27	0.0142	0.0013
Moon	-19871-11-28 01:40 J	-5536128.68	-5536128.43	-5536128.18	0.0142	0.0005 *
Moon	-19870-12-02 21:07 J	-5535758.80	-5535758.62	-5535758.43	0.0141	0.0103
Earth	-19870-12-02 22:48 J	-5535758.73	-5535758.55	-5535758.35	0.0141	0.0096 *
Mercury	-19863-10-19 20:52 J	-5533245.72	-5533245.63	-5533245.52	0.0138	0.0118
Mercury	-19862-01-16 04:04 J	-5533157.46	-5533157.33	-5533157.17	0.0137	0.0090
Mercury	-19862-04-14 11:45 J	-5533069.17	-5533069.01	-5533068.83	0.0137	0.0061
Mercury	-19862-07-11 19:11 J	-5532980.88	-5532980.70	-5532980.51	0.0137	0.0032
Mercury	-19862-10-08 02:23 J	-5532892.59	-5532892.40	-5532892.21	0.0137	0.0005
Mercury	-19861-01-04 09:36 J	-5532804.28	-5532804.10	-5532803.91	0.0137	0.0024
Mercury	-19861-04-01 16:48 J	-5532715.97	-5532715.80	-5532715.62	0.0137	0.0051
Mercury	-19861-06-28 23:45 J	-5532627.65	-5532627.51	-5532627.34	0.0137	0.0079
Mercury	-19861-09-25 06:43 J	-5532539.32	-5532539.22	-5532539.09	0.0137	0.0106
Mercury	-19861-12-22 13:40 J	-5532450.95	-5532450.93	-5532450.87	0.0136	0.0133
Mars	-19854-11-16 10:04 J	-5529931.37	-5529931.08	-5529930.78	0.0134	0.0015
Venus	-19843-11-15 18:43 J	-5525913.75	-5525913.72	-5525913.67	0.0132	0.0129
Venus	-19842-06-30 00:14 J	-5525687.62	-5525687.49	-5525687.34	0.0132	0.0102
Venus	-19841-02-11 05:45 J	-5525461.43	-5525461.26	-5525461.07	0.0132	0.0075
Venus	-19841-09-24 11:31 J	-5525235.22	-5525235.02	-5525234.81	0.0132	0.0047
Venus	-19840-05-08 16:48 J	-5525009.01	-5525008.80	-5525008.57	0.0132	0.0020
Venus	-19840-12-20 22:33 J	-5524782.78	-5524782.56	-5524782.34	0.0132	0.0008

Venus	-19839-08-04 04:04 J	-5524556.54	-5524556.33	-5524556.12	0.0132	0.0036
Venus	-19838-03-18 09:07 J	-5524330.30	-5524330.12	-5524329.91	0.0132	0.0064
Venus	-19838-10-30 14:38 J	-5524104.04	-5524103.89	-5524103.72	0.0133	0.0091
Venus	-19837-06-12 19:40 J	-5523877.75	-5523877.68	-5523877.56	0.0133	0.0119
Moon	-19828-05-20 22:33 J	-5520613.58	-5520613.56	-5520613.50	0.0136	0.0134
Earth	-19827-05-25 09:50 J	-5520244.29	-5520244.09	-5520243.86	0.0136	0.0068
Moon	-19827-05-25 13:26 J	-5520244.14	-5520243.94	-5520243.71	0.0136	0.0069 *
Moon	-19826-05-29 15:07 J	-5519875.12	-5519874.87	-5519874.62	0.0137	0.0005
Earth	-19826-05-29 18:28 J	-5519874.97	-5519874.73	-5519874.48	0.0137	0.0006 *
Earth	-19825-06-02 03:21 J	-5519505.56	-5519505.36	-5519505.16	0.0137	0.0079
Moon	-19825-06-02 06:14 J	-5519505.42	-5519505.24	-5519505.03	0.0137	0.0084 *
Mercury	-19819-12-24 08:52 J	-5517109.17	-5517109.13	-5517109.07	0.0141	0.0129
Mercury	-19818-03-22 12:14 J	-5517021.06	-5517020.99	-5517020.90	0.0141	0.0108
Mercury	-19818-06-18 15:50 J	-5516932.94	-5516932.84	-5516932.73	0.0141	0.0087
Mercury	-19818-09-14 19:11 J	-5516844.81	-5516844.70	-5516844.58	0.0141	0.0066
Mercury	-19818-12-11 22:48 J	-5516756.67	-5516756.55	-5516756.42	0.0141	0.0045
Mercury	-19817-03-09 02:23 J	-5516668.53	-5516668.40	-5516668.27	0.0141	0.0023
Mercury	-19817-06-05 05:45 J	-5516580.39	-5516580.26	-5516580.12	0.0142	0.0005
Mercury	-19817-09-01 09:21 J	-5516492.24	-5516492.11	-5516491.97	0.0142	0.0020
Mercury	-19817-11-28 12:57 J	-5516404.09	-5516403.96	-5516403.83	0.0142	0.0042
Mercury	-19816-02-24 16:33 J	-5516315.93	-5516315.81	-5516315.69	0.0142	0.0064
Mercury	-19816-05-23 20:09 J	-5516227.76	-5516227.66	-5516227.55	0.0142	0.0086
Mercury	-19816-08-19 23:45 J	-5516139.59	-5516139.51	-5516139.42	0.0142	0.0108
Mercury	-19816-11-16 03:36 J	-5516051.40	-5516051.35	-5516051.30	0.0142	0.0131
Mars	-19809-03-02 19:40 J	-5513752.96	-5513752.68	-5513752.38	0.0145	0.0058
Venus	-19800-01-04 11:02 J	-5510523.14	-5510523.04	-5510522.90	0.0146	0.0121
Venus	-19800-08-18 23:31 J	-5510296.69	-5510296.52	-5510296.34	0.0146	0.0084
Venus	-19799-04-02 11:45 J	-5510070.22	-5510070.01	-5510069.81	0.0146	0.0047
Venus	-19799-11-14 23:45 J	-5509843.72	-5509843.51	-5509843.29	0.0146	0.0010
Venus	-19798-06-29 12:00 J	-5509617.21	-5509617.00	-5509616.79	0.0146	0.0027

Venus	-19797-02-11 00:00 J	-5509390.69	-5509390.50	-5509390.30	0.0146	0.0064
Venus	-19797-09-24 11:45 J	-5509164.15	-5509164.01	-5509163.84	0.0146	0.0101
Venus	-19796-05-09 00:00 J	-5508937.56	-5508937.50	-5508937.42	0.0146	0.0137
Moon	-19788-11-23 04:19 J	-5505817.54	-5505817.32	-5505817.09	0.0142	0.0073
Earth	-19788-11-23 07:26 J	-5505817.40	-5505817.19	-5505816.95	0.0142	0.0069 *
Earth	-19787-11-28 08:09 J	-5505447.41	-5505447.16	-5505446.90	0.0142	0.0017
Moon	-19787-11-28 11:02 J	-5505447.28	-5505447.04	-5505446.78	0.0142	0.0024 *
Moon	-19786-12-03 05:16 J	-5505077.47	-5505077.28	-5505077.07	0.0141	0.0093
Earth	-19786-12-03 08:09 J	-5505077.34	-5505077.16	-5505076.97	0.0141	0.0100 *
Mercury	-19779-11-09 03:36 J	-5502544.44	-5502544.35	-5502544.22	0.0137	0.0112
Mercury	-19778-02-05 11:16 J	-5502456.17	-5502456.03	-5502455.87	0.0137	0.0083
Mercury	-19778-05-04 18:43 J	-5502367.89	-5502367.72	-5502367.54	0.0137	0.0054
Mercury	-19778-08-01 02:09 J	-5502279.60	-5502279.41	-5502279.22	0.0137	0.0026
Mercury	-19778-10-28 09:21 J	-5502191.30	-5502191.11	-5502190.92	0.0137	0.0003
Mercury	-19777-01-24 16:33 J	-5502102.99	-5502102.81	-5502102.62	0.0137	0.0030
Mercury	-19777-04-21 23:45 J	-5502014.68	-5502014.51	-5502014.33	0.0137	0.0057
Mercury	-19777-07-19 06:43 J	-5501926.36	-5501926.22	-5501926.06	0.0137	0.0085
Mercury	-19777-10-15 13:55 J	-5501838.02	-5501837.92	-5501837.81	0.0137	0.0112
Mars	-19771-08-10 13:55 J	-5499712.92	-5499712.92	-5499712.88	0.0134	0.0134
Mars	-19769-07-10 21:50 J	-5499012.85	-5499012.59	-5499012.30	0.0133	0.0051
Venus	-19758-02-27 10:19 J	-5495129.17	-5495129.07	-5495128.95	0.0132	0.0114
Venus	-19758-10-11 15:36 J	-5494903.00	-5494902.85	-5494902.67	0.0132	0.0088
Venus	-19757-05-24 21:21 J	-5494676.80	-5494676.61	-5494676.41	0.0132	0.0060
Venus	-19756-01-06 02:52 J	-5494450.58	-5494450.38	-5494450.16	0.0132	0.0032
Venus	-19756-08-20 08:38 J	-5494224.36	-5494224.14	-5494223.92	0.0132	0.0004
Venus	-19755-04-03 13:55 J	-5493998.13	-5493997.92	-5493997.70	0.0132	0.0024
Venus	-19755-11-15 19:11 J	-5493771.89	-5493771.70	-5493771.49	0.0132	0.0052
Venus	-19754-06-30 00:28 J	-5493545.64	-5493545.48	-5493545.29	0.0133	0.0080
Venus	-19753-02-11 06:00 J	-5493319.37	-5493319.25	-5493319.11	0.0133	0.0107
Earth	-19744-05-21 13:40 J	-5489931.97	-5489931.93	-5489931.88	0.0136	0.0133

Earth	-19743-05-25 21:07 J	-5489562.83	-5489562.62	-5489562.38	0.0136	0.0063
Moon	-19743-05-26 00:43 J	-5489562.69	-5489562.47	-5489562.24	0.0136	0.0060 *
Moon	-19742-05-30 02:09 J	-5489193.66	-5489193.41	-5489193.16	0.0137	0.0012
Earth	-19742-05-30 05:45 J	-5489193.51	-5489193.26	-5489193.01	0.0137	0.0010 *
Earth	-19741-06-02 14:23 J	-5488824.09	-5488823.90	-5488823.70	0.0137	0.0083
Moon	-19741-06-02 17:45 J	-5488823.94	-5488823.76	-5488823.54	0.0137	0.0080 *
Mercury	-19734-01-13 16:19 J	-5486407.88	-5486407.82	-5486407.75	0.0141	0.0123
Mercury	-19734-04-11 19:40 J	-5486319.76	-5486319.68	-5486319.58	0.0141	0.0102
Mercury	-19734-07-08 23:16 J	-5486231.64	-5486231.53	-5486231.42	0.0141	0.0081
Mercury	-19734-10-05 02:52 J	-5486143.50	-5486143.38	-5486143.26	0.0141	0.0060
Mercury	-19733-01-01 06:14 J	-5486055.36	-5486055.24	-5486055.11	0.0141	0.0039
Mercury	-19733-03-29 09:50 J	-5485967.22	-5485967.09	-5485966.96	0.0141	0.0017
Mercury	-19733-06-25 13:26 J	-5485879.08	-5485878.94	-5485878.81	0.0142	0.0006
Mercury	-19733-09-21 16:48 J	-5485790.93	-5485790.80	-5485790.66	0.0142	0.0027
Mercury	-19733-12-18 20:23 J	-5485702.77	-5485702.65	-5485702.52	0.0142	0.0049
Mercury	-19732-03-17 00:00 J	-5485614.61	-5485614.50	-5485614.38	0.0142	0.0071
Mercury	-19732-06-13 03:36 J	-5485526.44	-5485526.35	-5485526.24	0.0142	0.0093
Mercury	-19732-09-09 07:11 J	-5485438.27	-5485438.20	-5485438.11	0.0142	0.0115
Mercury	-19732-12-06 11:02 J	-5485350.07	-5485350.04	-5485350.01	0.0142	0.0137
Mars	-19727-11-22 17:16 J	-5483537.98	-5483537.78	-5483537.56	0.0145	0.0108
Venus	-19717-09-03 18:57 J	-5479964.77	-5479964.71	-5479964.61	0.0146	0.0137
Venus	-19716-04-18 07:11 J	-5479738.35	-5479738.20	-5479738.03	0.0146	0.0100
Venus	-19716-11-30 19:26 J	-5479511.88	-5479511.69	-5479511.49	0.0146	0.0063
Venus	-19715-07-15 07:40 J	-5479285.39	-5479285.18	-5479284.96	0.0146	0.0026
Venus	-19714-02-26 19:55 J	-5479058.89	-5479058.67	-5479058.46	0.0146	0.0011
Venus	-19714-10-11 07:55 J	-5478832.37	-5478832.17	-5478831.97	0.0146	0.0048
Venus	-19713-05-24 19:55 J	-5478605.84	-5478605.67	-5478605.49	0.0146	0.0085
Venus	-19712-01-06 07:40 J	-5478379.28	-5478379.18	-5478379.05	0.0146	0.0122
Moon	-19704-11-23 16:04 J	-5475136.05	-5475135.83	-5475135.57	0.0142	0.0058
Earth	-19704-11-23 19:55 J	-5475135.89	-5475135.67	-5475135.43	0.0142	0.0062 *

Earth	-19703-11-28 20:52 J	-5474765.89	-5474765.63	-5474765.38	0.0142	0.0023
Moon	-19703-11-28 23:45 J	-5474765.75	-5474765.51	-5474765.25	0.0142	0.0017 *
Moon	-19702-12-03 17:45 J	-5474395.90	-5474395.76	-5474395.59	0.0141	0.0113
Earth	-19702-12-03 20:38 J	-5474395.80	-5474395.64	-5474395.47	0.0141	0.0106 *
Mercury	-19695-09-02 04:04 J	-5471931.38	-5471931.33	-5471931.26	0.0138	0.0131
Mercury	-19695-11-29 11:31 J	-5471843.13	-5471843.02	-5471842.88	0.0137	0.0102
Mercury	-19694-02-25 19:11 J	-5471754.86	-5471754.70	-5471754.54	0.0137	0.0074
Mercury	-19694-05-25 02:23 J	-5471666.57	-5471666.40	-5471666.21	0.0137	0.0046
Mercury	-19694-08-21 09:50 J	-5471578.28	-5471578.09	-5471577.90	0.0137	0.0017
Mercury	-19694-11-17 17:16 J	-5471489.97	-5471489.78	-5471489.59	0.0137	0.0011
Mercury	-19693-02-14 00:14 J	-5471401.66	-5471401.49	-5471401.30	0.0137	0.0039
Mercury	-19693-05-12 07:40 J	-5471313.35	-5471313.18	-5471313.02	0.0137	0.0066
Mercury	-19693-08-08 14:23 J	-5471225.02	-5471224.90	-5471224.75	0.0137	0.0094
Mercury	-19693-11-04 21:36 J	-5471136.68	-5471136.60	-5471136.50	0.0136	0.0120
Mars	-19686-04-05 04:48 J	-5468794.54	-5468794.30	-5468794.03	0.0134	0.0067
Mars	-19684-03-05 13:55 J	-5468094.05	-5468093.92	-5468093.78	0.0133	0.0118
Venus	-19675-10-27 21:07 J	-5464570.67	-5464570.62	-5464570.54	0.0132	0.0126
Venus	-19674-06-11 02:38 J	-5464344.52	-5464344.39	-5464344.23	0.0132	0.0099
Venus	-19673-01-23 08:23 J	-5464118.33	-5464118.15	-5464117.96	0.0132	0.0071
Venus	-19673-09-05 13:55 J	-5463892.12	-5463891.92	-5463891.70	0.0132	0.0044
Venus	-19672-04-19 19:26 J	-5463665.91	-5463665.69	-5463665.47	0.0132	0.0016
Venus	-19672-12-02 00:57 J	-5463439.68	-5463439.46	-5463439.24	0.0132	0.0012
Venus	-19671-07-16 06:00 J	-5463213.45	-5463213.25	-5463213.03	0.0132	0.0041
Venus	-19670-02-27 11:45 J	-5462987.20	-5462987.01	-5462986.82	0.0133	0.0068
Venus	-19670-10-11 16:48 J	-5462760.94	-5462760.80	-5462760.64	0.0133	0.0096
Venus	-19669-05-24 21:50 J	-5462534.64	-5462534.59	-5462534.49	0.0133	0.0124
Moon	-19660-05-21 22:33 J	-5459250.65	-5459250.56	-5459250.43	0.0136	0.0122
Earth	-19660-05-22 02:09 J	-5459250.48	-5459250.41	-5459250.31	0.0136	0.0127 *
Earth	-19659-05-26 10:04 J	-5458881.31	-5458881.08	-5458880.85	0.0136	0.0056
Moon	-19659-05-26 13:40 J	-5458881.15	-5458880.93	-5458880.70	0.0136	0.0058 *

Moon	-19658-05-30 14:52 J	-5458512.13	-5458511.88	-5458511.63	0.0137	0.0017
Earth	-19658-05-30 18:14 J	-5458511.98	-5458511.74	-5458511.49	0.0137	0.0017 *
Earth	-19657-06-03 02:52 J	-5458142.56	-5458142.38	-5458142.18	0.0137	0.0089
Moon	-19657-06-03 06:14 J	-5458142.40	-5458142.24	-5458142.04	0.0137	0.0094 *
Mercury	-19651-11-06 20:38 J	-5455794.67	-5455794.64	-5455794.60	0.0141	0.0136
Mercury	-19650-02-03 00:14 J	-5455706.57	-5455706.49	-5455706.42	0.0141	0.0115
Mercury	-19650-05-02 03:36 J	-5455618.45	-5455618.35	-5455618.25	0.0141	0.0094
Mercury	-19650-07-29 06:57 J	-5455530.32	-5455530.21	-5455530.09	0.0141	0.0073
Mercury	-19650-10-25 10:33 J	-5455442.18	-5455442.06	-5455441.94	0.0141	0.0052
Mercury	-19649-01-21 13:55 J	-5455354.04	-5455353.92	-5455353.78	0.0141	0.0031
Mercury	-19649-04-18 17:31 J	-5455265.90	-5455265.77	-5455265.63	0.0142	0.0010
Mercury	-19649-07-15 21:07 J	-5455177.75	-5455177.62	-5455177.49	0.0142	0.0012
Mercury	-19649-10-12 00:28 J	-5455089.60	-5455089.48	-5455089.34	0.0142	0.0035
Mercury	-19648-01-08 04:19 J	-5455001.45	-5455001.32	-5455001.20	0.0142	0.0056
Mercury	-19648-04-06 07:55 J	-5454913.28	-5454913.17	-5454913.06	0.0142	0.0078
Mercury	-19648-07-03 11:31 J	-5454825.11	-5454825.02	-5454824.93	0.0142	0.0101
Mercury	-19648-09-29 14:52 J	-5454736.93	-5454736.88	-5454736.80	0.0142	0.0124
Mars	-19642-07-20 00:14 J	-5452617.80	-5452617.49	-5452617.17	0.0145	0.0014
Venus	-19633-12-16 16:19 J	-5449179.95	-5449179.82	-5449179.68	0.0147	0.0115
Venus	-19632-07-31 04:19 J	-5448953.49	-5448953.32	-5448953.13	0.0146	0.0078
Venus	-19631-03-14 16:33 J	-5448727.01	-5448726.81	-5448726.60	0.0146	0.0041
Venus	-19631-10-27 04:48 J	-5448500.52	-5448500.30	-5448500.09	0.0146	0.0004
Venus	-19630-06-10 16:48 J	-5448274.01	-5448273.80	-5448273.59	0.0146	0.0033
Venus	-19629-01-23 04:48 J	-5448047.49	-5448047.30	-5448047.11	0.0146	0.0071
Venus	-19629-09-05 16:48 J	-5447820.94	-5447820.80	-5447820.65	0.0146	0.0107
Venus	-19628-04-20 04:33 J	-5447594.32	-5447594.31	-5447594.26	0.0146	0.0144
Earth	-19621-11-19 07:55 J	-5444824.20	-5444824.17	-5444824.10	0.0143	0.0140
Moon	-19621-11-19 12:00 J	-5444824.04	-5444824.00	-5444823.93	0.0143	0.0139
Moon	-19620-11-24 06:14 J	-5444454.47	-5444454.24	-5444453.99	0.0142	0.0058
Earth	-19620-11-24 09:36 J	-5444454.32	-5444454.10	-5444453.84	0.0142	0.0055 *

Earth	-19619-11-29 10:19 J	-5444084.31	-5444084.07	-5444083.81	0.0142	0.0031
Moon	-19619-11-29 13:40 J	-5444084.16	-5444083.93	-5444083.67	0.0142	0.0039 *
Moon	-19618-12-04 06:57 J	-5443714.37	-5443714.21	-5443714.03	0.0141	0.0106
Earth	-19618-12-04 10:04 J	-5443714.22	-5443714.08	-5443713.91	0.0141	0.0114 *
Mercury	-19611-09-22 12:14 J	-5441230.07	-5441229.99	-5441229.89	0.0137	0.0120
Mercury	-19611-12-19 19:55 J	-5441141.81	-5441141.67	-5441141.53	0.0137	0.0092
Mercury	-19610-03-18 03:07 J	-5441053.53	-5441053.37	-5441053.19	0.0137	0.0063
Mercury	-19610-06-14 10:33 J	-5440965.24	-5440965.06	-5440964.87	0.0137	0.0035
Mercury	-19610-09-10 18:00 J	-5440876.94	-5440876.75	-5440876.56	0.0137	0.0007
Mercury	-19610-12-08 01:11 J	-5440788.63	-5440788.45	-5440788.26	0.0137	0.0022
Mercury	-19609-03-05 08:23 J	-5440700.32	-5440700.15	-5440699.97	0.0137	0.0049
Mercury	-19609-06-01 15:36 J	-5440612.00	-5440611.85	-5440611.69	0.0137	0.0076
Mercury	-19609-08-28 22:33 J	-5440523.67	-5440523.56	-5440523.43	0.0136	0.0104
Mercury	-19609-11-25 05:45 J	-5440435.30	-5440435.26	-5440435.20	0.0136	0.0130
Mars	-19602-11-28 21:50 J	-5437875.89	-5437875.59	-5437875.29	0.0134	0.0001
Venus	-19590-02-08 13:40 J	-5433786.04	-5433785.93	-5433785.80	0.0132	0.0110
Venus	-19590-09-22 19:26 J	-5433559.86	-5433559.69	-5433559.52	0.0132	0.0083
Venus	-19589-05-06 00:28 J	-5433333.67	-5433333.48	-5433333.27	0.0132	0.0055
Venus	-19589-12-18 06:14 J	-5433107.45	-5433107.24	-5433107.02	0.0132	0.0027
Venus	-19588-08-01 11:45 J	-5432881.23	-5432881.01	-5432880.79	0.0132	0.0003
Venus	-19587-03-15 17:02 J	-5432655.00	-5432654.79	-5432654.58	0.0132	0.0029
Venus	-19587-10-27 22:19 J	-5432428.77	-5432428.57	-5432428.37	0.0132	0.0057
Venus	-19586-06-11 03:21 J	-5432202.52	-5432202.36	-5432202.18	0.0133	0.0085
Venus	-19585-01-23 08:38 J	-5431976.24	-5431976.14	-5431976.01	0.0133	0.0113
Moon	-19576-05-22 09:21 J	-5428569.17	-5428569.11	-5428569.01	0.0136	0.0128
Earth	-19576-05-22 12:57 J	-5428569.05	-5428568.96	-5428568.83	0.0136	0.0122 *
Earth	-19575-05-26 20:38 J	-5428199.86	-5428199.64	-5428199.40	0.0136	0.0052
Moon	-19575-05-27 00:00 J	-5428199.73	-5428199.50	-5428199.26	0.0136	0.0048 *
Moon	-19574-05-31 01:11 J	-5427830.69	-5427830.45	-5427830.20	0.0137	0.0022
Earth	-19574-05-31 04:48 J	-5427830.54	-5427830.30	-5427830.04	0.0137	0.0021 *

Earth	-19573-06-03 13:26 J	-5427461.11	-5427460.94	-5427460.74	0.0137	0.0093
Moon	-19573-06-03 16:48 J	-5427460.97	-5427460.80	-5427460.59	0.0137	0.0091 *
Mercury	-19567-11-27 03:50 J	-5425093.38	-5425093.34	-5425093.28	0.0141	0.0131
Mercury	-19566-02-23 07:26 J	-5425005.27	-5425005.19	-5425005.11	0.0141	0.0110
Mercury	-19566-05-22 10:48 J	-5424917.15	-5424917.05	-5424916.94	0.0141	0.0089
Mercury	-19566-08-18 14:09 J	-5424829.02	-5424828.91	-5424828.78	0.0141	0.0069
Mercury	-19566-11-14 18:00 J	-5424740.88	-5424740.75	-5424740.63	0.0141	0.0047
Mercury	-19565-02-10 21:21 J	-5424652.74	-5424652.61	-5424652.48	0.0141	0.0025
Mercury	-19565-05-09 00:57 J	-5424564.59	-5424564.46	-5424564.33	0.0142	0.0004
Mercury	-19565-08-05 04:33 J	-5424476.45	-5424476.31	-5424476.18	0.0142	0.0018
Mercury	-19565-11-01 08:09 J	-5424388.29	-5424388.16	-5424388.04	0.0142	0.0040
Mercury	-19564-01-28 11:31 J	-5424300.14	-5424300.02	-5424299.89	0.0142	0.0062
Mercury	-19564-04-26 15:07 J	-5424211.97	-5424211.87	-5424211.76	0.0142	0.0084
Mercury	-19564-07-23 18:57 J	-5424123.80	-5424123.71	-5424123.62	0.0142	0.0106
Mercury	-19564-10-19 22:19 J	-5424035.61	-5424035.57	-5424035.51	0.0142	0.0129
Mars	-19557-03-15 02:38 J	-5421697.64	-5421697.39	-5421697.11	0.0145	0.0078
Jupiter	-19551-02-18 14:23 J	-5419531.37	-5419530.90	-5419530.41	0.0147	0.0056
Venus	-19549-08-16 00:28 J	-5418621.57	-5418621.48	-5418621.38	0.0147	0.0131
Venus	-19548-03-30 12:28 J	-5418395.13	-5418394.98	-5418394.80	0.0147	0.0094
Venus	-19548-11-12 00:43 J	-5418168.66	-5418168.47	-5418168.27	0.0147	0.0057
Venus	-19547-06-26 12:57 J	-5417942.17	-5417941.96	-5417941.74	0.0146	0.0019
Venus	-19546-02-08 01:11 J	-5417715.67	-5417715.45	-5417715.24	0.0146	0.0018
Venus	-19546-09-22 13:11 J	-5417489.15	-5417488.95	-5417488.75	0.0146	0.0056
Venus	-19545-05-06 00:57 J	-5417262.61	-5417262.46	-5417262.28	0.0146	0.0093
Venus	-19545-12-18 12:57 J	-5417036.04	-5417035.96	-5417035.84	0.0146	0.0130
Earth	-19537-11-19 23:02 J	-5414142.64	-5414142.54	-5414142.44	0.0143	0.0131
Moon	-19537-11-20 02:23 J	-5414142.49	-5414142.40	-5414142.29	0.0143	0.0132 *
Moon	-19536-11-24 20:23 J	-5413772.89	-5413772.65	-5413772.39	0.0142	0.0041
Earth	-19536-11-25 00:14 J	-5413772.72	-5413772.49	-5413772.23	0.0142	0.0046 *
Earth	-19535-11-30 00:57 J	-5413402.70	-5413402.46	-5413402.20	0.0142	0.0039

Moon	-19535-11-30 04:33 J	-5413402.56	-5413402.31	-5413402.06	0.0142	0.0032 *
Moon	-19534-12-04 21:07 J	-5413032.70	-5413032.62	-5413032.49	0.0141	0.0129
Earth	-19534-12-05 00:28 J	-5413032.59	-5413032.48	-5413032.33	0.0141	0.0122 *
Mercury	-19527-07-16 13:26 J	-5410616.94	-5410616.94	-5410616.94	0.0138	0.0138
Mercury	-19527-10-12 20:52 J	-5410528.74	-5410528.63	-5410528.51	0.0137	0.0109
Mercury	-19526-01-09 04:04 J	-5410440.47	-5410440.33	-5410440.16	0.0137	0.0081
Mercury	-19526-04-07 11:45 J	-5410352.18	-5410352.01	-5410351.83	0.0137	0.0052
Mercury	-19526-07-04 19:11 J	-5410263.89	-5410263.70	-5410263.51	0.0137	0.0023
Mercury	-19526-10-01 02:23 J	-5410175.58	-5410175.40	-5410175.20	0.0137	0.0006
Mercury	-19526-12-28 09:36 J	-5410087.28	-5410087.10	-5410086.91	0.0137	0.0033
Mercury	-19525-03-25 17:02 J	-5409998.96	-5409998.79	-5409998.62	0.0137	0.0060
Mercury	-19525-06-22 00:00 J	-5409910.64	-5409910.50	-5409910.35	0.0137	0.0088
Mercury	-19525-09-18 06:57 J	-5409822.30	-5409822.21	-5409822.10	0.0136	0.0115
Mars	-19519-08-23 08:09 J	-5407657.31	-5407657.16	-5407657.01	0.0134	0.0114
Mars	-19517-07-23 15:21 J	-5406957.11	-5406956.86	-5406956.60	0.0133	0.0069
Jupiter	-19510-12-08 02:52 J	-5404263.69	-5404263.38	-5404263.03	0.0132	0.0100
Venus	-19507-10-09 00:28 J	-5403227.54	-5403227.48	-5403227.38	0.0132	0.0122
Venus	-19506-05-23 06:00 J	-5403001.39	-5403001.25	-5403001.08	0.0132	0.0094
Venus	-19505-01-04 11:45 J	-5402775.20	-5402775.01	-5402774.82	0.0132	0.0066
Venus	-19505-08-17 17:16 J	-5402548.99	-5402548.78	-5402548.57	0.0132	0.0038
Venus	-19504-03-31 22:33 J	-5402322.78	-5402322.56	-5402322.34	0.0132	0.0011
Venus	-19504-11-13 03:50 J	-5402096.56	-5402096.34	-5402096.12	0.0132	0.0017
Venus	-19503-06-27 08:52 J	-5401870.33	-5401870.13	-5401869.92	0.0132	0.0045
Venus	-19502-02-08 14:09 J	-5401644.08	-5401643.91	-5401643.71	0.0132	0.0074
Venus	-19502-09-22 19:40 J	-5401417.82	-5401417.68	-5401417.54	0.0133	0.0101
Venus	-19501-05-06 00:43 J	-5401191.51	-5401191.47	-5401191.41	0.0133	0.0129
Moon	-19492-05-22 21:21 J	-5397887.74	-5397887.61	-5397887.47	0.0136	0.0111
Earth	-19492-05-23 00:00 J	-5397887.60	-5397887.50	-5397887.35	0.0136	0.0117 *
Earth	-19491-05-27 07:26 J	-5397518.41	-5397518.19	-5397517.94	0.0136	0.0047
Moon	-19491-05-27 11:16 J	-5397518.27	-5397518.03	-5397517.80	0.0136	0.0049 *

Moon	-19490-05-31 12:43 J	-5397149.21	-5397148.97	-5397148.73	0.0137	0.0026
Earth	-19490-05-31 15:50 J	-5397149.09	-5397148.84	-5397148.59	0.0137	0.0025 *
Earth	-19489-06-04 00:00 J	-5396779.66	-5396779.50	-5396779.31	0.0137	0.0098
Moon	-19489-06-04 03:36 J	-5396779.51	-5396779.35	-5396779.17	0.0137	0.0102 *
Mercury	-19483-12-17 11:02 J	-5394392.09	-5394392.04	-5394391.97	0.0141	0.0126
Mercury	-19482-03-15 14:38 J	-5394303.97	-5394303.89	-5394303.80	0.0141	0.0105
Mercury	-19482-06-11 18:00 J	-5394215.85	-5394215.75	-5394215.64	0.0141	0.0084
Mercury	-19482-09-07 21:36 J	-5394127.72	-5394127.60	-5394127.48	0.0141	0.0063
Mercury	-19482-12-05 01:11 J	-5394039.58	-5394039.45	-5394039.32	0.0141	0.0041
Mercury	-19481-03-02 04:33 J	-5393951.44	-5393951.31	-5393951.17	0.0141	0.0020
Mercury	-19481-05-29 08:09 J	-5393863.29	-5393863.16	-5393863.03	0.0142	0.0002
Mercury	-19481-08-25 11:45 J	-5393775.14	-5393775.01	-5393774.88	0.0142	0.0023
Mercury	-19481-11-21 15:21 J	-5393686.99	-5393686.86	-5393686.74	0.0142	0.0045
Mercury	-19480-02-17 18:57 J	-5393598.83	-5393598.71	-5393598.59	0.0142	0.0067
Mercury	-19480-05-16 22:33 J	-5393510.67	-5393510.56	-5393510.46	0.0142	0.0089
Mercury	-19480-08-13 02:09 J	-5393422.49	-5393422.41	-5393422.33	0.0142	0.0112
Mercury	-19480-11-09 05:31 J	-5393334.30	-5393334.27	-5393334.22	0.0142	0.0135
Mars	-19475-12-04 18:00 J	-5391482.98	-5391482.75	-5391482.49	0.0145	0.0091
Venus	-19465-11-27 19:11 J	-5387836.83	-5387836.70	-5387836.56	0.0147	0.0111
Venus	-19464-07-12 07:26 J	-5387610.37	-5387610.19	-5387610.00	0.0147	0.0074
Venus	-19463-02-23 19:26 J	-5387383.89	-5387383.69	-5387383.47	0.0147	0.0037
Venus	-19463-10-08 07:40 J	-5387157.39	-5387157.18	-5387156.96	0.0147	0.0003
Venus	-19462-05-22 19:40 J	-5386930.88	-5386930.68	-5386930.46	0.0146	0.0039
Venus	-19461-01-04 07:55 J	-5386704.35	-5386704.17	-5386703.98	0.0146	0.0076
Venus	-19461-08-17 20:09 J	-5386477.79	-5386477.66	-5386477.52	0.0146	0.0114
Earth	-19453-11-20 10:48 J	-5383461.15	-5383461.05	-5383460.90	0.0143	0.0125
Moon	-19453-11-20 14:52 J	-5383461.00	-5383460.88	-5383460.75	0.0143	0.0124 *
Moon	-19452-11-25 09:07 J	-5383091.35	-5383091.12	-5383090.86	0.0142	0.0044
Earth	-19452-11-25 12:43 J	-5383091.21	-5383090.97	-5383090.71	0.0142	0.0040 *
Earth	-19451-11-30 13:26 J	-5382721.18	-5382720.94	-5382720.69	0.0142	0.0045

Moon	-19451-11-30 17:02 J	-5382721.02	-5382720.79	-5382720.54	0.0142	0.0053 *
Moon	-19450-12-05 09:36 J	-5382351.23	-5382351.10	-5382350.96	0.0141	0.0120
Earth	-19450-12-05 12:57 J	-5382351.05	-5382350.96	-5382350.83	0.0141	0.0128 *
Mercury	-19443-08-05 21:07 J	-5379915.67	-5379915.62	-5379915.53	0.0138	0.0128
Mercury	-19443-11-02 04:48 J	-5379827.42	-5379827.30	-5379827.16	0.0137	0.0099
Mercury	-19442-01-29 12:28 J	-5379739.14	-5379738.98	-5379738.81	0.0137	0.0070
Mercury	-19442-04-27 19:55 J	-5379650.85	-5379650.67	-5379650.49	0.0137	0.0041
Mercury	-19442-07-25 03:21 J	-5379562.55	-5379562.36	-5379562.17	0.0137	0.0013
Mercury	-19442-10-21 10:33 J	-5379474.24	-5379474.06	-5379473.87	0.0137	0.0015
Mercury	-19441-01-17 17:45 J	-5379385.93	-5379385.76	-5379385.57	0.0137	0.0043
Mercury	-19441-04-15 00:57 J	-5379297.61	-5379297.46	-5379297.29	0.0137	0.0070
Mercury	-19441-07-12 08:09 J	-5379209.29	-5379209.16	-5379209.02	0.0137	0.0098
Mercury	-19441-10-08 15:07 J	-5379120.93	-5379120.87	-5379120.78	0.0136	0.0125
Mars	-19434-04-18 00:43 J	-5376738.73	-5376738.47	-5376738.18	0.0134	0.0048
Venus	-19422-01-20 16:48 J	-5372442.91	-5372442.80	-5372442.65	0.0132	0.0106
Venus	-19422-09-03 22:19 J	-5372216.74	-5372216.57	-5372216.38	0.0132	0.0078
Venus	-19421-04-17 03:36 J	-5371990.55	-5371990.35	-5371990.14	0.0132	0.0050
Venus	-19421-11-29 09:07 J	-5371764.34	-5371764.12	-5371763.90	0.0132	0.0022
Venus	-19420-07-13 14:23 J	-5371538.12	-5371537.90	-5371537.68	0.0132	0.0006
Venus	-19419-02-24 19:26 J	-5371311.89	-5371311.69	-5371311.47	0.0132	0.0034
Venus	-19419-10-09 00:28 J	-5371085.66	-5371085.48	-5371085.27	0.0132	0.0062
Venus	-19418-05-23 06:00 J	-5370859.41	-5370859.25	-5370859.09	0.0132	0.0090
Venus	-19417-01-04 11:02 J	-5370633.12	-5370633.04	-5370632.92	0.0132	0.0118
Moon	-19408-05-23 06:43 J	-5367206.32	-5367206.22	-5367206.09	0.0136	0.0119
Earth	-19408-05-23 09:50 J	-5367206.22	-5367206.09	-5367205.94	0.0136	0.0113 *
Earth	-19407-05-27 17:02 J	-5366837.02	-5366836.79	-5366836.55	0.0136	0.0043
Moon	-19407-05-27 19:55 J	-5366836.91	-5366836.67	-5366836.42	0.0136	0.0039 *
Moon	-19406-05-31 21:50 J	-5366467.83	-5366467.59	-5366467.35	0.0137	0.0028
Earth	-19406-06-01 00:57 J	-5366467.70	-5366467.46	-5366467.21	0.0137	0.0028 *
Earth	-19405-06-04 08:52 J	-5366098.28	-5366098.13	-5366097.94	0.0137	0.0101

Moon	-19405-06-04 12:14 J	-5366098.15	-5366097.99	-5366097.80	0.0137	0.0098 *
Mercury	-19398-01-06 18:00 J	-5363690.81	-5363690.75	-5363690.68	0.0141	0.0123
Mercury	-19398-04-04 21:21 J	-5363602.69	-5363602.61	-5363602.51	0.0141	0.0102
Mercury	-19398-07-02 00:57 J	-5363514.57	-5363514.46	-5363514.35	0.0141	0.0081
Mercury	-19398-09-28 04:19 J	-5363426.43	-5363426.32	-5363426.19	0.0141	0.0060
Mercury	-19398-12-25 07:55 J	-5363338.30	-5363338.17	-5363338.04	0.0141	0.0039
Mercury	-19397-03-22 11:31 J	-5363250.15	-5363250.02	-5363249.89	0.0141	0.0017
Mercury	-19397-06-18 14:52 J	-5363162.01	-5363161.88	-5363161.74	0.0142	0.0006
Mercury	-19397-09-14 18:28 J	-5363073.86	-5363073.73	-5363073.60	0.0142	0.0026
Mercury	-19397-12-11 22:04 J	-5362985.71	-5362985.58	-5362985.45	0.0142	0.0048
Mercury	-19396-03-10 01:40 J	-5362897.55	-5362897.43	-5362897.31	0.0142	0.0070
Mercury	-19396-06-06 05:16 J	-5362809.38	-5362809.28	-5362809.18	0.0142	0.0092
Mercury	-19396-09-02 08:52 J	-5362721.21	-5362721.13	-5362721.05	0.0142	0.0114
Mercury	-19396-11-29 12:28 J	-5362633.01	-5362632.98	-5362632.94	0.0142	0.0137
Mars	-19390-07-31 12:14 J	-5360563.30	-5360562.99	-5360562.66	0.0145	0.0006
Venus	-19381-07-28 00:00 J	-5357278.59	-5357278.50	-5357278.39	0.0147	0.0130
Venus	-19380-03-11 12:00 J	-5357052.15	-5357052.00	-5357051.82	0.0147	0.0093
Venus	-19380-10-24 00:14 J	-5356825.68	-5356825.49	-5356825.29	0.0147	0.0055
Venus	-19379-06-07 12:28 J	-5356599.19	-5356598.98	-5356598.77	0.0147	0.0017
Venus	-19378-01-20 00:43 J	-5356372.69	-5356372.47	-5356372.26	0.0147	0.0021
Venus	-19378-09-03 12:43 J	-5356146.16	-5356145.97	-5356145.76	0.0146	0.0058
Venus	-19377-04-17 00:57 J	-5355919.62	-5355919.46	-5355919.29	0.0146	0.0096
Venus	-19377-11-29 12:57 J	-5355693.03	-5355692.96	-5355692.86	0.0146	0.0133
Earth	-19369-11-20 20:38 J	-5352779.77	-5352779.64	-5352779.50	0.0143	0.0120
Moon	-19369-11-20 23:45 J	-5352779.64	-5352779.51	-5352779.36	0.0143	0.0120 *
Moon	-19368-11-25 18:43 J	-5352409.96	-5352409.72	-5352409.46	0.0142	0.0031
Earth	-19368-11-25 22:19 J	-5352409.81	-5352409.57	-5352409.31	0.0142	0.0036 *
Earth	-19367-11-30 23:16 J	-5352039.77	-5352039.53	-5352039.28	0.0142	0.0049
Moon	-19367-12-01 02:52 J	-5352039.62	-5352039.38	-5352039.13	0.0142	0.0042 *
Moon	-19366-12-05 19:26 J	-5351669.72	-5351669.69	-5351669.62	0.0141	0.0139

Earth	-19366-12-05 23:02 J	-5351669.62	-5351669.54	-5351669.43	0.0141	0.0131	*
Mercury	-19359-08-26 05:02 J	-5349214.37	-5349214.29	-5349214.18	0.0138	0.0119	
Mercury	-19359-11-22 12:43 J	-5349126.11	-5349125.97	-5349125.82	0.0137	0.0090	
Mercury	-19358-02-18 20:09 J	-5349037.83	-5349037.66	-5349037.48	0.0137	0.0061	
Mercury	-19358-05-18 03:36 J	-5348949.53	-5348949.35	-5348949.16	0.0137	0.0033	
Mercury	-19358-08-14 11:02 J	-5348861.23	-5348861.04	-5348860.85	0.0137	0.0004	
Mercury	-19358-11-10 18:14 J	-5348772.92	-5348772.74	-5348772.55	0.0137	0.0024	
Mercury	-19357-02-07 01:26 J	-5348684.61	-5348684.44	-5348684.25	0.0137	0.0052	
Mercury	-19357-05-05 08:52 J	-5348596.28	-5348596.13	-5348595.98	0.0137	0.0079	
Mercury	-19357-08-01 15:50 J	-5348507.95	-5348507.84	-5348507.71	0.0137	0.0107	
Mercury	-19357-10-28 22:48 J	-5348419.57	-5348419.55	-5348419.50	0.0136	0.0134	
Mars	-19350-12-11 17:02 J	-5345820.08	-5345819.79	-5345819.49	0.0134	0.0019	
Venus	-19339-09-20 04:19 J	-5341884.41	-5341884.32	-5341884.21	0.0132	0.0117	
Venus	-19338-05-04 09:50 J	-5341658.25	-5341658.09	-5341657.93	0.0132	0.0089	
Venus	-19338-12-16 15:21 J	-5341432.06	-5341431.86	-5341431.67	0.0132	0.0061	
Venus	-19337-07-29 20:23 J	-5341205.86	-5341205.65	-5341205.43	0.0132	0.0034	
Venus	-19336-03-13 01:55 J	-5340979.64	-5340979.42	-5340979.20	0.0132	0.0005	
Venus	-19336-10-25 06:57 J	-5340753.42	-5340753.21	-5340752.99	0.0132	0.0023	
Venus	-19335-06-08 12:00 J	-5340527.19	-5340527.00	-5340526.78	0.0132	0.0051	
Venus	-19334-01-20 17:31 J	-5340300.94	-5340300.77	-5340300.59	0.0132	0.0079	
Venus	-19334-09-03 22:48 J	-5340074.67	-5340074.55	-5340074.42	0.0132	0.0106	
Moon	-19324-05-23 19:40 J	-5336524.82	-5336524.68	-5336524.50	0.0136	0.0102	
Earth	-19324-05-23 22:19 J	-5336524.72	-5336524.57	-5336524.41	0.0136	0.0107	*
Earth	-19323-05-28 05:16 J	-5336155.52	-5336155.28	-5336155.04	0.0136	0.0037	
Moon	-19323-05-28 08:23 J	-5336155.39	-5336155.15	-5336154.91	0.0136	0.0040	*
Moon	-19322-06-01 10:33 J	-5335786.29	-5335786.06	-5335785.82	0.0137	0.0035	
Earth	-19322-06-01 12:57 J	-5335786.19	-5335785.96	-5335785.71	0.0137	0.0034	*
Earth	-19321-06-04 21:07 J	-5335416.76	-5335416.62	-5335416.44	0.0137	0.0105	
Moon	-19321-06-05 00:14 J	-5335416.63	-5335416.49	-5335416.32	0.0137	0.0108	*
Mercury	-19315-10-30 21:50 J	-5333077.60	-5333077.59	-5333077.55	0.0141	0.0138	

Mercury	-19314-01-27 01:26 J	-5332989.51	-5332989.44	-5332989.36	0.0141	0.0117
Mercury	-19314-04-25 04:48 J	-5332901.39	-5332901.30	-5332901.20	0.0141	0.0096
Mercury	-19314-07-22 08:23 J	-5332813.26	-5332813.15	-5332813.04	0.0141	0.0075
Mercury	-19314-10-18 11:45 J	-5332725.13	-5332725.01	-5332724.88	0.0141	0.0054
Mercury	-19313-01-14 15:21 J	-5332636.99	-5332636.86	-5332636.73	0.0141	0.0033
Mercury	-19313-04-11 18:43 J	-5332548.85	-5332548.72	-5332548.58	0.0141	0.0012
Mercury	-19313-07-08 22:19 J	-5332460.70	-5332460.57	-5332460.44	0.0142	0.0010
Mercury	-19313-10-05 01:55 J	-5332372.55	-5332372.42	-5332372.29	0.0142	0.0032
Mercury	-19312-01-01 05:16 J	-5332284.40	-5332284.28	-5332284.15	0.0142	0.0054
Mercury	-19312-03-30 08:52 J	-5332196.24	-5332196.13	-5332196.01	0.0142	0.0076
Mercury	-19312-06-26 12:28 J	-5332108.07	-5332107.98	-5332107.88	0.0142	0.0098
Mercury	-19312-09-22 16:04 J	-5332019.89	-5332019.83	-5332019.75	0.0142	0.0120
Mercury	-19312-12-19 19:55 J	-5331931.67	-5331931.67	-5331931.67	0.0142	0.0142
Mars	-19305-03-26 12:57 J	-5329643.20	-5329642.96	-5329642.68	0.0145	0.0085
Venus	-19297-11-08 17:45 J	-5326493.89	-5326493.76	-5326493.61	0.0147	0.0111
Venus	-19296-06-23 05:45 J	-5326267.43	-5326267.26	-5326267.06	0.0147	0.0074
Venus	-19295-02-04 18:00 J	-5326040.95	-5326040.75	-5326040.53	0.0147	0.0036
Venus	-19295-09-19 06:14 J	-5325814.45	-5325814.24	-5325814.02	0.0147	0.0004
Venus	-19294-05-03 18:14 J	-5325587.94	-5325587.74	-5325587.52	0.0147	0.0041
Venus	-19294-12-16 06:43 J	-5325361.40	-5325361.22	-5325361.04	0.0146	0.0078
Venus	-19293-07-29 18:57 J	-5325134.83	-5325134.71	-5325134.57	0.0146	0.0115
Earth	-19285-11-21 06:00 J	-5322098.40	-5322098.25	-5322098.10	0.0143	0.0116
Moon	-19285-11-21 08:38 J	-5322098.27	-5322098.14	-5322097.96	0.0143	0.0116 *
Moon	-19284-11-26 04:48 J	-5321728.55	-5321728.30	-5321728.05	0.0143	0.0034
Earth	-19284-11-26 07:40 J	-5321728.43	-5321728.18	-5321727.92	0.0143	0.0031 *
Earth	-19283-12-01 08:23 J	-5321358.37	-5321358.15	-5321357.89	0.0142	0.0054
Moon	-19283-12-01 12:28 J	-5321358.21	-5321357.98	-5321357.74	0.0142	0.0060 *
Moon	-19282-12-06 04:48 J	-5320988.40	-5320988.30	-5320988.18	0.0141	0.0128
Earth	-19282-12-06 08:09 J	-5320988.21	-5320988.16	-5320988.06	0.0141	0.0136 *
Mercury	-19275-09-15 12:28 J	-5318513.08	-5318512.98	-5318512.86	0.0138	0.0111

Mercury	-19275-12-12 20:09 J	-5318424.81	-5318424.66	-5318424.50	0.0138	0.0082
Mercury	-19274-03-11 03:36 J	-5318336.52	-5318336.35	-5318336.17	0.0137	0.0053
Mercury	-19274-06-07 11:02 J	-5318248.22	-5318248.04	-5318247.85	0.0137	0.0025
Mercury	-19274-09-03 18:28 J	-5318159.92	-5318159.73	-5318159.54	0.0137	0.0004
Mercury	-19274-12-01 01:40 J	-5318071.61	-5318071.43	-5318071.24	0.0137	0.0032
Mercury	-19273-02-27 09:07 J	-5317983.29	-5317983.12	-5317982.95	0.0137	0.0059
Mercury	-19273-05-25 16:19 J	-5317894.96	-5317894.82	-5317894.67	0.0137	0.0087
Mercury	-19273-08-21 23:31 J	-5317806.62	-5317806.52	-5317806.42	0.0137	0.0114
Mars	-19267-09-05 01:26 J	-5315601.62	-5315601.44	-5315601.22	0.0134	0.0099
Mars	-19265-08-05 06:43 J	-5314901.43	-5314901.22	-5314900.97	0.0133	0.0086
Venus	-19255-05-20 15:21 J	-5311325.89	-5311325.86	-5311325.79	0.0132	0.0129
Venus	-19254-01-01 20:52 J	-5311099.75	-5311099.63	-5311099.47	0.0132	0.0101
Venus	-19254-08-16 02:23 J	-5310873.57	-5310873.40	-5310873.20	0.0132	0.0073
Venus	-19253-03-29 07:40 J	-5310647.37	-5310647.18	-5310646.96	0.0132	0.0045
Venus	-19253-11-10 13:11 J	-5310421.17	-5310420.95	-5310420.73	0.0132	0.0017
Venus	-19252-06-24 18:28 J	-5310194.95	-5310194.73	-5310194.51	0.0132	0.0012
Venus	-19251-02-05 23:45 J	-5309968.71	-5309968.51	-5309968.29	0.0132	0.0040
Venus	-19251-09-20 04:48 J	-5309742.47	-5309742.30	-5309742.10	0.0132	0.0068
Venus	-19250-05-04 10:19 J	-5309516.22	-5309516.07	-5309515.92	0.0132	0.0096
Venus	-19250-12-16 15:36 J	-5309289.92	-5309289.85	-5309289.77	0.0132	0.0124
Moon	-19240-05-24 08:23 J	-5305843.28	-5305843.15	-5305842.98	0.0136	0.0108
Earth	-19240-05-24 11:02 J	-5305843.20	-5305843.04	-5305842.86	0.0136	0.0101 *
Earth	-19239-05-28 18:00 J	-5305473.98	-5305473.75	-5305473.50	0.0136	0.0032
Moon	-19239-05-28 20:23 J	-5305473.90	-5305473.65	-5305473.40	0.0136	0.0027 *
Moon	-19238-06-01 23:16 J	-5305104.76	-5305104.53	-5305104.29	0.0136	0.0039
Earth	-19238-06-02 01:40 J	-5305104.66	-5305104.43	-5305104.18	0.0136	0.0040 *
Earth	-19237-06-05 09:50 J	-5304735.21	-5304735.09	-5304734.92	0.0137	0.0111
Moon	-19237-06-05 12:43 J	-5304735.12	-5304734.97	-5304734.81	0.0137	0.0108 *
Mercury	-19231-11-20 05:31 J	-5302376.30	-5302376.27	-5302376.21	0.0141	0.0131
Mercury	-19230-02-16 09:07 J	-5302288.20	-5302288.12	-5302288.04	0.0141	0.0110

Mercury	-19230-05-15 12:28 J	-5302200.08	-5302199.98	-5302199.87	0.0141	0.0089
Mercury	-19230-08-11 16:04 J	-5302111.95	-5302111.83	-5302111.72	0.0141	0.0068
Mercury	-19230-11-07 19:26 J	-5302023.81	-5302023.69	-5302023.56	0.0141	0.0047
Mercury	-19229-02-03 22:48 J	-5301935.68	-5301935.55	-5301935.41	0.0141	0.0027
Mercury	-19229-05-02 02:23 J	-5301847.53	-5301847.40	-5301847.27	0.0141	0.0005
Mercury	-19229-07-29 06:00 J	-5301759.39	-5301759.25	-5301759.12	0.0142	0.0017
Mercury	-19229-10-25 09:21 J	-5301671.23	-5301671.11	-5301670.98	0.0142	0.0039
Mercury	-19228-01-21 12:57 J	-5301583.08	-5301582.96	-5301582.84	0.0142	0.0060
Mercury	-19228-04-19 16:33 J	-5301494.92	-5301494.81	-5301494.70	0.0142	0.0082
Mercury	-19228-07-16 20:09 J	-5301406.75	-5301406.66	-5301406.57	0.0142	0.0104
Mercury	-19228-10-12 23:45 J	-5301318.57	-5301318.51	-5301318.45	0.0142	0.0127
Mars	-19223-12-16 06:28 J	-5299428.48	-5299428.23	-5299427.95	0.0145	0.0082
Venus	-19213-07-09 00:57 J	-5295935.56	-5295935.46	-5295935.36	0.0147	0.0128
Venus	-19212-02-20 12:43 J	-5295709.12	-5295708.97	-5295708.79	0.0147	0.0091
Venus	-19212-10-05 00:57 J	-5295482.66	-5295482.46	-5295482.25	0.0147	0.0053
Venus	-19211-05-19 13:11 J	-5295256.17	-5295255.95	-5295255.74	0.0147	0.0015
Venus	-19210-01-01 01:11 J	-5295029.66	-5295029.45	-5295029.23	0.0147	0.0024
Venus	-19210-08-15 13:26 J	-5294803.12	-5294802.94	-5294802.73	0.0147	0.0062
Venus	-19209-03-29 01:40 J	-5294576.57	-5294576.43	-5294576.26	0.0146	0.0099
Venus	-19209-11-10 14:09 J	-5294349.98	-5294349.91	-5294349.83	0.0146	0.0136
Earth	-19201-11-21 17:45 J	-5291416.92	-5291416.76	-5291416.59	0.0143	0.0110
Moon	-19201-11-21 20:09 J	-5291416.82	-5291416.66	-5291416.48	0.0143	0.0108 *
Moon	-19200-11-26 16:19 J	-5291047.06	-5291046.82	-5291046.56	0.0143	0.0022
Earth	-19200-11-26 19:40 J	-5291046.93	-5291046.68	-5291046.42	0.0143	0.0025 *
Earth	-19199-12-01 20:23 J	-5290676.88	-5290676.65	-5290676.41	0.0142	0.0059
Moon	-19199-12-01 23:45 J	-5290676.75	-5290676.51	-5290676.26	0.0142	0.0052 *
Earth	-19198-12-06 20:23 J	-5290306.66	-5290306.65	-5290306.61	0.0142	0.0141
Mercury	-19191-07-09 12:57 J	-5287900.01	-5287899.96	-5287899.89	0.0138	0.0130
Mercury	-19191-10-05 20:38 J	-5287811.76	-5287811.64	-5287811.50	0.0138	0.0101
Mercury	-19190-01-02 04:19 J	-5287723.48	-5287723.32	-5287723.16	0.0138	0.0072

Mercury	-19190-03-31 11:31 J	-5287635.19	-5287635.02	-5287634.83	0.0137	0.0044
Mercury	-19190-06-27 19:11 J	-5287546.89	-5287546.70	-5287546.51	0.0137	0.0015
Mercury	-19190-09-24 02:38 J	-5287458.58	-5287458.39	-5287458.20	0.0137	0.0014
Mercury	-19190-12-21 09:50 J	-5287370.27	-5287370.09	-5287369.90	0.0137	0.0042
Mercury	-19189-03-18 17:16 J	-5287281.95	-5287281.78	-5287281.62	0.0137	0.0069
Mercury	-19189-06-15 00:14 J	-5287193.61	-5287193.49	-5287193.35	0.0137	0.0097
Mercury	-19189-09-11 07:26 J	-5287105.26	-5287105.19	-5287105.11	0.0137	0.0124
Mars	-19182-04-30 18:00 J	-5284683.04	-5284682.75	-5284682.46	0.0134	0.0030
Venus	-19171-09-01 09:07 J	-5280541.22	-5280541.12	-5280540.99	0.0132	0.0112
Venus	-19170-04-15 14:23 J	-5280315.05	-5280314.90	-5280314.72	0.0132	0.0084
Venus	-19170-11-27 19:55 J	-5280088.86	-5280088.67	-5280088.46	0.0132	0.0056
Venus	-19169-07-11 01:11 J	-5279862.65	-5279862.45	-5279862.22	0.0132	0.0028
Venus	-19168-02-22 06:43 J	-5279636.43	-5279636.22	-5279635.99	0.0132	0.0003
Venus	-19168-10-06 12:00 J	-5279410.21	-5279410.00	-5279409.78	0.0132	0.0029
Venus	-19167-05-20 17:16 J	-5279183.97	-5279183.78	-5279183.58	0.0132	0.0057
Venus	-19166-01-01 22:33 J	-5278957.71	-5278957.56	-5278957.38	0.0132	0.0086
Venus	-19166-08-16 03:50 J	-5278731.43	-5278731.34	-5278731.21	0.0132	0.0114
Moon	-19156-05-25 00:14 J	-5275161.66	-5275161.49	-5275161.29	0.0136	0.0087
Earth	-19156-05-25 02:09 J	-5275161.59	-5275161.41	-5275161.23	0.0136	0.0093 *
Earth	-19155-05-29 09:07 J	-5274792.36	-5274792.12	-5274791.87	0.0136	0.0024
Moon	-19155-05-29 11:16 J	-5274792.27	-5274792.03	-5274791.77	0.0136	0.0027 *
Moon	-19154-06-02 15:21 J	-5274423.09	-5274422.86	-5274422.63	0.0137	0.0049
Earth	-19154-06-02 17:02 J	-5274423.02	-5274422.79	-5274422.55	0.0137	0.0047 *
Earth	-19153-06-06 01:26 J	-5274053.55	-5274053.44	-5274053.31	0.0137	0.0118
Moon	-19153-06-06 03:36 J	-5274053.45	-5274053.35	-5274053.21	0.0137	0.0121 *
Mercury	-19147-12-10 13:55 J	-5271674.99	-5271674.92	-5271674.86	0.0141	0.0121
Mercury	-19146-03-08 17:02 J	-5271586.87	-5271586.79	-5271586.69	0.0141	0.0101
Mercury	-19146-06-04 20:38 J	-5271498.75	-5271498.64	-5271498.53	0.0141	0.0080
Mercury	-19146-09-01 00:00 J	-5271410.61	-5271410.50	-5271410.37	0.0141	0.0059
Mercury	-19146-11-28 03:36 J	-5271322.48	-5271322.35	-5271322.22	0.0141	0.0038

Mercury	-19145-02-24 06:57 J	-5271234.34	-5271234.21	-5271234.07	0.0141	0.0017
Mercury	-19145-05-22 10:33 J	-5271146.19	-5271146.06	-5271145.93	0.0141	0.0005
Mercury	-19145-08-18 14:09 J	-5271058.04	-5271057.91	-5271057.78	0.0142	0.0027
Mercury	-19145-11-14 17:31 J	-5270969.89	-5270969.77	-5270969.64	0.0142	0.0048
Mercury	-19144-02-10 21:07 J	-5270881.73	-5270881.62	-5270881.50	0.0142	0.0070
Mercury	-19144-05-10 00:43 J	-5270793.57	-5270793.47	-5270793.37	0.0142	0.0092
Mercury	-19144-08-06 04:19 J	-5270705.40	-5270705.32	-5270705.24	0.0142	0.0114
Mercury	-19144-11-02 07:55 J	-5270617.20	-5270617.17	-5270617.13	0.0142	0.0137
Mars	-19138-08-12 20:38 J	-5268507.96	-5268507.64	-5268507.32	0.0145	0.0016
Venus	-19129-03-08 10:48 J	-5265377.09	-5265377.05	-5265377.00	0.0147	0.0143
Venus	-19129-10-20 22:33 J	-5265150.70	-5265150.56	-5265150.40	0.0147	0.0106
Venus	-19128-06-04 10:48 J	-5264924.24	-5264924.05	-5264923.86	0.0147	0.0068
Venus	-19127-01-16 23:02 J	-5264697.75	-5264697.54	-5264697.33	0.0147	0.0030
Venus	-19127-08-31 11:16 J	-5264471.25	-5264471.03	-5264470.82	0.0147	0.0009
Venus	-19126-04-14 23:16 J	-5264244.73	-5264244.53	-5264244.32	0.0147	0.0047
Venus	-19126-11-27 11:31 J	-5264018.19	-5264018.02	-5264017.84	0.0146	0.0085
Venus	-19125-07-10 23:45 J	-5263791.61	-5263791.51	-5263791.38	0.0146	0.0123
Earth	-19117-11-22 08:09 J	-5260735.32	-5260735.16	-5260734.96	0.0143	0.0101
Moon	-19117-11-22 11:02 J	-5260735.22	-5260735.04	-5260734.85	0.0143	0.0101 *
Moon	-19116-11-27 07:55 J	-5260365.42	-5260365.17	-5260364.92	0.0143	0.0019
Earth	-19116-11-27 10:19 J	-5260365.32	-5260365.07	-5260364.81	0.0143	0.0017 *
Earth	-19115-12-02 11:02 J	-5259995.26	-5259995.04	-5259994.80	0.0142	0.0067
Moon	-19115-12-02 14:38 J	-5259995.11	-5259994.89	-5259994.66	0.0142	0.0074 *
Moon	-19114-12-07 07:40 J	-5259625.18	-5259625.18	-5259625.15	0.0141	0.0141
Mercury	-19107-07-29 21:36 J	-5257198.68	-5257198.60	-5257198.49	0.0138	0.0118
Mercury	-19107-10-26 05:16 J	-5257110.42	-5257110.28	-5257110.12	0.0138	0.0088
Mercury	-19106-01-22 12:57 J	-5257022.13	-5257021.96	-5257021.78	0.0138	0.0059
Mercury	-19106-04-20 20:23 J	-5256933.83	-5256933.65	-5256933.46	0.0137	0.0031
Mercury	-19106-07-18 03:50 J	-5256845.53	-5256845.34	-5256845.15	0.0137	0.0003
Mercury	-19106-10-14 11:16 J	-5256757.22	-5256757.03	-5256756.84	0.0137	0.0026

Mercury	-19105-01-10 18:14 J	-5256668.90	-5256668.74	-5256668.55	0.0137	0.0054
Mercury	-19105-04-08 01:40 J	-5256580.58	-5256580.43	-5256580.27	0.0137	0.0081
Mercury	-19105-07-05 08:38 J	-5256492.24	-5256492.14	-5256492.01	0.0137	0.0109
Mercury	-19105-10-01 15:50 J	-5256403.85	-5256403.84	-5256403.81	0.0137	0.0136
Mars	-19098-12-24 13:11 J	-5253764.23	-5253763.95	-5253763.66	0.0134	0.0039
Venus	-19087-05-01 21:50 J	-5249982.67	-5249982.59	-5249982.51	0.0132	0.0122
Venus	-19087-12-14 03:07 J	-5249756.51	-5249756.37	-5249756.21	0.0132	0.0094
Venus	-19086-07-28 08:38 J	-5249530.33	-5249530.14	-5249529.95	0.0132	0.0066
Venus	-19085-03-10 13:55 J	-5249304.12	-5249303.92	-5249303.70	0.0132	0.0038
Venus	-19085-10-22 19:26 J	-5249077.91	-5249077.69	-5249077.47	0.0132	0.0010
Venus	-19084-06-06 00:28 J	-5248851.69	-5248851.48	-5248851.25	0.0132	0.0020
Venus	-19083-01-18 06:00 J	-5248625.45	-5248625.25	-5248625.04	0.0132	0.0047
Venus	-19083-09-01 11:16 J	-5248399.20	-5248399.03	-5248398.84	0.0132	0.0076
Venus	-19082-04-15 16:33 J	-5248172.93	-5248172.81	-5248172.66	0.0132	0.0104
Venus	-19082-11-27 21:50 J	-5247946.60	-5247946.59	-5247946.56	0.0132	0.0132
Moon	-19072-05-25 14:09 J	-5244480.07	-5244479.91	-5244479.71	0.0136	0.0093
Earth	-19072-05-25 16:04 J	-5244480.01	-5244479.83	-5244479.63	0.0136	0.0086 *
Earth	-19071-05-29 23:16 J	-5244110.77	-5244110.53	-5244110.28	0.0136	0.0017
Moon	-19071-05-30 00:43 J	-5244110.72	-5244110.47	-5244110.21	0.0136	0.0012 *
Moon	-19070-06-03 05:02 J	-5243741.50	-5243741.29	-5243741.05	0.0137	0.0054
Earth	-19070-06-03 07:11 J	-5243741.42	-5243741.20	-5243740.96	0.0137	0.0054 *
Earth	-19069-06-06 15:21 J	-5243371.94	-5243371.86	-5243371.74	0.0137	0.0125
Moon	-19069-06-06 17:02 J	-5243371.88	-5243371.79	-5243371.65	0.0137	0.0123 *
Mercury	-19063-10-03 18:14 J	-5241061.77	-5241061.74	-5241061.70	0.0141	0.0134
Mercury	-19063-12-30 21:36 J	-5240973.67	-5240973.60	-5240973.52	0.0141	0.0113
Mercury	-19062-03-29 00:57 J	-5240885.55	-5240885.46	-5240885.35	0.0141	0.0093
Mercury	-19062-06-25 04:33 J	-5240797.42	-5240797.31	-5240797.20	0.0141	0.0072
Mercury	-19062-09-21 07:55 J	-5240709.29	-5240709.17	-5240709.04	0.0141	0.0051
Mercury	-19062-12-18 11:16 J	-5240621.15	-5240621.03	-5240620.89	0.0141	0.0030
Mercury	-19061-03-15 14:52 J	-5240533.01	-5240532.88	-5240532.75	0.0141	0.0008

Mercury	-19061-06-11 18:28 J	-5240444.87	-5240444.73	-5240444.60	0.0141	0.0013
Mercury	-19061-09-07 21:50 J	-5240356.72	-5240356.59	-5240356.46	0.0142	0.0035
Mercury	-19061-12-05 01:26 J	-5240268.56	-5240268.44	-5240268.32	0.0142	0.0056
Mercury	-19060-03-03 04:48 J	-5240180.40	-5240180.30	-5240180.18	0.0142	0.0079
Mercury	-19060-05-30 08:38 J	-5240092.23	-5240092.14	-5240092.05	0.0142	0.0100
Mercury	-19060-08-26 12:14 J	-5240004.06	-5240003.99	-5240003.93	0.0142	0.0123
Mars	-19053-04-08 07:11 J	-5237587.39	-5237587.20	-5237586.98	0.0145	0.0112
Venus	-19045-06-20 07:55 J	-5234592.27	-5234592.17	-5234592.03	0.0147	0.0121
Venus	-19044-02-01 20:09 J	-5234365.83	-5234365.66	-5234365.47	0.0147	0.0083
Venus	-19044-09-16 08:23 J	-5234139.35	-5234139.15	-5234138.94	0.0147	0.0045
Venus	-19043-04-30 20:38 J	-5233912.85	-5233912.64	-5233912.42	0.0147	0.0007
Venus	-19043-12-13 08:52 J	-5233686.34	-5233686.13	-5233685.92	0.0147	0.0032
Venus	-19042-07-27 21:07 J	-5233459.80	-5233459.62	-5233459.42	0.0147	0.0071
Venus	-19041-03-10 09:21 J	-5233233.24	-5233233.11	-5233232.95	0.0146	0.0109
Venus	-19041-10-22 21:50 J	-5233006.59	-5233006.59	-5233006.57	0.0146	0.0146
Earth	-19033-11-23 00:00 J	-5230053.68	-5230053.50	-5230053.28	0.0143	0.0093
Moon	-19033-11-23 02:09 J	-5230053.61	-5230053.41	-5230053.20	0.0143	0.0090 *
Moon	-19032-11-27 23:31 J	-5229683.77	-5229683.52	-5229683.26	0.0143	0.0005
Earth	-19032-11-28 02:23 J	-5229683.66	-5229683.40	-5229683.14	0.0143	0.0008 *
Earth	-19031-12-03 03:07 J	-5229313.59	-5229313.37	-5229313.15	0.0142	0.0076
Moon	-19031-12-03 05:45 J	-5229313.48	-5229313.26	-5229313.02	0.0142	0.0069 *
Mercury	-19023-05-22 23:02 J	-5226585.57	-5226585.54	-5226585.47	0.0138	0.0133
Mercury	-19023-08-19 06:43 J	-5226497.33	-5226497.22	-5226497.08	0.0138	0.0104
Mercury	-19023-11-15 14:23 J	-5226409.05	-5226408.90	-5226408.73	0.0138	0.0075
Mercury	-19022-02-11 22:04 J	-5226320.76	-5226320.58	-5226320.40	0.0137	0.0046
Mercury	-19022-05-11 05:31 J	-5226232.46	-5226232.27	-5226232.08	0.0137	0.0018
Mercury	-19022-08-07 12:57 J	-5226144.15	-5226143.96	-5226143.77	0.0137	0.0011
Mercury	-19022-11-03 20:09 J	-5226055.84	-5226055.66	-5226055.47	0.0137	0.0039
Mercury	-19021-01-31 03:21 J	-5225967.52	-5225967.36	-5225967.19	0.0137	0.0067
Mercury	-19021-04-28 10:48 J	-5225879.19	-5225879.05	-5225878.91	0.0137	0.0094

Mercury	-19021-07-25 17:31 J	-5225790.83	-5225790.77	-5225790.67	0.0137	0.0122
Mars	-19015-09-18 04:19 J	-5223545.55	-5223545.32	-5223545.06	0.0134	0.0074
Mars	-19013-08-18 09:50 J	-5222845.24	-5222845.09	-5222844.90	0.0133	0.0108
Venus	-19003-08-13 15:50 J	-5219197.96	-5219197.84	-5219197.70	0.0132	0.0105
Venus	-19002-03-27 21:07 J	-5218971.78	-5218971.62	-5218971.43	0.0132	0.0077
Venus	-19002-11-09 02:52 J	-5218745.59	-5218745.38	-5218745.18	0.0132	0.0048
Venus	-19001-06-22 08:09 J	-5218519.38	-5218519.16	-5218518.94	0.0132	0.0020

19TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 19th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-19000-02-03 13:26 J	-5218293.15	-5218292.94	-5218292.71	0.0132	0.0009		
Venus	-19000-09-17 18:43 J	-5218066.92	-5218066.72	-5218066.50	0.0132	0.0037		
Venus	-18999-05-02 00:00 J	-5217840.68	-5217840.50	-5217840.30	0.0132	0.0065		
Venus	-18999-12-14 05:16 J	-5217614.42	-5217614.28	-5217614.11	0.0132	0.0094		
Venus	-18998-07-28 10:48 J	-5217388.13	-5217388.05	-5217387.96	0.0132	0.0122		
Moon	-18988-05-26 05:45 J	-5213798.45	-5213798.26	-5213798.04	0.0136	0.0073		
Earth	-18988-05-26 06:28 J	-5213798.42	-5213798.23	-5213798.01	0.0136	0.0079	*	
Earth	-18987-05-30 13:55 J	-5213429.17	-5213428.92	-5213428.67	0.0136	0.0009		
Moon	-18987-05-30 15:21 J	-5213429.11	-5213428.86	-5213428.60	0.0136	0.0013	*	
Moon	-18986-06-03 20:23 J	-5213059.85	-5213059.65	-5213059.42	0.0137	0.0064		
Earth	-18986-06-03 21:50 J	-5213059.81	-5213059.59	-5213059.37	0.0137	0.0061	*	

Earth	-18985-06-07 06:00 J	-5212690.30	-5212690.25	-5212690.16	0.0137	0.0132
Moon	-18985-06-07 07:26 J	-5212690.22	-5212690.19	-5212690.11	0.0137	0.0134 *
Mercury	-18979-10-24 02:09 J	-5210360.46	-5210360.41	-5210360.35	0.0141	0.0126
Mercury	-18978-01-20 05:31 J	-5210272.35	-5210272.27	-5210272.18	0.0141	0.0105
Mercury	-18978-04-18 08:52 J	-5210184.23	-5210184.13	-5210184.02	0.0141	0.0085
Mercury	-18978-07-15 12:14 J	-5210096.10	-5210095.99	-5210095.86	0.0141	0.0064
Mercury	-18978-10-11 15:50 J	-5210007.96	-5210007.84	-5210007.71	0.0141	0.0043
Mercury	-18977-01-07 19:26 J	-5209919.83	-5209919.69	-5209919.56	0.0141	0.0022
Mercury	-18977-04-04 22:48 J	-5209831.68	-5209831.55	-5209831.42	0.0141	0.0001
Mercury	-18977-07-02 02:23 J	-5209743.54	-5209743.40	-5209743.27	0.0142	0.0022
Mercury	-18977-09-28 05:45 J	-5209655.38	-5209655.26	-5209655.13	0.0142	0.0043
Mercury	-18977-12-25 09:21 J	-5209567.23	-5209567.11	-5209566.99	0.0142	0.0065
Mercury	-18976-03-23 12:57 J	-5209479.06	-5209478.96	-5209478.86	0.0142	0.0087
Mercury	-18976-06-19 16:33 J	-5209390.89	-5209390.81	-5209390.73	0.0142	0.0109
Mercury	-18976-09-15 20:09 J	-5209302.71	-5209302.66	-5209302.61	0.0142	0.0131
Mars	-18971-12-29 06:00 J	-5207372.55	-5207372.25	-5207371.95	0.0145	0.0051
Venus	-18961-02-18 17:31 J	-5204033.83	-5204033.77	-5204033.68	0.0147	0.0136
Venus	-18961-10-02 05:45 J	-5203807.41	-5203807.26	-5203807.09	0.0147	0.0098
Venus	-18960-05-16 18:00 J	-5203580.94	-5203580.75	-5203580.55	0.0147	0.0060
Venus	-18960-12-29 06:14 J	-5203354.45	-5203354.24	-5203354.02	0.0147	0.0022
Venus	-18959-08-12 18:43 J	-5203127.93	-5203127.72	-5203127.50	0.0147	0.0017
Venus	-18958-03-27 06:57 J	-5202901.40	-5202901.21	-5202901.00	0.0147	0.0056
Venus	-18958-11-08 19:26 J	-5202674.85	-5202674.69	-5202674.52	0.0147	0.0094
Venus	-18957-06-22 07:26 J	-5202448.26	-5202448.19	-5202448.08	0.0146	0.0132
Earth	-18949-11-23 16:33 J	-5199372.01	-5199371.81	-5199371.59	0.0143	0.0082
Moon	-18949-11-23 18:14 J	-5199371.94	-5199371.74	-5199371.51	0.0143	0.0083 *
Moon	-18948-11-28 16:48 J	-5199002.05	-5199001.80	-5199001.55	0.0143	0.0002
Earth	-18948-11-28 18:28 J	-5199001.98	-5199001.73	-5199001.47	0.0143	0.0003 *
Earth	-18947-12-03 19:26 J	-5198631.89	-5198631.69	-5198631.48	0.0142	0.0085
Moon	-18947-12-03 22:33 J	-5198631.76	-5198631.56	-5198631.36	0.0142	0.0092 *

Mercury	-18939-06-12 08:23 J	-5195884.24	-5195884.15	-5195884.05	0.0138	0.0119
Mercury	-18939-09-08 16:04 J	-5195795.97	-5195795.83	-5195795.68	0.0138	0.0090
Mercury	-18939-12-05 23:31 J	-5195707.69	-5195707.52	-5195707.34	0.0138	0.0061
Mercury	-18938-03-04 07:11 J	-5195619.39	-5195619.20	-5195619.02	0.0137	0.0033
Mercury	-18938-05-31 14:38 J	-5195531.08	-5195530.89	-5195530.70	0.0137	0.0005
Mercury	-18938-08-27 21:50 J	-5195442.77	-5195442.59	-5195442.40	0.0137	0.0024
Mercury	-18938-11-24 05:02 J	-5195354.46	-5195354.29	-5195354.11	0.0137	0.0052
Mercury	-18937-02-20 12:14 J	-5195266.13	-5195265.99	-5195265.82	0.0137	0.0080
Mercury	-18937-05-18 19:26 J	-5195177.79	-5195177.69	-5195177.56	0.0137	0.0107
Mercury	-18937-08-15 02:52 J	-5195089.41	-5195089.38	-5195089.35	0.0137	0.0134
Mars	-18930-05-14 00:43 J	-5192626.77	-5192626.47	-5192626.18	0.0134	0.0005
Venus	-18919-04-13 03:50 J	-5188639.42	-5188639.34	-5188639.21	0.0132	0.0116
Venus	-18919-11-25 09:50 J	-5188413.26	-5188413.09	-5188412.93	0.0132	0.0087
Venus	-18918-07-09 15:07 J	-5188187.06	-5188186.87	-5188186.67	0.0132	0.0059
Venus	-18917-02-20 20:23 J	-5187960.86	-5187960.65	-5187960.43	0.0132	0.0031
Venus	-18917-10-04 01:55 J	-5187734.64	-5187734.42	-5187734.20	0.0132	0.0002
Venus	-18916-05-18 07:11 J	-5187508.42	-5187508.20	-5187507.99	0.0132	0.0026
Venus	-18916-12-30 12:14 J	-5187282.18	-5187281.99	-5187281.78	0.0132	0.0055
Venus	-18915-08-13 17:45 J	-5187055.92	-5187055.76	-5187055.59	0.0132	0.0083
Venus	-18914-03-27 23:02 J	-5186829.65	-5186829.54	-5186829.42	0.0132	0.0111
Moon	-18905-05-22 12:43 J	-5183485.99	-5183485.97	-5183485.91	0.0135	0.0133
Moon	-18904-05-26 18:14 J	-5183116.93	-5183116.74	-5183116.53	0.0135	0.0079
Earth	-18904-05-26 18:57 J	-5183116.91	-5183116.71	-5183116.49	0.0135	0.0072 *
Earth	-18903-05-31 02:23 J	-5182747.65	-5182747.40	-5182747.15	0.0136	0.0004
Moon	-18903-05-31 02:38 J	-5182747.64	-5182747.39	-5182747.13	0.0136	0.0003 *
Moon	-18902-06-04 08:52 J	-5182378.33	-5182378.13	-5182377.90	0.0136	0.0065
Earth	-18902-06-04 09:50 J	-5182378.29	-5182378.09	-5182377.86	0.0136	0.0066 *
Earth	-18901-06-07 18:14 J	-5182008.75	-5182008.74	-5182008.71	0.0137	0.0136
Moon	-18901-06-07 19:26 J	-5182008.73	-5182008.69	-5182008.64	0.0137	0.0134 *
Mercury	-18895-11-13 09:21 J	-5179659.17	-5179659.11	-5179659.04	0.0141	0.0121

Mercury	-18894-02-09 12:43 J	-5179571.06	-5179570.97	-5179570.87	0.0141	0.0100
Mercury	-18894-05-08 16:04 J	-5179482.93	-5179482.83	-5179482.71	0.0141	0.0080
Mercury	-18894-08-04 19:26 J	-5179394.80	-5179394.69	-5179394.56	0.0141	0.0059
Mercury	-18894-10-31 23:02 J	-5179306.67	-5179306.54	-5179306.41	0.0141	0.0038
Mercury	-18893-01-28 02:38 J	-5179218.52	-5179218.39	-5179218.26	0.0141	0.0016
Mercury	-18893-04-25 06:00 J	-5179130.38	-5179130.25	-5179130.11	0.0141	0.0006
Mercury	-18893-07-22 09:36 J	-5179042.23	-5179042.10	-5179041.97	0.0142	0.0027
Mercury	-18893-10-18 12:57 J	-5178954.08	-5178953.96	-5178953.83	0.0142	0.0049
Mercury	-18892-01-14 16:33 J	-5178865.92	-5178865.81	-5178865.69	0.0142	0.0070
Mercury	-18892-04-12 20:09 J	-5178777.76	-5178777.66	-5178777.56	0.0142	0.0092
Mercury	-18892-07-09 23:45 J	-5178689.59	-5178689.51	-5178689.43	0.0142	0.0114
Mercury	-18892-10-06 03:21 J	-5178601.39	-5178601.36	-5178601.32	0.0142	0.0136
Mars	-18886-08-25 07:26 J	-5176452.49	-5176452.19	-5176451.87	0.0145	0.0038
Venus	-18877-06-01 12:00 J	-5173249.12	-5173249.00	-5173248.86	0.0147	0.0116
Venus	-18876-01-14 00:14 J	-5173022.66	-5173022.49	-5173022.30	0.0147	0.0078
Venus	-18876-08-28 12:43 J	-5172796.18	-5172795.97	-5172795.76	0.0147	0.0039
Venus	-18875-04-12 01:11 J	-5172569.67	-5172569.45	-5172569.24	0.0147	0.0003
Venus	-18875-11-24 13:26 J	-5172343.15	-5172342.94	-5172342.73	0.0147	0.0038
Venus	-18874-07-09 01:55 J	-5172116.60	-5172116.42	-5172116.23	0.0147	0.0077
Venus	-18873-02-20 14:09 J	-5171890.03	-5171889.91	-5171889.77	0.0147	0.0115
Earth	-18865-11-24 04:33 J	-5168690.51	-5168690.31	-5168690.08	0.0143	0.0076
Moon	-18865-11-24 05:16 J	-5168690.49	-5168690.28	-5168690.03	0.0143	0.0075 *
Moon	-18864-11-29 05:02 J	-5168320.54	-5168320.29	-5168320.04	0.0143	0.0012
Earth	-18864-11-29 06:57 J	-5168320.46	-5168320.21	-5168319.95	0.0143	0.0009 *
Earth	-18863-12-04 07:55 J	-5167950.35	-5167950.17	-5167949.96	0.0142	0.0091
Moon	-18863-12-04 10:04 J	-5167950.28	-5167950.08	-5167949.85	0.0142	0.0085 *
Mercury	-18855-04-05 09:07 J	-5165271.13	-5165271.12	-5165271.08	0.0138	0.0137
Mercury	-18855-07-02 16:48 J	-5165182.91	-5165182.80	-5165182.67	0.0138	0.0108
Mercury	-18855-09-29 00:28 J	-5165094.63	-5165094.48	-5165094.32	0.0138	0.0079
Mercury	-18855-12-26 08:09 J	-5165006.34	-5165006.16	-5165005.98	0.0138	0.0050

Mercury	-18854-03-24 15:36 J	-5164918.04	-5164917.85	-5164917.66	0.0138	0.0021
Mercury	-18854-06-20 23:02 J	-5164829.73	-5164829.54	-5164829.35	0.0137	0.0007
Mercury	-18854-09-17 06:14 J	-5164741.42	-5164741.24	-5164741.05	0.0137	0.0036
Mercury	-18854-12-14 13:40 J	-5164653.10	-5164652.93	-5164652.76	0.0137	0.0063
Mercury	-18853-03-11 20:38 J	-5164564.77	-5164564.64	-5164564.48	0.0137	0.0091
Mercury	-18853-06-08 04:04 J	-5164476.42	-5164476.33	-5164476.23	0.0137	0.0118
Mars	-18847-02-05 16:19 J	-5162407.94	-5162407.82	-5162407.67	0.0134	0.0118
Mars	-18845-01-06 20:52 J	-5161707.88	-5161707.63	-5161707.35	0.0133	0.0064
Venus	-18836-12-11 16:48 J	-5158080.85	-5158080.80	-5158080.73	0.0132	0.0126
Venus	-18835-07-25 22:19 J	-5157854.71	-5157854.57	-5157854.42	0.0132	0.0098
Venus	-18834-03-09 03:36 J	-5157628.53	-5157628.35	-5157628.16	0.0132	0.0070
Venus	-18834-10-21 09:07 J	-5157402.33	-5157402.12	-5157401.91	0.0132	0.0041
Venus	-18833-06-03 14:23 J	-5157176.12	-5157175.90	-5157175.68	0.0132	0.0013
Venus	-18832-01-15 19:40 J	-5156949.89	-5156949.68	-5156949.46	0.0132	0.0016
Venus	-18832-08-30 01:11 J	-5156723.66	-5156723.45	-5156723.25	0.0132	0.0044
Venus	-18831-04-13 06:00 J	-5156497.42	-5156497.25	-5156497.05	0.0132	0.0073
Venus	-18831-11-25 11:16 J	-5156271.16	-5156271.03	-5156270.88	0.0132	0.0101
Venus	-18830-07-09 16:19 J	-5156044.85	-5156044.82	-5156044.76	0.0132	0.0130
Earth	-18821-05-23 01:40 J	-5152804.45	-5152804.43	-5152804.37	0.0135	0.0133
Earth	-18820-05-27 08:09 J	-5152435.36	-5152435.16	-5152434.93	0.0135	0.0066
Moon	-18820-05-27 08:38 J	-5152435.35	-5152435.14	-5152434.92	0.0135	0.0060 *
Earth	-18819-05-31 15:36 J	-5152066.10	-5152065.85	-5152065.60	0.0136	0.0003
Moon	-18819-05-31 16:04 J	-5152066.09	-5152065.83	-5152065.57	0.0136	0.0002 *
Earth	-18818-06-04 23:02 J	-5151696.75	-5151696.54	-5151696.33	0.0136	0.0072
Moon	-18818-06-04 22:48 J	-5151696.74	-5151696.55	-5151696.34	0.0136	0.0074 *
Mercury	-18811-09-06 13:26 J	-5149045.97	-5149045.94	-5149045.90	0.0140	0.0135
Mercury	-18811-12-03 16:48 J	-5148957.87	-5148957.80	-5148957.72	0.0140	0.0115
Mercury	-18810-03-01 20:09 J	-5148869.75	-5148869.66	-5148869.56	0.0141	0.0094
Mercury	-18810-05-28 23:31 J	-5148781.63	-5148781.52	-5148781.40	0.0141	0.0074
Mercury	-18810-08-25 02:52 J	-5148693.49	-5148693.38	-5148693.25	0.0141	0.0053

Mercury	-18810-11-21 06:28 J	-5148605.36	-5148605.23	-5148605.10	0.0141	0.0032
Mercury	-18809-02-17 09:50 J	-5148517.22	-5148517.09	-5148516.95	0.0141	0.0011
Mercury	-18809-05-15 13:26 J	-5148429.07	-5148428.94	-5148428.81	0.0141	0.0011
Mercury	-18809-08-11 17:02 J	-5148340.92	-5148340.79	-5148340.66	0.0141	0.0033
Mercury	-18809-11-07 20:23 J	-5148252.77	-5148252.65	-5148252.52	0.0142	0.0054
Mercury	-18808-02-04 00:00 J	-5148164.61	-5148164.50	-5148164.39	0.0142	0.0076
Mercury	-18808-05-03 03:36 J	-5148076.45	-5148076.35	-5148076.26	0.0142	0.0098
Mercury	-18808-07-30 06:57 J	-5147988.27	-5147988.21	-5147988.13	0.0142	0.0120
Mars	-18803-05-15 18:28 J	-5146237.84	-5146237.73	-5146237.56	0.0144	0.0131
Mars	-18801-04-20 09:07 J	-5145532.24	-5145532.12	-5145531.94	0.0145	0.0128
Venus	-18793-01-30 18:14 J	-5142690.81	-5142690.74	-5142690.64	0.0147	0.0135
Venus	-18793-09-13 06:43 J	-5142464.38	-5142464.22	-5142464.06	0.0147	0.0096
Venus	-18792-04-27 18:43 J	-5142237.91	-5142237.72	-5142237.51	0.0147	0.0058
Venus	-18792-12-10 07:11 J	-5142011.41	-5142011.20	-5142010.98	0.0147	0.0019
Venus	-18791-07-24 19:55 J	-5141784.89	-5141784.67	-5141784.46	0.0147	0.0020
Venus	-18790-03-08 08:09 J	-5141558.35	-5141558.16	-5141557.96	0.0147	0.0059
Venus	-18790-10-20 20:23 J	-5141331.80	-5141331.65	-5141331.48	0.0147	0.0098
Venus	-18789-06-03 08:52 J	-5141105.20	-5141105.13	-5141105.05	0.0147	0.0136
Earth	-18781-11-24 15:21 J	-5138009.08	-5138008.86	-5138008.63	0.0143	0.0071
Moon	-18781-11-24 15:50 J	-5138009.06	-5138008.84	-5138008.59	0.0143	0.0072 *
Moon	-18780-11-29 16:48 J	-5137639.05	-5137638.80	-5137638.55	0.0143	0.0012
Earth	-18780-11-29 17:31 J	-5137639.02	-5137638.77	-5137638.50	0.0143	0.0014 *
Earth	-18779-12-04 18:57 J	-5137268.89	-5137268.71	-5137268.51	0.0142	0.0096
Moon	-18779-12-04 21:07 J	-5137268.79	-5137268.62	-5137268.42	0.0142	0.0103 *
Mercury	-18771-04-25 16:48 J	-5134569.85	-5134569.80	-5134569.71	0.0138	0.0129
Mercury	-18771-07-23 00:57 J	-5134481.60	-5134481.46	-5134481.33	0.0138	0.0098
Mercury	-18771-10-19 08:09 J	-5134393.31	-5134393.16	-5134392.98	0.0138	0.0070
Mercury	-18770-01-15 15:50 J	-5134305.02	-5134304.84	-5134304.65	0.0138	0.0041
Mercury	-18770-04-13 23:31 J	-5134216.71	-5134216.52	-5134216.33	0.0138	0.0012
Mercury	-18770-07-11 06:57 J	-5134128.40	-5134128.21	-5134128.02	0.0137	0.0016

Mercury	-18770-10-07 14:09 J	-5134040.09	-5134039.91	-5134039.73	0.0137	0.0045
Mercury	-18769-01-03 21:21 J	-5133951.76	-5133951.61	-5133951.44	0.0137	0.0073
Mercury	-18769-04-01 04:33 J	-5133863.43	-5133863.31	-5133863.17	0.0137	0.0100
Mercury	-18769-06-28 12:00 J	-5133775.06	-5133775.00	-5133774.93	0.0137	0.0127
Mars	-18763-10-01 09:21 J	-5131489.38	-5131489.11	-5131488.83	0.0134	0.0051
Mars	-18761-08-31 13:11 J	-5130788.99	-5130788.95	-5130788.87	0.0133	0.0131
Venus	-18751-03-25 10:33 J	-5127296.17	-5127296.06	-5127295.93	0.0132	0.0109
Venus	-18751-11-06 15:50 J	-5127070.00	-5127069.84	-5127069.65	0.0132	0.0081
Venus	-18750-06-20 21:36 J	-5126843.80	-5126843.60	-5126843.40	0.0132	0.0052
Venus	-18749-02-02 02:52 J	-5126617.59	-5126617.38	-5126617.16	0.0132	0.0024
Venus	-18749-09-15 08:23 J	-5126391.37	-5126391.15	-5126390.93	0.0132	0.0005
Venus	-18748-04-29 13:26 J	-5126165.15	-5126164.94	-5126164.72	0.0132	0.0034
Venus	-18748-12-11 18:43 J	-5125938.91	-5125938.72	-5125938.52	0.0132	0.0062
Venus	-18747-07-25 23:45 J	-5125712.66	-5125712.51	-5125712.34	0.0132	0.0091
Venus	-18746-03-09 05:02 J	-5125486.37	-5125486.29	-5125486.19	0.0132	0.0119
Moon	-18737-05-23 15:36 J	-5122122.96	-5122122.85	-5122122.72	0.0135	0.0119
Earth	-18737-05-23 16:04 J	-5122122.90	-5122122.83	-5122122.73	0.0135	0.0126 *
Earth	-18736-05-27 22:48 J	-5121753.78	-5121753.55	-5121753.33	0.0135	0.0059
Moon	-18736-05-27 22:33 J	-5121753.76	-5121753.56	-5121753.34	0.0135	0.0066 *
Moon	-18735-06-01 04:48 J	-5121384.55	-5121384.30	-5121384.04	0.0136	0.0015
Earth	-18735-06-01 05:31 J	-5121384.52	-5121384.27	-5121384.02	0.0136	0.0009 *
Moon	-18734-06-05 12:43 J	-5121015.16	-5121014.97	-5121014.76	0.0136	0.0077
Earth	-18734-06-05 12:28 J	-5121015.16	-5121014.98	-5121014.76	0.0136	0.0079 *
Mercury	-18727-09-26 21:07 J	-5118344.67	-5118344.62	-5118344.57	0.0140	0.0129
Mercury	-18727-12-24 00:14 J	-5118256.56	-5118256.49	-5118256.40	0.0140	0.0109
Mercury	-18726-03-22 03:50 J	-5118168.44	-5118168.34	-5118168.24	0.0140	0.0088
Mercury	-18726-06-18 07:11 J	-5118080.32	-5118080.20	-5118080.08	0.0141	0.0067
Mercury	-18726-09-14 10:33 J	-5117992.18	-5117992.06	-5117991.93	0.0141	0.0046
Mercury	-18726-12-11 13:55 J	-5117904.05	-5117903.92	-5117903.78	0.0141	0.0026
Mercury	-18725-03-08 17:31 J	-5117815.90	-5117815.77	-5117815.64	0.0141	0.0004

Mercury	-18725-06-04 20:52 J	-5117727.76	-5117727.63	-5117727.50	0.0141	0.0018
Mercury	-18725-09-01 00:28 J	-5117639.61	-5117639.48	-5117639.35	0.0141	0.0039
Mercury	-18725-11-28 03:50 J	-5117551.45	-5117551.34	-5117551.21	0.0141	0.0061
Mercury	-18724-02-24 07:26 J	-5117463.29	-5117463.19	-5117463.08	0.0142	0.0082
Mercury	-18724-05-23 10:48 J	-5117375.13	-5117375.05	-5117374.95	0.0142	0.0105
Mercury	-18724-08-19 14:38 J	-5117286.95	-5117286.89	-5117286.83	0.0142	0.0126
Mars	-18718-01-09 22:04 J	-5115317.88	-5115317.58	-5115317.27	0.0145	0.0041
Venus	-18709-05-13 12:14 J	-5111906.12	-5111905.99	-5111905.86	0.0147	0.0115
Venus	-18709-12-26 00:14 J	-5111679.66	-5111679.49	-5111679.30	0.0147	0.0077
Venus	-18708-08-09 12:43 J	-5111453.17	-5111452.97	-5111452.75	0.0147	0.0038
Venus	-18707-03-24 01:11 J	-5111226.66	-5111226.45	-5111226.23	0.0147	0.0002
Venus	-18707-11-05 13:40 J	-5111000.14	-5110999.93	-5110999.73	0.0147	0.0040
Venus	-18706-06-20 01:55 J	-5110773.60	-5110773.42	-5110773.24	0.0147	0.0079
Venus	-18705-02-01 14:09 J	-5110547.03	-5110546.91	-5110546.77	0.0147	0.0118
Moon	-18697-11-25 00:00 J	-5107327.73	-5107327.50	-5107327.25	0.0143	0.0063
Earth	-18697-11-25 00:14 J	-5107327.70	-5107327.49	-5107327.24	0.0143	0.0067 *
Moon	-18696-11-30 02:23 J	-5106957.65	-5106957.40	-5106957.15	0.0143	0.0020
Earth	-18696-11-30 03:07 J	-5106957.62	-5106957.37	-5106957.11	0.0143	0.0018 *
Earth	-18695-12-05 04:33 J	-5106587.47	-5106587.31	-5106587.11	0.0142	0.0101
Moon	-18695-12-05 06:00 J	-5106587.45	-5106587.25	-5106587.05	0.0142	0.0095 *
Mercury	-18687-05-16 00:28 J	-5103868.56	-5103868.48	-5103868.38	0.0138	0.0120
Mercury	-18687-08-12 08:23 J	-5103780.29	-5103780.15	-5103780.01	0.0138	0.0091
Mercury	-18687-11-08 15:36 J	-5103692.01	-5103691.85	-5103691.66	0.0138	0.0062
Mercury	-18686-02-04 23:16 J	-5103603.71	-5103603.53	-5103603.33	0.0138	0.0033
Mercury	-18686-05-04 06:57 J	-5103515.40	-5103515.21	-5103515.02	0.0138	0.0004
Mercury	-18686-07-31 14:23 J	-5103427.09	-5103426.90	-5103426.71	0.0138	0.0025
Mercury	-18686-10-27 21:50 J	-5103338.77	-5103338.59	-5103338.42	0.0137	0.0053
Mercury	-18685-01-24 05:02 J	-5103250.44	-5103250.29	-5103250.13	0.0137	0.0081
Mercury	-18685-04-21 12:14 J	-5103162.10	-5103161.99	-5103161.87	0.0137	0.0109
Mercury	-18685-07-18 19:11 J	-5103073.70	-5103073.70	-5103073.66	0.0137	0.0137

Mars	-18678-05-27 00:57 J	-5100570.75	-5100570.46	-5100570.17	0.0134	0.0015
Venus	-18668-11-22 23:02 J	-5096737.62	-5096737.54	-5096737.44	0.0132	0.0120
Venus	-18667-07-07 04:19 J	-5096511.46	-5096511.32	-5096511.15	0.0132	0.0092
Venus	-18666-02-18 10:04 J	-5096285.27	-5096285.08	-5096284.88	0.0132	0.0063
Venus	-18666-10-02 15:21 J	-5096059.06	-5096058.86	-5096058.64	0.0132	0.0035
Venus	-18665-05-15 20:52 J	-5095832.85	-5095832.63	-5095832.41	0.0132	0.0006
Venus	-18665-12-28 02:23 J	-5095606.62	-5095606.40	-5095606.19	0.0132	0.0023
Venus	-18664-08-11 07:26 J	-5095380.39	-5095380.19	-5095379.98	0.0132	0.0052
Venus	-18663-03-25 12:28 J	-5095154.14	-5095153.98	-5095153.79	0.0132	0.0081
Venus	-18663-11-06 17:45 J	-5094927.87	-5094927.76	-5094927.63	0.0132	0.0109
Moon	-18653-05-24 06:57 J	-5091441.29	-5091441.21	-5091441.10	0.0135	0.0124
Earth	-18653-05-24 07:40 J	-5091441.28	-5091441.18	-5091441.04	0.0135	0.0117 *
Earth	-18652-05-28 14:23 J	-5091072.13	-5091071.90	-5091071.67	0.0135	0.0050
Moon	-18652-05-28 15:21 J	-5091072.08	-5091071.86	-5091071.63	0.0135	0.0044 *
Moon	-18651-06-01 20:52 J	-5090702.89	-5090702.63	-5090702.37	0.0136	0.0013
Earth	-18651-06-01 21:07 J	-5090702.86	-5090702.62	-5090702.37	0.0136	0.0018 *
Earth	-18650-06-06 04:33 J	-5090333.50	-5090333.31	-5090333.12	0.0136	0.0086
Moon	-18650-06-06 05:16 J	-5090333.46	-5090333.28	-5090333.10	0.0136	0.0089 *
Mercury	-18643-07-21 01:55 J	-5087731.43	-5087731.42	-5087731.42	0.0140	0.0140
Mercury	-18643-10-17 05:02 J	-5087643.35	-5087643.29	-5087643.22	0.0140	0.0119
Mercury	-18642-01-13 08:38 J	-5087555.23	-5087555.14	-5087555.05	0.0140	0.0099
Mercury	-18642-04-11 11:45 J	-5087467.11	-5087467.01	-5087466.89	0.0140	0.0079
Mercury	-18642-07-08 15:21 J	-5087378.98	-5087378.86	-5087378.74	0.0141	0.0057
Mercury	-18642-10-04 18:43 J	-5087290.85	-5087290.72	-5087290.59	0.0141	0.0037
Mercury	-18642-12-31 22:19 J	-5087202.71	-5087202.57	-5087202.44	0.0141	0.0016
Mercury	-18641-03-29 01:40 J	-5087114.56	-5087114.43	-5087114.30	0.0141	0.0006
Mercury	-18641-06-25 05:02 J	-5087026.42	-5087026.29	-5087026.16	0.0141	0.0028
Mercury	-18641-09-21 08:38 J	-5086938.26	-5086938.14	-5086938.02	0.0141	0.0049
Mercury	-18641-12-18 12:00 J	-5086850.11	-5086850.00	-5086849.88	0.0141	0.0071
Mercury	-18640-03-16 15:36 J	-5086761.94	-5086761.85	-5086761.74	0.0142	0.0092

Mercury	-18640-06-12 18:57 J	-5086673.77	-5086673.71	-5086673.62	0.0142	0.0115
Mercury	-18640-09-08 22:33 J	-5086585.58	-5086585.56	-5086585.51	0.0142	0.0137
Mars	-18634-09-06 10:33 J	-5084397.35	-5084397.06	-5084396.76	0.0145	0.0055
Venus	-18625-01-11 21:07 J	-5081347.70	-5081347.62	-5081347.51	0.0147	0.0132
Venus	-18625-08-25 09:21 J	-5081121.26	-5081121.11	-5081120.93	0.0147	0.0093
Venus	-18624-04-08 21:50 J	-5080894.79	-5080894.59	-5080894.39	0.0147	0.0054
Venus	-18624-11-21 10:04 J	-5080668.29	-5080668.08	-5080667.87	0.0147	0.0015
Venus	-18623-07-05 22:33 J	-5080441.78	-5080441.56	-5080441.35	0.0147	0.0024
Venus	-18622-02-17 10:48 J	-5080215.24	-5080215.05	-5080214.86	0.0147	0.0063
Venus	-18622-10-01 23:02 J	-5079988.69	-5079988.54	-5079988.39	0.0147	0.0102
Venus	-18621-05-15 11:02 J	-5079762.08	-5079762.04	-5079761.97	0.0147	0.0141
Earth	-18614-11-21 11:02 J	-5077016.07	-5077016.04	-5077016.01	0.0144	0.0142
Moon	-18614-11-21 12:28 J	-5077016.05	-5077015.98	-5077015.90	0.0144	0.0136 *
Moon	-18613-11-25 13:40 J	-5076646.16	-5076645.93	-5076645.68	0.0143	0.0061
Earth	-18613-11-25 14:09 J	-5076646.14	-5076645.91	-5076645.66	0.0143	0.0058 *
Earth	-18612-11-30 16:33 J	-5076276.05	-5076275.81	-5076275.54	0.0143	0.0026
Moon	-18612-11-30 16:48 J	-5076276.04	-5076275.80	-5076275.54	0.0143	0.0025 *
Earth	-18611-12-05 18:14 J	-5075905.89	-5075905.74	-5075905.55	0.0142	0.0108
Moon	-18611-12-05 19:11 J	-5075905.84	-5075905.70	-5075905.51	0.0142	0.0114 *
Mercury	-18603-06-05 08:38 J	-5073167.24	-5073167.14	-5073167.01	0.0138	0.0109
Mercury	-18603-09-01 16:19 J	-5073078.96	-5073078.82	-5073078.65	0.0138	0.0080
Mercury	-18603-11-29 00:00 J	-5072990.67	-5072990.50	-5072990.31	0.0138	0.0051
Mercury	-18602-02-25 07:40 J	-5072902.37	-5072902.18	-5072901.99	0.0138	0.0022
Mercury	-18602-05-24 15:07 J	-5072814.06	-5072813.87	-5072813.67	0.0138	0.0008
Mercury	-18602-08-20 22:33 J	-5072725.74	-5072725.56	-5072725.37	0.0138	0.0036
Mercury	-18602-11-17 06:00 J	-5072637.41	-5072637.25	-5072637.08	0.0137	0.0064
Mercury	-18601-02-13 13:11 J	-5072549.08	-5072548.95	-5072548.80	0.0137	0.0092
Mercury	-18601-05-11 20:23 J	-5072460.73	-5072460.65	-5072460.54	0.0137	0.0119
Mars	-18595-02-18 15:07 J	-5070352.06	-5070351.87	-5070351.66	0.0134	0.0099
Mars	-18593-01-19 18:57 J	-5069651.94	-5069651.71	-5069651.48	0.0134	0.0083

Venus	-18584-07-23 11:45 J	-5066179.02	-5066179.01	-5066178.98	0.0132	0.0131
Venus	-18583-03-06 17:02 J	-5065952.90	-5065952.79	-5065952.63	0.0132	0.0103
Venus	-18583-10-18 22:48 J	-5065726.72	-5065726.55	-5065726.36	0.0132	0.0074
Venus	-18582-06-02 04:19 J	-5065500.52	-5065500.32	-5065500.11	0.0132	0.0045
Venus	-18581-01-14 09:50 J	-5065274.30	-5065274.09	-5065273.87	0.0132	0.0016
Venus	-18581-08-27 15:07 J	-5065048.08	-5065047.87	-5065047.64	0.0132	0.0013
Venus	-18580-04-10 20:09 J	-5064821.85	-5064821.66	-5064821.44	0.0132	0.0042
Venus	-18580-11-23 01:40 J	-5064595.61	-5064595.43	-5064595.24	0.0132	0.0070
Venus	-18579-07-07 06:28 J	-5064369.36	-5064369.23	-5064369.07	0.0132	0.0100
Venus	-18578-02-18 12:00 J	-5064143.05	-5064143.00	-5064142.94	0.0132	0.0128
Moon	-18569-05-24 22:19 J	-5060759.73	-5060759.57	-5060759.39	0.0135	0.0102
Earth	-18569-05-24 23:45 J	-5060759.64	-5060759.51	-5060759.35	0.0135	0.0109 *
Earth	-18568-05-29 06:00 J	-5060390.47	-5060390.25	-5060390.00	0.0135	0.0043
Moon	-18568-05-29 07:11 J	-5060390.43	-5060390.20	-5060389.97	0.0135	0.0049 *
Moon	-18567-06-02 11:31 J	-5060021.27	-5060021.02	-5060020.77	0.0136	0.0031
Earth	-18567-06-02 12:57 J	-5060021.20	-5060020.96	-5060020.71	0.0136	0.0025 *
Earth	-18566-06-06 20:09 J	-5059651.83	-5059651.66	-5059651.47	0.0136	0.0093
Moon	-18566-06-06 21:07 J	-5059651.80	-5059651.62	-5059651.44	0.0136	0.0092 *
Mercury	-18559-08-10 09:50 J	-5057030.13	-5057030.09	-5057030.04	0.0140	0.0130
Mercury	-18559-11-06 13:11 J	-5056942.02	-5056941.95	-5056941.86	0.0140	0.0110
Mercury	-18558-02-02 16:33 J	-5056853.90	-5056853.81	-5056853.70	0.0140	0.0090
Mercury	-18558-05-01 20:09 J	-5056765.78	-5056765.66	-5056765.55	0.0140	0.0069
Mercury	-18558-07-28 23:31 J	-5056677.64	-5056677.52	-5056677.40	0.0141	0.0048
Mercury	-18558-10-25 02:52 J	-5056589.51	-5056589.38	-5056589.25	0.0141	0.0027
Mercury	-18557-01-21 06:28 J	-5056501.37	-5056501.23	-5056501.10	0.0141	0.0007
Mercury	-18557-04-18 09:50 J	-5056413.22	-5056413.09	-5056412.96	0.0141	0.0016
Mercury	-18557-07-15 13:11 J	-5056325.07	-5056324.95	-5056324.82	0.0141	0.0037
Mercury	-18557-10-11 16:48 J	-5056236.92	-5056236.80	-5056236.68	0.0141	0.0059
Mercury	-18556-01-07 20:09 J	-5056148.76	-5056148.66	-5056148.54	0.0141	0.0081
Mercury	-18556-04-05 23:45 J	-5056060.59	-5056060.51	-5056060.41	0.0142	0.0102

Mercury	-18556-07-03 03:36 J	-5055972.42	-5055972.35	-5055972.29	0.0142	0.0124
Mars	-18551-05-28 09:07 J	-5054182.32	-5054182.12	-5054181.88	0.0144	0.0106
Venus	-18541-04-24 18:28 J	-5050562.86	-5050562.73	-5050562.57	0.0147	0.0109
Venus	-18541-12-07 06:43 J	-5050336.40	-5050336.22	-5050336.02	0.0147	0.0070
Venus	-18540-07-21 19:11 J	-5050109.90	-5050109.70	-5050109.48	0.0147	0.0031
Venus	-18539-03-05 07:26 J	-5049883.40	-5049883.19	-5049882.97	0.0147	0.0009
Venus	-18539-10-17 19:26 J	-5049656.88	-5049656.69	-5049656.47	0.0147	0.0048
Venus	-18538-06-01 07:40 J	-5049430.34	-5049430.18	-5049430.00	0.0147	0.0087
Venus	-18537-01-13 19:40 J	-5049203.77	-5049203.68	-5049203.55	0.0147	0.0126
Earth	-18530-11-22 00:43 J	-5046334.55	-5046334.47	-5046334.36	0.0144	0.0134
Moon	-18530-11-22 02:23 J	-5046334.43	-5046334.40	-5046334.34	0.0144	0.0141 *
Moon	-18529-11-26 02:38 J	-5045964.64	-5045964.39	-5045964.13	0.0143	0.0046
Earth	-18529-11-26 04:04 J	-5045964.56	-5045964.33	-5045964.08	0.0143	0.0050 *
Earth	-18528-12-01 06:43 J	-5045594.47	-5045594.22	-5045593.96	0.0143	0.0033
Moon	-18528-12-01 06:57 J	-5045594.45	-5045594.21	-5045593.97	0.0143	0.0035 *
Moon	-18527-12-06 08:23 J	-5045224.30	-5045224.15	-5045223.96	0.0142	0.0110
Earth	-18527-12-06 08:38 J	-5045224.29	-5045224.14	-5045223.98	0.0142	0.0115 *
Mercury	-18519-03-29 09:36 J	-5042554.16	-5042554.10	-5042554.01	0.0138	0.0127
Mercury	-18519-06-25 17:16 J	-5042465.91	-5042465.78	-5042465.63	0.0138	0.0097
Mercury	-18519-09-22 00:57 J	-5042377.62	-5042377.46	-5042377.28	0.0138	0.0068
Mercury	-18519-12-19 08:38 J	-5042289.32	-5042289.14	-5042288.95	0.0138	0.0039
Mercury	-18518-03-17 16:19 J	-5042201.01	-5042200.82	-5042200.63	0.0138	0.0010
Mercury	-18518-06-13 23:45 J	-5042112.70	-5042112.51	-5042112.32	0.0138	0.0019
Mercury	-18518-09-10 07:11 J	-5042024.38	-5042024.20	-5042024.02	0.0138	0.0047
Mercury	-18518-12-07 14:23 J	-5041936.05	-5041935.90	-5041935.73	0.0137	0.0075
Mercury	-18517-03-04 21:36 J	-5041847.71	-5041847.60	-5041847.46	0.0137	0.0104
Mercury	-18517-06-01 05:16 J	-5041759.33	-5041759.28	-5041759.23	0.0137	0.0131
Mars	-18511-10-14 09:21 J	-5039433.39	-5039433.11	-5039432.81	0.0134	0.0030
Venus	-18500-11-04 06:14 J	-5035394.34	-5035394.24	-5035394.12	0.0132	0.0113
Venus	-18499-06-18 12:00 J	-5035168.17	-5035168.00	-5035167.83	0.0132	0.0084

Venus	-18498-01-30 17:16 J	-5034941.97	-5034941.78	-5034941.57	0.0132	0.0056
Venus	-18498-09-13 22:48 J	-5034715.76	-5034715.55	-5034715.33	0.0132	0.0027
Venus	-18497-04-27 04:19 J	-5034489.54	-5034489.32	-5034489.10	0.0132	0.0003
Venus	-18497-12-09 09:36 J	-5034263.32	-5034263.10	-5034262.89	0.0132	0.0031
Venus	-18496-07-23 14:38 J	-5034037.08	-5034036.89	-5034036.69	0.0132	0.0060
Venus	-18495-03-06 19:40 J	-5033810.83	-5033810.68	-5033810.50	0.0132	0.0089
Venus	-18495-10-19 01:11 J	-5033584.55	-5033584.45	-5033584.35	0.0132	0.0118
Moon	-18485-05-25 13:55 J	-5030078.06	-5030077.92	-5030077.75	0.0135	0.0107
Earth	-18485-05-25 15:36 J	-5030078.01	-5030077.85	-5030077.68	0.0135	0.0100 *
Earth	-18484-05-29 21:36 J	-5029708.83	-5029708.60	-5029708.34	0.0135	0.0035
Moon	-18484-05-29 23:45 J	-5029708.75	-5029708.51	-5029708.27	0.0135	0.0027 *
Moon	-18483-06-03 03:07 J	-5029339.61	-5029339.37	-5029339.10	0.0136	0.0029
Earth	-18483-06-03 04:33 J	-5029339.55	-5029339.31	-5029339.06	0.0136	0.0033 *
Earth	-18482-06-07 11:31 J	-5028970.17	-5028970.02	-5028969.84	0.0136	0.0101
Moon	-18482-06-07 12:57 J	-5028970.09	-5028969.96	-5028969.78	0.0136	0.0105 *
Mercury	-18475-08-30 18:14 J	-5026328.81	-5026328.74	-5026328.68	0.0140	0.0121
Mercury	-18475-11-26 21:21 J	-5026240.69	-5026240.61	-5026240.51	0.0140	0.0100
Mercury	-18474-02-23 00:43 J	-5026152.57	-5026152.47	-5026152.35	0.0140	0.0080
Mercury	-18474-05-22 04:19 J	-5026064.44	-5026064.32	-5026064.20	0.0141	0.0059
Mercury	-18474-08-18 07:40 J	-5025976.31	-5025976.18	-5025976.05	0.0141	0.0038
Mercury	-18474-11-14 11:02 J	-5025888.17	-5025888.04	-5025887.90	0.0141	0.0018
Mercury	-18473-02-10 14:38 J	-5025800.02	-5025799.89	-5025799.76	0.0141	0.0005
Mercury	-18473-05-08 18:00 J	-5025711.88	-5025711.75	-5025711.62	0.0141	0.0026
Mercury	-18473-08-04 21:36 J	-5025623.73	-5025623.60	-5025623.48	0.0141	0.0047
Mercury	-18473-11-01 00:57 J	-5025535.57	-5025535.46	-5025535.34	0.0141	0.0069
Mercury	-18472-01-28 04:33 J	-5025447.41	-5025447.31	-5025447.21	0.0141	0.0091
Mercury	-18472-04-26 07:55 J	-5025359.24	-5025359.17	-5025359.08	0.0142	0.0113
Mercury	-18472-07-23 11:31 J	-5025271.05	-5025271.02	-5025270.97	0.0142	0.0135
Mars	-18466-01-23 00:57 J	-5023261.78	-5023261.46	-5023261.14	0.0145	0.0008
Jupiter	-18460-04-19 15:50 J	-5020983.10	-5020982.84	-5020982.49	0.0146	0.0119

Venus	-18458-12-24 05:31 J	-5020004.38	-5020004.27	-5020004.15	0.0147	0.0123
Venus	-18457-08-06 17:45 J	-5019777.93	-5019777.76	-5019777.58	0.0147	0.0084
Venus	-18456-03-21 06:00 J	-5019551.46	-5019551.25	-5019551.05	0.0147	0.0045
Venus	-18456-11-02 18:00 J	-5019324.96	-5019324.75	-5019324.53	0.0147	0.0006
Venus	-18455-06-17 06:00 J	-5019098.45	-5019098.25	-5019098.03	0.0147	0.0034
Venus	-18454-01-29 18:14 J	-5018871.92	-5018871.74	-5018871.54	0.0147	0.0073
Venus	-18454-09-13 06:28 J	-5018645.36	-5018645.23	-5018645.08	0.0147	0.0112
Earth	-18446-11-22 17:45 J	-5015652.87	-5015652.76	-5015652.61	0.0144	0.0124
Moon	-18446-11-22 20:23 J	-5015652.79	-5015652.65	-5015652.50	0.0144	0.0117 *
Moon	-18445-11-26 20:09 J	-5015282.91	-5015282.66	-5015282.40	0.0143	0.0043
Earth	-18445-11-26 21:07 J	-5015282.85	-5015282.62	-5015282.36	0.0143	0.0041 *
Earth	-18444-12-01 23:45 J	-5014912.75	-5014912.51	-5014912.26	0.0143	0.0043
Moon	-18444-12-02 00:57 J	-5014912.70	-5014912.46	-5014912.22	0.0143	0.0042 *
Earth	-18443-12-07 00:57 J	-5014542.56	-5014542.46	-5014542.31	0.0142	0.0125
Moon	-18443-12-07 01:11 J	-5014542.54	-5014542.45	-5014542.32	0.0142	0.0130 *
Mercury	-18435-04-18 18:57 J	-5011852.82	-5011852.71	-5011852.60	0.0138	0.0113
Mercury	-18435-07-16 02:23 J	-5011764.54	-5011764.40	-5011764.24	0.0138	0.0084
Mercury	-18435-10-12 10:04 J	-5011676.25	-5011676.08	-5011675.90	0.0138	0.0054
Mercury	-18434-01-08 17:45 J	-5011587.94	-5011587.76	-5011587.57	0.0138	0.0025
Mercury	-18434-04-07 01:26 J	-5011499.63	-5011499.44	-5011499.25	0.0138	0.0004
Mercury	-18434-07-04 08:38 J	-5011411.32	-5011411.14	-5011410.94	0.0138	0.0033
Mercury	-18434-09-30 16:04 J	-5011322.99	-5011322.83	-5011322.65	0.0137	0.0061
Mercury	-18434-12-27 23:31 J	-5011234.66	-5011234.52	-5011234.37	0.0137	0.0089
Mercury	-18433-03-25 06:43 J	-5011146.31	-5011146.22	-5011146.11	0.0137	0.0117
Mars	-18426-06-09 05:45 J	-5008514.54	-5008514.26	-5008513.97	0.0134	0.0039
Jupiter	-18418-02-27 18:14 J	-5005694.03	-5005693.74	-5005693.37	0.0132	0.0102
Venus	-18416-07-04 18:57 J	-5004835.77	-5004835.71	-5004835.62	0.0132	0.0124
Venus	-18415-02-16 00:43 J	-5004609.61	-5004609.47	-5004609.31	0.0132	0.0095
Venus	-18415-09-30 06:14 J	-5004383.43	-5004383.24	-5004383.05	0.0132	0.0066
Venus	-18414-05-14 11:31 J	-5004157.23	-5004157.02	-5004156.80	0.0132	0.0037

Venus	-18414-12-26 17:02 J	-5003931.01	-5003930.79	-5003930.57	0.0132	0.0008
Venus	-18413-08-08 22:19 J	-5003704.79	-5003704.57	-5003704.35	0.0132	0.0021
Venus	-18412-03-23 03:21 J	-5003478.55	-5003478.36	-5003478.15	0.0132	0.0050
Venus	-18412-11-04 08:23 J	-5003252.31	-5003252.15	-5003251.96	0.0132	0.0079
Venus	-18411-06-18 13:55 J	-5003026.05	-5003025.92	-5003025.79	0.0132	0.0107
Moon	-18401-05-26 03:50 J	-4999396.53	-4999396.34	-4999396.13	0.0135	0.0086
Earth	-18401-05-26 06:00 J	-4999396.42	-4999396.25	-4999396.06	0.0135	0.0093 *
Earth	-18400-05-30 12:14 J	-4999027.23	-4999026.99	-4999026.74	0.0135	0.0027
Moon	-18400-05-30 13:55 J	-4999027.15	-4999026.92	-4999026.68	0.0135	0.0034 *
Moon	-18399-06-03 16:33 J	-4998658.04	-4998657.81	-4998657.56	0.0136	0.0046
Earth	-18399-06-03 18:43 J	-4998657.95	-4998657.72	-4998657.47	0.0136	0.0040 *
Earth	-18398-06-08 01:55 J	-4998288.56	-4998288.42	-4998288.26	0.0136	0.0108
Moon	-18398-06-08 03:36 J	-4998288.49	-4998288.35	-4998288.19	0.0136	0.0105 *
Mercury	-18391-06-23 22:33 J	-4995715.59	-4995715.56	-4995715.52	0.0140	0.0133
Mercury	-18391-09-20 01:40 J	-4995627.49	-4995627.43	-4995627.34	0.0140	0.0113
Mercury	-18391-12-17 05:16 J	-4995539.38	-4995539.28	-4995539.18	0.0140	0.0092
Mercury	-18390-03-15 08:38 J	-4995451.25	-4995451.14	-4995451.02	0.0140	0.0072
Mercury	-18390-06-11 12:00 J	-4995363.12	-4995363.00	-4995362.87	0.0141	0.0051
Mercury	-18390-09-07 15:21 J	-4995274.98	-4995274.86	-4995274.72	0.0141	0.0031
Mercury	-18390-12-04 18:57 J	-4995186.84	-4995186.71	-4995186.58	0.0141	0.0009
Mercury	-18389-03-01 22:19 J	-4995098.70	-4995098.57	-4995098.43	0.0141	0.0013
Mercury	-18389-05-29 01:55 J	-4995010.55	-4995010.42	-4995010.29	0.0141	0.0034
Mercury	-18389-08-25 05:16 J	-4994922.40	-4994922.28	-4994922.15	0.0141	0.0055
Mercury	-18389-11-21 08:52 J	-4994834.24	-4994834.13	-4994834.02	0.0141	0.0077
Mercury	-18388-02-17 12:14 J	-4994746.08	-4994745.99	-4994745.89	0.0141	0.0099
Mercury	-18388-05-16 15:50 J	-4994657.90	-4994657.84	-4994657.77	0.0142	0.0121
Mars	-18382-09-19 09:07 J	-4992341.37	-4992341.12	-4992340.85	0.0145	0.0085
Venus	-18374-08-23 13:26 J	-4989445.99	-4989445.94	-4989445.87	0.0147	0.0140
Venus	-18373-04-06 01:40 J	-4989219.59	-4989219.43	-4989219.28	0.0147	0.0101
Venus	-18373-11-18 13:40 J	-4988993.12	-4988992.93	-4988992.73	0.0147	0.0062

Venus	-18372-07-03 01:55 J	-4988766.63	-4988766.42	-4988766.20	0.0147	0.0023
Venus	-18371-02-14 14:09 J	-4988540.12	-4988539.91	-4988539.70	0.0147	0.0017
Venus	-18371-09-29 02:23 J	-4988313.60	-4988313.40	-4988313.20	0.0147	0.0056
Venus	-18370-05-13 14:09 J	-4988087.06	-4988086.91	-4988086.73	0.0147	0.0096
Venus	-18370-12-26 02:23 J	-4987860.47	-4987860.40	-4987860.30	0.0147	0.0135
Earth	-18362-11-23 07:26 J	-4984971.33	-4984971.19	-4984971.03	0.0144	0.0116
Moon	-18362-11-23 09:50 J	-4984971.21	-4984971.09	-4984970.95	0.0144	0.0123 *
Moon	-18361-11-27 08:23 J	-4984601.40	-4984601.15	-4984600.88	0.0143	0.0029
Earth	-18361-11-27 10:48 J	-4984601.30	-4984601.05	-4984600.80	0.0143	0.0033 *
Earth	-18360-12-02 12:57 J	-4984231.19	-4984230.96	-4984230.70	0.0143	0.0050
Moon	-18360-12-02 13:55 J	-4984231.14	-4984230.92	-4984230.67	0.0143	0.0052 *
Moon	-18359-12-07 13:40 J	-4983861.03	-4983860.93	-4983860.78	0.0142	0.0126
Earth	-18359-12-07 14:38 J	-4983860.97	-4983860.89	-4983860.77	0.0142	0.0131 *
Mercury	-18351-02-09 19:40 J	-4981239.74	-4981239.68	-4981239.62	0.0138	0.0131
Mercury	-18351-05-09 03:07 J	-4981151.49	-4981151.37	-4981151.23	0.0138	0.0102
Mercury	-18351-08-05 10:48 J	-4981063.20	-4981063.05	-4981062.87	0.0138	0.0072
Mercury	-18351-11-01 18:28 J	-4980974.90	-4980974.73	-4980974.54	0.0138	0.0043
Mercury	-18350-01-29 02:23 J	-4980886.59	-4980886.40	-4980886.21	0.0138	0.0014
Mercury	-18350-04-27 09:50 J	-4980798.28	-4980798.09	-4980797.90	0.0138	0.0015
Mercury	-18350-07-24 17:16 J	-4980709.96	-4980709.78	-4980709.60	0.0138	0.0044
Mercury	-18350-10-21 00:43 J	-4980621.63	-4980621.47	-4980621.31	0.0137	0.0072
Mercury	-18349-01-17 07:40 J	-4980533.29	-4980533.18	-4980533.03	0.0137	0.0101
Mercury	-18349-04-14 15:21 J	-4980444.92	-4980444.86	-4980444.79	0.0137	0.0128
Mars	-18343-03-03 20:23 J	-4978295.88	-4978295.65	-4978295.39	0.0134	0.0075
Mars	-18341-02-02 00:00 J	-4977595.66	-4977595.50	-4977595.31	0.0134	0.0107
Venus	-18332-10-16 12:43 J	-4974051.09	-4974050.97	-4974050.83	0.0132	0.0106
Venus	-18331-05-30 18:14 J	-4973824.91	-4973824.74	-4973824.56	0.0132	0.0077
Venus	-18330-01-11 23:45 J	-4973598.71	-4973598.51	-4973598.30	0.0132	0.0048
Venus	-18330-08-26 05:02 J	-4973372.50	-4973372.29	-4973372.07	0.0132	0.0019
Venus	-18329-04-08 10:19 J	-4973146.29	-4973146.07	-4973145.85	0.0132	0.0010

Venus	-18329-11-20 15:21 J	-4972920.06	-4972919.86	-4972919.64	0.0132	0.0039
Venus	-18328-07-04 20:23 J	-4972693.82	-4972693.65	-4972693.45	0.0132	0.0068
Venus	-18327-02-16 01:40 J	-4972467.56	-4972467.43	-4972467.27	0.0132	0.0097
Venus	-18327-09-30 06:57 J	-4972241.27	-4972241.21	-4972241.13	0.0132	0.0125
Moon	-18317-05-26 16:33 J	-4968714.98	-4968714.81	-4968714.61	0.0135	0.0094
Earth	-18317-05-26 18:57 J	-4968714.89	-4968714.71	-4968714.51	0.0135	0.0087 *
Earth	-18316-05-31 00:57 J	-4968345.70	-4968345.46	-4968345.21	0.0135	0.0021
Moon	-18316-05-31 03:36 J	-4968345.59	-4968345.35	-4968345.11	0.0135	0.0014 *
Moon	-18315-06-04 05:16 J	-4967976.52	-4967976.28	-4967976.03	0.0136	0.0040
Earth	-18315-06-04 07:26 J	-4967976.42	-4967976.19	-4967975.95	0.0136	0.0046 *
Earth	-18314-06-08 14:09 J	-4967607.03	-4967606.91	-4967606.75	0.0136	0.0113
Moon	-18314-06-08 16:33 J	-4967606.92	-4967606.81	-4967606.67	0.0136	0.0117 *
Mercury	-18307-07-14 06:00 J	-4965014.30	-4965014.25	-4965014.19	0.0140	0.0127
Mercury	-18307-10-10 09:21 J	-4964926.19	-4964926.11	-4964926.02	0.0140	0.0107
Mercury	-18306-01-06 12:43 J	-4964838.07	-4964837.97	-4964837.86	0.0140	0.0086
Mercury	-18306-04-04 16:04 J	-4964749.94	-4964749.83	-4964749.71	0.0140	0.0066
Mercury	-18306-07-01 19:26 J	-4964661.81	-4964661.69	-4964661.56	0.0141	0.0045
Mercury	-18306-09-27 23:02 J	-4964573.67	-4964573.54	-4964573.41	0.0141	0.0024
Mercury	-18306-12-25 02:23 J	-4964485.53	-4964485.40	-4964485.27	0.0141	0.0003
Mercury	-18305-03-22 05:45 J	-4964397.39	-4964397.26	-4964397.12	0.0141	0.0019
Mercury	-18305-06-18 09:21 J	-4964309.24	-4964309.11	-4964308.98	0.0141	0.0040
Mercury	-18305-09-14 12:43 J	-4964221.09	-4964220.97	-4964220.85	0.0141	0.0061
Mercury	-18305-12-11 16:19 J	-4964132.93	-4964132.82	-4964132.71	0.0141	0.0083
Mercury	-18304-03-09 19:40 J	-4964044.76	-4964044.68	-4964044.58	0.0141	0.0105
Mercury	-18304-06-05 23:16 J	-4963956.58	-4963956.53	-4963956.47	0.0142	0.0126
Mars	-18299-06-09 21:50 J	-4962126.86	-4962126.59	-4962126.32	0.0144	0.0081
Venus	-18290-12-05 08:23 J	-4958661.27	-4958661.15	-4958661.02	0.0147	0.0119
Venus	-18289-07-18 20:38 J	-4958434.82	-4958434.64	-4958434.46	0.0147	0.0080
Venus	-18288-03-02 08:38 J	-4958208.34	-4958208.14	-4958207.93	0.0147	0.0041
Venus	-18288-10-14 20:52 J	-4957981.85	-4957981.63	-4957981.42	0.0147	0.0001

Venus	-18287-05-29 09:07 J	-4957755.33	-4957755.12	-4957754.92	0.0147	0.0038
Venus	-18286-01-10 21:07 J	-4957528.80	-4957528.62	-4957528.43	0.0147	0.0078
Venus	-18286-08-25 09:36 J	-4957302.22	-4957302.10	-4957301.97	0.0147	0.0117
Earth	-18278-11-23 19:11 J	-4954289.85	-4954289.70	-4954289.52	0.0144	0.0110
Moon	-18278-11-23 22:04 J	-4954289.74	-4954289.58	-4954289.39	0.0144	0.0103 *
Moon	-18277-11-27 20:38 J	-4953919.90	-4953919.64	-4953919.38	0.0144	0.0030
Earth	-18277-11-27 22:48 J	-4953919.80	-4953919.55	-4953919.29	0.0144	0.0027 *
Earth	-18276-12-03 01:11 J	-4953549.67	-4953549.45	-4953549.20	0.0143	0.0056
Moon	-18276-12-03 03:07 J	-4953549.58	-4953549.37	-4953549.12	0.0143	0.0057 *
Moon	-18275-12-08 02:09 J	-4953179.44	-4953179.41	-4953179.37	0.0143	0.0141
Earth	-18275-12-08 02:38 J	-4953179.44	-4953179.39	-4953179.29	0.0143	0.0137 *
Mercury	-18267-03-02 04:04 J	-4950538.42	-4950538.33	-4950538.24	0.0138	0.0120
Mercury	-18267-05-29 11:31 J	-4950450.15	-4950450.02	-4950449.86	0.0138	0.0091
Mercury	-18267-08-25 19:11 J	-4950361.86	-4950361.70	-4950361.52	0.0138	0.0061
Mercury	-18267-11-22 02:52 J	-4950273.56	-4950273.38	-4950273.19	0.0138	0.0032
Mercury	-18266-02-18 10:33 J	-4950185.25	-4950185.06	-4950184.86	0.0138	0.0004
Mercury	-18266-05-17 18:14 J	-4950096.93	-4950096.74	-4950096.55	0.0138	0.0026
Mercury	-18266-08-14 01:26 J	-4950008.61	-4950008.44	-4950008.26	0.0138	0.0055
Mercury	-18266-11-10 08:52 J	-4949920.27	-4949920.13	-4949919.97	0.0137	0.0083
Mercury	-18265-02-06 16:19 J	-4949831.93	-4949831.82	-4949831.70	0.0137	0.0111
Mars	-18259-10-27 14:09 J	-4947377.20	-4947376.91	-4947376.61	0.0134	0.0008
Venus	-18248-06-16 00:28 J	-4943492.56	-4943492.48	-4943492.36	0.0132	0.0118
Venus	-18247-01-28 06:14 J	-4943266.39	-4943266.24	-4943266.07	0.0132	0.0089
Venus	-18247-09-11 11:31 J	-4943040.21	-4943040.02	-4943039.81	0.0132	0.0060
Venus	-18246-04-25 16:48 J	-4942814.00	-4942813.80	-4942813.58	0.0132	0.0031
Venus	-18246-12-07 22:19 J	-4942587.79	-4942587.57	-4942587.35	0.0132	0.0001
Venus	-18245-07-21 03:21 J	-4942361.57	-4942361.36	-4942361.14	0.0132	0.0028
Venus	-18244-03-04 08:38 J	-4942135.33	-4942135.14	-4942134.93	0.0132	0.0057
Venus	-18244-10-16 13:40 J	-4941909.08	-4941908.93	-4941908.75	0.0132	0.0086
Venus	-18243-05-30 18:43 J	-4941682.81	-4941682.72	-4941682.60	0.0132	0.0115

Moon	-18233-05-27 05:02 J	-4938033.49	-4938033.29	-4938033.07	0.0135	0.0074
Earth	-18233-05-27 07:55 J	-4938033.36	-4938033.17	-4938032.96	0.0135	0.0081 *
Earth	-18232-05-31 13:55 J	-4937664.17	-4937663.92	-4937663.67	0.0135	0.0015
Moon	-18232-05-31 16:19 J	-4937664.06	-4937663.82	-4937663.57	0.0135	0.0022 *
Moon	-18231-06-04 17:02 J	-4937295.01	-4937294.79	-4937294.55	0.0136	0.0058
Earth	-18231-06-04 20:23 J	-4937294.88	-4937294.65	-4937294.42	0.0136	0.0051 *
Earth	-18230-06-09 02:52 J	-4936925.48	-4936925.38	-4936925.24	0.0136	0.0118
Moon	-18230-06-09 05:31 J	-4936925.39	-4936925.27	-4936925.13	0.0136	0.0115 *
Mercury	-18223-08-03 13:26 J	-4934313.00	-4934312.94	-4934312.87	0.0140	0.0121
Mercury	-18223-10-30 16:48 J	-4934224.89	-4934224.80	-4934224.71	0.0140	0.0101
Mercury	-18222-01-26 20:09 J	-4934136.77	-4934136.66	-4934136.55	0.0140	0.0081
Mercury	-18222-04-24 23:31 J	-4934048.64	-4934048.52	-4934048.40	0.0140	0.0060
Mercury	-18222-07-22 02:52 J	-4933960.50	-4933960.38	-4933960.25	0.0140	0.0039
Mercury	-18222-10-18 06:14 J	-4933872.37	-4933872.24	-4933872.11	0.0141	0.0019
Mercury	-18221-01-14 09:36 J	-4933784.23	-4933784.10	-4933783.96	0.0141	0.0006
Mercury	-18221-04-11 13:11 J	-4933696.08	-4933695.95	-4933695.82	0.0141	0.0024
Mercury	-18221-07-08 16:33 J	-4933607.93	-4933607.81	-4933607.68	0.0141	0.0045
Mercury	-18221-10-04 20:09 J	-4933519.78	-4933519.66	-4933519.55	0.0141	0.0066
Mercury	-18221-12-31 23:31 J	-4933431.62	-4933431.52	-4933431.41	0.0141	0.0088
Mercury	-18220-03-30 03:07 J	-4933343.45	-4933343.37	-4933343.29	0.0141	0.0110
Mercury	-18220-06-26 06:28 J	-4933255.27	-4933255.23	-4933255.18	0.0142	0.0132
Mars	-18214-02-03 22:04 J	-4931206.90	-4931206.58	-4931206.25	0.0144	0.0008
Venus	-18206-08-04 12:43 J	-4928103.01	-4928102.97	-4928102.88	0.0147	0.0140
Venus	-18205-03-18 00:57 J	-4927876.60	-4927876.46	-4927876.29	0.0147	0.0101
Venus	-18205-10-30 13:11 J	-4927650.14	-4927649.95	-4927649.75	0.0147	0.0061
Venus	-18204-06-14 01:11 J	-4927423.66	-4927423.45	-4927423.23	0.0147	0.0022
Venus	-18203-01-26 13:26 J	-4927197.15	-4927196.94	-4927196.73	0.0147	0.0018
Venus	-18203-09-10 01:26 J	-4926970.63	-4926970.44	-4926970.23	0.0147	0.0058
Venus	-18202-04-24 13:55 J	-4926744.08	-4926743.92	-4926743.76	0.0147	0.0097
Venus	-18202-12-07 01:40 J	-4926517.49	-4926517.43	-4926517.33	0.0147	0.0137

Earth	-18194-11-24 01:40 J	-4923608.58	-4923608.43	-4923608.24	0.0144	0.0108
Moon	-18194-11-24 05:02 J	-4923608.43	-4923608.29	-4923608.12	0.0144	0.0114 *
Moon	-18193-11-28 02:23 J	-4923238.66	-4923238.40	-4923238.14	0.0144	0.0019
Earth	-18193-11-28 05:31 J	-4923238.52	-4923238.27	-4923238.01	0.0144	0.0024 *
Earth	-18192-12-03 07:55 J	-4922868.39	-4922868.17	-4922867.92	0.0143	0.0059
Moon	-18192-12-03 10:04 J	-4922868.30	-4922868.08	-4922867.84	0.0143	0.0059 *
Moon	-18191-12-08 08:09 J	-4922498.25	-4922498.16	-4922498.07	0.0143	0.0134
Earth	-18191-12-08 09:50 J	-4922498.13	-4922498.09	-4922498.02	0.0143	0.0139 *
Mercury	-18183-03-22 10:48 J	-4919837.15	-4919837.05	-4919836.94	0.0139	0.0114
Mercury	-18183-06-18 18:28 J	-4919748.87	-4919748.73	-4919748.57	0.0138	0.0084
Mercury	-18183-09-15 02:09 J	-4919660.58	-4919660.41	-4919660.23	0.0138	0.0055
Mercury	-18183-12-12 09:50 J	-4919572.27	-4919572.09	-4919571.90	0.0138	0.0026
Mercury	-18182-03-10 17:31 J	-4919483.96	-4919483.77	-4919483.58	0.0138	0.0004
Mercury	-18182-06-07 00:57 J	-4919395.64	-4919395.46	-4919395.27	0.0138	0.0032
Mercury	-18182-09-03 08:23 J	-4919307.31	-4919307.15	-4919306.97	0.0138	0.0061
Mercury	-18182-11-30 15:50 J	-4919218.98	-4919218.84	-4919218.69	0.0138	0.0089
Mercury	-18181-02-26 23:16 J	-4919130.62	-4919130.53	-4919130.43	0.0137	0.0117
Mars	-18176-07-21 23:02 J	-4917158.63	-4917158.54	-4917158.41	0.0135	0.0125
Mars	-18174-06-22 01:26 J	-4916458.69	-4916458.44	-4916458.16	0.0134	0.0057
Venus	-18164-02-13 12:00 J	-4912934.02	-4912934.00	-4912933.95	0.0132	0.0130
Venus	-18164-09-27 17:16 J	-4912707.90	-4912707.78	-4912707.62	0.0132	0.0101
Venus	-18163-05-11 22:48 J	-4912481.72	-4912481.55	-4912481.35	0.0132	0.0072
Venus	-18163-12-24 04:33 J	-4912255.52	-4912255.31	-4912255.10	0.0132	0.0042
Venus	-18162-08-07 09:50 J	-4912029.30	-4912029.09	-4912028.87	0.0132	0.0013
Venus	-18161-03-20 15:07 J	-4911803.08	-4911802.87	-4911802.65	0.0132	0.0017
Venus	-18161-11-01 20:09 J	-4911576.85	-4911576.66	-4911576.44	0.0132	0.0046
Venus	-18160-06-16 01:26 J	-4911350.61	-4911350.44	-4911350.25	0.0132	0.0075
Venus	-18159-01-28 06:43 J	-4911124.34	-4911124.22	-4911124.07	0.0132	0.0104
Moon	-18150-05-24 19:11 J	-4907720.71	-4907720.70	-4907720.65	0.0134	0.0133
Moon	-18149-05-27 18:43 J	-4907351.91	-4907351.72	-4907351.50	0.0135	0.0081

Earth	-18149-05-27 21:36 J	-4907351.79	-4907351.60	-4907351.38	0.0135	0.0074 *
Earth	-18148-06-01 03:36 J	-4906982.60	-4906982.35	-4906982.10	0.0135	0.0009
Moon	-18148-06-01 06:43 J	-4906982.46	-4906982.22	-4906981.97	0.0135	0.0002 *
Moon	-18147-06-05 07:11 J	-4906613.43	-4906613.20	-4906612.96	0.0136	0.0052
Earth	-18147-06-05 09:50 J	-4906613.31	-4906613.09	-4906612.86	0.0136	0.0058 *
Earth	-18146-06-09 16:33 J	-4906243.89	-4906243.81	-4906243.69	0.0136	0.0124
Moon	-18146-06-09 19:26 J	-4906243.75	-4906243.69	-4906243.59	0.0136	0.0128 *
Mercury	-18139-05-27 18:00 J	-4903699.79	-4903699.75	-4903699.72	0.0140	0.0134
Mercury	-18139-08-23 21:07 J	-4903611.69	-4903611.62	-4903611.54	0.0140	0.0114
Mercury	-18139-11-20 00:28 J	-4903523.57	-4903523.48	-4903523.38	0.0140	0.0094
Mercury	-18138-02-16 03:50 J	-4903435.45	-4903435.34	-4903435.23	0.0140	0.0073
Mercury	-18138-05-15 07:11 J	-4903347.32	-4903347.20	-4903347.08	0.0140	0.0053
Mercury	-18138-08-11 10:33 J	-4903259.19	-4903259.06	-4903258.93	0.0140	0.0032
Mercury	-18138-11-07 13:55 J	-4903171.05	-4903170.92	-4903170.78	0.0141	0.0012
Mercury	-18137-02-03 17:16 J	-4903082.91	-4903082.78	-4903082.64	0.0141	0.0011
Mercury	-18137-05-01 20:52 J	-4902994.76	-4902994.63	-4902994.50	0.0141	0.0031
Mercury	-18137-07-29 00:14 J	-4902906.61	-4902906.49	-4902906.37	0.0141	0.0052
Mercury	-18137-10-25 03:50 J	-4902818.46	-4902818.34	-4902818.23	0.0141	0.0073
Mercury	-18136-01-21 06:57 J	-4902730.30	-4902730.21	-4902730.10	0.0141	0.0096
Mercury	-18136-04-19 10:33 J	-4902642.13	-4902642.06	-4902641.98	0.0141	0.0117
Mercury	-18136-07-16 14:09 J	-4902553.93	-4902553.91	-4902553.88	0.0141	0.0138
Mars	-18130-10-01 03:21 J	-4900286.58	-4900286.36	-4900286.10	0.0145	0.0098
Venus	-18122-11-16 07:40 J	-4897318.30	-4897318.18	-4897318.06	0.0147	0.0119
Venus	-18121-06-29 19:26 J	-4897091.86	-4897091.69	-4897091.50	0.0147	0.0080
Venus	-18120-02-11 07:26 J	-4896865.39	-4896865.19	-4896864.97	0.0147	0.0041
Venus	-18120-09-25 19:40 J	-4896638.89	-4896638.68	-4896638.46	0.0147	0.0002
Venus	-18119-05-10 07:55 J	-4896412.38	-4896412.17	-4896411.96	0.0147	0.0039
Venus	-18119-12-22 19:55 J	-4896185.84	-4896185.67	-4896185.48	0.0147	0.0079
Venus	-18118-08-06 08:38 J	-4895959.27	-4895959.14	-4895959.02	0.0147	0.0118
Earth	-18110-11-24 11:16 J	-4892927.19	-4892927.03	-4892926.83	0.0144	0.0102

Moon	-18110-11-24 15:07 J	-4892927.06	-4892926.87	-4892926.67	0.0144	0.0095 *
Moon	-18109-11-28 12:00 J	-4892557.26	-4892557.00	-4892556.74	0.0144	0.0024
Earth	-18109-11-28 15:07 J	-4892557.12	-4892556.87	-4892556.61	0.0144	0.0019 *
Earth	-18108-12-03 17:31 J	-4892186.99	-4892186.77	-4892186.53	0.0143	0.0063
Moon	-18108-12-03 20:38 J	-4892186.86	-4892186.64	-4892186.41	0.0143	0.0063 *
Earth	-18107-12-08 19:26 J	-4891816.69	-4891816.69	-4891816.68	0.0143	0.0142
Mercury	-18099-01-13 10:33 J	-4889224.10	-4889224.06	-4889224.03	0.0139	0.0136
Mercury	-18099-04-11 18:00 J	-4889135.86	-4889135.75	-4889135.62	0.0139	0.0107
Mercury	-18099-07-09 01:55 J	-4889047.58	-4889047.42	-4889047.26	0.0138	0.0077
Mercury	-18099-10-05 09:36 J	-4888959.28	-4888959.10	-4888958.92	0.0138	0.0047
Mercury	-18098-01-01 17:16 J	-4888870.97	-4888870.78	-4888870.59	0.0138	0.0018
Mercury	-18098-03-31 00:57 J	-4888782.65	-4888782.46	-4888782.27	0.0138	0.0011
Mercury	-18098-06-27 08:23 J	-4888694.33	-4888694.15	-4888693.96	0.0138	0.0040
Mercury	-18098-09-23 15:50 J	-4888606.00	-4888605.84	-4888605.67	0.0138	0.0068
Mercury	-18098-12-20 23:02 J	-4888517.66	-4888517.54	-4888517.39	0.0138	0.0097
Mercury	-18097-03-18 06:28 J	-4888429.30	-4888429.23	-4888429.14	0.0138	0.0125
Mars	-18091-03-16 12:00 J	-4886240.25	-4886240.00	-4886239.72	0.0135	0.0060
Mars	-18089-02-14 15:21 J	-4885539.96	-4885539.86	-4885539.72	0.0134	0.0122
Venus	-18080-05-28 04:48 J	-4882149.40	-4882149.30	-4882149.18	0.0132	0.0113
Venus	-18079-01-09 10:19 J	-4881923.23	-4881923.07	-4881922.89	0.0132	0.0084
Venus	-18079-08-23 16:04 J	-4881697.03	-4881696.83	-4881696.63	0.0132	0.0054
Venus	-18078-04-06 21:21 J	-4881470.82	-4881470.61	-4881470.39	0.0132	0.0025
Venus	-18078-11-19 02:52 J	-4881244.60	-4881244.38	-4881244.16	0.0132	0.0005
Venus	-18077-07-02 07:55 J	-4881018.37	-4881018.17	-4881017.95	0.0132	0.0034
Venus	-18076-02-13 13:26 J	-4880792.13	-4880791.94	-4880791.74	0.0132	0.0063
Venus	-18076-09-27 18:43 J	-4880565.87	-4880565.72	-4880565.56	0.0132	0.0092
Venus	-18075-05-12 00:00 J	-4880339.58	-4880339.50	-4880339.41	0.0132	0.0121
Earth	-18066-05-25 06:43 J	-4877039.26	-4877039.22	-4877039.15	0.0134	0.0130
Moon	-18065-05-28 08:52 J	-4876670.35	-4876670.13	-4876669.90	0.0135	0.0060
Earth	-18065-05-28 12:00 J	-4876670.20	-4876670.00	-4876669.76	0.0135	0.0067 *

Earth	-18064-06-01 18:14 J	-4876300.99	-4876300.74	-4876300.49	0.0135	0.0001
Moon	-18064-06-01 21:07 J	-4876300.86	-4876300.62	-4876300.37	0.0135	0.0009 *
Moon	-18063-06-05 20:52 J	-4875931.83	-4875931.63	-4875931.40	0.0136	0.0072
Earth	-18063-06-06 00:43 J	-4875931.69	-4875931.47	-4875931.25	0.0136	0.0065 *
Earth	-18062-06-10 07:11 J	-4875562.24	-4875562.20	-4875562.12	0.0136	0.0132
Moon	-18062-06-10 10:33 J	-4875562.13	-4875562.06	-4875561.97	0.0136	0.0128 *
Mercury	-18055-06-17 01:40 J	-4872998.48	-4872998.43	-4872998.37	0.0140	0.0126
Mercury	-18055-09-13 05:02 J	-4872910.37	-4872910.29	-4872910.20	0.0140	0.0106
Mercury	-18055-12-10 08:23 J	-4872822.25	-4872822.15	-4872822.04	0.0140	0.0085
Mercury	-18054-03-08 11:45 J	-4872734.12	-4872734.01	-4872733.89	0.0140	0.0065
Mercury	-18054-06-04 15:07 J	-4872645.99	-4872645.87	-4872645.74	0.0140	0.0044
Mercury	-18054-08-31 18:28 J	-4872557.86	-4872557.73	-4872557.59	0.0140	0.0024
Mercury	-18054-11-27 22:04 J	-4872469.72	-4872469.58	-4872469.45	0.0140	0.0005
Mercury	-18053-02-24 01:26 J	-4872381.57	-4872381.44	-4872381.31	0.0141	0.0019
Mercury	-18053-05-22 04:48 J	-4872293.43	-4872293.30	-4872293.17	0.0141	0.0040
Mercury	-18053-08-18 08:09 J	-4872205.27	-4872205.16	-4872205.04	0.0141	0.0061
Mercury	-18053-11-14 11:45 J	-4872117.12	-4872117.01	-4872116.90	0.0141	0.0082
Mercury	-18052-02-10 15:07 J	-4872028.95	-4872028.87	-4872028.78	0.0141	0.0104
Mercury	-18052-05-09 18:43 J	-4871940.78	-4871940.72	-4871940.66	0.0141	0.0125
Mars	-18047-06-21 23:16 J	-4870071.82	-4870071.53	-4870071.23	0.0144	0.0062
Venus	-18038-07-16 15:21 J	-4866759.92	-4866759.86	-4866759.77	0.0147	0.0136
Venus	-18037-02-28 03:07 J	-4866533.51	-4866533.37	-4866533.19	0.0147	0.0098
Venus	-18037-10-11 15:07 J	-4866307.06	-4866306.87	-4866306.66	0.0147	0.0058
Venus	-18036-05-26 03:07 J	-4866080.58	-4866080.37	-4866080.15	0.0147	0.0019
Venus	-18035-01-07 15:21 J	-4865854.07	-4865853.86	-4865853.65	0.0147	0.0022
Venus	-18035-08-22 03:21 J	-4865627.55	-4865627.36	-4865627.16	0.0147	0.0062
Venus	-18034-04-05 15:36 J	-4865401.00	-4865400.85	-4865400.69	0.0147	0.0101
Venus	-18034-11-18 03:36 J	-4865174.39	-4865174.35	-4865174.27	0.0146	0.0140
Earth	-18026-11-24 21:21 J	-4862245.78	-4862245.61	-4862245.40	0.0144	0.0097
Moon	-18026-11-25 01:11 J	-4862245.61	-4862245.45	-4862245.26	0.0144	0.0104 *

Moon	-18025-11-28 21:36 J	-4861875.86	-4861875.60	-4861875.34	0.0144	0.0008
Earth	-18025-11-29 01:11 J	-4861875.70	-4861875.45	-4861875.19	0.0144	0.0015 *
Earth	-18024-12-04 03:21 J	-4861505.57	-4861505.36	-4861505.12	0.0143	0.0068
Moon	-18024-12-04 06:14 J	-4861505.45	-4861505.24	-4861505.00	0.0143	0.0068 *
Mercury	-18015-02-02 17:31 J	-4858522.83	-4858522.77	-4858522.69	0.0139	0.0129
Mercury	-18015-05-02 01:26 J	-4858434.57	-4858434.44	-4858434.30	0.0139	0.0099
Mercury	-18015-07-29 09:07 J	-4858346.28	-4858346.12	-4858345.95	0.0138	0.0069
Mercury	-18015-10-25 16:48 J	-4858257.98	-4858257.80	-4858257.61	0.0138	0.0040
Mercury	-18014-01-22 00:28 J	-4858169.66	-4858169.48	-4858169.28	0.0138	0.0012
Mercury	-18014-04-20 08:09 J	-4858081.35	-4858081.16	-4858080.97	0.0138	0.0018
Mercury	-18014-07-17 15:36 J	-4857993.02	-4857992.85	-4857992.66	0.0138	0.0047
Mercury	-18014-10-13 23:02 J	-4857904.69	-4857904.54	-4857904.37	0.0138	0.0076
Mercury	-18013-01-10 06:28 J	-4857816.34	-4857816.23	-4857816.10	0.0138	0.0104
Mercury	-18013-04-07 13:55 J	-4857727.96	-4857727.92	-4857727.86	0.0138	0.0132
Mars	-18007-11-09 00:57 J	-4855321.75	-4855321.46	-4855321.16	0.0135	0.0006

18TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 18th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-17996-01-25 16:04 J	-4851590.89	-4851590.83	-4851590.76	0.0132	0.0125		
Venus	-17996-09-08 21:21 J	-4851364.74	-4851364.61	-4851364.44	0.0132	0.0097		
Venus	-17995-04-23 03:21 J	-4851138.55	-4851138.36	-4851138.17	0.0132	0.0066		

Venus	-17995-12-05 08:38 J	-4850912.34	-4850912.14	-4850911.92	0.0132	0.0037
Venus	-17994-07-19 14:23 J	-4850686.12	-4850685.90	-4850685.68	0.0132	0.0008
Venus	-17993-03-01 19:55 J	-4850459.89	-4850459.67	-4850459.46	0.0132	0.0022
Venus	-17993-10-14 00:57 J	-4850233.65	-4850233.46	-4850233.25	0.0132	0.0052
Venus	-17992-05-28 06:14 J	-4850007.40	-4850007.24	-4850007.05	0.0132	0.0082
Venus	-17991-01-09 12:00 J	-4849781.12	-4849781.00	-4849780.88	0.0132	0.0110
Earth	-17982-05-25 20:38 J	-4846357.71	-4846357.64	-4846357.52	0.0134	0.0124
Moon	-17982-05-26 00:14 J	-4846357.59	-4846357.49	-4846357.36	0.0134	0.0119 *
Moon	-17981-05-28 23:16 J	-4845988.74	-4845988.53	-4845988.30	0.0135	0.0066
Earth	-17981-05-29 02:38 J	-4845988.61	-4845988.39	-4845988.16	0.0135	0.0059 *
Earth	-17980-06-02 08:38 J	-4845619.39	-4845619.14	-4845618.89	0.0135	0.0006
Moon	-17980-06-02 12:14 J	-4845619.24	-4845618.99	-4845618.75	0.0135	0.0013 *
Moon	-17979-06-06 11:45 J	-4845250.21	-4845250.01	-4845249.77	0.0136	0.0067
Earth	-17979-06-06 15:21 J	-4845250.07	-4845249.86	-4845249.65	0.0136	0.0072 *
Mercury	-17971-04-10 06:28 J	-4842385.25	-4842385.23	-4842385.20	0.0140	0.0137
Mercury	-17971-07-07 09:50 J	-4842297.16	-4842297.09	-4842297.02	0.0140	0.0117
Mercury	-17971-10-03 12:57 J	-4842209.05	-4842208.96	-4842208.86	0.0140	0.0097
Mercury	-17971-12-30 16:33 J	-4842120.92	-4842120.81	-4842120.70	0.0140	0.0076
Mercury	-17970-03-28 19:40 J	-4842032.79	-4842032.68	-4842032.55	0.0140	0.0056
Mercury	-17970-06-24 23:16 J	-4841944.66	-4841944.53	-4841944.41	0.0140	0.0035
Mercury	-17970-09-21 02:38 J	-4841856.52	-4841856.39	-4841856.26	0.0140	0.0015
Mercury	-17970-12-18 06:00 J	-4841768.38	-4841768.25	-4841768.12	0.0141	0.0006
Mercury	-17969-03-15 09:21 J	-4841680.24	-4841680.11	-4841679.98	0.0141	0.0027
Mercury	-17969-06-11 12:43 J	-4841592.09	-4841591.97	-4841591.84	0.0141	0.0049
Mercury	-17969-09-07 16:19 J	-4841503.94	-4841503.82	-4841503.71	0.0141	0.0070
Mercury	-17969-12-04 19:40 J	-4841415.78	-4841415.68	-4841415.58	0.0141	0.0091
Mercury	-17968-03-02 23:02 J	-4841327.61	-4841327.54	-4841327.45	0.0141	0.0113
Mercury	-17968-05-30 02:38 J	-4841239.42	-4841239.39	-4841239.35	0.0141	0.0135
Mars	-17962-02-16 14:09 J	-4839151.22	-4839150.91	-4839150.59	0.0144	0.0033
Venus	-17954-10-28 12:57 J	-4835975.08	-4835974.96	-4835974.81	0.0147	0.0113

Venus	-17953-06-11 00:43 J	-4835748.64	-4835748.47	-4835748.27	0.0147	0.0074
Venus	-17952-01-23 12:57 J	-4835522.17	-4835521.96	-4835521.75	0.0147	0.0034
Venus	-17952-09-07 00:57 J	-4835295.67	-4835295.46	-4835295.24	0.0147	0.0006
Venus	-17951-04-21 12:57 J	-4835069.16	-4835068.96	-4835068.75	0.0147	0.0046
Venus	-17951-12-04 00:57 J	-4834842.62	-4834842.46	-4834842.27	0.0147	0.0086
Venus	-17950-07-18 13:40 J	-4834616.04	-4834615.93	-4834615.82	0.0146	0.0125
Earth	-17942-11-25 11:45 J	-4831564.20	-4831564.01	-4831563.79	0.0144	0.0089
Moon	-17942-11-25 15:21 J	-4831564.06	-4831563.86	-4831563.63	0.0144	0.0081 *
Moon	-17941-11-29 11:45 J	-4831194.27	-4831194.01	-4831193.75	0.0144	0.0012
Earth	-17941-11-29 15:21 J	-4831194.12	-4831193.86	-4831193.60	0.0144	0.0006 *
Earth	-17940-12-04 17:31 J	-4830823.98	-4830823.77	-4830823.54	0.0143	0.0075
Moon	-17940-12-04 21:07 J	-4830823.82	-4830823.62	-4830823.39	0.0143	0.0076 *
Mercury	-17931-02-23 01:40 J	-4827821.51	-4827821.43	-4827821.31	0.0139	0.0118
Mercury	-17931-05-22 09:50 J	-4827733.24	-4827733.09	-4827732.94	0.0138	0.0088
Mercury	-17931-08-18 17:31 J	-4827644.94	-4827644.77	-4827644.59	0.0138	0.0058
Mercury	-17931-11-15 01:11 J	-4827556.63	-4827556.45	-4827556.26	0.0138	0.0029
Mercury	-17930-02-11 08:52 J	-4827468.32	-4827468.13	-4827467.94	0.0138	0.0002
Mercury	-17930-05-10 16:33 J	-4827380.00	-4827379.81	-4827379.62	0.0138	0.0029
Mercury	-17930-08-06 23:45 J	-4827291.67	-4827291.51	-4827291.33	0.0138	0.0058
Mercury	-17930-11-03 07:26 J	-4827203.34	-4827203.19	-4827203.04	0.0138	0.0086
Mercury	-17929-01-30 14:38 J	-4827114.98	-4827114.89	-4827114.77	0.0138	0.0114
Mars	-17924-08-03 14:23 J	-4825103.07	-4825102.90	-4825102.72	0.0135	0.0108
Mars	-17922-07-04 17:31 J	-4824403.01	-4824402.77	-4824402.52	0.0134	0.0074
Venus	-17912-05-09 09:07 J	-4820806.23	-4820806.12	-4820805.98	0.0132	0.0108
Venus	-17912-12-21 14:52 J	-4820580.05	-4820579.88	-4820579.69	0.0132	0.0078
Venus	-17911-08-04 20:23 J	-4820353.84	-4820353.65	-4820353.43	0.0132	0.0049
Venus	-17910-03-19 02:09 J	-4820127.62	-4820127.41	-4820127.19	0.0132	0.0019
Venus	-17910-10-31 07:40 J	-4819901.40	-4819901.18	-4819900.96	0.0132	0.0011
Venus	-17909-06-13 13:11 J	-4819675.16	-4819674.95	-4819674.74	0.0132	0.0040
Venus	-17908-01-25 18:28 J	-4819448.91	-4819448.73	-4819448.53	0.0132	0.0070

Venus	-17908-09-09 00:00 J	-4819222.64	-4819222.50	-4819222.35	0.0132	0.0099
Venus	-17907-04-23 05:31 J	-4818996.32	-4818996.27	-4818996.22	0.0132	0.0129
Earth	-17898-05-26 11:02 J	-4815676.16	-4815676.04	-4815675.91	0.0134	0.0116
Moon	-17898-05-26 14:09 J	-4815675.98	-4815675.91	-4815675.78	0.0134	0.0123 *
Moon	-17897-05-29 12:57 J	-4815307.18	-4815306.96	-4815306.71	0.0135	0.0046
Earth	-17897-05-29 16:33 J	-4815307.03	-4815306.81	-4815306.57	0.0135	0.0052 *
Earth	-17896-06-02 22:48 J	-4814937.80	-4814937.55	-4814937.30	0.0135	0.0013
Moon	-17896-06-03 02:09 J	-4814937.66	-4814937.41	-4814937.16	0.0135	0.0006 *
Moon	-17895-06-07 01:40 J	-4814568.61	-4814568.43	-4814568.22	0.0136	0.0086
Earth	-17895-06-07 05:31 J	-4814568.47	-4814568.27	-4814568.06	0.0136	0.0079 *
Mercury	-17887-04-30 14:23 J	-4811683.95	-4811683.90	-4811683.85	0.0140	0.0129
Mercury	-17887-07-27 17:31 J	-4811595.84	-4811595.77	-4811595.68	0.0140	0.0109
Mercury	-17887-10-23 20:52 J	-4811507.72	-4811507.63	-4811507.52	0.0140	0.0089
Mercury	-17886-01-20 00:14 J	-4811419.60	-4811419.49	-4811419.37	0.0140	0.0068
Mercury	-17886-04-18 03:36 J	-4811331.47	-4811331.35	-4811331.22	0.0140	0.0048
Mercury	-17886-07-15 06:57 J	-4811243.33	-4811243.21	-4811243.08	0.0140	0.0027
Mercury	-17886-10-11 10:33 J	-4811155.20	-4811155.06	-4811154.93	0.0140	0.0007
Mercury	-17885-01-07 13:55 J	-4811067.05	-4811066.92	-4811066.79	0.0141	0.0015
Mercury	-17885-04-04 17:16 J	-4810978.91	-4810978.78	-4810978.65	0.0141	0.0036
Mercury	-17885-07-01 20:38 J	-4810890.76	-4810890.64	-4810890.51	0.0141	0.0057
Mercury	-17885-09-28 00:00 J	-4810802.60	-4810802.50	-4810802.38	0.0141	0.0079
Mercury	-17885-12-25 03:36 J	-4810714.44	-4810714.35	-4810714.25	0.0141	0.0100
Mercury	-17884-03-23 07:11 J	-4810626.26	-4810626.20	-4810626.13	0.0141	0.0122
Mars	-17880-11-07 07:55 J	-4808936.30	-4808936.17	-4808935.98	0.0144	0.0126
Mars	-17878-10-14 01:26 J	-4808230.57	-4808230.44	-4808230.27	0.0144	0.0128
Venus	-17870-06-27 22:04 J	-4805416.67	-4805416.58	-4805416.47	0.0146	0.0129
Venus	-17869-02-09 09:50 J	-4805190.25	-4805190.09	-4805189.91	0.0147	0.0090
Venus	-17869-09-22 21:50 J	-4804963.79	-4804963.59	-4804963.38	0.0147	0.0050
Venus	-17868-05-07 09:50 J	-4804737.30	-4804737.09	-4804736.87	0.0147	0.0010
Venus	-17868-12-19 21:50 J	-4804510.79	-4804510.59	-4804510.37	0.0147	0.0030

Venus	-17867-08-03 10:04 J	-4804284.26	-4804284.08	-4804283.88	0.0146	0.0070
Venus	-17866-03-17 22:04 J	-4804057.71	-4804057.58	-4804057.42	0.0146	0.0110
Earth	-17858-11-26 00:57 J	-4800882.67	-4800882.46	-4800882.24	0.0144	0.0081
Moon	-17858-11-26 04:19 J	-4800882.50	-4800882.32	-4800882.10	0.0144	0.0089 *
Moon	-17857-11-30 00:28 J	-4800512.74	-4800512.48	-4800512.22	0.0144	0.0007
Earth	-17857-11-30 04:19 J	-4800512.58	-4800512.32	-4800512.06	0.0144	0.0001 *
Earth	-17856-12-05 06:14 J	-4800142.44	-4800142.24	-4800142.02	0.0143	0.0081
Moon	-17856-12-05 09:21 J	-4800142.30	-4800142.11	-4800141.88	0.0143	0.0081 *
Mercury	-17848-12-17 01:55 J	-4797208.43	-4797208.42	-4797208.38	0.0139	0.0138
Mercury	-17847-03-15 09:50 J	-4797120.20	-4797120.09	-4797119.96	0.0139	0.0108
Mercury	-17847-06-11 17:31 J	-4797031.92	-4797031.77	-4797031.60	0.0138	0.0078
Mercury	-17847-09-08 01:26 J	-4796943.62	-4796943.44	-4796943.26	0.0138	0.0049
Mercury	-17847-12-05 09:07 J	-4796855.31	-4796855.12	-4796854.93	0.0138	0.0019
Mercury	-17846-03-03 16:48 J	-4796766.99	-4796766.80	-4796766.61	0.0138	0.0010
Mercury	-17846-05-31 00:14 J	-4796678.67	-4796678.49	-4796678.30	0.0138	0.0038
Mercury	-17846-08-27 07:40 J	-4796590.34	-4796590.18	-4796590.01	0.0138	0.0067
Mercury	-17846-11-23 15:07 J	-4796502.00	-4796501.87	-4796501.73	0.0138	0.0095
Mercury	-17845-02-19 22:33 J	-4796413.64	-4796413.56	-4796413.47	0.0138	0.0123
Mars	-17839-03-29 04:33 J	-4794184.58	-4794184.31	-4794184.03	0.0135	0.0042
Venus	-17828-01-06 19:55 J	-4790247.74	-4790247.67	-4790247.56	0.0132	0.0120
Venus	-17828-08-21 01:55 J	-4790021.58	-4790021.42	-4790021.26	0.0132	0.0090
Venus	-17827-04-04 07:11 J	-4789795.38	-4789795.20	-4789794.99	0.0132	0.0061
Venus	-17827-11-16 12:57 J	-4789569.17	-4789568.96	-4789568.74	0.0132	0.0031
Venus	-17826-06-30 18:43 J	-4789342.94	-4789342.72	-4789342.50	0.0132	0.0002
Venus	-17825-02-12 00:00 J	-4789116.70	-4789116.50	-4789116.27	0.0132	0.0029
Venus	-17825-09-25 05:31 J	-4788890.46	-4788890.27	-4788890.06	0.0132	0.0058
Venus	-17824-05-09 10:48 J	-4788664.20	-4788664.05	-4788663.87	0.0132	0.0088
Venus	-17824-12-21 16:19 J	-4788437.91	-4788437.82	-4788437.71	0.0132	0.0117
Earth	-17814-05-26 23:02 J	-4784994.66	-4784994.54	-4784994.38	0.0134	0.0110
Moon	-17814-05-27 02:38 J	-4784994.53	-4784994.39	-4784994.22	0.0134	0.0106 *

Moon	-17813-05-30 01:40 J	-4784625.66	-4784625.43	-4784625.20	0.0135	0.0053
Earth	-17813-05-30 05:02 J	-4784625.52	-4784625.29	-4784625.05	0.0135	0.0046 *
Earth	-17812-06-03 11:16 J	-4784256.28	-4784256.03	-4784255.79	0.0135	0.0019
Moon	-17812-06-03 14:38 J	-4784256.13	-4784255.89	-4784255.63	0.0135	0.0027 *
Moon	-17811-06-07 14:38 J	-4783887.10	-4783886.89	-4783886.69	0.0136	0.0078
Earth	-17811-06-07 18:00 J	-4783886.94	-4783886.75	-4783886.55	0.0136	0.0084 *
Mercury	-17803-05-20 21:50 J	-4780982.65	-4780982.59	-4780982.53	0.0140	0.0123
Mercury	-17803-08-17 01:11 J	-4780894.54	-4780894.45	-4780894.36	0.0140	0.0103
Mercury	-17803-11-13 04:19 J	-4780806.42	-4780806.32	-4780806.21	0.0140	0.0083
Mercury	-17802-02-09 07:55 J	-4780718.29	-4780718.17	-4780718.06	0.0140	0.0062
Mercury	-17802-05-08 11:02 J	-4780630.16	-4780630.04	-4780629.91	0.0140	0.0042
Mercury	-17802-08-04 14:23 J	-4780542.03	-4780541.90	-4780541.76	0.0140	0.0022
Mercury	-17802-10-31 18:00 J	-4780453.89	-4780453.75	-4780453.62	0.0140	0.0004
Mercury	-17801-01-27 21:21 J	-4780365.74	-4780365.61	-4780365.48	0.0141	0.0021
Mercury	-17801-04-25 00:43 J	-4780277.59	-4780277.47	-4780277.34	0.0141	0.0042
Mercury	-17801-07-22 04:04 J	-4780189.44	-4780189.33	-4780189.21	0.0141	0.0063
Mercury	-17801-10-18 07:26 J	-4780101.29	-4780101.19	-4780101.08	0.0141	0.0085
Mercury	-17800-01-14 11:02 J	-4780013.12	-4780013.04	-4780012.95	0.0141	0.0106
Mercury	-17800-04-12 14:23 J	-4779924.94	-4779924.90	-4779924.83	0.0141	0.0128
Mars	-17795-07-04 14:52 J	-4778016.18	-4778015.88	-4778015.55	0.0144	0.0036
Venus	-17786-02-25 05:45 J	-4774858.26	-4774858.26	-4774858.26	0.0146	0.0146
Venus	-17786-10-09 17:16 J	-4774631.91	-4774631.78	-4774631.62	0.0146	0.0108
Venus	-17785-05-23 05:16 J	-4774405.46	-4774405.28	-4774405.08	0.0147	0.0068
Venus	-17784-01-04 17:31 J	-4774178.98	-4774178.77	-4774178.56	0.0147	0.0028
Venus	-17784-08-19 05:31 J	-4773952.48	-4773952.27	-4773952.05	0.0147	0.0013
Venus	-17783-04-02 17:31 J	-4773725.96	-4773725.77	-4773725.56	0.0146	0.0053
Venus	-17783-11-15 05:31 J	-4773499.42	-4773499.27	-4773499.09	0.0146	0.0093
Venus	-17782-06-29 18:00 J	-4773272.83	-4773272.75	-4773272.65	0.0146	0.0132
Earth	-17774-11-26 13:11 J	-4770201.15	-4770200.95	-4770200.71	0.0144	0.0075
Moon	-17774-11-26 16:48 J	-4770201.02	-4770200.80	-4770200.56	0.0144	0.0067 *

Moon	-17773-11-30 13:11 J	-4769831.21	-4769830.95	-4769830.69	0.0144	0.0002
Earth	-17773-11-30 16:48 J	-4769831.06	-4769830.80	-4769830.54	0.0144	0.0007 *
Earth	-17772-12-05 18:57 J	-4769460.90	-4769460.71	-4769460.49	0.0143	0.0088
Moon	-17772-12-05 23:02 J	-4769460.73	-4769460.54	-4769460.33	0.0143	0.0089 *
Mercury	-17763-01-06 09:50 J	-4766507.14	-4766507.09	-4766507.00	0.0139	0.0128
Mercury	-17763-04-04 18:00 J	-4766418.88	-4766418.75	-4766418.61	0.0139	0.0098
Mercury	-17763-07-02 01:40 J	-4766330.59	-4766330.43	-4766330.26	0.0138	0.0068
Mercury	-17763-09-28 09:36 J	-4766242.29	-4766242.10	-4766241.92	0.0138	0.0039
Mercury	-17763-12-25 17:02 J	-4766153.98	-4766153.79	-4766153.59	0.0138	0.0010
Mercury	-17762-03-24 00:43 J	-4766065.66	-4766065.47	-4766065.28	0.0138	0.0019
Mercury	-17762-06-20 08:09 J	-4765977.33	-4765977.16	-4765976.97	0.0138	0.0048
Mercury	-17762-09-16 15:36 J	-4765889.00	-4765888.85	-4765888.68	0.0138	0.0077
Mercury	-17762-12-13 23:02 J	-4765800.65	-4765800.54	-4765800.41	0.0138	0.0105
Mercury	-17761-03-11 06:28 J	-4765712.27	-4765712.23	-4765712.18	0.0138	0.0133
Mars	-17755-11-21 20:38 J	-4763265.92	-4763265.64	-4763265.34	0.0134	0.0024
Venus	-17744-04-20 12:28 J	-4759463.11	-4759462.98	-4759462.83	0.0132	0.0103
Venus	-17744-12-02 18:14 J	-4759236.92	-4759236.74	-4759236.55	0.0132	0.0073
Venus	-17743-07-16 23:45 J	-4759010.71	-4759010.51	-4759010.29	0.0132	0.0044
Venus	-17742-02-28 05:31 J	-4758784.49	-4758784.27	-4758784.05	0.0132	0.0014
Venus	-17742-10-12 11:02 J	-4758558.26	-4758558.04	-4758557.82	0.0132	0.0016
Venus	-17741-05-25 16:19 J	-4758332.02	-4758331.82	-4758331.61	0.0132	0.0046
Venus	-17740-01-06 21:36 J	-4758105.76	-4758105.60	-4758105.40	0.0132	0.0076
Venus	-17740-08-21 03:07 J	-4757879.49	-4757879.37	-4757879.22	0.0132	0.0105
Earth	-17730-05-27 10:33 J	-4754313.20	-4754313.06	-4754312.89	0.0134	0.0105
Moon	-17730-05-27 14:09 J	-4754313.04	-4754312.91	-4754312.76	0.0134	0.0111 *
Moon	-17729-05-30 12:57 J	-4753944.20	-4753943.96	-4753943.72	0.0135	0.0035
Earth	-17729-05-30 16:04 J	-4753944.05	-4753943.83	-4753943.58	0.0135	0.0042 *
Earth	-17728-06-03 22:33 J	-4753574.81	-4753574.56	-4753574.31	0.0135	0.0023
Moon	-17728-06-04 01:55 J	-4753574.66	-4753574.42	-4753574.17	0.0135	0.0017 *
Moon	-17727-06-08 01:11 J	-4753205.61	-4753205.45	-4753205.26	0.0136	0.0096

Earth	-17727-06-08 04:48 J	-4753205.47	-4753205.30	-4753205.09	0.0136	0.0089 *
Mercury	-17719-03-14 01:40 J	-4750369.44	-4750369.43	-4750369.42	0.0140	0.0139
Mercury	-17719-06-10 04:48 J	-4750281.36	-4750281.30	-4750281.22	0.0140	0.0119
Mercury	-17719-09-06 08:09 J	-4750193.24	-4750193.16	-4750193.06	0.0140	0.0099
Mercury	-17719-12-03 11:31 J	-4750105.12	-4750105.02	-4750104.91	0.0140	0.0078
Mercury	-17718-03-01 14:52 J	-4750017.00	-4750016.88	-4750016.76	0.0140	0.0058
Mercury	-17718-05-28 18:14 J	-4749928.86	-4749928.74	-4749928.61	0.0140	0.0037
Mercury	-17718-08-24 21:36 J	-4749840.73	-4749840.60	-4749840.46	0.0140	0.0017
Mercury	-17718-11-21 00:57 J	-4749752.59	-4749752.46	-4749752.32	0.0140	0.0006
Mercury	-17717-02-17 04:33 J	-4749664.44	-4749664.31	-4749664.18	0.0141	0.0026
Mercury	-17717-05-15 07:55 J	-4749576.30	-4749576.17	-4749576.05	0.0141	0.0047
Mercury	-17717-08-11 11:16 J	-4749488.14	-4749488.03	-4749487.91	0.0141	0.0068
Mercury	-17717-11-07 14:52 J	-4749399.98	-4749399.88	-4749399.78	0.0141	0.0089
Mercury	-17716-02-03 18:00 J	-4749311.82	-4749311.75	-4749311.66	0.0141	0.0111
Mercury	-17716-05-02 21:36 J	-4749223.63	-4749223.60	-4749223.55	0.0141	0.0133
Mars	-17710-02-28 15:07 J	-4747096.15	-4747095.87	-4747095.54	0.0144	0.0053
Venus	-17702-06-08 22:48 J	-4744073.65	-4744073.55	-4744073.44	0.0146	0.0127
Venus	-17701-01-21 10:33 J	-4743847.22	-4743847.06	-4743846.88	0.0146	0.0088
Venus	-17701-09-03 22:33 J	-4743620.76	-4743620.56	-4743620.35	0.0146	0.0048
Venus	-17700-04-18 10:48 J	-4743394.27	-4743394.05	-4743393.84	0.0146	0.0008
Venus	-17700-11-30 22:48 J	-4743167.76	-4743167.55	-4743167.34	0.0146	0.0033
Venus	-17699-07-15 11:02 J	-4742941.23	-4742941.04	-4742940.85	0.0146	0.0073
Venus	-17698-02-26 23:02 J	-4742714.67	-4742714.54	-4742714.40	0.0146	0.0113
Earth	-17690-11-26 20:52 J	-4739519.85	-4739519.63	-4739519.40	0.0144	0.0071
Moon	-17690-11-27 00:00 J	-4739519.70	-4739519.50	-4739519.26	0.0144	0.0079 *
Moon	-17689-11-30 20:52 J	-4739149.88	-4739149.63	-4739149.37	0.0144	0.0017
Earth	-17689-12-01 00:28 J	-4739149.74	-4739149.48	-4739149.22	0.0144	0.0010 *
Earth	-17688-12-06 02:52 J	-4738779.57	-4738779.38	-4738779.18	0.0143	0.0090
Moon	-17688-12-06 06:14 J	-4738779.43	-4738779.24	-4738779.03	0.0143	0.0089 *
Mercury	-17679-01-26 17:02 J	-4735805.88	-4735805.79	-4735805.70	0.0139	0.0122

Mercury	-17679-04-25 00:28 J	-4735717.61	-4735717.48	-4735717.32	0.0139	0.0093
Mercury	-17679-07-22 08:23 J	-4735629.32	-4735629.15	-4735628.97	0.0139	0.0063
Mercury	-17679-10-18 16:04 J	-4735541.01	-4735540.83	-4735540.64	0.0138	0.0034
Mercury	-17678-01-14 23:45 J	-4735452.70	-4735452.51	-4735452.31	0.0138	0.0005
Mercury	-17678-04-13 07:26 J	-4735364.38	-4735364.19	-4735364.00	0.0138	0.0025
Mercury	-17678-07-10 15:07 J	-4735276.05	-4735275.87	-4735275.70	0.0138	0.0053
Mercury	-17678-10-06 22:19 J	-4735187.71	-4735187.57	-4735187.41	0.0138	0.0082
Mercury	-17677-01-03 06:00 J	-4735099.36	-4735099.25	-4735099.14	0.0138	0.0110
Mars	-17672-08-16 04:19 J	-4733047.51	-4733047.32	-4733047.09	0.0135	0.0094
Mars	-17670-07-17 06:28 J	-4732347.44	-4732347.23	-4732346.99	0.0134	0.0088
Venus	-17661-12-18 22:33 J	-4728904.66	-4728904.56	-4728904.45	0.0132	0.0116
Venus	-17660-08-02 04:19 J	-4728678.48	-4728678.32	-4728678.15	0.0132	0.0086
Venus	-17659-03-16 09:50 J	-4728452.28	-4728452.09	-4728451.88	0.0132	0.0057
Venus	-17659-10-28 15:21 J	-4728226.07	-4728225.86	-4728225.63	0.0132	0.0027
Venus	-17658-06-11 21:07 J	-4727999.84	-4727999.62	-4727999.40	0.0132	0.0003
Venus	-17657-01-24 02:38 J	-4727773.60	-4727773.39	-4727773.17	0.0132	0.0033
Venus	-17657-09-06 08:09 J	-4727547.35	-4727547.16	-4727546.96	0.0132	0.0063
Venus	-17656-04-20 13:11 J	-4727321.09	-4727320.95	-4727320.78	0.0132	0.0093
Venus	-17656-12-02 18:43 J	-4727094.79	-4727094.72	-4727094.63	0.0132	0.0122
Earth	-17646-05-27 21:21 J	-4723631.76	-4723631.61	-4723631.43	0.0134	0.0100
Moon	-17646-05-28 00:57 J	-4723631.64	-4723631.46	-4723631.28	0.0134	0.0096 *
Moon	-17645-05-30 23:45 J	-4723262.73	-4723262.51	-4723262.27	0.0135	0.0044
Earth	-17645-05-31 03:21 J	-4723262.60	-4723262.36	-4723262.12	0.0135	0.0037 *
Earth	-17644-06-04 09:21 J	-4722893.35	-4722893.11	-4722892.86	0.0135	0.0027
Moon	-17644-06-04 12:43 J	-4722893.21	-4722892.97	-4722892.72	0.0135	0.0035 *
Moon	-17643-06-08 12:14 J	-4722524.16	-4722523.99	-4722523.78	0.0135	0.0086
Earth	-17643-06-08 15:36 J	-4722524.02	-4722523.85	-4722523.66	0.0135	0.0093 *
Mercury	-17635-04-03 08:38 J	-4719668.16	-4719668.14	-4719668.10	0.0139	0.0135
Mercury	-17635-06-30 12:00 J	-4719580.07	-4719580.00	-4719579.92	0.0140	0.0115
Mercury	-17635-09-26 15:21 J	-4719491.95	-4719491.86	-4719491.76	0.0140	0.0094

Mercury	-17635-12-23 18:43 J	-4719403.83	-4719403.72	-4719403.61	0.0140	0.0074
Mercury	-17634-03-21 22:04 J	-4719315.70	-4719315.58	-4719315.46	0.0140	0.0054
Mercury	-17634-06-18 01:26 J	-4719227.57	-4719227.44	-4719227.31	0.0140	0.0033
Mercury	-17634-09-14 04:48 J	-4719139.43	-4719139.30	-4719139.17	0.0140	0.0013
Mercury	-17634-12-11 08:09 J	-4719051.29	-4719051.16	-4719051.03	0.0140	0.0008
Mercury	-17633-03-08 11:31 J	-4718963.15	-4718963.02	-4718962.89	0.0140	0.0029
Mercury	-17633-06-04 14:52 J	-4718875.00	-4718874.88	-4718874.75	0.0141	0.0051
Mercury	-17633-08-31 18:14 J	-4718786.85	-4718786.74	-4718786.62	0.0141	0.0072
Mercury	-17633-11-27 21:50 J	-4718698.69	-4718698.59	-4718698.49	0.0141	0.0093
Mercury	-17632-02-24 01:11 J	-4718610.52	-4718610.45	-4718610.37	0.0141	0.0115
Mercury	-17632-05-23 04:48 J	-4718522.33	-4718522.30	-4718522.27	0.0141	0.0136
Mars	-17628-11-18 19:11 J	-4716881.88	-4716881.70	-4716881.50	0.0143	0.0116
Mars	-17626-10-25 12:00 J	-4716176.10	-4716176.00	-4716175.89	0.0144	0.0136
Venus	-17618-09-20 14:52 J	-4713289.00	-4713288.88	-4713288.72	0.0146	0.0109
Venus	-17617-05-04 02:52 J	-4713062.56	-4713062.38	-4713062.18	0.0146	0.0069
Venus	-17617-12-16 15:07 J	-4712836.08	-4712835.87	-4712835.66	0.0146	0.0028
Venus	-17616-07-31 03:21 J	-4712609.58	-4712609.36	-4712609.15	0.0146	0.0012
Venus	-17615-03-14 15:21 J	-4712383.06	-4712382.86	-4712382.66	0.0146	0.0052
Venus	-17615-10-27 03:07 J	-4712156.53	-4712156.37	-4712156.19	0.0146	0.0092
Venus	-17614-06-10 15:07 J	-4711929.95	-4711929.87	-4711929.76	0.0146	0.0132
Earth	-17606-11-27 03:07 J	-4708838.59	-4708838.37	-4708838.14	0.0144	0.0069
Moon	-17606-11-27 05:45 J	-4708838.49	-4708838.26	-4708838.01	0.0144	0.0061 *
Moon	-17605-12-01 03:21 J	-4708468.61	-4708468.36	-4708468.10	0.0144	0.0007
Earth	-17605-12-01 06:43 J	-4708468.48	-4708468.22	-4708467.96	0.0144	0.0012 *
Earth	-17604-12-06 09:21 J	-4708098.30	-4708098.11	-4708097.91	0.0143	0.0092
Moon	-17604-12-06 12:57 J	-4708098.14	-4708097.96	-4708097.75	0.0143	0.0095 *
Mercury	-17595-02-15 23:16 J	-4705104.63	-4705104.53	-4705104.43	0.0139	0.0118
Mercury	-17595-05-15 07:11 J	-4705016.35	-4705016.20	-4705016.05	0.0139	0.0088
Mercury	-17595-08-11 14:52 J	-4704928.05	-4704927.88	-4704927.70	0.0139	0.0059
Mercury	-17595-11-07 22:33 J	-4704839.74	-4704839.56	-4704839.37	0.0138	0.0029

Mercury	-17594-02-04 06:14 J	-4704751.43	-4704751.24	-4704751.04	0.0138	0.0003
Mercury	-17594-05-03 13:55 J	-4704663.11	-4704662.92	-4704662.73	0.0138	0.0029
Mercury	-17594-07-30 21:21 J	-4704574.78	-4704574.61	-4704574.43	0.0138	0.0058
Mercury	-17594-10-27 04:48 J	-4704486.44	-4704486.30	-4704486.14	0.0138	0.0087
Mercury	-17593-01-23 12:14 J	-4704398.08	-4704397.99	-4704397.87	0.0138	0.0115
Mars	-17587-04-10 13:40 J	-4702129.21	-4702128.93	-4702128.64	0.0135	0.0031
Venus	-17577-08-18 08:09 J	-4698346.18	-4698346.16	-4698346.11	0.0132	0.0130
Venus	-17576-04-01 14:09 J	-4698120.05	-4698119.91	-4698119.76	0.0132	0.0100
Venus	-17576-11-13 19:55 J	-4697893.85	-4697893.67	-4697893.48	0.0132	0.0070
Venus	-17575-06-28 01:26 J	-4697667.64	-4697667.44	-4697667.22	0.0132	0.0041
Venus	-17574-02-09 07:26 J	-4697441.41	-4697441.19	-4697440.97	0.0132	0.0010
Venus	-17574-09-23 12:43 J	-4697215.18	-4697214.97	-4697214.74	0.0132	0.0020
Venus	-17573-05-06 18:14 J	-4696988.94	-4696988.74	-4696988.53	0.0132	0.0050
Venus	-17573-12-18 23:31 J	-4696762.68	-4696762.52	-4696762.33	0.0132	0.0080
Venus	-17572-08-02 04:48 J	-4696536.40	-4696536.30	-4696536.16	0.0132	0.0110
Earth	-17562-05-28 09:21 J	-4692950.27	-4692950.11	-4692949.92	0.0134	0.0095
Moon	-17562-05-28 12:57 J	-4692950.12	-4692949.96	-4692949.78	0.0134	0.0099 *
Moon	-17561-05-31 12:14 J	-4692581.22	-4692580.99	-4692580.74	0.0135	0.0025
Earth	-17561-05-31 15:07 J	-4692581.10	-4692580.87	-4692580.61	0.0135	0.0032 *
Earth	-17560-06-04 21:07 J	-4692211.85	-4692211.62	-4692211.37	0.0135	0.0033
Moon	-17560-06-05 00:28 J	-4692211.72	-4692211.48	-4692211.23	0.0135	0.0026 *
Moon	-17559-06-09 00:14 J	-4691842.63	-4691842.49	-4691842.32	0.0135	0.0104
Earth	-17559-06-09 03:21 J	-4691842.51	-4691842.36	-4691842.16	0.0135	0.0098 *
Mercury	-17551-04-23 16:04 J	-4688966.87	-4688966.83	-4688966.77	0.0139	0.0129
Mercury	-17551-07-20 19:26 J	-4688878.77	-4688878.69	-4688878.60	0.0140	0.0109
Mercury	-17551-10-16 22:48 J	-4688790.65	-4688790.55	-4688790.45	0.0140	0.0088
Mercury	-17550-01-13 02:09 J	-4688702.52	-4688702.41	-4688702.29	0.0140	0.0068
Mercury	-17550-04-11 05:31 J	-4688614.39	-4688614.27	-4688614.15	0.0140	0.0048
Mercury	-17550-07-08 08:52 J	-4688526.26	-4688526.13	-4688526.00	0.0140	0.0027
Mercury	-17550-10-04 12:14 J	-4688438.12	-4688437.99	-4688437.86	0.0140	0.0006

Mercury	-17550-12-31 15:36 J	-4688349.98	-4688349.85	-4688349.72	0.0140	0.0014
Mercury	-17549-03-28 18:57 J	-4688261.84	-4688261.71	-4688261.58	0.0140	0.0036
Mercury	-17549-06-24 22:19 J	-4688173.69	-4688173.57	-4688173.44	0.0141	0.0057
Mercury	-17549-09-21 01:55 J	-4688085.53	-4688085.42	-4688085.31	0.0141	0.0078
Mercury	-17549-12-18 05:16 J	-4687997.37	-4687997.28	-4687997.18	0.0141	0.0099
Mercury	-17548-03-16 08:38 J	-4687909.20	-4687909.14	-4687909.06	0.0141	0.0121
Mars	-17543-07-15 22:19 J	-4685961.88	-4685961.57	-4685961.24	0.0144	0.0028
Venus	-17534-05-20 21:07 J	-4682730.72	-4682730.62	-4682730.52	0.0146	0.0128
Venus	-17533-01-02 08:38 J	-4682504.30	-4682504.14	-4682503.96	0.0146	0.0088
Venus	-17533-08-15 20:38 J	-4682277.84	-4682277.64	-4682277.43	0.0146	0.0048
Venus	-17532-03-30 08:38 J	-4682051.36	-4682051.14	-4682050.93	0.0146	0.0008
Venus	-17532-11-11 20:23 J	-4681824.85	-4681824.65	-4681824.43	0.0146	0.0032
Venus	-17531-06-26 08:23 J	-4681598.33	-4681598.15	-4681597.96	0.0146	0.0073
Venus	-17530-02-07 20:23 J	-4681371.78	-4681371.65	-4681371.51	0.0146	0.0113
Moon	-17523-11-22 04:19 J	-4678527.33	-4678527.32	-4678527.27	0.0144	0.0144
Earth	-17522-11-27 09:36 J	-4678157.31	-4678157.10	-4678156.86	0.0144	0.0066
Moon	-17522-11-27 12:14 J	-4678157.21	-4678156.99	-4678156.75	0.0144	0.0073 *
Moon	-17521-12-01 10:33 J	-4677787.31	-4677787.06	-4677786.81	0.0144	0.0022
Earth	-17521-12-01 13:26 J	-4677787.20	-4677786.94	-4677786.68	0.0143	0.0015 *
Earth	-17520-12-06 15:36 J	-4677417.02	-4677416.85	-4677416.63	0.0143	0.0095
Moon	-17520-12-06 18:57 J	-4677416.89	-4677416.71	-4677416.49	0.0143	0.0092 *
Mercury	-17511-03-08 05:02 J	-4674403.38	-4674403.29	-4674403.17	0.0139	0.0115
Mercury	-17511-06-04 13:11 J	-4674315.10	-4674314.95	-4674314.80	0.0139	0.0085
Mercury	-17511-08-31 20:52 J	-4674226.80	-4674226.63	-4674226.45	0.0139	0.0055
Mercury	-17511-11-28 04:33 J	-4674138.49	-4674138.31	-4674138.11	0.0138	0.0026
Mercury	-17510-02-24 12:28 J	-4674050.18	-4674049.98	-4674049.79	0.0138	0.0004
Mercury	-17510-05-23 19:55 J	-4673961.85	-4673961.67	-4673961.48	0.0138	0.0033
Mercury	-17510-08-20 03:36 J	-4673873.52	-4673873.35	-4673873.18	0.0138	0.0061
Mercury	-17510-11-16 11:02 J	-4673785.18	-4673785.04	-4673784.89	0.0138	0.0090
Mercury	-17509-02-12 18:28 J	-4673696.82	-4673696.73	-4673696.63	0.0138	0.0118

Mars	-17503-12-03 20:23 J	-4671210.93	-4671210.65	-4671210.36	0.0135	0.0031
Venus	-17493-11-29 23:02 J	-4667561.64	-4667561.54	-4667561.42	0.0132	0.0115
Venus	-17492-07-14 05:02 J	-4667335.45	-4667335.29	-4667335.11	0.0132	0.0084
Venus	-17491-02-25 10:48 J	-4667109.24	-4667109.05	-4667108.84	0.0132	0.0054
Venus	-17491-10-09 16:33 J	-4666883.02	-4666882.81	-4666882.59	0.0132	0.0024
Venus	-17490-05-23 22:19 J	-4666656.79	-4666656.57	-4666656.35	0.0132	0.0007
Venus	-17489-01-05 03:36 J	-4666430.55	-4666430.35	-4666430.12	0.0132	0.0038
Venus	-17489-08-18 09:07 J	-4666204.30	-4666204.12	-4666203.92	0.0132	0.0067
Venus	-17488-04-01 14:23 J	-4665978.03	-4665977.90	-4665977.73	0.0132	0.0098
Venus	-17488-11-13 20:09 J	-4665751.72	-4665751.66	-4665751.60	0.0132	0.0127
Earth	-17478-05-28 21:07 J	-4662268.79	-4662268.62	-4662268.41	0.0134	0.0089
Moon	-17478-05-29 00:00 J	-4662268.68	-4662268.50	-4662268.29	0.0134	0.0085 *
Moon	-17477-06-01 00:14 J	-4661899.72	-4661899.49	-4661899.25	0.0135	0.0032
Earth	-17477-06-01 03:21 J	-4661899.61	-4661899.36	-4661899.11	0.0135	0.0026 *
Earth	-17476-06-05 09:07 J	-4661530.35	-4661530.12	-4661529.87	0.0135	0.0038
Moon	-17476-06-05 12:14 J	-4661530.22	-4661529.99	-4661529.74	0.0135	0.0045 *
Moon	-17475-06-09 12:43 J	-4661161.13	-4661160.97	-4661160.79	0.0136	0.0096
Earth	-17475-06-09 15:21 J	-4661161.00	-4661160.86	-4661160.68	0.0136	0.0103 *
Mercury	-17467-05-13 23:31 J	-4658265.57	-4658265.52	-4658265.44	0.0139	0.0123
Mercury	-17467-08-10 03:07 J	-4658177.46	-4658177.37	-4658177.28	0.0140	0.0102
Mercury	-17467-11-06 06:14 J	-4658089.34	-4658089.24	-4658089.13	0.0140	0.0082
Mercury	-17466-02-02 09:36 J	-4658001.21	-4658001.10	-4658000.97	0.0140	0.0062
Mercury	-17466-05-01 13:11 J	-4657913.08	-4657912.95	-4657912.83	0.0140	0.0041
Mercury	-17466-07-28 16:33 J	-4657824.94	-4657824.81	-4657824.68	0.0140	0.0020
Mercury	-17466-10-24 19:55 J	-4657736.80	-4657736.67	-4657736.54	0.0140	0.0003
Mercury	-17465-01-20 23:16 J	-4657648.66	-4657648.53	-4657648.40	0.0140	0.0021
Mercury	-17465-04-18 02:38 J	-4657560.52	-4657560.39	-4657560.26	0.0140	0.0042
Mercury	-17465-07-15 06:00 J	-4657472.36	-4657472.25	-4657472.13	0.0141	0.0064
Mercury	-17465-10-11 09:36 J	-4657384.21	-4657384.10	-4657384.00	0.0141	0.0085
Mercury	-17464-01-07 12:57 J	-4657296.04	-4657295.96	-4657295.87	0.0141	0.0106

Mercury	-17464-04-05 16:19 J	-4657207.87	-4657207.82	-4657207.76	0.0141	0.0128
Mars	-17458-03-12 05:16 J	-4655041.55	-4655041.28	-4655040.97	0.0144	0.0063
Jupiter	-17452-08-03 08:52 J	-4652705.46	-4652705.13	-4652704.70	0.0146	0.0101
Venus	-17450-01-18 04:48 J	-4652172.31	-4652172.30	-4652172.28	0.0146	0.0146
Venus	-17450-09-01 16:04 J	-4651945.96	-4651945.83	-4651945.67	0.0146	0.0107
Venus	-17449-04-15 04:04 J	-4651719.52	-4651719.33	-4651719.14	0.0146	0.0066
Venus	-17449-11-27 15:50 J	-4651493.05	-4651492.84	-4651492.63	0.0146	0.0026
Venus	-17448-07-12 03:50 J	-4651266.55	-4651266.34	-4651266.13	0.0146	0.0014
Venus	-17447-02-23 15:36 J	-4651040.04	-4651039.85	-4651039.65	0.0146	0.0054
Venus	-17447-10-08 03:21 J	-4650813.51	-4650813.36	-4650813.19	0.0146	0.0095
Venus	-17446-05-22 15:07 J	-4650586.94	-4650586.87	-4650586.77	0.0146	0.0135
Earth	-17439-11-22 15:50 J	-4647845.87	-4647845.84	-4647845.78	0.0144	0.0142
Earth	-17438-11-27 19:55 J	-4647475.90	-4647475.67	-4647475.43	0.0144	0.0061
Moon	-17438-11-27 21:36 J	-4647475.84	-4647475.60	-4647475.35	0.0144	0.0053 *
Moon	-17437-12-01 20:52 J	-4647105.88	-4647105.63	-4647105.38	0.0143	0.0014
Earth	-17437-12-01 23:16 J	-4647105.78	-4647105.53	-4647105.27	0.0143	0.0020 *
Earth	-17436-12-07 01:40 J	-4646735.60	-4646735.43	-4646735.23	0.0143	0.0099
Moon	-17436-12-07 04:48 J	-4646735.46	-4646735.30	-4646735.10	0.0143	0.0103 *
Mercury	-17428-12-30 04:19 J	-4643790.33	-4643790.32	-4643790.29	0.0139	0.0138
Mercury	-17427-03-28 12:14 J	-4643702.10	-4643701.99	-4643701.86	0.0139	0.0108
Mercury	-17427-06-24 19:55 J	-4643613.81	-4643613.67	-4643613.50	0.0139	0.0079
Mercury	-17427-09-21 03:50 J	-4643525.51	-4643525.34	-4643525.15	0.0138	0.0049
Mercury	-17427-12-18 11:45 J	-4643437.20	-4643437.01	-4643436.82	0.0138	0.0019
Mercury	-17426-03-16 19:26 J	-4643348.88	-4643348.69	-4643348.50	0.0138	0.0010
Mercury	-17426-06-13 03:07 J	-4643260.55	-4643260.37	-4643260.19	0.0138	0.0039
Mercury	-17426-09-09 10:33 J	-4643172.22	-4643172.06	-4643171.89	0.0138	0.0068
Mercury	-17426-12-06 18:00 J	-4643083.87	-4643083.75	-4643083.60	0.0138	0.0097
Mercury	-17425-03-04 01:26 J	-4642995.51	-4642995.44	-4642995.35	0.0138	0.0125
Mars	-17420-08-28 04:33 J	-4640992.53	-4640992.31	-4640992.08	0.0135	0.0087
Mars	-17418-07-29 06:43 J	-4640292.41	-4640292.22	-4640292.00	0.0135	0.0095

Venus	-17409-07-30 08:52 J	-4637003.16	-4637003.13	-4637003.06	0.0132	0.0129
Venus	-17408-03-13 14:52 J	-4636777.01	-4636776.88	-4636776.72	0.0132	0.0098
Venus	-17408-10-25 20:52 J	-4636550.81	-4636550.63	-4636550.44	0.0132	0.0068
Venus	-17407-06-09 02:38 J	-4636324.60	-4636324.39	-4636324.18	0.0132	0.0037
Venus	-17406-01-21 08:23 J	-4636098.37	-4636098.15	-4636097.93	0.0132	0.0007
Venus	-17406-09-04 14:09 J	-4635872.13	-4635871.91	-4635871.70	0.0132	0.0024
Venus	-17405-04-17 19:11 J	-4635645.89	-4635645.70	-4635645.48	0.0132	0.0054
Venus	-17405-11-30 00:28 J	-4635419.63	-4635419.48	-4635419.29	0.0132	0.0085
Venus	-17404-07-14 06:28 J	-4635193.34	-4635193.23	-4635193.12	0.0132	0.0114
Earth	-17394-05-29 09:21 J	-4631587.29	-4631587.11	-4631586.90	0.0134	0.0083
Moon	-17394-05-29 12:14 J	-4631587.17	-4631586.99	-4631586.79	0.0134	0.0088 *
Moon	-17393-06-01 12:57 J	-4631218.20	-4631217.96	-4631217.72	0.0135	0.0015
Earth	-17393-06-01 15:07 J	-4631218.11	-4631217.87	-4631217.61	0.0135	0.0021 *
Earth	-17392-06-05 21:07 J	-4630848.85	-4630848.62	-4630848.38	0.0135	0.0043
Moon	-17392-06-06 00:00 J	-4630848.75	-4630848.50	-4630848.26	0.0135	0.0037 *
Moon	-17391-06-10 00:43 J	-4630479.58	-4630479.47	-4630479.33	0.0136	0.0115
Earth	-17391-06-10 03:50 J	-4630479.49	-4630479.34	-4630479.19	0.0136	0.0107 *
Mercury	-17383-03-07 04:04 J	-4627652.35	-4627652.33	-4627652.29	0.0139	0.0135
Mercury	-17383-06-03 07:11 J	-4627564.26	-4627564.20	-4627564.11	0.0139	0.0116
Mercury	-17383-08-30 10:48 J	-4627476.14	-4627476.05	-4627475.95	0.0140	0.0095
Mercury	-17383-11-26 13:55 J	-4627388.02	-4627387.92	-4627387.80	0.0140	0.0075
Mercury	-17382-02-22 17:31 J	-4627299.89	-4627299.77	-4627299.65	0.0140	0.0054
Mercury	-17382-05-21 20:38 J	-4627211.76	-4627211.64	-4627211.51	0.0140	0.0034
Mercury	-17382-08-18 00:14 J	-4627123.62	-4627123.49	-4627123.36	0.0140	0.0013
Mercury	-17382-11-14 03:36 J	-4627035.48	-4627035.35	-4627035.22	0.0140	0.0008
Mercury	-17381-02-10 06:57 J	-4626947.34	-4626947.21	-4626947.08	0.0140	0.0029
Mercury	-17381-05-08 10:19 J	-4626859.19	-4626859.07	-4626858.95	0.0140	0.0050
Mercury	-17381-08-04 13:40 J	-4626771.04	-4626770.93	-4626770.81	0.0141	0.0071
Mercury	-17381-10-31 17:02 J	-4626682.88	-4626682.79	-4626682.68	0.0141	0.0093
Mercury	-17380-01-27 20:38 J	-4626594.71	-4626594.64	-4626594.56	0.0141	0.0114

Mercury	-17380-04-26 00:14 J	-4626506.53	-4626506.49	-4626506.46	0.0141	0.0135
Mars	-17376-11-30 20:38 J	-4624826.86	-4624826.64	-4624826.37	0.0143	0.0097
Venus	-17366-05-02 00:43 J	-4621387.57	-4621387.47	-4621387.34	0.0146	0.0123
Venus	-17366-12-14 12:28 J	-4621161.15	-4621160.98	-4621160.79	0.0146	0.0083
Venus	-17365-07-28 00:28 J	-4620934.68	-4620934.48	-4620934.27	0.0146	0.0043
Venus	-17364-03-11 12:14 J	-4620708.20	-4620707.99	-4620707.77	0.0146	0.0003
Venus	-17364-10-24 00:00 J	-4620481.71	-4620481.50	-4620481.29	0.0146	0.0037
Venus	-17363-06-07 11:45 J	-4620255.19	-4620255.01	-4620254.83	0.0146	0.0078
Venus	-17362-01-19 23:16 J	-4620028.64	-4620028.53	-4620028.39	0.0146	0.0118
Moon	-17355-11-23 03:50 J	-4617164.44	-4617164.34	-4617164.24	0.0144	0.0132
Earth	-17355-11-23 03:36 J	-4617164.42	-4617164.35	-4617164.24	0.0144	0.0136 *
Earth	-17354-11-28 07:26 J	-4616794.42	-4616794.19	-4616793.94	0.0144	0.0055
Moon	-17354-11-28 08:38 J	-4616794.36	-4616794.14	-4616793.88	0.0144	0.0062 *
Moon	-17353-12-02 08:38 J	-4616424.38	-4616424.14	-4616423.89	0.0143	0.0033
Earth	-17353-12-02 10:33 J	-4616424.31	-4616424.06	-4616423.80	0.0143	0.0026 *
Earth	-17352-12-07 12:57 J	-4616054.12	-4616053.96	-4616053.77	0.0143	0.0104
Moon	-17352-12-07 15:36 J	-4616054.03	-4616053.85	-4616053.65	0.0143	0.0100 *
Mercury	-17343-01-19 11:31 J	-4613089.07	-4613089.02	-4613088.95	0.0139	0.0131
Mercury	-17343-04-17 19:26 J	-4613000.81	-4613000.69	-4613000.55	0.0139	0.0101
Mercury	-17343-07-15 03:07 J	-4612912.52	-4612912.37	-4612912.19	0.0139	0.0072
Mercury	-17343-10-11 11:02 J	-4612824.22	-4612824.04	-4612823.85	0.0138	0.0042
Mercury	-17342-01-07 18:57 J	-4612735.90	-4612735.71	-4612735.52	0.0138	0.0012
Mercury	-17342-04-06 02:38 J	-4612647.58	-4612647.39	-4612647.20	0.0138	0.0017
Mercury	-17342-07-03 10:04 J	-4612559.25	-4612559.08	-4612558.89	0.0138	0.0046
Mercury	-17342-09-29 17:45 J	-4612470.92	-4612470.76	-4612470.59	0.0138	0.0075
Mercury	-17342-12-27 01:26 J	-4612382.57	-4612382.44	-4612382.32	0.0138	0.0103
Mercury	-17341-03-24 08:38 J	-4612294.18	-4612294.14	-4612294.08	0.0138	0.0132
Mars	-17335-04-22 14:38 J	-4610074.17	-4610073.89	-4610073.60	0.0135	0.0023
Jupiter	-17327-04-25 23:45 J	-4607149.02	-4607148.51	-4607147.99	0.0133	0.0013
Venus	-17325-11-11 00:28 J	-4606218.59	-4606218.48	-4606218.36	0.0132	0.0112

Venus	-17324-06-25 06:14 J	-4605992.41	-4605992.24	-4605992.06	0.0132	0.0081
Venus	-17323-02-06 12:00 J	-4605766.20	-4605766.00	-4605765.79	0.0132	0.0051
Venus	-17323-09-20 17:45 J	-4605539.97	-4605539.76	-4605539.54	0.0132	0.0021
Venus	-17322-05-04 23:16 J	-4605313.74	-4605313.53	-4605313.30	0.0132	0.0011
Venus	-17322-12-17 04:48 J	-4605087.50	-4605087.30	-4605087.08	0.0132	0.0041
Venus	-17321-07-30 10:19 J	-4604861.25	-4604861.07	-4604860.88	0.0132	0.0071
Venus	-17320-03-13 16:04 J	-4604634.97	-4604634.83	-4604634.69	0.0132	0.0101
Venus	-17320-10-25 21:21 J	-4604408.64	-4604408.61	-4604408.58	0.0132	0.0131
Earth	-17310-05-29 20:09 J	-4600905.85	-4600905.66	-4600905.45	0.0134	0.0079
Moon	-17310-05-29 22:04 J	-4600905.78	-4600905.58	-4600905.36	0.0134	0.0076 *
Moon	-17309-06-01 23:45 J	-4600536.74	-4600536.51	-4600536.26	0.0135	0.0022
Earth	-17309-06-02 02:09 J	-4600536.66	-4600536.41	-4600536.16	0.0135	0.0016 *
Earth	-17308-06-06 07:55 J	-4600167.39	-4600167.17	-4600166.93	0.0135	0.0048
Moon	-17308-06-06 10:19 J	-4600167.30	-4600167.07	-4600166.83	0.0135	0.0054 *
Moon	-17307-06-10 12:28 J	-4599798.13	-4599797.98	-4599797.82	0.0136	0.0105
Earth	-17307-06-10 14:38 J	-4599798.03	-4599797.89	-4599797.74	0.0136	0.0111 *
Mercury	-17299-03-27 11:31 J	-4596951.06	-4596951.02	-4596950.97	0.0139	0.0129
Mercury	-17299-06-23 14:52 J	-4596862.96	-4596862.88	-4596862.80	0.0140	0.0109
Mercury	-17299-09-19 18:00 J	-4596774.84	-4596774.75	-4596774.64	0.0140	0.0090
Mercury	-17299-12-16 21:36 J	-4596686.72	-4596686.60	-4596686.49	0.0140	0.0069
Mercury	-17298-03-15 00:43 J	-4596598.59	-4596598.47	-4596598.34	0.0140	0.0049
Mercury	-17298-06-11 04:04 J	-4596510.45	-4596510.33	-4596510.20	0.0140	0.0028
Mercury	-17298-09-07 07:40 J	-4596422.32	-4596422.18	-4596422.05	0.0140	0.0008
Mercury	-17298-12-04 11:02 J	-4596334.17	-4596334.04	-4596333.91	0.0140	0.0014
Mercury	-17297-03-01 14:23 J	-4596246.03	-4596245.90	-4596245.77	0.0140	0.0035
Mercury	-17297-05-28 17:45 J	-4596157.88	-4596157.76	-4596157.64	0.0141	0.0056
Mercury	-17297-08-24 21:07 J	-4596069.73	-4596069.62	-4596069.51	0.0141	0.0077
Mercury	-17297-11-21 00:43 J	-4595981.57	-4595981.47	-4595981.38	0.0141	0.0098
Mercury	-17296-02-17 03:50 J	-4595893.40	-4595893.34	-4595893.26	0.0141	0.0120
Mars	-17291-07-28 02:38 J	-4593906.72	-4593906.39	-4593906.07	0.0144	0.0007

Venus	-17283-12-30 08:52 J	-4590829.19	-4590829.13	-4590829.08	0.0146	0.0141
Venus	-17282-08-13 20:09 J	-4590602.80	-4590602.66	-4590602.49	0.0146	0.0101
Venus	-17281-03-27 07:55 J	-4590376.35	-4590376.17	-4590375.96	0.0146	0.0061
Venus	-17281-11-08 19:55 J	-4590149.89	-4590149.67	-4590149.46	0.0146	0.0021
Venus	-17280-06-23 07:26 J	-4589923.40	-4589923.19	-4589922.97	0.0146	0.0020
Venus	-17279-02-04 19:11 J	-4589696.89	-4589696.70	-4589696.49	0.0146	0.0061
Venus	-17279-09-19 07:11 J	-4589470.35	-4589470.20	-4589470.04	0.0146	0.0101
Venus	-17278-05-03 18:57 J	-4589243.76	-4589243.71	-4589243.65	0.0146	0.0141
Earth	-17271-11-23 15:50 J	-4586482.94	-4586482.84	-4586482.71	0.0144	0.0129
Moon	-17271-11-23 15:21 J	-4586482.93	-4586482.86	-4586482.74	0.0144	0.0134 *
Earth	-17270-11-28 19:26 J	-4586112.92	-4586112.69	-4586112.44	0.0144	0.0049
Moon	-17270-11-28 20:09 J	-4586112.91	-4586112.66	-4586112.40	0.0144	0.0041 *
Moon	-17269-12-02 21:07 J	-4585742.86	-4585742.62	-4585742.37	0.0143	0.0025
Earth	-17269-12-02 22:33 J	-4585742.81	-4585742.56	-4585742.30	0.0143	0.0031 *
Earth	-17268-12-08 00:28 J	-4585372.62	-4585372.48	-4585372.29	0.0143	0.0110
Moon	-17268-12-08 02:52 J	-4585372.52	-4585372.38	-4585372.20	0.0143	0.0114 *
Mercury	-17259-02-08 19:26 J	-4582387.78	-4582387.69	-4582387.60	0.0139	0.0122
Mercury	-17259-05-08 02:52 J	-4582299.51	-4582299.38	-4582299.22	0.0139	0.0093
Mercury	-17259-08-04 11:02 J	-4582211.21	-4582211.04	-4582210.87	0.0138	0.0062
Mercury	-17259-10-31 18:43 J	-4582122.90	-4582122.72	-4582122.53	0.0138	0.0033
Mercury	-17258-01-28 02:38 J	-4582034.59	-4582034.39	-4582034.20	0.0138	0.0004
Mercury	-17258-04-26 10:04 J	-4581946.26	-4581946.08	-4581945.88	0.0138	0.0026
Mercury	-17258-07-23 17:45 J	-4581857.93	-4581857.76	-4581857.58	0.0138	0.0054
Mercury	-17258-10-20 01:11 J	-4581769.59	-4581769.45	-4581769.29	0.0138	0.0083
Mercury	-17257-01-16 08:38 J	-4581681.24	-4581681.14	-4581681.02	0.0138	0.0112
Mars	-17251-12-16 03:07 J	-4579155.65	-4579155.37	-4579155.09	0.0135	0.0041
Venus	-17241-07-11 09:50 J	-4575660.15	-4575660.09	-4575660.02	0.0132	0.0126
Venus	-17240-02-22 15:36 J	-4575433.99	-4575433.85	-4575433.69	0.0132	0.0095
Venus	-17240-10-06 21:21 J	-4575207.79	-4575207.61	-4575207.41	0.0132	0.0065
Venus	-17239-05-21 03:07 J	-4574981.58	-4574981.37	-4574981.15	0.0132	0.0034

Venus	-17238-01-02 08:52 J	-4574755.35	-4574755.13	-4574754.91	0.0132	0.0004
Venus	-17238-08-16 14:23 J	-4574529.11	-4574528.90	-4574528.68	0.0132	0.0027
Venus	-17237-03-29 19:55 J	-4574302.86	-4574302.67	-4574302.47	0.0132	0.0057
Venus	-17237-11-11 01:11 J	-4574076.60	-4574076.45	-4574076.28	0.0132	0.0088
Venus	-17236-06-25 06:43 J	-4573850.31	-4573850.22	-4573850.11	0.0132	0.0118
Earth	-17226-05-30 06:00 J	-4570224.45	-4570224.25	-4570224.04	0.0134	0.0075
Moon	-17226-05-30 07:40 J	-4570224.37	-4570224.18	-4570223.96	0.0134	0.0079 *
Moon	-17225-06-02 10:19 J	-4569855.31	-4569855.07	-4569854.83	0.0135	0.0007
Earth	-17225-06-02 11:45 J	-4569855.26	-4569855.01	-4569854.76	0.0135	0.0012 *
Earth	-17224-06-06 17:16 J	-4569485.99	-4569485.78	-4569485.53	0.0135	0.0051
Moon	-17224-06-06 19:11 J	-4569485.93	-4569485.70	-4569485.45	0.0135	0.0044 *
Moon	-17223-06-10 21:50 J	-4569116.68	-4569116.59	-4569116.46	0.0136	0.0122
Earth	-17223-06-11 00:14 J	-4569116.62	-4569116.49	-4569116.36	0.0136	0.0114 *
Mercury	-17215-04-16 18:43 J	-4566249.77	-4566249.72	-4566249.66	0.0139	0.0125
Mercury	-17215-07-13 21:50 J	-4566161.67	-4566161.59	-4566161.50	0.0140	0.0106
Mercury	-17215-10-10 01:11 J	-4566073.55	-4566073.45	-4566073.34	0.0140	0.0085
Mercury	-17214-01-06 04:33 J	-4565985.42	-4565985.31	-4565985.19	0.0140	0.0065
Mercury	-17214-04-04 07:55 J	-4565897.29	-4565897.17	-4565897.04	0.0140	0.0045
Mercury	-17214-07-01 11:16 J	-4565809.16	-4565809.03	-4565808.90	0.0140	0.0024
Mercury	-17214-09-27 14:38 J	-4565721.02	-4565720.89	-4565720.76	0.0140	0.0003
Mercury	-17214-12-24 18:00 J	-4565632.88	-4565632.75	-4565632.62	0.0140	0.0018
Mercury	-17213-03-21 21:21 J	-4565544.74	-4565544.61	-4565544.48	0.0141	0.0039
Mercury	-17213-06-18 00:43 J	-4565456.59	-4565456.47	-4565456.35	0.0141	0.0060
Mercury	-17213-09-14 04:04 J	-4565368.43	-4565368.33	-4565368.22	0.0141	0.0081
Mercury	-17213-12-11 07:40 J	-4565280.27	-4565280.18	-4565280.09	0.0141	0.0102
Mercury	-17212-03-09 11:02 J	-4565192.10	-4565192.04	-4565191.97	0.0141	0.0124
Mars	-17206-03-24 04:04 J	-4562986.59	-4562986.33	-4562986.05	0.0144	0.0080
Venus	-17198-04-13 02:09 J	-4560044.52	-4560044.41	-4560044.28	0.0146	0.0121
Venus	-17198-11-25 13:55 J	-4559818.09	-4559817.92	-4559817.73	0.0146	0.0080
Venus	-17197-07-09 01:40 J	-4559591.63	-4559591.43	-4559591.22	0.0146	0.0040

Venus	-17196-02-20 13:40 J	-4559365.15	-4559364.93	-4559364.72	0.0146	0.0003
Venus	-17196-10-05 01:11 J	-4559138.65	-4559138.45	-4559138.24	0.0146	0.0041
Venus	-17195-05-19 12:57 J	-4558912.13	-4558911.96	-4558911.78	0.0146	0.0082
Venus	-17194-01-01 00:43 J	-4558685.57	-4558685.47	-4558685.34	0.0146	0.0122
Earth	-17187-11-24 00:57 J	-4555801.57	-4555801.46	-4555801.31	0.0144	0.0125
Moon	-17187-11-24 02:09 J	-4555801.53	-4555801.41	-4555801.26	0.0144	0.0121 *
Earth	-17186-11-29 04:48 J	-4555431.54	-4555431.30	-4555431.05	0.0144	0.0044
Moon	-17186-11-29 04:48 J	-4555431.54	-4555431.30	-4555431.03	0.0144	0.0051 *
Moon	-17185-12-03 06:57 J	-4555061.44	-4555061.21	-4555060.96	0.0143	0.0043
Earth	-17185-12-03 07:55 J	-4555061.42	-4555061.17	-4555060.92	0.0143	0.0035 *
Earth	-17184-12-08 10:04 J	-4554691.22	-4554691.08	-4554690.91	0.0143	0.0113
Moon	-17184-12-08 11:45 J	-4554691.18	-4554691.01	-4554690.83	0.0143	0.0108 *
Mercury	-17175-03-01 02:09 J	-4551686.50	-4551686.41	-4551686.29	0.0139	0.0116
Mercury	-17175-05-28 10:19 J	-4551598.22	-4551598.07	-4551597.92	0.0139	0.0086
Mercury	-17175-08-24 18:00 J	-4551509.92	-4551509.75	-4551509.57	0.0138	0.0056
Mercury	-17175-11-21 01:55 J	-4551421.61	-4551421.42	-4551421.23	0.0138	0.0027
Mercury	-17174-02-17 09:36 J	-4551333.29	-4551333.10	-4551332.91	0.0138	0.0003
Mercury	-17174-05-16 17:02 J	-4551244.97	-4551244.79	-4551244.59	0.0138	0.0032
Mercury	-17174-08-13 00:43 J	-4551156.64	-4551156.47	-4551156.29	0.0138	0.0061
Mercury	-17174-11-09 08:23 J	-4551068.29	-4551068.15	-4551068.00	0.0138	0.0089
Mercury	-17173-02-05 15:36 J	-4550979.93	-4550979.85	-4550979.74	0.0138	0.0118
Mars	-17168-09-09 10:33 J	-4548937.28	-4548937.06	-4548936.81	0.0135	0.0077
Mars	-17166-08-10 10:04 J	-4548237.24	-4548237.08	-4548236.87	0.0134	0.0104
Venus	-17157-10-23 00:00 J	-4544875.61	-4544875.50	-4544875.36	0.0132	0.0110
Venus	-17156-06-06 06:00 J	-4544649.42	-4544649.25	-4544649.07	0.0132	0.0079
Venus	-17155-01-18 11:31 J	-4544423.21	-4544423.02	-4544422.80	0.0132	0.0050
Venus	-17155-09-01 17:31 J	-4544196.99	-4544196.77	-4544196.55	0.0132	0.0018
Venus	-17154-04-15 23:02 J	-4543970.76	-4543970.54	-4543970.32	0.0132	0.0012
Venus	-17154-11-28 04:19 J	-4543744.52	-4543744.32	-4543744.10	0.0132	0.0043
Venus	-17153-07-11 09:50 J	-4543518.27	-4543518.09	-4543517.90	0.0132	0.0073

Venus	-17152-02-22 15:21 J	-4543291.99	-4543291.86	-4543291.72	0.0132	0.0104
Moon	-17143-05-26 07:40 J	-4539912.18	-4539912.18	-4539912.15	0.0134	0.0134
Earth	-17143-05-26 08:52 J	-4539912.14	-4539912.13	-4539912.09	0.0134	0.0133
Earth	-17142-05-30 13:55 J	-4539543.12	-4539542.92	-4539542.70	0.0134	0.0072
Moon	-17142-05-30 14:38 J	-4539543.10	-4539542.89	-4539542.66	0.0134	0.0070 *
Moon	-17141-06-02 18:28 J	-4539173.97	-4539173.73	-4539173.49	0.0135	0.0015
Earth	-17141-06-02 19:40 J	-4539173.93	-4539173.68	-4539173.43	0.0135	0.0010 *
Earth	-17140-06-07 01:40 J	-4538804.66	-4538804.43	-4538804.20	0.0135	0.0053
Moon	-17140-06-07 02:38 J	-4538804.62	-4538804.39	-4538804.15	0.0135	0.0059 *
Moon	-17139-06-11 06:57 J	-4538435.34	-4538435.21	-4538435.06	0.0136	0.0110
Earth	-17139-06-11 07:26 J	-4538435.29	-4538435.19	-4538435.04	0.0136	0.0117 *
Mercury	-17131-05-07 01:11 J	-4535548.50	-4535548.45	-4535548.38	0.0139	0.0124
Mercury	-17131-08-03 04:33 J	-4535460.39	-4535460.31	-4535460.22	0.0140	0.0104
Mercury	-17131-10-30 07:55 J	-4535372.27	-4535372.17	-4535372.06	0.0140	0.0083
Mercury	-17130-01-26 11:16 J	-4535284.15	-4535284.03	-4535283.91	0.0140	0.0063
Mercury	-17130-04-24 14:38 J	-4535196.02	-4535195.89	-4535195.77	0.0140	0.0043
Mercury	-17130-07-21 18:00 J	-4535107.88	-4535107.75	-4535107.62	0.0140	0.0022
Mercury	-17130-10-17 21:21 J	-4535019.74	-4535019.61	-4535019.48	0.0140	0.0003
Mercury	-17129-01-14 00:43 J	-4534931.60	-4534931.47	-4534931.34	0.0140	0.0019
Mercury	-17129-04-11 04:04 J	-4534843.46	-4534843.33	-4534843.20	0.0141	0.0040
Mercury	-17129-07-08 07:26 J	-4534755.31	-4534755.19	-4534755.07	0.0141	0.0061
Mercury	-17129-10-04 10:48 J	-4534667.15	-4534667.05	-4534666.94	0.0141	0.0083
Mercury	-17129-12-31 14:09 J	-4534578.99	-4534578.91	-4534578.82	0.0141	0.0104
Mercury	-17128-03-29 17:45 J	-4534490.82	-4534490.76	-4534490.70	0.0141	0.0125
Mars	-17124-12-12 01:40 J	-4532772.69	-4532772.43	-4532772.17	0.0143	0.0089
Venus	-17115-12-11 06:00 J	-4529486.29	-4529486.25	-4529486.19	0.0146	0.0142
Venus	-17114-07-25 17:45 J	-4529259.90	-4529259.76	-4529259.60	0.0146	0.0102
Venus	-17113-03-08 05:16 J	-4529033.46	-4529033.28	-4529033.08	0.0146	0.0062
Venus	-17113-10-20 17:02 J	-4528807.00	-4528806.79	-4528806.57	0.0146	0.0022
Venus	-17112-06-04 04:48 J	-4528580.51	-4528580.30	-4528580.09	0.0146	0.0019

Venus	-17111-01-16 16:19 J	-4528354.00	-4528353.82	-4528353.61	0.0146	0.0061
Venus	-17111-08-31 04:33 J	-4528127.46	-4528127.31	-4528127.15	0.0146	0.0100
Venus	-17110-04-14 16:04 J	-4527900.86	-4527900.83	-4527900.76	0.0146	0.0141
Earth	-17103-11-24 06:14 J	-4525120.35	-4525120.24	-4525120.08	0.0144	0.0123
Moon	-17103-11-24 07:40 J	-4525120.29	-4525120.18	-4525120.05	0.0144	0.0125 *
Moon	-17102-11-29 09:36 J	-4524750.36	-4524750.10	-4524749.84	0.0144	0.0036
Earth	-17102-11-29 10:04 J	-4524750.31	-4524750.08	-4524749.82	0.0144	0.0043 *
Earth	-17101-12-03 13:26 J	-4524380.19	-4524379.94	-4524379.68	0.0144	0.0037
Moon	-17101-12-03 13:26 J	-4524380.18	-4524379.94	-4524379.69	0.0144	0.0030 *
Earth	-17100-12-08 15:36 J	-4524009.99	-4524009.85	-4524009.68	0.0143	0.0114
Moon	-17100-12-08 16:48 J	-4524009.93	-4524009.80	-4524009.64	0.0143	0.0119 *
Mercury	-17091-03-21 08:38 J	-4520985.25	-4520985.14	-4520985.02	0.0139	0.0112
Mercury	-17091-06-17 16:33 J	-4520896.96	-4520896.81	-4520896.65	0.0139	0.0082
Mercury	-17091-09-14 00:14 J	-4520808.66	-4520808.49	-4520808.30	0.0138	0.0053
Mercury	-17091-12-11 08:09 J	-4520720.35	-4520720.16	-4520719.97	0.0138	0.0023
Mercury	-17090-03-09 15:50 J	-4520632.03	-4520631.84	-4520631.64	0.0138	0.0007
Mercury	-17090-06-05 23:31 J	-4520543.70	-4520543.52	-4520543.33	0.0138	0.0036
Mercury	-17090-09-02 06:57 J	-4520455.37	-4520455.21	-4520455.03	0.0138	0.0065
Mercury	-17090-11-29 14:38 J	-4520367.02	-4520366.89	-4520366.74	0.0138	0.0093
Mercury	-17089-02-25 22:04 J	-4520278.66	-4520278.58	-4520278.48	0.0138	0.0122
Mars	-17083-05-04 17:16 J	-4518019.07	-4518018.78	-4518018.49	0.0135	0.0016
Venus	-17073-06-22 08:52 J	-4514317.20	-4514317.13	-4514317.06	0.0132	0.0125
Venus	-17072-02-03 14:38 J	-4514091.04	-4514090.89	-4514090.73	0.0132	0.0094
Venus	-17072-09-17 20:23 J	-4513864.84	-4513864.65	-4513864.45	0.0132	0.0064
Venus	-17071-05-02 01:55 J	-4513638.63	-4513638.42	-4513638.20	0.0132	0.0033
Venus	-17071-12-14 07:40 J	-4513412.40	-4513412.18	-4513411.96	0.0132	0.0003
Venus	-17070-07-28 13:11 J	-4513186.16	-4513185.95	-4513185.73	0.0132	0.0029
Venus	-17069-03-10 18:43 J	-4512959.91	-4512959.72	-4512959.52	0.0132	0.0059
Venus	-17069-10-23 00:14 J	-4512733.65	-4512733.49	-4512733.32	0.0132	0.0089
Venus	-17068-06-06 05:45 J	-4512507.35	-4512507.26	-4512507.17	0.0132	0.0120

Earth	-17059-05-26 17:16 J	-4509230.81	-4509230.78	-4509230.69	0.0134	0.0130
Moon	-17059-05-26 17:16 J	-4509230.79	-4509230.78	-4509230.71	0.0134	0.0132 *
Earth	-17058-05-30 22:48 J	-4508861.76	-4508861.55	-4508861.33	0.0134	0.0069
Moon	-17058-05-30 23:02 J	-4508861.74	-4508861.54	-4508861.30	0.0134	0.0072 *
Moon	-17057-06-03 04:04 J	-4508492.57	-4508492.33	-4508492.09	0.0135	0.0003
Earth	-17057-06-03 04:19 J	-4508492.57	-4508492.32	-4508492.07	0.0135	0.0007 *
Earth	-17056-06-07 09:50 J	-4508123.30	-4508123.09	-4508122.85	0.0135	0.0056
Moon	-17056-06-07 10:19 J	-4508123.30	-4508123.07	-4508122.82	0.0135	0.0050 *
Moon	-17055-06-11 15:50 J	-4507753.92	-4507753.84	-4507753.75	0.0135	0.0126
Earth	-17055-06-11 16:19 J	-4507753.92	-4507753.82	-4507753.69	0.0135	0.0119 *
Mercury	-17047-05-27 07:55 J	-4504847.22	-4504847.17	-4504847.10	0.0139	0.0122
Mercury	-17047-08-23 11:16 J	-4504759.11	-4504759.03	-4504758.93	0.0140	0.0101
Mercury	-17047-11-19 14:38 J	-4504670.99	-4504670.89	-4504670.78	0.0140	0.0081
Mercury	-17046-02-15 18:00 J	-4504582.87	-4504582.75	-4504582.63	0.0140	0.0061
Mercury	-17046-05-14 21:21 J	-4504494.74	-4504494.61	-4504494.48	0.0140	0.0040
Mercury	-17046-08-11 00:43 J	-4504406.60	-4504406.47	-4504406.34	0.0140	0.0020
Mercury	-17046-11-07 04:04 J	-4504318.46	-4504318.33	-4504318.20	0.0140	0.0002
Mercury	-17045-02-03 07:26 J	-4504230.32	-4504230.19	-4504230.06	0.0140	0.0022
Mercury	-17045-05-01 10:48 J	-4504142.18	-4504142.05	-4504141.93	0.0140	0.0042
Mercury	-17045-07-28 14:09 J	-4504054.03	-4504053.91	-4504053.79	0.0141	0.0063
Mercury	-17045-10-24 17:31 J	-4503965.87	-4503965.77	-4503965.66	0.0141	0.0085
Mercury	-17044-01-20 20:52 J	-4503877.71	-4503877.63	-4503877.54	0.0141	0.0106
Mercury	-17044-04-19 00:28 J	-4503789.53	-4503789.48	-4503789.43	0.0141	0.0127
Mars	-17039-08-07 20:09 J	-4501852.99	-4501852.66	-4501852.34	0.0143	0.0007
Venus	-17030-03-24 21:07 J	-4498701.72	-4498701.62	-4498701.50	0.0146	0.0124
Venus	-17030-11-06 08:38 J	-4498475.31	-4498475.14	-4498474.96	0.0146	0.0084
Venus	-17029-06-19 20:23 J	-4498248.85	-4498248.65	-4498248.44	0.0146	0.0044
Venus	-17028-02-01 08:09 J	-4498022.37	-4498022.16	-4498021.94	0.0146	0.0003
Venus	-17028-09-15 19:40 J	-4497795.88	-4497795.68	-4497795.46	0.0146	0.0039
Venus	-17027-04-30 07:40 J	-4497569.36	-4497569.18	-4497569.00	0.0146	0.0079

Venus	-17027-12-12 19:26 J	-4497342.80	-4497342.69	-4497342.56	0.0146	0.0119
Earth	-17019-11-24 10:19 J	-4494439.19	-4494439.07	-4494438.92	0.0144	0.0121
Moon	-17019-11-24 12:43 J	-4494439.10	-4494438.97	-4494438.82	0.0144	0.0120 *
Moon	-17018-11-29 12:28 J	-4494069.22	-4494068.98	-4494068.72	0.0144	0.0047
Earth	-17018-11-29 14:09 J	-4494069.15	-4494068.91	-4494068.66	0.0144	0.0042 *
Earth	-17017-12-03 17:16 J	-4493699.03	-4493698.78	-4493698.53	0.0144	0.0037
Moon	-17017-12-03 17:45 J	-4493698.99	-4493698.76	-4493698.52	0.0144	0.0045 *
Moon	-17016-12-08 19:11 J	-4493328.86	-4493328.70	-4493328.51	0.0143	0.0108
Earth	-17016-12-08 19:26 J	-4493328.83	-4493328.69	-4493328.52	0.0143	0.0114 *
Mercury	-17007-04-10 13:55 J	-4490284.02	-4490283.92	-4490283.79	0.0139	0.0111
Mercury	-17007-07-07 22:04 J	-4490195.73	-4490195.58	-4490195.42	0.0139	0.0081
Mercury	-17007-10-04 05:45 J	-4490107.43	-4490107.26	-4490107.07	0.0139	0.0051
Mercury	-17007-12-31 13:40 J	-4490019.12	-4490018.93	-4490018.74	0.0138	0.0022
Mercury	-17006-03-29 21:21 J	-4489930.80	-4489930.61	-4489930.41	0.0138	0.0008
Mercury	-17006-06-26 05:02 J	-4489842.47	-4489842.29	-4489842.10	0.0138	0.0037
Mercury	-17006-09-22 12:28 J	-4489754.14	-4489753.98	-4489753.80	0.0138	0.0066
Mercury	-17006-12-19 20:23 J	-4489665.79	-4489665.65	-4489665.51	0.0138	0.0094
Mercury	-17005-03-17 03:36 J	-4489577.42	-4489577.35	-4489577.25	0.0138	0.0123

17TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 17th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mars	-16999-12-27 20:38 J	-4487100.91	-4487100.64	-4487100.36	0.0135	0.0044
Venus	-16989-10-03 22:04 J	-4483532.69	-4483532.58	-4483532.45	0.0132	0.0110
Venus	-16988-05-18 03:50 J	-4483306.50	-4483306.34	-4483306.15	0.0132	0.0080
Venus	-16988-12-30 09:50 J	-4483080.29	-4483080.09	-4483079.88	0.0132	0.0049
Venus	-16987-08-13 15:36 J	-4482854.06	-4482853.85	-4482853.63	0.0132	0.0018
Venus	-16986-03-27 21:21 J	-4482627.83	-4482627.61	-4482627.39	0.0132	0.0013
Venus	-16986-11-09 02:38 J	-4482401.59	-4482401.39	-4482401.17	0.0132	0.0045
Venus	-16985-06-22 08:23 J	-4482175.33	-4482175.15	-4482174.96	0.0132	0.0075
Venus	-16984-02-03 13:55 J	-4481949.04	-4481948.92	-4481948.78	0.0132	0.0105
Earth	-16975-05-27 02:23 J	-4478549.47	-4478549.40	-4478549.30	0.0134	0.0126
Moon	-16975-05-27 02:52 J	-4478549.46	-4478549.38	-4478549.30	0.0134	0.0125 *
Moon	-16974-05-31 07:11 J	-4478180.42	-4478180.20	-4478179.96	0.0134	0.0065
Earth	-16974-05-31 07:40 J	-4478180.39	-4478180.18	-4478179.95	0.0134	0.0066 *
Earth	-16973-06-03 13:26 J	-4477811.19	-4477810.94	-4477810.69	0.0135	0.0004
Moon	-16973-06-03 13:26 J	-4477811.18	-4477810.94	-4477810.69	0.0135	0.0008 *
Moon	-16972-06-07 18:57 J	-4477441.92	-4477441.71	-4477441.47	0.0135	0.0065
Earth	-16972-06-07 19:11 J	-4477441.92	-4477441.70	-4477441.47	0.0135	0.0059 *
Earth	-16971-06-12 01:40 J	-4477072.53	-4477072.43	-4477072.31	0.0135	0.0122
Moon	-16971-06-12 01:55 J	-4477072.53	-4477072.42	-4477072.28	0.0135	0.0116 *
Mercury	-16963-03-20 11:45 J	-4474234.02	-4474234.01	-4474233.98	0.0139	0.0137
Mercury	-16963-06-16 15:07 J	-4474145.93	-4474145.87	-4474145.80	0.0139	0.0117
Mercury	-16963-09-12 18:14 J	-4474057.82	-4474057.74	-4474057.64	0.0140	0.0098
Mercury	-16963-12-09 21:36 J	-4473969.70	-4473969.60	-4473969.48	0.0140	0.0077
Mercury	-16962-03-08 00:57 J	-4473881.57	-4473881.46	-4473881.33	0.0140	0.0057
Mercury	-16962-06-04 04:19 J	-4473793.44	-4473793.32	-4473793.19	0.0140	0.0037
Mercury	-16962-08-31 07:40 J	-4473705.31	-4473705.18	-4473705.05	0.0140	0.0016
Mercury	-16962-11-27 11:02 J	-4473617.17	-4473617.04	-4473616.91	0.0140	0.0005
Mercury	-16961-02-23 14:23 J	-4473529.03	-4473528.90	-4473528.77	0.0140	0.0025
Mercury	-16961-05-21 17:45 J	-4473440.88	-4473440.76	-4473440.63	0.0140	0.0046
Mercury	-16961-08-17 21:07 J	-4473352.73	-4473352.62	-4473352.50	0.0141	0.0067

Mercury	-16961-11-14 00:28 J	-4473264.58	-4473264.48	-4473264.37	0.0141	0.0089
Mercury	-16960-02-10 03:50 J	-4473176.41	-4473176.34	-4473176.25	0.0141	0.0110
Mercury	-16960-05-09 07:26 J	-4473088.23	-4473088.19	-4473088.14	0.0141	0.0131
Mars	-16954-04-03 20:09 J	-4470932.92	-4470932.66	-4470932.37	0.0144	0.0079
Venus	-16947-11-22 01:55 J	-4468143.43	-4468143.42	-4468143.39	0.0146	0.0145
Venus	-16946-07-06 13:26 J	-4467917.07	-4467916.94	-4467916.78	0.0146	0.0105
Venus	-16945-02-18 00:57 J	-4467690.64	-4467690.46	-4467690.26	0.0146	0.0065
Venus	-16945-10-01 12:43 J	-4467464.18	-4467463.97	-4467463.75	0.0146	0.0024
Venus	-16944-05-16 00:28 J	-4467237.69	-4467237.48	-4467237.27	0.0146	0.0017
Venus	-16944-12-28 12:14 J	-4467011.19	-4467010.99	-4467010.79	0.0146	0.0057
Venus	-16943-08-12 00:00 J	-4466784.65	-4466784.50	-4466784.33	0.0146	0.0098
Venus	-16942-03-26 11:45 J	-4466558.06	-4466558.01	-4466557.93	0.0146	0.0139
Earth	-16935-11-24 16:04 J	-4463757.97	-4463757.83	-4463757.68	0.0144	0.0119
Moon	-16935-11-24 18:14 J	-4463757.86	-4463757.74	-4463757.58	0.0144	0.0121 *
Moon	-16934-11-29 17:31 J	-4463388.02	-4463387.77	-4463387.51	0.0144	0.0034
Earth	-16934-11-29 19:40 J	-4463387.92	-4463387.68	-4463387.42	0.0144	0.0040 *
Earth	-16933-12-03 22:48 J	-4463017.80	-4463017.55	-4463017.30	0.0144	0.0039
Moon	-16933-12-04 00:28 J	-4463017.73	-4463017.48	-4463017.24	0.0144	0.0032 *
Moon	-16932-12-09 00:14 J	-4462647.61	-4462647.49	-4462647.33	0.0143	0.0122
Earth	-16932-12-09 00:43 J	-4462647.60	-4462647.47	-4462647.30	0.0143	0.0116 *
Mercury	-16923-02-01 12:00 J	-4459671.01	-4459671.00	-4459670.97	0.0139	0.0138
Mercury	-16923-04-30 20:09 J	-4459582.78	-4459582.66	-4459582.54	0.0139	0.0108
Mercury	-16923-07-28 03:50 J	-4459494.49	-4459494.34	-4459494.17	0.0139	0.0078
Mercury	-16923-10-24 11:45 J	-4459406.19	-4459406.01	-4459405.82	0.0139	0.0049
Mercury	-16922-01-20 19:26 J	-4459317.87	-4459317.69	-4459317.49	0.0138	0.0020
Mercury	-16922-04-19 03:21 J	-4459229.55	-4459229.36	-4459229.17	0.0138	0.0010
Mercury	-16922-07-16 11:02 J	-4459141.22	-4459141.04	-4459140.86	0.0138	0.0039
Mercury	-16922-10-12 18:28 J	-4459052.89	-4459052.73	-4459052.56	0.0138	0.0068
Mercury	-16921-01-09 01:55 J	-4458964.54	-4458964.42	-4458964.27	0.0138	0.0097
Mercury	-16921-04-06 09:36 J	-4458876.17	-4458876.10	-4458876.01	0.0138	0.0125

Mars	-16916-09-21 00:57 J	-4456882.68	-4456882.46	-4456882.20	0.0135	0.0077
Mars	-16914-08-22 01:55 J	-4456182.60	-4456182.42	-4456182.23	0.0135	0.0104
Venus	-16905-06-03 06:14 J	-4452974.30	-4452974.24	-4452974.16	0.0133	0.0126
Venus	-16904-01-15 12:14 J	-4452748.13	-4452747.99	-4452747.82	0.0132	0.0095
Venus	-16904-08-29 18:14 J	-4452521.93	-4452521.74	-4452521.54	0.0132	0.0064
Venus	-16903-04-13 00:00 J	-4452295.71	-4452295.50	-4452295.28	0.0132	0.0033
Venus	-16903-11-25 05:45 J	-4452069.48	-4452069.26	-4452069.04	0.0132	0.0002
Venus	-16902-07-09 11:16 J	-4451843.24	-4451843.03	-4451842.81	0.0132	0.0030
Venus	-16901-02-20 17:02 J	-4451616.98	-4451616.79	-4451616.58	0.0132	0.0060
Venus	-16901-10-03 22:48 J	-4451390.71	-4451390.55	-4451390.39	0.0132	0.0091
Venus	-16900-05-18 04:04 J	-4451164.40	-4451164.33	-4451164.23	0.0132	0.0122
Earth	-16891-05-27 12:00 J	-4447868.08	-4447868.00	-4447867.88	0.0134	0.0122
Moon	-16891-05-27 13:11 J	-4447868.02	-4447867.95	-4447867.85	0.0134	0.0125 *
Moon	-16890-05-31 16:33 J	-4447499.03	-4447498.81	-4447498.57	0.0134	0.0062
Earth	-16890-05-31 17:16 J	-4447498.99	-4447498.78	-4447498.54	0.0134	0.0062 *
Earth	-16889-06-03 23:16 J	-4447129.78	-4447129.53	-4447129.28	0.0135	0.0001
Moon	-16889-06-04 00:00 J	-4447129.74	-4447129.50	-4447129.25	0.0135	0.0005 *
Moon	-16888-06-08 04:04 J	-4446760.55	-4446760.33	-4446760.08	0.0135	0.0058
Earth	-16888-06-08 05:02 J	-4446760.50	-4446760.29	-4446760.06	0.0135	0.0063 *
Earth	-16887-06-12 11:45 J	-4446391.09	-4446391.01	-4446390.91	0.0136	0.0126
Moon	-16887-06-12 12:14 J	-4446391.03	-4446390.99	-4446390.94	0.0136	0.0133 *
Mercury	-16879-04-09 18:57 J	-4443532.74	-4443532.71	-4443532.66	0.0139	0.0133
Mercury	-16879-07-06 22:19 J	-4443444.64	-4443444.57	-4443444.49	0.0139	0.0113
Mercury	-16879-10-03 01:40 J	-4443356.52	-4443356.43	-4443356.33	0.0140	0.0092
Mercury	-16879-12-30 05:02 J	-4443268.40	-4443268.29	-4443268.18	0.0140	0.0072
Mercury	-16878-03-28 08:23 J	-4443180.28	-4443180.15	-4443180.03	0.0140	0.0052
Mercury	-16878-06-24 11:31 J	-4443092.14	-4443092.02	-4443091.89	0.0140	0.0032
Mercury	-16878-09-20 14:52 J	-4443004.01	-4443003.88	-4443003.74	0.0140	0.0012
Mercury	-16878-12-17 18:14 J	-4442915.87	-4442915.74	-4442915.60	0.0140	0.0010
Mercury	-16877-03-14 21:36 J	-4442827.73	-4442827.60	-4442827.47	0.0140	0.0031

Mercury	-16877-06-11 00:57 J	-4442739.58	-4442739.46	-4442739.33	0.0140	0.0052
Mercury	-16877-09-07 04:19 J	-4442651.43	-4442651.32	-4442651.20	0.0141	0.0073
Mercury	-16877-12-04 07:55 J	-4442563.27	-4442563.17	-4442563.07	0.0141	0.0094
Mercury	-16876-03-02 11:16 J	-4442475.10	-4442475.03	-4442474.95	0.0141	0.0115
Mercury	-16876-05-29 14:52 J	-4442386.91	-4442386.88	-4442386.85	0.0141	0.0136
Mars	-16872-12-23 04:33 J	-4440718.57	-4440718.31	-4440718.03	0.0143	0.0082
Venus	-16862-03-05 20:23 J	-4437358.75	-4437358.65	-4437358.52	0.0146	0.0124
Venus	-16862-10-18 07:55 J	-4437132.33	-4437132.17	-4437131.98	0.0146	0.0084
Venus	-16861-05-31 19:40 J	-4436905.89	-4436905.68	-4436905.48	0.0146	0.0043
Venus	-16860-01-13 07:11 J	-4436679.41	-4436679.20	-4436678.98	0.0146	0.0004
Venus	-16860-08-27 19:11 J	-4436452.91	-4436452.70	-4436452.50	0.0146	0.0039
Venus	-16859-04-11 06:43 J	-4436226.39	-4436226.22	-4436226.03	0.0146	0.0080
Venus	-16859-11-23 18:28 J	-4435999.84	-4435999.73	-4435999.60	0.0146	0.0120
Earth	-16851-11-25 00:43 J	-4433076.61	-4433076.47	-4433076.30	0.0144	0.0115
Moon	-16851-11-25 03:50 J	-4433076.47	-4433076.34	-4433076.17	0.0144	0.0114 *
Moon	-16850-11-30 01:40 J	-4432706.68	-4432706.43	-4432706.17	0.0144	0.0040
Earth	-16850-11-30 04:19 J	-4432706.56	-4432706.32	-4432706.06	0.0144	0.0036 *
Earth	-16849-12-04 07:11 J	-4432336.44	-4432336.20	-4432335.95	0.0143	0.0042
Moon	-16849-12-04 08:52 J	-4432336.35	-4432336.13	-4432335.88	0.0143	0.0051 *
Moon	-16848-12-09 07:55 J	-4431966.33	-4431966.17	-4431966.00	0.0143	0.0112
Earth	-16848-12-09 09:36 J	-4431966.23	-4431966.10	-4431965.95	0.0143	0.0119 *
Mercury	-16839-02-21 18:14 J	-4428969.77	-4428969.74	-4428969.67	0.0139	0.0134
Mercury	-16839-05-21 02:23 J	-4428881.52	-4428881.40	-4428881.26	0.0139	0.0104
Mercury	-16839-08-17 10:19 J	-4428793.23	-4428793.07	-4428792.90	0.0139	0.0074
Mercury	-16839-11-13 18:00 J	-4428704.92	-4428704.75	-4428704.55	0.0138	0.0045
Mercury	-16838-02-10 01:55 J	-4428616.61	-4428616.42	-4428616.22	0.0138	0.0015
Mercury	-16838-05-09 09:36 J	-4428528.29	-4428528.10	-4428527.90	0.0138	0.0015
Mercury	-16838-08-05 17:16 J	-4428439.96	-4428439.78	-4428439.59	0.0138	0.0044
Mercury	-16838-11-02 00:57 J	-4428351.62	-4428351.46	-4428351.29	0.0138	0.0072
Mercury	-16837-01-29 08:23 J	-4428263.27	-4428263.15	-4428263.01	0.0138	0.0101

Mercury	-16837-04-26 16:04 J	-4428174.89	-4428174.83	-4428174.76	0.0138	0.0129
Mars	-16831-05-16 07:40 J	-4425964.47	-4425964.18	-4425963.89	0.0135	0.0014
Venus	-16821-09-14 20:38 J	-4422189.76	-4422189.64	-4422189.52	0.0133	0.0110
Venus	-16820-04-29 02:09 J	-4421963.57	-4421963.41	-4421963.22	0.0132	0.0079
Venus	-16820-12-11 08:09 J	-4421737.36	-4421737.16	-4421736.95	0.0132	0.0048
Venus	-16819-07-25 14:09 J	-4421511.13	-4421510.91	-4421510.69	0.0132	0.0017
Venus	-16818-03-08 19:55 J	-4421284.89	-4421284.67	-4421284.45	0.0132	0.0014
Venus	-16818-10-21 01:26 J	-4421058.64	-4421058.44	-4421058.22	0.0132	0.0046
Venus	-16817-06-03 06:57 J	-4420832.37	-4420832.21	-4420832.01	0.0132	0.0077
Venus	-16816-01-15 12:43 J	-4420606.08	-4420605.97	-4420605.82	0.0132	0.0107
Earth	-16807-05-27 21:07 J	-4417186.72	-4417186.62	-4417186.48	0.0134	0.0119
Moon	-16807-05-27 22:33 J	-4417186.67	-4417186.56	-4417186.43	0.0134	0.0117 *
Moon	-16806-06-01 00:57 J	-4416817.68	-4416817.46	-4416817.21	0.0134	0.0058
Earth	-16806-06-01 02:52 J	-4416817.60	-4416817.38	-4416817.15	0.0134	0.0057 *
Earth	-16805-06-04 08:38 J	-4416448.38	-4416448.14	-4416447.88	0.0135	0.0005
Moon	-16805-06-04 10:04 J	-4416448.32	-4416448.08	-4416447.83	0.0135	0.0002 *
Moon	-16804-06-08 13:40 J	-4416079.14	-4416078.93	-4416078.70	0.0135	0.0072
Earth	-16804-06-08 15:07 J	-4416079.08	-4416078.87	-4416078.65	0.0135	0.0066 *
Earth	-16803-06-12 22:04 J	-4415709.65	-4415709.58	-4415709.51	0.0136	0.0129
Moon	-16803-06-12 23:16 J	-4415709.62	-4415709.53	-4415709.42	0.0136	0.0123 *
Mercury	-16795-04-30 02:23 J	-4412831.45	-4412831.40	-4412831.35	0.0139	0.0128
Mercury	-16795-07-27 05:45 J	-4412743.34	-4412743.26	-4412743.18	0.0140	0.0108
Mercury	-16795-10-23 08:52 J	-4412655.23	-4412655.13	-4412655.02	0.0140	0.0088
Mercury	-16794-01-19 12:14 J	-4412567.10	-4412566.99	-4412566.87	0.0140	0.0067
Mercury	-16794-04-17 15:36 J	-4412478.97	-4412478.85	-4412478.73	0.0140	0.0047
Mercury	-16794-07-14 18:57 J	-4412390.84	-4412390.71	-4412390.58	0.0140	0.0027
Mercury	-16794-10-10 22:19 J	-4412302.71	-4412302.57	-4412302.44	0.0140	0.0007
Mercury	-16793-01-07 01:40 J	-4412214.56	-4412214.43	-4412214.30	0.0140	0.0015
Mercury	-16793-04-04 05:02 J	-4412126.42	-4412126.29	-4412126.17	0.0140	0.0036
Mercury	-16793-07-01 08:23 J	-4412038.27	-4412038.15	-4412038.03	0.0141	0.0057

Mercury	-16793-09-27 11:45 J	-4411950.12	-4411950.01	-4411949.90	0.0141	0.0078
Mercury	-16793-12-24 15:07 J	-4411861.96	-4411861.87	-4411861.77	0.0141	0.0099
Mercury	-16792-03-22 18:28 J	-4411773.79	-4411773.73	-4411773.66	0.0141	0.0121
Mars	-16787-08-19 10:48 J	-4409798.38	-4409798.05	-4409797.72	0.0143	0.0006
Venus	-16779-11-03 04:04 J	-4406800.37	-4406800.33	-4406800.28	0.0146	0.0142
Venus	-16778-06-17 15:21 J	-4406574.00	-4406573.86	-4406573.69	0.0146	0.0102
Venus	-16777-01-30 03:21 J	-4406347.56	-4406347.36	-4406347.17	0.0146	0.0061
Venus	-16777-09-12 14:52 J	-4406121.09	-4406120.88	-4406120.67	0.0146	0.0021
Venus	-16776-04-27 02:38 J	-4405894.61	-4405894.39	-4405894.18	0.0146	0.0020
Venus	-16776-12-09 14:09 J	-4405668.10	-4405667.91	-4405667.71	0.0146	0.0061
Venus	-16775-07-24 02:09 J	-4405441.56	-4405441.41	-4405441.25	0.0146	0.0102
Venus	-16774-03-07 13:40 J	-4405214.95	-4405214.93	-4405214.87	0.0146	0.0143
Earth	-16767-11-25 11:02 J	-4402395.19	-4402395.04	-4402394.85	0.0144	0.0109
Moon	-16767-11-25 14:23 J	-4402395.05	-4402394.90	-4402394.72	0.0144	0.0109 *
Moon	-16766-11-30 11:45 J	-4402025.27	-4402025.01	-4402024.75	0.0144	0.0026
Earth	-16766-11-30 14:52 J	-4402025.13	-4402024.88	-4402024.62	0.0144	0.0031 *
Earth	-16765-12-04 17:31 J	-4401655.00	-4401654.77	-4401654.52	0.0143	0.0048
Moon	-16765-12-04 20:23 J	-4401654.89	-4401654.65	-4401654.41	0.0143	0.0041 *
Moon	-16764-12-09 18:14 J	-4401284.84	-4401284.74	-4401284.63	0.0143	0.0130
Earth	-16764-12-09 19:26 J	-4401284.79	-4401284.69	-4401284.54	0.0143	0.0124 *
Mercury	-16755-03-14 01:26 J	-4398268.50	-4398268.44	-4398268.35	0.0139	0.0127
Mercury	-16755-06-10 09:36 J	-4398180.24	-4398180.10	-4398179.96	0.0139	0.0097
Mercury	-16755-09-06 17:16 J	-4398091.94	-4398091.78	-4398091.60	0.0139	0.0068
Mercury	-16755-12-04 01:11 J	-4398003.63	-4398003.45	-4398003.26	0.0138	0.0038
Mercury	-16754-03-02 09:07 J	-4397915.32	-4397915.12	-4397914.93	0.0138	0.0009
Mercury	-16754-05-29 16:33 J	-4397826.99	-4397826.81	-4397826.61	0.0138	0.0022
Mercury	-16754-08-26 00:14 J	-4397738.66	-4397738.49	-4397738.30	0.0138	0.0050
Mercury	-16754-11-22 07:40 J	-4397650.32	-4397650.18	-4397650.01	0.0138	0.0079
Mercury	-16753-02-18 15:21 J	-4397561.97	-4397561.86	-4397561.73	0.0138	0.0107
Mercury	-16753-05-16 22:33 J	-4397473.57	-4397473.56	-4397473.50	0.0138	0.0136

Mars	-16748-02-07 17:02 J	-4395745.83	-4395745.79	-4395745.69	0.0135	0.0132
Mars	-16746-01-08 17:31 J	-4395046.02	-4395045.77	-4395045.48	0.0135	0.0049
Venus	-16737-05-15 05:02 J	-4391631.35	-4391631.29	-4391631.21	0.0133	0.0125
Venus	-16737-12-27 11:16 J	-4391405.18	-4391405.03	-4391404.87	0.0132	0.0094
Venus	-16736-08-10 17:02 J	-4391178.97	-4391178.79	-4391178.58	0.0132	0.0063
Venus	-16735-03-24 23:02 J	-4390952.75	-4390952.54	-4390952.32	0.0132	0.0031
Venus	-16735-11-06 04:48 J	-4390726.52	-4390726.30	-4390726.07	0.0132	0.0002
Venus	-16734-06-20 10:33 J	-4390500.27	-4390500.06	-4390499.84	0.0132	0.0031
Venus	-16733-02-01 16:19 J	-4390274.01	-4390273.82	-4390273.62	0.0132	0.0062
Venus	-16733-09-14 22:19 J	-4390047.73	-4390047.57	-4390047.42	0.0132	0.0093
Venus	-16732-04-29 03:36 J	-4389821.42	-4389821.35	-4389821.26	0.0132	0.0124
Earth	-16723-05-28 06:28 J	-4386505.34	-4386505.23	-4386505.08	0.0134	0.0114
Moon	-16723-05-28 08:52 J	-4386505.23	-4386505.13	-4386505.00	0.0134	0.0118 *
Moon	-16722-06-01 10:04 J	-4386136.30	-4386136.08	-4386135.83	0.0134	0.0053
Earth	-16722-06-01 12:14 J	-4386136.21	-4386135.99	-4386135.76	0.0134	0.0054 *
Earth	-16721-06-04 18:14 J	-4385766.99	-4385766.74	-4385766.49	0.0135	0.0008
Moon	-16721-06-04 20:09 J	-4385766.90	-4385766.66	-4385766.42	0.0135	0.0011 *
Moon	-16720-06-08 22:33 J	-4385397.78	-4385397.56	-4385397.33	0.0135	0.0066
Earth	-16720-06-09 00:28 J	-4385397.68	-4385397.48	-4385397.26	0.0135	0.0070 *
Earth	-16719-06-13 06:57 J	-4385028.24	-4385028.21	-4385028.14	0.0136	0.0133
Mercury	-16711-05-20 09:36 J	-4382130.16	-4382130.10	-4382130.04	0.0139	0.0124
Mercury	-16711-08-16 12:43 J	-4382042.05	-4382041.97	-4382041.88	0.0140	0.0104
Mercury	-16711-11-12 16:04 J	-4381953.93	-4381953.83	-4381953.73	0.0140	0.0084
Mercury	-16710-02-08 19:11 J	-4381865.81	-4381865.70	-4381865.58	0.0140	0.0064
Mercury	-16710-05-07 22:33 J	-4381777.68	-4381777.56	-4381777.43	0.0140	0.0043
Mercury	-16710-08-04 01:55 J	-4381689.55	-4381689.42	-4381689.29	0.0140	0.0023
Mercury	-16710-10-31 05:16 J	-4381601.41	-4381601.28	-4381601.15	0.0140	0.0002
Mercury	-16709-01-27 08:38 J	-4381513.27	-4381513.14	-4381513.01	0.0140	0.0019
Mercury	-16709-04-24 12:00 J	-4381425.12	-4381425.00	-4381424.87	0.0140	0.0040
Mercury	-16709-07-21 15:21 J	-4381336.97	-4381336.86	-4381336.74	0.0141	0.0061

Mercury	-16709-10-17 18:43 J	-4381248.82	-4381248.72	-4381248.61	0.0141	0.0082
Mercury	-16708-01-13 22:04 J	-4381160.66	-4381160.58	-4381160.48	0.0141	0.0104
Mercury	-16708-04-12 01:40 J	-4381072.49	-4381072.43	-4381072.37	0.0141	0.0125
Mars	-16702-04-15 13:55 J	-4378878.16	-4378877.92	-4378877.67	0.0144	0.0093
Venus	-16694-02-14 22:19 J	-4376015.67	-4376015.57	-4376015.43	0.0146	0.0121
Venus	-16694-09-29 10:04 J	-4375789.25	-4375789.08	-4375788.89	0.0146	0.0080
Venus	-16693-05-12 21:50 J	-4375562.80	-4375562.59	-4375562.38	0.0146	0.0039
Venus	-16693-12-25 09:36 J	-4375336.32	-4375336.10	-4375335.89	0.0146	0.0002
Venus	-16692-08-08 21:21 J	-4375109.81	-4375109.61	-4375109.40	0.0146	0.0043
Venus	-16691-03-23 09:07 J	-4374883.29	-4374883.12	-4374882.93	0.0146	0.0084
Venus	-16691-11-04 20:38 J	-4374656.73	-4374656.64	-4374656.51	0.0146	0.0125
Earth	-16683-11-25 22:04 J	-4371713.75	-4371713.58	-4371713.39	0.0144	0.0103
Moon	-16683-11-26 01:40 J	-4371713.59	-4371713.43	-4371713.24	0.0144	0.0104 *
Moon	-16682-11-30 22:19 J	-4371343.82	-4371343.57	-4371343.31	0.0144	0.0029
Earth	-16682-12-01 01:40 J	-4371343.68	-4371343.43	-4371343.17	0.0144	0.0025 *
Earth	-16681-12-05 04:19 J	-4370973.55	-4370973.32	-4370973.07	0.0143	0.0052
Moon	-16681-12-05 06:57 J	-4370973.43	-4370973.21	-4370972.97	0.0143	0.0060 *
Moon	-16680-12-10 03:50 J	-4370603.47	-4370603.34	-4370603.19	0.0143	0.0121
Earth	-16680-12-10 06:28 J	-4370603.32	-4370603.23	-4370603.10	0.0143	0.0129 *
Mercury	-16671-04-03 08:52 J	-4367567.22	-4367567.13	-4367567.03	0.0139	0.0120
Mercury	-16671-06-30 16:33 J	-4367478.95	-4367478.81	-4367478.66	0.0139	0.0090
Mercury	-16671-09-27 00:28 J	-4367390.65	-4367390.48	-4367390.30	0.0138	0.0061
Mercury	-16671-12-24 08:09 J	-4367302.34	-4367302.16	-4367301.96	0.0138	0.0032
Mercury	-16670-03-22 16:04 J	-4367214.02	-4367213.83	-4367213.64	0.0138	0.0002
Mercury	-16670-06-18 23:45 J	-4367125.70	-4367125.51	-4367125.32	0.0138	0.0027
Mercury	-16670-09-15 07:26 J	-4367037.37	-4367037.19	-4367037.01	0.0138	0.0056
Mercury	-16670-12-12 14:52 J	-4366949.02	-4366948.88	-4366948.72	0.0138	0.0085
Mercury	-16669-03-09 22:33 J	-4366860.67	-4366860.56	-4366860.45	0.0138	0.0113
Mars	-16664-10-03 02:23 J	-4364827.64	-4364827.40	-4364827.14	0.0135	0.0069
Mars	-16662-09-03 01:26 J	-4364127.60	-4364127.44	-4364127.26	0.0134	0.0110

Venus	-16653-08-26 19:40 J	-4360846.81	-4360846.68	-4360846.56	0.0132	0.0109
Venus	-16652-04-10 01:26 J	-4360620.62	-4360620.44	-4360620.26	0.0132	0.0078
Venus	-16652-11-22 07:11 J	-4360394.40	-4360394.20	-4360393.99	0.0132	0.0047
Venus	-16651-07-06 13:11 J	-4360168.17	-4360167.95	-4360167.73	0.0132	0.0015
Venus	-16650-02-17 18:57 J	-4359941.93	-4359941.71	-4359941.49	0.0132	0.0016
Venus	-16650-10-02 00:28 J	-4359715.68	-4359715.48	-4359715.26	0.0132	0.0047
Venus	-16649-05-15 06:00 J	-4359489.41	-4359489.25	-4359489.06	0.0132	0.0079
Venus	-16649-12-27 11:31 J	-4359263.12	-4359263.02	-4359262.87	0.0132	0.0110
Earth	-16639-05-28 14:23 J	-4355824.03	-4355823.90	-4355823.75	0.0134	0.0111
Moon	-16639-05-28 16:33 J	-4355823.94	-4355823.81	-4355823.65	0.0134	0.0109 *
Moon	-16638-06-01 17:02 J	-4355455.01	-4355454.79	-4355454.54	0.0134	0.0053
Earth	-16638-06-01 20:09 J	-4355454.89	-4355454.66	-4355454.43	0.0134	0.0051 *
Earth	-16637-06-05 01:55 J	-4355085.66	-4355085.42	-4355085.17	0.0135	0.0011
Moon	-16637-06-05 04:33 J	-4355085.56	-4355085.31	-4355085.07	0.0135	0.0009 *
Moon	-16636-06-09 05:45 J	-4354716.45	-4354716.26	-4354716.03	0.0135	0.0078
Earth	-16636-06-09 08:09 J	-4354716.36	-4354716.16	-4354715.94	0.0135	0.0072 *
Earth	-16635-06-13 14:38 J	-4354346.90	-4354346.89	-4354346.83	0.0136	0.0135
Moon	-16635-06-13 17:16 J	-4354346.83	-4354346.78	-4354346.68	0.0136	0.0129 *
Mercury	-16627-06-09 16:04 J	-4351428.88	-4351428.83	-4351428.76	0.0140	0.0122
Mercury	-16627-09-05 19:26 J	-4351340.78	-4351340.69	-4351340.60	0.0140	0.0102
Mercury	-16627-12-02 22:33 J	-4351252.66	-4351252.56	-4351252.44	0.0140	0.0082
Mercury	-16626-03-01 02:09 J	-4351164.53	-4351164.41	-4351164.30	0.0140	0.0061
Mercury	-16626-05-28 05:16 J	-4351076.40	-4351076.28	-4351076.15	0.0140	0.0041
Mercury	-16626-08-24 08:38 J	-4350988.27	-4350988.14	-4350988.01	0.0140	0.0021
Mercury	-16626-11-20 12:00 J	-4350900.13	-4350900.00	-4350899.87	0.0140	0.0003
Mercury	-16625-02-16 15:21 J	-4350811.99	-4350811.86	-4350811.73	0.0140	0.0021
Mercury	-16625-05-14 18:43 J	-4350723.84	-4350723.72	-4350723.59	0.0140	0.0042
Mercury	-16625-08-10 22:04 J	-4350635.69	-4350635.58	-4350635.46	0.0141	0.0064
Mercury	-16625-11-07 01:26 J	-4350547.54	-4350547.44	-4350547.33	0.0141	0.0085
Mercury	-16624-02-03 05:02 J	-4350459.38	-4350459.29	-4350459.20	0.0141	0.0106

Mercury	-16624-05-02 08:23 J	-4350371.20	-4350371.15	-4350371.09	0.0141	0.0127
Mars	-16619-01-03 12:28 J	-4348664.24	-4348663.98	-4348663.68	0.0143	0.0074
Venus	-16611-10-15 03:21 J	-4345457.39	-4345457.36	-4345457.29	0.0146	0.0142
Venus	-16610-05-29 15:07 J	-4345231.01	-4345230.87	-4345230.71	0.0146	0.0101
Venus	-16609-01-11 02:52 J	-4345004.57	-4345004.38	-4345004.18	0.0146	0.0060
Venus	-16609-08-24 14:38 J	-4344778.10	-4344777.89	-4344777.67	0.0146	0.0020
Venus	-16608-04-08 02:23 J	-4344551.61	-4344551.40	-4344551.18	0.0146	0.0022
Venus	-16608-11-20 14:09 J	-4344325.10	-4344324.91	-4344324.71	0.0146	0.0063
Venus	-16607-07-05 02:09 J	-4344098.56	-4344098.41	-4344098.26	0.0146	0.0104
Venus	-16606-02-16 13:55 J	-4343871.93	-4343871.92	-4343871.90	0.0146	0.0145
Earth	-16599-11-26 06:14 J	-4341032.42	-4341032.24	-4341032.05	0.0144	0.0099
Moon	-16599-11-26 09:50 J	-4341032.27	-4341032.09	-4341031.90	0.0144	0.0099 *
Moon	-16598-12-01 06:14 J	-4340662.50	-4340662.24	-4340661.98	0.0144	0.0017
Earth	-16598-12-01 09:50 J	-4340662.34	-4340662.09	-4340661.83	0.0144	0.0022 *
Earth	-16597-12-05 12:28 J	-4340292.20	-4340291.98	-4340291.72	0.0143	0.0057
Moon	-16597-12-05 16:04 J	-4340292.06	-4340291.83	-4340291.58	0.0143	0.0050 *
Moon	-16596-12-10 12:14 J	-4339922.03	-4339921.99	-4339921.91	0.0143	0.0139
Earth	-16596-12-10 14:52 J	-4339921.95	-4339921.88	-4339921.76	0.0143	0.0132 *
Mercury	-16587-04-23 15:21 J	-4336865.95	-4336865.86	-4336865.74	0.0139	0.0115
Mercury	-16587-07-20 23:16 J	-4336777.67	-4336777.53	-4336777.37	0.0139	0.0085
Mercury	-16587-10-17 07:11 J	-4336689.37	-4336689.20	-4336689.02	0.0138	0.0055
Mercury	-16586-01-13 15:07 J	-4336601.06	-4336600.87	-4336600.68	0.0138	0.0026
Mercury	-16586-04-11 22:48 J	-4336512.74	-4336512.55	-4336512.35	0.0138	0.0004
Mercury	-16586-07-09 06:28 J	-4336424.41	-4336424.23	-4336424.04	0.0138	0.0033
Mercury	-16586-10-05 13:55 J	-4336336.08	-4336335.92	-4336335.73	0.0138	0.0062
Mercury	-16585-01-01 21:50 J	-4336247.73	-4336247.59	-4336247.45	0.0138	0.0090
Mercury	-16585-03-30 05:02 J	-4336159.37	-4336159.29	-4336159.18	0.0138	0.0119
Mars	-16579-05-28 11:02 J	-4333909.33	-4333909.04	-4333908.75	0.0135	0.0007
Venus	-16569-04-26 03:36 J	-4330288.41	-4330288.35	-4330288.26	0.0132	0.0124
Venus	-16569-12-08 09:36 J	-4330062.24	-4330062.10	-4330061.93	0.0132	0.0093

Venus	-16568-07-22 15:50 J	-4329836.03	-4329835.84	-4329835.64	0.0132	0.0062
Venus	-16567-03-05 21:36 J	-4329609.81	-4329609.60	-4329609.38	0.0132	0.0030
Venus	-16567-10-18 03:21 J	-4329383.58	-4329383.36	-4329383.13	0.0132	0.0003
Venus	-16566-06-01 09:07 J	-4329157.33	-4329157.12	-4329156.90	0.0132	0.0032
Venus	-16565-01-13 14:52 J	-4328931.07	-4328930.88	-4328930.68	0.0132	0.0063
Venus	-16565-08-26 20:23 J	-4328704.80	-4328704.65	-4328704.49	0.0132	0.0094
Venus	-16564-04-10 01:40 J	-4328478.48	-4328478.43	-4328478.34	0.0132	0.0126
Earth	-16555-05-28 22:04 J	-4325142.71	-4325142.58	-4325142.42	0.0134	0.0108
Moon	-16555-05-29 01:11 J	-4325142.56	-4325142.45	-4325142.30	0.0134	0.0113 *
Moon	-16554-06-02 00:43 J	-4324773.70	-4324773.47	-4324773.22	0.0134	0.0046
Earth	-16554-06-02 03:36 J	-4324773.57	-4324773.35	-4324773.11	0.0134	0.0048 *
Earth	-16553-06-05 09:36 J	-4324404.35	-4324404.10	-4324403.85	0.0135	0.0013
Moon	-16553-06-05 12:28 J	-4324404.22	-4324403.98	-4324403.73	0.0135	0.0015 *
Moon	-16552-06-09 12:57 J	-4324035.18	-4324034.96	-4324034.75	0.0135	0.0071
Earth	-16552-06-09 15:36 J	-4324035.04	-4324034.85	-4324034.63	0.0135	0.0074 *
Earth	-16551-06-13 22:19 J	-4323665.57	-4323665.57	-4323665.56	0.0136	0.0135
Mercury	-16543-06-29 22:33 J	-4320727.62	-4320727.56	-4320727.49	0.0139	0.0121
Mercury	-16543-09-26 01:55 J	-4320639.51	-4320639.42	-4320639.33	0.0140	0.0101
Mercury	-16543-12-23 05:02 J	-4320551.39	-4320551.29	-4320551.17	0.0140	0.0081
Mercury	-16542-03-21 08:38 J	-4320463.26	-4320463.14	-4320463.02	0.0140	0.0060
Mercury	-16542-06-17 11:45 J	-4320375.13	-4320375.01	-4320374.88	0.0140	0.0040
Mercury	-16542-09-13 15:07 J	-4320287.00	-4320286.87	-4320286.73	0.0140	0.0020
Mercury	-16542-12-10 18:28 J	-4320198.86	-4320198.73	-4320198.59	0.0140	0.0005
Mercury	-16541-03-07 21:50 J	-4320110.72	-4320110.59	-4320110.46	0.0140	0.0023
Mercury	-16541-06-04 01:11 J	-4320022.57	-4320022.45	-4320022.32	0.0140	0.0044
Mercury	-16541-08-31 04:33 J	-4319934.42	-4319934.31	-4319934.19	0.0141	0.0065
Mercury	-16541-11-27 07:55 J	-4319846.27	-4319846.17	-4319846.06	0.0141	0.0086
Mercury	-16540-02-23 11:31 J	-4319758.10	-4319758.02	-4319757.93	0.0141	0.0107
Mercury	-16540-05-22 14:52 J	-4319669.93	-4319669.88	-4319669.82	0.0141	0.0128
Mars	-16535-08-30 04:33 J	-4317744.63	-4317744.31	-4317743.98	0.0144	0.0007

Venus	-16526-01-26 18:28 J	-4314672.82	-4314672.73	-4314672.60	0.0146	0.0124
Venus	-16526-09-10 06:14 J	-4314446.41	-4314446.24	-4314446.05	0.0146	0.0083
Venus	-16525-04-23 18:00 J	-4314219.95	-4314219.75	-4314219.54	0.0146	0.0042
Venus	-16525-12-06 05:45 J	-4313993.47	-4313993.26	-4313993.04	0.0146	0.0002
Venus	-16524-07-20 17:31 J	-4313766.97	-4313766.77	-4313766.56	0.0146	0.0041
Venus	-16523-03-04 05:16 J	-4313540.45	-4313540.28	-4313540.09	0.0146	0.0082
Venus	-16523-10-16 17:02 J	-4313313.89	-4313313.79	-4313313.67	0.0146	0.0124
Earth	-16515-11-26 11:02 J	-4310351.22	-4310351.04	-4310350.84	0.0144	0.0098
Moon	-16515-11-26 14:52 J	-4310351.06	-4310350.88	-4310350.68	0.0144	0.0099 *
Moon	-16514-12-01 11:16 J	-4309981.28	-4309981.03	-4309980.77	0.0144	0.0022
Earth	-16514-12-01 14:52 J	-4309981.13	-4309980.88	-4309980.62	0.0144	0.0020 *
Earth	-16513-12-05 17:45 J	-4309610.99	-4309610.76	-4309610.51	0.0143	0.0057
Moon	-16513-12-05 21:07 J	-4309610.83	-4309610.62	-4309610.38	0.0143	0.0065 *
Moon	-16512-12-10 16:48 J	-4309240.91	-4309240.80	-4309240.66	0.0143	0.0125
Earth	-16512-12-10 20:23 J	-4309240.73	-4309240.65	-4309240.55	0.0143	0.0133 *
Mercury	-16503-05-13 21:21 J	-4306164.71	-4306164.61	-4306164.49	0.0139	0.0112
Mercury	-16503-08-10 05:31 J	-4306076.43	-4306076.27	-4306076.11	0.0139	0.0082
Mercury	-16503-11-06 13:11 J	-4305988.12	-4305987.95	-4305987.76	0.0138	0.0052
Mercury	-16502-02-02 21:07 J	-4305899.81	-4305899.62	-4305899.43	0.0138	0.0023
Mercury	-16502-05-02 04:48 J	-4305811.49	-4305811.30	-4305811.10	0.0138	0.0007
Mercury	-16502-07-29 12:28 J	-4305723.16	-4305722.98	-4305722.79	0.0138	0.0036
Mercury	-16502-10-25 20:09 J	-4305634.82	-4305634.66	-4305634.48	0.0138	0.0065
Mercury	-16501-01-22 03:50 J	-4305546.48	-4305546.34	-4305546.20	0.0138	0.0093
Mercury	-16501-04-19 11:16 J	-4305458.11	-4305458.03	-4305457.93	0.0138	0.0122
Mars	-16496-02-19 17:45 J	-4303690.84	-4303690.76	-4303690.63	0.0135	0.0127
Mars	-16494-01-20 15:36 J	-4302991.10	-4302990.85	-4302990.56	0.0135	0.0053
Venus	-16485-08-07 18:00 J	-4299503.88	-4299503.75	-4299503.63	0.0132	0.0109
Venus	-16484-03-21 23:45 J	-4299277.68	-4299277.51	-4299277.33	0.0132	0.0077
Venus	-16484-11-03 05:31 J	-4299051.47	-4299051.27	-4299051.06	0.0132	0.0046
Venus	-16483-06-17 11:16 J	-4298825.24	-4298825.03	-4298824.80	0.0132	0.0015

Venus	-16482-01-29 17:16 J	-4298599.00	-4298598.78	-4298598.56	0.0132	0.0017
Venus	-16482-09-12 22:48 J	-4298372.75	-4298372.55	-4298372.34	0.0132	0.0048
Venus	-16481-04-26 04:19 J	-4298146.48	-4298146.32	-4298146.13	0.0132	0.0079
Venus	-16481-12-08 09:50 J	-4297920.20	-4297920.09	-4297919.96	0.0132	0.0110
Earth	-16471-05-29 06:00 J	-4294461.39	-4294461.25	-4294461.09	0.0134	0.0105
Moon	-16471-05-29 09:07 J	-4294461.27	-4294461.12	-4294460.95	0.0134	0.0101 *
Moon	-16470-06-02 08:09 J	-4294092.39	-4294092.16	-4294091.92	0.0134	0.0048
Earth	-16470-06-02 11:31 J	-4294092.24	-4294092.02	-4294091.77	0.0134	0.0046 *
Earth	-16469-06-05 17:16 J	-4293723.02	-4293722.78	-4293722.52	0.0135	0.0016
Moon	-16469-06-05 20:38 J	-4293722.88	-4293722.64	-4293722.39	0.0135	0.0015 *
Moon	-16468-06-09 20:09 J	-4293353.85	-4293353.66	-4293353.45	0.0135	0.0081
Earth	-16468-06-09 23:16 J	-4293353.73	-4293353.53	-4293353.31	0.0135	0.0076 *
Moon	-16467-06-14 09:07 J	-4292984.17	-4292984.12	-4292984.06	0.0135	0.0132
Mercury	-16459-04-23 01:55 J	-4290114.42	-4290114.42	-4290114.40	0.0139	0.0139
Mercury	-16459-07-20 05:16 J	-4290026.34	-4290026.28	-4290026.21	0.0139	0.0119
Mercury	-16459-10-16 08:38 J	-4289938.23	-4289938.14	-4289938.05	0.0140	0.0098
Mercury	-16458-01-12 11:45 J	-4289850.11	-4289850.01	-4289849.89	0.0140	0.0079
Mercury	-16458-04-10 15:21 J	-4289761.98	-4289761.86	-4289761.74	0.0140	0.0058
Mercury	-16458-07-07 18:28 J	-4289673.85	-4289673.73	-4289673.60	0.0140	0.0038
Mercury	-16458-10-03 21:50 J	-4289585.72	-4289585.59	-4289585.46	0.0140	0.0017
Mercury	-16458-12-31 01:11 J	-4289497.58	-4289497.45	-4289497.32	0.0140	0.0004
Mercury	-16457-03-28 04:33 J	-4289409.44	-4289409.31	-4289409.18	0.0140	0.0024
Mercury	-16457-06-24 07:55 J	-4289321.29	-4289321.17	-4289321.04	0.0140	0.0045
Mercury	-16457-09-20 11:16 J	-4289233.14	-4289233.03	-4289232.91	0.0141	0.0066
Mercury	-16457-12-17 14:38 J	-4289144.99	-4289144.89	-4289144.78	0.0141	0.0088
Mercury	-16456-03-15 18:00 J	-4289056.82	-4289056.75	-4289056.66	0.0141	0.0109
Mercury	-16456-06-11 21:36 J	-4288968.64	-4288968.60	-4288968.55	0.0141	0.0130
Mars	-16450-04-25 22:33 J	-4286824.80	-4286824.56	-4286824.29	0.0144	0.0088
Venus	-16442-05-10 09:36 J	-4283888.23	-4283888.10	-4283887.94	0.0146	0.0106
Venus	-16442-12-22 21:07 J	-4283661.80	-4283661.62	-4283661.41	0.0146	0.0066

Venus	-16441-08-05 09:21 J	-4283435.32	-4283435.11	-4283434.90	0.0146	0.0023
Venus	-16440-03-19 20:52 J	-4283208.84	-4283208.63	-4283208.41	0.0146	0.0018
Venus	-16440-11-01 08:38 J	-4282982.33	-4282982.14	-4282981.94	0.0146	0.0060
Venus	-16439-06-15 20:09 J	-4282755.80	-4282755.66	-4282755.49	0.0146	0.0101
Venus	-16438-01-28 07:55 J	-4282529.20	-4282529.17	-4282529.11	0.0146	0.0142
Earth	-16431-11-26 15:07 J	-4279670.05	-4279669.87	-4279669.67	0.0144	0.0096
Moon	-16431-11-26 18:28 J	-4279669.92	-4279669.73	-4279669.52	0.0144	0.0093 *
Moon	-16430-12-01 15:21 J	-4279300.12	-4279299.86	-4279299.61	0.0144	0.0016
Earth	-16430-12-01 18:57 J	-4279299.96	-4279299.71	-4279299.45	0.0144	0.0019 *
Earth	-16429-12-05 21:50 J	-4278929.81	-4278929.59	-4278929.34	0.0143	0.0059
Moon	-16429-12-06 01:40 J	-4278929.66	-4278929.43	-4278929.18	0.0143	0.0053 *
Moon	-16428-12-10 21:07 J	-4278559.64	-4278559.62	-4278559.56	0.0143	0.0141
Earth	-16428-12-11 00:28 J	-4278559.55	-4278559.48	-4278559.37	0.0143	0.0134
Mercury	-16419-06-03 02:52 J	-4275463.48	-4275463.38	-4275463.25	0.0139	0.0111
Mercury	-16419-08-30 10:48 J	-4275375.20	-4275375.05	-4275374.88	0.0139	0.0081
Mercury	-16419-11-26 18:57 J	-4275286.89	-4275286.71	-4275286.53	0.0139	0.0051
Mercury	-16418-02-23 02:38 J	-4275198.58	-4275198.39	-4275198.19	0.0138	0.0021
Mercury	-16418-05-22 10:33 J	-4275110.25	-4275110.06	-4275109.87	0.0138	0.0008
Mercury	-16418-08-18 18:14 J	-4275021.92	-4275021.74	-4275021.55	0.0138	0.0037
Mercury	-16418-11-15 01:55 J	-4274933.59	-4274933.42	-4274933.25	0.0138	0.0066
Mercury	-16417-02-11 09:36 J	-4274845.24	-4274845.10	-4274844.96	0.0138	0.0095
Mercury	-16417-05-09 16:48 J	-4274756.86	-4274756.80	-4274756.70	0.0138	0.0124
Mars	-16412-10-14 21:21 J	-4272772.85	-4272772.61	-4272772.35	0.0135	0.0067
Mars	-16410-09-14 19:26 J	-4272072.83	-4272072.69	-4272072.50	0.0135	0.0112
Venus	-16401-04-07 01:40 J	-4268945.49	-4268945.43	-4268945.35	0.0132	0.0125
Venus	-16401-11-19 07:40 J	-4268719.33	-4268719.18	-4268719.01	0.0132	0.0093
Venus	-16400-07-03 13:26 J	-4268493.12	-4268492.94	-4268492.73	0.0132	0.0063
Venus	-16399-02-14 19:40 J	-4268266.89	-4268266.68	-4268266.46	0.0132	0.0030
Venus	-16399-09-29 01:26 J	-4268040.66	-4268040.44	-4268040.22	0.0132	0.0002
Venus	-16398-05-13 07:11 J	-4267814.41	-4267814.20	-4267813.99	0.0132	0.0033

Venus	-16398-12-25 12:28 J	-4267588.16	-4267587.98	-4267587.77	0.0132	0.0065
Venus	-16397-08-07 18:14 J	-4267361.88	-4267361.74	-4267361.58	0.0132	0.0095
Venus	-16396-03-21 23:45 J	-4267135.56	-4267135.51	-4267135.43	0.0132	0.0126
Earth	-16387-05-29 15:07 J	-4263780.02	-4263779.87	-4263779.69	0.0134	0.0101
Moon	-16387-05-29 19:11 J	-4263779.85	-4263779.70	-4263779.55	0.0134	0.0106 *
Moon	-16386-06-02 17:31 J	-4263411.01	-4263410.77	-4263410.53	0.0134	0.0039
Earth	-16386-06-02 20:52 J	-4263410.86	-4263410.63	-4263410.39	0.0134	0.0042 *
Earth	-16385-06-06 02:38 J	-4263041.64	-4263041.39	-4263041.14	0.0135	0.0019
Moon	-16385-06-06 06:00 J	-4263041.49	-4263041.25	-4263041.00	0.0135	0.0020 *
Moon	-16384-06-10 04:48 J	-4262672.49	-4262672.30	-4262672.08	0.0135	0.0077
Earth	-16384-06-10 08:38 J	-4262672.34	-4262672.14	-4262671.93	0.0135	0.0079 *
Mercury	-16375-05-13 09:07 J	-4259413.14	-4259413.12	-4259413.08	0.0139	0.0134
Mercury	-16375-08-09 12:28 J	-4259325.05	-4259324.98	-4259324.91	0.0139	0.0114
Mercury	-16375-11-05 15:36 J	-4259236.94	-4259236.85	-4259236.75	0.0139	0.0095
Mercury	-16374-02-01 18:57 J	-4259148.82	-4259148.71	-4259148.60	0.0140	0.0074
Mercury	-16374-04-30 22:19 J	-4259060.69	-4259060.57	-4259060.45	0.0140	0.0054
Mercury	-16374-07-28 01:40 J	-4258972.56	-4258972.43	-4258972.30	0.0140	0.0034
Mercury	-16374-10-24 05:02 J	-4258884.42	-4258884.29	-4258884.16	0.0140	0.0013
Mercury	-16373-01-20 08:23 J	-4258796.29	-4258796.15	-4258796.02	0.0140	0.0008
Mercury	-16373-04-17 11:45 J	-4258708.14	-4258708.01	-4258707.88	0.0140	0.0029
Mercury	-16373-07-14 14:52 J	-4258620.00	-4258619.88	-4258619.75	0.0140	0.0050
Mercury	-16373-10-10 18:14 J	-4258531.84	-4258531.74	-4258531.62	0.0141	0.0071
Mercury	-16372-01-06 21:36 J	-4258443.69	-4258443.60	-4258443.49	0.0141	0.0092
Mercury	-16372-04-05 01:11 J	-4258355.52	-4258355.45	-4258355.37	0.0141	0.0113
Mercury	-16372-07-02 04:33 J	-4258267.34	-4258267.31	-4258267.26	0.0141	0.0134
Mars	-16367-01-14 00:00 J	-4256610.78	-4256610.50	-4256610.22	0.0143	0.0076
Venus	-16358-01-07 14:52 J	-4253329.97	-4253329.88	-4253329.76	0.0146	0.0127
Venus	-16358-08-22 02:38 J	-4253103.56	-4253103.39	-4253103.21	0.0146	0.0086
Venus	-16357-04-04 14:09 J	-4252877.11	-4252876.91	-4252876.70	0.0146	0.0045
Venus	-16357-11-17 01:55 J	-4252650.64	-4252650.42	-4252650.21	0.0146	0.0003

Venus	-16356-07-01 13:40 J	-4252424.14	-4252423.93	-4252423.73	0.0146	0.0039
Venus	-16355-02-13 00:57 J	-4252197.63	-4252197.46	-4252197.27	0.0146	0.0080
Venus	-16355-09-27 12:43 J	-4251971.08	-4251970.97	-4251970.84	0.0146	0.0122
Earth	-16347-11-26 22:04 J	-4248988.77	-4248988.58	-4248988.38	0.0144	0.0093
Moon	-16347-11-27 01:11 J	-4248988.63	-4248988.45	-4248988.24	0.0144	0.0095 *
Moon	-16346-12-01 22:48 J	-4248618.80	-4248618.55	-4248618.30	0.0144	0.0016
Earth	-16346-12-02 01:55 J	-4248618.67	-4248618.42	-4248618.16	0.0144	0.0016 *
Earth	-16345-12-06 05:02 J	-4248248.52	-4248248.29	-4248248.06	0.0143	0.0061
Moon	-16345-12-06 08:23 J	-4248248.36	-4248248.15	-4248247.91	0.0143	0.0068 *
Moon	-16344-12-11 03:50 J	-4247878.45	-4247878.34	-4247878.22	0.0143	0.0128
Earth	-16344-12-11 07:26 J	-4247878.25	-4247878.19	-4247878.10	0.0143	0.0136 *
Mercury	-16335-03-27 01:11 J	-4244850.47	-4244850.45	-4244850.42	0.0139	0.0137
Mercury	-16335-06-23 09:07 J	-4244762.24	-4244762.12	-4244761.99	0.0139	0.0107
Mercury	-16335-09-19 16:48 J	-4244673.95	-4244673.80	-4244673.62	0.0139	0.0078
Mercury	-16335-12-17 00:57 J	-4244585.64	-4244585.46	-4244585.27	0.0138	0.0047
Mercury	-16334-03-15 08:52 J	-4244497.32	-4244497.13	-4244496.94	0.0138	0.0018
Mercury	-16334-06-11 16:33 J	-4244409.00	-4244408.81	-4244408.61	0.0138	0.0012
Mercury	-16334-09-08 00:14 J	-4244320.67	-4244320.49	-4244320.30	0.0138	0.0041
Mercury	-16334-12-05 07:55 J	-4244232.33	-4244232.17	-4244232.00	0.0138	0.0070
Mercury	-16333-03-02 15:21 J	-4244143.98	-4244143.86	-4244143.71	0.0138	0.0099
Mercury	-16333-05-29 23:16 J	-4244055.60	-4244055.53	-4244055.45	0.0138	0.0127
Mars	-16327-06-09 02:23 J	-4241854.69	-4241854.40	-4241854.11	0.0135	0.0007
Jupiter	-16319-07-08 08:38 J	-4238903.65	-4238903.14	-4238902.64	0.0133	0.0022
Venus	-16317-07-19 15:21 J	-4238160.96	-4238160.86	-4238160.71	0.0133	0.0110
Venus	-16316-03-02 21:36 J	-4237934.77	-4237934.60	-4237934.41	0.0132	0.0078
Venus	-16316-10-15 03:21 J	-4237708.55	-4237708.36	-4237708.14	0.0132	0.0047
Venus	-16315-05-29 09:21 J	-4237482.32	-4237482.11	-4237481.88	0.0132	0.0015
Venus	-16314-01-10 15:21 J	-4237256.08	-4237255.86	-4237255.64	0.0132	0.0017
Venus	-16314-08-24 21:07 J	-4237029.83	-4237029.62	-4237029.42	0.0132	0.0049
Venus	-16313-04-07 02:23 J	-4236803.56	-4236803.40	-4236803.21	0.0132	0.0080

Venus	-16313-11-19 07:55 J	-4236577.28	-4236577.17	-4236577.04	0.0132	0.0112
Earth	-16303-05-30 00:14 J	-4233098.65	-4233098.49	-4233098.31	0.0134	0.0098
Moon	-16303-05-30 03:50 J	-4233098.51	-4233098.34	-4233098.15	0.0134	0.0092 *
Moon	-16302-06-03 02:09 J	-4232729.64	-4232729.41	-4232729.16	0.0134	0.0041
Earth	-16302-06-03 05:45 J	-4232729.48	-4232729.26	-4232729.00	0.0134	0.0039 *
Earth	-16301-06-06 11:45 J	-4232360.26	-4232360.01	-4232359.76	0.0135	0.0022
Moon	-16301-06-06 15:07 J	-4232360.11	-4232359.87	-4232359.62	0.0135	0.0023 *
Moon	-16300-06-10 14:09 J	-4231991.09	-4231990.91	-4231990.71	0.0135	0.0086
Earth	-16300-06-10 17:45 J	-4231990.95	-4231990.76	-4231990.56	0.0135	0.0083 *
Mercury	-16291-06-02 16:33 J	-4228711.86	-4228711.81	-4228711.77	0.0139	0.0130
Mercury	-16291-08-29 19:40 J	-4228623.76	-4228623.68	-4228623.60	0.0139	0.0110
Mercury	-16291-11-25 23:02 J	-4228535.64	-4228535.54	-4228535.44	0.0140	0.0090
Mercury	-16290-02-22 02:09 J	-4228447.52	-4228447.41	-4228447.29	0.0140	0.0070
Mercury	-16290-05-21 05:31 J	-4228359.39	-4228359.27	-4228359.14	0.0140	0.0049
Mercury	-16290-08-17 08:52 J	-4228271.26	-4228271.13	-4228271.00	0.0140	0.0029
Mercury	-16290-11-13 12:14 J	-4228183.12	-4228182.99	-4228182.86	0.0140	0.0008
Mercury	-16289-02-09 15:36 J	-4228094.98	-4228094.85	-4228094.72	0.0140	0.0013
Mercury	-16289-05-07 18:57 J	-4228006.84	-4228006.71	-4228006.58	0.0140	0.0033
Mercury	-16289-08-03 22:19 J	-4227918.69	-4227918.57	-4227918.45	0.0140	0.0054
Mercury	-16289-10-31 01:40 J	-4227830.54	-4227830.43	-4227830.32	0.0141	0.0075
Mercury	-16288-01-27 05:02 J	-4227742.38	-4227742.29	-4227742.19	0.0141	0.0097
Mercury	-16288-04-25 08:23 J	-4227654.21	-4227654.15	-4227654.07	0.0141	0.0118
Mercury	-16288-07-22 11:45 J	-4227566.02	-4227566.01	-4227565.98	0.0141	0.0139
Mars	-16283-09-10 05:45 J	-4225690.58	-4225690.26	-4225689.93	0.0143	0.0013
Venus	-16275-09-06 22:48 J	-4222771.57	-4222771.55	-4222771.54	0.0146	0.0145
Venus	-16274-04-21 09:50 J	-4222545.23	-4222545.09	-4222544.93	0.0146	0.0105
Venus	-16274-12-03 21:36 J	-4222318.79	-4222318.60	-4222318.41	0.0146	0.0064
Venus	-16273-07-17 09:07 J	-4222092.33	-4222092.12	-4222091.90	0.0146	0.0022
Venus	-16272-02-28 20:38 J	-4221865.85	-4221865.64	-4221865.42	0.0146	0.0020
Venus	-16272-10-13 08:09 J	-4221639.35	-4221639.16	-4221638.96	0.0146	0.0061

Venus	-16271-05-27 19:55 J	-4221412.82	-4221412.67	-4221412.52	0.0146	0.0103
Venus	-16270-01-09 07:11 J	-4221186.21	-4221186.20	-4221186.14	0.0146	0.0144
Earth	-16263-11-27 08:09 J	-4218307.36	-4218307.16	-4218306.95	0.0144	0.0088
Moon	-16263-11-27 10:33 J	-4218307.27	-4218307.06	-4218306.84	0.0144	0.0084 *
Moon	-16262-12-02 08:23 J	-4217937.40	-4217937.15	-4217936.90	0.0144	0.0009
Earth	-16262-12-02 11:45 J	-4217937.27	-4217937.01	-4217936.75	0.0144	0.0011 *
Earth	-16261-12-06 14:23 J	-4217567.12	-4217566.90	-4217566.66	0.0143	0.0066
Moon	-16261-12-06 17:45 J	-4217566.98	-4217566.76	-4217566.51	0.0143	0.0061 *
Earth	-16260-12-11 16:48 J	-4217196.83	-4217196.80	-4217196.73	0.0143	0.0140
Mercury	-16251-04-16 07:55 J	-4214149.22	-4214149.17	-4214149.09	0.0139	0.0131
Mercury	-16251-07-13 16:04 J	-4214060.96	-4214060.83	-4214060.69	0.0139	0.0101
Mercury	-16251-10-10 00:00 J	-4213972.66	-4213972.50	-4213972.33	0.0139	0.0071
Mercury	-16250-01-06 07:55 J	-4213884.35	-4213884.17	-4213883.98	0.0138	0.0041
Mercury	-16250-04-04 15:50 J	-4213796.04	-4213795.84	-4213795.65	0.0138	0.0012
Mercury	-16250-07-01 23:31 J	-4213707.71	-4213707.52	-4213707.33	0.0138	0.0018
Mercury	-16250-09-28 07:11 J	-4213619.38	-4213619.20	-4213619.01	0.0138	0.0047
Mercury	-16250-12-25 14:52 J	-4213531.03	-4213530.88	-4213530.71	0.0138	0.0076
Mercury	-16249-03-22 22:19 J	-4213442.68	-4213442.57	-4213442.43	0.0138	0.0105
Mercury	-16249-06-19 06:00 J	-4213354.29	-4213354.25	-4213354.19	0.0138	0.0133
Mars	-16244-03-03 12:14 J	-4211636.09	-4211635.99	-4211635.84	0.0136	0.0123
Mars	-16242-02-01 11:31 J	-4210936.29	-4210936.02	-4210935.76	0.0135	0.0055
Venus	-16233-03-19 00:28 J	-4207602.54	-4207602.48	-4207602.39	0.0133	0.0125
Venus	-16233-10-31 06:28 J	-4207376.37	-4207376.23	-4207376.06	0.0133	0.0093
Venus	-16232-06-14 12:43 J	-4207150.17	-4207149.97	-4207149.77	0.0132	0.0061
Venus	-16231-01-26 18:28 J	-4206923.94	-4206923.73	-4206923.51	0.0132	0.0029
Venus	-16231-09-10 00:28 J	-4206697.70	-4206697.48	-4206697.26	0.0132	0.0003
Venus	-16230-04-24 06:00 J	-4206471.46	-4206471.25	-4206471.03	0.0132	0.0034
Venus	-16230-12-06 11:31 J	-4206245.20	-4206245.02	-4206244.82	0.0132	0.0066
Venus	-16229-07-19 16:48 J	-4206018.93	-4206018.80	-4206018.63	0.0132	0.0098
Venus	-16228-03-02 22:33 J	-4205792.59	-4205792.56	-4205792.49	0.0132	0.0129

Earth	-16219-05-30 10:04 J	-4202417.24	-4202417.08	-4202416.88	0.0134	0.0093
Moon	-16219-05-30 13:40 J	-4202417.07	-4202416.93	-4202416.74	0.0134	0.0100 *
Moon	-16218-06-03 12:28 J	-4202048.21	-4202047.98	-4202047.73	0.0134	0.0030
Earth	-16218-06-03 16:04 J	-4202048.07	-4202047.83	-4202047.59	0.0134	0.0034 *
Earth	-16217-06-06 21:36 J	-4201678.84	-4201678.60	-4201678.35	0.0135	0.0026
Moon	-16217-06-07 01:11 J	-4201678.69	-4201678.45	-4201678.20	0.0135	0.0027 *
Moon	-16216-06-11 00:14 J	-4201309.68	-4201309.49	-4201309.29	0.0135	0.0085
Earth	-16216-06-11 03:36 J	-4201309.53	-4201309.35	-4201309.15	0.0135	0.0086 *
Mercury	-16207-06-22 23:45 J	-4198010.56	-4198010.51	-4198010.45	0.0139	0.0125
Mercury	-16207-09-19 02:52 J	-4197922.46	-4197922.38	-4197922.29	0.0140	0.0105
Mercury	-16207-12-16 06:14 J	-4197834.34	-4197834.24	-4197834.13	0.0140	0.0085
Mercury	-16206-03-14 09:36 J	-4197746.22	-4197746.10	-4197745.98	0.0140	0.0064
Mercury	-16206-06-10 12:57 J	-4197658.09	-4197657.96	-4197657.84	0.0140	0.0044
Mercury	-16206-09-06 16:04 J	-4197569.95	-4197569.83	-4197569.70	0.0140	0.0024
Mercury	-16206-12-03 19:26 J	-4197481.82	-4197481.69	-4197481.55	0.0140	0.0005
Mercury	-16205-02-29 22:48 J	-4197393.68	-4197393.55	-4197393.42	0.0140	0.0018
Mercury	-16205-05-28 02:09 J	-4197305.53	-4197305.41	-4197305.28	0.0140	0.0039
Mercury	-16205-08-24 05:31 J	-4197217.39	-4197217.27	-4197217.15	0.0141	0.0060
Mercury	-16205-11-20 08:52 J	-4197129.23	-4197129.13	-4197129.02	0.0141	0.0081
Mercury	-16204-02-16 12:14 J	-4197041.07	-4197040.99	-4197040.89	0.0141	0.0102
Mercury	-16204-05-15 15:50 J	-4196952.90	-4196952.84	-4196952.78	0.0141	0.0123
Mars	-16198-05-07 12:57 J	-4194770.18	-4194769.96	-4194769.72	0.0144	0.0101
Venus	-16191-12-19 17:45 J	-4191986.87	-4191986.76	-4191986.64	0.0146	0.0123
Venus	-16190-08-03 05:16 J	-4191760.45	-4191760.28	-4191760.09	0.0146	0.0082
Venus	-16189-03-16 17:02 J	-4191534.00	-4191533.79	-4191533.59	0.0146	0.0041
Venus	-16189-10-29 04:33 J	-4191307.53	-4191307.31	-4191307.10	0.0146	0.0003
Venus	-16188-06-12 15:50 J	-4191081.04	-4191080.84	-4191080.63	0.0146	0.0043
Venus	-16187-01-25 03:35 J	-4190854.52	-4190854.35	-4190854.17	0.0146	0.0085
Venus	-16187-09-08 15:07 J	-4190627.96	-4190627.87	-4190627.75	0.0146	0.0127
Earth	-16179-11-27 19:40 J	-4187625.87	-4187625.68	-4187625.45	0.0144	0.0082

Moon	-16179-11-27 22:19 J	-4187625.77	-4187625.57	-4187625.34	0.0144	0.0084 *
Moon	-16178-12-02 21:07 J	-4187255.88	-4187255.62	-4187255.37	0.0144	0.0005
Earth	-16178-12-02 23:31 J	-4187255.78	-4187255.52	-4187255.26	0.0144	0.0005 *
Earth	-16177-12-07 02:24 J	-4186885.62	-4186885.40	-4186885.18	0.0143	0.0071
Moon	-16177-12-07 05:45 J	-4186885.48	-4186885.26	-4186885.04	0.0143	0.0077 *
Moon	-16176-12-12 00:43 J	-4186515.52	-4186515.47	-4186515.39	0.0143	0.0138
Mercury	-16167-05-06 15:21 J	-4183447.93	-4183447.86	-4183447.75	0.0139	0.0123
Mercury	-16167-08-02 23:31 J	-4183359.66	-4183359.52	-4183359.37	0.0139	0.0093
Mercury	-16167-10-30 07:26 J	-4183271.36	-4183271.19	-4183271.01	0.0138	0.0063
Mercury	-16166-01-26 15:21 J	-4183183.04	-4183182.86	-4183182.67	0.0138	0.0033
Mercury	-16166-04-24 23:16 J	-4183094.72	-4183094.53	-4183094.34	0.0138	0.0004
Mercury	-16166-07-22 06:57 J	-4183006.40	-4183006.21	-4183006.02	0.0138	0.0026
Mercury	-16166-10-18 14:38 J	-4182918.06	-4182917.89	-4182917.71	0.0138	0.0055
Mercury	-16165-01-14 22:04 J	-4182829.72	-4182829.58	-4182829.41	0.0138	0.0084
Mercury	-16165-04-12 06:00 J	-4182741.36	-4182741.25	-4182741.14	0.0138	0.0112
Mars	-16160-10-26 23:16 J	-4180717.78	-4180717.53	-4180717.26	0.0135	0.0060
Mars	-16158-09-26 19:40 J	-4180017.80	-4180017.68	-4180017.52	0.0134	0.0118
Venus	-16149-06-30 15:21 J	-4176817.98	-4176817.86	-4176817.72	0.0132	0.0108
Venus	-16148-02-11 21:35 J	-4176591.78	-4176591.60	-4176591.42	0.0132	0.0076
Venus	-16148-09-26 03:07 J	-4176365.57	-4176365.37	-4176365.15	0.0132	0.0045
Venus	-16147-05-10 09:07 J	-4176139.34	-4176139.12	-4176138.90	0.0132	0.0012
Venus	-16147-12-22 14:52 J	-4175913.10	-4175912.88	-4175912.66	0.0132	0.0019
Venus	-16146-08-05 20:09 J	-4175686.85	-4175686.66	-4175686.44	0.0132	0.0052
Venus	-16145-03-19 01:55 J	-4175460.58	-4175460.42	-4175460.24	0.0132	0.0083
Venus	-16145-10-31 07:40 J	-4175234.29	-4175234.18	-4175234.07	0.0132	0.0114
Earth	-16135-05-30 19:11 J	-4171735.88	-4171735.70	-4171735.51	0.0134	0.0090
Moon	-16135-05-30 22:19 J	-4171735.75	-4171735.57	-4171735.36	0.0134	0.0084 *
Moon	-16134-06-03 21:07 J	-4171366.85	-4171366.62	-4171366.37	0.0134	0.0034
Earth	-16134-06-04 00:43 J	-4171366.71	-4171366.47	-4171366.22	0.0134	0.0031 *
Earth	-16133-06-07 06:28 J	-4170997.47	-4170997.23	-4170996.98	0.0135	0.0029

Moon	-16133-06-07 09:35 J	-4170997.34	-4170997.10	-4170996.84	0.0135	0.0031 *
Moon	-16132-06-11 08:38 J	-4170628.30	-4170628.14	-4170627.94	0.0135	0.0093
Earth	-16132-06-11 12:14 J	-4170628.16	-4170627.99	-4170627.79	0.0135	0.0090 *
Mercury	-16123-07-13 06:43 J	-4167309.28	-4167309.22	-4167309.15	0.0140	0.0121
Mercury	-16123-10-09 10:04 J	-4167221.17	-4167221.08	-4167220.99	0.0140	0.0101
Mercury	-16122-01-05 13:11 J	-4167133.05	-4167132.95	-4167132.84	0.0140	0.0081
Mercury	-16122-04-03 16:33 J	-4167044.92	-4167044.81	-4167044.69	0.0140	0.0061
Mercury	-16122-06-30 19:55 J	-4166956.79	-4166956.67	-4166956.54	0.0140	0.0040
Mercury	-16122-09-26 23:16 J	-4166868.66	-4166868.53	-4166868.40	0.0140	0.0020
Mercury	-16122-12-24 02:38 J	-4166780.52	-4166780.39	-4166780.26	0.0140	0.0003
Mercury	-16121-03-21 06:00 J	-4166692.38	-4166692.25	-4166692.12	0.0140	0.0022
Mercury	-16121-06-17 09:21 J	-4166604.24	-4166604.11	-4166603.99	0.0141	0.0043
Mercury	-16121-09-13 12:28 J	-4166516.09	-4166515.98	-4166515.85	0.0141	0.0064
Mercury	-16121-12-10 15:50 J	-4166427.94	-4166427.84	-4166427.73	0.0141	0.0085
Mercury	-16120-03-08 19:11 J	-4166339.77	-4166339.70	-4166339.60	0.0141	0.0106
Mercury	-16120-06-04 22:48 J	-4166251.60	-4166251.55	-4166251.49	0.0141	0.0127
Mars	-16115-01-25 14:38 J	-4164556.17	-4164555.89	-4164555.57	0.0143	0.0062
Venus	-16107-08-19 00:43 J	-4161428.50	-4161428.47	-4161428.41	0.0146	0.0142
Venus	-16106-04-02 12:14 J	-4161202.14	-4161201.99	-4161201.83	0.0146	0.0101
Venus	-16106-11-14 23:31 J	-4160975.70	-4160975.52	-4160975.31	0.0146	0.0061
Venus	-16105-06-28 11:31 J	-4160749.23	-4160749.02	-4160748.81	0.0146	0.0018
Venus	-16104-02-09 23:02 J	-4160522.75	-4160522.54	-4160522.32	0.0146	0.0024
Venus	-16104-09-24 10:33 J	-4160296.24	-4160296.06	-4160295.86	0.0146	0.0066
Venus	-16103-05-08 22:33 J	-4160069.71	-4160069.56	-4160069.42	0.0146	0.0108
Earth	-16095-11-28 07:40 J	-4156944.39	-4156944.18	-4156943.95	0.0144	0.0075
Moon	-16095-11-28 09:21 J	-4156944.34	-4156944.11	-4156943.87	0.0144	0.0071 *
Moon	-16094-12-03 08:38 J	-4156574.39	-4156574.14	-4156573.89	0.0144	0.0002
Earth	-16094-12-03 11:16 J	-4156574.29	-4156574.03	-4156573.77	0.0144	0.0002 *
Earth	-16093-12-07 13:40 J	-4156204.13	-4156203.93	-4156203.69	0.0143	0.0077
Moon	-16093-12-07 16:48 J	-4156204.02	-4156203.80	-4156203.56	0.0143	0.0072 *

Mercury	-16083-05-26 23:16 J	-4152746.63	-4152746.53	-4152746.41	0.0139	0.0114
Mercury	-16083-08-23 07:26 J	-4152658.35	-4152658.19	-4152658.04	0.0138	0.0084
Mercury	-16083-11-19 15:07 J	-4152570.04	-4152569.87	-4152569.68	0.0138	0.0054
Mercury	-16082-02-15 23:02 J	-4152481.73	-4152481.54	-4152481.35	0.0138	0.0025
Mercury	-16082-05-15 06:57 J	-4152393.41	-4152393.21	-4152393.02	0.0138	0.0005
Mercury	-16082-08-11 14:38 J	-4152305.08	-4152304.89	-4152304.70	0.0138	0.0034
Mercury	-16082-11-07 22:19 J	-4152216.74	-4152216.57	-4152216.40	0.0138	0.0063
Mercury	-16081-02-04 05:45 J	-4152128.39	-4152128.26	-4152128.11	0.0138	0.0092
Mercury	-16081-05-02 13:40 J	-4152040.02	-4152039.93	-4152039.84	0.0138	0.0120
Mars	-16075-06-21 09:07 J	-4149799.41	-4149799.12	-4149798.83	0.0135	0.0004
Venus	-16065-02-29 00:14 J	-4146259.55	-4146259.49	-4146259.39	0.0132	0.0123
Venus	-16065-10-12 06:28 J	-4146033.39	-4146033.23	-4146033.07	0.0132	0.0091
Venus	-16064-05-26 12:00 J	-4145807.18	-4145807.00	-4145806.79	0.0132	0.0059
Venus	-16063-01-07 18:00 J	-4145580.96	-4145580.75	-4145580.52	0.0132	0.0028
Venus	-16063-08-22 00:00 J	-4145354.72	-4145354.50	-4145354.28	0.0132	0.0005
Venus	-16062-04-05 05:31 J	-4145128.48	-4145128.27	-4145128.06	0.0132	0.0036
Venus	-16062-11-17 10:48 J	-4144902.22	-4144902.05	-4144901.85	0.0132	0.0069
Venus	-16061-06-30 16:33 J	-4144675.95	-4144675.81	-4144675.66	0.0132	0.0099
Venus	-16060-02-11 22:19 J	-4144449.60	-4144449.57	-4144449.54	0.0132	0.0131
Earth	-16051-05-31 03:35 J	-4141054.53	-4141054.35	-4141054.14	0.0134	0.0086
Moon	-16051-05-31 07:11 J	-4141054.38	-4141054.20	-4141054.01	0.0134	0.0092 *
Moon	-16050-06-04 06:14 J	-4140685.47	-4140685.24	-4140684.99	0.0134	0.0024
Earth	-16050-06-04 09:21 J	-4140685.36	-4140685.11	-4140684.86	0.0134	0.0028 *
Earth	-16049-06-07 14:38 J	-4140316.13	-4140315.89	-4140315.64	0.0135	0.0032
Moon	-16049-06-07 18:00 J	-4140315.99	-4140315.75	-4140315.49	0.0135	0.0032 *
Moon	-16048-06-11 17:31 J	-4139946.93	-4139946.77	-4139946.57	0.0135	0.0091
Earth	-16048-06-11 20:52 J	-4139946.81	-4139946.63	-4139946.44	0.0135	0.0092 *
Mercury	-16039-05-06 10:19 J	-4136696.08	-4136696.07	-4136696.06	0.0139	0.0139
Mercury	-16039-08-02 13:26 J	-4136608.00	-4136607.94	-4136607.87	0.0140	0.0119
Mercury	-16039-10-29 16:48 J	-4136519.89	-4136519.80	-4136519.71	0.0140	0.0099

Mercury	-16038-01-25 19:55 J	-4136431.77	-4136431.67	-4136431.55	0.0140	0.0079
Mercury	-16038-04-23 23:16 J	-4136343.64	-4136343.53	-4136343.41	0.0140	0.0059
Mercury	-16038-07-21 02:38 J	-4136255.51	-4136255.39	-4136255.26	0.0140	0.0038
Mercury	-16038-10-17 06:00 J	-4136167.38	-4136167.25	-4136167.12	0.0140	0.0018
Mercury	-16037-01-13 09:21 J	-4136079.24	-4136079.11	-4136078.98	0.0140	0.0003
Mercury	-16037-04-10 12:43 J	-4135991.10	-4135990.97	-4135990.84	0.0140	0.0024
Mercury	-16037-07-07 16:04 J	-4135902.96	-4135902.83	-4135902.71	0.0141	0.0045
Mercury	-16037-10-03 19:26 J	-4135814.81	-4135814.69	-4135814.57	0.0141	0.0066
Mercury	-16037-12-30 22:48 J	-4135726.65	-4135726.55	-4135726.45	0.0141	0.0087
Mercury	-16036-03-29 02:09 J	-4135638.49	-4135638.41	-4135638.32	0.0141	0.0108
Mercury	-16036-06-25 05:31 J	-4135550.32	-4135550.27	-4135550.22	0.0141	0.0129
Mars	-16031-09-21 13:26 J	-4133636.26	-4133635.94	-4133635.61	0.0144	0.0022
Venus	-16023-11-30 17:16 J	-4130643.89	-4130643.78	-4130643.66	0.0146	0.0122
Venus	-16022-07-15 04:48 J	-4130417.47	-4130417.30	-4130417.11	0.0146	0.0081
Venus	-16021-02-26 16:19 J	-4130191.02	-4130190.82	-4130190.61	0.0146	0.0040
Venus	-16021-10-10 04:04 J	-4129964.55	-4129964.33	-4129964.12	0.0146	0.0003
Venus	-16020-05-24 15:35 J	-4129738.05	-4129737.85	-4129737.64	0.0146	0.0045
Venus	-16019-01-06 03:35 J	-4129511.53	-4129511.35	-4129511.18	0.0146	0.0087
Venus	-16019-08-20 15:21 J	-4129284.95	-4129284.86	-4129284.75	0.0146	0.0129
Moon	-16012-11-23 12:14 J	-4126633.03	-4126632.99	-4126632.92	0.0145	0.0141
Earth	-16011-11-28 16:04 J	-4126263.04	-4126262.83	-4126262.59	0.0144	0.0071
Moon	-16011-11-28 18:00 J	-4126262.98	-4126262.75	-4126262.53	0.0144	0.0075 *
Moon	-16010-12-03 18:14 J	-4125892.99	-4125892.74	-4125892.49	0.0144	0.0006
Earth	-16010-12-03 19:55 J	-4125892.93	-4125892.67	-4125892.41	0.0144	0.0005 *
Earth	-16009-12-07 22:33 J	-4125522.76	-4125522.56	-4125522.33	0.0144	0.0080
Moon	-16009-12-08 01:11 J	-4125522.65	-4125522.45	-4125522.22	0.0144	0.0085 *

16TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 16th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-15999-03-19 22:19 J		-4122133.58	-4122133.57	-4122133.52	0.0139	0.0137	
Mercury	-15999-06-16 06:28 J		-4122045.34	-4122045.23	-4122045.10	0.0139	0.0107	
Mercury	-15999-09-12 14:38 J		-4121957.05	-4121956.89	-4121956.73	0.0139	0.0077	
Mercury	-15999-12-09 22:19 J		-4121868.75	-4121868.57	-4121868.38	0.0138	0.0047	
Mercury	-15998-03-08 06:14 J		-4121780.43	-4121780.24	-4121780.04	0.0138	0.0018	
Mercury	-15998-06-04 14:09 J		-4121692.11	-4121691.91	-4121691.72	0.0138	0.0012	
Mercury	-15998-08-31 21:35 J		-4121603.77	-4121603.60	-4121603.40	0.0138	0.0041	
Mercury	-15998-11-28 05:16 J		-4121515.43	-4121515.28	-4121515.10	0.0138	0.0070	
Mercury	-15997-02-24 13:11 J		-4121427.08	-4121426.95	-4121426.82	0.0138	0.0098	
Mercury	-15997-05-22 20:38 J		-4121338.71	-4121338.64	-4121338.56	0.0138	0.0127	
Mars	-15992-03-15 21:50 J		-4119580.73	-4119580.59	-4119580.41	0.0135	0.0112	
Mars	-15990-02-13 17:45 J		-4118881.00	-4118880.76	-4118880.49	0.0135	0.0066	
Venus	-15981-06-11 15:07 J		-4115474.99	-4115474.87	-4115474.73	0.0132	0.0106	
Venus	-15980-01-23 20:52 J		-4115248.80	-4115248.63	-4115248.43	0.0132	0.0074	
Venus	-15980-09-07 02:52 J		-4115022.59	-4115022.38	-4115022.17	0.0132	0.0042	
Venus	-15979-04-21 08:38 J		-4114796.36	-4114796.14	-4114795.92	0.0132	0.0010	
Venus	-15979-12-03 14:09 J		-4114570.12	-4114569.91	-4114569.69	0.0132	0.0022	
Venus	-15978-07-17 19:40 J		-4114343.87	-4114343.68	-4114343.47	0.0132	0.0053	
Venus	-15977-02-29 01:11 J		-4114117.60	-4114117.45	-4114117.27	0.0132	0.0085	
Venus	-15977-10-12 06:43 J		-4113891.31	-4113891.22	-4113891.10	0.0132	0.0116	
Earth	-15967-05-31 11:02 J		-4110373.21	-4110373.04	-4110372.82	0.0134	0.0084	

Moon	-15967-05-31 14:09 J	-4110373.12	-4110372.91	-4110372.70	0.0134	0.0077 *
Moon	-15966-06-04 13:40 J	-4110004.17	-4110003.93	-4110003.69	0.0134	0.0030
Earth	-15966-06-04 16:33 J	-4110004.05	-4110003.81	-4110003.56	0.0134	0.0025 *
Earth	-15965-06-07 22:04 J	-4109634.82	-4109634.58	-4109634.33	0.0135	0.0034
Moon	-15965-06-08 00:43 J	-4109634.71	-4109634.47	-4109634.22	0.0135	0.0036 *
Moon	-15964-06-12 00:57 J	-4109265.62	-4109265.46	-4109265.27	0.0135	0.0095
Earth	-15964-06-12 04:04 J	-4109265.50	-4109265.33	-4109265.14	0.0135	0.0093 *
Mercury	-15955-05-26 16:48 J	-4105994.81	-4105994.80	-4105994.78	0.0139	0.0137
Mercury	-15955-08-22 19:55 J	-4105906.73	-4105906.67	-4105906.59	0.0140	0.0118
Mercury	-15955-11-18 23:16 J	-4105818.62	-4105818.53	-4105818.43	0.0140	0.0098
Mercury	-15954-02-15 02:24 J	-4105730.50	-4105730.40	-4105730.28	0.0140	0.0078
Mercury	-15954-05-14 05:45 J	-4105642.37	-4105642.26	-4105642.13	0.0140	0.0058
Mercury	-15954-08-10 09:07 J	-4105554.24	-4105554.12	-4105553.99	0.0140	0.0037
Mercury	-15954-11-06 12:28 J	-4105466.11	-4105465.98	-4105465.85	0.0140	0.0017
Mercury	-15953-02-02 15:50 J	-4105377.97	-4105377.84	-4105377.71	0.0140	0.0004
Mercury	-15953-04-30 19:11 J	-4105289.83	-4105289.70	-4105289.57	0.0140	0.0025
Mercury	-15953-07-27 22:33 J	-4105201.69	-4105201.56	-4105201.44	0.0141	0.0046
Mercury	-15953-10-24 01:55 J	-4105113.54	-4105113.42	-4105113.31	0.0141	0.0067
Mercury	-15952-01-20 05:02 J	-4105025.38	-4105025.29	-4105025.18	0.0141	0.0088
Mercury	-15952-04-18 08:38 J	-4104937.22	-4104937.14	-4104937.05	0.0141	0.0109
Mercury	-15952-07-15 12:00 J	-4104849.04	-4104849.00	-4104848.95	0.0141	0.0130
Mars	-15946-05-18 07:55 J	-4102716.38	-4102716.17	-4102715.93	0.0144	0.0103
Venus	-15939-07-30 20:52 J	-4100085.63	-4100085.63	-4100085.59	0.0146	0.0145
Venus	-15938-03-14 08:24 J	-4099859.29	-4099859.15	-4099858.99	0.0146	0.0104
Venus	-15938-10-26 19:55 J	-4099632.85	-4099632.67	-4099632.47	0.0146	0.0062
Venus	-15937-06-09 07:40 J	-4099406.39	-4099406.18	-4099405.96	0.0146	0.0020
Venus	-15936-01-21 19:26 J	-4099179.90	-4099179.69	-4099179.48	0.0146	0.0022
Venus	-15936-09-05 07:11 J	-4098953.39	-4098953.20	-4098953.00	0.0146	0.0064
Venus	-15935-04-19 18:57 J	-4098726.85	-4098726.71	-4098726.55	0.0146	0.0107
Earth	-15928-11-23 18:00 J	-4095951.75	-4095951.75	-4095951.75	0.0145	0.0145

Moon	-15927-11-28 21:50 J	-4095581.82	-4095581.59	-4095581.34	0.0144	0.0064
Earth	-15927-11-28 21:35 J	-4095581.81	-4095581.60	-4095581.36	0.0144	0.0070 *
Moon	-15926-12-04 00:00 J	-4095211.74	-4095211.50	-4095211.24	0.0144	0.0007
Earth	-15926-12-04 01:26 J	-4095211.69	-4095211.44	-4095211.18	0.0144	0.0007 *
Earth	-15925-12-08 04:19 J	-4094841.52	-4094841.32	-4094841.10	0.0144	0.0082
Moon	-15925-12-08 06:14 J	-4094841.46	-4094841.24	-4094841.01	0.0144	0.0078 *
Mercury	-15915-04-09 04:48 J	-4091432.34	-4091432.30	-4091432.23	0.0139	0.0133
Mercury	-15915-07-06 12:43 J	-4091344.09	-4091343.97	-4091343.83	0.0139	0.0103
Mercury	-15915-10-02 20:52 J	-4091255.79	-4091255.63	-4091255.46	0.0139	0.0073
Mercury	-15915-12-30 04:33 J	-4091167.48	-4091167.31	-4091167.11	0.0138	0.0044
Mercury	-15914-03-28 12:43 J	-4091079.16	-4091078.97	-4091078.78	0.0138	0.0013
Mercury	-15914-06-24 20:24 J	-4090990.84	-4090990.65	-4090990.45	0.0138	0.0016
Mercury	-15914-09-21 04:04 J	-4090902.51	-4090902.33	-4090902.14	0.0138	0.0045
Mercury	-15914-12-18 11:45 J	-4090814.16	-4090814.01	-4090813.84	0.0138	0.0074
Mercury	-15913-03-15 19:11 J	-4090725.81	-4090725.70	-4090725.55	0.0138	0.0103
Mercury	-15913-06-12 03:07 J	-4090637.42	-4090637.37	-4090637.31	0.0138	0.0131
Mars	-15908-11-08 04:48 J	-4088662.57	-4088662.30	-4088662.03	0.0135	0.0051
Mars	-15906-10-09 00:14 J	-4087962.56	-4087962.49	-4087962.36	0.0134	0.0126
Venus	-15897-02-09 23:45 J	-4084916.58	-4084916.51	-4084916.40	0.0132	0.0122
Venus	-15897-09-23 05:45 J	-4084690.41	-4084690.26	-4084690.09	0.0132	0.0090
Venus	-15896-05-07 11:45 J	-4084464.21	-4084464.01	-4084463.81	0.0132	0.0057
Venus	-15896-12-19 17:31 J	-4084237.98	-4084237.77	-4084237.55	0.0132	0.0025
Venus	-15895-08-02 23:16 J	-4084011.75	-4084011.53	-4084011.31	0.0132	0.0006
Venus	-15894-03-17 04:48 J	-4083785.50	-4083785.30	-4083785.08	0.0132	0.0039
Venus	-15894-10-29 10:19 J	-4083559.25	-4083559.07	-4083558.87	0.0132	0.0070
Venus	-15893-06-11 16:04 J	-4083332.97	-4083332.83	-4083332.69	0.0132	0.0102
Moon	-15884-05-27 13:26 J	-4080060.97	-4080060.94	-4080060.88	0.0134	0.0131
Earth	-15883-05-31 20:24 J	-4079691.83	-4079691.65	-4079691.43	0.0134	0.0080
Moon	-15883-05-31 23:02 J	-4079691.72	-4079691.54	-4079691.33	0.0134	0.0086 *
Moon	-15882-06-05 00:00 J	-4079322.74	-4079322.50	-4079322.26	0.0134	0.0016

Earth	-15882-06-05 01:55 J	-4079322.66	-4079322.42	-4079322.17	0.0134	0.0022 *
Earth	-15881-06-08 07:11 J	-4078953.43	-4078953.20	-4078952.95	0.0135	0.0038
Moon	-15881-06-08 10:04 J	-4078953.33	-4078953.08	-4078952.83	0.0135	0.0036 *
Moon	-15880-06-12 11:02 J	-4078584.20	-4078584.04	-4078583.86	0.0135	0.0097
Earth	-15880-06-12 12:57 J	-4078584.11	-4078583.96	-4078583.76	0.0135	0.0097 *
Mercury	-15871-06-15 23:45 J	-4075293.54	-4075293.51	-4075293.48	0.0139	0.0135
Mercury	-15871-09-12 02:52 J	-4075205.45	-4075205.38	-4075205.30	0.0139	0.0115
Mercury	-15871-12-09 06:14 J	-4075117.34	-4075117.24	-4075117.15	0.0140	0.0095
Mercury	-15870-03-07 09:21 J	-4075029.22	-4075029.11	-4075029.00	0.0140	0.0075
Mercury	-15870-06-03 12:43 J	-4074941.09	-4074940.97	-4074940.85	0.0140	0.0055
Mercury	-15870-08-30 16:04 J	-4074852.96	-4074852.83	-4074852.70	0.0140	0.0034
Mercury	-15870-11-26 19:11 J	-4074764.83	-4074764.70	-4074764.56	0.0140	0.0015
Mercury	-15869-02-22 22:33 J	-4074676.69	-4074676.56	-4074676.42	0.0140	0.0008
Mercury	-15869-05-21 01:55 J	-4074588.55	-4074588.42	-4074588.29	0.0140	0.0028
Mercury	-15869-08-17 05:16 J	-4074500.40	-4074500.28	-4074500.15	0.0140	0.0048
Mercury	-15869-11-13 08:38 J	-4074412.25	-4074412.14	-4074412.02	0.0141	0.0069
Mercury	-15868-02-09 12:00 J	-4074324.10	-4074324.00	-4074323.90	0.0141	0.0090
Mercury	-15868-05-08 15:21 J	-4074235.93	-4074235.86	-4074235.77	0.0141	0.0112
Mercury	-15868-08-04 18:43 J	-4074147.75	-4074147.72	-4074147.67	0.0141	0.0133
Mars	-15863-02-05 02:38 J	-4072502.67	-4072502.39	-4072502.07	0.0143	0.0064
Venus	-15855-11-11 12:28 J	-4069301.08	-4069300.98	-4069300.87	0.0146	0.0126
Venus	-15854-06-25 23:45 J	-4069074.67	-4069074.51	-4069074.32	0.0146	0.0085
Venus	-15853-02-07 11:31 J	-4068848.22	-4068848.02	-4068847.81	0.0146	0.0043
Venus	-15853-09-20 23:16 J	-4068621.74	-4068621.53	-4068621.31	0.0146	0.0002
Venus	-15852-05-05 11:02 J	-4068395.24	-4068395.04	-4068394.83	0.0146	0.0042
Venus	-15852-12-17 22:33 J	-4068168.72	-4068168.56	-4068168.37	0.0146	0.0085
Venus	-15851-08-01 10:33 J	-4067942.15	-4067942.06	-4067941.94	0.0146	0.0127
Earth	-15844-11-23 23:02 J	-4065270.56	-4065270.54	-4065270.48	0.0145	0.0143
Moon	-15844-11-24 00:28 J	-4065270.54	-4065270.48	-4065270.38	0.0145	0.0136 *
Moon	-15843-11-29 03:21 J	-4064900.59	-4064900.36	-4064900.13	0.0144	0.0072

Earth	-15843-11-29 03:21 J	-4064900.58	-4064900.36	-4064900.13	0.0144	0.0067 *
Moon	-15842-12-04 06:57 J	-4064530.46	-4064530.21	-4064529.96	0.0144	0.0011
Earth	-15842-12-04 06:57 J	-4064530.46	-4064530.21	-4064529.95	0.0144	0.0009 *
Earth	-15841-12-08 09:50 J	-4064160.28	-4064160.09	-4064159.86	0.0144	0.0084
Moon	-15841-12-08 11:16 J	-4064160.23	-4064160.03	-4064159.80	0.0144	0.0087 *
Mercury	-15831-04-29 11:16 J	-4060731.10	-4060731.03	-4060730.97	0.0139	0.0129
Mercury	-15831-07-26 18:43 J	-4060642.84	-4060642.72	-4060642.57	0.0139	0.0100
Mercury	-15831-10-23 02:52 J	-4060554.54	-4060554.38	-4060554.20	0.0139	0.0070
Mercury	-15830-01-19 10:48 J	-4060466.23	-4060466.05	-4060465.86	0.0139	0.0040
Mercury	-15830-04-17 18:43 J	-4060377.91	-4060377.72	-4060377.52	0.0138	0.0010
Mercury	-15830-07-15 02:38 J	-4060289.58	-4060289.39	-4060289.20	0.0138	0.0019
Mercury	-15830-10-11 10:19 J	-4060201.25	-4060201.07	-4060200.89	0.0138	0.0048
Mercury	-15829-01-07 18:00 J	-4060112.91	-4060112.75	-4060112.59	0.0138	0.0077
Mercury	-15829-04-05 01:26 J	-4060024.55	-4060024.44	-4060024.31	0.0138	0.0106
Mercury	-15829-07-02 09:21 J	-4059936.15	-4059936.11	-4059936.07	0.0138	0.0134
Mars	-15823-07-03 10:04 J	-4057744.36	-4057744.08	-4057743.78	0.0135	0.0010
Venus	-15813-05-23 14:24 J	-4054132.03	-4054131.90	-4054131.77	0.0132	0.0105
Venus	-15812-01-04 20:24 J	-4053905.83	-4053905.65	-4053905.47	0.0132	0.0073
Venus	-15812-08-19 01:55 J	-4053679.62	-4053679.42	-4053679.20	0.0132	0.0041
Venus	-15811-04-02 07:55 J	-4053453.39	-4053453.17	-4053452.95	0.0132	0.0009
Venus	-15811-11-14 13:26 J	-4053227.15	-4053226.94	-4053226.71	0.0132	0.0024
Venus	-15810-06-28 18:57 J	-4053000.90	-4053000.71	-4053000.50	0.0132	0.0056
Venus	-15809-02-10 00:43 J	-4052774.62	-4052774.47	-4052774.29	0.0132	0.0087
Venus	-15809-09-23 06:28 J	-4052548.32	-4052548.23	-4052548.12	0.0132	0.0118
Earth	-15800-05-28 00:57 J	-4049379.47	-4049379.46	-4049379.43	0.0134	0.0133
Earth	-15799-06-01 05:45 J	-4049010.45	-4049010.26	-4049010.04	0.0134	0.0076
Moon	-15799-06-01 07:26 J	-4049010.40	-4049010.19	-4049009.96	0.0134	0.0070 *
Moon	-15798-06-05 09:07 J	-4048641.36	-4048641.12	-4048640.88	0.0134	0.0023
Earth	-15798-06-05 11:16 J	-4048641.28	-4048641.03	-4048640.78	0.0134	0.0018 *
Earth	-15797-06-08 16:48 J	-4048272.03	-4048271.80	-4048271.56	0.0135	0.0041

Moon	-15797-06-08 18:14 J	-4048271.97	-4048271.74	-4048271.48	0.0135	0.0045 *
Moon	-15796-06-12 20:38 J	-4047902.79	-4047902.64	-4047902.47	0.0135	0.0101
Earth	-15796-06-12 22:48 J	-4047902.71	-4047902.55	-4047902.37	0.0135	0.0100 *
Mercury	-15787-07-06 06:43 J	-4044592.26	-4044592.22	-4044592.17	0.0139	0.0131
Mercury	-15787-10-02 10:04 J	-4044504.16	-4044504.08	-4044504.00	0.0139	0.0111
Mercury	-15787-12-29 13:11 J	-4044416.04	-4044415.95	-4044415.85	0.0140	0.0091
Mercury	-15786-03-27 16:33 J	-4044327.92	-4044327.81	-4044327.70	0.0140	0.0071
Mercury	-15786-06-23 19:40 J	-4044239.80	-4044239.68	-4044239.55	0.0140	0.0051
Mercury	-15786-09-19 23:02 J	-4044151.66	-4044151.54	-4044151.41	0.0140	0.0030
Mercury	-15786-12-17 02:24 J	-4044063.53	-4044063.40	-4044063.27	0.0140	0.0010
Mercury	-15785-03-14 05:45 J	-4043975.39	-4043975.26	-4043975.13	0.0140	0.0011
Mercury	-15785-06-10 09:07 J	-4043887.25	-4043887.12	-4043886.99	0.0140	0.0032
Mercury	-15785-09-06 12:28 J	-4043799.10	-4043798.98	-4043798.86	0.0140	0.0053
Mercury	-15785-12-03 15:50 J	-4043710.95	-4043710.84	-4043710.73	0.0141	0.0074
Mercury	-15784-03-01 19:11 J	-4043622.80	-4043622.70	-4043622.60	0.0141	0.0095
Mercury	-15784-05-28 22:33 J	-4043534.63	-4043534.56	-4043534.48	0.0141	0.0116
Mercury	-15784-08-25 01:55 J	-4043446.44	-4043446.42	-4043446.39	0.0141	0.0137
Mars	-15779-10-02 07:26 J	-4041582.51	-4041582.19	-4041581.86	0.0144	0.0024
Venus	-15770-02-23 06:14 J	-4038516.38	-4038516.24	-4038516.09	0.0146	0.0105
Venus	-15770-10-07 17:45 J	-4038289.95	-4038289.76	-4038289.56	0.0146	0.0063
Venus	-15769-05-21 05:16 J	-4038063.48	-4038063.28	-4038063.06	0.0146	0.0022
Venus	-15768-01-02 17:16 J	-4037837.00	-4037836.78	-4037836.57	0.0146	0.0022
Venus	-15768-08-17 04:48 J	-4037610.48	-4037610.30	-4037610.09	0.0146	0.0065
Venus	-15767-03-31 16:48 J	-4037383.94	-4037383.80	-4037383.64	0.0146	0.0106
Earth	-15760-11-24 07:40 J	-4034589.24	-4034589.18	-4034589.09	0.0145	0.0138
Moon	-15759-11-29 10:19 J	-4034219.30	-4034219.07	-4034218.81	0.0145	0.0057
Earth	-15759-11-29 12:00 J	-4034219.23	-4034219.00	-4034218.77	0.0145	0.0063 *
Earth	-15758-12-04 15:35 J	-4033849.10	-4033848.85	-4033848.59	0.0144	0.0013
Moon	-15758-12-04 15:35 J	-4033849.09	-4033848.85	-4033848.60	0.0144	0.0011 *
Earth	-15757-12-08 18:28 J	-4033478.92	-4033478.73	-4033478.52	0.0144	0.0087

Moon	-15757-12-08 18:57 J	-4033478.92	-4033478.71	-4033478.49	0.0144	0.0085 *
Mercury	-15747-05-19 17:31 J	-4030029.84	-4030029.77	-4030029.67	0.0139	0.0124
Mercury	-15747-08-16 01:40 J	-4029941.56	-4029941.43	-4029941.28	0.0139	0.0094
Mercury	-15747-11-12 09:50 J	-4029853.26	-4029853.09	-4029852.92	0.0139	0.0064
Mercury	-15746-02-08 17:31 J	-4029764.95	-4029764.77	-4029764.57	0.0138	0.0035
Mercury	-15746-05-08 01:26 J	-4029676.63	-4029676.44	-4029676.24	0.0138	0.0005
Mercury	-15746-08-04 09:21 J	-4029588.30	-4029588.11	-4029587.92	0.0138	0.0025
Mercury	-15746-10-31 16:48 J	-4029499.97	-4029499.80	-4029499.61	0.0138	0.0054
Mercury	-15745-01-28 00:28 J	-4029411.62	-4029411.48	-4029411.31	0.0138	0.0083
Mercury	-15745-04-25 08:24 J	-4029323.26	-4029323.15	-4029323.04	0.0138	0.0111
Mars	-15740-03-27 21:07 J	-4027525.77	-4027525.62	-4027525.41	0.0136	0.0106
Mars	-15738-02-25 19:11 J	-4026825.95	-4026825.70	-4026825.46	0.0135	0.0071
Venus	-15729-01-21 23:45 J	-4023573.60	-4023573.51	-4023573.41	0.0133	0.0120
Venus	-15729-09-04 05:45 J	-4023347.42	-4023347.26	-4023347.09	0.0132	0.0088
Venus	-15728-04-18 11:31 J	-4023121.22	-4023121.02	-4023120.82	0.0132	0.0056
Venus	-15728-11-30 17:16 J	-4022894.99	-4022894.78	-4022894.56	0.0132	0.0024
Venus	-15727-07-14 23:02 J	-4022668.75	-4022668.54	-4022668.31	0.0132	0.0009
Venus	-15726-02-26 05:02 J	-4022442.50	-4022442.29	-4022442.08	0.0132	0.0041
Venus	-15726-10-10 10:33 J	-4022216.24	-4022216.06	-4022215.87	0.0132	0.0073
Venus	-15725-05-23 16:04 J	-4021989.95	-4021989.83	-4021989.69	0.0132	0.0104
Moon	-15716-05-28 10:19 J	-4018698.14	-4018698.07	-4018697.95	0.0134	0.0123
Earth	-15716-05-28 11:45 J	-4018698.07	-4018698.01	-4018697.93	0.0134	0.0128 *
Earth	-15715-06-01 16:33 J	-4018329.01	-4018328.81	-4018328.59	0.0134	0.0071
Moon	-15715-06-01 18:14 J	-4018328.94	-4018328.74	-4018328.52	0.0134	0.0077 *
Moon	-15714-06-05 21:07 J	-4017959.86	-4017959.62	-4017959.37	0.0134	0.0008
Earth	-15714-06-05 22:04 J	-4017959.82	-4017959.58	-4017959.32	0.0134	0.0013 *
Earth	-15713-06-09 03:50 J	-4017590.57	-4017590.34	-4017590.10	0.0135	0.0046
Moon	-15713-06-09 05:16 J	-4017590.51	-4017590.28	-4017590.02	0.0135	0.0044 *
Moon	-15712-06-13 08:24 J	-4017221.28	-4017221.15	-4017220.98	0.0135	0.0106
Earth	-15712-06-13 09:35 J	-4017221.23	-4017221.10	-4017220.92	0.0135	0.0105 *

Mercury	-15703-07-26 13:55 J	-4013890.96	-4013890.92	-4013890.85	0.0139	0.0126
Mercury	-15703-10-22 17:16 J	-4013802.86	-4013802.78	-4013802.69	0.0140	0.0105
Mercury	-15702-01-18 20:38 J	-4013714.74	-4013714.64	-4013714.53	0.0140	0.0085
Mercury	-15702-04-17 00:00 J	-4013626.62	-4013626.50	-4013626.38	0.0140	0.0065
Mercury	-15702-07-14 03:07 J	-4013538.49	-4013538.37	-4013538.24	0.0140	0.0045
Mercury	-15702-10-10 06:28 J	-4013450.36	-4013450.23	-4013450.10	0.0140	0.0024
Mercury	-15701-01-06 09:50 J	-4013362.22	-4013362.09	-4013361.96	0.0140	0.0004
Mercury	-15701-04-03 13:11 J	-4013274.08	-4013273.95	-4013273.82	0.0140	0.0017
Mercury	-15701-06-30 16:33 J	-4013185.94	-4013185.81	-4013185.68	0.0140	0.0038
Mercury	-15701-09-26 19:55 J	-4013097.79	-4013097.67	-4013097.55	0.0141	0.0059
Mercury	-15701-12-23 23:16 J	-4013009.64	-4013009.53	-4013009.42	0.0141	0.0080
Mercury	-15700-03-22 02:38 J	-4012921.48	-4012921.39	-4012921.30	0.0141	0.0101
Mercury	-15700-06-18 06:00 J	-4012833.31	-4012833.25	-4012833.18	0.0141	0.0122
Mars	-15696-06-22 12:28 J	-4011368.08	-4011367.98	-4011367.86	0.0143	0.0134
Mars	-15694-05-29 17:16 J	-4010661.97	-4010661.78	-4010661.57	0.0144	0.0113
Venus	-15687-10-23 13:55 J	-4007958.01	-4007957.92	-4007957.79	0.0146	0.0124
Venus	-15686-06-07 01:40 J	-4007731.60	-4007731.43	-4007731.24	0.0146	0.0082
Venus	-15685-01-19 13:11 J	-4007505.14	-4007504.95	-4007504.73	0.0146	0.0040
Venus	-15685-09-02 01:11 J	-4007278.66	-4007278.45	-4007278.23	0.0146	0.0003
Venus	-15684-04-16 12:57 J	-4007052.16	-4007051.96	-4007051.75	0.0146	0.0045
Venus	-15684-11-29 00:43 J	-4006825.64	-4006825.47	-4006825.29	0.0146	0.0088
Venus	-15683-07-13 12:28 J	-4006599.06	-4006598.98	-4006598.87	0.0146	0.0130
Earth	-15676-11-24 19:11 J	-4003907.79	-4003907.70	-4003907.59	0.0145	0.0132
Moon	-15676-11-24 21:35 J	-4003907.71	-4003907.60	-4003907.46	0.0145	0.0125 *
Moon	-15675-11-29 21:50 J	-4003537.82	-4003537.59	-4003537.34	0.0144	0.0063
Earth	-15675-11-29 23:16 J	-4003537.76	-4003537.53	-4003537.29	0.0144	0.0057 *
Earth	-15674-12-05 02:52 J	-4003167.63	-4003167.38	-4003167.12	0.0144	0.0018
Moon	-15674-12-05 03:50 J	-4003167.58	-4003167.34	-4003167.09	0.0144	0.0022 *
Moon	-15673-12-09 06:14 J	-4002797.45	-4002797.24	-4002797.04	0.0144	0.0094
Earth	-15673-12-09 05:45 J	-4002797.44	-4002797.26	-4002797.05	0.0144	0.0093 *

Mercury	-15663-06-09 01:11 J	-3999328.55	-3999328.45	-3999328.33	0.0139	0.0116
Mercury	-15663-09-05 09:07 J	-3999240.26	-3999240.12	-3999239.96	0.0139	0.0086
Mercury	-15663-12-02 17:16 J	-3999151.96	-3999151.78	-3999151.60	0.0139	0.0056
Mercury	-15662-03-01 00:57 J	-3999063.64	-3999063.46	-3999063.26	0.0138	0.0027
Mercury	-15662-05-28 08:52 J	-3998975.32	-3998975.13	-3998974.93	0.0138	0.0005
Mercury	-15662-08-24 16:48 J	-3998886.99	-3998886.80	-3998886.61	0.0138	0.0033
Mercury	-15662-11-21 00:14 J	-3998798.65	-3998798.49	-3998798.31	0.0138	0.0062
Mercury	-15661-02-17 07:55 J	-3998710.30	-3998710.17	-3998710.01	0.0138	0.0091
Mercury	-15661-05-15 15:50 J	-3998621.93	-3998621.84	-3998621.74	0.0138	0.0119
Mars	-15656-11-20 09:21 J	-3996607.38	-3996607.11	-3996606.83	0.0135	0.0042
Mars	-15654-10-21 04:48 J	-3995907.31	-3995907.30	-3995907.25	0.0134	0.0134
Venus	-15645-05-04 14:52 J	-3992789.00	-3992788.88	-3992788.72	0.0132	0.0103
Venus	-15645-12-16 21:21 J	-3992562.80	-3992562.61	-3992562.42	0.0132	0.0070
Venus	-15644-07-31 03:21 J	-3992336.58	-3992336.36	-3992336.15	0.0132	0.0038
Venus	-15643-03-14 09:07 J	-3992110.34	-3992110.12	-3992109.90	0.0132	0.0005
Venus	-15643-10-26 14:38 J	-3991884.10	-3991883.89	-3991883.67	0.0132	0.0027
Venus	-15642-06-09 20:09 J	-3991657.84	-3991657.66	-3991657.45	0.0132	0.0059
Venus	-15641-01-22 02:24 J	-3991431.56	-3991431.40	-3991431.24	0.0132	0.0091
Venus	-15641-09-04 07:40 J	-3991205.25	-3991205.18	-3991205.09	0.0132	0.0123
Earth	-15632-05-28 21:50 J	-3988016.66	-3988016.59	-3988016.47	0.0134	0.0124
Moon	-15632-05-28 21:07 J	-3988016.65	-3988016.62	-3988016.55	0.0134	0.0131 *
Earth	-15631-06-02 03:21 J	-3987647.57	-3987647.36	-3987647.14	0.0134	0.0066
Moon	-15631-06-02 03:35 J	-3987647.57	-3987647.35	-3987647.11	0.0134	0.0060 *
Moon	-15630-06-06 07:40 J	-3987278.42	-3987278.18	-3987277.94	0.0134	0.0014
Earth	-15630-06-06 08:38 J	-3987278.39	-3987278.14	-3987277.88	0.0134	0.0009 *
Earth	-15629-06-09 14:24 J	-3986909.12	-3986908.90	-3986908.66	0.0135	0.0050
Moon	-15629-06-09 15:07 J	-3986909.10	-3986908.87	-3986908.63	0.0135	0.0054 *
Moon	-15628-06-13 19:40 J	-3986539.81	-3986539.68	-3986539.53	0.0135	0.0108
Earth	-15628-06-13 20:52 J	-3986539.77	-3986539.63	-3986539.48	0.0135	0.0108 *
Mercury	-15619-08-15 21:21 J	-3983189.67	-3983189.61	-3983189.54	0.0139	0.0120

Mercury	-15619-11-12 00:43 J	-3983101.56	-3983101.47	-3983101.38	0.0140	0.0100
Mercury	-15618-02-08 04:04 J	-3983013.44	-3983013.33	-3983013.22	0.0140	0.0080
Mercury	-15618-05-07 07:11 J	-3982925.31	-3982925.20	-3982925.08	0.0140	0.0060
Mercury	-15618-08-03 10:33 J	-3982837.18	-3982837.06	-3982836.93	0.0140	0.0039
Mercury	-15618-10-30 13:55 J	-3982749.05	-3982748.92	-3982748.79	0.0140	0.0019
Mercury	-15617-01-26 17:16 J	-3982660.91	-3982660.78	-3982660.65	0.0140	0.0003
Mercury	-15617-04-23 20:38 J	-3982572.77	-3982572.64	-3982572.51	0.0140	0.0023
Mercury	-15617-07-20 23:45 J	-3982484.63	-3982484.51	-3982484.38	0.0140	0.0044
Mercury	-15617-10-17 03:07 J	-3982396.48	-3982396.37	-3982396.25	0.0141	0.0065
Mercury	-15616-01-13 06:28 J	-3982308.33	-3982308.23	-3982308.12	0.0141	0.0086
Mercury	-15616-04-11 09:50 J	-3982220.16	-3982220.09	-3982220.00	0.0141	0.0107
Mercury	-15616-07-08 13:26 J	-3982131.99	-3982131.94	-3982131.88	0.0141	0.0128
Mars	-15611-02-16 21:07 J	-3980447.92	-3980447.62	-3980447.29	0.0143	0.0046
Venus	-15603-06-22 22:48 J	-3977399.60	-3977399.55	-3977399.50	0.0146	0.0142
Venus	-15602-02-04 10:04 J	-3977173.22	-3977173.08	-3977172.91	0.0146	0.0100
Venus	-15602-09-18 21:50 J	-3976946.78	-3976946.59	-3976946.39	0.0146	0.0058
Venus	-15601-05-02 09:35 J	-3976720.31	-3976720.10	-3976719.88	0.0146	0.0015
Venus	-15601-12-14 21:21 J	-3976493.82	-3976493.61	-3976493.40	0.0146	0.0028
Venus	-15600-07-29 09:07 J	-3976267.29	-3976267.12	-3976266.92	0.0146	0.0071
Venus	-15599-03-12 21:21 J	-3976040.75	-3976040.61	-3976040.48	0.0146	0.0113
Earth	-15592-11-25 08:38 J	-3973226.25	-3973226.14	-3973225.99	0.0145	0.0125
Moon	-15592-11-25 11:31 J	-3973226.12	-3973226.02	-3973225.92	0.0145	0.0132 *
Moon	-15591-11-30 10:33 J	-3972856.30	-3972856.06	-3972855.79	0.0144	0.0043
Earth	-15591-11-30 13:11 J	-3972856.19	-3972855.95	-3972855.71	0.0144	0.0050 *
Earth	-15590-12-05 16:48 J	-3972486.05	-3972485.80	-3972485.54	0.0144	0.0025
Moon	-15590-12-05 17:45 J	-3972486.00	-3972485.76	-3972485.51	0.0144	0.0023 *
Moon	-15589-12-09 18:57 J	-3972115.89	-3972115.71	-3972115.50	0.0144	0.0098
Earth	-15589-12-09 19:55 J	-3972115.86	-3972115.67	-3972115.48	0.0144	0.0099 *
Mercury	-15579-04-02 01:40 J	-3968715.47	-3968715.43	-3968715.39	0.0139	0.0135
Mercury	-15579-06-29 09:07 J	-3968627.23	-3968627.12	-3968626.98	0.0139	0.0106

Mercury	-15579-09-25 17:16 J	-3968538.93	-3968538.78	-3968538.61	0.0139	0.0076
Mercury	-15579-12-23 01:11 J	-3968450.63	-3968450.45	-3968450.26	0.0138	0.0046
Mercury	-15578-03-21 09:07 J	-3968362.31	-3968362.12	-3968361.92	0.0138	0.0017
Mercury	-15578-06-17 17:02 J	-3968273.98	-3968273.79	-3968273.59	0.0138	0.0013
Mercury	-15578-09-14 00:43 J	-3968185.65	-3968185.47	-3968185.28	0.0138	0.0043
Mercury	-15578-12-11 08:24 J	-3968097.31	-3968097.15	-3968096.98	0.0138	0.0072
Mercury	-15577-03-08 16:19 J	-3968008.95	-3968008.82	-3968008.69	0.0138	0.0100
Mercury	-15577-06-04 23:45 J	-3967920.57	-3967920.51	-3967920.44	0.0138	0.0129
Mars	-15571-07-15 22:04 J	-3965688.86	-3965688.58	-3965688.29	0.0135	0.0023
Venus	-15561-01-03 01:55 J	-3962230.53	-3962230.42	-3962230.32	0.0132	0.0116
Venus	-15561-08-16 07:40 J	-3962004.34	-3962004.18	-3962004.00	0.0132	0.0084
Venus	-15560-03-30 13:40 J	-3961778.13	-3961777.93	-3961777.73	0.0132	0.0051
Venus	-15560-11-11 19:26 J	-3961551.91	-3961551.69	-3961551.47	0.0132	0.0019
Venus	-15559-06-26 01:11 J	-3961325.67	-3961325.45	-3961325.23	0.0132	0.0013
Venus	-15558-02-07 06:57 J	-3961099.41	-3961099.21	-3961099.00	0.0132	0.0045
Venus	-15558-09-21 12:28 J	-3960873.15	-3960872.98	-3960872.79	0.0132	0.0077
Venus	-15557-05-04 18:00 J	-3960646.86	-3960646.75	-3960646.61	0.0132	0.0109
Moon	-15548-05-29 09:07 J	-3957335.23	-3957335.12	-3957334.97	0.0134	0.0113
Earth	-15548-05-29 08:52 J	-3957335.22	-3957335.13	-3957334.99	0.0134	0.0119 *
Earth	-15547-06-02 14:24 J	-3956966.12	-3956965.90	-3956965.67	0.0134	0.0061
Moon	-15547-06-02 14:38 J	-3956966.10	-3956965.89	-3956965.66	0.0134	0.0068 *
Earth	-15546-06-06 19:55 J	-3956596.92	-3956596.67	-3956596.42	0.0134	0.0004
Moon	-15546-06-06 20:09 J	-3956596.91	-3956596.66	-3956596.42	0.0134	0.0003 *
Earth	-15545-06-10 01:26 J	-3956227.66	-3956227.44	-3956227.20	0.0135	0.0055
Moon	-15545-06-10 02:09 J	-3956227.65	-3956227.41	-3956227.16	0.0135	0.0051 *
Moon	-15544-06-14 07:40 J	-3955858.31	-3955858.18	-3955858.05	0.0135	0.0114
Earth	-15544-06-14 07:26 J	-3955858.31	-3955858.19	-3955858.03	0.0135	0.0113 *
Mercury	-15535-06-09 01:11 J	-3952576.46	-3952576.45	-3952576.41	0.0139	0.0136
Mercury	-15535-09-05 04:33 J	-3952488.37	-3952488.31	-3952488.23	0.0140	0.0116
Mercury	-15535-12-02 07:55 J	-3952400.26	-3952400.17	-3952400.07	0.0140	0.0095

Mercury	-15534-02-28 11:16 J	-3952312.14	-3952312.03	-3952311.92	0.0140	0.0075
Mercury	-15534-05-27 14:24 J	-3952224.01	-3952223.90	-3952223.77	0.0140	0.0055
Mercury	-15534-08-23 18:00 J	-3952135.88	-3952135.75	-3952135.63	0.0140	0.0034
Mercury	-15534-11-19 21:07 J	-3952047.75	-3952047.62	-3952047.49	0.0140	0.0014
Mercury	-15533-02-16 00:28 J	-3951959.61	-3951959.48	-3951959.35	0.0140	0.0007
Mercury	-15533-05-14 03:50 J	-3951871.47	-3951871.34	-3951871.21	0.0140	0.0028
Mercury	-15533-08-10 07:11 J	-3951783.32	-3951783.20	-3951783.07	0.0141	0.0049
Mercury	-15533-11-06 10:33 J	-3951695.17	-3951695.06	-3951694.94	0.0141	0.0070
Mercury	-15532-02-02 13:55 J	-3951607.02	-3951606.92	-3951606.82	0.0141	0.0091
Mercury	-15532-05-01 17:16 J	-3951518.85	-3951518.78	-3951518.70	0.0141	0.0112
Mercury	-15532-07-28 20:38 J	-3951430.67	-3951430.64	-3951430.59	0.0141	0.0133
Mars	-15527-10-14 04:04 J	-3949527.63	-3949527.33	-3949527.00	0.0144	0.0042
Venus	-15519-10-04 17:31 J	-3946614.88	-3946614.77	-3946614.63	0.0146	0.0119
Venus	-15518-05-19 05:02 J	-3946388.46	-3946388.29	-3946388.09	0.0146	0.0078
Venus	-15518-12-31 17:02 J	-3946161.99	-3946161.79	-3946161.58	0.0146	0.0034
Venus	-15517-08-14 05:02 J	-3945935.50	-3945935.29	-3945935.07	0.0146	0.0009
Venus	-15516-03-28 16:48 J	-3945708.99	-3945708.80	-3945708.59	0.0146	0.0051
Venus	-15516-11-10 04:33 J	-3945482.46	-3945482.31	-3945482.14	0.0146	0.0094
Venus	-15515-06-24 16:33 J	-3945255.88	-3945255.81	-3945255.73	0.0146	0.0137
Earth	-15508-11-25 21:21 J	-3942544.74	-3942544.61	-3942544.45	0.0145	0.0118
Moon	-15508-11-26 00:28 J	-3942544.63	-3942544.48	-3942544.30	0.0145	0.0111 *
Moon	-15507-11-30 23:31 J	-3942174.76	-3942174.52	-3942174.26	0.0145	0.0049
Earth	-15507-12-01 01:55 J	-3942174.66	-3942174.42	-3942174.17	0.0145	0.0043 *
Earth	-15506-12-06 05:16 J	-3941804.52	-3941804.28	-3941804.01	0.0144	0.0033
Moon	-15506-12-06 07:11 J	-3941804.43	-3941804.20	-3941803.94	0.0144	0.0036 *
Moon	-15505-12-10 07:40 J	-3941434.35	-3941434.18	-3941433.99	0.0144	0.0106
Earth	-15505-12-10 08:24 J	-3941434.30	-3941434.15	-3941433.95	0.0144	0.0106 *
Mercury	-15495-04-22 09:35 J	-3938014.18	-3938014.10	-3938014.01	0.0139	0.0125
Mercury	-15495-07-19 17:31 J	-3937925.90	-3937925.77	-3937925.62	0.0139	0.0095
Mercury	-15495-10-16 01:26 J	-3937837.60	-3937837.44	-3937837.26	0.0139	0.0065

Mercury	-15494-01-12 09:21 J	-3937749.29	-3937749.11	-3937748.92	0.0138	0.0036
Mercury	-15494-04-10 17:16 J	-3937660.97	-3937660.78	-3937660.58	0.0138	0.0006
Mercury	-15494-07-08 01:11 J	-3937572.64	-3937572.45	-3937572.26	0.0138	0.0023
Mercury	-15494-10-04 08:38 J	-3937484.31	-3937484.14	-3937483.95	0.0138	0.0053
Mercury	-15494-12-31 16:19 J	-3937395.96	-3937395.82	-3937395.65	0.0138	0.0082
Mercury	-15493-03-29 00:14 J	-3937307.60	-3937307.49	-3937307.37	0.0138	0.0110
Mars	-15488-04-09 15:35 J	-3935470.06	-3935469.85	-3935469.63	0.0135	0.0089
Mars	-15486-03-10 09:35 J	-3934770.30	-3934770.10	-3934769.86	0.0135	0.0087
Venus	-15478-09-02 12:00 J	-3931672.04	-3931672.00	-3931671.96	0.0132	0.0130
Venus	-15477-04-15 17:45 J	-3931445.90	-3931445.76	-3931445.60	0.0132	0.0098
Venus	-15477-11-27 23:45 J	-3931219.70	-3931219.51	-3931219.32	0.0132	0.0065
Venus	-15476-07-12 05:31 J	-3930993.48	-3930993.27	-3930993.05	0.0132	0.0033
Venus	-15475-02-23 11:31 J	-3930767.24	-3930767.02	-3930766.80	0.0132	0.0002
Venus	-15475-10-07 17:02 J	-3930541.00	-3930540.79	-3930540.57	0.0132	0.0031
Venus	-15474-05-21 22:33 J	-3930314.75	-3930314.56	-3930314.36	0.0132	0.0063
Venus	-15473-01-03 04:04 J	-3930088.47	-3930088.33	-3930088.17	0.0132	0.0095
Venus	-15473-08-16 09:35 J	-3929862.15	-3929862.10	-3929862.03	0.0132	0.0127
Earth	-15464-05-29 18:28 J	-3926653.84	-3926653.73	-3926653.58	0.0133	0.0115
Moon	-15464-05-29 18:43 J	-3926653.79	-3926653.72	-3926653.59	0.0133	0.0122 *
Moon	-15463-06-02 23:02 J	-3926284.77	-3926284.54	-3926284.29	0.0134	0.0051
Earth	-15463-06-02 23:45 J	-3926284.73	-3926284.51	-3926284.28	0.0134	0.0058 *
Earth	-15462-06-07 05:16 J	-3925915.53	-3925915.28	-3925915.03	0.0134	0.0001
Moon	-15462-06-07 05:16 J	-3925915.52	-3925915.28	-3925915.03	0.0134	0.0007 *
Moon	-15461-06-10 10:04 J	-3925546.30	-3925546.08	-3925545.84	0.0135	0.0062
Earth	-15461-06-10 10:33 J	-3925546.27	-3925546.06	-3925545.82	0.0135	0.0057 *
Earth	-15460-06-14 16:33 J	-3925176.93	-3925176.81	-3925176.67	0.0135	0.0115
Moon	-15460-06-14 16:33 J	-3925176.92	-3925176.81	-3925176.66	0.0135	0.0114 *
Mercury	-15451-06-29 08:09 J	-3921875.19	-3921875.16	-3921875.11	0.0139	0.0133
Mercury	-15451-09-25 11:31 J	-3921787.09	-3921787.02	-3921786.94	0.0140	0.0113
Mercury	-15451-12-22 14:38 J	-3921698.98	-3921698.89	-3921698.78	0.0140	0.0093

Mercury	-15450-03-20 18:00 J	-3921610.86	-3921610.75	-3921610.63	0.0140	0.0073
Mercury	-15450-06-16 21:21 J	-3921522.73	-3921522.61	-3921522.49	0.0140	0.0052
Mercury	-15450-09-13 00:43 J	-3921434.60	-3921434.47	-3921434.34	0.0140	0.0032
Mercury	-15450-12-10 04:04 J	-3921346.46	-3921346.33	-3921346.20	0.0140	0.0011
Mercury	-15449-03-07 07:26 J	-3921258.32	-3921258.19	-3921258.06	0.0140	0.0010
Mercury	-15449-06-03 10:33 J	-3921170.18	-3921170.06	-3921169.93	0.0140	0.0031
Mercury	-15449-08-30 13:55 J	-3921082.04	-3921081.92	-3921081.79	0.0141	0.0051
Mercury	-15449-11-26 17:31 J	-3920993.89	-3920993.77	-3920993.66	0.0141	0.0072
Mercury	-15448-02-22 20:52 J	-3920905.73	-3920905.63	-3920905.53	0.0141	0.0093
Mercury	-15448-05-22 00:14 J	-3920817.57	-3920817.49	-3920817.41	0.0141	0.0114
Mercury	-15448-08-18 03:21 J	-3920729.38	-3920729.36	-3920729.31	0.0141	0.0136
Mars	-15444-07-03 20:52 J	-3919313.77	-3919313.63	-3919313.43	0.0143	0.0124
Mars	-15442-06-10 03:07 J	-3918607.51	-3918607.37	-3918607.19	0.0144	0.0125
Venus	-15435-06-03 23:02 J	-3916056.59	-3916056.54	-3916056.47	0.0146	0.0140
Venus	-15434-01-16 10:33 J	-3915830.20	-3915830.06	-3915829.89	0.0146	0.0099
Venus	-15434-08-30 22:33 J	-3915603.75	-3915603.56	-3915603.36	0.0146	0.0056
Venus	-15433-04-13 10:33 J	-3915377.28	-3915377.06	-3915376.85	0.0146	0.0013
Venus	-15433-11-25 22:04 J	-3915150.78	-3915150.58	-3915150.36	0.0146	0.0031
Venus	-15432-07-10 10:04 J	-3914924.26	-3914924.08	-3914923.89	0.0146	0.0074
Venus	-15431-02-21 21:50 J	-3914697.70	-3914697.59	-3914697.45	0.0147	0.0117
Earth	-15424-11-26 07:11 J	-3911863.35	-3911863.20	-3911863.03	0.0145	0.0113
Moon	-15424-11-26 10:04 J	-3911863.20	-3911863.08	-3911862.93	0.0145	0.0121 *
Moon	-15423-12-01 08:38 J	-3911493.40	-3911493.14	-3911492.88	0.0145	0.0031
Earth	-15423-12-01 11:45 J	-3911493.25	-3911493.01	-3911492.76	0.0145	0.0038 *
Earth	-15422-12-06 15:35 J	-3911123.09	-3911122.85	-3911122.59	0.0144	0.0037
Moon	-15422-12-06 17:45 J	-3911123.00	-3911122.76	-3911122.51	0.0144	0.0033 *
Moon	-15421-12-10 17:16 J	-3910752.94	-3910752.78	-3910752.59	0.0144	0.0109
Earth	-15421-12-10 18:57 J	-3910752.86	-3910752.71	-3910752.53	0.0144	0.0110 *
Mercury	-15411-05-12 17:16 J	-3907312.88	-3907312.78	-3907312.67	0.0139	0.0116
Mercury	-15411-08-09 01:26 J	-3907224.59	-3907224.44	-3907224.29	0.0139	0.0086

Mercury	-15411-11-05 09:07 J	-3907136.29	-3907136.12	-3907135.93	0.0139	0.0057
Mercury	-15410-02-01 17:16 J	-3907047.97	-3907047.78	-3907047.59	0.0138	0.0027
Mercury	-15410-05-01 01:11 J	-3906959.65	-3906959.45	-3906959.26	0.0138	0.0003
Mercury	-15410-07-28 08:52 J	-3906871.31	-3906871.13	-3906870.94	0.0138	0.0032
Mercury	-15410-10-24 16:48 J	-3906782.97	-3906782.80	-3906782.63	0.0138	0.0061
Mercury	-15409-01-21 00:28 J	-3906694.62	-3906694.48	-3906694.33	0.0138	0.0090
Mercury	-15409-04-18 07:55 J	-3906606.25	-3906606.17	-3906606.06	0.0138	0.0119
Mars	-15404-12-03 03:50 J	-3904551.62	-3904551.34	-3904551.05	0.0135	0.0025
Venus	-15394-12-15 04:19 J	-3900887.43	-3900887.32	-3900887.20	0.0132	0.0112
Venus	-15393-07-28 10:19 J	-3900661.25	-3900661.07	-3900660.89	0.0132	0.0079
Venus	-15392-03-11 16:04 J	-3900435.03	-3900434.83	-3900434.62	0.0132	0.0047
Venus	-15392-10-23 21:50 J	-3900208.81	-3900208.59	-3900208.37	0.0132	0.0015
Venus	-15391-06-07 03:21 J	-3899982.57	-3899982.36	-3899982.13	0.0132	0.0018
Venus	-15390-01-19 08:52 J	-3899756.32	-3899756.13	-3899755.91	0.0132	0.0050
Venus	-15390-09-02 14:24 J	-3899530.06	-3899529.90	-3899529.71	0.0132	0.0082
Venus	-15389-04-15 19:40 J	-3899303.77	-3899303.68	-3899303.55	0.0132	0.0114
Earth	-15380-05-30 05:31 J	-3895972.40	-3895972.27	-3895972.12	0.0133	0.0109
Moon	-15380-05-30 06:43 J	-3895972.36	-3895972.22	-3895972.06	0.0133	0.0104 *
Moon	-15379-06-03 09:35 J	-3895603.32	-3895603.10	-3895602.86	0.0134	0.0060
Earth	-15379-06-03 10:19 J	-3895603.29	-3895603.07	-3895602.83	0.0134	0.0053 *
Earth	-15378-06-07 15:50 J	-3895234.09	-3895233.84	-3895233.59	0.0134	0.0004
Moon	-15378-06-07 17:02 J	-3895234.03	-3895233.79	-3895233.55	0.0134	0.0010 *
Moon	-15377-06-10 20:09 J	-3894864.88	-3894864.66	-3894864.41	0.0134	0.0057
Earth	-15377-06-10 21:07 J	-3894864.84	-3894864.62	-3894864.39	0.0134	0.0061 *
Earth	-15376-06-15 02:52 J	-3894495.50	-3894495.38	-3894495.26	0.0135	0.0118
Moon	-15376-06-15 03:21 J	-3894495.45	-3894495.36	-3894495.24	0.0135	0.0121 *
Mercury	-15367-07-19 15:07 J	-3891173.91	-3891173.87	-3891173.82	0.0139	0.0129
Mercury	-15367-10-15 18:28 J	-3891085.81	-3891085.73	-3891085.65	0.0139	0.0109
Mercury	-15366-01-11 21:35 J	-3890997.69	-3890997.60	-3890997.49	0.0140	0.0090
Mercury	-15366-04-10 00:57 J	-3890909.57	-3890909.46	-3890909.34	0.0140	0.0069

Mercury	-15366-07-07 04:19 J	-3890821.44	-3890821.32	-3890821.20	0.0140	0.0049
Mercury	-15366-10-03 07:40 J	-3890733.31	-3890733.18	-3890733.05	0.0140	0.0029
Mercury	-15366-12-30 11:02 J	-3890645.18	-3890645.04	-3890644.91	0.0140	0.0009
Mercury	-15365-03-27 14:09 J	-3890557.04	-3890556.91	-3890556.77	0.0140	0.0013
Mercury	-15365-06-23 17:31 J	-3890468.89	-3890468.77	-3890468.64	0.0140	0.0033
Mercury	-15365-09-19 20:52 J	-3890380.75	-3890380.63	-3890380.51	0.0140	0.0054
Mercury	-15365-12-17 00:14 J	-3890292.60	-3890292.49	-3890292.38	0.0141	0.0075
Mercury	-15364-03-15 03:35 J	-3890204.44	-3890204.35	-3890204.25	0.0141	0.0096
Mercury	-15364-06-11 07:11 J	-3890116.27	-3890116.20	-3890116.13	0.0141	0.0117
Mercury	-15364-09-07 10:33 J	-3890028.08	-3890028.06	-3890028.04	0.0141	0.0138
Mars	-15359-02-27 19:40 J	-3888393.98	-3888393.68	-3888393.35	0.0143	0.0042
Venus	-15351-09-15 15:21 J	-3885271.98	-3885271.86	-3885271.74	0.0146	0.0121
Venus	-15350-04-30 02:38 J	-3885045.56	-3885045.39	-3885045.19	0.0146	0.0079
Venus	-15350-12-12 14:38 J	-3884819.09	-3884818.89	-3884818.68	0.0146	0.0035
Venus	-15349-07-26 02:38 J	-3884592.60	-3884592.39	-3884592.17	0.0146	0.0008
Venus	-15348-03-09 14:09 J	-3884366.10	-3884365.91	-3884365.69	0.0147	0.0052
Venus	-15348-10-22 02:24 J	-3884139.57	-3884139.40	-3884139.24	0.0147	0.0094
Venus	-15347-06-05 14:09 J	-3883912.98	-3883912.91	-3883912.83	0.0147	0.0137
Earth	-15340-11-26 13:40 J	-3881182.08	-3881181.93	-3881181.75	0.0145	0.0110
Moon	-15340-11-26 17:31 J	-3881181.94	-3881181.77	-3881181.58	0.0145	0.0103 *
Moon	-15339-12-01 15:21 J	-3880812.10	-3880811.86	-3880811.60	0.0145	0.0043
Earth	-15339-12-01 18:28 J	-3880811.97	-3880811.73	-3880811.47	0.0145	0.0036 *
Earth	-15338-12-06 22:33 J	-3880441.80	-3880441.56	-3880441.31	0.0144	0.0039
Moon	-15338-12-07 01:40 J	-3880441.67	-3880441.43	-3880441.19	0.0144	0.0044 *
Moon	-15337-12-11 00:00 J	-3880071.66	-3880071.50	-3880071.33	0.0144	0.0111
Earth	-15337-12-11 02:09 J	-3880071.56	-3880071.41	-3880071.24	0.0144	0.0112 *
Mercury	-15327-06-02 00:00 J	-3876611.60	-3876611.50	-3876611.37	0.0139	0.0111
Mercury	-15327-08-29 07:55 J	-3876523.31	-3876523.17	-3876523.00	0.0139	0.0081
Mercury	-15327-11-25 16:04 J	-3876435.01	-3876434.83	-3876434.64	0.0139	0.0051
Mercury	-15326-02-22 00:14 J	-3876346.69	-3876346.49	-3876346.30	0.0139	0.0021

Mercury	-15326-05-21 07:55 J	-3876258.36	-3876258.17	-3876257.97	0.0138	0.0010
Mercury	-15326-08-17 15:50 J	-3876170.02	-3876169.84	-3876169.65	0.0138	0.0038
Mercury	-15326-11-13 23:45 J	-3876081.68	-3876081.51	-3876081.34	0.0138	0.0068
Mercury	-15325-02-10 07:26 J	-3875993.33	-3875993.19	-3875993.05	0.0138	0.0096
Mercury	-15325-05-08 15:07 J	-3875904.95	-3875904.87	-3875904.79	0.0138	0.0125
Mars	-15319-07-28 12:14 J	-3873633.26	-3873632.99	-3873632.71	0.0135	0.0036
Jupiter	-15311-10-04 12:43 J	-3870642.99	-3870642.97	-3870642.87	0.0132	0.0132
Venus	-15310-08-14 14:09 J	-3870328.96	-3870328.91	-3870328.83	0.0132	0.0126
Venus	-15309-03-27 19:55 J	-3870102.80	-3870102.67	-3870102.49	0.0132	0.0095
Venus	-15309-11-09 02:09 J	-3869876.60	-3869876.41	-3869876.21	0.0132	0.0061
Venus	-15308-06-23 07:55 J	-3869650.39	-3869650.17	-3869649.95	0.0132	0.0029
Venus	-15307-02-04 13:40 J	-3869424.15	-3869423.93	-3869423.71	0.0132	0.0004
Venus	-15307-09-18 19:11 J	-3869197.91	-3869197.70	-3869197.48	0.0132	0.0036
Venus	-15306-05-03 00:28 J	-3868971.66	-3868971.48	-3868971.28	0.0132	0.0068
Venus	-15306-12-15 06:00 J	-3868745.38	-3868745.25	-3868745.10	0.0132	0.0100
Venus	-15305-07-28 11:16 J	-3868519.03	-3868519.03	-3868519.00	0.0132	0.0132
Earth	-15296-05-30 16:19 J	-3865290.97	-3865290.82	-3865290.66	0.0133	0.0105
Moon	-15296-05-30 17:31 J	-3865290.89	-3865290.77	-3865290.62	0.0133	0.0112 *
Moon	-15295-06-03 19:11 J	-3864921.94	-3864921.70	-3864921.45	0.0134	0.0043
Earth	-15295-06-03 20:52 J	-3864921.85	-3864921.63	-3864921.38	0.0134	0.0050 *
Earth	-15294-06-08 02:09 J	-3864552.66	-3864552.41	-3864552.16	0.0134	0.0008
Moon	-15294-06-08 03:21 J	-3864552.60	-3864552.36	-3864552.11	0.0134	0.0003 *
Moon	-15293-06-11 05:16 J	-3864183.48	-3864183.28	-3864183.04	0.0134	0.0070
Earth	-15293-06-11 07:11 J	-3864183.41	-3864183.20	-3864182.97	0.0134	0.0065 *
Earth	-15292-06-15 12:28 J	-3863814.06	-3863813.98	-3863813.85	0.0135	0.0122
Moon	-15292-06-15 14:09 J	-3863814.01	-3863813.91	-3863813.79	0.0135	0.0119 *
Mercury	-15283-08-08 22:19 J	-3860472.62	-3860472.57	-3860472.51	0.0139	0.0125
Mercury	-15283-11-05 01:26 J	-3860384.52	-3860384.44	-3860384.35	0.0139	0.0106
Mercury	-15282-02-01 04:48 J	-3860296.40	-3860296.30	-3860296.19	0.0139	0.0086
Mercury	-15282-04-30 07:55 J	-3860208.28	-3860208.17	-3860208.05	0.0140	0.0066

Mercury	-15282-07-27 11:16 J	-3860120.15	-3860120.03	-3860119.90	0.0140	0.0046
Mercury	-15282-10-23 14:38 J	-3860032.02	-3860031.89	-3860031.76	0.0140	0.0025
Mercury	-15281-01-19 18:00 J	-3859943.88	-3859943.75	-3859943.62	0.0140	0.0004
Mercury	-15281-04-16 21:21 J	-3859855.74	-3859855.61	-3859855.48	0.0140	0.0016
Mercury	-15281-07-14 00:28 J	-3859767.60	-3859767.48	-3859767.35	0.0140	0.0037
Mercury	-15281-10-10 04:04 J	-3859679.45	-3859679.33	-3859679.21	0.0140	0.0058
Mercury	-15280-01-06 07:11 J	-3859591.30	-3859591.20	-3859591.09	0.0141	0.0079
Mercury	-15280-04-04 10:33 J	-3859503.15	-3859503.06	-3859502.96	0.0141	0.0100
Mercury	-15280-07-01 13:55 J	-3859414.98	-3859414.92	-3859414.85	0.0141	0.0121
Mars	-15275-10-24 21:07 J	-3857473.93	-3857473.62	-3857473.30	0.0144	0.0043
Venus	-15267-05-15 20:09 J	-3854713.70	-3854713.66	-3854713.61	0.0146	0.0143
Venus	-15267-12-28 07:40 J	-3854487.32	-3854487.18	-3854487.01	0.0146	0.0100
Venus	-15266-08-11 19:40 J	-3854260.87	-3854260.68	-3854260.48	0.0146	0.0057
Venus	-15265-03-25 07:26 J	-3854034.40	-3854034.19	-3854033.97	0.0146	0.0014
Venus	-15265-11-06 19:11 J	-3853807.91	-3853807.70	-3853807.49	0.0147	0.0029
Venus	-15264-06-21 06:43 J	-3853581.39	-3853581.22	-3853581.02	0.0147	0.0073
Venus	-15263-02-02 18:28 J	-3853354.84	-3853354.73	-3853354.58	0.0147	0.0116
Earth	-15256-11-26 21:50 J	-3850500.76	-3850500.59	-3850500.41	0.0145	0.0106
Moon	-15256-11-27 00:57 J	-3850500.59	-3850500.46	-3850500.28	0.0145	0.0114 *
Moon	-15255-12-01 22:48 J	-3850130.80	-3850130.55	-3850130.29	0.0145	0.0024
Earth	-15255-12-02 02:38 J	-3850130.64	-3850130.39	-3850130.14	0.0145	0.0032 *
Earth	-15254-12-07 06:28 J	-3849760.47	-3849760.23	-3849759.97	0.0144	0.0043
Moon	-15254-12-07 09:35 J	-3849760.34	-3849760.10	-3849759.85	0.0144	0.0038 *
Moon	-15253-12-11 07:40 J	-3849390.33	-3849390.18	-3849390.02	0.0144	0.0115
Earth	-15253-12-11 10:19 J	-3849390.21	-3849390.07	-3849389.91	0.0144	0.0115 *
Mercury	-15243-03-25 22:48 J	-3845998.58	-3845998.55	-3845998.49	0.0139	0.0135
Mercury	-15243-06-22 07:11 J	-3845910.33	-3845910.20	-3845910.07	0.0139	0.0104
Mercury	-15243-09-18 15:07 J	-3845822.03	-3845821.87	-3845821.70	0.0139	0.0074
Mercury	-15243-12-15 23:02 J	-3845733.72	-3845733.54	-3845733.35	0.0139	0.0044
Mercury	-15242-03-14 07:11 J	-3845645.40	-3845645.20	-3845645.01	0.0139	0.0015

Mercury	-15242-06-10 14:52 J	-3845557.07	-3845556.88	-3845556.68	0.0138	0.0016
Mercury	-15242-09-06 22:48 J	-3845468.73	-3845468.55	-3845468.36	0.0138	0.0045
Mercury	-15242-12-04 06:28 J	-3845380.38	-3845380.23	-3845380.06	0.0138	0.0074
Mercury	-15241-03-01 14:09 J	-3845292.03	-3845291.91	-3845291.77	0.0138	0.0103
Mercury	-15241-05-28 21:50 J	-3845203.63	-3845203.59	-3845203.52	0.0138	0.0132
Mars	-15236-04-22 02:24 J	-3843414.64	-3843414.40	-3843414.16	0.0136	0.0077
Mars	-15234-03-22 21:35 J	-3842714.78	-3842714.60	-3842714.38	0.0135	0.0098
Venus	-15226-11-26 06:14 J	-3839544.35	-3839544.24	-3839544.10	0.0132	0.0109
Venus	-15225-07-09 12:14 J	-3839318.16	-3839317.99	-3839317.80	0.0132	0.0076
Venus	-15224-02-20 18:14 J	-3839091.94	-3839091.74	-3839091.52	0.0132	0.0043
Venus	-15224-10-05 00:00 J	-3838865.72	-3838865.50	-3838865.28	0.0132	0.0011
Venus	-15223-05-19 05:31 J	-3838639.48	-3838639.27	-3838639.05	0.0132	0.0022
Venus	-15223-12-31 11:02 J	-3838413.23	-3838413.04	-3838412.83	0.0132	0.0054
Venus	-15222-08-14 16:33 J	-3838186.96	-3838186.81	-3838186.63	0.0132	0.0087
Venus	-15221-03-27 22:04 J	-3837960.67	-3837960.58	-3837960.47	0.0132	0.0118
Earth	-15212-05-31 04:33 J	-3834609.46	-3834609.31	-3834609.13	0.0133	0.0099
Moon	-15212-05-31 06:43 J	-3834609.37	-3834609.22	-3834609.03	0.0133	0.0095 *
Moon	-15211-06-04 07:40 J	-3834240.41	-3834240.18	-3834239.93	0.0134	0.0050
Earth	-15211-06-04 09:35 J	-3834240.33	-3834240.10	-3834239.86	0.0134	0.0043 *
Earth	-15210-06-08 14:38 J	-3833871.14	-3833870.89	-3833870.64	0.0134	0.0013
Moon	-15210-06-08 16:48 J	-3833871.04	-3833870.80	-3833870.56	0.0134	0.0020 *
Moon	-15209-06-11 17:45 J	-3833501.97	-3833501.76	-3833501.52	0.0134	0.0065
Earth	-15209-06-11 19:55 J	-3833501.88	-3833501.67	-3833501.45	0.0134	0.0070 *
Earth	-15208-06-16 00:57 J	-3833132.52	-3833132.46	-3833132.35	0.0135	0.0127
Moon	-15208-06-16 02:52 J	-3833132.42	-3833132.38	-3833132.30	0.0135	0.0130 *
Mercury	-15199-06-02 02:38 J	-3829859.39	-3829859.39	-3829859.37	0.0139	0.0138
Mercury	-15199-08-29 06:00 J	-3829771.31	-3829771.25	-3829771.18	0.0139	0.0118
Mercury	-15199-11-25 09:21 J	-3829683.20	-3829683.11	-3829683.02	0.0139	0.0099
Mercury	-15198-02-21 12:28 J	-3829595.08	-3829594.98	-3829594.87	0.0140	0.0079
Mercury	-15198-05-20 15:35 J	-3829506.96	-3829506.85	-3829506.72	0.0140	0.0059

Mercury	-15198-08-16 18:57 J	-3829418.83	-3829418.71	-3829418.58	0.0140	0.0039
Mercury	-15198-11-12 22:19 J	-3829330.70	-3829330.57	-3829330.44	0.0140	0.0018
Mercury	-15197-02-09 01:40 J	-3829242.56	-3829242.43	-3829242.30	0.0140	0.0003
Mercury	-15197-05-07 05:02 J	-3829154.42	-3829154.29	-3829154.16	0.0140	0.0023
Mercury	-15197-08-03 08:09 J	-3829066.28	-3829066.16	-3829066.03	0.0140	0.0044
Mercury	-15197-10-30 11:31 J	-3828978.13	-3828978.02	-3828977.90	0.0140	0.0065
Mercury	-15196-01-26 14:52 J	-3828889.98	-3828889.88	-3828889.77	0.0141	0.0086
Mercury	-15196-04-24 18:14 J	-3828801.82	-3828801.74	-3828801.65	0.0141	0.0107
Mercury	-15196-07-21 21:35 J	-3828713.65	-3828713.60	-3828713.54	0.0141	0.0128
Mars	-15192-07-15 01:40 J	-3827259.61	-3827259.43	-3827259.22	0.0143	0.0114
Mars	-15190-06-21 08:24 J	-3826553.25	-3826553.15	-3826553.01	0.0144	0.0133
Venus	-15183-08-27 15:35 J	-3823928.96	-3823928.85	-3823928.71	0.0146	0.0120
Venus	-15182-04-11 03:21 J	-3823702.54	-3823702.36	-3823702.17	0.0146	0.0077
Venus	-15182-11-23 15:07 J	-3823476.08	-3823475.87	-3823475.66	0.0146	0.0034
Venus	-15181-07-07 02:52 J	-3823249.60	-3823249.38	-3823249.17	0.0147	0.0010
Venus	-15180-02-18 14:38 J	-3823023.09	-3823022.89	-3823022.69	0.0147	0.0053
Venus	-15180-10-03 01:55 J	-3822796.56	-3822796.42	-3822796.24	0.0147	0.0097
Venus	-15179-05-17 13:40 J	-3822569.97	-3822569.93	-3822569.84	0.0147	0.0140
Earth	-15172-11-27 08:52 J	-3819819.31	-3819819.13	-3819818.94	0.0145	0.0100
Moon	-15172-11-27 12:43 J	-3819819.16	-3819818.97	-3819818.77	0.0145	0.0093 *
Moon	-15171-12-02 10:04 J	-3819449.33	-3819449.08	-3819448.82	0.0145	0.0034
Earth	-15171-12-02 13:40 J	-3819449.18	-3819448.93	-3819448.68	0.0145	0.0026 *
Earth	-15170-12-07 17:31 J	-3819079.01	-3819078.77	-3819078.52	0.0144	0.0048
Moon	-15170-12-07 20:52 J	-3819078.85	-3819078.63	-3819078.38	0.0144	0.0054 *
Moon	-15169-12-11 18:00 J	-3818708.89	-3818708.75	-3818708.59	0.0144	0.0118
Earth	-15169-12-11 21:07 J	-3818708.75	-3818708.62	-3818708.47	0.0144	0.0120 *
Mercury	-15159-04-15 06:28 J	-3815297.30	-3815297.23	-3815297.14	0.0139	0.0126
Mercury	-15159-07-12 14:38 J	-3815209.02	-3815208.89	-3815208.74	0.0139	0.0096
Mercury	-15159-10-08 22:33 J	-3815120.72	-3815120.56	-3815120.37	0.0139	0.0066
Mercury	-15158-01-05 06:43 J	-3815032.40	-3815032.22	-3815032.03	0.0139	0.0036

Mercury	-15158-04-03 14:38 J	-3814944.08	-3814943.89	-3814943.69	0.0139	0.0007
Mercury	-15158-06-30 22:33 J	-3814855.75	-3814855.56	-3814855.36	0.0138	0.0024
Mercury	-15158-09-27 06:14 J	-3814767.41	-3814767.24	-3814767.05	0.0138	0.0054
Mercury	-15158-12-24 14:09 J	-3814679.06	-3814678.91	-3814678.75	0.0138	0.0082
Mercury	-15157-03-21 21:50 J	-3814590.69	-3814590.59	-3814590.47	0.0138	0.0111
Mars	-15152-12-15 14:52 J	-3812496.17	-3812495.88	-3812495.59	0.0135	0.0013
Venus	-15142-07-26 16:48 J	-3808985.86	-3808985.80	-3808985.69	0.0132	0.0123
Venus	-15141-03-08 23:02 J	-3808759.69	-3808759.54	-3808759.37	0.0132	0.0090
Venus	-15141-10-21 04:48 J	-3808533.49	-3808533.30	-3808533.09	0.0132	0.0057
Venus	-15140-06-04 10:48 J	-3808307.27	-3808307.05	-3808306.83	0.0132	0.0024
Venus	-15139-01-16 16:33 J	-3808081.03	-3808080.81	-3808080.59	0.0132	0.0008
Venus	-15139-08-30 22:04 J	-3807854.79	-3807854.58	-3807854.37	0.0132	0.0041
Venus	-15138-04-14 03:35 J	-3807628.53	-3807628.35	-3807628.16	0.0132	0.0073
Venus	-15138-11-26 08:52 J	-3807402.25	-3807402.13	-3807401.99	0.0132	0.0106
Earth	-15128-05-31 17:02 J	-3803927.95	-3803927.79	-3803927.60	0.0133	0.0094
Moon	-15128-05-31 19:40 J	-3803927.84	-3803927.68	-3803927.52	0.0133	0.0100 *
Moon	-15127-06-04 19:11 J	-3803558.94	-3803558.70	-3803558.44	0.0134	0.0032
Earth	-15127-06-04 21:50 J	-3803558.82	-3803558.59	-3803558.34	0.0134	0.0039 *
Earth	-15126-06-09 02:52 J	-3803189.62	-3803189.38	-3803189.13	0.0134	0.0018
Moon	-15126-06-09 05:02 J	-3803189.53	-3803189.29	-3803189.04	0.0134	0.0012 *
Moon	-15125-06-12 05:16 J	-3802820.47	-3802820.28	-3802820.06	0.0134	0.0081
Earth	-15125-06-12 07:55 J	-3802820.36	-3802820.17	-3802819.95	0.0134	0.0075 *
Earth	-15124-06-16 13:26 J	-3802450.98	-3802450.94	-3802450.87	0.0135	0.0131
Moon	-15124-06-16 15:35 J	-3802450.90	-3802450.85	-3802450.75	0.0135	0.0128 *
Mercury	-15115-06-22 10:19 J	-3799158.10	-3799158.07	-3799158.03	0.0139	0.0132
Mercury	-15115-09-18 13:26 J	-3799070.01	-3799069.94	-3799069.85	0.0139	0.0112
Mercury	-15115-12-15 16:48 J	-3798981.89	-3798981.80	-3798981.70	0.0139	0.0092
Mercury	-15114-03-13 19:55 J	-3798893.77	-3798893.67	-3798893.55	0.0140	0.0073
Mercury	-15114-06-09 23:16 J	-3798805.65	-3798805.53	-3798805.40	0.0140	0.0052
Mercury	-15114-09-06 02:38 J	-3798717.52	-3798717.39	-3798717.26	0.0140	0.0032

Mercury	-15114-12-03 06:00 J	-3798629.38	-3798629.25	-3798629.12	0.0140	0.0012
Mercury	-15113-02-29 09:21 J	-3798541.25	-3798541.11	-3798540.98	0.0140	0.0010
Mercury	-15113-05-27 12:28 J	-3798453.10	-3798452.98	-3798452.85	0.0140	0.0030
Mercury	-15113-08-23 15:50 J	-3798364.96	-3798364.84	-3798364.72	0.0140	0.0050
Mercury	-15113-11-19 19:11 J	-3798276.81	-3798276.70	-3798276.59	0.0141	0.0071
Mercury	-15112-02-15 22:19 J	-3798188.66	-3798188.57	-3798188.46	0.0141	0.0093
Mercury	-15112-05-15 01:55 J	-3798100.49	-3798100.42	-3798100.34	0.0141	0.0113
Mercury	-15112-08-11 05:02 J	-3798012.31	-3798012.29	-3798012.24	0.0141	0.0135
Mars	-15107-03-11 14:24 J	-3796339.21	-3796338.90	-3796338.56	0.0143	0.0025
Venus	-15099-04-27 00:14 J	-3793370.54	-3793370.49	-3793370.40	0.0146	0.0138
Venus	-15099-12-09 12:00 J	-3793144.15	-3793144.00	-3793143.83	0.0146	0.0095
Venus	-15098-07-23 23:45 J	-3792917.70	-3792917.51	-3792917.30	0.0146	0.0052
Venus	-15097-03-06 11:31 J	-3792691.23	-3792691.02	-3792690.80	0.0147	0.0008
Venus	-15097-10-18 23:02 J	-3792464.74	-3792464.54	-3792464.32	0.0147	0.0036
Venus	-15096-06-02 10:48 J	-3792238.22	-3792238.05	-3792237.86	0.0147	0.0079
Venus	-15095-01-14 22:48 J	-3792011.66	-3792011.55	-3792011.43	0.0147	0.0122
Earth	-15088-11-27 23:02 J	-3789137.72	-3789137.54	-3789137.33	0.0145	0.0093
Moon	-15088-11-28 02:38 J	-3789137.56	-3789137.39	-3789137.19	0.0145	0.0100 *
Moon	-15087-12-03 00:00 J	-3788767.76	-3788767.50	-3788767.24	0.0145	0.0011
Earth	-15087-12-03 03:50 J	-3788767.59	-3788767.34	-3788767.08	0.0145	0.0019 *
Earth	-15086-12-08 07:40 J	-3788397.41	-3788397.18	-3788396.93	0.0144	0.0054
Moon	-15086-12-08 11:16 J	-3788397.27	-3788397.03	-3788396.79	0.0144	0.0049 *
Moon	-15085-12-12 07:55 J	-3788027.28	-3788027.17	-3788027.04	0.0144	0.0127
Earth	-15085-12-12 11:16 J	-3788027.14	-3788027.03	-3788026.90	0.0144	0.0126 *
Mercury	-15075-05-05 15:07 J	-3784595.97	-3784595.87	-3784595.75	0.0139	0.0114
Mercury	-15075-08-01 23:16 J	-3784507.68	-3784507.53	-3784507.37	0.0139	0.0084
Mercury	-15075-10-29 07:26 J	-3784419.37	-3784419.19	-3784419.01	0.0139	0.0054
Mercury	-15074-01-25 15:21 J	-3784331.05	-3784330.86	-3784330.66	0.0139	0.0024
Mercury	-15074-04-23 23:16 J	-3784242.72	-3784242.53	-3784242.33	0.0138	0.0007
Mercury	-15074-07-21 07:11 J	-3784154.39	-3784154.20	-3784154.01	0.0138	0.0035

Mercury	-15074-10-17 15:07 J	-3784066.04	-3784065.87	-3784065.70	0.0138	0.0065
Mercury	-15073-01-13 22:33 J	-3783977.69	-3783977.56	-3783977.40	0.0138	0.0094
Mercury	-15073-04-11 06:14 J	-3783889.31	-3783889.24	-3783889.14	0.0138	0.0123
Mars	-15069-09-09 10:04 J	-3782277.17	-3782277.08	-3782276.93	0.0136	0.0124
Mars	-15067-08-10 05:02 J	-3781577.55	-3781577.29	-3781577.01	0.0135	0.0052
Venus	-15058-11-07 10:48 J	-3778201.18	-3778201.05	-3778200.90	0.0132	0.0102
Venus	-15057-06-20 16:48 J	-3777974.98	-3777974.80	-3777974.61	0.0132	0.0070
Venus	-15056-02-01 22:33 J	-3777748.76	-3777748.56	-3777748.34	0.0132	0.0037
Venus	-15056-09-16 04:19 J	-3777522.54	-3777522.32	-3777522.10	0.0132	0.0005
Venus	-15055-04-30 09:50 J	-3777296.30	-3777296.09	-3777295.87	0.0132	0.0028
Venus	-15055-12-12 15:07 J	-3777070.05	-3777069.87	-3777069.66	0.0132	0.0061
Venus	-15054-07-26 20:38 J	-3776843.78	-3776843.64	-3776843.47	0.0132	0.0093
Venus	-15053-03-09 02:09 J	-3776617.46	-3776617.41	-3776617.32	0.0132	0.0126
Earth	-15044-06-01 06:43 J	-3773246.39	-3773246.22	-3773246.01	0.0133	0.0088
Moon	-15044-06-01 09:50 J	-3773246.27	-3773246.09	-3773245.88	0.0133	0.0083 *
Moon	-15043-06-05 09:07 J	-3772877.36	-3772877.12	-3772876.87	0.0134	0.0039
Earth	-15043-06-05 11:45 J	-3772877.25	-3772877.01	-3772876.76	0.0134	0.0032 *
Earth	-15042-06-09 16:33 J	-3772508.05	-3772507.81	-3772507.56	0.0134	0.0024
Moon	-15042-06-09 19:26 J	-3772507.92	-3772507.69	-3772507.44	0.0134	0.0031 *
Moon	-15041-06-12 18:57 J	-3772138.91	-3772138.71	-3772138.48	0.0134	0.0075
Earth	-15041-06-12 21:35 J	-3772138.78	-3772138.60	-3772138.38	0.0134	0.0081 *
Mercury	-15031-07-12 18:00 J	-3768456.79	-3768456.75	-3768456.68	0.0139	0.0125
Mercury	-15031-10-08 21:21 J	-3768368.69	-3768368.61	-3768368.52	0.0139	0.0105
Mercury	-15030-01-05 00:43 J	-3768280.57	-3768280.47	-3768280.37	0.0140	0.0084
Mercury	-15030-04-03 03:50 J	-3768192.45	-3768192.34	-3768192.22	0.0140	0.0065
Mercury	-15030-06-30 07:11 J	-3768104.32	-3768104.20	-3768104.07	0.0140	0.0044
Mercury	-15030-09-26 10:33 J	-3768016.19	-3768016.06	-3768015.93	0.0140	0.0024
Mercury	-15030-12-23 13:40 J	-3767928.06	-3767927.93	-3767927.79	0.0140	0.0006
Mercury	-15029-03-20 17:02 J	-3767839.92	-3767839.79	-3767839.66	0.0140	0.0017
Mercury	-15029-06-16 20:24 J	-3767751.78	-3767751.65	-3767751.52	0.0140	0.0038

Mercury	-15029-09-12 23:45 J	-3767663.63	-3767663.51	-3767663.39	0.0140	0.0058
Mercury	-15029-12-10 02:52 J	-3767575.48	-3767575.38	-3767575.26	0.0141	0.0080
Mercury	-15028-03-08 06:14 J	-3767487.32	-3767487.24	-3767487.14	0.0141	0.0101
Mercury	-15028-06-04 09:35 J	-3767399.15	-3767399.10	-3767399.02	0.0141	0.0122
Mars	-15023-11-06 06:28 J	-3765418.50	-3765418.23	-3765417.92	0.0144	0.0069
Venus	-15015-08-08 22:04 J	-3762585.72	-3762585.58	-3762585.44	0.0146	0.0112
Venus	-15014-03-23 09:35 J	-3762359.29	-3762359.10	-3762358.91	0.0146	0.0069
Venus	-15014-11-04 21:07 J	-3762132.82	-3762132.62	-3762132.40	0.0147	0.0026
Venus	-15013-06-18 08:52 J	-3761906.34	-3761906.13	-3761905.91	0.0147	0.0018
Venus	-15012-01-30 20:38 J	-3761679.83	-3761679.64	-3761679.44	0.0147	0.0062
Venus	-15012-09-14 08:24 J	-3761453.28	-3761453.15	-3761452.99	0.0147	0.0106
Earth	-15004-11-28 15:07 J	-3758456.07	-3758455.87	-3758455.65	0.0145	0.0084
Moon	-15004-11-28 18:43 J	-3758455.93	-3758455.72	-3758455.49	0.0145	0.0077 *
Moon	-15003-12-03 16:19 J	-3758086.07	-3758085.82	-3758085.56	0.0145	0.0018
Earth	-15003-12-03 19:40 J	-3758085.93	-3758085.68	-3758085.42	0.0145	0.0011 *
Earth	-15002-12-08 23:31 J	-3757715.74	-3757715.52	-3757715.28	0.0144	0.0062
Moon	-15002-12-09 03:35 J	-3757715.58	-3757715.35	-3757715.12	0.0144	0.0068 *
Moon	-15001-12-12 23:16 J	-3757345.61	-3757345.53	-3757345.41	0.0144	0.0132
Earth	-15001-12-13 02:52 J	-3757345.45	-3757345.38	-3757345.27	0.0144	0.0134 *

15TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 15th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury	-14991-02-26 16:04 J	-3753982.88	-3753982.83	-3753982.75	0.0139	0.0131
Mercury	-14991-05-26 00:14 J	-3753894.61	-3753894.49	-3753894.35	0.0139	0.0101
Mercury	-14991-08-22 08:09 J	-3753806.31	-3753806.16	-3753805.98	0.0139	0.0071
Mercury	-14991-11-18 16:19 J	-3753718.00	-3753717.82	-3753717.63	0.0139	0.0041
Mercury	-14990-02-15 00:28 J	-3753629.68	-3753629.48	-3753629.29	0.0139	0.0011
Mercury	-14990-05-14 08:24 J	-3753541.35	-3753541.15	-3753540.96	0.0138	0.0019
Mercury	-14990-08-10 16:04 J	-3753453.01	-3753452.83	-3753452.64	0.0138	0.0048
Mercury	-14990-11-06 23:45 J	-3753364.66	-3753364.51	-3753364.34	0.0138	0.0078
Mercury	-14989-02-03 07:40 J	-3753276.30	-3753276.18	-3753276.05	0.0138	0.0106
Mercury	-14989-05-01 15:07 J	-3753187.89	-3753187.87	-3753187.82	0.0138	0.0135
Mars	-14984-05-05 02:52 J	-3751358.64	-3751358.38	-3751358.12	0.0135	0.0057
Mars	-14982-04-04 20:24 J	-3750658.79	-3750658.65	-3750658.51	0.0135	0.0117
Venus	-14974-07-07 22:19 J	-3747642.66	-3747642.57	-3747642.44	0.0132	0.0116
Venus	-14973-02-19 04:33 J	-3747416.47	-3747416.31	-3747416.13	0.0132	0.0082
Venus	-14973-10-02 10:04 J	-3747190.27	-3747190.08	-3747189.86	0.0132	0.0050
Venus	-14972-05-16 16:04 J	-3746964.05	-3746963.83	-3746963.61	0.0132	0.0017
Venus	-14972-12-28 21:35 J	-3746737.81	-3746737.60	-3746737.37	0.0132	0.0016
Venus	-14971-08-12 03:21 J	-3746511.57	-3746511.36	-3746511.16	0.0132	0.0048
Venus	-14970-03-26 08:38 J	-3746285.30	-3746285.14	-3746284.96	0.0132	0.0081
Venus	-14970-11-07 13:55 J	-3746059.01	-3746058.92	-3746058.79	0.0132	0.0113
Earth	-14960-06-01 19:40 J	-3742564.87	-3742564.68	-3742564.48	0.0133	0.0082
Moon	-14960-06-01 22:33 J	-3742564.74	-3742564.56	-3742564.37	0.0133	0.0088 *
Moon	-14959-06-05 20:52 J	-3742195.87	-3742195.63	-3742195.37	0.0134	0.0021
Earth	-14959-06-06 00:14 J	-3742195.73	-3742195.49	-3742195.24	0.0134	0.0027 *
Earth	-14958-06-10 05:02 J	-3741826.53	-3741826.29	-3741826.04	0.0134	0.0029
Moon	-14958-06-10 07:55 J	-3741826.41	-3741826.17	-3741825.92	0.0134	0.0022 *
Moon	-14957-06-13 07:11 J	-3741457.39	-3741457.20	-3741457.02	0.0134	0.0091
Earth	-14957-06-13 10:04 J	-3741457.26	-3741457.08	-3741456.87	0.0134	0.0085 *
Mercury	-14947-05-05 22:19 J	-3737843.57	-3737843.57	-3737843.56	0.0139	0.0139

Mercury	-14947-08-02 01:26 J	-3737755.50	-3737755.44	-3737755.37	0.0139	0.0119
Mercury	-14947-10-29 04:48 J	-3737667.39	-3737667.30	-3737667.21	0.0139	0.0099
Mercury	-14946-01-25 07:55 J	-3737579.27	-3737579.17	-3737579.06	0.0140	0.0080
Mercury	-14946-04-23 11:16 J	-3737491.15	-3737491.03	-3737490.91	0.0140	0.0059
Mercury	-14946-07-20 14:38 J	-3737403.02	-3737402.89	-3737402.77	0.0140	0.0039
Mercury	-14946-10-16 18:00 J	-3737314.88	-3737314.75	-3737314.62	0.0140	0.0019
Mercury	-14945-01-12 21:07 J	-3737226.75	-3737226.62	-3737226.49	0.0140	0.0003
Mercury	-14945-04-10 00:28 J	-3737138.61	-3737138.48	-3737138.35	0.0140	0.0022
Mercury	-14945-07-07 03:35 J	-3737050.47	-3737050.35	-3737050.22	0.0140	0.0044
Mercury	-14945-10-03 07:11 J	-3736962.32	-3736962.20	-3736962.09	0.0141	0.0064
Mercury	-14945-12-30 10:19 J	-3736874.17	-3736874.07	-3736873.96	0.0141	0.0085
Mercury	-14944-03-28 13:40 J	-3736786.01	-3736785.93	-3736785.84	0.0141	0.0106
Mercury	-14944-06-24 17:02 J	-3736697.84	-3736697.79	-3736697.73	0.0141	0.0127
Mars	-14940-07-27 07:26 J	-3735204.43	-3735204.19	-3735203.92	0.0143	0.0091
Venus	-14931-04-08 05:16 J	-3732027.36	-3732027.28	-3732027.17	0.0146	0.0131
Venus	-14931-11-20 16:48 J	-3731800.95	-3731800.80	-3731800.61	0.0146	0.0089
Venus	-14930-07-05 04:48 J	-3731574.50	-3731574.30	-3731574.09	0.0147	0.0045
Venus	-14929-02-16 16:33 J	-3731348.02	-3731347.81	-3731347.59	0.0147	0.0003
Venus	-14929-09-30 04:19 J	-3731121.52	-3731121.32	-3731121.11	0.0147	0.0043
Venus	-14928-05-14 16:04 J	-3730894.99	-3730894.83	-3730894.64	0.0147	0.0087
Venus	-14928-12-27 04:19 J	-3730668.41	-3730668.32	-3730668.22	0.0147	0.0130
Earth	-14920-11-29 05:02 J	-3727774.50	-3727774.29	-3727774.06	0.0145	0.0078
Moon	-14920-11-29 08:09 J	-3727774.35	-3727774.16	-3727773.93	0.0145	0.0085 *
Moon	-14919-12-04 06:14 J	-3727404.50	-3727404.24	-3727403.99	0.0145	0.0004
Earth	-14919-12-04 09:50 J	-3727404.35	-3727404.09	-3727403.83	0.0145	0.0004 *
Earth	-14918-12-09 13:55 J	-3727034.14	-3727033.92	-3727033.69	0.0145	0.0069
Moon	-14918-12-09 17:16 J	-3727034.00	-3727033.78	-3727033.54	0.0145	0.0063 *
Moon	-14917-12-13 13:40 J	-3726663.96	-3726663.93	-3726663.87	0.0144	0.0141
Earth	-14917-12-13 17:16 J	-3726663.82	-3726663.78	-3726663.70	0.0144	0.0140
Mercury	-14907-03-19 01:11 J	-3723281.54	-3723281.45	-3723281.34	0.0139	0.0118

Mercury	-14907-06-15 09:07 J	-3723193.25	-3723193.12	-3723192.95	0.0139	0.0088
Mercury	-14907-09-11 17:16 J	-3723104.95	-3723104.78	-3723104.59	0.0139	0.0058
Mercury	-14907-12-09 01:26 J	-3723016.63	-3723016.44	-3723016.25	0.0139	0.0028
Mercury	-14906-03-07 09:21 J	-3722928.30	-3722928.11	-3722927.91	0.0139	0.0003
Mercury	-14906-06-03 17:16 J	-3722839.97	-3722839.78	-3722839.59	0.0138	0.0032
Mercury	-14906-08-31 00:57 J	-3722751.62	-3722751.46	-3722751.28	0.0138	0.0061
Mercury	-14906-11-27 08:38 J	-3722663.27	-3722663.14	-3722662.98	0.0138	0.0091
Mercury	-14905-02-23 16:19 J	-3722574.90	-3722574.82	-3722574.71	0.0138	0.0120
Mars	-14900-12-28 20:09 J	-3720439.95	-3720439.66	-3720439.38	0.0135	0.0009
Venus	-14890-03-07 10:48 J	-3717084.10	-3717084.05	-3717083.99	0.0132	0.0128
Venus	-14890-10-19 16:19 J	-3716857.95	-3716857.82	-3716857.65	0.0132	0.0096
Venus	-14889-06-01 22:19 J	-3716631.76	-3716631.57	-3716631.37	0.0132	0.0062
Venus	-14888-01-14 04:19 J	-3716405.54	-3716405.32	-3716405.11	0.0132	0.0030
Venus	-14888-08-28 09:50 J	-3716179.31	-3716179.09	-3716178.87	0.0132	0.0003
Venus	-14887-04-11 15:21 J	-3715953.07	-3715952.86	-3715952.64	0.0132	0.0036
Venus	-14887-11-23 20:52 J	-3715726.82	-3715726.63	-3715726.44	0.0132	0.0068
Venus	-14886-07-08 01:55 J	-3715500.54	-3715500.42	-3715500.26	0.0132	0.0101
Moon	-14877-05-29 00:57 J	-3712252.46	-3712252.46	-3712252.44	0.0133	0.0133
Earth	-14877-05-29 04:04 J	-3712252.36	-3712252.33	-3712252.25	0.0133	0.0130
Earth	-14876-06-02 08:24 J	-3711883.34	-3711883.15	-3711882.93	0.0133	0.0076
Moon	-14876-06-02 12:00 J	-3711883.20	-3711883.00	-3711882.78	0.0133	0.0071 *
Moon	-14875-06-06 10:04 J	-3711514.33	-3711514.08	-3711513.83	0.0134	0.0028
Earth	-14875-06-06 13:11 J	-3711514.19	-3711513.95	-3711513.70	0.0134	0.0021 *
Earth	-14874-06-10 17:45 J	-3711145.00	-3711144.76	-3711144.51	0.0134	0.0034
Moon	-14874-06-10 21:21 J	-3711144.85	-3711144.61	-3711144.38	0.0134	0.0041 *
Moon	-14873-06-13 19:40 J	-3710775.87	-3710775.68	-3710775.48	0.0134	0.0084
Earth	-14873-06-13 23:02 J	-3710775.72	-3710775.54	-3710775.35	0.0134	0.0090 *
Mercury	-14863-05-26 05:45 J	-3707142.29	-3707142.26	-3707142.22	0.0139	0.0133
Mercury	-14863-08-22 09:07 J	-3707054.20	-3707054.12	-3707054.05	0.0139	0.0114
Mercury	-14863-11-18 12:14 J	-3706966.09	-3706965.99	-3706965.89	0.0139	0.0094

Mercury	-14862-02-14 15:21 J	-3706877.97	-3706877.86	-3706877.74	0.0140	0.0074
Mercury	-14862-05-13 18:43 J	-3706789.84	-3706789.72	-3706789.60	0.0140	0.0054
Mercury	-14862-08-09 21:50 J	-3706701.71	-3706701.59	-3706701.46	0.0140	0.0034
Mercury	-14862-11-06 01:11 J	-3706613.58	-3706613.45	-3706613.32	0.0140	0.0013
Mercury	-14861-02-02 04:33 J	-3706525.44	-3706525.31	-3706525.18	0.0140	0.0007
Mercury	-14861-04-30 07:40 J	-3706437.30	-3706437.18	-3706437.05	0.0140	0.0028
Mercury	-14861-07-27 11:02 J	-3706349.16	-3706349.04	-3706348.91	0.0140	0.0048
Mercury	-14861-10-23 14:24 J	-3706261.01	-3706260.90	-3706260.78	0.0140	0.0069
Mercury	-14860-01-19 17:45 J	-3706172.86	-3706172.76	-3706172.66	0.0141	0.0090
Mercury	-14860-04-17 21:07 J	-3706084.70	-3706084.62	-3706084.54	0.0141	0.0111
Mercury	-14860-07-15 00:28 J	-3705996.52	-3705996.48	-3705996.43	0.0141	0.0132
Mars	-14855-03-23 15:35 J	-3704284.18	-3704283.85	-3704283.52	0.0143	0.0005
Venus	-14847-07-20 23:45 J	-3701242.64	-3701242.51	-3701242.35	0.0146	0.0109
Venus	-14846-03-04 11:31 J	-3701016.20	-3701016.02	-3701015.82	0.0147	0.0065
Venus	-14846-10-16 23:16 J	-3700789.74	-3700789.53	-3700789.31	0.0147	0.0022
Venus	-14845-05-30 11:02 J	-3700563.24	-3700563.04	-3700562.82	0.0147	0.0023
Venus	-14844-01-11 22:48 J	-3700336.72	-3700336.55	-3700336.34	0.0147	0.0067
Venus	-14844-08-26 11:16 J	-3700110.17	-3700110.03	-3700109.88	0.0147	0.0110
Earth	-14837-11-24 11:31 J	-3697463.04	-3697463.02	-3697463.00	0.0146	0.0145
Earth	-14836-11-29 16:04 J	-3697093.04	-3697092.83	-3697092.60	0.0145	0.0072
Moon	-14836-11-29 18:57 J	-3697092.93	-3697092.71	-3697092.46	0.0145	0.0066 *
Moon	-14835-12-04 18:00 J	-3696723.00	-3696722.75	-3696722.50	0.0145	0.0006
Earth	-14835-12-04 21:07 J	-3696722.88	-3696722.62	-3696722.36	0.0145	0.0002 *
Earth	-14834-12-10 01:11 J	-3696352.66	-3696352.45	-3696352.22	0.0145	0.0074
Moon	-14834-12-10 05:02 J	-3696352.50	-3696352.29	-3696352.07	0.0145	0.0080 *
Moon	-14833-12-14 01:26 J	-3695982.47	-3695982.44	-3695982.40	0.0144	0.0142
Mercury	-14823-01-10 01:26 J	-3692668.46	-3692668.44	-3692668.40	0.0139	0.0138
Mercury	-14823-04-08 09:35 J	-3692580.22	-3692580.10	-3692579.97	0.0139	0.0107
Mercury	-14823-07-05 17:31 J	-3692491.92	-3692491.77	-3692491.60	0.0139	0.0077
Mercury	-14823-10-02 01:40 J	-3692403.61	-3692403.43	-3692403.24	0.0139	0.0047

Mercury	-14823-12-29 09:50 J	-3692315.29	-3692315.09	-3692314.90	0.0139	0.0017
Mercury	-14822-03-27 17:45 J	-3692226.96	-3692226.76	-3692226.57	0.0139	0.0013
Mercury	-14822-06-24 01:26 J	-3692138.62	-3692138.44	-3692138.25	0.0139	0.0042
Mercury	-14822-09-20 09:21 J	-3692050.27	-3692050.11	-3692049.94	0.0138	0.0071
Mercury	-14822-12-17 17:02 J	-3691961.91	-3691961.79	-3691961.65	0.0138	0.0101
Mercury	-14821-03-15 00:43 J	-3691873.52	-3691873.47	-3691873.39	0.0138	0.0130
Mars	-14817-09-22 16:19 J	-3690221.00	-3690220.82	-3690220.62	0.0136	0.0101
Mars	-14815-08-23 10:04 J	-3689521.30	-3689521.08	-3689520.82	0.0135	0.0074
Venus	-14806-06-19 04:19 J	-3686299.43	-3686299.32	-3686299.18	0.0132	0.0108
Venus	-14805-01-31 10:19 J	-3686073.24	-3686073.07	-3686072.88	0.0132	0.0075
Venus	-14805-09-13 16:04 J	-3685847.04	-3685846.83	-3685846.62	0.0132	0.0042
Venus	-14804-04-27 21:35 J	-3685620.81	-3685620.60	-3685620.37	0.0132	0.0010
Venus	-14804-12-10 03:21 J	-3685394.58	-3685394.36	-3685394.14	0.0132	0.0023
Venus	-14803-07-24 08:38 J	-3685168.33	-3685168.14	-3685167.93	0.0132	0.0056
Venus	-14802-03-07 14:24 J	-3684942.06	-3684941.90	-3684941.74	0.0132	0.0088
Venus	-14802-10-19 19:26 J	-3684715.76	-3684715.69	-3684715.59	0.0132	0.0121
Moon	-14793-05-29 13:26 J	-3681571.01	-3681570.94	-3681570.82	0.0133	0.0123
Earth	-14793-05-29 17:16 J	-3681570.86	-3681570.78	-3681570.69	0.0133	0.0124 *
Earth	-14792-06-02 21:07 J	-3681201.82	-3681201.62	-3681201.40	0.0133	0.0071
Moon	-14792-06-03 00:28 J	-3681201.67	-3681201.48	-3681201.27	0.0133	0.0077 *
Moon	-14791-06-06 21:50 J	-3680832.84	-3680832.59	-3680832.33	0.0133	0.0010
Earth	-14791-06-07 01:26 J	-3680832.68	-3680832.44	-3680832.18	0.0133	0.0017 *
Earth	-14790-06-11 06:00 J	-3680463.48	-3680463.25	-3680463.00	0.0134	0.0039
Moon	-14790-06-11 09:21 J	-3680463.35	-3680463.11	-3680462.87	0.0134	0.0032 *
Moon	-14789-06-14 06:57 J	-3680094.35	-3680094.21	-3680094.02	0.0134	0.0101
Earth	-14789-06-14 10:48 J	-3680094.21	-3680094.05	-3680093.86	0.0134	0.0094 *
Mercury	-14779-06-15 12:57 J	-3676441.00	-3676440.96	-3676440.91	0.0139	0.0129
Mercury	-14779-09-11 16:04 J	-3676352.90	-3676352.83	-3676352.75	0.0139	0.0110
Mercury	-14779-12-08 19:11 J	-3676264.79	-3676264.70	-3676264.59	0.0139	0.0090
Mercury	-14778-03-06 22:33 J	-3676176.67	-3676176.56	-3676176.45	0.0139	0.0070

Mercury	-14778-06-03 01:55 J	-3676088.55	-3676088.42	-3676088.30	0.0140	0.0050
Mercury	-14778-08-30 05:02 J	-3676000.42	-3676000.29	-3676000.16	0.0140	0.0030
Mercury	-14778-11-26 08:24 J	-3675912.28	-3675912.15	-3675912.02	0.0140	0.0010
Mercury	-14777-02-22 11:31 J	-3675824.15	-3675824.02	-3675823.89	0.0140	0.0011
Mercury	-14777-05-20 14:52 J	-3675736.01	-3675735.88	-3675735.75	0.0140	0.0031
Mercury	-14777-08-16 18:14 J	-3675647.86	-3675647.74	-3675647.62	0.0140	0.0052
Mercury	-14777-11-12 21:35 J	-3675559.71	-3675559.60	-3675559.49	0.0140	0.0073
Mercury	-14776-02-09 00:43 J	-3675471.56	-3675471.47	-3675471.37	0.0140	0.0094
Mercury	-14776-05-08 04:04 J	-3675383.40	-3675383.33	-3675383.25	0.0141	0.0115
Mercury	-14776-08-04 07:26 J	-3675295.21	-3675295.19	-3675295.15	0.0141	0.0136
Mars	-14771-11-17 17:16 J	-3673364.03	-3673363.78	-3673363.48	0.0144	0.0079
Venus	-14763-03-20 04:33 J	-3670684.39	-3670684.31	-3670684.20	0.0146	0.0131
Venus	-14763-11-01 16:19 J	-3670457.98	-3670457.82	-3670457.64	0.0146	0.0088
Venus	-14762-06-16 04:04 J	-3670231.53	-3670231.33	-3670231.12	0.0147	0.0044
Venus	-14761-01-28 16:04 J	-3670005.05	-3670004.83	-3670004.62	0.0147	0.0002
Venus	-14761-09-11 03:50 J	-3669778.54	-3669778.34	-3669778.13	0.0147	0.0044
Venus	-14760-04-25 15:50 J	-3669552.00	-3669551.84	-3669551.66	0.0147	0.0088
Venus	-14760-12-08 03:50 J	-3669325.42	-3669325.34	-3669325.23	0.0147	0.0132
Moon	-14753-11-24 17:02 J	-3666781.83	-3666781.79	-3666781.71	0.0146	0.0141
Earth	-14753-11-24 18:43 J	-3666781.76	-3666781.72	-3666781.65	0.0146	0.0142 *
Earth	-14752-11-30 00:00 J	-3666411.72	-3666411.50	-3666411.27	0.0146	0.0069
Moon	-14752-11-30 02:24 J	-3666411.62	-3666411.40	-3666411.16	0.0146	0.0075 *
Moon	-14751-12-05 01:55 J	-3666041.67	-3666041.42	-3666041.17	0.0145	0.0012
Earth	-14751-12-05 05:02 J	-3666041.55	-3666041.29	-3666041.03	0.0145	0.0004 *
Earth	-14750-12-10 09:21 J	-3665671.32	-3665671.11	-3665670.89	0.0145	0.0077
Moon	-14750-12-10 12:28 J	-3665671.20	-3665670.98	-3665670.74	0.0145	0.0071 *
Mercury	-14739-01-30 08:38 J	-3661967.19	-3661967.14	-3661967.05	0.0139	0.0131
Mercury	-14739-04-28 17:02 J	-3661878.92	-3661878.79	-3661878.65	0.0139	0.0100
Mercury	-14739-07-26 01:11 J	-3661790.62	-3661790.45	-3661790.28	0.0139	0.0069
Mercury	-14739-10-22 09:07 J	-3661702.30	-3661702.12	-3661701.93	0.0139	0.0039

Mercury	-14738-01-18 17:16 J	-3661613.98	-3661613.78	-3661613.59	0.0139	0.0009
Mercury	-14738-04-17 01:11 J	-3661525.64	-3661525.45	-3661525.26	0.0139	0.0021
Mercury	-14738-07-14 09:07 J	-3661437.30	-3661437.12	-3661436.94	0.0139	0.0050
Mercury	-14738-10-10 16:48 J	-3661348.95	-3661348.80	-3661348.64	0.0139	0.0079
Mercury	-14737-01-07 00:28 J	-3661260.59	-3661260.48	-3661260.35	0.0138	0.0109
Mercury	-14737-04-04 08:09 J	-3661172.16	-3661172.16	-3661172.13	0.0138	0.0138
Mars	-14732-05-18 04:33 J	-3659302.58	-3659302.31	-3659302.02	0.0136	0.0038
Venus	-14722-02-16 16:04 J	-3655740.91	-3655740.83	-3655740.74	0.0132	0.0122
Venus	-14722-09-30 21:35 J	-3655514.74	-3655514.60	-3655514.42	0.0132	0.0090
Venus	-14721-05-14 03:35 J	-3655288.54	-3655288.35	-3655288.14	0.0132	0.0056
Venus	-14721-12-26 09:21 J	-3655062.32	-3655062.11	-3655061.88	0.0132	0.0024
Venus	-14720-08-09 15:21 J	-3654836.08	-3654835.86	-3654835.64	0.0132	0.0010
Venus	-14719-03-23 20:52 J	-3654609.84	-3654609.63	-3654609.42	0.0132	0.0043
Venus	-14719-11-05 02:09 J	-3654383.58	-3654383.41	-3654383.22	0.0132	0.0076
Venus	-14718-06-19 07:40 J	-3654157.29	-3654157.18	-3654157.05	0.0132	0.0108
Moon	-14709-05-30 03:35 J	-3650889.45	-3650889.35	-3650889.24	0.0133	0.0120
Earth	-14709-05-30 07:11 J	-3650889.31	-3650889.20	-3650889.07	0.0133	0.0117 *
Earth	-14708-06-03 11:02 J	-3650520.25	-3650520.04	-3650519.80	0.0133	0.0064
Moon	-14708-06-03 14:52 J	-3650520.10	-3650519.88	-3650519.65	0.0133	0.0059 *
Moon	-14707-06-07 12:14 J	-3650151.23	-3650150.99	-3650150.73	0.0133	0.0016
Earth	-14707-06-07 15:50 J	-3650151.09	-3650150.84	-3650150.59	0.0133	0.0009 *
Earth	-14706-06-11 19:55 J	-3649781.89	-3649781.67	-3649781.42	0.0134	0.0046
Moon	-14706-06-11 23:45 J	-3649781.73	-3649781.51	-3649781.27	0.0134	0.0053 *
Moon	-14705-06-14 21:35 J	-3649412.76	-3649412.60	-3649412.40	0.0134	0.0094
Earth	-14705-06-15 01:11 J	-3649412.60	-3649412.45	-3649412.28	0.0134	0.0100 *
Mercury	-14695-07-05 20:38 J	-3645739.70	-3645739.64	-3645739.58	0.0139	0.0122
Mercury	-14695-10-01 23:45 J	-3645651.59	-3645651.51	-3645651.42	0.0139	0.0103
Mercury	-14695-12-29 03:07 J	-3645563.47	-3645563.37	-3645563.27	0.0139	0.0083
Mercury	-14694-03-27 06:14 J	-3645475.35	-3645475.24	-3645475.12	0.0139	0.0063
Mercury	-14694-06-23 09:35 J	-3645387.23	-3645387.10	-3645386.98	0.0139	0.0043

Mercury	-14694-09-19 12:43 J	-3645299.10	-3645298.97	-3645298.84	0.0140	0.0023
Mercury	-14694-12-16 16:04 J	-3645210.96	-3645210.83	-3645210.70	0.0140	0.0002
Mercury	-14693-03-13 19:11 J	-3645122.82	-3645122.70	-3645122.56	0.0140	0.0019
Mercury	-14693-06-09 22:33 J	-3645034.68	-3645034.56	-3645034.43	0.0140	0.0039
Mercury	-14693-09-06 01:55 J	-3644946.54	-3644946.42	-3644946.30	0.0140	0.0059
Mercury	-14693-12-03 05:02 J	-3644858.39	-3644858.29	-3644858.17	0.0140	0.0081
Mercury	-14692-03-01 08:24 J	-3644770.23	-3644770.15	-3644770.05	0.0140	0.0101
Mercury	-14692-05-28 12:00 J	-3644682.06	-3644682.00	-3644681.94	0.0141	0.0122
Mars	-14688-08-07 21:50 J	-3643149.86	-3643149.59	-3643149.30	0.0143	0.0078
Venus	-14679-07-01 23:45 J	-3639899.65	-3639899.51	-3639899.36	0.0146	0.0108
Venus	-14678-02-13 11:16 J	-3639673.21	-3639673.03	-3639672.83	0.0146	0.0065
Venus	-14678-09-27 23:16 J	-3639446.74	-3639446.53	-3639446.32	0.0147	0.0020
Venus	-14677-05-11 11:02 J	-3639220.25	-3639220.04	-3639219.83	0.0147	0.0024
Venus	-14677-12-23 22:48 J	-3638993.73	-3638993.55	-3638993.35	0.0147	0.0068
Venus	-14676-08-07 11:02 J	-3638767.17	-3638767.04	-3638766.89	0.0147	0.0112
Moon	-14669-11-25 04:04 J	-3636100.40	-3636100.33	-3636100.24	0.0146	0.0138
Earth	-14669-11-25 05:16 J	-3636100.35	-3636100.28	-3636100.18	0.0146	0.0136 *
Earth	-14668-11-30 10:19 J	-3635730.29	-3635730.07	-3635729.83	0.0146	0.0064
Moon	-14668-11-30 12:28 J	-3635730.21	-3635729.98	-3635729.73	0.0146	0.0057 *
Moon	-14667-12-05 13:11 J	-3635360.20	-3635359.95	-3635359.70	0.0145	0.0003
Earth	-14667-12-05 15:35 J	-3635360.11	-3635359.85	-3635359.59	0.0145	0.0010 *
Earth	-14666-12-10 19:55 J	-3634989.87	-3634989.67	-3634989.45	0.0145	0.0082
Moon	-14666-12-10 23:31 J	-3634989.73	-3634989.52	-3634989.31	0.0145	0.0088 *
Mercury	-14655-02-19 16:33 J	-3631265.90	-3631265.81	-3631265.71	0.0139	0.0122
Mercury	-14655-05-19 00:28 J	-3631177.61	-3631177.48	-3631177.32	0.0139	0.0092
Mercury	-14655-08-15 08:38 J	-3631089.31	-3631089.14	-3631088.96	0.0139	0.0061
Mercury	-14655-11-11 16:48 J	-3631000.99	-3631000.80	-3631000.61	0.0139	0.0031
Mercury	-14654-02-08 00:43 J	-3630912.66	-3630912.47	-3630912.27	0.0139	0.0003
Mercury	-14654-05-07 08:38 J	-3630824.33	-3630824.14	-3630823.95	0.0139	0.0029
Mercury	-14654-08-03 16:19 J	-3630735.98	-3630735.82	-3630735.63	0.0139	0.0059

Mercury	-14654-10-31 00:28 J	-3630647.63	-3630647.48	-3630647.33	0.0139	0.0088
Mercury	-14653-01-27 08:09 J	-3630559.26	-3630559.16	-3630559.05	0.0138	0.0117
Mars	-14647-01-10 18:28 J	-3628384.01	-3628383.73	-3628383.44	0.0135	0.0027
Venus	-14638-05-31 09:07 J	-3624956.24	-3624956.12	-3624955.96	0.0132	0.0103
Venus	-14637-01-12 15:21 J	-3624730.04	-3624729.86	-3624729.66	0.0132	0.0069
Venus	-14637-08-25 21:07 J	-3624503.82	-3624503.62	-3624503.40	0.0132	0.0037
Venus	-14636-04-09 03:07 J	-3624277.59	-3624277.37	-3624277.15	0.0132	0.0003
Venus	-14636-11-21 08:38 J	-3624051.35	-3624051.14	-3624050.92	0.0132	0.0030
Venus	-14635-07-05 14:09 J	-3623825.09	-3623824.91	-3623824.71	0.0132	0.0063
Venus	-14634-02-16 19:40 J	-3623598.81	-3623598.68	-3623598.51	0.0132	0.0096
Venus	-14634-10-01 01:26 J	-3623372.48	-3623372.44	-3623372.38	0.0132	0.0128
Moon	-14625-05-30 17:45 J	-3620207.87	-3620207.76	-3620207.59	0.0133	0.0110
Earth	-14625-05-30 21:21 J	-3620207.73	-3620207.61	-3620207.45	0.0133	0.0111 *
Earth	-14624-06-04 01:40 J	-3619838.65	-3619838.43	-3619838.19	0.0133	0.0057
Moon	-14624-06-04 05:02 J	-3619838.49	-3619838.29	-3619838.05	0.0133	0.0063 *
Moon	-14623-06-08 02:38 J	-3619469.64	-3619469.39	-3619469.14	0.0133	0.0003
Earth	-14623-06-08 06:14 J	-3619469.49	-3619469.24	-3619468.99	0.0133	0.0003 *
Earth	-14622-06-12 10:48 J	-3619100.28	-3619100.05	-3619099.81	0.0134	0.0052
Moon	-14622-06-12 14:09 J	-3619100.14	-3619099.91	-3619099.67	0.0134	0.0045 *
Moon	-14621-06-15 12:00 J	-3618731.12	-3618731.00	-3618730.85	0.0134	0.0113
Earth	-14621-06-15 15:50 J	-3618730.98	-3618730.84	-3618730.68	0.0134	0.0106 *
Mercury	-14611-04-29 01:11 J	-3615126.47	-3615126.45	-3615126.41	0.0139	0.0134
Mercury	-14611-07-26 04:33 J	-3615038.38	-3615038.31	-3615038.24	0.0139	0.0114
Mercury	-14611-10-22 07:26 J	-3614950.27	-3614950.19	-3614950.08	0.0139	0.0095
Mercury	-14610-01-18 10:48 J	-3614862.15	-3614862.05	-3614861.93	0.0139	0.0075
Mercury	-14610-04-16 14:09 J	-3614774.03	-3614773.91	-3614773.79	0.0139	0.0055
Mercury	-14610-07-13 17:16 J	-3614685.90	-3614685.78	-3614685.65	0.0139	0.0035
Mercury	-14610-10-09 20:38 J	-3614597.77	-3614597.64	-3614597.51	0.0140	0.0015
Mercury	-14609-01-06 00:00 J	-3614509.63	-3614509.50	-3614509.37	0.0140	0.0006
Mercury	-14609-04-03 03:07 J	-3614421.49	-3614421.37	-3614421.24	0.0140	0.0026

Mercury	-14609-06-30 06:28 J	-3614333.35	-3614333.23	-3614333.11	0.0140	0.0047
Mercury	-14609-09-26 09:50 J	-3614245.21	-3614245.09	-3614244.98	0.0140	0.0067
Mercury	-14609-12-23 12:57 J	-3614157.05	-3614156.96	-3614156.85	0.0140	0.0088
Mercury	-14608-03-21 16:19 J	-3614068.89	-3614068.82	-3614068.73	0.0140	0.0109
Mercury	-14608-06-17 19:55 J	-3613980.72	-3613980.67	-3613980.62	0.0141	0.0130
Mars	-14603-04-04 12:43 J	-3612229.30	-3612228.97	-3612228.63	0.0143	0.0012
Venus	-14595-03-01 08:09 J	-3609341.25	-3609341.16	-3609341.04	0.0146	0.0127
Venus	-14595-10-13 19:40 J	-3609114.84	-3609114.68	-3609114.49	0.0146	0.0083
Venus	-14594-05-28 07:26 J	-3608888.39	-3608888.19	-3608887.98	0.0146	0.0040
Venus	-14593-01-09 19:26 J	-3608661.91	-3608661.69	-3608661.48	0.0147	0.0005
Venus	-14593-08-23 07:26 J	-3608435.39	-3608435.19	-3608434.99	0.0147	0.0049
Venus	-14592-04-06 19:11 J	-3608208.86	-3608208.70	-3608208.52	0.0147	0.0093
Venus	-14592-11-19 07:11 J	-3607982.26	-3607982.20	-3607982.11	0.0147	0.0137
Moon	-14585-11-25 16:33 J	-3605418.90	-3605418.81	-3605418.67	0.0146	0.0130
Earth	-14585-11-25 17:16 J	-3605418.88	-3605418.78	-3605418.65	0.0146	0.0130 *
Earth	-14584-11-30 22:48 J	-3605048.79	-3605048.55	-3605048.31	0.0146	0.0057
Moon	-14584-12-01 00:14 J	-3605048.73	-3605048.49	-3605048.25	0.0146	0.0062 *
Moon	-14583-12-06 01:26 J	-3604678.68	-3604678.44	-3604678.19	0.0145	0.0024
Earth	-14583-12-06 03:50 J	-3604678.59	-3604678.34	-3604678.08	0.0145	0.0016 *
Earth	-14582-12-11 08:09 J	-3604308.35	-3604308.16	-3604307.95	0.0145	0.0088
Moon	-14582-12-11 11:02 J	-3604308.26	-3604308.04	-3604307.82	0.0145	0.0081 *
Mercury	-14571-03-12 00:28 J	-3600564.58	-3600564.48	-3600564.34	0.0139	0.0112
Mercury	-14571-06-08 08:52 J	-3600476.28	-3600476.13	-3600475.97	0.0139	0.0081
Mercury	-14571-09-04 17:02 J	-3600387.97	-3600387.79	-3600387.61	0.0139	0.0050
Mercury	-14571-12-02 01:11 J	-3600299.65	-3600299.45	-3600299.26	0.0139	0.0020
Mercury	-14570-02-28 09:07 J	-3600211.32	-3600211.12	-3600210.93	0.0139	0.0010
Mercury	-14570-05-27 16:48 J	-3600122.98	-3600122.80	-3600122.60	0.0139	0.0040
Mercury	-14570-08-24 00:57 J	-3600034.63	-3600034.46	-3600034.29	0.0139	0.0069
Mercury	-14570-11-20 08:24 J	-3599946.27	-3599946.15	-3599946.00	0.0139	0.0099
Mercury	-14569-02-16 16:19 J	-3599857.88	-3599857.82	-3599857.74	0.0138	0.0128

Mars	-14565-10-05 14:09 J	-3598165.12	-3598164.91	-3598164.67	0.0136	0.0083
Mars	-14563-09-05 09:35 J	-3597465.30	-3597465.10	-3597464.88	0.0135	0.0092
Venus	-14554-01-28 22:04 J	-3594397.69	-3594397.58	-3594397.47	0.0133	0.0115
Venus	-14554-09-12 03:50 J	-3594171.50	-3594171.34	-3594171.16	0.0132	0.0082
Venus	-14553-04-25 09:50 J	-3593945.29	-3593945.09	-3593944.88	0.0132	0.0048
Venus	-14553-12-07 15:35 J	-3593719.07	-3593718.85	-3593718.63	0.0132	0.0015
Venus	-14552-07-21 21:21 J	-3593492.82	-3593492.61	-3593492.39	0.0132	0.0018
Venus	-14551-03-05 03:07 J	-3593266.57	-3593266.37	-3593266.16	0.0132	0.0051
Venus	-14551-10-17 08:38 J	-3593040.30	-3593040.14	-3593039.96	0.0132	0.0084
Venus	-14550-05-31 14:24 J	-3592814.00	-3592813.90	-3592813.80	0.0132	0.0116
Moon	-14541-05-31 09:21 J	-3589526.25	-3589526.11	-3589525.95	0.0133	0.0106
Earth	-14541-05-31 12:57 J	-3589526.10	-3589525.96	-3589525.79	0.0133	0.0103 *
Earth	-14540-06-04 17:31 J	-3589157.01	-3589156.77	-3589156.54	0.0133	0.0050
Moon	-14540-06-04 20:38 J	-3589156.87	-3589156.64	-3589156.39	0.0133	0.0046 *
Moon	-14539-06-08 18:28 J	-3588787.98	-3588787.73	-3588787.48	0.0133	0.0003
Earth	-14539-06-08 22:04 J	-3588787.83	-3588787.58	-3588787.33	0.0133	0.0005 *
Earth	-14538-06-13 02:24 J	-3588418.61	-3588418.40	-3588418.16	0.0134	0.0059
Moon	-14538-06-13 06:28 J	-3588418.45	-3588418.23	-3588418.02	0.0134	0.0066 *
Moon	-14537-06-16 04:19 J	-3588049.45	-3588049.32	-3588049.16	0.0134	0.0107
Earth	-14537-06-16 07:55 J	-3588049.30	-3588049.17	-3588049.03	0.0134	0.0113 *
Mercury	-14527-05-19 09:21 J	-3584425.16	-3584425.11	-3584425.05	0.0139	0.0125
Mercury	-14527-08-15 12:28 J	-3584337.05	-3584336.98	-3584336.89	0.0139	0.0105
Mercury	-14527-11-11 15:50 J	-3584248.94	-3584248.84	-3584248.73	0.0139	0.0085
Mercury	-14526-02-07 18:57 J	-3584160.82	-3584160.71	-3584160.59	0.0139	0.0066
Mercury	-14526-05-06 22:19 J	-3584072.69	-3584072.57	-3584072.44	0.0139	0.0045
Mercury	-14526-08-03 01:40 J	-3583984.56	-3583984.43	-3583984.30	0.0140	0.0025
Mercury	-14526-10-30 04:48 J	-3583896.43	-3583896.30	-3583896.16	0.0140	0.0007
Mercury	-14525-01-26 08:09 J	-3583808.29	-3583808.16	-3583808.03	0.0140	0.0016
Mercury	-14525-04-23 11:31 J	-3583720.15	-3583720.02	-3583719.89	0.0140	0.0036
Mercury	-14525-07-20 14:38 J	-3583632.00	-3583631.89	-3583631.76	0.0140	0.0057

Mercury	-14525-10-16 18:00 J	-3583543.85	-3583543.75	-3583543.64	0.0140	0.0078
Mercury	-14524-01-12 21:21 J	-3583455.70	-3583455.61	-3583455.51	0.0140	0.0098
Mercury	-14524-04-11 00:28 J	-3583367.53	-3583367.48	-3583367.40	0.0140	0.0120
Mercury	-14524-07-08 04:04 J	-3583279.33	-3583279.33	-3583279.32	0.0141	0.0140
Mars	-14521-12-24 02:24 J	-3582014.45	-3582014.40	-3582014.28	0.0143	0.0138
Mars	-14519-11-30 10:19 J	-3581308.27	-3581308.07	-3581307.83	0.0144	0.0107
Venus	-14512-10-29 19:26 J	-3578782.73	-3578782.69	-3578782.64	0.0146	0.0142
Venus	-14511-06-13 06:57 J	-3578556.36	-3578556.21	-3578556.05	0.0146	0.0099
Venus	-14510-01-25 18:43 J	-3578329.91	-3578329.72	-3578329.52	0.0146	0.0056
Venus	-14510-09-09 06:43 J	-3578103.44	-3578103.22	-3578103.01	0.0146	0.0012
Venus	-14509-04-22 18:28 J	-3577876.94	-3577876.73	-3577876.52	0.0147	0.0033
Venus	-14509-12-05 06:28 J	-3577650.41	-3577650.23	-3577650.05	0.0147	0.0077
Venus	-14508-07-19 18:28 J	-3577423.85	-3577423.73	-3577423.61	0.0147	0.0121
Moon	-14501-11-26 10:33 J	-3574737.20	-3574737.06	-3574736.93	0.0146	0.0121
Earth	-14501-11-26 10:33 J	-3574737.19	-3574737.06	-3574736.90	0.0146	0.0120 *
Earth	-14500-12-01 15:50 J	-3574367.08	-3574366.84	-3574366.59	0.0146	0.0048
Moon	-14500-12-01 17:02 J	-3574367.04	-3574366.79	-3574366.53	0.0146	0.0042 *
Moon	-14499-12-06 19:11 J	-3573996.94	-3573996.70	-3573996.45	0.0145	0.0018
Earth	-14499-12-06 20:52 J	-3573996.88	-3573996.63	-3573996.37	0.0145	0.0025 *
Earth	-14498-12-12 00:57 J	-3573626.63	-3573626.46	-3573626.25	0.0145	0.0097
Moon	-14498-12-12 04:04 J	-3573626.50	-3573626.33	-3573626.13	0.0145	0.0103 *
Mercury	-14487-01-03 01:40 J	-3569951.49	-3569951.43	-3569951.34	0.0140	0.0128
Mercury	-14487-04-01 09:50 J	-3569863.22	-3569863.09	-3569862.94	0.0139	0.0097
Mercury	-14487-06-28 18:14 J	-3569774.91	-3569774.74	-3569774.57	0.0139	0.0067
Mercury	-14487-09-25 02:09 J	-3569686.60	-3569686.41	-3569686.22	0.0139	0.0037
Mercury	-14487-12-22 10:19 J	-3569598.27	-3569598.07	-3569597.88	0.0139	0.0007
Mercury	-14486-03-20 18:00 J	-3569509.93	-3569509.75	-3569509.55	0.0139	0.0024
Mercury	-14486-06-17 02:09 J	-3569421.59	-3569421.41	-3569421.23	0.0139	0.0053
Mercury	-14486-09-13 09:50 J	-3569333.24	-3569333.09	-3569332.93	0.0139	0.0083
Mercury	-14486-12-10 17:45 J	-3569244.87	-3569244.76	-3569244.64	0.0138	0.0112

Mars	-14480-05-31 09:07 J	-3567246.41	-3567246.12	-3567245.83	0.0136	0.0016
Venus	-14471-09-28 10:19 J	-3563839.11	-3563839.07	-3563838.99	0.0133	0.0128
Venus	-14470-05-12 16:48 J	-3563612.95	-3563612.80	-3563612.64	0.0132	0.0094
Venus	-14470-12-24 22:48 J	-3563386.74	-3563386.55	-3563386.35	0.0132	0.0060
Venus	-14469-08-07 04:33 J	-3563160.52	-3563160.31	-3563160.08	0.0132	0.0028
Venus	-14468-03-21 10:33 J	-3562934.28	-3562934.06	-3562933.84	0.0132	0.0006
Venus	-14468-11-02 16:19 J	-3562708.03	-3562707.82	-3562707.61	0.0132	0.0039
Venus	-14467-06-16 21:50 J	-3562481.77	-3562481.59	-3562481.40	0.0132	0.0072
Venus	-14466-01-29 03:21 J	-3562255.48	-3562255.36	-3562255.22	0.0132	0.0105
Moon	-14457-06-01 01:40 J	-3558844.60	-3558844.43	-3558844.25	0.0133	0.0094
Earth	-14457-06-01 04:19 J	-3558844.47	-3558844.32	-3558844.12	0.0133	0.0096 *
Earth	-14456-06-05 08:52 J	-3558475.36	-3558475.13	-3558474.88	0.0133	0.0043
Moon	-14456-06-05 12:14 J	-3558475.21	-3558474.99	-3558474.74	0.0133	0.0049 *
Moon	-14455-06-09 10:19 J	-3558106.32	-3558106.07	-3558105.83	0.0133	0.0018
Earth	-14455-06-09 13:40 J	-3558106.18	-3558105.93	-3558105.68	0.0133	0.0011 *
Earth	-14454-06-13 18:14 J	-3557736.95	-3557736.74	-3557736.51	0.0134	0.0066
Moon	-14454-06-13 21:35 J	-3557736.82	-3557736.60	-3557736.36	0.0134	0.0059 *
Moon	-14453-06-16 19:55 J	-3557367.74	-3557367.67	-3557367.58	0.0134	0.0127
Earth	-14453-06-16 23:16 J	-3557367.62	-3557367.53	-3557367.40	0.0134	0.0120 *
Mercury	-14443-03-12 14:09 J	-3553811.93	-3553811.91	-3553811.88	0.0139	0.0136
Mercury	-14443-06-08 17:31 J	-3553723.84	-3553723.77	-3553723.70	0.0139	0.0116
Mercury	-14443-09-04 20:38 J	-3553635.73	-3553635.64	-3553635.54	0.0139	0.0096
Mercury	-14443-12-02 00:00 J	-3553547.61	-3553547.50	-3553547.40	0.0139	0.0077
Mercury	-14442-02-28 03:07 J	-3553459.49	-3553459.37	-3553459.25	0.0139	0.0057
Mercury	-14442-05-27 06:28 J	-3553371.36	-3553371.23	-3553371.11	0.0139	0.0037
Mercury	-14442-08-23 09:35 J	-3553283.23	-3553283.10	-3553282.97	0.0140	0.0017
Mercury	-14442-11-19 12:57 J	-3553195.09	-3553194.96	-3553194.83	0.0140	0.0004
Mercury	-14441-02-15 16:04 J	-3553106.95	-3553106.83	-3553106.70	0.0140	0.0025
Mercury	-14441-05-13 19:26 J	-3553018.81	-3553018.69	-3553018.56	0.0140	0.0045
Mercury	-14441-08-09 22:48 J	-3552930.66	-3552930.55	-3552930.43	0.0140	0.0065

Mercury	-14441-11-06 01:55 J	-3552842.51	-3552842.42	-3552842.31	0.0140	0.0087
Mercury	-14440-02-02 05:16 J	-3552754.35	-3552754.28	-3552754.19	0.0140	0.0107
Mercury	-14440-05-01 08:52 J	-3552666.18	-3552666.13	-3552666.08	0.0140	0.0128
Mars	-14436-08-20 18:57 J	-3551094.02	-3551093.71	-3551093.39	0.0143	0.0047
Venus	-14427-02-10 16:48 J	-3547997.93	-3547997.80	-3547997.67	0.0146	0.0117
Venus	-14427-09-25 04:04 J	-3547771.50	-3547771.33	-3547771.13	0.0146	0.0074
Venus	-14426-05-09 16:04 J	-3547545.04	-3547544.83	-3547544.62	0.0146	0.0029
Venus	-14426-12-22 03:50 J	-3547318.55	-3547318.34	-3547318.12	0.0147	0.0015
Venus	-14425-08-04 15:50 J	-3547092.03	-3547091.84	-3547091.64	0.0147	0.0060
Venus	-14424-03-19 03:50 J	-3546865.48	-3546865.34	-3546865.18	0.0147	0.0104
Earth	-14417-11-27 02:09 J	-3544055.56	-3544055.41	-3544055.23	0.0146	0.0112
Moon	-14417-11-27 02:24 J	-3544055.54	-3544055.40	-3544055.23	0.0146	0.0112 *
Earth	-14416-12-02 07:40 J	-3543685.42	-3543685.18	-3543684.93	0.0146	0.0039
Moon	-14416-12-02 08:24 J	-3543685.40	-3543685.15	-3543684.89	0.0146	0.0044 *
Moon	-14415-12-07 11:16 J	-3543315.27	-3543315.03	-3543314.79	0.0145	0.0041
Earth	-14415-12-07 12:43 J	-3543315.21	-3543314.97	-3543314.71	0.0145	0.0033 *
Earth	-14414-12-12 17:02 J	-3542944.95	-3542944.79	-3542944.60	0.0145	0.0105
Moon	-14414-12-12 18:57 J	-3542944.89	-3542944.71	-3542944.50	0.0145	0.0098 *
Mercury	-14403-01-23 11:02 J	-3539250.15	-3539250.04	-3539249.92	0.0140	0.0114
Mercury	-14403-04-21 18:57 J	-3539161.85	-3539161.71	-3539161.54	0.0139	0.0084
Mercury	-14403-07-19 03:07 J	-3539073.54	-3539073.37	-3539073.18	0.0139	0.0053
Mercury	-14403-10-15 11:16 J	-3538985.22	-3538985.03	-3538984.83	0.0139	0.0023
Mercury	-14402-01-11 19:26 J	-3538896.88	-3538896.69	-3538896.49	0.0139	0.0007
Mercury	-14402-04-10 03:21 J	-3538808.54	-3538808.36	-3538808.17	0.0139	0.0037
Mercury	-14402-07-07 11:16 J	-3538720.20	-3538720.03	-3538719.86	0.0139	0.0067
Mercury	-14402-10-03 18:57 J	-3538631.84	-3538631.71	-3538631.56	0.0139	0.0097
Mercury	-14402-12-31 02:52 J	-3538543.45	-3538543.38	-3538543.29	0.0138	0.0126
Mars	-14397-02-24 08:24 J	-3537027.24	-3537027.15	-3537027.01	0.0136	0.0125
Mars	-14395-01-24 03:21 J	-3536327.61	-3536327.36	-3536327.08	0.0135	0.0052
Venus	-14386-01-10 05:45 J	-3533054.38	-3533054.26	-3533054.12	0.0132	0.0106

Venus	-14386-08-24 11:45 J	-3532828.19	-3532828.01	-3532827.82	0.0132	0.0073
Venus	-14385-04-06 17:45 J	-3532601.97	-3532601.76	-3532601.55	0.0132	0.0039
Venus	-14385-11-18 23:31 J	-3532375.74	-3532375.52	-3532375.30	0.0132	0.0006
Venus	-14384-07-03 05:02 J	-3532149.49	-3532149.29	-3532149.06	0.0132	0.0028
Venus	-14383-02-14 10:48 J	-3531923.23	-3531923.05	-3531922.84	0.0132	0.0061
Venus	-14383-09-28 16:19 J	-3531696.96	-3531696.82	-3531696.65	0.0132	0.0094
Venus	-14382-05-12 22:04 J	-3531470.64	-3531470.58	-3531470.51	0.0132	0.0126
Moon	-14373-06-01 16:33 J	-3528162.98	-3528162.81	-3528162.62	0.0133	0.0091
Earth	-14373-06-01 20:09 J	-3528162.85	-3528162.66	-3528162.47	0.0133	0.0088 *
Earth	-14372-06-06 00:14 J	-3527793.73	-3527793.49	-3527793.24	0.0133	0.0035
Moon	-14372-06-06 03:21 J	-3527793.60	-3527793.36	-3527793.11	0.0133	0.0031 *
Moon	-14371-06-10 01:40 J	-3527424.67	-3527424.43	-3527424.18	0.0133	0.0012
Earth	-14371-06-10 04:48 J	-3527424.54	-3527424.30	-3527424.05	0.0133	0.0019 *
Earth	-14370-06-14 09:21 J	-3527055.31	-3527055.11	-3527054.89	0.0134	0.0072
Moon	-14370-06-14 12:43 J	-3527055.16	-3527054.97	-3527054.75	0.0134	0.0080 *
Moon	-14369-06-17 11:02 J	-3526686.13	-3526686.04	-3526685.91	0.0134	0.0120
Earth	-14369-06-17 14:09 J	-3526685.97	-3526685.91	-3526685.81	0.0134	0.0127 *
Mercury	-14359-04-01 22:04 J	-3523110.62	-3523110.58	-3523110.53	0.0139	0.0128
Mercury	-14359-06-29 01:26 J	-3523022.52	-3523022.44	-3523022.36	0.0139	0.0108
Mercury	-14359-09-25 04:33 J	-3522934.41	-3522934.31	-3522934.21	0.0139	0.0089
Mercury	-14359-12-22 07:40 J	-3522846.29	-3522846.18	-3522846.06	0.0139	0.0069
Mercury	-14358-03-20 11:02 J	-3522758.16	-3522758.04	-3522757.92	0.0139	0.0049
Mercury	-14358-06-16 14:09 J	-3522670.03	-3522669.91	-3522669.78	0.0139	0.0029
Mercury	-14358-09-12 17:31 J	-3522581.90	-3522581.77	-3522581.64	0.0140	0.0008
Mercury	-14358-12-09 20:52 J	-3522493.76	-3522493.63	-3522493.50	0.0140	0.0012
Mercury	-14357-03-07 00:00 J	-3522405.62	-3522405.50	-3522405.37	0.0140	0.0033
Mercury	-14357-06-03 03:21 J	-3522317.48	-3522317.36	-3522317.24	0.0140	0.0053
Mercury	-14357-08-30 06:43 J	-3522229.33	-3522229.22	-3522229.11	0.0140	0.0073
Mercury	-14357-11-26 09:50 J	-3522141.18	-3522141.09	-3522140.99	0.0140	0.0094
Mercury	-14356-02-22 13:11 J	-3522053.02	-3522052.95	-3522052.87	0.0140	0.0115

Mercury	-14356-05-21 16:48 J	-3521964.83	-3521964.80	-3521964.77	0.0141	0.0136
Mars	-14351-04-17 10:19 J	-3520173.37	-3520173.07	-3520172.74	0.0143	0.0043
Jupiter	-14344-03-13 11:16 J	-3517651.47	-3517651.03	-3517650.55	0.0146	0.0067
Venus	-14344-10-11 02:09 J	-3517439.49	-3517439.41	-3517439.33	0.0146	0.0135
Venus	-14343-05-25 13:26 J	-3517213.09	-3517212.94	-3517212.76	0.0146	0.0092
Venus	-14342-01-07 01:11 J	-3516986.64	-3516986.45	-3516986.24	0.0146	0.0048
Venus	-14342-08-21 13:26 J	-3516760.16	-3516759.94	-3516759.73	0.0147	0.0003
Venus	-14341-04-04 01:11 J	-3516533.65	-3516533.45	-3516533.24	0.0147	0.0042
Venus	-14341-11-16 13:11 J	-3516307.12	-3516306.95	-3516306.78	0.0147	0.0086
Venus	-14340-07-01 00:43 J	-3516080.55	-3516080.47	-3516080.36	0.0147	0.0131
Earth	-14333-11-27 18:00 J	-3513373.93	-3513373.75	-3513373.57	0.0146	0.0103
Moon	-14333-11-27 18:14 J	-3513373.90	-3513373.74	-3513373.55	0.0146	0.0104 *
Earth	-14332-12-02 23:16 J	-3513003.77	-3513003.53	-3513003.27	0.0146	0.0031
Moon	-14332-12-02 23:45 J	-3513003.77	-3513003.51	-3513003.25	0.0146	0.0026 *
Moon	-14331-12-08 03:50 J	-3512633.58	-3512633.34	-3512633.10	0.0145	0.0034
Earth	-14331-12-08 04:19 J	-3512633.55	-3512633.32	-3512633.06	0.0145	0.0042 *
Earth	-14330-12-13 09:07 J	-3512263.27	-3512263.12	-3512262.95	0.0145	0.0112
Moon	-14330-12-13 11:16 J	-3512263.17	-3512263.03	-3512262.86	0.0145	0.0118 *
Mercury	-14320-11-16 12:14 J	-3508637.05	-3508636.99	-3508636.92	0.0140	0.0130
Mercury	-14319-02-12 20:09 J	-3508548.78	-3508548.66	-3508548.51	0.0140	0.0100
Mercury	-14319-05-12 04:19 J	-3508460.48	-3508460.32	-3508460.14	0.0139	0.0070
Mercury	-14319-08-08 12:43 J	-3508372.16	-3508371.97	-3508371.78	0.0139	0.0039
Mercury	-14319-11-04 20:38 J	-3508283.83	-3508283.64	-3508283.44	0.0139	0.0009
Mercury	-14318-02-01 04:33 J	-3508195.49	-3508195.31	-3508195.11	0.0139	0.0022
Mercury	-14318-04-30 12:28 J	-3508107.15	-3508106.98	-3508106.79	0.0139	0.0052
Mercury	-14318-07-27 20:38 J	-3508018.80	-3508018.64	-3508018.48	0.0139	0.0081
Mercury	-14318-10-24 04:04 J	-3507930.43	-3507930.33	-3507930.19	0.0139	0.0111
Mars	-14313-10-19 03:21 J	-3506108.60	-3506108.36	-3506108.08	0.0136	0.0057
Mars	-14311-09-18 20:38 J	-3505408.75	-3505408.64	-3505408.47	0.0135	0.0118
Venus	-14303-09-09 18:28 J	-3502495.81	-3502495.73	-3502495.62	0.0132	0.0119

Venus	-14302-04-24 00:14 J	-3502269.64	-3502269.49	-3502269.30	0.0132	0.0086
Venus	-14302-12-06 06:28 J	-3502043.43	-3502043.23	-3502043.02	0.0132	0.0052
Venus	-14301-07-19 12:28 J	-3501817.20	-3501816.98	-3501816.76	0.0132	0.0018
Venus	-14300-03-02 18:14 J	-3501590.96	-3501590.74	-3501590.52	0.0132	0.0015
Venus	-14300-10-14 23:45 J	-3501364.71	-3501364.51	-3501364.30	0.0132	0.0049
Venus	-14299-05-29 05:02 J	-3501138.45	-3501138.29	-3501138.10	0.0132	0.0082
Venus	-14298-01-10 10:33 J	-3500912.15	-3500912.06	-3500911.93	0.0132	0.0115
Moon	-14289-06-02 07:26 J	-3497481.37	-3497481.19	-3497480.98	0.0133	0.0081
Earth	-14289-06-02 10:04 J	-3497481.26	-3497481.08	-3497480.86	0.0133	0.0082 *
Earth	-14288-06-06 14:24 J	-3497112.13	-3497111.90	-3497111.64	0.0133	0.0029
Moon	-14288-06-06 17:45 J	-3497112.00	-3497111.76	-3497111.51	0.0133	0.0034 *
Moon	-14287-06-10 16:04 J	-3496743.07	-3496742.83	-3496742.59	0.0133	0.0031
Earth	-14287-06-10 18:57 J	-3496742.96	-3496742.71	-3496742.46	0.0133	0.0024 *
Earth	-14286-06-14 23:16 J	-3496373.72	-3496373.53	-3496373.32	0.0134	0.0078
Moon	-14286-06-15 02:24 J	-3496373.61	-3496373.40	-3496373.18	0.0134	0.0071 *
Earth	-14285-06-18 04:04 J	-3496004.37	-3496004.33	-3496004.27	0.0134	0.0131
Mercury	-14275-04-22 05:45 J	-3492409.32	-3492409.26	-3492409.20	0.0139	0.0122
Mercury	-14275-07-19 08:38 J	-3492321.22	-3492321.14	-3492321.04	0.0139	0.0103
Mercury	-14275-10-15 12:00 J	-3492233.10	-3492233.00	-3492232.89	0.0139	0.0083
Mercury	-14274-01-11 15:07 J	-3492144.98	-3492144.87	-3492144.75	0.0139	0.0063
Mercury	-14274-04-09 18:28 J	-3492056.85	-3492056.73	-3492056.60	0.0139	0.0043
Mercury	-14274-07-06 21:35 J	-3491968.72	-3491968.60	-3491968.47	0.0139	0.0024
Mercury	-14274-10-03 00:57 J	-3491880.59	-3491880.46	-3491880.33	0.0139	0.0003
Mercury	-14274-12-30 04:19 J	-3491792.45	-3491792.32	-3491792.19	0.0140	0.0018
Mercury	-14273-03-27 07:26 J	-3491704.31	-3491704.19	-3491704.06	0.0140	0.0038
Mercury	-14273-06-23 10:48 J	-3491616.17	-3491616.05	-3491615.93	0.0140	0.0058
Mercury	-14273-09-19 13:55 J	-3491528.02	-3491527.92	-3491527.80	0.0140	0.0079
Mercury	-14273-12-16 17:16 J	-3491439.87	-3491439.78	-3491439.68	0.0140	0.0100
Mercury	-14272-03-14 20:38 J	-3491351.70	-3491351.64	-3491351.57	0.0140	0.0120
Mars	-14268-01-05 08:24 J	-3489959.32	-3489959.15	-3489958.93	0.0142	0.0116

Mars	-14267-12-12 15:50 J	-3489252.97	-3489252.84	-3489252.67	0.0143	0.0128
Venus	-14259-01-22 19:26 J	-3486654.81	-3486654.69	-3486654.54	0.0146	0.0113
Venus	-14259-09-06 07:26 J	-3486428.38	-3486428.19	-3486428.00	0.0146	0.0069
Venus	-14258-04-20 19:11 J	-3486201.91	-3486201.70	-3486201.49	0.0146	0.0025
Venus	-14258-12-03 06:57 J	-3485975.42	-3485975.21	-3485975.00	0.0147	0.0020
Venus	-14257-07-16 18:43 J	-3485748.90	-3485748.72	-3485748.52	0.0147	0.0065
Venus	-14256-02-28 06:43 J	-3485522.36	-3485522.22	-3485522.07	0.0147	0.0109
Earth	-14249-11-28 02:38 J	-3482692.56	-3482692.39	-3482692.19	0.0146	0.0099
Moon	-14249-11-28 04:04 J	-3482692.50	-3482692.33	-3482692.14	0.0146	0.0099 *
Moon	-14248-12-03 07:55 J	-3482322.43	-3482322.17	-3482321.90	0.0146	0.0031
Earth	-14248-12-03 08:38 J	-3482322.39	-3482322.14	-3482321.89	0.0146	0.0027 *
Moon	-14247-12-08 13:11 J	-3481952.17	-3481951.95	-3481951.71	0.0145	0.0053
Earth	-14247-12-08 13:40 J	-3481952.16	-3481951.93	-3481951.67	0.0145	0.0046 *
Earth	-14246-12-13 18:28 J	-3481581.87	-3481581.73	-3481581.56	0.0145	0.0116
Moon	-14246-12-13 19:26 J	-3481581.85	-3481581.69	-3481581.50	0.0145	0.0109 *
Mercury	-14236-12-06 19:55 J	-3477935.75	-3477935.67	-3477935.56	0.0140	0.0121
Mercury	-14235-03-05 04:04 J	-3477847.46	-3477847.33	-3477847.17	0.0140	0.0091
Mercury	-14235-06-01 12:28 J	-3477759.15	-3477758.98	-3477758.80	0.0139	0.0060
Mercury	-14235-08-28 20:38 J	-3477670.83	-3477670.64	-3477670.45	0.0139	0.0029
Mercury	-14235-11-25 04:48 J	-3477582.50	-3477582.30	-3477582.11	0.0139	0.0003
Mercury	-14234-02-21 12:43 J	-3477494.16	-3477493.97	-3477493.78	0.0139	0.0031
Mercury	-14234-05-20 20:38 J	-3477405.81	-3477405.64	-3477405.46	0.0139	0.0061
Mercury	-14234-08-17 04:19 J	-3477317.45	-3477317.32	-3477317.16	0.0139	0.0091
Mercury	-14234-11-13 12:14 J	-3477229.07	-3477228.99	-3477228.88	0.0139	0.0120
Mars	-14228-06-13 17:31 J	-3475190.05	-3475189.77	-3475189.48	0.0136	0.0008
Jupiter	-14220-12-15 18:14 J	-3472083.08	-3472082.74	-3472082.36	0.0133	0.0095
Venus	-14219-05-10 06:28 J	-3471937.24	-3471937.23	-3471937.19	0.0133	0.0132
Venus	-14219-12-22 12:28 J	-3471711.11	-3471710.98	-3471710.81	0.0132	0.0099
Venus	-14218-08-05 18:43 J	-3471484.90	-3471484.72	-3471484.52	0.0132	0.0065
Venus	-14217-03-19 00:43 J	-3471258.68	-3471258.47	-3471258.25	0.0132	0.0031

Venus	-14217-10-31 06:28 J	-3471032.45	-3471032.23	-3471032.01	0.0132	0.0003
Venus	-14216-06-14 12:00 J	-3470806.20	-3470806.00	-3470805.78	0.0132	0.0036
Venus	-14215-01-26 17:45 J	-3470579.94	-3470579.76	-3470579.57	0.0132	0.0069
Venus	-14215-09-09 23:16 J	-3470353.66	-3470353.53	-3470353.38	0.0132	0.0102
Earth	-14206-05-30 20:38 J	-3467168.70	-3467168.64	-3467168.56	0.0132	0.0127
Moon	-14206-05-30 23:16 J	-3467168.58	-3467168.53	-3467168.45	0.0132	0.0128 *
Moon	-14205-06-02 21:35 J	-3466799.78	-3466799.60	-3466799.38	0.0133	0.0078
Earth	-14205-06-03 00:43 J	-3466799.66	-3466799.47	-3466799.25	0.0133	0.0075 *
Earth	-14204-06-07 04:48 J	-3466430.54	-3466430.30	-3466430.05	0.0133	0.0023
Moon	-14204-06-07 07:40 J	-3466430.44	-3466430.18	-3466429.93	0.0133	0.0018 *
Moon	-14203-06-11 06:28 J	-3466061.47	-3466061.23	-3466060.99	0.0133	0.0025
Earth	-14203-06-11 09:07 J	-3466061.36	-3466061.12	-3466060.87	0.0133	0.0031 *
Earth	-14202-06-15 13:11 J	-3465692.13	-3465691.95	-3465691.74	0.0134	0.0084
Moon	-14202-06-15 16:19 J	-3465692.00	-3465691.82	-3465691.62	0.0134	0.0091 *
Moon	-14201-06-18 15:35 J	-3465322.90	-3465322.85	-3465322.79	0.0134	0.0130
Mercury	-14191-02-13 10:04 J	-3461796.10	-3461796.08	-3461796.05	0.0138	0.0135
Mercury	-14191-05-12 13:11 J	-3461708.01	-3461707.95	-3461707.87	0.0139	0.0116
Mercury	-14191-08-08 16:33 J	-3461619.90	-3461619.81	-3461619.72	0.0139	0.0096
Mercury	-14191-11-04 19:40 J	-3461531.79	-3461531.68	-3461531.57	0.0139	0.0076
Mercury	-14190-01-31 22:48 J	-3461443.67	-3461443.55	-3461443.43	0.0139	0.0057
Mercury	-14190-04-30 01:55 J	-3461355.54	-3461355.42	-3461355.29	0.0139	0.0037
Mercury	-14190-07-27 05:16 J	-3461267.41	-3461267.28	-3461267.15	0.0139	0.0017
Mercury	-14190-10-23 08:38 J	-3461179.27	-3461179.14	-3461179.01	0.0139	0.0005
Mercury	-14189-01-19 11:45 J	-3461091.14	-3461091.01	-3461090.88	0.0140	0.0024
Mercury	-14189-04-16 15:07 J	-3461003.00	-3461002.87	-3461002.75	0.0140	0.0044
Mercury	-14189-07-13 18:14 J	-3460914.85	-3460914.74	-3460914.62	0.0140	0.0065
Mercury	-14189-10-09 21:35 J	-3460826.70	-3460826.60	-3460826.49	0.0140	0.0085
Mercury	-14188-01-06 00:57 J	-3460738.55	-3460738.46	-3460738.38	0.0140	0.0106
Mercury	-14188-04-04 04:04 J	-3460650.38	-3460650.33	-3460650.27	0.0140	0.0127
Mars	-14184-09-01 16:48 J	-3459039.13	-3459038.80	-3459038.48	0.0143	0.0030

Venus	-14176-09-22 01:55 J	-3456096.48	-3456096.42	-3456096.31	0.0146	0.0134
Venus	-14175-05-06 13:40 J	-3455870.09	-3455869.93	-3455869.75	0.0146	0.0090
Venus	-14175-12-19 01:11 J	-3455643.64	-3455643.45	-3455643.23	0.0146	0.0047
Venus	-14174-08-02 13:11 J	-3455417.16	-3455416.95	-3455416.73	0.0146	0.0004
Venus	-14173-03-16 00:57 J	-3455190.66	-3455190.46	-3455190.25	0.0147	0.0043
Venus	-14173-10-28 12:43 J	-3454964.13	-3454963.97	-3454963.79	0.0147	0.0088
Venus	-14172-06-12 00:43 J	-3454737.56	-3454737.47	-3454737.38	0.0147	0.0132
Earth	-14165-11-28 12:14 J	-3452011.17	-3452010.99	-3452010.78	0.0146	0.0094
Moon	-14165-11-28 14:09 J	-3452011.09	-3452010.91	-3452010.70	0.0146	0.0093 *
Moon	-14164-12-03 17:16 J	-3451641.04	-3451640.78	-3451640.51	0.0146	0.0018
Earth	-14164-12-03 18:14 J	-3451640.99	-3451640.74	-3451640.48	0.0146	0.0022 *
Earth	-14163-12-08 23:31 J	-3451270.76	-3451270.52	-3451270.28	0.0145	0.0050
Moon	-14163-12-08 23:45 J	-3451270.74	-3451270.51	-3451270.26	0.0145	0.0044 *
Earth	-14162-12-14 04:04 J	-3450900.46	-3450900.33	-3450900.17	0.0145	0.0120
Moon	-14162-12-14 05:16 J	-3450900.40	-3450900.28	-3450900.15	0.0145	0.0126 *
Mercury	-14152-12-27 03:21 J	-3447234.46	-3447234.36	-3447234.23	0.0140	0.0113
Mercury	-14151-03-25 11:31 J	-3447146.16	-3447146.02	-3447145.85	0.0140	0.0083
Mercury	-14151-06-21 19:55 J	-3447057.85	-3447057.67	-3447057.48	0.0140	0.0052
Mercury	-14151-09-18 04:04 J	-3446969.52	-3446969.33	-3446969.13	0.0139	0.0021
Mercury	-14151-12-15 12:14 J	-3446881.19	-3446880.99	-3446880.80	0.0139	0.0009
Mercury	-14150-03-13 20:09 J	-3446792.84	-3446792.66	-3446792.47	0.0139	0.0039
Mercury	-14150-06-10 04:04 J	-3446704.49	-3446704.33	-3446704.15	0.0139	0.0069
Mercury	-14150-09-06 12:00 J	-3446616.13	-3446616.00	-3446615.86	0.0139	0.0099
Mercury	-14150-12-03 19:55 J	-3446527.73	-3446527.67	-3446527.59	0.0139	0.0128
Mars	-14145-03-08 09:50 J	-3444971.25	-3444971.09	-3444970.89	0.0137	0.0105
Mars	-14143-02-06 06:28 J	-3444271.46	-3444271.23	-3444270.97	0.0136	0.0071
Venus	-14135-08-22 00:28 J	-3441152.59	-3441152.48	-3441152.36	0.0133	0.0112
Venus	-14134-04-05 06:14 J	-3440926.41	-3440926.24	-3440926.05	0.0132	0.0078
Venus	-14134-11-17 12:14 J	-3440700.19	-3440699.99	-3440699.77	0.0132	0.0045
Venus	-14133-06-30 18:14 J	-3440473.96	-3440473.74	-3440473.52	0.0132	0.0011

Venus	-14132-02-12 00:00 J	-3440247.71	-3440247.50	-3440247.28	0.0132	0.0023
Venus	-14132-09-26 05:31 J	-3440021.46	-3440021.27	-3440021.06	0.0132	0.0056
Venus	-14131-05-10 11:02 J	-3439795.19	-3439795.04	-3439794.87	0.0132	0.0090
Venus	-14131-12-22 16:33 J	-3439568.88	-3439568.81	-3439568.72	0.0132	0.0122
Earth	-14122-05-31 11:16 J	-3436487.12	-3436487.03	-3436486.91	0.0132	0.0120
Moon	-14122-05-31 14:09 J	-3436487.01	-3436486.91	-3436486.79	0.0132	0.0119 *
Moon	-14121-06-03 13:26 J	-3436118.15	-3436117.94	-3436117.72	0.0133	0.0067
Earth	-14121-06-03 15:21 J	-3436118.06	-3436117.86	-3436117.63	0.0133	0.0068 *
Earth	-14120-06-07 19:26 J	-3435748.93	-3435748.69	-3435748.43	0.0133	0.0016
Moon	-14120-06-07 22:19 J	-3435748.82	-3435748.57	-3435748.32	0.0133	0.0020 *
Moon	-14119-06-11 21:21 J	-3435379.84	-3435379.61	-3435379.38	0.0133	0.0043
Earth	-14119-06-11 23:31 J	-3435379.75	-3435379.52	-3435379.27	0.0133	0.0038 *
Earth	-14118-06-16 03:50 J	-3435010.51	-3435010.34	-3435010.15	0.0134	0.0090
Moon	-14118-06-16 06:00 J	-3435010.43	-3435010.25	-3435010.03	0.0134	0.0084 *
Mercury	-14107-03-05 17:45 J	-3431094.80	-3431094.76	-3431094.70	0.0138	0.0127
Mercury	-14107-06-01 21:07 J	-3431006.70	-3431006.62	-3431006.54	0.0138	0.0108
Mercury	-14107-08-29 00:14 J	-3430918.59	-3430918.49	-3430918.39	0.0139	0.0088
Mercury	-14107-11-25 03:21 J	-3430830.47	-3430830.36	-3430830.24	0.0139	0.0069
Mercury	-14106-02-21 06:43 J	-3430742.34	-3430742.22	-3430742.10	0.0139	0.0049
Mercury	-14106-05-20 09:50 J	-3430654.21	-3430654.09	-3430653.96	0.0139	0.0029
Mercury	-14106-08-16 13:11 J	-3430566.08	-3430565.95	-3430565.82	0.0139	0.0009
Mercury	-14106-11-12 16:19 J	-3430477.95	-3430477.82	-3430477.69	0.0139	0.0011
Mercury	-14105-02-08 19:40 J	-3430389.81	-3430389.68	-3430389.55	0.0139	0.0031
Mercury	-14105-05-06 22:48 J	-3430301.67	-3430301.55	-3430301.43	0.0140	0.0052
Mercury	-14105-08-03 02:09 J	-3430213.52	-3430213.41	-3430213.30	0.0140	0.0072
Mercury	-14105-10-30 05:16 J	-3430125.37	-3430125.28	-3430125.18	0.0140	0.0093
Mercury	-14104-01-26 08:38 J	-3430037.21	-3430037.14	-3430037.06	0.0140	0.0113
Mercury	-14104-04-24 12:00 J	-3429949.03	-3429949.00	-3429948.96	0.0140	0.0134
Mars	-14099-04-29 04:48 J	-3428118.60	-3428118.30	-3428118.00	0.0143	0.0058
Venus	-14091-01-03 20:38 J	-3425311.77	-3425311.64	-3425311.49	0.0146	0.0111

Venus	-14091-08-18 08:09 J	-3425085.34	-3425085.16	-3425084.96	0.0146	0.0067
Venus	-14090-04-01 19:55 J	-3424858.88	-3424858.67	-3424858.46	0.0146	0.0023
Venus	-14090-11-14 07:26 J	-3424632.40	-3424632.19	-3424631.97	0.0146	0.0022
Venus	-14089-06-27 18:57 J	-3424405.89	-3424405.71	-3424405.51	0.0147	0.0067
Venus	-14088-02-09 06:57 J	-3424179.34	-3424179.21	-3424179.07	0.0147	0.0111
Earth	-14081-11-28 21:07 J	-3421329.81	-3421329.62	-3421329.41	0.0146	0.0089
Moon	-14081-11-28 23:45 J	-3421329.71	-3421329.51	-3421329.31	0.0146	0.0090 *
Moon	-14080-12-04 00:43 J	-3420959.73	-3420959.47	-3420959.20	0.0146	0.0021
Earth	-14080-12-04 02:52 J	-3420959.63	-3420959.38	-3420959.12	0.0146	0.0018 *
Earth	-14079-12-09 07:55 J	-3420589.40	-3420589.17	-3420588.92	0.0145	0.0053
Moon	-14079-12-09 08:38 J	-3420589.36	-3420589.14	-3420588.91	0.0145	0.0061 *
Moon	-14078-12-14 12:14 J	-3420219.13	-3420218.99	-3420218.82	0.0145	0.0116
Earth	-14078-12-14 12:28 J	-3420219.09	-3420218.98	-3420218.83	0.0145	0.0124 *
Mercury	-14068-10-20 02:09 J	-3416621.43	-3416621.41	-3416621.36	0.0140	0.0137
Mercury	-14067-01-16 10:33 J	-3416533.18	-3416533.06	-3416532.92	0.0140	0.0106
Mercury	-14067-04-14 18:43 J	-3416444.87	-3416444.72	-3416444.54	0.0140	0.0076
Mercury	-14067-07-12 03:07 J	-3416356.55	-3416356.37	-3416356.18	0.0140	0.0045
Mercury	-14067-10-08 11:16 J	-3416268.22	-3416268.03	-3416267.84	0.0139	0.0014
Mercury	-14066-01-04 19:11 J	-3416179.89	-3416179.70	-3416179.50	0.0139	0.0017
Mercury	-14066-04-03 03:21 J	-3416091.54	-3416091.36	-3416091.17	0.0139	0.0046
Mercury	-14066-06-30 11:16 J	-3416003.19	-3416003.03	-3416002.86	0.0139	0.0076
Mercury	-14066-09-26 18:57 J	-3415914.82	-3415914.71	-3415914.57	0.0139	0.0106
Mercury	-14066-12-24 03:07 J	-3415826.40	-3415826.37	-3415826.32	0.0139	0.0135
Mars	-14061-10-31 21:50 J	-3414052.85	-3414052.59	-3414052.31	0.0136	0.0041
Mars	-14059-10-01 17:02 J	-3413352.84	-3413352.79	-3413352.74	0.0135	0.0133
Venus	-14051-04-21 11:16 J	-3410594.09	-3410594.03	-3410593.95	0.0133	0.0126
Venus	-14051-12-03 17:16 J	-3410367.92	-3410367.78	-3410367.61	0.0133	0.0093
Venus	-14050-07-17 23:16 J	-3410141.71	-3410141.53	-3410141.32	0.0133	0.0059
Venus	-14049-02-29 05:31 J	-3409915.48	-3409915.27	-3409915.05	0.0132	0.0025
Venus	-14049-10-12 11:31 J	-3409689.25	-3409689.02	-3409688.80	0.0132	0.0010

Venus	-14048-05-26 16:48 J	-3409463.00	-3409462.80	-3409462.58	0.0132	0.0044
Venus	-14047-01-07 22:48 J	-3409236.73	-3409236.55	-3409236.37	0.0132	0.0076
Venus	-14047-08-22 03:50 J	-3409010.44	-3409010.34	-3409010.19	0.0132	0.0111
Earth	-14038-06-01 01:55 J	-3405805.54	-3405805.42	-3405805.27	0.0133	0.0113
Moon	-14038-06-01 04:04 J	-3405805.46	-3405805.33	-3405805.20	0.0133	0.0114 *
Moon	-14037-06-04 03:50 J	-3405436.55	-3405436.34	-3405436.12	0.0133	0.0063
Earth	-14037-06-04 06:14 J	-3405436.46	-3405436.24	-3405436.01	0.0133	0.0061 *
Earth	-14036-06-08 10:19 J	-3405067.32	-3405067.07	-3405066.82	0.0133	0.0009
Moon	-14036-06-08 12:14 J	-3405067.25	-3405066.99	-3405066.73	0.0133	0.0005 *
Moon	-14035-06-12 12:14 J	-3404698.22	-3404697.99	-3404697.75	0.0133	0.0038
Earth	-14035-06-12 14:24 J	-3404698.13	-3404697.90	-3404697.66	0.0133	0.0044 *
Earth	-14034-06-16 18:43 J	-3404328.89	-3404328.72	-3404328.54	0.0134	0.0096
Moon	-14034-06-16 20:52 J	-3404328.78	-3404328.63	-3404328.45	0.0134	0.0103 *
Mercury	-14024-12-27 22:48 J	-3400481.55	-3400481.55	-3400481.54	0.0138	0.0138
Mercury	-14023-03-26 01:55 J	-3400393.48	-3400393.42	-3400393.35	0.0138	0.0118
Mercury	-14023-06-22 05:16 J	-3400305.37	-3400305.28	-3400305.19	0.0139	0.0099
Mercury	-14023-09-18 08:09 J	-3400217.26	-3400217.16	-3400217.05	0.0139	0.0080
Mercury	-14023-12-15 11:31 J	-3400129.14	-3400129.02	-3400128.90	0.0139	0.0060
Mercury	-14022-03-13 14:38 J	-3400041.01	-3400040.89	-3400040.76	0.0139	0.0040
Mercury	-14022-06-09 18:00 J	-3399952.88	-3399952.75	-3399952.62	0.0139	0.0020
Mercury	-14022-09-05 21:07 J	-3399864.75	-3399864.62	-3399864.49	0.0139	0.0003
Mercury	-14022-12-03 00:28 J	-3399776.61	-3399776.48	-3399776.35	0.0139	0.0020
Mercury	-14021-02-29 03:35 J	-3399688.47	-3399688.35	-3399688.22	0.0140	0.0040
Mercury	-14021-05-27 06:57 J	-3399600.33	-3399600.21	-3399600.09	0.0140	0.0060
Mercury	-14021-08-23 10:04 J	-3399512.18	-3399512.08	-3399511.97	0.0140	0.0081
Mercury	-14021-11-19 13:26 J	-3399424.03	-3399423.94	-3399423.85	0.0140	0.0101
Mercury	-14020-02-15 16:33 J	-3399335.86	-3399335.81	-3399335.74	0.0140	0.0122
Mars	-14016-01-17 16:04 J	-3397904.06	-3397903.83	-3397903.55	0.0142	0.0091
Venus	-14008-09-03 06:43 J	-3394753.31	-3394753.22	-3394753.11	0.0146	0.0128
Venus	-14007-04-17 18:14 J	-3394526.91	-3394526.74	-3394526.56	0.0146	0.0084

Venus	-14007-11-30 05:31 J	-3394300.47	-3394300.27	-3394300.06	0.0146	0.0041
Venus	-14006-07-14 17:16 J	-3394073.99	-3394073.78	-3394073.56	0.0146	0.0004
Venus	-14005-02-26 04:48 J	-3393847.50	-3393847.30	-3393847.09	0.0146	0.0049
Venus	-14005-10-09 16:19 J	-3393620.97	-3393620.82	-3393620.64	0.0147	0.0094
Venus	-14004-05-24 04:04 J	-3393394.39	-3393394.33	-3393394.25	0.0147	0.0138

14TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 14th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-13997-11-29 11:45 J	-3390648.22	-3390648.01	-3390647.80	0.0146	0.0081		
Moon	-13997-11-29 14:09 J	-3390648.11	-3390647.91	-3390647.69	0.0146	0.0080	*	
Moon	-13996-12-04 15:07 J	-3390278.13	-3390277.87	-3390277.61	0.0146	0.0006		
Earth	-13996-12-04 17:02 J	-3390278.04	-3390277.79	-3390277.53	0.0146	0.0011	*	
Earth	-13995-12-09 21:50 J	-3389907.81	-3389907.59	-3389907.35	0.0145	0.0061		
Moon	-13995-12-09 23:31 J	-3389907.74	-3389907.52	-3389907.28	0.0145	0.0055	*	
Earth	-13994-12-15 02:24 J	-3389537.49	-3389537.40	-3389537.27	0.0145	0.0130		
Moon	-13994-12-15 01:55 J	-3389537.48	-3389537.42	-3389537.30	0.0145	0.0137	*	
Mercury	-13984-11-09 10:33 J	-3385920.13	-3385920.06	-3385919.96	0.0140	0.0126		
Mercury	-13983-02-05 18:57 J	-3385831.84	-3385831.71	-3385831.56	0.0140	0.0095		
Mercury	-13983-05-05 03:21 J	-3385743.53	-3385743.36	-3385743.18	0.0140	0.0064		
Mercury	-13983-08-01 11:31 J	-3385655.21	-3385655.02	-3385654.83	0.0140	0.0033		
Mercury	-13983-10-28 19:40 J	-3385566.88	-3385566.68	-3385566.48	0.0139	0.0003		

Mercury	-13982-01-25 03:35 J	-3385478.54	-3385478.35	-3385478.15	0.0139	0.0028
Mercury	-13982-04-23 11:45 J	-3385390.19	-3385390.01	-3385389.83	0.0139	0.0057
Mercury	-13982-07-20 19:40 J	-3385301.83	-3385301.68	-3385301.52	0.0139	0.0087
Mercury	-13982-10-17 03:21 J	-3385213.45	-3385213.36	-3385213.24	0.0139	0.0117
Mars	-13976-06-26 12:28 J	-3383134.26	-3383133.98	-3383133.69	0.0136	0.0024
Venus	-13967-08-03 05:02 J	-3379809.40	-3379809.29	-3379809.14	0.0133	0.0106
Venus	-13966-03-17 11:16 J	-3379583.20	-3379583.03	-3379582.83	0.0133	0.0072
Venus	-13966-10-29 17:16 J	-3379356.98	-3379356.78	-3379356.56	0.0133	0.0038
Venus	-13965-06-11 23:16 J	-3379130.75	-3379130.53	-3379130.31	0.0132	0.0004
Venus	-13964-01-24 05:02 J	-3378904.50	-3378904.29	-3378904.07	0.0132	0.0030
Venus	-13964-09-07 10:33 J	-3378678.24	-3378678.06	-3378677.85	0.0132	0.0064
Venus	-13963-04-21 16:19 J	-3378451.96	-3378451.82	-3378451.66	0.0132	0.0097
Venus	-13963-12-03 21:50 J	-3378225.61	-3378225.59	-3378225.55	0.0132	0.0130
Earth	-13954-06-01 17:02 J	-3375123.93	-3375123.79	-3375123.62	0.0133	0.0106
Moon	-13954-06-01 18:57 J	-3375123.85	-3375123.71	-3375123.53	0.0133	0.0105 *
Moon	-13953-06-04 19:40 J	-3374754.89	-3374754.68	-3374754.45	0.0133	0.0054
Earth	-13953-06-04 21:07 J	-3374754.84	-3374754.62	-3374754.38	0.0133	0.0054 *
Earth	-13952-06-09 01:26 J	-3374385.69	-3374385.44	-3374385.19	0.0133	0.0003
Moon	-13952-06-09 03:21 J	-3374385.62	-3374385.36	-3374385.10	0.0133	0.0007 *
Moon	-13951-06-13 03:35 J	-3374016.56	-3374016.35	-3374016.11	0.0133	0.0057
Earth	-13951-06-13 05:16 J	-3374016.50	-3374016.28	-3374016.03	0.0133	0.0051 *
Earth	-13950-06-17 09:35 J	-3373647.24	-3373647.10	-3373646.92	0.0134	0.0103
Moon	-13950-06-17 11:16 J	-3373647.20	-3373647.03	-3373646.84	0.0134	0.0096 *
Mercury	-13939-01-17 06:57 J	-3369780.26	-3369780.21	-3369780.17	0.0138	0.0129
Mercury	-13939-04-15 10:04 J	-3369692.16	-3369692.08	-3369692.00	0.0138	0.0110
Mercury	-13939-07-12 12:57 J	-3369604.05	-3369603.96	-3369603.85	0.0139	0.0091
Mercury	-13939-10-08 16:19 J	-3369515.93	-3369515.82	-3369515.70	0.0139	0.0071
Mercury	-13938-01-04 19:26 J	-3369427.80	-3369427.69	-3369427.56	0.0139	0.0051
Mercury	-13938-04-02 22:48 J	-3369339.68	-3369339.55	-3369339.42	0.0139	0.0031
Mercury	-13938-06-30 01:55 J	-3369251.55	-3369251.42	-3369251.28	0.0139	0.0012

Mercury	-13938-09-26 05:16 J	-3369163.41	-3369163.28	-3369163.15	0.0139	0.0009
Mercury	-13938-12-23 08:24 J	-3369075.27	-3369075.15	-3369075.02	0.0139	0.0029
Mercury	-13937-03-20 11:45 J	-3368987.13	-3368987.01	-3368986.89	0.0140	0.0049
Mercury	-13937-06-16 14:52 J	-3368898.99	-3368898.88	-3368898.76	0.0140	0.0070
Mercury	-13937-09-12 18:14 J	-3368810.84	-3368810.74	-3368810.64	0.0140	0.0090
Mercury	-13937-12-09 21:21 J	-3368722.68	-3368722.61	-3368722.52	0.0140	0.0111
Mercury	-13936-03-08 00:43 J	-3368634.50	-3368634.47	-3368634.42	0.0140	0.0131
Mars	-13932-09-14 10:48 J	-3366983.38	-3366983.05	-3366982.72	0.0142	0.0001
Venus	-13924-05-03 16:33 J	-3364194.82	-3364194.81	-3364194.78	0.0146	0.0145
Venus	-13924-12-16 03:35 J	-3363968.48	-3363968.35	-3363968.18	0.0146	0.0102
Venus	-13923-07-30 15:35 J	-3363742.05	-3363741.85	-3363741.65	0.0146	0.0058
Venus	-13922-03-14 02:52 J	-3363515.59	-3363515.38	-3363515.16	0.0146	0.0014
Venus	-13922-10-26 14:24 J	-3363289.11	-3363288.90	-3363288.69	0.0146	0.0031
Venus	-13921-06-09 02:09 J	-3363062.60	-3363062.41	-3363062.23	0.0146	0.0076
Venus	-13920-01-21 13:26 J	-3362836.04	-3362835.94	-3362835.80	0.0146	0.0121
Moon	-13914-11-25 17:02 J	-3360336.85	-3360336.79	-3360336.69	0.0146	0.0138
Earth	-13914-11-25 20:38 J	-3360336.67	-3360336.64	-3360336.60	0.0146	0.0145
Earth	-13913-11-30 01:55 J	-3359966.63	-3359966.42	-3359966.19	0.0146	0.0074
Moon	-13913-11-30 05:02 J	-3359966.50	-3359966.29	-3359966.07	0.0146	0.0075 *
Moon	-13912-12-05 04:19 J	-3359596.58	-3359596.32	-3359596.05	0.0146	0.0005
Earth	-13912-12-05 07:11 J	-3359596.46	-3359596.20	-3359595.94	0.0146	0.0003 *
Earth	-13911-12-10 12:00 J	-3359226.23	-3359226.00	-3359225.77	0.0145	0.0067
Moon	-13911-12-10 13:11 J	-3359226.15	-3359225.95	-3359225.72	0.0145	0.0074 *
Moon	-13910-12-15 14:52 J	-3358855.99	-3358855.88	-3358855.74	0.0145	0.0128
Earth	-13910-12-15 16:19 J	-3358855.89	-3358855.82	-3358855.72	0.0145	0.0136 *
Mercury	-13900-11-29 18:57 J	-3355218.80	-3355218.71	-3355218.58	0.0140	0.0115
Mercury	-13899-02-26 03:21 J	-3355130.51	-3355130.36	-3355130.20	0.0140	0.0084
Mercury	-13899-05-25 11:45 J	-3355042.19	-3355042.01	-3355041.83	0.0140	0.0053
Mercury	-13899-08-21 19:55 J	-3354953.87	-3354953.67	-3354953.48	0.0140	0.0023
Mercury	-13899-11-18 03:50 J	-3354865.53	-3354865.34	-3354865.14	0.0139	0.0009

Mercury	-13898-02-14 11:45 J	-3354777.19	-3354777.01	-3354776.81	0.0139	0.0039
Mercury	-13898-05-13 19:55 J	-3354688.83	-3354688.67	-3354688.49	0.0139	0.0068
Mercury	-13898-08-10 03:35 J	-3354600.47	-3354600.35	-3354600.19	0.0139	0.0098
Mercury	-13898-11-06 11:45 J	-3354512.08	-3354512.01	-3354511.93	0.0139	0.0127
Mars	-13893-03-21 07:26 J	-3352915.41	-3352915.19	-3352914.97	0.0137	0.0086
Mars	-13891-02-19 02:52 J	-3352215.59	-3352215.38	-3352215.16	0.0136	0.0089
Venus	-13883-04-02 16:48 J	-3349250.89	-3349250.80	-3349250.69	0.0133	0.0119
Venus	-13883-11-14 22:48 J	-3349024.71	-3349024.55	-3349024.37	0.0133	0.0085
Venus	-13882-06-29 05:02 J	-3348798.49	-3348798.29	-3348798.08	0.0133	0.0051
Venus	-13881-02-10 11:16 J	-3348572.25	-3348572.03	-3348571.81	0.0133	0.0017
Venus	-13881-09-23 17:02 J	-3348346.01	-3348345.79	-3348345.57	0.0132	0.0017
Venus	-13880-05-07 22:33 J	-3348119.75	-3348119.56	-3348119.35	0.0132	0.0051
Venus	-13880-12-20 04:19 J	-3347893.48	-3347893.32	-3347893.14	0.0132	0.0085
Venus	-13879-08-03 09:35 J	-3347667.17	-3347667.10	-3347666.98	0.0132	0.0119
Earth	-13870-06-02 07:40 J	-3344442.34	-3344442.18	-3344442.01	0.0133	0.0099
Moon	-13870-06-02 08:24 J	-3344442.30	-3344442.15	-3344441.96	0.0133	0.0101 *
Moon	-13869-06-05 10:19 J	-3344073.29	-3344073.07	-3344072.84	0.0133	0.0049
Earth	-13869-06-05 11:31 J	-3344073.24	-3344073.02	-3344072.77	0.0133	0.0048 *
Earth	-13868-06-09 15:50 J	-3343704.09	-3343703.84	-3343703.59	0.0133	0.0004
Moon	-13868-06-09 17:02 J	-3343704.05	-3343703.79	-3343703.53	0.0133	0.0008 *
Moon	-13867-06-13 18:28 J	-3343334.94	-3343334.73	-3343334.65	0.0133	0.0052
Earth	-13867-06-13 19:40 J	-3343334.89	-3343334.68	-3343334.65	0.0133	0.0057 *
Earth	-13866-06-18 03:21 J	-3342965.36	-3342965.36	-3342965.33	0.0133	0.0064
Moon	-13866-06-18 03:35 J	-3342965.35	-3342965.35	-3342965.28	0.0134	0.0119 *
Mercury	-13855-02-06 14:38 J	-3339078.94	-3339078.89	-3339078.82	0.0138	0.0121
Mercury	-13855-05-05 18:00 J	-3338990.84	-3338990.75	-3338990.66	0.0139	0.0102
Mercury	-13855-08-01 20:52 J	-3338902.72	-3338902.63	-3338902.51	0.0139	0.0083
Mercury	-13855-10-29 00:14 J	-3338814.60	-3338814.49	-3338814.37	0.0139	0.0063
Mercury	-13854-01-25 03:35 J	-3338726.48	-3338726.35	-3338726.23	0.0139	0.0043
Mercury	-13854-04-23 06:43 J	-3338638.35	-3338638.22	-3338638.09	0.0139	0.0023

Mercury	-13854-07-20 09:50 J	-3338550.22	-3338550.09	-3338549.96	0.0139	0.0005
Mercury	-13854-10-16 13:11 J	-3338462.08	-3338461.95	-3338461.82	0.0139	0.0017
Mercury	-13853-01-12 16:19 J	-3338373.94	-3338373.82	-3338373.69	0.0139	0.0037
Mercury	-13853-04-09 19:40 J	-3338285.80	-3338285.68	-3338285.56	0.0140	0.0057
Mercury	-13853-07-06 22:48 J	-3338197.65	-3338197.55	-3338197.44	0.0140	0.0078
Mercury	-13853-10-03 02:09 J	-3338109.50	-3338109.41	-3338109.31	0.0140	0.0098
Mercury	-13853-12-30 05:16 J	-3338021.34	-3338021.28	-3338021.20	0.0140	0.0119
Mercury	-13852-03-28 08:52 J	-3337933.14	-3337933.13	-3337933.12	0.0140	0.0139
Mars	-13847-05-12 03:35 J	-3336062.59	-3336062.35	-3336062.08	0.0143	0.0091
Venus	-13840-08-15 13:55 J	-3333410.03	-3333409.92	-3333409.79	0.0146	0.0119
Venus	-13839-03-30 01:11 J	-3333183.62	-3333183.45	-3333183.26	0.0146	0.0075
Venus	-13839-11-11 12:43 J	-3332957.18	-3332956.97	-3332956.76	0.0146	0.0031
Venus	-13838-06-26 00:14 J	-3332730.70	-3332730.49	-3332730.27	0.0146	0.0014
Venus	-13837-02-07 11:45 J	-3332504.20	-3332504.01	-3332503.81	0.0146	0.0059
Venus	-13837-09-20 23:16 J	-3332277.66	-3332277.53	-3332277.36	0.0146	0.0104
Moon	-13830-11-26 08:38 J	-3329655.18	-3329655.14	-3329655.06	0.0146	0.0142
Earth	-13830-11-26 12:14 J	-3329655.06	-3329654.99	-3329654.87	0.0146	0.0136 *
Earth	-13829-11-30 17:31 J	-3329284.98	-3329284.77	-3329284.52	0.0146	0.0066
Moon	-13829-11-30 21:07 J	-3329284.84	-3329284.62	-3329284.39	0.0146	0.0063 *
Moon	-13828-12-05 20:24 J	-3328914.91	-3328914.65	-3328914.39	0.0146	0.0008
Earth	-13828-12-05 23:02 J	-3328914.79	-3328914.54	-3328914.28	0.0146	0.0005 *
Earth	-13827-12-11 03:50 J	-3328544.56	-3328544.34	-3328544.12	0.0145	0.0075
Moon	-13827-12-11 06:14 J	-3328544.46	-3328544.24	-3328544.01	0.0145	0.0069 *
Earth	-13826-12-16 08:24 J	-3328174.18	-3328174.15	-3328174.11	0.0145	0.0143
Mercury	-13816-09-22 19:55 J	-3324605.72	-3324605.67	-3324605.59	0.0140	0.0132
Mercury	-13816-12-20 04:19 J	-3324517.45	-3324517.32	-3324517.18	0.0140	0.0101
Mercury	-13815-03-18 12:14 J	-3324429.14	-3324428.99	-3324428.80	0.0140	0.0071
Mercury	-13815-06-14 20:38 J	-3324340.82	-3324340.64	-3324340.45	0.0140	0.0040
Mercury	-13815-09-11 04:48 J	-3324252.49	-3324252.30	-3324252.10	0.0139	0.0010
Mercury	-13815-12-08 12:57 J	-3324164.15	-3324163.96	-3324163.77	0.0139	0.0021

Mercury	-13814-03-06 20:52 J	-3324075.81	-3324075.63	-3324075.44	0.0139	0.0051
Mercury	-13814-06-03 04:48 J	-3323987.45	-3323987.30	-3323987.13	0.0139	0.0081
Mercury	-13814-08-30 12:43 J	-3323899.08	-3323898.97	-3323898.84	0.0139	0.0110
Mars	-13809-11-14 00:28 J	-3321996.76	-3321996.48	-3321996.19	0.0136	0.0020
Venus	-13800-12-01 04:48 J	-3318692.31	-3318692.30	-3318692.28	0.0133	0.0132
Venus	-13799-07-15 11:02 J	-3318466.19	-3318466.04	-3318465.89	0.0133	0.0098
Venus	-13798-02-26 17:02 J	-3318239.98	-3318239.79	-3318239.59	0.0133	0.0064
Venus	-13798-10-10 23:02 J	-3318013.76	-3318013.54	-3318013.33	0.0133	0.0030
Venus	-13797-05-24 04:48 J	-3317787.52	-3317787.30	-3317787.08	0.0132	0.0004
Venus	-13796-01-05 10:33 J	-3317561.26	-3317561.06	-3317560.84	0.0132	0.0038
Venus	-13796-08-19 16:04 J	-3317335.00	-3317334.83	-3317334.63	0.0132	0.0072
Venus	-13795-04-02 22:04 J	-3317108.71	-3317108.58	-3317108.44	0.0132	0.0105
Earth	-13786-06-02 21:07 J	-3313760.78	-3313760.62	-3313760.42	0.0133	0.0093
Moon	-13786-06-02 22:33 J	-3313760.74	-3313760.56	-3313760.37	0.0133	0.0091 *
Moon	-13785-06-06 00:43 J	-3313391.69	-3313391.47	-3313391.23	0.0133	0.0042
Earth	-13785-06-06 01:11 J	-3313391.68	-3313391.45	-3313391.20	0.0133	0.0042 *
Earth	-13784-06-10 05:31 J	-3313022.52	-3313022.27	-3313022.02	0.0133	0.0010
Moon	-13784-06-10 06:28 J	-3313022.49	-3313022.23	-3313021.97	0.0133	0.0006 *
Moon	-13783-06-14 08:38 J	-3312653.34	-3312653.14	-3312652.92	0.0133	0.0068
Earth	-13783-06-14 09:35 J	-3312653.32	-3312653.10	-3312652.87	0.0133	0.0062 *
Earth	-13782-06-18 13:40 J	-3312284.04	-3312283.93	-3312283.78	0.0134	0.0114
Moon	-13782-06-18 14:09 J	-3312284.04	-3312283.91	-3312283.73	0.0134	0.0108 *
Mercury	-13772-11-30 19:11 J	-3308465.72	-3308465.70	-3308465.67	0.0138	0.0134
Mercury	-13771-02-26 22:19 J	-3308377.63	-3308377.57	-3308377.49	0.0138	0.0115
Mercury	-13771-05-26 01:26 J	-3308289.53	-3308289.44	-3308289.34	0.0139	0.0096
Mercury	-13771-08-22 04:48 J	-3308201.41	-3308201.30	-3308201.19	0.0139	0.0076
Mercury	-13771-11-18 07:55 J	-3308113.29	-3308113.17	-3308113.05	0.0139	0.0056
Mercury	-13770-02-14 11:02 J	-3308025.16	-3308025.04	-3308024.91	0.0139	0.0037
Mercury	-13770-05-13 14:24 J	-3307937.03	-3307936.90	-3307936.77	0.0139	0.0017
Mercury	-13770-08-09 17:31 J	-3307848.90	-3307848.77	-3307848.64	0.0139	0.0004

Mercury	-13770-11-05 20:38 J	-3307760.76	-3307760.64	-3307760.51	0.0139	0.0024
Mercury	-13769-02-02 00:00 J	-3307672.62	-3307672.50	-3307672.38	0.0139	0.0044
Mercury	-13769-04-30 03:21 J	-3307584.48	-3307584.36	-3307584.25	0.0140	0.0064
Mercury	-13769-07-27 06:14 J	-3307496.33	-3307496.24	-3307496.12	0.0140	0.0085
Mercury	-13769-10-23 09:35 J	-3307408.18	-3307408.10	-3307408.01	0.0140	0.0105
Mercury	-13768-01-19 12:57 J	-3307320.01	-3307319.96	-3307319.90	0.0140	0.0125
Mars	-13764-01-30 07:26 J	-3305848.47	-3305848.19	-3305847.87	0.0142	0.0062
Venus	-13756-04-14 21:21 J	-3302851.66	-3302851.61	-3302851.53	0.0146	0.0139
Venus	-13756-11-27 08:38 J	-3302625.29	-3302625.14	-3302624.97	0.0146	0.0095
Venus	-13755-07-11 20:09 J	-3302398.86	-3302398.66	-3302398.45	0.0146	0.0051
Venus	-13754-02-23 07:40 J	-3302172.39	-3302172.18	-3302171.96	0.0146	0.0007
Venus	-13754-10-07 19:11 J	-3301945.90	-3301945.70	-3301945.49	0.0146	0.0038
Venus	-13753-05-21 06:43 J	-3301719.39	-3301719.22	-3301719.04	0.0146	0.0083
Venus	-13752-01-02 18:43 J	-3301492.82	-3301492.72	-3301492.62	0.0146	0.0128
Moon	-13746-11-26 19:40 J	-3298973.79	-3298973.68	-3298973.52	0.0146	0.0125
Earth	-13746-11-26 23:31 J	-3298973.62	-3298973.52	-3298973.40	0.0146	0.0131 *
Earth	-13745-12-01 05:02 J	-3298603.53	-3298603.29	-3298603.06	0.0146	0.0060
Moon	-13745-12-01 08:09 J	-3298603.38	-3298603.16	-3298602.92	0.0146	0.0062 *
Moon	-13744-12-06 06:43 J	-3298233.48	-3298233.22	-3298232.96	0.0146	0.0008
Earth	-13744-12-06 10:04 J	-3298233.34	-3298233.08	-3298232.82	0.0146	0.0010 *
Earth	-13743-12-11 14:38 J	-3297863.09	-3297862.89	-3297862.66	0.0145	0.0079
Moon	-13743-12-11 17:02 J	-3297862.98	-3297862.79	-3297862.58	0.0145	0.0086 *
Moon	-13742-12-16 16:48 J	-3297492.85	-3297492.80	-3297492.71	0.0145	0.0140
Mercury	-13732-10-13 03:35 J	-3293904.42	-3293904.35	-3293904.24	0.0140	0.0123
Mercury	-13731-01-09 12:00 J	-3293816.13	-3293816.00	-3293815.84	0.0140	0.0092
Mercury	-13731-04-07 20:24 J	-3293727.82	-3293727.65	-3293727.47	0.0140	0.0061
Mercury	-13731-07-05 04:33 J	-3293639.50	-3293639.31	-3293639.11	0.0140	0.0031
Mercury	-13731-10-01 12:43 J	-3293551.16	-3293550.97	-3293550.77	0.0140	0.0001
Mercury	-13731-12-28 20:38 J	-3293462.82	-3293462.64	-3293462.44	0.0139	0.0030
Mercury	-13730-03-27 04:33 J	-3293374.47	-3293374.31	-3293374.12	0.0139	0.0061

Mercury	-13730-06-23 12:28 J	-3293286.11	-3293285.98	-3293285.82	0.0139	0.0090
Mercury	-13730-09-19 20:38 J	-3293197.73	-3293197.64	-3293197.54	0.0139	0.0119
Mars	-13726-08-09 16:33 J	-3291777.86	-3291777.81	-3291777.70	0.0137	0.0132
Mars	-13724-07-09 12:57 J	-3291078.22	-3291077.96	-3291077.68	0.0136	0.0044
Venus	-13715-03-14 21:21 J	-3287907.70	-3287907.61	-3287907.47	0.0133	0.0113
Venus	-13715-10-27 03:50 J	-3287681.51	-3287681.34	-3287681.16	0.0133	0.0078
Venus	-13714-06-10 09:50 J	-3287455.30	-3287455.09	-3287454.88	0.0133	0.0044
Venus	-13713-01-22 15:50 J	-3287229.05	-3287228.84	-3287228.61	0.0132	0.0010
Venus	-13713-09-04 21:50 J	-3287002.81	-3287002.59	-3287002.37	0.0132	0.0024
Venus	-13712-04-19 03:21 J	-3286776.55	-3286776.36	-3286776.15	0.0132	0.0059
Venus	-13712-12-01 08:52 J	-3286550.27	-3286550.13	-3286549.96	0.0132	0.0092
Venus	-13711-07-15 14:38 J	-3286323.94	-3286323.89	-3286323.81	0.0132	0.0126
Moon	-13702-06-03 09:35 J	-3283079.28	-3283079.10	-3283078.90	0.0133	0.0090
Earth	-13702-06-03 09:21 J	-3283079.28	-3283079.11	-3283078.90	0.0133	0.0088 *
Moon	-13701-06-06 13:11 J	-3282710.18	-3282709.95	-3282709.71	0.0133	0.0038
Earth	-13701-06-06 13:26 J	-3282710.17	-3282709.94	-3282709.68	0.0133	0.0037 *
Moon	-13700-06-10 17:45 J	-3282341.01	-3282340.76	-3282340.50	0.0133	0.0018
Earth	-13700-06-10 17:45 J	-3282341.01	-3282340.76	-3282340.51	0.0133	0.0015 *
Moon	-13699-06-14 21:21 J	-3281971.81	-3281971.61	-3281971.38	0.0133	0.0062
Earth	-13699-06-14 21:35 J	-3281971.81	-3281971.60	-3281971.37	0.0133	0.0067 *
Earth	-13698-06-19 02:24 J	-3281602.52	-3281602.40	-3281602.29	0.0134	0.0118
Moon	-13698-06-19 02:24 J	-3281602.47	-3281602.40	-3281602.29	0.0134	0.0125 *
Mercury	-13688-12-21 02:24 J	-3277764.43	-3277764.40	-3277764.35	0.0138	0.0129
Mercury	-13687-03-19 05:31 J	-3277676.34	-3277676.27	-3277676.18	0.0138	0.0110
Mercury	-13687-06-15 08:52 J	-3277588.23	-3277588.13	-3277588.03	0.0139	0.0091
Mercury	-13687-09-11 12:00 J	-3277500.11	-3277500.00	-3277499.89	0.0139	0.0071
Mercury	-13687-12-08 15:07 J	-3277411.99	-3277411.87	-3277411.75	0.0139	0.0052
Mercury	-13686-03-06 18:28 J	-3277323.86	-3277323.73	-3277323.61	0.0139	0.0032
Mercury	-13686-06-02 21:35 J	-3277235.73	-3277235.60	-3277235.47	0.0139	0.0012
Mercury	-13686-08-30 00:43 J	-3277147.60	-3277147.47	-3277147.34	0.0139	0.0009

Mercury	-13686-11-26 04:04 J	-3277059.46	-3277059.33	-3277059.20	0.0139	0.0028
Mercury	-13685-02-22 07:11 J	-3276971.32	-3276971.20	-3276971.08	0.0139	0.0048
Mercury	-13685-05-20 10:19 J	-3276883.18	-3276883.07	-3276882.95	0.0140	0.0069
Mercury	-13685-08-16 13:40 J	-3276795.03	-3276794.93	-3276794.83	0.0140	0.0089
Mercury	-13685-11-12 17:02 J	-3276706.87	-3276706.79	-3276706.71	0.0140	0.0109
Mercury	-13684-02-08 20:09 J	-3276618.70	-3276618.66	-3276618.61	0.0140	0.0130
Mars	-13680-09-26 11:45 J	-3274928.33	-3274928.01	-3274927.67	0.0142	0.0021
Venus	-13672-07-27 14:38 J	-3272067.00	-3272066.89	-3272066.75	0.0146	0.0117
Venus	-13671-03-11 01:55 J	-3271840.59	-3271840.42	-3271840.22	0.0146	0.0073
Venus	-13671-10-23 13:26 J	-3271614.15	-3271613.94	-3271613.72	0.0146	0.0029
Venus	-13670-06-07 00:57 J	-3271387.67	-3271387.46	-3271387.24	0.0146	0.0016
Venus	-13669-01-19 12:28 J	-3271161.17	-3271160.98	-3271160.78	0.0146	0.0061
Venus	-13669-09-02 00:14 J	-3270934.62	-3270934.49	-3270934.33	0.0146	0.0107
Moon	-13662-11-27 04:04 J	-3268292.41	-3268292.33	-3268292.21	0.0146	0.0133
Earth	-13662-11-27 07:55 J	-3268292.28	-3268292.17	-3268292.02	0.0146	0.0126 *
Earth	-13661-12-01 12:57 J	-3267922.18	-3267921.96	-3267921.71	0.0146	0.0057
Moon	-13661-12-01 16:48 J	-3267922.03	-3267921.80	-3267921.56	0.0146	0.0053 *
Moon	-13660-12-06 15:07 J	-3267552.13	-3267551.87	-3267551.61	0.0146	0.0016
Earth	-13660-12-06 18:28 J	-3267551.98	-3267551.73	-3267551.47	0.0146	0.0014 *
Earth	-13659-12-11 23:02 J	-3267181.73	-3267181.54	-3267181.31	0.0145	0.0084
Moon	-13659-12-12 02:24 J	-3267181.60	-3267181.40	-3267181.17	0.0145	0.0078 *
Mercury	-13648-11-02 11:16 J	-3263203.13	-3263203.03	-3263202.91	0.0140	0.0115
Mercury	-13647-01-29 19:40 J	-3263114.84	-3263114.68	-3263114.53	0.0140	0.0084
Mercury	-13647-04-28 03:35 J	-3263026.52	-3263026.35	-3263026.16	0.0140	0.0054
Mercury	-13647-07-25 12:00 J	-3262938.19	-3262938.00	-3262937.81	0.0140	0.0023
Mercury	-13647-10-21 20:09 J	-3262849.86	-3262849.66	-3262849.47	0.0140	0.0008
Mercury	-13646-01-18 04:04 J	-3262761.52	-3262761.33	-3262761.14	0.0139	0.0038
Mercury	-13646-04-16 12:00 J	-3262673.16	-3262673.00	-3262672.82	0.0139	0.0068
Mercury	-13646-07-13 19:55 J	-3262584.80	-3262584.67	-3262584.52	0.0139	0.0098
Mercury	-13646-10-10 03:50 J	-3262496.40	-3262496.34	-3262496.25	0.0139	0.0127

Mars	-13641-04-03 04:48 J	-3260859.55	-3260859.30	-3260859.05	0.0137	0.0068
Mars	-13639-03-04 00:57 J	-3260159.61	-3260159.46	-3260159.26	0.0136	0.0107
Venus	-13632-11-12 08:24 J	-3257349.21	-3257349.15	-3257349.09	0.0133	0.0127
Venus	-13631-06-26 14:24 J	-3257123.05	-3257122.90	-3257122.74	0.0133	0.0093
Venus	-13630-02-07 20:38 J	-3256896.83	-3256896.64	-3256896.44	0.0133	0.0059
Venus	-13630-09-22 02:38 J	-3256670.60	-3256670.39	-3256670.17	0.0133	0.0025
Venus	-13629-05-05 08:38 J	-3256444.36	-3256444.14	-3256443.92	0.0132	0.0010
Venus	-13629-12-17 14:24 J	-3256218.10	-3256217.90	-3256217.69	0.0132	0.0044
Venus	-13628-07-31 19:55 J	-3255991.83	-3255991.67	-3255991.47	0.0132	0.0079
Venus	-13627-03-15 02:09 J	-3255765.53	-3255765.41	-3255765.29	0.0132	0.0112
Earth	-13619-05-30 18:14 J	-3252766.75	-3252766.74	-3252766.70	0.0132	0.0132
Moon	-13618-06-03 22:04 J	-3252397.77	-3252397.58	-3252397.36	0.0133	0.0080
Earth	-13618-06-03 22:19 J	-3252397.76	-3252397.57	-3252397.37	0.0133	0.0082 *
Earth	-13617-06-07 02:09 J	-3252028.65	-3252028.41	-3252028.16	0.0133	0.0031
Moon	-13617-06-07 02:38 J	-3252028.62	-3252028.39	-3252028.14	0.0133	0.0032 *
Moon	-13616-06-11 06:00 J	-3251659.51	-3251659.25	-3251658.99	0.0133	0.0018
Earth	-13616-06-11 06:14 J	-3251659.49	-3251659.24	-3251658.99	0.0133	0.0020 *
Earth	-13615-06-15 10:33 J	-3251290.27	-3251290.06	-3251289.85	0.0133	0.0072
Moon	-13615-06-15 10:19 J	-3251290.25	-3251290.07	-3251289.86	0.0133	0.0078 *
Moon	-13614-06-19 14:24 J	-3250921.02	-3250920.90	-3250920.78	0.0133	0.0117
Earth	-13614-06-19 14:24 J	-3250920.97	-3250920.90	-3250920.78	0.0133	0.0124 *
Mercury	-13603-01-10 09:50 J	-3247063.14	-3247063.09	-3247063.03	0.0138	0.0124
Mercury	-13603-04-08 12:57 J	-3246975.04	-3246974.96	-3246974.87	0.0138	0.0105
Mercury	-13603-07-05 16:04 J	-3246886.92	-3246886.83	-3246886.72	0.0138	0.0085
Mercury	-13603-10-01 19:26 J	-3246798.80	-3246798.69	-3246798.58	0.0139	0.0066
Mercury	-13603-12-28 22:33 J	-3246710.68	-3246710.56	-3246710.44	0.0139	0.0046
Mercury	-13602-03-27 01:40 J	-3246622.55	-3246622.43	-3246622.30	0.0139	0.0027
Mercury	-13602-06-23 05:02 J	-3246534.42	-3246534.29	-3246534.16	0.0139	0.0007
Mercury	-13602-09-19 08:09 J	-3246446.29	-3246446.16	-3246446.03	0.0139	0.0013
Mercury	-13602-12-16 11:16 J	-3246358.15	-3246358.03	-3246357.90	0.0139	0.0034

Mercury	-13601-03-13 14:38 J	-3246270.01	-3246269.89	-3246269.77	0.0139	0.0054
Mercury	-13601-06-09 17:45 J	-3246181.87	-3246181.76	-3246181.65	0.0139	0.0074
Mercury	-13601-09-05 20:52 J	-3246093.72	-3246093.63	-3246093.52	0.0140	0.0095
Mercury	-13601-12-03 00:14 J	-3246005.56	-3246005.49	-3246005.41	0.0140	0.0115
Mercury	-13600-03-01 03:35 J	-3245917.38	-3245917.35	-3245917.31	0.0140	0.0135
Mars	-13597-06-16 11:45 J	-3244714.11	-3244714.01	-3244713.88	0.0142	0.0133
Mars	-13595-05-23 16:48 J	-3244008.00	-3244007.80	-3244007.55	0.0143	0.0105
Venus	-13588-03-26 20:24 J	-3241508.71	-3241508.65	-3241508.59	0.0145	0.0139
Venus	-13588-11-08 07:11 J	-3241282.35	-3241282.20	-3241282.02	0.0146	0.0096
Venus	-13587-06-22 18:43 J	-3241055.92	-3241055.72	-3241055.51	0.0146	0.0051
Venus	-13586-02-04 06:14 J	-3240829.45	-3240829.24	-3240829.03	0.0146	0.0006
Venus	-13586-09-18 17:45 J	-3240602.96	-3240602.76	-3240602.55	0.0146	0.0038
Venus	-13585-05-02 05:16 J	-3240376.45	-3240376.28	-3240376.10	0.0146	0.0083
Venus	-13585-12-14 16:48 J	-3240149.88	-3240149.80	-3240149.68	0.0146	0.0129
Moon	-13578-11-27 10:33 J	-3237611.20	-3237611.06	-3237610.90	0.0146	0.0117
Earth	-13578-11-27 13:55 J	-3237611.05	-3237610.92	-3237610.78	0.0146	0.0123 *
Earth	-13577-12-01 18:57 J	-3237240.95	-3237240.71	-3237240.47	0.0146	0.0054
Moon	-13577-12-01 22:33 J	-3237240.79	-3237240.56	-3237240.31	0.0146	0.0057 *
Moon	-13576-12-06 20:24 J	-3236870.91	-3236870.65	-3236870.39	0.0146	0.0015
Earth	-13576-12-07 00:00 J	-3236870.75	-3236870.50	-3236870.24	0.0146	0.0016 *
Earth	-13575-12-12 04:48 J	-3236500.50	-3236500.30	-3236500.08	0.0145	0.0085
Moon	-13575-12-12 07:55 J	-3236500.35	-3236500.17	-3236499.96	0.0145	0.0091 *
Moon	-13574-12-17 06:14 J	-3236130.24	-3236130.24	-3236130.23	0.0145	0.0145
Mercury	-13564-11-22 17:16 J	-3232501.89	-3232501.78	-3232501.66	0.0140	0.0113
Mercury	-13563-02-19 01:11 J	-3232413.60	-3232413.45	-3232413.28	0.0140	0.0082
Mercury	-13563-05-18 09:35 J	-3232325.28	-3232325.10	-3232324.91	0.0140	0.0051
Mercury	-13563-08-14 17:45 J	-3232236.95	-3232236.76	-3232236.56	0.0140	0.0021
Mercury	-13563-11-11 01:55 J	-3232148.61	-3232148.42	-3232148.22	0.0140	0.0010
Mercury	-13562-02-07 09:50 J	-3232060.27	-3232060.09	-3232059.89	0.0139	0.0041
Mercury	-13562-05-06 18:00 J	-3231971.91	-3231971.75	-3231971.58	0.0139	0.0070

Mercury	-13562-08-03 01:55 J	-3231883.54	-3231883.42	-3231883.28	0.0139	0.0100
Mercury	-13562-10-30 09:50 J	-3231795.14	-3231795.09	-3231795.01	0.0139	0.0130
Mars	-13557-11-26 11:45 J	-3229941.30	-3229941.01	-3229940.73	0.0136	0.0007
Venus	-13547-02-23 23:31 J	-3226564.64	-3226564.52	-3226564.39	0.0133	0.0109
Venus	-13547-10-08 05:31 J	-3226338.44	-3226338.27	-3226338.07	0.0133	0.0075
Venus	-13546-05-22 12:00 J	-3226112.21	-3226112.00	-3226111.79	0.0133	0.0040
Venus	-13545-01-03 18:14 J	-3225885.96	-3225885.74	-3225885.52	0.0133	0.0006
Venus	-13545-08-17 00:14 J	-3225659.71	-3225659.49	-3225659.28	0.0133	0.0029
Venus	-13544-03-31 05:45 J	-3225433.44	-3225433.26	-3225433.05	0.0132	0.0064
Venus	-13544-11-12 11:31 J	-3225207.15	-3225207.02	-3225206.85	0.0132	0.0098
Venus	-13543-06-26 17:45 J	-3224980.79	-3224980.76	-3224980.73	0.0132	0.0131
Earth	-13535-05-31 06:14 J	-3222085.30	-3222085.24	-3222085.16	0.0132	0.0127
Moon	-13535-05-31 06:28 J	-3222085.30	-3222085.23	-3222085.11	0.0132	0.0123 *
Moon	-13534-06-04 08:52 J	-3221716.33	-3221716.13	-3221715.91	0.0133	0.0080
Earth	-13534-06-04 10:04 J	-3221716.27	-3221716.08	-3221715.86	0.0133	0.0077 *
Earth	-13533-06-07 14:09 J	-3221347.15	-3221346.91	-3221346.65	0.0133	0.0026
Moon	-13533-06-07 14:52 J	-3221347.11	-3221346.88	-3221346.64	0.0133	0.0026 *
Moon	-13532-06-11 17:31 J	-3220978.02	-3220977.77	-3220977.51	0.0133	0.0028
Earth	-13532-06-11 18:28 J	-3220977.97	-3220977.73	-3220977.48	0.0133	0.0025 *
Earth	-13531-06-15 22:48 J	-3220608.75	-3220608.55	-3220608.34	0.0133	0.0077
Moon	-13531-06-15 23:45 J	-3220608.71	-3220608.51	-3220608.31	0.0133	0.0073 *
Earth	-13530-06-20 03:21 J	-3220239.42	-3220239.36	-3220239.28	0.0134	0.0128
Mercury	-13520-11-03 14:09 J	-3216449.91	-3216449.91	-3216449.88	0.0138	0.0137
Mercury	-13519-01-30 17:31 J	-3216361.84	-3216361.77	-3216361.70	0.0138	0.0117
Mercury	-13519-04-28 20:38 J	-3216273.73	-3216273.64	-3216273.55	0.0138	0.0098
Mercury	-13519-07-25 23:45 J	-3216185.61	-3216185.51	-3216185.40	0.0138	0.0079
Mercury	-13519-10-22 02:52 J	-3216097.49	-3216097.38	-3216097.26	0.0138	0.0059
Mercury	-13518-01-18 06:14 J	-3216009.37	-3216009.24	-3216009.12	0.0139	0.0040
Mercury	-13518-04-16 09:21 J	-3215921.24	-3215921.11	-3215920.98	0.0139	0.0020
Mercury	-13518-07-13 12:28 J	-3215833.11	-3215832.98	-3215832.85	0.0139	0.0003

Mercury	-13518-10-09 15:50 J	-3215744.97	-3215744.84	-3215744.71	0.0139	0.0020
Mercury	-13517-01-05 18:57 J	-3215656.83	-3215656.71	-3215656.58	0.0139	0.0040
Mercury	-13517-04-02 22:04 J	-3215568.69	-3215568.58	-3215568.46	0.0139	0.0060
Mercury	-13517-06-30 01:26 J	-3215480.54	-3215480.44	-3215480.33	0.0139	0.0080
Mercury	-13517-09-26 04:33 J	-3215392.39	-3215392.31	-3215392.21	0.0139	0.0101
Mercury	-13517-12-23 07:55 J	-3215304.23	-3215304.17	-3215304.10	0.0140	0.0121
Mars	-13512-02-10 20:52 J	-3213793.93	-3213793.63	-3213793.30	0.0142	0.0048
Venus	-13504-07-08 14:38 J	-3210724.01	-3210723.89	-3210723.75	0.0145	0.0116
Venus	-13503-02-20 01:55 J	-3210497.60	-3210497.42	-3210497.23	0.0146	0.0072
Venus	-13503-10-04 13:11 J	-3210271.16	-3210270.95	-3210270.73	0.0146	0.0027
Venus	-13502-05-19 00:43 J	-3210044.68	-3210044.47	-3210044.26	0.0146	0.0017
Venus	-13502-12-31 12:14 J	-3209818.18	-3209817.99	-3209817.79	0.0146	0.0062
Venus	-13501-08-13 23:45 J	-3209591.64	-3209591.51	-3209591.35	0.0146	0.0107
Moon	-13494-11-27 19:11 J	-3206929.81	-3206929.70	-3206929.56	0.0146	0.0126
Earth	-13494-11-27 22:19 J	-3206929.69	-3206929.57	-3206929.40	0.0146	0.0120 *
Earth	-13493-12-02 03:35 J	-3206559.58	-3206559.35	-3206559.10	0.0146	0.0050
Moon	-13493-12-02 07:11 J	-3206559.45	-3206559.20	-3206558.95	0.0146	0.0045 *
Moon	-13492-12-07 05:16 J	-3206189.53	-3206189.28	-3206189.02	0.0146	0.0021
Earth	-13492-12-07 08:52 J	-3206189.38	-3206189.13	-3206188.87	0.0146	0.0020 *
Earth	-13491-12-12 13:55 J	-3205819.12	-3205818.92	-3205818.72	0.0145	0.0089
Moon	-13491-12-12 17:31 J	-3205818.97	-3205818.77	-3205818.56	0.0145	0.0084 *
Mercury	-13480-09-15 15:21 J	-3201888.87	-3201888.86	-3201888.81	0.0140	0.0138
Mercury	-13480-12-12 23:45 J	-3201800.62	-3201800.51	-3201800.37	0.0140	0.0107
Mercury	-13479-03-11 08:09 J	-3201712.32	-3201712.16	-3201711.99	0.0140	0.0076
Mercury	-13479-06-07 16:33 J	-3201624.00	-3201623.81	-3201623.63	0.0140	0.0045
Mercury	-13479-09-04 00:43 J	-3201535.67	-3201535.47	-3201535.28	0.0140	0.0015
Mercury	-13479-12-01 08:52 J	-3201447.33	-3201447.13	-3201446.94	0.0140	0.0016
Mercury	-13478-02-27 16:48 J	-3201358.98	-3201358.80	-3201358.61	0.0139	0.0046
Mercury	-13478-05-27 00:43 J	-3201270.62	-3201270.47	-3201270.30	0.0139	0.0076
Mercury	-13478-08-23 08:38 J	-3201182.25	-3201182.14	-3201182.00	0.0139	0.0106

Mercury	-13478-11-19 17:02 J	-3201093.83	-3201093.79	-3201093.75	0.0139	0.0136
Mars	-13474-08-21 22:48 J	-3199722.67	-3199722.55	-3199722.41	0.0137	0.0122
Mars	-13472-07-21 20:38 J	-3199022.89	-3199022.64	-3199022.37	0.0136	0.0055
Venus	-13464-10-24 08:38 J	-3196006.19	-3196006.14	-3196006.04	0.0133	0.0126
Venus	-13463-06-07 15:21 J	-3195780.01	-3195779.86	-3195779.69	0.0133	0.0090
Venus	-13462-01-19 21:35 J	-3195553.79	-3195553.60	-3195553.38	0.0133	0.0056
Venus	-13462-09-03 04:04 J	-3195327.55	-3195327.33	-3195327.11	0.0133	0.0021
Venus	-13461-04-16 10:19 J	-3195101.29	-3195101.07	-3195100.85	0.0133	0.0014
Venus	-13461-11-28 15:50 J	-3194875.03	-3194874.84	-3194874.62	0.0133	0.0049
Venus	-13460-07-12 21:50 J	-3194648.75	-3194648.59	-3194648.40	0.0132	0.0083
Venus	-13459-02-24 03:50 J	-3194422.43	-3194422.34	-3194422.22	0.0132	0.0117
Earth	-13451-05-31 18:28 J	-3191403.82	-3191403.73	-3191403.62	0.0133	0.0121
Moon	-13451-05-31 19:55 J	-3191403.72	-3191403.67	-3191403.59	0.0133	0.0127 *
Moon	-13450-06-04 21:21 J	-3191034.82	-3191034.61	-3191034.38	0.0133	0.0068
Earth	-13450-06-04 22:33 J	-3191034.76	-3191034.56	-3191034.34	0.0133	0.0071 *
Earth	-13449-06-08 02:52 J	-3190665.63	-3190665.38	-3190665.13	0.0133	0.0020
Moon	-13449-06-08 04:33 J	-3190665.55	-3190665.31	-3190665.07	0.0133	0.0021 *
Moon	-13448-06-12 05:45 J	-3190296.51	-3190296.26	-3190296.00	0.0133	0.0029
Earth	-13448-06-12 06:57 J	-3190296.44	-3190296.21	-3190295.95	0.0133	0.0031 *
Earth	-13447-06-16 11:16 J	-3189927.21	-3189927.03	-3189926.81	0.0133	0.0083
Moon	-13447-06-16 12:43 J	-3189927.14	-3189926.97	-3189926.78	0.0133	0.0087 *
Moon	-13446-06-20 14:52 J	-3189557.95	-3189557.88	-3189557.80	0.0134	0.0127
Earth	-13446-06-20 16:33 J	-3189557.83	-3189557.81	-3189557.79	0.0134	0.0133 *
Mercury	-13436-11-23 22:04 J	-3185748.62	-3185748.58	-3185748.53	0.0138	0.0129
Mercury	-13435-02-20 01:11 J	-3185660.52	-3185660.45	-3185660.37	0.0138	0.0110
Mercury	-13435-05-19 04:19 J	-3185572.41	-3185572.32	-3185572.22	0.0138	0.0091
Mercury	-13435-08-15 07:26 J	-3185484.29	-3185484.19	-3185484.07	0.0138	0.0072
Mercury	-13435-11-11 10:48 J	-3185396.17	-3185396.05	-3185395.93	0.0139	0.0052
Mercury	-13434-02-07 13:55 J	-3185308.05	-3185307.92	-3185307.79	0.0139	0.0032
Mercury	-13434-05-06 17:02 J	-3185219.92	-3185219.79	-3185219.65	0.0139	0.0013

Mercury	-13434-08-02 20:24 J	-3185131.78	-3185131.65	-3185131.52	0.0139	0.0008
Mercury	-13434-10-29 23:31 J	-3185043.65	-3185043.52	-3185043.39	0.0139	0.0028
Mercury	-13433-01-26 02:38 J	-3184955.51	-3184955.39	-3184955.26	0.0139	0.0048
Mercury	-13433-04-23 06:00 J	-3184867.36	-3184867.25	-3184867.13	0.0139	0.0068
Mercury	-13433-07-20 09:07 J	-3184779.21	-3184779.12	-3184779.01	0.0139	0.0089
Mercury	-13433-10-16 12:28 J	-3184691.05	-3184690.98	-3184690.89	0.0140	0.0109
Mercury	-13432-01-12 15:50 J	-3184602.88	-3184602.84	-3184602.79	0.0140	0.0129
Mars	-13428-10-08 10:48 J	-3182873.36	-3182873.05	-3182872.72	0.0142	0.0041
Venus	-13420-03-08 00:00 J	-3180165.58	-3180165.50	-3180165.42	0.0145	0.0134
Venus	-13420-10-20 10:48 J	-3179939.20	-3179939.05	-3179938.87	0.0145	0.0090
Venus	-13419-06-03 22:04 J	-3179712.78	-3179712.58	-3179712.37	0.0146	0.0046
Venus	-13418-01-16 09:35 J	-3179486.31	-3179486.10	-3179485.89	0.0146	0.0001
Venus	-13418-08-30 20:52 J	-3179259.82	-3179259.63	-3179259.41	0.0146	0.0044
Venus	-13417-04-13 08:38 J	-3179033.31	-3179033.14	-3179032.97	0.0146	0.0088
Venus	-13417-11-25 19:55 J	-3178806.74	-3178806.67	-3178806.57	0.0146	0.0133
Moon	-13410-11-28 07:26 J	-3176248.35	-3176248.19	-3176248.01	0.0146	0.0106
Earth	-13410-11-28 10:04 J	-3176248.23	-3176248.08	-3176247.91	0.0146	0.0113 *
Earth	-13409-12-02 15:07 J	-3175878.11	-3175877.87	-3175877.63	0.0146	0.0044
Moon	-13409-12-02 18:28 J	-3175877.97	-3175877.73	-3175877.48	0.0146	0.0048 *
Moon	-13408-12-07 16:33 J	-3175508.06	-3175507.81	-3175507.56	0.0145	0.0025
Earth	-13408-12-07 20:09 J	-3175507.91	-3175507.66	-3175507.41	0.0145	0.0025 *
Earth	-13407-12-13 00:28 J	-3175137.66	-3175137.48	-3175137.27	0.0145	0.0093
Moon	-13407-12-13 03:50 J	-3175137.51	-3175137.34	-3175137.13	0.0145	0.0100 *
Mercury	-13396-10-05 22:33 J	-3171187.61	-3171187.56	-3171187.48	0.0140	0.0131
Mercury	-13395-01-02 06:57 J	-3171099.34	-3171099.21	-3171099.07	0.0140	0.0100
Mercury	-13395-03-31 15:21 J	-3171011.03	-3171010.86	-3171010.69	0.0140	0.0069
Mercury	-13395-06-27 23:16 J	-3170922.71	-3170922.53	-3170922.33	0.0140	0.0039
Mercury	-13395-09-24 07:40 J	-3170834.38	-3170834.18	-3170833.98	0.0140	0.0008
Mercury	-13395-12-21 15:50 J	-3170746.03	-3170745.84	-3170745.65	0.0140	0.0022
Mercury	-13394-03-19 23:45 J	-3170657.68	-3170657.51	-3170657.32	0.0139	0.0053

Mercury	-13394-06-16 07:55 J	-3170569.32	-3170569.17	-3170569.01	0.0139	0.0083
Mercury	-13394-09-12 15:50 J	-3170480.95	-3170480.84	-3170480.72	0.0139	0.0113
Mars	-13389-04-15 08:38 J	-3168804.39	-3168804.14	-3168803.87	0.0137	0.0059
Mars	-13387-03-16 04:33 J	-3168104.44	-3168104.31	-3168104.14	0.0136	0.0116
Venus	-13379-02-05 00:43 J	-3165221.59	-3165221.47	-3165221.32	0.0133	0.0106
Venus	-13379-09-19 07:11 J	-3164995.37	-3164995.20	-3164995.00	0.0133	0.0071
Venus	-13378-05-03 13:40 J	-3164769.14	-3164768.93	-3164768.71	0.0133	0.0036
Venus	-13378-12-15 19:55 J	-3164542.89	-3164542.67	-3164542.45	0.0133	0.0002
Venus	-13377-07-29 01:55 J	-3164316.63	-3164316.42	-3164316.20	0.0133	0.0034
Venus	-13376-03-12 08:09 J	-3164090.35	-3164090.16	-3164089.97	0.0133	0.0068
Venus	-13376-10-24 14:09 J	-3163864.05	-3163863.91	-3163863.77	0.0133	0.0102
Earth	-13367-06-01 06:28 J	-3160722.34	-3160722.23	-3160722.10	0.0133	0.0116
Moon	-13367-06-01 07:55 J	-3160722.29	-3160722.17	-3160722.03	0.0133	0.0111 *
Moon	-13366-06-05 08:24 J	-3160353.36	-3160353.15	-3160352.92	0.0133	0.0070
Earth	-13366-06-05 10:33 J	-3160353.27	-3160353.06	-3160352.83	0.0133	0.0066 *
Earth	-13365-06-08 15:07 J	-3159984.12	-3159983.87	-3159983.62	0.0133	0.0015
Moon	-13365-06-08 16:48 J	-3159984.04	-3159983.80	-3159983.56	0.0133	0.0014 *
Moon	-13364-06-12 17:45 J	-3159615.01	-3159614.76	-3159614.51	0.0133	0.0038
Earth	-13364-06-12 19:26 J	-3159614.92	-3159614.69	-3159614.44	0.0133	0.0036 *
Earth	-13363-06-17 00:14 J	-3159245.68	-3159245.49	-3159245.30	0.0133	0.0087
Moon	-13363-06-17 01:55 J	-3159245.60	-3159245.42	-3159245.22	0.0133	0.0084 *
Mercury	-13352-12-14 05:45 J	-3155047.31	-3155047.26	-3155047.20	0.0138	0.0122
Mercury	-13351-03-12 08:52 J	-3154959.21	-3154959.13	-3154959.04	0.0138	0.0103
Mercury	-13351-06-08 12:14 J	-3154871.10	-3154870.99	-3154870.89	0.0138	0.0084
Mercury	-13351-09-04 15:07 J	-3154782.98	-3154782.87	-3154782.75	0.0138	0.0065
Mercury	-13351-12-01 18:28 J	-3154694.85	-3154694.73	-3154694.61	0.0139	0.0045
Mercury	-13350-02-27 21:35 J	-3154606.72	-3154606.60	-3154606.47	0.0139	0.0025
Mercury	-13350-05-27 00:57 J	-3154518.59	-3154518.46	-3154518.33	0.0139	0.0006
Mercury	-13350-08-23 04:04 J	-3154430.46	-3154430.33	-3154430.20	0.0139	0.0015
Mercury	-13350-11-19 07:11 J	-3154342.32	-3154342.20	-3154342.07	0.0139	0.0035

Mercury	-13349-02-15 10:33 J	-3154254.18	-3154254.06	-3154253.94	0.0139	0.0055
Mercury	-13349-05-13 13:40 J	-3154166.03	-3154165.93	-3154165.81	0.0139	0.0075
Mercury	-13349-08-09 17:02 J	-3154077.88	-3154077.79	-3154077.69	0.0139	0.0096
Mercury	-13349-11-05 20:24 J	-3153989.72	-3153989.65	-3153989.58	0.0140	0.0116
Mercury	-13348-02-01 23:31 J	-3153901.54	-3153901.52	-3153901.49	0.0140	0.0137
Mars	-13345-06-28 18:57 J	-3152658.91	-3152658.71	-3152658.47	0.0142	0.0108
Mars	-13343-06-04 23:45 J	-3151952.63	-3151952.51	-3151952.35	0.0143	0.0129
Venus	-13336-06-19 20:09 J	-3149380.79	-3149380.66	-3149380.50	0.0145	0.0109
Venus	-13335-02-01 07:26 J	-3149154.37	-3149154.19	-3149153.99	0.0145	0.0064
Venus	-13335-09-15 18:57 J	-3148927.92	-3148927.71	-3148927.50	0.0146	0.0019
Venus	-13334-04-30 06:14 J	-3148701.45	-3148701.24	-3148701.02	0.0146	0.0025
Venus	-13334-12-12 17:45 J	-3148474.95	-3148474.76	-3148474.57	0.0146	0.0070
Venus	-13333-07-26 05:16 J	-3148248.40	-3148248.28	-3148248.14	0.0146	0.0115
Moon	-13326-11-28 21:07 J	-3145566.76	-3145566.62	-3145566.44	0.0146	0.0113
Earth	-13326-11-28 23:45 J	-3145566.66	-3145566.51	-3145566.31	0.0146	0.0106 *
Earth	-13325-12-03 05:02 J	-3145196.54	-3145196.29	-3145196.04	0.0146	0.0037
Moon	-13325-12-03 07:55 J	-3145196.42	-3145196.17	-3145195.91	0.0146	0.0032 *
Moon	-13324-12-08 06:28 J	-3144826.47	-3144826.23	-3144825.98	0.0145	0.0033
Earth	-13324-12-08 10:04 J	-3144826.33	-3144826.08	-3144825.83	0.0145	0.0032 *
Earth	-13323-12-13 14:24 J	-3144456.07	-3144455.90	-3144455.70	0.0145	0.0100
Moon	-13323-12-13 18:14 J	-3144455.92	-3144455.74	-3144455.54	0.0145	0.0095 *
Mercury	-13312-10-26 06:43 J	-3140486.31	-3140486.22	-3140486.11	0.0140	0.0121
Mercury	-13311-01-22 14:52 J	-3140398.02	-3140397.88	-3140397.72	0.0140	0.0090
Mercury	-13311-04-20 23:16 J	-3140309.70	-3140309.53	-3140309.35	0.0140	0.0059
Mercury	-13311-07-18 07:26 J	-3140221.37	-3140221.19	-3140220.99	0.0140	0.0029
Mercury	-13311-10-14 15:50 J	-3140133.04	-3140132.84	-3140132.65	0.0140	0.0003
Mercury	-13310-01-10 23:45 J	-3140044.69	-3140044.51	-3140044.31	0.0139	0.0033
Mercury	-13310-04-09 07:55 J	-3139956.34	-3139956.17	-3139955.99	0.0139	0.0063
Mercury	-13310-07-06 15:50 J	-3139867.98	-3139867.84	-3139867.69	0.0139	0.0093
Mercury	-13310-10-02 23:45 J	-3139779.59	-3139779.51	-3139779.41	0.0139	0.0123

Mars	-13305-12-08 22:33 J	-3137885.85	-3137885.56	-3137885.27	0.0136	0.0005
Venus	-13296-10-05 10:48 J	-3134663.11	-3134663.05	-3134662.93	0.0133	0.0122
Venus	-13295-05-19 17:31 J	-3134436.92	-3134436.77	-3134436.59	0.0133	0.0086
Venus	-13294-01-01 00:00 J	-3134210.69	-3134210.50	-3134210.28	0.0133	0.0051
Venus	-13294-08-15 06:28 J	-3133984.45	-3133984.23	-3133984.01	0.0133	0.0016
Venus	-13293-03-28 12:43 J	-3133758.19	-3133757.97	-3133757.75	0.0133	0.0019
Venus	-13293-11-09 18:28 J	-3133531.92	-3133531.73	-3133531.52	0.0133	0.0054
Venus	-13292-06-24 00:28 J	-3133305.63	-3133305.48	-3133305.31	0.0133	0.0088
Venus	-13291-02-05 06:43 J	-3133079.30	-3133079.22	-3133079.13	0.0132	0.0122
Earth	-13283-06-01 18:43 J	-3130040.86	-3130040.72	-3130040.58	0.0133	0.0110
Moon	-13283-06-01 20:52 J	-3130040.73	-3130040.63	-3130040.50	0.0133	0.0117 *
Moon	-13282-06-05 20:38 J	-3129671.86	-3129671.64	-3129671.39	0.0133	0.0057
Earth	-13282-06-05 23:02 J	-3129671.76	-3129671.54	-3129671.31	0.0133	0.0060 *
Earth	-13281-06-09 03:35 J	-3129302.60	-3129302.35	-3129302.10	0.0133	0.0010
Moon	-13281-06-09 06:00 J	-3129302.49	-3129302.25	-3129302.00	0.0133	0.0011 *
Moon	-13280-06-13 05:31 J	-3128933.50	-3128933.27	-3128933.01	0.0133	0.0040
Earth	-13280-06-13 07:55 J	-3128933.40	-3128933.17	-3128932.92	0.0133	0.0041 *
Earth	-13279-06-17 12:28 J	-3128564.15	-3128563.98	-3128563.78	0.0133	0.0092
Moon	-13279-06-17 14:38 J	-3128564.05	-3128563.89	-3128563.71	0.0133	0.0097 *
Mercury	-13268-10-07 10:19 J	-3124434.09	-3124434.07	-3124434.05	0.0138	0.0135
Mercury	-13267-01-03 13:26 J	-3124346.01	-3124345.94	-3124345.87	0.0138	0.0116
Mercury	-13267-04-01 16:19 J	-3124257.90	-3124257.82	-3124257.72	0.0138	0.0098
Mercury	-13267-06-28 19:40 J	-3124169.78	-3124169.68	-3124169.57	0.0138	0.0078
Mercury	-13267-09-24 23:02 J	-3124081.66	-3124081.54	-3124081.43	0.0139	0.0058
Mercury	-13267-12-22 02:09 J	-3123993.54	-3123993.41	-3123993.29	0.0139	0.0038
Mercury	-13266-03-20 05:16 J	-3123905.41	-3123905.28	-3123905.15	0.0139	0.0019
Mercury	-13266-06-16 08:24 J	-3123817.28	-3123817.15	-3123817.01	0.0139	0.0005
Mercury	-13266-09-12 11:45 J	-3123729.14	-3123729.01	-3123728.88	0.0139	0.0021
Mercury	-13266-12-09 14:52 J	-3123641.00	-3123640.88	-3123640.75	0.0139	0.0042
Mercury	-13265-03-06 18:14 J	-3123552.86	-3123552.74	-3123552.62	0.0139	0.0062

Mercury	-13265-06-02 21:21 J	-3123464.71	-3123464.61	-3123464.50	0.0139	0.0082
Mercury	-13265-08-30 00:28 J	-3123376.56	-3123376.48	-3123376.38	0.0140	0.0103
Mercury	-13265-11-26 03:50 J	-3123288.39	-3123288.34	-3123288.27	0.0140	0.0123
Mars	-13260-02-23 05:16 J	-3121738.60	-3121738.28	-3121737.94	0.0142	0.0022
Jupiter	-13253-05-03 18:28 J	-3119111.94	-3119111.73	-3119111.43	0.0145	0.0126
Venus	-13252-02-17 04:48 J	-3118822.38	-3118822.30	-3118822.18	0.0145	0.0127
Venus	-13252-10-01 15:50 J	-3118596.00	-3118595.84	-3118595.65	0.0145	0.0084
Venus	-13251-05-16 03:21 J	-3118369.56	-3118369.36	-3118369.15	0.0146	0.0039
Venus	-13251-12-28 14:38 J	-3118143.10	-3118142.89	-3118142.67	0.0146	0.0007
Venus	-13250-08-12 02:24 J	-3117916.61	-3117916.40	-3117916.20	0.0146	0.0051
Venus	-13249-03-25 13:40 J	-3117690.09	-3117689.93	-3117689.77	0.0146	0.0096
Venus	-13249-11-07 00:57 J	-3117463.50	-3117463.46	-3117463.40	0.0146	0.0141
Moon	-13242-11-29 11:02 J	-3114885.22	-3114885.04	-3114884.84	0.0146	0.0092
Earth	-13242-11-29 12:57 J	-3114885.15	-3114884.96	-3114884.77	0.0146	0.0099 *
Earth	-13241-12-03 17:45 J	-3114515.00	-3114514.76	-3114514.50	0.0146	0.0031
Moon	-13241-12-03 20:52 J	-3114514.88	-3114514.63	-3114514.37	0.0146	0.0034 *
Moon	-13240-12-08 19:40 J	-3114144.92	-3114144.68	-3114144.43	0.0145	0.0039
Earth	-13240-12-08 22:48 J	-3114144.79	-3114144.55	-3114144.30	0.0145	0.0037 *
Earth	-13239-12-14 02:52 J	-3113774.54	-3113774.38	-3113774.18	0.0145	0.0106
Moon	-13239-12-14 06:43 J	-3113774.38	-3113774.22	-3113774.05	0.0145	0.0110 *
Mercury	-13228-11-15 14:24 J	-3109785.00	-3109784.90	-3109784.77	0.0140	0.0112
Mercury	-13227-02-11 22:48 J	-3109696.70	-3109696.55	-3109696.38	0.0140	0.0081
Mercury	-13227-05-11 06:57 J	-3109608.38	-3109608.21	-3109608.02	0.0140	0.0051
Mercury	-13227-08-07 15:21 J	-3109520.05	-3109519.86	-3109519.67	0.0140	0.0020
Mercury	-13227-11-03 23:31 J	-3109431.72	-3109431.52	-3109431.32	0.0139	0.0011
Mercury	-13226-01-31 07:26 J	-3109343.37	-3109343.19	-3109342.99	0.0139	0.0042
Mercury	-13226-04-29 15:35 J	-3109255.01	-3109254.85	-3109254.68	0.0139	0.0071
Mercury	-13226-07-26 23:31 J	-3109166.64	-3109166.52	-3109166.38	0.0139	0.0101
Mercury	-13226-10-23 07:26 J	-3109078.24	-3109078.19	-3109078.11	0.0139	0.0131
Mars	-13222-09-03 12:28 J	-3107667.15	-3107666.98	-3107666.80	0.0137	0.0107

Mars	-13220-08-03 08:24 J	-3106967.40	-3106967.15	-3106966.90	0.0136	0.0067
Venus	-13211-01-17 03:21 J	-3103878.50	-3103878.36	-3103878.21	0.0133	0.0101
Venus	-13211-08-31 09:50 J	-3103652.28	-3103652.09	-3103651.89	0.0133	0.0066
Venus	-13210-04-14 16:04 J	-3103426.04	-3103425.83	-3103425.61	0.0133	0.0031
Venus	-13210-11-26 22:19 J	-3103199.79	-3103199.57	-3103199.35	0.0133	0.0004
Venus	-13209-07-10 04:04 J	-3102973.53	-3102973.33	-3102973.10	0.0133	0.0039
Venus	-13208-02-21 10:19 J	-3102747.25	-3102747.07	-3102746.88	0.0133	0.0073
Venus	-13208-10-05 16:04 J	-3102520.94	-3102520.83	-3102520.69	0.0132	0.0107
Earth	-13199-06-02 05:16 J	-3099359.42	-3099359.28	-3099359.12	0.0133	0.0106
Moon	-13199-06-02 07:26 J	-3099359.33	-3099359.19	-3099359.01	0.0133	0.0101 *
Moon	-13198-06-06 06:43 J	-3098990.44	-3098990.22	-3098989.98	0.0133	0.0061
Earth	-13198-06-06 09:50 J	-3098990.31	-3098990.09	-3098989.86	0.0133	0.0056 *
Earth	-13197-06-09 14:24 J	-3098621.16	-3098620.90	-3098620.65	0.0133	0.0006
Moon	-13197-06-09 16:48 J	-3098621.04	-3098620.80	-3098620.55	0.0133	0.0004 *
Moon	-13196-06-13 15:50 J	-3098252.07	-3098251.84	-3098251.59	0.0133	0.0046
Earth	-13196-06-13 18:43 J	-3098251.95	-3098251.72	-3098251.47	0.0133	0.0045 *
Earth	-13195-06-17 23:02 J	-3097882.70	-3097882.54	-3097882.35	0.0133	0.0096
Moon	-13195-06-18 01:55 J	-3097882.58	-3097882.42	-3097882.23	0.0133	0.0092 *
Mercury	-13184-10-27 17:31 J	-3093732.81	-3093732.77	-3093732.73	0.0138	0.0131
Mercury	-13183-01-23 20:24 J	-3093644.71	-3093644.65	-3093644.56	0.0138	0.0113
Mercury	-13183-04-21 23:45 J	-3093556.60	-3093556.51	-3093556.41	0.0138	0.0093
Mercury	-13183-07-19 02:52 J	-3093468.48	-3093468.38	-3093468.27	0.0138	0.0073
Mercury	-13183-10-15 06:00 J	-3093380.36	-3093380.25	-3093380.12	0.0139	0.0054
Mercury	-13182-01-11 09:21 J	-3093292.24	-3093292.11	-3093291.98	0.0139	0.0034
Mercury	-13182-04-09 12:28 J	-3093204.11	-3093203.98	-3093203.85	0.0139	0.0014
Mercury	-13182-07-06 15:35 J	-3093115.98	-3093115.85	-3093115.71	0.0139	0.0008
Mercury	-13182-10-02 18:57 J	-3093027.84	-3093027.71	-3093027.58	0.0139	0.0026
Mercury	-13182-12-29 22:04 J	-3092939.70	-3092939.58	-3092939.45	0.0139	0.0046
Mercury	-13181-03-27 01:26 J	-3092851.56	-3092851.44	-3092851.33	0.0139	0.0066
Mercury	-13181-06-23 04:19 J	-3092763.41	-3092763.32	-3092763.21	0.0139	0.0087

Mercury	-13181-09-19 07:40 J	-3092675.25	-3092675.18	-3092675.09	0.0140	0.0107
Mercury	-13181-12-16 11:02 J	-3092587.09	-3092587.04	-3092586.98	0.0140	0.0127
Mars	-13176-10-20 08:38 J	-3090818.44	-3090818.14	-3090817.83	0.0142	0.0060
Venus	-13168-05-31 22:33 J	-3088037.70	-3088037.56	-3088037.40	0.0145	0.0105
Venus	-13167-01-13 09:35 J	-3087811.28	-3087811.10	-3087810.89	0.0145	0.0061
Venus	-13167-08-27 21:07 J	-3087584.83	-3087584.62	-3087584.40	0.0146	0.0016
Venus	-13166-04-11 08:24 J	-3087358.36	-3087358.15	-3087357.93	0.0146	0.0030
Venus	-13166-11-23 19:40 J	-3087131.86	-3087131.68	-3087131.49	0.0146	0.0075
Venus	-13165-07-07 06:57 J	-3086905.31	-3086905.21	-3086905.07	0.0146	0.0120
Moon	-13158-11-29 20:24 J	-3084203.81	-3084203.65	-3084203.46	0.0146	0.0102
Earth	-13158-11-29 22:33 J	-3084203.76	-3084203.56	-3084203.37	0.0146	0.0094 *
Earth	-13157-12-04 03:21 J	-3083833.60	-3083833.36	-3083833.10	0.0146	0.0027
Moon	-13157-12-04 05:31 J	-3083833.53	-3083833.27	-3083833.00	0.0146	0.0021 *
Moon	-13156-12-09 05:16 J	-3083463.51	-3083463.28	-3083463.03	0.0145	0.0042
Earth	-13156-12-09 08:09 J	-3083463.39	-3083463.16	-3083462.90	0.0145	0.0043 *
Earth	-13155-12-14 12:57 J	-3083093.12	-3083092.96	-3083092.78	0.0145	0.0109
Moon	-13155-12-14 16:04 J	-3083092.99	-3083092.83	-3083092.63	0.0145	0.0105 *
Mercury	-13144-09-08 13:40 J	-3079171.97	-3079171.93	-3079171.87	0.0140	0.0135
Mercury	-13144-12-05 22:04 J	-3079083.70	-3079083.58	-3079083.44	0.0140	0.0104
Mercury	-13143-03-04 06:14 J	-3078995.40	-3078995.24	-3078995.06	0.0140	0.0073
Mercury	-13143-05-31 14:38 J	-3078907.07	-3078906.89	-3078906.70	0.0140	0.0042
Mercury	-13143-08-27 23:02 J	-3078818.74	-3078818.54	-3078818.35	0.0140	0.0012
Mercury	-13143-11-24 06:57 J	-3078730.40	-3078730.21	-3078730.01	0.0140	0.0019
Mercury	-13142-02-20 15:07 J	-3078642.05	-3078641.87	-3078641.68	0.0139	0.0049
Mercury	-13142-05-19 23:02 J	-3078553.69	-3078553.54	-3078553.37	0.0139	0.0079
Mercury	-13142-08-16 06:57 J	-3078465.31	-3078465.21	-3078465.07	0.0139	0.0110
Mercury	-13142-11-12 15:07 J	-3078376.87	-3078376.87	-3078376.85	0.0139	0.0139
Mars	-13137-04-27 23:16 J	-3076748.79	-3076748.53	-3076748.25	0.0137	0.0045
Mars	-13135-03-28 19:40 J	-3076048.77	-3076048.68	-3076048.58	0.0136	0.0128
Jupiter	-13128-02-18 12:00 J	-3073530.48	-3073530.00	-3073529.47	0.0133	0.0023

Venus	-13128-09-16 12:57 J	-3073320.05	-3073319.96	-3073319.84	0.0133	0.0118
Venus	-13127-04-30 19:26 J	-3073093.85	-3073093.69	-3073093.50	0.0133	0.0083
Venus	-13127-12-13 01:55 J	-3072867.62	-3072867.42	-3072867.21	0.0133	0.0047
Venus	-13126-07-27 08:09 J	-3072641.38	-3072641.16	-3072640.94	0.0133	0.0012
Venus	-13125-03-09 14:24 J	-3072415.12	-3072414.90	-3072414.68	0.0133	0.0023
Venus	-13125-10-21 20:09 J	-3072188.85	-3072188.66	-3072188.45	0.0133	0.0058
Venus	-13124-06-05 02:09 J	-3071962.56	-3071962.41	-3071962.25	0.0132	0.0092
Venus	-13123-01-17 07:40 J	-3071736.22	-3071736.18	-3071736.10	0.0132	0.0127
Earth	-13115-06-02 15:50 J	-3068678.00	-3068677.84	-3068677.67	0.0132	0.0101
Moon	-13115-06-02 18:57 J	-3068677.84	-3068677.71	-3068677.56	0.0132	0.0108 *
Moon	-13114-06-06 17:16 J	-3068309.01	-3068308.78	-3068308.53	0.0133	0.0047
Earth	-13114-06-06 20:09 J	-3068308.88	-3068308.66	-3068308.42	0.0133	0.0052 *
Earth	-13113-06-10 00:43 J	-3067939.72	-3067939.47	-3067939.22	0.0133	0.0002
Moon	-13113-06-10 03:50 J	-3067939.58	-3067939.34	-3067939.09	0.0133	0.0004 *
Moon	-13112-06-14 01:40 J	-3067570.65	-3067570.43	-3067570.18	0.0133	0.0049
Earth	-13112-06-14 04:48 J	-3067570.52	-3067570.30	-3067570.05	0.0133	0.0049 *
Earth	-13111-06-18 09:21 J	-3067201.27	-3067201.11	-3067200.93	0.0133	0.0099
Moon	-13111-06-18 12:00 J	-3067201.13	-3067201.00	-3067200.83	0.0133	0.0104 *
Mercury	-13100-11-17 00:14 J	-3063031.52	-3063031.49	-3063031.43	0.0138	0.0128
Mercury	-13099-02-13 03:35 J	-3062943.42	-3062943.35	-3062943.27	0.0138	0.0109
Mercury	-13099-05-12 06:43 J	-3062855.31	-3062855.22	-3062855.12	0.0138	0.0089
Mercury	-13099-08-08 10:04 J	-3062767.20	-3062767.08	-3062766.97	0.0138	0.0070
Mercury	-13099-11-04 12:57 J	-3062679.07	-3062678.96	-3062678.83	0.0139	0.0051
Mercury	-13098-01-31 16:19 J	-3062590.95	-3062590.82	-3062590.69	0.0139	0.0031
Mercury	-13098-04-29 19:26 J	-3062502.82	-3062502.69	-3062502.56	0.0139	0.0011
Mercury	-13098-07-26 22:48 J	-3062414.68	-3062414.55	-3062414.42	0.0139	0.0010
Mercury	-13098-10-23 01:55 J	-3062326.55	-3062326.42	-3062326.29	0.0139	0.0029
Mercury	-13097-01-19 05:02 J	-3062238.41	-3062238.29	-3062238.17	0.0139	0.0049
Mercury	-13097-04-16 08:09 J	-3062150.27	-3062150.16	-3062150.04	0.0139	0.0069
Mercury	-13097-07-13 11:16 J	-3062062.12	-3062062.03	-3062061.92	0.0139	0.0090

Mercury	-13097-10-09 14:38 J	-3061973.96	-3061973.89	-3061973.80	0.0140	0.0110
Mercury	-13096-01-05 18:00 J	-3061885.79	-3061885.75	-3061885.70	0.0140	0.0130
Mars	-13093-07-10 02:24 J	-3060604.61	-3060604.40	-3060604.13	0.0142	0.0097
Mars	-13091-06-16 07:55 J	-3059898.21	-3059898.17	-3059898.09	0.0142	0.0140
Venus	-13084-01-29 03:50 J	-3057479.44	-3057479.34	-3057479.24	0.0145	0.0128
Venus	-13084-09-12 14:38 J	-3057253.06	-3057252.89	-3057252.71	0.0145	0.0084
Venus	-13083-04-27 01:55 J	-3057026.63	-3057026.42	-3057026.21	0.0146	0.0039
Venus	-13083-12-09 13:11 J	-3056800.17	-3056799.95	-3056799.74	0.0146	0.0007
Venus	-13082-07-24 00:28 J	-3056573.68	-3056573.48	-3056573.28	0.0146	0.0051
Venus	-13081-03-06 11:45 J	-3056347.16	-3056347.01	-3056346.84	0.0146	0.0096
Venus	-13081-10-18 23:02 J	-3056120.58	-3056120.54	-3056120.48	0.0146	0.0142
Moon	-13074-11-30 03:35 J	-3053522.53	-3053522.35	-3053522.13	0.0146	0.0085
Earth	-13074-11-30 04:04 J	-3053522.51	-3053522.33	-3053522.11	0.0146	0.0092 *
Earth	-13073-12-04 09:21 J	-3053152.36	-3053152.11	-3053151.85	0.0146	0.0024
Moon	-13073-12-04 11:16 J	-3053152.28	-3053152.03	-3053151.76	0.0146	0.0029 *
Moon	-13072-12-09 12:00 J	-3052782.23	-3052782.00	-3052781.75	0.0145	0.0046
Earth	-13072-12-09 14:24 J	-3052782.15	-3052781.90	-3052781.66	0.0145	0.0044 *
Earth	-13071-12-14 18:14 J	-3052411.88	-3052411.74	-3052411.55	0.0145	0.0111
Moon	-13071-12-14 21:50 J	-3052411.75	-3052411.59	-3052411.43	0.0145	0.0115 *
Mercury	-13060-09-28 19:40 J	-3048470.73	-3048470.68	-3048470.60	0.0140	0.0132
Mercury	-13060-12-26 04:04 J	-3048382.46	-3048382.33	-3048382.18	0.0140	0.0101
Mercury	-13059-03-24 12:28 J	-3048294.15	-3048293.98	-3048293.81	0.0140	0.0070
Mercury	-13059-06-20 20:52 J	-3048205.82	-3048205.63	-3048205.44	0.0140	0.0039
Mercury	-13059-09-17 05:02 J	-3048117.49	-3048117.29	-3048117.09	0.0140	0.0008
Mercury	-13059-12-14 13:11 J	-3048029.14	-3048028.95	-3048028.76	0.0140	0.0022
Mercury	-13058-03-12 21:07 J	-3047940.79	-3047940.62	-3047940.43	0.0139	0.0053
Mercury	-13058-06-09 05:16 J	-3047852.43	-3047852.28	-3047852.12	0.0139	0.0082
Mercury	-13058-09-05 13:11 J	-3047764.05	-3047763.95	-3047763.82	0.0139	0.0113
Mars	-13053-12-21 06:00 J	-3045830.53	-3045830.25	-3045829.96	0.0137	0.0014
Venus	-13044-12-29 03:50 J	-3042535.48	-3042535.34	-3042535.19	0.0133	0.0099

Venus	-13043-08-12 10:19 J	-3042309.26	-3042309.07	-3042308.87	0.0133	0.0064
Venus	-13042-03-26 16:33 J	-3042083.02	-3042082.81	-3042082.59	0.0133	0.0029
Venus	-13042-11-07 22:48 J	-3041856.77	-3041856.55	-3041856.33	0.0133	0.0006
Venus	-13041-06-21 04:48 J	-3041630.51	-3041630.30	-3041630.09	0.0133	0.0041
Venus	-13040-02-02 10:48 J	-3041404.23	-3041404.05	-3041403.86	0.0133	0.0076
Venus	-13040-09-16 16:19 J	-3041177.92	-3041177.82	-3041177.68	0.0133	0.0111
Earth	-13031-06-03 01:26 J	-3037996.60	-3037996.44	-3037996.26	0.0132	0.0097
Moon	-13031-06-03 04:33 J	-3037996.48	-3037996.31	-3037996.12	0.0132	0.0091 *
Moon	-13030-06-07 02:38 J	-3037627.62	-3037627.39	-3037627.16	0.0133	0.0053
Earth	-13030-06-07 06:00 J	-3037627.48	-3037627.25	-3037627.01	0.0133	0.0048 *
Earth	-13029-06-10 10:19 J	-3037258.32	-3037258.07	-3037257.81	0.0133	0.0003
Moon	-13029-06-10 13:40 J	-3037258.18	-3037257.93	-3037257.68	0.0133	0.0005 *
Moon	-13028-06-14 11:31 J	-3036889.26	-3036889.02	-3036888.79	0.0133	0.0053
Earth	-13028-06-14 14:38 J	-3036889.11	-3036888.89	-3036888.65	0.0133	0.0052 *
Earth	-13027-06-18 18:43 J	-3036519.86	-3036519.72	-3036519.53	0.0133	0.0103
Moon	-13027-06-18 22:19 J	-3036519.72	-3036519.57	-3036519.39	0.0133	0.0100 *
Mercury	-13016-12-07 07:26 J	-3032330.24	-3032330.19	-3032330.13	0.0138	0.0124
Mercury	-13015-03-05 10:33 J	-3032242.14	-3032242.06	-3032241.97	0.0138	0.0105
Mercury	-13015-06-01 13:55 J	-3032154.02	-3032153.92	-3032153.82	0.0138	0.0086
Mercury	-13015-08-28 16:48 J	-3032065.91	-3032065.80	-3032065.68	0.0138	0.0067
Mercury	-13015-11-24 20:09 J	-3031977.78	-3031977.66	-3031977.54	0.0138	0.0047
Mercury	-13014-02-20 23:16 J	-3031889.66	-3031889.53	-3031889.40	0.0139	0.0027
Mercury	-13014-05-20 02:24 J	-3031801.53	-3031801.40	-3031801.27	0.0139	0.0009
Mercury	-13014-08-16 05:45 J	-3031713.39	-3031713.26	-3031713.13	0.0139	0.0013
Mercury	-13014-11-12 08:52 J	-3031625.26	-3031625.13	-3031625.00	0.0139	0.0032
Mercury	-13013-02-08 12:00 J	-3031537.12	-3031537.00	-3031536.87	0.0139	0.0052
Mercury	-13013-05-06 15:07 J	-3031448.97	-3031448.87	-3031448.75	0.0139	0.0073
Mercury	-13013-08-02 18:28 J	-3031360.82	-3031360.73	-3031360.63	0.0139	0.0092
Mercury	-13013-10-29 21:35 J	-3031272.67	-3031272.60	-3031272.52	0.0139	0.0113
Mercury	-13012-01-26 00:57 J	-3031184.49	-3031184.46	-3031184.42	0.0140	0.0133

Mars -13008-03-06 03:07 J -3029684.70 -3029684.37 -3029684.03 0.0142 0.0016

13TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 13th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-13000-05-12 19:11 J		-3026694.83	-3026694.70	-3026694.55	0.0145	0.0107	
Venus	-13000-12-25 06:28 J		-3026468.43	-3026468.23	-3026468.04	0.0145	0.0063	
Venus	-12999-08-08 17:31 J		-3026241.98	-3026241.77	-3026241.55	0.0146	0.0018	
Venus	-12998-03-23 04:48 J		-3026015.51	-3026015.30	-3026015.09	0.0146	0.0027	
Venus	-12998-11-04 15:50 J		-3025789.02	-3025788.84	-3025788.65	0.0146	0.0072	
Venus	-12997-06-18 03:07 J		-3025562.49	-3025562.37	-3025562.23	0.0146	0.0117	
Moon	-12990-11-30 09:07 J		-3022841.29	-3022841.12	-3022840.92	0.0146	0.0097	
Earth	-12990-11-30 09:35 J		-3022841.29	-3022841.10	-3022840.89	0.0146	0.0089	*
Earth	-12989-12-04 14:38 J		-3022471.14	-3022470.89	-3022470.63	0.0146	0.0022	
Moon	-12989-12-04 15:21 J		-3022471.12	-3022470.86	-3022470.59	0.0146	0.0015	*
Moon	-12988-12-09 17:31 J		-3022101.00	-3022100.77	-3022100.53	0.0145	0.0044	
Earth	-12988-12-09 18:57 J		-3022100.94	-3022100.71	-3022100.45	0.0145	0.0047	*
Earth	-12987-12-14 23:45 J		-3021730.66	-3021730.51	-3021730.34	0.0145	0.0112	
Moon	-12987-12-15 02:09 J		-3021730.57	-3021730.41	-3021730.23	0.0145	0.0109	*
Mercury	-12976-10-19 01:40 J		-3017769.50	-3017769.43	-3017769.35	0.0140	0.0129	
Mercury	-12975-01-15 10:04 J		-3017681.22	-3017681.08	-3017680.94	0.0140	0.0098	
Mercury	-12975-04-13 18:00 J		-3017592.91	-3017592.75	-3017592.56	0.0140	0.0068	

Mercury	-12975-07-11 02:24 J	-3017504.58	-3017504.40	-3017504.20	0.0140	0.0037
Mercury	-12975-10-07 10:48 J	-3017416.24	-3017416.05	-3017415.85	0.0140	0.0006
Mercury	-12974-01-03 18:57 J	-3017327.90	-3017327.71	-3017327.51	0.0140	0.0025
Mercury	-12974-04-02 03:07 J	-3017239.55	-3017239.37	-3017239.19	0.0139	0.0055
Mercury	-12974-06-29 11:02 J	-3017151.19	-3017151.04	-3017150.88	0.0139	0.0085
Mercury	-12974-09-25 18:57 J	-3017062.80	-3017062.71	-3017062.59	0.0139	0.0115
Mars	-12970-09-15 12:57 J	-3015612.15	-3015611.96	-3015611.77	0.0137	0.0102
Mars	-12968-08-15 09:50 J	-3014912.32	-3014912.09	-3014911.83	0.0136	0.0073
Venus	-12960-08-28 11:31 J	-3011977.10	-3011977.02	-3011976.89	0.0133	0.0118
Venus	-12959-04-11 18:28 J	-3011750.90	-3011750.73	-3011750.55	0.0133	0.0082
Venus	-12959-11-24 00:43 J	-3011524.67	-3011524.47	-3011524.26	0.0133	0.0046
Venus	-12958-07-08 06:57 J	-3011298.43	-3011298.21	-3011297.99	0.0133	0.0011
Venus	-12957-02-19 13:11 J	-3011072.16	-3011071.95	-3011071.73	0.0133	0.0024
Venus	-12957-10-02 19:11 J	-3010845.89	-3010845.70	-3010845.50	0.0133	0.0059
Venus	-12956-05-17 00:57 J	-3010619.60	-3010619.46	-3010619.29	0.0133	0.0094
Venus	-12956-12-29 06:28 J	-3010393.26	-3010393.23	-3010393.15	0.0133	0.0129
Earth	-12947-06-03 11:16 J	-3007315.19	-3007315.03	-3007314.83	0.0133	0.0093
Moon	-12947-06-03 14:52 J	-3007315.02	-3007314.88	-3007314.69	0.0133	0.0100 *
Moon	-12946-06-07 12:43 J	-3006946.21	-3006945.97	-3006945.72	0.0133	0.0038
Earth	-12946-06-07 15:50 J	-3006946.06	-3006945.84	-3006945.59	0.0133	0.0044 *
Earth	-12945-06-10 20:24 J	-3006576.90	-3006576.65	-3006576.39	0.0133	0.0007
Moon	-12945-06-11 00:14 J	-3006576.74	-3006576.49	-3006576.24	0.0133	0.0004 *
Moon	-12944-06-14 21:07 J	-3006207.83	-3006207.62	-3006207.38	0.0133	0.0057
Earth	-12944-06-15 00:43 J	-3006207.69	-3006207.47	-3006207.23	0.0133	0.0056 *
Earth	-12943-06-19 05:02 J	-3005838.43	-3005838.29	-3005838.13	0.0133	0.0106
Moon	-12943-06-19 08:24 J	-3005838.28	-3005838.15	-3005838.00	0.0133	0.0110 *
Mercury	-12932-12-27 14:52 J	-3001628.94	-3001628.88	-3001628.82	0.0138	0.0119
Mercury	-12931-03-25 17:45 J	-3001540.84	-3001540.76	-3001540.66	0.0138	0.0101
Mercury	-12931-06-21 20:52 J	-3001452.72	-3001452.63	-3001452.52	0.0138	0.0081
Mercury	-12931-09-18 00:14 J	-3001364.61	-3001364.49	-3001364.37	0.0138	0.0061

Mercury	-12931-12-15 03:21 J	-3001276.48	-3001276.36	-3001276.23	0.0138	0.0042
Mercury	-12930-03-13 06:28 J	-3001188.35	-3001188.23	-3001188.10	0.0139	0.0023
Mercury	-12930-06-09 09:50 J	-3001100.22	-3001100.09	-3001099.96	0.0139	0.0004
Mercury	-12930-09-05 12:57 J	-3001012.09	-3001011.96	-3001011.83	0.0139	0.0017
Mercury	-12930-12-02 16:04 J	-3000923.95	-3000923.83	-3000923.70	0.0139	0.0037
Mercury	-12929-02-28 19:11 J	-3000835.81	-3000835.70	-3000835.57	0.0139	0.0057
Mercury	-12929-05-26 22:33 J	-3000747.67	-3000747.56	-3000747.45	0.0139	0.0077
Mercury	-12929-08-23 01:40 J	-3000659.52	-3000659.43	-3000659.33	0.0139	0.0097
Mercury	-12929-11-19 04:48 J	-3000571.36	-3000571.30	-3000571.22	0.0139	0.0118
Mercury	-12928-02-15 08:09 J	-3000483.17	-3000483.16	-3000483.13	0.0140	0.0138
Mars	-12924-10-31 08:52 J	-2998764.42	-2998764.13	-2998763.83	0.0142	0.0067
Venus	-12916-01-10 01:55 J	-2996136.51	-2996136.42	-2996136.31	0.0145	0.0128
Venus	-12916-08-24 12:57 J	-2995910.13	-2995909.96	-2995909.78	0.0145	0.0084
Venus	-12915-04-08 00:00 J	-2995683.70	-2995683.50	-2995683.29	0.0145	0.0040
Venus	-12915-11-20 11:02 J	-2995457.25	-2995457.04	-2995456.82	0.0146	0.0006
Venus	-12914-07-04 22:04 J	-2995230.77	-2995230.58	-2995230.37	0.0146	0.0051
Venus	-12913-02-16 09:07 J	-2995004.26	-2995004.12	-2995003.94	0.0146	0.0096
Venus	-12913-09-29 20:24 J	-2994777.68	-2994777.65	-2994777.57	0.0146	0.0141
Earth	-12906-11-30 17:16 J	-2992159.97	-2992159.78	-2992159.56	0.0146	0.0086
Moon	-12906-11-30 18:28 J	-2992159.94	-2992159.73	-2992159.52	0.0146	0.0078 *
Earth	-12905-12-04 22:04 J	-2991789.83	-2991789.58	-2991789.32	0.0146	0.0018
Moon	-12905-12-04 22:33 J	-2991789.82	-2991789.56	-2991789.30	0.0146	0.0024 *
Moon	-12904-12-10 01:26 J	-2991419.66	-2991419.44	-2991419.19	0.0145	0.0053
Earth	-12904-12-10 02:38 J	-2991419.63	-2991419.39	-2991419.15	0.0145	0.0049 *
Earth	-12903-12-15 06:28 J	-2991049.36	-2991049.23	-2991049.05	0.0145	0.0115
Moon	-12903-12-15 08:09 J	-2991049.29	-2991049.16	-2991048.98	0.0145	0.0117 *
Mercury	-12892-11-08 07:40 J	-2987068.26	-2987068.18	-2987068.09	0.0140	0.0126
Mercury	-12891-02-04 16:04 J	-2986979.97	-2986979.83	-2986979.68	0.0140	0.0095
Mercury	-12891-05-04 00:28 J	-2986891.66	-2986891.48	-2986891.31	0.0140	0.0064
Mercury	-12891-07-31 08:38 J	-2986803.33	-2986803.14	-2986802.95	0.0140	0.0034

Mercury	-12891-10-27 16:48 J	-2986714.99	-2986714.80	-2986714.60	0.0140	0.0003
Mercury	-12890-01-24 00:57 J	-2986626.65	-2986626.46	-2986626.27	0.0140	0.0027
Mercury	-12890-04-22 09:07 J	-2986538.30	-2986538.12	-2986537.94	0.0139	0.0058
Mercury	-12890-07-19 17:16 J	-2986449.93	-2986449.78	-2986449.63	0.0139	0.0088
Mercury	-12890-10-16 01:11 J	-2986361.55	-2986361.45	-2986361.34	0.0139	0.0117
Mars	-12885-05-09 17:45 J	-2984694.03	-2984693.76	-2984693.49	0.0137	0.0042
Mars	-12883-04-09 12:57 J	-2983994.01	-2983993.96	-2983993.87	0.0136	0.0131
Venus	-12876-12-10 01:40 J	-2981192.56	-2981192.43	-2981192.27	0.0133	0.0100
Venus	-12875-07-24 08:09 J	-2980966.34	-2980966.16	-2980965.95	0.0133	0.0064
Venus	-12874-03-07 14:52 J	-2980740.10	-2980739.88	-2980739.67	0.0133	0.0028
Venus	-12874-10-19 20:52 J	-2980513.85	-2980513.63	-2980513.40	0.0133	0.0008
Venus	-12873-06-02 02:52 J	-2980287.58	-2980287.38	-2980287.16	0.0133	0.0042
Venus	-12872-01-14 09:07 J	-2980061.29	-2980061.12	-2980060.94	0.0133	0.0077
Venus	-12872-08-28 14:52 J	-2979834.98	-2979834.88	-2979834.75	0.0133	0.0112
Earth	-12863-06-03 20:38 J	-2976633.81	-2976633.64	-2976633.44	0.0133	0.0089
Moon	-12863-06-04 00:28 J	-2976633.68	-2976633.48	-2976633.29	0.0133	0.0082 *
Moon	-12862-06-07 21:35 J	-2976264.83	-2976264.60	-2976264.36	0.0133	0.0046
Earth	-12862-06-08 01:11 J	-2976264.68	-2976264.45	-2976264.20	0.0133	0.0040 *
Earth	-12861-06-11 05:45 J	-2975895.51	-2975895.26	-2975895.01	0.0133	0.0010
Moon	-12861-06-11 09:07 J	-2975895.36	-2975895.12	-2975894.86	0.0133	0.0013 *
Moon	-12860-06-15 06:28 J	-2975526.44	-2975526.23	-2975525.99	0.0133	0.0059
Earth	-12860-06-15 10:04 J	-2975526.29	-2975526.08	-2975525.84	0.0133	0.0060 *
Earth	-12859-06-19 14:38 J	-2975157.02	-2975156.89	-2975156.73	0.0134	0.0109
Moon	-12859-06-19 18:28 J	-2975156.87	-2975156.73	-2975156.57	0.0134	0.0107 *
Mercury	-12848-10-20 18:43 J	-2971015.73	-2971015.72	-2971015.68	0.0138	0.0134
Mercury	-12847-01-16 22:04 J	-2970927.65	-2970927.58	-2970927.50	0.0138	0.0114
Mercury	-12847-04-15 01:11 J	-2970839.54	-2970839.45	-2970839.35	0.0138	0.0095
Mercury	-12847-07-12 04:19 J	-2970751.42	-2970751.32	-2970751.21	0.0138	0.0076
Mercury	-12847-10-08 07:26 J	-2970663.30	-2970663.19	-2970663.06	0.0138	0.0057
Mercury	-12846-01-04 10:48 J	-2970575.18	-2970575.05	-2970574.93	0.0139	0.0037

Mercury	-12846-04-02 13:55 J	-2970487.05	-2970486.92	-2970486.79	0.0139	0.0017
Mercury	-12846-06-29 17:02 J	-2970398.92	-2970398.79	-2970398.66	0.0139	0.0004
Mercury	-12846-09-25 20:09 J	-2970310.78	-2970310.66	-2970310.53	0.0139	0.0023
Mercury	-12846-12-22 23:31 J	-2970222.65	-2970222.52	-2970222.40	0.0139	0.0042
Mercury	-12845-03-20 02:38 J	-2970134.50	-2970134.39	-2970134.27	0.0139	0.0062
Mercury	-12845-06-16 05:45 J	-2970046.36	-2970046.26	-2970046.15	0.0139	0.0083
Mercury	-12845-09-12 09:07 J	-2969958.20	-2969958.12	-2969958.03	0.0139	0.0102
Mercury	-12845-12-09 12:14 J	-2969870.04	-2969869.99	-2969869.92	0.0140	0.0123
Mars	-12841-07-21 12:00 J	-2968550.24	-2968550.00	-2968549.70	0.0141	0.0083
Venus	-12832-04-23 20:38 J	-2965351.78	-2965351.64	-2965351.48	0.0145	0.0104
Venus	-12832-12-06 07:40 J	-2965125.37	-2965125.18	-2965124.98	0.0145	0.0060
Venus	-12831-07-20 18:43 J	-2964898.93	-2964898.72	-2964898.50	0.0145	0.0015
Venus	-12830-03-04 05:45 J	-2964672.46	-2964672.26	-2964672.04	0.0146	0.0031
Venus	-12830-10-16 16:48 J	-2964445.97	-2964445.80	-2964445.60	0.0146	0.0076
Venus	-12829-05-30 04:04 J	-2964219.44	-2964219.33	-2964219.20	0.0146	0.0121
Moon	-12823-11-25 20:52 J	-2961848.67	-2961848.63	-2961848.55	0.0146	0.0142
Earth	-12822-12-01 03:50 J	-2961478.54	-2961478.34	-2961478.11	0.0146	0.0080
Moon	-12822-12-01 05:02 J	-2961478.48	-2961478.29	-2961478.09	0.0146	0.0087 *
Moon	-12821-12-05 07:55 J	-2961108.44	-2961108.17	-2961107.91	0.0146	0.0006
Earth	-12821-12-05 08:24 J	-2961108.40	-2961108.15	-2961107.89	0.0146	0.0014 *
Moon	-12820-12-10 12:00 J	-2960738.22	-2960738.00	-2960737.76	0.0145	0.0051
Earth	-12820-12-10 12:28 J	-2960738.21	-2960737.98	-2960737.73	0.0145	0.0053 *
Earth	-12819-12-15 16:19 J	-2960367.94	-2960367.82	-2960367.65	0.0145	0.0119
Moon	-12819-12-15 17:45 J	-2960367.90	-2960367.76	-2960367.59	0.0145	0.0117 *
Mercury	-12808-11-28 14:24 J	-2956366.98	-2956366.90	-2956366.78	0.0140	0.0121
Mercury	-12807-02-24 22:48 J	-2956278.69	-2956278.55	-2956278.39	0.0140	0.0089
Mercury	-12807-05-24 07:11 J	-2956190.37	-2956190.20	-2956190.01	0.0140	0.0058
Mercury	-12807-08-20 15:35 J	-2956102.04	-2956101.85	-2956101.66	0.0140	0.0027
Mercury	-12807-11-16 23:45 J	-2956013.71	-2956013.51	-2956013.31	0.0140	0.0003
Mercury	-12806-02-13 07:55 J	-2955925.36	-2955925.17	-2955924.98	0.0140	0.0033

Mercury	-12806-05-12 15:50 J	-2955837.01	-2955836.84	-2955836.66	0.0139	0.0064
Mercury	-12806-08-09 00:00 J	-2955748.64	-2955748.50	-2955748.35	0.0139	0.0094
Mercury	-12806-11-05 07:55 J	-2955660.25	-2955660.17	-2955660.07	0.0139	0.0123
Mars	-12800-01-02 01:55 J	-2953775.69	-2953775.42	-2953775.12	0.0137	0.0020
Venus	-12792-08-09 10:19 J	-2950634.16	-2950634.07	-2950633.95	0.0134	0.0117
Venus	-12791-03-23 17:02 J	-2950407.96	-2950407.79	-2950407.61	0.0133	0.0081
Venus	-12791-11-04 23:16 J	-2950181.73	-2950181.53	-2950181.31	0.0133	0.0045
Venus	-12790-06-19 05:45 J	-2949955.48	-2949955.26	-2949955.04	0.0133	0.0010
Venus	-12789-01-31 12:00 J	-2949729.21	-2949729.00	-2949728.78	0.0133	0.0026
Venus	-12789-09-13 18:00 J	-2949502.94	-2949502.75	-2949502.55	0.0133	0.0061
Venus	-12788-04-28 00:00 J	-2949276.64	-2949276.50	-2949276.34	0.0133	0.0096
Venus	-12788-12-10 05:31 J	-2949050.28	-2949050.27	-2949050.21	0.0133	0.0131
Moon	-12780-05-30 22:48 J	-2946321.62	-2946321.55	-2946321.46	0.0133	0.0126
Earth	-12779-06-04 06:57 J	-2945952.40	-2945952.21	-2945952.01	0.0133	0.0084
Moon	-12779-06-04 10:19 J	-2945952.24	-2945952.07	-2945951.87	0.0133	0.0092 *
Moon	-12778-06-08 08:09 J	-2945583.40	-2945583.16	-2945582.91	0.0133	0.0030
Earth	-12778-06-08 11:16 J	-2945583.26	-2945583.03	-2945582.77	0.0133	0.0036 *
Earth	-12777-06-11 15:50 J	-2945214.08	-2945213.84	-2945213.58	0.0133	0.0015
Moon	-12777-06-11 19:40 J	-2945213.93	-2945213.68	-2945213.42	0.0133	0.0011 *
Moon	-12776-06-15 17:02 J	-2944844.99	-2944844.79	-2944844.56	0.0133	0.0065
Earth	-12776-06-15 20:24 J	-2944844.86	-2944844.65	-2944844.41	0.0133	0.0063 *
Earth	-12775-06-20 00:43 J	-2944475.58	-2944475.47	-2944475.31	0.0134	0.0113
Moon	-12775-06-20 04:19 J	-2944475.42	-2944475.32	-2944475.17	0.0134	0.0116 *
Mercury	-12764-11-10 02:09 J	-2940314.44	-2940314.41	-2940314.36	0.0138	0.0129
Mercury	-12763-02-06 05:31 J	-2940226.35	-2940226.27	-2940226.19	0.0138	0.0109
Mercury	-12763-05-05 08:38 J	-2940138.24	-2940138.14	-2940138.04	0.0138	0.0090
Mercury	-12763-08-01 11:45 J	-2940050.12	-2940050.01	-2940049.90	0.0138	0.0071
Mercury	-12763-10-28 14:52 J	-2939962.00	-2939961.88	-2939961.76	0.0139	0.0051
Mercury	-12762-01-24 18:00 J	-2939873.87	-2939873.75	-2939873.62	0.0139	0.0032
Mercury	-12762-04-22 21:21 J	-2939785.74	-2939785.61	-2939785.48	0.0139	0.0013

Mercury	-12762-07-20 00:28 J	-2939697.61	-2939697.48	-2939697.35	0.0139	0.0008
Mercury	-12762-10-16 03:35 J	-2939609.48	-2939609.35	-2939609.22	0.0139	0.0028
Mercury	-12761-01-12 06:57 J	-2939521.34	-2939521.21	-2939521.09	0.0139	0.0048
Mercury	-12761-04-09 10:04 J	-2939433.19	-2939433.08	-2939432.97	0.0139	0.0067
Mercury	-12761-07-06 13:11 J	-2939345.05	-2939344.95	-2939344.85	0.0139	0.0088
Mercury	-12761-10-02 16:33 J	-2939256.89	-2939256.81	-2939256.73	0.0140	0.0108
Mercury	-12761-12-29 19:26 J	-2939168.72	-2939168.69	-2939168.62	0.0140	0.0129
Mars	-12756-03-17 20:52 J	-2937629.97	-2937629.63	-2937629.30	0.0142	0.0002
Venus	-12749-12-22 05:02 J	-2934793.40	-2934793.29	-2934793.18	0.0145	0.0123
Venus	-12748-08-05 15:50 J	-2934567.01	-2934566.84	-2934566.65	0.0145	0.0079
Venus	-12747-03-20 02:52 J	-2934340.58	-2934340.38	-2934340.17	0.0145	0.0035
Venus	-12747-11-01 13:55 J	-2934114.13	-2934113.92	-2934113.70	0.0145	0.0011
Venus	-12746-06-16 00:57 J	-2933887.65	-2933887.46	-2933887.25	0.0146	0.0056
Venus	-12745-01-28 12:14 J	-2933661.13	-2933660.99	-2933660.83	0.0146	0.0101
Moon	-12739-11-26 09:50 J	-2931167.12	-2931167.09	-2931167.05	0.0146	0.0144
Earth	-12739-11-26 11:45 J	-2931167.06	-2931167.01	-2931166.92	0.0146	0.0140 *
Earth	-12738-12-01 16:19 J	-2930797.03	-2930796.82	-2930796.59	0.0146	0.0074
Moon	-12738-12-01 18:14 J	-2930796.95	-2930796.74	-2930796.51	0.0146	0.0067 *
Moon	-12737-12-05 19:40 J	-2930426.94	-2930426.68	-2930426.41	0.0145	0.0014
Earth	-12737-12-05 20:38 J	-2930426.90	-2930426.64	-2930426.39	0.0145	0.0008 *
Earth	-12736-12-11 00:28 J	-2930056.70	-2930056.48	-2930056.23	0.0145	0.0058
Moon	-12736-12-11 00:43 J	-2930056.68	-2930056.47	-2930056.23	0.0145	0.0063 *
Earth	-12735-12-16 04:48 J	-2929686.43	-2929686.30	-2929686.17	0.0145	0.0123
Moon	-12735-12-16 04:48 J	-2929686.42	-2929686.30	-2929686.14	0.0145	0.0124 *
Mercury	-12724-12-18 21:50 J	-2925665.69	-2925665.59	-2925665.46	0.0140	0.0113
Mercury	-12723-03-17 06:14 J	-2925577.39	-2925577.24	-2925577.07	0.0140	0.0082
Mercury	-12723-06-13 14:38 J	-2925489.07	-2925488.89	-2925488.71	0.0140	0.0051
Mercury	-12723-09-09 22:48 J	-2925400.74	-2925400.55	-2925400.35	0.0140	0.0020
Mercury	-12723-12-07 06:57 J	-2925312.40	-2925312.21	-2925312.01	0.0140	0.0010
Mercury	-12722-03-05 14:52 J	-2925224.06	-2925223.88	-2925223.68	0.0139	0.0041

Mercury	-12722-06-01 23:02 J	-2925135.70	-2925135.54	-2925135.36	0.0139	0.0070
Mercury	-12722-08-29 06:57 J	-2925047.33	-2925047.21	-2925047.06	0.0139	0.0101
Mercury	-12722-11-25 14:52 J	-2924958.93	-2924958.88	-2924958.79	0.0139	0.0130
Mars	-12718-09-27 13:55 J	-2923557.12	-2923556.92	-2923556.70	0.0137	0.0095
Mars	-12716-08-27 10:19 J	-2922857.30	-2922857.07	-2922856.84	0.0136	0.0080
Venus	-12708-04-08 18:43 J	-2920075.72	-2920075.72	-2920075.70	0.0134	0.0133
Venus	-12708-11-21 01:11 J	-2919849.59	-2919849.45	-2919849.29	0.0133	0.0098
Venus	-12707-07-05 07:40 J	-2919623.37	-2919623.18	-2919622.98	0.0133	0.0062
Venus	-12706-02-16 14:09 J	-2919397.12	-2919396.91	-2919396.69	0.0133	0.0027
Venus	-12706-09-30 20:24 J	-2919170.87	-2919170.65	-2919170.43	0.0133	0.0009
Venus	-12705-05-14 02:38 J	-2918944.60	-2918944.39	-2918944.18	0.0133	0.0044
Venus	-12705-12-26 08:24 J	-2918718.31	-2918718.15	-2918717.96	0.0133	0.0080
Venus	-12704-08-09 14:38 J	-2918492.00	-2918491.89	-2918491.78	0.0133	0.0114
Earth	-12696-05-31 11:31 J	-2915640.07	-2915640.02	-2915639.96	0.0133	0.0129
Earth	-12695-06-04 15:50 J	-2915271.03	-2915270.84	-2915270.63	0.0133	0.0081
Moon	-12695-06-04 19:26 J	-2915270.90	-2915270.69	-2915270.47	0.0133	0.0074 *
Moon	-12694-06-08 17:02 J	-2914902.02	-2914901.79	-2914901.54	0.0133	0.0039
Earth	-12694-06-08 20:38 J	-2914901.88	-2914901.64	-2914901.39	0.0133	0.0032 *
Earth	-12693-06-12 00:57 J	-2914532.70	-2914532.46	-2914532.20	0.0133	0.0018
Moon	-12693-06-12 04:19 J	-2914532.57	-2914532.32	-2914532.06	0.0133	0.0021 *
Moon	-12692-06-16 01:55 J	-2914163.62	-2914163.42	-2914163.19	0.0133	0.0066
Earth	-12692-06-16 05:31 J	-2914163.47	-2914163.27	-2914163.04	0.0133	0.0067 *
Earth	-12691-06-20 10:04 J	-2913794.18	-2913794.08	-2913793.93	0.0134	0.0116
Moon	-12691-06-20 13:26 J	-2913794.05	-2913793.94	-2913793.79	0.0134	0.0115 *
Mercury	-12680-11-30 09:21 J	-2909613.16	-2909613.11	-2909613.05	0.0138	0.0125
Mercury	-12679-02-26 12:28 J	-2909525.06	-2909524.98	-2909524.89	0.0138	0.0106
Mercury	-12679-05-25 15:35 J	-2909436.94	-2909436.85	-2909436.74	0.0138	0.0087
Mercury	-12679-08-21 18:43 J	-2909348.83	-2909348.72	-2909348.60	0.0139	0.0068
Mercury	-12679-11-17 22:04 J	-2909260.70	-2909260.58	-2909260.46	0.0139	0.0048
Mercury	-12678-02-14 01:11 J	-2909172.58	-2909172.45	-2909172.32	0.0139	0.0028

Mercury	-12678-05-13 04:19 J	-2909084.45	-2909084.32	-2909084.19	0.0139	0.0009
Mercury	-12678-08-09 07:40 J	-2908996.31	-2908996.18	-2908996.05	0.0139	0.0012
Mercury	-12678-11-05 10:48 J	-2908908.18	-2908908.05	-2908907.92	0.0139	0.0031
Mercury	-12677-02-01 13:55 J	-2908820.04	-2908819.92	-2908819.80	0.0139	0.0051
Mercury	-12677-04-29 17:02 J	-2908731.89	-2908731.79	-2908731.67	0.0139	0.0072
Mercury	-12677-07-26 20:24 J	-2908643.75	-2908643.65	-2908643.55	0.0139	0.0092
Mercury	-12677-10-22 23:31 J	-2908555.59	-2908555.52	-2908555.44	0.0140	0.0112
Mercury	-12676-01-19 02:52 J	-2908467.42	-2908467.38	-2908467.34	0.0140	0.0132
Mars	-12672-11-12 01:26 J	-2906709.68	-2906709.44	-2906709.15	0.0142	0.0084
Venus	-12665-08-21 12:00 J	-2904235.00	-2904235.00	-2904234.97	0.0145	0.0145
Venus	-12664-04-04 23:02 J	-2904008.69	-2904008.54	-2904008.39	0.0145	0.0100
Venus	-12664-11-17 09:35 J	-2903782.28	-2903782.10	-2903781.89	0.0145	0.0057
Venus	-12663-07-01 20:52 J	-2903555.84	-2903555.63	-2903555.41	0.0145	0.0011
Venus	-12662-02-13 08:09 J	-2903329.37	-2903329.16	-2903328.95	0.0146	0.0035
Venus	-12662-09-27 19:26 J	-2903102.87	-2903102.69	-2903102.51	0.0146	0.0080
Venus	-12661-05-11 06:28 J	-2902876.32	-2902876.23	-2902876.11	0.0146	0.0126
Moon	-12655-11-26 19:11 J	-2900485.79	-2900485.70	-2900485.57	0.0146	0.0131
Earth	-12655-11-26 22:19 J	-2900485.65	-2900485.57	-2900485.45	0.0146	0.0135 *
Earth	-12654-12-02 02:38 J	-2900115.60	-2900115.39	-2900115.15	0.0146	0.0069
Moon	-12654-12-02 04:48 J	-2900115.51	-2900115.30	-2900115.08	0.0146	0.0076 *
Moon	-12653-12-06 05:16 J	-2899745.54	-2899745.28	-2899745.01	0.0145	0.0005
Earth	-12653-12-06 07:11 J	-2899745.46	-2899745.20	-2899744.94	0.0145	0.0003 *
Earth	-12652-12-11 11:02 J	-2899375.26	-2899375.04	-2899374.80	0.0145	0.0063
Moon	-12652-12-11 11:45 J	-2899375.22	-2899375.01	-2899374.77	0.0145	0.0060 *
Moon	-12651-12-16 15:07 J	-2899004.98	-2899004.87	-2899004.72	0.0145	0.0127
Earth	-12651-12-16 14:52 J	-2899004.97	-2899004.88	-2899004.74	0.0145	0.0128 *
Mercury	-12640-10-11 20:52 J	-2895052.66	-2895052.63	-2895052.57	0.0140	0.0136
Mercury	-12639-01-08 05:16 J	-2894964.40	-2894964.28	-2894964.14	0.0140	0.0105
Mercury	-12639-04-06 13:40 J	-2894876.09	-2894875.93	-2894875.76	0.0140	0.0074
Mercury	-12639-07-03 21:50 J	-2894787.77	-2894787.59	-2894787.39	0.0140	0.0044

Mercury	-12639-09-30 06:14 J	-2894699.44	-2894699.24	-2894699.04	0.0140	0.0013
Mercury	-12639-12-27 14:24 J	-2894611.10	-2894610.90	-2894610.71	0.0140	0.0017
Mercury	-12638-03-25 22:19 J	-2894522.75	-2894522.57	-2894522.38	0.0139	0.0048
Mercury	-12638-06-22 06:28 J	-2894434.39	-2894434.23	-2894434.06	0.0139	0.0078
Mercury	-12638-09-18 14:24 J	-2894346.01	-2894345.90	-2894345.77	0.0139	0.0108
Mercury	-12638-12-15 22:19 J	-2894257.59	-2894257.57	-2894257.53	0.0139	0.0137
Mars	-12633-05-22 00:00 J	-2892638.77	-2892638.50	-2892638.21	0.0137	0.0033
Venus	-12624-07-21 10:04 J	-2889291.18	-2889291.08	-2889290.96	0.0133	0.0115
Venus	-12623-03-04 16:19 J	-2889064.98	-2889064.82	-2889064.62	0.0133	0.0080
Venus	-12623-10-16 23:02 J	-2888838.75	-2888838.54	-2888838.33	0.0133	0.0043
Venus	-12622-05-31 05:16 J	-2888612.50	-2888612.28	-2888612.06	0.0133	0.0008
Venus	-12621-01-12 11:31 J	-2888386.23	-2888386.02	-2888385.80	0.0133	0.0028
Venus	-12621-08-25 17:31 J	-2888159.96	-2888159.77	-2888159.57	0.0133	0.0063
Venus	-12620-04-08 23:45 J	-2887933.66	-2887933.51	-2887933.36	0.0133	0.0098
Moon	-12612-05-31 17:02 J	-2884958.88	-2884958.79	-2884958.67	0.0133	0.0119
Earth	-12612-05-31 19:55 J	-2884958.73	-2884958.67	-2884958.56	0.0133	0.0126 *
Earth	-12611-06-05 00:43 J	-2884589.67	-2884589.47	-2884589.26	0.0133	0.0077
Moon	-12611-06-05 04:04 J	-2884589.53	-2884589.33	-2884589.13	0.0133	0.0084 *
Moon	-12610-06-09 02:24 J	-2884220.64	-2884220.40	-2884220.15	0.0133	0.0023
Earth	-12610-06-09 05:16 J	-2884220.52	-2884220.28	-2884220.03	0.0133	0.0029 *
Earth	-12609-06-12 09:50 J	-2883851.34	-2883851.09	-2883850.84	0.0133	0.0020
Moon	-12609-06-12 13:11 J	-2883851.20	-2883850.95	-2883850.69	0.0133	0.0016 *
Moon	-12608-06-16 11:16 J	-2883482.22	-2883482.03	-2883481.80	0.0133	0.0073
Earth	-12608-06-16 14:09 J	-2883482.11	-2883481.91	-2883481.68	0.0133	0.0070 *
Earth	-12607-06-20 19:11 J	-2883112.81	-2883112.70	-2883112.58	0.0134	0.0118
Moon	-12607-06-20 22:19 J	-2883112.67	-2883112.57	-2883112.45	0.0134	0.0120 *
Mercury	-12596-12-20 16:04 J	-2878911.88	-2878911.83	-2878911.77	0.0138	0.0123
Mercury	-12595-03-18 19:26 J	-2878823.78	-2878823.69	-2878823.61	0.0138	0.0104
Mercury	-12595-06-14 22:33 J	-2878735.66	-2878735.56	-2878735.46	0.0138	0.0084
Mercury	-12595-09-11 01:40 J	-2878647.54	-2878647.43	-2878647.31	0.0138	0.0065

Mercury	-12595-12-08 04:48 J	-2878559.42	-2878559.30	-2878559.18	0.0139	0.0045
Mercury	-12594-03-06 07:55 J	-2878471.29	-2878471.17	-2878471.04	0.0139	0.0026
Mercury	-12594-06-02 11:16 J	-2878383.16	-2878383.03	-2878382.90	0.0139	0.0007
Mercury	-12594-08-29 14:24 J	-2878295.03	-2878294.90	-2878294.77	0.0139	0.0014
Mercury	-12594-11-25 17:31 J	-2878206.89	-2878206.77	-2878206.64	0.0139	0.0034
Mercury	-12593-02-21 20:38 J	-2878118.75	-2878118.64	-2878118.51	0.0139	0.0054
Mercury	-12593-05-20 00:00 J	-2878030.61	-2878030.50	-2878030.39	0.0139	0.0074
Mercury	-12593-08-16 03:07 J	-2877942.46	-2877942.37	-2877942.27	0.0139	0.0094
Mercury	-12593-11-12 06:14 J	-2877854.30	-2877854.24	-2877854.16	0.0140	0.0115
Mercury	-12592-02-08 09:35 J	-2877766.13	-2877766.10	-2877766.06	0.0140	0.0135
Mars	-12589-08-01 18:57 J	-2876495.99	-2876495.71	-2876495.41	0.0141	0.0072
Venus	-12581-12-03 04:04 J	-2873450.43	-2873450.33	-2873450.21	0.0145	0.0123
Venus	-12580-07-17 14:52 J	-2873224.04	-2873223.88	-2873223.69	0.0145	0.0079
Venus	-12579-03-01 02:09 J	-2872997.61	-2872997.41	-2872997.20	0.0145	0.0034
Venus	-12579-10-13 13:26 J	-2872771.16	-2872770.94	-2872770.73	0.0145	0.0012
Venus	-12578-05-28 00:28 J	-2872544.67	-2872544.48	-2872544.28	0.0146	0.0057
Venus	-12577-01-09 11:31 J	-2872318.15	-2872318.02	-2872317.85	0.0146	0.0103
Moon	-12571-11-27 02:24 J	-2869804.47	-2869804.40	-2869804.28	0.0146	0.0135
Earth	-12571-11-27 05:45 J	-2869804.36	-2869804.26	-2869804.13	0.0146	0.0131 *
Earth	-12570-12-02 10:04 J	-2869434.30	-2869434.08	-2869433.84	0.0146	0.0066
Moon	-12570-12-02 12:57 J	-2869434.18	-2869433.96	-2869433.72	0.0146	0.0059 *
Moon	-12569-12-06 12:14 J	-2869064.25	-2869063.99	-2869063.72	0.0145	0.0007
Earth	-12569-12-06 14:24 J	-2869064.15	-2869063.90	-2869063.64	0.0145	0.0002 *
Earth	-12568-12-11 18:28 J	-2868693.95	-2868693.73	-2868693.49	0.0145	0.0066
Moon	-12568-12-11 20:09 J	-2868693.88	-2868693.66	-2868693.44	0.0145	0.0071 *
Moon	-12567-12-16 21:35 J	-2868323.70	-2868323.60	-2868323.47	0.0145	0.0129
Earth	-12567-12-16 22:48 J	-2868323.65	-2868323.55	-2868323.43	0.0145	0.0130 *
Mercury	-12556-11-01 03:35 J	-2864351.40	-2864351.35	-2864351.27	0.0140	0.0131
Mercury	-12555-01-28 12:00 J	-2864263.13	-2864263.00	-2864262.85	0.0140	0.0100
Mercury	-12555-04-26 20:24 J	-2864174.82	-2864174.65	-2864174.48	0.0140	0.0069

Mercury	-12555-07-24 04:33 J	-2864086.49	-2864086.31	-2864086.12	0.0140	0.0039
Mercury	-12555-10-20 12:43 J	-2863998.16	-2863997.97	-2863997.77	0.0140	0.0009
Mercury	-12554-01-16 20:52 J	-2863909.82	-2863909.63	-2863909.43	0.0140	0.0023
Mercury	-12554-04-15 05:02 J	-2863821.47	-2863821.29	-2863821.10	0.0139	0.0053
Mercury	-12554-07-12 13:11 J	-2863733.11	-2863732.95	-2863732.79	0.0139	0.0082
Mercury	-12554-10-08 21:07 J	-2863644.73	-2863644.62	-2863644.50	0.0139	0.0112
Mars	-12548-01-14 08:52 J	-2861720.41	-2861720.13	-2861719.85	0.0136	0.0027
Venus	-12540-03-20 17:45 J	-2858732.76	-2858732.76	-2858732.71	0.0134	0.0133
Venus	-12540-11-02 00:28 J	-2858506.62	-2858506.48	-2858506.32	0.0133	0.0097
Venus	-12539-06-16 06:43 J	-2858280.40	-2858280.22	-2858280.01	0.0133	0.0062
Venus	-12538-01-28 13:26 J	-2858054.15	-2858053.94	-2858053.72	0.0133	0.0025
Venus	-12538-09-11 19:40 J	-2857827.90	-2857827.68	-2857827.46	0.0133	0.0011
Venus	-12537-04-25 01:40 J	-2857601.63	-2857601.43	-2857601.21	0.0133	0.0046
Venus	-12537-12-07 07:55 J	-2857375.34	-2857375.17	-2857375.00	0.0133	0.0081
Venus	-12536-07-21 13:55 J	-2857149.02	-2857148.92	-2857148.81	0.0133	0.0116
Moon	-12528-06-01 01:40 J	-2854277.48	-2854277.43	-2854277.36	0.0133	0.0128
Earth	-12528-06-01 04:04 J	-2854277.42	-2854277.33	-2854277.22	0.0133	0.0122 *
Earth	-12527-06-05 08:38 J	-2853908.35	-2853908.14	-2853907.93	0.0133	0.0074
Moon	-12527-06-05 11:02 J	-2853908.25	-2853908.04	-2853907.80	0.0133	0.0068 *
Moon	-12526-06-09 10:19 J	-2853539.30	-2853539.07	-2853538.83	0.0133	0.0033
Earth	-12526-06-09 13:11 J	-2853539.20	-2853538.95	-2853538.70	0.0133	0.0026 *
Earth	-12525-06-12 17:31 J	-2853170.01	-2853169.77	-2853169.51	0.0133	0.0023
Moon	-12525-06-12 20:09 J	-2853169.91	-2853169.66	-2853169.40	0.0133	0.0028 *
Moon	-12524-06-16 18:57 J	-2852800.90	-2852800.71	-2852800.48	0.0133	0.0070
Earth	-12524-06-16 22:19 J	-2852800.78	-2852800.57	-2852800.36	0.0133	0.0072 *
Earth	-12523-06-21 02:38 J	-2852431.48	-2852431.39	-2852431.27	0.0133	0.0121
Moon	-12523-06-21 05:16 J	-2852431.37	-2852431.28	-2852431.15	0.0133	0.0120 *
Mercury	-12511-01-09 22:48 J	-2848210.61	-2848210.55	-2848210.49	0.0138	0.0121
Mercury	-12511-04-08 01:55 J	-2848122.50	-2848122.42	-2848122.33	0.0138	0.0102
Mercury	-12511-07-05 05:02 J	-2848034.39	-2848034.29	-2848034.18	0.0138	0.0083

Mercury	-12511-10-01 08:09 J	-2847946.27	-2847946.16	-2847946.04	0.0138	0.0064
Mercury	-12511-12-28 11:16 J	-2847858.15	-2847858.03	-2847857.90	0.0139	0.0045
Mercury	-12510-03-26 14:38 J	-2847770.02	-2847769.89	-2847769.76	0.0139	0.0024
Mercury	-12510-06-22 17:45 J	-2847681.89	-2847681.76	-2847681.63	0.0139	0.0005
Mercury	-12510-09-18 20:52 J	-2847593.76	-2847593.63	-2847593.50	0.0139	0.0016
Mercury	-12510-12-16 00:14 J	-2847505.62	-2847505.49	-2847505.37	0.0139	0.0035
Mercury	-12509-03-13 03:21 J	-2847417.48	-2847417.36	-2847417.24	0.0139	0.0055
Mercury	-12509-06-09 06:28 J	-2847329.33	-2847329.23	-2847329.12	0.0139	0.0075
Mercury	-12509-09-05 09:35 J	-2847241.18	-2847241.10	-2847241.00	0.0139	0.0096
Mercury	-12509-12-02 12:57 J	-2847153.03	-2847152.96	-2847152.88	0.0139	0.0116
Mercury	-12508-02-28 16:19 J	-2847064.84	-2847064.82	-2847064.79	0.0140	0.0136
Mars	-12504-03-28 13:40 J	-2845576.26	-2845575.93	-2845575.59	0.0142	0.0005
Venus	-12496-03-16 18:28 J	-2842665.86	-2842665.73	-2842665.56	0.0145	0.0104
Venus	-12496-10-29 05:31 J	-2842439.45	-2842439.27	-2842439.06	0.0145	0.0060
Venus	-12495-06-12 16:48 J	-2842213.01	-2842212.80	-2842212.59	0.0145	0.0014
Venus	-12494-01-25 04:04 J	-2841986.54	-2841986.33	-2841986.12	0.0145	0.0032
Venus	-12494-09-08 15:07 J	-2841760.04	-2841759.87	-2841759.67	0.0146	0.0078
Venus	-12493-04-22 02:38 J	-2841533.49	-2841533.39	-2841533.27	0.0146	0.0123
Moon	-12487-11-27 06:00 J	-2839123.36	-2839123.25	-2839123.11	0.0146	0.0127
Earth	-12487-11-27 09:35 J	-2839123.20	-2839123.10	-2839122.96	0.0146	0.0129 *
Earth	-12486-12-02 13:55 J	-2838753.14	-2838752.92	-2838752.68	0.0146	0.0064
Moon	-12486-12-02 16:48 J	-2838753.01	-2838752.80	-2838752.57	0.0146	0.0071 *
Moon	-12485-12-06 15:21 J	-2838383.12	-2838382.86	-2838382.60	0.0145	0.0010
Earth	-12485-12-06 18:28 J	-2838382.99	-2838382.73	-2838382.48	0.0145	0.0003 *
Earth	-12484-12-11 22:19 J	-2838012.78	-2838012.57	-2838012.33	0.0145	0.0067
Moon	-12484-12-12 00:43 J	-2838012.69	-2838012.47	-2838012.24	0.0145	0.0062 *
Moon	-12483-12-17 01:11 J	-2837642.54	-2837642.45	-2837642.33	0.0145	0.0132
Earth	-12483-12-17 02:24 J	-2837642.49	-2837642.40	-2837642.28	0.0145	0.0132 *
Mercury	-12472-11-21 09:21 J	-2833650.18	-2833650.11	-2833650.03	0.0140	0.0129
Mercury	-12471-02-17 17:45 J	-2833561.90	-2833561.76	-2833561.62	0.0140	0.0098

Mercury	-12471-05-17 01:40 J	-2833473.59	-2833473.43	-2833473.24	0.0140	0.0068
Mercury	-12471-08-13 10:04 J	-2833385.26	-2833385.08	-2833384.88	0.0140	0.0037
Mercury	-12471-11-09 18:28 J	-2833296.93	-2833296.73	-2833296.53	0.0140	0.0006
Mercury	-12470-02-06 02:38 J	-2833208.58	-2833208.39	-2833208.20	0.0140	0.0024
Mercury	-12470-05-05 10:33 J	-2833120.23	-2833120.06	-2833119.87	0.0139	0.0055
Mercury	-12470-08-01 18:43 J	-2833031.87	-2833031.72	-2833031.56	0.0139	0.0085
Mercury	-12470-10-29 02:38 J	-2832943.49	-2832943.39	-2832943.27	0.0139	0.0115
Mars	-12466-10-09 15:35 J	-2831502.05	-2831501.85	-2831501.62	0.0137	0.0088
Mars	-12464-09-08 12:43 J	-2830802.17	-2830801.97	-2830801.73	0.0136	0.0086
Venus	-12456-07-02 08:09 J	-2827948.26	-2827948.16	-2827948.04	0.0134	0.0115
Venus	-12455-02-13 14:38 J	-2827722.06	-2827721.89	-2827721.70	0.0133	0.0079
Venus	-12455-09-27 21:07 J	-2827495.82	-2827495.62	-2827495.40	0.0133	0.0043
Venus	-12454-05-12 03:35 J	-2827269.57	-2827269.35	-2827269.13	0.0133	0.0007
Venus	-12454-12-24 09:50 J	-2827043.31	-2827043.09	-2827042.87	0.0133	0.0028
Venus	-12453-08-06 15:50 J	-2826817.03	-2826816.84	-2826816.64	0.0133	0.0064
Venus	-12452-03-20 22:04 J	-2826590.72	-2826590.58	-2826590.43	0.0133	0.0099
Moon	-12444-06-01 10:04 J	-2823596.19	-2823596.08	-2823595.94	0.0133	0.0113
Earth	-12444-06-01 12:00 J	-2823596.09	-2823596.00	-2823595.86	0.0133	0.0119 *
Earth	-12443-06-05 16:48 J	-2823227.00	-2823226.80	-2823226.57	0.0133	0.0071
Moon	-12443-06-05 18:57 J	-2823226.90	-2823226.71	-2823226.48	0.0133	0.0078 *
Moon	-12442-06-09 19:40 J	-2822857.92	-2822857.68	-2822857.44	0.0133	0.0016
Earth	-12442-06-09 21:21 J	-2822857.85	-2822857.61	-2822857.35	0.0133	0.0023 *
Earth	-12441-06-13 02:09 J	-2822488.66	-2822488.41	-2822488.16	0.0133	0.0026
Moon	-12441-06-13 04:33 J	-2822488.56	-2822488.31	-2822488.05	0.0133	0.0021 *
Moon	-12440-06-17 04:33 J	-2822119.49	-2822119.31	-2822119.10	0.0133	0.0079
Earth	-12440-06-17 06:28 J	-2822119.42	-2822119.23	-2822119.01	0.0133	0.0075 *
Earth	-12439-06-21 11:02 J	-2821750.11	-2821750.04	-2821749.92	0.0133	0.0124
Moon	-12439-06-21 13:40 J	-2821750.01	-2821749.93	-2821749.82	0.0133	0.0124 *
Mercury	-12428-11-03 02:38 J	-2817597.39	-2817597.39	-2817597.39	0.0138	0.0138
Mercury	-12427-01-30 05:31 J	-2817509.33	-2817509.27	-2817509.20	0.0138	0.0119

Mercury	-12427-04-28 08:52 J	-2817421.22	-2817421.13	-2817421.04	0.0138	0.0100
Mercury	-12427-07-25 11:45 J	-2817333.11	-2817333.01	-2817332.90	0.0138	0.0081
Mercury	-12427-10-21 14:52 J	-2817244.99	-2817244.88	-2817244.76	0.0138	0.0061
Mercury	-12426-01-17 18:14 J	-2817156.86	-2817156.74	-2817156.62	0.0138	0.0041
Mercury	-12426-04-15 21:21 J	-2817068.74	-2817068.61	-2817068.48	0.0139	0.0022
Mercury	-12426-07-13 00:28 J	-2816980.61	-2816980.48	-2816980.35	0.0139	0.0005
Mercury	-12426-10-09 03:50 J	-2816892.47	-2816892.34	-2816892.21	0.0139	0.0018
Mercury	-12425-01-05 06:57 J	-2816804.33	-2816804.21	-2816804.08	0.0139	0.0038
Mercury	-12425-04-02 10:04 J	-2816716.19	-2816716.08	-2816715.96	0.0139	0.0058
Mercury	-12425-06-29 13:26 J	-2816628.05	-2816627.94	-2816627.83	0.0139	0.0077
Mercury	-12425-09-25 16:33 J	-2816539.90	-2816539.81	-2816539.71	0.0139	0.0098
Mercury	-12425-12-22 19:55 J	-2816451.74	-2816451.67	-2816451.60	0.0139	0.0118
Mercury	-12424-03-20 23:02 J	-2816363.55	-2816363.54	-2816363.52	0.0140	0.0138
Mars	-12420-11-22 11:02 J	-2814656.29	-2814656.04	-2814655.75	0.0142	0.0083
Venus	-12413-11-13 23:02 J	-2812107.63	-2812107.54	-2812107.44	0.0145	0.0128
Venus	-12412-06-28 10:04 J	-2811881.26	-2811881.08	-2811880.91	0.0145	0.0083
Venus	-12411-02-09 21:07 J	-2811654.83	-2811654.62	-2811654.42	0.0145	0.0039
Venus	-12411-09-24 08:09 J	-2811428.37	-2811428.16	-2811427.95	0.0145	0.0007
Venus	-12410-05-08 19:11 J	-2811201.89	-2811201.70	-2811201.49	0.0145	0.0053
Venus	-12410-12-21 06:43 J	-2810975.38	-2810975.22	-2810975.06	0.0146	0.0098
Venus	-12409-08-03 17:45 J	-2810748.77	-2810748.76	-2810748.71	0.0146	0.0144
Moon	-12403-11-27 10:19 J	-2808442.17	-2808442.07	-2808441.94	0.0146	0.0129
Earth	-12403-11-27 13:40 J	-2808442.03	-2808441.93	-2808441.78	0.0146	0.0127 *
Earth	-12402-12-02 18:14 J	-2808071.97	-2808071.74	-2808071.51	0.0146	0.0062
Moon	-12402-12-02 21:50 J	-2808071.82	-2808071.59	-2808071.35	0.0146	0.0056 *
Moon	-12401-12-06 19:26 J	-2807701.95	-2807701.69	-2807701.43	0.0145	0.0004
Earth	-12401-12-06 22:33 J	-2807701.81	-2807701.56	-2807701.30	0.0145	0.0004 *
Earth	-12400-12-12 02:38 J	-2807331.61	-2807331.39	-2807331.15	0.0145	0.0069
Moon	-12400-12-12 05:16 J	-2807331.48	-2807331.28	-2807331.05	0.0145	0.0075 *
Moon	-12399-12-17 04:33 J	-2806961.42	-2806961.31	-2806961.19	0.0145	0.0129

Earth	-12399-12-17 06:43 J	-2806961.30	-2806961.22	-2806961.10	0.0145	0.0133	*
Mercury	-12388-12-11 14:24 J	-2802948.96	-2802948.90	-2802948.81	0.0140	0.0129	
Mercury	-12387-03-09 22:48 J	-2802860.68	-2802860.55	-2802860.40	0.0140	0.0098	
Mercury	-12387-06-06 07:11 J	-2802772.37	-2802772.20	-2802772.02	0.0140	0.0067	
Mercury	-12387-09-02 15:35 J	-2802684.04	-2802683.85	-2802683.66	0.0140	0.0036	
Mercury	-12387-11-29 23:45 J	-2802595.71	-2802595.51	-2802595.31	0.0140	0.0006	
Mercury	-12386-02-26 07:55 J	-2802507.36	-2802507.17	-2802506.98	0.0140	0.0025	
Mercury	-12386-05-25 15:50 J	-2802419.01	-2802418.84	-2802418.65	0.0139	0.0056	
Mercury	-12386-08-22 00:00 J	-2802330.64	-2802330.50	-2802330.34	0.0139	0.0085	
Mercury	-12386-11-18 07:55 J	-2802242.26	-2802242.17	-2802242.04	0.0139	0.0115	
Mars	-12381-06-02 18:57 J	-2800583.99	-2800583.71	-2800583.43	0.0137	0.0030	
Venus	-12372-10-13 21:35 J	-2797163.75	-2797163.60	-2797163.45	0.0133	0.0098	
Venus	-12371-05-28 03:50 J	-2796937.52	-2796937.34	-2796937.13	0.0133	0.0062	
Venus	-12370-01-09 10:33 J	-2796711.27	-2796711.06	-2796710.84	0.0133	0.0026	
Venus	-12370-08-23 17:02 J	-2796485.01	-2796484.79	-2796484.57	0.0133	0.0010	
Venus	-12369-04-05 23:02 J	-2796258.74	-2796258.54	-2796258.32	0.0133	0.0046	
Venus	-12369-11-18 05:16 J	-2796032.45	-2796032.28	-2796032.10	0.0133	0.0081	
Venus	-12368-07-02 11:31 J	-2795806.13	-2795806.02	-2795805.92	0.0133	0.0116	
Moon	-12360-06-01 18:14 J	-2792914.82	-2792914.74	-2792914.62	0.0133	0.0121	
Earth	-12360-06-01 19:55 J	-2792914.79	-2792914.67	-2792914.54	0.0133	0.0115	*
Earth	-12359-06-06 00:14 J	-2792545.69	-2792545.49	-2792545.26	0.0133	0.0068	
Moon	-12359-06-06 02:09 J	-2792545.64	-2792545.41	-2792545.18	0.0133	0.0061	*
Moon	-12358-06-10 03:35 J	-2792176.59	-2792176.35	-2792176.11	0.0133	0.0026	
Earth	-12358-06-10 05:16 J	-2792176.53	-2792176.28	-2792176.03	0.0133	0.0019	*
Earth	-12357-06-13 10:04 J	-2791807.32	-2791807.08	-2791806.83	0.0133	0.0029	
Moon	-12357-06-13 11:16 J	-2791807.27	-2791807.03	-2791806.77	0.0133	0.0035	*
Moon	-12356-06-17 12:43 J	-2791438.16	-2791437.97	-2791437.76	0.0133	0.0075	
Earth	-12356-06-17 14:52 J	-2791438.08	-2791437.88	-2791437.67	0.0133	0.0078	*
Earth	-12355-06-21 19:40 J	-2791068.75	-2791068.68	-2791068.59	0.0133	0.0126	
Moon	-12355-06-21 21:21 J	-2791068.68	-2791068.61	-2791068.52	0.0133	0.0127	*

Mercury	-12344-11-23 09:35 J	-2786896.13	-2786896.10	-2786896.08	0.0138	0.0134
Mercury	-12343-02-19 12:43 J	-2786808.04	-2786807.97	-2786807.90	0.0138	0.0115
Mercury	-12343-05-18 15:35 J	-2786719.93	-2786719.85	-2786719.75	0.0138	0.0097
Mercury	-12343-08-14 18:57 J	-2786631.82	-2786631.71	-2786631.60	0.0138	0.0077
Mercury	-12343-11-10 22:04 J	-2786543.70	-2786543.58	-2786543.46	0.0138	0.0057
Mercury	-12342-02-07 01:11 J	-2786455.57	-2786455.45	-2786455.32	0.0138	0.0038
Mercury	-12342-05-06 04:33 J	-2786367.44	-2786367.31	-2786367.18	0.0139	0.0019
Mercury	-12342-08-02 07:40 J	-2786279.31	-2786279.18	-2786279.05	0.0139	0.0002
Mercury	-12342-10-29 10:48 J	-2786191.18	-2786191.05	-2786190.92	0.0139	0.0021
Mercury	-12341-01-25 13:55 J	-2786103.04	-2786102.92	-2786102.79	0.0139	0.0042
Mercury	-12341-04-22 17:16 J	-2786014.90	-2786014.78	-2786014.66	0.0139	0.0061
Mercury	-12341-07-19 20:24 J	-2785926.75	-2785926.65	-2785926.54	0.0139	0.0081
Mercury	-12341-10-15 23:45 J	-2785838.60	-2785838.51	-2785838.42	0.0139	0.0101
Mercury	-12340-01-12 02:52 J	-2785750.44	-2785750.38	-2785750.31	0.0139	0.0122
Mars	-12337-08-12 08:52 J	-2784442.41	-2784442.13	-2784441.82	0.0141	0.0069
Venus	-12328-02-25 15:50 J	-2781322.96	-2781322.84	-2781322.67	0.0145	0.0106
Venus	-12328-10-10 02:52 J	-2781096.56	-2781096.38	-2781096.17	0.0145	0.0061
Venus	-12327-05-24 14:09 J	-2780870.12	-2780869.91	-2780869.70	0.0145	0.0015
Venus	-12326-01-06 01:11 J	-2780643.66	-2780643.45	-2780643.24	0.0145	0.0030
Venus	-12326-08-20 12:28 J	-2780417.16	-2780416.98	-2780416.79	0.0145	0.0076
Venus	-12325-04-02 23:31 J	-2780190.62	-2780190.52	-2780190.39	0.0146	0.0122
Moon	-12319-11-27 17:16 J	-2777760.90	-2777760.78	-2777760.63	0.0146	0.0123
Earth	-12319-11-27 21:07 J	-2777760.75	-2777760.62	-2777760.48	0.0146	0.0123 *
Earth	-12318-12-03 00:57 J	-2777390.69	-2777390.46	-2777390.22	0.0146	0.0059
Moon	-12318-12-03 04:33 J	-2777390.53	-2777390.31	-2777390.08	0.0146	0.0064 *
Moon	-12317-12-07 01:40 J	-2777020.68	-2777020.43	-2777020.17	0.0145	0.0015
Earth	-12317-12-07 05:31 J	-2777020.53	-2777020.27	-2777020.01	0.0145	0.0006 *
Earth	-12316-12-12 09:35 J	-2776650.32	-2776650.10	-2776649.87	0.0145	0.0071
Moon	-12316-12-12 12:57 J	-2776650.19	-2776649.96	-2776649.73	0.0145	0.0065 *
Moon	-12315-12-17 10:33 J	-2776280.11	-2776280.06	-2776279.95	0.0145	0.0138

Earth	-12315-12-17 13:40 J	-2776280.01	-2776279.93	-2776279.83	0.0145	0.0135	*
Mercury	-12304-12-31 20:24 J	-2772247.72	-2772247.65	-2772247.55	0.0140	0.0126	
Mercury	-12303-03-30 04:48 J	-2772159.43	-2772159.30	-2772159.15	0.0140	0.0095	
Mercury	-12303-06-26 13:11 J	-2772071.12	-2772070.95	-2772070.77	0.0140	0.0064	
Mercury	-12303-09-22 21:21 J	-2771982.79	-2771982.61	-2771982.41	0.0140	0.0034	
Mercury	-12303-12-20 05:45 J	-2771894.46	-2771894.26	-2771894.06	0.0140	0.0003	
Mercury	-12302-03-18 13:55 J	-2771806.11	-2771805.92	-2771805.73	0.0139	0.0028	
Mercury	-12302-06-14 21:50 J	-2771717.76	-2771717.59	-2771717.40	0.0139	0.0058	
Mercury	-12302-09-11 06:00 J	-2771629.39	-2771629.25	-2771629.09	0.0139	0.0088	
Mercury	-12302-12-08 13:55 J	-2771541.00	-2771540.92	-2771540.80	0.0139	0.0118	
Mars	-12296-01-25 23:45 J	-2769665.78	-2769665.51	-2769665.22	0.0137	0.0029	
Venus	-12288-06-13 05:02 J	-2766605.40	-2766605.29	-2766605.18	0.0134	0.0116	
Venus	-12287-01-25 11:45 J	-2766379.18	-2766379.01	-2766378.83	0.0133	0.0080	
Venus	-12287-09-08 18:00 J	-2766152.94	-2766152.75	-2766152.53	0.0133	0.0045	
Venus	-12286-04-23 00:43 J	-2765926.69	-2765926.47	-2765926.25	0.0133	0.0008	
Venus	-12286-12-05 06:57 J	-2765700.42	-2765700.21	-2765699.99	0.0133	0.0028	
Venus	-12285-07-18 12:57 J	-2765474.14	-2765473.96	-2765473.75	0.0133	0.0064	
Venus	-12284-03-01 19:26 J	-2765247.83	-2765247.69	-2765247.54	0.0133	0.0099	
Moon	-12276-06-02 03:21 J	-2762233.49	-2762233.36	-2762233.21	0.0133	0.0107	
Earth	-12276-06-02 04:04 J	-2762233.44	-2762233.33	-2762233.17	0.0133	0.0112	*
Earth	-12275-06-06 09:07 J	-2761864.33	-2761864.12	-2761863.89	0.0133	0.0064	
Moon	-12275-06-06 10:19 J	-2761864.29	-2761864.07	-2761863.85	0.0133	0.0070	*
Moon	-12274-06-10 13:26 J	-2761495.18	-2761494.94	-2761494.69	0.0133	0.0010	
Earth	-12274-06-10 14:09 J	-2761495.16	-2761494.91	-2761494.65	0.0133	0.0016	*
Earth	-12273-06-13 18:57 J	-2761125.95	-2761125.71	-2761125.46	0.0133	0.0033	
Moon	-12273-06-13 20:24 J	-2761125.90	-2761125.65	-2761125.39	0.0133	0.0027	*
Moon	-12272-06-17 23:16 J	-2760756.71	-2760756.53	-2760756.34	0.0133	0.0086	
Earth	-12272-06-18 00:14 J	-2760756.69	-2760756.49	-2760756.29	0.0133	0.0081	*
Earth	-12271-06-22 05:02 J	-2760387.34	-2760387.29	-2760387.22	0.0134	0.0129	
Moon	-12271-06-22 06:14 J	-2760387.30	-2760387.24	-2760387.16	0.0134	0.0128	*

Mercury	-12260-12-13 16:48 J	-2756194.84	-2756194.80	-2756194.76	0.0138	0.0130
Mercury	-12259-03-11 19:40 J	-2756106.75	-2756106.68	-2756106.60	0.0138	0.0111
Mercury	-12259-06-07 22:48 J	-2756018.64	-2756018.55	-2756018.44	0.0138	0.0092
Mercury	-12259-09-04 02:09 J	-2755930.52	-2755930.41	-2755930.30	0.0138	0.0072
Mercury	-12259-12-01 05:16 J	-2755842.40	-2755842.28	-2755842.16	0.0138	0.0053
Mercury	-12258-02-27 08:24 J	-2755754.27	-2755754.15	-2755754.02	0.0139	0.0034
Mercury	-12258-05-26 11:31 J	-2755666.14	-2755666.02	-2755665.88	0.0139	0.0015
Mercury	-12258-08-22 14:52 J	-2755578.01	-2755577.88	-2755577.75	0.0139	0.0006
Mercury	-12258-11-18 18:00 J	-2755489.88	-2755489.75	-2755489.62	0.0139	0.0026
Mercury	-12257-02-14 21:07 J	-2755401.74	-2755401.62	-2755401.49	0.0139	0.0046
Mercury	-12257-05-13 00:14 J	-2755313.60	-2755313.49	-2755313.37	0.0139	0.0066
Mercury	-12257-08-09 03:35 J	-2755225.45	-2755225.35	-2755225.24	0.0139	0.0086
Mercury	-12257-11-05 06:43 J	-2755137.29	-2755137.22	-2755137.13	0.0139	0.0106
Mercury	-12256-02-01 10:04 J	-2755049.13	-2755049.08	-2755049.02	0.0140	0.0126
Mars	-12252-04-08 13:55 J	-2753522.25	-2753521.92	-2753521.58	0.0142	0.0014
Jupiter	-12245-07-25 03:21 J	-2750857.74	-2750857.36	-2750856.94	0.0145	0.0093
Venus	-12245-10-25 23:45 J	-2750764.61	-2750764.51	-2750764.40	0.0145	0.0126
Venus	-12244-06-09 10:33 J	-2750538.23	-2750538.06	-2750537.88	0.0145	0.0081
Venus	-12243-01-21 21:35 J	-2750311.81	-2750311.60	-2750311.39	0.0145	0.0036
Venus	-12243-09-05 08:52 J	-2750085.35	-2750085.13	-2750084.92	0.0145	0.0009
Venus	-12242-04-19 19:55 J	-2749858.87	-2749858.67	-2749858.47	0.0145	0.0055
Venus	-12242-12-02 06:57 J	-2749632.36	-2749632.21	-2749632.05	0.0146	0.0101
Moon	-12235-11-28 03:50 J	-2747079.46	-2747079.34	-2747079.17	0.0146	0.0119
Earth	-12235-11-28 07:11 J	-2747079.33	-2747079.20	-2747079.03	0.0146	0.0118 *
Earth	-12234-12-03 11:16 J	-2746709.25	-2746709.03	-2746708.78	0.0146	0.0054
Moon	-12234-12-03 15:21 J	-2746709.10	-2746708.86	-2746708.61	0.0146	0.0048 *
Moon	-12233-12-07 12:28 J	-2746339.24	-2746338.98	-2746338.73	0.0145	0.0005
Earth	-12233-12-07 15:50 J	-2746339.09	-2746338.84	-2746338.58	0.0145	0.0012 *
Earth	-12232-12-12 19:40 J	-2745968.88	-2745968.68	-2745968.45	0.0145	0.0076
Moon	-12232-12-12 23:31 J	-2745968.73	-2745968.52	-2745968.31	0.0145	0.0083 *

Moon	-12231-12-17 20:09 J	-2745598.73	-2745598.66	-2745598.54	0.0145	0.0135
Earth	-12231-12-18 00:00 J	-2745598.56	-2745598.50	-2745598.42	0.0145	0.0139 *
Mercury	-12219-01-21 03:07 J	-2741546.45	-2741546.37	-2741546.25	0.0140	0.0121
Mercury	-12219-04-19 11:45 J	-2741458.16	-2741458.01	-2741457.85	0.0140	0.0089
Mercury	-12219-07-16 20:09 J	-2741369.84	-2741369.66	-2741369.48	0.0140	0.0058
Mercury	-12219-10-13 04:19 J	-2741281.51	-2741281.32	-2741281.12	0.0140	0.0028
Mercury	-12218-01-09 12:28 J	-2741193.17	-2741192.98	-2741192.78	0.0140	0.0005
Mercury	-12218-04-07 20:38 J	-2741104.82	-2741104.64	-2741104.44	0.0139	0.0034
Mercury	-12218-07-05 04:48 J	-2741016.47	-2741016.30	-2741016.12	0.0139	0.0064
Mercury	-12218-10-01 12:43 J	-2740928.10	-2740927.97	-2740927.81	0.0139	0.0094
Mercury	-12218-12-28 21:07 J	-2740839.71	-2740839.62	-2740839.53	0.0139	0.0123
Mars	-12214-10-21 09:35 J	-2739447.30	-2739447.10	-2739446.85	0.0137	0.0086
Mars	-12212-09-20 05:16 J	-2738747.47	-2738747.28	-2738747.04	0.0136	0.0089
Venus	-12204-09-24 19:26 J	-2735820.83	-2735820.69	-2735820.53	0.0133	0.0098
Venus	-12203-05-09 02:09 J	-2735594.60	-2735594.41	-2735594.21	0.0133	0.0062
Venus	-12203-12-21 08:38 J	-2735368.35	-2735368.14	-2735367.92	0.0133	0.0026
Venus	-12202-08-04 15:07 J	-2735142.09	-2735141.87	-2735141.65	0.0133	0.0011
Venus	-12201-03-17 21:21 J	-2734915.81	-2734915.61	-2734915.40	0.0133	0.0047
Venus	-12201-10-30 03:35 J	-2734689.52	-2734689.35	-2734689.17	0.0133	0.0082
Venus	-12200-06-13 09:21 J	-2734463.19	-2734463.11	-2734462.99	0.0133	0.0118
Earth	-12192-06-02 12:43 J	-2731552.10	-2731551.97	-2731551.80	0.0133	0.0108
Moon	-12192-06-02 12:57 J	-2731552.08	-2731551.96	-2731551.83	0.0133	0.0112 *
Moon	-12191-06-06 18:14 J	-2731182.98	-2731182.74	-2731182.50	0.0133	0.0054
Earth	-12191-06-06 17:45 J	-2731182.97	-2731182.76	-2731182.52	0.0133	0.0060 *
Moon	-12190-06-10 22:19 J	-2730813.81	-2730813.57	-2730813.32	0.0133	0.0019
Earth	-12190-06-10 23:02 J	-2730813.79	-2730813.54	-2730813.29	0.0133	0.0012 *
Moon	-12189-06-14 03:50 J	-2730444.58	-2730444.34	-2730444.08	0.0133	0.0043
Earth	-12189-06-14 03:50 J	-2730444.57	-2730444.34	-2730444.09	0.0133	0.0036 *
Moon	-12188-06-18 07:55 J	-2730075.35	-2730075.17	-2730074.96	0.0133	0.0081
Earth	-12188-06-18 08:38 J	-2730075.32	-2730075.14	-2730074.93	0.0133	0.0084 *

Earth	-12187-06-22 13:40 J	-2729705.95	-2729705.93	-2729705.87	0.0134	0.0132
Moon	-12187-06-22 14:24 J	-2729705.90	-2729705.90	-2729705.89	0.0134	0.0134 *
Mercury	-12175-01-02 23:45 J	-2725493.55	-2725493.51	-2725493.45	0.0138	0.0126
Mercury	-12175-04-01 02:52 J	-2725405.45	-2725405.38	-2725405.29	0.0138	0.0107
Mercury	-12175-06-28 06:00 J	-2725317.34	-2725317.25	-2725317.14	0.0138	0.0088
Mercury	-12175-09-24 09:21 J	-2725229.22	-2725229.11	-2725229.00	0.0138	0.0068
Mercury	-12175-12-21 12:28 J	-2725141.10	-2725140.98	-2725140.86	0.0139	0.0049
Mercury	-12174-03-19 15:35 J	-2725052.97	-2725052.85	-2725052.72	0.0139	0.0029
Mercury	-12174-06-15 18:43 J	-2724964.84	-2724964.72	-2724964.59	0.0139	0.0011
Mercury	-12174-09-11 22:04 J	-2724876.71	-2724876.58	-2724876.45	0.0139	0.0010
Mercury	-12174-12-09 01:11 J	-2724788.58	-2724788.45	-2724788.32	0.0139	0.0030
Mercury	-12173-03-06 04:19 J	-2724700.44	-2724700.32	-2724700.19	0.0139	0.0050
Mercury	-12173-06-02 07:26 J	-2724612.29	-2724612.19	-2724612.07	0.0139	0.0071
Mercury	-12173-08-29 10:48 J	-2724524.15	-2724524.05	-2724523.95	0.0139	0.0090
Mercury	-12173-11-25 13:55 J	-2724435.99	-2724435.92	-2724435.83	0.0140	0.0111
Mercury	-12172-02-21 17:16 J	-2724347.82	-2724347.78	-2724347.73	0.0140	0.0131
Mars	-12170-12-28 14:52 J	-2723307.95	-2723307.88	-2723307.77	0.0141	0.0135
Mars	-12168-12-03 18:57 J	-2722601.95	-2722601.71	-2722601.45	0.0142	0.0095
Venus	-12160-02-06 18:14 J	-2719979.88	-2719979.74	-2719979.58	0.0145	0.0102
Venus	-12160-09-21 05:02 J	-2719753.48	-2719753.29	-2719753.08	0.0145	0.0057
Venus	-12159-05-05 16:19 J	-2719527.03	-2719526.82	-2719526.61	0.0145	0.0011
Venus	-12159-12-18 03:21 J	-2719300.57	-2719300.36	-2719300.15	0.0145	0.0034
Venus	-12158-08-01 14:24 J	-2719074.07	-2719073.90	-2719073.71	0.0146	0.0081
Venus	-12157-03-15 01:40 J	-2718847.52	-2718847.43	-2718847.31	0.0146	0.0126
Moon	-12151-11-28 15:50 J	-2716397.99	-2716397.84	-2716397.67	0.0146	0.0112
Earth	-12151-11-28 18:57 J	-2716397.86	-2716397.71	-2716397.53	0.0146	0.0112 *
Earth	-12150-12-03 23:02 J	-2716027.77	-2716027.54	-2716027.28	0.0146	0.0048
Moon	-12150-12-04 02:24 J	-2716027.63	-2716027.40	-2716027.14	0.0146	0.0053 *
Moon	-12149-12-07 23:45 J	-2715657.76	-2715657.51	-2715657.25	0.0145	0.0025
Earth	-12149-12-08 03:35 J	-2715657.60	-2715657.35	-2715657.09	0.0145	0.0017 *

Earth	-12148-12-13 07:26 J	-2715287.39	-2715287.19	-2715286.96	0.0145	0.0081
Moon	-12148-12-13 11:02 J	-2715287.25	-2715287.04	-2715286.81	0.0145	0.0074 *
Earth	-12147-12-18 11:31 J	-2714917.03	-2714917.02	-2714916.98	0.0145	0.0144
Mercury	-12135-02-10 10:48 J	-2710845.16	-2710845.05	-2710844.92	0.0140	0.0112
Mercury	-12135-05-09 19:11 J	-2710756.85	-2710756.70	-2710756.54	0.0140	0.0081
Mercury	-12135-08-06 03:21 J	-2710668.53	-2710668.36	-2710668.17	0.0140	0.0051
Mercury	-12135-11-02 11:45 J	-2710580.20	-2710580.01	-2710579.81	0.0140	0.0020
Mercury	-12134-01-29 19:55 J	-2710491.86	-2710491.67	-2710491.47	0.0139	0.0011
Mercury	-12134-04-28 04:04 J	-2710403.51	-2710403.33	-2710403.14	0.0139	0.0041
Mercury	-12134-07-25 12:00 J	-2710315.15	-2710315.00	-2710314.82	0.0139	0.0072
Mercury	-12134-10-21 20:09 J	-2710226.78	-2710226.66	-2710226.52	0.0139	0.0101
Mercury	-12133-01-18 04:04 J	-2710138.38	-2710138.33	-2710138.25	0.0139	0.0131
Mars	-12129-06-14 19:11 J	-2708528.97	-2708528.70	-2708528.41	0.0137	0.0024
Jupiter	-12120-05-11 12:43 J	-2705276.47	-2705275.97	-2705275.45	0.0134	0.0018
Venus	-12120-05-25 04:04 J	-2705262.43	-2705262.33	-2705262.21	0.0134	0.0115
Venus	-12119-01-06 10:48 J	-2705036.22	-2705036.05	-2705035.86	0.0133	0.0079
Venus	-12119-08-20 17:31 J	-2704809.98	-2704809.77	-2704809.56	0.0133	0.0042
Venus	-12118-04-04 00:00 J	-2704583.72	-2704583.50	-2704583.28	0.0133	0.0006
Venus	-12118-11-16 06:00 J	-2704357.45	-2704357.25	-2704357.02	0.0133	0.0030
Venus	-12117-06-29 12:14 J	-2704131.17	-2704130.99	-2704130.79	0.0133	0.0066
Venus	-12116-02-10 18:28 J	-2703904.86	-2703904.73	-2703904.58	0.0133	0.0101
Earth	-12108-06-02 21:35 J	-2700870.73	-2700870.60	-2700870.42	0.0133	0.0104
Moon	-12108-06-02 22:19 J	-2700870.72	-2700870.57	-2700870.40	0.0133	0.0100 *
Moon	-12107-06-07 02:52 J	-2700501.61	-2700501.38	-2700501.15	0.0133	0.0062
Earth	-12107-06-07 03:07 J	-2700501.59	-2700501.37	-2700501.14	0.0133	0.0056 *
Earth	-12106-06-11 08:09 J	-2700132.41	-2700132.16	-2700131.90	0.0133	0.0009
Moon	-12106-06-11 08:52 J	-2700132.38	-2700132.13	-2700131.89	0.0133	0.0002 *
Moon	-12105-06-14 12:57 J	-2699763.20	-2699762.96	-2699762.70	0.0133	0.0034
Earth	-12105-06-14 13:11 J	-2699763.19	-2699762.95	-2699762.71	0.0133	0.0039 *
Earth	-12104-06-18 17:45 J	-2699393.93	-2699393.76	-2699393.55	0.0133	0.0087

Moon	-12104-06-18 18:28 J	-2699393.90	-2699393.73	-2699393.55	0.0133	0.0093 *
Moon	-12103-06-22 22:48 J	-2699024.57	-2699024.55	-2699024.50	0.0134	0.0132
Mercury	-12091-01-23 06:43 J	-2694792.27	-2694792.22	-2694792.16	0.0138	0.0123
Mercury	-12091-04-21 09:50 J	-2694704.17	-2694704.09	-2694704.00	0.0138	0.0104
Mercury	-12091-07-18 13:11 J	-2694616.05	-2694615.95	-2694615.85	0.0138	0.0085
Mercury	-12091-10-14 16:19 J	-2694527.93	-2694527.82	-2694527.71	0.0138	0.0065
Mercury	-12090-01-10 19:26 J	-2694439.81	-2694439.69	-2694439.57	0.0139	0.0046
Mercury	-12090-04-08 22:33 J	-2694351.68	-2694351.56	-2694351.43	0.0139	0.0026
Mercury	-12090-07-06 01:55 J	-2694263.55	-2694263.42	-2694263.29	0.0139	0.0007
Mercury	-12090-10-02 05:02 J	-2694175.42	-2694175.29	-2694175.16	0.0139	0.0013
Mercury	-12090-12-29 08:09 J	-2694087.28	-2694087.16	-2694087.03	0.0139	0.0033
Mercury	-12089-03-26 11:16 J	-2693999.14	-2693999.03	-2693998.90	0.0139	0.0053
Mercury	-12089-06-22 14:24 J	-2693911.00	-2693910.90	-2693910.78	0.0139	0.0074
Mercury	-12089-09-18 17:45 J	-2693822.85	-2693822.76	-2693822.66	0.0139	0.0093
Mercury	-12089-12-15 20:52 J	-2693734.70	-2693734.63	-2693734.55	0.0140	0.0114
Mercury	-12088-03-14 00:14 J	-2693646.52	-2693646.49	-2693646.45	0.0140	0.0134
Mars	-12085-08-23 15:21 J	-2692388.16	-2692387.86	-2692387.55	0.0141	0.0057
Venus	-12077-10-07 00:28 J	-2689421.57	-2689421.48	-2689421.35	0.0145	0.0124
Venus	-12076-05-21 11:31 J	-2689195.19	-2689195.02	-2689194.83	0.0145	0.0079
Venus	-12075-01-02 22:48 J	-2688968.76	-2688968.55	-2688968.34	0.0145	0.0034
Venus	-12075-08-17 09:50 J	-2688742.30	-2688742.09	-2688741.87	0.0145	0.0012
Venus	-12074-03-31 20:52 J	-2688515.82	-2688515.63	-2688515.43	0.0146	0.0058
Venus	-12074-11-13 08:09 J	-2688289.31	-2688289.16	-2688289.01	0.0146	0.0104
Moon	-12067-11-29 02:24 J	-2685716.55	-2685716.40	-2685716.22	0.0146	0.0107
Earth	-12067-11-29 05:02 J	-2685716.45	-2685716.29	-2685716.10	0.0146	0.0107 *
Earth	-12066-12-04 09:35 J	-2685346.34	-2685346.10	-2685345.85	0.0146	0.0043
Moon	-12066-12-04 12:57 J	-2685346.20	-2685345.96	-2685345.70	0.0146	0.0038 *
Moon	-12065-12-08 10:48 J	-2684976.30	-2684976.05	-2684975.80	0.0145	0.0015
Earth	-12065-12-08 14:09 J	-2684976.16	-2684975.91	-2684975.66	0.0145	0.0022 *
Earth	-12064-12-13 18:00 J	-2684605.95	-2684605.75	-2684605.54	0.0145	0.0085

Moon	-12064-12-13 21:50 J	-2684605.78	-2684605.59	-2684605.39	0.0145	0.0092	*
Moon	-12063-12-18 18:14 J	-2684235.76	-2684235.74	-2684235.68	0.0145	0.0143	
Mercury	-12052-12-04 09:50 J	-2680232.12	-2680232.09	-2680232.02	0.0140	0.0135	
Mercury	-12051-03-02 18:14 J	-2680143.86	-2680143.74	-2680143.60	0.0140	0.0104	
Mercury	-12051-05-30 02:52 J	-2680055.55	-2680055.38	-2680055.21	0.0140	0.0073	
Mercury	-12051-08-26 11:02 J	-2679967.23	-2679967.04	-2679966.85	0.0140	0.0043	
Mercury	-12051-11-22 19:11 J	-2679878.89	-2679878.70	-2679878.50	0.0140	0.0012	
Mercury	-12050-02-19 03:21 J	-2679790.55	-2679790.36	-2679790.16	0.0139	0.0019	
Mercury	-12050-05-18 11:45 J	-2679702.20	-2679702.01	-2679701.83	0.0139	0.0049	
Mercury	-12050-08-14 19:26 J	-2679613.84	-2679613.69	-2679613.51	0.0139	0.0079	
Mercury	-12050-11-11 03:50 J	-2679525.46	-2679525.34	-2679525.22	0.0139	0.0108	
Mercury	-12049-02-07 11:45 J	-2679437.02	-2679437.01	-2679436.98	0.0139	0.0138	
Mars	-12046-03-10 07:40 J	-2678310.19	-2678310.18	-2678310.12	0.0137	0.0137	
Mars	-12044-02-07 06:00 J	-2677610.52	-2677610.25	-2677609.97	0.0137	0.0037	
Venus	-12036-01-22 12:57 J	-2674703.98	-2674703.96	-2674703.92	0.0134	0.0132	
Venus	-12036-09-05 19:40 J	-2674477.83	-2674477.68	-2674477.52	0.0133	0.0096	
Venus	-12035-04-20 02:09 J	-2674251.60	-2674251.41	-2674251.21	0.0133	0.0059	
Venus	-12035-12-02 08:38 J	-2674025.36	-2674025.14	-2674024.93	0.0133	0.0023	
Venus	-12034-07-16 14:38 J	-2673799.10	-2673798.89	-2673798.66	0.0133	0.0013	
Venus	-12033-02-27 20:52 J	-2673572.83	-2673572.63	-2673572.42	0.0133	0.0049	
Venus	-12033-10-11 03:07 J	-2673346.54	-2673346.37	-2673346.20	0.0133	0.0084	
Venus	-12032-05-25 08:38 J	-2673120.21	-2673120.14	-2673120.03	0.0133	0.0120	
Earth	-12024-06-03 06:14 J	-2670189.40	-2670189.24	-2670189.07	0.0133	0.0100	
Moon	-12024-06-03 07:11 J	-2670189.34	-2670189.20	-2670189.03	0.0133	0.0104	*
Moon	-12023-06-07 10:04 J	-2669820.32	-2669820.08	-2669819.83	0.0133	0.0048	
Earth	-12023-06-07 11:16 J	-2669820.25	-2669820.03	-2669819.79	0.0133	0.0053	*
Earth	-12022-06-11 16:19 J	-2669451.07	-2669450.82	-2669450.57	0.0133	0.0005	
Moon	-12022-06-11 17:02 J	-2669451.04	-2669450.79	-2669450.55	0.0133	0.0012	*
Moon	-12021-06-14 19:26 J	-2669081.91	-2669081.69	-2669081.43	0.0133	0.0049	
Earth	-12021-06-14 20:52 J	-2669081.86	-2669081.63	-2669081.38	0.0133	0.0042	*

Earth	-12020-06-19 01:40 J	-2668712.61	-2668712.43	-2668712.23	0.0133	0.0090
Moon	-12020-06-19 02:09 J	-2668712.58	-2668712.41	-2668712.21	0.0133	0.0085 *
Mercury	-12007-02-12 13:26 J	-2664090.99	-2664090.94	-2664090.88	0.0138	0.0122
Mercury	-12007-05-11 16:33 J	-2664002.89	-2664002.81	-2664002.72	0.0138	0.0102
Mercury	-12007-08-07 19:40 J	-2663914.78	-2663914.68	-2663914.57	0.0138	0.0083
Mercury	-12007-11-03 23:02 J	-2663826.66	-2663826.54	-2663826.43	0.0139	0.0064
Mercury	-12006-01-31 02:09 J	-2663738.53	-2663738.41	-2663738.29	0.0139	0.0044
Mercury	-12006-04-29 05:16 J	-2663650.41	-2663650.28	-2663650.15	0.0139	0.0025
Mercury	-12006-07-26 08:24 J	-2663562.28	-2663562.15	-2663562.02	0.0139	0.0006
Mercury	-12006-10-22 11:45 J	-2663474.14	-2663474.01	-2663473.88	0.0139	0.0015
Mercury	-12005-01-18 14:52 J	-2663386.01	-2663385.88	-2663385.75	0.0139	0.0035
Mercury	-12005-04-15 18:00 J	-2663297.87	-2663297.75	-2663297.63	0.0139	0.0055
Mercury	-12005-07-12 21:21 J	-2663209.72	-2663209.61	-2663209.50	0.0139	0.0075
Mercury	-12005-10-09 00:28 J	-2663121.57	-2663121.48	-2663121.38	0.0140	0.0095
Mercury	-12004-01-05 03:35 J	-2663033.42	-2663033.35	-2663033.27	0.0140	0.0115
Mercury	-12004-04-03 06:57 J	-2662945.24	-2662945.21	-2662945.18	0.0140	0.0135

12TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 12th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-12000-04-19 11:31 J	-2661468.34	-2661468.02	-2661467.68	0.0142	0.0020		
Venus	-11992-01-18 16:19 J	-2658636.96	-2658636.82	-2658636.66	0.0145	0.0103		

Venus	-11992-09-02 03:35 J	-2658410.54	-2658410.35	-2658410.15	0.0145	0.0057
Venus	-11991-04-16 14:38 J	-2658184.10	-2658183.89	-2658183.68	0.0145	0.0012
Venus	-11991-11-29 01:26 J	-2657957.64	-2657957.44	-2657957.22	0.0145	0.0035
Venus	-11990-07-13 12:57 J	-2657731.14	-2657730.96	-2657730.78	0.0146	0.0080
Venus	-11989-02-25 00:00 J	-2657504.60	-2657504.50	-2657504.39	0.0146	0.0126
Moon	-11983-11-29 10:04 J	-2655035.25	-2655035.08	-2655034.90	0.0146	0.0104
Earth	-11983-11-29 12:14 J	-2655035.16	-2655034.99	-2655034.80	0.0146	0.0103 *
Earth	-11982-12-04 16:48 J	-2654665.04	-2654664.80	-2654664.55	0.0146	0.0039
Moon	-11982-12-04 19:26 J	-2654664.93	-2654664.69	-2654664.43	0.0146	0.0043 *
Moon	-11981-12-08 17:31 J	-2654295.01	-2654294.77	-2654294.52	0.0145	0.0033
Earth	-11981-12-08 21:07 J	-2654294.87	-2654294.62	-2654294.36	0.0145	0.0025 *
Earth	-11980-12-14 01:11 J	-2653924.65	-2653924.45	-2653924.24	0.0145	0.0088
Moon	-11980-12-14 04:48 J	-2653924.51	-2653924.30	-2653924.08	0.0145	0.0081 *
Mercury	-11968-12-24 16:48 J	-2649530.86	-2649530.80	-2649530.72	0.0140	0.0129
Mercury	-11967-03-23 01:11 J	-2649442.58	-2649442.45	-2649442.31	0.0140	0.0098
Mercury	-11967-06-19 09:21 J	-2649354.27	-2649354.11	-2649353.93	0.0140	0.0068
Mercury	-11967-09-15 17:45 J	-2649265.95	-2649265.76	-2649265.57	0.0140	0.0037
Mercury	-11967-12-13 02:09 J	-2649177.61	-2649177.41	-2649177.22	0.0140	0.0007
Mercury	-11966-03-11 10:04 J	-2649089.26	-2649089.08	-2649088.88	0.0139	0.0025
Mercury	-11966-06-07 18:14 J	-2649000.91	-2649000.74	-2649000.55	0.0139	0.0055
Mercury	-11966-09-04 02:24 J	-2648912.55	-2648912.40	-2648912.24	0.0139	0.0084
Mercury	-11966-12-01 10:19 J	-2648824.16	-2648824.07	-2648823.94	0.0139	0.0114
Mars	-11962-11-02 17:45 J	-2647391.99	-2647391.76	-2647391.52	0.0137	0.0076
Mars	-11960-10-02 13:26 J	-2646692.12	-2646691.94	-2646691.71	0.0136	0.0097
Venus	-11952-05-06 03:50 J	-2643919.43	-2643919.34	-2643919.21	0.0133	0.0114
Venus	-11952-12-18 10:33 J	-2643693.23	-2643693.06	-2643692.87	0.0133	0.0077
Venus	-11951-08-01 17:02 J	-2643466.99	-2643466.79	-2643466.57	0.0133	0.0041
Venus	-11950-03-15 23:31 J	-2643240.74	-2643240.52	-2643240.30	0.0133	0.0005
Venus	-11950-10-28 05:31 J	-2643014.48	-2643014.27	-2643014.05	0.0133	0.0032
Venus	-11949-06-10 11:45 J	-2642788.20	-2642788.01	-2642787.82	0.0133	0.0067

Venus	-11948-01-22 17:31 J	-2642561.89	-2642561.77	-2642561.62	0.0133	0.0103
Earth	-11940-06-03 14:52 J	-2639508.04	-2639507.88	-2639507.69	0.0132	0.0096
Moon	-11940-06-03 16:33 J	-2639507.97	-2639507.81	-2639507.62	0.0132	0.0094 *
Moon	-11939-06-07 18:14 J	-2639138.96	-2639138.74	-2639138.49	0.0133	0.0055
Earth	-11939-06-07 19:55 J	-2639138.89	-2639138.67	-2639138.43	0.0133	0.0049 *
Earth	-11938-06-12 00:57 J	-2638769.72	-2638769.46	-2638769.21	0.0133	0.0002
Moon	-11938-06-12 02:38 J	-2638769.63	-2638769.39	-2638769.14	0.0133	0.0005 *
Moon	-11937-06-15 03:50 J	-2638400.57	-2638400.34	-2638400.08	0.0133	0.0039
Earth	-11937-06-15 05:31 J	-2638400.51	-2638400.27	-2638400.03	0.0133	0.0045 *
Earth	-11936-06-19 09:50 J	-2638031.26	-2638031.09	-2638030.89	0.0133	0.0092
Moon	-11936-06-19 11:45 J	-2638031.17	-2638031.01	-2638030.84	0.0133	0.0098 *
Mercury	-11923-03-04 19:55 J	-2633389.72	-2633389.67	-2633389.60	0.0138	0.0120
Mercury	-11923-05-31 23:16 J	-2633301.62	-2633301.53	-2633301.44	0.0138	0.0101
Mercury	-11923-08-28 02:24 J	-2633213.50	-2633213.40	-2633213.29	0.0138	0.0081
Mercury	-11923-11-24 05:31 J	-2633125.38	-2633125.27	-2633125.15	0.0138	0.0062
Mercury	-11922-02-20 08:38 J	-2633037.26	-2633037.14	-2633037.01	0.0139	0.0043
Mercury	-11922-05-19 11:45 J	-2632949.13	-2632949.01	-2632948.88	0.0139	0.0024
Mercury	-11922-08-15 15:07 J	-2632861.00	-2632860.87	-2632860.74	0.0139	0.0004
Mercury	-11922-11-11 18:14 J	-2632772.87	-2632772.74	-2632772.61	0.0139	0.0016
Mercury	-11921-02-07 21:21 J	-2632684.73	-2632684.61	-2632684.48	0.0139	0.0036
Mercury	-11921-05-06 00:28 J	-2632596.59	-2632596.48	-2632596.35	0.0139	0.0056
Mercury	-11921-08-02 03:35 J	-2632508.45	-2632508.35	-2632508.23	0.0139	0.0077
Mercury	-11921-10-29 06:57 J	-2632420.30	-2632420.21	-2632420.11	0.0139	0.0096
Mercury	-11920-01-25 10:19 J	-2632332.14	-2632332.07	-2632332.00	0.0140	0.0116
Mercury	-11920-04-23 13:11 J	-2632243.96	-2632243.95	-2632243.91	0.0140	0.0137
Mars	-11917-01-08 01:40 J	-2631254.50	-2631254.43	-2631254.29	0.0141	0.0135
Mars	-11916-12-14 06:28 J	-2630548.46	-2630548.23	-2630547.97	0.0142	0.0096
Venus	-11909-09-17 20:09 J	-2628078.75	-2628078.66	-2628078.55	0.0145	0.0128
Venus	-11908-05-02 06:57 J	-2627852.38	-2627852.21	-2627852.03	0.0145	0.0083
Venus	-11908-12-14 18:00 J	-2627625.95	-2627625.75	-2627625.54	0.0145	0.0037

Venus	-11907-07-29 05:16 J	-2627399.50	-2627399.28	-2627399.07	0.0145	0.0009
Venus	-11906-03-12 16:04 J	-2627173.02	-2627172.83	-2627172.62	0.0146	0.0055
Venus	-11906-10-25 03:07 J	-2626946.51	-2626946.37	-2626946.20	0.0146	0.0101
Moon	-11899-11-29 15:21 J	-2624354.03	-2624353.86	-2624353.66	0.0146	0.0099
Earth	-11899-11-29 17:02 J	-2624353.97	-2624353.79	-2624353.60	0.0146	0.0100 *
Earth	-11898-12-04 21:21 J	-2623983.85	-2623983.61	-2623983.36	0.0146	0.0037
Moon	-11898-12-05 00:00 J	-2623983.75	-2623983.50	-2623983.24	0.0146	0.0033 *
Moon	-11897-12-08 23:16 J	-2623613.78	-2623613.53	-2623613.28	0.0145	0.0021
Earth	-11897-12-09 01:55 J	-2623613.67	-2623613.42	-2623613.17	0.0145	0.0027 *
Earth	-11896-12-14 05:31 J	-2623243.45	-2623243.27	-2623243.05	0.0145	0.0090
Moon	-11896-12-14 09:07 J	-2623243.30	-2623243.12	-2623242.92	0.0145	0.0098 *
Mercury	-11883-01-13 22:33 J	-2618829.63	-2618829.56	-2618829.46	0.0140	0.0127
Mercury	-11883-04-12 06:57 J	-2618741.34	-2618741.21	-2618741.06	0.0140	0.0096
Mercury	-11883-07-09 15:21 J	-2618653.03	-2618652.86	-2618652.68	0.0140	0.0065
Mercury	-11883-10-05 23:31 J	-2618564.70	-2618564.52	-2618564.32	0.0140	0.0035
Mercury	-11882-01-02 07:55 J	-2618476.36	-2618476.17	-2618475.97	0.0140	0.0004
Mercury	-11882-03-31 16:04 J	-2618388.02	-2618387.83	-2618387.63	0.0139	0.0027
Mercury	-11882-06-28 00:00 J	-2618299.66	-2618299.50	-2618299.31	0.0139	0.0058
Mercury	-11882-09-24 08:09 J	-2618211.30	-2618211.16	-2618210.99	0.0139	0.0087
Mercury	-11882-12-21 16:19 J	-2618122.91	-2618122.82	-2618122.70	0.0139	0.0117
Mars	-11877-06-26 22:48 J	-2616473.83	-2616473.55	-2616473.26	0.0137	0.0017
Venus	-11868-01-03 11:45 J	-2613361.03	-2613361.01	-2613360.97	0.0134	0.0132
Venus	-11868-08-17 18:14 J	-2613134.88	-2613134.74	-2613134.57	0.0133	0.0096
Venus	-11867-04-01 00:43 J	-2612908.66	-2612908.47	-2612908.26	0.0133	0.0059
Venus	-11867-11-13 07:11 J	-2612682.42	-2612682.20	-2612681.98	0.0133	0.0023
Venus	-11866-06-27 13:26 J	-2612456.16	-2612455.94	-2612455.72	0.0133	0.0014
Venus	-11865-02-08 19:26 J	-2612229.88	-2612229.69	-2612229.47	0.0133	0.0050
Venus	-11865-09-22 01:40 J	-2612003.59	-2612003.43	-2612003.26	0.0133	0.0085
Venus	-11864-05-06 07:26 J	-2611777.27	-2611777.19	-2611777.09	0.0133	0.0121
Earth	-11856-06-03 23:31 J	-2608826.70	-2608826.52	-2608826.34	0.0132	0.0092

Moon	-11856-06-04 01:40 J	-2608826.60	-2608826.43	-2608826.26	0.0132	0.0095 *
Moon	-11855-06-08 01:40 J	-2608457.67	-2608457.43	-2608457.17	0.0133	0.0042
Earth	-11855-06-08 04:04 J	-2608457.55	-2608457.33	-2608457.08	0.0133	0.0046 *
Earth	-11854-06-12 08:52 J	-2608088.38	-2608088.13	-2608087.88	0.0133	0.0002
Moon	-11854-06-12 10:48 J	-2608088.29	-2608088.05	-2608087.80	0.0133	0.0005 *
Moon	-11853-06-15 10:48 J	-2607719.27	-2607719.05	-2607718.80	0.0133	0.0055
Earth	-11853-06-15 13:26 J	-2607719.17	-2607718.94	-2607718.70	0.0133	0.0048 *
Earth	-11852-06-19 17:45 J	-2607349.91	-2607349.76	-2607349.56	0.0133	0.0095
Moon	-11852-06-19 19:55 J	-2607349.84	-2607349.67	-2607349.48	0.0133	0.0090 *
Mercury	-11840-12-27 00:00 J	-2602776.52	-2602776.50	-2602776.49	0.0138	0.0136
Mercury	-11839-03-25 02:52 J	-2602688.44	-2602688.38	-2602688.31	0.0138	0.0118
Mercury	-11839-06-21 06:00 J	-2602600.33	-2602600.25	-2602600.15	0.0138	0.0098
Mercury	-11839-09-17 09:07 J	-2602512.22	-2602512.12	-2602512.01	0.0138	0.0079
Mercury	-11839-12-14 12:28 J	-2602424.10	-2602423.98	-2602423.87	0.0138	0.0060
Mercury	-11838-03-12 15:21 J	-2602335.98	-2602335.86	-2602335.73	0.0139	0.0041
Mercury	-11838-06-08 18:43 J	-2602247.85	-2602247.72	-2602247.59	0.0139	0.0021
Mercury	-11838-09-04 21:50 J	-2602159.72	-2602159.59	-2602159.46	0.0139	0.0001
Mercury	-11838-12-02 00:57 J	-2602071.59	-2602071.46	-2602071.33	0.0139	0.0019
Mercury	-11837-02-28 04:04 J	-2601983.45	-2601983.33	-2601983.20	0.0139	0.0039
Mercury	-11837-05-26 07:26 J	-2601895.31	-2601895.19	-2601895.07	0.0139	0.0058
Mercury	-11837-08-22 10:33 J	-2601807.16	-2601807.06	-2601806.95	0.0139	0.0078
Mercury	-11837-11-18 13:40 J	-2601719.01	-2601718.93	-2601718.83	0.0139	0.0099
Mercury	-11836-02-14 16:48 J	-2601630.86	-2601630.80	-2601630.72	0.0140	0.0119
Mercury	-11836-05-13 20:09 J	-2601542.66	-2601542.66	-2601542.64	0.0140	0.0139
Mars	-11833-09-02 23:31 J	-2600334.81	-2600334.52	-2600334.19	0.0141	0.0057
Venus	-11825-12-30 11:31 J	-2597294.15	-2597294.02	-2597293.86	0.0145	0.0107
Venus	-11824-08-13 22:48 J	-2597067.74	-2597067.55	-2597067.36	0.0145	0.0062
Venus	-11823-03-28 09:35 J	-2596841.31	-2596841.10	-2596840.88	0.0145	0.0016
Venus	-11823-11-09 20:24 J	-2596614.85	-2596614.65	-2596614.43	0.0145	0.0031
Venus	-11822-06-24 07:26 J	-2596388.36	-2596388.19	-2596387.99	0.0146	0.0077

Venus	-11821-02-05 18:43 J	-2596161.82	-2596161.72	-2596161.59	0.0146	0.0123
Moon	-11815-11-29 21:35 J	-2593672.77	-2593672.60	-2593672.41	0.0146	0.0100
Earth	-11815-11-29 22:19 J	-2593672.74	-2593672.57	-2593672.36	0.0146	0.0098 *
Earth	-11814-12-05 02:52 J	-2593302.62	-2593302.38	-2593302.12	0.0146	0.0035
Moon	-11814-12-05 04:33 J	-2593302.57	-2593302.31	-2593302.05	0.0146	0.0036 *
Moon	-11813-12-09 04:33 J	-2592932.55	-2592932.31	-2592932.07	0.0146	0.0036
Earth	-11813-12-09 07:11 J	-2592932.45	-2592932.20	-2592931.95	0.0146	0.0029 *
Earth	-11812-12-14 10:48 J	-2592562.23	-2592562.05	-2592561.83	0.0145	0.0093
Moon	-11812-12-14 13:40 J	-2592562.13	-2592561.93	-2592561.70	0.0145	0.0084 *
Mercury	-11799-02-03 04:33 J	-2588128.39	-2588128.31	-2588128.22	0.0140	0.0124
Mercury	-11799-05-02 12:57 J	-2588040.10	-2588039.96	-2588039.81	0.0140	0.0093
Mercury	-11799-07-29 21:07 J	-2587951.79	-2587951.62	-2587951.44	0.0140	0.0063
Mercury	-11799-10-26 05:31 J	-2587863.46	-2587863.27	-2587863.08	0.0140	0.0032
Mercury	-11798-01-22 13:40 J	-2587775.12	-2587774.93	-2587774.73	0.0140	0.0003
Mercury	-11798-04-20 21:50 J	-2587686.78	-2587686.59	-2587686.39	0.0140	0.0029
Mercury	-11798-07-18 06:00 J	-2587598.42	-2587598.25	-2587598.07	0.0139	0.0059
Mercury	-11798-10-14 13:55 J	-2587510.05	-2587509.92	-2587509.75	0.0139	0.0090
Mercury	-11797-01-10 22:04 J	-2587421.67	-2587421.58	-2587421.47	0.0139	0.0119
Mars	-11794-03-22 04:48 J	-2586255.36	-2586255.30	-2586255.20	0.0138	0.0132
Mars	-11792-02-19 02:52 J	-2585555.64	-2585555.38	-2585555.10	0.0137	0.0042
Venus	-11784-04-17 01:55 J	-2582576.52	-2582576.42	-2582576.30	0.0134	0.0114
Venus	-11784-11-29 08:09 J	-2582350.32	-2582350.16	-2582349.96	0.0133	0.0078
Venus	-11783-07-13 14:52 J	-2582124.09	-2582123.88	-2582123.66	0.0133	0.0041
Venus	-11782-02-24 21:21 J	-2581897.83	-2581897.61	-2581897.39	0.0133	0.0004
Venus	-11782-10-09 03:21 J	-2581671.57	-2581671.36	-2581671.14	0.0133	0.0032
Venus	-11781-05-22 09:21 J	-2581445.29	-2581445.11	-2581444.91	0.0133	0.0068
Venus	-11780-01-03 15:21 J	-2581218.98	-2581218.86	-2581218.71	0.0133	0.0104
Moon	-11773-05-31 00:28 J	-2578514.48	-2578514.48	-2578514.48	0.0132	0.0132
Earth	-11772-06-04 07:55 J	-2578145.33	-2578145.17	-2578144.96	0.0133	0.0089
Moon	-11772-06-04 11:02 J	-2578145.22	-2578145.04	-2578144.85	0.0133	0.0087 *

Moon	-11771-06-08 10:19 J	-2577776.30	-2577776.07	-2577775.81	0.0133	0.0047
Earth	-11771-06-08 13:11 J	-2577776.19	-2577775.95	-2577775.71	0.0133	0.0042 *
Earth	-11770-06-12 18:00 J	-2577407.00	-2577406.75	-2577406.50	0.0133	0.0005
Moon	-11770-06-12 20:52 J	-2577406.88	-2577406.63	-2577406.39	0.0133	0.0011 *
Moon	-11769-06-15 19:55 J	-2577037.90	-2577037.67	-2577037.42	0.0133	0.0045
Earth	-11769-06-15 22:19 J	-2577037.79	-2577037.57	-2577037.32	0.0133	0.0052 *
Earth	-11768-06-20 02:52 J	-2576668.53	-2576668.38	-2576668.19	0.0133	0.0098
Moon	-11768-06-20 05:31 J	-2576668.40	-2576668.27	-2576668.10	0.0133	0.0105 *
Mercury	-11755-01-16 06:43 J	-2572075.24	-2572075.22	-2572075.17	0.0138	0.0133
Mercury	-11755-04-14 10:04 J	-2571987.15	-2571987.08	-2571987.01	0.0138	0.0113
Mercury	-11755-07-11 13:11 J	-2571899.04	-2571898.95	-2571898.85	0.0138	0.0094
Mercury	-11755-10-07 16:19 J	-2571810.93	-2571810.82	-2571810.71	0.0138	0.0075
Mercury	-11754-01-03 19:26 J	-2571722.81	-2571722.69	-2571722.57	0.0138	0.0056
Mercury	-11754-04-01 22:33 J	-2571634.68	-2571634.56	-2571634.43	0.0139	0.0036
Mercury	-11754-06-29 01:55 J	-2571546.55	-2571546.42	-2571546.29	0.0139	0.0017
Mercury	-11754-09-25 05:02 J	-2571458.42	-2571458.29	-2571458.16	0.0139	0.0004
Mercury	-11754-12-22 08:09 J	-2571370.29	-2571370.16	-2571370.03	0.0139	0.0023
Mercury	-11753-03-19 11:16 J	-2571282.15	-2571282.03	-2571281.90	0.0139	0.0043
Mercury	-11753-06-15 14:24 J	-2571194.01	-2571193.90	-2571193.78	0.0139	0.0063
Mercury	-11753-09-11 17:45 J	-2571105.86	-2571105.76	-2571105.66	0.0139	0.0082
Mercury	-11753-12-08 20:52 J	-2571017.71	-2571017.63	-2571017.54	0.0139	0.0103
Mercury	-11752-03-07 00:00 J	-2570929.55	-2570929.50	-2570929.43	0.0140	0.0123
Mars	-11748-04-30 03:50 J	-2569414.67	-2569414.34	-2569414.01	0.0142	0.0025
Venus	-11741-08-29 18:14 J	-2566735.82	-2566735.74	-2566735.63	0.0145	0.0129
Venus	-11740-04-13 05:16 J	-2566509.45	-2566509.28	-2566509.10	0.0145	0.0083
Venus	-11740-11-25 16:04 J	-2566283.03	-2566282.83	-2566282.62	0.0145	0.0038
Venus	-11739-07-10 03:07 J	-2566056.58	-2566056.37	-2566056.16	0.0145	0.0008
Venus	-11738-02-21 13:55 J	-2565830.11	-2565829.92	-2565829.71	0.0145	0.0055
Venus	-11738-10-06 00:57 J	-2565603.60	-2565603.46	-2565603.29	0.0146	0.0101
Moon	-11731-11-30 07:11 J	-2562991.38	-2562991.20	-2562991.00	0.0146	0.0090

Earth	-11731-11-30 07:26 J	-2562991.38	-2562991.19	-2562990.99	0.0146	0.0093	*
Earth	-11730-12-05 11:31 J	-2562621.27	-2562621.02	-2562620.77	0.0146	0.0030	
Moon	-11730-12-05 12:43 J	-2562621.22	-2562620.97	-2562620.70	0.0146	0.0028	*
Moon	-11729-12-09 13:55 J	-2562251.16	-2562250.92	-2562250.67	0.0146	0.0028	
Earth	-11729-12-09 15:21 J	-2562251.10	-2562250.86	-2562250.60	0.0146	0.0033	*
Earth	-11728-12-14 18:57 J	-2561880.88	-2561880.71	-2561880.50	0.0145	0.0096	
Moon	-11728-12-14 21:50 J	-2561880.76	-2561880.59	-2561880.39	0.0145	0.0103	*
Mercury	-11715-02-23 11:02 J	-2557427.13	-2557427.04	-2557426.93	0.0140	0.0120	
Mercury	-11715-05-22 19:11 J	-2557338.84	-2557338.70	-2557338.53	0.0140	0.0089	
Mercury	-11715-08-19 03:35 J	-2557250.52	-2557250.35	-2557250.16	0.0140	0.0058	
Mercury	-11715-11-15 12:00 J	-2557162.19	-2557162.00	-2557161.80	0.0140	0.0027	
Mercury	-11714-02-11 20:24 J	-2557073.85	-2557073.65	-2557073.46	0.0140	0.0004	
Mercury	-11714-05-11 04:33 J	-2556985.50	-2556985.31	-2556985.12	0.0139	0.0034	
Mercury	-11714-08-07 12:43 J	-2556897.15	-2556896.97	-2556896.80	0.0139	0.0064	
Mercury	-11714-11-03 20:24 J	-2556808.78	-2556808.65	-2556808.49	0.0139	0.0094	
Mercury	-11713-01-31 04:48 J	-2556720.38	-2556720.30	-2556720.21	0.0139	0.0123	
Mars	-11710-11-14 12:57 J	-2555337.20	-2555336.96	-2555336.71	0.0137	0.0071	
Mars	-11708-10-14 08:09 J	-2554637.32	-2554637.16	-2554636.94	0.0136	0.0102	
Venus	-11701-12-15 09:35 J	-2552018.12	-2552018.10	-2552018.04	0.0134	0.0132	
Venus	-11700-07-29 16:33 J	-2551791.96	-2551791.81	-2551791.65	0.0134	0.0095	
Venus	-11699-03-12 23:02 J	-2551565.73	-2551565.54	-2551565.34	0.0133	0.0058	
Venus	-11699-10-25 05:16 J	-2551339.49	-2551339.28	-2551339.05	0.0133	0.0022	
Venus	-11698-06-08 11:45 J	-2551113.23	-2551113.01	-2551112.79	0.0133	0.0015	
Venus	-11697-01-20 17:45 J	-2550886.95	-2550886.76	-2550886.54	0.0133	0.0051	
Venus	-11697-09-02 23:45 J	-2550660.66	-2550660.51	-2550660.33	0.0133	0.0087	
Venus	-11696-04-17 05:45 J	-2550434.32	-2550434.26	-2550434.16	0.0133	0.0123	
Moon	-11689-05-31 09:07 J	-2547833.13	-2547833.12	-2547833.09	0.0133	0.0132	
Earth	-11689-05-31 12:00 J	-2547833.02	-2547833.00	-2547832.93	0.0133	0.0131	
Earth	-11688-06-04 17:02 J	-2547463.97	-2547463.79	-2547463.58	0.0133	0.0085	
Moon	-11688-06-04 20:09 J	-2547463.83	-2547463.66	-2547463.46	0.0133	0.0087	*

Moon	-11687-06-08 18:57 J	-2547094.96	-2547094.71	-2547094.46	0.0133	0.0035
Earth	-11687-06-08 22:19 J	-2547094.81	-2547094.57	-2547094.33	0.0133	0.0038 *
Earth	-11686-06-13 02:52 J	-2546725.63	-2546725.38	-2546725.13	0.0133	0.0008
Moon	-11686-06-13 05:45 J	-2546725.51	-2546725.26	-2546725.02	0.0133	0.0003 *
Moon	-11685-06-16 04:19 J	-2546356.54	-2546356.32	-2546356.09	0.0133	0.0062
Earth	-11685-06-16 07:40 J	-2546356.41	-2546356.18	-2546355.95	0.0133	0.0054 *
Earth	-11684-06-20 12:00 J	-2545987.14	-2545987.00	-2545986.82	0.0133	0.0101
Moon	-11684-06-20 15:21 J	-2545987.03	-2545986.86	-2545986.69	0.0133	0.0095 *
Mercury	-11671-02-05 14:09 J	-2541373.95	-2541373.91	-2541373.86	0.0138	0.0128
Mercury	-11671-05-04 17:16 J	-2541285.86	-2541285.78	-2541285.70	0.0138	0.0109
Mercury	-11671-07-31 20:24 J	-2541197.75	-2541197.65	-2541197.55	0.0138	0.0090
Mercury	-11671-10-27 23:31 J	-2541109.63	-2541109.52	-2541109.41	0.0138	0.0071
Mercury	-11670-01-24 02:38 J	-2541021.51	-2541021.39	-2541021.27	0.0139	0.0052
Mercury	-11670-04-22 05:45 J	-2540933.38	-2540933.26	-2540933.13	0.0139	0.0032
Mercury	-11670-07-19 09:07 J	-2540845.25	-2540845.12	-2540844.99	0.0139	0.0013
Mercury	-11670-10-15 12:14 J	-2540757.12	-2540756.99	-2540756.86	0.0139	0.0008
Mercury	-11669-01-11 15:21 J	-2540668.99	-2540668.86	-2540668.73	0.0139	0.0027
Mercury	-11669-04-08 18:28 J	-2540580.85	-2540580.73	-2540580.60	0.0139	0.0047
Mercury	-11669-07-05 21:35 J	-2540492.71	-2540492.60	-2540492.48	0.0139	0.0067
Mercury	-11669-10-02 00:43 J	-2540404.56	-2540404.47	-2540404.36	0.0139	0.0088
Mercury	-11669-12-29 04:04 J	-2540316.41	-2540316.33	-2540316.24	0.0140	0.0107
Mercury	-11668-03-27 07:11 J	-2540228.24	-2540228.20	-2540228.14	0.0140	0.0128
Mars	-11665-01-19 06:00 J	-2539200.40	-2539200.25	-2539200.06	0.0141	0.0121
Mars	-11664-12-25 10:48 J	-2538494.24	-2538494.05	-2538493.81	0.0142	0.0108
Venus	-11657-12-11 12:57 J	-2535951.10	-2535950.96	-2535950.80	0.0145	0.0104
Venus	-11656-07-26 00:00 J	-2535724.69	-2535724.50	-2535724.30	0.0145	0.0058
Venus	-11655-03-09 11:02 J	-2535498.25	-2535498.04	-2535497.82	0.0145	0.0012
Venus	-11655-10-21 22:04 J	-2535271.79	-2535271.58	-2535271.37	0.0145	0.0034
Venus	-11654-06-05 08:52 J	-2535045.29	-2535045.13	-2535044.94	0.0146	0.0081
Venus	-11653-01-17 20:09 J	-2534818.75	-2534818.66	-2534818.54	0.0146	0.0127

Moon	-11648-11-25 14:24 J	-2532679.95	-2532679.90	-2532679.83	0.0146	0.0142
Earth	-11647-11-30 19:26 J	-2532309.88	-2532309.69	-2532309.47	0.0146	0.0087
Moon	-11647-11-30 19:26 J	-2532309.87	-2532309.69	-2532309.48	0.0146	0.0091 *
Moon	-11646-12-05 23:45 J	-2531939.77	-2531939.51	-2531939.25	0.0146	0.0025
Earth	-11646-12-05 23:31 J	-2531939.77	-2531939.52	-2531939.26	0.0146	0.0025 *
Moon	-11645-12-10 01:40 J	-2531569.66	-2531569.43	-2531569.19	0.0146	0.0044
Earth	-11645-12-10 03:21 J	-2531569.61	-2531569.36	-2531569.11	0.0146	0.0038 *
Earth	-11644-12-15 06:57 J	-2531199.38	-2531199.21	-2531199.01	0.0145	0.0100
Moon	-11644-12-15 08:38 J	-2531199.32	-2531199.14	-2531198.92	0.0145	0.0093 *
Mercury	-11631-03-15 18:43 J	-2526725.84	-2526725.72	-2526725.60	0.0140	0.0111
Mercury	-11631-06-12 02:52 J	-2526637.53	-2526637.38	-2526637.21	0.0140	0.0081
Mercury	-11631-09-08 11:16 J	-2526549.21	-2526549.03	-2526548.85	0.0140	0.0050
Mercury	-11631-12-05 19:26 J	-2526460.88	-2526460.69	-2526460.49	0.0140	0.0020
Mercury	-11630-03-04 03:35 J	-2526372.54	-2526372.35	-2526372.15	0.0140	0.0011
Mercury	-11630-05-31 11:45 J	-2526284.19	-2526284.01	-2526283.82	0.0139	0.0041
Mercury	-11630-08-27 19:55 J	-2526195.83	-2526195.67	-2526195.50	0.0139	0.0071
Mercury	-11630-11-24 03:50 J	-2526107.46	-2526107.34	-2526107.19	0.0139	0.0101
Mercury	-11629-02-20 11:45 J	-2526019.05	-2526019.01	-2526018.93	0.0139	0.0132
Mars	-11625-07-08 23:02 J	-2524418.82	-2524418.54	-2524418.25	0.0137	0.0009
Venus	-11616-03-29 01:26 J	-2521233.54	-2521233.44	-2521233.31	0.0134	0.0112
Venus	-11616-11-10 07:55 J	-2521007.34	-2521007.17	-2521006.97	0.0133	0.0075
Venus	-11615-06-24 14:38 J	-2520781.10	-2520780.89	-2520780.68	0.0133	0.0038
Venus	-11614-02-05 21:07 J	-2520554.84	-2520554.62	-2520554.40	0.0133	0.0002
Venus	-11614-09-20 03:21 J	-2520328.57	-2520328.36	-2520328.15	0.0133	0.0034
Venus	-11613-05-03 09:07 J	-2520102.29	-2520102.12	-2520101.92	0.0133	0.0071
Venus	-11613-12-15 15:35 J	-2519875.98	-2519875.85	-2519875.72	0.0133	0.0106
Moon	-11605-05-31 18:43 J	-2517151.79	-2517151.72	-2517151.61	0.0133	0.0124
Earth	-11605-05-31 22:19 J	-2517151.63	-2517151.57	-2517151.47	0.0133	0.0126 *
Earth	-11604-06-05 03:35 J	-2516782.55	-2516782.35	-2516782.14	0.0133	0.0080
Moon	-11604-06-05 06:43 J	-2516782.41	-2516782.22	-2516782.01	0.0133	0.0080 *

Moon	-11603-06-09 04:48 J	-2516413.53	-2516413.30	-2516413.04	0.0133	0.0039
Earth	-11603-06-09 08:24 J	-2516413.39	-2516413.15	-2516412.90	0.0133	0.0034 *
Earth	-11602-06-13 13:11 J	-2516044.20	-2516043.95	-2516043.70	0.0133	0.0012
Moon	-11602-06-13 16:33 J	-2516044.05	-2516043.81	-2516043.56	0.0133	0.0018 *
Moon	-11601-06-16 14:24 J	-2515675.12	-2515674.90	-2515674.65	0.0133	0.0053
Earth	-11601-06-16 18:00 J	-2515674.97	-2515674.75	-2515674.52	0.0133	0.0058 *
Earth	-11600-06-20 22:33 J	-2515305.71	-2515305.56	-2515305.40	0.0133	0.0105
Moon	-11600-06-21 01:40 J	-2515305.54	-2515305.43	-2515305.28	0.0133	0.0112 *
Mercury	-11587-02-25 21:21 J	-2510672.66	-2510672.61	-2510672.55	0.0138	0.0124
Mercury	-11587-05-25 00:28 J	-2510584.56	-2510584.48	-2510584.39	0.0138	0.0105
Mercury	-11587-08-21 03:35 J	-2510496.45	-2510496.35	-2510496.24	0.0138	0.0086
Mercury	-11587-11-17 06:43 J	-2510408.33	-2510408.22	-2510408.10	0.0139	0.0066
Mercury	-11586-02-13 10:04 J	-2510320.21	-2510320.08	-2510319.96	0.0139	0.0047
Mercury	-11586-05-12 13:11 J	-2510232.08	-2510231.95	-2510231.82	0.0139	0.0027
Mercury	-11586-08-08 16:19 J	-2510143.95	-2510143.82	-2510143.69	0.0139	0.0008
Mercury	-11586-11-04 19:26 J	-2510055.82	-2510055.69	-2510055.56	0.0139	0.0012
Mercury	-11585-01-31 22:33 J	-2509967.68	-2509967.56	-2509967.43	0.0139	0.0032
Mercury	-11585-04-29 01:40 J	-2509879.54	-2509879.43	-2509879.30	0.0139	0.0053
Mercury	-11585-07-26 05:02 J	-2509791.40	-2509791.29	-2509791.18	0.0139	0.0072
Mercury	-11585-10-22 08:09 J	-2509703.25	-2509703.16	-2509703.06	0.0139	0.0092
Mercury	-11584-01-18 11:16 J	-2509615.10	-2509615.03	-2509614.94	0.0140	0.0113
Mercury	-11584-04-16 14:38 J	-2509526.92	-2509526.89	-2509526.85	0.0140	0.0132
Mars	-11581-09-14 12:14 J	-2508280.30	-2508279.99	-2508279.66	0.0141	0.0040
Venus	-11573-08-10 21:07 J	-2505392.72	-2505392.62	-2505392.51	0.0145	0.0124
Venus	-11572-03-25 07:40 J	-2505166.34	-2505166.18	-2505165.99	0.0145	0.0079
Venus	-11572-11-06 18:43 J	-2504939.92	-2504939.72	-2504939.50	0.0145	0.0033
Venus	-11571-06-21 06:00 J	-2504713.46	-2504713.25	-2504713.04	0.0145	0.0013
Venus	-11570-02-02 17:02 J	-2504486.98	-2504486.79	-2504486.59	0.0145	0.0060
Venus	-11570-09-17 04:33 J	-2504260.45	-2504260.31	-2504260.16	0.0146	0.0106
Earth	-11564-11-26 03:50 J	-2501998.36	-2501998.34	-2501998.26	0.0146	0.0143

Earth	-11563-12-01 08:09 J	-2501628.36	-2501628.16	-2501627.94	0.0146	0.0081
Moon	-11563-12-01 09:07 J	-2501628.32	-2501628.12	-2501627.90	0.0146	0.0077 *
Earth	-11562-12-06 12:00 J	-2501258.25	-2501258.00	-2501257.74	0.0146	0.0019
Moon	-11562-12-06 12:14 J	-2501258.25	-2501257.99	-2501257.72	0.0146	0.0018 *
Moon	-11561-12-10 15:21 J	-2500888.08	-2500887.86	-2500887.61	0.0146	0.0040
Earth	-11561-12-10 15:50 J	-2500888.07	-2500887.84	-2500887.59	0.0146	0.0044 *
Earth	-11560-12-15 19:40 J	-2500517.84	-2500517.68	-2500517.49	0.0145	0.0106
Moon	-11560-12-15 21:35 J	-2500517.76	-2500517.60	-2500517.42	0.0145	0.0112 *
Mercury	-11547-01-06 18:00 J	-2496112.79	-2496112.75	-2496112.67	0.0140	0.0133
Mercury	-11547-04-05 02:24 J	-2496024.52	-2496024.40	-2496024.25	0.0140	0.0102
Mercury	-11547-07-02 10:48 J	-2495936.21	-2495936.05	-2495935.87	0.0140	0.0071
Mercury	-11547-09-28 19:11 J	-2495847.89	-2495847.70	-2495847.51	0.0140	0.0041
Mercury	-11547-12-26 03:21 J	-2495759.55	-2495759.36	-2495759.16	0.0140	0.0010
Mercury	-11546-03-24 11:31 J	-2495671.21	-2495671.02	-2495670.82	0.0140	0.0021
Mercury	-11546-06-20 19:40 J	-2495582.86	-2495582.68	-2495582.49	0.0139	0.0051
Mercury	-11546-09-17 03:50 J	-2495494.50	-2495494.34	-2495494.18	0.0139	0.0080
Mercury	-11546-12-14 11:45 J	-2495406.12	-2495406.01	-2495405.88	0.0139	0.0110
Mars	-11542-04-03 13:40 J	-2494200.06	-2494199.93	-2494199.77	0.0137	0.0119
Mars	-11540-03-03 11:45 J	-2493500.26	-2493500.01	-2493499.73	0.0136	0.0054
Venus	-11533-11-26 11:02 J	-2490675.09	-2490675.04	-2490674.97	0.0134	0.0128
Venus	-11532-07-10 17:31 J	-2490448.92	-2490448.77	-2490448.60	0.0133	0.0092
Venus	-11531-02-22 00:14 J	-2490222.69	-2490222.49	-2490222.29	0.0133	0.0055
Venus	-11531-10-06 06:28 J	-2489996.45	-2489996.23	-2489996.01	0.0133	0.0018
Venus	-11530-05-20 12:43 J	-2489770.19	-2489769.97	-2489769.75	0.0133	0.0018
Venus	-11529-01-01 18:43 J	-2489543.91	-2489543.72	-2489543.51	0.0133	0.0055
Venus	-11529-08-15 00:43 J	-2489317.61	-2489317.47	-2489317.29	0.0133	0.0091
Venus	-11528-03-29 06:43 J	-2489091.26	-2489091.22	-2489091.13	0.0133	0.0127
Moon	-11521-06-01 04:33 J	-2486470.37	-2486470.31	-2486470.20	0.0132	0.0125
Earth	-11521-06-01 08:09 J	-2486470.24	-2486470.16	-2486470.05	0.0132	0.0122 *
Earth	-11520-06-05 13:11 J	-2486101.16	-2486100.95	-2486100.74	0.0133	0.0076

Moon	-11520-06-05 16:19 J	-2486101.00	-2486100.82	-2486100.60	0.0133	0.0078 *
Moon	-11519-06-09 14:24 J	-2485732.15	-2485731.90	-2485731.65	0.0133	0.0028
Earth	-11519-06-09 17:45 J	-2485732.00	-2485731.76	-2485731.50	0.0133	0.0031 *
Earth	-11518-06-13 22:33 J	-2485362.81	-2485362.56	-2485362.31	0.0133	0.0016
Moon	-11518-06-14 01:55 J	-2485362.67	-2485362.42	-2485362.17	0.0133	0.0010 *
Moon	-11517-06-16 23:16 J	-2484993.73	-2484993.53	-2484993.30	0.0133	0.0069
Earth	-11517-06-17 03:07 J	-2484993.58	-2484993.37	-2484993.13	0.0133	0.0062 *
Earth	-11516-06-21 07:40 J	-2484624.30	-2484624.18	-2484624.01	0.0133	0.0109
Moon	-11516-06-21 11:16 J	-2484624.18	-2484624.03	-2484623.86	0.0133	0.0101 *
Mercury	-11503-03-18 04:04 J	-2479971.38	-2479971.33	-2479971.26	0.0138	0.0122
Mercury	-11503-06-14 07:26 J	-2479883.27	-2479883.19	-2479883.10	0.0138	0.0102
Mercury	-11503-09-10 10:33 J	-2479795.16	-2479795.06	-2479794.95	0.0138	0.0083
Mercury	-11503-12-07 13:40 J	-2479707.04	-2479706.93	-2479706.81	0.0139	0.0063
Mercury	-11502-03-05 16:48 J	-2479618.92	-2479618.80	-2479618.67	0.0139	0.0044
Mercury	-11502-06-01 20:09 J	-2479530.79	-2479530.66	-2479530.53	0.0139	0.0024
Mercury	-11502-08-28 23:16 J	-2479442.66	-2479442.53	-2479442.40	0.0139	0.0005
Mercury	-11502-11-25 02:24 J	-2479354.53	-2479354.40	-2479354.27	0.0139	0.0016
Mercury	-11501-02-21 05:45 J	-2479266.39	-2479266.26	-2479266.14	0.0139	0.0036
Mercury	-11501-05-19 08:52 J	-2479178.25	-2479178.13	-2479178.01	0.0139	0.0055
Mercury	-11501-08-15 12:00 J	-2479090.10	-2479090.00	-2479089.89	0.0139	0.0075
Mercury	-11501-11-11 15:07 J	-2479001.95	-2479001.87	-2479001.77	0.0140	0.0096
Mercury	-11500-02-07 18:28 J	-2478913.80	-2478913.73	-2478913.65	0.0140	0.0116
Mercury	-11500-05-06 21:35 J	-2478825.62	-2478825.60	-2478825.56	0.0140	0.0136
Mars	-11496-05-11 14:38 J	-2477360.19	-2477359.89	-2477359.55	0.0142	0.0040
Venus	-11489-11-22 14:24 J	-2474608.04	-2474607.90	-2474607.73	0.0145	0.0101
Venus	-11488-07-07 01:26 J	-2474381.62	-2474381.44	-2474381.23	0.0145	0.0056
Venus	-11487-02-18 12:57 J	-2474155.18	-2474154.96	-2474154.75	0.0145	0.0009
Venus	-11487-10-03 00:00 J	-2473928.70	-2473928.50	-2473928.29	0.0145	0.0038
Venus	-11486-05-17 11:16 J	-2473702.20	-2473702.03	-2473701.85	0.0146	0.0085
Venus	-11486-12-29 22:48 J	-2473475.64	-2473475.55	-2473475.46	0.0146	0.0131

Moon	-11480-11-26 12:43 J	-2471317.07	-2471316.97	-2471316.83	0.0146	0.0131
Earth	-11480-11-26 15:21 J	-2471316.94	-2471316.86	-2471316.77	0.0146	0.0138 *
Earth	-11479-12-01 18:57 J	-2470946.91	-2470946.71	-2470946.48	0.0146	0.0076
Moon	-11479-12-01 20:09 J	-2470946.85	-2470946.66	-2470946.44	0.0146	0.0080 *
Moon	-11478-12-06 22:19 J	-2470576.83	-2470576.57	-2470576.31	0.0146	0.0013
Earth	-11478-12-06 23:16 J	-2470576.78	-2470576.53	-2470576.27	0.0146	0.0014 *
Moon	-11477-12-11 02:52 J	-2470206.61	-2470206.38	-2470206.15	0.0146	0.0054
Earth	-11477-12-11 03:07 J	-2470206.60	-2470206.37	-2470206.12	0.0146	0.0049 *
Earth	-11476-12-16 07:11 J	-2469836.35	-2469836.20	-2469836.02	0.0145	0.0111
Moon	-11476-12-16 08:09 J	-2469836.34	-2469836.16	-2469835.97	0.0145	0.0103 *
Mercury	-11463-01-27 02:09 J	-2465411.49	-2465411.41	-2465411.31	0.0140	0.0123
Mercury	-11463-04-25 10:33 J	-2465323.20	-2465323.06	-2465322.91	0.0140	0.0092
Mercury	-11463-07-22 18:43 J	-2465234.89	-2465234.72	-2465234.53	0.0140	0.0062
Mercury	-11463-10-19 03:07 J	-2465146.56	-2465146.37	-2465146.17	0.0140	0.0031
Mercury	-11462-01-15 11:31 J	-2465058.22	-2465058.02	-2465057.83	0.0140	0.0002
Mercury	-11462-04-13 19:40 J	-2464969.87	-2464969.68	-2464969.49	0.0139	0.0030
Mercury	-11462-07-11 03:35 J	-2464881.52	-2464881.35	-2464881.16	0.0139	0.0060
Mercury	-11462-10-07 11:31 J	-2464793.15	-2464793.02	-2464792.85	0.0139	0.0091
Mercury	-11461-01-03 19:40 J	-2464704.76	-2464704.68	-2464704.57	0.0139	0.0120
Mars	-11458-11-27 04:48 J	-2463281.56	-2463281.30	-2463281.04	0.0137	0.0055
Mars	-11456-10-27 00:43 J	-2462581.61	-2462581.47	-2462581.31	0.0136	0.0115
Venus	-11448-03-10 03:35 J	-2459890.47	-2459890.35	-2459890.21	0.0133	0.0108
Venus	-11448-10-22 09:50 J	-2459664.26	-2459664.09	-2459663.89	0.0133	0.0071
Venus	-11447-06-05 16:33 J	-2459438.03	-2459437.81	-2459437.60	0.0133	0.0034
Venus	-11446-01-17 22:48 J	-2459211.77	-2459211.55	-2459211.32	0.0133	0.0003
Venus	-11446-09-01 04:48 J	-2458985.50	-2458985.30	-2458985.07	0.0133	0.0039
Venus	-11445-04-14 11:02 J	-2458759.21	-2458759.04	-2458758.85	0.0133	0.0075
Venus	-11445-11-26 16:48 J	-2458532.90	-2458532.80	-2458532.66	0.0133	0.0111
Moon	-11437-06-01 14:38 J	-2455789.01	-2455788.89	-2455788.75	0.0132	0.0114
Earth	-11437-06-01 18:28 J	-2455788.84	-2455788.73	-2455788.61	0.0132	0.0117 *

Earth	-11436-06-05 23:02 J	-2455419.74	-2455419.54	-2455419.32	0.0132	0.0072
Moon	-11436-06-06 02:24 J	-2455419.59	-2455419.40	-2455419.17	0.0132	0.0073 *
Moon	-11435-06-10 00:14 J	-2455050.73	-2455050.49	-2455050.24	0.0133	0.0030
Earth	-11435-06-10 03:50 J	-2455050.58	-2455050.34	-2455050.09	0.0133	0.0026 *
Earth	-11434-06-14 08:24 J	-2454681.39	-2454681.15	-2454680.89	0.0133	0.0020
Moon	-11434-06-14 12:14 J	-2454681.24	-2454680.99	-2454680.74	0.0133	0.0025 *
Moon	-11433-06-17 09:50 J	-2454312.31	-2454312.09	-2454311.86	0.0133	0.0059
Earth	-11433-06-17 12:57 J	-2454312.16	-2454311.96	-2454311.72	0.0133	0.0066 *
Earth	-11432-06-21 17:45 J	-2453942.88	-2453942.76	-2453942.61	0.0133	0.0111
Moon	-11432-06-21 21:35 J	-2453942.70	-2453942.60	-2453942.48	0.0133	0.0119 *
Mercury	-11419-01-09 08:09 J	-2449358.17	-2449358.16	-2449358.15	0.0138	0.0137
Mercury	-11419-04-07 11:02 J	-2449270.09	-2449270.04	-2449269.96	0.0138	0.0118
Mercury	-11419-07-04 14:09 J	-2449181.99	-2449181.91	-2449181.81	0.0138	0.0099
Mercury	-11419-09-30 17:31 J	-2449093.87	-2449093.77	-2449093.66	0.0138	0.0080
Mercury	-11419-12-27 20:38 J	-2449005.75	-2449005.64	-2449005.52	0.0138	0.0060
Mercury	-11418-03-25 23:45 J	-2448917.63	-2448917.51	-2448917.38	0.0139	0.0041
Mercury	-11418-06-22 02:52 J	-2448829.50	-2448829.38	-2448829.25	0.0139	0.0022
Mercury	-11418-09-18 06:14 J	-2448741.37	-2448741.24	-2448741.11	0.0139	0.0003
Mercury	-11418-12-15 09:21 J	-2448653.24	-2448653.11	-2448652.98	0.0139	0.0018
Mercury	-11417-03-12 12:28 J	-2448565.10	-2448564.98	-2448564.85	0.0139	0.0038
Mercury	-11417-06-08 15:35 J	-2448476.96	-2448476.85	-2448476.72	0.0139	0.0059
Mercury	-11417-09-04 18:57 J	-2448388.82	-2448388.71	-2448388.60	0.0139	0.0078
Mercury	-11417-12-01 22:04 J	-2448300.66	-2448300.58	-2448300.48	0.0139	0.0098
Mercury	-11416-02-28 01:11 J	-2448212.50	-2448212.45	-2448212.37	0.0140	0.0119
Mercury	-11416-05-27 04:33 J	-2448124.32	-2448124.31	-2448124.29	0.0140	0.0139
Mars	-11413-01-30 09:21 J	-2447146.31	-2447146.11	-2447145.91	0.0141	0.0112
Mars	-11411-01-05 13:55 J	-2446440.08	-2446439.92	-2446439.71	0.0142	0.0117
Venus	-11405-07-22 19:55 J	-2444049.77	-2444049.67	-2444049.55	0.0145	0.0124
Venus	-11404-03-06 06:43 J	-2443823.39	-2443823.22	-2443823.03	0.0145	0.0079
Venus	-11404-10-18 18:00 J	-2443596.96	-2443596.75	-2443596.54	0.0145	0.0033

Venus	-11403-06-02 05:02 J	-2443370.50	-2443370.29	-2443370.07	0.0145	0.0014
Venus	-11402-01-14 16:19 J	-2443144.01	-2443143.82	-2443143.62	0.0146	0.0061
Venus	-11402-08-29 03:35 J	-2442917.47	-2442917.35	-2442917.19	0.0146	0.0108
Moon	-11396-11-26 19:40 J	-2440635.72	-2440635.68	-2440635.59	0.0146	0.0142
Earth	-11396-11-26 22:33 J	-2440635.65	-2440635.56	-2440635.44	0.0146	0.0134 *
Earth	-11395-12-02 02:38 J	-2440265.61	-2440265.39	-2440265.16	0.0146	0.0072
Moon	-11395-12-02 04:48 J	-2440265.51	-2440265.30	-2440265.07	0.0146	0.0067 *
Moon	-11394-12-07 05:45 J	-2439895.53	-2439895.26	-2439895.00	0.0146	0.0010
Earth	-11394-12-07 06:43 J	-2439895.47	-2439895.22	-2439894.96	0.0146	0.0010 *
Earth	-11393-12-11 11:02 J	-2439525.28	-2439525.04	-2439524.80	0.0146	0.0052
Moon	-11393-12-11 11:31 J	-2439525.24	-2439525.02	-2439524.77	0.0146	0.0049 *
Earth	-11392-12-16 15:07 J	-2439155.02	-2439154.87	-2439154.70	0.0145	0.0113
Moon	-11392-12-16 15:50 J	-2439154.99	-2439154.84	-2439154.69	0.0145	0.0120 *
Mercury	-11379-02-16 09:21 J	-2434710.21	-2434710.11	-2434710.00	0.0140	0.0116
Mercury	-11379-05-15 17:45 J	-2434621.91	-2434621.76	-2434621.60	0.0140	0.0085
Mercury	-11379-08-12 01:55 J	-2434533.59	-2434533.42	-2434533.23	0.0140	0.0055
Mercury	-11379-11-08 10:19 J	-2434445.26	-2434445.07	-2434444.87	0.0140	0.0024
Mercury	-11378-02-04 18:28 J	-2434356.92	-2434356.73	-2434356.53	0.0140	0.0007
Mercury	-11378-05-04 02:38 J	-2434268.57	-2434268.39	-2434268.19	0.0139	0.0037
Mercury	-11378-07-31 11:02 J	-2434180.21	-2434180.04	-2434179.87	0.0139	0.0067
Mercury	-11378-10-27 18:43 J	-2434091.84	-2434091.72	-2434091.56	0.0139	0.0098
Mercury	-11377-01-24 03:21 J	-2434003.44	-2434003.36	-2434003.29	0.0139	0.0127
Mars	-11373-07-21 16:04 J	-2432363.12	-2432362.83	-2432362.55	0.0137	0.0006
Venus	-11365-11-07 12:43 J	-2429332.03	-2429331.97	-2429331.87	0.0134	0.0125
Venus	-11364-06-21 19:26 J	-2429105.85	-2429105.69	-2429105.52	0.0133	0.0088
Venus	-11363-02-03 01:55 J	-2428879.61	-2428879.42	-2428879.20	0.0133	0.0051
Venus	-11363-09-17 08:24 J	-2428653.36	-2428653.15	-2428652.92	0.0133	0.0015
Venus	-11362-05-01 14:38 J	-2428427.10	-2428426.89	-2428426.67	0.0133	0.0022
Venus	-11362-12-13 20:38 J	-2428200.83	-2428200.64	-2428200.43	0.0133	0.0059
Venus	-11361-07-27 02:38 J	-2427974.53	-2427974.39	-2427974.22	0.0133	0.0095

Venus	-11360-03-10 08:38 J	-2427748.16	-2427748.14	-2427748.09	0.0133	0.0131
Moon	-11353-06-02 00:43 J	-2425107.58	-2425107.47	-2425107.34	0.0132	0.0116
Earth	-11353-06-02 04:04 J	-2425107.45	-2425107.33	-2425107.19	0.0132	0.0113 *
Earth	-11352-06-06 08:38 J	-2424738.35	-2424738.14	-2424737.91	0.0132	0.0068
Moon	-11352-06-06 12:14 J	-2424738.20	-2424737.99	-2424737.76	0.0132	0.0068 *
Moon	-11351-06-10 10:04 J	-2424369.33	-2424369.08	-2424368.83	0.0132	0.0021
Earth	-11351-06-10 13:26 J	-2424369.19	-2424368.94	-2424368.69	0.0132	0.0022 *
Earth	-11350-06-14 18:00 J	-2424000.00	-2423999.75	-2423999.50	0.0133	0.0023
Moon	-11350-06-14 21:35 J	-2423999.85	-2423999.60	-2423999.35	0.0133	0.0018 *
Moon	-11349-06-17 18:43 J	-2423630.91	-2423630.72	-2423630.50	0.0133	0.0076
Earth	-11349-06-17 22:33 J	-2423630.77	-2423630.56	-2423630.34	0.0133	0.0069 *
Earth	-11348-06-22 03:21 J	-2423261.48	-2423261.36	-2423261.23	0.0133	0.0114
Moon	-11348-06-22 06:43 J	-2423261.36	-2423261.22	-2423261.07	0.0133	0.0107 *
Mercury	-11335-01-29 14:52 J	-2418656.90	-2418656.88	-2418656.85	0.0138	0.0135
Mercury	-11335-04-27 17:45 J	-2418568.82	-2418568.76	-2418568.68	0.0138	0.0116
Mercury	-11335-07-24 21:07 J	-2418480.71	-2418480.62	-2418480.53	0.0138	0.0097
Mercury	-11335-10-21 00:14 J	-2418392.59	-2418392.49	-2418392.38	0.0138	0.0077
Mercury	-11334-01-17 03:21 J	-2418304.47	-2418304.36	-2418304.24	0.0138	0.0058
Mercury	-11334-04-15 06:28 J	-2418216.35	-2418216.23	-2418216.10	0.0139	0.0039
Mercury	-11334-07-12 09:50 J	-2418128.22	-2418128.09	-2418127.96	0.0139	0.0019
Mercury	-11334-10-08 12:57 J	-2418040.09	-2418039.96	-2418039.83	0.0139	0.0001
Mercury	-11333-01-04 16:04 J	-2417951.96	-2417951.83	-2417951.70	0.0139	0.0021
Mercury	-11333-04-01 19:26 J	-2417863.82	-2417863.69	-2417863.57	0.0139	0.0040
Mercury	-11333-06-28 22:33 J	-2417775.68	-2417775.56	-2417775.44	0.0139	0.0060
Mercury	-11333-09-25 01:40 J	-2417687.53	-2417687.43	-2417687.32	0.0139	0.0080
Mercury	-11333-12-22 04:48 J	-2417599.38	-2417599.30	-2417599.20	0.0139	0.0100
Mercury	-11332-03-20 07:55 J	-2417511.22	-2417511.17	-2417511.09	0.0140	0.0121
Mars	-11329-09-25 05:02 J	-2416226.61	-2416226.29	-2416225.96	0.0141	0.0036
Venus	-11321-11-03 11:16 J	-2413265.18	-2413265.03	-2413264.88	0.0145	0.0103
Venus	-11320-06-17 22:19 J	-2413038.77	-2413038.57	-2413038.37	0.0145	0.0057

Venus	-11319-01-30 09:21 J	-2412812.32	-2412812.11	-2412811.89	0.0145	0.0011
Venus	-11319-09-13 20:38 J	-2412585.84	-2412585.64	-2412585.42	0.0146	0.0036
Venus	-11318-04-28 07:55 J	-2412359.34	-2412359.17	-2412358.98	0.0146	0.0083
Venus	-11318-12-10 19:26 J	-2412132.78	-2412132.69	-2412132.59	0.0146	0.0129
Moon	-11312-11-27 01:11 J	-2409954.57	-2409954.45	-2409954.30	0.0146	0.0123
Earth	-11312-11-27 04:19 J	-2409954.41	-2409954.32	-2409954.19	0.0146	0.0131 *
Earth	-11311-12-02 08:24 J	-2409584.37	-2409584.15	-2409583.92	0.0146	0.0070
Moon	-11311-12-02 10:33 J	-2409584.26	-2409584.06	-2409583.83	0.0146	0.0075 *
Moon	-11310-12-07 10:33 J	-2409214.33	-2409214.06	-2409213.80	0.0146	0.0005
Earth	-11310-12-07 12:57 J	-2409214.22	-2409213.96	-2409213.71	0.0146	0.0008 *
Earth	-11309-12-11 17:02 J	-2408844.02	-2408843.79	-2408843.54	0.0146	0.0055
Moon	-11309-12-11 18:00 J	-2408843.96	-2408843.75	-2408843.51	0.0146	0.0059 *
Moon	-11308-12-16 20:52 J	-2408473.80	-2408473.63	-2408473.45	0.0145	0.0109
Earth	-11308-12-16 21:07 J	-2408473.75	-2408473.62	-2408473.44	0.0145	0.0117 *
Mercury	-11295-03-08 15:35 J	-2404008.95	-2404008.85	-2404008.72	0.0140	0.0112
Mercury	-11295-06-05 00:00 J	-2403920.65	-2403920.50	-2403920.33	0.0140	0.0081
Mercury	-11295-09-01 08:24 J	-2403832.33	-2403832.15	-2403831.96	0.0140	0.0050
Mercury	-11295-11-28 16:48 J	-2403743.99	-2403743.80	-2403743.60	0.0140	0.0020
Mercury	-11294-02-25 00:57 J	-2403655.65	-2403655.46	-2403655.26	0.0140	0.0011
Mercury	-11294-05-24 09:07 J	-2403567.30	-2403567.12	-2403566.92	0.0140	0.0042
Mercury	-11294-08-20 17:16 J	-2403478.94	-2403478.78	-2403478.60	0.0139	0.0072
Mercury	-11294-11-17 01:40 J	-2403390.56	-2403390.43	-2403390.30	0.0139	0.0102
Mercury	-11293-02-13 09:35 J	-2403302.15	-2403302.10	-2403302.03	0.0139	0.0132
Mars	-11290-04-16 00:57 J	-2402144.62	-2402144.46	-2402144.26	0.0137	0.0107
Mars	-11288-03-15 23:02 J	-2401444.77	-2401444.54	-2401444.27	0.0137	0.0066
Venus	-11280-02-19 04:48 J	-2398547.44	-2398547.30	-2398547.17	0.0134	0.0105
Venus	-11280-10-03 11:02 J	-2398321.22	-2398321.04	-2398320.84	0.0133	0.0068
Venus	-11279-05-17 17:31 J	-2398094.98	-2398094.77	-2398094.55	0.0133	0.0031
Venus	-11279-12-30 00:00 J	-2397868.72	-2397868.50	-2397868.28	0.0133	0.0005
Venus	-11278-08-13 06:00 J	-2397642.45	-2397642.25	-2397642.03	0.0133	0.0042

Venus	-11277-03-26 12:28 J	-2397416.16	-2397415.98	-2397415.80	0.0133	0.0078
Venus	-11277-11-07 18:28 J	-2397189.84	-2397189.73	-2397189.62	0.0133	0.0114
Moon	-11269-06-02 10:48 J	-2394426.19	-2394426.05	-2394425.89	0.0132	0.0104
Earth	-11269-06-02 14:38 J	-2394426.03	-2394425.89	-2394425.74	0.0132	0.0108 *
Earth	-11268-06-06 18:57 J	-2394056.92	-2394056.71	-2394056.47	0.0132	0.0063
Moon	-11268-06-06 22:19 J	-2394056.78	-2394056.57	-2394056.34	0.0132	0.0064 *
Moon	-11267-06-10 20:24 J	-2393687.89	-2393687.65	-2393687.40	0.0132	0.0021
Earth	-11267-06-11 00:00 J	-2393687.75	-2393687.50	-2393687.25	0.0132	0.0018 *
Earth	-11266-06-15 04:33 J	-2393318.56	-2393318.31	-2393318.06	0.0133	0.0028
Moon	-11266-06-15 07:55 J	-2393318.41	-2393318.17	-2393317.92	0.0133	0.0033 *
Moon	-11265-06-18 06:14 J	-2392949.45	-2392949.24	-2392949.03	0.0133	0.0067
Earth	-11265-06-18 09:21 J	-2392949.32	-2392949.11	-2392948.90	0.0133	0.0073 *
Earth	-11264-06-22 13:55 J	-2392580.02	-2392579.92	-2392579.80	0.0133	0.0118
Moon	-11264-06-22 17:45 J	-2392579.84	-2392579.76	-2392579.68	0.0133	0.0125 *
Mercury	-11251-02-18 22:04 J	-2387955.61	-2387955.58	-2387955.54	0.0138	0.0130
Mercury	-11251-05-18 01:11 J	-2387867.52	-2387867.45	-2387867.37	0.0138	0.0111
Mercury	-11251-08-14 04:19 J	-2387779.41	-2387779.32	-2387779.22	0.0138	0.0092
Mercury	-11251-11-10 07:26 J	-2387691.29	-2387691.19	-2387691.07	0.0138	0.0073
Mercury	-11250-02-06 10:33 J	-2387603.17	-2387603.06	-2387602.93	0.0138	0.0054
Mercury	-11250-05-05 13:40 J	-2387515.05	-2387514.93	-2387514.80	0.0138	0.0035
Mercury	-11250-08-01 17:02 J	-2387426.92	-2387426.79	-2387426.66	0.0139	0.0014
Mercury	-11250-10-28 20:09 J	-2387338.79	-2387338.66	-2387338.53	0.0139	0.0005
Mercury	-11249-01-24 23:16 J	-2387250.66	-2387250.53	-2387250.40	0.0139	0.0025
Mercury	-11249-04-22 02:24 J	-2387162.52	-2387162.40	-2387162.27	0.0139	0.0045
Mercury	-11249-07-19 05:45 J	-2387074.38	-2387074.26	-2387074.15	0.0139	0.0065
Mercury	-11249-10-15 08:52 J	-2386986.23	-2386986.13	-2386986.02	0.0139	0.0085
Mercury	-11248-01-11 12:00 J	-2386898.08	-2386898.00	-2386897.91	0.0139	0.0105
Mercury	-11248-04-09 15:21 J	-2386809.91	-2386809.86	-2386809.80	0.0140	0.0125
Mars	-11244-05-22 07:26 J	-2385306.50	-2385306.19	-2385305.86	0.0142	0.0044
Venus	-11237-07-03 17:16 J	-2382706.87	-2382706.78	-2382706.67	0.0145	0.0126

Jupiter	-11237-10-17 12:00 J	-2382601.40	-2382601.00	-2382600.53	0.0145	0.0081
Venus	-11236-02-15 04:19 J	-2382480.50	-2382480.32	-2382480.14	0.0145	0.0080
Venus	-11236-09-29 15:21 J	-2382254.07	-2382253.86	-2382253.65	0.0145	0.0034
Venus	-11235-05-14 02:24 J	-2382027.61	-2382027.40	-2382027.18	0.0145	0.0013
Venus	-11235-12-26 13:26 J	-2381801.12	-2381800.94	-2381800.73	0.0146	0.0060
Venus	-11234-08-10 00:57 J	-2381574.60	-2381574.46	-2381574.31	0.0146	0.0106
Moon	-11228-11-27 08:24 J	-2379273.24	-2379273.15	-2379273.05	0.0146	0.0135
Earth	-11228-11-27 11:16 J	-2379273.13	-2379273.03	-2379272.88	0.0146	0.0128 *
Earth	-11227-12-02 15:21 J	-2378903.07	-2378902.86	-2378902.62	0.0146	0.0067
Moon	-11227-12-02 18:57 J	-2378902.94	-2378902.71	-2378902.48	0.0146	0.0059 *
Moon	-11226-12-07 17:31 J	-2378533.03	-2378532.77	-2378532.50	0.0146	0.0006
Earth	-11226-12-07 19:55 J	-2378532.92	-2378532.67	-2378532.41	0.0146	0.0005 *
Earth	-11225-12-12 00:14 J	-2378162.72	-2378162.49	-2378162.25	0.0146	0.0058
Moon	-11225-12-12 02:24 J	-2378162.62	-2378162.40	-2378162.16	0.0146	0.0056 *
Moon	-11224-12-17 03:21 J	-2377792.47	-2377792.36	-2377792.20	0.0145	0.0125
Earth	-11224-12-17 04:48 J	-2377792.44	-2377792.30	-2377792.14	0.0145	0.0119 *
Mercury	-11212-12-30 13:40 J	-2373395.94	-2373395.93	-2373395.88	0.0140	0.0139
Mercury	-11211-03-28 22:04 J	-2373307.69	-2373307.58	-2373307.44	0.0140	0.0108
Mercury	-11211-06-25 06:43 J	-2373219.38	-2373219.22	-2373219.05	0.0140	0.0076
Mercury	-11211-09-21 15:07 J	-2373131.06	-2373130.87	-2373130.68	0.0140	0.0045
Mercury	-11211-12-18 23:16 J	-2373042.72	-2373042.53	-2373042.33	0.0140	0.0015
Mercury	-11210-03-17 07:40 J	-2372954.38	-2372954.18	-2372953.99	0.0140	0.0016
Mercury	-11210-06-13 15:35 J	-2372866.03	-2372865.85	-2372865.65	0.0140	0.0047
Mercury	-11210-09-10 00:00 J	-2372777.66	-2372777.50	-2372777.33	0.0139	0.0076
Mercury	-11210-12-07 08:09 J	-2372689.28	-2372689.16	-2372689.03	0.0139	0.0106
Mercury	-11209-03-04 16:04 J	-2372600.85	-2372600.83	-2372600.78	0.0139	0.0137
Mars	-11206-12-09 10:19 J	-2371226.33	-2371226.07	-2371225.79	0.0137	0.0045
Mars	-11204-11-08 05:31 J	-2370526.37	-2370526.27	-2370526.14	0.0136	0.0125
Venus	-11197-10-19 13:26 J	-2367989.02	-2367988.94	-2367988.85	0.0134	0.0122
Venus	-11196-06-02 19:40 J	-2367762.83	-2367762.68	-2367762.49	0.0133	0.0086

Venus	-11195-01-15 02:24 J	-2367536.59	-2367536.40	-2367536.18	0.0133	0.0049
Venus	-11195-08-29 09:07 J	-2367310.34	-2367310.12	-2367309.90	0.0133	0.0011
Venus	-11194-04-12 15:21 J	-2367084.07	-2367083.86	-2367083.64	0.0133	0.0025
Venus	-11194-11-24 21:21 J	-2366857.80	-2366857.61	-2366857.41	0.0133	0.0062
Venus	-11193-07-08 03:35 J	-2366631.49	-2366631.35	-2366631.20	0.0133	0.0098
Moon	-11185-06-02 21:21 J	-2363744.73	-2363744.61	-2363744.45	0.0132	0.0109
Earth	-11185-06-03 00:28 J	-2363744.63	-2363744.48	-2363744.31	0.0132	0.0104 *
Earth	-11184-06-07 05:16 J	-2363375.50	-2363375.28	-2363375.05	0.0132	0.0059
Moon	-11184-06-07 08:24 J	-2363375.37	-2363375.15	-2363374.91	0.0132	0.0059 *
Moon	-11183-06-11 07:11 J	-2363006.45	-2363006.20	-2363005.95	0.0132	0.0013
Earth	-11183-06-11 10:19 J	-2363006.33	-2363006.07	-2363005.82	0.0132	0.0014 *
Earth	-11182-06-15 14:52 J	-2362637.12	-2362636.88	-2362636.63	0.0133	0.0032
Moon	-11182-06-15 18:00 J	-2362636.99	-2362636.75	-2362636.49	0.0133	0.0027 *
Moon	-11181-06-18 16:19 J	-2362268.00	-2362267.82	-2362267.62	0.0133	0.0083
Earth	-11181-06-18 19:26 J	-2362267.88	-2362267.69	-2362267.47	0.0133	0.0077 *
Earth	-11180-06-23 00:00 J	-2361898.57	-2361898.50	-2361898.37	0.0133	0.0122
Moon	-11180-06-23 03:07 J	-2361898.47	-2361898.37	-2361898.22	0.0133	0.0115 *
Mercury	-11167-03-11 05:16 J	-2357254.32	-2357254.28	-2357254.22	0.0138	0.0126
Mercury	-11167-06-07 08:38 J	-2357166.22	-2357166.14	-2357166.06	0.0138	0.0106
Mercury	-11167-09-03 11:45 J	-2357078.11	-2357078.01	-2357077.91	0.0138	0.0087
Mercury	-11167-11-30 14:38 J	-2356989.99	-2356989.89	-2356989.77	0.0138	0.0069
Mercury	-11166-02-26 18:00 J	-2356901.87	-2356901.75	-2356901.63	0.0138	0.0049
Mercury	-11166-05-25 21:07 J	-2356813.75	-2356813.62	-2356813.49	0.0139	0.0029
Mercury	-11166-08-22 00:14 J	-2356725.62	-2356725.49	-2356725.36	0.0139	0.0010
Mercury	-11166-11-18 03:21 J	-2356637.49	-2356637.36	-2356637.23	0.0139	0.0011
Mercury	-11165-02-14 06:43 J	-2356549.35	-2356549.22	-2356549.10	0.0139	0.0030
Mercury	-11165-05-12 09:50 J	-2356461.21	-2356461.09	-2356460.97	0.0139	0.0050
Mercury	-11165-08-08 12:57 J	-2356373.07	-2356372.96	-2356372.85	0.0139	0.0069
Mercury	-11165-11-04 16:04 J	-2356284.92	-2356284.83	-2356284.72	0.0139	0.0090
Mercury	-11164-01-31 19:11 J	-2356196.77	-2356196.70	-2356196.61	0.0139	0.0110

Mercury	-11164-04-29 22:33 J	-2356108.60	-2356108.56	-2356108.51	0.0140	0.0130
Mars	-11161-02-10 09:35 J	-2355092.31	-2355092.10	-2355091.85	0.0141	0.0101
Mars	-11159-01-16 12:57 J	-2354386.09	-2354385.96	-2354385.79	0.0142	0.0127
Venus	-11153-10-15 11:45 J	-2351922.15	-2351922.01	-2351921.85	0.0145	0.0101
Venus	-11152-05-29 22:48 J	-2351695.75	-2351695.55	-2351695.35	0.0145	0.0055
Venus	-11151-01-11 09:50 J	-2351469.30	-2351469.09	-2351468.87	0.0145	0.0009
Venus	-11151-08-25 21:07 J	-2351242.82	-2351242.62	-2351242.41	0.0145	0.0038
Venus	-11150-04-09 08:24 J	-2351016.32	-2351016.15	-2351015.97	0.0146	0.0085
Venus	-11150-11-21 19:26 J	-2350789.76	-2350789.69	-2350789.59	0.0146	0.0132
Moon	-11144-11-27 18:43 J	-2348591.86	-2348591.72	-2348591.54	0.0146	0.0115
Earth	-11144-11-27 22:48 J	-2348591.69	-2348591.55	-2348591.41	0.0146	0.0122 *
Earth	-11143-12-03 02:38 J	-2348221.62	-2348221.39	-2348221.16	0.0146	0.0061
Moon	-11143-12-03 05:45 J	-2348221.48	-2348221.26	-2348221.03	0.0146	0.0067 *
Moon	-11142-12-08 03:50 J	-2347851.60	-2347851.34	-2347851.08	0.0146	0.0004
Earth	-11142-12-08 07:11 J	-2347851.46	-2347851.20	-2347850.95	0.0146	0.0002 *
Earth	-11141-12-12 11:31 J	-2347481.25	-2347481.02	-2347480.79	0.0146	0.0062
Moon	-11141-12-12 13:40 J	-2347481.15	-2347480.93	-2347480.71	0.0146	0.0065 *
Moon	-11140-12-17 13:40 J	-2347111.07	-2347110.93	-2347110.76	0.0146	0.0117
Earth	-11140-12-17 15:21 J	-2347110.97	-2347110.86	-2347110.70	0.0146	0.0124 *
Mercury	-11127-01-19 21:07 J	-2342694.67	-2342694.62	-2342694.53	0.0140	0.0131
Mercury	-11127-04-18 05:45 J	-2342606.39	-2342606.26	-2342606.11	0.0140	0.0099
Mercury	-11127-07-15 14:09 J	-2342518.07	-2342517.91	-2342517.73	0.0140	0.0068
Mercury	-11127-10-11 22:33 J	-2342429.75	-2342429.56	-2342429.37	0.0140	0.0037
Mercury	-11126-01-08 06:57 J	-2342341.41	-2342341.21	-2342341.01	0.0140	0.0007
Mercury	-11126-04-06 15:07 J	-2342253.06	-2342252.87	-2342252.67	0.0140	0.0024
Mercury	-11126-07-03 23:16 J	-2342164.71	-2342164.53	-2342164.34	0.0139	0.0054
Mercury	-11126-09-30 07:26 J	-2342076.34	-2342076.19	-2342076.03	0.0139	0.0085
Mercury	-11126-12-27 15:35 J	-2341987.95	-2341987.85	-2341987.73	0.0139	0.0115
Mars	-11121-08-02 20:52 J	-2340307.91	-2340307.63	-2340307.34	0.0137	0.0017
Venus	-11112-01-31 05:45 J	-2337204.39	-2337204.26	-2337204.10	0.0134	0.0102

Jupiter	-11112-08-09 23:16 J	-2337014.02	-2337013.53	-2337013.02	0.0133	0.0029
Venus	-11112-09-14 12:28 J	-2336978.16	-2336977.98	-2336977.78	0.0133	0.0065
Venus	-11111-04-28 18:57 J	-2336751.92	-2336751.71	-2336751.49	0.0133	0.0028
Venus	-11111-12-11 01:26 J	-2336525.66	-2336525.44	-2336525.22	0.0133	0.0009
Venus	-11110-07-25 07:40 J	-2336299.39	-2336299.18	-2336298.97	0.0133	0.0046
Venus	-11109-03-07 13:40 J	-2336073.09	-2336072.93	-2336072.75	0.0133	0.0083
Venus	-11109-10-19 19:40 J	-2335846.76	-2335846.68	-2335846.57	0.0133	0.0119
Moon	-11101-06-03 09:07 J	-2333063.28	-2333063.12	-2333062.94	0.0132	0.0095
Earth	-11101-06-03 12:00 J	-2333063.15	-2333063.00	-2333062.82	0.0132	0.0099 *
Earth	-11100-06-07 17:02 J	-2332694.01	-2332693.79	-2332693.55	0.0132	0.0054
Moon	-11100-06-07 19:40 J	-2332693.91	-2332693.68	-2332693.44	0.0132	0.0056 *
Moon	-11099-06-11 19:11 J	-2332324.94	-2332324.70	-2332324.45	0.0133	0.0011
Earth	-11099-06-11 22:19 J	-2332324.83	-2332324.57	-2332324.32	0.0133	0.0009 *
Earth	-11098-06-16 02:38 J	-2331955.62	-2331955.39	-2331955.13	0.0133	0.0037
Moon	-11098-06-16 05:45 J	-2331955.50	-2331955.26	-2331955.01	0.0133	0.0041 *
Moon	-11097-06-19 05:02 J	-2331586.48	-2331586.29	-2331586.08	0.0133	0.0076
Earth	-11097-06-19 07:26 J	-2331586.37	-2331586.19	-2331585.97	0.0133	0.0082 *
Earth	-11096-06-23 12:14 J	-2331217.05	-2331216.99	-2331216.89	0.0133	0.0126
Moon	-11096-06-23 15:50 J	-2331216.84	-2331216.84	-2331216.84	0.0133	0.0133
Mercury	-11083-03-31 12:57 J	-2326553.02	-2326552.96	-2326552.89	0.0138	0.0119
Mercury	-11083-06-27 16:04 J	-2326464.91	-2326464.83	-2326464.74	0.0138	0.0100
Mercury	-11083-09-23 19:11 J	-2326376.80	-2326376.70	-2326376.59	0.0138	0.0081
Mercury	-11083-12-20 22:19 J	-2326288.68	-2326288.57	-2326288.45	0.0138	0.0062
Mercury	-11082-03-19 01:26 J	-2326200.56	-2326200.44	-2326200.31	0.0138	0.0043
Mercury	-11082-06-15 04:48 J	-2326112.43	-2326112.30	-2326112.17	0.0139	0.0023
Mercury	-11082-09-11 07:55 J	-2326024.30	-2326024.17	-2326024.04	0.0139	0.0003
Mercury	-11082-12-08 11:02 J	-2325936.17	-2325936.04	-2325935.91	0.0139	0.0016
Mercury	-11081-03-05 14:09 J	-2325848.03	-2325847.91	-2325847.78	0.0139	0.0036
Mercury	-11081-06-01 17:16 J	-2325759.89	-2325759.78	-2325759.65	0.0139	0.0056
Mercury	-11081-08-28 20:24 J	-2325671.75	-2325671.65	-2325671.53	0.0139	0.0077

Mercury	-11081-11-24 23:45 J	-2325583.60	-2325583.51	-2325583.41	0.0139	0.0096
Mercury	-11080-02-21 03:07 J	-2325495.44	-2325495.37	-2325495.30	0.0140	0.0116
Mercury	-11080-05-20 06:14 J	-2325407.26	-2325407.24	-2325407.21	0.0140	0.0136
Mars	-11077-10-06 19:26 J	-2324172.02	-2324171.69	-2324171.35	0.0141	0.0018
Venus	-11069-06-14 20:38 J	-2321363.74	-2321363.64	-2321363.51	0.0145	0.0121
Venus	-11068-01-27 07:40 J	-2321137.35	-2321137.18	-2321136.99	0.0145	0.0075
Venus	-11068-09-10 18:57 J	-2320910.92	-2320910.71	-2320910.50	0.0145	0.0028
Venus	-11067-04-25 06:00 J	-2320684.46	-2320684.25	-2320684.03	0.0145	0.0019
Venus	-11067-12-07 17:02 J	-2320457.97	-2320457.79	-2320457.59	0.0146	0.0066
Venus	-11066-07-22 04:19 J	-2320231.44	-2320231.32	-2320231.17	0.0146	0.0113
Moon	-11060-11-28 08:38 J	-2317910.26	-2317910.14	-2317909.99	0.0146	0.0123
Earth	-11060-11-28 12:28 J	-2317910.13	-2317909.98	-2317909.82	0.0146	0.0114 *
Earth	-11059-12-03 16:19 J	-2317540.04	-2317539.82	-2317539.57	0.0146	0.0054
Moon	-11059-12-03 19:55 J	-2317539.90	-2317539.67	-2317539.42	0.0146	0.0047 *
Moon	-11058-12-08 18:00 J	-2317170.01	-2317169.75	-2317169.49	0.0146	0.0005
Earth	-11058-12-08 21:07 J	-2317169.88	-2317169.62	-2317169.37	0.0146	0.0008 *
Earth	-11057-12-13 01:11 J	-2316799.67	-2316799.45	-2316799.22	0.0146	0.0069
Moon	-11057-12-13 04:19 J	-2316799.54	-2316799.32	-2316799.09	0.0146	0.0067 *
Moon	-11056-12-18 03:07 J	-2316429.45	-2316429.37	-2316429.25	0.0146	0.0135
Earth	-11056-12-18 05:45 J	-2316429.37	-2316429.26	-2316429.14	0.0146	0.0129 *
Mercury	-11043-02-09 05:31 J	-2311993.36	-2311993.27	-2311993.15	0.0140	0.0120
Mercury	-11043-05-08 14:09 J	-2311905.06	-2311904.91	-2311904.75	0.0140	0.0088
Mercury	-11043-08-04 22:33 J	-2311816.74	-2311816.56	-2311816.38	0.0140	0.0057
Mercury	-11043-11-01 06:43 J	-2311728.41	-2311728.22	-2311728.02	0.0140	0.0027
Mercury	-11042-01-28 15:07 J	-2311640.06	-2311639.87	-2311639.67	0.0140	0.0004
Mercury	-11042-04-26 23:16 J	-2311551.72	-2311551.53	-2311551.33	0.0140	0.0035
Mercury	-11042-07-24 07:26 J	-2311463.36	-2311463.19	-2311463.01	0.0139	0.0065
Mercury	-11042-10-20 15:50 J	-2311374.98	-2311374.84	-2311374.70	0.0139	0.0095
Mercury	-11041-01-17 00:00 J	-2311286.58	-2311286.50	-2311286.42	0.0139	0.0125
Mars	-11038-04-28 12:43 J	-2310089.18	-2310088.97	-2310088.75	0.0138	0.0092

Mars	-11036-03-28 11:02 J	-2309389.27	-2309389.04	-2309388.81	0.0137	0.0079
Venus	-11029-09-30 16:33 J	-2306645.91	-2306645.81	-2306645.70	0.0134	0.0117
Venus	-11028-05-14 23:02 J	-2306419.71	-2306419.54	-2306419.36	0.0133	0.0080
Venus	-11028-12-27 05:45 J	-2306193.47	-2306193.26	-2306193.05	0.0133	0.0043
Venus	-11027-08-10 12:00 J	-2305967.22	-2305967.00	-2305966.77	0.0133	0.0006
Venus	-11026-03-24 18:14 J	-2305740.95	-2305740.74	-2305740.52	0.0133	0.0031
Venus	-11026-11-06 00:14 J	-2305514.67	-2305514.49	-2305514.29	0.0133	0.0068
Venus	-11025-06-19 06:14 J	-2305288.36	-2305288.24	-2305288.09	0.0133	0.0104
Moon	-11018-05-31 21:35 J	-2302750.63	-2302750.60	-2302750.56	0.0132	0.0131
Moon	-11017-06-03 21:50 J	-2302381.74	-2302381.59	-2302381.41	0.0132	0.0098
Earth	-11017-06-03 23:45 J	-2302381.67	-2302381.51	-2302381.31	0.0132	0.0094 *
Earth	-11016-06-08 05:02 J	-2302012.52	-2302012.29	-2302012.05	0.0132	0.0049
Moon	-11016-06-08 07:40 J	-2302012.42	-2302012.18	-2302011.93	0.0132	0.0048 *
Moon	-11015-06-12 07:55 J	-2301643.42	-2301643.17	-2301642.93	0.0132	0.0004
Earth	-11015-06-12 10:04 J	-2301643.33	-2301643.08	-2301642.83	0.0132	0.0004 *
Earth	-11014-06-16 14:52 J	-2301274.12	-2301273.88	-2301273.64	0.0133	0.0041
Moon	-11014-06-16 17:16 J	-2301274.02	-2301273.78	-2301273.53	0.0133	0.0037 *
Moon	-11013-06-19 16:33 J	-2300904.97	-2300904.81	-2300904.61	0.0133	0.0092
Earth	-11013-06-19 19:40 J	-2300904.87	-2300904.68	-2300904.49	0.0133	0.0085 *
Earth	-11012-06-23 23:45 J	-2300535.54	-2300535.51	-2300535.43	0.0133	0.0130
Moon	-11012-06-24 02:09 J	-2300535.48	-2300535.41	-2300535.29	0.0133	0.0123 *

11TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 11th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-10999-01-22 17:02 J	-2295939.81	-2295939.79	-2295939.75	0.0138	0.0134		
Mercury	-10999-04-20 20:24 J	-2295851.72	-2295851.65	-2295851.58	0.0138	0.0114		
Mercury	-10999-07-17 23:31 J	-2295763.61	-2295763.52	-2295763.43	0.0138	0.0095		
Mercury	-10999-10-14 02:38 J	-2295675.50	-2295675.39	-2295675.28	0.0138	0.0076		
Mercury	-10998-01-10 05:45 J	-2295587.38	-2295587.26	-2295587.14	0.0138	0.0057		
Mercury	-10998-04-08 08:52 J	-2295499.25	-2295499.13	-2295499.00	0.0139	0.0037		
Mercury	-10998-07-05 12:00 J	-2295411.12	-2295411.00	-2295410.87	0.0139	0.0019		
Mercury	-10998-10-01 15:21 J	-2295322.99	-2295322.86	-2295322.73	0.0139	0.0004		
Mercury	-10998-12-28 18:28 J	-2295234.86	-2295234.73	-2295234.60	0.0139	0.0022		
Mercury	-10997-03-25 21:35 J	-2295146.72	-2295146.60	-2295146.47	0.0139	0.0041		
Mercury	-10997-06-22 00:43 J	-2295058.58	-2295058.47	-2295058.35	0.0139	0.0061		
Mercury	-10997-09-18 03:50 J	-2294970.44	-2294970.34	-2294970.23	0.0139	0.0081		
Mercury	-10997-12-15 07:11 J	-2294882.29	-2294882.20	-2294882.11	0.0139	0.0101		
Mercury	-10996-03-13 10:19 J	-2294794.13	-2294794.07	-2294794.00	0.0140	0.0121		
Mars	-10992-06-03 02:09 J	-2293251.69	-2293251.41	-2293251.09	0.0142	0.0064		
Venus	-10985-02-13 05:02 J	-2290805.32	-2290805.29	-2290805.23	0.0145	0.0141		
Venus	-10985-09-26 15:50 J	-2290578.99	-2290578.84	-2290578.66	0.0145	0.0095		
Venus	-10984-05-11 03:07 J	-2290352.57	-2290352.37	-2290352.17	0.0145	0.0049		
Venus	-10984-12-23 14:09 J	-2290126.12	-2290125.91	-2290125.69	0.0145	0.0003		
Venus	-10983-08-07 01:26 J	-2289899.64	-2289899.44	-2289899.23	0.0146	0.0045		
Venus	-10982-03-21 12:28 J	-2289673.13	-2289672.98	-2289672.80	0.0146	0.0093		
Venus	-10982-11-03 00:14 J	-2289446.55	-2289446.49	-2289446.43	0.0146	0.0139		
Moon	-10976-11-28 22:48 J	-2287228.72	-2287228.55	-2287228.36	0.0146	0.0101		
Earth	-10976-11-29 02:09 J	-2287228.56	-2287228.41	-2287228.22	0.0146	0.0109	*	
Earth	-10975-12-04 06:28 J	-2286858.46	-2286858.23	-2286857.98	0.0146	0.0048		
Moon	-10975-12-04 10:04 J	-2286858.31	-2286858.08	-2286857.83	0.0146	0.0053	*	
Moon	-10974-12-09 07:40 J	-2286488.43	-2286488.18	-2286487.92	0.0146	0.0018		

Earth	-10974-12-09 11:16 J	-2286488.28	-2286488.03	-2286487.77	0.0146	0.0014	*
Earth	-10973-12-13 15:35 J	-2286118.06	-2286117.85	-2286117.62	0.0146	0.0075	
Moon	-10973-12-13 18:43 J	-2286117.93	-2286117.72	-2286117.51	0.0146	0.0077	*
Moon	-10972-12-18 17:02 J	-2285747.89	-2285747.79	-2285747.65	0.0146	0.0129	
Earth	-10972-12-18 20:09 J	-2285747.75	-2285747.66	-2285747.56	0.0146	0.0135	*
Mercury	-10960-12-03 06:14 J	-2281380.27	-2281380.24	-2281380.19	0.0140	0.0138	
Mercury	-10959-03-01 14:38 J	-2281292.01	-2281291.89	-2281291.75	0.0140	0.0107	
Mercury	-10959-05-28 22:48 J	-2281203.70	-2281203.55	-2281203.37	0.0140	0.0076	
Mercury	-10959-08-25 07:26 J	-2281115.37	-2281115.19	-2281115.00	0.0140	0.0045	
Mercury	-10959-11-21 15:50 J	-2281027.04	-2281026.84	-2281026.65	0.0140	0.0014	
Mercury	-10958-02-18 00:00 J	-2280938.69	-2280938.50	-2280938.30	0.0140	0.0017	
Mercury	-10958-05-17 08:09 J	-2280850.34	-2280850.16	-2280849.97	0.0140	0.0047	
Mercury	-10958-08-13 16:19 J	-2280761.97	-2280761.82	-2280761.65	0.0139	0.0077	
Mercury	-10958-11-10 00:14 J	-2280673.60	-2280673.49	-2280673.35	0.0139	0.0108	
Mercury	-10957-02-06 08:24 J	-2280585.16	-2280585.15	-2280585.10	0.0139	0.0137	
Mars	-10954-12-22 07:11 J	-2279170.48	-2279170.20	-2279169.92	0.0137	0.0027	
Venus	-10945-05-31 03:50 J	-2276087.37	-2276087.34	-2276087.31	0.0134	0.0132	
Venus	-10944-01-12 10:33 J	-2275861.21	-2275861.06	-2275860.90	0.0133	0.0095	
Venus	-10944-08-26 17:02 J	-2275634.99	-2275634.79	-2275634.59	0.0133	0.0058	
Venus	-10943-04-09 23:31 J	-2275408.74	-2275408.52	-2275408.30	0.0133	0.0021	
Venus	-10943-11-22 05:45 J	-2275182.48	-2275182.26	-2275182.04	0.0133	0.0016	
Venus	-10942-07-06 11:45 J	-2274956.21	-2274956.01	-2274955.80	0.0133	0.0053	
Venus	-10941-02-17 17:31 J	-2274729.91	-2274729.77	-2274729.59	0.0133	0.0090	
Venus	-10941-09-30 23:31 J	-2274503.57	-2274503.52	-2274503.43	0.0133	0.0126	
Earth	-10934-06-01 07:26 J	-2272069.20	-2272069.19	-2272069.14	0.0132	0.0131	
Moon	-10933-06-04 10:19 J	-2271700.24	-2271700.07	-2271699.86	0.0132	0.0084	
Earth	-10933-06-04 12:43 J	-2271700.15	-2271699.97	-2271699.77	0.0132	0.0087	*
Earth	-10932-06-08 17:31 J	-2271331.00	-2271330.77	-2271330.52	0.0132	0.0044	
Moon	-10932-06-08 19:40 J	-2271330.93	-2271330.68	-2271330.44	0.0132	0.0046	*
Moon	-10931-06-12 20:38 J	-2270961.89	-2270961.64	-2270961.39	0.0132	0.0000	

Earth	-10931-06-12 22:48 J	-2270961.81	-2270961.55	-2270961.30	0.0132	0.0002	*
Earth	-10930-06-17 03:07 J	-2270592.60	-2270592.37	-2270592.12	0.0133	0.0046	
Moon	-10930-06-17 05:02 J	-2270592.51	-2270592.29	-2270592.03	0.0133	0.0050	*
Moon	-10929-06-20 06:14 J	-2270223.43	-2270223.24	-2270223.05	0.0133	0.0085	
Earth	-10929-06-20 07:55 J	-2270223.35	-2270223.17	-2270222.98	0.0133	0.0090	*
Mercury	-10915-02-12 00:43 J	-2265238.52	-2265238.47	-2265238.43	0.0138	0.0128	
Mercury	-10915-05-11 03:35 J	-2265150.42	-2265150.35	-2265150.26	0.0138	0.0110	
Mercury	-10915-08-07 06:43 J	-2265062.31	-2265062.22	-2265062.11	0.0138	0.0091	
Mercury	-10915-11-03 10:04 J	-2264974.19	-2264974.08	-2264973.97	0.0138	0.0071	
Mercury	-10914-01-30 13:11 J	-2264886.07	-2264885.95	-2264885.83	0.0138	0.0052	
Mercury	-10914-04-28 16:19 J	-2264797.95	-2264797.82	-2264797.69	0.0139	0.0032	
Mercury	-10914-07-25 19:26 J	-2264709.82	-2264709.69	-2264709.56	0.0139	0.0013	
Mercury	-10914-10-21 22:33 J	-2264621.69	-2264621.56	-2264621.43	0.0139	0.0008	
Mercury	-10913-01-18 01:40 J	-2264533.55	-2264533.43	-2264533.30	0.0139	0.0027	
Mercury	-10913-04-15 05:02 J	-2264445.41	-2264445.29	-2264445.17	0.0139	0.0046	
Mercury	-10913-07-12 08:09 J	-2264357.27	-2264357.16	-2264357.04	0.0139	0.0066	
Mercury	-10913-10-08 11:16 J	-2264269.13	-2264269.03	-2264268.92	0.0139	0.0086	
Mercury	-10912-01-04 14:24 J	-2264180.97	-2264180.90	-2264180.81	0.0140	0.0106	
Mercury	-10912-04-02 17:31 J	-2264092.81	-2264092.77	-2264092.70	0.0140	0.0127	
Mars	-10909-02-22 06:00 J	-2263037.51	-2263037.25	-2263036.96	0.0141	0.0082	
Venus	-10901-05-26 23:45 J	-2260020.63	-2260020.51	-2260020.37	0.0145	0.0116	
Venus	-10900-01-08 10:33 J	-2259794.23	-2259794.06	-2259793.86	0.0145	0.0070	
Venus	-10900-08-22 22:04 J	-2259567.79	-2259567.58	-2259567.37	0.0145	0.0023	
Venus	-10899-04-06 09:07 J	-2259341.33	-2259341.12	-2259340.90	0.0146	0.0024	
Venus	-10899-11-18 20:24 J	-2259114.84	-2259114.65	-2259114.46	0.0146	0.0071	
Venus	-10898-07-03 07:40 J	-2258888.30	-2258888.18	-2258888.05	0.0146	0.0118	
Moon	-10892-11-29 11:02 J	-2256547.20	-2256547.04	-2256546.87	0.0146	0.0110	
Earth	-10892-11-29 14:38 J	-2256547.07	-2256546.89	-2256546.70	0.0146	0.0102	*
Earth	-10891-12-04 18:57 J	-2256176.94	-2256176.71	-2256176.45	0.0146	0.0042	
Moon	-10891-12-04 22:48 J	-2256176.79	-2256176.55	-2256176.30	0.0146	0.0034	*

Moon	-10890-12-09 20:24 J	-2255806.90	-2255806.65	-2255806.39	0.0146	0.0017
Earth	-10890-12-09 23:45 J	-2255806.76	-2255806.51	-2255806.25	0.0146	0.0020 *
Earth	-10889-12-14 03:50 J	-2255436.53	-2255436.34	-2255436.11	0.0146	0.0081
Moon	-10889-12-14 07:40 J	-2255436.38	-2255436.18	-2255435.96	0.0146	0.0079 *
Moon	-10888-12-19 05:45 J	-2255066.27	-2255066.26	-2255066.23	0.0146	0.0145
Earth	-10888-12-19 08:52 J	-2255066.19	-2255066.13	-2255066.06	0.0146	0.0140
Mercury	-10876-12-23 15:07 J	-2250678.96	-2250678.87	-2250678.79	0.0140	0.0126
Mercury	-10875-03-21 23:02 J	-2250590.67	-2250590.54	-2250590.38	0.0140	0.0096
Mercury	-10875-06-18 07:40 J	-2250502.35	-2250502.18	-2250502.00	0.0140	0.0064
Mercury	-10875-09-14 16:04 J	-2250414.02	-2250413.83	-2250413.64	0.0140	0.0033
Mercury	-10875-12-12 00:28 J	-2250325.68	-2250325.48	-2250325.29	0.0140	0.0004
Mercury	-10874-03-10 08:38 J	-2250237.33	-2250237.14	-2250236.95	0.0140	0.0028
Mercury	-10874-06-06 16:33 J	-2250148.98	-2250148.81	-2250148.62	0.0140	0.0059
Mercury	-10874-09-03 00:57 J	-2250060.61	-2250060.46	-2250060.30	0.0139	0.0088
Mercury	-10874-11-30 08:52 J	-2249972.22	-2249972.13	-2249972.01	0.0139	0.0119
Mars	-10871-09-15 23:31 J	-2248951.55	-2248951.52	-2248951.46	0.0138	0.0136
Mars	-10869-08-15 23:45 J	-2248251.79	-2248251.51	-2248251.23	0.0137	0.0036
Venus	-10861-09-11 21:50 J	-2245302.71	-2245302.59	-2245302.46	0.0134	0.0110
Venus	-10860-04-26 04:19 J	-2245076.50	-2245076.32	-2245076.13	0.0133	0.0073
Venus	-10860-12-08 10:33 J	-2244850.27	-2244850.06	-2244849.84	0.0133	0.0036
Venus	-10859-07-22 17:02 J	-2244624.01	-2244623.79	-2244623.57	0.0133	0.0002
Venus	-10858-03-05 23:02 J	-2244397.75	-2244397.54	-2244397.32	0.0133	0.0038
Venus	-10858-10-18 05:02 J	-2244171.46	-2244171.29	-2244171.10	0.0133	0.0075
Venus	-10857-05-31 10:48 J	-2243945.16	-2243945.05	-2243944.92	0.0133	0.0111
Earth	-10850-06-01 19:40 J	-2241387.74	-2241387.68	-2241387.59	0.0132	0.0126
Moon	-10850-06-01 21:21 J	-2241387.71	-2241387.61	-2241387.48	0.0132	0.0119 *
Moon	-10849-06-05 00:00 J	-2241018.68	-2241018.50	-2241018.32	0.0132	0.0088
Earth	-10849-06-05 00:43 J	-2241018.65	-2241018.47	-2241018.26	0.0132	0.0082 *
Earth	-10848-06-09 05:45 J	-2240649.50	-2240649.26	-2240649.01	0.0132	0.0038
Moon	-10848-06-09 07:40 J	-2240649.43	-2240649.18	-2240648.93	0.0132	0.0036 *

Moon	-10847-06-13 09:07 J	-2240280.36	-2240280.12	-2240279.87	0.0132	0.0006
Earth	-10847-06-13 10:33 J	-2240280.32	-2240280.06	-2240279.81	0.0132	0.0006 *
Earth	-10846-06-17 14:38 J	-2239911.11	-2239910.89	-2239910.64	0.0132	0.0050
Moon	-10846-06-17 16:33 J	-2239911.06	-2239910.81	-2239910.57	0.0132	0.0047 *
Moon	-10845-06-20 17:16 J	-2239541.93	-2239541.78	-2239541.61	0.0133	0.0100
Earth	-10845-06-20 18:57 J	-2239541.87	-2239541.71	-2239541.52	0.0133	0.0094 *
Moon	-10844-06-25 00:28 J	-2239172.50	-2239172.48	-2239172.42	0.0133	0.0131
Mercury	-10831-03-04 07:40 J	-2234537.23	-2234537.18	-2234537.13	0.0138	0.0125
Mercury	-10831-05-31 10:48 J	-2234449.13	-2234449.05	-2234448.97	0.0138	0.0106
Mercury	-10831-08-27 13:40 J	-2234361.02	-2234360.93	-2234360.82	0.0138	0.0087
Mercury	-10831-11-23 16:48 J	-2234272.90	-2234272.80	-2234272.68	0.0138	0.0068
Mercury	-10830-02-19 20:09 J	-2234184.78	-2234184.66	-2234184.54	0.0138	0.0049
Mercury	-10830-05-18 23:16 J	-2234096.66	-2234096.53	-2234096.40	0.0139	0.0029
Mercury	-10830-08-15 02:24 J	-2234008.53	-2234008.40	-2234008.27	0.0139	0.0010
Mercury	-10830-11-11 05:31 J	-2233920.40	-2233920.27	-2233920.14	0.0139	0.0010
Mercury	-10829-02-07 08:38 J	-2233832.26	-2233832.14	-2233832.01	0.0139	0.0030
Mercury	-10829-05-05 12:00 J	-2233744.12	-2233744.00	-2233743.88	0.0139	0.0049
Mercury	-10829-08-01 14:52 J	-2233655.98	-2233655.88	-2233655.76	0.0139	0.0070
Mercury	-10829-10-28 18:00 J	-2233567.84	-2233567.75	-2233567.64	0.0139	0.0090
Mercury	-10828-01-24 21:21 J	-2233479.68	-2233479.61	-2233479.52	0.0139	0.0109
Mercury	-10828-04-23 00:43 J	-2233391.52	-2233391.47	-2233391.42	0.0140	0.0129
Mars	-10825-10-18 05:02 J	-2232117.62	-2232117.29	-2232116.96	0.0141	0.0006
Venus	-10817-01-25 05:02 J	-2229462.33	-2229462.29	-2229462.23	0.0145	0.0140
Venus	-10817-09-07 15:50 J	-2229235.99	-2229235.84	-2229235.66	0.0145	0.0094
Venus	-10816-04-22 03:07 J	-2229009.57	-2229009.37	-2229009.16	0.0145	0.0047
Venus	-10816-12-04 14:09 J	-2228783.12	-2228782.91	-2228782.69	0.0146	0.0002
Venus	-10815-07-19 01:26 J	-2228556.64	-2228556.44	-2228556.23	0.0146	0.0047
Venus	-10814-03-02 12:43 J	-2228330.13	-2228329.97	-2228329.80	0.0146	0.0094
Venus	-10814-10-14 23:45 J	-2228103.54	-2228103.51	-2228103.44	0.0146	0.0142
Moon	-10808-11-29 19:55 J	-2225865.85	-2225865.67	-2225865.46	0.0146	0.0091

Earth	-10808-11-29 23:16 J	-2225865.72	-2225865.53	-2225865.34	0.0146	0.0098 *
Earth	-10807-12-05 03:35 J	-2225495.59	-2225495.35	-2225495.09	0.0146	0.0038
Moon	-10807-12-05 07:26 J	-2225495.44	-2225495.19	-2225494.95	0.0146	0.0044 *
Moon	-10806-12-10 04:33 J	-2225125.55	-2225125.31	-2225125.05	0.0146	0.0029
Earth	-10806-12-10 08:38 J	-2225125.39	-2225125.14	-2225124.89	0.0146	0.0024 *
Earth	-10805-12-14 12:57 J	-2224755.16	-2224754.96	-2224754.74	0.0146	0.0084
Moon	-10805-12-14 16:19 J	-2224755.02	-2224754.82	-2224754.61	0.0146	0.0085 *
Moon	-10804-12-19 13:55 J	-2224384.98	-2224384.92	-2224384.82	0.0146	0.0138
Earth	-10804-12-19 17:16 J	-2224384.80	-2224384.78	-2224384.72	0.0146	0.0144
Mercury	-10791-01-12 22:33 J	-2219977.65	-2219977.56	-2219977.44	0.0140	0.0117
Mercury	-10791-04-11 06:57 J	-2219889.35	-2219889.21	-2219889.04	0.0140	0.0086
Mercury	-10791-07-08 15:21 J	-2219801.03	-2219800.86	-2219800.67	0.0140	0.0055
Mercury	-10791-10-05 00:00 J	-2219712.70	-2219712.50	-2219712.31	0.0140	0.0024
Mercury	-10790-01-01 08:09 J	-2219624.35	-2219624.16	-2219623.96	0.0140	0.0007
Mercury	-10790-03-30 16:19 J	-2219536.00	-2219535.82	-2219535.62	0.0140	0.0037
Mercury	-10790-06-27 00:28 J	-2219447.64	-2219447.48	-2219447.30	0.0140	0.0068
Mercury	-10790-09-23 08:38 J	-2219359.27	-2219359.14	-2219358.99	0.0140	0.0098
Mercury	-10790-12-20 16:48 J	-2219270.87	-2219270.80	-2219270.71	0.0139	0.0128
Mars	-10786-05-11 15:07 J	-2218033.09	-2218032.87	-2218032.61	0.0138	0.0073
Mars	-10784-04-10 12:57 J	-2217333.15	-2217332.96	-2217332.76	0.0137	0.0098
Venus	-10777-05-12 08:38 J	-2214744.20	-2214744.14	-2214744.06	0.0134	0.0126
Venus	-10777-12-24 15:07 J	-2214518.02	-2214517.87	-2214517.69	0.0134	0.0089
Venus	-10776-08-07 21:35 J	-2214291.79	-2214291.60	-2214291.39	0.0133	0.0052
Venus	-10775-03-22 04:04 J	-2214065.55	-2214065.33	-2214065.11	0.0133	0.0014
Venus	-10775-11-03 10:19 J	-2213839.29	-2213839.07	-2213838.85	0.0133	0.0023
Venus	-10774-06-17 16:04 J	-2213613.02	-2213612.83	-2213612.62	0.0133	0.0060
Venus	-10773-01-29 22:19 J	-2213386.72	-2213386.57	-2213386.41	0.0133	0.0096
Venus	-10773-09-12 04:04 J	-2213160.33	-2213160.33	-2213160.31	0.0133	0.0132
Earth	-10766-06-02 09:07 J	-2210706.22	-2210706.12	-2210706.01	0.0132	0.0119
Moon	-10766-06-02 09:35 J	-2210706.17	-2210706.10	-2210706.01	0.0132	0.0125 *

Moon	-10765-06-05 12:28 J	-2210337.17	-2210336.98	-2210336.76	0.0132	0.0072
Earth	-10765-06-05 13:40 J	-2210337.12	-2210336.93	-2210336.71	0.0132	0.0076 *
Earth	-10764-06-09 18:28 J	-2209967.97	-2209967.73	-2209967.48	0.0132	0.0033
Moon	-10764-06-09 19:11 J	-2209967.95	-2209967.70	-2209967.44	0.0132	0.0036 *
Moon	-10763-06-13 22:04 J	-2209598.82	-2209598.58	-2209598.34	0.0132	0.0011
Earth	-10763-06-13 23:02 J	-2209598.79	-2209598.54	-2209598.28	0.0132	0.0012 *
Earth	-10762-06-18 03:07 J	-2209229.59	-2209229.37	-2209229.13	0.0132	0.0055
Moon	-10762-06-18 04:19 J	-2209229.55	-2209229.32	-2209229.08	0.0132	0.0058 *
Moon	-10761-06-21 06:28 J	-2208860.38	-2208860.23	-2208860.04	0.0133	0.0095
Earth	-10761-06-21 07:26 J	-2208860.35	-2208860.19	-2208860.01	0.0133	0.0099 *
Mercury	-10747-03-24 14:52 J	-2203835.94	-2203835.88	-2203835.81	0.0138	0.0120
Mercury	-10747-06-20 18:00 J	-2203747.83	-2203747.75	-2203747.66	0.0138	0.0101
Mercury	-10747-09-16 21:07 J	-2203659.72	-2203659.62	-2203659.51	0.0138	0.0082
Mercury	-10747-12-14 00:14 J	-2203571.60	-2203571.49	-2203571.37	0.0138	0.0063
Mercury	-10746-03-12 03:21 J	-2203483.48	-2203483.36	-2203483.23	0.0138	0.0044
Mercury	-10746-06-08 06:28 J	-2203395.35	-2203395.23	-2203395.10	0.0138	0.0025
Mercury	-10746-09-04 09:35 J	-2203307.23	-2203307.10	-2203306.97	0.0139	0.0007
Mercury	-10746-12-01 12:43 J	-2203219.09	-2203218.97	-2203218.84	0.0139	0.0015
Mercury	-10745-02-27 16:04 J	-2203130.96	-2203130.83	-2203130.71	0.0139	0.0034
Mercury	-10745-05-25 19:11 J	-2203042.82	-2203042.70	-2203042.58	0.0139	0.0054
Mercury	-10745-08-21 22:19 J	-2202954.68	-2202954.57	-2202954.46	0.0139	0.0074
Mercury	-10745-11-18 01:26 J	-2202866.53	-2202866.44	-2202866.34	0.0139	0.0093
Mercury	-10744-02-14 04:33 J	-2202778.38	-2202778.31	-2202778.23	0.0139	0.0114
Mercury	-10744-05-13 07:40 J	-2202690.20	-2202690.18	-2202690.13	0.0139	0.0134
Mars	-10740-06-14 08:38 J	-2201197.41	-2201197.14	-2201196.84	0.0142	0.0074
Venus	-10733-05-07 21:50 J	-2198677.70	-2198677.59	-2198677.45	0.0145	0.0117
Venus	-10733-12-20 08:38 J	-2198451.31	-2198451.14	-2198450.94	0.0145	0.0071
Venus	-10732-08-03 19:55 J	-2198224.88	-2198224.67	-2198224.45	0.0145	0.0024
Venus	-10731-03-18 06:57 J	-2197998.41	-2197998.21	-2197997.99	0.0146	0.0024
Venus	-10731-10-30 18:00 J	-2197771.92	-2197771.75	-2197771.55	0.0146	0.0071

Venus	-10730-06-14 05:16 J	-2197545.39	-2197545.28	-2197545.14	0.0146	0.0118
Moon	-10724-11-30 04:04 J	-2195184.50	-2195184.33	-2195184.14	0.0146	0.0101
Earth	-10724-11-30 06:57 J	-2195184.39	-2195184.21	-2195184.00	0.0146	0.0094 *
Earth	-10723-12-05 11:31 J	-2194814.26	-2194814.02	-2194813.76	0.0146	0.0034
Moon	-10723-12-05 15:07 J	-2194814.12	-2194813.87	-2194813.61	0.0146	0.0025 *
Moon	-10722-12-10 12:57 J	-2194444.21	-2194443.96	-2194443.71	0.0146	0.0023
Earth	-10722-12-10 16:19 J	-2194444.06	-2194443.82	-2194443.56	0.0146	0.0028 *
Earth	-10721-12-14 20:38 J	-2194073.83	-2194073.64	-2194073.43	0.0146	0.0088
Moon	-10721-12-15 00:14 J	-2194073.67	-2194073.49	-2194073.27	0.0146	0.0087 *
Mercury	-10707-02-02 05:45 J	-2189276.38	-2189276.26	-2189276.14	0.0140	0.0111
Mercury	-10707-05-01 14:09 J	-2189188.07	-2189187.91	-2189187.75	0.0140	0.0080
Mercury	-10707-07-28 22:19 J	-2189099.75	-2189099.57	-2189099.38	0.0140	0.0049
Mercury	-10707-10-25 06:43 J	-2189011.41	-2189011.22	-2189011.02	0.0140	0.0019
Mercury	-10706-01-21 15:07 J	-2188923.07	-2188922.87	-2188922.67	0.0140	0.0013
Mercury	-10706-04-19 23:16 J	-2188834.71	-2188834.53	-2188834.34	0.0140	0.0043
Mercury	-10706-07-17 07:26 J	-2188746.35	-2188746.19	-2188746.01	0.0140	0.0074
Mercury	-10706-10-13 15:35 J	-2188657.97	-2188657.85	-2188657.71	0.0140	0.0104
Mercury	-10705-01-09 23:45 J	-2188569.55	-2188569.51	-2188569.44	0.0139	0.0134
Mars	-10701-01-04 02:52 J	-2187114.66	-2187114.38	-2187114.09	0.0137	0.0011
Venus	-10693-08-24 01:11 J	-2183959.57	-2183959.45	-2183959.30	0.0134	0.0105
Venus	-10692-04-07 07:40 J	-2183733.36	-2183733.18	-2183732.97	0.0134	0.0068
Venus	-10692-11-19 14:09 J	-2183507.12	-2183506.91	-2183506.69	0.0133	0.0030
Venus	-10691-07-03 20:38 J	-2183280.86	-2183280.64	-2183280.42	0.0133	0.0007
Venus	-10690-02-15 02:38 J	-2183054.59	-2183054.39	-2183054.17	0.0133	0.0044
Venus	-10690-09-29 08:38 J	-2182828.30	-2182828.14	-2182827.95	0.0133	0.0081
Venus	-10689-05-12 14:52 J	-2182601.98	-2182601.88	-2182601.78	0.0133	0.0117
Earth	-10682-06-02 21:07 J	-2180024.73	-2180024.62	-2180024.48	0.0132	0.0114
Moon	-10682-06-02 21:50 J	-2180024.73	-2180024.59	-2180024.43	0.0132	0.0107 *
Earth	-10681-06-06 01:55 J	-2179655.61	-2179655.42	-2179655.19	0.0132	0.0072
Moon	-10681-06-06 01:55 J	-2179655.60	-2179655.42	-2179655.20	0.0132	0.0077 *

Earth	-10680-06-10 06:57 J	-2179286.46	-2179286.21	-2179285.96	0.0132	0.0027
Moon	-10680-06-10 07:26 J	-2179286.44	-2179286.19	-2179285.92	0.0132	0.0025 *
Moon	-10679-06-14 11:02 J	-2178917.28	-2178917.04	-2178916.80	0.0132	0.0015
Earth	-10679-06-14 11:16 J	-2178917.28	-2178917.03	-2178916.78	0.0132	0.0016 *
Earth	-10678-06-18 15:21 J	-2178548.07	-2178547.86	-2178547.62	0.0132	0.0060
Moon	-10678-06-18 15:50 J	-2178548.07	-2178547.84	-2178547.60	0.0132	0.0057 *
Moon	-10677-06-21 19:11 J	-2178178.84	-2178178.70	-2178178.56	0.0133	0.0108
Earth	-10677-06-21 19:40 J	-2178178.83	-2178178.68	-2178178.51	0.0133	0.0103 *
Mercury	-10663-01-15 19:11 J	-2173222.72	-2173222.70	-2173222.67	0.0138	0.0134
Mercury	-10663-04-13 22:19 J	-2173134.64	-2173134.57	-2173134.50	0.0138	0.0115
Mercury	-10663-07-11 01:26 J	-2173046.53	-2173046.44	-2173046.35	0.0138	0.0096
Mercury	-10663-10-07 04:33 J	-2172958.42	-2172958.31	-2172958.20	0.0138	0.0077
Mercury	-10662-01-03 07:40 J	-2172870.30	-2172870.18	-2172870.06	0.0138	0.0058
Mercury	-10662-04-01 10:48 J	-2172782.17	-2172782.05	-2172781.93	0.0138	0.0039
Mercury	-10662-06-28 13:55 J	-2172694.05	-2172693.92	-2172693.79	0.0138	0.0019
Mercury	-10662-09-24 17:02 J	-2172605.92	-2172605.79	-2172605.66	0.0139	0.0001
Mercury	-10662-12-21 20:09 J	-2172517.79	-2172517.66	-2172517.53	0.0139	0.0020
Mercury	-10661-03-18 23:16 J	-2172429.65	-2172429.53	-2172429.40	0.0139	0.0039
Mercury	-10661-06-15 02:24 J	-2172341.51	-2172341.40	-2172341.28	0.0139	0.0059
Mercury	-10661-09-11 05:31 J	-2172253.37	-2172253.27	-2172253.16	0.0139	0.0079
Mercury	-10661-12-08 08:52 J	-2172165.22	-2172165.13	-2172165.04	0.0139	0.0098
Mercury	-10660-03-06 12:00 J	-2172077.06	-2172077.00	-2172076.93	0.0139	0.0118
Mercury	-10660-06-02 15:07 J	-2171988.88	-2171988.87	-2171988.85	0.0139	0.0138
Mars	-10657-03-04 11:45 J	-2170983.28	-2170983.01	-2170982.70	0.0141	0.0071
Venus	-10649-01-06 04:48 J	-2168119.36	-2168119.30	-2168119.25	0.0145	0.0139
Venus	-10649-08-19 15:35 J	-2167893.01	-2167892.85	-2167892.68	0.0145	0.0093
Venus	-10648-04-03 02:09 J	-2167666.60	-2167666.41	-2167666.19	0.0145	0.0048
Venus	-10648-11-15 13:26 J	-2167440.15	-2167439.94	-2167439.72	0.0145	0.0001
Venus	-10647-06-30 00:28 J	-2167213.68	-2167213.48	-2167213.27	0.0146	0.0048
Venus	-10646-02-11 11:45 J	-2166987.17	-2166987.01	-2166986.84	0.0146	0.0095

Venus	-10646-09-25 23:02 J	-2166760.57	-2166760.54	-2166760.48	0.0146	0.0143
Moon	-10640-11-30 13:40 J	-2164503.12	-2164502.93	-2164502.71	0.0147	0.0083
Earth	-10640-11-30 15:50 J	-2164503.02	-2164502.84	-2164502.62	0.0147	0.0090 *
Earth	-10639-12-05 20:24 J	-2164132.89	-2164132.65	-2164132.39	0.0146	0.0030
Moon	-10639-12-05 23:31 J	-2164132.76	-2164132.52	-2164132.26	0.0146	0.0036 *
Moon	-10638-12-10 21:35 J	-2163762.84	-2163762.60	-2163762.35	0.0146	0.0036
Earth	-10638-12-11 00:57 J	-2163762.70	-2163762.46	-2163762.20	0.0146	0.0031 *
Earth	-10637-12-15 05:45 J	-2163392.46	-2163392.26	-2163392.06	0.0146	0.0091
Moon	-10637-12-15 09:07 J	-2163392.32	-2163392.12	-2163391.92	0.0146	0.0091 *
Moon	-10636-12-20 06:00 J	-2163022.25	-2163022.25	-2163022.19	0.0146	0.0145
Mercury	-10624-11-26 04:33 J	-2158663.35	-2158663.31	-2158663.25	0.0141	0.0135
Mercury	-10623-02-22 12:57 J	-2158575.08	-2158574.96	-2158574.82	0.0141	0.0104
Mercury	-10623-05-21 21:21 J	-2158486.77	-2158486.61	-2158486.43	0.0140	0.0073
Mercury	-10623-08-18 05:45 J	-2158398.44	-2158398.26	-2158398.07	0.0140	0.0042
Mercury	-10623-11-14 14:09 J	-2158310.11	-2158309.91	-2158309.71	0.0140	0.0011
Mercury	-10622-02-10 22:19 J	-2158221.76	-2158221.57	-2158221.37	0.0140	0.0020
Mercury	-10622-05-10 06:28 J	-2158133.40	-2158133.23	-2158133.04	0.0140	0.0051
Mercury	-10622-08-06 14:52 J	-2158045.04	-2158044.88	-2158044.72	0.0140	0.0081
Mercury	-10622-11-02 23:02 J	-2157956.65	-2157956.54	-2157956.42	0.0140	0.0111
Mars	-10619-09-28 14:09 J	-2156896.03	-2156895.91	-2156895.76	0.0138	0.0121
Mars	-10617-08-28 14:38 J	-2156196.16	-2156195.89	-2156195.63	0.0137	0.0052
Venus	-10609-04-23 11:31 J	-2153401.10	-2153401.02	-2153400.91	0.0134	0.0121
Venus	-10609-12-05 18:00 J	-2153174.90	-2153174.75	-2153174.56	0.0134	0.0084
Venus	-10608-07-20 00:43 J	-2152948.67	-2152948.47	-2152948.26	0.0134	0.0046
Venus	-10607-03-03 07:11 J	-2152722.42	-2152722.20	-2152721.97	0.0133	0.0009
Venus	-10607-10-15 13:26 J	-2152496.15	-2152495.94	-2152495.72	0.0133	0.0029
Venus	-10606-05-29 19:26 J	-2152269.87	-2152269.69	-2152269.49	0.0133	0.0066
Venus	-10605-01-11 01:40 J	-2152043.56	-2152043.43	-2152043.29	0.0133	0.0102
Moon	-10598-06-03 10:04 J	-2149343.20	-2149343.08	-2149342.94	0.0132	0.0114
Earth	-10598-06-03 10:33 J	-2149343.19	-2149343.06	-2149342.90	0.0132	0.0108 *

Moon	-10597-06-06 15:21 J	-2148974.07	-2148973.86	-2148973.63	0.0132	0.0060
Earth	-10597-06-06 15:21 J	-2148974.07	-2148973.86	-2148973.63	0.0132	0.0066 *
Moon	-10596-06-10 19:55 J	-2148604.93	-2148604.67	-2148604.41	0.0132	0.0026
Earth	-10596-06-10 20:09 J	-2148604.91	-2148604.66	-2148604.41	0.0132	0.0022 *
Earth	-10595-06-15 00:43 J	-2148235.72	-2148235.47	-2148235.22	0.0132	0.0021
Moon	-10595-06-15 00:28 J	-2148235.71	-2148235.48	-2148235.23	0.0132	0.0023 *
Moon	-10594-06-19 04:48 J	-2147866.52	-2147866.30	-2147866.07	0.0132	0.0067
Earth	-10594-06-19 04:48 J	-2147866.51	-2147866.30	-2147866.07	0.0132	0.0065 *
Earth	-10593-06-22 09:07 J	-2147497.26	-2147497.12	-2147496.97	0.0133	0.0108
Moon	-10593-06-22 09:07 J	-2147497.25	-2147497.12	-2147496.95	0.0133	0.0105 *
Mercury	-10579-02-05 02:52 J	-2142521.42	-2142521.38	-2142521.32	0.0138	0.0127
Mercury	-10579-05-04 06:00 J	-2142433.32	-2142433.25	-2142433.16	0.0138	0.0108
Mercury	-10579-07-31 09:07 J	-2142345.21	-2142345.12	-2142345.02	0.0138	0.0089
Mercury	-10579-10-27 12:14 J	-2142257.10	-2142256.99	-2142256.87	0.0138	0.0070
Mercury	-10578-01-23 15:35 J	-2142168.97	-2142168.85	-2142168.73	0.0138	0.0051
Mercury	-10578-04-21 18:43 J	-2142080.85	-2142080.72	-2142080.60	0.0138	0.0031
Mercury	-10578-07-18 21:50 J	-2141992.72	-2141992.59	-2141992.46	0.0138	0.0012
Mercury	-10578-10-15 00:57 J	-2141904.59	-2141904.46	-2141904.33	0.0139	0.0008
Mercury	-10577-01-11 04:04 J	-2141816.46	-2141816.33	-2141816.20	0.0139	0.0027
Mercury	-10577-04-08 07:11 J	-2141728.32	-2141728.20	-2141728.08	0.0139	0.0047
Mercury	-10577-07-05 10:19 J	-2141640.18	-2141640.07	-2141639.95	0.0139	0.0067
Mercury	-10577-10-01 13:26 J	-2141552.04	-2141551.94	-2141551.83	0.0139	0.0086
Mercury	-10577-12-28 16:33 J	-2141463.88	-2141463.81	-2141463.72	0.0139	0.0107
Mercury	-10576-03-26 19:40 J	-2141375.72	-2141375.68	-2141375.62	0.0139	0.0127
Mars	-10573-10-30 01:40 J	-2140062.76	-2140062.43	-2140062.09	0.0141	0.0014
Venus	-10565-04-19 00:57 J	-2137334.58	-2137334.46	-2137334.31	0.0145	0.0112
Venus	-10565-12-01 11:45 J	-2137108.19	-2137108.01	-2137107.81	0.0145	0.0066
Venus	-10564-07-15 23:02 J	-2136881.75	-2136881.54	-2136881.33	0.0145	0.0019
Venus	-10563-02-27 10:04 J	-2136655.29	-2136655.08	-2136654.87	0.0145	0.0029
Venus	-10563-10-11 21:21 J	-2136428.79	-2136428.61	-2136428.43	0.0146	0.0076

Venus	-10562-05-26 08:24 J	-2136202.25	-2136202.15	-2136202.02	0.0146	0.0124
Earth	-10557-11-26 02:24 J	-2134191.46	-2134191.40	-2134191.33	0.0147	0.0141
Moon	-10557-11-26 03:07 J	-2134191.44	-2134191.37	-2134191.27	0.0147	0.0138 *
Moon	-10556-12-01 03:50 J	-2133821.52	-2133821.34	-2133821.13	0.0146	0.0090
Earth	-10556-12-01 06:28 J	-2133821.44	-2133821.23	-2133821.02	0.0146	0.0082 *
Earth	-10555-12-06 10:33 J	-2133451.31	-2133451.06	-2133450.81	0.0146	0.0023
Moon	-10555-12-06 13:11 J	-2133451.21	-2133450.95	-2133450.69	0.0146	0.0015 *
Moon	-10554-12-11 12:00 J	-2133081.24	-2133081.00	-2133080.76	0.0146	0.0033
Earth	-10554-12-11 14:52 J	-2133081.12	-2133080.88	-2133080.63	0.0146	0.0037 *
Earth	-10553-12-15 19:11 J	-2132710.88	-2132710.70	-2132710.50	0.0146	0.0097
Moon	-10553-12-15 23:02 J	-2132710.73	-2132710.54	-2132710.34	0.0146	0.0096 *
Mercury	-10540-12-16 12:57 J	-2127962.05	-2127961.96	-2127961.87	0.0141	0.0124
Mercury	-10539-03-14 21:21 J	-2127873.76	-2127873.61	-2127873.46	0.0141	0.0093
Mercury	-10539-06-11 05:31 J	-2127785.44	-2127785.27	-2127785.08	0.0140	0.0062
Mercury	-10539-09-07 13:55 J	-2127697.11	-2127696.92	-2127696.72	0.0140	0.0031
Mercury	-10539-12-04 22:19 J	-2127608.76	-2127608.57	-2127608.37	0.0140	0.0002
Mercury	-10538-03-03 06:43 J	-2127520.41	-2127520.22	-2127520.03	0.0140	0.0030
Mercury	-10538-05-30 14:38 J	-2127432.06	-2127431.89	-2127431.70	0.0140	0.0061
Mercury	-10538-08-26 23:02 J	-2127343.68	-2127343.54	-2127343.39	0.0140	0.0091
Mercury	-10538-11-23 07:26 J	-2127255.29	-2127255.19	-2127255.10	0.0140	0.0121
Mars	-10534-05-24 06:14 J	-2125977.50	-2125977.24	-2125976.97	0.0138	0.0056
Mars	-10532-04-23 05:16 J	-2125277.44	-2125277.28	-2125277.13	0.0137	0.0114
Venus	-10525-08-05 05:16 J	-2122616.42	-2122616.28	-2122616.12	0.0134	0.0099
Venus	-10524-03-19 12:00 J	-2122390.19	-2122390.00	-2122389.80	0.0134	0.0061
Venus	-10524-10-31 18:28 J	-2122163.95	-2122163.73	-2122163.51	0.0133	0.0023
Venus	-10523-06-15 00:43 J	-2121937.69	-2121937.47	-2121937.25	0.0133	0.0014
Venus	-10522-01-27 06:57 J	-2121711.40	-2121711.21	-2121711.00	0.0133	0.0052
Venus	-10522-09-10 13:11 J	-2121485.11	-2121484.95	-2121484.78	0.0133	0.0088
Venus	-10521-04-23 18:57 J	-2121258.76	-2121258.71	-2121258.62	0.0133	0.0125
Moon	-10514-06-04 00:00 J	-2118661.67	-2118661.50	-2118661.31	0.0132	0.0095

Earth	-10514-06-04 00:28 J	-2118661.63	-2118661.48	-2118661.31	0.0132	0.0102	*
Earth	-10513-06-07 05:16 J	-2118292.50	-2118292.28	-2118292.05	0.0132	0.0059	
Moon	-10513-06-07 06:14 J	-2118292.45	-2118292.24	-2118292.02	0.0132	0.0065	*
Moon	-10512-06-11 09:35 J	-2117923.36	-2117923.10	-2117922.84	0.0132	0.0013	
Earth	-10512-06-11 10:04 J	-2117923.33	-2117923.08	-2117922.83	0.0132	0.0016	*
Earth	-10511-06-15 14:24 J	-2117554.15	-2117553.90	-2117553.65	0.0132	0.0027	
Moon	-10511-06-15 14:52 J	-2117554.12	-2117553.88	-2117553.63	0.0132	0.0026	*
Moon	-10510-06-19 17:45 J	-2117184.97	-2117184.76	-2117184.52	0.0133	0.0069	
Earth	-10510-06-19 18:43 J	-2117184.93	-2117184.72	-2117184.50	0.0133	0.0070	*
Earth	-10509-06-22 22:48 J	-2116815.66	-2116815.55	-2116815.40	0.0133	0.0113	
Moon	-10509-06-22 23:02 J	-2116815.63	-2116815.54	-2116815.41	0.0133	0.0118	*
Mercury	-10495-02-25 10:48 J	-2111820.11	-2111820.05	-2111819.99	0.0138	0.0120	
Mercury	-10495-05-24 13:40 J	-2111732.01	-2111731.93	-2111731.83	0.0138	0.0101	
Mercury	-10495-08-20 16:48 J	-2111643.89	-2111643.80	-2111643.69	0.0138	0.0082	
Mercury	-10495-11-16 19:55 J	-2111555.78	-2111555.67	-2111555.55	0.0138	0.0063	
Mercury	-10494-02-12 23:16 J	-2111467.65	-2111467.53	-2111467.41	0.0138	0.0043	
Mercury	-10494-05-12 02:24 J	-2111379.53	-2111379.40	-2111379.27	0.0138	0.0024	
Mercury	-10494-08-08 05:31 J	-2111291.40	-2111291.27	-2111291.14	0.0138	0.0005	
Mercury	-10494-11-04 08:38 J	-2111203.27	-2111203.14	-2111203.01	0.0139	0.0015	
Mercury	-10493-01-31 11:45 J	-2111115.13	-2111115.01	-2111114.88	0.0139	0.0034	
Mercury	-10493-04-28 14:52 J	-2111026.99	-2111026.88	-2111026.76	0.0139	0.0054	
Mercury	-10493-07-25 18:00 J	-2110938.85	-2110938.75	-2110938.63	0.0139	0.0074	
Mercury	-10493-10-21 21:21 J	-2110850.70	-2110850.61	-2110850.51	0.0139	0.0094	
Mercury	-10492-01-18 00:28 J	-2110762.55	-2110762.48	-2110762.40	0.0139	0.0113	
Mercury	-10492-04-16 03:35 J	-2110674.38	-2110674.35	-2110674.31	0.0139	0.0134	
Mars	-10490-07-21 13:40 J	-2109848.05	-2109847.93	-2109847.75	0.0141	0.0126	
Mars	-10488-06-26 13:55 J	-2109142.14	-2109141.92	-2109141.65	0.0142	0.0098	
Venus	-10482-12-18 10:33 J	-2106776.15	-2106776.06	-2106775.97	0.0145	0.0131	
Venus	-10481-07-31 21:07 J	-2106549.78	-2106549.62	-2106549.43	0.0145	0.0085	
Venus	-10480-03-15 08:09 J	-2106323.36	-2106323.16	-2106322.94	0.0145	0.0039	

Venus	-10480-10-27 19:26 J	-2106096.91	-2106096.69	-2106096.48	0.0145	0.0009
Venus	-10479-06-11 06:28 J	-2105870.42	-2105870.23	-2105870.03	0.0146	0.0057
Venus	-10478-01-23 18:00 J	-2105643.90	-2105643.75	-2105643.60	0.0146	0.0104
Earth	-10473-11-26 17:02 J	-2103509.88	-2103509.79	-2103509.68	0.0147	0.0134
Moon	-10473-11-26 18:00 J	-2103509.82	-2103509.75	-2103509.64	0.0147	0.0138 *
Moon	-10472-12-01 19:40 J	-2103139.89	-2103139.68	-2103139.45	0.0147	0.0069
Earth	-10472-12-01 20:52 J	-2103139.83	-2103139.63	-2103139.39	0.0147	0.0076 *
Earth	-10471-12-07 01:26 J	-2102769.69	-2102769.44	-2102769.18	0.0146	0.0016
Moon	-10471-12-07 03:50 J	-2102769.59	-2102769.34	-2102769.08	0.0146	0.0023 *
Moon	-10470-12-12 02:38 J	-2102399.62	-2102399.39	-2102399.14	0.0146	0.0049
Earth	-10470-12-12 05:45 J	-2102399.50	-2102399.26	-2102399.01	0.0146	0.0044 *
Earth	-10469-12-16 10:19 J	-2102029.25	-2102029.07	-2102028.89	0.0146	0.0103
Moon	-10469-12-16 13:11 J	-2102029.12	-2102028.95	-2102028.75	0.0146	0.0102 *
Mercury	-10455-01-05 21:35 J	-2097260.70	-2097260.60	-2097260.47	0.0141	0.0112
Mercury	-10455-04-04 06:00 J	-2097172.40	-2097172.25	-2097172.07	0.0141	0.0081
Mercury	-10455-07-01 14:38 J	-2097084.07	-2097083.89	-2097083.70	0.0140	0.0049
Mercury	-10455-09-27 23:02 J	-2096995.74	-2096995.54	-2096995.35	0.0140	0.0018
Mercury	-10455-12-25 07:12 J	-2096907.39	-2096907.20	-2096907.00	0.0140	0.0013
Mercury	-10454-03-23 15:35 J	-2096819.04	-2096818.85	-2096818.66	0.0140	0.0043
Mercury	-10454-06-19 23:31 J	-2096730.67	-2096730.52	-2096730.34	0.0140	0.0074
Mercury	-10454-09-16 07:55 J	-2096642.29	-2096642.17	-2096642.03	0.0140	0.0104
Mercury	-10454-12-13 16:04 J	-2096553.87	-2096553.83	-2096553.77	0.0140	0.0134
Mars	-10449-01-17 02:52 J	-2095058.66	-2095058.38	-2095058.09	0.0137	0.0010
Venus	-10441-04-04 17:31 J	-2092057.88	-2092057.77	-2092057.64	0.0134	0.0113
Venus	-10441-11-17 00:14 J	-2091831.67	-2091831.49	-2091831.31	0.0134	0.0075
Venus	-10440-07-01 06:43 J	-2091605.43	-2091605.22	-2091605.01	0.0133	0.0037
Venus	-10439-02-12 13:12 J	-2091379.17	-2091378.95	-2091378.72	0.0133	0.0002
Venus	-10439-09-26 19:26 J	-2091152.90	-2091152.69	-2091152.47	0.0133	0.0038
Venus	-10438-05-11 01:40 J	-2090926.61	-2090926.43	-2090926.24	0.0133	0.0074
Venus	-10438-12-23 07:40 J	-2090700.29	-2090700.18	-2090700.05	0.0133	0.0111

Moon	-10431-05-31 11:31 J	-2088349.04	-2088349.02	-2088349.00	0.0132	0.0132
Moon	-10430-06-04 13:26 J	-2087980.08	-2087979.94	-2087979.75	0.0132	0.0102
Earth	-10430-06-04 15:21 J	-2087980.03	-2087979.86	-2087979.68	0.0132	0.0096 *
Earth	-10429-06-07 19:55 J	-2087610.89	-2087610.67	-2087610.42	0.0132	0.0053
Moon	-10429-06-07 20:52 J	-2087610.85	-2087610.63	-2087610.39	0.0132	0.0048 *
Moon	-10428-06-11 23:16 J	-2087241.78	-2087241.53	-2087241.26	0.0132	0.0015
Earth	-10428-06-12 00:43 J	-2087241.72	-2087241.47	-2087241.21	0.0132	0.0010 *
Earth	-10427-06-16 05:16 J	-2086872.53	-2086872.28	-2086872.04	0.0132	0.0033
Moon	-10427-06-16 06:00 J	-2086872.48	-2086872.25	-2086872.00	0.0132	0.0035 *
Moon	-10426-06-20 08:24 J	-2086503.35	-2086503.15	-2086502.92	0.0132	0.0078
Earth	-10426-06-20 09:35 J	-2086503.30	-2086503.10	-2086502.89	0.0132	0.0076 *
Earth	-10425-06-23 13:40 J	-2086134.03	-2086133.93	-2086133.80	0.0133	0.0119
Moon	-10425-06-23 14:52 J	-2086133.98	-2086133.88	-2086133.74	0.0133	0.0116 *
Mercury	-10412-12-19 15:35 J	-2081206.89	-2081206.85	-2081206.81	0.0138	0.0131
Mercury	-10411-03-17 18:43 J	-2081118.79	-2081118.72	-2081118.65	0.0138	0.0112
Mercury	-10411-06-13 21:50 J	-2081030.68	-2081030.59	-2081030.50	0.0138	0.0093
Mercury	-10411-09-10 00:57 J	-2080942.57	-2080942.46	-2080942.35	0.0138	0.0074
Mercury	-10411-12-07 03:50 J	-2080854.45	-2080854.34	-2080854.21	0.0138	0.0055
Mercury	-10410-03-05 07:12 J	-2080766.33	-2080766.20	-2080766.08	0.0138	0.0035
Mercury	-10410-06-01 10:19 J	-2080678.20	-2080678.07	-2080677.94	0.0138	0.0016
Mercury	-10410-08-28 13:26 J	-2080590.07	-2080589.94	-2080589.81	0.0138	0.0004
Mercury	-10410-11-24 16:33 J	-2080501.94	-2080501.81	-2080501.68	0.0139	0.0023
Mercury	-10409-02-20 19:40 J	-2080413.80	-2080413.68	-2080413.55	0.0139	0.0043
Mercury	-10409-05-18 23:02 J	-2080325.66	-2080325.54	-2080325.43	0.0139	0.0062
Mercury	-10409-08-15 02:09 J	-2080237.51	-2080237.41	-2080237.31	0.0139	0.0082
Mercury	-10409-11-11 05:16 J	-2080149.36	-2080149.28	-2080149.19	0.0139	0.0102
Mercury	-10408-02-07 08:38 J	-2080061.20	-2080061.14	-2080061.08	0.0139	0.0122
Mars	-10405-03-17 03:50 J	-2078927.65	-2078927.34	-2078927.01	0.0141	0.0042
Venus	-10397-03-31 07:26 J	-2075991.32	-2075991.19	-2075991.03	0.0145	0.0104
Venus	-10397-11-12 18:28 J	-2075764.92	-2075764.73	-2075764.53	0.0145	0.0057

Venus	-10396-06-27 05:45 J	-2075538.48	-2075538.26	-2075538.05	0.0145	0.0010
Venus	-10395-02-08 16:47 J	-2075312.00	-2075311.80	-2075311.59	0.0145	0.0038
Venus	-10395-09-23 04:04 J	-2075085.49	-2075085.33	-2075085.15	0.0146	0.0086
Venus	-10394-05-07 15:21 J	-2074858.93	-2074858.86	-2074858.76	0.0146	0.0134
Moon	-10389-11-27 09:21 J	-2072828.24	-2072828.11	-2072827.95	0.0147	0.0123
Earth	-10389-11-27 09:21 J	-2072828.23	-2072828.11	-2072827.97	0.0147	0.0126 *
Moon	-10388-12-02 12:14 J	-2072458.20	-2072457.99	-2072457.78	0.0147	0.0074
Earth	-10388-12-02 13:12 J	-2072458.16	-2072457.95	-2072457.71	0.0147	0.0068 *
Earth	-10387-12-07 17:45 J	-2072088.01	-2072087.76	-2072087.50	0.0147	0.0008
Moon	-10387-12-07 19:40 J	-2072087.94	-2072087.68	-2072087.41	0.0147	0.0002 *
Moon	-10386-12-12 19:40 J	-2071717.91	-2071717.68	-2071717.44	0.0146	0.0047
Earth	-10386-12-12 22:04 J	-2071717.81	-2071717.58	-2071717.33	0.0146	0.0052 *
Earth	-10385-12-17 02:38 J	-2071347.54	-2071347.39	-2071347.21	0.0146	0.0110
Moon	-10385-12-17 06:00 J	-2071347.40	-2071347.25	-2071347.07	0.0146	0.0110 *
Mercury	-10372-10-29 22:47 J	-2066647.62	-2066647.55	-2066647.46	0.0141	0.0128
Mercury	-10371-01-26 07:12 J	-2066559.33	-2066559.20	-2066559.05	0.0141	0.0097
Mercury	-10371-04-24 15:35 J	-2066471.02	-2066470.85	-2066470.67	0.0140	0.0066
Mercury	-10371-07-22 00:14 J	-2066382.68	-2066382.49	-2066382.30	0.0140	0.0035
Mercury	-10371-10-18 08:24 J	-2066294.34	-2066294.15	-2066293.95	0.0140	0.0005
Mercury	-10370-01-14 16:47 J	-2066205.99	-2066205.80	-2066205.61	0.0140	0.0027
Mercury	-10370-04-13 00:57 J	-2066117.63	-2066117.46	-2066117.28	0.0140	0.0057
Mercury	-10370-07-10 09:07 J	-2066029.26	-2066029.12	-2066028.96	0.0140	0.0088
Mercury	-10370-10-06 17:16 J	-2065940.87	-2065940.78	-2065940.66	0.0140	0.0118
Mars	-10367-10-11 22:04 J	-2064839.76	-2064839.58	-2064839.36	0.0138	0.0097
Mars	-10365-09-10 23:16 J	-2064139.76	-2064139.53	-2064139.28	0.0137	0.0075
Venus	-10358-12-04 06:00 J	-2061499.31	-2061499.25	-2061499.18	0.0134	0.0127
Venus	-10357-07-17 12:28 J	-2061273.13	-2061272.98	-2061272.80	0.0134	0.0090
Venus	-10356-02-28 19:12 J	-2061046.89	-2061046.70	-2061046.49	0.0134	0.0052
Venus	-10356-10-13 01:40 J	-2060820.64	-2060820.43	-2060820.20	0.0133	0.0014
Venus	-10355-05-27 08:09 J	-2060594.38	-2060594.16	-2060593.94	0.0133	0.0024

Venus	-10354-01-08 14:09 J	-2060368.10	-2060367.91	-2060367.70	0.0133	0.0061
Venus	-10354-08-22 20:24 J	-2060141.79	-2060141.65	-2060141.49	0.0133	0.0098
Earth	-10347-06-01 00:57 J	-2057667.47	-2057667.46	-2057667.43	0.0132	0.0131
Moon	-10346-06-05 04:33 J	-2057298.51	-2057298.31	-2057298.10	0.0132	0.0082
Earth	-10346-06-05 06:00 J	-2057298.43	-2057298.25	-2057298.06	0.0132	0.0089 *
Earth	-10345-06-08 10:19 J	-2056929.29	-2056929.07	-2056928.82	0.0132	0.0047
Moon	-10345-06-08 12:14 J	-2056929.20	-2056928.99	-2056928.75	0.0132	0.0054 *
Moon	-10344-06-12 13:55 J	-2056560.18	-2056559.92	-2056559.66	0.0132	0.0001
Earth	-10344-06-12 15:21 J	-2056560.12	-2056559.86	-2056559.61	0.0132	0.0004 *
Earth	-10343-06-16 19:40 J	-2056190.93	-2056190.68	-2056190.44	0.0132	0.0039
Moon	-10343-06-16 20:52 J	-2056190.86	-2056190.63	-2056190.39	0.0132	0.0038 *
Moon	-10342-06-20 22:04 J	-2055821.78	-2055821.58	-2055821.37	0.0132	0.0081
Earth	-10342-06-20 23:45 J	-2055821.70	-2055821.51	-2055821.30	0.0132	0.0081 *
Earth	-10341-06-24 04:04 J	-2055452.40	-2055452.33	-2055452.23	0.0133	0.0124
Moon	-10341-06-24 05:02 J	-2055452.33	-2055452.29	-2055452.21	0.0133	0.0129 *
Mercury	-10327-01-08 23:02 J	-2050505.58	-2050505.54	-2050505.48	0.0138	0.0125
Mercury	-10327-04-07 02:09 J	-2050417.49	-2050417.41	-2050417.32	0.0138	0.0106
Mercury	-10327-07-04 05:16 J	-2050329.37	-2050329.28	-2050329.18	0.0138	0.0087
Mercury	-10327-09-30 08:24 J	-2050241.26	-2050241.15	-2050241.03	0.0138	0.0068
Mercury	-10327-12-27 11:31 J	-2050153.14	-2050153.02	-2050152.89	0.0138	0.0049
Mercury	-10326-03-25 14:38 J	-2050065.01	-2050064.89	-2050064.76	0.0138	0.0030
Mercury	-10326-06-21 17:45 J	-2049976.88	-2049976.76	-2049976.63	0.0138	0.0011
Mercury	-10326-09-17 21:07 J	-2049888.75	-2049888.62	-2049888.49	0.0138	0.0010
Mercury	-10326-12-15 00:14 J	-2049800.62	-2049800.49	-2049800.36	0.0139	0.0029
Mercury	-10325-03-12 03:21 J	-2049712.48	-2049712.36	-2049712.24	0.0139	0.0048
Mercury	-10325-06-08 06:28 J	-2049624.34	-2049624.23	-2049624.11	0.0139	0.0068
Mercury	-10325-09-04 09:35 J	-2049536.20	-2049536.10	-2049536.00	0.0139	0.0088
Mercury	-10325-12-01 12:43 J	-2049448.04	-2049447.97	-2049447.88	0.0139	0.0108
Mercury	-10324-02-27 16:04 J	-2049359.88	-2049359.83	-2049359.78	0.0139	0.0128
Mars	-10321-11-11 11:02 J	-2048007.36	-2048007.04	-2048006.71	0.0141	0.0038

Venus	-10314-11-29 15:07 J	-2045432.96	-2045432.87	-2045432.75	0.0145	0.0125
Venus	-10313-07-13 02:09 J	-2045206.58	-2045206.41	-2045206.22	0.0145	0.0078
Venus	-10312-02-24 13:12 J	-2044980.15	-2044979.95	-2044979.73	0.0145	0.0032
Venus	-10312-10-09 00:28 J	-2044753.69	-2044753.48	-2044753.26	0.0145	0.0016
Venus	-10311-05-23 11:31 J	-2044527.20	-2044527.02	-2044526.82	0.0146	0.0065
Venus	-10310-01-04 23:02 J	-2044300.67	-2044300.54	-2044300.40	0.0146	0.0112
Earth	-10305-11-27 20:52 J	-2042146.76	-2042146.63	-2042146.47	0.0147	0.0120
Moon	-10305-11-27 21:07 J	-2042146.75	-2042146.62	-2042146.47	0.0147	0.0123 *
Moon	-10304-12-03 00:28 J	-2041776.70	-2041776.48	-2041776.24	0.0147	0.0056
Earth	-10304-12-03 00:57 J	-2041776.68	-2041776.46	-2041776.22	0.0147	0.0062 *
Earth	-10303-12-08 05:31 J	-2041406.52	-2041406.27	-2041406.01	0.0147	0.0004
Moon	-10303-12-08 07:12 J	-2041406.46	-2041406.20	-2041405.94	0.0147	0.0010 *
Moon	-10302-12-13 07:40 J	-2041036.39	-2041036.18	-2041035.94	0.0146	0.0063
Earth	-10302-12-13 10:04 J	-2041036.31	-2041036.08	-2041035.84	0.0146	0.0057 *
Earth	-10301-12-17 14:52 J	-2040666.02	-2040665.88	-2040665.71	0.0146	0.0115
Moon	-10301-12-17 17:16 J	-2040665.92	-2040665.78	-2040665.60	0.0146	0.0115 *
Mercury	-10288-11-19 07:55 J	-2035946.28	-2035946.17	-2035946.06	0.0141	0.0115
Mercury	-10287-02-15 16:19 J	-2035857.98	-2035857.82	-2035857.66	0.0141	0.0084
Mercury	-10287-05-15 00:43 J	-2035769.65	-2035769.47	-2035769.29	0.0141	0.0053
Mercury	-10287-08-11 08:52 J	-2035681.32	-2035681.13	-2035680.93	0.0140	0.0023
Mercury	-10287-11-07 17:16 J	-2035592.97	-2035592.78	-2035592.58	0.0140	0.0009
Mercury	-10286-02-04 01:40 J	-2035504.62	-2035504.43	-2035504.24	0.0140	0.0040
Mercury	-10286-05-03 09:50 J	-2035416.25	-2035416.09	-2035415.91	0.0140	0.0070
Mercury	-10286-07-30 18:00 J	-2035327.87	-2035327.75	-2035327.60	0.0140	0.0101
Mercury	-10286-10-27 02:09 J	-2035239.46	-2035239.41	-2035239.33	0.0140	0.0131
Mars	-10282-06-06 19:26 J	-2033920.96	-2033920.69	-2033920.41	0.0138	0.0031
Venus	-10273-03-17 00:57 J	-2030714.58	-2030714.46	-2030714.30	0.0134	0.0104
Venus	-10273-10-29 07:55 J	-2030488.36	-2030488.17	-2030487.97	0.0134	0.0066
Venus	-10272-06-12 14:09 J	-2030262.11	-2030261.91	-2030261.68	0.0133	0.0029
Venus	-10271-01-24 20:52 J	-2030035.85	-2030035.63	-2030035.41	0.0133	0.0010

Venus	-10271-09-08 03:07 J	-2029809.57	-2029809.37	-2029809.16	0.0133	0.0047
Venus	-10270-04-22 09:21 J	-2029583.27	-2029583.11	-2029582.94	0.0133	0.0084
Venus	-10270-12-04 15:21 J	-2029356.94	-2029356.86	-2029356.76	0.0133	0.0121
Earth	-10263-06-01 15:21 J	-2026985.91	-2026985.86	-2026985.75	0.0132	0.0125
Moon	-10263-06-01 17:31 J	-2026985.86	-2026985.77	-2026985.64	0.0132	0.0118 *
Moon	-10262-06-05 18:14 J	-2026616.92	-2026616.74	-2026616.54	0.0132	0.0089
Earth	-10262-06-05 20:52 J	-2026616.83	-2026616.63	-2026616.43	0.0132	0.0082 *
Earth	-10261-06-09 01:26 J	-2026247.68	-2026247.44	-2026247.20	0.0132	0.0040
Moon	-10261-06-09 02:52 J	-2026247.61	-2026247.38	-2026247.13	0.0132	0.0035 *
Moon	-10260-06-13 03:35 J	-2025878.61	-2025878.35	-2025878.09	0.0132	0.0003
Earth	-10260-06-13 05:45 J	-2025878.51	-2025878.26	-2025878.01	0.0132	0.0002 *
Earth	-10259-06-17 09:50 J	-2025509.32	-2025509.09	-2025508.84	0.0132	0.0045
Moon	-10259-06-17 11:45 J	-2025509.23	-2025509.01	-2025508.77	0.0132	0.0047 *
Moon	-10258-06-21 12:28 J	-2025140.16	-2025139.98	-2025139.78	0.0132	0.0088
Earth	-10258-06-21 14:09 J	-2025140.08	-2025139.91	-2025139.71	0.0132	0.0087 *
Earth	-10257-06-24 18:14 J	-2024770.77	-2024770.74	-2024770.67	0.0132	0.0130
Moon	-10257-06-24 20:24 J	-2024770.70	-2024770.65	-2024770.56	0.0132	0.0127 *
Mercury	-10244-11-02 03:35 J	-2019892.35	-2019892.35	-2019892.34	0.0137	0.0137
Mercury	-10243-01-29 06:43 J	-2019804.28	-2019804.22	-2019804.15	0.0137	0.0118
Mercury	-10243-04-27 09:50 J	-2019716.17	-2019716.09	-2019716.00	0.0138	0.0100
Mercury	-10243-07-24 12:57 J	-2019628.06	-2019627.96	-2019627.85	0.0138	0.0081
Mercury	-10243-10-20 16:04 J	-2019539.94	-2019539.83	-2019539.71	0.0138	0.0062
Mercury	-10242-01-16 19:12 J	-2019451.82	-2019451.70	-2019451.57	0.0138	0.0042
Mercury	-10242-04-14 22:19 J	-2019363.70	-2019363.57	-2019363.44	0.0138	0.0023
Mercury	-10242-07-12 01:26 J	-2019275.57	-2019275.44	-2019275.31	0.0138	0.0005
Mercury	-10242-10-08 04:33 J	-2019187.44	-2019187.31	-2019187.18	0.0138	0.0016
Mercury	-10241-01-04 07:40 J	-2019099.30	-2019099.18	-2019099.05	0.0139	0.0035
Mercury	-10241-04-01 10:47 J	-2019011.16	-2019011.05	-2019010.92	0.0139	0.0055
Mercury	-10241-06-28 14:09 J	-2018923.02	-2018922.91	-2018922.80	0.0139	0.0074
Mercury	-10241-09-24 17:16 J	-2018834.87	-2018834.78	-2018834.68	0.0139	0.0094

Mercury	-10241-12-21 20:09 J	-2018746.72	-2018746.66	-2018746.57	0.0139	0.0114
Mercury	-10240-03-19 23:45 J	-2018658.55	-2018658.51	-2018658.48	0.0139	0.0134
Mars	-10238-08-02 18:43 J	-2017792.92	-2017792.72	-2017792.47	0.0141	0.0104
Mars	-10236-07-08 17:45 J	-2017086.93	-2017086.76	-2017086.56	0.0142	0.0118
Venus	-10229-03-12 09:50 J	-2014648.24	-2014648.09	-2014647.93	0.0145	0.0100
Venus	-10229-10-24 20:38 J	-2014421.83	-2014421.64	-2014421.43	0.0145	0.0053
Jupiter	-10228-02-01 07:12 J	-2014322.68	-2014322.20	-2014321.69	0.0145	0.0049
Venus	-10228-06-08 07:55 J	-2014195.39	-2014195.17	-2014194.96	0.0145	0.0006
Venus	-10227-01-20 18:57 J	-2013968.91	-2013968.71	-2013968.50	0.0145	0.0042
Venus	-10227-09-04 06:14 J	-2013742.39	-2013742.24	-2013742.06	0.0146	0.0090
Venus	-10226-04-18 17:31 J	-2013515.82	-2013515.77	-2013515.68	0.0146	0.0138
Moon	-10221-11-28 06:28 J	-2011465.38	-2011465.23	-2011465.04	0.0147	0.0113
Earth	-10221-11-28 07:26 J	-2011465.32	-2011465.19	-2011465.01	0.0147	0.0115 *
Earth	-10220-12-03 12:00 J	-2011095.23	-2011095.00	-2011094.76	0.0147	0.0056
Moon	-10220-12-03 12:00 J	-2011095.22	-2011095.00	-2011094.78	0.0147	0.0062 *
Earth	-10219-12-08 16:19 J	-2010725.07	-2010724.82	-2010724.56	0.0147	0.0004
Moon	-10219-12-08 17:16 J	-2010725.04	-2010724.78	-2010724.51	0.0147	0.0011 *
Moon	-10218-12-13 19:40 J	-2010354.90	-2010354.68	-2010354.45	0.0146	0.0057
Earth	-10218-12-13 21:07 J	-2010354.85	-2010354.62	-2010354.38	0.0146	0.0062 *
Earth	-10217-12-18 01:55 J	-2009984.55	-2009984.42	-2009984.26	0.0146	0.0120
Moon	-10217-12-18 04:19 J	-2009984.44	-2009984.32	-2009984.15	0.0146	0.0122 *
Mercury	-10204-09-12 07:12 J	-2005333.23	-2005333.20	-2005333.14	0.0141	0.0137
Mercury	-10204-12-09 15:50 J	-2005244.96	-2005244.84	-2005244.70	0.0141	0.0105
Mercury	-10203-03-08 00:14 J	-2005156.65	-2005156.49	-2005156.32	0.0141	0.0074
Mercury	-10203-06-04 08:52 J	-2005068.32	-2005068.13	-2005067.95	0.0141	0.0043
Mercury	-10203-08-31 17:02 J	-2004979.98	-2004979.79	-2004979.59	0.0140	0.0012
Mercury	-10203-11-28 01:26 J	-2004891.63	-2004891.44	-2004891.24	0.0140	0.0019
Mercury	-10202-02-24 09:35 J	-2004803.27	-2004803.10	-2004802.90	0.0140	0.0050
Mercury	-10202-05-23 18:00 J	-2004714.90	-2004714.75	-2004714.58	0.0140	0.0080
Mercury	-10202-08-20 02:09 J	-2004626.52	-2004626.41	-2004626.28	0.0140	0.0111

Mars	-10197-01-30 12:28 J	-2003002.24	-2003001.98	-2003001.69	0.0137	0.0034
Venus	-10190-11-15 12:43 J	-2000156.06	-2000155.97	-2000155.86	0.0134	0.0119
Venus	-10189-06-28 19:26 J	-1999929.85	-1999929.69	-1999929.50	0.0134	0.0081
Venus	-10188-02-10 02:24 J	-1999703.61	-1999703.40	-1999703.19	0.0134	0.0043
Venus	-10188-09-24 08:52 J	-1999477.35	-1999477.13	-1999476.91	0.0133	0.0005
Venus	-10187-05-08 15:21 J	-1999251.08	-1999250.86	-1999250.65	0.0133	0.0033
Venus	-10187-12-20 21:21 J	-1999024.79	-1999024.61	-1999024.41	0.0133	0.0070
Venus	-10186-08-04 03:21 J	-1998798.47	-1998798.36	-1998798.22	0.0133	0.0107
Earth	-10179-06-02 06:00 J	-1996304.35	-1996304.25	-1996304.12	0.0132	0.0118
Moon	-10179-06-02 08:24 J	-1996304.21	-1996304.15	-1996304.04	0.0132	0.0124 *
Moon	-10178-06-06 08:52 J	-1995935.34	-1995935.13	-1995934.90	0.0132	0.0069
Earth	-10178-06-06 11:02 J	-1995935.23	-1995935.04	-1995934.82	0.0132	0.0076 *
Earth	-10177-06-09 15:35 J	-1995566.09	-1995565.85	-1995565.60	0.0132	0.0034
Moon	-10177-06-09 18:28 J	-1995565.97	-1995565.73	-1995565.50	0.0132	0.0040 *
Moon	-10176-06-13 18:00 J	-1995197.01	-1995196.75	-1995196.49	0.0132	0.0013
Earth	-10176-06-13 20:09 J	-1995196.91	-1995196.66	-1995196.40	0.0132	0.0009 *
Earth	-10175-06-18 00:28 J	-1994827.71	-1994827.48	-1994827.24	0.0132	0.0051
Moon	-10175-06-18 02:52 J	-1994827.61	-1994827.38	-1994827.15	0.0132	0.0049 *
Moon	-10174-06-22 01:55 J	-1994458.58	-1994458.42	-1994458.21	0.0132	0.0094
Earth	-10174-06-22 04:33 J	-1994458.47	-1994458.31	-1994458.11	0.0132	0.0093 *
Mercury	-10160-11-22 11:02 J	-1989191.06	-1989191.04	-1989190.99	0.0137	0.0131
Mercury	-10159-02-18 14:09 J	-1989102.97	-1989102.91	-1989102.83	0.0137	0.0113
Mercury	-10159-05-17 17:16 J	-1989014.86	-1989014.78	-1989014.68	0.0137	0.0094
Mercury	-10159-08-13 20:24 J	-1988926.75	-1988926.65	-1988926.53	0.0138	0.0075
Mercury	-10159-11-09 23:31 J	-1988838.63	-1988838.52	-1988838.39	0.0138	0.0056
Mercury	-10158-02-06 02:52 J	-1988750.51	-1988750.38	-1988750.26	0.0138	0.0036
Mercury	-10158-05-05 06:00 J	-1988662.38	-1988662.25	-1988662.12	0.0138	0.0017
Mercury	-10158-08-01 09:07 J	-1988574.25	-1988574.12	-1988573.99	0.0138	0.0003
Mercury	-10158-10-28 12:14 J	-1988486.12	-1988485.99	-1988485.86	0.0138	0.0022
Mercury	-10157-01-24 15:21 J	-1988397.99	-1988397.86	-1988397.74	0.0138	0.0041

Mercury	-10157-04-21 18:28 J	-1988309.85	-1988309.73	-1988309.61	0.0139	0.0061
Mercury	-10157-07-18 21:35 J	-1988221.70	-1988221.60	-1988221.49	0.0139	0.0080
Mercury	-10157-10-15 00:43 J	-1988133.56	-1988133.47	-1988133.38	0.0139	0.0100
Mercury	-10156-01-11 03:50 J	-1988045.40	-1988045.34	-1988045.27	0.0139	0.0120
Mars	-10153-03-28 23:31 J	-1986872.85	-1986872.52	-1986872.19	0.0141	0.0025
Venus	-10146-11-10 16:19 J	-1984089.93	-1984089.82	-1984089.70	0.0145	0.0123
Venus	-10145-06-24 03:07 J	-1983863.55	-1983863.37	-1983863.18	0.0145	0.0076
Venus	-10144-02-05 14:09 J	-1983637.12	-1983636.91	-1983636.70	0.0145	0.0029
Venus	-10144-09-20 01:12 J	-1983410.66	-1983410.45	-1983410.23	0.0145	0.0019
Venus	-10143-05-04 12:14 J	-1983184.17	-1983183.99	-1983183.79	0.0145	0.0066
Venus	-10143-12-16 23:31 J	-1982957.64	-1982957.52	-1982957.38	0.0146	0.0114
Moon	-10137-11-28 14:09 J	-1980784.07	-1980783.91	-1980783.73	0.0147	0.0112
Earth	-10137-11-28 15:07 J	-1980784.01	-1980783.87	-1980783.68	0.0147	0.0111 *
Earth	-10136-12-03 19:12 J	-1980413.92	-1980413.70	-1980413.45	0.0147	0.0053
Moon	-10136-12-03 20:09 J	-1980413.89	-1980413.66	-1980413.42	0.0147	0.0047 *
Moon	-10135-12-09 00:14 J	-1980043.76	-1980043.49	-1980043.22	0.0147	0.0000
Earth	-10135-12-09 00:00 J	-1980043.75	-1980043.50	-1980043.24	0.0147	0.0007 *
Moon	-10134-12-14 03:35 J	-1979673.55	-1979673.35	-1979673.12	0.0146	0.0072
Earth	-10134-12-14 04:47 J	-1979673.52	-1979673.30	-1979673.06	0.0146	0.0065 *
Earth	-10133-12-18 09:50 J	-1979303.21	-1979303.09	-1979302.95	0.0146	0.0124
Moon	-10133-12-18 11:02 J	-1979303.16	-1979303.04	-1979302.87	0.0146	0.0122 *
Mercury	-10120-10-02 14:09 J	-1974631.96	-1974631.91	-1974631.82	0.0141	0.0131
Mercury	-10120-12-29 22:47 J	-1974543.68	-1974543.55	-1974543.40	0.0141	0.0099
Mercury	-10119-03-28 07:26 J	-1974455.36	-1974455.19	-1974455.01	0.0141	0.0067
Mercury	-10119-06-24 15:50 J	-1974367.03	-1974366.84	-1974366.64	0.0141	0.0036
Mercury	-10119-09-21 00:14 J	-1974278.68	-1974278.49	-1974278.29	0.0140	0.0006
Mercury	-10119-12-18 08:38 J	-1974190.33	-1974190.14	-1974189.94	0.0140	0.0026
Mercury	-10118-03-16 16:47 J	-1974101.97	-1974101.80	-1974101.61	0.0140	0.0057
Mercury	-10118-06-13 01:26 J	-1974013.59	-1974013.44	-1974013.29	0.0140	0.0087
Mercury	-10118-09-09 09:21 J	-1973925.20	-1973925.11	-1973924.99	0.0140	0.0118

Mars	-10115-10-24 23:02 J	-1972783.76	-1972783.54	-1972783.29	0.0138	0.0077
Mars	-10113-09-23 23:31 J	-1972083.70	-1972083.52	-1972083.29	0.0137	0.0096
Venus	-10105-02-27 06:14 J	-1969371.37	-1969371.24	-1969371.07	0.0134	0.0097
Venus	-10105-10-10 13:12 J	-1969145.14	-1969144.95	-1969144.74	0.0134	0.0059
Venus	-10104-05-24 19:55 J	-1968918.88	-1968918.67	-1968918.45	0.0134	0.0021
Venus	-10103-01-06 02:38 J	-1968692.61	-1968692.39	-1968692.17	0.0133	0.0018
Venus	-10103-08-20 08:52 J	-1968466.33	-1968466.13	-1968465.92	0.0133	0.0055
Venus	-10102-04-03 15:21 J	-1968240.02	-1968239.86	-1968239.71	0.0133	0.0093
Venus	-10102-11-15 20:52 J	-1968013.65	-1968013.63	-1968013.56	0.0133	0.0130
Earth	-10095-06-02 19:55 J	-1965622.78	-1965622.67	-1965622.51	0.0132	0.0112
Moon	-10095-06-02 22:47 J	-1965622.68	-1965622.55	-1965622.39	0.0132	0.0105 *
Moon	-10094-06-06 22:19 J	-1965253.78	-1965253.57	-1965253.36	0.0132	0.0076
Earth	-10094-06-07 01:12 J	-1965253.65	-1965253.45	-1965253.22	0.0132	0.0070 *
Earth	-10093-06-10 06:00 J	-1964884.49	-1964884.25	-1964883.99	0.0132	0.0028
Moon	-10093-06-10 08:38 J	-1964884.38	-1964884.14	-1964883.89	0.0132	0.0022 *
Moon	-10092-06-14 07:40 J	-1964515.43	-1964515.18	-1964514.92	0.0132	0.0010
Earth	-10092-06-14 10:33 J	-1964515.30	-1964515.06	-1964514.80	0.0132	0.0015 *
Earth	-10091-06-18 14:52 J	-1964146.09	-1964145.88	-1964145.64	0.0132	0.0057
Moon	-10091-06-18 17:45 J	-1964145.97	-1964145.76	-1964145.53	0.0132	0.0059 *
Moon	-10090-06-22 17:02 J	-1963776.95	-1963776.79	-1963776.61	0.0132	0.0100
Earth	-10090-06-22 19:40 J	-1963776.84	-1963776.68	-1963776.51	0.0132	0.0099 *
Mercury	-10076-12-12 18:57 J	-1958489.75	-1958489.71	-1958489.64	0.0137	0.0124
Mercury	-10075-03-10 22:04 J	-1958401.65	-1958401.58	-1958401.48	0.0137	0.0105
Mercury	-10075-06-07 01:12 J	-1958313.54	-1958313.45	-1958313.34	0.0137	0.0086
Mercury	-10075-09-03 04:19 J	-1958225.42	-1958225.32	-1958225.20	0.0138	0.0067
Mercury	-10075-11-30 07:40 J	-1958137.30	-1958137.18	-1958137.06	0.0138	0.0047
Mercury	-10074-02-26 10:47 J	-1958049.18	-1958049.05	-1958048.92	0.0138	0.0028
Mercury	-10074-05-25 13:55 J	-1957961.05	-1957960.92	-1957960.79	0.0138	0.0009
Mercury	-10074-08-21 17:02 J	-1957872.92	-1957872.79	-1957872.66	0.0138	0.0010
Mercury	-10074-11-17 20:09 J	-1957784.79	-1957784.66	-1957784.53	0.0138	0.0030

Mercury	-10073-02-13 23:16 J	-1957696.65	-1957696.53	-1957696.41	0.0138	0.0049
Mercury	-10073-05-12 02:24 J	-1957608.51	-1957608.40	-1957608.29	0.0139	0.0069
Mercury	-10073-08-08 05:16 J	-1957520.37	-1957520.28	-1957520.17	0.0139	0.0089
Mercury	-10073-11-04 08:38 J	-1957432.22	-1957432.14	-1957432.06	0.0139	0.0108
Mercury	-10072-01-31 11:45 J	-1957344.05	-1957344.01	-1957343.95	0.0139	0.0128
Mars	-10069-11-23 11:31 J	-1955952.32	-1955952.02	-1955951.72	0.0141	0.0059
Venus	-10062-07-11 01:55 J	-1953531.45	-1953531.42	-1953531.38	0.0144	0.0142
Venus	-10061-02-22 12:28 J	-1953305.13	-1953304.98	-1953304.81	0.0145	0.0096
Venus	-10061-10-05 23:16 J	-1953078.72	-1953078.53	-1953078.32	0.0145	0.0049
Venus	-10060-05-20 10:19 J	-1952852.28	-1952852.07	-1952851.85	0.0145	0.0002
Venus	-10059-01-01 21:07 J	-1952625.81	-1952625.62	-1952625.40	0.0145	0.0047
Venus	-10059-08-16 08:38 J	-1952399.30	-1952399.14	-1952398.97	0.0146	0.0094
Venus	-10058-03-30 19:40 J	-1952172.72	-1952172.68	-1952172.62	0.0146	0.0142
Moon	-10053-11-29 01:55 J	-1950102.60	-1950102.42	-1950102.23	0.0147	0.0103
Earth	-10053-11-29 04:04 J	-1950102.50	-1950102.33	-1950102.14	0.0147	0.0104 *
Earth	-10052-12-04 08:09 J	-1949732.40	-1949732.16	-1949731.91	0.0147	0.0046
Moon	-10052-12-04 09:21 J	-1949732.34	-1949732.11	-1949731.88	0.0147	0.0051 *
Moon	-10051-12-09 12:14 J	-1949362.25	-1949361.99	-1949361.72	0.0147	0.0020
Earth	-10051-12-09 12:43 J	-1949362.22	-1949361.97	-1949361.72	0.0147	0.0012 *
Moon	-10050-12-14 17:02 J	-1948992.00	-1948991.79	-1948991.56	0.0146	0.0065
Earth	-10050-12-14 17:16 J	-1948991.99	-1948991.78	-1948991.54	0.0146	0.0071 *
Earth	-10049-12-18 22:33 J	-1948621.68	-1948621.56	-1948621.44	0.0146	0.0129
Moon	-10049-12-18 23:45 J	-1948621.61	-1948621.51	-1948621.37	0.0146	0.0131 *
Mercury	-10036-10-22 22:19 J	-1943930.66	-1943930.57	-1943930.45	0.0141	0.0120
Mercury	-10035-01-19 06:43 J	-1943842.36	-1943842.22	-1943842.05	0.0141	0.0089
Mercury	-10035-04-17 15:21 J	-1943754.03	-1943753.86	-1943753.67	0.0141	0.0058
Mercury	-10035-07-14 23:45 J	-1943665.70	-1943665.51	-1943665.31	0.0141	0.0027
Mercury	-10035-10-11 08:24 J	-1943577.35	-1943577.15	-1943576.95	0.0140	0.0005
Mercury	-10034-01-07 16:33 J	-1943488.99	-1943488.81	-1943488.61	0.0140	0.0036
Mercury	-10034-04-06 00:57 J	-1943400.63	-1943400.46	-1943400.28	0.0140	0.0067

Mercury	-10034-07-03 09:07 J	-1943312.25	-1943312.12	-1943311.97	0.0140	0.0097
Mercury	-10034-09-29 17:16 J	-1943223.84	-1943223.78	-1943223.68	0.0140	0.0128
Mars	-10030-06-19 14:24 J	-1941865.19	-1941864.90	-1941864.62	0.0138	0.0012
Venus	-10022-10-27 17:16 J	-1938812.88	-1938812.78	-1938812.64	0.0134	0.0113
Venus	-10021-06-10 00:14 J	-1938586.66	-1938586.49	-1938586.29	0.0134	0.0074
Jupiter	-10021-10-28 20:52 J	-1938446.07	-1938445.63	-1938445.17	0.0134	0.0064
Venus	-10020-01-22 07:12 J	-1938360.41	-1938360.20	-1938359.98	0.0134	0.0036
Venus	-10020-09-05 13:55 J	-1938134.14	-1938133.92	-1938133.70	0.0134	0.0003
Venus	-10019-04-19 20:24 J	-1937907.86	-1937907.65	-1937907.44	0.0133	0.0040
Venus	-10019-12-02 02:24 J	-1937681.56	-1937681.40	-1937681.21	0.0133	0.0078
Venus	-10018-07-16 08:38 J	-1937455.23	-1937455.14	-1937455.02	0.0133	0.0115
Earth	-10011-06-03 10:33 J	-1934941.20	-1934941.06	-1934940.90	0.0132	0.0105
Moon	-10011-06-03 13:40 J	-1934941.05	-1934940.93	-1934940.78	0.0132	0.0111 *
Moon	-10010-06-07 12:57 J	-1934572.19	-1934571.96	-1934571.72	0.0132	0.0056
Earth	-10010-06-07 15:50 J	-1934572.06	-1934571.84	-1934571.61	0.0132	0.0064 *
Earth	-10009-06-10 20:38 J	-1934202.89	-1934202.64	-1934202.39	0.0132	0.0021
Moon	-10009-06-10 23:45 J	-1934202.75	-1934202.51	-1934202.26	0.0132	0.0028 *
Moon	-10008-06-14 22:33 J	-1933833.81	-1933833.56	-1933833.31	0.0132	0.0025
Earth	-10008-06-15 01:26 J	-1933833.69	-1933833.44	-1933833.19	0.0132	0.0021 *
Earth	-10007-06-19 06:14 J	-1933464.47	-1933464.24	-1933464.02	0.0132	0.0063
Moon	-10007-06-19 08:38 J	-1933464.34	-1933464.14	-1933463.90	0.0132	0.0062 *
Moon	-10006-06-23 07:26 J	-1933095.34	-1933095.19	-1933095.03	0.0132	0.0105
Earth	-10006-06-23 10:19 J	-1933095.21	-1933095.07	-1933094.90	0.0132	0.0105 *

10TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 10th millennium

BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-9992-10-06 00:00 J		-1927876.52	-1927876.50	-1927876.46	0.0137	0.0133	
Mercury	-9991-01-02 03:07 J		-1927788.43	-1927788.37	-1927788.29	0.0137	0.0115	
Mercury	-9991-03-31 06:14 J		-1927700.33	-1927700.24	-1927700.14	0.0137	0.0096	
Mercury	-9991-06-27 09:21 J		-1927612.21	-1927612.11	-1927612.00	0.0137	0.0077	
Mercury	-9991-09-23 12:28 J		-1927524.09	-1927523.98	-1927523.86	0.0138	0.0058	
Mercury	-9991-12-20 15:35 J		-1927435.97	-1927435.85	-1927435.72	0.0138	0.0039	
Mercury	-9990-03-18 18:43 J		-1927347.85	-1927347.72	-1927347.59	0.0138	0.0020	
Mercury	-9990-06-14 21:50 J		-1927259.72	-1927259.59	-1927259.46	0.0138	0.0003	
Mercury	-9990-09-11 00:57 J		-1927171.59	-1927171.46	-1927171.33	0.0138	0.0019	
Mercury	-9990-12-08 04:04 J		-1927083.45	-1927083.33	-1927083.20	0.0138	0.0038	
Mercury	-9989-03-05 07:12 J		-1926995.31	-1926995.20	-1926995.08	0.0138	0.0058	
Mercury	-9989-06-01 10:19 J		-1926907.17	-1926907.07	-1926906.96	0.0139	0.0077	
Mercury	-9989-08-28 13:26 J		-1926819.03	-1926818.94	-1926818.84	0.0139	0.0097	
Mercury	-9989-11-24 16:47 J		-1926730.87	-1926730.80	-1926730.73	0.0139	0.0116	
Mercury	-9988-02-20 19:40 J		-1926642.69	-1926642.68	-1926642.65	0.0139	0.0136	
Mars	-9986-08-15 04:19 J		-1925737.58	-1925737.32	-1925737.03	0.0140	0.0077	
Venus	-9978-10-22 22:04 J		-1922746.69	-1922746.58	-1922746.43	0.0144	0.0115	
Venus	-9977-06-05 08:52 J		-1922520.31	-1922520.13	-1922519.93	0.0145	0.0068	
Venus	-9976-01-17 19:55 J		-1922293.88	-1922293.67	-1922293.46	0.0145	0.0021	
Venus	-9976-09-01 06:57 J		-1922067.42	-1922067.21	-1922067.00	0.0145	0.0027	
Venus	-9975-04-15 18:00 J		-1921840.93	-1921840.75	-1921840.56	0.0145	0.0075	
Venus	-9975-11-28 04:47 J		-1921614.40	-1921614.30	-1921614.17	0.0146	0.0123	
Moon	-9969-11-29 15:35 J		-1919421.03	-1919420.85	-1919420.64	0.0147	0.0098	
Earth	-9969-11-29 17:45 J		-1919420.93	-1919420.76	-1919420.55	0.0147	0.0097	*
Earth	-9968-12-04 21:50 J		-1919050.83	-1919050.59	-1919050.34	0.0147	0.0040	

Moon	-9968-12-04 23:31 J	-1919050.75	-1919050.52	-1919050.27	0.0147	0.0034 *
Moon	-9967-12-10 01:26 J	-1918680.71	-1918680.44	-1918680.18	0.0146	0.0012
Earth	-9967-12-10 02:24 J	-1918680.65	-1918680.40	-1918680.15	0.0146	0.0019 *
Earth	-9966-12-15 06:57 J	-1918310.42	-1918310.21	-1918309.98	0.0146	0.0077
Moon	-9966-12-15 06:43 J	-1918310.41	-1918310.22	-1918310.00	0.0146	0.0084 *
Earth	-9965-12-19 11:31 J	-1917940.10	-1917940.02	-1917939.91	0.0146	0.0134
Moon	-9965-12-19 12:14 J	-1917940.10	-1917939.99	-1917939.87	0.0146	0.0131 *
Mercury	-9952-08-15 22:04 J	-1913317.58	-1913317.58	-1913317.55	0.0141	0.0141
Mercury	-9952-11-12 06:43 J	-1913229.34	-1913229.22	-1913229.09	0.0141	0.0109
Mercury	-9951-02-08 15:07 J	-1913141.02	-1913140.87	-1913140.70	0.0141	0.0078
Mercury	-9951-05-07 23:45 J	-1913052.69	-1913052.51	-1913052.32	0.0141	0.0047
Mercury	-9951-08-04 08:09 J	-1912964.35	-1912964.16	-1912963.96	0.0141	0.0016
Mercury	-9951-10-31 16:33 J	-1912876.00	-1912875.81	-1912875.61	0.0140	0.0016
Mercury	-9950-01-28 00:57 J	-1912787.64	-1912787.46	-1912787.27	0.0140	0.0047
Mercury	-9950-04-26 09:07 J	-1912699.27	-1912699.12	-1912698.95	0.0140	0.0078
Mercury	-9950-07-23 17:16 J	-1912610.89	-1912610.78	-1912610.64	0.0140	0.0108
Mercury	-9950-10-20 01:40 J	-1912522.44	-1912522.43	-1912522.39	0.0140	0.0138
Mars	-9947-03-14 02:24 J	-1911646.52	-1911646.40	-1911646.24	0.0139	0.0122
Mars	-9945-02-12 07:12 J	-1910946.45	-1910946.20	-1910945.92	0.0138	0.0052
Venus	-9938-06-27 04:47 J	-1908254.35	-1908254.30	-1908254.22	0.0134	0.0128
Venus	-9937-02-08 12:00 J	-1908028.15	-1908028.00	-1908027.82	0.0134	0.0089
Venus	-9937-09-21 19:12 J	-1907801.91	-1907801.70	-1907801.50	0.0134	0.0050
Venus	-9936-05-06 01:40 J	-1907575.65	-1907575.43	-1907575.21	0.0134	0.0012
Venus	-9936-12-18 08:09 J	-1907349.37	-1907349.16	-1907348.94	0.0134	0.0026
Venus	-9935-08-01 14:38 J	-1907123.08	-1907122.89	-1907122.69	0.0133	0.0064
Venus	-9934-03-15 20:52 J	-1906896.76	-1906896.63	-1906896.48	0.0133	0.0101
Earth	-9927-06-04 01:26 J	-1904259.59	-1904259.44	-1904259.25	0.0132	0.0099
Moon	-9927-06-04 04:47 J	-1904259.47	-1904259.30	-1904259.11	0.0132	0.0092 *
Moon	-9926-06-08 03:07 J	-1903890.58	-1903890.37	-1903890.13	0.0132	0.0064
Earth	-9926-06-08 06:43 J	-1903890.43	-1903890.22	-1903889.98	0.0132	0.0057 *

Earth	-9925-06-11 12:00 J	-1903521.25	-1903521.00	-1903520.75	0.0132	0.0015
Moon	-9925-06-11 15:07 J	-1903521.12	-1903520.87	-1903520.62	0.0132	0.0009 *
Moon	-9924-06-15 13:26 J	-1903152.19	-1903151.94	-1903151.68	0.0132	0.0022
Earth	-9924-06-15 16:47 J	-1903152.04	-1903151.80	-1903151.54	0.0132	0.0027 *
Earth	-9923-06-19 21:07 J	-1902782.81	-1902782.62	-1902782.38	0.0132	0.0070
Moon	-9923-06-20 00:43 J	-1902782.67	-1902782.47	-1902782.26	0.0132	0.0072 *
Moon	-9922-06-23 22:33 J	-1902413.67	-1902413.56	-1902413.40	0.0132	0.0112
Earth	-9922-06-24 01:55 J	-1902413.54	-1902413.42	-1902413.27	0.0132	0.0111 *
Mercury	-9908-10-26 08:09 J	-1897175.20	-1897175.16	-1897175.10	0.0137	0.0125
Mercury	-9907-01-22 11:31 J	-1897087.11	-1897087.02	-1897086.94	0.0137	0.0106
Mercury	-9907-04-20 14:24 J	-1896999.00	-1896998.90	-1896998.80	0.0137	0.0087
Mercury	-9907-07-17 17:31 J	-1896910.88	-1896910.77	-1896910.65	0.0138	0.0068
Mercury	-9907-10-13 20:38 J	-1896822.76	-1896822.64	-1896822.52	0.0138	0.0049
Mercury	-9906-01-09 23:45 J	-1896734.64	-1896734.51	-1896734.38	0.0138	0.0030
Mercury	-9906-04-08 02:52 J	-1896646.51	-1896646.38	-1896646.25	0.0138	0.0011
Mercury	-9906-07-05 06:00 J	-1896558.38	-1896558.25	-1896558.12	0.0138	0.0008
Mercury	-9906-10-01 09:07 J	-1896470.25	-1896470.12	-1896469.99	0.0138	0.0028
Mercury	-9906-12-28 12:14 J	-1896382.11	-1896381.99	-1896381.87	0.0138	0.0047
Mercury	-9905-03-25 15:21 J	-1896293.97	-1896293.86	-1896293.74	0.0139	0.0066
Mercury	-9905-06-21 18:28 J	-1896205.83	-1896205.73	-1896205.63	0.0139	0.0086
Mercury	-9905-09-17 21:35 J	-1896117.68	-1896117.60	-1896117.51	0.0139	0.0106
Mercury	-9905-12-15 00:43 J	-1896029.52	-1896029.47	-1896029.41	0.0139	0.0125
Mars	-9901-04-10 19:40 J	-1894817.01	-1894816.68	-1894816.34	0.0141	0.0008
Venus	-9894-06-22 09:35 J	-1892188.18	-1892188.10	-1892188.01	0.0144	0.0131
Venus	-9893-02-03 20:24 J	-1891961.82	-1891961.65	-1891961.48	0.0145	0.0085
Venus	-9893-09-17 07:12 J	-1891735.41	-1891735.20	-1891734.99	0.0145	0.0038
Venus	-9892-05-01 18:00 J	-1891508.96	-1891508.75	-1891508.53	0.0145	0.0009
Venus	-9892-12-14 04:47 J	-1891282.49	-1891282.30	-1891282.09	0.0145	0.0057
Venus	-9891-07-28 16:04 J	-1891055.97	-1891055.83	-1891055.68	0.0145	0.0105
Earth	-9886-11-26 07:26 J	-1889109.19	-1889109.19	-1889109.13	0.0146	0.0146

Moon	-9886-11-26 10:19 J	-1889109.10	-1889109.07	-1889108.99	0.0146	0.0143
Moon	-9885-11-30 08:38 J	-1888739.34	-1888739.14	-1888738.93	0.0147	0.0088
Earth	-9885-11-30 11:16 J	-1888739.22	-1888739.03	-1888738.81	0.0147	0.0089 *
Earth	-9884-12-05 15:35 J	-1888369.10	-1888368.85	-1888368.60	0.0147	0.0031
Moon	-9884-12-05 17:31 J	-1888369.01	-1888368.77	-1888368.53	0.0147	0.0036 *
Moon	-9883-12-10 18:57 J	-1887998.97	-1887998.71	-1887998.45	0.0146	0.0035
Earth	-9883-12-10 20:09 J	-1887998.91	-1887998.66	-1887998.41	0.0146	0.0027 *
Earth	-9882-12-16 00:43 J	-1887628.67	-1887628.47	-1887628.26	0.0146	0.0085
Moon	-9882-12-16 01:26 J	-1887628.64	-1887628.44	-1887628.23	0.0146	0.0079 *
Earth	-9881-12-20 05:31 J	-1887258.32	-1887258.27	-1887258.21	0.0146	0.0142
Moon	-9881-12-20 06:00 J	-1887258.28	-1887258.25	-1887258.19	0.0146	0.0144 *
Mercury	-9868-09-05 07:40 J	-1882616.25	-1882616.18	-1882616.08	0.0141	0.0126
Mercury	-9868-12-02 16:04 J	-1882527.96	-1882527.83	-1882527.67	0.0141	0.0095
Mercury	-9867-03-01 00:57 J	-1882439.64	-1882439.46	-1882439.29	0.0141	0.0063
Mercury	-9867-05-28 09:21 J	-1882351.31	-1882351.11	-1882350.92	0.0141	0.0032
Mercury	-9867-08-24 17:45 J	-1882262.96	-1882262.76	-1882262.56	0.0141	0.0002
Mercury	-9867-11-21 01:55 J	-1882174.61	-1882174.42	-1882174.22	0.0140	0.0030
Mercury	-9866-02-17 10:04 J	-1882086.24	-1882086.08	-1882085.89	0.0140	0.0062
Mercury	-9866-05-16 18:43 J	-1881997.87	-1881997.72	-1881997.57	0.0140	0.0091
Mercury	-9866-08-13 02:38 J	-1881909.47	-1881909.39	-1881909.28	0.0140	0.0123
Mars	-9863-11-07 01:12 J	-1880727.70	-1880727.45	-1880727.17	0.0138	0.0055
Mars	-9861-10-07 03:35 J	-1880027.48	-1880027.35	-1880027.18	0.0137	0.0117
Venus	-9854-10-09 00:14 J	-1877469.61	-1877469.49	-1877469.33	0.0134	0.0104
Venus	-9853-05-22 07:12 J	-1877243.38	-1877243.20	-1877243.00	0.0134	0.0065
Venus	-9852-01-03 14:09 J	-1877017.12	-1877016.91	-1877016.69	0.0134	0.0026
Venus	-9852-08-17 20:52 J	-1876790.85	-1876790.63	-1876790.41	0.0134	0.0012
Venus	-9851-04-01 03:07 J	-1876564.57	-1876564.37	-1876564.16	0.0133	0.0050
Venus	-9851-11-13 09:35 J	-1876338.27	-1876338.10	-1876337.93	0.0133	0.0088
Venus	-9850-06-27 15:21 J	-1876111.92	-1876111.86	-1876111.77	0.0133	0.0125
Moon	-9844-05-31 07:55 J	-1873947.22	-1873947.17	-1873947.10	0.0132	0.0129

Earth	-9843-06-04 17:16 J	-1873577.97	-1873577.78	-1873577.60	0.0132	0.0092
Moon	-9843-06-04 20:38 J	-1873577.81	-1873577.64	-1873577.47	0.0132	0.0097 *
Moon	-9842-06-08 18:57 J	-1873208.94	-1873208.71	-1873208.45	0.0132	0.0044
Earth	-9842-06-08 22:19 J	-1873208.79	-1873208.57	-1873208.32	0.0132	0.0050 *
Earth	-9841-06-12 03:35 J	-1872839.61	-1872839.35	-1872839.10	0.0132	0.0008
Moon	-9841-06-12 07:12 J	-1872839.45	-1872839.20	-1872838.95	0.0132	0.0015 *
Moon	-9840-06-16 05:16 J	-1872470.53	-1872470.28	-1872470.04	0.0132	0.0039
Earth	-9840-06-16 08:24 J	-1872470.39	-1872470.15	-1872469.90	0.0132	0.0034 *
Earth	-9839-06-20 12:43 J	-1872101.16	-1872100.97	-1872100.74	0.0132	0.0076
Moon	-9839-06-20 16:19 J	-1872101.02	-1872100.82	-1872100.60	0.0132	0.0073 *
Moon	-9838-06-24 14:09 J	-1871732.03	-1871731.91	-1871731.79	0.0132	0.0117
Earth	-9838-06-24 17:16 J	-1871731.88	-1871731.78	-1871731.64	0.0132	0.0116 *
Mercury	-9824-08-19 13:12 J	-1866561.97	-1866561.95	-1866561.93	0.0137	0.0135
Mercury	-9824-11-15 16:19 J	-1866473.89	-1866473.82	-1866473.75	0.0137	0.0116
Mercury	-9823-02-11 19:26 J	-1866385.78	-1866385.69	-1866385.60	0.0137	0.0098
Mercury	-9823-05-10 22:19 J	-1866297.67	-1866297.57	-1866297.46	0.0138	0.0079
Mercury	-9823-08-07 01:26 J	-1866209.55	-1866209.44	-1866209.32	0.0138	0.0060
Mercury	-9823-11-03 04:33 J	-1866121.43	-1866121.31	-1866121.18	0.0138	0.0041
Mercury	-9822-01-30 07:40 J	-1866033.31	-1866033.18	-1866033.05	0.0138	0.0022
Mercury	-9822-04-28 10:47 J	-1865945.18	-1865945.05	-1865944.92	0.0138	0.0003
Mercury	-9822-07-25 13:55 J	-1865857.05	-1865856.92	-1865856.79	0.0138	0.0016
Mercury	-9822-10-21 17:02 J	-1865768.91	-1865768.79	-1865768.66	0.0138	0.0036
Mercury	-9821-01-17 20:09 J	-1865680.78	-1865680.66	-1865680.54	0.0138	0.0055
Mercury	-9821-04-14 23:16 J	-1865592.64	-1865592.53	-1865592.42	0.0139	0.0074
Mercury	-9821-07-12 02:24 J	-1865504.49	-1865504.40	-1865504.30	0.0139	0.0094
Mercury	-9821-10-08 05:31 J	-1865416.34	-1865416.27	-1865416.19	0.0139	0.0114
Mercury	-9820-01-04 08:38 J	-1865328.17	-1865328.14	-1865328.10	0.0139	0.0133
Mars	-9819-12-31 14:38 J	-1864602.02	-1864601.89	-1864601.74	0.0140	0.0126
Mars	-9817-12-06 08:52 J	-1863896.38	-1863896.13	-1863895.87	0.0141	0.0090
Venus	-9810-10-04 05:45 J	-1861403.39	-1861403.26	-1861403.10	0.0144	0.0105

Venus	-9809-05-17 16:33 J	-1861177.00	-1861176.81	-1861176.60	0.0145	0.0058
Venus	-9809-12-30 03:21 J	-1860950.57	-1860950.36	-1860950.14	0.0145	0.0011
Venus	-9808-08-13 14:24 J	-1860724.10	-1860723.90	-1860723.69	0.0145	0.0038
Venus	-9807-03-28 01:12 J	-1860497.61	-1860497.45	-1860497.26	0.0145	0.0086
Venus	-9807-11-09 12:28 J	-1860271.06	-1860270.98	-1860270.89	0.0146	0.0133
Earth	-9802-11-26 22:19 J	-1858427.65	-1858427.57	-1858427.48	0.0146	0.0138
Moon	-9802-11-27 01:26 J	-1858427.47	-1858427.44	-1858427.36	0.0146	0.0143
Moon	-9801-11-30 23:02 J	-1858057.74	-1858057.54	-1858057.32	0.0146	0.0082
Earth	-9801-12-01 01:55 J	-1858057.62	-1858057.42	-1858057.20	0.0146	0.0082 *
Earth	-9800-12-06 06:00 J	-1857687.50	-1857687.25	-1857686.99	0.0146	0.0024
Moon	-9800-12-06 08:24 J	-1857687.39	-1857687.15	-1857686.90	0.0146	0.0019 *
Moon	-9799-12-11 08:38 J	-1857317.39	-1857317.14	-1857316.87	0.0146	0.0027
Earth	-9799-12-11 10:33 J	-1857317.30	-1857317.06	-1857316.81	0.0146	0.0034 *
Earth	-9798-12-16 15:21 J	-1856947.06	-1856946.86	-1856946.66	0.0146	0.0091
Moon	-9798-12-16 15:50 J	-1856947.01	-1856946.84	-1856946.65	0.0146	0.0098 *
Moon	-9797-12-20 19:12 J	-1856576.74	-1856576.70	-1856576.64	0.0146	0.0144
Mercury	-9784-09-25 16:33 J	-1851914.91	-1851914.81	-1851914.68	0.0141	0.0113
Mercury	-9784-12-23 01:12 J	-1851826.60	-1851826.45	-1851826.28	0.0141	0.0082
Mercury	-9783-03-21 09:50 J	-1851738.27	-1851738.09	-1851737.91	0.0141	0.0050
Mercury	-9783-06-17 18:14 J	-1851649.94	-1851649.74	-1851649.54	0.0141	0.0019
Mercury	-9783-09-14 02:38 J	-1851561.59	-1851561.39	-1851561.19	0.0141	0.0012
Mercury	-9783-12-11 11:02 J	-1851473.23	-1851473.04	-1851472.85	0.0140	0.0043
Mercury	-9782-03-09 19:12 J	-1851384.86	-1851384.70	-1851384.52	0.0140	0.0074
Mercury	-9782-06-06 03:21 J	-1851296.48	-1851296.36	-1851296.21	0.0140	0.0104
Mercury	-9782-09-02 11:45 J	-1851208.05	-1851208.01	-1851207.95	0.0140	0.0134
Mars	-9778-07-02 21:50 J	-1849808.87	-1849808.59	-1849808.30	0.0138	0.0011
Venus	-9770-06-08 12:14 J	-1846911.08	-1846910.99	-1846910.87	0.0134	0.0118
Venus	-9769-01-20 19:26 J	-1846684.86	-1846684.69	-1846684.50	0.0134	0.0079
Venus	-9769-09-03 02:24 J	-1846458.61	-1846458.40	-1846458.19	0.0134	0.0041
Venus	-9768-04-17 09:07 J	-1846232.34	-1846232.12	-1846231.90	0.0134	0.0003

Venus	-9768-11-29 15:21 J	-1846006.07	-1846005.86	-1846005.64	0.0134	0.0036
Venus	-9767-07-13 21:35 J	-1845779.77	-1845779.60	-1845779.41	0.0133	0.0074
Venus	-9766-02-25 03:50 J	-1845553.44	-1845553.34	-1845553.20	0.0133	0.0111
Moon	-9760-05-31 23:02 J	-1843265.59	-1843265.54	-1843265.49	0.0132	0.0130
Earth	-9760-06-01 02:09 J	-1843265.46	-1843265.41	-1843265.32	0.0132	0.0127
Earth	-9759-06-05 07:55 J	-1842896.35	-1842896.17	-1842895.97	0.0132	0.0085
Moon	-9759-06-05 11:31 J	-1842896.22	-1842896.02	-1842895.81	0.0132	0.0079 *
Moon	-9758-06-09 09:21 J	-1842527.33	-1842527.11	-1842526.86	0.0132	0.0051
Earth	-9758-06-09 13:26 J	-1842527.18	-1842526.94	-1842526.70	0.0132	0.0043 *
Earth	-9757-06-12 18:28 J	-1842157.99	-1842157.73	-1842157.48	0.0132	0.0003
Moon	-9757-06-12 21:50 J	-1842157.84	-1842157.59	-1842157.34	0.0132	0.0004 *
Moon	-9756-06-16 19:26 J	-1841788.93	-1841788.69	-1841788.44	0.0132	0.0034
Earth	-9756-06-16 23:16 J	-1841788.77	-1841788.53	-1841788.29	0.0132	0.0039 *
Earth	-9755-06-21 03:35 J	-1841419.55	-1841419.35	-1841419.15	0.0132	0.0081
Moon	-9755-06-21 07:12 J	-1841419.39	-1841419.20	-1841419.01	0.0132	0.0084 *
Moon	-9754-06-25 04:04 J	-1841050.40	-1841050.33	-1841050.21	0.0132	0.0123
Earth	-9754-06-25 07:40 J	-1841050.26	-1841050.18	-1841050.06	0.0132	0.0122 *
Mercury	-9740-09-08 20:52 J	-1835860.67	-1835860.63	-1835860.58	0.0137	0.0129
Mercury	-9740-12-05 23:45 J	-1835772.57	-1835772.51	-1835772.42	0.0137	0.0110
Mercury	-9739-03-04 02:52 J	-1835684.47	-1835684.38	-1835684.27	0.0137	0.0092
Mercury	-9739-05-31 06:00 J	-1835596.35	-1835596.25	-1835596.13	0.0138	0.0073
Mercury	-9739-08-27 09:07 J	-1835508.23	-1835508.12	-1835507.99	0.0138	0.0054
Mercury	-9739-11-23 12:14 J	-1835420.11	-1835419.99	-1835419.86	0.0138	0.0035
Mercury	-9738-02-19 15:21 J	-1835331.99	-1835331.86	-1835331.73	0.0138	0.0016
Mercury	-9738-05-18 18:28 J	-1835243.86	-1835243.73	-1835243.60	0.0138	0.0005
Mercury	-9738-08-14 21:35 J	-1835155.73	-1835155.60	-1835155.47	0.0138	0.0023
Mercury	-9738-11-11 00:43 J	-1835067.59	-1835067.47	-1835067.35	0.0138	0.0042
Mercury	-9737-02-07 03:50 J	-1834979.45	-1834979.34	-1834979.22	0.0138	0.0062
Mercury	-9737-05-05 06:57 J	-1834891.31	-1834891.21	-1834891.10	0.0139	0.0081
Mercury	-9737-08-01 10:04 J	-1834803.16	-1834803.08	-1834802.99	0.0139	0.0100

Mercury	-9737-10-28 13:12 J	-1834715.01	-1834714.95	-1834714.88	0.0139	0.0120
Mars	-9734-08-27 21:07 J	-1833681.91	-1833681.62	-1833681.29	0.0140	0.0048
Venus	-9726-06-03 14:38 J	-1830844.99	-1830844.89	-1830844.78	0.0144	0.0125
Venus	-9725-01-16 00:57 J	-1830618.62	-1830618.46	-1830618.26	0.0145	0.0079
Venus	-9725-08-29 12:14 J	-1830392.20	-1830391.99	-1830391.78	0.0145	0.0031
Venus	-9724-04-12 23:02 J	-1830165.75	-1830165.54	-1830165.33	0.0145	0.0017
Venus	-9724-11-25 09:50 J	-1829939.28	-1829939.09	-1829938.89	0.0145	0.0064
Venus	-9723-07-09 20:38 J	-1829712.76	-1829712.64	-1829712.49	0.0145	0.0113
Earth	-9718-11-27 11:45 J	-1827746.12	-1827746.01	-1827745.90	0.0146	0.0131
Moon	-9718-11-27 14:38 J	-1827745.99	-1827745.89	-1827745.75	0.0146	0.0128 *
Moon	-9717-12-01 11:45 J	-1827376.22	-1827376.01	-1827375.78	0.0146	0.0075
Earth	-9717-12-01 15:07 J	-1827376.08	-1827375.87	-1827375.64	0.0146	0.0075 *
Earth	-9716-12-06 19:26 J	-1827005.94	-1827005.69	-1827005.44	0.0147	0.0018
Moon	-9716-12-06 22:04 J	-1827005.82	-1827005.58	-1827005.33	0.0147	0.0022 *
Moon	-9715-12-11 21:35 J	-1826635.84	-1826635.60	-1826635.34	0.0146	0.0048
Earth	-9715-12-12 00:00 J	-1826635.75	-1826635.50	-1826635.25	0.0146	0.0040 *
Earth	-9714-12-17 04:04 J	-1826265.50	-1826265.33	-1826265.12	0.0146	0.0097
Moon	-9714-12-17 05:45 J	-1826265.44	-1826265.26	-1826265.05	0.0146	0.0091 *
Mercury	-9700-07-19 16:47 J	-1821301.85	-1821301.80	-1821301.71	0.0141	0.0133
Mercury	-9700-10-16 01:40 J	-1821213.56	-1821213.43	-1821213.29	0.0141	0.0100
Mercury	-9699-01-12 10:04 J	-1821125.24	-1821125.08	-1821124.90	0.0141	0.0069
Mercury	-9699-04-10 18:28 J	-1821036.91	-1821036.73	-1821036.53	0.0141	0.0038
Mercury	-9699-07-08 03:07 J	-1820948.57	-1820948.37	-1820948.17	0.0141	0.0007
Mercury	-9699-10-04 11:16 J	-1820860.22	-1820860.03	-1820859.83	0.0141	0.0025
Mercury	-9699-12-31 19:40 J	-1820771.85	-1820771.68	-1820771.49	0.0140	0.0055
Mercury	-9698-03-30 04:19 J	-1820683.48	-1820683.32	-1820683.17	0.0140	0.0086
Mercury	-9698-06-26 12:14 J	-1820595.09	-1820594.99	-1820594.87	0.0140	0.0117
Mars	-9695-03-27 12:14 J	-1819590.17	-1819589.99	-1819589.76	0.0139	0.0097
Mars	-9693-02-25 17:16 J	-1818890.01	-1818889.78	-1818889.53	0.0138	0.0076
Venus	-9686-02-06 00:14 J	-1816352.49	-1816352.49	-1816352.44	0.0134	0.0134

Venus	-9686-09-20 07:26 J	-1816126.33	-1816126.19	-1816126.02	0.0134	0.0095
Venus	-9685-05-03 14:09 J	-1815900.10	-1815899.91	-1815899.69	0.0134	0.0056
Venus	-9685-12-15 21:07 J	-1815673.84	-1815673.62	-1815673.40	0.0134	0.0017
Venus	-9684-07-30 03:35 J	-1815447.57	-1815447.35	-1815447.13	0.0134	0.0021
Venus	-9683-03-13 09:50 J	-1815221.28	-1815221.09	-1815220.88	0.0133	0.0059
Venus	-9683-10-25 16:19 J	-1814994.97	-1814994.82	-1814994.67	0.0133	0.0097
Moon	-9676-06-01 13:12 J	-1812584.06	-1812583.95	-1812583.81	0.0132	0.0115
Earth	-9676-06-01 17:16 J	-1812583.89	-1812583.78	-1812583.67	0.0132	0.0119 *
Earth	-9675-06-05 22:33 J	-1812214.76	-1812214.56	-1812214.35	0.0132	0.0078
Moon	-9675-06-06 01:55 J	-1812214.60	-1812214.42	-1812214.21	0.0132	0.0084 *
Moon	-9674-06-10 00:28 J	-1811845.73	-1811845.48	-1811845.23	0.0132	0.0030
Earth	-9674-06-10 03:50 J	-1811845.58	-1811845.34	-1811845.09	0.0132	0.0037 *
Earth	-9673-06-13 08:52 J	-1811476.38	-1811476.13	-1811475.87	0.0132	0.0004
Moon	-9673-06-13 12:43 J	-1811476.23	-1811475.97	-1811475.72	0.0132	0.0003 *
Moon	-9672-06-17 09:50 J	-1811107.31	-1811107.09	-1811106.84	0.0132	0.0051
Earth	-9672-06-17 13:26 J	-1811107.17	-1811106.94	-1811106.69	0.0132	0.0045 *
Earth	-9671-06-21 17:45 J	-1810737.94	-1810737.76	-1810737.56	0.0132	0.0086
Moon	-9671-06-21 21:21 J	-1810737.79	-1810737.61	-1810737.41	0.0132	0.0084 *
Moon	-9670-06-25 18:00 J	-1810368.79	-1810368.75	-1810368.66	0.0132	0.0128
Earth	-9670-06-25 22:04 J	-1810368.64	-1810368.58	-1810368.50	0.0132	0.0127
Mercury	-9656-09-29 04:33 J	-1805159.37	-1805159.31	-1805159.26	0.0137	0.0122
Mercury	-9656-12-26 07:26 J	-1805071.27	-1805071.19	-1805071.10	0.0137	0.0104
Mercury	-9655-03-24 10:33 J	-1804983.16	-1804983.06	-1804982.96	0.0137	0.0085
Mercury	-9655-06-20 13:40 J	-1804895.04	-1804894.93	-1804894.82	0.0137	0.0066
Mercury	-9655-09-16 16:47 J	-1804806.92	-1804806.80	-1804806.68	0.0138	0.0048
Mercury	-9655-12-13 19:55 J	-1804718.80	-1804718.67	-1804718.55	0.0138	0.0029
Mercury	-9654-03-11 23:02 J	-1804630.67	-1804630.54	-1804630.41	0.0138	0.0010
Mercury	-9654-06-08 01:55 J	-1804542.54	-1804542.42	-1804542.28	0.0138	0.0011
Mercury	-9654-09-04 05:02 J	-1804454.41	-1804454.29	-1804454.16	0.0138	0.0029
Mercury	-9654-12-01 08:09 J	-1804366.28	-1804366.16	-1804366.03	0.0138	0.0048

Mercury	-9653-02-27 11:16 J	-1804278.14	-1804278.03	-1804277.91	0.0138	0.0067
Mercury	-9653-05-25 14:24 J	-1804190.00	-1804189.90	-1804189.80	0.0138	0.0087
Mercury	-9653-08-21 17:31 J	-1804101.85	-1804101.77	-1804101.68	0.0139	0.0106
Mercury	-9653-11-17 20:38 J	-1804013.69	-1804013.64	-1804013.58	0.0139	0.0126
Mars	-9649-04-23 00:57 J	-1802761.78	-1802761.46	-1802761.13	0.0140	0.0031
Venus	-9642-09-15 07:55 J	-1800060.31	-1800060.17	-1800060.01	0.0144	0.0101
Venus	-9641-04-28 18:28 J	-1799833.92	-1799833.73	-1799833.53	0.0145	0.0054
Venus	-9641-12-11 05:16 J	-1799607.50	-1799607.28	-1799607.07	0.0145	0.0007
Venus	-9640-07-25 16:04 J	-1799381.03	-1799380.83	-1799380.62	0.0145	0.0041
Venus	-9639-03-09 02:38 J	-1799154.54	-1799154.39	-1799154.20	0.0145	0.0089
Venus	-9639-10-21 13:55 J	-1798927.98	-1798927.92	-1798927.84	0.0145	0.0137
Earth	-9634-11-27 19:40 J	-1797064.79	-1797064.68	-1797064.54	0.0146	0.0127
Moon	-9634-11-27 23:31 J	-1797064.62	-1797064.52	-1797064.40	0.0146	0.0132 *
Moon	-9633-12-01 20:09 J	-1796694.88	-1796694.66	-1796694.43	0.0146	0.0070
Earth	-9633-12-01 23:16 J	-1796694.74	-1796694.53	-1796694.30	0.0146	0.0071 *
Earth	-9632-12-07 03:21 J	-1796324.61	-1796324.36	-1796324.10	0.0146	0.0014
Moon	-9632-12-07 06:43 J	-1796324.47	-1796324.22	-1796323.97	0.0146	0.0009 *
Moon	-9631-12-12 04:47 J	-1795954.55	-1795954.30	-1795954.04	0.0146	0.0037
Earth	-9631-12-12 07:40 J	-1795954.42	-1795954.18	-1795953.93	0.0146	0.0044 *
Earth	-9630-12-17 12:14 J	-1795584.18	-1795583.99	-1795583.81	0.0146	0.0100
Moon	-9630-12-17 13:40 J	-1795584.08	-1795583.93	-1795583.75	0.0146	0.0107 *
Mercury	-9616-08-08 23:45 J	-1790600.58	-1790600.51	-1790600.41	0.0141	0.0126
Mercury	-9616-11-05 08:38 J	-1790512.29	-1790512.14	-1790512.00	0.0141	0.0095
Mercury	-9615-02-01 17:02 J	-1790423.96	-1790423.79	-1790423.61	0.0141	0.0063
Mercury	-9615-05-01 01:26 J	-1790335.63	-1790335.44	-1790335.24	0.0141	0.0032
Mercury	-9615-07-28 09:50 J	-1790247.28	-1790247.09	-1790246.89	0.0141	0.0003
Mercury	-9615-10-24 18:14 J	-1790158.93	-1790158.74	-1790158.54	0.0141	0.0030
Mercury	-9614-01-21 02:24 J	-1790070.56	-1790070.40	-1790070.21	0.0141	0.0062
Mercury	-9614-04-19 11:02 J	-1789982.19	-1789982.04	-1789981.89	0.0140	0.0092
Mercury	-9614-07-16 19:12 J	-1789893.79	-1789893.70	-1789893.60	0.0140	0.0122

Mars	-9611-11-20 01:40 J	-1788671.70	-1788671.43	-1788671.14	0.0138	0.0034
Mars	-9609-10-20 03:50 J	-1787971.36	-1787971.34	-1787971.31	0.0137	0.0137
Venus	-9602-05-20 17:16 J	-1785567.88	-1785567.78	-1785567.64	0.0135	0.0112
Venus	-9601-01-02 00:28 J	-1785341.66	-1785341.48	-1785341.29	0.0134	0.0072
Venus	-9601-08-15 07:26 J	-1785115.40	-1785115.19	-1785114.98	0.0134	0.0034
Venus	-9600-03-29 13:55 J	-1784889.14	-1784888.92	-1784888.69	0.0134	0.0006
Venus	-9600-11-10 20:09 J	-1784662.85	-1784662.66	-1784662.44	0.0134	0.0044
Venus	-9599-06-25 02:38 J	-1784436.55	-1784436.39	-1784436.21	0.0133	0.0081
Venus	-9598-02-06 08:52 J	-1784210.21	-1784210.13	-1784210.02	0.0133	0.0119
Moon	-9592-06-02 03:07 J	-1781902.49	-1781902.37	-1781902.25	0.0132	0.0117
Earth	-9592-06-02 06:28 J	-1781902.35	-1781902.23	-1781902.10	0.0132	0.0113 *
Earth	-9591-06-06 11:45 J	-1781533.21	-1781533.01	-1781532.78	0.0132	0.0073
Moon	-9591-06-06 15:35 J	-1781533.06	-1781532.85	-1781532.62	0.0132	0.0066 *
Moon	-9590-06-10 13:40 J	-1781164.17	-1781163.93	-1781163.68	0.0132	0.0038
Earth	-9590-06-10 17:16 J	-1781164.02	-1781163.78	-1781163.53	0.0132	0.0031 *
Earth	-9589-06-13 22:19 J	-1780794.82	-1780794.57	-1780794.32	0.0132	0.0010
Moon	-9589-06-14 01:40 J	-1780794.68	-1780794.43	-1780794.17	0.0132	0.0016 *
Moon	-9588-06-17 23:02 J	-1780425.77	-1780425.54	-1780425.29	0.0132	0.0045
Earth	-9588-06-18 02:38 J	-1780425.61	-1780425.39	-1780425.14	0.0132	0.0051 *
Earth	-9587-06-22 06:57 J	-1780056.38	-1780056.21	-1780056.02	0.0132	0.0091
Moon	-9587-06-22 10:47 J	-1780056.23	-1780056.05	-1780055.88	0.0132	0.0095 *
Moon	-9586-06-26 07:55 J	-1779687.18	-1779687.17	-1779687.15	0.0132	0.0132
Earth	-9586-06-26 11:16 J	-1779687.04	-1779687.03	-1779686.99	0.0132	0.0132
Mercury	-9572-07-23 08:52 J	-1774546.14	-1774546.13	-1774546.10	0.0137	0.0135
Mercury	-9572-10-19 12:00 J	-1774458.06	-1774458.00	-1774457.93	0.0137	0.0116
Mercury	-9571-01-15 15:07 J	-1774369.96	-1774369.87	-1774369.78	0.0137	0.0098
Mercury	-9571-04-13 18:00 J	-1774281.85	-1774281.75	-1774281.64	0.0137	0.0079
Mercury	-9571-07-10 21:07 J	-1774193.73	-1774193.62	-1774193.50	0.0137	0.0060
Mercury	-9571-10-07 00:14 J	-1774105.61	-1774105.49	-1774105.36	0.0137	0.0042
Mercury	-9570-01-03 03:21 J	-1774017.48	-1774017.36	-1774017.23	0.0138	0.0023

Mercury	-9570-04-01 06:28 J	-1773929.36	-1773929.23	-1773929.10	0.0138	0.0004
Mercury	-9570-06-28 09:35 J	-1773841.23	-1773841.10	-1773840.97	0.0138	0.0016
Mercury	-9570-09-24 12:43 J	-1773753.10	-1773752.97	-1773752.84	0.0138	0.0035
Mercury	-9570-12-21 15:50 J	-1773664.96	-1773664.84	-1773664.72	0.0138	0.0054
Mercury	-9569-03-18 18:57 J	-1773576.82	-1773576.71	-1773576.60	0.0138	0.0073
Mercury	-9569-06-14 22:04 J	-1773488.68	-1773488.58	-1773488.48	0.0138	0.0093
Mercury	-9569-09-11 00:57 J	-1773400.52	-1773400.46	-1773400.37	0.0138	0.0113
Mercury	-9569-12-08 04:19 J	-1773312.36	-1773312.32	-1773312.28	0.0139	0.0132
Mars	-9566-01-12 14:38 J	-1772547.08	-1772546.89	-1772546.64	0.0140	0.0105
Mars	-9565-12-18 07:12 J	-1771841.39	-1771841.20	-1771840.97	0.0141	0.0110
Venus	-9558-05-15 15:21 J	-1769501.97	-1769501.86	-1769501.74	0.0144	0.0122
Venus	-9558-12-28 01:26 J	-1769275.60	-1769275.44	-1769275.24	0.0144	0.0077
Venus	-9557-08-10 12:28 J	-1769049.19	-1769048.98	-1769048.77	0.0145	0.0029
Venus	-9556-03-24 23:02 J	-1768822.75	-1768822.54	-1768822.32	0.0145	0.0019
Venus	-9556-11-06 09:50 J	-1768596.28	-1768596.09	-1768595.89	0.0145	0.0066
Venus	-9555-06-20 20:38 J	-1768369.76	-1768369.64	-1768369.50	0.0145	0.0114
Earth	-9550-11-28 05:02 J	-1766383.41	-1766383.29	-1766383.13	0.0146	0.0122
Moon	-9550-11-28 08:52 J	-1766383.28	-1766383.13	-1766382.98	0.0146	0.0117 *
Moon	-9549-12-02 04:47 J	-1766013.52	-1766013.30	-1766013.06	0.0146	0.0067
Earth	-9549-12-02 08:38 J	-1766013.36	-1766013.14	-1766012.91	0.0146	0.0066 *
Earth	-9548-12-07 12:28 J	-1765643.23	-1765642.98	-1765642.72	0.0146	0.0009
Moon	-9548-12-07 15:50 J	-1765643.09	-1765642.84	-1765642.59	0.0146	0.0013 *
Moon	-9547-12-12 13:26 J	-1765273.17	-1765272.94	-1765272.69	0.0146	0.0055
Earth	-9547-12-12 16:33 J	-1765273.04	-1765272.81	-1765272.56	0.0146	0.0047 *
Earth	-9546-12-17 20:38 J	-1764902.81	-1764902.64	-1764902.45	0.0146	0.0104
Moon	-9546-12-17 23:16 J	-1764902.70	-1764902.53	-1764902.33	0.0146	0.0097 *
Mercury	-9532-08-29 06:57 J	-1759899.31	-1759899.21	-1759899.10	0.0141	0.0120
Mercury	-9532-11-25 15:21 J	-1759811.01	-1759810.86	-1759810.70	0.0141	0.0089
Mercury	-9531-02-21 23:45 J	-1759722.68	-1759722.51	-1759722.32	0.0141	0.0057
Mercury	-9531-05-21 08:24 J	-1759634.34	-1759634.15	-1759633.96	0.0141	0.0026

Mercury	-9531-08-17 16:47 J	-1759546.00	-1759545.80	-1759545.60	0.0141	0.0005
Mercury	-9531-11-14 00:57 J	-1759457.64	-1759457.46	-1759457.26	0.0141	0.0037
Mercury	-9530-02-10 09:21 J	-1759369.27	-1759369.11	-1759368.93	0.0141	0.0068
Mercury	-9530-05-09 18:00 J	-1759280.89	-1759280.75	-1759280.61	0.0140	0.0098
Mercury	-9530-08-06 02:09 J	-1759192.48	-1759192.41	-1759192.33	0.0140	0.0128
Mars	-9526-07-15 13:26 J	-1757753.22	-1757752.94	-1757752.66	0.0138	0.0029
Venus	-9518-01-18 02:52 J	-1755009.42	-1755009.38	-1755009.30	0.0135	0.0129
Venus	-9518-09-01 10:04 J	-1754783.23	-1754783.08	-1754782.90	0.0135	0.0090
Venus	-9517-04-14 17:02 J	-1754556.99	-1754556.79	-1754556.58	0.0134	0.0051
Venus	-9517-11-26 23:45 J	-1754330.73	-1754330.51	-1754330.29	0.0134	0.0012
Venus	-9516-07-11 06:14 J	-1754104.45	-1754104.24	-1754104.01	0.0134	0.0027
Venus	-9515-02-22 12:57 J	-1753878.15	-1753877.96	-1753877.76	0.0134	0.0065
Venus	-9515-10-06 19:26 J	-1753651.83	-1753651.69	-1753651.55	0.0134	0.0103
Moon	-9508-06-02 15:21 J	-1751221.00	-1751220.86	-1751220.69	0.0132	0.0104
Earth	-9508-06-02 18:43 J	-1751220.84	-1751220.72	-1751220.55	0.0132	0.0109 *
Earth	-9507-06-07 00:28 J	-1750851.68	-1750851.48	-1750851.25	0.0132	0.0067
Moon	-9507-06-07 04:04 J	-1750851.54	-1750851.33	-1750851.11	0.0132	0.0072 *
Moon	-9506-06-11 02:38 J	-1750482.63	-1750482.39	-1750482.13	0.0132	0.0020
Earth	-9506-06-11 06:00 J	-1750482.49	-1750482.25	-1750481.99	0.0132	0.0027 *
Earth	-9505-06-14 11:02 J	-1750113.29	-1750113.04	-1750112.78	0.0132	0.0015
Moon	-9505-06-14 14:52 J	-1750113.14	-1750112.88	-1750112.63	0.0132	0.0008 *
Moon	-9504-06-18 12:14 J	-1749744.20	-1749743.99	-1749743.75	0.0132	0.0062
Earth	-9504-06-18 15:50 J	-1749744.07	-1749743.84	-1749743.61	0.0132	0.0056 *
Earth	-9503-06-22 19:55 J	-1749374.83	-1749374.67	-1749374.48	0.0132	0.0096
Moon	-9503-06-22 23:45 J	-1749374.68	-1749374.51	-1749374.32	0.0132	0.0094 *
Mercury	-9488-08-12 16:33 J	-1743844.84	-1743844.81	-1743844.76	0.0137	0.0128
Mercury	-9488-11-08 19:40 J	-1743756.75	-1743756.68	-1743756.60	0.0137	0.0109
Mercury	-9487-02-04 22:47 J	-1743668.64	-1743668.55	-1743668.45	0.0137	0.0090
Mercury	-9487-05-04 01:55 J	-1743580.53	-1743580.42	-1743580.31	0.0137	0.0072
Mercury	-9487-07-31 04:47 J	-1743492.41	-1743492.30	-1743492.17	0.0137	0.0054

Mercury	-9487-10-27 08:09 J	-1743404.29	-1743404.16	-1743404.04	0.0137	0.0034
Mercury	-9486-01-23 11:16 J	-1743316.16	-1743316.03	-1743315.90	0.0138	0.0015
Mercury	-9486-04-21 14:24 J	-1743228.03	-1743227.90	-1743227.77	0.0138	0.0006
Mercury	-9486-07-18 17:16 J	-1743139.90	-1743139.78	-1743139.65	0.0138	0.0024
Mercury	-9486-10-14 20:24 J	-1743051.77	-1743051.65	-1743051.52	0.0138	0.0042
Mercury	-9485-01-10 23:31 J	-1742963.63	-1742963.52	-1742963.40	0.0138	0.0062
Mercury	-9485-04-08 02:38 J	-1742875.49	-1742875.39	-1742875.28	0.0138	0.0081
Mercury	-9485-07-05 05:45 J	-1742787.34	-1742787.26	-1742787.17	0.0138	0.0100
Mercury	-9485-10-01 08:52 J	-1742699.19	-1742699.13	-1742699.06	0.0138	0.0120
Mars	-9482-09-08 22:47 J	-1741626.87	-1741626.55	-1741626.22	0.0140	0.0024
Venus	-9474-01-13 00:00 J	-1738943.52	-1738943.50	-1738943.46	0.0144	0.0142
Venus	-9474-08-27 10:19 J	-1738717.21	-1738717.07	-1738716.90	0.0144	0.0096
Venus	-9473-04-09 20:52 J	-1738490.82	-1738490.63	-1738490.42	0.0144	0.0049
Venus	-9473-11-22 07:26 J	-1738264.40	-1738264.19	-1738263.97	0.0144	0.0003
Venus	-9472-07-06 18:00 J	-1738037.94	-1738037.75	-1738037.54	0.0145	0.0046
Venus	-9471-02-18 05:02 J	-1737811.45	-1737811.29	-1737811.12	0.0145	0.0093
Venus	-9471-10-02 15:50 J	-1737584.87	-1737584.84	-1737584.78	0.0145	0.0141
Earth	-9466-11-28 15:50 J	-1735701.97	-1735701.84	-1735701.67	0.0146	0.0117
Moon	-9466-11-28 19:26 J	-1735701.81	-1735701.69	-1735701.53	0.0146	0.0123 *
Moon	-9465-12-02 15:50 J	-1735332.07	-1735331.84	-1735331.60	0.0146	0.0059
Earth	-9465-12-02 19:12 J	-1735331.92	-1735331.70	-1735331.46	0.0146	0.0061 *
Earth	-9464-12-07 22:47 J	-1734961.80	-1734961.55	-1734961.29	0.0146	0.0005
Moon	-9464-12-08 02:24 J	-1734961.65	-1734961.40	-1734961.14	0.0146	0.0002 *
Moon	-9463-12-12 23:02 J	-1734591.78	-1734591.54	-1734591.29	0.0146	0.0045
Earth	-9463-12-13 02:24 J	-1734591.63	-1734591.40	-1734591.15	0.0146	0.0051 *
Earth	-9462-12-18 06:00 J	-1734221.40	-1734221.25	-1734221.05	0.0146	0.0108
Moon	-9462-12-18 09:07 J	-1734221.26	-1734221.12	-1734220.96	0.0146	0.0115 *
Mercury	-9448-09-18 13:26 J	-1729198.04	-1729197.94	-1729197.81	0.0141	0.0115
Mercury	-9448-12-15 21:50 J	-1729109.73	-1729109.59	-1729109.42	0.0141	0.0084
Mercury	-9447-03-14 06:28 J	-1729021.41	-1729021.23	-1729021.04	0.0141	0.0052

Mercury	-9447-06-10 14:52 J	-1728933.07	-1728932.88	-1728932.68	0.0141	0.0021
Mercury	-9447-09-06 23:31 J	-1728844.72	-1728844.52	-1728844.32	0.0141	0.0011
Mercury	-9447-12-04 07:40 J	-1728756.36	-1728756.18	-1728755.98	0.0141	0.0042
Mercury	-9446-03-02 16:04 J	-1728667.99	-1728667.83	-1728667.65	0.0141	0.0073
Mercury	-9446-05-30 00:14 J	-1728579.60	-1728579.49	-1728579.34	0.0140	0.0104
Mercury	-9446-08-26 08:52 J	-1728491.18	-1728491.13	-1728491.07	0.0140	0.0134
Mars	-9443-04-08 17:02 J	-1727534.99	-1727534.79	-1727534.54	0.0139	0.0084
Mars	-9441-03-09 00:00 J	-1726834.71	-1726834.50	-1726834.28	0.0138	0.0089
Venus	-9434-05-01 18:43 J	-1724224.83	-1724224.72	-1724224.57	0.0135	0.0108
Venus	-9434-12-14 01:55 J	-1723998.60	-1723998.42	-1723998.22	0.0135	0.0068
Venus	-9433-07-27 08:52 J	-1723772.34	-1723772.13	-1723771.91	0.0134	0.0029
Venus	-9432-03-10 15:50 J	-1723546.06	-1723545.84	-1723545.62	0.0134	0.0010
Venus	-9432-10-22 22:33 J	-1723319.77	-1723319.56	-1723319.36	0.0134	0.0048
Venus	-9431-06-06 04:47 J	-1723093.46	-1723093.30	-1723093.12	0.0134	0.0087
Venus	-9430-01-18 11:16 J	-1722867.10	-1722867.03	-1722866.94	0.0134	0.0125
Moon	-9424-06-03 04:04 J	-1720539.47	-1720539.33	-1720539.17	0.0132	0.0106
Earth	-9424-06-03 06:43 J	-1720539.36	-1720539.22	-1720539.04	0.0132	0.0104 *
Earth	-9423-06-07 12:43 J	-1720170.18	-1720169.97	-1720169.74	0.0132	0.0062
Moon	-9423-06-07 16:04 J	-1720170.05	-1720169.83	-1720169.58	0.0132	0.0056 *
Moon	-9422-06-11 15:07 J	-1719801.11	-1719800.87	-1719800.62	0.0132	0.0028
Earth	-9422-06-11 18:14 J	-1719800.98	-1719800.74	-1719800.48	0.0132	0.0022 *
Earth	-9421-06-14 23:16 J	-1719431.78	-1719431.53	-1719431.27	0.0132	0.0020
Moon	-9421-06-15 02:24 J	-1719431.64	-1719431.40	-1719431.14	0.0132	0.0027 *
Moon	-9420-06-19 00:43 J	-1719062.69	-1719062.47	-1719062.24	0.0132	0.0054
Earth	-9420-06-19 04:04 J	-1719062.54	-1719062.33	-1719062.09	0.0132	0.0060 *
Earth	-9419-06-23 08:24 J	-1718693.29	-1718693.15	-1718692.97	0.0132	0.0101
Moon	-9419-06-23 11:45 J	-1718693.15	-1718693.01	-1718692.84	0.0132	0.0105 *
Mercury	-9404-09-02 00:14 J	-1713143.53	-1713143.49	-1713143.42	0.0137	0.0121
Mercury	-9404-11-29 03:21 J	-1713055.43	-1713055.36	-1713055.26	0.0137	0.0102
Mercury	-9403-02-25 06:43 J	-1712967.32	-1712967.22	-1712967.12	0.0137	0.0083

Mercury	-9403-05-24 09:50 J	-1712879.21	-1712879.09	-1712878.98	0.0137	0.0064
Mercury	-9403-08-20 12:43 J	-1712791.09	-1712790.97	-1712790.84	0.0137	0.0046
Mercury	-9403-11-16 15:50 J	-1712702.96	-1712702.84	-1712702.71	0.0137	0.0027
Mercury	-9402-02-12 18:57 J	-1712614.84	-1712614.71	-1712614.58	0.0138	0.0008
Mercury	-9402-05-11 22:04 J	-1712526.71	-1712526.58	-1712526.45	0.0138	0.0012
Mercury	-9402-08-08 01:12 J	-1712438.58	-1712438.45	-1712438.32	0.0138	0.0031
Mercury	-9402-11-04 04:19 J	-1712350.44	-1712350.32	-1712350.20	0.0138	0.0050
Mercury	-9401-01-31 07:26 J	-1712262.30	-1712262.19	-1712262.08	0.0138	0.0069
Mercury	-9401-04-28 10:33 J	-1712174.16	-1712174.06	-1712173.96	0.0138	0.0088
Mercury	-9401-07-25 13:40 J	-1712086.01	-1712085.93	-1712085.85	0.0138	0.0108
Mercury	-9401-10-21 16:47 J	-1711997.84	-1711997.80	-1711997.75	0.0138	0.0127
Mars	-9397-05-05 09:07 J	-1710706.43	-1710706.12	-1710705.82	0.0140	0.0057
Venus	-9390-04-26 20:09 J	-1708158.77	-1708158.66	-1708158.52	0.0144	0.0115
Venus	-9390-12-09 06:43 J	-1707932.40	-1707932.22	-1707932.03	0.0144	0.0068
Venus	-9389-07-22 17:16 J	-1707705.99	-1707705.78	-1707705.56	0.0144	0.0021
Venus	-9388-03-06 04:04 J	-1707479.54	-1707479.33	-1707479.12	0.0145	0.0027
Venus	-9388-10-18 14:52 J	-1707253.07	-1707252.88	-1707252.70	0.0145	0.0074
Venus	-9387-06-02 01:26 J	-1707026.54	-1707026.44	-1707026.31	0.0145	0.0122
Earth	-9382-11-29 06:28 J	-1705020.38	-1705020.23	-1705020.05	0.0146	0.0110
Moon	-9382-11-29 09:35 J	-1705020.26	-1705020.10	-1705019.90	0.0146	0.0105 *
Moon	-9381-12-03 06:00 J	-1704650.48	-1704650.25	-1704650.01	0.0146	0.0056
Earth	-9381-12-03 09:35 J	-1704650.33	-1704650.10	-1704649.86	0.0146	0.0054 *
Earth	-9380-12-08 12:57 J	-1704280.21	-1704279.96	-1704279.70	0.0146	0.0002
Moon	-9380-12-08 16:33 J	-1704280.07	-1704279.81	-1704279.56	0.0146	0.0002 *
Moon	-9379-12-13 12:57 J	-1703910.18	-1703909.96	-1703909.72	0.0146	0.0065
Earth	-9379-12-13 16:19 J	-1703910.04	-1703909.82	-1703909.57	0.0146	0.0058 *
Earth	-9378-12-18 19:55 J	-1703539.81	-1703539.67	-1703539.49	0.0146	0.0114
Moon	-9378-12-18 23:31 J	-1703539.68	-1703539.52	-1703539.33	0.0146	0.0105 *
Mercury	-9364-07-12 12:57 J	-1698585.00	-1698584.96	-1698584.89	0.0141	0.0136
Mercury	-9364-10-08 21:35 J	-1698496.72	-1698496.60	-1698496.46	0.0141	0.0105

Mercury	-9363-01-05 06:00 J	-1698408.41	-1698408.25	-1698408.07	0.0141	0.0073
Mercury	-9363-04-03 14:38 J	-1698320.08	-1698319.89	-1698319.70	0.0141	0.0042
Mercury	-9363-06-30 23:02 J	-1698231.73	-1698231.54	-1698231.34	0.0141	0.0011
Mercury	-9363-09-27 07:26 J	-1698143.38	-1698143.19	-1698142.99	0.0141	0.0021
Mercury	-9363-12-24 15:50 J	-1698055.02	-1698054.84	-1698054.65	0.0141	0.0052
Mercury	-9362-03-23 00:00 J	-1697966.65	-1697966.50	-1697966.33	0.0141	0.0083
Mercury	-9362-06-19 08:24 J	-1697878.25	-1697878.15	-1697878.02	0.0140	0.0113
Mars	-9359-12-02 11:31 J	-1696616.31	-1696616.02	-1696615.74	0.0139	0.0019
Venus	-9351-12-30 05:02 J	-1693666.36	-1693666.29	-1693666.19	0.0135	0.0124
Venus	-9350-08-13 12:14 J	-1693440.15	-1693439.99	-1693439.81	0.0135	0.0085
Venus	-9349-03-26 19:12 J	-1693213.90	-1693213.70	-1693213.48	0.0134	0.0046
Venus	-9349-11-08 02:09 J	-1692987.63	-1692987.41	-1692987.19	0.0134	0.0007
Venus	-9348-06-22 08:52 J	-1692761.34	-1692761.13	-1692760.91	0.0134	0.0032
Venus	-9347-02-03 15:35 J	-1692535.03	-1692534.85	-1692534.66	0.0134	0.0071
Venus	-9347-09-17 22:19 J	-1692308.70	-1692308.57	-1692308.44	0.0134	0.0109
Moon	-9340-06-03 17:02 J	-1689857.96	-1689857.79	-1689857.61	0.0132	0.0094
Earth	-9340-06-03 19:55 J	-1689857.83	-1689857.67	-1689857.49	0.0132	0.0097 *
Earth	-9339-06-08 01:40 J	-1689488.65	-1689488.43	-1689488.19	0.0132	0.0057
Moon	-9339-06-08 04:33 J	-1689488.53	-1689488.31	-1689488.07	0.0132	0.0062 *
Moon	-9338-06-12 04:19 J	-1689119.56	-1689119.32	-1689119.07	0.0132	0.0010
Earth	-9338-06-12 07:12 J	-1689119.44	-1689119.20	-1689118.94	0.0132	0.0017 *
Earth	-9337-06-15 12:14 J	-1688750.23	-1688749.99	-1688749.73	0.0132	0.0026
Moon	-9337-06-15 15:50 J	-1688750.10	-1688749.84	-1688749.59	0.0132	0.0018 *
Moon	-9336-06-19 14:24 J	-1688381.10	-1688380.90	-1688380.68	0.0132	0.0071
Earth	-9336-06-19 17:02 J	-1688380.99	-1688380.79	-1688380.55	0.0132	0.0066 *
Earth	-9335-06-23 21:50 J	-1688011.73	-1688011.59	-1688011.43	0.0132	0.0106
Moon	-9335-06-24 01:12 J	-1688011.60	-1688011.45	-1688011.28	0.0132	0.0103 *
Mercury	-9320-06-26 05:16 J	-1682530.31	-1682530.28	-1682530.24	0.0137	0.0132
Mercury	-9320-09-22 08:24 J	-1682442.22	-1682442.15	-1682442.08	0.0137	0.0113
Mercury	-9320-12-19 11:31 J	-1682354.11	-1682354.02	-1682353.93	0.0137	0.0094

Mercury	-9319-03-17 14:24 J	-1682266.00	-1682265.90	-1682265.79	0.0137	0.0076
Mercury	-9319-06-13 17:31 J	-1682177.88	-1682177.77	-1682177.65	0.0137	0.0057
Mercury	-9319-09-09 20:38 J	-1682089.76	-1682089.64	-1682089.51	0.0137	0.0038
Mercury	-9319-12-06 23:45 J	-1682001.64	-1682001.51	-1682001.38	0.0138	0.0019
Mercury	-9318-03-05 02:52 J	-1681913.51	-1681913.38	-1681913.25	0.0138	0.0000
Mercury	-9318-06-01 06:00 J	-1681825.38	-1681825.25	-1681825.12	0.0138	0.0019
Mercury	-9318-08-28 09:07 J	-1681737.25	-1681737.12	-1681737.00	0.0138	0.0038
Mercury	-9318-11-24 12:14 J	-1681649.11	-1681648.99	-1681648.87	0.0138	0.0057
Mercury	-9317-02-20 15:07 J	-1681560.97	-1681560.87	-1681560.75	0.0138	0.0077
Mercury	-9317-05-18 18:14 J	-1681472.82	-1681472.74	-1681472.64	0.0138	0.0097
Mercury	-9317-08-14 21:35 J	-1681384.67	-1681384.60	-1681384.53	0.0138	0.0116
Mercury	-9317-11-11 00:28 J	-1681296.49	-1681296.48	-1681296.44	0.0139	0.0136
Mars	-9314-01-25 04:33 J	-1680491.57	-1680491.31	-1680491.01	0.0140	0.0076
Mars	-9313-12-30 20:38 J	-1679785.67	-1679785.64	-1679785.57	0.0141	0.0139
Venus	-9307-12-25 06:14 J	-1677600.31	-1677600.24	-1677600.15	0.0144	0.0133
Venus	-9306-08-08 16:33 J	-1677373.97	-1677373.81	-1677373.63	0.0144	0.0087
Venus	-9305-03-22 03:07 J	-1677147.57	-1677147.37	-1677147.16	0.0144	0.0040
Venus	-9305-11-03 13:40 J	-1676921.14	-1676920.93	-1676920.71	0.0144	0.0009
Venus	-9304-06-18 00:14 J	-1676694.68	-1676694.49	-1676694.28	0.0145	0.0056
Venus	-9303-01-30 11:16 J	-1676468.17	-1676468.03	-1676467.87	0.0145	0.0103
Earth	-9298-11-29 21:07 J	-1674338.80	-1674338.62	-1674338.44	0.0146	0.0103
Moon	-9298-11-30 00:14 J	-1674338.66	-1674338.49	-1674338.31	0.0146	0.0108 *
Moon	-9297-12-03 20:24 J	-1673968.87	-1673968.65	-1673968.40	0.0146	0.0047
Earth	-9297-12-03 23:45 J	-1673968.74	-1673968.51	-1673968.26	0.0146	0.0048 *
Earth	-9296-12-09 03:07 J	-1673598.63	-1673598.37	-1673598.12	0.0146	0.0007
Moon	-9296-12-09 06:43 J	-1673598.47	-1673598.22	-1673597.96	0.0146	0.0012 *
Moon	-9295-12-14 02:52 J	-1673228.61	-1673228.38	-1673228.14	0.0146	0.0057
Earth	-9295-12-14 06:14 J	-1673228.46	-1673228.24	-1673228.00	0.0146	0.0063 *
Earth	-9294-12-19 09:50 J	-1672858.22	-1672858.09	-1672857.92	0.0146	0.0119
Moon	-9294-12-19 13:40 J	-1672858.06	-1672857.93	-1672857.80	0.0146	0.0126 *

Mercury	-9280-08-01 21:07 J	-1667883.70	-1667883.62	-1667883.53	0.0141	0.0126
Mercury	-9280-10-29 05:31 J	-1667795.40	-1667795.27	-1667795.11	0.0141	0.0095
Mercury	-9279-01-25 13:55 J	-1667707.08	-1667706.92	-1667706.73	0.0141	0.0064
Mercury	-9279-04-23 22:33 J	-1667618.75	-1667618.56	-1667618.36	0.0141	0.0032
Mercury	-9279-07-21 07:12 J	-1667530.40	-1667530.20	-1667530.01	0.0141	0.0003
Mercury	-9279-10-17 15:35 J	-1667442.05	-1667441.85	-1667441.66	0.0141	0.0030
Mercury	-9278-01-13 23:45 J	-1667353.68	-1667353.51	-1667353.33	0.0141	0.0061
Mercury	-9278-04-12 08:09 J	-1667265.30	-1667265.16	-1667265.01	0.0140	0.0092
Mercury	-9278-07-09 16:19 J	-1667176.90	-1667176.82	-1667176.71	0.0140	0.0122
Mars	-9276-08-26 18:00 J	-1666397.82	-1666397.75	-1666397.62	0.0139	0.0131
Mars	-9274-07-28 03:35 J	-1665697.62	-1665697.35	-1665697.07	0.0138	0.0044
Venus	-9266-04-12 22:04 J	-1662881.71	-1662881.58	-1662881.42	0.0135	0.0102
Venus	-9266-11-25 05:02 J	-1662655.47	-1662655.29	-1662655.08	0.0135	0.0063
Venus	-9265-07-08 12:14 J	-1662429.21	-1662428.99	-1662428.77	0.0134	0.0023
Venus	-9264-02-19 19:12 J	-1662202.92	-1662202.70	-1662202.48	0.0134	0.0016
Venus	-9264-10-04 01:40 J	-1661976.62	-1661976.43	-1661976.22	0.0134	0.0055
Venus	-9263-05-18 08:24 J	-1661750.30	-1661750.15	-1661749.99	0.0134	0.0093
Venus	-9263-12-30 14:38 J	-1661523.91	-1661523.89	-1661523.83	0.0133	0.0131
Moon	-9257-05-31 04:19 J	-1659545.32	-1659545.32	-1659545.28	0.0132	0.0132
Moon	-9256-06-04 05:31 J	-1659176.43	-1659176.27	-1659176.08	0.0132	0.0095
Earth	-9256-06-04 07:40 J	-1659176.34	-1659176.18	-1659175.98	0.0132	0.0093 *
Earth	-9255-06-08 13:55 J	-1658807.15	-1658806.92	-1658806.68	0.0132	0.0052
Moon	-9255-06-08 16:33 J	-1658807.04	-1658806.81	-1658806.55	0.0132	0.0047 *
Moon	-9254-06-12 16:47 J	-1658438.04	-1658437.80	-1658437.55	0.0132	0.0018
Earth	-9254-06-12 19:26 J	-1658437.94	-1658437.69	-1658437.43	0.0132	0.0012 *
Earth	-9253-06-16 00:28 J	-1658068.72	-1658068.48	-1658068.22	0.0132	0.0030
Moon	-9253-06-16 03:21 J	-1658068.61	-1658068.36	-1658068.11	0.0132	0.0036 *
Moon	-9252-06-20 02:24 J	-1657699.60	-1657699.40	-1657699.16	0.0132	0.0065
Earth	-9252-06-20 05:45 J	-1657699.47	-1657699.26	-1657699.04	0.0132	0.0070 *
Earth	-9251-06-24 10:33 J	-1657330.20	-1657330.06	-1657329.92	0.0132	0.0110

Moon	-9251-06-24 12:43 J	-1657330.08	-1657329.97	-1657329.82	0.0132	0.0114 *
Mercury	-9236-07-16 12:43 J	-1651829.01	-1651828.97	-1651828.91	0.0137	0.0126
Mercury	-9236-10-12 15:50 J	-1651740.91	-1651740.84	-1651740.75	0.0137	0.0107
Mercury	-9235-01-08 18:57 J	-1651652.80	-1651652.71	-1651652.60	0.0137	0.0089
Mercury	-9235-04-06 22:04 J	-1651564.69	-1651564.58	-1651564.46	0.0137	0.0070
Mercury	-9235-07-04 01:12 J	-1651476.57	-1651476.45	-1651476.33	0.0137	0.0051
Mercury	-9235-09-30 04:19 J	-1651388.45	-1651388.32	-1651388.19	0.0137	0.0032
Mercury	-9235-12-27 07:26 J	-1651300.32	-1651300.19	-1651300.06	0.0138	0.0013
Mercury	-9234-03-25 10:33 J	-1651212.19	-1651212.06	-1651211.93	0.0138	0.0006
Mercury	-9234-06-21 13:40 J	-1651124.06	-1651123.93	-1651123.80	0.0138	0.0025
Mercury	-9234-09-17 16:33 J	-1651035.92	-1651035.81	-1651035.68	0.0138	0.0045
Mercury	-9234-12-14 19:40 J	-1650947.79	-1650947.68	-1650947.56	0.0138	0.0064
Mercury	-9233-03-11 22:47 J	-1650859.64	-1650859.55	-1650859.44	0.0138	0.0084
Mercury	-9233-06-08 02:09 J	-1650771.50	-1650771.41	-1650771.32	0.0138	0.0102
Mercury	-9233-09-04 05:16 J	-1650683.34	-1650683.28	-1650683.22	0.0138	0.0122
Mars	-9230-09-21 10:19 J	-1649571.40	-1649571.07	-1649570.73	0.0140	0.0003
Venus	-9222-04-08 01:40 J	-1646815.56	-1646815.43	-1646815.28	0.0144	0.0107
Venus	-9222-11-20 12:00 J	-1646589.19	-1646589.00	-1646588.80	0.0144	0.0060
Venus	-9221-07-03 22:47 J	-1646362.77	-1646362.55	-1646362.34	0.0144	0.0013
Venus	-9220-02-15 09:21 J	-1646136.31	-1646136.11	-1646135.90	0.0144	0.0035
Venus	-9220-09-29 19:55 J	-1645909.83	-1645909.67	-1645909.48	0.0145	0.0083
Venus	-9219-05-14 07:12 J	-1645683.29	-1645683.20	-1645683.11	0.0145	0.0130
Earth	-9214-11-30 10:04 J	-1643657.26	-1643657.08	-1643656.89	0.0146	0.0096
Moon	-9214-11-30 12:28 J	-1643657.17	-1643656.98	-1643656.76	0.0146	0.0091 *
Moon	-9213-12-04 09:35 J	-1643287.33	-1643287.10	-1643286.86	0.0146	0.0044
Earth	-9213-12-04 12:43 J	-1643287.20	-1643286.97	-1643286.71	0.0146	0.0043 *
Earth	-9212-12-09 16:04 J	-1642917.08	-1642916.83	-1642916.58	0.0146	0.0013
Moon	-9212-12-09 19:26 J	-1642916.95	-1642916.69	-1642916.43	0.0146	0.0011 *
Moon	-9211-12-14 16:04 J	-1642547.05	-1642546.83	-1642546.61	0.0146	0.0076
Earth	-9211-12-14 19:40 J	-1642546.90	-1642546.68	-1642546.45	0.0146	0.0069 *

Earth	-9210-12-19 23:16 J	-1642176.65	-1642176.53	-1642176.38	0.0146	0.0124
Moon	-9210-12-20 02:52 J	-1642176.51	-1642176.38	-1642176.21	0.0146	0.0116 *
Mercury	-9196-08-22 05:31 J	-1637182.37	-1637182.27	-1637182.14	0.0141	0.0115
Mercury	-9196-11-18 14:09 J	-1637094.06	-1637093.91	-1637093.74	0.0141	0.0084
Mercury	-9195-02-14 22:33 J	-1637005.73	-1637005.56	-1637005.37	0.0141	0.0053
Mercury	-9195-05-14 07:12 J	-1636917.39	-1636917.20	-1636917.00	0.0141	0.0021
Mercury	-9195-08-10 15:35 J	-1636829.05	-1636828.85	-1636828.65	0.0141	0.0010
Mercury	-9195-11-07 00:00 J	-1636740.69	-1636740.50	-1636740.31	0.0141	0.0041
Mercury	-9194-02-03 08:09 J	-1636652.32	-1636652.16	-1636651.98	0.0141	0.0073
Mercury	-9194-05-02 16:47 J	-1636563.93	-1636563.80	-1636563.67	0.0140	0.0103
Mercury	-9194-07-30 00:57 J	-1636475.51	-1636475.46	-1636475.39	0.0140	0.0134
Mars	-9191-04-21 14:38 J	-1635479.12	-1635478.89	-1635478.61	0.0139	0.0065
Mars	-9189-03-21 21:21 J	-1634778.78	-1634778.61	-1634778.42	0.0138	0.0107
Venus	-9183-12-11 09:07 J	-1632323.23	-1632323.12	-1632323.02	0.0135	0.0118
Venus	-9182-07-25 16:04 J	-1632097.01	-1632096.83	-1632096.65	0.0135	0.0079
Venus	-9181-03-07 23:02 J	-1631870.74	-1631870.54	-1631870.32	0.0134	0.0040
Venus	-9181-10-20 06:00 J	-1631644.47	-1631644.25	-1631644.03	0.0134	0.0001
Venus	-9180-06-03 12:28 J	-1631418.18	-1631417.98	-1631417.76	0.0134	0.0039
Venus	-9179-01-15 19:12 J	-1631191.87	-1631191.70	-1631191.51	0.0134	0.0078
Venus	-9179-08-30 01:40 J	-1630965.52	-1630965.43	-1630965.30	0.0134	0.0116
Earth	-9173-05-31 14:09 J	-1628863.97	-1628863.91	-1628863.83	0.0132	0.0127
Moon	-9173-05-31 15:50 J	-1628863.91	-1628863.84	-1628863.74	0.0132	0.0126 *
Moon	-9172-06-04 17:45 J	-1628494.93	-1628494.76	-1628494.55	0.0132	0.0085
Earth	-9172-06-04 20:24 J	-1628494.84	-1628494.65	-1628494.45	0.0132	0.0087 *
Earth	-9171-06-09 02:09 J	-1628125.64	-1628125.41	-1628125.17	0.0132	0.0046
Moon	-9171-06-09 04:19 J	-1628125.56	-1628125.32	-1628125.08	0.0132	0.0051 *
Moon	-9170-06-13 05:31 J	-1627756.52	-1627756.27	-1627756.02	0.0132	0.0000
Earth	-9170-06-13 07:40 J	-1627756.43	-1627756.18	-1627755.92	0.0132	0.0006 *
Earth	-9169-06-16 12:57 J	-1627387.21	-1627386.96	-1627386.72	0.0132	0.0035
Moon	-9169-06-16 15:21 J	-1627387.11	-1627386.86	-1627386.60	0.0132	0.0027 *

Moon	-9168-06-20 15:35 J	-1627018.03	-1627017.85	-1627017.64	0.0132	0.0081
Earth	-9168-06-20 17:45 J	-1627017.96	-1627017.76	-1627017.54	0.0132	0.0075 *
Earth	-9167-06-24 22:33 J	-1626648.67	-1626648.56	-1626648.42	0.0132	0.0115
Moon	-9167-06-25 00:57 J	-1626648.58	-1626648.46	-1626648.30	0.0132	0.0112 *
Mercury	-9152-08-05 20:24 J	-1621127.71	-1621127.65	-1621127.59	0.0137	0.0120
Mercury	-9152-11-01 23:16 J	-1621039.61	-1621039.53	-1621039.44	0.0137	0.0102
Mercury	-9151-01-29 02:24 J	-1620951.50	-1620951.40	-1620951.29	0.0137	0.0083
Mercury	-9151-04-27 05:31 J	-1620863.38	-1620863.27	-1620863.15	0.0137	0.0064
Mercury	-9151-07-24 08:38 J	-1620775.26	-1620775.14	-1620775.02	0.0137	0.0045
Mercury	-9151-10-20 11:45 J	-1620687.14	-1620687.01	-1620686.88	0.0137	0.0027
Mercury	-9150-01-16 14:52 J	-1620599.01	-1620598.88	-1620598.75	0.0138	0.0008
Mercury	-9150-04-14 18:00 J	-1620510.88	-1620510.75	-1620510.62	0.0138	0.0012
Mercury	-9150-07-11 21:07 J	-1620422.75	-1620422.62	-1620422.50	0.0138	0.0031
Mercury	-9150-10-08 00:00 J	-1620334.61	-1620334.50	-1620334.37	0.0138	0.0050
Mercury	-9149-01-04 03:07 J	-1620246.48	-1620246.37	-1620246.25	0.0138	0.0069
Mercury	-9149-04-01 06:14 J	-1620158.33	-1620158.24	-1620158.13	0.0138	0.0089
Mercury	-9149-06-28 09:35 J	-1620070.18	-1620070.10	-1620070.02	0.0138	0.0108
Mercury	-9149-09-24 12:43 J	-1619982.02	-1619981.97	-1619981.92	0.0138	0.0127
Mars	-9147-06-12 00:57 J	-1619356.56	-1619356.46	-1619356.35	0.0139	0.0132
Mars	-9145-05-17 11:45 J	-1618651.26	-1618651.01	-1618650.71	0.0140	0.0079
Venus	-9139-12-06 08:52 J	-1616257.21	-1616257.13	-1616257.02	0.0144	0.0129
Venus	-9138-07-20 19:26 J	-1616030.86	-1616030.69	-1616030.51	0.0144	0.0082
Venus	-9137-03-03 06:00 J	-1615804.46	-1615804.25	-1615804.04	0.0144	0.0035
Jupiter	-9137-04-07 05:45 J	-1615769.39	-1615769.26	-1615769.01	0.0144	0.0135
Venus	-9137-10-15 16:33 J	-1615578.02	-1615577.81	-1615577.59	0.0144	0.0012
Venus	-9136-05-30 03:21 J	-1615351.56	-1615351.36	-1615351.17	0.0145	0.0060
Venus	-9135-01-11 13:55 J	-1615125.05	-1615124.92	-1615124.77	0.0145	0.0108
Moon	-9131-11-25 15:50 J	-1613345.91	-1613345.84	-1613345.76	0.0146	0.0138
Earth	-9131-11-25 17:16 J	-1613345.79	-1613345.78	-1613345.74	0.0146	0.0145 *
Earth	-9130-11-30 19:26 J	-1612975.87	-1612975.69	-1612975.48	0.0146	0.0092

Moon	-9130-11-30 21:50 J	-1612975.76	-1612975.59	-1612975.38	0.0146	0.0098 *
Moon	-9129-12-04 19:55 J	-1612605.91	-1612605.67	-1612605.43	0.0146	0.0035
Earth	-9129-12-04 22:19 J	-1612605.81	-1612605.57	-1612605.32	0.0146	0.0038 *
Earth	-9128-12-10 01:26 J	-1612235.69	-1612235.44	-1612235.18	0.0146	0.0018
Moon	-9128-12-10 04:47 J	-1612235.55	-1612235.30	-1612235.04	0.0146	0.0022 *
Moon	-9127-12-15 01:26 J	-1611865.65	-1611865.44	-1611865.21	0.0146	0.0067
Earth	-9127-12-15 04:47 J	-1611865.51	-1611865.30	-1611865.07	0.0146	0.0073 *
Earth	-9126-12-20 08:38 J	-1611495.25	-1611495.14	-1611495.00	0.0146	0.0128
Moon	-9126-12-20 12:14 J	-1611495.07	-1611494.99	-1611494.88	0.0146	0.0135 *
Mercury	-9112-06-15 04:04 J	-1606569.34	-1606569.33	-1606569.29	0.0141	0.0140
Mercury	-9112-09-11 12:43 J	-1606481.09	-1606480.97	-1606480.83	0.0141	0.0108
Mercury	-9112-12-08 21:21 J	-1606392.77	-1606392.61	-1606392.44	0.0141	0.0077
Mercury	-9111-03-07 05:45 J	-1606304.44	-1606304.26	-1606304.07	0.0141	0.0046
Mercury	-9111-06-03 14:24 J	-1606216.10	-1606215.90	-1606215.70	0.0141	0.0014
Mercury	-9111-08-30 22:47 J	-1606127.75	-1606127.55	-1606127.35	0.0141	0.0017
Mercury	-9111-11-27 07:12 J	-1606039.38	-1606039.20	-1606039.01	0.0141	0.0048
Mercury	-9110-02-23 15:35 J	-1605951.01	-1605950.85	-1605950.69	0.0141	0.0079
Mercury	-9110-05-23 00:00 J	-1605862.62	-1605862.50	-1605862.38	0.0140	0.0110
Mercury	-9110-08-19 08:24 J	-1605774.15	-1605774.15	-1605774.15	0.0140	0.0140
Mars	-9107-12-15 05:45 J	-1604560.54	-1604560.26	-1604559.97	0.0139	0.0003
Venus	-9098-03-25 01:12 J	-1601538.59	-1601538.45	-1601538.29	0.0135	0.0097
Venus	-9098-11-06 08:09 J	-1601312.35	-1601312.16	-1601311.95	0.0135	0.0058
Venus	-9097-06-19 15:21 J	-1601086.08	-1601085.86	-1601085.64	0.0134	0.0018
Venus	-9096-01-31 22:19 J	-1600859.78	-1600859.57	-1600859.35	0.0134	0.0021
Venus	-9096-09-15 05:02 J	-1600633.48	-1600633.29	-1600633.09	0.0134	0.0060
Venus	-9095-04-29 11:31 J	-1600407.16	-1600407.02	-1600406.86	0.0134	0.0099
Earth	-9089-06-01 00:28 J	-1598182.55	-1598182.48	-1598182.36	0.0132	0.0123
Moon	-9089-06-01 02:24 J	-1598182.47	-1598182.40	-1598182.27	0.0132	0.0123 *
Moon	-9088-06-05 05:45 J	-1597813.44	-1597813.26	-1597813.06	0.0132	0.0083
Earth	-9088-06-05 06:57 J	-1597813.39	-1597813.21	-1597813.00	0.0132	0.0082 *

Earth	-9087-06-09 12:43 J	-1597444.19	-1597443.97	-1597443.71	0.0132	0.0043
Moon	-9087-06-09 14:52 J	-1597444.12	-1597443.88	-1597443.62	0.0132	0.0037 *
Moon	-9086-06-13 17:02 J	-1597075.04	-1597074.79	-1597074.54	0.0132	0.0008
Earth	-9086-06-13 18:43 J	-1597074.97	-1597074.72	-1597074.46	0.0132	0.0001 *
Earth	-9085-06-16 23:31 J	-1596705.75	-1596705.52	-1596705.26	0.0132	0.0039
Moon	-9085-06-17 01:12 J	-1596705.68	-1596705.45	-1596705.19	0.0132	0.0046 *
Moon	-9084-06-21 02:38 J	-1596336.58	-1596336.39	-1596336.17	0.0132	0.0073
Earth	-9084-06-21 04:33 J	-1596336.49	-1596336.31	-1596336.09	0.0132	0.0079 *
Earth	-9083-06-25 09:35 J	-1595967.19	-1595967.10	-1595966.97	0.0132	0.0119
Moon	-9083-06-25 11:02 J	-1595967.10	-1595967.04	-1595966.92	0.0132	0.0124 *
Mercury	-9068-05-30 00:14 J	-1590514.50	-1590514.49	-1590514.46	0.0137	0.0135
Mercury	-9068-08-26 03:35 J	-1590426.42	-1590426.35	-1590426.28	0.0137	0.0116
Mercury	-9068-11-22 06:43 J	-1590338.31	-1590338.22	-1590338.13	0.0137	0.0097
Mercury	-9067-02-18 09:35 J	-1590250.20	-1590250.10	-1590249.99	0.0137	0.0079
Mercury	-9067-05-17 12:43 J	-1590162.08	-1590161.97	-1590161.85	0.0137	0.0060
Mercury	-9067-08-13 15:50 J	-1590073.96	-1590073.84	-1590073.71	0.0137	0.0041
Mercury	-9067-11-09 18:57 J	-1589985.84	-1589985.71	-1589985.58	0.0137	0.0022
Mercury	-9066-02-05 22:04 J	-1589897.71	-1589897.58	-1589897.45	0.0138	0.0004
Mercury	-9066-05-05 01:12 J	-1589809.58	-1589809.45	-1589809.32	0.0138	0.0016
Mercury	-9066-08-01 04:04 J	-1589721.45	-1589721.33	-1589721.20	0.0138	0.0035
Mercury	-9066-10-28 07:12 J	-1589633.31	-1589633.20	-1589633.07	0.0138	0.0054
Mercury	-9065-01-24 10:19 J	-1589545.17	-1589545.07	-1589544.95	0.0138	0.0073
Mercury	-9065-04-21 13:26 J	-1589457.03	-1589456.94	-1589456.84	0.0138	0.0092
Mercury	-9065-07-18 16:33 J	-1589368.88	-1589368.81	-1589368.73	0.0138	0.0112
Mercury	-9065-10-14 19:55 J	-1589280.71	-1589280.67	-1589280.63	0.0138	0.0131
Mars	-9062-02-05 20:52 J	-1588436.93	-1588436.63	-1588436.33	0.0140	0.0059
Venus	-9054-03-20 01:26 J	-1585472.58	-1585472.44	-1585472.29	0.0144	0.0106
Venus	-9054-11-01 11:45 J	-1585246.20	-1585246.01	-1585245.81	0.0144	0.0059
Venus	-9053-06-14 22:19 J	-1585019.79	-1585019.57	-1585019.36	0.0144	0.0012
Venus	-9052-01-27 08:52 J	-1584793.34	-1584793.13	-1584792.92	0.0144	0.0035

Venus	-9052-09-10 19:26 J	-1584566.85	-1584566.69	-1584566.50	0.0145	0.0084
Venus	-9051-04-25 06:28 J	-1584340.31	-1584340.23	-1584340.14	0.0145	0.0131
Earth	-9047-11-26 00:14 J	-1582664.54	-1582664.49	-1582664.42	0.0146	0.0141
Earth	-9046-12-01 02:24 J	-1582294.59	-1582294.40	-1582294.19	0.0146	0.0088
Moon	-9046-12-01 03:50 J	-1582294.54	-1582294.34	-1582294.11	0.0146	0.0082 *
Moon	-9045-12-05 02:38 J	-1581924.62	-1581924.39	-1581924.14	0.0146	0.0037
Earth	-9045-12-05 05:02 J	-1581924.53	-1581924.29	-1581924.03	0.0146	0.0034 *
Earth	-9044-12-10 08:09 J	-1581554.41	-1581554.16	-1581553.90	0.0146	0.0021
Moon	-9044-12-10 10:47 J	-1581554.30	-1581554.05	-1581553.79	0.0146	0.0020 *
Moon	-9043-12-15 08:24 J	-1581184.35	-1581184.15	-1581183.93	0.0146	0.0082
Earth	-9043-12-15 11:45 J	-1581184.22	-1581184.01	-1581183.78	0.0146	0.0076 *
Earth	-9042-12-20 15:50 J	-1580813.94	-1580813.84	-1580813.72	0.0146	0.0130
Moon	-9042-12-20 19:26 J	-1580813.82	-1580813.69	-1580813.54	0.0146	0.0122 *
Mercury	-9028-07-05 10:47 J	-1575868.10	-1575868.05	-1575867.99	0.0141	0.0135
Mercury	-9028-10-01 19:12 J	-1575779.82	-1575779.70	-1575779.56	0.0141	0.0104
Mercury	-9028-12-29 03:35 J	-1575691.51	-1575691.35	-1575691.17	0.0141	0.0072
Mercury	-9027-03-27 12:14 J	-1575603.17	-1575602.99	-1575602.79	0.0141	0.0041
Mercury	-9027-06-23 20:52 J	-1575514.83	-1575514.63	-1575514.43	0.0141	0.0009
Mercury	-9027-09-20 05:16 J	-1575426.47	-1575426.28	-1575426.08	0.0141	0.0022
Mercury	-9027-12-17 13:40 J	-1575338.11	-1575337.93	-1575337.74	0.0141	0.0053
Mercury	-9026-03-15 22:04 J	-1575249.73	-1575249.58	-1575249.42	0.0141	0.0084
Mercury	-9026-06-12 06:28 J	-1575161.34	-1575161.23	-1575161.11	0.0140	0.0115
Mars	-9024-09-08 06:28 J	-1574342.38	-1574342.23	-1574342.06	0.0139	0.0115
Mars	-9022-08-09 15:07 J	-1573642.12	-1573641.87	-1573641.60	0.0138	0.0058
Venus	-9015-11-22 09:50 J	-1570980.20	-1570980.09	-1570979.97	0.0135	0.0115
Venus	-9014-07-06 17:02 J	-1570753.96	-1570753.79	-1570753.60	0.0135	0.0076
Venus	-9013-02-18 00:14 J	-1570527.69	-1570527.49	-1570527.27	0.0135	0.0036
Venus	-9013-10-01 07:26 J	-1570301.41	-1570301.19	-1570300.97	0.0134	0.0003
Jupiter	-9012-02-15 04:19 J	-1570164.78	-1570164.32	-1570163.85	0.0134	0.0058
Venus	-9012-05-15 14:09 J	-1570075.11	-1570074.91	-1570074.70	0.0134	0.0042

Venus	-9012-12-27 20:52 J	-1569848.80	-1569848.63	-1569848.45	0.0134	0.0081
Venus	-9011-08-11 03:21 J	-1569622.45	-1569622.36	-1569622.25	0.0134	0.0120
Earth	-9005-06-01 11:02 J	-1567501.13	-1567501.04	-1567500.90	0.0133	0.0118
Moon	-9005-06-01 12:00 J	-1567501.12	-1567501.00	-1567500.86	0.0133	0.0115 *
Moon	-9004-06-05 16:33 J	-1567132.01	-1567131.81	-1567131.60	0.0132	0.0076
Earth	-9004-06-05 17:31 J	-1567131.96	-1567131.77	-1567131.55	0.0132	0.0078 *
Earth	-9003-06-09 23:45 J	-1566762.75	-1566762.51	-1566762.26	0.0132	0.0037
Moon	-9003-06-10 00:57 J	-1566762.71	-1566762.46	-1566762.21	0.0132	0.0041 *
Moon	-9002-06-14 04:19 J	-1566393.56	-1566393.32	-1566393.07	0.0132	0.0009
Earth	-9002-06-14 05:31 J	-1566393.52	-1566393.27	-1566393.01	0.0132	0.0003 *
Earth	-9001-06-17 10:47 J	-1566024.28	-1566024.05	-1566023.80	0.0132	0.0043
Moon	-9001-06-17 12:14 J	-1566024.23	-1566023.99	-1566023.73	0.0132	0.0037 *

9TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 9th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	-9000-06-21 15:07 J	-1565655.05	-1565654.87	-1565654.69	0.0132	0.0090		
Earth	-9000-06-21 15:50 J	-1565655.02	-1565654.84	-1565654.63	0.0132	0.0083 *		
Earth	-8999-06-25 21:07 J	-1565285.71	-1565285.62	-1565285.52	0.0132	0.0123		
Moon	-8999-06-25 22:33 J	-1565285.66	-1565285.56	-1565285.43	0.0132	0.0118 *		
Mercury	-8984-06-19 07:40 J	-1559813.21	-1559813.18	-1559813.13	0.0137	0.0130		
Mercury	-8984-09-15 10:47 J	-1559725.12	-1559725.05	-1559724.97	0.0137	0.0111		
Mercury	-8984-12-12 13:55 J	-1559637.01	-1559636.92	-1559636.82	0.0137	0.0092		

Mercury	-8983-03-10 16:47 J	-1559548.90	-1559548.80	-1559548.68	0.0137	0.0074
Mercury	-8983-06-06 19:55 J	-1559460.78	-1559460.67	-1559460.54	0.0137	0.0056
Mercury	-8983-09-02 23:02 J	-1559372.66	-1559372.54	-1559372.41	0.0137	0.0037
Mercury	-8983-11-30 02:09 J	-1559284.53	-1559284.41	-1559284.28	0.0137	0.0018
Mercury	-8982-02-26 05:16 J	-1559196.41	-1559196.28	-1559196.15	0.0137	0.0004
Mercury	-8982-05-25 08:24 J	-1559108.28	-1559108.15	-1559108.02	0.0138	0.0021
Mercury	-8982-08-21 11:31 J	-1559020.14	-1559020.02	-1559019.89	0.0138	0.0040
Mercury	-8982-11-17 14:38 J	-1558932.01	-1558931.89	-1558931.77	0.0138	0.0059
Mercury	-8981-02-13 17:45 J	-1558843.87	-1558843.76	-1558843.65	0.0138	0.0078
Mercury	-8981-05-11 20:38 J	-1558755.72	-1558755.64	-1558755.54	0.0138	0.0098
Mercury	-8981-08-07 23:45 J	-1558667.57	-1558667.51	-1558667.43	0.0138	0.0117
Mercury	-8981-11-04 03:07 J	-1558579.39	-1558579.37	-1558579.35	0.0138	0.0136
Mars	-8978-10-02 20:09 J	-1557516.98	-1557516.66	-1557516.32	0.0140	0.0017
Venus	-8971-11-17 08:09 J	-1554914.24	-1554914.16	-1554914.05	0.0143	0.0128
Venus	-8970-07-01 18:28 J	-1554687.90	-1554687.73	-1554687.55	0.0144	0.0082
Venus	-8969-02-13 04:47 J	-1554461.50	-1554461.30	-1554461.08	0.0144	0.0035
Venus	-8969-09-26 15:21 J	-1554235.07	-1554234.86	-1554234.64	0.0144	0.0013
Venus	-8968-05-11 01:40 J	-1554008.61	-1554008.43	-1554008.22	0.0144	0.0061
Venus	-8968-12-23 12:28 J	-1553782.11	-1553781.98	-1553781.83	0.0145	0.0108
Moon	-8963-11-26 07:40 J	-1551983.28	-1551983.18	-1551983.07	0.0146	0.0131
Earth	-8963-11-26 07:26 J	-1551983.25	-1551983.19	-1551983.08	0.0146	0.0138 *
Earth	-8962-12-01 09:50 J	-1551613.29	-1551613.09	-1551612.88	0.0146	0.0084
Moon	-8962-12-01 11:02 J	-1551613.24	-1551613.04	-1551612.83	0.0146	0.0091 *
Moon	-8961-12-05 10:47 J	-1551243.29	-1551243.05	-1551242.80	0.0146	0.0027
Earth	-8961-12-05 12:00 J	-1551243.24	-1551243.00	-1551242.74	0.0146	0.0031 *
Earth	-8960-12-10 15:07 J	-1550873.12	-1550872.87	-1550872.61	0.0146	0.0024
Moon	-8960-12-10 17:45 J	-1550873.01	-1550872.76	-1550872.50	0.0146	0.0026 *
Moon	-8959-12-15 15:50 J	-1550503.04	-1550502.84	-1550502.61	0.0146	0.0074
Earth	-8959-12-15 18:43 J	-1550502.93	-1550502.72	-1550502.50	0.0146	0.0078 *
Earth	-8958-12-20 22:33 J	-1550132.66	-1550132.56	-1550132.45	0.0146	0.0132

Moon	-8958-12-21 01:26 J	-1550132.49	-1550132.44	-1550132.35	0.0146	0.0140	*
Mercury	-8944-07-25 16:33 J	-1545166.87	-1545166.81	-1545166.74	0.0141	0.0133	
Mercury	-8944-10-22 00:57 J	-1545078.59	-1545078.46	-1545078.32	0.0141	0.0101	
Mercury	-8943-01-18 09:21 J	-1544990.27	-1544990.11	-1544989.93	0.0141	0.0070	
Mercury	-8943-04-16 18:00 J	-1544901.93	-1544901.75	-1544901.55	0.0141	0.0039	
Mercury	-8943-07-14 02:38 J	-1544813.59	-1544813.39	-1544813.19	0.0141	0.0007	
Mercury	-8943-10-10 11:02 J	-1544725.23	-1544725.04	-1544724.84	0.0141	0.0024	
Mercury	-8942-01-06 19:26 J	-1544636.87	-1544636.69	-1544636.51	0.0141	0.0055	
Mercury	-8942-04-05 03:50 J	-1544548.49	-1544548.34	-1544548.18	0.0141	0.0086	
Mercury	-8942-07-02 12:14 J	-1544460.10	-1544459.99	-1544459.88	0.0140	0.0117	
Mars	-8939-05-03 13:40 J	-1543424.18	-1543423.93	-1543423.65	0.0139	0.0056	
Mars	-8937-04-02 21:07 J	-1542723.77	-1542723.62	-1542723.47	0.0138	0.0116	
Venus	-8930-03-06 00:00 J	-1540195.64	-1540195.50	-1540195.33	0.0135	0.0096	
Venus	-8930-10-18 07:26 J	-1539969.38	-1539969.19	-1539968.98	0.0135	0.0056	
Venus	-8929-05-31 14:38 J	-1539743.11	-1539742.89	-1539742.67	0.0135	0.0016	
Venus	-8928-01-12 21:35 J	-1539516.81	-1539516.60	-1539516.38	0.0134	0.0024	
Venus	-8928-08-27 04:33 J	-1539290.50	-1539290.31	-1539290.11	0.0134	0.0062	
Venus	-8927-04-10 11:16 J	-1539064.17	-1539064.03	-1539063.88	0.0134	0.0101	
Earth	-8921-06-01 19:55 J	-1536819.78	-1536819.67	-1536819.53	0.0133	0.0114	
Moon	-8921-06-01 20:38 J	-1536819.76	-1536819.64	-1536819.50	0.0133	0.0115	*
Moon	-8920-06-06 02:38 J	-1536450.59	-1536450.39	-1536450.18	0.0133	0.0074	
Earth	-8920-06-06 02:38 J	-1536450.59	-1536450.39	-1536450.17	0.0133	0.0074	*
Earth	-8919-06-10 08:52 J	-1536081.37	-1536081.13	-1536080.88	0.0132	0.0033	
Moon	-8919-06-10 09:35 J	-1536081.36	-1536081.10	-1536080.84	0.0132	0.0030	*
Moon	-8918-06-14 14:09 J	-1535712.15	-1535711.91	-1535711.66	0.0132	0.0003	
Earth	-8918-06-14 14:52 J	-1535712.13	-1535711.88	-1535711.63	0.0132	0.0007	*
Earth	-8917-06-17 20:24 J	-1535342.89	-1535342.65	-1535342.41	0.0132	0.0047	
Moon	-8917-06-17 20:52 J	-1535342.87	-1535342.63	-1535342.39	0.0132	0.0053	*
Moon	-8916-06-22 00:43 J	-1534973.65	-1534973.47	-1534973.27	0.0132	0.0081	
Earth	-8916-06-22 01:40 J	-1534973.61	-1534973.43	-1534973.23	0.0132	0.0087	*

Earth	-8915-06-26 06:57 J	-1534604.28	-1534604.21	-1534604.12	0.0132	0.0126
Moon	-8915-06-26 07:40 J	-1534604.21	-1534604.18	-1534604.14	0.0132	0.0131 *
Mercury	-8900-07-09 15:07 J	-1529111.91	-1529111.87	-1529111.81	0.0137	0.0124
Mercury	-8900-10-05 18:14 J	-1529023.82	-1529023.74	-1529023.66	0.0137	0.0106
Mercury	-8899-01-01 21:21 J	-1528935.71	-1528935.61	-1528935.51	0.0137	0.0087
Mercury	-8899-03-31 00:28 J	-1528847.59	-1528847.48	-1528847.37	0.0137	0.0068
Mercury	-8899-06-27 03:21 J	-1528759.47	-1528759.36	-1528759.23	0.0137	0.0050
Mercury	-8899-09-23 06:28 J	-1528671.35	-1528671.23	-1528671.10	0.0137	0.0031
Mercury	-8899-12-20 09:35 J	-1528583.23	-1528583.10	-1528582.97	0.0137	0.0012
Mercury	-8898-03-18 12:43 J	-1528495.10	-1528494.97	-1528494.84	0.0138	0.0007
Mercury	-8898-06-14 15:50 J	-1528406.97	-1528406.84	-1528406.71	0.0138	0.0026
Mercury	-8898-09-10 18:57 J	-1528318.83	-1528318.71	-1528318.59	0.0138	0.0045
Mercury	-8898-12-07 21:50 J	-1528230.70	-1528230.59	-1528230.47	0.0138	0.0064
Mercury	-8897-03-05 00:57 J	-1528142.56	-1528142.46	-1528142.35	0.0138	0.0083
Mercury	-8897-06-01 04:04 J	-1528054.41	-1528054.33	-1528054.24	0.0138	0.0103
Mercury	-8897-08-28 07:12 J	-1527966.25	-1527966.20	-1527966.13	0.0138	0.0122
Mars	-8895-06-23 12:43 J	-1527302.12	-1527301.97	-1527301.75	0.0139	0.0116
Mars	-8893-05-28 22:04 J	-1526596.82	-1526596.58	-1526596.33	0.0140	0.0094
Venus	-8886-03-01 02:38 J	-1524129.54	-1524129.39	-1524129.24	0.0143	0.0103
Venus	-8886-10-13 12:43 J	-1523903.16	-1523902.97	-1523902.77	0.0144	0.0056
Venus	-8885-05-26 23:02 J	-1523676.75	-1523676.54	-1523676.32	0.0144	0.0009
Venus	-8884-01-08 09:21 J	-1523450.31	-1523450.11	-1523449.90	0.0144	0.0039
Venus	-8884-08-22 19:55 J	-1523223.83	-1523223.67	-1523223.49	0.0144	0.0086
Venus	-8883-04-06 06:43 J	-1522997.29	-1522997.22	-1522997.14	0.0145	0.0134
Earth	-8879-11-26 18:00 J	-1521301.85	-1521301.75	-1521301.64	0.0146	0.0132
Moon	-8879-11-26 18:14 J	-1521301.80	-1521301.74	-1521301.67	0.0146	0.0140 *
Moon	-8878-12-01 19:40 J	-1520931.89	-1520931.68	-1520931.44	0.0146	0.0073
Earth	-8878-12-01 19:26 J	-1520931.88	-1520931.69	-1520931.46	0.0146	0.0080 *
Moon	-8877-12-05 20:38 J	-1520561.87	-1520561.64	-1520561.39	0.0146	0.0030
Earth	-8877-12-05 22:04 J	-1520561.82	-1520561.58	-1520561.32	0.0146	0.0026 *

Earth	-8876-12-11 00:57 J	-1520191.71	-1520191.46	-1520191.21	0.0146	0.0028
Moon	-8876-12-11 02:24 J	-1520191.65	-1520191.40	-1520191.13	0.0146	0.0029 *
Moon	-8875-12-16 01:26 J	-1519821.62	-1519821.44	-1519821.22	0.0146	0.0088
Earth	-8875-12-16 04:19 J	-1519821.52	-1519821.32	-1519821.10	0.0146	0.0082 *
Earth	-8874-12-21 07:40 J	-1519451.25	-1519451.18	-1519451.07	0.0146	0.0136
Moon	-8874-12-21 10:47 J	-1519451.16	-1519451.05	-1519450.92	0.0146	0.0128 *
Mercury	-8860-08-14 23:02 J	-1514465.61	-1514465.54	-1514465.45	0.0141	0.0128
Mercury	-8860-11-11 07:26 J	-1514377.32	-1514377.19	-1514377.03	0.0141	0.0097
Mercury	-8859-02-07 16:19 J	-1514289.00	-1514288.82	-1514288.64	0.0141	0.0065
Mercury	-8859-05-07 00:43 J	-1514200.66	-1514200.47	-1514200.27	0.0141	0.0033
Mercury	-8859-08-03 09:21 J	-1514112.31	-1514112.11	-1514111.92	0.0141	0.0003
Mercury	-8859-10-30 17:45 J	-1514023.95	-1514023.76	-1514023.57	0.0141	0.0029
Mercury	-8858-01-27 02:09 J	-1513935.59	-1513935.41	-1513935.23	0.0141	0.0060
Mercury	-8858-04-25 10:33 J	-1513847.21	-1513847.06	-1513846.91	0.0141	0.0091
Mercury	-8858-07-22 18:43 J	-1513758.81	-1513758.72	-1513758.61	0.0140	0.0122
Mars	-8855-12-27 01:40 J	-1512505.72	-1512505.43	-1512505.15	0.0139	0.0005
Venus	-8847-11-03 07:55 J	-1509637.26	-1509637.17	-1509637.03	0.0135	0.0115
Venus	-8846-06-17 15:21 J	-1509411.03	-1509410.86	-1509410.66	0.0135	0.0075
Venus	-8845-01-29 23:02 J	-1509184.75	-1509184.54	-1509184.32	0.0135	0.0035
Venus	-8845-09-12 06:14 J	-1508958.46	-1508958.24	-1508958.02	0.0134	0.0005
Venus	-8844-04-26 12:57 J	-1508732.16	-1508731.96	-1508731.75	0.0134	0.0044
Venus	-8844-12-08 19:40 J	-1508505.85	-1508505.68	-1508505.50	0.0134	0.0083
Venus	-8843-07-23 02:09 J	-1508279.48	-1508279.41	-1508279.31	0.0134	0.0122
Moon	-8837-06-02 04:47 J	-1506138.44	-1506138.30	-1506138.12	0.0133	0.0106
Earth	-8837-06-02 06:00 J	-1506138.39	-1506138.25	-1506138.11	0.0133	0.0109 *
Earth	-8836-06-06 12:14 J	-1505769.19	-1505768.99	-1505768.75	0.0133	0.0070
Moon	-8836-06-06 12:28 J	-1505769.18	-1505768.98	-1505768.76	0.0133	0.0069 *
Moon	-8835-06-10 18:43 J	-1505399.97	-1505399.72	-1505399.46	0.0133	0.0032
Earth	-8835-06-10 19:12 J	-1505399.95	-1505399.70	-1505399.45	0.0133	0.0029 *
Earth	-8834-06-15 00:57 J	-1505030.71	-1505030.46	-1505030.20	0.0132	0.0011

Moon	-8834-06-15 01:12 J	-1505030.69	-1505030.45	-1505030.20	0.0132	0.0016	*
Moon	-8833-06-18 06:57 J	-1504661.45	-1504661.21	-1504660.95	0.0132	0.0044	
Earth	-8833-06-18 06:28 J	-1504661.44	-1504661.23	-1504660.98	0.0132	0.0052	*
Earth	-8832-06-22 12:14 J	-1504292.16	-1504291.99	-1504291.79	0.0132	0.0091	
Moon	-8832-06-22 12:28 J	-1504292.13	-1504291.98	-1504291.80	0.0132	0.0097	*
Moon	-8831-06-26 17:45 J	-1503922.83	-1503922.76	-1503922.65	0.0133	0.0125	
Earth	-8831-06-26 17:31 J	-1503922.80	-1503922.77	-1503922.70	0.0133	0.0130	*
Mercury	-8816-07-29 22:33 J	-1498410.61	-1498410.56	-1498410.49	0.0137	0.0119	
Mercury	-8816-10-26 01:40 J	-1498322.51	-1498322.43	-1498322.34	0.0137	0.0100	
Mercury	-8815-01-22 04:47 J	-1498234.40	-1498234.30	-1498234.19	0.0137	0.0082	
Mercury	-8815-04-20 07:55 J	-1498146.28	-1498146.17	-1498146.05	0.0137	0.0063	
Mercury	-8815-07-17 11:02 J	-1498058.16	-1498058.04	-1498057.92	0.0137	0.0044	
Mercury	-8815-10-13 14:09 J	-1497970.04	-1497969.91	-1497969.79	0.0137	0.0026	
Mercury	-8814-01-09 17:02 J	-1497881.92	-1497881.79	-1497881.66	0.0138	0.0008	
Mercury	-8814-04-07 20:09 J	-1497793.79	-1497793.66	-1497793.53	0.0138	0.0013	
Mercury	-8814-07-04 23:16 J	-1497705.66	-1497705.53	-1497705.40	0.0138	0.0031	
Mercury	-8814-10-01 02:24 J	-1497617.52	-1497617.40	-1497617.28	0.0138	0.0050	
Mercury	-8814-12-28 05:16 J	-1497529.38	-1497529.28	-1497529.16	0.0138	0.0070	
Mercury	-8813-03-25 08:24 J	-1497441.24	-1497441.15	-1497441.04	0.0138	0.0089	
Mercury	-8813-06-21 11:31 J	-1497353.09	-1497353.02	-1497352.93	0.0138	0.0108	
Mercury	-8813-09-17 14:38 J	-1497264.93	-1497264.89	-1497264.83	0.0138	0.0128	
Mars	-8810-02-17 15:07 J	-1496382.17	-1496381.87	-1496381.53	0.0140	0.0040	
Venus	-8803-10-29 11:31 J	-1493571.12	-1493571.02	-1493570.90	0.0143	0.0123	
Venus	-8802-06-12 21:21 J	-1493344.77	-1493344.61	-1493344.41	0.0144	0.0077	
Venus	-8801-01-25 07:55 J	-1493118.38	-1493118.17	-1493117.96	0.0144	0.0029	
Venus	-8801-09-07 18:28 J	-1492891.94	-1492891.73	-1492891.52	0.0144	0.0018	
Venus	-8800-04-22 04:33 J	-1492665.49	-1492665.31	-1492665.10	0.0144	0.0067	
Venus	-8800-12-04 15:07 J	-1492438.99	-1492438.87	-1492438.73	0.0144	0.0114	
Earth	-8795-11-27 06:28 J	-1490620.33	-1490620.23	-1490620.09	0.0146	0.0127	
Moon	-8795-11-27 07:26 J	-1490620.30	-1490620.19	-1490620.03	0.0146	0.0121	*

Earth	-8794-12-02 08:24 J	-1490250.36	-1490250.15	-1490249.92	0.0146	0.0074
Moon	-8794-12-02 08:24 J	-1490250.35	-1490250.15	-1490249.92	0.0146	0.0081 *
Moon	-8793-12-06 10:33 J	-1489880.30	-1489880.06	-1489879.82	0.0146	0.0015
Earth	-8793-12-06 10:33 J	-1489880.30	-1489880.06	-1489879.80	0.0146	0.0021 *
Earth	-8792-12-11 13:40 J	-1489510.18	-1489509.93	-1489509.68	0.0146	0.0033
Moon	-8792-12-11 15:07 J	-1489510.12	-1489509.87	-1489509.61	0.0146	0.0034 *
Moon	-8791-12-16 15:07 J	-1489140.07	-1489139.87	-1489139.66	0.0146	0.0083
Earth	-8791-12-16 16:47 J	-1489140.00	-1489139.80	-1489139.59	0.0146	0.0087 *
Earth	-8790-12-21 20:09 J	-1488769.72	-1488769.66	-1488769.59	0.0146	0.0140
Mercury	-8776-09-04 06:28 J	-1483764.33	-1483764.23	-1483764.13	0.0141	0.0121
Mercury	-8776-12-01 14:52 J	-1483676.03	-1483675.88	-1483675.72	0.0141	0.0089
Mercury	-8775-02-27 23:16 J	-1483587.70	-1483587.53	-1483587.34	0.0141	0.0058
Mercury	-8775-05-27 07:55 J	-1483499.36	-1483499.17	-1483498.98	0.0141	0.0027
Mercury	-8775-08-23 16:19 J	-1483411.02	-1483410.82	-1483410.62	0.0141	0.0005
Mercury	-8775-11-20 00:43 J	-1483322.66	-1483322.47	-1483322.28	0.0141	0.0035
Mercury	-8774-02-16 08:52 J	-1483234.29	-1483234.13	-1483233.94	0.0141	0.0067
Mercury	-8774-05-15 17:16 J	-1483145.91	-1483145.78	-1483145.63	0.0140	0.0097
Mercury	-8774-08-12 01:55 J	-1483057.50	-1483057.42	-1483057.34	0.0140	0.0128
Mars	-8772-09-20 02:38 J	-1482287.55	-1482287.39	-1482287.19	0.0139	0.0109
Mars	-8770-08-21 13:12 J	-1481587.18	-1481586.95	-1481586.68	0.0138	0.0066
Venus	-8763-07-03 16:04 J	-1479078.84	-1479078.83	-1479078.79	0.0135	0.0134
Venus	-8762-02-14 23:45 J	-1478852.66	-1478852.51	-1478852.34	0.0135	0.0094
Venus	-8762-09-29 07:12 J	-1478626.40	-1478626.20	-1478625.99	0.0135	0.0054
Venus	-8761-05-12 14:24 J	-1478400.12	-1478399.90	-1478399.68	0.0135	0.0014
Venus	-8761-12-24 21:21 J	-1478173.83	-1478173.61	-1478173.39	0.0134	0.0026
Venus	-8760-08-08 03:50 J	-1477947.52	-1477947.34	-1477947.13	0.0134	0.0065
Venus	-8759-03-22 10:33 J	-1477721.18	-1477721.06	-1477720.90	0.0134	0.0104
Moon	-8753-06-02 14:09 J	-1475457.04	-1475456.91	-1475456.74	0.0133	0.0108
Earth	-8753-06-02 15:07 J	-1475457.01	-1475456.87	-1475456.70	0.0133	0.0105 *
Earth	-8752-06-06 21:50 J	-1475087.79	-1475087.59	-1475087.35	0.0133	0.0066

Moon	-8752-06-06 23:02 J	-1475087.74	-1475087.54	-1475087.31	0.0133	0.0065 *
Moon	-8751-06-11 04:04 J	-1474718.59	-1474718.33	-1474718.07	0.0133	0.0023
Earth	-8751-06-11 04:33 J	-1474718.55	-1474718.31	-1474718.05	0.0133	0.0026 *
Earth	-8750-06-15 11:02 J	-1474349.29	-1474349.04	-1474348.79	0.0133	0.0015
Moon	-8750-06-15 11:31 J	-1474349.26	-1474349.02	-1474348.77	0.0133	0.0010 *
Moon	-8749-06-18 15:50 J	-1473980.06	-1473979.84	-1473979.59	0.0133	0.0061
Earth	-8749-06-18 16:47 J	-1473980.02	-1473979.80	-1473979.56	0.0133	0.0055 *
Earth	-8748-06-22 22:04 J	-1473610.73	-1473610.58	-1473610.38	0.0133	0.0095
Moon	-8748-06-22 22:47 J	-1473610.73	-1473610.55	-1473610.36	0.0133	0.0088 *
Mercury	-8732-05-23 02:52 J	-1467797.40	-1467797.38	-1467797.34	0.0137	0.0133
Mercury	-8732-08-19 06:00 J	-1467709.31	-1467709.25	-1467709.17	0.0137	0.0114
Mercury	-8732-11-15 09:07 J	-1467621.21	-1467621.12	-1467621.02	0.0137	0.0095
Mercury	-8731-02-11 12:00 J	-1467533.10	-1467533.00	-1467532.88	0.0137	0.0077
Mercury	-8731-05-10 15:07 J	-1467444.98	-1467444.87	-1467444.74	0.0137	0.0059
Mercury	-8731-08-06 18:14 J	-1467356.86	-1467356.74	-1467356.61	0.0137	0.0040
Mercury	-8731-11-02 21:21 J	-1467268.73	-1467268.61	-1467268.48	0.0138	0.0021
Mercury	-8730-01-30 00:28 J	-1467180.61	-1467180.48	-1467180.35	0.0138	0.0003
Mercury	-8730-04-28 03:35 J	-1467092.48	-1467092.35	-1467092.22	0.0138	0.0017
Mercury	-8730-07-25 06:43 J	-1467004.35	-1467004.22	-1467004.10	0.0138	0.0036
Mercury	-8730-10-21 09:35 J	-1466916.21	-1466916.10	-1466915.97	0.0138	0.0056
Mercury	-8729-01-17 12:43 J	-1466828.07	-1466827.97	-1466827.85	0.0138	0.0075
Mercury	-8729-04-14 15:50 J	-1466739.93	-1466739.84	-1466739.74	0.0138	0.0094
Mercury	-8729-07-11 18:57 J	-1466651.77	-1466651.71	-1466651.63	0.0138	0.0113
Mercury	-8729-10-07 22:04 J	-1466563.61	-1466563.58	-1466563.54	0.0138	0.0133
Mars	-8726-10-14 17:45 J	-1465462.07	-1465461.76	-1465461.42	0.0140	0.0037
Venus	-8719-06-28 20:09 J	-1463012.66	-1463012.66	-1463012.64	0.0143	0.0143
Venus	-8718-02-10 06:14 J	-1462786.39	-1462786.24	-1462786.08	0.0143	0.0097
Venus	-8718-09-24 16:33 J	-1462560.01	-1462559.81	-1462559.61	0.0144	0.0050
Venus	-8717-05-08 02:52 J	-1462333.60	-1462333.38	-1462333.17	0.0144	0.0003
Venus	-8717-12-20 12:57 J	-1462107.15	-1462106.96	-1462106.75	0.0144	0.0045

Venus	-8716-08-03 23:45 J	-1461880.67	-1461880.51	-1461880.34	0.0144	0.0093
Venus	-8715-03-18 10:04 J	-1461654.11	-1461654.08	-1461654.02	0.0145	0.0141
Earth	-8711-11-27 19:26 J	-1459938.82	-1459938.69	-1459938.54	0.0146	0.0120
Moon	-8711-11-27 20:24 J	-1459938.75	-1459938.65	-1459938.51	0.0146	0.0128 *
Moon	-8710-12-02 19:55 J	-1459568.89	-1459568.67	-1459568.41	0.0146	0.0061
Earth	-8710-12-02 21:07 J	-1459568.83	-1459568.62	-1459568.39	0.0146	0.0068 *
Moon	-8709-12-06 23:16 J	-1459198.77	-1459198.53	-1459198.28	0.0146	0.0019
Earth	-8709-12-06 23:31 J	-1459198.77	-1459198.52	-1459198.26	0.0146	0.0015 *
Earth	-8708-12-12 02:24 J	-1458828.64	-1458828.40	-1458828.15	0.0146	0.0039
Moon	-8708-12-12 02:52 J	-1458828.63	-1458828.38	-1458828.12	0.0146	0.0040 *
Moon	-8707-12-17 03:50 J	-1458458.52	-1458458.34	-1458458.15	0.0146	0.0097
Earth	-8707-12-17 05:16 J	-1458458.46	-1458458.28	-1458458.07	0.0146	0.0093 *
Earth	-8706-12-22 08:38 J	-1458088.14	-1458088.14	-1458088.11	0.0146	0.0146
Moon	-8706-12-22 10:47 J	-1458088.12	-1458088.05	-1458087.95	0.0146	0.0138 *
Mercury	-8692-09-24 14:09 J	-1453063.02	-1453062.91	-1453062.78	0.0141	0.0112
Mercury	-8692-12-21 22:47 J	-1452974.71	-1452974.55	-1452974.38	0.0141	0.0080
Mercury	-8691-03-20 07:12 J	-1452886.38	-1452886.20	-1452886.01	0.0141	0.0049
Mercury	-8691-06-16 15:50 J	-1452798.04	-1452797.84	-1452797.65	0.0141	0.0018
Mercury	-8691-09-13 00:14 J	-1452709.69	-1452709.49	-1452709.29	0.0141	0.0013
Mercury	-8691-12-10 08:24 J	-1452621.33	-1452621.15	-1452620.95	0.0141	0.0045
Mercury	-8690-03-08 16:47 J	-1452532.96	-1452532.80	-1452532.62	0.0141	0.0075
Mercury	-8690-06-05 01:12 J	-1452444.57	-1452444.45	-1452444.31	0.0140	0.0106
Mercury	-8690-09-01 09:21 J	-1452356.14	-1452356.11	-1452356.05	0.0140	0.0137
Mars	-8687-05-15 20:38 J	-1451368.90	-1451368.64	-1451368.36	0.0139	0.0045
Mars	-8685-04-15 03:35 J	-1450668.44	-1450668.35	-1450668.21	0.0138	0.0126
Venus	-8679-10-15 08:52 J	-1448294.23	-1448294.13	-1448293.99	0.0135	0.0112
Venus	-8678-05-29 16:19 J	-1448068.00	-1448067.82	-1448067.62	0.0135	0.0072
Venus	-8677-01-10 23:45 J	-1447841.73	-1447841.51	-1447841.30	0.0135	0.0032
Venus	-8677-08-24 06:43 J	-1447615.44	-1447615.22	-1447615.00	0.0134	0.0008
Venus	-8676-04-07 13:26 J	-1447389.14	-1447388.94	-1447388.73	0.0134	0.0048

Venus	-8676-11-19 20:09 J	-1447162.82	-1447162.66	-1447162.49	0.0134	0.0087
Venus	-8675-07-04 02:38 J	-1446936.45	-1446936.39	-1446936.30	0.0134	0.0125
Moon	-8669-06-02 23:31 J	-1444775.68	-1444775.52	-1444775.32	0.0133	0.0096
Earth	-8669-06-03 01:55 J	-1444775.59	-1444775.42	-1444775.25	0.0133	0.0100 *
Earth	-8668-06-07 08:24 J	-1444406.36	-1444406.15	-1444405.91	0.0133	0.0061
Moon	-8668-06-07 10:04 J	-1444406.30	-1444406.08	-1444405.86	0.0133	0.0061 *
Moon	-8667-06-11 13:40 J	-1444037.18	-1444036.93	-1444036.66	0.0132	0.0023
Earth	-8667-06-11 15:21 J	-1444037.11	-1444036.86	-1444036.60	0.0132	0.0020 *
Earth	-8666-06-15 21:21 J	-1443667.85	-1443667.61	-1443667.35	0.0132	0.0020
Moon	-8666-06-15 22:47 J	-1443667.78	-1443667.55	-1443667.30	0.0132	0.0024 *
Moon	-8665-06-19 02:09 J	-1443298.64	-1443298.41	-1443298.15	0.0132	0.0053
Earth	-8665-06-19 03:35 J	-1443298.58	-1443298.35	-1443298.13	0.0132	0.0059 *
Earth	-8664-06-23 08:52 J	-1442929.29	-1442929.13	-1442928.95	0.0133	0.0098
Moon	-8664-06-23 10:19 J	-1442929.21	-1442929.07	-1442928.91	0.0133	0.0105 *
Moon	-8663-06-27 12:57 J	-1442559.98	-1442559.96	-1442559.90	0.0133	0.0131
Mercury	-8648-06-12 10:19 J	-1437096.11	-1437096.07	-1437096.03	0.0137	0.0128
Mercury	-8648-09-08 13:12 J	-1437008.02	-1437007.95	-1437007.87	0.0137	0.0110
Mercury	-8648-12-05 16:19 J	-1436919.91	-1436919.82	-1436919.72	0.0137	0.0091
Mercury	-8647-03-03 19:26 J	-1436831.80	-1436831.69	-1436831.58	0.0137	0.0073
Mercury	-8647-05-30 22:33 J	-1436743.68	-1436743.56	-1436743.44	0.0137	0.0054
Mercury	-8647-08-27 01:26 J	-1436655.56	-1436655.44	-1436655.31	0.0137	0.0036
Mercury	-8647-11-23 04:33 J	-1436567.43	-1436567.31	-1436567.18	0.0138	0.0017
Mercury	-8646-02-19 07:40 J	-1436479.31	-1436479.18	-1436479.05	0.0138	0.0005
Mercury	-8646-05-18 10:47 J	-1436391.18	-1436391.05	-1436390.92	0.0138	0.0022
Mercury	-8646-08-14 13:55 J	-1436303.04	-1436302.92	-1436302.79	0.0138	0.0041
Mercury	-8646-11-10 17:02 J	-1436214.91	-1436214.79	-1436214.67	0.0138	0.0060
Mercury	-8645-02-06 19:55 J	-1436126.77	-1436126.67	-1436126.55	0.0138	0.0080
Mercury	-8645-05-04 23:02 J	-1436038.62	-1436038.54	-1436038.44	0.0138	0.0099
Mercury	-8645-08-01 02:24 J	-1435950.47	-1435950.40	-1435950.33	0.0138	0.0117
Mercury	-8645-10-28 05:31 J	-1435862.29	-1435862.27	-1435862.25	0.0138	0.0137

Mars	-8643-07-05 09:07 J	-1435247.35	-1435247.12	-1435246.87	0.0139	0.0097
Mars	-8641-06-09 18:28 J	-1434541.90	-1434541.73	-1434541.50	0.0140	0.0113
Venus	-8635-10-10 13:55 J	-1432228.03	-1432227.92	-1432227.79	0.0143	0.0119
Venus	-8634-05-25 00:00 J	-1432001.68	-1432001.50	-1432001.31	0.0144	0.0072
Venus	-8633-01-06 10:19 J	-1431775.28	-1431775.07	-1431774.85	0.0144	0.0025
Venus	-8633-08-19 20:52 J	-1431548.84	-1431548.63	-1431548.42	0.0144	0.0023
Venus	-8632-04-03 07:12 J	-1431322.38	-1431322.20	-1431322.01	0.0144	0.0071
Venus	-8632-11-15 17:31 J	-1431095.88	-1431095.77	-1431095.63	0.0144	0.0119
Earth	-8627-11-28 06:14 J	-1429257.37	-1429257.24	-1429257.06	0.0146	0.0115
Moon	-8627-11-28 08:38 J	-1429257.29	-1429257.14	-1429256.97	0.0146	0.0109 *
Moon	-8626-12-03 07:12 J	-1428887.41	-1428887.20	-1428886.95	0.0146	0.0070
Earth	-8626-12-03 08:38 J	-1428887.37	-1428887.14	-1428886.91	0.0146	0.0062 *
Earth	-8625-12-07 10:47 J	-1428517.30	-1428517.05	-1428516.79	0.0146	0.0009
Moon	-8625-12-07 11:45 J	-1428517.26	-1428517.01	-1428516.77	0.0146	0.0004 *
Earth	-8624-12-12 13:40 J	-1428147.17	-1428146.93	-1428146.69	0.0146	0.0044
Moon	-8624-12-12 13:55 J	-1428147.16	-1428146.92	-1428146.66	0.0146	0.0044 *
Moon	-8623-12-17 15:50 J	-1427777.02	-1427776.84	-1427776.64	0.0146	0.0094
Earth	-8623-12-17 16:33 J	-1427776.99	-1427776.81	-1427776.61	0.0146	0.0097 *
Mercury	-8608-07-18 13:26 J	-1422449.99	-1422449.94	-1422449.88	0.0141	0.0135
Mercury	-8608-10-14 21:50 J	-1422361.72	-1422361.59	-1422361.45	0.0141	0.0103
Mercury	-8607-01-11 06:14 J	-1422273.40	-1422273.24	-1422273.06	0.0141	0.0072
Mercury	-8607-04-09 14:52 J	-1422185.07	-1422184.88	-1422184.69	0.0141	0.0041
Mercury	-8607-07-06 23:16 J	-1422096.73	-1422096.53	-1422096.33	0.0141	0.0010
Mercury	-8607-10-03 07:40 J	-1422008.37	-1422008.18	-1422007.98	0.0141	0.0021
Mercury	-8607-12-30 16:04 J	-1421920.01	-1421919.83	-1421919.65	0.0141	0.0052
Mercury	-8606-03-29 00:14 J	-1421831.64	-1421831.49	-1421831.32	0.0141	0.0083
Mercury	-8606-06-25 08:38 J	-1421743.25	-1421743.14	-1421743.02	0.0140	0.0113
Mars	-8602-01-08 12:28 J	-1420450.27	-1420449.98	-1420449.69	0.0139	0.0017
Venus	-8595-06-14 17:31 J	-1417735.80	-1417735.77	-1417735.70	0.0135	0.0131
Venus	-8594-01-27 00:57 J	-1417509.61	-1417509.46	-1417509.28	0.0135	0.0091

Venus	-8594-09-10 08:24 J	-1417283.35	-1417283.15	-1417282.94	0.0135	0.0051
Venus	-8593-04-23 15:35 J	-1417057.07	-1417056.85	-1417056.63	0.0135	0.0011
Venus	-8593-12-05 22:19 J	-1416830.79	-1416830.57	-1416830.35	0.0134	0.0029
Venus	-8592-07-20 04:47 J	-1416604.48	-1416604.30	-1416604.10	0.0134	0.0068
Venus	-8591-03-03 11:31 J	-1416378.14	-1416378.02	-1416377.87	0.0134	0.0107
Moon	-8586-05-31 06:00 J	-1414463.29	-1414463.25	-1414463.18	0.0133	0.0129
Moon	-8585-06-03 09:21 J	-1414094.28	-1414094.11	-1414093.94	0.0133	0.0099
Earth	-8585-06-03 10:47 J	-1414094.20	-1414094.05	-1414093.85	0.0133	0.0096 *
Earth	-8584-06-07 18:14 J	-1413724.97	-1413724.74	-1413724.51	0.0133	0.0056
Moon	-8584-06-07 20:09 J	-1413724.87	-1413724.66	-1413724.42	0.0133	0.0055 *
Moon	-8583-06-11 22:33 J	-1413355.81	-1413355.56	-1413355.29	0.0132	0.0016
Earth	-8583-06-12 00:43 J	-1413355.72	-1413355.47	-1413355.21	0.0132	0.0016 *
Earth	-8582-06-16 06:43 J	-1412986.46	-1412986.22	-1412985.96	0.0132	0.0024
Moon	-8582-06-16 08:38 J	-1412986.38	-1412986.14	-1412985.89	0.0132	0.0019 *
Moon	-8581-06-19 10:19 J	-1412617.28	-1412617.07	-1412616.83	0.0132	0.0068
Earth	-8581-06-19 12:28 J	-1412617.19	-1412616.98	-1412616.74	0.0132	0.0063 *
Earth	-8580-06-23 17:45 J	-1412247.90	-1412247.76	-1412247.58	0.0132	0.0102
Moon	-8580-06-23 19:26 J	-1412247.85	-1412247.69	-1412247.51	0.0132	0.0095 *
Mercury	-8564-07-02 17:02 J	-1406394.83	-1406394.79	-1406394.73	0.0137	0.0126
Mercury	-8564-09-28 20:09 J	-1406306.74	-1406306.66	-1406306.58	0.0137	0.0107
Mercury	-8564-12-25 23:16 J	-1406218.63	-1406218.53	-1406218.43	0.0137	0.0088
Mercury	-8563-03-24 02:09 J	-1406130.51	-1406130.41	-1406130.29	0.0137	0.0070
Mercury	-8563-06-20 05:16 J	-1406042.39	-1406042.28	-1406042.15	0.0137	0.0052
Mercury	-8563-09-16 08:24 J	-1405954.27	-1405954.15	-1405954.02	0.0137	0.0033
Mercury	-8563-12-13 11:31 J	-1405866.15	-1405866.02	-1405865.89	0.0138	0.0014
Mercury	-8562-03-11 14:38 J	-1405778.02	-1405777.89	-1405777.76	0.0138	0.0006
Mercury	-8562-06-07 17:45 J	-1405689.89	-1405689.76	-1405689.63	0.0138	0.0025
Mercury	-8562-09-03 20:52 J	-1405601.75	-1405601.63	-1405601.51	0.0138	0.0044
Mercury	-8562-11-30 23:45 J	-1405513.62	-1405513.51	-1405513.39	0.0138	0.0063
Mercury	-8561-02-27 02:52 J	-1405425.48	-1405425.38	-1405425.27	0.0138	0.0082

Mercury	-8561-05-25 06:00 J	-1405337.33	-1405337.25	-1405337.15	0.0138	0.0101
Mercury	-8561-08-21 09:07 J	-1405249.17	-1405249.12	-1405249.05	0.0138	0.0121
Mars	-8558-03-01 02:52 J	-1404327.70	-1404327.38	-1404327.05	0.0140	0.0026
Venus	-8551-06-09 19:40 J	-1401669.68	-1401669.68	-1401669.65	0.0143	0.0143
Venus	-8550-01-22 05:31 J	-1401443.41	-1401443.27	-1401443.09	0.0143	0.0097
Venus	-8550-09-05 16:04 J	-1401217.03	-1401216.83	-1401216.62	0.0144	0.0049
Venus	-8549-04-19 02:24 J	-1400990.61	-1400990.40	-1400990.18	0.0144	0.0002
Venus	-8549-12-01 12:28 J	-1400764.17	-1400763.98	-1400763.76	0.0144	0.0047
Venus	-8548-07-15 23:16 J	-1400537.69	-1400537.53	-1400537.36	0.0144	0.0094
Venus	-8547-02-27 09:50 J	-1400311.12	-1400311.09	-1400311.04	0.0145	0.0142
Earth	-8543-11-28 14:24 J	-1398576.06	-1398575.90	-1398575.73	0.0146	0.0110
Moon	-8543-11-28 16:47 J	-1398575.94	-1398575.80	-1398575.65	0.0146	0.0117 *
Moon	-8542-12-03 13:40 J	-1398206.16	-1398205.93	-1398205.67	0.0146	0.0051
Earth	-8542-12-03 16:04 J	-1398206.05	-1398205.83	-1398205.59	0.0146	0.0058 *
Earth	-8541-12-07 18:28 J	-1397835.98	-1397835.73	-1397835.48	0.0146	0.0005
Moon	-8541-12-07 19:26 J	-1397835.93	-1397835.69	-1397835.44	0.0146	0.0010 *
Moon	-8540-12-12 20:09 J	-1397465.90	-1397465.66	-1397465.40	0.0146	0.0050
Earth	-8540-12-12 20:52 J	-1397465.86	-1397465.63	-1397465.38	0.0146	0.0048 *
Moon	-8539-12-17 23:16 J	-1397095.68	-1397095.53	-1397095.34	0.0146	0.0104
Earth	-8539-12-17 23:31 J	-1397095.68	-1397095.52	-1397095.31	0.0146	0.0101 *
Moon	-8538-12-23 04:19 J	-1396725.34	-1396725.32	-1396725.30	0.0146	0.0145
Mercury	-8524-08-07 19:55 J	-1391748.74	-1391748.67	-1391748.58	0.0141	0.0130
Mercury	-8524-11-04 04:19 J	-1391660.45	-1391660.32	-1391660.17	0.0141	0.0099
Mercury	-8523-01-31 12:57 J	-1391572.13	-1391571.96	-1391571.78	0.0141	0.0067
Mercury	-8523-04-29 21:21 J	-1391483.79	-1391483.61	-1391483.41	0.0141	0.0036
Mercury	-8523-07-27 06:00 J	-1391395.45	-1391395.25	-1391395.05	0.0141	0.0005
Mercury	-8523-10-23 14:24 J	-1391307.09	-1391306.90	-1391306.71	0.0141	0.0026
Mercury	-8522-01-19 22:33 J	-1391218.73	-1391218.56	-1391218.37	0.0141	0.0058
Mercury	-8522-04-18 07:12 J	-1391130.35	-1391130.20	-1391130.05	0.0141	0.0088
Mercury	-8522-07-15 15:21 J	-1391041.96	-1391041.86	-1391041.75	0.0140	0.0119

Mars	-8520-10-02 13:40 J	-1390232.12	-1390231.93	-1390231.70	0.0139	0.0095
Mars	-8518-09-02 23:16 J	-1389531.76	-1389531.53	-1389531.28	0.0138	0.0077
Venus	-8511-09-26 09:21 J	-1386951.22	-1386951.11	-1386950.96	0.0135	0.0111
Venus	-8510-05-10 16:47 J	-1386724.98	-1386724.80	-1386724.60	0.0135	0.0070
Venus	-8510-12-23 00:00 J	-1386498.71	-1386498.50	-1386498.28	0.0135	0.0030
Venus	-8509-08-05 06:57 J	-1386272.43	-1386272.21	-1386271.99	0.0135	0.0010
Venus	-8508-03-19 13:55 J	-1386046.13	-1386045.92	-1386045.72	0.0134	0.0050
Venus	-8508-10-31 20:09 J	-1385819.81	-1385819.66	-1385819.48	0.0134	0.0089
Venus	-8507-06-15 02:38 J	-1385593.43	-1385593.39	-1385593.30	0.0134	0.0128
Earth	-8502-05-31 13:26 J	-1383781.98	-1383781.94	-1383781.88	0.0133	0.0130
Moon	-8501-06-03 17:45 J	-1383412.94	-1383412.76	-1383412.54	0.0133	0.0086
Earth	-8501-06-03 20:52 J	-1383412.80	-1383412.63	-1383412.43	0.0133	0.0091 *
Earth	-8500-06-08 03:50 J	-1383043.57	-1383043.34	-1383043.10	0.0133	0.0051
Moon	-8500-06-08 06:00 J	-1383043.46	-1383043.25	-1383043.01	0.0133	0.0054 *
Moon	-8499-06-12 07:55 J	-1382674.43	-1382674.17	-1382673.91	0.0132	0.0013
Earth	-8499-06-12 10:33 J	-1382674.31	-1382674.06	-1382673.80	0.0132	0.0012 *
Earth	-8498-06-16 16:33 J	-1382305.06	-1382304.81	-1382304.56	0.0132	0.0027
Moon	-8498-06-16 18:57 J	-1382304.94	-1382304.71	-1382304.46	0.0132	0.0031 *
Moon	-8497-06-19 19:55 J	-1381935.89	-1381935.67	-1381935.43	0.0132	0.0060
Earth	-8497-06-19 22:04 J	-1381935.79	-1381935.58	-1381935.35	0.0132	0.0067 *
Earth	-8496-06-24 03:21 J	-1381566.50	-1381566.36	-1381566.19	0.0132	0.0105
Moon	-8496-06-24 06:00 J	-1381566.37	-1381566.25	-1381566.11	0.0132	0.0112 *
Mercury	-8480-07-23 00:00 J	-1375693.55	-1375693.50	-1375693.44	0.0137	0.0123
Mercury	-8480-10-19 03:07 J	-1375605.45	-1375605.37	-1375605.29	0.0137	0.0104
Mercury	-8479-01-15 06:00 J	-1375517.34	-1375517.25	-1375517.14	0.0137	0.0086
Mercury	-8479-04-13 09:07 J	-1375429.23	-1375429.12	-1375429.00	0.0137	0.0067
Mercury	-8479-07-10 12:14 J	-1375341.11	-1375340.99	-1375340.87	0.0137	0.0048
Mercury	-8479-10-06 15:21 J	-1375252.98	-1375252.86	-1375252.73	0.0137	0.0030
Mercury	-8478-01-02 18:28 J	-1375164.86	-1375164.73	-1375164.60	0.0137	0.0011
Mercury	-8478-03-31 21:35 J	-1375076.73	-1375076.60	-1375076.47	0.0138	0.0008

Mercury	-8478-06-28 00:28 J	-1374988.60	-1374988.48	-1374988.35	0.0138	0.0028
Mercury	-8478-09-24 03:35 J	-1374900.47	-1374900.35	-1374900.22	0.0138	0.0047
Mercury	-8478-12-21 06:43 J	-1374812.33	-1374812.22	-1374812.10	0.0138	0.0066
Mercury	-8477-03-18 09:50 J	-1374724.19	-1374724.09	-1374723.98	0.0138	0.0085
Mercury	-8477-06-14 12:57 J	-1374636.04	-1374635.96	-1374635.87	0.0138	0.0104
Mercury	-8477-09-10 16:04 J	-1374547.88	-1374547.83	-1374547.77	0.0138	0.0123
Mars	-8474-10-25 20:09 J	-1373407.96	-1373407.66	-1373407.34	0.0140	0.0046
Venus	-8467-09-21 11:16 J	-1370885.14	-1370885.03	-1370884.92	0.0143	0.0121
Venus	-8466-05-05 20:52 J	-1370658.80	-1370658.63	-1370658.43	0.0143	0.0075
Venus	-8466-12-18 07:26 J	-1370432.40	-1370432.19	-1370431.98	0.0144	0.0027
Venus	-8465-07-31 17:31 J	-1370205.97	-1370205.77	-1370205.55	0.0144	0.0021
Venus	-8464-03-15 04:04 J	-1369979.51	-1369979.33	-1369979.14	0.0144	0.0068
Venus	-8464-10-27 14:24 J	-1369753.01	-1369752.90	-1369752.76	0.0144	0.0117
Earth	-8459-11-28 20:09 J	-1367894.82	-1367894.66	-1367894.48	0.0146	0.0107
Moon	-8459-11-28 23:02 J	-1367894.70	-1367894.54	-1367894.34	0.0146	0.0102 *
Moon	-8458-12-03 19:26 J	-1367524.91	-1367524.69	-1367524.44	0.0146	0.0063
Earth	-8458-12-03 21:50 J	-1367524.81	-1367524.59	-1367524.34	0.0146	0.0055 *
Earth	-8457-12-08 00:00 J	-1367154.75	-1367154.50	-1367154.24	0.0146	0.0004
Moon	-8457-12-08 02:24 J	-1367154.65	-1367154.40	-1367154.16	0.0146	0.0005 *
Moon	-8456-12-13 01:12 J	-1366784.68	-1366784.45	-1366784.19	0.0146	0.0048
Earth	-8456-12-13 02:38 J	-1366784.63	-1366784.39	-1366784.15	0.0146	0.0050 *
Earth	-8455-12-18 05:02 J	-1366414.45	-1366414.29	-1366414.09	0.0146	0.0103
Moon	-8455-12-18 06:00 J	-1366414.42	-1366414.25	-1366414.06	0.0146	0.0101 *
Mercury	-8440-08-28 01:40 J	-1361047.51	-1361047.43	-1361047.35	0.0141	0.0128
Mercury	-8440-11-24 10:04 J	-1360959.22	-1360959.08	-1360958.93	0.0141	0.0097
Mercury	-8439-02-20 18:28 J	-1360870.90	-1360870.73	-1360870.55	0.0141	0.0065
Mercury	-8439-05-20 03:07 J	-1360782.56	-1360782.37	-1360782.18	0.0141	0.0034
Mercury	-8439-08-16 11:31 J	-1360694.22	-1360694.02	-1360693.82	0.0141	0.0003
Mercury	-8439-11-12 19:55 J	-1360605.86	-1360605.67	-1360605.47	0.0141	0.0028
Mercury	-8438-02-09 04:19 J	-1360517.50	-1360517.32	-1360517.14	0.0141	0.0059

Mercury	-8438-05-08 12:28 J	-1360429.12	-1360428.98	-1360428.82	0.0141	0.0090
Mercury	-8438-08-04 20:38 J	-1360340.72	-1360340.64	-1360340.52	0.0140	0.0121
Mars	-8435-05-27 21:07 J	-1359313.89	-1359313.62	-1359313.33	0.0139	0.0036
Mars	-8433-04-27 04:47 J	-1358613.34	-1358613.30	-1358613.21	0.0138	0.0134
Venus	-8427-05-26 16:19 J	-1356392.87	-1356392.82	-1356392.76	0.0135	0.0131
Venus	-8426-01-07 23:45 J	-1356166.67	-1356166.51	-1356166.35	0.0135	0.0090
Venus	-8426-08-22 06:57 J	-1355940.41	-1355940.21	-1355940.00	0.0135	0.0050
Venus	-8425-04-04 13:55 J	-1355714.14	-1355713.92	-1355713.70	0.0135	0.0010
Venus	-8425-11-16 20:52 J	-1355487.85	-1355487.63	-1355487.42	0.0134	0.0030
Venus	-8424-07-01 03:21 J	-1355261.54	-1355261.36	-1355261.16	0.0134	0.0070
Venus	-8423-02-12 10:19 J	-1355035.19	-1355035.07	-1355034.93	0.0134	0.0108
Earth	-8418-05-31 21:21 J	-1353100.68	-1353100.61	-1353100.53	0.0133	0.0126
Moon	-8418-06-01 00:14 J	-1353100.57	-1353100.49	-1353100.36	0.0133	0.0120 *
Moon	-8417-06-04 01:55 J	-1352731.60	-1352731.42	-1352731.22	0.0133	0.0092
Earth	-8417-06-04 04:47 J	-1352731.48	-1352731.30	-1352731.10	0.0133	0.0087 *
Earth	-8416-06-08 11:45 J	-1352362.24	-1352362.01	-1352361.76	0.0133	0.0048
Moon	-8416-06-08 14:52 J	-1352362.11	-1352361.88	-1352361.64	0.0133	0.0045 *
Moon	-8415-06-12 15:21 J	-1351993.12	-1351992.86	-1351992.60	0.0133	0.0009
Earth	-8415-06-12 18:28 J	-1351992.99	-1351992.73	-1351992.48	0.0133	0.0009 *
Earth	-8414-06-17 00:14 J	-1351623.73	-1351623.49	-1351623.23	0.0133	0.0031
Moon	-8414-06-17 03:07 J	-1351623.61	-1351623.37	-1351623.12	0.0133	0.0027 *
Moon	-8413-06-20 03:07 J	-1351254.58	-1351254.37	-1351254.15	0.0133	0.0074
Earth	-8413-06-20 06:00 J	-1351254.45	-1351254.25	-1351254.02	0.0133	0.0069 *
Earth	-8412-06-24 11:16 J	-1350885.16	-1350885.03	-1350884.87	0.0133	0.0108
Moon	-8412-06-24 14:09 J	-1350885.07	-1350884.91	-1350884.75	0.0133	0.0101 *
Mercury	-8396-08-12 06:43 J	-1344992.27	-1344992.22	-1344992.15	0.0137	0.0120
Mercury	-8396-11-08 10:04 J	-1344904.17	-1344904.08	-1344903.99	0.0137	0.0101
Mercury	-8395-02-04 13:12 J	-1344816.05	-1344815.95	-1344815.85	0.0137	0.0082
Mercury	-8395-05-03 16:04 J	-1344727.94	-1344727.83	-1344727.71	0.0137	0.0064
Mercury	-8395-07-30 19:12 J	-1344639.82	-1344639.70	-1344639.57	0.0137	0.0045

Mercury	-8395-10-26 22:19 J	-1344551.70	-1344551.57	-1344551.44	0.0137	0.0026
Mercury	-8394-01-23 01:26 J	-1344463.57	-1344463.44	-1344463.31	0.0137	0.0007
Mercury	-8394-04-21 04:33 J	-1344375.44	-1344375.31	-1344375.18	0.0138	0.0012
Mercury	-8394-07-18 07:40 J	-1344287.31	-1344287.18	-1344287.06	0.0138	0.0031
Mercury	-8394-10-14 10:33 J	-1344199.17	-1344199.06	-1344198.93	0.0138	0.0050
Mercury	-8393-01-10 13:40 J	-1344111.04	-1344110.93	-1344110.81	0.0138	0.0069
Mercury	-8393-04-07 16:47 J	-1344022.89	-1344022.80	-1344022.69	0.0138	0.0088
Mercury	-8393-07-04 19:55 J	-1343934.74	-1343934.67	-1343934.58	0.0138	0.0107
Mercury	-8393-09-30 23:02 J	-1343846.58	-1343846.54	-1343846.48	0.0138	0.0126
Mars	-8391-07-16 08:09 J	-1343193.40	-1343193.16	-1343192.89	0.0139	0.0087
Mars	-8389-06-20 15:50 J	-1342488.00	-1342487.84	-1342487.66	0.0140	0.0119
Venus	-8382-01-03 03:07 J	-1340100.53	-1340100.37	-1340100.22	0.0143	0.0098
Venus	-8382-08-17 13:12 J	-1339874.15	-1339873.95	-1339873.75	0.0143	0.0051
Venus	-8381-03-30 23:16 J	-1339647.74	-1339647.53	-1339647.31	0.0144	0.0004
Venus	-8381-11-12 09:35 J	-1339421.30	-1339421.10	-1339420.89	0.0144	0.0044
Venus	-8380-06-26 19:55 J	-1339194.83	-1339194.67	-1339194.50	0.0144	0.0092
Venus	-8379-02-08 06:43 J	-1338968.27	-1338968.22	-1338968.17	0.0144	0.0140
Earth	-8375-11-29 02:52 J	-1337213.55	-1337213.38	-1337213.20	0.0146	0.0103
Moon	-8375-11-29 05:45 J	-1337213.40	-1337213.26	-1337213.08	0.0146	0.0110 *
Moon	-8374-12-04 00:57 J	-1336843.70	-1336843.46	-1336843.21	0.0146	0.0044
Earth	-8374-12-04 04:04 J	-1336843.55	-1336843.33	-1336843.08	0.0146	0.0052 *
Earth	-8373-12-08 06:14 J	-1336473.50	-1336473.24	-1336472.99	0.0146	0.0001
Moon	-8373-12-08 08:24 J	-1336473.39	-1336473.15	-1336472.90	0.0146	0.0006 *
Moon	-8372-12-13 06:00 J	-1336103.48	-1336103.25	-1336103.00	0.0146	0.0057
Earth	-8372-12-13 08:09 J	-1336103.38	-1336103.16	-1336102.91	0.0146	0.0053 *
Earth	-8371-12-18 10:33 J	-1335733.22	-1335733.06	-1335732.87	0.0146	0.0105
Moon	-8371-12-18 11:45 J	-1335733.16	-1335733.01	-1335732.82	0.0146	0.0106 *
Mercury	-8356-09-17 06:57 J	-1330346.28	-1330346.21	-1330346.11	0.0141	0.0127
Mercury	-8356-12-14 15:21 J	-1330257.99	-1330257.86	-1330257.70	0.0141	0.0096
Mercury	-8355-03-13 00:00 J	-1330169.67	-1330169.50	-1330169.32	0.0141	0.0064

Mercury	-8355-06-09 08:24 J	-1330081.33	-1330081.15	-1330080.95	0.0141	0.0033
Mercury	-8355-09-05 17:02 J	-1329992.99	-1329992.79	-1329992.59	0.0141	0.0002
Mercury	-8355-12-03 01:26 J	-1329904.63	-1329904.44	-1329904.24	0.0141	0.0030
Mercury	-8354-03-01 09:35 J	-1329816.26	-1329816.10	-1329815.91	0.0141	0.0061
Mercury	-8354-05-28 18:00 J	-1329727.89	-1329727.75	-1329727.59	0.0141	0.0092
Mercury	-8354-08-25 02:38 J	-1329639.48	-1329639.39	-1329639.29	0.0140	0.0122
Mars	-8350-01-20 05:31 J	-1328395.56	-1328395.27	-1328394.99	0.0139	0.0023
Venus	-8343-09-07 06:00 J	-1325608.35	-1325608.25	-1325608.11	0.0135	0.0112
Venus	-8342-04-21 13:26 J	-1325382.12	-1325381.94	-1325381.74	0.0135	0.0071
Venus	-8342-12-03 20:38 J	-1325155.85	-1325155.64	-1325155.42	0.0135	0.0031
Venus	-8341-07-17 03:50 J	-1324929.56	-1324929.34	-1324929.12	0.0135	0.0010
Venus	-8340-02-28 10:33 J	-1324703.25	-1324703.06	-1324702.84	0.0134	0.0050
Venus	-8340-10-12 17:45 J	-1324476.93	-1324476.76	-1324476.60	0.0134	0.0089
Venus	-8339-05-27 00:00 J	-1324250.55	-1324250.50	-1324250.42	0.0134	0.0128
Earth	-8334-06-01 05:16 J	-1322419.37	-1322419.28	-1322419.18	0.0133	0.0122
Moon	-8334-06-01 08:24 J	-1322419.20	-1322419.15	-1322419.08	0.0133	0.0129 *
Moon	-8333-06-04 09:07 J	-1322050.32	-1322050.12	-1322049.90	0.0133	0.0077
Earth	-8333-06-04 12:28 J	-1322050.16	-1322049.98	-1322049.76	0.0133	0.0084 *
Earth	-8332-06-08 19:26 J	-1321680.91	-1321680.69	-1321680.43	0.0133	0.0045
Moon	-8332-06-08 22:47 J	-1321680.78	-1321680.55	-1321680.31	0.0133	0.0048 *
Moon	-8331-06-12 23:02 J	-1321311.80	-1321311.54	-1321311.28	0.0133	0.0005
Earth	-8331-06-13 02:24 J	-1321311.65	-1321311.40	-1321311.14	0.0133	0.0005 *
Earth	-8330-06-17 08:24 J	-1320942.39	-1320942.15	-1320941.89	0.0133	0.0034
Moon	-8330-06-17 11:45 J	-1320942.24	-1320942.01	-1320941.76	0.0133	0.0036 *
Moon	-8329-06-20 11:02 J	-1320573.25	-1320573.04	-1320572.80	0.0133	0.0067
Earth	-8329-06-20 14:09 J	-1320573.11	-1320572.91	-1320572.68	0.0133	0.0073 *
Earth	-8328-06-24 19:26 J	-1320203.80	-1320203.69	-1320203.53	0.0133	0.0111
Moon	-8328-06-24 22:47 J	-1320203.64	-1320203.55	-1320203.41	0.0133	0.0118 *
Mercury	-8312-06-05 11:02 J	-1314379.06	-1314379.04	-1314379.02	0.0137	0.0134
Mercury	-8312-09-01 13:55 J	-1314290.98	-1314290.92	-1314290.84	0.0137	0.0116

Mercury	-8312-11-28 17:02 J	-1314202.87	-1314202.79	-1314202.69	0.0137	0.0097
Mercury	-8311-02-24 20:09 J	-1314114.76	-1314114.66	-1314114.55	0.0137	0.0079
Mercury	-8311-05-23 23:16 J	-1314026.64	-1314026.53	-1314026.41	0.0137	0.0060
Mercury	-8311-08-20 02:24 J	-1313938.52	-1313938.40	-1313938.28	0.0137	0.0041
Mercury	-8311-11-16 05:31 J	-1313850.40	-1313850.27	-1313850.14	0.0137	0.0022
Mercury	-8310-02-12 08:38 J	-1313762.27	-1313762.14	-1313762.01	0.0137	0.0005
Mercury	-8310-05-11 11:31 J	-1313674.14	-1313674.02	-1313673.88	0.0138	0.0017
Mercury	-8310-08-07 14:38 J	-1313586.01	-1313585.89	-1313585.76	0.0138	0.0035
Mercury	-8310-11-03 17:45 J	-1313497.87	-1313497.76	-1313497.64	0.0138	0.0054
Mercury	-8309-01-30 20:52 J	-1313409.74	-1313409.63	-1313409.52	0.0138	0.0073
Mercury	-8309-04-28 00:00 J	-1313321.59	-1313321.50	-1313321.40	0.0138	0.0092
Mercury	-8309-07-25 03:07 J	-1313233.44	-1313233.37	-1313233.29	0.0138	0.0111
Mercury	-8309-10-21 06:14 J	-1313145.27	-1313145.24	-1313145.19	0.0138	0.0130
Mars	-8306-03-12 04:19 J	-1312273.64	-1312273.32	-1312272.98	0.0139	0.0015
Venus	-8299-09-02 10:04 J	-1309542.18	-1309542.08	-1309541.95	0.0143	0.0120
Venus	-8298-04-16 20:09 J	-1309315.84	-1309315.66	-1309315.47	0.0143	0.0073
Venus	-8298-11-29 06:28 J	-1309089.44	-1309089.23	-1309089.02	0.0144	0.0026
Venus	-8297-07-12 16:47 J	-1308863.01	-1308862.80	-1308862.59	0.0144	0.0022
Venus	-8296-02-24 02:52 J	-1308636.55	-1308636.38	-1308636.18	0.0144	0.0070
Venus	-8296-10-08 13:40 J	-1308410.05	-1308409.93	-1308409.80	0.0144	0.0118
Earth	-8291-11-29 12:00 J	-1306532.17	-1306532.00	-1306531.80	0.0146	0.0099
Moon	-8291-11-29 15:50 J	-1306532.02	-1306531.84	-1306531.64	0.0146	0.0094 *
Moon	-8290-12-04 10:19 J	-1306162.30	-1306162.07	-1306161.82	0.0146	0.0055
Earth	-8290-12-04 13:26 J	-1306162.17	-1306161.94	-1306161.69	0.0146	0.0048 *
Earth	-8289-12-08 15:21 J	-1305792.12	-1305791.86	-1305791.61	0.0146	0.0004
Moon	-8289-12-08 18:28 J	-1305791.98	-1305791.73	-1305791.48	0.0146	0.0012 *
Moon	-8288-12-13 14:52 J	-1305422.12	-1305421.88	-1305421.63	0.0146	0.0052
Earth	-8288-12-13 17:16 J	-1305422.01	-1305421.78	-1305421.54	0.0146	0.0056 *
Earth	-8287-12-18 19:26 J	-1305051.85	-1305051.69	-1305051.51	0.0146	0.0108
Moon	-8287-12-18 21:21 J	-1305051.76	-1305051.61	-1305051.43	0.0146	0.0108 *

Mercury	-8272-10-07 13:26 J	-1299645.03	-1299644.94	-1299644.84	0.0141	0.0123
Mercury	-8271-01-03 21:50 J	-1299556.74	-1299556.59	-1299556.44	0.0141	0.0091
Mercury	-8271-04-02 06:14 J	-1299468.41	-1299468.24	-1299468.06	0.0141	0.0060
Mercury	-8271-06-29 14:52 J	-1299380.08	-1299379.88	-1299379.69	0.0141	0.0029
Mercury	-8271-09-25 23:16 J	-1299291.73	-1299291.53	-1299291.33	0.0141	0.0002
Mercury	-8271-12-23 07:40 J	-1299203.37	-1299203.18	-1299202.99	0.0141	0.0033
Mercury	-8270-03-21 16:04 J	-1299115.01	-1299114.83	-1299114.65	0.0141	0.0064
Mercury	-8270-06-18 00:14 J	-1299026.62	-1299026.49	-1299026.33	0.0140	0.0095
Mercury	-8270-09-14 08:24 J	-1298938.22	-1298938.15	-1298938.04	0.0140	0.0126
Mars	-8268-10-14 01:40 J	-1298177.62	-1298177.43	-1298177.19	0.0139	0.0092
Mars	-8266-09-14 13:40 J	-1297477.14	-1297476.93	-1297476.68	0.0138	0.0082
Venus	-8259-05-07 12:28 J	-1295050.00	-1295049.98	-1295049.91	0.0135	0.0133
Venus	-8259-12-19 20:09 J	-1294823.81	-1294823.66	-1294823.49	0.0135	0.0092
Venus	-8258-08-03 03:21 J	-1294597.55	-1294597.36	-1294597.15	0.0135	0.0051
Venus	-8257-03-16 10:47 J	-1294371.27	-1294371.05	-1294370.83	0.0135	0.0011
Venus	-8257-10-28 17:31 J	-1294144.97	-1294144.77	-1294144.54	0.0135	0.0030
Venus	-8256-06-12 00:14 J	-1293918.66	-1293918.49	-1293918.28	0.0134	0.0070
Venus	-8255-01-24 07:26 J	-1293692.31	-1293692.19	-1293692.06	0.0134	0.0108
Earth	-8250-06-01 12:28 J	-1291738.08	-1291737.98	-1291737.85	0.0133	0.0119
Moon	-8250-06-01 16:04 J	-1291737.95	-1291737.83	-1291737.67	0.0133	0.0112 *
Moon	-8249-06-04 16:33 J	-1291368.99	-1291368.81	-1291368.60	0.0133	0.0086
Earth	-8249-06-04 20:09 J	-1291368.85	-1291368.66	-1291368.45	0.0133	0.0080 *
Earth	-8248-06-09 03:21 J	-1290999.60	-1290999.36	-1290999.12	0.0133	0.0041
Moon	-8248-06-09 06:43 J	-1290999.45	-1290999.22	-1290998.96	0.0133	0.0038 *
Moon	-8247-06-13 06:28 J	-1290630.48	-1290630.23	-1290629.97	0.0133	0.0005
Earth	-8247-06-13 10:04 J	-1290630.33	-1290630.08	-1290629.82	0.0133	0.0002 *
Earth	-8246-06-17 16:04 J	-1290261.07	-1290260.83	-1290260.58	0.0133	0.0037
Moon	-8246-06-17 19:26 J	-1290260.92	-1290260.69	-1290260.44	0.0133	0.0034 *
Moon	-8245-06-20 18:28 J	-1289891.93	-1289891.73	-1289891.52	0.0133	0.0079
Earth	-8245-06-20 22:19 J	-1289891.78	-1289891.57	-1289891.36	0.0133	0.0075 *

Earth	-8244-06-25 03:50 J	-1289522.47	-1289522.34	-1289522.20	0.0133	0.0113
Moon	-8244-06-25 06:57 J	-1289522.35	-1289522.21	-1289522.05	0.0133	0.0107 *
Mercury	-8228-06-25 18:00 J	-1283677.78	-1283677.75	-1283677.70	0.0137	0.0131
Mercury	-8228-09-21 21:07 J	-1283589.69	-1283589.62	-1283589.54	0.0137	0.0112
Mercury	-8228-12-19 00:14 J	-1283501.58	-1283501.49	-1283501.39	0.0137	0.0093
Mercury	-8227-03-17 03:21 J	-1283413.47	-1283413.36	-1283413.25	0.0137	0.0075
Mercury	-8227-06-13 06:28 J	-1283325.35	-1283325.23	-1283325.11	0.0137	0.0056
Mercury	-8227-09-09 09:35 J	-1283237.23	-1283237.10	-1283236.98	0.0137	0.0037
Mercury	-8227-12-06 12:43 J	-1283149.10	-1283148.97	-1283148.84	0.0137	0.0018
Mercury	-8226-03-04 15:50 J	-1283060.97	-1283060.84	-1283060.71	0.0138	0.0003
Mercury	-8226-05-31 18:57 J	-1282972.84	-1282972.71	-1282972.59	0.0138	0.0020
Mercury	-8226-08-27 21:50 J	-1282884.71	-1282884.59	-1282884.46	0.0138	0.0039
Mercury	-8226-11-24 00:57 J	-1282796.57	-1282796.46	-1282796.34	0.0138	0.0058
Mercury	-8225-02-20 04:04 J	-1282708.43	-1282708.33	-1282708.22	0.0138	0.0077
Mercury	-8225-05-18 07:12 J	-1282620.29	-1282620.20	-1282620.10	0.0138	0.0096
Mercury	-8225-08-14 10:19 J	-1282532.13	-1282532.07	-1282532.00	0.0138	0.0115
Mercury	-8225-11-10 13:26 J	-1282443.96	-1282443.94	-1282443.91	0.0138	0.0135
Mars	-8222-11-06 03:07 J	-1281353.65	-1281353.37	-1281353.05	0.0140	0.0060
Venus	-8215-05-02 18:00 J	-1278983.77	-1278983.75	-1278983.71	0.0143	0.0141
Venus	-8215-12-15 04:04 J	-1278757.49	-1278757.33	-1278757.17	0.0143	0.0094
Venus	-8214-07-29 14:09 J	-1278531.11	-1278530.91	-1278530.70	0.0143	0.0048
Venus	-8213-03-12 00:28 J	-1278304.69	-1278304.48	-1278304.26	0.0144	0.0003
Venus	-8213-10-24 10:47 J	-1278078.25	-1278078.05	-1278077.84	0.0144	0.0048
Venus	-8212-06-07 21:07 J	-1277851.77	-1277851.62	-1277851.45	0.0144	0.0096
Venus	-8211-01-20 08:09 J	-1277625.18	-1277625.16	-1277625.15	0.0144	0.0144
Moon	-8208-11-24 19:26 J	-1276220.71	-1276220.69	-1276220.64	0.0145	0.0144
Earth	-8208-11-24 23:02 J	-1276220.58	-1276220.54	-1276220.49	0.0145	0.0143
Earth	-8207-11-29 23:31 J	-1275850.71	-1275850.52	-1275850.32	0.0146	0.0093
Moon	-8207-11-30 02:52 J	-1275850.55	-1275850.38	-1275850.18	0.0146	0.0099 *
Moon	-8206-12-04 21:07 J	-1275480.87	-1275480.62	-1275480.38	0.0146	0.0035

Earth	-8206-12-05 00:28 J	-1275480.71	-1275480.48	-1275480.23	0.0146	0.0043 *
Earth	-8205-12-09 02:09 J	-1275110.66	-1275110.41	-1275110.15	0.0146	0.0010
Moon	-8205-12-09 05:16 J	-1275110.53	-1275110.28	-1275110.03	0.0146	0.0003 *
Moon	-8204-12-14 00:57 J	-1274740.68	-1274740.46	-1274740.22	0.0146	0.0066
Earth	-8204-12-14 04:04 J	-1274740.55	-1274740.33	-1274740.09	0.0146	0.0061 *
Earth	-8203-12-19 06:28 J	-1274370.39	-1274370.23	-1274370.06	0.0146	0.0112
Moon	-8203-12-19 08:38 J	-1274370.28	-1274370.14	-1274369.97	0.0146	0.0112 *
Mercury	-8188-10-27 20:24 J	-1268943.76	-1268943.65	-1268943.54	0.0141	0.0116
Mercury	-8187-01-24 04:47 J	-1268855.45	-1268855.30	-1268855.14	0.0141	0.0085
Mercury	-8187-04-22 13:12 J	-1268767.12	-1268766.95	-1268766.76	0.0141	0.0054
Mercury	-8187-07-19 21:50 J	-1268678.79	-1268678.59	-1268678.40	0.0141	0.0023
Mercury	-8187-10-16 06:14 J	-1268590.44	-1268590.24	-1268590.04	0.0141	0.0008
Mercury	-8186-01-12 14:38 J	-1268502.08	-1268501.89	-1268501.70	0.0141	0.0039
Mercury	-8186-04-10 23:02 J	-1268413.71	-1268413.54	-1268413.37	0.0141	0.0070
Mercury	-8186-07-08 07:12 J	-1268325.33	-1268325.20	-1268325.05	0.0140	0.0101
Mercury	-8186-10-04 15:21 J	-1268236.91	-1268236.86	-1268236.77	0.0140	0.0132
Mars	-8183-06-08 16:19 J	-1267259.09	-1267258.82	-1267258.53	0.0139	0.0030
Venus	-8175-08-19 03:50 J	-1264265.44	-1264265.34	-1264265.20	0.0135	0.0112
Venus	-8174-04-02 11:16 J	-1264039.20	-1264039.03	-1264038.83	0.0135	0.0071
Venus	-8174-11-14 18:43 J	-1263812.93	-1263812.72	-1263812.50	0.0135	0.0030
Venus	-8173-06-28 01:40 J	-1263586.64	-1263586.43	-1263586.20	0.0135	0.0011
Venus	-8172-02-09 08:38 J	-1263360.33	-1263360.14	-1263359.92	0.0134	0.0051
Venus	-8172-09-23 15:50 J	-1263134.00	-1263133.84	-1263133.67	0.0134	0.0090
Venus	-8171-05-07 22:19 J	-1262907.61	-1262907.57	-1262907.50	0.0134	0.0129
Earth	-8166-06-01 21:07 J	-1261056.73	-1261056.62	-1261056.47	0.0133	0.0115
Moon	-8166-06-02 01:12 J	-1261056.55	-1261056.45	-1261056.35	0.0133	0.0121 *
Moon	-8165-06-05 01:26 J	-1260687.66	-1260687.44	-1260687.22	0.0133	0.0069
Earth	-8165-06-05 05:02 J	-1260687.49	-1260687.29	-1260687.07	0.0133	0.0076 *
Earth	-8164-06-09 12:00 J	-1260318.24	-1260318.00	-1260317.75	0.0133	0.0037
Moon	-8164-06-09 15:35 J	-1260318.09	-1260317.85	-1260317.61	0.0133	0.0041 *

Moon	-8163-06-13 15:07 J	-1259949.12	-1259948.87	-1259948.61	0.0133	0.0003
Earth	-8163-06-13 18:57 J	-1259948.97	-1259948.71	-1259948.46	0.0133	0.0002 *
Earth	-8162-06-18 01:12 J	-1259579.69	-1259579.45	-1259579.21	0.0133	0.0040
Moon	-8162-06-18 04:47 J	-1259579.54	-1259579.30	-1259579.06	0.0133	0.0041 *
Moon	-8161-06-21 03:21 J	-1259210.56	-1259210.36	-1259210.13	0.0133	0.0074
Earth	-8161-06-21 06:43 J	-1259210.40	-1259210.22	-1259210.00	0.0133	0.0079 *
Earth	-8160-06-25 12:28 J	-1258841.08	-1258840.98	-1258840.84	0.0133	0.0117
Moon	-8160-06-25 16:19 J	-1258840.90	-1258840.82	-1258840.71	0.0133	0.0123 *
Mercury	-8144-07-16 01:12 J	-1252976.49	-1252976.45	-1252976.40	0.0137	0.0127
Mercury	-8144-10-12 04:19 J	-1252888.39	-1252888.32	-1252888.24	0.0137	0.0108
Mercury	-8143-01-08 07:26 J	-1252800.28	-1252800.19	-1252800.09	0.0137	0.0090
Mercury	-8143-04-06 10:33 J	-1252712.17	-1252712.06	-1252711.95	0.0137	0.0071
Mercury	-8143-07-03 13:40 J	-1252624.05	-1252623.93	-1252623.81	0.0137	0.0052
Mercury	-8143-09-29 16:47 J	-1252535.93	-1252535.80	-1252535.68	0.0137	0.0033
Mercury	-8143-12-26 19:55 J	-1252447.80	-1252447.67	-1252447.54	0.0138	0.0015
Mercury	-8142-03-24 23:02 J	-1252359.67	-1252359.54	-1252359.41	0.0138	0.0006
Mercury	-8142-06-21 02:09 J	-1252271.54	-1252271.41	-1252271.29	0.0138	0.0024
Mercury	-8142-09-17 05:02 J	-1252183.41	-1252183.29	-1252183.16	0.0138	0.0043
Mercury	-8142-12-14 08:09 J	-1252095.27	-1252095.16	-1252095.04	0.0138	0.0062
Mercury	-8141-03-11 11:16 J	-1252007.13	-1252007.03	-1252006.92	0.0138	0.0081
Mercury	-8141-06-07 14:24 J	-1251918.98	-1251918.90	-1251918.81	0.0138	0.0100
Mercury	-8141-09-03 17:31 J	-1251830.83	-1251830.77	-1251830.70	0.0138	0.0119
Mars	-8139-07-27 18:43 J	-1251139.00	-1251138.72	-1251138.44	0.0139	0.0073
Mars	-8137-07-02 01:55 J	-1250433.50	-1250433.42	-1250433.31	0.0140	0.0134
Venus	-8131-08-14 11:45 J	-1248199.12	-1248199.01	-1248198.88	0.0143	0.0116
Venus	-8130-03-28 21:50 J	-1247972.77	-1247972.59	-1247972.39	0.0143	0.0070
Venus	-8130-11-10 08:09 J	-1247746.37	-1247746.16	-1247745.95	0.0144	0.0022
Venus	-8129-06-23 18:28 J	-1247519.94	-1247519.73	-1247519.52	0.0144	0.0026
Jupiter	-8129-07-06 14:52 J	-1247507.17	-1247506.88	-1247506.55	0.0144	0.0116
Venus	-8128-02-05 04:47 J	-1247293.47	-1247293.30	-1247293.11	0.0144	0.0074

Venus	-8128-09-19 15:21 J	-1247066.95	-1247066.86	-1247066.73	0.0144	0.0122
Moon	-8124-11-25 06:14 J	-1245539.29	-1245539.24	-1245539.14	0.0145	0.0139
Earth	-8124-11-25 09:50 J	-1245539.15	-1245539.09	-1245538.99	0.0145	0.0138 *
Earth	-8123-11-30 10:33 J	-1245169.25	-1245169.06	-1245168.85	0.0146	0.0088
Moon	-8123-11-30 14:09 J	-1245169.11	-1245168.91	-1245168.70	0.0146	0.0084 *
Moon	-8122-12-05 08:09 J	-1244799.39	-1244799.16	-1244798.91	0.0146	0.0045
Earth	-8122-12-05 12:00 J	-1244799.25	-1244799.00	-1244798.76	0.0146	0.0037 *
Earth	-8121-12-09 13:26 J	-1244429.19	-1244428.94	-1244428.68	0.0146	0.0014
Moon	-8121-12-09 17:02 J	-1244429.03	-1244428.79	-1244428.54	0.0146	0.0022 *
Moon	-8120-12-14 12:00 J	-1244059.22	-1244059.00	-1244058.75	0.0146	0.0061
Earth	-8120-12-14 15:21 J	-1244059.08	-1244058.86	-1244058.63	0.0146	0.0066 *
Earth	-8119-12-19 17:45 J	-1243688.90	-1243688.76	-1243688.60	0.0146	0.0117
Moon	-8119-12-19 20:38 J	-1243688.78	-1243688.64	-1243688.48	0.0146	0.0117 *
Mercury	-8104-08-20 19:26 J	-1238330.71	-1238330.69	-1238330.66	0.0141	0.0140
Mercury	-8104-11-17 03:50 J	-1238242.46	-1238242.34	-1238242.21	0.0141	0.0109
Mercury	-8103-02-13 12:28 J	-1238154.14	-1238153.98	-1238153.82	0.0141	0.0077
Mercury	-8103-05-12 20:52 J	-1238065.82	-1238065.63	-1238065.44	0.0141	0.0046
Mercury	-8103-08-09 05:16 J	-1237977.47	-1237977.28	-1237977.08	0.0141	0.0015
Mercury	-8103-11-05 13:40 J	-1237889.12	-1237888.93	-1237888.73	0.0141	0.0016
Mercury	-8102-02-01 22:04 J	-1237800.76	-1237800.58	-1237800.39	0.0141	0.0047
Mercury	-8102-05-01 06:14 J	-1237712.39	-1237712.24	-1237712.06	0.0140	0.0078
Mercury	-8102-07-28 14:38 J	-1237624.00	-1237623.89	-1237623.75	0.0140	0.0108
Mercury	-8102-10-24 23:02 J	-1237535.56	-1237535.54	-1237535.50	0.0140	0.0138
Mars	-8098-02-01 08:09 J	-1236340.43	-1236340.16	-1236339.87	0.0139	0.0032
Venus	-8091-04-18 12:14 J	-1233707.03	-1233706.99	-1233706.93	0.0135	0.0131
Venus	-8091-11-30 19:26 J	-1233480.84	-1233480.69	-1233480.51	0.0135	0.0091
Venus	-8090-07-15 02:52 J	-1233254.58	-1233254.38	-1233254.17	0.0135	0.0050
Venus	-8089-02-26 10:19 J	-1233028.29	-1233028.07	-1233027.85	0.0135	0.0009
Venus	-8089-10-09 17:16 J	-1232801.99	-1232801.78	-1232801.56	0.0134	0.0031
Venus	-8088-05-24 00:14 J	-1232575.68	-1232575.49	-1232575.30	0.0134	0.0071

Venus	-8087-01-05 06:43 J	-1232349.33	-1232349.22	-1232349.08	0.0134	0.0110
Earth	-8082-06-02 05:16 J	-1230375.39	-1230375.28	-1230375.11	0.0133	0.0111
Moon	-8082-06-02 09:21 J	-1230375.27	-1230375.11	-1230374.94	0.0133	0.0103 *
Moon	-8081-06-05 09:50 J	-1230006.29	-1230006.09	-1230005.88	0.0133	0.0078
Earth	-8081-06-05 13:12 J	-1230006.16	-1230005.95	-1230005.73	0.0133	0.0072 *
Earth	-8080-06-09 20:09 J	-1229636.90	-1229636.66	-1229636.41	0.0133	0.0034
Moon	-8080-06-10 00:00 J	-1229636.75	-1229636.50	-1229636.25	0.0133	0.0029 *
Moon	-8079-06-13 23:31 J	-1229267.77	-1229267.52	-1229267.26	0.0133	0.0003
Earth	-8079-06-14 03:07 J	-1229267.63	-1229267.37	-1229267.12	0.0133	0.0005 *
Earth	-8078-06-18 09:07 J	-1228898.35	-1228898.12	-1228897.87	0.0133	0.0044
Moon	-8078-06-18 12:43 J	-1228898.20	-1228897.97	-1228897.72	0.0133	0.0042 *
Moon	-8077-06-21 11:45 J	-1228529.20	-1228529.01	-1228528.82	0.0133	0.0085
Earth	-8077-06-21 15:07 J	-1228529.06	-1228528.87	-1228528.66	0.0133	0.0082 *
Earth	-8076-06-25 20:52 J	-1228159.72	-1228159.63	-1228159.51	0.0133	0.0120
Moon	-8076-06-26 00:14 J	-1228159.60	-1228159.49	-1228159.34	0.0133	0.0114 *
Mercury	-8060-08-05 08:09 J	-1222275.21	-1222275.16	-1222275.10	0.0137	0.0124
Mercury	-8060-11-01 11:16 J	-1222187.11	-1222187.03	-1222186.95	0.0137	0.0105
Mercury	-8059-01-28 14:09 J	-1222099.00	-1222098.91	-1222098.80	0.0137	0.0087
Mercury	-8059-04-26 17:31 J	-1222010.88	-1222010.77	-1222010.66	0.0137	0.0068
Mercury	-8059-07-23 20:38 J	-1221922.76	-1221922.64	-1221922.52	0.0137	0.0049
Mercury	-8059-10-19 23:45 J	-1221834.64	-1221834.51	-1221834.39	0.0137	0.0031
Mercury	-8058-01-16 02:52 J	-1221746.51	-1221746.38	-1221746.25	0.0138	0.0012
Mercury	-8058-04-14 06:00 J	-1221658.38	-1221658.25	-1221658.12	0.0138	0.0009
Mercury	-8058-07-11 08:52 J	-1221570.25	-1221570.13	-1221570.00	0.0138	0.0027
Mercury	-8058-10-07 12:00 J	-1221482.12	-1221482.00	-1221481.87	0.0138	0.0046
Mercury	-8057-01-03 15:07 J	-1221393.98	-1221393.87	-1221393.75	0.0138	0.0065
Mercury	-8057-03-31 18:14 J	-1221305.84	-1221305.74	-1221305.63	0.0138	0.0084
Mercury	-8057-06-27 21:21 J	-1221217.69	-1221217.61	-1221217.52	0.0138	0.0103
Mercury	-8057-09-24 00:28 J	-1221129.53	-1221129.48	-1221129.42	0.0138	0.0122
Mars	-8054-03-23 11:45 J	-1220219.34	-1220219.01	-1220218.67	0.0140	0.0003

Venus	-8047-04-13 18:14 J	-1217640.77	-1217640.74	-1217640.68	0.0143	0.0140
Venus	-8047-11-26 04:19 J	-1217414.47	-1217414.32	-1217414.15	0.0143	0.0093
Venus	-8046-07-10 14:38 J	-1217188.09	-1217187.89	-1217187.68	0.0143	0.0046
Venus	-8045-02-22 01:12 J	-1216961.67	-1216961.45	-1216961.24	0.0144	0.0003
Venus	-8045-10-05 11:31 J	-1216735.22	-1216735.02	-1216734.81	0.0144	0.0050
Venus	-8044-05-19 22:04 J	-1216508.73	-1216508.58	-1216508.42	0.0144	0.0098
Moon	-8040-11-25 16:04 J	-1214857.90	-1214857.83	-1214857.72	0.0145	0.0135
Earth	-8040-11-25 18:57 J	-1214857.79	-1214857.71	-1214857.59	0.0145	0.0133 *
Earth	-8039-11-30 19:55 J	-1214487.88	-1214487.67	-1214487.46	0.0146	0.0083
Moon	-8039-11-30 23:16 J	-1214487.73	-1214487.53	-1214487.32	0.0146	0.0088 *
Moon	-8038-12-05 17:16 J	-1214118.02	-1214117.78	-1214117.52	0.0146	0.0026
Earth	-8038-12-05 20:52 J	-1214117.87	-1214117.63	-1214117.37	0.0146	0.0033 *
Earth	-8037-12-09 22:33 J	-1213747.81	-1213747.56	-1213747.31	0.0146	0.0019
Moon	-8037-12-10 01:55 J	-1213747.67	-1213747.42	-1213747.16	0.0146	0.0011 *
Moon	-8036-12-14 20:52 J	-1213377.84	-1213377.63	-1213377.40	0.0146	0.0076
Earth	-8036-12-15 00:28 J	-1213377.69	-1213377.48	-1213377.24	0.0146	0.0070 *
Earth	-8035-12-20 03:07 J	-1213007.50	-1213007.37	-1213007.22	0.0146	0.0121
Moon	-8035-12-20 06:00 J	-1213007.37	-1213007.25	-1213007.09	0.0146	0.0120 *
Mercury	-8020-09-10 02:38 J	-1207629.45	-1207629.39	-1207629.31	0.0141	0.0132
Mercury	-8020-12-07 11:02 J	-1207541.16	-1207541.04	-1207540.89	0.0141	0.0101
Mercury	-8019-03-05 19:40 J	-1207452.85	-1207452.68	-1207452.50	0.0141	0.0070
Mercury	-8019-06-02 04:04 J	-1207364.51	-1207364.33	-1207364.13	0.0141	0.0039
Mercury	-8019-08-29 12:43 J	-1207276.17	-1207275.97	-1207275.77	0.0141	0.0008
Mercury	-8019-11-25 21:07 J	-1207187.82	-1207187.62	-1207187.43	0.0141	0.0023
Mercury	-8018-02-22 05:31 J	-1207099.45	-1207099.27	-1207099.09	0.0141	0.0054
Mercury	-8018-05-21 13:55 J	-1207011.08	-1207010.92	-1207010.76	0.0140	0.0085
Mercury	-8018-08-17 22:04 J	-1206922.68	-1206922.58	-1206922.46	0.0140	0.0115
Mars	-8016-10-26 10:04 J	-1206122.30	-1206122.08	-1206121.82	0.0139	0.0079
Mars	-8014-09-26 20:52 J	-1205421.84	-1205421.63	-1205421.41	0.0138	0.0092
Venus	-8007-07-31 04:19 J	-1202922.44	-1202922.32	-1202922.19	0.0135	0.0109

Venus	-8006-03-14 11:31 J	-1202696.20	-1202696.02	-1202695.82	0.0135	0.0069
Venus	-8006-10-26 18:43 J	-1202469.93	-1202469.72	-1202469.49	0.0135	0.0029
Venus	-8005-06-09 01:55 J	-1202243.64	-1202243.42	-1202243.20	0.0135	0.0012
Venus	-8004-01-21 08:52 J	-1202017.32	-1202017.13	-1202016.92	0.0134	0.0052
Jupiter	-8004-05-09 07:12 J	-1201909.68	-1201909.20	-1201908.68	0.0134	0.0029
Venus	-8004-09-04 15:35 J	-1201790.99	-1201790.85	-1201790.67	0.0134	0.0092
Venus	-8003-04-18 22:19 J	-1201564.60	-1201564.57	-1201564.51	0.0134	0.0131

8TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 8th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	-7998-06-02 14:24 J	-1199694.03	-1199693.90	-1199693.73	0.0133	0.0106		
Moon	-7998-06-02 17:45 J	-1199693.88	-1199693.76	-1199693.61	0.0133	0.0113	*	
Moon	-7997-06-05 18:43 J	-1199324.94	-1199324.72	-1199324.49	0.0133	0.0061		
Earth	-7997-06-05 22:04 J	-1199324.79	-1199324.58	-1199324.35	0.0133	0.0068	*	
Earth	-7996-06-10 05:02 J	-1198955.53	-1198955.29	-1198955.03	0.0133	0.0030		
Moon	-7996-06-10 08:09 J	-1198955.40	-1198955.16	-1198954.90	0.0133	0.0035	*	
Moon	-7995-06-14 08:09 J	-1198586.40	-1198586.16	-1198585.90	0.0133	0.0012		
Earth	-7995-06-14 11:45 J	-1198586.26	-1198586.01	-1198585.75	0.0133	0.0010	*	
Earth	-7994-06-18 18:00 J	-1198216.98	-1198216.75	-1198216.50	0.0133	0.0047		
Moon	-7994-06-18 21:21 J	-1198216.84	-1198216.61	-1198216.36	0.0133	0.0047	*	
Moon	-7993-06-21 20:38 J	-1197847.83	-1197847.64	-1197847.43	0.0132	0.0082		
Earth	-7993-06-21 23:45 J	-1197847.68	-1197847.51	-1197847.29	0.0132	0.0086	*	

Earth	-7992-06-26 05:45 J	-1197478.34	-1197478.26	-1197478.15	0.0132	0.0123
Moon	-7992-06-26 09:21 J	-1197478.15	-1197478.11	-1197478.03	0.0132	0.0129 *
Mercury	-7976-08-25 14:52 J	-1191573.93	-1191573.88	-1191573.82	0.0137	0.0122
Mercury	-7976-11-21 18:00 J	-1191485.83	-1191485.75	-1191485.66	0.0137	0.0103
Mercury	-7975-02-17 21:07 J	-1191397.72	-1191397.62	-1191397.52	0.0137	0.0085
Mercury	-7975-05-17 00:14 J	-1191309.60	-1191309.49	-1191309.38	0.0137	0.0066
Mercury	-7975-08-13 03:21 J	-1191221.48	-1191221.36	-1191221.24	0.0137	0.0047
Mercury	-7975-11-09 06:28 J	-1191133.36	-1191133.23	-1191133.10	0.0137	0.0028
Mercury	-7974-02-05 09:35 J	-1191045.23	-1191045.10	-1191044.97	0.0138	0.0010
Mercury	-7974-05-04 12:43 J	-1190957.10	-1190956.97	-1190956.84	0.0138	0.0010
Mercury	-7974-07-31 15:35 J	-1190868.97	-1190868.85	-1190868.72	0.0138	0.0029
Mercury	-7974-10-27 18:43 J	-1190780.84	-1190780.72	-1190780.59	0.0138	0.0048
Mercury	-7973-01-23 21:50 J	-1190692.70	-1190692.59	-1190692.47	0.0138	0.0067
Mercury	-7973-04-21 00:57 J	-1190604.56	-1190604.46	-1190604.36	0.0138	0.0086
Mercury	-7973-07-18 03:50 J	-1190516.41	-1190516.34	-1190516.24	0.0138	0.0106
Mercury	-7973-10-14 06:57 J	-1190428.25	-1190428.21	-1190428.14	0.0138	0.0125
Mars	-7972-12-11 23:31 J	-1190004.58	-1190004.52	-1190004.43	0.0139	0.0135
Mars	-7970-11-17 01:12 J	-1189299.72	-1189299.45	-1189299.13	0.0140	0.0067
Venus	-7963-07-26 09:21 J	-1186856.21	-1186856.11	-1186855.97	0.0143	0.0118
Venus	-7962-03-09 19:26 J	-1186629.86	-1186629.69	-1186629.49	0.0143	0.0072
Venus	-7962-10-22 06:00 J	-1186403.46	-1186403.25	-1186403.04	0.0144	0.0023
Venus	-7961-06-04 16:19 J	-1186177.03	-1186176.82	-1186176.61	0.0144	0.0024
Venus	-7960-01-17 02:24 J	-1185950.57	-1185950.40	-1185950.20	0.0144	0.0074
Venus	-7960-08-31 13:12 J	-1185724.05	-1185723.95	-1185723.82	0.0144	0.0121
Moon	-7956-11-25 22:19 J	-1184176.67	-1184176.57	-1184176.44	0.0145	0.0129
Earth	-7956-11-26 01:26 J	-1184176.55	-1184176.44	-1184176.32	0.0145	0.0129 *
Earth	-7955-12-01 01:55 J	-1183806.62	-1183806.42	-1183806.20	0.0146	0.0080
Moon	-7955-12-01 05:02 J	-1183806.50	-1183806.29	-1183806.07	0.0146	0.0077 *
Moon	-7954-12-06 00:00 J	-1183436.74	-1183436.50	-1183436.26	0.0146	0.0036
Earth	-7954-12-06 03:21 J	-1183436.61	-1183436.36	-1183436.11	0.0146	0.0029 *

Earth	-7953-12-10 04:47 J	-1183066.54	-1183066.30	-1183066.04	0.0146	0.0022
Moon	-7953-12-10 08:38 J	-1183066.38	-1183066.14	-1183065.89	0.0146	0.0030 *
Moon	-7952-12-15 03:35 J	-1182696.57	-1182696.35	-1182696.12	0.0146	0.0067
Earth	-7952-12-15 07:12 J	-1182696.42	-1182696.20	-1182695.98	0.0146	0.0073 *
Earth	-7951-12-20 09:35 J	-1182326.21	-1182326.10	-1182325.95	0.0146	0.0124
Moon	-7951-12-20 13:26 J	-1182326.06	-1182325.94	-1182325.81	0.0146	0.0125 *
Mercury	-7936-09-30 09:07 J	-1176928.19	-1176928.12	-1176928.03	0.0141	0.0128
Mercury	-7936-12-27 17:45 J	-1176839.90	-1176839.76	-1176839.62	0.0141	0.0096
Mercury	-7935-03-26 02:09 J	-1176751.58	-1176751.41	-1176751.23	0.0141	0.0065
Mercury	-7935-06-22 10:33 J	-1176663.25	-1176663.06	-1176662.86	0.0141	0.0034
Mercury	-7935-09-18 19:12 J	-1176574.90	-1176574.70	-1176574.51	0.0141	0.0004
Mercury	-7935-12-16 03:35 J	-1176486.55	-1176486.35	-1176486.16	0.0141	0.0028
Mercury	-7934-03-14 11:45 J	-1176398.18	-1176398.01	-1176397.82	0.0141	0.0059
Mercury	-7934-06-10 20:09 J	-1176309.80	-1176309.66	-1176309.50	0.0140	0.0089
Mercury	-7934-09-07 04:47 J	-1176221.40	-1176221.30	-1176221.20	0.0140	0.0120
Mars	-7931-06-20 21:35 J	-1175203.88	-1175203.60	-1175203.31	0.0139	0.0019
Venus	-7923-03-30 11:45 J	-1172364.05	-1172364.01	-1172363.93	0.0135	0.0130
Venus	-7923-11-11 19:12 J	-1172137.85	-1172137.70	-1172137.52	0.0135	0.0089
Venus	-7922-06-26 02:38 J	-1171911.59	-1171911.39	-1171911.18	0.0135	0.0048
Venus	-7921-02-07 10:04 J	-1171685.30	-1171685.08	-1171684.86	0.0135	0.0008
Venus	-7921-09-20 17:02 J	-1171459.00	-1171458.79	-1171458.57	0.0134	0.0033
Venus	-7920-05-04 23:45 J	-1171232.69	-1171232.51	-1171232.32	0.0134	0.0073
Venus	-7920-12-17 06:14 J	-1171006.34	-1171006.24	-1171006.10	0.0134	0.0112
Earth	-7914-06-02 22:33 J	-1169012.71	-1169012.56	-1169012.38	0.0133	0.0102
Moon	-7914-06-03 01:26 J	-1169012.60	-1169012.44	-1169012.24	0.0133	0.0095 *
Moon	-7913-06-06 03:07 J	-1168643.57	-1168643.37	-1168643.14	0.0133	0.0071
Earth	-7913-06-06 06:00 J	-1168643.46	-1168643.25	-1168643.02	0.0133	0.0064 *
Earth	-7912-06-10 12:57 J	-1168274.20	-1168273.96	-1168273.70	0.0133	0.0026
Moon	-7912-06-10 16:19 J	-1168274.07	-1168273.82	-1168273.55	0.0133	0.0021 *
Moon	-7911-06-14 17:02 J	-1167905.04	-1167904.79	-1167904.54	0.0133	0.0009

Earth	-7911-06-14 19:55 J	-1167904.92	-1167904.67	-1167904.41	0.0133	0.0013	*
Earth	-7910-06-19 01:55 J	-1167535.65	-1167535.42	-1167535.18	0.0132	0.0051	
Moon	-7910-06-19 05:16 J	-1167535.51	-1167535.28	-1167535.03	0.0132	0.0050	*
Moon	-7909-06-22 04:33 J	-1167166.47	-1167166.31	-1167166.11	0.0132	0.0092	
Earth	-7909-06-22 07:55 J	-1167166.34	-1167166.17	-1167165.96	0.0132	0.0089	*
Earth	-7908-06-26 13:55 J	-1166796.98	-1166796.92	-1166796.83	0.0132	0.0126	
Moon	-7908-06-26 16:47 J	-1166796.88	-1166796.80	-1166796.67	0.0132	0.0121	*
Mercury	-7892-09-14 21:35 J	-1160872.65	-1160872.60	-1160872.53	0.0137	0.0120	
Mercury	-7892-12-12 00:43 J	-1160784.55	-1160784.47	-1160784.38	0.0137	0.0101	
Mercury	-7891-03-10 03:50 J	-1160696.44	-1160696.34	-1160696.23	0.0137	0.0083	
Mercury	-7891-06-06 06:57 J	-1160608.32	-1160608.21	-1160608.09	0.0137	0.0064	
Mercury	-7891-09-02 10:04 J	-1160520.20	-1160520.08	-1160519.96	0.0137	0.0045	
Mercury	-7891-11-29 13:12 J	-1160432.08	-1160431.95	-1160431.83	0.0137	0.0027	
Mercury	-7890-02-25 16:19 J	-1160343.95	-1160343.82	-1160343.69	0.0138	0.0009	
Mercury	-7890-05-24 19:12 J	-1160255.83	-1160255.70	-1160255.57	0.0138	0.0012	
Mercury	-7890-08-20 22:19 J	-1160167.69	-1160167.57	-1160167.44	0.0138	0.0030	
Mercury	-7890-11-17 01:26 J	-1160079.56	-1160079.44	-1160079.32	0.0138	0.0049	
Mercury	-7889-02-13 04:33 J	-1159991.42	-1159991.31	-1159991.20	0.0138	0.0068	
Mercury	-7889-05-11 07:40 J	-1159903.28	-1159903.18	-1159903.08	0.0138	0.0087	
Mercury	-7889-08-07 10:47 J	-1159815.13	-1159815.05	-1159814.97	0.0138	0.0106	
Mercury	-7889-11-03 13:55 J	-1159726.97	-1159726.92	-1159726.87	0.0138	0.0125	
Mars	-7887-08-07 10:19 J	-1159085.35	-1159085.07	-1159084.77	0.0139	0.0067	
Mars	-7885-07-12 14:38 J	-1158379.92	-1158379.89	-1158379.79	0.0140	0.0138	
Venus	-7879-11-07 00:14 J	-1156071.64	-1156071.49	-1156071.32	0.0143	0.0097	
Venus	-7878-06-21 10:19 J	-1155845.26	-1155845.07	-1155844.86	0.0143	0.0050	
Venus	-7877-02-02 20:52 J	-1155618.85	-1155618.63	-1155618.42	0.0144	0.0003	
Venus	-7877-09-16 06:57 J	-1155392.40	-1155392.21	-1155391.99	0.0144	0.0047	
Venus	-7876-04-30 17:16 J	-1155165.92	-1155165.78	-1155165.60	0.0144	0.0095	
Venus	-7876-12-13 03:50 J	-1154939.35	-1154939.34	-1154939.30	0.0144	0.0143	
Moon	-7872-11-26 04:19 J	-1153495.42	-1153495.32	-1153495.20	0.0145	0.0130	

Earth	-7872-11-26 06:14 J	-1153495.36	-1153495.24	-1153495.11	0.0145	0.0126	*
Earth	-7871-12-01 06:43 J	-1153125.43	-1153125.22	-1153125.00	0.0146	0.0077	
Moon	-7871-12-01 09:35 J	-1153125.31	-1153125.10	-1153124.88	0.0146	0.0080	*
Moon	-7870-12-06 05:02 J	-1152755.53	-1152755.29	-1152755.04	0.0146	0.0021	
Earth	-7870-12-06 07:55 J	-1152755.41	-1152755.17	-1152754.91	0.0146	0.0027	*
Earth	-7869-12-10 09:21 J	-1152385.35	-1152385.11	-1152384.85	0.0146	0.0025	
Moon	-7869-12-10 12:57 J	-1152385.22	-1152384.96	-1152384.71	0.0146	0.0017	*
Moon	-7868-12-15 08:09 J	-1152015.36	-1152015.16	-1152014.95	0.0146	0.0082	
Earth	-7868-12-15 12:00 J	-1152015.21	-1152015.00	-1152014.78	0.0146	0.0075	*
Earth	-7867-12-20 14:24 J	-1151645.01	-1151644.90	-1151644.76	0.0146	0.0126	
Moon	-7867-12-20 17:45 J	-1151644.87	-1151644.76	-1151644.60	0.0146	0.0123	*
Mercury	-7852-10-20 14:24 J	-1146226.97	-1146226.90	-1146226.79	0.0141	0.0127	
Mercury	-7851-01-16 23:02 J	-1146138.67	-1146138.54	-1146138.38	0.0141	0.0095	
Mercury	-7851-04-15 07:40 J	-1146050.35	-1146050.18	-1146050.00	0.0141	0.0064	
Mercury	-7851-07-12 16:04 J	-1145962.01	-1145961.83	-1145961.63	0.0141	0.0033	
Mercury	-7851-10-09 00:43 J	-1145873.67	-1145873.47	-1145873.27	0.0141	0.0002	
Mercury	-7850-01-05 09:07 J	-1145785.31	-1145785.12	-1145784.93	0.0141	0.0029	
Mercury	-7850-04-03 17:16 J	-1145696.95	-1145696.78	-1145696.59	0.0141	0.0061	
Mercury	-7850-07-01 01:55 J	-1145608.57	-1145608.42	-1145608.27	0.0140	0.0091	
Mercury	-7850-09-27 10:04 J	-1145520.17	-1145520.08	-1145519.97	0.0140	0.0122	
Mars	-7848-03-14 13:55 J	-1144986.00	-1144985.92	-1144985.83	0.0140	0.0133	
Mars	-7846-02-13 04:47 J	-1144285.56	-1144285.30	-1144285.01	0.0139	0.0040	
Venus	-7839-07-12 02:09 J	-1141579.53	-1141579.41	-1141579.27	0.0135	0.0110	
Venus	-7838-02-23 09:35 J	-1141353.28	-1141353.10	-1141352.90	0.0135	0.0069	
Venus	-7838-10-07 17:02 J	-1141127.00	-1141126.79	-1141126.57	0.0135	0.0028	
Venus	-7837-05-21 00:14 J	-1140900.71	-1140900.49	-1140900.27	0.0135	0.0012	
Venus	-7836-01-02 06:57 J	-1140674.40	-1140674.21	-1140674.00	0.0134	0.0053	
Venus	-7836-08-16 13:40 J	-1140448.07	-1140447.93	-1140447.75	0.0134	0.0093	
Venus	-7835-03-30 20:24 J	-1140221.67	-1140221.65	-1140221.59	0.0134	0.0132	
Moon	-7831-05-29 19:55 J	-1138700.67	-1138700.67	-1138700.62	0.0133	0.0133	

Earth	-7830-06-03 06:14 J	-1138331.41	-1138331.24	-1138331.07	0.0133	0.0098
Moon	-7830-06-03 08:09 J	-1138331.30	-1138331.16	-1138330.97	0.0133	0.0105 *
Moon	-7829-06-06 10:47 J	-1137962.26	-1137962.05	-1137961.80	0.0133	0.0054
Earth	-7829-06-06 13:26 J	-1137962.15	-1137961.94	-1137961.69	0.0133	0.0061 *
Earth	-7828-06-10 21:07 J	-1137592.88	-1137592.62	-1137592.37	0.0133	0.0022
Moon	-7828-06-10 23:16 J	-1137592.78	-1137592.53	-1137592.27	0.0133	0.0028 *
Moon	-7827-06-15 00:43 J	-1137223.71	-1137223.47	-1137223.21	0.0133	0.0020
Earth	-7827-06-15 03:35 J	-1137223.59	-1137223.35	-1137223.09	0.0133	0.0017 *
Earth	-7826-06-19 09:50 J	-1136854.30	-1136854.09	-1136853.84	0.0133	0.0055
Moon	-7826-06-19 12:43 J	-1136854.20	-1136853.97	-1136853.72	0.0133	0.0053 *
Moon	-7825-06-22 13:26 J	-1136485.10	-1136484.94	-1136484.74	0.0133	0.0090
Earth	-7825-06-22 16:19 J	-1136484.99	-1136484.82	-1136484.63	0.0133	0.0092 *
Earth	-7824-06-26 22:04 J	-1136115.62	-1136115.58	-1136115.50	0.0133	0.0129
Mercury	-7808-07-09 01:26 J	-1130259.45	-1130259.44	-1130259.42	0.0137	0.0136
Mercury	-7808-10-05 04:33 J	-1130171.37	-1130171.31	-1130171.24	0.0137	0.0117
Mercury	-7807-01-01 07:40 J	-1130083.27	-1130083.18	-1130083.09	0.0137	0.0098
Mercury	-7807-03-30 10:33 J	-1129995.15	-1129995.06	-1129994.94	0.0137	0.0081
Mercury	-7807-06-26 13:55 J	-1129907.04	-1129906.92	-1129906.81	0.0137	0.0061
Mercury	-7807-09-22 16:47 J	-1129818.92	-1129818.80	-1129818.67	0.0137	0.0043
Mercury	-7807-12-19 19:55 J	-1129730.79	-1129730.67	-1129730.54	0.0137	0.0024
Mercury	-7806-03-17 23:02 J	-1129642.67	-1129642.54	-1129642.41	0.0137	0.0005
Mercury	-7806-06-14 02:09 J	-1129554.54	-1129554.41	-1129554.28	0.0138	0.0014
Mercury	-7806-09-10 05:16 J	-1129466.41	-1129466.28	-1129466.15	0.0138	0.0033
Mercury	-7806-12-07 08:09 J	-1129378.27	-1129378.16	-1129378.03	0.0138	0.0052
Mercury	-7805-03-04 11:16 J	-1129290.13	-1129290.03	-1129289.91	0.0138	0.0071
Mercury	-7805-05-31 14:24 J	-1129201.99	-1129201.90	-1129201.80	0.0138	0.0090
Mercury	-7805-08-27 17:31 J	-1129113.84	-1129113.77	-1129113.69	0.0138	0.0109
Mercury	-7805-11-23 20:38 J	-1129025.68	-1129025.64	-1129025.59	0.0138	0.0128
Mars	-7802-04-03 00:57 J	-1128165.79	-1128165.46	-1128165.12	0.0139	0.0004
Venus	-7795-07-07 06:00 J	-1125513.35	-1125513.25	-1125513.13	0.0143	0.0120

Venus	-7794-02-18 16:04 J	-1125287.01	-1125286.83	-1125286.64	0.0143	0.0073
Venus	-7794-10-03 02:24 J	-1125060.61	-1125060.40	-1125060.19	0.0143	0.0026
Venus	-7793-05-16 12:28 J	-1124834.19	-1124833.98	-1124833.77	0.0144	0.0022
Venus	-7793-12-28 22:33 J	-1124607.74	-1124607.56	-1124607.36	0.0144	0.0070
Venus	-7792-08-12 09:07 J	-1124381.23	-1124381.12	-1124380.99	0.0144	0.0118
Moon	-7788-11-26 10:47 J	-1122814.17	-1122814.05	-1122813.90	0.0145	0.0121
Earth	-7788-11-26 12:28 J	-1122814.10	-1122813.98	-1122813.83	0.0145	0.0123 *
Earth	-7787-12-01 12:57 J	-1122444.16	-1122443.96	-1122443.73	0.0146	0.0074
Moon	-7787-12-01 14:52 J	-1122444.09	-1122443.88	-1122443.64	0.0146	0.0073 *
Moon	-7786-12-06 11:45 J	-1122074.25	-1122074.01	-1122073.77	0.0146	0.0029
Earth	-7786-12-06 14:09 J	-1122074.15	-1122073.91	-1122073.66	0.0146	0.0023 *
Earth	-7785-12-10 15:50 J	-1121704.09	-1121703.84	-1121703.59	0.0146	0.0027
Moon	-7785-12-10 19:12 J	-1121703.95	-1121703.70	-1121703.45	0.0146	0.0035 *
Moon	-7784-12-15 14:52 J	-1121334.09	-1121333.88	-1121333.66	0.0146	0.0071
Earth	-7784-12-15 18:00 J	-1121333.96	-1121333.75	-1121333.53	0.0146	0.0078 *
Earth	-7783-12-20 20:24 J	-1120963.76	-1120963.65	-1120963.52	0.0146	0.0128
Moon	-7783-12-21 00:00 J	-1120963.59	-1120963.50	-1120963.37	0.0146	0.0131 *
Mercury	-7768-11-09 20:09 J	-1115525.73	-1115525.66	-1115525.55	0.0141	0.0125
Mercury	-7767-02-06 04:47 J	-1115437.43	-1115437.30	-1115437.14	0.0141	0.0093
Mercury	-7767-05-05 13:12 J	-1115349.11	-1115348.95	-1115348.76	0.0141	0.0062
Mercury	-7767-08-01 21:50 J	-1115260.78	-1115260.59	-1115260.39	0.0141	0.0031
Mercury	-7767-10-29 06:28 J	-1115172.43	-1115172.23	-1115172.03	0.0141	0.0001
Mercury	-7766-01-25 14:38 J	-1115084.07	-1115083.89	-1115083.69	0.0141	0.0032
Mercury	-7766-04-23 23:02 J	-1114995.71	-1114995.54	-1114995.35	0.0141	0.0062
Mercury	-7766-07-21 07:40 J	-1114907.33	-1114907.18	-1114907.03	0.0140	0.0093
Mercury	-7766-10-17 15:50 J	-1114818.92	-1114818.84	-1114818.74	0.0140	0.0123
Mars	-7764-11-06 23:02 J	-1114067.78	-1114067.54	-1114067.29	0.0139	0.0074
Mars	-7762-10-08 12:00 J	-1113367.20	-1113367.00	-1113366.78	0.0138	0.0097
Venus	-7755-03-11 08:38 J	-1111021.19	-1111021.14	-1111021.08	0.0135	0.0131
Venus	-7755-10-23 15:50 J	-1110794.99	-1110794.84	-1110794.66	0.0135	0.0091

Venus	-7754-06-06 23:31 J	-1110568.72	-1110568.52	-1110568.31	0.0135	0.0049
Venus	-7753-01-19 06:43 J	-1110342.43	-1110342.22	-1110341.99	0.0135	0.0009
Venus	-7753-09-01 13:55 J	-1110116.13	-1110115.92	-1110115.70	0.0135	0.0032
Venus	-7752-04-15 20:38 J	-1109889.82	-1109889.64	-1109889.44	0.0134	0.0072
Venus	-7752-11-28 03:07 J	-1109663.47	-1109663.37	-1109663.23	0.0134	0.0113
Earth	-7747-05-30 05:02 J	-1108019.29	-1108019.29	-1108019.28	0.0133	0.0133
Earth	-7746-06-03 12:57 J	-1107650.13	-1107649.96	-1107649.78	0.0133	0.0095
Moon	-7746-06-03 14:24 J	-1107650.07	-1107649.90	-1107649.68	0.0133	0.0089 *
Moon	-7745-06-06 18:43 J	-1107280.92	-1107280.72	-1107280.48	0.0133	0.0064
Earth	-7745-06-06 20:38 J	-1107280.86	-1107280.64	-1107280.40	0.0133	0.0057 *
Earth	-7744-06-11 04:04 J	-1106911.58	-1106911.33	-1106911.08	0.0133	0.0019
Moon	-7744-06-11 06:28 J	-1106911.49	-1106911.23	-1106910.97	0.0133	0.0013 *
Moon	-7743-06-15 09:07 J	-1106542.36	-1106542.12	-1106541.87	0.0133	0.0015
Earth	-7743-06-15 11:02 J	-1106542.29	-1106542.04	-1106541.78	0.0133	0.0019 *
Earth	-7742-06-19 17:31 J	-1106172.99	-1106172.77	-1106172.54	0.0133	0.0057
Moon	-7742-06-19 19:40 J	-1106172.90	-1106172.68	-1106172.43	0.0133	0.0058 *
Moon	-7741-06-22 21:35 J	-1105803.76	-1105803.60	-1105803.42	0.0133	0.0096
Earth	-7741-06-22 23:45 J	-1105803.67	-1105803.51	-1105803.32	0.0133	0.0095 *
Earth	-7740-06-27 05:31 J	-1105434.27	-1105434.27	-1105434.21	0.0133	0.0132
Moon	-7740-06-27 08:09 J	-1105434.22	-1105434.16	-1105434.07	0.0133	0.0127 *
Mercury	-7724-07-29 08:24 J	-1099558.17	-1099558.15	-1099558.11	0.0137	0.0133
Mercury	-7724-10-25 11:31 J	-1099470.09	-1099470.02	-1099469.95	0.0137	0.0114
Mercury	-7723-01-21 14:38 J	-1099381.98	-1099381.89	-1099381.80	0.0137	0.0095
Mercury	-7723-04-19 17:31 J	-1099293.87	-1099293.77	-1099293.65	0.0137	0.0077
Mercury	-7723-07-16 20:52 J	-1099205.75	-1099205.63	-1099205.51	0.0137	0.0058
Mercury	-7723-10-13 00:00 J	-1099117.63	-1099117.50	-1099117.38	0.0137	0.0040
Mercury	-7722-01-09 02:52 J	-1099029.50	-1099029.38	-1099029.25	0.0137	0.0021
Mercury	-7722-04-07 06:00 J	-1098941.38	-1098941.25	-1098941.12	0.0138	0.0003
Mercury	-7722-07-04 09:07 J	-1098853.25	-1098853.12	-1098852.99	0.0138	0.0017
Mercury	-7722-09-30 12:14 J	-1098765.12	-1098764.99	-1098764.87	0.0138	0.0036

Mercury	-7722-12-27 15:21 J	-1098676.98	-1098676.86	-1098676.74	0.0138	0.0055
Mercury	-7721-03-24 18:14 J	-1098588.84	-1098588.74	-1098588.62	0.0138	0.0074
Mercury	-7721-06-20 21:21 J	-1098500.70	-1098500.61	-1098500.51	0.0138	0.0093
Mercury	-7721-09-17 00:28 J	-1098412.55	-1098412.48	-1098412.40	0.0138	0.0112
Mercury	-7721-12-14 03:35 J	-1098324.38	-1098324.35	-1098324.30	0.0138	0.0131
Mars	-7720-12-22 18:57 J	-1097950.83	-1097950.71	-1097950.55	0.0139	0.0125
Mars	-7718-11-27 19:26 J	-1097245.95	-1097245.69	-1097245.39	0.0140	0.0076
Venus	-7711-03-06 12:57 J	-1094954.96	-1094954.96	-1094954.93	0.0143	0.0143
Venus	-7711-10-18 22:47 J	-1094728.69	-1094728.55	-1094728.37	0.0143	0.0096
Venus	-7710-06-02 09:07 J	-1094502.32	-1094502.12	-1094501.91	0.0143	0.0048
Venus	-7709-01-14 19:26 J	-1094275.91	-1094275.69	-1094275.48	0.0144	0.0003
Venus	-7709-08-28 05:45 J	-1094049.46	-1094049.26	-1094049.06	0.0144	0.0047
Venus	-7708-04-11 16:04 J	-1093822.99	-1093822.83	-1093822.67	0.0144	0.0095
Venus	-7708-11-24 02:24 J	-1093596.41	-1093596.40	-1093596.38	0.0144	0.0144
Moon	-7704-11-26 21:35 J	-1092132.72	-1092132.60	-1092132.46	0.0145	0.0122
Earth	-7704-11-26 22:19 J	-1092132.71	-1092132.57	-1092132.42	0.0145	0.0118 *
Earth	-7703-12-01 22:47 J	-1091762.77	-1091762.55	-1091762.33	0.0145	0.0069
Moon	-7703-12-02 00:14 J	-1091762.71	-1091762.49	-1091762.25	0.0145	0.0070 *
Moon	-7702-12-06 21:50 J	-1091392.83	-1091392.59	-1091392.34	0.0146	0.0014
Earth	-7702-12-07 00:00 J	-1091392.75	-1091392.50	-1091392.25	0.0146	0.0019 *
Earth	-7701-12-11 01:12 J	-1091022.69	-1091022.45	-1091022.19	0.0146	0.0032
Moon	-7701-12-11 03:50 J	-1091022.59	-1091022.34	-1091022.08	0.0146	0.0024 *
Moon	-7700-12-16 00:00 J	-1090652.68	-1090652.50	-1090652.29	0.0146	0.0089
Earth	-7700-12-16 03:21 J	-1090652.56	-1090652.36	-1090652.14	0.0146	0.0082 *
Earth	-7699-12-21 05:31 J	-1090282.36	-1090282.27	-1090282.14	0.0146	0.0132
Moon	-7699-12-21 08:52 J	-1090282.24	-1090282.13	-1090281.99	0.0146	0.0127 *
Mercury	-7684-11-30 02:52 J	-1084824.47	-1084824.38	-1084824.27	0.0141	0.0120
Mercury	-7683-02-26 11:31 J	-1084736.17	-1084736.02	-1084735.87	0.0141	0.0088
Mercury	-7683-05-25 19:55 J	-1084647.85	-1084647.67	-1084647.49	0.0141	0.0057
Mercury	-7683-08-22 04:19 J	-1084559.51	-1084559.32	-1084559.12	0.0141	0.0027

Mercury	-7683-11-18 12:43 J	-1084471.16	-1084470.97	-1084470.77	0.0141	0.0006
Mercury	-7682-02-14 21:07 J	-1084382.81	-1084382.62	-1084382.42	0.0141	0.0036
Mercury	-7682-05-14 05:16 J	-1084294.44	-1084294.28	-1084294.09	0.0141	0.0067
Mercury	-7682-08-10 13:55 J	-1084206.06	-1084205.92	-1084205.77	0.0140	0.0097
Mercury	-7682-11-06 22:04 J	-1084117.65	-1084117.58	-1084117.49	0.0140	0.0128
Mars	-7679-07-02 10:47 J	-1083149.33	-1083149.05	-1083148.76	0.0139	0.0014
Venus	-7671-06-22 23:16 J	-1080236.65	-1080236.53	-1080236.39	0.0135	0.0110
Venus	-7670-02-04 06:57 J	-1080010.39	-1080010.21	-1080010.02	0.0135	0.0069
Venus	-7670-09-18 14:09 J	-1079784.12	-1079783.91	-1079783.69	0.0135	0.0029
Venus	-7669-05-01 21:21 J	-1079557.83	-1079557.61	-1079557.39	0.0135	0.0012
Venus	-7669-12-14 04:04 J	-1079331.52	-1079331.33	-1079331.11	0.0135	0.0053
Venus	-7668-07-28 11:02 J	-1079105.19	-1079105.04	-1079104.87	0.0134	0.0092
Venus	-7667-03-11 17:45 J	-1078878.78	-1078878.76	-1078878.71	0.0134	0.0132
Moon	-7663-05-30 11:45 J	-1077338.06	-1077338.01	-1077337.91	0.0133	0.0127
Earth	-7663-05-30 12:43 J	-1077338.01	-1077337.97	-1077337.89	0.0133	0.0130 *
Earth	-7662-06-03 21:07 J	-1076968.80	-1076968.62	-1076968.43	0.0133	0.0091
Moon	-7662-06-03 21:50 J	-1076968.75	-1076968.59	-1076968.39	0.0133	0.0097 *
Moon	-7661-06-07 03:21 J	-1076599.58	-1076599.36	-1076599.11	0.0133	0.0047
Earth	-7661-06-07 05:02 J	-1076599.52	-1076599.29	-1076599.05	0.0133	0.0053 *
Earth	-7660-06-11 12:43 J	-1076230.23	-1076229.97	-1076229.72	0.0133	0.0015
Moon	-7660-06-11 13:40 J	-1076230.19	-1076229.93	-1076229.66	0.0133	0.0021 *
Moon	-7659-06-15 17:45 J	-1075861.00	-1075860.76	-1075860.51	0.0133	0.0027
Earth	-7659-06-15 19:26 J	-1075860.93	-1075860.69	-1075860.43	0.0133	0.0023 *
Earth	-7658-06-20 01:55 J	-1075491.63	-1075491.42	-1075491.17	0.0133	0.0061
Moon	-7658-06-20 03:50 J	-1075491.57	-1075491.34	-1075491.10	0.0133	0.0058 *
Moon	-7657-06-23 06:57 J	-1075122.37	-1075122.21	-1075122.03	0.0133	0.0097
Earth	-7657-06-23 08:24 J	-1075122.30	-1075122.15	-1075121.96	0.0133	0.0098 *
Mercury	-7640-08-18 15:35 J	-1068856.89	-1068856.85	-1068856.81	0.0137	0.0129
Mercury	-7640-11-14 18:43 J	-1068768.80	-1068768.72	-1068768.65	0.0137	0.0110
Mercury	-7639-02-10 21:35 J	-1068680.69	-1068680.60	-1068680.50	0.0137	0.0092

Mercury	-7639-05-10 00:43 J	-1068592.57	-1068592.47	-1068592.36	0.0137	0.0074
Mercury	-7639-08-06 03:50 J	-1068504.46	-1068504.34	-1068504.22	0.0137	0.0055
Mercury	-7639-11-02 06:57 J	-1068416.33	-1068416.21	-1068416.08	0.0137	0.0036
Mercury	-7638-01-29 10:04 J	-1068328.21	-1068328.08	-1068327.95	0.0138	0.0017
Mercury	-7638-04-27 13:12 J	-1068240.08	-1068239.95	-1068239.82	0.0138	0.0002
Mercury	-7638-07-24 16:19 J	-1068151.95	-1068151.82	-1068151.69	0.0138	0.0021
Mercury	-7638-10-20 19:12 J	-1068063.82	-1068063.70	-1068063.57	0.0138	0.0040
Mercury	-7637-01-16 22:19 J	-1067975.68	-1067975.57	-1067975.45	0.0138	0.0059
Mercury	-7637-04-14 01:26 J	-1067887.54	-1067887.44	-1067887.33	0.0138	0.0078
Mercury	-7637-07-11 04:33 J	-1067799.40	-1067799.31	-1067799.21	0.0138	0.0097
Mercury	-7637-10-07 07:26 J	-1067711.24	-1067711.19	-1067711.11	0.0138	0.0117
Mercury	-7636-01-03 10:47 J	-1067623.07	-1067623.05	-1067623.02	0.0138	0.0135
Mars	-7635-08-18 13:12 J	-1067031.25	-1067030.95	-1067030.64	0.0139	0.0055
Venus	-7627-06-18 06:14 J	-1064170.34	-1064170.24	-1064170.10	0.0143	0.0118
Venus	-7626-01-30 16:47 J	-1063943.99	-1063943.80	-1063943.62	0.0143	0.0071
Venus	-7626-09-14 02:52 J	-1063717.59	-1063717.38	-1063717.17	0.0143	0.0023
Venus	-7625-04-27 12:57 J	-1063491.17	-1063490.96	-1063490.74	0.0144	0.0025
Venus	-7625-12-09 23:16 J	-1063264.71	-1063264.53	-1063264.34	0.0144	0.0073
Venus	-7624-07-24 09:35 J	-1063038.20	-1063038.10	-1063037.97	0.0144	0.0122
Moon	-7620-11-27 08:52 J	-1061451.28	-1061451.13	-1061450.96	0.0145	0.0109
Earth	-7620-11-27 09:21 J	-1061451.26	-1061451.11	-1061450.94	0.0145	0.0113 *
Earth	-7619-12-02 09:50 J	-1061081.30	-1061081.09	-1061080.85	0.0145	0.0064
Moon	-7619-12-02 10:47 J	-1061081.28	-1061081.05	-1061080.81	0.0145	0.0063 *
Moon	-7618-12-07 09:35 J	-1060711.34	-1060711.10	-1060710.85	0.0146	0.0018
Earth	-7618-12-07 11:02 J	-1060711.29	-1060711.04	-1060710.78	0.0146	0.0014 *
Earth	-7617-12-11 12:43 J	-1060341.21	-1060340.97	-1060340.72	0.0146	0.0036
Moon	-7617-12-11 15:07 J	-1060341.11	-1060340.87	-1060340.62	0.0146	0.0044 *
Moon	-7616-12-16 12:28 J	-1059971.19	-1059970.98	-1059970.77	0.0146	0.0079
Earth	-7616-12-16 14:52 J	-1059971.08	-1059970.88	-1059970.67	0.0146	0.0086 *
Earth	-7615-12-21 16:47 J	-1059600.88	-1059600.80	-1059600.70	0.0146	0.0136

Moon	-7615-12-21 20:24 J	-1059600.72	-1059600.65	-1059600.57	0.0146	0.0139 *
Mercury	-7600-12-20 10:04 J	-1054123.18	-1054123.08	-1054122.95	0.0141	0.0113
Mercury	-7599-03-18 18:43 J	-1054034.88	-1054034.72	-1054034.55	0.0141	0.0081
Mercury	-7599-06-15 03:07 J	-1053946.55	-1053946.37	-1053946.18	0.0141	0.0050
Mercury	-7599-09-11 11:31 J	-1053858.21	-1053858.02	-1053857.82	0.0141	0.0020
Mercury	-7599-12-08 20:09 J	-1053769.86	-1053769.66	-1053769.47	0.0141	0.0012
Mercury	-7598-03-07 04:19 J	-1053681.50	-1053681.32	-1053681.12	0.0141	0.0042
Mercury	-7598-06-03 12:43 J	-1053593.13	-1053592.97	-1053592.80	0.0140	0.0073
Mercury	-7598-08-30 20:52 J	-1053504.75	-1053504.63	-1053504.48	0.0140	0.0104
Mercury	-7598-11-27 05:31 J	-1053416.32	-1053416.27	-1053416.21	0.0140	0.0134
Mars	-7596-03-26 08:52 J	-1052931.23	-1052931.13	-1052930.98	0.0140	0.0126
Mars	-7594-02-25 01:40 J	-1052230.69	-1052230.43	-1052230.15	0.0139	0.0047
Venus	-7587-02-20 07:40 J	-1049678.23	-1049678.18	-1049678.11	0.0135	0.0130
Venus	-7587-10-04 14:52 J	-1049452.03	-1049451.88	-1049451.70	0.0135	0.0089
Venus	-7586-05-18 22:19 J	-1049225.77	-1049225.57	-1049225.35	0.0135	0.0048
Venus	-7586-12-31 05:31 J	-1048999.48	-1048999.27	-1048999.04	0.0135	0.0008
Venus	-7585-08-13 12:28 J	-1048773.19	-1048772.98	-1048772.76	0.0135	0.0034
Venus	-7584-03-27 19:26 J	-1048546.87	-1048546.69	-1048546.50	0.0134	0.0073
Venus	-7584-11-09 01:55 J	-1048320.52	-1048320.42	-1048320.29	0.0134	0.0114
Earth	-7579-05-30 21:07 J	-1046656.69	-1046656.62	-1046656.52	0.0133	0.0125
Moon	-7579-05-30 20:52 J	-1046656.68	-1046656.63	-1046656.56	0.0133	0.0129 *
Earth	-7578-06-04 05:45 J	-1046287.45	-1046287.26	-1046287.06	0.0133	0.0087
Moon	-7578-06-04 06:14 J	-1046287.44	-1046287.24	-1046287.02	0.0133	0.0081 *
Moon	-7577-06-07 13:12 J	-1045918.16	-1045917.95	-1045917.72	0.0133	0.0056
Earth	-7577-06-07 13:40 J	-1045918.16	-1045917.93	-1045917.69	0.0133	0.0049 *
Earth	-7576-06-11 21:07 J	-1045548.87	-1045548.62	-1045548.36	0.0133	0.0012
Moon	-7576-06-11 22:19 J	-1045548.84	-1045548.57	-1045548.31	0.0133	0.0005 *
Moon	-7575-06-16 03:50 J	-1045179.59	-1045179.34	-1045179.10	0.0133	0.0021
Earth	-7575-06-16 04:04 J	-1045179.57	-1045179.33	-1045179.07	0.0133	0.0027 *
Earth	-7574-06-20 10:47 J	-1044810.26	-1044810.05	-1044809.82	0.0133	0.0064

Moon	-7574-06-20 12:00 J	-1044810.22	-1044810.00	-1044809.76	0.0133	0.0066 *
Moon	-7573-06-23 15:50 J	-1044440.98	-1044440.84	-1044440.66	0.0133	0.0102
Earth	-7573-06-23 17:02 J	-1044440.94	-1044440.79	-1044440.61	0.0133	0.0101 *
Mercury	-7556-09-07 22:33 J	-1038155.61	-1038155.56	-1038155.51	0.0137	0.0126
Mercury	-7556-12-05 01:40 J	-1038067.51	-1038067.43	-1038067.35	0.0137	0.0108
Mercury	-7555-03-03 04:33 J	-1037979.40	-1037979.31	-1037979.20	0.0137	0.0089
Mercury	-7555-05-30 07:40 J	-1037891.28	-1037891.18	-1037891.06	0.0137	0.0071
Mercury	-7555-08-26 10:47 J	-1037803.17	-1037803.05	-1037802.93	0.0137	0.0052
Mercury	-7555-11-22 13:55 J	-1037715.04	-1037714.92	-1037714.79	0.0138	0.0033
Mercury	-7554-02-18 17:02 J	-1037626.92	-1037626.79	-1037626.66	0.0138	0.0014
Mercury	-7554-05-17 20:09 J	-1037538.79	-1037538.66	-1037538.53	0.0138	0.0005
Mercury	-7554-08-13 23:16 J	-1037450.66	-1037450.53	-1037450.40	0.0138	0.0024
Mercury	-7554-11-10 02:23 J	-1037362.52	-1037362.40	-1037362.28	0.0138	0.0043
Mercury	-7553-02-06 05:16 J	-1037274.39	-1037274.28	-1037274.16	0.0138	0.0062
Mercury	-7553-05-04 08:23 J	-1037186.25	-1037186.15	-1037186.04	0.0138	0.0081
Mercury	-7553-07-31 11:31 J	-1037098.10	-1037098.02	-1037097.92	0.0138	0.0100
Mercury	-7553-10-27 14:38 J	-1037009.95	-1037009.89	-1037009.82	0.0138	0.0120
Mercury	-7552-01-23 18:00 J	-1036921.75	-1036921.75	-1036921.75	0.0139	0.0139
Mars	-7550-04-14 07:12 J	-1036111.52	-1036111.20	-1036110.86	0.0140	0.0017
Venus	-7543-02-15 13:55 J	-1033611.95	-1033611.92	-1033611.87	0.0143	0.0140
Venus	-7543-09-29 23:45 J	-1033385.66	-1033385.51	-1033385.33	0.0143	0.0094
Venus	-7542-05-14 10:04 J	-1033159.28	-1033159.08	-1033158.87	0.0143	0.0046
Venus	-7542-12-26 20:23 J	-1032932.87	-1032932.65	-1032932.44	0.0144	0.0003
Venus	-7541-08-09 06:28 J	-1032706.42	-1032706.23	-1032706.02	0.0144	0.0051
Venus	-7540-03-23 16:47 J	-1032479.94	-1032479.80	-1032479.63	0.0144	0.0099
Earth	-7536-11-27 20:52 J	-1030769.80	-1030769.63	-1030769.46	0.0145	0.0107
Moon	-7536-11-27 21:07 J	-1030769.76	-1030769.62	-1030769.45	0.0145	0.0112 *
Earth	-7535-12-02 21:07 J	-1030399.84	-1030399.62	-1030399.38	0.0146	0.0059
Moon	-7535-12-02 21:50 J	-1030399.83	-1030399.59	-1030399.35	0.0146	0.0058 *
Moon	-7534-12-07 21:36 J	-1030029.85	-1030029.60	-1030029.36	0.0146	0.0004

Earth	-7534-12-07 22:33 J	-1030029.81	-1030029.56	-1030029.30	0.0146	0.0009	*
Earth	-7533-12-12 00:00 J	-1029659.73	-1029659.50	-1029659.25	0.0146	0.0042	
Moon	-7533-12-12 01:40 J	-1029659.68	-1029659.43	-1029659.17	0.0146	0.0035	*
Moon	-7532-12-16 23:31 J	-1029289.69	-1029289.52	-1029289.32	0.0146	0.0099	
Earth	-7532-12-17 02:09 J	-1029289.60	-1029289.41	-1029289.20	0.0146	0.0091	*
Earth	-7531-12-22 04:33 J	-1028919.37	-1028919.31	-1028919.24	0.0146	0.0140	
Moon	-7531-12-22 06:57 J	-1028919.29	-1028919.21	-1028919.10	0.0146	0.0135	*
Mercury	-7516-10-13 09:36 J	-1023510.15	-1023510.10	-1023510.04	0.0141	0.0135	
Mercury	-7515-01-09 18:00 J	-1023421.87	-1023421.75	-1023421.61	0.0141	0.0104	
Mercury	-7515-04-08 02:23 J	-1023333.56	-1023333.40	-1023333.22	0.0141	0.0073	
Mercury	-7515-07-05 10:47 J	-1023245.23	-1023245.05	-1023244.85	0.0141	0.0042	
Mercury	-7515-10-01 19:26 J	-1023156.89	-1023156.69	-1023156.49	0.0141	0.0011	
Mercury	-7515-12-29 03:50 J	-1023068.54	-1023068.34	-1023068.15	0.0141	0.0020	
Mercury	-7514-03-27 12:00 J	-1022980.18	-1022980.00	-1022979.81	0.0141	0.0051	
Mercury	-7514-06-23 20:09 J	-1022891.80	-1022891.66	-1022891.48	0.0140	0.0082	
Mercury	-7514-09-20 04:47 J	-1022803.41	-1022803.30	-1022803.18	0.0140	0.0112	
Mars	-7512-11-19 04:33 J	-1022012.56	-1022012.31	-1022012.04	0.0139	0.0062	
Mars	-7510-10-20 16:19 J	-1021311.98	-1021311.82	-1021311.62	0.0138	0.0108	
Venus	-7503-06-04 00:14 J	-1018893.62	-1018893.49	-1018893.36	0.0135	0.0108	
Venus	-7502-01-16 07:12 J	-1018667.37	-1018667.20	-1018666.99	0.0135	0.0067	
Venus	-7502-08-30 14:38 J	-1018441.10	-1018440.89	-1018440.67	0.0135	0.0026	
Venus	-7501-04-12 21:36 J	-1018214.81	-1018214.60	-1018214.37	0.0135	0.0015	
Venus	-7501-11-25 04:33 J	-1017988.51	-1017988.31	-1017988.11	0.0134	0.0055	
Venus	-7500-07-09 11:02 J	-1017762.18	-1017762.04	-1017761.87	0.0134	0.0095	
Earth	-7495-05-31 06:57 J	-1015975.30	-1015975.21	-1015975.08	0.0133	0.0120	
Moon	-7495-05-31 07:12 J	-1015975.29	-1015975.20	-1015975.06	0.0133	0.0118	*
Moon	-7494-06-04 14:52 J	-1015606.06	-1015605.88	-1015605.66	0.0133	0.0087	
Earth	-7494-06-04 15:36 J	-1015606.05	-1015605.85	-1015605.65	0.0133	0.0082	*
Moon	-7493-06-07 23:16 J	-1015236.76	-1015236.53	-1015236.29	0.0133	0.0038	
Earth	-7493-06-07 23:16 J	-1015236.76	-1015236.53	-1015236.28	0.0133	0.0045	*

Moon	-7492-06-12 06:43 J	-1014867.48	-1014867.22	-1014866.95	0.0133	0.0014
Earth	-7492-06-12 06:57 J	-1014867.46	-1014867.21	-1014866.95	0.0133	0.0007 *
Moon	-7491-06-16 13:12 J	-1014498.18	-1014497.95	-1014497.70	0.0133	0.0036
Earth	-7491-06-16 13:40 J	-1014498.17	-1014497.93	-1014497.67	0.0133	0.0031 *
Earth	-7490-06-20 20:23 J	-1014128.86	-1014128.65	-1014128.43	0.0133	0.0068
Moon	-7490-06-20 20:23 J	-1014128.86	-1014128.65	-1014128.40	0.0133	0.0065 *
Moon	-7489-06-24 02:23 J	-1013759.54	-1013759.40	-1013759.25	0.0133	0.0105
Earth	-7489-06-24 02:23 J	-1013759.54	-1013759.40	-1013759.23	0.0133	0.0105 *
Mercury	-7472-09-28 05:31 J	-1007454.32	-1007454.27	-1007454.22	0.0137	0.0123
Mercury	-7472-12-25 08:23 J	-1007366.22	-1007366.15	-1007366.06	0.0137	0.0105
Mercury	-7471-03-23 11:31 J	-1007278.11	-1007278.02	-1007277.91	0.0137	0.0086
Mercury	-7471-06-19 14:38 J	-1007190.00	-1007189.89	-1007189.77	0.0137	0.0068
Mercury	-7471-09-15 17:45 J	-1007101.88	-1007101.76	-1007101.64	0.0137	0.0049
Mercury	-7471-12-12 20:52 J	-1007013.76	-1007013.63	-1007013.50	0.0138	0.0030
Mercury	-7470-03-11 00:00 J	-1006925.63	-1006925.50	-1006925.37	0.0138	0.0011
Mercury	-7470-06-07 03:07 J	-1006837.50	-1006837.37	-1006837.24	0.0138	0.0008
Mercury	-7470-09-03 06:14 J	-1006749.37	-1006749.24	-1006749.11	0.0138	0.0027
Mercury	-7470-11-30 09:07 J	-1006661.23	-1006661.12	-1006660.99	0.0138	0.0046
Mercury	-7469-02-26 12:14 J	-1006573.10	-1006572.99	-1006572.87	0.0138	0.0065
Mercury	-7469-05-24 15:21 J	-1006484.96	-1006484.86	-1006484.75	0.0138	0.0084
Mercury	-7469-08-20 18:28 J	-1006396.81	-1006396.73	-1006396.64	0.0138	0.0103
Mercury	-7469-11-16 21:36 J	-1006308.65	-1006308.60	-1006308.53	0.0138	0.0122
Mars	-7467-01-03 00:14 J	-1005896.65	-1005896.49	-1005896.28	0.0139	0.0114
Mars	-7466-12-09 01:12 J	-1005191.69	-1005191.45	-1005191.17	0.0140	0.0087
Venus	-7459-05-30 06:00 J	-1002827.36	-1002827.25	-1002827.11	0.0143	0.0117
Venus	-7458-01-11 16:19 J	-1002601.01	-1002600.82	-1002600.63	0.0143	0.0070
Venus	-7458-08-26 02:38 J	-1002374.60	-1002374.39	-1002374.18	0.0144	0.0022
Venus	-7457-04-08 12:57 J	-1002148.17	-1002147.96	-1002147.75	0.0144	0.0026
Venus	-7457-11-20 23:02 J	-1001921.71	-1001921.54	-1001921.35	0.0144	0.0075
Venus	-7456-07-05 09:36 J	-1001695.20	-1001695.10	-1001694.98	0.0144	0.0123

Earth	-7452-11-28 06:00 J	-1000088.43	-1000088.25	-1000088.07	0.0145	0.0102
Moon	-7452-11-28 06:43 J	-1000088.39	-1000088.22	-1000088.03	0.0145	0.0098 *
Moon	-7451-12-03 06:00 J	-999718.48	-999718.25	-999717.99	0.0146	0.0055
Earth	-7451-12-03 06:28 J	-999718.45	-999718.23	-999717.99	0.0146	0.0054 *
Moon	-7450-12-08 07:26 J	-999348.43	-999348.19	-999347.94	0.0146	0.0008
Earth	-7450-12-08 07:40 J	-999348.43	-999348.18	-999347.92	0.0146	0.0005 *
Earth	-7449-12-12 09:21 J	-998978.34	-998978.11	-998977.86	0.0146	0.0046
Moon	-7449-12-12 10:33 J	-998978.29	-998978.06	-998977.81	0.0146	0.0053 *
Moon	-7448-12-17 10:04 J	-998608.27	-998608.08	-998607.88	0.0146	0.0088
Earth	-7448-12-17 11:31 J	-998608.21	-998608.02	-998607.83	0.0146	0.0095 *
Earth	-7447-12-22 13:26 J	-998237.96	-998237.94	-998237.89	0.0146	0.0144
Mercury	-7432-11-02 17:02 J	-992808.87	-992808.79	-992808.70	0.0141	0.0127
Mercury	-7431-01-30 01:12 J	-992720.58	-992720.45	-992720.29	0.0141	0.0096
Mercury	-7431-04-28 09:50 J	-992632.26	-992632.09	-992631.91	0.0141	0.0065
Mercury	-7431-07-25 18:14 J	-992543.92	-992543.74	-992543.54	0.0141	0.0034
Mercury	-7431-10-22 02:52 J	-992455.58	-992455.38	-992455.18	0.0141	0.0003
Mercury	-7430-01-18 11:16 J	-992367.23	-992367.03	-992366.84	0.0141	0.0028
Mercury	-7430-04-16 19:26 J	-992278.86	-992278.69	-992278.50	0.0141	0.0059
Mercury	-7430-07-14 04:04 J	-992190.49	-992190.33	-992190.18	0.0140	0.0089
Mercury	-7430-10-10 12:00 J	-992102.09	-992102.00	-992101.88	0.0140	0.0120
Mars	-7427-07-14 21:07 J	-991093.91	-991093.62	-991093.33	0.0139	0.0001
Venus	-7419-02-01 09:07 J	-988335.18	-988335.12	-988335.03	0.0135	0.0127
Venus	-7419-09-15 16:33 J	-988108.97	-988108.81	-988108.63	0.0135	0.0086
Venus	-7418-04-29 23:31 J	-987882.72	-987882.52	-987882.30	0.0135	0.0045
Venus	-7418-12-12 06:43 J	-987656.44	-987656.22	-987656.00	0.0135	0.0004
Venus	-7417-07-25 13:26 J	-987430.14	-987429.94	-987429.72	0.0135	0.0037
Venus	-7416-03-08 20:23 J	-987203.82	-987203.65	-987203.46	0.0134	0.0077
Venus	-7416-10-21 03:07 J	-986977.47	-986977.37	-986977.26	0.0134	0.0116
Earth	-7411-05-31 16:47 J	-985293.91	-985293.80	-985293.66	0.0133	0.0115
Moon	-7411-05-31 17:45 J	-985293.86	-985293.76	-985293.63	0.0133	0.0117 *

Moon	-7410-06-05 00:43 J	-984924.69	-984924.47	-984924.25	0.0133	0.0072
Earth	-7410-06-05 00:57 J	-984924.65	-984924.46	-984924.23	0.0133	0.0078 *
Earth	-7409-06-08 09:07 J	-984555.36	-984555.12	-984554.87	0.0133	0.0040
Moon	-7409-06-08 10:04 J	-984555.31	-984555.08	-984554.85	0.0133	0.0046 *
Moon	-7408-06-12 16:04 J	-984186.09	-984185.83	-984185.56	0.0133	0.0004
Earth	-7408-06-12 16:19 J	-984186.07	-984185.82	-984185.56	0.0133	0.0003 *
Earth	-7407-06-16 23:02 J	-983816.78	-983816.54	-983816.29	0.0132	0.0035
Moon	-7407-06-16 23:45 J	-983816.75	-983816.51	-983816.27	0.0132	0.0029 *
Moon	-7406-06-21 05:02 J	-983447.49	-983447.29	-983447.06	0.0132	0.0075
Earth	-7406-06-21 05:16 J	-983447.48	-983447.28	-983447.05	0.0132	0.0072 *
Earth	-7405-06-24 11:16 J	-983078.16	-983078.03	-983077.87	0.0132	0.0108
Moon	-7405-06-24 11:16 J	-983078.15	-983078.03	-983077.87	0.0132	0.0108 *
Mercury	-7388-10-18 12:14 J	-976753.05	-976752.99	-976752.93	0.0137	0.0121
Mercury	-7387-01-14 15:07 J	-976664.95	-976664.87	-976664.78	0.0137	0.0103
Mercury	-7387-04-12 18:14 J	-976576.84	-976576.74	-976576.63	0.0137	0.0084
Mercury	-7387-07-09 21:21 J	-976488.72	-976488.61	-976488.49	0.0137	0.0066
Mercury	-7387-10-06 00:28 J	-976400.60	-976400.48	-976400.36	0.0137	0.0047
Mercury	-7386-01-02 03:36 J	-976312.48	-976312.35	-976312.22	0.0137	0.0028
Mercury	-7386-03-31 06:43 J	-976224.35	-976224.22	-976224.09	0.0138	0.0009
Mercury	-7386-06-27 09:50 J	-976136.22	-976136.09	-976135.96	0.0138	0.0010
Mercury	-7386-09-23 12:57 J	-976048.09	-976047.96	-976047.84	0.0138	0.0029
Mercury	-7386-12-20 15:50 J	-975959.95	-975959.84	-975959.71	0.0138	0.0048
Mercury	-7385-03-17 18:57 J	-975871.82	-975871.71	-975871.59	0.0138	0.0067
Mercury	-7385-06-13 22:04 J	-975783.67	-975783.58	-975783.47	0.0138	0.0086
Mercury	-7385-09-10 01:12 J	-975695.53	-975695.45	-975695.36	0.0138	0.0105
Mercury	-7385-12-07 04:19 J	-975607.37	-975607.32	-975607.26	0.0138	0.0124
Mars	-7383-08-29 12:00 J	-974977.29	-974977.00	-974976.67	0.0139	0.0046
Venus	-7375-01-27 11:02 J	-972269.04	-972269.04	-972269.00	0.0143	0.0142
Venus	-7375-09-10 21:07 J	-972042.76	-972042.62	-972042.44	0.0143	0.0095
Venus	-7374-04-25 07:26 J	-971816.39	-971816.19	-971815.98	0.0143	0.0047

Venus	-7374-12-07 17:45 J	-971589.98	-971589.76	-971589.55	0.0144	0.0001
Venus	-7373-07-21 04:04 J	-971363.53	-971363.33	-971363.13	0.0144	0.0049
Venus	-7372-03-04 14:23 J	-971137.05	-971136.90	-971136.73	0.0144	0.0098
Moon	-7369-11-23 10:19 J	-969777.12	-969777.07	-969776.97	0.0145	0.0139
Earth	-7368-11-28 12:28 J	-969407.14	-969406.98	-969406.77	0.0145	0.0099
Moon	-7368-11-28 14:23 J	-969407.05	-969406.90	-969406.71	0.0145	0.0105 *
Moon	-7367-12-03 12:14 J	-969037.23	-969036.99	-969036.74	0.0146	0.0048
Earth	-7367-12-03 13:26 J	-969037.17	-969036.94	-969036.70	0.0146	0.0050 *
Earth	-7366-12-08 14:38 J	-968667.14	-968666.89	-968666.63	0.0146	0.0002
Moon	-7366-12-08 14:52 J	-968667.12	-968666.88	-968666.63	0.0146	0.0003 *
Moon	-7365-12-12 16:19 J	-968297.06	-968296.82	-968296.56	0.0146	0.0043
Earth	-7365-12-12 16:19 J	-968297.05	-968296.82	-968296.58	0.0146	0.0049 *
Moon	-7364-12-17 16:47 J	-967926.95	-967926.80	-967926.62	0.0146	0.0106
Earth	-7364-12-17 18:14 J	-967926.92	-967926.74	-967926.55	0.0146	0.0098 *
Moon	-7363-12-22 22:19 J	-967556.64	-967556.57	-967556.50	0.0146	0.0140
Mercury	-7348-11-22 23:45 J	-962107.61	-962107.51	-962107.41	0.0141	0.0122
Mercury	-7347-02-19 08:09 J	-962019.31	-962019.16	-962019.01	0.0141	0.0091
Mercury	-7347-05-18 16:19 J	-961930.99	-961930.82	-961930.63	0.0141	0.0060
Mercury	-7347-08-15 00:57 J	-961842.65	-961842.46	-961842.26	0.0141	0.0029
Mercury	-7347-11-11 09:21 J	-961754.30	-961754.11	-961753.91	0.0141	0.0004
Mercury	-7346-02-07 17:45 J	-961665.95	-961665.76	-961665.56	0.0141	0.0033
Mercury	-7346-05-07 02:09 J	-961577.58	-961577.41	-961577.23	0.0141	0.0064
Mercury	-7346-08-03 10:19 J	-961489.20	-961489.07	-961488.91	0.0140	0.0095
Mercury	-7346-10-30 18:57 J	-961400.80	-961400.71	-961400.62	0.0140	0.0125
Mars	-7344-04-07 17:16 J	-960875.94	-960875.78	-960875.58	0.0140	0.0111
Mars	-7342-03-09 10:04 J	-960175.33	-960175.08	-960174.81	0.0139	0.0061
Venus	-7335-05-16 00:43 J	-957550.59	-957550.47	-957550.32	0.0135	0.0105
Venus	-7335-12-28 08:09 J	-957324.35	-957324.16	-957323.96	0.0135	0.0064
Venus	-7334-08-11 15:21 J	-957098.08	-957097.86	-957097.64	0.0135	0.0023
Venus	-7333-03-24 22:19 J	-956871.78	-956871.57	-956871.35	0.0135	0.0018

Venus	-7333-11-06 05:16 J	-956645.48	-956645.28	-956645.08	0.0134	0.0058
Venus	-7332-06-20 11:31 J	-956419.15	-956419.02	-956418.85	0.0134	0.0099
Earth	-7327-06-01 02:38 J	-954612.52	-954612.39	-954612.23	0.0133	0.0110
Moon	-7327-06-01 04:33 J	-954612.45	-954612.31	-954612.17	0.0133	0.0108 *
Moon	-7326-06-05 09:36 J	-954243.32	-954243.10	-954242.89	0.0133	0.0076
Earth	-7326-06-05 11:02 J	-954243.24	-954243.04	-954242.82	0.0133	0.0073 *
Earth	-7325-06-08 18:43 J	-953873.96	-953873.72	-953873.47	0.0133	0.0036
Moon	-7325-06-08 19:55 J	-953873.91	-953873.67	-953873.43	0.0133	0.0029 *
Moon	-7324-06-13 00:28 J	-953504.74	-953504.48	-953504.21	0.0133	0.0005
Earth	-7324-06-13 02:09 J	-953504.67	-953504.41	-953504.16	0.0133	0.0002 *
Earth	-7323-06-17 08:38 J	-953135.38	-953135.14	-953134.89	0.0132	0.0039
Moon	-7323-06-17 09:21 J	-953135.33	-953135.11	-953134.87	0.0132	0.0045 *
Moon	-7322-06-21 13:55 J	-952766.14	-952765.92	-952765.69	0.0132	0.0071
Earth	-7322-06-21 14:38 J	-952766.08	-952765.89	-952765.66	0.0132	0.0076 *
Earth	-7321-06-24 20:38 J	-952396.75	-952396.64	-952396.48	0.0132	0.0112
Moon	-7321-06-24 21:50 J	-952396.70	-952396.59	-952396.45	0.0132	0.0113 *
Mercury	-7304-08-11 16:04 J	-946139.83	-946139.83	-946139.83	0.0137	0.0137
Mercury	-7304-11-07 19:12 J	-946051.77	-946051.70	-946051.64	0.0137	0.0118
Mercury	-7303-02-03 22:04 J	-945963.66	-945963.58	-945963.49	0.0137	0.0100
Mercury	-7303-05-03 01:12 J	-945875.55	-945875.45	-945875.34	0.0137	0.0081
Mercury	-7303-07-30 04:19 J	-945787.43	-945787.32	-945787.20	0.0137	0.0063
Mercury	-7303-10-26 07:26 J	-945699.31	-945699.19	-945699.07	0.0137	0.0044
Mercury	-7302-01-22 10:33 J	-945611.19	-945611.06	-945610.93	0.0137	0.0025
Mercury	-7302-04-20 13:40 J	-945523.06	-945522.93	-945522.80	0.0137	0.0007
Mercury	-7302-07-17 16:33 J	-945434.93	-945434.81	-945434.67	0.0138	0.0014
Mercury	-7302-10-13 19:40 J	-945346.80	-945346.68	-945346.55	0.0138	0.0032
Mercury	-7301-01-09 22:47 J	-945258.67	-945258.55	-945258.43	0.0138	0.0051
Mercury	-7301-04-07 01:55 J	-945170.53	-945170.42	-945170.30	0.0138	0.0070
Mercury	-7301-07-04 05:02 J	-945082.38	-945082.29	-945082.19	0.0138	0.0089
Mercury	-7301-09-30 07:55 J	-944994.23	-944994.17	-944994.08	0.0138	0.0109

Mercury	-7301-12-27 11:02 J	-944906.07	-944906.04	-944905.98	0.0138	0.0128
Mars	-7298-04-25 02:23 J	-944057.72	-944057.40	-944057.07	0.0139	0.0024
Venus	-7291-05-11 02:09 J	-941484.50	-941484.41	-941484.27	0.0143	0.0120
Venus	-7291-12-23 12:28 J	-941258.16	-941257.98	-941257.79	0.0143	0.0072
Venus	-7290-08-06 22:47 J	-941031.76	-941031.55	-941031.34	0.0144	0.0025
Venus	-7289-03-20 09:07 J	-940805.33	-940805.12	-940804.91	0.0144	0.0024
Venus	-7289-11-01 19:26 J	-940578.87	-940578.69	-940578.50	0.0144	0.0072
Venus	-7288-06-16 05:45 J	-940352.36	-940352.26	-940352.13	0.0144	0.0121
Earth	-7285-11-23 18:57 J	-939095.75	-939095.71	-939095.65	0.0145	0.0142
Earth	-7284-11-28 18:43 J	-938725.90	-938725.72	-938725.52	0.0145	0.0095
Moon	-7284-11-28 21:07 J	-938725.81	-938725.62	-938725.43	0.0145	0.0089 *
Moon	-7283-12-03 17:31 J	-938356.01	-938355.77	-938355.52	0.0146	0.0049
Earth	-7283-12-03 19:12 J	-938355.93	-938355.70	-938355.45	0.0146	0.0047 *
Earth	-7282-12-08 20:23 J	-937985.90	-937985.65	-937985.40	0.0146	0.0003
Moon	-7282-12-08 21:36 J	-937985.84	-937985.60	-937985.35	0.0146	0.0002 *
Moon	-7281-12-12 21:21 J	-937615.83	-937615.61	-937615.35	0.0146	0.0058
Earth	-7281-12-12 21:36 J	-937615.82	-937615.60	-937615.35	0.0146	0.0052 *
Moon	-7280-12-18 00:00 J	-937245.69	-937245.50	-937245.31	0.0146	0.0093
Earth	-7280-12-17 23:31 J	-937245.69	-937245.52	-937245.32	0.0146	0.0101 *
Mercury	-7264-12-13 05:31 J	-931406.36	-931406.27	-931406.15	0.0141	0.0119
Mercury	-7263-03-11 14:09 J	-931318.06	-931317.91	-931317.75	0.0141	0.0088
Mercury	-7263-06-07 22:19 J	-931229.74	-931229.57	-931229.38	0.0141	0.0057
Mercury	-7263-09-04 06:57 J	-931141.40	-931141.21	-931141.01	0.0141	0.0026
Mercury	-7263-12-01 15:21 J	-931053.05	-931052.86	-931052.66	0.0141	0.0006
Mercury	-7262-02-27 23:45 J	-930964.70	-930964.51	-930964.31	0.0141	0.0036
Mercury	-7262-05-27 08:09 J	-930876.33	-930876.16	-930875.98	0.0141	0.0067
Mercury	-7262-08-23 16:33 J	-930787.95	-930787.81	-930787.66	0.0140	0.0097
Mercury	-7262-11-20 00:43 J	-930699.53	-930699.47	-930699.38	0.0140	0.0128
Mars	-7260-12-01 05:45 J	-929957.53	-929957.26	-929956.98	0.0139	0.0050
Mars	-7258-11-01 19:40 J	-929256.80	-929256.68	-929256.51	0.0138	0.0120

Venus	-7251-01-13 08:09 J	-926992.23	-926992.16	-926992.06	0.0136	0.0126
Venus	-7251-08-27 15:36 J	-926766.01	-926765.85	-926765.67	0.0135	0.0084
Venus	-7250-04-10 22:47 J	-926539.75	-926539.55	-926539.33	0.0135	0.0043
Venus	-7250-11-23 06:00 J	-926313.47	-926313.25	-926313.03	0.0135	0.0003
Venus	-7249-07-06 12:57 J	-926087.17	-926086.96	-926086.75	0.0135	0.0039
Venus	-7248-02-17 20:09 J	-925860.84	-925860.66	-925860.49	0.0134	0.0079
Venus	-7248-10-02 02:23 J	-925634.48	-925634.40	-925634.28	0.0134	0.0119
Earth	-7243-06-01 11:16 J	-923931.17	-923931.03	-923930.86	0.0133	0.0106
Moon	-7243-06-01 13:26 J	-923931.07	-923930.94	-923930.78	0.0133	0.0107 *
Moon	-7242-06-05 17:31 J	-923561.98	-923561.77	-923561.52	0.0133	0.0065
Earth	-7242-06-05 19:40 J	-923561.89	-923561.68	-923561.45	0.0133	0.0069 *
Earth	-7241-06-09 03:21 J	-923192.60	-923192.36	-923192.10	0.0133	0.0032
Moon	-7241-06-09 05:31 J	-923192.50	-923192.27	-923192.02	0.0133	0.0038 *
Moon	-7240-06-13 08:52 J	-922823.39	-922823.13	-922822.86	0.0133	0.0012
Earth	-7240-06-13 10:33 J	-922823.31	-922823.06	-922822.80	0.0133	0.0005 *
Earth	-7239-06-17 17:16 J	-922454.02	-922453.78	-922453.54	0.0133	0.0042
Moon	-7239-06-17 18:57 J	-922453.94	-922453.71	-922453.46	0.0133	0.0036 *
Moon	-7238-06-21 21:50 J	-922084.79	-922084.59	-922084.38	0.0133	0.0083
Earth	-7238-06-21 23:16 J	-922084.72	-922084.53	-922084.30	0.0133	0.0079 *
Earth	-7237-06-25 05:31 J	-921715.39	-921715.27	-921715.14	0.0132	0.0114
Moon	-7237-06-25 06:43 J	-921715.34	-921715.22	-921715.08	0.0132	0.0113 *
Mercury	-7220-08-31 22:47 J	-915438.56	-915438.55	-915438.51	0.0137	0.0134
Mercury	-7220-11-28 02:09 J	-915350.48	-915350.41	-915350.34	0.0137	0.0115
Mercury	-7219-02-24 05:02 J	-915262.37	-915262.29	-915262.19	0.0137	0.0097
Mercury	-7219-05-23 08:09 J	-915174.26	-915174.16	-915174.05	0.0137	0.0078
Mercury	-7219-08-19 11:16 J	-915086.14	-915086.03	-915085.91	0.0137	0.0059
Mercury	-7219-11-15 14:23 J	-914998.02	-914997.90	-914997.77	0.0137	0.0041
Mercury	-7218-02-11 17:31 J	-914909.90	-914909.77	-914909.64	0.0137	0.0022
Mercury	-7218-05-10 20:38 J	-914821.77	-914821.64	-914821.51	0.0137	0.0003
Mercury	-7218-08-06 23:45 J	-914733.64	-914733.51	-914733.38	0.0138	0.0016

Mercury	-7218-11-03 02:52 J	-914645.51	-914645.38	-914645.26	0.0138	0.0035
Mercury	-7217-01-30 05:45 J	-914557.37	-914557.26	-914557.13	0.0138	0.0054
Mercury	-7217-04-27 08:52 J	-914469.23	-914469.13	-914469.01	0.0138	0.0073
Mercury	-7217-07-24 12:00 J	-914381.09	-914381.00	-914380.90	0.0138	0.0092
Mercury	-7217-10-20 15:07 J	-914292.94	-914292.87	-914292.79	0.0138	0.0111
Mercury	-7216-01-16 18:14 J	-914204.77	-914204.74	-914204.69	0.0138	0.0130
Mars	-7215-01-13 21:21 J	-913842.81	-913842.61	-913842.38	0.0139	0.0103
Mars	-7214-12-19 19:12 J	-913137.91	-913137.70	-913137.43	0.0140	0.0096
Venus	-7207-01-08 08:52 J	-910926.13	-910926.13	-910926.12	0.0143	0.0143
Venus	-7207-08-22 18:57 J	-910699.87	-910699.71	-910699.55	0.0143	0.0096
Venus	-7206-04-06 04:47 J	-910473.49	-910473.30	-910473.09	0.0143	0.0049
Venus	-7206-11-18 15:21 J	-910247.08	-910246.86	-910246.65	0.0144	0.0003
Venus	-7205-07-02 01:26 J	-910020.63	-910020.44	-910020.23	0.0144	0.0049
Venus	-7204-02-13 12:00 J	-909794.15	-909794.00	-909793.84	0.0144	0.0097
Moon	-7201-11-24 00:00 J	-908414.59	-908414.50	-908414.37	0.0145	0.0131
Earth	-7201-11-24 03:36 J	-908414.43	-908414.35	-908414.27	0.0145	0.0138 *
Earth	-7200-11-29 02:52 J	-908044.56	-908044.38	-908044.17	0.0145	0.0091
Moon	-7200-11-29 06:00 J	-908044.43	-908044.25	-908044.06	0.0145	0.0098 *
Moon	-7199-12-04 00:57 J	-907674.71	-907674.46	-907674.21	0.0146	0.0039
Earth	-7199-12-04 03:21 J	-907674.59	-907674.36	-907674.11	0.0146	0.0043 *
Earth	-7198-12-09 04:19 J	-907304.57	-907304.32	-907304.06	0.0146	0.0006
Moon	-7198-12-09 06:00 J	-907304.50	-907304.25	-907304.01	0.0146	0.0008 *
Moon	-7197-12-13 04:04 J	-906934.56	-906934.33	-906934.07	0.0146	0.0050
Earth	-7197-12-13 05:31 J	-906934.49	-906934.27	-906934.02	0.0146	0.0055 *
Earth	-7196-12-18 07:12 J	-906564.36	-906564.20	-906564.00	0.0146	0.0103
Moon	-7196-12-18 07:12 J	-906564.34	-906564.20	-906564.02	0.0146	0.0111 *
Moon	-7195-12-23 09:36 J	-906194.12	-906194.10	-906194.05	0.0146	0.0144
Mercury	-7179-01-02 12:00 J	-900705.11	-900705.00	-900704.88	0.0141	0.0114
Mercury	-7179-03-31 20:23 J	-900616.80	-900616.65	-900616.48	0.0141	0.0083
Mercury	-7179-06-28 05:02 J	-900528.47	-900528.29	-900528.10	0.0141	0.0052

Mercury	-7179-09-24 13:26 J	-900440.13	-900439.94	-900439.74	0.0141	0.0021
Mercury	-7179-12-21 21:50 J	-900351.78	-900351.59	-900351.39	0.0141	0.0010
Mercury	-7178-03-20 06:14 J	-900263.42	-900263.24	-900263.05	0.0141	0.0041
Mercury	-7178-06-16 14:38 J	-900175.05	-900174.89	-900174.71	0.0141	0.0071
Mercury	-7178-09-12 23:16 J	-900086.67	-900086.53	-900086.40	0.0140	0.0102
Mercury	-7178-12-10 07:12 J	-899998.25	-899998.20	-899998.12	0.0140	0.0133
Mars	-7175-07-26 18:57 J	-899039.00	-899038.71	-899038.42	0.0139	0.0010
Venus	-7167-04-26 23:02 J	-896207.66	-896207.54	-896207.38	0.0135	0.0105
Venus	-7167-12-09 06:28 J	-895981.41	-895981.23	-895981.02	0.0135	0.0063
Venus	-7166-07-23 13:55 J	-895755.13	-895754.92	-895754.70	0.0135	0.0022
Venus	-7165-03-05 21:07 J	-895528.83	-895528.62	-895528.40	0.0135	0.0019
Venus	-7165-10-18 04:04 J	-895302.52	-895302.33	-895302.13	0.0135	0.0060
Venus	-7164-06-01 10:33 J	-895076.19	-895076.06	-895075.89	0.0134	0.0101
Earth	-7159-06-01 20:23 J	-893249.80	-893249.65	-893249.47	0.0133	0.0102
Moon	-7159-06-01 23:02 J	-893249.68	-893249.54	-893249.36	0.0133	0.0101 *
Moon	-7158-06-06 02:09 J	-892880.63	-892880.41	-892880.18	0.0133	0.0067
Earth	-7158-06-06 04:47 J	-892880.51	-892880.30	-892880.06	0.0133	0.0065 *
Earth	-7157-06-09 12:28 J	-892511.22	-892510.98	-892510.72	0.0133	0.0028
Moon	-7157-06-09 14:38 J	-892511.13	-892510.89	-892510.64	0.0133	0.0022 *
Moon	-7156-06-13 17:16 J	-892142.05	-892141.78	-892141.52	0.0133	0.0003
Earth	-7156-06-13 19:55 J	-892141.93	-892141.67	-892141.42	0.0133	0.0009 *
Earth	-7155-06-18 02:23 J	-891772.63	-891772.40	-891772.15	0.0133	0.0046
Moon	-7155-06-18 04:33 J	-891772.53	-891772.31	-891772.07	0.0133	0.0052 *
Moon	-7154-06-22 06:28 J	-891403.43	-891403.23	-891403.00	0.0133	0.0077
Earth	-7154-06-22 08:52 J	-891403.32	-891403.13	-891402.92	0.0133	0.0082 *
Earth	-7153-06-25 14:38 J	-891033.98	-891033.89	-891033.75	0.0133	0.0118
Moon	-7153-06-25 17:16 J	-891033.87	-891033.78	-891033.67	0.0133	0.0121 *
Mercury	-7136-09-21 06:14 J	-884737.28	-884737.24	-884737.20	0.0137	0.0129
Mercury	-7136-12-18 09:07 J	-884649.18	-884649.12	-884649.03	0.0137	0.0111
Mercury	-7135-03-16 12:28 J	-884561.08	-884560.98	-884560.88	0.0137	0.0092

Mercury	-7135-06-12 15:36 J	-884472.96	-884472.85	-884472.74	0.0137	0.0073
Mercury	-7135-09-08 18:28 J	-884384.84	-884384.73	-884384.60	0.0137	0.0055
Mercury	-7135-12-05 21:36 J	-884296.72	-884296.60	-884296.47	0.0137	0.0037
Mercury	-7134-03-04 00:43 J	-884208.59	-884208.47	-884208.34	0.0137	0.0018
Mercury	-7134-05-31 03:50 J	-884120.47	-884120.34	-884120.21	0.0138	0.0004
Mercury	-7134-08-27 06:57 J	-884032.34	-884032.21	-884032.08	0.0138	0.0021
Mercury	-7134-11-23 10:04 J	-883944.20	-883944.08	-883943.95	0.0138	0.0040
Mercury	-7133-02-19 13:12 J	-883856.07	-883855.95	-883855.83	0.0138	0.0058
Mercury	-7133-05-17 16:04 J	-883767.93	-883767.83	-883767.71	0.0138	0.0078
Mercury	-7133-08-13 19:26 J	-883679.78	-883679.69	-883679.60	0.0138	0.0097
Mercury	-7133-11-09 22:33 J	-883591.63	-883591.56	-883591.49	0.0138	0.0116
Mercury	-7132-02-06 01:40 J	-883503.45	-883503.43	-883503.40	0.0138	0.0135
Mars	-7131-09-09 16:47 J	-882923.11	-882922.80	-882922.47	0.0139	0.0032
Venus	-7123-04-22 02:38 J	-880141.50	-880141.39	-880141.26	0.0143	0.0117
Venus	-7123-12-04 12:28 J	-879915.15	-879914.98	-879914.77	0.0143	0.0071
Venus	-7122-07-18 23:02 J	-879688.75	-879688.54	-879688.32	0.0143	0.0022
Venus	-7121-03-01 09:21 J	-879462.32	-879462.11	-879461.89	0.0144	0.0027
Venus	-7121-10-13 19:55 J	-879235.85	-879235.67	-879235.49	0.0144	0.0075
Venus	-7120-05-28 06:14 J	-879009.34	-879009.24	-879009.12	0.0144	0.0124
Moon	-7117-11-24 10:33 J	-877733.10	-877733.06	-877732.97	0.0145	0.0141
Earth	-7117-11-24 14:23 J	-877732.99	-877732.90	-877732.79	0.0145	0.0133 *
Earth	-7116-11-29 13:55 J	-877363.11	-877362.92	-877362.71	0.0145	0.0086
Moon	-7116-11-29 16:47 J	-877362.99	-877362.80	-877362.58	0.0145	0.0079 *
Moon	-7115-12-04 11:31 J	-876993.26	-876993.02	-876992.77	0.0146	0.0042
Earth	-7115-12-04 14:23 J	-876993.14	-876992.90	-876992.65	0.0146	0.0038 *
Earth	-7114-12-09 15:07 J	-876623.12	-876622.87	-876622.61	0.0146	0.0011
Moon	-7114-12-09 17:31 J	-876623.01	-876622.77	-876622.52	0.0146	0.0011 *
Moon	-7113-12-13 14:52 J	-876253.11	-876252.88	-876252.64	0.0146	0.0064
Earth	-7113-12-13 16:19 J	-876253.04	-876252.82	-876252.58	0.0146	0.0059 *
Earth	-7112-12-18 17:45 J	-875882.91	-875882.76	-875882.57	0.0146	0.0108

Moon	-7112-12-18 19:12 J	-875882.86	-875882.70	-875882.50	0.0146	0.0101	*
Mercury	-7096-10-26 10:33 J	-870092.08	-870092.06	-870092.01	0.0141	0.0139	
Mercury	-7095-01-22 19:12 J	-870003.82	-870003.70	-870003.57	0.0141	0.0107	
Mercury	-7095-04-21 03:36 J	-869915.51	-869915.35	-869915.18	0.0141	0.0077	
Mercury	-7095-07-18 12:14 J	-869827.18	-869826.99	-869826.80	0.0141	0.0045	
Mercury	-7095-10-14 20:38 J	-869738.83	-869738.64	-869738.44	0.0141	0.0014	
Mercury	-7094-01-11 05:02 J	-869650.48	-869650.29	-869650.09	0.0141	0.0017	
Mercury	-7094-04-09 13:26 J	-869562.12	-869561.94	-869561.75	0.0141	0.0048	
Mercury	-7094-07-06 21:36 J	-869473.75	-869473.60	-869473.42	0.0141	0.0079	
Mercury	-7094-10-03 06:14 J	-869385.36	-869385.24	-869385.11	0.0140	0.0109	
Mercury	-7094-12-30 14:23 J	-869296.91	-869296.90	-869296.86	0.0140	0.0139	
Mars	-7092-04-19 15:36 J	-868821.04	-868820.85	-868820.64	0.0140	0.0100	
Mars	-7090-03-21 10:33 J	-868120.31	-868120.06	-868119.81	0.0139	0.0071	
Venus	-7084-12-25 07:26 J	-865649.25	-865649.19	-865649.08	0.0136	0.0124	
Venus	-7083-08-08 15:07 J	-865423.03	-865422.87	-865422.68	0.0135	0.0082	
Venus	-7082-03-22 22:33 J	-865196.76	-865196.56	-865196.34	0.0135	0.0041	
Venus	-7082-11-04 05:45 J	-864970.48	-864970.26	-864970.03	0.0135	0.0003	
Venus	-7081-06-17 12:43 J	-864744.17	-864743.97	-864743.75	0.0135	0.0042	
Venus	-7080-01-29 19:55 J	-864517.84	-864517.67	-864517.49	0.0134	0.0082	
Venus	-7080-09-13 02:23 J	-864291.47	-864291.40	-864291.29	0.0134	0.0122	
Earth	-7075-06-02 06:00 J	-862568.40	-862568.25	-862568.05	0.0133	0.0098	
Moon	-7075-06-02 09:21 J	-862568.27	-862568.11	-862567.93	0.0133	0.0097	*
Moon	-7074-06-06 11:31 J	-862199.24	-862199.02	-862198.77	0.0133	0.0057	
Earth	-7074-06-06 14:23 J	-862199.11	-862198.90	-862198.66	0.0133	0.0061	*
Earth	-7073-06-09 22:19 J	-861829.82	-861829.57	-861829.32	0.0133	0.0024	
Moon	-7073-06-10 01:26 J	-861829.69	-861829.44	-861829.20	0.0133	0.0029	*
Moon	-7072-06-14 02:52 J	-861460.64	-861460.38	-861460.12	0.0133	0.0019	
Earth	-7072-06-14 05:31 J	-861460.52	-861460.27	-861460.01	0.0133	0.0013	*
Earth	-7071-06-18 12:00 J	-861091.23	-861091.00	-861090.75	0.0133	0.0050	
Moon	-7071-06-18 14:52 J	-861091.11	-861090.88	-861090.63	0.0133	0.0043	*

Moon	-7070-06-22 15:50 J	-860722.02	-860721.84	-860721.64	0.0133	0.0091
Earth	-7070-06-22 18:57 J	-860721.91	-860721.71	-860721.52	0.0133	0.0085 *
Earth	-7069-06-26 00:43 J	-860352.56	-860352.47	-860352.36	0.0133	0.0121
Moon	-7069-06-26 02:52 J	-860352.47	-860352.38	-860352.25	0.0133	0.0119 *
Mercury	-7052-10-11 13:26 J	-854035.99	-854035.94	-854035.89	0.0137	0.0125
Mercury	-7051-01-07 16:33 J	-853947.89	-853947.81	-853947.73	0.0137	0.0106
Mercury	-7051-04-05 19:26 J	-853859.78	-853859.69	-853859.58	0.0137	0.0089
Mercury	-7051-07-02 22:47 J	-853771.66	-853771.55	-853771.44	0.0137	0.0069
Mercury	-7051-09-29 01:55 J	-853683.54	-853683.42	-853683.30	0.0137	0.0050
Mercury	-7051-12-26 05:02 J	-853595.42	-853595.29	-853595.17	0.0137	0.0032
Mercury	-7050-03-24 08:09 J	-853507.29	-853507.16	-853507.03	0.0138	0.0013
Mercury	-7050-06-20 11:16 J	-853419.16	-853419.03	-853418.90	0.0138	0.0007
Mercury	-7050-09-16 14:09 J	-853331.03	-853330.91	-853330.78	0.0138	0.0025
Mercury	-7050-12-13 17:16 J	-853242.90	-853242.78	-853242.65	0.0138	0.0044
Mercury	-7049-03-10 20:23 J	-853154.76	-853154.65	-853154.53	0.0138	0.0063
Mercury	-7049-06-06 23:31 J	-853066.62	-853066.52	-853066.41	0.0138	0.0082
Mercury	-7049-09-03 02:38 J	-852978.47	-852978.39	-852978.30	0.0138	0.0101
Mercury	-7049-11-30 05:45 J	-852890.32	-852890.26	-852890.19	0.0138	0.0120
Mars	-7046-05-06 12:57 J	-852003.26	-852002.96	-852002.63	0.0140	0.0039
Venus	-7040-12-20 11:02 J	-849583.09	-849583.04	-849582.99	0.0143	0.0138
Venus	-7039-08-03 20:52 J	-849356.78	-849356.63	-849356.45	0.0143	0.0091
Venus	-7038-03-18 07:12 J	-849130.40	-849130.20	-849129.99	0.0143	0.0043
Venus	-7038-10-30 17:31 J	-848903.98	-848903.77	-848903.55	0.0144	0.0005
Venus	-7037-06-13 03:50 J	-848677.53	-848677.34	-848677.13	0.0144	0.0054
Venus	-7036-01-25 14:23 J	-848451.04	-848450.90	-848450.74	0.0144	0.0103
Moon	-7033-11-24 23:16 J	-847051.66	-847051.53	-847051.38	0.0145	0.0120
Earth	-7033-11-25 02:23 J	-847051.50	-847051.40	-847051.26	0.0145	0.0127 *
Earth	-7032-11-30 02:09 J	-846681.61	-846681.41	-846681.19	0.0146	0.0081
Moon	-7032-11-30 05:45 J	-846681.45	-846681.26	-846681.05	0.0146	0.0088 *
Moon	-7031-12-04 23:31 J	-846311.76	-846311.52	-846311.26	0.0146	0.0028

Earth	-7031-12-05 02:52 J	-846311.62	-846311.38	-846311.13	0.0146	0.0033	*
Earth	-7030-12-10 03:36 J	-845941.59	-845941.35	-845941.09	0.0146	0.0016	
Moon	-7030-12-10 06:14 J	-845941.48	-845941.24	-845940.99	0.0146	0.0017	*
Moon	-7029-12-14 02:38 J	-845571.62	-845571.39	-845571.15	0.0146	0.0060	
Earth	-7029-12-14 05:02 J	-845571.51	-845571.29	-845571.05	0.0146	0.0064	*
Earth	-7028-12-19 06:57 J	-845201.36	-845201.21	-845201.04	0.0146	0.0112	
Moon	-7028-12-19 07:55 J	-845201.29	-845201.17	-845201.01	0.0146	0.0120	*
Mercury	-7012-11-15 18:43 J	-839390.78	-839390.72	-839390.62	0.0141	0.0129	
Mercury	-7011-02-12 03:21 J	-839302.49	-839302.36	-839302.21	0.0141	0.0097	
Mercury	-7011-05-11 12:00 J	-839214.17	-839214.00	-839213.82	0.0141	0.0066	
Mercury	-7011-08-07 20:23 J	-839125.84	-839125.65	-839125.46	0.0141	0.0035	
Mercury	-7011-11-04 04:47 J	-839037.49	-839037.30	-839037.10	0.0141	0.0005	
Mercury	-7010-01-31 13:12 J	-838949.14	-838948.95	-838948.75	0.0141	0.0027	
Mercury	-7010-04-29 21:36 J	-838860.77	-838860.60	-838860.41	0.0141	0.0057	
Mercury	-7010-07-27 06:14 J	-838772.40	-838772.24	-838772.09	0.0140	0.0088	
Mercury	-7010-10-23 14:23 J	-838684.00	-838683.90	-838683.79	0.0140	0.0118	
Mars	-7008-12-13 14:23 J	-837902.17	-837901.90	-837901.61	0.0139	0.0036	
Mars	-7006-11-14 04:19 J	-837201.40	-837201.32	-837201.23	0.0138	0.0132	

7TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 7th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-6999-04-08 01:12 J	-834864.59	-834864.45	-834864.30	0.0135	0.0100		

Venus	-6999-11-20 08:23 J	-834638.34	-834638.15	-834637.95	0.0135	0.0059
Venus	-6998-07-04 15:36 J	-834412.06	-834411.85	-834411.62	0.0135	0.0018
Venus	-6997-02-15 23:02 J	-834185.76	-834185.54	-834185.32	0.0135	0.0024
Venus	-6997-09-29 05:45 J	-833959.44	-833959.26	-833959.05	0.0134	0.0065
Venus	-6996-05-13 12:43 J	-833733.10	-833732.97	-833732.83	0.0134	0.0105
Jupiter	-6996-07-31 22:33 J	-833654.06	-833653.56	-833653.04	0.0134	0.0008
Moon	-6992-05-29 05:02 J	-832256.35	-832256.29	-832256.18	0.0133	0.0126
Earth	-6992-05-29 08:23 J	-832256.19	-832256.15	-832256.07	0.0133	0.0130 *
Earth	-6991-06-02 17:31 J	-831886.95	-831886.77	-831886.58	0.0133	0.0092
Moon	-6991-06-02 20:38 J	-831886.81	-831886.64	-831886.45	0.0133	0.0092 *
Moon	-6990-06-06 22:19 J	-831517.80	-831517.57	-831517.34	0.0133	0.0057
Earth	-6990-06-07 01:26 J	-831517.66	-831517.44	-831517.19	0.0133	0.0056 *
Earth	-6989-06-10 09:07 J	-831148.37	-831148.12	-831147.86	0.0133	0.0019
Moon	-6989-06-10 12:14 J	-831148.24	-831147.99	-831147.74	0.0133	0.0013 *
Moon	-6988-06-14 12:57 J	-830779.21	-830778.96	-830778.69	0.0133	0.0011
Earth	-6988-06-14 16:19 J	-830779.06	-830778.82	-830778.56	0.0133	0.0018 *
Earth	-6987-06-18 23:02 J	-830409.76	-830409.54	-830409.29	0.0133	0.0054
Moon	-6987-06-19 01:55 J	-830409.63	-830409.42	-830409.18	0.0133	0.0061 *
Moon	-6986-06-23 02:23 J	-830040.58	-830040.40	-830040.18	0.0132	0.0084
Earth	-6986-06-23 05:31 J	-830040.44	-830040.27	-830040.07	0.0132	0.0090 *
Earth	-6985-06-26 11:45 J	-829671.08	-829671.01	-829670.91	0.0132	0.0125
Moon	-6985-06-26 14:38 J	-829670.92	-829670.89	-829670.81	0.0132	0.0130 *
Mercury	-6968-10-31 20:52 J	-823334.69	-823334.63	-823334.57	0.0137	0.0120
Mercury	-6967-01-28 00:00 J	-823246.59	-823246.50	-823246.41	0.0137	0.0101
Mercury	-6967-04-26 02:52 J	-823158.47	-823158.38	-823158.27	0.0137	0.0083
Mercury	-6967-07-23 06:00 J	-823070.36	-823070.25	-823070.13	0.0137	0.0065
Mercury	-6967-10-19 09:21 J	-822982.24	-822982.11	-822981.99	0.0137	0.0046
Mercury	-6966-01-15 12:14 J	-822894.11	-822893.99	-822893.86	0.0137	0.0027
Mercury	-6966-04-13 15:21 J	-822805.99	-822805.86	-822805.73	0.0138	0.0009
Mercury	-6966-07-10 18:28 J	-822717.86	-822717.73	-822717.60	0.0138	0.0012

Mercury	-6966-10-06 21:36 J	-822629.72	-822629.60	-822629.47	0.0138	0.0030
Mercury	-6965-01-03 00:43 J	-822541.59	-822541.47	-822541.35	0.0138	0.0049
Mercury	-6965-03-31 03:50 J	-822453.45	-822453.34	-822453.23	0.0138	0.0068
Mercury	-6965-06-27 06:43 J	-822365.31	-822365.22	-822365.11	0.0138	0.0088
Mercury	-6965-09-23 09:50 J	-822277.16	-822277.09	-822277.00	0.0138	0.0107
Mercury	-6965-12-20 12:57 J	-822189.00	-822188.96	-822188.90	0.0138	0.0126
Mars	-6963-01-25 14:23 J	-821788.14	-821787.90	-821787.63	0.0139	0.0086
Mars	-6962-12-31 11:16 J	-821083.20	-821083.03	-821082.80	0.0140	0.0112
Venus	-6955-04-03 05:16 J	-818798.40	-818798.28	-818798.14	0.0143	0.0113
Venus	-6955-11-15 15:21 J	-818572.04	-818571.86	-818571.66	0.0143	0.0065
Venus	-6954-06-30 01:55 J	-818345.64	-818345.42	-818345.21	0.0143	0.0017
Venus	-6953-02-11 12:14 J	-818119.20	-818118.99	-818118.78	0.0144	0.0032
Venus	-6953-09-24 22:33 J	-817892.72	-817892.56	-817892.37	0.0144	0.0081
Venus	-6952-05-09 09:21 J	-817666.20	-817666.11	-817666.01	0.0144	0.0130
Moon	-6949-11-25 11:16 J	-816370.14	-816370.03	-816369.91	0.0145	0.0129
Earth	-6949-11-25 15:07 J	-816370.01	-816369.87	-816369.73	0.0145	0.0121 *
Earth	-6948-11-30 14:23 J	-816000.10	-815999.90	-815999.67	0.0146	0.0075
Moon	-6948-11-30 17:45 J	-815999.97	-815999.76	-815999.53	0.0146	0.0068 *
Moon	-6947-12-05 11:31 J	-815630.26	-815630.02	-815629.76	0.0146	0.0032
Earth	-6947-12-05 15:07 J	-815630.11	-815629.87	-815629.62	0.0146	0.0027 *
Earth	-6946-12-10 16:04 J	-815260.08	-815259.83	-815259.58	0.0146	0.0021
Moon	-6946-12-10 19:12 J	-815259.94	-815259.70	-815259.45	0.0146	0.0022 *
Moon	-6945-12-14 15:07 J	-814890.09	-814889.87	-814889.64	0.0146	0.0074
Earth	-6945-12-14 17:16 J	-814889.98	-814889.78	-814889.54	0.0146	0.0070 *
Earth	-6944-12-19 19:26 J	-814519.82	-814519.69	-814519.53	0.0146	0.0118
Moon	-6944-12-19 21:50 J	-814519.74	-814519.59	-814519.42	0.0146	0.0111 *
Mercury	-6928-12-06 03:21 J	-808689.46	-808689.36	-808689.24	0.0141	0.0117
Mercury	-6927-03-04 11:45 J	-808601.15	-808601.01	-808600.84	0.0141	0.0086
Mercury	-6927-05-31 20:23 J	-808512.82	-808512.65	-808512.46	0.0141	0.0055
Mercury	-6927-08-28 05:02 J	-808424.49	-808424.29	-808424.10	0.0141	0.0024

Mercury	-6927-11-24 13:26 J	-808336.14	-808335.94	-808335.74	0.0141	0.0007
Mercury	-6926-02-20 21:50 J	-808247.78	-808247.59	-808247.40	0.0141	0.0038
Mercury	-6926-05-20 06:00 J	-808159.41	-808159.25	-808159.07	0.0141	0.0069
Mercury	-6926-08-16 14:23 J	-808071.03	-808070.90	-808070.75	0.0140	0.0099
Mercury	-6926-11-12 22:47 J	-807982.61	-807982.55	-807982.47	0.0140	0.0130
Mars	-6923-08-08 11:31 J	-806983.30	-806983.02	-806982.73	0.0139	0.0028
Venus	-6916-12-06 11:16 J	-804306.12	-804306.03	-804305.91	0.0135	0.0118
Venus	-6915-07-20 18:43 J	-804079.89	-804079.72	-804079.53	0.0135	0.0076
Venus	-6914-03-04 02:09 J	-803853.61	-803853.41	-803853.19	0.0135	0.0035
Venus	-6914-10-16 09:36 J	-803627.32	-803627.10	-803626.88	0.0135	0.0007
Venus	-6913-05-29 16:19 J	-803401.02	-803400.82	-803400.60	0.0135	0.0047
Venus	-6912-01-10 23:16 J	-803174.69	-803174.53	-803174.36	0.0134	0.0088
Venus	-6912-08-25 05:45 J	-802948.30	-802948.26	-802948.18	0.0134	0.0128
Moon	-6908-05-29 16:47 J	-801574.87	-801574.80	-801574.72	0.0133	0.0127
Earth	-6908-05-29 20:23 J	-801574.73	-801574.65	-801574.54	0.0133	0.0124 *
Earth	-6907-06-03 05:02 J	-801205.48	-801205.29	-801205.09	0.0133	0.0087
Moon	-6907-06-03 08:23 J	-801205.33	-801205.15	-801204.94	0.0133	0.0086 *
Moon	-6906-06-07 09:21 J	-800836.34	-800836.11	-800835.86	0.0133	0.0048
Earth	-6906-06-07 12:57 J	-800836.19	-800835.96	-800835.72	0.0133	0.0051 *
Earth	-6905-06-10 20:23 J	-800466.90	-800466.65	-800466.39	0.0133	0.0015
Moon	-6905-06-11 00:00 J	-800466.74	-800466.50	-800466.24	0.0133	0.0020 *
Moon	-6904-06-15 00:14 J	-800097.73	-800097.49	-800097.22	0.0133	0.0029
Earth	-6904-06-15 03:50 J	-800097.59	-800097.34	-800097.09	0.0133	0.0022 *
Earth	-6903-06-19 10:04 J	-799728.29	-799728.08	-799727.83	0.0132	0.0059
Moon	-6903-06-19 13:55 J	-799728.15	-799727.92	-799727.69	0.0132	0.0051 *
Moon	-6902-06-23 13:26 J	-799359.10	-799358.94	-799358.76	0.0132	0.0100
Earth	-6902-06-23 16:47 J	-799358.97	-799358.80	-799358.61	0.0132	0.0094 *
Earth	-6901-06-26 23:02 J	-798989.59	-798989.54	-798989.48	0.0132	0.0129
Moon	-6901-06-27 02:09 J	-798989.48	-798989.41	-798989.33	0.0132	0.0126 *
Mercury	-6884-08-25 00:43 J	-792721.48	-792721.47	-792721.44	0.0137	0.0135

Mercury	-6884-11-21 03:50 J	-792633.40	-792633.34	-792633.27	0.0137	0.0117
Mercury	-6883-02-17 06:57 J	-792545.30	-792545.21	-792545.12	0.0137	0.0098
Mercury	-6883-05-16 10:04 J	-792457.18	-792457.08	-792456.97	0.0137	0.0079
Mercury	-6883-08-12 13:12 J	-792369.07	-792368.95	-792368.83	0.0137	0.0061
Mercury	-6883-11-08 16:19 J	-792280.94	-792280.82	-792280.70	0.0137	0.0042
Mercury	-6882-02-04 19:26 J	-792192.82	-792192.69	-792192.56	0.0137	0.0023
Mercury	-6882-05-03 22:33 J	-792104.69	-792104.56	-792104.43	0.0138	0.0006
Mercury	-6882-07-31 01:26 J	-792016.56	-792016.44	-792016.31	0.0138	0.0015
Mercury	-6882-10-27 04:33 J	-791928.43	-791928.31	-791928.18	0.0138	0.0034
Mercury	-6881-01-23 07:40 J	-791840.30	-791840.18	-791840.06	0.0138	0.0052
Mercury	-6881-04-20 10:47 J	-791752.16	-791752.05	-791751.94	0.0138	0.0071
Mercury	-6881-07-17 13:55 J	-791664.01	-791663.92	-791663.82	0.0138	0.0090
Mercury	-6881-10-13 17:02 J	-791575.86	-791575.79	-791575.71	0.0138	0.0109
Mercury	-6880-01-09 20:09 J	-791487.70	-791487.66	-791487.61	0.0138	0.0128
Mars	-6879-09-21 05:45 J	-790868.58	-790868.26	-790867.93	0.0139	0.0019
Venus	-6872-12-01 12:00 J	-788240.05	-788240.00	-788239.93	0.0143	0.0136
Venus	-6871-07-15 22:19 J	-788013.74	-788013.57	-788013.40	0.0143	0.0088
Venus	-6870-02-27 08:23 J	-787787.35	-787787.15	-787786.94	0.0143	0.0041
Venus	-6870-10-11 18:57 J	-787560.93	-787560.71	-787560.50	0.0144	0.0008
Venus	-6869-05-25 05:16 J	-787334.47	-787334.28	-787334.08	0.0144	0.0057
Venus	-6868-01-06 15:36 J	-787107.98	-787107.85	-787107.69	0.0144	0.0106
Moon	-6865-11-25 20:52 J	-785688.77	-785688.63	-785688.45	0.0145	0.0110
Earth	-6865-11-26 00:14 J	-785688.62	-785688.49	-785688.32	0.0145	0.0117 *
Earth	-6864-12-01 00:14 J	-785318.70	-785318.49	-785318.26	0.0146	0.0070
Moon	-6864-12-01 03:50 J	-785318.53	-785318.34	-785318.11	0.0146	0.0078 *
Moon	-6863-12-05 21:36 J	-784948.85	-784948.60	-784948.34	0.0146	0.0017
Earth	-6863-12-06 01:12 J	-784948.70	-784948.45	-784948.20	0.0146	0.0022 *
Earth	-6862-12-11 02:09 J	-784578.65	-784578.41	-784578.16	0.0146	0.0026
Moon	-6862-12-11 05:31 J	-784578.52	-784578.27	-784578.03	0.0146	0.0026 *
Moon	-6861-12-15 00:28 J	-784208.69	-784208.48	-784208.24	0.0146	0.0072

Earth	-6861-12-15 03:50 J	-784208.54	-784208.34	-784208.11	0.0146	0.0075	*
Earth	-6860-12-20 06:00 J	-783838.37	-783838.25	-783838.09	0.0146	0.0122	
Moon	-6860-12-20 08:23 J	-783838.25	-783838.15	-783838.03	0.0146	0.0129	*
Mercury	-6844-09-29 03:07 J	-778076.40	-778076.37	-778076.31	0.0141	0.0138	
Mercury	-6844-12-26 11:45 J	-777988.13	-777988.01	-777987.87	0.0141	0.0106	
Mercury	-6843-03-24 20:09 J	-777899.82	-777899.66	-777899.48	0.0141	0.0076	
Mercury	-6843-06-21 04:47 J	-777811.48	-777811.30	-777811.11	0.0141	0.0044	
Mercury	-6843-09-17 13:12 J	-777723.14	-777722.95	-777722.75	0.0141	0.0014	
Mercury	-6843-12-14 21:36 J	-777634.79	-777634.60	-777634.40	0.0141	0.0018	
Mercury	-6842-03-13 06:00 J	-777546.43	-777546.25	-777546.06	0.0141	0.0049	
Mercury	-6842-06-09 14:38 J	-777458.06	-777457.89	-777457.73	0.0141	0.0079	
Mercury	-6842-09-05 22:47 J	-777369.66	-777369.55	-777369.42	0.0140	0.0110	
Mercury	-6842-12-03 07:12 J	-777281.20	-777281.20	-777281.18	0.0140	0.0140	
Mars	-6840-05-02 13:55 J	-776765.14	-776764.92	-776764.66	0.0140	0.0080	
Mars	-6838-04-03 07:26 J	-776064.40	-776064.19	-776063.96	0.0139	0.0090	
Venus	-6832-08-05 22:19 J	-773747.59	-773747.57	-773747.55	0.0136	0.0135	
Venus	-6831-03-20 05:31 J	-773521.42	-773521.27	-773521.10	0.0135	0.0094	
Venus	-6831-11-01 12:57 J	-773295.16	-773294.96	-773294.75	0.0135	0.0052	
Venus	-6830-06-15 20:09 J	-773068.87	-773068.66	-773068.43	0.0135	0.0011	
Venus	-6829-01-28 03:21 J	-772842.57	-772842.36	-772842.14	0.0135	0.0030	
Venus	-6829-09-10 10:19 J	-772616.25	-772616.07	-772615.88	0.0134	0.0071	
Venus	-6828-04-24 16:47 J	-772389.91	-772389.80	-772389.66	0.0134	0.0112	
Moon	-6824-05-30 05:16 J	-770893.40	-770893.28	-770893.13	0.0133	0.0113	
Earth	-6824-05-30 09:07 J	-770893.24	-770893.12	-770893.00	0.0133	0.0118	*
Earth	-6823-06-03 17:16 J	-770523.98	-770523.78	-770523.57	0.0133	0.0081	
Moon	-6823-06-03 20:38 J	-770523.82	-770523.64	-770523.42	0.0133	0.0082	*
Moon	-6822-06-07 21:36 J	-770154.84	-770154.60	-770154.36	0.0133	0.0046	
Earth	-6822-06-08 01:26 J	-770154.68	-770154.44	-770154.20	0.0133	0.0045	*
Earth	-6821-06-11 08:38 J	-769785.39	-769785.14	-769784.88	0.0133	0.0009	
Moon	-6821-06-11 12:14 J	-769785.25	-769784.99	-769784.74	0.0133	0.0004	*

Moon	-6820-06-15 12:00 J	-769416.25	-769416.00	-769415.74	0.0132	0.0021
Earth	-6820-06-15 15:50 J	-769416.09	-769415.84	-769415.59	0.0132	0.0027 *
Earth	-6819-06-19 22:04 J	-769046.78	-769046.58	-769046.34	0.0132	0.0064
Moon	-6819-06-20 01:55 J	-769046.63	-769046.42	-769046.20	0.0132	0.0070 *
Moon	-6818-06-24 00:57 J	-768677.63	-768677.46	-768677.26	0.0132	0.0092
Earth	-6818-06-24 04:47 J	-768677.46	-768677.30	-768677.12	0.0132	0.0099 *
Mercury	-6800-09-14 07:55 J	-762020.20	-762020.17	-762020.13	0.0137	0.0131
Mercury	-6800-12-11 10:47 J	-761932.11	-761932.05	-761931.96	0.0137	0.0113
Mercury	-6799-03-09 14:09 J	-761844.00	-761843.91	-761843.81	0.0137	0.0094
Mercury	-6799-06-05 17:16 J	-761755.89	-761755.78	-761755.67	0.0137	0.0075
Mercury	-6799-09-01 20:09 J	-761667.77	-761667.66	-761667.53	0.0137	0.0057
Mercury	-6799-11-28 23:16 J	-761579.65	-761579.53	-761579.40	0.0137	0.0039
Mercury	-6798-02-25 02:23 J	-761491.52	-761491.40	-761491.27	0.0137	0.0020
Mercury	-6798-05-24 05:31 J	-761403.40	-761403.27	-761403.14	0.0138	0.0003
Mercury	-6798-08-20 08:38 J	-761315.27	-761315.14	-761315.01	0.0138	0.0018
Mercury	-6798-11-16 11:45 J	-761227.13	-761227.01	-761226.88	0.0138	0.0037
Mercury	-6797-02-12 14:52 J	-761139.00	-761138.88	-761138.76	0.0138	0.0056
Mercury	-6797-05-10 17:45 J	-761050.86	-761050.76	-761050.64	0.0138	0.0075
Mercury	-6797-08-06 20:52 J	-760962.72	-760962.63	-760962.53	0.0138	0.0094
Mercury	-6797-11-03 00:14 J	-760874.57	-760874.49	-760874.42	0.0138	0.0113
Mercury	-6796-01-30 03:21 J	-760786.40	-760786.36	-760786.33	0.0138	0.0132
Mars	-6794-05-17 21:50 J	-759948.89	-759948.59	-759948.28	0.0140	0.0052
Venus	-6787-03-15 04:47 J	-757455.43	-757455.30	-757455.17	0.0143	0.0112
Venus	-6787-10-27 14:38 J	-757229.08	-757228.89	-757228.69	0.0143	0.0065
Venus	-6786-06-11 00:57 J	-757002.67	-757002.46	-757002.25	0.0144	0.0016
Venus	-6785-01-23 11:16 J	-756776.24	-756776.03	-756775.82	0.0144	0.0032
Venus	-6785-09-05 21:50 J	-756549.76	-756549.59	-756549.41	0.0144	0.0081
Venus	-6784-04-20 08:09 J	-756323.24	-756323.16	-756323.06	0.0144	0.0131
Moon	-6781-11-26 04:47 J	-755007.42	-755007.30	-755007.14	0.0145	0.0120
Earth	-6781-11-26 08:38 J	-755007.29	-755007.14	-755006.97	0.0145	0.0112 *

Earth	-6780-12-01 08:09 J	-754637.37	-754637.16	-754636.92	0.0146	0.0066
Moon	-6780-12-01 11:45 J	-754637.23	-754637.01	-754636.77	0.0146	0.0058 *
Moon	-6779-12-06 05:31 J	-754267.52	-754267.27	-754267.02	0.0146	0.0023
Earth	-6779-12-06 09:07 J	-754267.36	-754267.12	-754266.86	0.0146	0.0018 *
Earth	-6778-12-11 10:19 J	-753897.31	-753897.07	-753896.82	0.0146	0.0030
Moon	-6778-12-11 13:55 J	-753897.16	-753896.92	-753896.67	0.0146	0.0032 *
Moon	-6777-12-15 08:52 J	-753527.33	-753527.13	-753526.91	0.0146	0.0082
Earth	-6777-12-15 12:00 J	-753527.20	-753527.00	-753526.77	0.0146	0.0079 *
Earth	-6776-12-20 14:23 J	-753157.01	-753156.90	-753156.76	0.0146	0.0126
Moon	-6776-12-20 17:45 J	-753156.89	-753156.76	-753156.61	0.0146	0.0119 *
Mercury	-6760-10-19 10:19 J	-747375.13	-747375.07	-747374.98	0.0141	0.0131
Mercury	-6759-01-15 18:57 J	-747286.84	-747286.71	-747286.56	0.0141	0.0099
Mercury	-6759-04-14 03:21 J	-747198.52	-747198.36	-747198.18	0.0141	0.0069
Mercury	-6759-07-11 12:00 J	-747110.19	-747110.00	-747109.81	0.0141	0.0037
Mercury	-6759-10-07 20:23 J	-747021.84	-747021.65	-747021.45	0.0141	0.0007
Mercury	-6758-01-04 04:47 J	-746933.49	-746933.30	-746933.10	0.0141	0.0025
Mercury	-6758-04-02 13:12 J	-746845.12	-746844.95	-746844.76	0.0141	0.0056
Mercury	-6758-06-29 21:50 J	-746756.75	-746756.59	-746756.44	0.0141	0.0086
Mercury	-6758-09-26 06:00 J	-746668.35	-746668.25	-746668.13	0.0141	0.0117
Mars	-6756-12-26 08:09 J	-745846.44	-745846.16	-745845.87	0.0139	0.0016
Venus	-6748-11-17 15:07 J	-742962.98	-742962.87	-742962.73	0.0136	0.0112
Venus	-6747-07-01 22:33 J	-742736.74	-742736.56	-742736.36	0.0135	0.0070
Venus	-6746-02-13 06:00 J	-742510.45	-742510.25	-742510.02	0.0135	0.0029
Venus	-6746-09-27 13:26 J	-742284.16	-742283.94	-742283.72	0.0135	0.0013
Venus	-6745-05-10 20:09 J	-742057.85	-742057.66	-742057.45	0.0135	0.0054
Venus	-6745-12-23 02:38 J	-741831.52	-741831.39	-741831.21	0.0134	0.0095
Venus	-6744-08-06 09:50 J	-741605.09	-741605.09	-741605.08	0.0134	0.0134
Moon	-6740-05-30 16:04 J	-740211.93	-740211.83	-740211.69	0.0133	0.0118
Earth	-6740-05-30 20:09 J	-740211.79	-740211.66	-740211.51	0.0133	0.0112 *
Earth	-6739-06-04 04:19 J	-739842.51	-739842.32	-739842.09	0.0133	0.0077

Moon	-6739-06-04 07:55 J	-739842.37	-739842.17	-739841.94	0.0133	0.0075 *
Moon	-6738-06-08 08:52 J	-739473.37	-739473.13	-739472.88	0.0133	0.0038
Earth	-6738-06-08 12:28 J	-739473.22	-739472.98	-739472.73	0.0133	0.0040 *
Earth	-6737-06-11 20:09 J	-739103.92	-739103.66	-739103.41	0.0133	0.0004
Moon	-6737-06-11 23:45 J	-739103.76	-739103.51	-739103.25	0.0133	0.0009 *
Moon	-6736-06-15 23:45 J	-738734.75	-738734.51	-738734.26	0.0132	0.0038
Earth	-6736-06-16 03:21 J	-738734.61	-738734.36	-738734.11	0.0132	0.0032 *
Earth	-6735-06-20 09:36 J	-738365.31	-738365.10	-738364.87	0.0132	0.0068
Moon	-6735-06-20 13:26 J	-738365.16	-738364.94	-738364.70	0.0132	0.0060 *
Moon	-6734-06-24 12:28 J	-737996.10	-737995.98	-737995.82	0.0132	0.0109
Earth	-6734-06-24 16:04 J	-737995.97	-737995.83	-737995.65	0.0132	0.0103 *
Mercury	-6716-10-04 15:07 J	-731318.91	-731318.87	-731318.82	0.0137	0.0127
Mercury	-6716-12-31 18:00 J	-731230.82	-731230.75	-731230.66	0.0137	0.0109
Mercury	-6715-03-29 21:21 J	-731142.71	-731142.61	-731142.52	0.0137	0.0090
Mercury	-6715-06-26 00:14 J	-731054.60	-731054.49	-731054.37	0.0137	0.0072
Mercury	-6715-09-22 03:21 J	-730966.48	-730966.36	-730966.24	0.0137	0.0053
Mercury	-6715-12-19 06:28 J	-730878.36	-730878.23	-730878.10	0.0137	0.0035
Mercury	-6714-03-17 09:36 J	-730790.23	-730790.10	-730789.97	0.0137	0.0016
Mercury	-6714-06-13 12:43 J	-730702.10	-730701.97	-730701.84	0.0137	0.0004
Mercury	-6714-09-09 15:36 J	-730613.97	-730613.85	-730613.72	0.0138	0.0022
Mercury	-6714-12-06 18:43 J	-730525.84	-730525.72	-730525.59	0.0138	0.0040
Mercury	-6713-03-03 21:50 J	-730437.71	-730437.59	-730437.47	0.0138	0.0059
Mercury	-6713-05-31 00:57 J	-730349.57	-730349.46	-730349.35	0.0138	0.0078
Mercury	-6713-08-27 03:50 J	-730261.42	-730261.34	-730261.24	0.0138	0.0098
Mercury	-6713-11-23 06:57 J	-730173.27	-730173.21	-730173.13	0.0138	0.0116
Mercury	-6712-02-19 10:04 J	-730085.10	-730085.08	-730085.05	0.0138	0.0135
Mars	-6711-02-05 19:40 J	-729733.94	-729733.68	-729733.39	0.0139	0.0074
Mars	-6709-01-11 14:52 J	-729029.04	-729028.88	-729028.72	0.0140	0.0122
Venus	-6704-11-12 10:33 J	-726897.11	-726897.06	-726896.99	0.0143	0.0136
Venus	-6703-06-26 20:23 J	-726670.81	-726670.65	-726670.47	0.0143	0.0089

Venus	-6702-02-08 06:43 J	-726444.42	-726444.22	-726444.01	0.0143	0.0041
Venus	-6702-09-22 17:02 J	-726218.00	-726217.79	-726217.57	0.0144	0.0008
Venus	-6701-05-06 03:07 J	-725991.55	-725991.37	-725991.16	0.0144	0.0057
Venus	-6701-12-18 13:40 J	-725765.07	-725764.93	-725764.78	0.0144	0.0106
Moon	-6697-11-26 12:43 J	-724326.12	-724325.97	-724325.77	0.0145	0.0103
Earth	-6697-11-26 15:36 J	-724326.00	-724325.85	-724325.66	0.0145	0.0109 *
Earth	-6696-12-01 15:36 J	-723956.06	-723955.85	-723955.61	0.0146	0.0062
Moon	-6696-12-01 19:12 J	-723955.91	-723955.70	-723955.46	0.0146	0.0070 *
Moon	-6695-12-06 13:12 J	-723586.20	-723585.95	-723585.70	0.0146	0.0008
Earth	-6695-12-06 16:33 J	-723586.06	-723585.81	-723585.55	0.0146	0.0015 *
Earth	-6694-12-11 17:45 J	-723216.01	-723215.76	-723215.51	0.0146	0.0033
Moon	-6694-12-11 21:21 J	-723215.86	-723215.61	-723215.36	0.0146	0.0033 *
Moon	-6693-12-15 15:50 J	-722846.04	-722845.84	-722845.62	0.0146	0.0079
Earth	-6693-12-15 19:26 J	-722845.88	-722845.69	-722845.46	0.0146	0.0082 *
Earth	-6692-12-20 22:04 J	-722475.69	-722475.58	-722475.46	0.0146	0.0128
Moon	-6692-12-21 00:57 J	-722475.54	-722475.46	-722475.35	0.0146	0.0136 *
Mercury	-6676-11-08 17:16 J	-716673.86	-716673.78	-716673.68	0.0142	0.0125
Mercury	-6675-02-05 01:55 J	-716585.56	-716585.42	-716585.27	0.0141	0.0093
Mercury	-6675-05-04 10:19 J	-716497.24	-716497.07	-716496.89	0.0141	0.0063
Mercury	-6675-07-31 18:57 J	-716408.90	-716408.71	-716408.52	0.0141	0.0031
Mercury	-6675-10-28 03:21 J	-716320.56	-716320.36	-716320.16	0.0141	0.0001
Mercury	-6674-01-24 11:45 J	-716232.20	-716232.01	-716231.81	0.0141	0.0031
Mercury	-6674-04-22 19:55 J	-716143.83	-716143.67	-716143.48	0.0141	0.0062
Mercury	-6674-07-20 04:33 J	-716055.45	-716055.31	-716055.16	0.0141	0.0092
Mercury	-6674-10-16 12:43 J	-715967.05	-715966.97	-715966.86	0.0141	0.0123
Mars	-6673-09-19 00:14 J	-715628.57	-715628.49	-715628.34	0.0140	0.0129
Mars	-6671-08-21 00:00 J	-714927.77	-714927.50	-714927.22	0.0139	0.0044
Venus	-6664-07-18 00:00 J	-712404.54	-712404.50	-712404.42	0.0136	0.0131
Venus	-6663-03-01 07:55 J	-712178.33	-712178.17	-712178.00	0.0135	0.0089
Venus	-6663-10-13 15:21 J	-711952.06	-711951.86	-711951.65	0.0135	0.0047

Venus	-6662-05-27 22:47 J	-711725.77	-711725.55	-711725.33	0.0135	0.0006
Venus	-6661-01-09 05:31 J	-711499.47	-711499.27	-711499.05	0.0135	0.0036
Venus	-6661-08-22 12:28 J	-711273.15	-711272.98	-711272.79	0.0135	0.0076
Venus	-6660-04-05 19:26 J	-711046.79	-711046.69	-711046.58	0.0134	0.0117
Moon	-6656-05-31 03:36 J	-709530.49	-709530.35	-709530.17	0.0133	0.0103
Earth	-6656-05-31 07:26 J	-709530.34	-709530.19	-709530.04	0.0133	0.0108 *
Earth	-6655-06-04 15:21 J	-709161.06	-709160.86	-709160.63	0.0133	0.0072
Moon	-6655-06-04 19:26 J	-709160.90	-709160.69	-709160.47	0.0133	0.0072 *
Moon	-6654-06-08 20:23 J	-708791.89	-708791.65	-708791.40	0.0133	0.0036
Earth	-6654-06-08 23:45 J	-708791.75	-708791.51	-708791.26	0.0133	0.0036 *
Earth	-6653-06-12 07:26 J	-708422.44	-708422.19	-708421.93	0.0133	0.0003
Moon	-6653-06-12 11:02 J	-708422.29	-708422.04	-708421.78	0.0133	0.0005 *
Moon	-6652-06-16 10:47 J	-708053.28	-708053.05	-708052.79	0.0132	0.0031
Earth	-6652-06-16 14:38 J	-708053.13	-708052.89	-708052.64	0.0132	0.0037 *
Earth	-6651-06-20 21:36 J	-707683.81	-707683.60	-707683.38	0.0132	0.0072
Moon	-6651-06-21 00:57 J	-707683.66	-707683.46	-707683.25	0.0132	0.0079 *
Moon	-6650-06-25 00:14 J	-707314.64	-707314.49	-707314.31	0.0132	0.0101
Earth	-6650-06-25 03:50 J	-707314.47	-707314.34	-707314.17	0.0132	0.0107 *
Mercury	-6632-10-24 22:19 J	-700617.62	-700617.57	-700617.50	0.0137	0.0122
Mercury	-6631-01-21 01:40 J	-700529.51	-700529.43	-700529.35	0.0137	0.0103
Mercury	-6631-04-19 04:33 J	-700441.40	-700441.31	-700441.20	0.0137	0.0085
Mercury	-6631-07-16 07:40 J	-700353.29	-700353.18	-700353.06	0.0137	0.0066
Mercury	-6631-10-12 10:47 J	-700265.17	-700265.05	-700264.93	0.0137	0.0048
Mercury	-6630-01-08 13:55 J	-700177.05	-700176.92	-700176.79	0.0137	0.0029
Mercury	-6630-04-06 17:02 J	-700088.92	-700088.79	-700088.66	0.0137	0.0011
Mercury	-6630-07-03 20:09 J	-700000.79	-700000.66	-700000.53	0.0137	0.0009
Mercury	-6630-09-29 23:02 J	-699912.66	-699912.54	-699912.41	0.0138	0.0027
Mercury	-6630-12-27 02:09 J	-699824.53	-699824.41	-699824.28	0.0138	0.0046
Mercury	-6629-03-24 05:16 J	-699736.39	-699736.28	-699736.16	0.0138	0.0065
Mercury	-6629-06-20 08:09 J	-699648.25	-699648.16	-699648.05	0.0138	0.0084

Mercury	-6629-09-16 11:31 J	-699560.10	-699560.02	-699559.93	0.0138	0.0102
Mercury	-6629-12-13 14:38 J	-699471.95	-699471.89	-699471.83	0.0138	0.0121
Mars	-6627-10-02 16:19 J	-698814.15	-698813.82	-698813.49	0.0139	0.0002
Venus	-6619-02-24 04:33 J	-696112.43	-696112.31	-696112.16	0.0143	0.0110
Venus	-6619-10-08 14:38 J	-695886.07	-695885.89	-695885.69	0.0143	0.0062
Venus	-6618-05-23 00:57 J	-695659.68	-695659.46	-695659.25	0.0143	0.0014
Venus	-6617-01-04 11:02 J	-695433.24	-695433.04	-695432.83	0.0144	0.0035
Venus	-6617-08-17 21:36 J	-695206.77	-695206.60	-695206.43	0.0144	0.0083
Venus	-6616-04-01 07:55 J	-694980.25	-694980.17	-694980.08	0.0144	0.0133
Moon	-6614-11-23 06:00 J	-694014.27	-694014.25	-694014.22	0.0145	0.0144
Moon	-6613-11-27 00:14 J	-693644.65	-693644.49	-693644.33	0.0145	0.0110
Earth	-6613-11-27 02:52 J	-693644.55	-693644.38	-693644.19	0.0145	0.0103 *
Earth	-6612-12-02 02:38 J	-693274.61	-693274.39	-693274.15	0.0146	0.0057
Moon	-6612-12-02 05:45 J	-693274.50	-693274.26	-693274.02	0.0146	0.0049 *
Moon	-6611-12-07 00:00 J	-692904.75	-692904.50	-692904.25	0.0146	0.0015
Earth	-6611-12-07 03:21 J	-692904.61	-692904.36	-692904.10	0.0146	0.0010 *
Earth	-6610-12-12 04:33 J	-692534.55	-692534.31	-692534.06	0.0146	0.0038
Moon	-6610-12-12 07:55 J	-692534.40	-692534.17	-692533.91	0.0146	0.0041 *
Moon	-6609-12-16 02:38 J	-692164.58	-692164.39	-692164.18	0.0146	0.0089
Earth	-6609-12-16 06:28 J	-692164.43	-692164.23	-692164.02	0.0146	0.0085 *
Earth	-6608-12-21 08:09 J	-691794.24	-691794.16	-691794.03	0.0146	0.0133
Moon	-6608-12-21 12:14 J	-691794.11	-691793.99	-691793.86	0.0146	0.0126 *
Mercury	-6592-11-29 00:28 J	-685972.58	-685972.48	-685972.36	0.0142	0.0118
Mercury	-6591-02-25 09:07 J	-685884.27	-685884.12	-685883.96	0.0141	0.0087
Mercury	-6591-05-24 17:31 J	-685795.94	-685795.77	-685795.58	0.0141	0.0056
Mercury	-6591-08-21 02:09 J	-685707.61	-685707.41	-685707.22	0.0141	0.0025
Mercury	-6591-11-17 10:33 J	-685619.26	-685619.06	-685618.86	0.0141	0.0006
Mercury	-6590-02-13 18:57 J	-685530.90	-685530.71	-685530.52	0.0141	0.0037
Mercury	-6590-05-13 03:21 J	-685442.53	-685442.36	-685442.19	0.0141	0.0068
Mercury	-6590-08-09 11:31 J	-685354.15	-685354.02	-685353.87	0.0141	0.0099

Mercury	-6590-11-05 19:40 J	-685265.73	-685265.68	-685265.58	0.0141	0.0130
Mars	-6588-05-14 19:40 J	-684709.92	-684709.68	-684709.40	0.0140	0.0065
Mars	-6586-04-15 15:50 J	-684009.01	-684008.84	-684008.63	0.0139	0.0105
Venus	-6580-10-29 16:47 J	-681619.92	-681619.80	-681619.65	0.0136	0.0108
Venus	-6579-06-13 00:28 J	-681393.67	-681393.48	-681393.28	0.0135	0.0066
Venus	-6578-01-25 07:55 J	-681167.38	-681167.17	-681166.95	0.0135	0.0024
Venus	-6578-09-08 15:07 J	-680941.09	-680940.87	-680940.65	0.0135	0.0017
Venus	-6577-04-21 21:50 J	-680714.77	-680714.59	-680714.38	0.0135	0.0059
Venus	-6577-12-04 04:33 J	-680488.44	-680488.31	-680488.14	0.0134	0.0100
Moon	-6573-05-27 11:45 J	-679218.02	-679218.01	-679217.96	0.0133	0.0133
Moon	-6572-05-31 14:38 J	-678849.02	-678848.89	-678848.73	0.0133	0.0108
Earth	-6572-05-31 18:00 J	-678848.89	-678848.75	-678848.57	0.0133	0.0103 *
Earth	-6571-06-05 02:38 J	-678479.59	-678479.39	-678479.15	0.0133	0.0067
Moon	-6571-06-05 06:00 J	-678479.47	-678479.25	-678479.01	0.0133	0.0064 *
Moon	-6570-06-09 07:55 J	-678110.42	-678110.17	-678109.92	0.0133	0.0029
Earth	-6570-06-09 11:16 J	-678110.28	-678110.03	-678109.78	0.0133	0.0031 *
Earth	-6569-06-12 18:57 J	-677740.96	-677740.71	-677740.45	0.0133	0.0005
Moon	-6569-06-12 22:33 J	-677740.82	-677740.56	-677740.30	0.0133	0.0002 *
Moon	-6568-06-16 23:02 J	-677371.77	-677371.54	-677371.30	0.0132	0.0047
Earth	-6568-06-17 02:23 J	-677371.64	-677371.40	-677371.15	0.0132	0.0041 *
Earth	-6567-06-21 08:52 J	-677002.32	-677002.13	-677001.91	0.0132	0.0077
Moon	-6567-06-21 12:57 J	-677002.18	-677001.96	-677001.74	0.0132	0.0069 *
Moon	-6566-06-25 12:28 J	-676633.09	-676632.98	-676632.86	0.0132	0.0118
Earth	-6566-06-25 15:50 J	-676632.97	-676632.84	-676632.70	0.0132	0.0111 *
Mercury	-6548-08-18 02:52 J	-670004.40	-670004.38	-670004.36	0.0137	0.0135
Mercury	-6548-11-14 05:45 J	-669916.32	-669916.26	-669916.19	0.0137	0.0117
Mercury	-6547-02-10 09:07 J	-669828.21	-669828.12	-669828.03	0.0137	0.0098
Mercury	-6547-05-09 12:00 J	-669740.10	-669740.00	-669739.89	0.0137	0.0080
Mercury	-6547-08-05 15:07 J	-669651.98	-669651.87	-669651.75	0.0137	0.0061
Mercury	-6547-11-01 18:14 J	-669563.86	-669563.74	-669563.62	0.0137	0.0043

Mercury	-6546-01-28 21:21 J	-669475.74	-669475.61	-669475.48	0.0137	0.0024
Mercury	-6546-04-27 00:28 J	-669387.61	-669387.48	-669387.35	0.0137	0.0006
Mercury	-6546-07-24 03:21 J	-669299.48	-669299.36	-669299.23	0.0137	0.0014
Mercury	-6546-10-20 06:28 J	-669211.35	-669211.23	-669211.10	0.0138	0.0032
Mercury	-6545-01-16 09:36 J	-669123.22	-669123.10	-669122.98	0.0138	0.0051
Mercury	-6545-04-13 12:43 J	-669035.08	-669034.97	-669034.86	0.0138	0.0070
Mercury	-6545-07-10 15:36 J	-668946.94	-668946.85	-668946.74	0.0138	0.0089
Mercury	-6545-10-06 18:57 J	-668858.79	-668858.71	-668858.63	0.0138	0.0107
Mercury	-6544-01-02 22:04 J	-668770.63	-668770.58	-668770.53	0.0138	0.0126
Mars	-6544-06-24 00:14 J	-668598.63	-668598.49	-668598.34	0.0138	0.0123
Mars	-6542-05-29 13:55 J	-667894.20	-667893.92	-667893.63	0.0139	0.0070
Venus	-6536-10-24 13:12 J	-665554.03	-665553.95	-665553.87	0.0143	0.0131
Venus	-6535-06-07 22:47 J	-665327.71	-665327.55	-665327.36	0.0143	0.0084
Venus	-6534-01-20 09:07 J	-665101.33	-665101.12	-665100.91	0.0143	0.0036
Venus	-6534-09-03 19:26 J	-664874.91	-664874.69	-664874.48	0.0144	0.0013
Venus	-6533-04-17 05:31 J	-664648.46	-664648.27	-664648.07	0.0144	0.0062
Venus	-6533-11-29 15:50 J	-664421.96	-664421.84	-664421.69	0.0144	0.0111
Earth	-6530-11-23 15:50 J	-663332.87	-663332.84	-663332.78	0.0145	0.0142
Moon	-6530-11-23 17:45 J	-663332.76	-663332.76	-663332.74	0.0145	0.0145
Moon	-6529-11-27 13:26 J	-662963.13	-662962.94	-662962.75	0.0145	0.0092
Earth	-6529-11-27 15:07 J	-662963.04	-662962.87	-662962.67	0.0145	0.0098 *
Earth	-6528-12-02 15:21 J	-662593.10	-662592.86	-662592.63	0.0146	0.0051
Moon	-6528-12-02 18:14 J	-662592.97	-662592.74	-662592.50	0.0146	0.0059 *
Moon	-6527-12-07 13:12 J	-662223.20	-662222.95	-662222.70	0.0146	0.0003
Earth	-6527-12-07 16:04 J	-662223.08	-662222.83	-662222.58	0.0146	0.0004 *
Earth	-6526-12-12 17:02 J	-661853.03	-661852.79	-661852.55	0.0146	0.0043
Moon	-6526-12-12 20:38 J	-661852.88	-661852.64	-661852.40	0.0146	0.0041 *
Moon	-6525-12-16 15:07 J	-661483.06	-661482.87	-661482.66	0.0146	0.0089
Earth	-6525-12-16 18:43 J	-661482.90	-661482.72	-661482.51	0.0146	0.0091 *
Earth	-6524-12-21 20:38 J	-661112.70	-661112.64	-661112.53	0.0146	0.0138

Moon	-6524-12-22 00:14 J	-661112.52	-661112.49	-661112.42	0.0146	0.0144
Mercury	-6508-09-22 00:14 J	-655359.52	-655359.49	-655359.45	0.0142	0.0139
Mercury	-6508-12-19 08:52 J	-655271.26	-655271.13	-655271.01	0.0142	0.0108
Mercury	-6507-03-17 17:16 J	-655182.94	-655182.78	-655182.61	0.0141	0.0077
Mercury	-6507-06-14 01:26 J	-655094.61	-655094.44	-655094.24	0.0141	0.0047
Mercury	-6507-09-10 10:04 J	-655006.27	-655006.08	-655005.88	0.0141	0.0015
Mercury	-6507-12-07 18:28 J	-654917.92	-654917.73	-654917.53	0.0141	0.0017
Mercury	-6506-03-06 02:52 J	-654829.56	-654829.38	-654829.19	0.0141	0.0047
Mercury	-6506-06-02 11:16 J	-654741.19	-654741.03	-654740.86	0.0141	0.0078
Mercury	-6506-08-29 19:40 J	-654652.80	-654652.68	-654652.55	0.0141	0.0108
Mercury	-6506-11-26 03:50 J	-654564.35	-654564.34	-654564.29	0.0141	0.0139
Mars	-6503-01-07 19:26 J	-653790.98	-653790.69	-653790.39	0.0139	0.0002
Venus	-6496-06-29 03:21 J	-651061.44	-651061.36	-651061.27	0.0136	0.0125
Venus	-6495-02-10 10:47 J	-650835.21	-650835.05	-650834.86	0.0136	0.0084
Venus	-6495-09-24 18:28 J	-650608.94	-650608.73	-650608.52	0.0135	0.0041
Venus	-6494-05-09 01:40 J	-650382.65	-650382.43	-650382.21	0.0135	0.0000
Venus	-6494-12-21 08:38 J	-650156.35	-650156.14	-650155.93	0.0135	0.0041
Venus	-6493-08-03 15:07 J	-649930.02	-649929.87	-649929.68	0.0135	0.0083
Venus	-6492-03-17 22:19 J	-649703.65	-649703.57	-649703.47	0.0134	0.0123
Earth	-6489-05-27 21:36 J	-648536.62	-648536.60	-648536.57	0.0133	0.0133
Moon	-6488-06-01 04:04 J	-648167.50	-648167.33	-648167.13	0.0133	0.0092
Earth	-6488-06-01 06:43 J	-648167.38	-648167.22	-648167.03	0.0133	0.0097 *
Earth	-6487-06-05 15:21 J	-647798.07	-647797.86	-647797.62	0.0133	0.0061
Moon	-6487-06-05 18:43 J	-647797.94	-647797.72	-647797.48	0.0133	0.0063 *
Moon	-6486-06-09 21:07 J	-647428.87	-647428.62	-647428.37	0.0133	0.0025
Earth	-6486-06-10 00:00 J	-647428.75	-647428.50	-647428.24	0.0133	0.0025 *
Earth	-6485-06-13 07:55 J	-647059.42	-647059.17	-647058.91	0.0133	0.0011
Moon	-6485-06-13 11:02 J	-647059.29	-647059.04	-647058.78	0.0133	0.0015 *
Moon	-6484-06-17 11:45 J	-646690.24	-646690.01	-646689.76	0.0132	0.0041
Earth	-6484-06-17 15:07 J	-646690.10	-646689.87	-646689.62	0.0132	0.0046 *

Earth	-6483-06-21 21:50 J	-646320.77	-646320.59	-646320.37	0.0132	0.0082
Moon	-6483-06-22 01:12 J	-646320.64	-646320.45	-646320.25	0.0132	0.0088 *
Moon	-6482-06-26 00:57 J	-645951.58	-645951.46	-645951.30	0.0132	0.0110
Earth	-6482-06-26 04:47 J	-645951.42	-645951.30	-645951.17	0.0132	0.0116 *
Mercury	-6464-09-07 10:19 J	-639303.10	-639303.07	-639303.02	0.0137	0.0129
Mercury	-6464-12-04 13:40 J	-639215.01	-639214.93	-639214.86	0.0137	0.0110
Mercury	-6463-03-02 16:33 J	-639126.90	-639126.81	-639126.71	0.0137	0.0092
Mercury	-6463-05-29 19:40 J	-639038.78	-639038.68	-639038.57	0.0137	0.0074
Mercury	-6463-08-25 22:47 J	-638950.67	-638950.55	-638950.43	0.0137	0.0055
Mercury	-6463-11-22 01:55 J	-638862.54	-638862.42	-638862.29	0.0137	0.0036
Mercury	-6462-02-18 05:02 J	-638774.42	-638774.29	-638774.16	0.0137	0.0018
Mercury	-6462-05-17 08:09 J	-638686.29	-638686.16	-638686.03	0.0137	0.0002
Mercury	-6462-08-13 11:02 J	-638598.16	-638598.04	-638597.90	0.0138	0.0021
Mercury	-6462-11-09 14:09 J	-638510.03	-638509.91	-638509.78	0.0138	0.0039
Mercury	-6461-02-05 17:16 J	-638421.89	-638421.78	-638421.66	0.0138	0.0058
Mercury	-6461-05-03 20:23 J	-638333.75	-638333.65	-638333.54	0.0138	0.0076
Mercury	-6461-07-30 23:31 J	-638245.61	-638245.52	-638245.42	0.0138	0.0095
Mercury	-6461-10-27 02:38 J	-638157.46	-638157.39	-638157.32	0.0138	0.0114
Mercury	-6460-01-23 05:45 J	-638069.29	-638069.26	-638069.23	0.0138	0.0133
Mars	-6459-02-17 23:02 J	-637678.83	-637678.54	-637678.22	0.0139	0.0052
Venus	-6451-02-05 08:38 J	-634769.28	-634769.14	-634768.98	0.0143	0.0104
Venus	-6451-09-19 18:57 J	-634542.91	-634542.71	-634542.51	0.0143	0.0056
Venus	-6450-05-04 05:02 J	-634316.50	-634316.29	-634316.07	0.0143	0.0007
Venus	-6450-12-16 15:07 J	-634090.07	-634089.87	-634089.66	0.0144	0.0042
Venus	-6449-07-30 01:26 J	-633863.59	-633863.44	-633863.26	0.0144	0.0091
Venus	-6448-03-13 11:45 J	-633637.04	-633637.01	-633636.94	0.0144	0.0141
Earth	-6446-11-24 06:43 J	-632651.30	-632651.22	-632651.12	0.0145	0.0135
Moon	-6446-11-24 07:40 J	-632651.26	-632651.18	-632651.06	0.0145	0.0133 *
Moon	-6445-11-28 03:50 J	-632281.50	-632281.34	-632281.14	0.0145	0.0098
Earth	-6445-11-28 06:00 J	-632281.43	-632281.25	-632281.04	0.0145	0.0091 *

Earth	-6444-12-03 06:00 J	-631911.48	-631911.25	-631911.00	0.0146	0.0045
Moon	-6444-12-03 08:23 J	-631911.40	-631911.15	-631910.90	0.0146	0.0037 *
Moon	-6443-12-08 03:50 J	-631541.58	-631541.34	-631541.09	0.0146	0.0004
Earth	-6443-12-08 06:57 J	-631541.46	-631541.21	-631540.96	0.0146	0.0002 *
Earth	-6442-12-13 08:09 J	-631171.40	-631171.16	-631170.92	0.0146	0.0049
Moon	-6442-12-13 11:02 J	-631171.27	-631171.04	-631170.79	0.0146	0.0053 *
Moon	-6441-12-17 06:14 J	-630801.41	-630801.24	-630801.04	0.0146	0.0099
Earth	-6441-12-17 09:50 J	-630801.27	-630801.09	-630800.89	0.0146	0.0097 *
Earth	-6440-12-22 11:45 J	-630431.04	-630431.01	-630430.95	0.0146	0.0143
Moon	-6440-12-22 15:21 J	-630430.92	-630430.86	-630430.75	0.0146	0.0137
Mercury	-6424-10-12 09:07 J	-624658.20	-624658.12	-624658.03	0.0142	0.0127
Mercury	-6423-01-08 17:31 J	-624569.91	-624569.77	-624569.62	0.0142	0.0096
Mercury	-6423-04-07 02:09 J	-624481.59	-624481.41	-624481.24	0.0141	0.0065
Mercury	-6423-07-04 10:19 J	-624393.25	-624393.07	-624392.87	0.0141	0.0034
Mercury	-6423-09-30 18:57 J	-624304.91	-624304.71	-624304.51	0.0141	0.0003
Mercury	-6423-12-28 03:21 J	-624216.55	-624216.36	-624216.17	0.0141	0.0028
Mercury	-6422-03-26 11:31 J	-624128.19	-624128.02	-624127.83	0.0141	0.0059
Mercury	-6422-06-22 20:09 J	-624039.81	-624039.66	-624039.51	0.0141	0.0089
Mercury	-6422-09-19 04:19 J	-623951.41	-623951.32	-623951.21	0.0141	0.0120
Mars	-6421-10-01 19:55 J	-623572.85	-623572.67	-623572.48	0.0140	0.0108
Mars	-6419-09-02 18:57 J	-622871.96	-622871.71	-622871.45	0.0139	0.0063
Venus	-6412-10-10 21:50 J	-620276.72	-620276.59	-620276.43	0.0136	0.0101
Venus	-6411-05-25 05:16 J	-620050.46	-620050.28	-620050.07	0.0135	0.0059
Venus	-6410-01-06 12:43 J	-619824.18	-619823.97	-619823.75	0.0135	0.0017
Venus	-6410-08-20 19:55 J	-619597.89	-619597.67	-619597.45	0.0135	0.0025
Venus	-6409-04-03 02:52 J	-619371.57	-619371.38	-619371.19	0.0135	0.0066
Venus	-6409-11-15 09:21 J	-619145.23	-619145.11	-619144.96	0.0134	0.0107
Earth	-6405-05-28 11:02 J	-617855.11	-617855.04	-617854.95	0.0133	0.0127
Moon	-6405-05-28 12:57 J	-617855.05	-617854.96	-617854.82	0.0133	0.0121 *
Moon	-6404-06-01 17:31 J	-617485.93	-617485.77	-617485.59	0.0133	0.0096

Earth	-6404-06-01 20:09 J	-617485.83	-617485.66	-617485.46	0.0133	0.0091	*
Earth	-6403-06-06 05:16 J	-617116.51	-617116.28	-617116.05	0.0133	0.0055	
Moon	-6403-06-06 07:26 J	-617116.42	-617116.19	-617115.93	0.0133	0.0052	*
Moon	-6402-06-10 10:47 J	-616747.30	-616747.05	-616746.80	0.0133	0.0019	
Earth	-6402-06-10 13:40 J	-616747.18	-616746.93	-616746.67	0.0133	0.0019	*
Earth	-6401-06-13 21:21 J	-616377.86	-616377.61	-616377.35	0.0133	0.0016	
Moon	-6401-06-14 00:28 J	-616377.74	-616377.48	-616377.22	0.0133	0.0013	*
Moon	-6400-06-18 01:55 J	-616008.64	-616008.42	-616008.19	0.0132	0.0057	
Earth	-6400-06-18 04:33 J	-616008.53	-616008.31	-616008.06	0.0132	0.0052	*
Earth	-6399-06-22 11:16 J	-615639.21	-615639.03	-615638.82	0.0132	0.0086	
Moon	-6399-06-22 14:23 J	-615639.09	-615638.90	-615638.67	0.0132	0.0080	*
Moon	-6398-06-26 14:52 J	-615269.93	-615269.88	-615269.80	0.0132	0.0128	
Earth	-6398-06-26 17:45 J	-615269.85	-615269.76	-615269.64	0.0132	0.0120	*
Mercury	-6380-09-27 17:45 J	-608601.80	-608601.76	-608601.69	0.0137	0.0124	
Mercury	-6380-12-24 21:07 J	-608513.70	-608513.62	-608513.54	0.0137	0.0105	
Mercury	-6379-03-23 00:00 J	-608425.59	-608425.50	-608425.39	0.0137	0.0087	
Mercury	-6379-06-19 03:07 J	-608337.48	-608337.37	-608337.25	0.0137	0.0068	
Mercury	-6379-09-15 06:14 J	-608249.36	-608249.24	-608249.11	0.0137	0.0050	
Mercury	-6379-12-12 09:21 J	-608161.23	-608161.11	-608160.98	0.0137	0.0031	
Mercury	-6378-03-10 12:28 J	-608073.11	-608072.98	-608072.85	0.0137	0.0012	
Mercury	-6378-06-06 15:36 J	-607984.98	-607984.85	-607984.72	0.0137	0.0007	
Mercury	-6378-09-02 18:43 J	-607896.85	-607896.72	-607896.59	0.0138	0.0025	
Mercury	-6378-11-29 21:36 J	-607808.72	-607808.60	-607808.47	0.0138	0.0045	
Mercury	-6377-02-26 00:43 J	-607720.58	-607720.47	-607720.35	0.0138	0.0063	
Mercury	-6377-05-24 03:50 J	-607632.44	-607632.34	-607632.23	0.0138	0.0082	
Mercury	-6377-08-20 06:57 J	-607544.29	-607544.21	-607544.12	0.0138	0.0101	
Mercury	-6377-11-16 10:04 J	-607456.14	-607456.08	-607456.01	0.0138	0.0120	
Mars	-6375-10-14 20:23 J	-606758.97	-606758.65	-606758.32	0.0139	0.0019	
Venus	-6368-10-05 17:16 J	-604210.88	-604210.78	-604210.68	0.0143	0.0125	
Venus	-6367-05-20 03:07 J	-603984.55	-603984.37	-603984.19	0.0143	0.0077	

Venus	-6366-01-01 13:12 J	-603758.16	-603757.95	-603757.74	0.0143	0.0029
Venus	-6366-08-15 23:31 J	-603531.73	-603531.52	-603531.30	0.0144	0.0020
Venus	-6365-03-29 09:36 J	-603305.27	-603305.10	-603304.90	0.0144	0.0069
Venus	-6365-11-10 20:09 J	-603078.77	-603078.66	-603078.53	0.0144	0.0118
Earth	-6362-11-24 19:12 J	-601969.80	-601969.70	-601969.57	0.0145	0.0129
Moon	-6362-11-24 19:55 J	-601969.76	-601969.67	-601969.54	0.0145	0.0131 *
Moon	-6361-11-28 17:45 J	-601599.96	-601599.76	-601599.55	0.0145	0.0080
Earth	-6361-11-28 18:43 J	-601599.91	-601599.72	-601599.50	0.0145	0.0085 *
Earth	-6360-12-03 18:43 J	-601229.95	-601229.72	-601229.47	0.0146	0.0039
Moon	-6360-12-03 21:07 J	-601229.86	-601229.62	-601229.37	0.0146	0.0046 *
Moon	-6359-12-08 17:31 J	-600860.01	-600859.77	-600859.52	0.0146	0.0015
Earth	-6359-12-08 19:40 J	-600859.93	-600859.68	-600859.42	0.0146	0.0009 *
Earth	-6358-12-13 20:52 J	-600489.86	-600489.63	-600489.39	0.0146	0.0055
Moon	-6358-12-14 00:00 J	-600489.73	-600489.50	-600489.25	0.0146	0.0053 *
Moon	-6357-12-17 19:26 J	-600119.86	-600119.69	-600119.50	0.0146	0.0101
Earth	-6357-12-17 22:33 J	-600119.72	-600119.56	-600119.36	0.0146	0.0102 *
Mercury	-6340-11-01 18:00 J	-593956.85	-593956.75	-593956.62	0.0142	0.0114
Mercury	-6339-01-29 02:38 J	-593868.55	-593868.39	-593868.23	0.0142	0.0083
Mercury	-6339-04-27 11:02 J	-593780.22	-593780.04	-593779.85	0.0141	0.0052
Mercury	-6339-07-24 19:26 J	-593691.88	-593691.69	-593691.49	0.0141	0.0021
Mercury	-6339-10-21 04:04 J	-593603.53	-593603.33	-593603.14	0.0141	0.0010
Mercury	-6338-01-17 12:14 J	-593515.17	-593514.99	-593514.79	0.0141	0.0041
Mercury	-6338-04-15 20:38 J	-593426.80	-593426.64	-593426.46	0.0141	0.0072
Mercury	-6338-07-13 05:16 J	-593338.41	-593338.28	-593338.15	0.0141	0.0102
Mercury	-6338-10-09 13:26 J	-593249.99	-593249.94	-593249.87	0.0141	0.0133
Mars	-6336-05-27 23:31 J	-592653.79	-592653.52	-592653.23	0.0140	0.0042
Mars	-6334-04-28 19:12 J	-591952.80	-591952.70	-591952.58	0.0139	0.0127
Venus	-6328-06-10 09:36 J	-589718.19	-589718.10	-589717.97	0.0136	0.0117
Venus	-6327-01-22 17:16 J	-589491.95	-589491.78	-589491.58	0.0136	0.0075
Venus	-6327-09-06 00:43 J	-589265.68	-589265.47	-589265.25	0.0135	0.0033

Venus	-6326-04-20 07:55 J	-589039.39	-589039.17	-589038.95	0.0135	0.0009
Venus	-6326-12-02 14:52 J	-588813.08	-588812.88	-588812.68	0.0135	0.0050
Venus	-6325-07-15 21:36 J	-588586.75	-588586.60	-588586.43	0.0135	0.0091
Venus	-6324-02-27 04:19 J	-588360.35	-588360.32	-588360.26	0.0134	0.0132
Earth	-6321-05-29 01:40 J	-587173.53	-587173.43	-587173.31	0.0133	0.0120
Moon	-6321-05-29 03:50 J	-587173.40	-587173.34	-587173.24	0.0133	0.0127 *
Moon	-6320-06-02 09:07 J	-586804.31	-586804.12	-586803.91	0.0133	0.0079
Earth	-6320-06-02 11:02 J	-586804.23	-586804.04	-586803.83	0.0133	0.0084 *
Earth	-6319-06-06 19:40 J	-586434.90	-586434.68	-586434.43	0.0133	0.0049
Moon	-6319-06-06 22:19 J	-586434.80	-586434.57	-586434.31	0.0133	0.0051 *
Moon	-6318-06-11 01:55 J	-586065.66	-586065.42	-586065.17	0.0133	0.0013
Earth	-6318-06-11 04:19 J	-586065.58	-586065.32	-586065.06	0.0133	0.0013 *
Earth	-6317-06-14 11:45 J	-585696.25	-585696.01	-585695.75	0.0132	0.0023
Moon	-6317-06-14 14:38 J	-585696.15	-585695.89	-585695.64	0.0132	0.0026 *
Moon	-6316-06-18 16:19 J	-585327.05	-585326.82	-585326.59	0.0132	0.0052
Earth	-6316-06-18 18:43 J	-585326.94	-585326.72	-585326.48	0.0132	0.0058 *
Earth	-6315-06-23 01:26 J	-584957.61	-584957.44	-584957.25	0.0132	0.0092
Moon	-6315-06-23 03:36 J	-584957.50	-584957.35	-584957.15	0.0132	0.0099 *
Moon	-6314-06-27 04:33 J	-584588.39	-584588.31	-584588.18	0.0132	0.0120
Earth	-6314-06-27 07:40 J	-584588.24	-584588.18	-584588.09	0.0132	0.0126 *
Mercury	-6296-07-21 22:19 J	-577988.57	-577988.57	-577988.55	0.0136	0.0136
Mercury	-6296-10-18 01:26 J	-577900.50	-577900.44	-577900.37	0.0137	0.0118
Mercury	-6295-01-14 04:33 J	-577812.39	-577812.31	-577812.22	0.0137	0.0099
Mercury	-6295-04-12 07:40 J	-577724.28	-577724.18	-577724.07	0.0137	0.0081
Mercury	-6295-07-09 10:47 J	-577636.16	-577636.05	-577635.93	0.0137	0.0062
Mercury	-6295-10-05 13:55 J	-577548.04	-577547.92	-577547.80	0.0137	0.0043
Mercury	-6294-01-01 17:02 J	-577459.92	-577459.79	-577459.66	0.0137	0.0025
Mercury	-6294-03-30 20:09 J	-577371.79	-577371.66	-577371.53	0.0137	0.0008
Mercury	-6294-06-26 23:02 J	-577283.67	-577283.54	-577283.41	0.0137	0.0013
Mercury	-6294-09-23 02:09 J	-577195.53	-577195.41	-577195.28	0.0138	0.0031

Mercury	-6294-12-20 05:16 J	-577107.40	-577107.28	-577107.16	0.0138	0.0050
Mercury	-6293-03-17 08:23 J	-577019.26	-577019.15	-577019.04	0.0138	0.0069
Mercury	-6293-06-13 11:16 J	-576931.12	-576931.03	-576930.92	0.0138	0.0088
Mercury	-6293-09-09 14:23 J	-576842.97	-576842.90	-576842.81	0.0138	0.0107
Mercury	-6293-12-06 17:45 J	-576754.81	-576754.76	-576754.71	0.0138	0.0126
Mars	-6292-07-06 06:00 J	-576543.45	-576543.25	-576543.01	0.0138	0.0102
Mars	-6290-06-10 18:14 J	-575838.96	-575838.74	-575838.46	0.0139	0.0091
Venus	-6283-01-17 11:31 J	-573426.17	-573426.02	-573425.87	0.0143	0.0099
Venus	-6283-08-31 21:36 J	-573199.80	-573199.60	-573199.40	0.0143	0.0051
Venus	-6282-04-15 07:40 J	-572973.39	-572973.18	-572972.96	0.0143	0.0004
Venus	-6282-11-27 17:45 J	-572746.95	-572746.76	-572746.54	0.0144	0.0047
Venus	-6281-07-11 04:19 J	-572520.47	-572520.32	-572520.15	0.0144	0.0096
Moon	-6278-11-25 07:40 J	-571288.31	-571288.18	-571288.03	0.0145	0.0121
Earth	-6278-11-25 07:12 J	-571288.30	-571288.20	-571288.04	0.0145	0.0124 *
Moon	-6277-11-29 06:14 J	-570918.44	-570918.24	-570918.04	0.0146	0.0084
Earth	-6277-11-29 07:12 J	-570918.41	-570918.20	-570917.98	0.0146	0.0078 *
Earth	-6276-12-04 07:12 J	-570548.44	-570548.20	-570547.95	0.0146	0.0033
Moon	-6276-12-04 08:23 J	-570548.40	-570548.15	-570547.89	0.0146	0.0025 *
Moon	-6275-12-09 05:45 J	-570178.50	-570178.26	-570178.01	0.0146	0.0008
Earth	-6275-12-09 07:55 J	-570178.42	-570178.17	-570177.91	0.0146	0.0014 *
Earth	-6274-12-14 08:52 J	-569808.34	-569808.13	-569807.88	0.0146	0.0062
Moon	-6274-12-14 11:45 J	-569808.24	-569808.01	-569807.77	0.0146	0.0065 *
Moon	-6273-12-18 07:40 J	-569438.32	-569438.18	-569437.99	0.0146	0.0110
Earth	-6273-12-18 10:47 J	-569438.20	-569438.05	-569437.86	0.0146	0.0108 *
Mercury	-6256-08-25 18:00 J	-563343.80	-563343.75	-563343.67	0.0142	0.0134
Mercury	-6256-11-22 02:23 J	-563255.52	-563255.40	-563255.25	0.0142	0.0103
Mercury	-6255-02-18 11:02 J	-563167.20	-563167.04	-563166.86	0.0142	0.0072
Mercury	-6255-05-17 19:26 J	-563078.87	-563078.69	-563078.49	0.0141	0.0041
Mercury	-6255-08-14 04:04 J	-562990.53	-562990.33	-562990.13	0.0141	0.0009
Mercury	-6255-11-10 12:28 J	-562902.17	-562901.98	-562901.78	0.0141	0.0022

Mercury	-6254-02-06 20:52 J	-562813.81	-562813.63	-562813.44	0.0141	0.0053
Mercury	-6254-05-06 05:16 J	-562725.43	-562725.28	-562725.12	0.0141	0.0083
Mercury	-6254-08-02 13:40 J	-562637.04	-562636.93	-562636.81	0.0141	0.0114
Mars	-6251-01-21 01:12 J	-561734.73	-561734.45	-561734.16	0.0139	0.0024
Venus	-6244-02-07 21:21 J	-559159.64	-559159.61	-559159.56	0.0136	0.0133
Venus	-6244-09-22 04:47 J	-558933.45	-558933.30	-558933.12	0.0136	0.0092
Venus	-6243-05-06 12:14 J	-558707.19	-558706.99	-558706.78	0.0135	0.0049
Venus	-6243-12-18 19:26 J	-558480.91	-558480.69	-558480.47	0.0135	0.0008
Venus	-6242-08-02 02:23 J	-558254.61	-558254.40	-558254.18	0.0135	0.0034
Venus	-6241-03-15 09:36 J	-558028.28	-558028.10	-558027.92	0.0135	0.0075
Venus	-6241-10-27 16:19 J	-557801.92	-557801.82	-557801.70	0.0134	0.0116
Earth	-6237-05-29 16:04 J	-556491.95	-556491.83	-556491.68	0.0133	0.0113
Moon	-6237-05-29 17:31 J	-556491.91	-556491.77	-556491.59	0.0133	0.0107 *
Moon	-6236-06-02 23:16 J	-556122.71	-556122.53	-556122.32	0.0133	0.0083
Earth	-6236-06-03 01:40 J	-556122.64	-556122.43	-556122.22	0.0133	0.0077 *
Earth	-6235-06-07 10:19 J	-555753.31	-555753.07	-555752.82	0.0133	0.0042
Moon	-6235-06-07 11:45 J	-555753.25	-555753.01	-555752.74	0.0133	0.0039 *
Moon	-6234-06-11 16:33 J	-555384.06	-555383.81	-555383.56	0.0133	0.0007
Earth	-6234-06-11 18:43 J	-555383.98	-555383.72	-555383.47	0.0133	0.0007 *
Earth	-6233-06-15 01:55 J	-555014.67	-555014.42	-555014.17	0.0132	0.0028
Moon	-6233-06-15 04:04 J	-555014.58	-555014.33	-555014.06	0.0132	0.0026 *
Moon	-6232-06-19 06:57 J	-554645.42	-554645.21	-554644.99	0.0132	0.0068
Earth	-6232-06-19 09:07 J	-554645.35	-554645.12	-554644.90	0.0132	0.0063 *
Earth	-6231-06-23 15:07 J	-554276.02	-554275.87	-554275.68	0.0132	0.0098
Moon	-6231-06-23 17:45 J	-554275.93	-554275.76	-554275.55	0.0132	0.0090 *
Earth	-6230-06-27 21:21 J	-553906.63	-553906.61	-553906.55	0.0132	0.0131
Mercury	-6212-08-11 05:45 J	-547287.29	-547287.26	-547287.22	0.0136	0.0131
Mercury	-6212-11-07 08:52 J	-547199.20	-547199.13	-547199.05	0.0136	0.0112
Mercury	-6211-02-03 12:00 J	-547111.09	-547111.00	-547110.90	0.0137	0.0094
Mercury	-6211-05-02 14:52 J	-547022.98	-547022.88	-547022.76	0.0137	0.0076

Mercury	-6211-07-29 18:14 J	-546934.86	-546934.74	-546934.62	0.0137	0.0057
Mercury	-6211-10-25 21:07 J	-546846.74	-546846.62	-546846.49	0.0137	0.0039
Mercury	-6210-01-22 00:14 J	-546758.62	-546758.49	-546758.36	0.0137	0.0020
Mercury	-6210-04-20 03:21 J	-546670.49	-546670.36	-546670.23	0.0137	0.0002
Mercury	-6210-07-17 06:28 J	-546582.36	-546582.23	-546582.10	0.0137	0.0017
Mercury	-6210-10-13 09:21 J	-546494.23	-546494.11	-546493.98	0.0137	0.0037
Mercury	-6209-01-09 12:43 J	-546406.09	-546405.97	-546405.86	0.0138	0.0055
Mercury	-6209-04-06 15:36 J	-546317.95	-546317.85	-546317.74	0.0138	0.0074
Mercury	-6209-07-03 18:43 J	-546229.81	-546229.72	-546229.62	0.0138	0.0092
Mercury	-6209-09-29 21:50 J	-546141.66	-546141.59	-546141.51	0.0138	0.0111
Mercury	-6209-12-27 00:57 J	-546053.50	-546053.46	-546053.42	0.0138	0.0130
Mars	-6207-03-01 21:36 J	-545623.92	-545623.60	-545623.29	0.0139	0.0033
Venus	-6200-09-16 18:00 J	-542867.85	-542867.75	-542867.63	0.0143	0.0123
Venus	-6199-05-01 03:50 J	-542641.51	-542641.34	-542641.15	0.0143	0.0075
Venus	-6199-12-13 13:55 J	-542415.12	-542414.92	-542414.70	0.0143	0.0027
Venus	-6198-07-28 00:14 J	-542188.70	-542188.49	-542188.27	0.0144	0.0022
Venus	-6197-03-10 10:47 J	-541962.24	-541962.05	-541961.87	0.0144	0.0071
Venus	-6197-10-22 21:21 J	-541735.73	-541735.61	-541735.50	0.0144	0.0121
Moon	-6194-11-25 15:21 J	-540606.98	-540606.86	-540606.69	0.0145	0.0120
Earth	-6194-11-25 15:50 J	-540606.96	-540606.84	-540606.68	0.0145	0.0119 *
Earth	-6193-11-29 15:21 J	-540237.07	-540236.86	-540236.63	0.0146	0.0074
Moon	-6193-11-29 15:36 J	-540237.05	-540236.85	-540236.63	0.0146	0.0070 *
Earth	-6192-12-04 15:21 J	-539867.10	-539866.86	-539866.61	0.0146	0.0028
Moon	-6192-12-04 16:33 J	-539867.06	-539866.81	-539866.56	0.0146	0.0035 *
Moon	-6191-12-09 14:52 J	-539497.12	-539496.88	-539496.63	0.0146	0.0026
Earth	-6191-12-09 16:04 J	-539497.08	-539496.83	-539496.58	0.0146	0.0018 *
Earth	-6190-12-14 17:16 J	-539127.00	-539126.78	-539126.55	0.0146	0.0064
Moon	-6190-12-14 19:26 J	-539126.92	-539126.69	-539126.45	0.0146	0.0061 *
Moon	-6189-12-18 16:33 J	-538756.97	-538756.81	-538756.65	0.0146	0.0111
Earth	-6189-12-18 18:57 J	-538756.86	-538756.71	-538756.54	0.0146	0.0111 *

Mercury	-6172-09-15 01:26 J	-532642.52	-532642.44	-532642.34	0.0142	0.0126
Mercury	-6172-12-12 10:04 J	-532554.22	-532554.08	-532553.93	0.0142	0.0095
Mercury	-6171-03-10 18:28 J	-532465.90	-532465.73	-532465.55	0.0142	0.0064
Mercury	-6171-06-07 03:07 J	-532377.56	-532377.37	-532377.18	0.0142	0.0032
Mercury	-6171-09-03 11:31 J	-532289.21	-532289.02	-532288.82	0.0141	0.0003
Mercury	-6171-11-30 19:55 J	-532200.86	-532200.67	-532200.47	0.0141	0.0030
Mercury	-6170-02-27 04:19 J	-532112.49	-532112.32	-532112.13	0.0141	0.0061
Mercury	-6170-05-26 12:43 J	-532024.11	-532023.97	-532023.81	0.0141	0.0092
Mercury	-6170-08-22 21:21 J	-531935.70	-531935.61	-531935.51	0.0141	0.0122
Mars	-6169-10-14 19:40 J	-531516.90	-531516.68	-531516.43	0.0140	0.0084
Mars	-6167-09-15 20:52 J	-530815.84	-530815.63	-530815.38	0.0139	0.0087
Venus	-6160-05-22 15:21 J	-528374.98	-528374.86	-528374.72	0.0136	0.0109
Venus	-6159-01-03 22:47 J	-528148.73	-528148.55	-528148.35	0.0136	0.0067
Venus	-6159-08-18 06:14 J	-527922.45	-527922.24	-527922.02	0.0135	0.0025
Venus	-6158-04-01 13:26 J	-527696.15	-527695.94	-527695.71	0.0135	0.0018
Venus	-6158-11-13 20:23 J	-527469.84	-527469.65	-527469.44	0.0135	0.0059
Venus	-6157-06-27 03:21 J	-527243.50	-527243.36	-527243.20	0.0135	0.0100
Earth	-6153-05-30 06:14 J	-525810.39	-525810.24	-525810.08	0.0133	0.0107
Moon	-6153-05-30 07:12 J	-525810.32	-525810.20	-525810.04	0.0133	0.0114 *
Moon	-6152-06-03 14:23 J	-525441.10	-525440.90	-525440.67	0.0133	0.0066
Earth	-6152-06-03 15:36 J	-525441.06	-525440.85	-525440.63	0.0133	0.0071 *
Earth	-6151-06-08 00:14 J	-525071.73	-525071.49	-525071.23	0.0133	0.0036
Moon	-6151-06-08 01:55 J	-525071.66	-525071.42	-525071.15	0.0133	0.0039 *
Moon	-6150-06-12 07:12 J	-524702.45	-524702.20	-524701.95	0.0133	0.0002
Earth	-6150-06-12 08:23 J	-524702.40	-524702.15	-524701.89	0.0133	0.0002 *
Earth	-6149-06-15 15:50 J	-524333.08	-524332.84	-524332.59	0.0133	0.0034
Moon	-6149-06-15 17:31 J	-524333.02	-524332.77	-524332.51	0.0133	0.0037 *
Moon	-6148-06-19 20:38 J	-523963.84	-523963.64	-523963.41	0.0132	0.0064
Earth	-6148-06-19 22:48 J	-523963.76	-523963.55	-523963.33	0.0132	0.0068 *
Earth	-6147-06-24 05:02 J	-523594.43	-523594.29	-523594.11	0.0132	0.0102

Moon	-6147-06-24 06:43 J	-523594.35	-523594.22	-523594.05	0.0132	0.0108 *
Moon	-6146-06-28 09:07 J	-523225.15	-523225.12	-523225.05	0.0132	0.0129
Mercury	-6128-08-31 13:40 J	-516585.99	-516585.93	-516585.88	0.0136	0.0124
Mercury	-6128-11-27 16:33 J	-516497.89	-516497.81	-516497.72	0.0136	0.0105
Mercury	-6127-02-23 19:26 J	-516409.78	-516409.69	-516409.58	0.0136	0.0088
Mercury	-6127-05-22 22:48 J	-516321.66	-516321.55	-516321.44	0.0137	0.0069
Mercury	-6127-08-19 01:40 J	-516233.54	-516233.43	-516233.30	0.0137	0.0051
Mercury	-6127-11-15 05:02 J	-516145.42	-516145.29	-516145.17	0.0137	0.0032
Mercury	-6126-02-11 07:55 J	-516057.30	-516057.17	-516057.04	0.0137	0.0014
Mercury	-6126-05-10 11:02 J	-515969.17	-515969.04	-515968.91	0.0137	0.0006
Mercury	-6126-08-06 14:09 J	-515881.04	-515880.91	-515880.78	0.0137	0.0024
Mercury	-6126-11-02 17:16 J	-515792.90	-515792.78	-515792.66	0.0137	0.0043
Mercury	-6125-01-29 20:09 J	-515704.77	-515704.66	-515704.54	0.0137	0.0062
Mercury	-6125-04-26 23:16 J	-515616.63	-515616.53	-515616.42	0.0138	0.0080
Mercury	-6125-07-24 02:23 J	-515528.48	-515528.40	-515528.31	0.0138	0.0099
Mercury	-6125-10-20 05:31 J	-515440.33	-515440.27	-515440.20	0.0138	0.0118
Mercury	-6124-01-16 08:23 J	-515352.15	-515352.15	-515352.12	0.0138	0.0137
Mars	-6123-10-26 19:11 J	-514704.01	-514703.70	-514703.38	0.0139	0.0039
Venus	-6116-12-29 12:28 J	-512083.14	-512082.98	-512082.82	0.0143	0.0096
Venus	-6115-08-12 22:19 J	-511856.77	-511856.57	-511856.36	0.0143	0.0048
Venus	-6114-03-27 08:38 J	-511630.36	-511630.14	-511629.93	0.0143	0.0002
Venus	-6114-11-08 18:28 J	-511403.92	-511403.73	-511403.51	0.0144	0.0050
Venus	-6113-06-22 04:48 J	-511177.44	-511177.30	-511177.13	0.0144	0.0099
Moon	-6110-11-26 01:40 J	-509925.57	-509925.43	-509925.25	0.0145	0.0114
Earth	-6110-11-26 03:36 J	-509925.51	-509925.35	-509925.19	0.0145	0.0113 *
Earth	-6109-11-30 02:09 J	-509555.62	-509555.41	-509555.17	0.0145	0.0069
Moon	-6109-11-30 02:23 J	-509555.59	-509555.40	-509555.18	0.0145	0.0074 *
Moon	-6108-12-05 02:09 J	-509185.67	-509185.41	-509185.15	0.0146	0.0016
Earth	-6108-12-05 02:23 J	-509185.65	-509185.40	-509185.16	0.0146	0.0023 *
Moon	-6107-12-10 01:40 J	-508815.67	-508815.43	-508815.19	0.0146	0.0016

Earth	-6107-12-10 02:38 J	-508815.63	-508815.39	-508815.14	0.0146	0.0023	*
Earth	-6106-12-15 03:36 J	-508445.56	-508445.35	-508445.12	0.0146	0.0069	
Moon	-6106-12-15 05:16 J	-508445.50	-508445.28	-508445.06	0.0146	0.0074	*
Moon	-6105-12-19 03:07 J	-508075.50	-508075.37	-508075.20	0.0146	0.0115	
Earth	-6105-12-19 05:31 J	-508075.42	-508075.27	-508075.11	0.0146	0.0115	*
Mercury	-6088-10-05 08:52 J	-501941.23	-501941.13	-501941.01	0.0142	0.0118	
Mercury	-6087-01-01 17:31 J	-501852.92	-501852.77	-501852.61	0.0142	0.0087	
Mercury	-6087-03-31 01:55 J	-501764.59	-501764.42	-501764.23	0.0142	0.0056	
Mercury	-6087-06-27 10:33 J	-501676.25	-501676.06	-501675.87	0.0142	0.0025	
Mercury	-6087-09-23 18:57 J	-501587.90	-501587.71	-501587.51	0.0141	0.0007	
Mercury	-6087-12-21 03:36 J	-501499.54	-501499.35	-501499.16	0.0141	0.0038	
Mercury	-6086-03-19 12:00 J	-501411.17	-501411.00	-501410.83	0.0141	0.0069	
Mercury	-6086-06-15 20:23 J	-501322.79	-501322.65	-501322.51	0.0141	0.0099	
Mercury	-6086-09-12 04:48 J	-501234.37	-501234.30	-501234.22	0.0141	0.0130	
Mars	-6084-06-09 17:02 J	-500598.08	-500597.79	-500597.50	0.0140	0.0020	
Venus	-6076-01-20 00:57 J	-497816.52	-497816.46	-497816.37	0.0136	0.0127	
Venus	-6076-09-03 08:23 J	-497590.30	-497590.15	-497589.96	0.0136	0.0085	
Venus	-6075-04-17 16:04 J	-497364.03	-497363.83	-497363.61	0.0136	0.0043	
Venus	-6075-11-29 23:31 J	-497137.74	-497137.52	-497137.30	0.0135	0.0001	
Venus	-6074-07-14 06:43 J	-496911.43	-496911.22	-496911.01	0.0135	0.0041	
Venus	-6073-02-25 13:40 J	-496685.09	-496684.93	-496684.74	0.0135	0.0083	
Venus	-6073-10-08 20:38 J	-496458.71	-496458.64	-496458.54	0.0135	0.0124	
Moon	-6069-05-30 19:11 J	-495128.87	-495128.70	-495128.50	0.0133	0.0095	
Earth	-6069-05-30 18:57 J	-495128.86	-495128.71	-495128.53	0.0133	0.0102	*
Moon	-6068-06-04 03:36 J	-494759.56	-494759.35	-494759.14	0.0133	0.0072	
Earth	-6068-06-04 04:19 J	-494759.53	-494759.32	-494759.08	0.0133	0.0066	*
Earth	-6067-06-08 13:11 J	-494390.19	-494389.95	-494389.69	0.0133	0.0031	
Moon	-6067-06-08 14:09 J	-494390.17	-494389.91	-494389.65	0.0133	0.0026	*
Moon	-6066-06-12 20:23 J	-494020.90	-494020.65	-494020.40	0.0133	0.0004	
Earth	-6066-06-12 21:36 J	-494020.86	-494020.60	-494020.35	0.0133	0.0004	*

Earth	-6065-06-16 04:33 J	-493651.54	-493651.31	-493651.05	0.0133	0.0040
Moon	-6065-06-16 06:00 J	-493651.49	-493651.25	-493650.99	0.0133	0.0037 *
Moon	-6064-06-20 10:33 J	-493282.24	-493282.06	-493281.84	0.0132	0.0078
Earth	-6064-06-20 11:31 J	-493282.21	-493282.02	-493281.79	0.0132	0.0074 *
Earth	-6063-06-24 18:28 J	-492912.87	-492912.73	-492912.57	0.0132	0.0107
Moon	-6063-06-24 19:55 J	-492912.82	-492912.67	-492912.48	0.0132	0.0100 *
Mercury	-6044-06-24 18:00 J	-485972.75	-485972.75	-485972.73	0.0136	0.0135
Mercury	-6044-09-20 21:07 J	-485884.68	-485884.62	-485884.55	0.0136	0.0117
Mercury	-6044-12-18 00:28 J	-485796.57	-485796.48	-485796.40	0.0136	0.0099
Mercury	-6043-03-16 03:21 J	-485708.46	-485708.36	-485708.25	0.0136	0.0080
Mercury	-6043-06-12 06:28 J	-485620.34	-485620.23	-485620.11	0.0137	0.0062
Mercury	-6043-09-08 09:36 J	-485532.22	-485532.10	-485531.98	0.0137	0.0044
Mercury	-6043-12-05 12:28 J	-485444.10	-485443.98	-485443.84	0.0137	0.0026
Mercury	-6042-03-03 15:36 J	-485355.98	-485355.85	-485355.72	0.0137	0.0008
Mercury	-6042-05-30 18:43 J	-485267.85	-485267.72	-485267.59	0.0137	0.0012
Mercury	-6042-08-26 21:50 J	-485179.72	-485179.59	-485179.46	0.0137	0.0030
Mercury	-6042-11-23 00:57 J	-485091.58	-485091.46	-485091.34	0.0137	0.0049
Mercury	-6041-02-19 04:04 J	-485003.44	-485003.33	-485003.22	0.0137	0.0068
Mercury	-6041-05-17 06:57 J	-484915.30	-484915.21	-484915.10	0.0138	0.0087
Mercury	-6041-08-13 10:04 J	-484827.16	-484827.08	-484826.99	0.0138	0.0105
Mercury	-6041-11-09 13:11 J	-484739.00	-484738.95	-484738.89	0.0138	0.0124
Mars	-6040-07-18 07:55 J	-484488.42	-484488.17	-484487.89	0.0138	0.0078
Mars	-6038-06-22 17:31 J	-483783.94	-483783.77	-483783.55	0.0139	0.0112
Venus	-6032-08-28 21:07 J	-481524.73	-481524.62	-481524.49	0.0142	0.0117
Venus	-6031-04-12 07:11 J	-481298.39	-481298.20	-481298.02	0.0143	0.0069
Venus	-6031-11-24 17:02 J	-481072.00	-481071.79	-481071.58	0.0143	0.0021
Venus	-6030-07-09 03:07 J	-480845.58	-480845.37	-480845.15	0.0143	0.0028
Venus	-6029-02-20 13:26 J	-480619.12	-480618.94	-480618.75	0.0144	0.0077
Venus	-6029-10-04 00:00 J	-480392.60	-480392.50	-480392.39	0.0144	0.0126
Moon	-6026-11-26 13:26 J	-479244.10	-479243.94	-479243.76	0.0145	0.0107

Earth	-6026-11-26 14:52 J	-479244.03	-479243.88	-479243.70	0.0145	0.0108	*
Earth	-6025-11-30 13:40 J	-478874.14	-478873.93	-478873.69	0.0145	0.0064	
Moon	-6025-11-30 15:07 J	-478874.08	-478873.87	-478873.64	0.0145	0.0060	*
Moon	-6024-12-05 13:26 J	-478504.20	-478503.94	-478503.69	0.0146	0.0025	
Earth	-6024-12-05 13:26 J	-478504.18	-478503.94	-478503.69	0.0146	0.0018	*
Earth	-6023-12-10 13:55 J	-478134.17	-478133.92	-478133.67	0.0146	0.0027	
Moon	-6023-12-10 13:40 J	-478134.16	-478133.93	-478133.68	0.0146	0.0035	*
Earth	-6022-12-15 14:38 J	-477764.10	-477763.89	-477763.66	0.0146	0.0073	
Moon	-6022-12-15 15:36 J	-477764.07	-477763.85	-477763.61	0.0146	0.0069	*
Moon	-6021-12-19 14:52 J	-477394.02	-477393.88	-477393.74	0.0146	0.0120	
Earth	-6021-12-19 16:19 J	-477393.96	-477393.82	-477393.67	0.0146	0.0119	*
Mercury	-6004-07-29 07:55 J	-471328.17	-471328.17	-471328.14	0.0142	0.0141	
Mercury	-6004-10-25 16:33 J	-471239.92	-471239.81	-471239.68	0.0142	0.0110	
Mercury	-6003-01-22 00:57 J	-471151.61	-471151.46	-471151.28	0.0142	0.0079	
Mercury	-6003-04-20 09:36 J	-471063.28	-471063.10	-471062.91	0.0142	0.0048	
Mercury	-6003-07-17 18:14 J	-470974.93	-470974.74	-470974.54	0.0142	0.0016	
Mercury	-6003-10-14 02:38 J	-470886.58	-470886.39	-470886.19	0.0141	0.0015	
Mercury	-6002-01-10 11:02 J	-470798.22	-470798.04	-470797.84	0.0141	0.0047	
Mercury	-6002-04-08 19:26 J	-470709.84	-470709.69	-470709.51	0.0141	0.0078	
Mercury	-6002-07-06 03:50 J	-470621.45	-470621.34	-470621.20	0.0141	0.0109	
Mercury	-6002-10-02 12:14 J	-470533.00	-470532.99	-470532.94	0.0141	0.0139	
Mars	-6001-03-03 08:09 J	-470380.25	-470380.16	-470380.04	0.0141	0.0131	

6TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 6th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	-5999-02-02 15:36 J		-469679.13	-469678.85	-469678.57	0.0140	0.0043	
Venus	-5992-05-03 18:28 J		-467031.85	-467031.73	-467031.57	0.0136	0.0103	
Venus	-5992-12-16 02:23 J		-466805.59	-466805.40	-466805.20	0.0136	0.0060	
Venus	-5991-07-30 09:50 J		-466579.30	-466579.09	-466578.87	0.0136	0.0018	
Venus	-5990-03-13 17:16 J		-466352.99	-466352.78	-466352.56	0.0135	0.0024	
Venus	-5990-10-26 00:28 J		-466126.66	-466126.48	-466126.28	0.0135	0.0066	
Venus	-5989-06-08 07:26 J		-465900.31	-465900.19	-465900.05	0.0135	0.0107	
Jupiter	-5988-11-18 17:31 J		-465372.24	-465371.77	-465371.29	0.0134	0.0052	
Moon	-5986-05-27 22:19 J		-464816.63	-464816.57	-464816.46	0.0134	0.0126	
Earth	-5986-05-27 22:04 J		-464816.61	-464816.58	-464816.51	0.0134	0.0131	*
Earth	-5985-05-31 08:09 J		-464447.32	-464447.16	-464446.96	0.0133	0.0096	
Moon	-5985-05-31 08:09 J		-464447.30	-464447.16	-464446.96	0.0133	0.0103	*
Earth	-5984-06-04 17:45 J		-464077.98	-464077.76	-464077.52	0.0133	0.0061	
Moon	-5984-06-04 18:00 J		-464077.97	-464077.75	-464077.52	0.0133	0.0054	*
Earth	-5983-06-09 02:38 J		-463708.63	-463708.39	-463708.13	0.0133	0.0025	
Moon	-5983-06-09 03:21 J		-463708.61	-463708.36	-463708.09	0.0133	0.0028	*
Moon	-5982-06-13 10:19 J		-463339.31	-463339.07	-463338.81	0.0133	0.0012	
Earth	-5982-06-13 10:48 J		-463339.30	-463339.05	-463338.79	0.0133	0.0010	*
Earth	-5981-06-16 18:14 J		-462969.97	-462969.74	-462969.49	0.0133	0.0045	
Moon	-5981-06-16 18:57 J		-462969.95	-462969.71	-462969.45	0.0133	0.0046	*
Moon	-5980-06-21 00:28 J		-462600.68	-462600.48	-462600.26	0.0133	0.0074	
Earth	-5980-06-21 01:26 J		-462600.63	-462600.44	-462600.22	0.0133	0.0079	*
Earth	-5979-06-25 08:09 J		-462231.28	-462231.16	-462231.01	0.0132	0.0112	
Moon	-5979-06-25 08:38 J		-462231.24	-462231.14	-462231.00	0.0132	0.0118	*
Mercury	-5960-07-15 02:09 J		-455271.45	-455271.41	-455271.36	0.0136	0.0127	
Mercury	-5960-10-11 05:02 J		-455183.36	-455183.29	-455183.20	0.0136	0.0110	
Mercury	-5959-01-07 08:23 J		-455095.25	-455095.15	-455095.06	0.0136	0.0091	

Mercury	-5959-04-05 11:16 J	-455007.13	-455007.03	-455006.91	0.0137	0.0073
Mercury	-5959-07-02 14:23 J	-454919.02	-454918.90	-454918.78	0.0137	0.0054
Mercury	-5959-09-28 17:31 J	-454830.89	-454830.77	-454830.64	0.0137	0.0036
Mercury	-5959-12-25 20:38 J	-454742.77	-454742.64	-454742.51	0.0137	0.0017
Mercury	-5958-03-23 23:45 J	-454654.64	-454654.51	-454654.38	0.0137	0.0003
Mercury	-5958-06-20 02:52 J	-454566.51	-454566.38	-454566.26	0.0137	0.0020
Mercury	-5958-09-16 05:45 J	-454478.38	-454478.26	-454478.13	0.0137	0.0039
Mercury	-5958-12-13 08:52 J	-454390.25	-454390.13	-454390.01	0.0137	0.0057
Mercury	-5957-03-10 12:00 J	-454302.11	-454302.00	-454301.89	0.0137	0.0076
Mercury	-5957-06-06 14:52 J	-454213.96	-454213.88	-454213.78	0.0138	0.0095
Mercury	-5957-09-02 18:00 J	-454125.81	-454125.75	-454125.67	0.0138	0.0114
Mercury	-5957-11-29 21:07 J	-454037.65	-454037.62	-454037.58	0.0138	0.0132
Mars	-5955-03-14 09:36 J	-453568.43	-453568.10	-453567.78	0.0139	0.0006
Venus	-5948-04-28 07:55 J	-450966.22	-450966.17	-450966.09	0.0142	0.0135
Venus	-5948-12-10 17:45 J	-450739.92	-450739.76	-450739.58	0.0143	0.0088
Venus	-5947-07-25 03:50 J	-450513.54	-450513.34	-450513.13	0.0143	0.0040
Venus	-5946-03-08 14:09 J	-450287.13	-450286.91	-450286.70	0.0143	0.0009
Venus	-5946-10-21 00:00 J	-450060.68	-450060.50	-450060.29	0.0143	0.0059
Venus	-5945-06-03 10:19 J	-449834.20	-449834.07	-449833.91	0.0144	0.0108
Earth	-5943-11-22 08:52 J	-448932.16	-448932.13	-448932.09	0.0145	0.0143
Moon	-5943-11-22 11:16 J	-448932.09	-448932.03	-448931.96	0.0145	0.0139 *
Moon	-5942-11-27 04:48 J	-448562.48	-448562.30	-448562.12	0.0145	0.0102
Earth	-5942-11-27 06:57 J	-448562.38	-448562.21	-448562.02	0.0145	0.0100 *
Earth	-5941-12-01 05:31 J	-448192.49	-448192.27	-448192.03	0.0145	0.0057
Moon	-5941-12-01 06:57 J	-448192.43	-448192.21	-448191.99	0.0145	0.0061 *
Moon	-5940-12-06 04:04 J	-447822.59	-447822.33	-447822.07	0.0146	0.0005
Earth	-5940-12-06 05:31 J	-447822.52	-447822.27	-447822.02	0.0146	0.0012 *
Earth	-5939-12-11 05:31 J	-447452.51	-447452.27	-447452.02	0.0146	0.0034
Moon	-5939-12-11 05:45 J	-447452.50	-447452.26	-447452.02	0.0146	0.0027 *
Earth	-5938-12-16 06:28 J	-447082.43	-447082.23	-447082.01	0.0146	0.0080

Moon	-5938-12-16 06:28 J	-447082.42	-447082.23	-447082.00	0.0146	0.0085 *
Moon	-5937-12-20 06:57 J	-446712.33	-446712.21	-446712.07	0.0146	0.0125
Earth	-5937-12-20 07:40 J	-446712.29	-446712.18	-446712.03	0.0146	0.0126 *
Mercury	-5920-08-18 16:48 J	-440626.87	-440626.80	-440626.71	0.0142	0.0129
Mercury	-5920-11-15 01:11 J	-440538.57	-440538.45	-440538.29	0.0142	0.0098
Mercury	-5919-02-11 10:04 J	-440450.25	-440450.08	-440449.91	0.0142	0.0066
Mercury	-5919-05-10 18:28 J	-440361.92	-440361.73	-440361.53	0.0142	0.0035
Mercury	-5919-08-07 03:07 J	-440273.57	-440273.37	-440273.17	0.0142	0.0004
Mercury	-5919-11-03 11:31 J	-440185.21	-440185.02	-440184.82	0.0141	0.0027
Mercury	-5918-01-30 19:55 J	-440096.84	-440096.67	-440096.48	0.0141	0.0059
Mercury	-5918-04-29 04:19 J	-440008.46	-440008.32	-440008.16	0.0141	0.0090
Mercury	-5918-07-26 12:43 J	-439920.06	-439919.97	-439919.86	0.0141	0.0120
Mars	-5917-10-27 13:40 J	-439461.19	-439460.93	-439460.66	0.0140	0.0064
Mars	-5915-09-28 15:36 J	-438760.03	-438759.85	-438759.66	0.0139	0.0107
Venus	-5908-01-01 05:31 J	-436473.35	-436473.27	-436473.14	0.0136	0.0121
Venus	-5908-08-15 13:40 J	-436247.11	-436246.93	-436246.75	0.0136	0.0077
Venus	-5907-03-29 21:07 J	-436020.82	-436020.62	-436020.40	0.0136	0.0035
Venus	-5907-11-11 04:48 J	-435794.52	-435794.30	-435794.08	0.0135	0.0008
Venus	-5906-06-25 12:00 J	-435568.20	-435568.00	-435567.79	0.0135	0.0050
Venus	-5905-02-06 19:11 J	-435341.85	-435341.70	-435341.53	0.0135	0.0091
Venus	-5905-09-20 02:23 J	-435115.44	-435115.40	-435115.36	0.0135	0.0132
Earth	-5902-05-28 12:28 J	-434135.07	-434134.98	-434134.88	0.0134	0.0124
Moon	-5902-05-28 12:57 J	-434134.99	-434134.96	-434134.90	0.0134	0.0131 *
Moon	-5901-05-31 21:36 J	-433765.79	-433765.60	-433765.38	0.0133	0.0083
Earth	-5901-05-31 22:19 J	-433765.74	-433765.57	-433765.36	0.0133	0.0090 *
Earth	-5900-06-05 07:55 J	-433396.39	-433396.17	-433395.92	0.0133	0.0055
Moon	-5900-06-05 07:55 J	-433396.37	-433396.17	-433395.93	0.0133	0.0061 *
Moon	-5899-06-09 16:33 J	-433027.07	-433026.81	-433026.54	0.0133	0.0014
Earth	-5899-06-09 17:02 J	-433027.05	-433026.79	-433026.54	0.0133	0.0019 *
Earth	-5898-06-14 01:11 J	-432657.71	-432657.45	-432657.19	0.0133	0.0016

Moon	-5898-06-14 00:57 J	-432657.70	-432657.46	-432657.21	0.0133	0.0015	*
Earth	-5897-06-17 08:52 J	-432288.37	-432288.13	-432287.89	0.0133	0.0050	
Moon	-5897-06-17 09:07 J	-432288.37	-432288.12	-432287.87	0.0133	0.0048	*
Earth	-5896-06-21 15:50 J	-431919.03	-431918.84	-431918.63	0.0132	0.0084	
Moon	-5896-06-21 15:50 J	-431919.01	-431918.84	-431918.65	0.0132	0.0088	*
Earth	-5895-06-25 22:33 J	-431549.66	-431549.56	-431549.43	0.0132	0.0118	
Moon	-5895-06-25 23:31 J	-431549.65	-431549.52	-431549.37	0.0132	0.0111	*
Mercury	-5876-08-04 09:50 J	-424570.13	-424570.09	-424570.02	0.0136	0.0121	
Mercury	-5876-10-31 13:11 J	-424482.03	-424481.95	-424481.86	0.0136	0.0102	
Mercury	-5875-01-27 16:04 J	-424393.92	-424393.83	-424393.72	0.0136	0.0084	
Mercury	-5875-04-25 19:26 J	-424305.81	-424305.69	-424305.58	0.0137	0.0065	
Mercury	-5875-07-22 22:19 J	-424217.69	-424217.57	-424217.44	0.0137	0.0047	
Mercury	-5875-10-19 01:26 J	-424129.57	-424129.44	-424129.31	0.0137	0.0028	
Mercury	-5874-01-15 04:33 J	-424041.44	-424041.31	-424041.18	0.0137	0.0010	
Mercury	-5874-04-13 07:40 J	-423953.31	-423953.18	-423953.05	0.0137	0.0009	
Mercury	-5874-07-10 10:33 J	-423865.18	-423865.06	-423864.93	0.0137	0.0028	
Mercury	-5874-10-06 13:40 J	-423777.05	-423776.93	-423776.80	0.0137	0.0046	
Mercury	-5873-01-02 16:48 J	-423688.91	-423688.80	-423688.68	0.0137	0.0065	
Mercury	-5873-03-30 19:40 J	-423600.77	-423600.68	-423600.57	0.0138	0.0084	
Mercury	-5873-06-26 23:02 J	-423512.63	-423512.54	-423512.46	0.0138	0.0102	
Mercury	-5873-09-23 01:55 J	-423424.47	-423424.42	-423424.35	0.0138	0.0121	
Mars	-5873-12-04 05:31 J	-423352.40	-423352.27	-423352.08	0.0138	0.0120	
Mars	-5871-11-08 10:04 J	-422648.35	-422648.08	-422647.77	0.0139	0.0066	
Venus	-5864-08-10 03:50 J	-420181.46	-420181.34	-420181.18	0.0142	0.0107	
Venus	-5863-03-24 13:40 J	-419955.11	-419954.93	-419954.72	0.0143	0.0060	
Venus	-5863-11-06 00:00 J	-419728.71	-419728.50	-419728.28	0.0143	0.0011	
Venus	-5862-06-20 10:04 J	-419502.29	-419502.08	-419501.87	0.0143	0.0038	
Venus	-5861-02-01 20:09 J	-419275.82	-419275.66	-419275.48	0.0144	0.0087	
Venus	-5861-09-15 06:57 J	-419049.27	-419049.21	-419049.14	0.0144	0.0136	
Earth	-5859-11-22 22:48 J	-418250.60	-418250.55	-418250.44	0.0145	0.0137	

Moon	-5859-11-23 01:55 J	-418250.45	-418250.42	-418250.36	0.0145	0.0142	*
Moon	-5858-11-27 18:57 J	-417880.90	-417880.71	-417880.51	0.0145	0.0093	
Earth	-5858-11-27 21:07 J	-417880.80	-417880.62	-417880.41	0.0145	0.0094	*
Earth	-5857-12-01 19:55 J	-417510.89	-417510.67	-417510.42	0.0145	0.0050	
Moon	-5857-12-01 22:04 J	-417510.80	-417510.58	-417510.33	0.0145	0.0048	*
Moon	-5856-12-06 18:43 J	-417140.98	-417140.72	-417140.46	0.0146	0.0012	
Earth	-5856-12-06 19:55 J	-417140.92	-417140.67	-417140.42	0.0146	0.0005	*
Earth	-5855-12-11 20:09 J	-416770.90	-416770.66	-416770.42	0.0146	0.0040	
Moon	-5855-12-11 20:52 J	-416770.85	-416770.63	-416770.39	0.0146	0.0048	*
Moon	-5854-12-16 21:07 J	-416400.83	-416400.62	-416400.40	0.0146	0.0081	
Earth	-5854-12-16 21:07 J	-416400.82	-416400.62	-416400.41	0.0146	0.0086	*
Moon	-5853-12-20 21:36 J	-416030.68	-416030.60	-416030.47	0.0146	0.0133	
Earth	-5853-12-20 22:48 J	-416030.66	-416030.55	-416030.44	0.0146	0.0131	*
Mercury	-5836-09-08 01:55 J	-409925.52	-409925.42	-409925.29	0.0142	0.0116	
Mercury	-5836-12-05 10:33 J	-409837.21	-409837.06	-409836.90	0.0142	0.0084	
Mercury	-5835-03-03 19:11 J	-409748.88	-409748.70	-409748.52	0.0142	0.0053	
Mercury	-5835-05-31 03:36 J	-409660.54	-409660.35	-409660.15	0.0142	0.0022	
Mercury	-5835-08-27 12:14 J	-409572.19	-409571.99	-409571.79	0.0142	0.0009	
Mercury	-5835-11-23 20:38 J	-409483.83	-409483.64	-409483.45	0.0141	0.0040	
Mercury	-5834-02-20 05:02 J	-409395.45	-409395.29	-409395.11	0.0141	0.0072	
Mercury	-5834-05-19 13:26 J	-409307.07	-409306.94	-409306.80	0.0141	0.0103	
Mercury	-5834-08-15 21:50 J	-409218.64	-409218.59	-409218.52	0.0141	0.0133	
Mars	-5832-06-22 18:14 J	-408542.03	-408541.74	-408541.45	0.0140	0.0003	
Venus	-5825-08-31 17:45 J	-405914.76	-405914.76	-405914.75	0.0136	0.0136	
Venus	-5824-04-15 01:40 J	-405688.59	-405688.43	-405688.27	0.0136	0.0093	
Venus	-5824-11-27 09:07 J	-405462.32	-405462.12	-405461.91	0.0136	0.0051	
Venus	-5823-07-11 16:48 J	-405236.02	-405235.80	-405235.58	0.0136	0.0008	
Venus	-5822-02-23 00:14 J	-405009.70	-405009.49	-405009.27	0.0135	0.0034	
Venus	-5822-10-07 07:40 J	-404783.36	-404783.18	-404783.00	0.0135	0.0076	
Venus	-5821-05-20 14:23 J	-404556.99	-404556.90	-404556.78	0.0135	0.0117	

Earth	-5818-05-29 03:21 J	-403453.45	-403453.36	-403453.21	0.0134	0.0118
Moon	-5818-05-29 04:48 J	-403453.41	-403453.30	-403453.14	0.0134	0.0113 *
Moon	-5817-06-01 12:43 J	-403084.14	-403083.97	-403083.75	0.0133	0.0090
Earth	-5817-06-01 13:40 J	-403084.11	-403083.93	-403083.71	0.0133	0.0083 *
Earth	-5816-06-05 23:16 J	-402714.76	-402714.53	-402714.28	0.0133	0.0048
Moon	-5816-06-06 00:14 J	-402714.71	-402714.49	-402714.24	0.0133	0.0042 *
Moon	-5815-06-10 07:40 J	-402345.44	-402345.18	-402344.91	0.0133	0.0017
Earth	-5815-06-10 08:09 J	-402345.41	-402345.16	-402344.90	0.0133	0.0013 *
Earth	-5814-06-14 16:04 J	-401976.08	-401975.83	-401975.57	0.0133	0.0022
Moon	-5814-06-14 16:33 J	-401976.05	-401975.81	-401975.56	0.0133	0.0024 *
Moon	-5813-06-17 23:16 J	-401606.76	-401606.53	-401606.28	0.0133	0.0057
Earth	-5813-06-18 00:00 J	-401606.73	-401606.50	-401606.27	0.0133	0.0056 *
Moon	-5812-06-22 06:57 J	-401237.39	-401237.21	-401237.01	0.0132	0.0085
Earth	-5812-06-22 06:57 J	-401237.38	-401237.21	-401237.01	0.0132	0.0090 *
Earth	-5811-06-26 13:55 J	-400868.01	-400867.92	-400867.82	0.0132	0.0123
Moon	-5811-06-26 12:57 J	-400868.00	-400867.96	-400867.87	0.0132	0.0129 *
Mercury	-5792-05-28 14:52 J	-393956.91	-393956.88	-393956.84	0.0136	0.0130
Mercury	-5792-08-24 18:00 J	-393868.82	-393868.75	-393868.67	0.0136	0.0112
Mercury	-5792-11-20 21:07 J	-393780.71	-393780.62	-393780.52	0.0136	0.0094
Mercury	-5791-02-17 00:14 J	-393692.60	-393692.49	-393692.38	0.0137	0.0076
Mercury	-5791-05-16 03:07 J	-393604.48	-393604.37	-393604.24	0.0137	0.0058
Mercury	-5791-08-12 06:14 J	-393516.36	-393516.24	-393516.11	0.0137	0.0039
Mercury	-5791-11-08 09:21 J	-393428.24	-393428.11	-393427.98	0.0137	0.0021
Mercury	-5790-02-04 12:28 J	-393340.11	-393339.98	-393339.85	0.0137	0.0002
Mercury	-5790-05-03 15:36 J	-393251.98	-393251.85	-393251.72	0.0137	0.0017
Mercury	-5790-07-30 18:28 J	-393163.85	-393163.73	-393163.60	0.0137	0.0035
Mercury	-5790-10-26 21:36 J	-393075.72	-393075.60	-393075.48	0.0137	0.0054
Mercury	-5789-01-23 00:43 J	-392987.58	-392987.47	-392987.36	0.0137	0.0072
Mercury	-5789-04-20 03:50 J	-392899.44	-392899.34	-392899.24	0.0138	0.0091
Mercury	-5789-07-17 06:43 J	-392811.29	-392811.22	-392811.14	0.0138	0.0110

Mercury	-5789-10-13 09:50 J	-392723.13	-392723.09	-392723.04	0.0138	0.0129
Mars	-5788-07-31 04:04 J	-392432.61	-392432.33	-392432.01	0.0138	0.0051
Mars	-5786-07-05 12:43 J	-391727.99	-391727.97	-391727.94	0.0139	0.0139
Venus	-5780-04-09 14:38 J	-389622.98	-389622.89	-389622.78	0.0142	0.0126
Venus	-5780-11-22 00:28 J	-389396.66	-389396.48	-389396.30	0.0143	0.0079
Venus	-5779-07-06 10:19 J	-389170.27	-389170.07	-389169.85	0.0143	0.0031
Venus	-5778-02-17 20:38 J	-388943.86	-388943.64	-388943.43	0.0143	0.0018
Venus	-5778-10-02 06:43 J	-388717.40	-388717.22	-388717.02	0.0143	0.0068
Venus	-5777-05-15 16:48 J	-388490.91	-388490.80	-388490.66	0.0144	0.0117
Earth	-5775-11-23 14:38 J	-387568.99	-387568.89	-387568.77	0.0145	0.0129
Moon	-5775-11-23 17:31 J	-387568.88	-387568.77	-387568.63	0.0145	0.0125 *
Moon	-5774-11-28 09:50 J	-387199.29	-387199.09	-387198.88	0.0145	0.0088
Earth	-5774-11-28 12:57 J	-387199.16	-387198.96	-387198.76	0.0145	0.0086 *
Earth	-5773-12-02 11:31 J	-386829.25	-386829.02	-386828.77	0.0145	0.0043
Moon	-5773-12-02 13:26 J	-386829.16	-386828.94	-386828.70	0.0145	0.0047 *
Moon	-5772-12-07 09:07 J	-386459.37	-386459.12	-386458.85	0.0146	0.0009
Earth	-5772-12-07 11:31 J	-386459.27	-386459.02	-386458.77	0.0146	0.0002 *
Earth	-5771-12-12 11:45 J	-386089.24	-386089.01	-386088.77	0.0146	0.0047
Moon	-5771-12-12 12:57 J	-386089.20	-386088.96	-386088.73	0.0146	0.0040 *
Moon	-5770-12-17 11:45 J	-385719.18	-385719.01	-385718.80	0.0146	0.0098
Earth	-5770-12-17 12:43 J	-385719.16	-385718.97	-385718.77	0.0146	0.0092 *
Moon	-5769-12-21 14:09 J	-385348.98	-385348.91	-385348.80	0.0146	0.0137
Earth	-5769-12-21 14:23 J	-385348.97	-385348.90	-385348.80	0.0146	0.0137 *
Mercury	-5752-07-02 02:52 J	-379312.43	-379312.38	-379312.29	0.0142	0.0132
Mercury	-5752-09-28 11:31 J	-379224.14	-379224.02	-379223.87	0.0142	0.0101
Mercury	-5752-12-25 20:23 J	-379135.82	-379135.65	-379135.48	0.0142	0.0069
Mercury	-5751-03-24 04:48 J	-379047.49	-379047.30	-379047.11	0.0142	0.0038
Mercury	-5751-06-20 13:11 J	-378959.14	-378958.95	-378958.75	0.0142	0.0008
Mercury	-5751-09-16 21:36 J	-378870.79	-378870.60	-378870.40	0.0142	0.0025
Mercury	-5751-12-14 06:14 J	-378782.42	-378782.24	-378782.06	0.0141	0.0055

Mercury	-5750-03-12 14:38 J	-378694.04	-378693.89	-378693.73	0.0141	0.0086
Mercury	-5750-06-08 23:02 J	-378605.64	-378605.54	-378605.42	0.0141	0.0117
Mars	-5749-03-16 17:45 J	-378323.96	-378323.76	-378323.56	0.0141	0.0103
Mars	-5747-02-15 23:31 J	-377622.77	-377622.52	-377622.26	0.0140	0.0069
Venus	-5741-12-13 13:55 J	-375130.04	-375129.92	-375129.78	0.0136	0.0110
Venus	-5740-07-27 21:36 J	-374903.78	-374903.60	-374903.40	0.0136	0.0067
Venus	-5739-03-11 05:31 J	-374677.49	-374677.27	-374677.05	0.0136	0.0024
Venus	-5739-10-23 12:57 J	-374451.18	-374450.96	-374450.74	0.0135	0.0018
Venus	-5738-06-06 20:09 J	-374224.85	-374224.66	-374224.46	0.0135	0.0060
Venus	-5737-01-19 03:07 J	-373998.50	-373998.37	-373998.21	0.0135	0.0102
Earth	-5734-05-29 19:26 J	-372771.82	-372771.69	-372771.54	0.0134	0.0110
Moon	-5734-05-29 20:38 J	-372771.74	-372771.64	-372771.50	0.0134	0.0117 *
Moon	-5733-06-02 03:36 J	-372402.57	-372402.35	-372402.11	0.0133	0.0069
Earth	-5733-06-02 05:16 J	-372402.48	-372402.28	-372402.05	0.0133	0.0076 *
Earth	-5732-06-06 14:52 J	-372033.12	-372032.88	-372032.63	0.0133	0.0041
Moon	-5732-06-06 15:50 J	-372033.07	-372032.84	-372032.60	0.0133	0.0047 *
Moon	-5731-06-10 22:04 J	-371663.84	-371663.58	-371663.31	0.0133	0.0001
Earth	-5731-06-10 23:31 J	-371663.78	-371663.52	-371663.26	0.0133	0.0006 *
Earth	-5730-06-15 07:26 J	-371294.43	-371294.19	-371293.93	0.0133	0.0028
Moon	-5730-06-15 08:23 J	-371294.39	-371294.15	-371293.90	0.0133	0.0027 *
Moon	-5729-06-18 14:23 J	-370925.12	-370924.90	-370924.65	0.0133	0.0061
Earth	-5729-06-18 15:07 J	-370925.09	-370924.87	-370924.63	0.0133	0.0062 *
Earth	-5728-06-22 22:19 J	-370555.74	-370555.57	-370555.38	0.0132	0.0096
Moon	-5728-06-22 23:02 J	-370555.68	-370555.54	-370555.36	0.0132	0.0100 *
Moon	-5727-06-27 04:48 J	-370186.38	-370186.30	-370186.18	0.0132	0.0122
Earth	-5727-06-27 05:16 J	-370186.33	-370186.28	-370186.22	0.0132	0.0129 *
Mercury	-5708-06-17 22:48 J	-363255.60	-363255.55	-363255.50	0.0136	0.0123
Mercury	-5708-09-14 01:40 J	-363167.50	-363167.43	-363167.34	0.0136	0.0105
Mercury	-5708-12-11 04:48 J	-363079.39	-363079.30	-363079.20	0.0136	0.0087
Mercury	-5707-03-09 07:55 J	-362991.28	-362991.17	-362991.06	0.0136	0.0069

Mercury	-5707-06-05 11:02 J	-362903.16	-362903.04	-362902.92	0.0137	0.0051
Mercury	-5707-09-01 13:55 J	-362815.04	-362814.92	-362814.79	0.0137	0.0033
Mercury	-5707-11-28 17:02 J	-362726.92	-362726.79	-362726.66	0.0137	0.0014
Mercury	-5706-02-24 20:09 J	-362638.79	-362638.66	-362638.53	0.0137	0.0005
Mercury	-5706-05-23 23:16 J	-362550.66	-362550.53	-362550.40	0.0137	0.0023
Mercury	-5706-08-20 02:09 J	-362462.53	-362462.41	-362462.28	0.0137	0.0042
Mercury	-5706-11-16 05:16 J	-362374.39	-362374.28	-362374.16	0.0137	0.0060
Mercury	-5705-02-12 08:23 J	-362286.26	-362286.15	-362286.04	0.0137	0.0079
Mercury	-5705-05-10 11:16 J	-362198.11	-362198.03	-362197.93	0.0138	0.0098
Mercury	-5705-08-06 14:23 J	-362109.96	-362109.90	-362109.83	0.0138	0.0116
Mercury	-5705-11-02 17:31 J	-362021.79	-362021.77	-362021.74	0.0138	0.0135
Mars	-5703-03-26 23:16 J	-361512.84	-361512.53	-361512.20	0.0138	0.0020
Venus	-5696-07-22 08:52 J	-358838.27	-358838.13	-358837.97	0.0142	0.0100
Venus	-5695-03-05 18:43 J	-358611.91	-358611.72	-358611.51	0.0143	0.0052
Venus	-5695-10-18 04:48 J	-358385.52	-358385.30	-358385.08	0.0143	0.0004
Venus	-5694-06-01 14:38 J	-358159.09	-358158.89	-358158.68	0.0143	0.0045
Venus	-5693-01-14 00:43 J	-357932.62	-357932.47	-357932.30	0.0144	0.0095
Venus	-5693-08-27 11:16 J	-357706.03	-357706.03	-357706.01	0.0144	0.0144
Earth	-5691-11-24 01:26 J	-356887.54	-356887.44	-356887.29	0.0145	0.0124
Moon	-5691-11-24 04:48 J	-356887.38	-356887.30	-356887.17	0.0145	0.0130 *
Moon	-5690-11-28 20:38 J	-356517.84	-356517.64	-356517.42	0.0145	0.0080
Earth	-5690-11-28 23:45 J	-356517.71	-356517.51	-356517.29	0.0145	0.0081 *
Earth	-5689-12-02 22:33 J	-356147.80	-356147.56	-356147.31	0.0145	0.0038
Moon	-5689-12-03 01:26 J	-356147.67	-356147.44	-356147.19	0.0145	0.0035 *
Moon	-5688-12-07 20:09 J	-355777.91	-355777.66	-355777.40	0.0146	0.0003
Earth	-5688-12-07 22:19 J	-355777.82	-355777.57	-355777.31	0.0146	0.0008 *
Earth	-5687-12-12 22:48 J	-355407.79	-355407.55	-355407.32	0.0146	0.0052
Moon	-5687-12-13 00:28 J	-355407.69	-355407.48	-355407.25	0.0146	0.0060 *
Moon	-5686-12-17 22:48 J	-355037.75	-355037.55	-355037.35	0.0146	0.0092
Earth	-5686-12-17 23:45 J	-355037.69	-355037.51	-355037.31	0.0146	0.0097 *

Earth	-5685-12-22 01:11 J	-354667.48	-354667.45	-354667.37	0.0146	0.0143
Moon	-5685-12-22 01:40 J	-354667.45	-354667.43	-354667.37	0.0146	0.0144 *
Mercury	-5668-07-22 11:16 J	-348611.12	-348611.03	-348610.92	0.0142	0.0122
Mercury	-5668-10-18 19:55 J	-348522.82	-348522.67	-348522.52	0.0142	0.0090
Mercury	-5667-01-15 04:19 J	-348434.49	-348434.32	-348434.13	0.0142	0.0059
Mercury	-5667-04-13 12:57 J	-348346.15	-348345.96	-348345.77	0.0142	0.0028
Mercury	-5667-07-10 21:21 J	-348257.80	-348257.61	-348257.41	0.0142	0.0005
Mercury	-5667-10-07 06:00 J	-348169.44	-348169.25	-348169.06	0.0142	0.0035
Mercury	-5666-01-03 14:23 J	-348081.07	-348080.90	-348080.72	0.0142	0.0066
Mercury	-5666-04-01 22:48 J	-347992.69	-347992.55	-347992.40	0.0141	0.0097
Mercury	-5666-06-29 07:11 J	-347904.27	-347904.20	-347904.11	0.0141	0.0128
Mars	-5665-11-09 19:40 J	-347404.96	-347404.68	-347404.39	0.0141	0.0037
Mars	-5663-10-11 22:33 J	-346703.63	-346703.56	-346703.45	0.0140	0.0133
Venus	-5657-08-13 01:11 J	-344571.52	-344571.45	-344571.36	0.0136	0.0127
Venus	-5656-03-27 09:07 J	-344345.28	-344345.12	-344344.94	0.0136	0.0084
Venus	-5656-11-08 16:48 J	-344119.00	-344118.80	-344118.58	0.0136	0.0041
Venus	-5655-06-23 00:28 J	-343892.70	-343892.48	-343892.26	0.0136	0.0003
Venus	-5654-02-04 07:55 J	-343666.37	-343666.17	-343665.96	0.0135	0.0044
Venus	-5654-09-18 15:07 J	-343440.03	-343439.87	-343439.69	0.0135	0.0086
Venus	-5653-05-01 21:50 J	-343213.64	-343213.59	-343213.50	0.0135	0.0128
Earth	-5650-05-30 10:04 J	-342090.23	-342090.08	-342089.91	0.0134	0.0104
Moon	-5650-05-30 12:14 J	-342090.14	-342089.99	-342089.81	0.0134	0.0099 *
Moon	-5649-06-02 18:28 J	-341720.94	-341720.73	-341720.50	0.0134	0.0076
Earth	-5649-06-02 20:23 J	-341720.87	-341720.65	-341720.43	0.0134	0.0069 *
Earth	-5648-06-07 05:31 J	-341351.51	-341351.27	-341351.02	0.0133	0.0035
Moon	-5648-06-07 07:26 J	-341351.43	-341351.19	-341350.94	0.0133	0.0028 *
Moon	-5647-06-11 12:57 J	-340982.22	-340981.96	-340981.69	0.0133	0.0004
Earth	-5647-06-11 14:23 J	-340982.16	-340981.90	-340981.64	0.0133	0.0001 *
Earth	-5646-06-15 22:19 J	-340612.81	-340612.57	-340612.31	0.0133	0.0035
Moon	-5646-06-15 23:45 J	-340612.74	-340612.51	-340612.26	0.0133	0.0037 *

Moon	-5645-06-19 04:33 J	-340243.52	-340243.31	-340243.07	0.0133	0.0069
Earth	-5645-06-19 06:00 J	-340243.45	-340243.25	-340243.01	0.0133	0.0069 *
Earth	-5644-06-23 13:26 J	-339874.09	-339873.94	-339873.76	0.0132	0.0102
Moon	-5644-06-23 14:23 J	-339874.06	-339873.90	-339873.73	0.0132	0.0098 *
Mercury	-5624-04-11 03:07 J	-332642.37	-332642.37	-332642.34	0.0136	0.0135
Mercury	-5624-07-08 06:28 J	-332554.29	-332554.23	-332554.16	0.0136	0.0116
Mercury	-5624-10-04 09:36 J	-332466.19	-332466.10	-332466.01	0.0136	0.0098
Mercury	-5624-12-31 12:28 J	-332378.08	-332377.98	-332377.87	0.0136	0.0080
Mercury	-5623-03-29 15:36 J	-332289.96	-332289.85	-332289.73	0.0136	0.0062
Mercury	-5623-06-25 18:43 J	-332201.84	-332201.72	-332201.60	0.0137	0.0044
Mercury	-5623-09-21 21:50 J	-332113.72	-332113.59	-332113.47	0.0137	0.0026
Mercury	-5623-12-19 00:43 J	-332025.60	-332025.47	-332025.34	0.0137	0.0008
Mercury	-5622-03-17 03:50 J	-331937.47	-331937.34	-331937.21	0.0137	0.0011
Mercury	-5622-06-13 06:57 J	-331849.34	-331849.21	-331849.09	0.0137	0.0030
Mercury	-5622-09-09 09:50 J	-331761.21	-331761.09	-331760.96	0.0137	0.0048
Mercury	-5622-12-06 12:57 J	-331673.07	-331672.96	-331672.84	0.0137	0.0067
Mercury	-5621-03-03 15:50 J	-331584.93	-331584.84	-331584.73	0.0137	0.0086
Mercury	-5621-05-30 18:57 J	-331496.79	-331496.71	-331496.62	0.0137	0.0104
Mercury	-5621-08-26 22:04 J	-331408.63	-331408.58	-331408.52	0.0138	0.0122
Mars	-5621-12-16 17:31 J	-331296.98	-331296.77	-331296.51	0.0138	0.0094
Mars	-5619-11-20 19:55 J	-330592.90	-330592.67	-330592.41	0.0139	0.0091
Venus	-5612-03-21 17:31 J	-328279.86	-328279.77	-328279.64	0.0142	0.0121
Venus	-5612-11-03 03:21 J	-328053.54	-328053.36	-328053.17	0.0142	0.0073
Venus	-5611-06-17 12:57 J	-327827.16	-327826.96	-327826.74	0.0143	0.0026
Venus	-5610-01-29 23:02 J	-327600.75	-327600.54	-327600.32	0.0143	0.0023
Venus	-5610-09-13 09:07 J	-327374.30	-327374.12	-327373.93	0.0143	0.0072
Venus	-5609-04-26 18:57 J	-327147.80	-327147.71	-327147.57	0.0144	0.0122
Earth	-5607-11-24 13:11 J	-326206.09	-326205.95	-326205.80	0.0145	0.0118
Moon	-5607-11-24 16:33 J	-326205.95	-326205.81	-326205.65	0.0145	0.0113 *
Moon	-5606-11-29 07:40 J	-325836.39	-325836.18	-325835.96	0.0145	0.0078

Earth	-5606-11-29 11:16 J	-325836.24	-325836.03	-325835.82	0.0145	0.0075	*
Earth	-5605-12-03 09:50 J	-325466.33	-325466.09	-325465.84	0.0145	0.0032	
Moon	-5605-12-03 12:43 J	-325466.21	-325465.97	-325465.73	0.0145	0.0035	*
Moon	-5604-12-08 06:28 J	-325096.48	-325096.23	-325095.97	0.0146	0.0019	
Earth	-5604-12-08 09:36 J	-325096.35	-325096.10	-325095.85	0.0146	0.0013	*
Earth	-5603-12-13 09:50 J	-324726.31	-324726.09	-324725.85	0.0146	0.0058	
Moon	-5603-12-13 12:00 J	-324726.22	-324726.00	-324725.76	0.0146	0.0051	*
Moon	-5602-12-18 09:07 J	-324356.28	-324356.12	-324355.93	0.0146	0.0108	
Earth	-5602-12-18 10:48 J	-324356.21	-324356.05	-324355.85	0.0146	0.0102	*
Moon	-5601-12-22 13:40 J	-323985.95	-323985.93	-323985.87	0.0146	0.0145	
Mercury	-5584-08-11 19:11 J	-317909.82	-317909.70	-317909.58	0.0142	0.0113	
Mercury	-5584-11-08 03:36 J	-317821.50	-317821.35	-317821.18	0.0142	0.0081	
Mercury	-5583-02-04 12:14 J	-317733.17	-317732.99	-317732.81	0.0142	0.0050	
Mercury	-5583-05-03 20:38 J	-317644.83	-317644.64	-317644.44	0.0142	0.0019	
Mercury	-5583-07-31 05:16 J	-317556.48	-317556.28	-317556.08	0.0142	0.0012	
Mercury	-5583-10-27 13:40 J	-317468.11	-317467.93	-317467.74	0.0142	0.0044	
Mercury	-5582-01-23 22:04 J	-317379.74	-317379.58	-317379.41	0.0142	0.0075	
Mercury	-5582-04-22 06:28 J	-317291.35	-317291.23	-317291.09	0.0141	0.0106	
Mercury	-5582-07-19 14:52 J	-317202.91	-317202.88	-317202.82	0.0141	0.0137	
Mars	-5580-07-05 18:43 J	-316486.00	-316485.72	-316485.43	0.0140	0.0028	
Venus	-5573-11-24 19:11 J	-313786.83	-313786.70	-313786.53	0.0136	0.0102	
Venus	-5572-07-09 03:21 J	-313560.55	-313560.36	-313560.15	0.0136	0.0058	
Venus	-5571-02-20 11:16 J	-313334.25	-313334.03	-313333.81	0.0136	0.0015	
Venus	-5571-10-04 18:43 J	-313107.93	-313107.72	-313107.50	0.0136	0.0028	
Venus	-5570-05-19 01:55 J	-312881.60	-312881.42	-312881.22	0.0135	0.0070	
Venus	-5570-12-31 08:52 J	-312655.23	-312655.13	-312654.99	0.0135	0.0112	
Moon	-5567-05-26 10:04 J	-311778.13	-311778.08	-311778.00	0.0134	0.0130	
Earth	-5567-05-26 12:57 J	-311777.98	-311777.96	-311777.91	0.0134	0.0133	
Earth	-5566-05-30 23:31 J	-311408.68	-311408.52	-311408.33	0.0134	0.0098	
Moon	-5566-05-31 02:09 J	-311408.56	-311408.41	-311408.25	0.0134	0.0104	*

Moon	-5565-06-03 07:11 J	-311039.43	-311039.20	-311038.95	0.0134	0.0057
Earth	-5565-06-03 09:36 J	-311039.31	-311039.10	-311038.85	0.0134	0.0064 *
Earth	-5564-06-07 19:26 J	-310669.94	-310669.69	-310669.44	0.0133	0.0029
Moon	-5564-06-07 21:07 J	-310669.85	-310669.62	-310669.37	0.0133	0.0035 *
Moon	-5563-06-12 01:55 J	-310300.68	-310300.42	-310300.15	0.0133	0.0011
Earth	-5563-06-12 04:19 J	-310300.58	-310300.32	-310300.07	0.0133	0.0006 *
Earth	-5562-06-16 12:28 J	-309931.22	-309930.98	-309930.73	0.0133	0.0040
Moon	-5562-06-16 14:23 J	-309931.14	-309930.90	-309930.66	0.0133	0.0038 *
Moon	-5561-06-19 18:43 J	-309561.93	-309561.72	-309561.49	0.0133	0.0073
Earth	-5561-06-19 20:23 J	-309561.85	-309561.65	-309561.43	0.0133	0.0074 *
Earth	-5560-06-24 03:50 J	-309192.49	-309192.34	-309192.19	0.0132	0.0107
Moon	-5560-06-24 05:16 J	-309192.40	-309192.28	-309192.12	0.0132	0.0110 *
Mercury	-5540-05-01 11:16 J	-301941.07	-301941.03	-301940.99	0.0136	0.0127
Mercury	-5540-07-28 14:09 J	-301852.98	-301852.91	-301852.83	0.0136	0.0109
Mercury	-5540-10-24 17:16 J	-301764.87	-301764.78	-301764.68	0.0136	0.0091
Mercury	-5539-01-20 20:23 J	-301676.76	-301676.65	-301676.54	0.0136	0.0073
Mercury	-5539-04-18 23:16 J	-301588.64	-301588.53	-301588.41	0.0136	0.0055
Mercury	-5539-07-16 02:23 J	-301500.52	-301500.40	-301500.27	0.0136	0.0037
Mercury	-5539-10-12 05:31 J	-301412.40	-301412.27	-301412.14	0.0137	0.0018
Mercury	-5538-01-08 08:38 J	-301324.27	-301324.14	-301324.01	0.0137	0.0003
Mercury	-5538-04-06 11:31 J	-301236.15	-301236.02	-301235.89	0.0137	0.0019
Mercury	-5538-07-03 14:38 J	-301148.01	-301147.89	-301147.76	0.0137	0.0037
Mercury	-5538-09-29 17:45 J	-301059.88	-301059.76	-301059.64	0.0137	0.0055
Mercury	-5538-12-26 20:52 J	-300971.74	-300971.63	-300971.53	0.0137	0.0074
Mercury	-5537-03-23 23:45 J	-300883.60	-300883.51	-300883.41	0.0137	0.0092
Mercury	-5537-06-20 02:52 J	-300795.45	-300795.38	-300795.30	0.0137	0.0110
Mercury	-5537-09-16 05:45 J	-300707.29	-300707.26	-300707.21	0.0137	0.0129
Mars	-5536-08-12 12:43 J	-300377.29	-300376.97	-300376.65	0.0138	0.0023
Venus	-5529-11-19 02:38 J	-297721.40	-297721.39	-297721.36	0.0142	0.0141
Venus	-5528-07-03 12:00 J	-297495.15	-297495.00	-297494.83	0.0142	0.0094

Venus	-5527-02-14 21:36 J	-297268.79	-297268.60	-297268.39	0.0142	0.0047
Venus	-5527-09-29 07:40 J	-297042.40	-297042.18	-297041.97	0.0143	0.0002
Venus	-5526-05-13 17:16 J	-296815.97	-296815.78	-296815.57	0.0143	0.0051
Venus	-5526-12-26 03:21 J	-296589.51	-296589.36	-296589.20	0.0143	0.0100
Earth	-5523-11-25 00:14 J	-295524.64	-295524.49	-295524.33	0.0145	0.0113
Moon	-5523-11-25 03:21 J	-295524.48	-295524.36	-295524.20	0.0145	0.0120 *
Moon	-5522-11-29 18:14 J	-295154.95	-295154.74	-295154.50	0.0145	0.0069
Earth	-5522-11-29 21:50 J	-295154.80	-295154.59	-295154.36	0.0145	0.0071 *
Earth	-5521-12-03 20:23 J	-294784.89	-294784.65	-294784.39	0.0145	0.0028
Moon	-5521-12-04 00:14 J	-294784.74	-294784.49	-294784.25	0.0145	0.0026 *
Moon	-5520-12-08 17:02 J	-294415.04	-294414.79	-294414.53	0.0145	0.0012
Earth	-5520-12-08 20:09 J	-294414.91	-294414.66	-294414.41	0.0145	0.0017 *
Earth	-5519-12-13 20:09 J	-294044.89	-294044.66	-294044.43	0.0146	0.0061
Moon	-5519-12-13 22:33 J	-294044.76	-294044.56	-294044.33	0.0146	0.0070 *
Moon	-5518-12-18 18:28 J	-293674.90	-293674.73	-293674.53	0.0146	0.0099
Earth	-5518-12-18 20:52 J	-293674.79	-293674.63	-293674.45	0.0146	0.0106 *
Mercury	-5500-06-04 17:16 J	-287296.81	-287296.78	-287296.72	0.0142	0.0138
Mercury	-5500-09-01 01:40 J	-287208.54	-287208.43	-287208.29	0.0142	0.0107
Mercury	-5500-11-28 10:33 J	-287120.22	-287120.06	-287119.89	0.0142	0.0075
Mercury	-5499-02-24 18:57 J	-287031.89	-287031.71	-287031.52	0.0142	0.0044
Mercury	-5499-05-24 03:36 J	-286943.55	-286943.35	-286943.15	0.0142	0.0013
Mercury	-5499-08-20 12:00 J	-286855.19	-286855.00	-286854.80	0.0142	0.0019
Mercury	-5499-11-16 20:23 J	-286766.83	-286766.65	-286766.46	0.0142	0.0050
Mercury	-5498-02-13 04:48 J	-286678.45	-286678.30	-286678.13	0.0142	0.0081
Mercury	-5498-05-12 13:11 J	-286590.05	-286589.95	-286589.81	0.0141	0.0112
Mars	-5497-03-29 04:19 J	-286268.54	-286268.32	-286268.07	0.0141	0.0083
Mars	-5495-02-28 13:40 J	-285567.14	-285566.93	-285566.69	0.0140	0.0089
Venus	-5489-07-25 04:04 J	-283228.41	-283228.33	-283228.21	0.0137	0.0121
Venus	-5488-03-08 12:28 J	-283002.15	-283001.98	-283001.79	0.0136	0.0077
Venus	-5488-10-20 20:23 J	-282775.86	-282775.65	-282775.43	0.0136	0.0034

Venus	-5487-06-04 04:04 J	-282549.55	-282549.33	-282549.11	0.0136	0.0009
Venus	-5486-01-16 11:31 J	-282323.22	-282323.02	-282322.81	0.0136	0.0051
Venus	-5486-08-30 18:43 J	-282096.87	-282096.72	-282096.55	0.0135	0.0094
Venus	-5485-04-13 01:55 J	-281870.42	-281870.42	-281870.40	0.0135	0.0135
Moon	-5483-05-26 21:21 J	-281096.66	-281096.61	-281096.54	0.0134	0.0131
Earth	-5483-05-27 00:43 J	-281096.54	-281096.47	-281096.39	0.0134	0.0128 *
Earth	-5482-05-31 11:31 J	-280727.19	-280727.02	-280726.83	0.0134	0.0093
Moon	-5482-05-31 14:23 J	-280727.07	-280726.90	-280726.70	0.0134	0.0089 *
Moon	-5481-06-03 19:11 J	-280357.91	-280357.70	-280357.45	0.0134	0.0066
Earth	-5481-06-03 21:50 J	-280357.81	-280357.59	-280357.34	0.0134	0.0059 *
Earth	-5480-06-08 07:40 J	-279988.43	-279988.18	-279987.93	0.0133	0.0024
Moon	-5480-06-08 10:33 J	-279988.31	-279988.06	-279987.81	0.0133	0.0017 *
Moon	-5479-06-12 14:23 J	-279619.16	-279618.90	-279618.63	0.0133	0.0006
Earth	-5479-06-12 16:48 J	-279619.05	-279618.80	-279618.54	0.0133	0.0011 *
Earth	-5478-06-17 01:11 J	-279249.68	-279249.45	-279249.20	0.0133	0.0045
Moon	-5478-06-17 03:21 J	-279249.58	-279249.36	-279249.11	0.0133	0.0048 *
Moon	-5477-06-20 06:43 J	-278880.42	-278880.22	-278879.99	0.0133	0.0078
Earth	-5477-06-20 09:07 J	-278880.31	-278880.12	-278879.90	0.0133	0.0079 *
Earth	-5476-06-24 16:48 J	-278510.92	-278510.80	-278510.65	0.0133	0.0112
Moon	-5476-06-24 18:43 J	-278510.85	-278510.72	-278510.57	0.0133	0.0108 *
Mercury	-5456-05-21 18:57 J	-271239.76	-271239.71	-271239.65	0.0136	0.0120
Mercury	-5456-08-17 22:04 J	-271151.66	-271151.58	-271151.49	0.0136	0.0102
Mercury	-5456-11-14 00:57 J	-271063.55	-271063.46	-271063.35	0.0136	0.0085
Mercury	-5455-02-10 04:04 J	-270975.44	-270975.33	-270975.21	0.0136	0.0066
Mercury	-5455-05-09 07:11 J	-270887.32	-270887.20	-270887.08	0.0136	0.0048
Mercury	-5455-08-05 10:19 J	-270799.20	-270799.07	-270798.94	0.0136	0.0029
Mercury	-5455-11-01 13:26 J	-270711.07	-270710.94	-270710.81	0.0137	0.0012
Mercury	-5454-01-28 16:19 J	-270622.95	-270622.82	-270622.69	0.0137	0.0008
Mercury	-5454-04-26 19:26 J	-270534.82	-270534.69	-270534.56	0.0137	0.0026
Mercury	-5454-07-23 22:33 J	-270446.68	-270446.56	-270446.44	0.0137	0.0044

Mercury	-5454-10-20 01:26 J	-270358.55	-270358.44	-270358.32	0.0137	0.0063
Mercury	-5453-01-16 04:33 J	-270270.41	-270270.31	-270270.20	0.0137	0.0081
Mercury	-5453-04-13 07:40 J	-270182.27	-270182.18	-270182.09	0.0137	0.0099
Mars	-5453-05-04 14:23 J	-270160.97	-270160.90	-270160.81	0.0137	0.0133
Mercury	-5453-07-10 10:33 J	-270094.11	-270094.06	-270093.99	0.0137	0.0118
Mercury	-5453-10-06 13:40 J	-270005.93	-270005.93	-270005.91	0.0137	0.0137
Mars	-5451-04-08 11:02 J	-269457.33	-269457.04	-269456.72	0.0138	0.0048
Venus	-5444-03-02 22:19 J	-266936.69	-266936.57	-266936.43	0.0142	0.0113
Venus	-5444-10-15 07:55 J	-266710.36	-266710.17	-266709.97	0.0142	0.0065
Venus	-5443-05-29 17:31 J	-266483.98	-266483.77	-266483.55	0.0143	0.0018
Venus	-5442-01-11 03:21 J	-266257.57	-266257.36	-266257.15	0.0143	0.0031
Venus	-5442-08-25 13:11 J	-266031.12	-266030.95	-266030.76	0.0143	0.0080
Venus	-5441-04-07 23:16 J	-265804.61	-265804.53	-265804.43	0.0143	0.0129
Earth	-5439-11-25 14:23 J	-264843.06	-264842.90	-264842.72	0.0144	0.0107
Moon	-5439-11-25 18:00 J	-264842.91	-264842.75	-264842.56	0.0144	0.0102 *
Moon	-5438-11-30 08:38 J	-264473.35	-264473.14	-264472.91	0.0145	0.0068
Earth	-5438-11-30 12:28 J	-264473.20	-264472.98	-264472.75	0.0145	0.0064 *
Earth	-5437-12-04 10:48 J	-264103.29	-264103.05	-264102.79	0.0145	0.0022
Moon	-5437-12-04 14:09 J	-264103.15	-264102.91	-264102.66	0.0145	0.0024 *
Moon	-5436-12-09 06:43 J	-263733.46	-263733.22	-263732.96	0.0145	0.0029
Earth	-5436-12-09 10:19 J	-263733.31	-263733.07	-263732.82	0.0145	0.0023 *
Earth	-5435-12-14 10:04 J	-263363.29	-263363.08	-263362.84	0.0146	0.0068
Moon	-5435-12-14 13:11 J	-263363.17	-263362.95	-263362.72	0.0146	0.0060 *
Moon	-5434-12-19 08:09 J	-262993.29	-262993.16	-262992.99	0.0146	0.0118
Earth	-5434-12-19 11:02 J	-262993.19	-262993.04	-262992.87	0.0146	0.0111 *
Mercury	-5416-06-25 01:26 J	-256595.52	-256595.44	-256595.36	0.0142	0.0129
Mercury	-5416-09-21 09:50 J	-256507.22	-256507.09	-256506.94	0.0142	0.0098
Mercury	-5416-12-18 18:14 J	-256418.90	-256418.74	-256418.55	0.0142	0.0067
Mercury	-5415-03-17 02:52 J	-256330.56	-256330.38	-256330.18	0.0142	0.0035
Mercury	-5415-06-13 11:31 J	-256242.22	-256242.02	-256241.82	0.0142	0.0004

Mercury	-5415-09-09 19:55 J	-256153.86	-256153.67	-256153.47	0.0142	0.0028
Mercury	-5415-12-07 04:19 J	-256065.49	-256065.32	-256065.13	0.0142	0.0059
Mercury	-5414-03-05 12:57 J	-255977.11	-255976.96	-255976.81	0.0142	0.0090
Mercury	-5414-06-01 21:21 J	-255888.71	-255888.61	-255888.50	0.0141	0.0121
Mars	-5413-11-22 06:57 J	-255349.50	-255349.21	-255348.91	0.0141	0.0018
Venus	-5405-11-05 22:19 J	-252443.71	-252443.57	-252443.40	0.0137	0.0096
Venus	-5404-06-20 06:14 J	-252217.43	-252217.24	-252217.03	0.0136	0.0053
Venus	-5403-02-01 14:24 J	-251991.12	-251990.90	-251990.68	0.0136	0.0009
Venus	-5403-09-15 21:50 J	-251764.80	-251764.59	-251764.37	0.0136	0.0034
Venus	-5402-04-30 05:16 J	-251538.46	-251538.28	-251538.10	0.0136	0.0076
Venus	-5402-12-12 12:28 J	-251312.09	-251311.98	-251311.87	0.0135	0.0118
Moon	-5399-05-27 09:50 J	-250415.20	-250415.09	-250414.97	0.0134	0.0121
Earth	-5399-05-27 12:57 J	-250415.05	-250414.96	-250414.84	0.0134	0.0123 *
Earth	-5398-06-01 00:00 J	-250045.68	-250045.50	-250045.29	0.0134	0.0088
Moon	-5398-06-01 03:07 J	-250045.53	-250045.37	-250045.17	0.0134	0.0094 *
Moon	-5397-06-04 07:11 J	-249676.43	-249676.20	-249675.94	0.0134	0.0047
Earth	-5397-06-04 10:48 J	-249676.28	-249676.05	-249675.81	0.0134	0.0053 *
Earth	-5396-06-08 20:38 J	-249306.89	-249306.64	-249306.38	0.0133	0.0018
Moon	-5396-06-08 23:16 J	-249306.77	-249306.53	-249306.28	0.0133	0.0025 *
Moon	-5395-06-13 02:52 J	-248937.63	-248937.38	-248937.12	0.0133	0.0022
Earth	-5395-06-13 06:00 J	-248937.50	-248937.25	-248936.99	0.0133	0.0016 *
Earth	-5394-06-17 14:52 J	-248568.12	-248567.88	-248567.65	0.0133	0.0050
Moon	-5394-06-17 17:31 J	-248568.01	-248567.77	-248567.54	0.0133	0.0047 *
Moon	-5393-06-20 20:24 J	-248198.84	-248198.65	-248198.44	0.0133	0.0083
Earth	-5393-06-20 22:48 J	-248198.73	-248198.55	-248198.34	0.0133	0.0084 *
Earth	-5392-06-25 06:14 J	-247829.34	-247829.24	-247829.10	0.0133	0.0117
Moon	-5392-06-25 08:52 J	-247829.21	-247829.13	-247829.00	0.0133	0.0120 *
Mercury	-5372-03-14 23:45 J	-240626.53	-240626.51	-240626.47	0.0136	0.0131
Mercury	-5372-06-11 02:52 J	-240538.44	-240538.38	-240538.30	0.0136	0.0113
Mercury	-5372-09-07 06:00 J	-240450.34	-240450.25	-240450.15	0.0136	0.0095

Mercury	-5372-12-04 09:07 J	-240362.23	-240362.12	-240362.01	0.0136	0.0076
Mercury	-5371-03-02 12:00 J	-240274.11	-240274.00	-240273.88	0.0136	0.0059
Mercury	-5371-05-29 15:07 J	-240185.99	-240185.87	-240185.74	0.0136	0.0040
Mercury	-5371-08-25 18:14 J	-240097.87	-240097.74	-240097.61	0.0137	0.0022
Mercury	-5371-11-21 21:21 J	-240009.74	-240009.61	-240009.48	0.0137	0.0004
Mercury	-5370-02-18 00:14 J	-239921.62	-239921.49	-239921.36	0.0137	0.0016
Mercury	-5370-05-17 03:21 J	-239833.48	-239833.36	-239833.23	0.0137	0.0033
Mercury	-5370-08-13 06:28 J	-239745.35	-239745.23	-239745.11	0.0137	0.0052
Mercury	-5370-11-09 09:35 J	-239657.21	-239657.10	-239656.99	0.0137	0.0070
Mercury	-5369-02-05 12:28 J	-239569.07	-239568.98	-239568.88	0.0137	0.0089
Mercury	-5369-05-03 15:35 J	-239480.93	-239480.85	-239480.77	0.0137	0.0107
Mercury	-5369-07-30 18:28 J	-239392.77	-239392.73	-239392.67	0.0137	0.0126
Mars	-5369-12-29 11:02 J	-239241.31	-239241.04	-239240.73	0.0138	0.0064
Mars	-5367-12-03 12:57 J	-238537.10	-238536.96	-238536.78	0.0139	0.0121
Venus	-5361-10-31 08:38 J	-236378.20	-236378.14	-236378.04	0.0142	0.0132
Venus	-5360-06-14 18:14 J	-236151.90	-236151.74	-236151.56	0.0142	0.0084
Venus	-5359-01-27 03:50 J	-235925.54	-235925.34	-235925.13	0.0142	0.0037
Venus	-5359-09-10 13:40 J	-235699.14	-235698.93	-235698.71	0.0143	0.0012
Venus	-5358-04-24 23:16 J	-235472.71	-235472.53	-235472.32	0.0143	0.0061
Venus	-5358-12-07 09:21 J	-235246.24	-235246.11	-235245.97	0.0143	0.0109
Moon	-5356-11-21 04:48 J	-234531.36	-234531.30	-234531.18	0.0144	0.0134
Earth	-5356-11-21 08:38 J	-234531.17	-234531.14	-234531.08	0.0144	0.0141
Earth	-5355-11-26 05:16 J	-234161.45	-234161.28	-234161.09	0.0144	0.0100
Moon	-5355-11-26 08:52 J	-234161.30	-234161.13	-234160.96	0.0144	0.0107 *
Moon	-5354-11-30 23:45 J	-233791.74	-233791.51	-233791.28	0.0145	0.0056
Earth	-5354-12-01 03:21 J	-233791.59	-233791.36	-233791.13	0.0145	0.0058 *
Earth	-5353-12-05 01:40 J	-233421.68	-233421.43	-233421.18	0.0145	0.0015
Moon	-5353-12-05 05:31 J	-233421.52	-233421.27	-233421.02	0.0145	0.0013 *
Moon	-5352-12-09 21:35 J	-233051.84	-233051.60	-233051.34	0.0145	0.0024
Earth	-5352-12-10 01:11 J	-233051.70	-233051.45	-233051.20	0.0145	0.0029 *

Earth	-5351-12-15 00:43 J	-232681.68	-232681.47	-232681.24	0.0146	0.0073
Moon	-5351-12-15 04:04 J	-232681.53	-232681.33	-232681.12	0.0146	0.0081 *
Moon	-5350-12-19 22:04 J	-232311.73	-232311.58	-232311.39	0.0146	0.0110
Earth	-5350-12-20 01:11 J	-232311.58	-232311.45	-232311.28	0.0146	0.0117 *
Mercury	-5332-07-15 09:07 J	-225894.21	-225894.12	-225894.00	0.0142	0.0120
Mercury	-5332-10-11 17:45 J	-225805.91	-225805.76	-225805.60	0.0142	0.0088
Mercury	-5331-01-08 02:09 J	-225717.58	-225717.41	-225717.22	0.0142	0.0057
Mercury	-5331-04-06 10:48 J	-225629.24	-225629.05	-225628.85	0.0142	0.0026
Mercury	-5331-07-03 19:26 J	-225540.89	-225540.69	-225540.49	0.0142	0.0006
Mercury	-5331-09-30 03:50 J	-225452.53	-225452.34	-225452.15	0.0142	0.0037
Mercury	-5331-12-27 12:14 J	-225364.16	-225363.99	-225363.81	0.0142	0.0068
Mercury	-5330-03-25 20:38 J	-225275.77	-225275.64	-225275.49	0.0142	0.0099
Mercury	-5330-06-22 05:16 J	-225187.35	-225187.28	-225187.20	0.0141	0.0130
Mars	-5330-08-16 17:31 J	-225131.86	-225131.77	-225131.63	0.0141	0.0130
Mars	-5328-07-18 06:28 J	-224430.49	-224430.23	-224429.94	0.0140	0.0047
Venus	-5321-07-06 08:09 J	-221885.27	-221885.16	-221885.03	0.0137	0.0114
Venus	-5320-02-17 16:19 J	-221659.00	-221658.82	-221658.62	0.0137	0.0071
Venus	-5320-10-02 00:14 J	-221432.70	-221432.49	-221432.27	0.0136	0.0028
Venus	-5319-05-16 07:55 J	-221206.39	-221206.17	-221205.95	0.0136	0.0016
Venus	-5319-12-28 15:07 J	-220980.06	-220979.87	-220979.66	0.0136	0.0059
Venus	-5318-08-11 22:19 J	-220753.70	-220753.57	-220753.41	0.0135	0.0101
Moon	-5315-05-27 21:35 J	-219733.69	-219733.60	-219733.46	0.0134	0.0120
Earth	-5315-05-28 01:55 J	-219733.55	-219733.42	-219733.30	0.0134	0.0117 *
Earth	-5314-06-01 12:43 J	-219364.16	-219363.97	-219363.75	0.0134	0.0082
Moon	-5314-06-01 16:04 J	-219364.02	-219363.83	-219363.60	0.0134	0.0079 *
Moon	-5313-06-04 20:38 J	-218994.88	-218994.64	-218994.41	0.0134	0.0054
Earth	-5313-06-04 23:31 J	-218994.75	-218994.52	-218994.27	0.0134	0.0048 *
Earth	-5312-06-09 09:35 J	-218625.36	-218625.10	-218624.84	0.0133	0.0013
Moon	-5312-06-09 12:57 J	-218625.21	-218624.96	-218624.70	0.0133	0.0006 *
Moon	-5311-06-13 16:04 J	-218256.09	-218255.83	-218255.57	0.0133	0.0016

Earth	-5311-06-13 19:11 J	-218255.95	-218255.70	-218255.45	0.0133	0.0022 *
Earth	-5310-06-18 04:04 J	-217886.56	-217886.33	-217886.10	0.0133	0.0055
Moon	-5310-06-18 07:11 J	-217886.43	-217886.20	-217885.98	0.0133	0.0058 *
Moon	-5309-06-21 09:07 J	-217517.31	-217517.12	-217516.92	0.0133	0.0087
Earth	-5309-06-21 12:00 J	-217517.17	-217517.00	-217516.79	0.0133	0.0089 *
Earth	-5308-06-25 19:26 J	-217147.76	-217147.69	-217147.56	0.0133	0.0122
Moon	-5308-06-25 22:33 J	-217147.66	-217147.56	-217147.44	0.0133	0.0118 *
Mercury	-5288-04-04 07:55 J	-209925.22	-209925.17	-209925.12	0.0136	0.0123
Mercury	-5288-07-01 10:48 J	-209837.13	-209837.05	-209836.96	0.0136	0.0105
Mercury	-5288-09-27 13:55 J	-209749.02	-209748.92	-209748.82	0.0136	0.0087
Mercury	-5288-12-24 16:48 J	-209660.90	-209660.80	-209660.68	0.0136	0.0070
Mercury	-5287-03-22 19:55 J	-209572.78	-209572.67	-209572.54	0.0136	0.0051
Mercury	-5287-06-18 23:02 J	-209484.66	-209484.54	-209484.41	0.0136	0.0033
Mercury	-5287-09-15 02:09 J	-209396.54	-209396.41	-209396.28	0.0137	0.0014
Mercury	-5287-12-12 05:16 J	-209308.41	-209308.28	-209308.15	0.0137	0.0005
Mercury	-5286-03-10 08:09 J	-209220.28	-209220.16	-209220.03	0.0137	0.0023
Mercury	-5286-06-06 11:16 J	-209132.15	-209132.03	-209131.91	0.0137	0.0041
Mercury	-5286-09-02 14:24 J	-209044.02	-209043.90	-209043.78	0.0137	0.0059
Mercury	-5286-11-29 17:16 J	-208955.88	-208955.78	-208955.67	0.0137	0.0078
Mercury	-5285-02-25 20:24 J	-208867.74	-208867.65	-208867.55	0.0137	0.0096
Mercury	-5285-05-23 23:16 J	-208779.59	-208779.53	-208779.45	0.0137	0.0116
Mercury	-5285-08-20 02:38 J	-208691.42	-208691.39	-208691.36	0.0137	0.0134
Mars	-5284-08-25 09:21 J	-208321.43	-208321.11	-208320.79	0.0138	0.0006
Venus	-5276-02-12 05:02 J	-205593.43	-205593.29	-205593.14	0.0142	0.0103
Venus	-5276-09-26 14:38 J	-205367.09	-205366.89	-205366.69	0.0142	0.0056
Venus	-5275-05-11 00:14 J	-205140.71	-205140.49	-205140.27	0.0142	0.0007
Venus	-5275-12-23 09:50 J	-204914.29	-204914.09	-204913.88	0.0143	0.0041
Venus	-5274-08-06 19:40 J	-204687.83	-204687.68	-204687.50	0.0143	0.0090
Venus	-5273-03-20 05:45 J	-204461.29	-204461.26	-204461.20	0.0143	0.0139
Moon	-5272-11-21 21:07 J	-203849.64	-203849.62	-203849.55	0.0144	0.0142

Earth	-5272-11-22 00:00 J	-203849.57	-203849.50	-203849.39	0.0144	0.0134	*
Earth	-5271-11-26 20:52 J	-203479.81	-203479.63	-203479.43	0.0144	0.0093	
Moon	-5271-11-27 00:28 J	-203479.67	-203479.48	-203479.27	0.0144	0.0088	*
Moon	-5270-12-01 15:35 J	-203110.08	-203109.85	-203109.62	0.0145	0.0055	
Earth	-5270-12-01 18:57 J	-203109.94	-203109.71	-203109.47	0.0145	0.0051	*
Earth	-5269-12-05 17:31 J	-202740.02	-202739.77	-202739.52	0.0145	0.0008	
Moon	-5269-12-05 21:07 J	-202739.87	-202739.62	-202739.37	0.0145	0.0010	*
Moon	-5268-12-10 12:57 J	-202370.20	-202369.96	-202369.71	0.0145	0.0041	
Earth	-5268-12-10 16:48 J	-202370.04	-202369.80	-202369.56	0.0145	0.0036	*
Earth	-5267-12-15 16:19 J	-202000.02	-201999.82	-201999.60	0.0146	0.0080	
Moon	-5267-12-15 19:55 J	-201999.88	-201999.67	-201999.45	0.0146	0.0072	*
Moon	-5266-12-20 13:40 J	-201630.03	-201629.93	-201629.80	0.0146	0.0130	
Earth	-5266-12-20 17:02 J	-201629.91	-201629.79	-201629.64	0.0146	0.0123	*
Mercury	-5248-05-08 09:50 J	-195281.13	-195281.09	-195281.03	0.0142	0.0138	
Mercury	-5248-08-04 18:14 J	-195192.86	-195192.74	-195192.60	0.0142	0.0107	
Mercury	-5248-11-01 02:52 J	-195104.54	-195104.38	-195104.21	0.0142	0.0075	
Mercury	-5247-01-28 11:16 J	-195016.21	-195016.03	-195015.83	0.0142	0.0044	
Mercury	-5247-04-26 19:55 J	-194927.86	-194927.67	-194927.47	0.0142	0.0013	
Mercury	-5247-07-24 04:19 J	-194839.51	-194839.32	-194839.12	0.0142	0.0019	
Mercury	-5247-10-20 12:57 J	-194751.14	-194750.96	-194750.77	0.0142	0.0050	
Mercury	-5246-01-16 21:21 J	-194662.77	-194662.61	-194662.44	0.0142	0.0081	
Mercury	-5246-04-15 05:45 J	-194574.37	-194574.26	-194574.13	0.0142	0.0112	
Mars	-5245-04-11 01:55 J	-194212.67	-194212.42	-194212.14	0.0141	0.0061	
Mars	-5243-03-13 10:33 J	-193511.21	-193511.06	-193510.86	0.0140	0.0111	
Venus	-5237-03-05 19:11 J	-191326.73	-191326.70	-191326.62	0.0137	0.0132	
Venus	-5237-10-18 03:35 J	-191100.51	-191100.35	-191100.17	0.0137	0.0088	
Venus	-5236-06-01 11:31 J	-190874.22	-190874.02	-190873.81	0.0136	0.0045	
Venus	-5235-01-13 19:11 J	-190647.92	-190647.70	-190647.48	0.0136	0.0003	
Venus	-5235-08-28 02:38 J	-190421.59	-190421.39	-190421.17	0.0136	0.0042	
Venus	-5234-04-11 10:04 J	-190195.25	-190195.08	-190194.90	0.0136	0.0084	

Venus	-5234-11-23 17:16 J	-189968.85	-189968.78	-189968.69	0.0135	0.0126
Moon	-5231-05-28 12:00 J	-189052.13	-189052.00	-189051.83	0.0134	0.0110
Earth	-5231-05-28 15:35 J	-189051.98	-189051.85	-189051.68	0.0134	0.0111 *
Earth	-5230-06-02 03:21 J	-188682.57	-188682.36	-188682.15	0.0134	0.0075
Moon	-5230-06-02 06:43 J	-188682.42	-188682.22	-188682.01	0.0134	0.0081 *
Moon	-5229-06-05 10:04 J	-188313.32	-188313.08	-188312.82	0.0134	0.0035
Earth	-5229-06-05 13:55 J	-188313.16	-188312.92	-188312.67	0.0134	0.0041 *
Earth	-5228-06-10 00:00 J	-187943.76	-187943.50	-187943.25	0.0133	0.0007
Moon	-5228-06-10 03:07 J	-187943.62	-187943.37	-187943.12	0.0133	0.0013 *
Moon	-5227-06-14 05:31 J	-187574.51	-187574.27	-187574.00	0.0133	0.0035
Earth	-5227-06-14 09:21 J	-187574.36	-187574.11	-187573.85	0.0133	0.0028 *
Earth	-5226-06-18 18:00 J	-187204.97	-187204.75	-187204.52	0.0133	0.0061
Moon	-5226-06-18 21:07 J	-187204.84	-187204.62	-187204.38	0.0133	0.0058 *
Moon	-5225-06-21 23:02 J	-186835.71	-186835.54	-186835.35	0.0133	0.0094
Earth	-5225-06-22 01:55 J	-186835.58	-186835.42	-186835.22	0.0133	0.0095 *
Earth	-5224-06-26 09:35 J	-186466.16	-186466.10	-186466.01	0.0133	0.0127
Moon	-5224-06-26 12:57 J	-186466.00	-186465.96	-186465.89	0.0133	0.0129
Mercury	-5204-01-26 12:14 J	-179311.99	-179311.99	-179311.96	0.0136	0.0135
Mercury	-5204-04-24 15:35 J	-179223.91	-179223.85	-179223.78	0.0136	0.0116
Mercury	-5204-07-21 18:43 J	-179135.81	-179135.72	-179135.63	0.0136	0.0098
Mercury	-5204-10-17 21:35 J	-179047.70	-179047.60	-179047.49	0.0136	0.0080
Mercury	-5203-01-14 00:43 J	-178959.58	-178959.47	-178959.35	0.0136	0.0062
Mercury	-5203-04-12 03:50 J	-178871.46	-178871.34	-178871.22	0.0136	0.0044
Mercury	-5203-07-09 06:57 J	-178783.34	-178783.21	-178783.08	0.0136	0.0026
Mercury	-5203-10-05 09:50 J	-178695.22	-178695.09	-178694.96	0.0137	0.0009
Mercury	-5202-01-01 12:57 J	-178607.09	-178606.96	-178606.83	0.0137	0.0011
Mercury	-5202-03-30 16:04 J	-178518.96	-178518.83	-178518.70	0.0137	0.0030
Mercury	-5202-06-26 18:57 J	-178430.82	-178430.71	-178430.58	0.0137	0.0048
Mercury	-5202-09-22 22:04 J	-178342.69	-178342.58	-178342.46	0.0137	0.0067
Mercury	-5202-12-20 01:11 J	-178254.55	-178254.45	-178254.35	0.0137	0.0085

Mercury	-5201-03-17 04:19 J	-178166.40	-178166.32	-178166.24	0.0137	0.0103
Mars	-5201-05-17 10:04 J	-178105.27	-178105.08	-178104.85	0.0137	0.0105
Mercury	-5201-06-13 07:11 J	-178078.25	-178078.20	-178078.13	0.0137	0.0122
Mars	-5199-04-21 06:00 J	-177401.51	-177401.25	-177400.97	0.0138	0.0076
Venus	-5193-10-12 14:52 J	-175034.99	-175034.88	-175034.78	0.0142	0.0123
Venus	-5192-05-27 00:00 J	-174808.67	-174808.50	-174808.31	0.0142	0.0076
Venus	-5191-01-08 09:35 J	-174582.31	-174582.10	-174581.89	0.0142	0.0028
Venus	-5191-08-22 19:26 J	-174355.90	-174355.69	-174355.47	0.0143	0.0021
Venus	-5190-04-06 05:16 J	-174129.47	-174129.28	-174129.09	0.0143	0.0069
Venus	-5190-11-18 15:07 J	-173902.98	-173902.87	-173902.74	0.0143	0.0118
Moon	-5188-11-22 10:48 J	-173168.17	-173168.05	-173167.91	0.0144	0.0120
Earth	-5188-11-22 13:40 J	-173168.03	-173167.93	-173167.80	0.0144	0.0128 *
Earth	-5187-11-27 10:48 J	-172798.25	-172798.05	-172797.85	0.0144	0.0087
Moon	-5187-11-27 13:26 J	-172798.12	-172797.94	-172797.73	0.0144	0.0094 *
Moon	-5186-12-02 05:02 J	-172428.52	-172428.29	-172428.05	0.0145	0.0043
Earth	-5186-12-02 08:24 J	-172428.38	-172428.15	-172427.90	0.0145	0.0045 *
Earth	-5185-12-06 06:57 J	-172058.47	-172058.21	-172057.96	0.0145	0.0003
Moon	-5185-12-06 10:33 J	-172058.32	-172058.06	-172057.81	0.0145	0.0002 *
Moon	-5184-12-11 02:24 J	-171688.63	-171688.40	-171688.15	0.0145	0.0036
Earth	-5184-12-11 06:00 J	-171688.49	-171688.25	-171688.01	0.0145	0.0041 *
Earth	-5183-12-16 05:31 J	-171318.47	-171318.27	-171318.06	0.0146	0.0085
Moon	-5183-12-16 09:07 J	-171318.30	-171318.12	-171317.92	0.0146	0.0093 *
Moon	-5182-12-21 02:24 J	-170948.52	-170948.40	-170948.24	0.0146	0.0121
Earth	-5182-12-21 06:00 J	-170948.36	-170948.25	-170948.12	0.0146	0.0128 *
Mercury	-5164-05-28 17:45 J	-164579.83	-164579.76	-164579.66	0.0142	0.0128
Mercury	-5164-08-25 02:24 J	-164491.53	-164491.40	-164491.24	0.0142	0.0096
Mercury	-5164-11-21 11:02 J	-164403.21	-164403.04	-164402.86	0.0142	0.0065
Mercury	-5163-02-17 19:40 J	-164314.87	-164314.68	-164314.49	0.0142	0.0034
Mercury	-5163-05-17 04:04 J	-164226.52	-164226.33	-164226.13	0.0142	0.0003
Mercury	-5163-08-13 12:43 J	-164138.17	-164137.97	-164137.78	0.0142	0.0029

Mercury	-5163-11-09 21:07 J	-164049.80	-164049.62	-164049.44	0.0142	0.0060
Mercury	-5162-02-06 05:45 J	-163961.41	-163961.26	-163961.11	0.0142	0.0091
Mercury	-5162-05-05 14:09 J	-163873.01	-163872.91	-163872.81	0.0141	0.0122
Mars	-5161-12-05 05:16 J	-163293.58	-163293.28	-163292.99	0.0141	0.0005
Venus	-5153-06-17 13:55 J	-160542.06	-160541.92	-160541.78	0.0137	0.0106
Venus	-5152-01-29 21:50 J	-160315.78	-160315.59	-160315.39	0.0137	0.0063
Venus	-5152-09-13 05:45 J	-160089.48	-160089.26	-160089.05	0.0136	0.0019
Venus	-5151-04-27 13:11 J	-159863.16	-159862.95	-159862.73	0.0136	0.0024
Venus	-5151-12-09 20:24 J	-159636.83	-159636.65	-159636.45	0.0136	0.0067
Venus	-5150-07-24 03:50 J	-159410.46	-159410.34	-159410.20	0.0135	0.0109
Moon	-5147-05-29 00:57 J	-158370.60	-158370.46	-158370.29	0.0134	0.0107
Earth	-5147-05-29 04:48 J	-158370.45	-158370.30	-158370.13	0.0134	0.0104 *
Earth	-5146-06-02 15:50 J	-158001.04	-158000.84	-158000.60	0.0134	0.0070
Moon	-5146-06-02 19:40 J	-158000.89	-158000.68	-158000.44	0.0134	0.0066 *
Moon	-5145-06-05 23:31 J	-157631.77	-157631.52	-157631.27	0.0134	0.0042
Earth	-5145-06-06 03:07 J	-157631.62	-157631.37	-157631.12	0.0134	0.0035 *
Earth	-5144-06-10 12:57 J	-157262.21	-157261.96	-157261.70	0.0133	0.0002
Moon	-5144-06-10 16:48 J	-157262.05	-157261.80	-157261.54	0.0133	0.0007 *
Moon	-5143-06-14 18:57 J	-156892.96	-156892.71	-156892.45	0.0133	0.0027
Earth	-5143-06-14 22:33 J	-156892.81	-156892.56	-156892.31	0.0133	0.0033 *
Earth	-5142-06-19 07:11 J	-156523.42	-156523.20	-156522.97	0.0133	0.0066
Moon	-5142-06-19 10:33 J	-156523.26	-156523.06	-156522.83	0.0133	0.0070 *
Moon	-5141-06-22 11:16 J	-156154.18	-156154.03	-156153.83	0.0133	0.0098
Earth	-5141-06-22 15:21 J	-156154.03	-156153.86	-156153.69	0.0133	0.0099 *
Earth	-5140-06-26 22:19 J	-155784.57	-155784.57	-155784.51	0.0133	0.0132
Moon	-5140-06-27 01:40 J	-155784.47	-155784.43	-155784.35	0.0133	0.0129
Mercury	-5120-02-15 19:55 J	-148610.70	-148610.67	-148610.62	0.0136	0.0129
Mercury	-5120-05-14 23:02 J	-148522.61	-148522.54	-148522.46	0.0136	0.0111
Mercury	-5120-08-11 02:09 J	-148434.50	-148434.41	-148434.31	0.0136	0.0092
Mercury	-5120-11-07 05:16 J	-148346.39	-148346.28	-148346.17	0.0136	0.0074

Mercury	-5119-02-03 08:09 J	-148258.27	-148258.16	-148258.03	0.0136	0.0057
Mercury	-5119-05-02 11:16 J	-148170.15	-148170.03	-148169.90	0.0136	0.0038
Mercury	-5119-07-29 14:24 J	-148082.03	-148081.90	-148081.77	0.0136	0.0020
Mercury	-5119-10-25 17:31 J	-147993.90	-147993.77	-147993.64	0.0137	0.0002
Mercury	-5118-01-21 20:38 J	-147905.77	-147905.64	-147905.51	0.0137	0.0017
Mercury	-5118-04-19 23:31 J	-147817.64	-147817.52	-147817.39	0.0137	0.0036
Mercury	-5118-07-17 02:38 J	-147729.51	-147729.39	-147729.27	0.0137	0.0054
Mercury	-5118-10-13 05:45 J	-147641.37	-147641.26	-147641.15	0.0137	0.0072
Mercury	-5117-01-09 08:38 J	-147553.23	-147553.14	-147553.04	0.0137	0.0091
Mercury	-5117-04-06 11:45 J	-147465.08	-147465.01	-147464.93	0.0137	0.0109
Mercury	-5117-07-03 14:52 J	-147376.92	-147376.88	-147376.83	0.0137	0.0128
Mars	-5116-01-10 23:45 J	-147185.80	-147185.51	-147185.18	0.0138	0.0039
Venus	-5108-01-24 08:09 J	-144250.30	-144250.16	-144249.99	0.0142	0.0098
Venus	-5108-09-07 17:45 J	-144023.95	-144023.76	-144023.55	0.0142	0.0050
Venus	-5107-04-22 03:35 J	-143797.57	-143797.35	-143797.14	0.0142	0.0002
Venus	-5107-12-04 13:11 J	-143571.15	-143570.95	-143570.74	0.0143	0.0047
Venus	-5106-07-18 22:48 J	-143344.69	-143344.55	-143344.37	0.0143	0.0096
Jupiter	-5104-04-17 19:11 J	-142706.10	-142705.70	-142705.24	0.0144	0.0084
Moon	-5104-11-22 23:02 J	-142486.63	-142486.54	-142486.42	0.0144	0.0129
Earth	-5104-11-23 00:57 J	-142486.58	-142486.46	-142486.31	0.0144	0.0122 *
Earth	-5103-11-27 21:35 J	-142116.79	-142116.60	-142116.38	0.0144	0.0082
Moon	-5103-11-28 00:43 J	-142116.68	-142116.47	-142116.24	0.0144	0.0075 *
Moon	-5102-12-02 16:33 J	-141747.04	-141746.81	-141746.57	0.0145	0.0044
Earth	-5102-12-02 19:40 J	-141746.92	-141746.68	-141746.44	0.0145	0.0039 *
Earth	-5101-12-06 17:45 J	-141377.01	-141376.76	-141376.50	0.0145	0.0004
Moon	-5101-12-06 21:07 J	-141376.87	-141376.62	-141376.36	0.0145	0.0002 *
Moon	-5100-12-11 13:11 J	-141007.18	-141006.95	-141006.72	0.0145	0.0052
Earth	-5100-12-11 16:48 J	-141007.04	-141006.80	-141006.56	0.0145	0.0046 *
Earth	-5099-12-16 16:19 J	-140637.01	-140636.82	-140636.61	0.0146	0.0090
Moon	-5099-12-16 19:40 J	-140636.87	-140636.68	-140636.46	0.0146	0.0083 *

Moon	-5098-12-21 12:57 J	-140267.01	-140266.96	-140266.87	0.0146	0.0140
Earth	-5098-12-21 17:02 J	-140266.89	-140266.79	-140266.69	0.0146	0.0132 *
Mercury	-5080-06-18 01:40 J	-133878.52	-133878.43	-133878.31	0.0142	0.0118
Mercury	-5080-09-14 10:04 J	-133790.22	-133790.08	-133789.91	0.0142	0.0088
Mercury	-5080-12-11 18:57 J	-133701.89	-133701.71	-133701.53	0.0142	0.0056
Mercury	-5079-03-10 03:35 J	-133613.55	-133613.35	-133613.16	0.0142	0.0024
Mercury	-5079-06-06 12:00 J	-133525.20	-133525.00	-133524.80	0.0142	0.0007
Mercury	-5079-09-02 20:24 J	-133436.83	-133436.65	-133436.46	0.0142	0.0038
Mercury	-5079-11-30 04:48 J	-133348.46	-133348.30	-133348.12	0.0142	0.0070
Mercury	-5078-02-26 13:11 J	-133260.07	-133259.95	-133259.80	0.0142	0.0101
Mercury	-5078-05-25 21:50 J	-133171.65	-133171.59	-133171.51	0.0141	0.0131
Mars	-5078-08-29 15:07 J	-133076.04	-133075.87	-133075.64	0.0141	0.0105
Mars	-5076-07-31 05:45 J	-132374.51	-132374.26	-132374.00	0.0140	0.0070
Venus	-5069-02-15 23:31 J	-129983.59	-129983.52	-129983.41	0.0137	0.0126
Venus	-5069-09-29 07:55 J	-129757.34	-129757.17	-129756.99	0.0137	0.0081
Venus	-5068-05-13 15:50 J	-129531.05	-129530.84	-129530.63	0.0136	0.0038
Venus	-5068-12-25 23:31 J	-129304.74	-129304.52	-129304.30	0.0136	0.0006
Venus	-5067-08-09 06:57 J	-129078.41	-129078.21	-129078.00	0.0136	0.0049
Venus	-5066-03-23 14:38 J	-128852.05	-128851.89	-128851.73	0.0136	0.0091
Venus	-5066-11-04 21:35 J	-128625.62	-128625.60	-128625.55	0.0135	0.0134
Earth	-5064-05-25 05:31 J	-128058.30	-128058.27	-128058.21	0.0135	0.0133
Moon	-5064-05-25 09:21 J	-128058.16	-128058.11	-128058.04	0.0135	0.0131
Moon	-5063-05-29 14:38 J	-127689.06	-127688.89	-127688.71	0.0134	0.0098
Earth	-5063-05-29 17:45 J	-127688.92	-127688.76	-127688.57	0.0134	0.0098 *
Earth	-5062-06-03 05:02 J	-127319.50	-127319.29	-127319.04	0.0134	0.0064
Moon	-5062-06-03 08:52 J	-127319.34	-127319.13	-127318.90	0.0134	0.0069 *
Moon	-5061-06-06 12:28 J	-126950.23	-126949.98	-126949.73	0.0134	0.0023
Earth	-5061-06-06 16:04 J	-126950.08	-126949.83	-126949.57	0.0134	0.0029 *
Earth	-5060-06-11 02:09 J	-126580.67	-126580.41	-126580.15	0.0133	0.0005
Moon	-5060-06-11 05:45 J	-126580.52	-126580.26	-126580.00	0.0133	0.0002 *

Moon	-5059-06-15 07:40 J	-126211.41	-126211.18	-126210.93	0.0133	0.0045
Earth	-5059-06-15 11:45 J	-126211.26	-126211.01	-126210.77	0.0133	0.0039 *
Earth	-5058-06-19 19:55 J	-125841.87	-125841.67	-125841.44	0.0133	0.0072
Moon	-5058-06-19 23:16 J	-125841.73	-125841.53	-125841.29	0.0133	0.0068 *
Moon	-5057-06-23 00:28 J	-125472.62	-125472.48	-125472.31	0.0133	0.0105
Earth	-5057-06-23 04:19 J	-125472.47	-125472.32	-125472.16	0.0133	0.0104 *
Mercury	-5036-03-08 03:21 J	-117909.40	-117909.36	-117909.29	0.0136	0.0123
Mercury	-5036-06-04 06:28 J	-117821.30	-117821.23	-117821.14	0.0136	0.0105
Mercury	-5036-08-31 09:50 J	-117733.19	-117733.09	-117732.99	0.0136	0.0086
Mercury	-5036-11-27 12:43 J	-117645.08	-117644.97	-117644.85	0.0136	0.0068
Mercury	-5035-02-23 15:50 J	-117556.96	-117556.84	-117556.72	0.0136	0.0050
Mercury	-5035-05-22 18:57 J	-117468.84	-117468.71	-117468.59	0.0136	0.0032
Mercury	-5035-08-18 22:04 J	-117380.71	-117380.58	-117380.45	0.0136	0.0014
Mercury	-5035-11-15 00:57 J	-117292.59	-117292.46	-117292.33	0.0136	0.0006
Mercury	-5034-02-11 04:04 J	-117204.46	-117204.33	-117204.20	0.0137	0.0023
Mercury	-5034-05-10 06:57 J	-117116.33	-117116.21	-117116.08	0.0137	0.0042
Mercury	-5034-08-06 10:04 J	-117028.19	-117028.08	-117027.96	0.0137	0.0060
Mercury	-5034-11-02 13:12 J	-116940.05	-116939.95	-116939.84	0.0137	0.0078
Mercury	-5033-01-29 16:19 J	-116851.91	-116851.82	-116851.73	0.0137	0.0096
Mercury	-5033-04-26 19:12 J	-116763.76	-116763.70	-116763.62	0.0137	0.0115
Mercury	-5033-07-23 22:19 J	-116675.59	-116675.57	-116675.54	0.0137	0.0133
Mars	-5032-09-06 14:52 J	-116266.19	-116265.88	-116265.55	0.0138	0.0030
Venus	-5025-09-23 16:04 J	-113691.92	-113691.83	-113691.69	0.0141	0.0120
Venus	-5024-05-08 01:40 J	-113465.61	-113465.43	-113465.24	0.0142	0.0072
Venus	-5024-12-20 11:16 J	-113239.24	-113239.03	-113238.82	0.0142	0.0024
Venus	-5023-08-03 20:52 J	-113012.84	-113012.63	-113012.41	0.0142	0.0025
Venus	-5022-03-18 06:43 J	-112786.40	-112786.22	-112786.03	0.0143	0.0073
Venus	-5022-10-30 16:33 J	-112559.91	-112559.81	-112559.69	0.0143	0.0122
Moon	-5020-11-23 08:52 J	-111805.27	-111805.13	-111804.96	0.0144	0.0110
Earth	-5020-11-23 11:02 J	-111805.17	-111805.04	-111804.89	0.0144	0.0117 *

Earth	-5019-11-28 07:40 J	-111435.39	-111435.18	-111434.97	0.0144	0.0076
Moon	-5019-11-28 09:35 J	-111435.30	-111435.10	-111434.88	0.0144	0.0084 *
Moon	-5018-12-03 02:09 J	-111065.64	-111065.41	-111065.17	0.0145	0.0032
Earth	-5018-12-03 05:02 J	-111065.53	-111065.29	-111065.05	0.0145	0.0035 *
Earth	-5017-12-07 02:38 J	-110695.63	-110695.39	-110695.13	0.0145	0.0008
Moon	-5017-12-07 06:00 J	-110695.51	-110695.25	-110695.00	0.0145	0.0008 *
Moon	-5016-12-11 22:19 J	-110325.80	-110325.57	-110325.33	0.0145	0.0046
Earth	-5016-12-12 01:26 J	-110325.67	-110325.44	-110325.20	0.0145	0.0050 *
Earth	-5015-12-17 00:43 J	-109955.65	-109955.47	-109955.26	0.0146	0.0093
Moon	-5015-12-17 04:33 J	-109955.48	-109955.31	-109955.12	0.0146	0.0101 *
Moon	-5014-12-21 21:21 J	-109585.71	-109585.61	-109585.47	0.0146	0.0128
Earth	-5014-12-22 00:43 J	-109585.54	-109585.47	-109585.36	0.0146	0.0136 *

5TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 5th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-4996-07-08 07:55 J	-103177.27	-103177.17	-103177.04	0.0142	0.0115		
Mercury	-4996-10-04 16:19 J	-103088.96	-103088.82	-103088.64	0.0142	0.0084		
Mercury	-4995-01-01 01:12 J	-103000.63	-103000.45	-103000.27	0.0142	0.0052		
Mercury	-4995-03-30 09:50 J	-102912.29	-102912.09	-102911.90	0.0142	0.0020		
Mercury	-4995-06-26 18:14 J	-102823.93	-102823.74	-102823.54	0.0142	0.0011		
Mercury	-4995-09-23 02:52 J	-102735.57	-102735.38	-102735.20	0.0142	0.0042		
Mercury	-4995-12-20 11:02 J	-102647.20	-102647.04	-102646.86	0.0142	0.0074		

Mercury	-4994-03-18 19:26 J	-102558.81	-102558.69	-102558.54	0.0142	0.0105
Mercury	-4994-06-15 04:04 J	-102470.37	-102470.33	-102470.26	0.0141	0.0136
Mars	-4993-04-23 10:47 J	-102157.34	-102157.05	-102156.77	0.0141	0.0041
Mars	-4991-03-25 22:04 J	-101455.68	-101455.58	-101455.46	0.0140	0.0129
Venus	-4985-05-29 15:07 J	-99199.00	-99198.87	-99198.71	0.0137	0.0102
Venus	-4984-01-10 23:31 J	-98972.72	-98972.52	-98972.32	0.0137	0.0058
Venus	-4984-08-25 07:26 J	-98746.41	-98746.19	-98745.97	0.0136	0.0015
Venus	-4983-04-08 14:52 J	-98520.08	-98519.88	-98519.65	0.0136	0.0030
Venus	-4983-11-20 22:19 J	-98293.74	-98293.57	-98293.37	0.0136	0.0072
Venus	-4982-07-05 06:14 J	-98067.36	-98067.24	-98067.12	0.0136	0.0114
Earth	-4980-05-25 14:52 J	-97376.93	-97376.88	-97376.78	0.0135	0.0129
Moon	-4980-05-25 18:14 J	-97376.78	-97376.74	-97376.67	0.0135	0.0131 *
Jupiter	-4979-03-12 07:40 J	-97086.44	-97086.18	-97085.82	0.0135	0.0108
Moon	-4979-05-30 00:00 J	-97007.66	-97007.50	-97007.31	0.0135	0.0096
Earth	-4979-05-30 03:21 J	-97007.52	-97007.36	-97007.15	0.0135	0.0095 *
Earth	-4978-06-03 15:21 J	-96638.09	-96637.86	-96637.63	0.0134	0.0060
Moon	-4978-06-03 18:28 J	-96637.95	-96637.73	-96637.48	0.0134	0.0056 *
Moon	-4977-06-06 22:33 J	-96268.80	-96268.56	-96268.30	0.0134	0.0032
Earth	-4977-06-07 02:24 J	-96268.66	-96268.40	-96268.15	0.0134	0.0025 *
Earth	-4976-06-11 12:28 J	-95899.24	-95898.98	-95898.73	0.0134	0.0009
Moon	-4976-06-11 16:04 J	-95899.08	-95898.83	-95898.57	0.0134	0.0016 *
Moon	-4975-06-15 18:14 J	-95529.98	-95529.74	-95529.49	0.0133	0.0036
Earth	-4975-06-15 21:50 J	-95529.83	-95529.59	-95529.34	0.0133	0.0043 *
Earth	-4974-06-20 06:28 J	-95160.44	-95160.23	-95160.01	0.0133	0.0075
Moon	-4974-06-20 10:04 J	-95160.27	-95160.08	-95159.86	0.0133	0.0080 *
Moon	-4973-06-23 11:02 J	-94791.19	-94791.04	-94790.88	0.0133	0.0105
Earth	-4973-06-23 14:24 J	-94791.03	-94790.90	-94790.73	0.0133	0.0108 *
Mercury	-4953-12-30 07:55 J	-87296.17	-87296.17	-87296.15	0.0136	0.0135
Mercury	-4952-03-28 11:02 J	-87208.10	-87208.04	-87207.97	0.0136	0.0117
Mercury	-4952-06-24 14:09 J	-87120.00	-87119.91	-87119.82	0.0136	0.0099

Mercury	-4952-09-20 17:02 J	-87031.88	-87031.79	-87031.68	0.0136	0.0081
Mercury	-4952-12-17 20:09 J	-86943.77	-86943.66	-86943.54	0.0136	0.0063
Mercury	-4951-03-15 23:16 J	-86855.65	-86855.53	-86855.40	0.0136	0.0045
Mercury	-4951-06-12 02:24 J	-86767.53	-86767.40	-86767.27	0.0136	0.0026
Mercury	-4951-09-08 05:31 J	-86679.40	-86679.27	-86679.14	0.0136	0.0008
Mercury	-4951-12-05 08:24 J	-86591.27	-86591.15	-86591.01	0.0136	0.0012
Mercury	-4950-03-03 11:31 J	-86503.14	-86503.02	-86502.89	0.0137	0.0029
Mercury	-4950-05-30 14:38 J	-86415.01	-86414.89	-86414.77	0.0137	0.0047
Mercury	-4950-08-26 17:45 J	-86326.88	-86326.76	-86326.65	0.0137	0.0065
Mercury	-4950-11-22 20:38 J	-86238.74	-86238.64	-86238.53	0.0137	0.0084
Mercury	-4949-02-18 23:45 J	-86150.59	-86150.51	-86150.42	0.0137	0.0102
Mercury	-4949-05-17 02:52 J	-86062.44	-86062.38	-86062.32	0.0137	0.0120
Mars	-4949-05-29 13:26 J	-86050.19	-86049.94	-86049.68	0.0137	0.0081
Mars	-4947-05-03 07:12 J	-85346.43	-85346.20	-85345.97	0.0138	0.0098
Venus	-4941-05-24 00:28 J	-83133.49	-83133.48	-83133.43	0.0141	0.0140
Venus	-4940-01-05 10:04 J	-82907.24	-82907.08	-82906.91	0.0141	0.0093
Venus	-4940-08-19 19:26 J	-82680.89	-82680.69	-82680.48	0.0142	0.0046
Venus	-4939-04-03 05:02 J	-82454.50	-82454.29	-82454.07	0.0142	0.0004
Venus	-4939-11-15 14:38 J	-82228.09	-82227.89	-82227.68	0.0142	0.0051
Venus	-4938-06-30 00:28 J	-82001.63	-82001.48	-82001.32	0.0143	0.0100
Moon	-4936-11-23 20:38 J	-81123.75	-81123.64	-81123.49	0.0144	0.0120
Earth	-4936-11-23 21:50 J	-81123.74	-81123.59	-81123.42	0.0144	0.0112 *
Earth	-4935-11-28 18:00 J	-80753.96	-80753.75	-80753.52	0.0144	0.0072
Moon	-4935-11-28 20:09 J	-80753.88	-80753.66	-80753.42	0.0144	0.0065 *
Moon	-4934-12-03 12:57 J	-80384.19	-80383.96	-80383.71	0.0145	0.0036
Earth	-4934-12-03 15:07 J	-80384.11	-80383.87	-80383.62	0.0145	0.0030 *
Earth	-4933-12-07 12:57 J	-80014.21	-80013.96	-80013.71	0.0145	0.0012
Moon	-4933-12-07 15:35 J	-80014.10	-80013.85	-80013.59	0.0145	0.0011 *
Moon	-4932-12-12 08:09 J	-79644.38	-79644.16	-79643.92	0.0145	0.0059
Earth	-4932-12-12 11:16 J	-79644.25	-79644.03	-79643.79	0.0145	0.0054 *

Earth	-4931-12-17 10:33 J	-79274.24	-79274.06	-79273.86	0.0145	0.0097
Moon	-4931-12-17 13:40 J	-79274.12	-79273.93	-79273.72	0.0145	0.0090 *
Earth	-4930-12-22 10:19 J	-78904.12	-78904.07	-78903.97	0.0146	0.0139
Mercury	-4912-05-01 06:00 J	-72564.26	-72564.25	-72564.20	0.0143	0.0141
Mercury	-4912-07-28 14:52 J	-72476.00	-72475.88	-72475.75	0.0142	0.0109
Mercury	-4912-10-24 23:16 J	-72387.69	-72387.53	-72387.36	0.0142	0.0078
Mercury	-4911-01-21 07:55 J	-72299.35	-72299.17	-72298.98	0.0142	0.0046
Mercury	-4911-04-19 16:33 J	-72211.01	-72210.81	-72210.62	0.0142	0.0015
Mercury	-4911-07-17 00:57 J	-72122.65	-72122.46	-72122.26	0.0142	0.0016
Mercury	-4911-10-13 09:21 J	-72034.29	-72034.11	-72033.92	0.0142	0.0048
Mercury	-4910-01-09 17:45 J	-71945.91	-71945.76	-71945.58	0.0142	0.0079
Mercury	-4910-04-08 02:24 J	-71857.52	-71857.40	-71857.27	0.0142	0.0110
Mercury	-4910-07-05 10:47 J	-71769.05	-71769.05	-71769.02	0.0141	0.0141
Mars	-4909-12-17 08:24 J	-71238.44	-71238.15	-71237.86	0.0141	0.0021
Venus	-4901-01-27 22:47 J	-68640.63	-68640.55	-68640.44	0.0137	0.0123
Venus	-4901-09-10 07:12 J	-68414.37	-68414.20	-68414.02	0.0137	0.0079
Venus	-4900-04-24 15:21 J	-68188.07	-68187.86	-68187.65	0.0137	0.0035
Venus	-4900-12-06 23:02 J	-67961.76	-67961.54	-67961.32	0.0136	0.0009
Venus	-4899-07-21 06:43 J	-67735.42	-67735.22	-67735.01	0.0136	0.0052
Venus	-4898-03-04 14:24 J	-67509.04	-67508.90	-67508.73	0.0136	0.0095
Jupiter	-4896-01-27 11:45 J	-66814.17	-66814.01	-66813.75	0.0135	0.0123
Earth	-4896-05-26 00:57 J	-66695.55	-66695.46	-66695.35	0.0135	0.0124
Moon	-4896-05-26 04:19 J	-66695.43	-66695.32	-66695.20	0.0135	0.0121 *
Moon	-4895-05-30 10:19 J	-66326.23	-66326.07	-66325.86	0.0135	0.0091
Earth	-4895-05-30 13:26 J	-66326.12	-66325.94	-66325.74	0.0135	0.0090 *
Earth	-4894-06-04 00:57 J	-65956.68	-65956.46	-65956.21	0.0134	0.0056
Moon	-4894-06-04 04:33 J	-65956.54	-65956.31	-65956.07	0.0134	0.0060 *
Moon	-4893-06-07 08:52 J	-65587.38	-65587.13	-65586.87	0.0134	0.0015
Earth	-4893-06-07 12:14 J	-65587.24	-65586.99	-65586.73	0.0134	0.0021 *
Earth	-4892-06-11 22:19 J	-65217.82	-65217.57	-65217.31	0.0134	0.0014

Moon	-4892-06-12 01:55 J	-65217.68	-65217.42	-65217.16	0.0134	0.0007 *
Moon	-4891-06-16 04:19 J	-64848.55	-64848.32	-64848.08	0.0133	0.0054
Earth	-4891-06-16 07:55 J	-64848.40	-64848.17	-64847.92	0.0133	0.0047 *
Earth	-4890-06-20 16:47 J	-64479.00	-64478.80	-64478.59	0.0133	0.0080
Moon	-4890-06-20 20:09 J	-64478.87	-64478.66	-64478.44	0.0133	0.0074 *
Moon	-4889-06-23 21:21 J	-64109.73	-64109.61	-64109.46	0.0133	0.0113
Earth	-4889-06-24 00:43 J	-64109.58	-64109.47	-64109.31	0.0133	0.0112 *
Mercury	-4868-01-19 15:36 J	-56594.88	-56594.85	-56594.81	0.0136	0.0129
Mercury	-4868-04-17 18:43 J	-56506.79	-56506.72	-56506.64	0.0136	0.0111
Mercury	-4868-07-14 21:36 J	-56418.68	-56418.60	-56418.50	0.0136	0.0093
Mercury	-4868-10-11 00:43 J	-56330.57	-56330.47	-56330.35	0.0136	0.0075
Mercury	-4867-01-07 03:50 J	-56242.45	-56242.34	-56242.22	0.0136	0.0057
Mercury	-4867-04-05 06:57 J	-56154.33	-56154.21	-56154.08	0.0136	0.0038
Mercury	-4867-07-02 10:04 J	-56066.21	-56066.08	-56065.95	0.0136	0.0020
Mercury	-4867-09-28 12:57 J	-55978.09	-55977.96	-55977.82	0.0136	0.0005
Mercury	-4867-12-25 16:04 J	-55889.96	-55889.83	-55889.70	0.0136	0.0016
Mercury	-4866-03-23 19:12 J	-55801.83	-55801.70	-55801.58	0.0137	0.0035
Mercury	-4866-06-19 22:19 J	-55713.69	-55713.57	-55713.45	0.0137	0.0053
Mercury	-4866-09-16 01:12 J	-55625.56	-55625.45	-55625.34	0.0137	0.0071
Mercury	-4866-12-13 04:04 J	-55537.42	-55537.33	-55537.22	0.0137	0.0090
Mercury	-4865-03-10 07:12 J	-55449.27	-55449.20	-55449.11	0.0137	0.0108
Mercury	-4865-06-06 10:19 J	-55361.11	-55361.07	-55361.02	0.0137	0.0127
Mars	-4864-01-23 04:04 J	-55130.64	-55130.33	-55130.00	0.0137	0.0015
Venus	-4857-09-04 19:40 J	-52348.81	-52348.68	-52348.55	0.0141	0.0113
Venus	-4856-04-19 04:47 J	-52122.48	-52122.30	-52122.10	0.0142	0.0066
Venus	-4856-12-01 14:23 J	-51896.11	-51895.90	-51895.69	0.0142	0.0018
Venus	-4855-07-15 23:45 J	-51669.71	-51669.51	-51669.29	0.0142	0.0031
Venus	-4854-02-27 09:21 J	-51443.27	-51443.11	-51442.92	0.0142	0.0080
Venus	-4854-10-11 19:26 J	-51216.77	-51216.69	-51216.59	0.0143	0.0128
Moon	-4852-11-24 09:36 J	-50442.27	-50442.10	-50441.92	0.0144	0.0100

Earth	-4852-11-24 10:33 J	-50442.22	-50442.06	-50441.89	0.0144	0.0107	*
Earth	-4851-11-29 06:43 J	-50072.44	-50072.22	-50072.00	0.0144	0.0066	
Moon	-4851-11-29 07:26 J	-50072.40	-50072.19	-50071.95	0.0144	0.0074	*
Moon	-4850-12-04 01:40 J	-49702.66	-49702.43	-49702.18	0.0144	0.0022	
Earth	-4850-12-04 03:36 J	-49702.60	-49702.35	-49702.10	0.0144	0.0026	*
Earth	-4849-12-08 00:57 J	-49332.71	-49332.46	-49332.21	0.0145	0.0016	
Moon	-4849-12-08 03:21 J	-49332.62	-49332.36	-49332.10	0.0145	0.0016	*
Moon	-4848-12-12 20:52 J	-48962.85	-48962.63	-48962.39	0.0145	0.0055	
Earth	-4848-12-12 23:31 J	-48962.75	-48962.52	-48962.29	0.0145	0.0058	*
Earth	-4847-12-17 22:19 J	-48592.74	-48592.57	-48592.38	0.0145	0.0101	
Moon	-4847-12-18 01:55 J	-48592.59	-48592.42	-48592.25	0.0145	0.0108	*
Moon	-4846-12-22 19:12 J	-48222.79	-48222.70	-48222.61	0.0146	0.0135	
Earth	-4846-12-22 22:04 J	-48222.61	-48222.58	-48222.52	0.0146	0.0143	*
Mercury	-4828-05-21 13:12 J	-41863.01	-41862.95	-41862.89	0.0142	0.0135	
Mercury	-4828-08-17 21:36 J	-41774.73	-41774.60	-41774.46	0.0142	0.0104	
Mercury	-4828-11-14 06:00 J	-41686.41	-41686.25	-41686.08	0.0142	0.0073	
Mercury	-4827-02-10 14:38 J	-41598.08	-41597.89	-41597.70	0.0142	0.0041	
Mercury	-4827-05-09 23:16 J	-41509.73	-41509.53	-41509.34	0.0142	0.0010	
Mercury	-4827-08-06 07:40 J	-41421.37	-41421.18	-41420.99	0.0142	0.0021	
Mercury	-4827-11-02 16:04 J	-41333.01	-41332.83	-41332.64	0.0142	0.0053	
Mercury	-4826-01-30 00:28 J	-41244.63	-41244.48	-41244.31	0.0142	0.0084	
Mercury	-4826-04-28 08:52 J	-41156.23	-41156.13	-41156.00	0.0142	0.0115	
Mars	-4826-09-10 10:33 J	-41021.27	-41021.06	-41020.83	0.0141	0.0093	
Mars	-4824-08-12 02:23 J	-40319.63	-40319.40	-40319.15	0.0140	0.0081	
Venus	-4817-05-10 14:38 J	-37856.04	-37855.89	-37855.74	0.0137	0.0101	
Venus	-4817-12-22 22:19 J	-37629.76	-37629.57	-37629.36	0.0137	0.0057	
Venus	-4816-08-06 06:43 J	-37403.44	-37403.22	-37403.00	0.0137	0.0013	
Venus	-4815-03-20 14:23 J	-37177.10	-37176.90	-37176.68	0.0136	0.0032	
Venus	-4815-11-01 22:19 J	-36950.75	-36950.57	-36950.38	0.0136	0.0074	
Venus	-4814-06-16 05:45 J	-36724.36	-36724.26	-36724.14	0.0136	0.0117	

Earth	-4812-05-26 09:21 J	-36014.21	-36014.11	-36013.98	0.0135	0.0120
Moon	-4812-05-26 12:00 J	-36014.10	-36014.00	-36013.89	0.0135	0.0123 *
Moon	-4811-05-30 19:26 J	-35644.88	-35644.69	-35644.49	0.0135	0.0086
Earth	-4811-05-30 22:04 J	-35644.77	-35644.58	-35644.37	0.0135	0.0086 *
Earth	-4810-06-04 09:50 J	-35275.32	-35275.09	-35274.85	0.0134	0.0051
Moon	-4810-06-04 12:43 J	-35275.21	-35274.97	-35274.72	0.0134	0.0048 *
Moon	-4809-06-07 18:00 J	-34905.99	-34905.75	-34905.49	0.0134	0.0023
Earth	-4809-06-07 21:07 J	-34905.88	-34905.62	-34905.36	0.0134	0.0017 *
Earth	-4808-06-12 07:26 J	-34536.45	-34536.19	-34535.93	0.0134	0.0017
Moon	-4808-06-12 10:47 J	-34536.31	-34536.05	-34535.79	0.0134	0.0024 *
Moon	-4807-06-16 13:55 J	-34167.15	-34166.92	-34166.67	0.0134	0.0044
Earth	-4807-06-16 16:47 J	-34167.03	-34166.80	-34166.55	0.0134	0.0051 *
Earth	-4806-06-21 01:40 J	-33797.61	-33797.43	-33797.21	0.0133	0.0083
Moon	-4806-06-21 05:16 J	-33797.46	-33797.28	-33797.07	0.0133	0.0088 *
Moon	-4805-06-24 06:57 J	-33428.32	-33428.21	-33428.05	0.0133	0.0112
Earth	-4805-06-24 10:19 J	-33428.18	-33428.07	-33427.92	0.0133	0.0116 *
Mercury	-4784-02-08 23:16 J	-25893.58	-25893.53	-25893.48	0.0136	0.0123
Mercury	-4784-05-08 02:23 J	-25805.48	-25805.40	-25805.32	0.0136	0.0105
Mercury	-4784-08-04 05:16 J	-25717.37	-25717.28	-25717.18	0.0136	0.0087
Mercury	-4784-10-31 08:23 J	-25629.26	-25629.15	-25629.04	0.0136	0.0069
Mercury	-4783-01-27 11:16 J	-25541.14	-25541.03	-25540.90	0.0136	0.0052
Mercury	-4783-04-25 14:23 J	-25453.02	-25452.90	-25452.77	0.0136	0.0033
Mercury	-4783-07-22 17:31 J	-25364.90	-25364.77	-25364.64	0.0136	0.0015
Mercury	-4783-10-18 20:38 J	-25276.77	-25276.64	-25276.51	0.0136	0.0004
Mercury	-4782-01-14 23:31 J	-25188.64	-25188.52	-25188.39	0.0137	0.0023
Mercury	-4782-04-13 02:38 J	-25100.51	-25100.39	-25100.26	0.0137	0.0040
Mercury	-4782-07-10 05:45 J	-25012.38	-25012.26	-25012.14	0.0137	0.0059
Mercury	-4782-10-06 08:38 J	-24924.24	-24924.14	-24924.03	0.0137	0.0077
Mars	-4782-10-16 07:55 J	-24914.29	-24914.17	-24914.01	0.0137	0.0123
Mercury	-4781-01-02 11:45 J	-24836.10	-24836.01	-24835.91	0.0137	0.0095

Mercury	-4781-03-30 14:38 J	-24747.95	-24747.89	-24747.81	0.0137	0.0114
Mercury	-4781-06-26 17:45 J	-24659.78	-24659.76	-24659.72	0.0137	0.0132
Mars	-4780-09-18 20:09 J	-24210.95	-24210.66	-24210.35	0.0138	0.0052
Venus	-4773-05-05 04:48 J	-21790.35	-21790.30	-21790.21	0.0141	0.0133
Venus	-4773-12-17 14:23 J	-21564.07	-21563.90	-21563.73	0.0141	0.0086
Venus	-4772-07-31 23:31 J	-21337.71	-21337.52	-21337.30	0.0142	0.0039
Venus	-4771-03-15 09:21 J	-21111.32	-21111.11	-21110.89	0.0142	0.0010
Venus	-4771-10-27 18:57 J	-20884.90	-20884.71	-20884.51	0.0142	0.0058
Venus	-4770-06-11 04:19 J	-20658.44	-20658.32	-20658.16	0.0143	0.0108
Moon	-4769-11-20 04:04 J	-20130.40	-20130.33	-20130.23	0.0143	0.0134
Earth	-4769-11-20 04:33 J	-20130.36	-20130.31	-20130.26	0.0143	0.0140 *
Earth	-4768-11-24 23:31 J	-19760.69	-19760.52	-19760.33	0.0144	0.0101
Moon	-4768-11-24 23:31 J	-19760.66	-19760.52	-19760.35	0.0144	0.0108 *
Earth	-4767-11-29 19:26 J	-19390.90	-19390.69	-19390.45	0.0144	0.0061
Moon	-4767-11-29 20:38 J	-19390.88	-19390.64	-19390.40	0.0144	0.0054 *
Moon	-4766-12-04 15:21 J	-19021.10	-19020.86	-19020.62	0.0144	0.0025
Earth	-4766-12-04 16:33 J	-19021.06	-19020.81	-19020.56	0.0144	0.0020 *
Earth	-4765-12-08 13:55 J	-18651.16	-18650.92	-18650.67	0.0145	0.0022
Moon	-4765-12-08 15:36 J	-18651.10	-18650.85	-18650.58	0.0145	0.0023 *
Moon	-4764-12-13 10:04 J	-18281.30	-18281.08	-18280.86	0.0145	0.0067
Earth	-4764-12-13 12:14 J	-18281.21	-18280.99	-18280.75	0.0145	0.0064 *
Earth	-4763-12-18 11:02 J	-17911.19	-17911.04	-17910.85	0.0145	0.0107
Moon	-4763-12-18 13:40 J	-17911.10	-17910.93	-17910.73	0.0145	0.0100 *
Mercury	-4744-06-10 21:07 J	-11161.71	-11161.62	-11161.53	0.0142	0.0126
Mercury	-4744-09-07 05:31 J	-11073.41	-11073.27	-11073.12	0.0142	0.0095
Mercury	-4744-12-04 13:55 J	-10985.09	-10984.92	-10984.74	0.0142	0.0064
Mercury	-4743-03-02 22:33 J	-10896.75	-10896.56	-10896.37	0.0142	0.0032
Mercury	-4743-05-30 06:57 J	-10808.40	-10808.21	-10808.01	0.0142	0.0002
Mercury	-4743-08-26 15:35 J	-10720.05	-10719.85	-10719.66	0.0142	0.0030
Mercury	-4743-11-23 00:00 J	-10631.68	-10631.50	-10631.32	0.0142	0.0061

Mercury	-4742-02-19 08:09 J	-10543.29	-10543.16	-10543.00	0.0142	0.0093
Mercury	-4742-05-18 16:33 J	-10454.89	-10454.81	-10454.70	0.0142	0.0124
Mars	-4741-05-05 13:26 J	-10102.22	-10101.94	-10101.64	0.0141	0.0028
Venus	-4733-01-08 23:16 J	-7297.62	-7297.53	-7297.42	0.0137	0.0121
Venus	-4733-08-22 07:40 J	-7071.36	-7071.18	-7071.00	0.0137	0.0076
Venus	-4732-04-05 15:35 J	-6845.05	-6844.85	-6844.63	0.0137	0.0033
Venus	-4732-11-17 23:45 J	-6618.73	-6618.51	-6618.29	0.0136	0.0011
Venus	-4731-07-02 07:26 J	-6392.39	-6392.19	-6391.98	0.0136	0.0055
Venus	-4730-02-13 15:07 J	-6166.01	-6165.87	-6165.71	0.0136	0.0098
Earth	-4728-05-26 20:09 J	-5332.77	-5332.66	-5332.50	0.0135	0.0115
Moon	-4728-05-26 22:33 J	-5332.69	-5332.56	-5332.39	0.0135	0.0111 *
Moon	-4727-05-31 06:57 J	-4963.40	-4963.21	-4963.00	0.0135	0.0082
Earth	-4727-05-31 08:38 J	-4963.33	-4963.14	-4962.91	0.0135	0.0081 *
Earth	-4726-06-04 20:24 J	-4593.88	-4593.65	-4593.39	0.0134	0.0047
Moon	-4726-06-04 23:16 J	-4593.77	-4593.53	-4593.28	0.0134	0.0049 *
Moon	-4725-06-08 05:16 J	-4224.53	-4224.28	-4224.03	0.0134	0.0007
Earth	-4725-06-08 07:55 J	-4224.43	-4224.17	-4223.92	0.0134	0.0012 *
Earth	-4724-06-12 18:00 J	-3855.00	-3854.75	-3854.49	0.0134	0.0022
Moon	-4724-06-12 20:52 J	-3854.90	-3854.63	-3854.37	0.0134	0.0015 *
Moon	-4723-06-17 00:28 J	-3485.69	-3485.48	-3485.25	0.0134	0.0062
Earth	-4723-06-17 03:36 J	-3485.58	-3485.35	-3485.11	0.0134	0.0055 *
Earth	-4722-06-21 12:43 J	-3116.16	-3115.97	-3115.77	0.0133	0.0087
Moon	-4722-06-21 15:36 J	-3116.05	-3115.85	-3115.64	0.0133	0.0082 *
Moon	-4721-06-24 17:45 J	-2746.83	-2746.76	-2746.63	0.0133	0.0122
Earth	-4721-06-24 21:21 J	-2746.71	-2746.61	-2746.49	0.0133	0.0119 *
Mercury	-4701-12-03 03:50 J	4719.66	4719.66	4719.66	0.0136	0.0136
Mercury	-4700-03-01 06:43 J	4807.72	4807.78	4807.85	0.0136	0.0118
Mercury	-4700-05-28 09:35 J	4895.82	4895.90	4896.00	0.0136	0.0100
Mercury	-4700-08-24 12:43 J	4983.93	4984.03	4984.14	0.0136	0.0082
Mercury	-4700-11-20 15:50 J	5072.05	5072.16	5072.28	0.0136	0.0064

Mercury	-4699-02-16 18:57 J	5160.17	5160.29	5160.41	0.0136	0.0045
Mercury	-4699-05-15 22:04 J	5248.29	5248.42	5248.55	0.0136	0.0027
Mercury	-4699-08-12 00:57 J	5336.41	5336.54	5336.67	0.0136	0.0010
Mercury	-4699-11-08 04:04 J	5424.54	5424.67	5424.80	0.0137	0.0009
Mercury	-4698-02-04 07:12 J	5512.67	5512.80	5512.93	0.0137	0.0027
Mercury	-4698-05-03 10:04 J	5600.80	5600.92	5601.05	0.0137	0.0046
Mercury	-4698-07-30 13:12 J	5688.94	5689.05	5689.17	0.0137	0.0064
Mercury	-4698-10-26 16:19 J	5777.08	5777.18	5777.28	0.0137	0.0082
Mercury	-4697-01-22 19:12 J	5865.22	5865.30	5865.39	0.0137	0.0101
Mercury	-4697-04-19 22:19 J	5953.37	5953.43	5953.50	0.0137	0.0119
Mars	-4697-06-10 19:55 J	6005.05	6005.33	6005.63	0.0137	0.0059
Mars	-4695-05-15 11:45 J	6708.85	6708.99	6709.18	0.0138	0.0119
Venus	-4689-08-16 23:45 J	8994.36	8994.49	8994.64	0.0141	0.0106
Venus	-4688-03-31 09:07 J	9220.69	9220.88	9221.08	0.0142	0.0059
Venus	-4688-11-12 18:28 J	9447.06	9447.27	9447.49	0.0142	0.0011
Venus	-4687-06-27 04:04 J	9673.46	9673.67	9673.88	0.0142	0.0038
Venus	-4686-02-08 13:26 J	9899.91	9900.06	9900.25	0.0142	0.0087
Venus	-4686-09-22 23:31 J	10126.43	10126.48	10126.56	0.0143	0.0135
Moon	-4685-11-20 15:35 J	10551.11	10551.15	10551.25	0.0143	0.0138
Earth	-4685-11-20 17:16 J	10551.14	10551.22	10551.32	0.0143	0.0134 *
Moon	-4684-11-25 12:28 J	10920.84	10921.02	10921.22	0.0144	0.0089
Earth	-4684-11-25 12:28 J	10920.84	10921.02	10921.22	0.0144	0.0095 *
Moon	-4683-11-30 08:24 J	11290.62	11290.85	11291.09	0.0144	0.0062
Earth	-4683-11-30 08:24 J	11290.63	11290.85	11291.09	0.0144	0.0055 *
Moon	-4682-12-05 04:33 J	11660.45	11660.69	11660.94	0.0144	0.0010
Earth	-4682-12-05 05:16 J	11660.48	11660.72	11660.98	0.0144	0.0015 *
Earth	-4681-12-09 02:52 J	12030.38	12030.62	12030.87	0.0145	0.0027
Moon	-4681-12-09 04:19 J	12030.43	12030.68	12030.94	0.0145	0.0026 *
Moon	-4680-12-13 23:31 J	12400.28	12400.48	12400.71	0.0145	0.0067
Earth	-4680-12-14 01:11 J	12400.34	12400.55	12400.78	0.0145	0.0069 *

Earth	-4679-12-19 00:00 J	12770.36	12770.50	12770.68	0.0145	0.0112
Moon	-4679-12-19 03:07 J	12770.48	12770.63	12770.78	0.0145	0.0118 *
Moon	-4678-12-23 21:35 J	13140.40	13140.40	13140.43	0.0145	0.0145
Mercury	-4660-07-01 05:02 J	19539.60	19539.71	19539.82	0.0142	0.0117
Mercury	-4660-09-27 13:26 J	19627.90	19628.06	19628.21	0.0142	0.0086
Mercury	-4660-12-24 21:50 J	19716.23	19716.41	19716.59	0.0142	0.0055
Mercury	-4659-03-23 06:14 J	19804.57	19804.76	19804.96	0.0142	0.0024
Mercury	-4659-06-19 14:52 J	19892.92	19893.12	19893.31	0.0142	0.0008
Mercury	-4659-09-15 23:16 J	19981.28	19981.47	19981.66	0.0142	0.0039
Mercury	-4659-12-13 07:40 J	20069.65	20069.82	20070.00	0.0142	0.0070
Mars	-4658-01-27 18:43 J	20115.27	20115.28	20115.34	0.0142	0.0141
Mercury	-4658-03-11 16:04 J	20158.04	20158.17	20158.32	0.0142	0.0101
Mercury	-4658-06-08 00:28 J	20246.46	20246.52	20246.60	0.0141	0.0132
Mars	-4657-12-29 14:23 J	20816.82	20817.10	20817.39	0.0141	0.0035
Venus	-4649-04-21 16:04 J	23487.03	23487.17	23487.34	0.0137	0.0097
Venus	-4649-12-04 00:14 J	23713.32	23713.51	23713.72	0.0137	0.0053
Venus	-4648-07-18 08:23 J	23939.64	23939.85	23940.07	0.0137	0.0009
Venus	-4647-03-01 16:19 J	24165.98	24166.18	24166.40	0.0136	0.0036
Venus	-4647-10-14 00:14 J	24392.33	24392.51	24392.69	0.0136	0.0078
Venus	-4646-05-28 07:40 J	24618.73	24618.82	24618.93	0.0136	0.0121
Earth	-4644-05-27 06:28 J	25348.63	25348.77	25348.93	0.0135	0.0109
Moon	-4644-05-27 07:11 J	25348.69	25348.80	25348.97	0.0135	0.0114 *
Moon	-4643-05-31 17:02 J	25718.01	25718.21	25718.42	0.0135	0.0075
Earth	-4643-05-31 18:43 J	25718.08	25718.28	25718.51	0.0135	0.0076 *
Earth	-4642-06-05 06:28 J	26087.53	26087.77	26088.02	0.0134	0.0041
Moon	-4642-06-05 08:23 J	26087.60	26087.85	26088.11	0.0134	0.0039 *
Moon	-4641-06-08 15:36 J	26456.90	26457.15	26457.40	0.0134	0.0012
Earth	-4641-06-08 17:45 J	26456.98	26457.24	26457.50	0.0134	0.0007 *
Earth	-4640-06-13 03:50 J	26826.41	26826.66	26826.92	0.0134	0.0026
Moon	-4640-06-13 06:28 J	26826.52	26826.77	26827.03	0.0134	0.0033 *

Moon	-4639-06-17 11:16 J	27195.75	27195.97	27196.21	0.0133	0.0053
Earth	-4639-06-17 13:11 J	27195.84	27196.05	27196.30	0.0133	0.0060 *
Earth	-4638-06-21 22:33 J	27565.27	27565.44	27565.64	0.0133	0.0092
Moon	-4638-06-22 01:26 J	27565.39	27565.56	27565.76	0.0133	0.0097 *
Moon	-4637-06-25 05:02 J	27934.61	27934.71	27934.82	0.0133	0.0119
Earth	-4637-06-25 07:26 J	27934.73	27934.81	27934.91	0.0133	0.0123 *
Saturn	-4635-07-19 21:50 J	28688.84	28689.41	28690.02	0.0133	0.0047
Mercury	-4617-12-23 11:02 J	35420.93	35420.96	35420.99	0.0136	0.0131
Mercury	-4616-03-21 13:40 J	35509.02	35509.07	35509.16	0.0136	0.0114
Mercury	-4616-06-17 17:02 J	35597.12	35597.21	35597.30	0.0136	0.0095
Mercury	-4616-09-13 20:09 J	35685.23	35685.34	35685.45	0.0136	0.0077
Mercury	-4616-12-10 23:02 J	35773.35	35773.46	35773.58	0.0136	0.0060
Mercury	-4615-03-09 02:09 J	35861.47	35861.59	35861.72	0.0136	0.0041
Mercury	-4615-06-05 05:16 J	35949.59	35949.72	35949.85	0.0136	0.0023
Mercury	-4615-09-01 08:23 J	36037.72	36037.85	36037.98	0.0137	0.0005
Mercury	-4615-11-28 11:16 J	36125.84	36125.97	36126.10	0.0137	0.0014
Mercury	-4614-02-24 14:23 J	36213.98	36214.10	36214.23	0.0137	0.0032
Mercury	-4614-05-23 17:31 J	36302.11	36302.23	36302.35	0.0137	0.0050
Mercury	-4614-08-19 20:23 J	36390.24	36390.35	36390.47	0.0137	0.0069
Mercury	-4614-11-15 23:31 J	36478.38	36478.48	36478.58	0.0137	0.0087
Mercury	-4613-02-12 02:23 J	36566.53	36566.60	36566.69	0.0137	0.0106
Mercury	-4613-05-10 05:45 J	36654.68	36654.74	36654.79	0.0137	0.0124
Mars	-4612-02-04 06:00 J	36924.43	36924.75	36925.08	0.0138	0.0005
Venus	-4605-04-16 07:55 J	39552.75	39552.83	39552.92	0.0141	0.0128
Venus	-4605-11-28 17:02 J	39779.04	39779.21	39779.39	0.0141	0.0081
Venus	-4604-07-13 02:23 J	40005.40	40005.60	40005.82	0.0142	0.0034
Venus	-4603-02-24 12:00 J	40231.79	40232.00	40232.22	0.0142	0.0015
Venus	-4603-10-08 21:36 J	40458.21	40458.40	40458.60	0.0142	0.0063
Venus	-4602-05-23 07:26 J	40684.68	40684.81	40684.94	0.0143	0.0112
Moon	-4601-11-21 02:38 J	41232.49	41232.61	41232.75	0.0143	0.0124

Earth	-4601-11-21 03:36 J	41232.56	41232.65	41232.78	0.0143	0.0129	*
Earth	-4600-11-25 22:47 J	41602.28	41602.45	41602.67	0.0144	0.0090	
Moon	-4600-11-26 00:28 J	41602.34	41602.52	41602.70	0.0144	0.0096	*
Moon	-4599-11-30 18:43 J	41972.05	41972.28	41972.54	0.0144	0.0043	
Earth	-4599-11-30 18:57 J	41972.07	41972.29	41972.54	0.0144	0.0051	*
Earth	-4598-12-05 16:04 J	42341.92	42342.17	42342.42	0.0144	0.0009	
Moon	-4598-12-05 16:04 J	42341.93	42342.17	42342.41	0.0144	0.0015	*
Earth	-4597-12-09 13:26 J	42711.83	42712.06	42712.32	0.0145	0.0033	
Moon	-4597-12-09 14:09 J	42711.84	42712.09	42712.35	0.0145	0.0034	*
Moon	-4596-12-14 10:33 J	43081.74	43081.94	43082.16	0.0145	0.0077	
Earth	-4596-12-14 12:00 J	43081.79	43082.00	43082.23	0.0145	0.0074	*
Earth	-4595-12-19 10:47 J	43451.82	43451.95	43452.12	0.0145	0.0117	
Moon	-4595-12-19 12:28 J	43451.87	43452.02	43452.20	0.0145	0.0110	*
Mercury	-4576-04-24 03:50 J	50152.64	50152.66	50152.72	0.0142	0.0139	
Mercury	-4576-07-21 12:14 J	50240.90	50241.01	50241.15	0.0142	0.0109	
Mercury	-4576-10-17 20:52 J	50329.22	50329.37	50329.55	0.0142	0.0077	
Mercury	-4575-01-14 05:31 J	50417.55	50417.73	50417.92	0.0142	0.0046	
Mercury	-4575-04-12 14:09 J	50505.89	50506.09	50506.28	0.0142	0.0015	
Mercury	-4575-07-09 22:33 J	50594.25	50594.44	50594.64	0.0142	0.0016	
Mercury	-4575-10-06 06:57 J	50682.61	50682.79	50682.98	0.0142	0.0048	
Mercury	-4574-01-02 15:21 J	50770.98	50771.14	50771.31	0.0142	0.0079	
Mercury	-4574-03-31 23:45 J	50859.38	50859.49	50859.62	0.0142	0.0110	
Mercury	-4574-06-28 08:09 J	50947.83	50947.84	50947.88	0.0141	0.0140	
Mars	-4574-09-22 22:04 J	51034.18	51034.42	51034.69	0.0141	0.0075	
Mars	-4572-08-24 13:55 J	51735.89	51736.08	51736.31	0.0140	0.0098	
Venus	-4566-12-21 01:26 J	54045.46	54045.56	54045.69	0.0137	0.0117	
Venus	-4565-08-03 09:50 J	54271.73	54271.91	54272.10	0.0137	0.0072	
Venus	-4564-03-17 18:14 J	54498.04	54498.26	54498.47	0.0137	0.0028	
Venus	-4564-10-30 02:09 J	54724.37	54724.59	54724.81	0.0136	0.0016	
Venus	-4563-06-13 09:36 J	54950.71	54950.90	54951.11	0.0136	0.0059	

Venus	-4562-01-25 17:16 J	55177.09	55177.22	55177.37	0.0136	0.0102
Earth	-4560-05-27 17:16 J	56030.08	56030.22	56030.41	0.0135	0.0104
Moon	-4560-05-27 18:43 J	56030.11	56030.28	56030.47	0.0135	0.0099 *
Moon	-4559-06-01 05:02 J	56399.51	56399.71	56399.93	0.0135	0.0073
Earth	-4559-06-01 05:45 J	56399.53	56399.74	56399.97	0.0135	0.0070 *
Earth	-4558-06-05 17:31 J	56768.99	56769.23	56769.49	0.0134	0.0036
Moon	-4558-06-05 18:57 J	56769.05	56769.29	56769.56	0.0134	0.0038 *
Moon	-4557-06-09 03:07 J	57138.38	57138.63	57138.88	0.0134	0.0002
Earth	-4557-06-09 04:47 J	57138.44	57138.70	57138.95	0.0134	0.0003 *
Earth	-4556-06-13 14:52 J	57507.87	57508.12	57508.37	0.0134	0.0031
Moon	-4556-06-13 16:33 J	57507.93	57508.19	57508.45	0.0134	0.0025 *
Moon	-4555-06-17 22:19 J	57877.23	57877.43	57877.65	0.0133	0.0071
Earth	-4555-06-18 00:28 J	57877.30	57877.52	57877.75	0.0133	0.0064 *
Earth	-4554-06-22 09:36 J	58246.74	58246.90	58247.09	0.0133	0.0097
Moon	-4554-06-22 11:16 J	58246.80	58246.97	58247.19	0.0133	0.0091 *
Moon	-4553-06-25 15:50 J	58616.14	58616.16	58616.22	0.0133	0.0131
Earth	-4553-06-25 18:14 J	58616.21	58616.26	58616.35	0.0133	0.0128 *
Mercury	-4532-01-12 17:45 J	66122.21	66122.24	66122.30	0.0136	0.0128
Mercury	-4532-04-10 21:07 J	66210.31	66210.38	66210.46	0.0136	0.0109
Mercury	-4532-07-08 00:14 J	66298.41	66298.51	66298.61	0.0136	0.0091
Mercury	-4532-10-04 03:07 J	66386.53	66386.63	66386.75	0.0136	0.0074
Mercury	-4532-12-31 06:14 J	66474.64	66474.76	66474.88	0.0136	0.0055
Mercury	-4531-03-29 09:21 J	66562.76	66562.89	66563.02	0.0136	0.0037
Mercury	-4531-06-25 12:28 J	66650.89	66651.02	66651.15	0.0136	0.0019
Mercury	-4531-09-21 15:21 J	66739.01	66739.14	66739.28	0.0136	0.0005
Mercury	-4531-12-18 18:28 J	66827.14	66827.27	66827.40	0.0137	0.0018
Mercury	-4530-03-16 21:35 J	66915.27	66915.40	66915.52	0.0137	0.0036
Mercury	-4530-06-13 00:28 J	67003.41	67003.52	67003.64	0.0137	0.0054
Mercury	-4530-09-09 03:35 J	67091.54	67091.65	67091.76	0.0137	0.0072
Mars	-4530-10-28 04:47 J	67140.52	67140.70	67140.93	0.0137	0.0105

Mercury	-4530-12-06 06:28 J	67179.68	67179.77	67179.88	0.0137	0.0091
Mercury	-4529-03-03 09:35 J	67267.83	67267.90	67267.98	0.0137	0.0109
Mercury	-4529-05-30 12:43 J	67355.99	67356.03	67356.08	0.0137	0.0127
Mars	-4528-09-30 15:07 J	67843.86	67844.13	67844.42	0.0138	0.0069
Venus	-4521-07-29 00:14 J	70337.38	70337.51	70337.67	0.0141	0.0104
Venus	-4520-03-12 09:35 J	70563.71	70563.90	70564.10	0.0142	0.0057
Venus	-4520-10-24 18:57 J	70790.08	70790.29	70790.51	0.0142	0.0009
Venus	-4519-06-08 04:19 J	71016.48	71016.68	71016.89	0.0142	0.0040
Venus	-4518-01-20 13:40 J	71242.92	71243.07	71243.25	0.0142	0.0089
Venus	-4518-09-03 23:45 J	71469.44	71469.49	71469.55	0.0143	0.0137
Moon	-4517-11-21 10:33 J	71913.83	71913.94	71914.07	0.0143	0.0126
Earth	-4517-11-21 12:57 J	71913.92	71914.04	71914.17	0.0143	0.0124 *
Earth	-4516-11-26 08:09 J	72283.64	72283.84	72284.04	0.0144	0.0085
Moon	-4516-11-26 09:21 J	72283.70	72283.89	72284.10	0.0144	0.0079 *
Moon	-4515-12-01 02:24 J	72653.37	72653.60	72653.85	0.0144	0.0053
Earth	-4515-12-01 03:50 J	72653.43	72653.66	72653.91	0.0144	0.0045 *
Earth	-4514-12-06 00:43 J	73023.28	73023.53	73023.78	0.0144	0.0005
Moon	-4514-12-06 01:26 J	73023.32	73023.56	73023.80	0.0144	0.0002 *
Moon	-4513-12-09 22:19 J	73393.19	73393.43	73393.69	0.0145	0.0035
Earth	-4513-12-09 22:19 J	73393.19	73393.43	73393.68	0.0145	0.0037 *
Moon	-4512-12-14 20:38 J	73763.15	73763.36	73763.56	0.0145	0.0077
Earth	-4512-12-14 20:52 J	73763.16	73763.37	73763.58	0.0145	0.0078 *
Earth	-4511-12-19 19:55 J	74133.20	74133.33	74133.48	0.0145	0.0120
Moon	-4511-12-19 21:21 J	74133.27	74133.39	74133.53	0.0145	0.0125 *
Mercury	-4492-05-14 10:19 J	80853.89	80853.93	80854.01	0.0142	0.0135
Mercury	-4492-08-10 18:57 J	80942.17	80942.29	80942.43	0.0142	0.0103
Mercury	-4492-11-07 03:21 J	81030.48	81030.64	81030.82	0.0142	0.0073
Mercury	-4491-02-03 12:00 J	81118.82	81119.00	81119.19	0.0142	0.0041
Mercury	-4491-05-02 20:38 J	81207.16	81207.36	81207.55	0.0142	0.0010
Mercury	-4491-07-30 05:02 J	81295.52	81295.71	81295.90	0.0142	0.0021

Mercury	-4491-10-26 13:26 J	81383.88	81384.06	81384.25	0.0142	0.0052
Mercury	-4490-01-22 21:50 J	81472.26	81472.41	81472.57	0.0142	0.0083
Mercury	-4490-04-21 06:14 J	81560.65	81560.76	81560.88	0.0142	0.0114
Mars	-4489-05-17 18:57 J	81952.99	81953.29	81953.58	0.0141	0.0012
Venus	-4481-04-02 17:31 J	84830.07	84830.23	84830.39	0.0137	0.0093
Venus	-4481-11-15 01:40 J	85056.37	85056.57	85056.78	0.0137	0.0049
Venus	-4480-06-29 09:50 J	85282.69	85282.91	85283.13	0.0137	0.0006
Venus	-4479-02-10 17:45 J	85509.03	85509.24	85509.45	0.0136	0.0039
Venus	-4479-09-25 01:12 J	85735.38	85735.55	85735.73	0.0136	0.0082
Venus	-4478-05-09 08:38 J	85961.79	85961.86	85961.96	0.0136	0.0125
Moon	-4477-05-23 13:12 J	86341.98	86342.05	86342.14	0.0135	0.0127
Earth	-4477-05-23 12:57 J	86342.02	86342.04	86342.10	0.0135	0.0134 *
Moon	-4476-05-28 01:40 J	86711.42	86711.57	86711.76	0.0135	0.0105
Earth	-4476-05-28 02:09 J	86711.43	86711.59	86711.77	0.0135	0.0100 *
Moon	-4475-06-01 13:55 J	87080.87	87081.08	87081.31	0.0135	0.0064
Earth	-4475-06-01 14:24 J	87080.89	87081.10	87081.34	0.0135	0.0066 *
Earth	-4474-06-06 02:09 J	87450.35	87450.59	87450.85	0.0134	0.0033
Moon	-4474-06-06 02:52 J	87450.37	87450.62	87450.89	0.0134	0.0031 *
Moon	-4473-06-09 12:43 J	87819.78	87820.03	87820.27	0.0134	0.0003
Earth	-4473-06-09 13:26 J	87819.80	87820.06	87820.32	0.0134	0.0002 *
Earth	-4472-06-13 23:45 J	88189.25	88189.49	88189.74	0.0134	0.0035
Moon	-4472-06-14 00:57 J	88189.30	88189.54	88189.81	0.0134	0.0042 *
Moon	-4471-06-18 08:24 J	88558.64	88558.85	88559.08	0.0133	0.0062
Earth	-4471-06-18 09:35 J	88558.68	88558.90	88559.13	0.0133	0.0068 *
Earth	-4470-06-22 18:43 J	88928.13	88928.28	88928.46	0.0133	0.0100
Moon	-4470-06-22 20:38 J	88928.21	88928.36	88928.54	0.0133	0.0106 *
Moon	-4469-06-26 02:09 J	89297.53	89297.59	89297.68	0.0133	0.0127
Earth	-4469-06-26 03:50 J	89297.63	89297.66	89297.70	0.0133	0.0131 *
Mercury	-4448-02-02 00:57 J	96823.50	96823.54	96823.60	0.0136	0.0124
Mercury	-4448-05-01 04:04 J	96911.60	96911.67	96911.76	0.0136	0.0106

Mercury	-4448-07-28 07:12 J	96999.70	96999.80	96999.90	0.0136	0.0088
Mercury	-4448-10-24 10:04 J	97087.82	97087.92	97088.04	0.0136	0.0070
Mercury	-4447-01-20 13:12 J	97175.94	97176.05	97176.18	0.0136	0.0052
Mercury	-4447-04-18 16:19 J	97264.06	97264.18	97264.31	0.0136	0.0034
Mercury	-4447-07-15 19:26 J	97352.18	97352.31	97352.44	0.0136	0.0015
Mercury	-4447-10-11 22:33 J	97440.31	97440.44	97440.57	0.0136	0.0003
Mercury	-4446-01-08 01:26 J	97528.44	97528.56	97528.69	0.0137	0.0022
Mercury	-4446-04-06 04:33 J	97616.57	97616.69	97616.82	0.0137	0.0039
Mercury	-4446-07-03 07:26 J	97704.70	97704.81	97704.94	0.0137	0.0058
Mercury	-4446-09-29 10:33 J	97792.84	97792.94	97793.05	0.0137	0.0076
Mercury	-4446-12-26 13:40 J	97880.98	97881.07	97881.17	0.0137	0.0094
Mercury	-4445-03-23 16:47 J	97969.13	97969.20	97969.27	0.0137	0.0112
Mercury	-4445-06-19 19:40 J	98057.29	98057.32	98057.36	0.0137	0.0131
Mars	-4445-06-22 10:04 J	98059.62	98059.92	98060.22	0.0137	0.0043
Mars	-4443-05-27 00:14 J	98763.46	98763.51	98763.61	0.0138	0.0134
Venus	-4437-03-28 07:12 J	100895.71	100895.80	100895.90	0.0141	0.0127
Venus	-4437-11-09 16:04 J	101122.00	101122.17	101122.36	0.0141	0.0080
Venus	-4436-06-24 01:26 J	101348.35	101348.56	101348.77	0.0142	0.0033
Venus	-4435-02-05 10:47 J	101574.74	101574.95	101575.16	0.0142	0.0015
Venus	-4435-09-19 20:09 J	101801.16	101801.34	101801.54	0.0142	0.0064
Venus	-4434-05-04 05:45 J	102027.62	102027.74	102027.88	0.0142	0.0113
Moon	-4433-11-21 18:14 J	102595.13	102595.26	102595.43	0.0143	0.0117
Earth	-4433-11-21 20:52 J	102595.24	102595.37	102595.51	0.0143	0.0120 *
Earth	-4432-11-26 15:50 J	102964.96	102965.16	102965.37	0.0144	0.0081
Moon	-4432-11-26 18:14 J	102965.07	102965.26	102965.46	0.0144	0.0087 *
Moon	-4431-12-01 10:04 J	103334.67	103334.92	103335.17	0.0144	0.0034
Earth	-4431-12-01 11:45 J	103334.75	103334.99	103335.23	0.0144	0.0041 *
Earth	-4430-12-06 08:24 J	103704.60	103704.85	103705.10	0.0144	0.0001
Moon	-4430-12-06 09:35 J	103704.66	103704.90	103705.14	0.0144	0.0007 *
Moon	-4429-12-10 05:02 J	104074.46	104074.71	104074.96	0.0145	0.0044

Earth	-4429-12-10 05:45 J	104074.51	104074.74	104074.99	0.0145	0.0041	*
Earth	-4428-12-15 03:50 J	104444.47	104444.66	104444.89	0.0145	0.0082	
Moon	-4428-12-15 04:04 J	104444.48	104444.67	104444.87	0.0145	0.0083	*
Moon	-4427-12-20 02:52 J	104814.49	104814.62	104814.79	0.0145	0.0119	
Earth	-4427-12-20 02:38 J	104814.50	104814.61	104814.77	0.0145	0.0123	*
Mercury	-4408-06-03 16:19 J	111555.12	111555.18	111555.27	0.0142	0.0132	
Mercury	-4408-08-31 00:57 J	111643.41	111643.54	111643.68	0.0142	0.0101	
Mercury	-4408-11-27 09:21 J	111731.73	111731.89	111732.07	0.0142	0.0070	
Mercury	-4407-02-23 18:00 J	111820.06	111820.25	111820.44	0.0142	0.0038	
Mercury	-4407-05-23 02:24 J	111908.41	111908.60	111908.80	0.0142	0.0008	
Mercury	-4407-08-19 10:47 J	111996.76	111996.95	111997.15	0.0142	0.0024	
Mercury	-4407-11-15 19:12 J	112085.13	112085.30	112085.49	0.0142	0.0055	
Mars	-4406-02-08 14:09 J	112169.98	112170.09	112170.24	0.0142	0.0127	
Mercury	-4406-02-12 03:35 J	112173.51	112173.65	112173.82	0.0142	0.0086	
Mercury	-4406-05-11 12:00 J	112261.91	112262.00	112262.13	0.0142	0.0117	
Mars	-4404-01-10 13:26 J	112871.78	112872.06	112872.33	0.0141	0.0048	
Venus	-4398-12-02 00:00 J	115388.40	115388.50	115388.63	0.0137	0.0116	
Venus	-4397-07-15 08:24 J	115614.67	115614.85	115615.05	0.0137	0.0071	
Venus	-4396-02-26 16:47 J	115840.99	115841.20	115841.42	0.0137	0.0027	
Venus	-4396-10-11 00:43 J	116067.32	116067.53	116067.75	0.0137	0.0018	
Venus	-4395-05-25 08:38 J	116293.66	116293.86	116294.06	0.0136	0.0061	
Venus	-4394-01-06 15:50 J	116520.04	116520.16	116520.32	0.0136	0.0104	
Earth	-4393-05-23 20:38 J	117023.31	117023.36	117023.45	0.0136	0.0130	
Moon	-4392-05-28 09:35 J	117392.72	117392.90	117393.11	0.0135	0.0090	
Earth	-4392-05-28 09:50 J	117392.75	117392.91	117393.11	0.0135	0.0096	*
Earth	-4391-06-01 22:33 J	117762.22	117762.44	117762.68	0.0135	0.0062	
Moon	-4391-06-01 23:02 J	117762.26	117762.46	117762.69	0.0135	0.0066	*
Moon	-4390-06-06 10:33 J	118131.68	118131.94	118132.21	0.0134	0.0028	
Earth	-4390-06-06 10:19 J	118131.69	118131.93	118132.20	0.0134	0.0029	*
Moon	-4389-06-09 21:35 J	118501.15	118501.40	118501.65	0.0134	0.0009	

Earth	-4389-06-09 21:50 J	118501.15	118501.41	118501.67	0.0134	0.0006	*
Earth	-4388-06-14 08:09 J	118870.60	118870.84	118871.09	0.0134	0.0039	
Moon	-4388-06-14 08:24 J	118870.60	118870.85	118871.12	0.0134	0.0034	*
Moon	-4387-06-18 17:16 J	119240.03	119240.22	119240.43	0.0134	0.0079	
Earth	-4387-06-18 18:14 J	119240.05	119240.26	119240.49	0.0134	0.0072	*
Earth	-4386-06-23 03:50 J	119609.51	119609.66	119609.83	0.0133	0.0104	
Moon	-4386-06-23 04:33 J	119609.51	119609.69	119609.88	0.0133	0.0097	*
Mercury	-4364-02-22 08:09 J	127524.79	127524.84	127524.91	0.0136	0.0120	
Mercury	-4364-05-21 11:16 J	127612.89	127612.97	127613.06	0.0136	0.0102	
Mercury	-4364-08-17 14:24 J	127701.00	127701.10	127701.20	0.0136	0.0084	
Mercury	-4364-11-13 17:16 J	127789.11	127789.22	127789.34	0.0136	0.0066	
Mercury	-4363-02-09 20:24 J	127877.23	127877.35	127877.48	0.0136	0.0048	
Mercury	-4363-05-08 23:31 J	127965.35	127965.48	127965.61	0.0136	0.0030	
Mercury	-4363-08-05 02:38 J	128053.48	128053.61	128053.74	0.0136	0.0012	
Mercury	-4363-11-01 05:31 J	128141.60	128141.73	128141.87	0.0136	0.0009	
Mercury	-4362-01-28 08:38 J	128229.73	128229.86	128229.99	0.0137	0.0025	
Mercury	-4362-04-26 11:45 J	128317.87	128317.99	128318.11	0.0137	0.0043	
Mercury	-4362-07-23 14:38 J	128406.00	128406.11	128406.23	0.0137	0.0062	
Mercury	-4362-10-19 17:45 J	128494.14	128494.24	128494.35	0.0137	0.0080	
Mercury	-4361-01-15 20:52 J	128582.28	128582.37	128582.46	0.0137	0.0098	
Mercury	-4361-04-13 00:00 J	128670.43	128670.50	128670.57	0.0137	0.0116	
Mercury	-4361-07-10 02:52 J	128758.61	128758.62	128758.65	0.0137	0.0135	
Mars	-4360-02-15 18:00 J	128978.94	128979.25	128979.57	0.0137	0.0021	
Venus	-4353-07-09 23:45 J	131680.35	131680.49	131680.64	0.0141	0.0102	
Venus	-4352-02-21 08:38 J	131906.67	131906.86	131907.07	0.0141	0.0056	
Venus	-4352-10-05 18:14 J	132133.04	132133.26	132133.47	0.0142	0.0007	
Venus	-4351-05-20 03:21 J	132359.44	132359.64	132359.85	0.0142	0.0041	
Venus	-4350-01-01 12:57 J	132585.88	132586.04	132586.21	0.0142	0.0089	
Venus	-4350-08-15 22:19 J	132812.40	132812.43	132812.50	0.0143	0.0139	
Moon	-4349-11-22 02:52 J	133276.49	133276.62	133276.78	0.0143	0.0116	

Earth	-4349-11-22 06:14 J	133276.63	133276.76	133276.92	0.0143	0.0115	*
Earth	-4348-11-27 01:11 J	133646.35	133646.55	133646.77	0.0143	0.0077	
Moon	-4348-11-27 03:35 J	133646.45	133646.65	133646.87	0.0143	0.0071	*
Moon	-4347-12-01 18:14 J	134016.03	134016.26	134016.52	0.0144	0.0045	
Earth	-4347-12-01 21:07 J	134016.14	134016.38	134016.62	0.0144	0.0037	*
Earth	-4346-12-06 17:45 J	134385.99	134386.24	134386.49	0.0144	0.0003	
Moon	-4346-12-06 19:40 J	134386.08	134386.32	134386.56	0.0144	0.0010	*
Moon	-4345-12-10 13:40 J	134755.83	134756.07	134756.33	0.0144	0.0041	
Earth	-4345-12-10 14:52 J	134755.90	134756.12	134756.37	0.0144	0.0045	*
Earth	-4344-12-15 13:11 J	135125.85	135126.05	135126.26	0.0145	0.0085	
Moon	-4344-12-15 14:09 J	135125.90	135126.09	135126.29	0.0145	0.0086	*
Earth	-4343-12-20 11:45 J	135495.88	135495.99	135496.13	0.0145	0.0126	
Moon	-4343-12-20 12:00 J	135495.90	135496.00	135496.12	0.0145	0.0130	*
Mercury	-4324-06-23 22:19 J	142256.36	142256.43	142256.52	0.0142	0.0129	
Mercury	-4324-09-20 06:43 J	142344.65	142344.78	142344.93	0.0142	0.0098	
Mercury	-4324-12-17 15:21 J	142432.97	142433.14	142433.31	0.0142	0.0067	
Mercury	-4323-03-15 23:45 J	142521.30	142521.49	142521.68	0.0142	0.0036	
Mercury	-4323-06-12 08:24 J	142609.65	142609.85	142610.04	0.0142	0.0006	
Mercury	-4323-09-08 16:48 J	142698.00	142698.20	142698.39	0.0142	0.0026	
Mercury	-4323-12-06 00:57 J	142786.37	142786.54	142786.73	0.0142	0.0057	
Mercury	-4322-03-04 09:21 J	142874.75	142874.89	142875.06	0.0142	0.0088	
Mercury	-4322-05-31 17:45 J	142963.15	142963.24	142963.36	0.0142	0.0119	
Mars	-4322-10-04 10:04 J	143088.66	143088.92	143089.19	0.0141	0.0066	
Mars	-4320-09-05 03:50 J	143790.49	143790.66	143790.87	0.0140	0.0107	
Venus	-4313-03-14 14:24 J	146172.95	146173.10	146173.27	0.0137	0.0095	
Venus	-4313-10-26 22:33 J	146399.25	146399.44	146399.66	0.0137	0.0050	
Venus	-4312-06-10 06:57 J	146625.57	146625.79	146626.01	0.0137	0.0006	
Venus	-4311-01-22 14:38 J	146851.90	146852.11	146852.33	0.0136	0.0038	
Venus	-4311-09-05 22:33 J	147078.26	147078.44	147078.61	0.0136	0.0082	
Venus	-4310-04-20 05:45 J	147304.67	147304.74	147304.84	0.0136	0.0125	

Earth	-4309-05-24 02:24 J	147704.54	147704.60	147704.72	0.0136	0.0127
Moon	-4309-05-24 04:04 J	147704.57	147704.67	147704.80	0.0136	0.0120 *
Moon	-4308-05-28 13:55 J	148073.93	148074.08	148074.29	0.0135	0.0100
Earth	-4308-05-28 16:04 J	148073.99	148074.17	148074.37	0.0135	0.0092 *
Earth	-4307-06-02 04:48 J	148443.48	148443.70	148443.94	0.0135	0.0059
Moon	-4307-06-02 05:31 J	148443.52	148443.73	148443.97	0.0135	0.0056 *
Moon	-4306-06-06 16:04 J	148812.92	148813.17	148813.44	0.0134	0.0026
Earth	-4306-06-06 17:16 J	148812.96	148813.22	148813.47	0.0134	0.0025 *
Earth	-4305-06-10 04:19 J	149182.43	149182.68	149182.94	0.0134	0.0010
Moon	-4305-06-10 05:02 J	149182.47	149182.71	149182.96	0.0134	0.0007 *
Moon	-4304-06-14 14:52 J	149551.89	149552.12	149552.39	0.0134	0.0048
Earth	-4304-06-14 15:07 J	149551.89	149552.13	149552.38	0.0134	0.0042 *
Earth	-4303-06-19 01:26 J	149921.36	149921.56	149921.78	0.0134	0.0075
Moon	-4303-06-19 01:40 J	149921.37	149921.57	149921.80	0.0134	0.0069 *
Earth	-4302-06-23 11:02 J	150290.82	150290.96	150291.13	0.0133	0.0107
Moon	-4302-06-23 11:16 J	150290.85	150290.97	150291.14	0.0133	0.0113 *
Moon	-4301-06-26 20:09 J	150660.33	150660.34	150660.37	0.0133	0.0133
Mercury	-4281-12-16 12:28 J	158138.00	158138.02	158138.03	0.0136	0.0134
Mercury	-4280-03-14 15:21 J	158226.08	158226.14	158226.21	0.0136	0.0116
Mercury	-4280-06-10 18:28 J	158314.18	158314.27	158314.36	0.0136	0.0098
Mercury	-4280-09-06 21:35 J	158402.29	158402.40	158402.50	0.0136	0.0080
Mercury	-4280-12-04 00:28 J	158490.41	158490.52	158490.64	0.0136	0.0062
Mercury	-4279-03-02 03:35 J	158578.53	158578.65	158578.78	0.0136	0.0044
Mercury	-4279-05-29 06:43 J	158666.65	158666.78	158666.91	0.0136	0.0026
Mercury	-4279-08-25 09:50 J	158754.78	158754.91	158755.04	0.0136	0.0008
Mercury	-4279-11-21 12:43 J	158842.90	158843.03	158843.16	0.0136	0.0012
Mercury	-4278-02-17 15:50 J	158931.03	158931.16	158931.29	0.0137	0.0029
Mercury	-4278-05-16 18:43 J	159019.17	159019.28	159019.41	0.0137	0.0048
Mercury	-4278-08-12 21:50 J	159107.30	159107.41	159107.53	0.0137	0.0066
Mars	-4278-11-08 18:57 J	159195.06	159195.29	159195.55	0.0137	0.0088

Mercury	-4278-11-09 00:57 J	159195.44	159195.54	159195.65	0.0137	0.0084 *
Mercury	-4277-02-05 04:04 J	159283.59	159283.67	159283.76	0.0137	0.0102
Mercury	-4277-05-03 07:11 J	159371.74	159371.80	159371.86	0.0137	0.0121
Mars	-4276-10-12 05:02 J	159898.46	159898.71	159898.96	0.0138	0.0085
Venus	-4269-03-09 07:40 J	162238.73	162238.82	162238.93	0.0141	0.0124
Venus	-4269-10-21 16:33 J	162465.03	162465.19	162465.39	0.0141	0.0078
Venus	-4268-06-05 01:55 J	162691.37	162691.58	162691.80	0.0141	0.0030
Venus	-4267-01-17 11:16 J	162917.76	162917.97	162918.18	0.0142	0.0019
Venus	-4267-08-31 20:38 J	163144.18	163144.36	163144.56	0.0142	0.0067
Venus	-4266-04-15 06:14 J	163370.64	163370.76	163370.89	0.0142	0.0116
Moon	-4265-11-22 13:55 J	163957.93	163958.08	163958.26	0.0143	0.0108
Earth	-4265-11-22 17:02 J	163958.06	163958.21	163958.38	0.0143	0.0110 *
Earth	-4264-11-27 11:45 J	164327.79	164327.99	164328.22	0.0143	0.0072
Moon	-4264-11-27 14:52 J	164327.93	164328.12	164328.34	0.0143	0.0078 *
Moon	-4263-12-02 05:02 J	164697.46	164697.71	164697.97	0.0144	0.0026
Earth	-4263-12-02 07:40 J	164697.59	164697.82	164698.07	0.0144	0.0033 *
Earth	-4262-12-07 04:33 J	165067.44	165067.69	165067.94	0.0144	0.0008
Moon	-4262-12-07 06:43 J	165067.54	165067.78	165068.03	0.0144	0.0002 *
Moon	-4261-12-10 23:31 J	165437.25	165437.48	165437.73	0.0144	0.0054
Earth	-4261-12-11 01:40 J	165437.34	165437.57	165437.81	0.0144	0.0049 *
Earth	-4260-12-15 23:31 J	165807.30	165807.48	165807.69	0.0145	0.0090
Moon	-4260-12-16 00:43 J	165807.35	165807.53	165807.73	0.0145	0.0090 *
Moon	-4259-12-20 21:07 J	166177.26	166177.38	166177.51	0.0145	0.0126
Earth	-4259-12-20 22:04 J	166177.33	166177.42	166177.55	0.0145	0.0130 *
Mercury	-4240-07-14 05:02 J	172957.62	172957.71	172957.80	0.0142	0.0125
Mercury	-4240-10-10 13:11 J	173045.92	173046.05	173046.21	0.0142	0.0094
Mercury	-4239-01-06 21:35 J	173134.24	173134.40	173134.59	0.0142	0.0063
Mercury	-4239-04-05 06:14 J	173222.57	173222.76	173222.96	0.0142	0.0032
Mercury	-4239-07-02 14:52 J	173310.92	173311.12	173311.31	0.0142	0.0003
Mercury	-4239-09-28 23:16 J	173399.28	173399.47	173399.66	0.0142	0.0030

Mercury	-4239-12-26 07:40 J	173487.64	173487.82	173488.00	0.0142	0.0061
Mercury	-4238-03-24 16:04 J	173576.02	173576.17	173576.32	0.0142	0.0092
Mercury	-4238-06-21 00:28 J	173664.43	173664.52	173664.62	0.0141	0.0123
Mars	-4237-05-29 06:57 J	174007.50	174007.79	174008.09	0.0141	0.0004
Venus	-4230-11-12 21:21 J	176731.28	176731.39	176731.51	0.0137	0.0117
Venus	-4229-06-26 05:31 J	176957.56	176957.73	176957.93	0.0137	0.0072
Venus	-4228-02-07 13:55 J	177183.87	177184.08	177184.30	0.0137	0.0028
Venus	-4228-09-21 21:50 J	177410.20	177410.41	177410.64	0.0137	0.0017
Venus	-4227-05-06 05:31 J	177636.54	177636.73	177636.94	0.0136	0.0061
Venus	-4227-12-18 13:11 J	177862.92	177863.05	177863.20	0.0136	0.0104
Earth	-4225-05-24 10:33 J	178385.83	178385.94	178386.05	0.0136	0.0122
Moon	-4225-05-24 12:57 J	178385.98	178386.04	178386.12	0.0136	0.0129 *
Moon	-4224-05-28 21:50 J	178755.22	178755.41	178755.64	0.0135	0.0083
Earth	-4224-05-29 00:00 J	178755.31	178755.50	178755.70	0.0135	0.0088 *
Earth	-4223-06-02 12:43 J	179124.81	179125.03	179125.28	0.0135	0.0055
Moon	-4223-06-02 14:38 J	179124.90	179125.11	179125.35	0.0135	0.0060 *
Moon	-4222-06-06 23:31 J	179494.22	179494.48	179494.75	0.0134	0.0019
Earth	-4222-06-07 01:11 J	179494.30	179494.55	179494.81	0.0134	0.0021 *
Earth	-4221-06-10 12:43 J	179863.77	179864.03	179864.29	0.0134	0.0013
Moon	-4221-06-10 13:55 J	179863.83	179864.08	179864.33	0.0134	0.0015 *
Moon	-4220-06-14 22:04 J	180233.18	180233.42	180233.69	0.0134	0.0042
Earth	-4220-06-14 23:31 J	180233.25	180233.48	180233.73	0.0134	0.0046 *
Earth	-4219-06-19 09:50 J	180602.72	180602.91	180603.13	0.0134	0.0079
Moon	-4219-06-19 10:33 J	180602.75	180602.94	180603.13	0.0134	0.0085 *
Moon	-4218-06-23 18:43 J	180972.13	180972.28	180972.47	0.0133	0.0103
Earth	-4218-06-23 19:40 J	180972.19	180972.32	180972.48	0.0133	0.0111 *
Mercury	-4196-01-05 19:26 J	188839.28	188839.31	188839.35	0.0136	0.0130
Mercury	-4196-04-03 22:33 J	188927.37	188927.44	188927.52	0.0136	0.0112
Mercury	-4196-07-01 01:40 J	189015.48	189015.57	189015.67	0.0136	0.0094
Mercury	-4196-09-27 04:48 J	189103.59	189103.70	189103.81	0.0136	0.0076

Mercury	-4196-12-24 07:40 J	189191.71	189191.82	189191.95	0.0136	0.0058
Mercury	-4195-03-22 10:48 J	189279.83	189279.95	189280.08	0.0136	0.0040
Mercury	-4195-06-18 13:55 J	189367.95	189368.08	189368.21	0.0136	0.0022
Mercury	-4195-09-14 17:02 J	189456.08	189456.21	189456.34	0.0136	0.0003
Mercury	-4195-12-11 20:09 J	189544.21	189544.34	189544.47	0.0137	0.0015
Mercury	-4194-03-09 23:02 J	189632.34	189632.46	189632.59	0.0137	0.0033
Mercury	-4194-06-06 02:09 J	189720.47	189720.59	189720.71	0.0137	0.0052
Mercury	-4194-09-02 05:16 J	189808.61	189808.72	189808.83	0.0137	0.0070
Mercury	-4194-11-29 08:24 J	189896.75	189896.85	189896.95	0.0137	0.0088
Mercury	-4193-02-25 11:16 J	189984.90	189984.97	189985.05	0.0137	0.0107
Mercury	-4193-05-23 14:24 J	190073.05	190073.10	190073.15	0.0137	0.0125
Mars	-4193-07-04 03:07 J	190114.33	190114.63	190114.95	0.0137	0.0026
Venus	-4185-06-21 00:57 J	193023.40	193023.54	193023.70	0.0141	0.0099
Venus	-4184-02-02 10:04 J	193249.73	193249.92	193250.13	0.0141	0.0052
Venus	-4184-09-16 19:40 J	193476.10	193476.32	193476.54	0.0142	0.0003
Venus	-4183-05-01 04:48 J	193702.51	193702.70	193702.91	0.0142	0.0045
Venus	-4183-12-13 14:24 J	193928.95	193929.10	193929.27	0.0142	0.0094
Venus	-4182-07-28 00:14 J	194155.51	194155.51	194155.52	0.0142	0.0142
Earth	-4182-11-19 10:33 J	194269.93	194269.94	194269.97	0.0143	0.0142
Moon	-4181-11-23 00:57 J	194639.38	194639.54	194639.72	0.0143	0.0105
Earth	-4181-11-23 04:33 J	194639.54	194639.69	194639.88	0.0143	0.0105 *
Earth	-4180-11-27 23:31 J	195009.27	195009.48	195009.72	0.0143	0.0067
Moon	-4180-11-28 02:38 J	195009.40	195009.61	195009.85	0.0143	0.0062 *
Moon	-4179-12-02 16:33 J	195378.94	195379.19	195379.44	0.0144	0.0034
Earth	-4179-12-02 19:40 J	195379.08	195379.32	195379.57	0.0144	0.0027 *
Earth	-4178-12-07 16:19 J	195748.93	195749.18	195749.43	0.0144	0.0013
Moon	-4178-12-07 19:11 J	195749.06	195749.30	195749.54	0.0144	0.0020 *
Moon	-4177-12-11 11:16 J	196118.74	196118.97	196119.22	0.0144	0.0049
Earth	-4177-12-11 13:55 J	196118.84	196119.08	196119.31	0.0144	0.0054 *
Earth	-4176-12-16 11:16 J	196488.80	196488.97	196489.17	0.0145	0.0095

Moon	-4176-12-16 13:40 J	196488.90	196489.07	196489.26	0.0145	0.0096 *
Moon	-4175-12-21 08:38 J	196858.80	196858.86	196858.96	0.0145	0.0138
Earth	-4175-12-21 10:19 J	196858.84	196858.93	196859.02	0.0145	0.0134 *
Mercury	-4156-08-03 12:00 J	203658.91	203659.00	203659.12	0.0142	0.0118
Mercury	-4156-10-30 20:24 J	203747.21	203747.35	203747.52	0.0142	0.0088
Mercury	-4155-01-27 05:02 J	203835.53	203835.71	203835.89	0.0142	0.0056
Mercury	-4155-04-25 13:26 J	203923.87	203924.06	203924.26	0.0142	0.0025
Mercury	-4155-07-22 21:50 J	204012.22	204012.41	204012.61	0.0142	0.0007
Mercury	-4155-10-19 06:14 J	204100.58	204100.76	204100.96	0.0142	0.0037
Mercury	-4154-01-15 14:38 J	204188.95	204189.11	204189.29	0.0142	0.0068
Mars	-4154-02-20 07:11 J	204224.65	204224.80	204224.98	0.0142	0.0117
Mercury	-4154-04-13 23:02 J	204277.33	204277.46	204277.61	0.0141	0.0099
Mercury	-4154-07-11 07:26 J	204365.74	204365.81	204365.90	0.0141	0.0129
Mars	-4152-01-22 05:45 J	204926.49	204926.74	204927.03	0.0141	0.0058
Venus	-4145-02-24 12:57 J	207515.90	207516.04	207516.22	0.0137	0.0095
Venus	-4145-10-07 21:35 J	207742.19	207742.40	207742.60	0.0137	0.0050
Venus	-4144-05-22 05:31 J	207968.51	207968.73	207968.95	0.0137	0.0005
Venus	-4143-01-03 13:11 J	208194.84	208195.05	208195.26	0.0136	0.0039
Venus	-4143-08-17 20:38 J	208421.20	208421.36	208421.55	0.0136	0.0083
Venus	-4142-04-01 04:33 J	208647.61	208647.69	208647.78	0.0136	0.0125
Earth	-4141-05-24 18:28 J	209067.16	209067.27	209067.41	0.0136	0.0118
Moon	-4141-05-24 21:07 J	209067.25	209067.38	209067.54	0.0136	0.0111 *
Moon	-4140-05-29 05:31 J	209436.53	209436.73	209436.92	0.0135	0.0091
Earth	-4140-05-29 08:24 J	209436.65	209436.85	209437.05	0.0135	0.0084 *
Earth	-4139-06-02 21:07 J	209806.14	209806.38	209806.62	0.0135	0.0050
Moon	-4139-06-02 23:02 J	209806.24	209806.46	209806.71	0.0135	0.0046 *
Moon	-4138-06-07 07:11 J	210175.54	210175.80	210176.07	0.0134	0.0019
Earth	-4138-06-07 09:21 J	210175.64	210175.89	210176.15	0.0134	0.0017 *
Earth	-4137-06-10 20:52 J	210545.11	210545.37	210545.63	0.0134	0.0017
Moon	-4137-06-10 22:48 J	210545.21	210545.45	210545.70	0.0134	0.0017 *

Moon	-4136-06-15 06:14 J	210914.53	210914.76	210915.01	0.0134	0.0055
Earth	-4136-06-15 07:40 J	210914.59	210914.82	210915.07	0.0134	0.0050 *
Earth	-4135-06-19 18:00 J	211284.06	211284.25	211284.47	0.0134	0.0083
Moon	-4135-06-19 19:40 J	211284.13	211284.32	211284.54	0.0134	0.0077 *
Moon	-4134-06-24 02:52 J	211653.51	211653.62	211653.74	0.0133	0.0120
Earth	-4134-06-24 03:50 J	211653.54	211653.66	211653.80	0.0133	0.0114 *
Mercury	-4112-01-26 02:24 J	219540.57	219540.60	219540.66	0.0136	0.0127
Mercury	-4112-04-24 05:31 J	219628.66	219628.73	219628.82	0.0136	0.0109
Mercury	-4112-07-21 08:52 J	219716.77	219716.87	219716.96	0.0136	0.0091
Mercury	-4112-10-17 11:45 J	219804.88	219804.99	219805.11	0.0136	0.0073
Mercury	-4111-01-13 14:52 J	219893.00	219893.12	219893.24	0.0136	0.0054
Mercury	-4111-04-11 18:00 J	219981.13	219981.25	219981.38	0.0136	0.0036
Mercury	-4111-07-08 21:07 J	220069.25	220069.38	220069.51	0.0136	0.0018
Mercury	-4111-10-05 00:14 J	220157.38	220157.51	220157.64	0.0137	0.0003
Mercury	-4110-01-01 03:07 J	220245.51	220245.63	220245.76	0.0137	0.0019
Mars	-4110-03-27 06:14 J	220330.72	220330.76	220330.85	0.0137	0.0134
Mercury	-4110-03-30 06:14 J	220333.64	220333.76	220333.89	0.0137	0.0037
Mercury	-4110-06-26 09:21 J	220421.77	220421.89	220422.01	0.0137	0.0055
Mercury	-4110-09-22 12:14 J	220509.91	220510.01	220510.13	0.0137	0.0074
Mercury	-4110-12-19 15:21 J	220598.05	220598.14	220598.24	0.0137	0.0092
Mercury	-4109-03-16 18:28 J	220686.20	220686.27	220686.35	0.0137	0.0111
Mercury	-4109-06-12 21:21 J	220774.36	220774.39	220774.44	0.0137	0.0130
Mars	-4108-02-27 10:33 J	221033.64	221033.94	221034.26	0.0138	0.0036
Venus	-4101-02-19 09:07 J	223581.78	223581.88	223581.99	0.0141	0.0121
Venus	-4101-10-02 18:00 J	223808.08	223808.25	223808.45	0.0141	0.0074
Venus	-4100-05-17 03:21 J	224034.43	224034.64	224034.86	0.0142	0.0026
Venus	-4100-12-29 12:43 J	224260.82	224261.03	224261.25	0.0142	0.0022
Venus	-4099-08-12 22:04 J	224487.25	224487.42	224487.62	0.0142	0.0071
Venus	-4098-03-27 07:55 J	224713.72	224713.83	224713.95	0.0142	0.0120
Earth	-4098-11-19 21:07 J	224951.33	224951.38	224951.47	0.0143	0.0137

Moon	-4098-11-20 00:43 J	224951.46	224951.53	224951.64	0.0143	0.0133 *
Moon	-4097-11-23 12:14 J	225320.84	225321.01	225321.21	0.0143	0.0098
Earth	-4097-11-23 15:50 J	225320.99	225321.16	225321.35	0.0143	0.0099 *
Jupiter	-4096-07-18 06:14 J	225557.49	225557.76	225558.10	0.0143	0.0117
Earth	-4096-11-28 10:48 J	225690.73	225690.95	225691.18	0.0143	0.0061
Moon	-4096-11-28 14:24 J	225690.89	225691.10	225691.33	0.0143	0.0066 *
Moon	-4095-12-03 03:35 J	226060.40	226060.65	226060.91	0.0144	0.0015
Earth	-4095-12-03 06:43 J	226060.54	226060.78	226061.04	0.0144	0.0022 *
Earth	-4094-12-08 03:21 J	226430.40	226430.64	226430.90	0.0144	0.0019
Moon	-4094-12-08 06:28 J	226430.53	226430.77	226431.02	0.0144	0.0012 *
Moon	-4093-12-11 21:35 J	226800.18	226800.40	226800.63	0.0144	0.0065
Earth	-4093-12-12 00:43 J	226800.30	226800.53	226800.76	0.0144	0.0059 *
Earth	-4092-12-16 22:33 J	227170.26	227170.44	227170.63	0.0145	0.0099
Moon	-4092-12-17 00:28 J	227170.35	227170.52	227170.71	0.0145	0.0099 *
Moon	-4091-12-21 18:28 J	227540.21	227540.27	227540.37	0.0145	0.0137
Earth	-4091-12-21 20:52 J	227540.32	227540.37	227540.45	0.0145	0.0139 *
Mercury	-4072-05-27 11:16 J	234271.95	234271.97	234272.01	0.0142	0.0141
Mercury	-4072-08-23 19:55 J	234360.21	234360.33	234360.45	0.0142	0.0110
Mercury	-4072-11-20 04:04 J	234448.52	234448.67	234448.84	0.0142	0.0079
Mercury	-4071-02-16 12:28 J	234536.85	234537.02	234537.21	0.0142	0.0048
Mercury	-4071-05-15 21:07 J	234625.19	234625.38	234625.58	0.0142	0.0017
Mercury	-4071-08-12 05:31 J	234713.54	234713.73	234713.93	0.0142	0.0014
Mercury	-4071-11-08 13:55 J	234801.90	234802.08	234802.27	0.0142	0.0045
Mercury	-4070-02-04 22:19 J	234890.27	234890.43	234890.60	0.0142	0.0076
Mercury	-4070-05-04 06:43 J	234978.66	234978.78	234978.92	0.0141	0.0106
Mercury	-4070-07-31 14:52 J	235067.10	235067.12	235067.18	0.0141	0.0138
Mars	-4070-10-16 10:48 J	235143.67	235143.95	235144.23	0.0141	0.0052
Mars	-4068-09-17 05:16 J	235845.58	235845.72	235845.89	0.0140	0.0119
Venus	-4062-10-24 21:21 J	238074.29	238074.39	238074.53	0.0137	0.0116
Venus	-4061-06-07 05:45 J	238300.56	238300.74	238300.94	0.0137	0.0071

Venus	-4060-01-19 13:55 J	238526.87	238527.08	238527.30	0.0137	0.0026
Venus	-4060-09-02 21:50 J	238753.19	238753.41	238753.63	0.0137	0.0018
Venus	-4059-04-17 05:16 J	238979.54	238979.72	238979.93	0.0136	0.0063
Venus	-4059-11-29 13:11 J	239205.92	239206.05	239206.19	0.0136	0.0105
Earth	-4057-05-25 04:19 J	239748.55	239748.68	239748.83	0.0135	0.0112
Moon	-4057-05-25 07:40 J	239748.71	239748.82	239748.95	0.0135	0.0119 *
Moon	-4056-05-29 15:21 J	240117.91	240118.14	240118.36	0.0135	0.0072
Earth	-4056-05-29 18:00 J	240118.05	240118.25	240118.47	0.0135	0.0078 *
Earth	-4055-06-03 06:43 J	240487.55	240487.78	240488.04	0.0135	0.0045
Moon	-4055-06-03 09:50 J	240487.68	240487.91	240488.15	0.0135	0.0051 *
Moon	-4054-06-07 16:19 J	240856.92	240857.18	240857.45	0.0134	0.0009
Earth	-4054-06-07 19:11 J	240857.04	240857.30	240857.56	0.0134	0.0011 *
Earth	-4053-06-11 06:28 J	241226.53	241226.77	241227.04	0.0134	0.0022
Moon	-4053-06-11 08:52 J	241226.63	241226.87	241227.12	0.0134	0.0023 *
Moon	-4052-06-15 14:52 J	241595.89	241596.12	241596.38	0.0134	0.0052
Earth	-4052-06-15 17:31 J	241596.01	241596.23	241596.48	0.0134	0.0055 *
Earth	-4051-06-20 03:35 J	241965.47	241965.65	241965.86	0.0134	0.0087
Moon	-4051-06-20 05:31 J	241965.56	241965.73	241965.92	0.0134	0.0093 *
Moon	-4050-06-24 11:16 J	242334.83	242334.97	242335.13	0.0133	0.0111
Earth	-4050-06-24 12:57 J	242334.95	242335.04	242335.19	0.0133	0.0119 *
Mercury	-4028-02-15 09:35 J	250241.85	250241.90	250241.96	0.0136	0.0123
Mercury	-4028-05-14 12:43 J	250329.95	250330.03	250330.11	0.0136	0.0105
Mercury	-4028-08-10 15:50 J	250418.06	250418.16	250418.26	0.0136	0.0087
Mercury	-4028-11-06 18:43 J	250506.18	250506.28	250506.40	0.0136	0.0069
Mercury	-4027-02-02 21:50 J	250594.29	250594.41	250594.54	0.0136	0.0051
Mercury	-4027-05-02 00:57 J	250682.42	250682.54	250682.67	0.0136	0.0033
Mercury	-4027-07-29 04:04 J	250770.54	250770.67	250770.80	0.0136	0.0015
Mercury	-4027-10-25 07:11 J	250858.67	250858.80	250858.93	0.0137	0.0004
Mercury	-4026-01-21 10:19 J	250946.80	250946.93	250947.06	0.0137	0.0022
Mercury	-4026-04-19 13:11 J	251034.93	251035.05	251035.18	0.0137	0.0041

Mercury	-4026-07-16 16:19 J	251123.07	251123.18	251123.30	0.0137	0.0059
Mercury	-4026-10-12 19:26 J	251211.21	251211.31	251211.42	0.0137	0.0077
Mars	-4026-11-20 10:19 J	251249.66	251249.93	251250.19	0.0137	0.0073
Mercury	-4025-01-08 22:33 J	251299.35	251299.44	251299.53	0.0137	0.0095
Mercury	-4025-04-06 01:26 J	251387.50	251387.56	251387.64	0.0137	0.0114
Mercury	-4025-07-03 04:33 J	251475.67	251475.69	251475.73	0.0137	0.0132
Mars	-4024-10-23 17:31 J	251953.03	251953.23	251953.48	0.0138	0.0099
Venus	-4017-06-02 01:11 J	254366.40	254366.55	254366.71	0.0141	0.0098
Venus	-4016-01-14 10:04 J	254592.73	254592.92	254593.13	0.0141	0.0050
Venus	-4016-08-28 19:40 J	254819.11	254819.32	254819.54	0.0142	0.0003
Venus	-4015-04-12 05:02 J	255045.52	255045.71	255045.92	0.0142	0.0047
Venus	-4015-11-24 14:38 J	255271.96	255272.11	255272.28	0.0142	0.0096
Earth	-4014-11-20 06:57 J	255632.70	255632.79	255632.89	0.0143	0.0131
Moon	-4014-11-20 10:19 J	255632.86	255632.93	255633.03	0.0143	0.0134 *
Moon	-4013-11-23 21:35 J	256002.22	256002.40	256002.59	0.0143	0.0093
Earth	-4013-11-24 00:57 J	256002.37	256002.54	256002.74	0.0143	0.0094 *
Earth	-4012-11-28 20:09 J	256372.12	256372.34	256372.58	0.0143	0.0056
Moon	-4012-11-28 23:31 J	256372.26	256372.48	256372.73	0.0143	0.0052 *
Moon	-4011-12-03 12:28 J	256741.78	256742.02	256742.28	0.0144	0.0024
Earth	-4011-12-03 16:19 J	256741.93	256742.18	256742.43	0.0144	0.0016 *
Earth	-4010-12-08 12:43 J	257111.79	257112.03	257112.28	0.0144	0.0023
Moon	-4010-12-08 16:04 J	257111.93	257112.17	257112.42	0.0144	0.0031 *
Moon	-4009-12-12 06:57 J	257481.56	257481.79	257482.03	0.0145	0.0058
Earth	-4009-12-12 09:50 J	257481.70	257481.91	257482.15	0.0145	0.0064 *
Earth	-4008-12-17 07:26 J	257851.66	257851.81	257852.00	0.0145	0.0104
Moon	-4008-12-17 10:33 J	257851.79	257851.94	257852.12	0.0145	0.0107 *
Earth	-4007-12-22 06:14 J	258221.74	258221.76	258221.81	0.0145	0.0144

4TH MILLENNIUM BCE

This is a list of transits visible from Uranus in the 4th millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-3988-06-16 18:28 J		264973.21	264973.27	264973.34	0.0142	0.0134	
Mercury	-3988-09-13 02:38 J		265061.49	265061.61	265061.76	0.0142	0.0103	
Mercury	-3988-12-10 11:16 J		265149.81	265149.97	265150.15	0.0142	0.0072	
Mercury	-3987-03-08 19:40 J		265238.14	265238.32	265238.52	0.0142	0.0041	
Mercury	-3987-06-05 04:19 J		265326.48	265326.68	265326.88	0.0142	0.0010	
Mercury	-3987-09-01 12:43 J		265414.84	265415.03	265415.23	0.0142	0.0021	
Mercury	-3987-11-28 21:07 J		265503.20	265503.38	265503.57	0.0142	0.0052	
Mercury	-3986-02-25 05:31 J		265591.58	265591.73	265591.90	0.0141	0.0083	
Mercury	-3986-05-24 13:55 J		265679.97	265680.08	265680.20	0.0141	0.0113	
Mars	-3985-06-10 11:16 J		266062.68	266062.97	266063.27	0.0141	0.0012	
Venus	-3978-06-24 05:16 J		268632.71	268632.72	268632.76	0.0138	0.0137	
Venus	-3977-02-05 13:55 J		268858.92	268859.08	268859.25	0.0137	0.0092	
Venus	-3977-09-18 22:04 J		269085.22	269085.42	269085.63	0.0137	0.0047	
Venus	-3976-05-03 06:00 J		269311.53	269311.75	269311.97	0.0137	0.0003	
Venus	-3976-12-15 13:40 J		269537.87	269538.07	269538.28	0.0136	0.0041	
Venus	-3975-07-29 21:07 J		269764.22	269764.38	269764.57	0.0136	0.0085	
Venus	-3974-03-13 04:48 J		269990.65	269990.70	269990.79	0.0136	0.0128	
Earth	-3973-05-25 13:11 J		270429.92	270430.05	270430.23	0.0135	0.0108	
Moon	-3973-05-25 16:48 J		270430.04	270430.20	270430.38	0.0135	0.0100	*
Moon	-3972-05-29 23:31 J		270799.29	270799.48	270799.70	0.0135	0.0081	
Earth	-3972-05-30 03:21 J		270799.43	270799.64	270799.86	0.0135	0.0073	*
Earth	-3971-06-03 16:04 J		271168.93	271169.17	271169.42	0.0135	0.0040	

Moon	-3971-06-03 18:57 J	271169.06	271169.29	271169.55	0.0135	0.0035 *
Jupiter	-3971-06-11 02:52 J	271176.15	271176.62	271177.14	0.0135	0.0031
Moon	-3970-06-08 01:11 J	271538.29	271538.55	271538.82	0.0134	0.0010
Earth	-3970-06-08 04:33 J	271538.43	271538.69	271538.94	0.0134	0.0007 *
Earth	-3969-06-11 15:50 J	271907.91	271908.16	271908.41	0.0134	0.0026
Moon	-3969-06-11 18:43 J	271908.04	271908.28	271908.53	0.0134	0.0027 *
Moon	-3968-06-15 23:45 J	272277.27	272277.49	272277.74	0.0134	0.0063
Earth	-3968-06-16 02:38 J	272277.38	272277.61	272277.85	0.0134	0.0059 *
Earth	-3967-06-20 12:28 J	272646.85	272647.02	272647.22	0.0134	0.0091
Moon	-3967-06-20 15:07 J	272646.96	272647.13	272647.35	0.0134	0.0086 *
Moon	-3966-06-24 19:55 J	273016.26	273016.33	273016.40	0.0133	0.0128
Earth	-3966-06-24 22:04 J	273016.33	273016.42	273016.53	0.0133	0.0122 *
Mercury	-3944-03-07 16:19 J	280943.13	280943.18	280943.25	0.0136	0.0121
Mercury	-3944-06-03 19:26 J	281031.23	281031.31	281031.40	0.0136	0.0103
Mercury	-3944-08-30 22:48 J	281119.34	281119.45	281119.55	0.0136	0.0084
Mercury	-3944-11-27 01:40 J	281207.46	281207.57	281207.69	0.0136	0.0066
Mercury	-3943-02-23 04:48 J	281295.58	281295.70	281295.82	0.0136	0.0048
Mercury	-3943-05-22 07:55 J	281383.70	281383.83	281383.96	0.0136	0.0030
Mercury	-3943-08-18 11:02 J	281471.83	281471.96	281472.09	0.0136	0.0012
Mercury	-3943-11-14 14:09 J	281559.96	281560.09	281560.22	0.0137	0.0008
Mercury	-3942-02-10 17:02 J	281648.09	281648.21	281648.34	0.0137	0.0025
Mercury	-3942-05-09 20:09 J	281736.22	281736.34	281736.46	0.0137	0.0043
Mercury	-3942-08-05 23:16 J	281824.35	281824.47	281824.59	0.0137	0.0061
Mercury	-3942-11-02 02:09 J	281912.49	281912.59	281912.70	0.0137	0.0080
Mercury	-3941-01-29 05:16 J	282000.64	282000.72	282000.82	0.0137	0.0098
Mercury	-3941-04-26 08:23 J	282088.79	282088.85	282088.92	0.0137	0.0116
Mars	-3941-07-15 11:16 J	282168.65	282168.97	282169.29	0.0137	0.0013
Mercury	-3941-07-23 11:31 J	282176.96	282176.98	282177.00	0.0137	0.0135
Venus	-3933-01-31 06:57 J	284924.70	284924.79	284924.91	0.0141	0.0122
Venus	-3933-09-13 16:19 J	285151.01	285151.18	285151.37	0.0141	0.0075

Venus	-3932-04-28 01:40 J	285377.36	285377.57	285377.78	0.0141	0.0027
Venus	-3932-12-10 11:02 J	285603.75	285603.96	285604.18	0.0142	0.0022
Venus	-3931-07-24 20:38 J	285830.17	285830.36	285830.55	0.0142	0.0070
Venus	-3930-03-08 06:14 J	286056.65	286056.76	286056.88	0.0142	0.0119
Earth	-3930-11-20 14:23 J	286314.00	286314.10	286314.22	0.0143	0.0127
Moon	-3930-11-20 17:31 J	286314.11	286314.23	286314.37	0.0143	0.0122 *
Moon	-3929-11-24 05:16 J	286683.54	286683.72	286683.93	0.0143	0.0090
Earth	-3929-11-24 08:23 J	286683.68	286683.85	286684.07	0.0143	0.0090 *
Earth	-3928-11-29 03:36 J	287053.42	287053.65	287053.89	0.0143	0.0051
Moon	-3928-11-29 07:11 J	287053.58	287053.80	287054.04	0.0143	0.0056 *
Moon	-3927-12-03 20:09 J	287423.09	287423.34	287423.59	0.0144	0.0006
Earth	-3927-12-03 23:31 J	287423.23	287423.48	287423.73	0.0144	0.0012 *
Earth	-3926-12-08 19:55 J	287793.08	287793.33	287793.58	0.0144	0.0027
Moon	-3926-12-08 23:31 J	287793.23	287793.48	287793.73	0.0144	0.0019 *
Moon	-3925-12-12 13:26 J	288162.84	288163.06	288163.28	0.0145	0.0074
Earth	-3925-12-12 17:02 J	288162.99	288163.21	288163.43	0.0145	0.0067 *
Earth	-3924-12-17 14:23 J	288532.95	288533.10	288533.29	0.0145	0.0107
Moon	-3924-12-17 17:31 J	288533.07	288533.23	288533.41	0.0145	0.0105 *
Moon	-3923-12-22 10:04 J	288902.92	288902.92	288902.93	0.0145	0.0145
Mercury	-3904-07-07 00:43 J	295674.46	295674.53	295674.62	0.0142	0.0130
Mercury	-3904-10-03 09:21 J	295762.75	295762.89	295763.03	0.0142	0.0099
Mercury	-3904-12-30 17:31 J	295851.07	295851.23	295851.41	0.0142	0.0068
Mercury	-3903-03-29 02:09 J	295939.40	295939.59	295939.78	0.0142	0.0037
Mercury	-3903-06-25 10:33 J	296027.75	296027.94	296028.14	0.0142	0.0006
Mercury	-3903-09-21 18:57 J	296116.10	296116.29	296116.49	0.0142	0.0025
Mercury	-3903-12-19 03:21 J	296204.47	296204.64	296204.83	0.0142	0.0056
Mars	-3902-03-04 05:45 J	296279.55	296279.74	296279.97	0.0142	0.0101
Mercury	-3902-03-17 11:45 J	296292.85	296292.99	296293.15	0.0141	0.0087
Mercury	-3902-06-13 20:09 J	296381.24	296381.34	296381.46	0.0141	0.0118
Mars	-3900-02-03 07:26 J	296981.58	296981.81	296982.08	0.0141	0.0073

Venus	-3894-10-05 20:52 J	299417.26	299417.37	299417.51	0.0137	0.0114
Venus	-3893-05-19 05:02 J	299643.53	299643.71	299643.91	0.0137	0.0069
Venus	-3893-12-31 13:26 J	299869.84	299870.06	299870.27	0.0137	0.0024
Venus	-3892-08-14 21:21 J	300096.17	300096.39	300096.61	0.0137	0.0020
Venus	-3891-03-29 05:02 J	300322.53	300322.71	300322.91	0.0136	0.0064
Venus	-3891-11-10 12:43 J	300548.91	300549.03	300549.17	0.0136	0.0107
Moon	-3890-05-22 03:50 J	300741.63	300741.66	300741.75	0.0136	0.0132
Earth	-3889-05-25 22:04 J	301111.27	301111.42	301111.60	0.0135	0.0103
Moon	-3889-05-26 01:55 J	301111.44	301111.58	301111.74	0.0135	0.0109 *
Moon	-3888-05-30 08:23 J	301480.63	301480.85	301481.09	0.0135	0.0062
Earth	-3888-05-30 11:45 J	301480.78	301480.99	301481.23	0.0135	0.0070 *
Earth	-3887-06-04 00:43 J	301850.29	301850.53	301850.79	0.0135	0.0036
Moon	-3887-06-04 04:33 J	301850.45	301850.69	301850.94	0.0135	0.0042 *
Moon	-3886-06-08 09:36 J	302219.64	302219.90	302220.16	0.0134	0.0003
Earth	-3886-06-08 12:57 J	302219.79	302220.04	302220.30	0.0134	0.0004 *
Earth	-3885-06-12 00:28 J	302589.27	302589.52	302589.77	0.0134	0.0030
Moon	-3885-06-12 03:21 J	302589.41	302589.64	302589.90	0.0134	0.0032 *
Moon	-3884-06-16 07:40 J	302958.60	302958.82	302959.06	0.0134	0.0061
Earth	-3884-06-16 11:02 J	302958.75	302958.96	302959.20	0.0134	0.0063 *
Earth	-3883-06-20 20:52 J	303328.21	303328.37	303328.57	0.0134	0.0095
Moon	-3883-06-21 00:00 J	303328.34	303328.50	303328.67	0.0134	0.0100 *
Moon	-3882-06-25 03:36 J	303697.53	303697.65	303697.78	0.0133	0.0118
Earth	-3882-06-25 06:14 J	303697.70	303697.76	303697.87	0.0133	0.0126 *
Mercury	-3861-12-29 20:23 J	311556.35	311556.35	311556.36	0.0136	0.0135
Mercury	-3860-03-27 23:16 J	311644.42	311644.47	311644.54	0.0136	0.0118
Mercury	-3860-06-24 02:23 J	311732.52	311732.60	311732.69	0.0136	0.0100
Mercury	-3860-09-20 05:31 J	311820.63	311820.73	311820.84	0.0136	0.0081
Mercury	-3860-12-17 08:38 J	311908.75	311908.86	311908.98	0.0136	0.0063
Mercury	-3859-03-15 11:45 J	311996.87	311996.99	311997.11	0.0136	0.0045
Mercury	-3859-06-11 14:52 J	312084.99	312085.12	312085.25	0.0136	0.0027

Mercury	-3859-09-07 17:45 J	312173.11	312173.24	312173.38	0.0136	0.0010
Mercury	-3859-12-04 20:52 J	312261.24	312261.37	312261.50	0.0136	0.0010
Mercury	-3858-03-03 00:00 J	312349.37	312349.50	312349.63	0.0137	0.0028
Mars	-3858-04-07 12:43 J	312384.90	312385.03	312385.21	0.0137	0.0120
Mercury	-3858-05-30 03:07 J	312437.51	312437.63	312437.75	0.0137	0.0046
Mercury	-3858-08-26 06:14 J	312525.64	312525.76	312525.87	0.0137	0.0064
Mercury	-3858-11-22 09:07 J	312613.78	312613.88	312613.99	0.0137	0.0082
Mercury	-3857-02-18 12:00 J	312701.93	312702.00	312702.10	0.0137	0.0101
Mercury	-3857-05-16 15:07 J	312790.08	312790.13	312790.20	0.0137	0.0119
Mars	-3856-03-10 14:38 J	313087.82	313088.11	313088.42	0.0138	0.0049
Venus	-3849-05-13 22:33 J	315709.29	315709.44	315709.60	0.0141	0.0098
Venus	-3849-12-26 07:26 J	315935.62	315935.81	315936.03	0.0141	0.0052
Venus	-3848-08-09 17:16 J	316162.00	316162.22	316162.43	0.0142	0.0003
Venus	-3847-03-24 02:23 J	316388.41	316388.60	316388.81	0.0142	0.0046
Venus	-3847-11-05 12:14 J	316614.85	316615.01	316615.17	0.0142	0.0095
Earth	-3846-11-20 22:04 J	316995.30	316995.42	316995.55	0.0143	0.0123
Moon	-3846-11-21 00:57 J	316995.43	316995.54	316995.66	0.0143	0.0127 *
Moon	-3845-11-24 12:57 J	317364.85	317365.04	317365.24	0.0143	0.0084
Earth	-3845-11-24 15:50 J	317364.97	317365.16	317365.37	0.0143	0.0086 *
Earth	-3844-11-29 10:48 J	317734.72	317734.95	317735.19	0.0143	0.0048
Moon	-3844-11-29 14:09 J	317734.85	317735.09	317735.33	0.0143	0.0045 *
Moon	-3843-12-04 02:52 J	318104.37	318104.62	318104.87	0.0144	0.0016
Earth	-3843-12-04 06:28 J	318104.52	318104.77	318105.02	0.0144	0.0009 *
Earth	-3842-12-09 02:23 J	318474.36	318474.60	318474.85	0.0144	0.0031
Moon	-3842-12-09 05:45 J	318474.51	318474.74	318474.99	0.0144	0.0039 *
Moon	-3841-12-12 19:55 J	318844.11	318844.33	318844.56	0.0145	0.0064
Earth	-3841-12-12 23:16 J	318844.27	318844.47	318844.70	0.0145	0.0071 *
Earth	-3840-12-17 20:52 J	319214.22	319214.37	319214.55	0.0145	0.0110
Moon	-3840-12-18 00:28 J	319214.38	319214.52	319214.69	0.0145	0.0114 *
Mercury	-3820-07-27 06:28 J	326375.70	326375.77	326375.87	0.0142	0.0127

Mercury	-3820-10-23 14:52 J	326463.99	326464.12	326464.28	0.0142	0.0097
Mercury	-3819-01-19 23:31 J	326552.31	326552.48	326552.66	0.0142	0.0065
Mercury	-3819-04-18 07:55 J	326640.64	326640.83	326641.02	0.0142	0.0035
Mercury	-3819-07-15 16:33 J	326728.99	326729.19	326729.38	0.0142	0.0005
Mercury	-3819-10-12 00:43 J	326817.34	326817.53	326817.73	0.0142	0.0028
Mercury	-3818-01-08 09:07 J	326905.71	326905.88	326906.07	0.0142	0.0059
Mercury	-3818-04-06 17:45 J	326994.09	326994.24	326994.39	0.0141	0.0089
Mercury	-3818-07-04 02:09 J	327082.49	327082.59	327082.70	0.0141	0.0120
Mars	-3818-10-28 02:09 J	327198.31	327198.59	327198.88	0.0141	0.0039
Mars	-3816-09-28 22:19 J	327900.35	327900.43	327900.57	0.0140	0.0131
Venus	-3810-06-05 02:38 J	329975.60	329975.61	329975.64	0.0138	0.0137
Venus	-3809-01-17 11:16 J	330201.81	330201.97	330202.13	0.0137	0.0092
Venus	-3809-08-30 19:26 J	330428.11	330428.31	330428.52	0.0137	0.0047
Venus	-3808-04-14 03:36 J	330654.43	330654.65	330654.87	0.0137	0.0003
Venus	-3808-11-26 11:16 J	330880.77	330880.97	330881.19	0.0137	0.0042
Venus	-3807-07-10 19:11 J	331107.13	331107.30	331107.48	0.0136	0.0085
Venus	-3806-02-22 02:38 J	331333.56	331333.61	331333.70	0.0136	0.0129
Moon	-3806-05-22 10:33 J	331422.93	331422.94	331422.98	0.0136	0.0135
Earth	-3806-05-22 13:40 J	331423.05	331423.07	331423.15	0.0136	0.0133
Earth	-3805-05-26 04:19 J	331792.53	331792.68	331792.88	0.0136	0.0100
Moon	-3805-05-26 08:09 J	331792.66	331792.84	331793.04	0.0136	0.0093 *
Moon	-3804-05-30 14:38 J	332161.90	332162.11	332162.34	0.0135	0.0073
Earth	-3804-05-30 18:43 J	332162.05	332162.28	332162.51	0.0135	0.0065 *
Earth	-3803-06-04 07:26 J	332531.56	332531.81	332532.06	0.0135	0.0032
Moon	-3803-06-04 10:48 J	332531.70	332531.95	332532.21	0.0135	0.0026 *
Moon	-3802-06-08 16:04 J	332900.91	332901.17	332901.43	0.0135	0.0004
Earth	-3802-06-08 19:40 J	332901.06	332901.32	332901.58	0.0135	0.0002 *
Earth	-3801-06-12 07:11 J	333270.55	333270.80	333271.05	0.0134	0.0034
Moon	-3801-06-12 10:48 J	333270.70	333270.95	333271.20	0.0134	0.0036 *
Moon	-3800-06-16 14:38 J	333639.89	333640.11	333640.34	0.0134	0.0068

Earth	-3800-06-16 17:45 J	333640.03	333640.24	333640.48	0.0134	0.0066 *
Earth	-3799-06-21 03:36 J	334009.50	334009.65	334009.85	0.0134	0.0098
Moon	-3799-06-21 07:11 J	334009.64	334009.80	334010.00	0.0134	0.0093 *
Earth	-3798-06-25 13:26 J	334379.00	334379.06	334379.14	0.0133	0.0128
Mercury	-3776-01-19 03:07 J	342257.62	342257.63	342257.66	0.0136	0.0133
Mercury	-3776-04-17 06:14 J	342345.70	342345.76	342345.84	0.0136	0.0115
Mercury	-3776-07-14 09:21 J	342433.81	342433.89	342433.99	0.0136	0.0097
Mercury	-3776-10-10 12:28 J	342521.92	342522.02	342522.13	0.0136	0.0079
Mercury	-3775-01-06 15:36 J	342610.03	342610.15	342610.27	0.0136	0.0060
Mercury	-3775-04-04 18:43 J	342698.16	342698.28	342698.40	0.0136	0.0042
Mercury	-3775-07-01 21:50 J	342786.28	342786.41	342786.54	0.0136	0.0024
Mercury	-3775-09-28 00:43 J	342874.40	342874.53	342874.66	0.0136	0.0007
Mercury	-3775-12-25 03:50 J	342962.53	342962.66	342962.79	0.0137	0.0012
Mercury	-3774-03-23 06:57 J	343050.66	343050.79	343050.92	0.0137	0.0030
Mercury	-3774-06-19 09:50 J	343138.80	343138.91	343139.04	0.0137	0.0049
Mercury	-3774-09-15 12:57 J	343226.93	343227.04	343227.16	0.0137	0.0067
Mars	-3774-12-01 14:09 J	343303.82	343304.09	343304.39	0.0137	0.0060
Mercury	-3774-12-12 16:04 J	343315.07	343315.17	343315.27	0.0137	0.0085
Mercury	-3773-03-09 19:11 J	343403.22	343403.30	343403.38	0.0137	0.0104
Mercury	-3773-06-05 22:04 J	343491.37	343491.42	343491.48	0.0137	0.0122
Mars	-3772-11-03 19:40 J	344007.16	344007.32	344007.54	0.0138	0.0111
Venus	-3765-01-12 05:31 J	346267.62	346267.73	346267.84	0.0141	0.0121
Venus	-3765-08-25 14:23 J	346493.93	346494.10	346494.30	0.0141	0.0074
Venus	-3764-04-08 23:45 J	346720.29	346720.49	346720.71	0.0141	0.0027
Venus	-3764-11-21 09:07 J	346946.67	346946.88	346947.10	0.0142	0.0022
Venus	-3763-07-05 18:28 J	347173.09	347173.27	347173.47	0.0142	0.0071
Venus	-3762-02-17 04:19 J	347399.57	347399.68	347399.80	0.0142	0.0120
Earth	-3762-11-21 06:43 J	347676.65	347676.78	347676.92	0.0143	0.0119
Moon	-3762-11-21 09:07 J	347676.73	347676.88	347677.04	0.0143	0.0113 *
Moon	-3761-11-24 21:50 J	348046.23	348046.41	348046.62	0.0143	0.0084

Earth	-3761-11-25 00:28 J	348046.33	348046.52	348046.74	0.0143	0.0082 *
Earth	-3760-11-29 18:57 J	348416.07	348416.29	348416.54	0.0143	0.0045
Moon	-3760-11-29 22:33 J	348416.20	348416.44	348416.68	0.0143	0.0047 *
Moon	-3759-12-04 11:45 J	348785.75	348785.99	348786.24	0.0144	0.0001
Earth	-3759-12-04 14:52 J	348785.87	348786.12	348786.37	0.0144	0.0006 *
Earth	-3758-12-09 10:48 J	349155.71	349155.95	349156.19	0.0144	0.0034
Moon	-3758-12-09 14:23 J	349155.85	349156.10	349156.35	0.0144	0.0026 *
Moon	-3757-12-13 04:19 J	349525.47	349525.68	349525.88	0.0144	0.0081
Earth	-3757-12-13 07:26 J	349525.61	349525.81	349526.04	0.0144	0.0074 *
Earth	-3756-12-18 05:02 J	349895.57	349895.71	349895.88	0.0145	0.0113
Moon	-3756-12-18 08:23 J	349895.70	349895.85	349896.03	0.0145	0.0110 *
Mercury	-3736-08-16 12:28 J	357076.94	357077.02	357077.12	0.0142	0.0125
Mercury	-3736-11-12 21:07 J	357165.24	357165.38	357165.53	0.0142	0.0093
Mercury	-3735-02-09 05:16 J	357253.56	357253.72	357253.91	0.0142	0.0063
Mercury	-3735-05-08 13:55 J	357341.89	357342.08	357342.27	0.0142	0.0032
Mercury	-3735-08-04 22:19 J	357430.24	357430.43	357430.63	0.0142	0.0003
Mercury	-3735-11-01 06:43 J	357518.59	357518.78	357518.98	0.0142	0.0030
Mercury	-3734-01-28 15:07 J	357606.96	357607.13	357607.31	0.0142	0.0061
Mercury	-3734-04-26 23:31 J	357695.34	357695.48	357695.64	0.0141	0.0092
Mercury	-3734-07-24 07:55 J	357783.74	357783.83	357783.94	0.0141	0.0122
Mars	-3733-06-21 21:07 J	358117.09	358117.38	358117.68	0.0141	0.0021
Venus	-3726-09-16 17:02 J	360760.11	360760.21	360760.34	0.0138	0.0115
Venus	-3725-04-30 01:26 J	360986.38	360986.56	360986.76	0.0137	0.0070
Venus	-3725-12-12 09:36 J	361212.69	361212.90	361213.12	0.0137	0.0026
Venus	-3724-07-26 17:45 J	361439.02	361439.24	361439.46	0.0137	0.0019
Venus	-3723-03-10 01:40 J	361665.39	361665.57	361665.77	0.0136	0.0063
Venus	-3723-10-22 09:36 J	361891.77	361891.90	361892.04	0.0136	0.0107
Moon	-3722-05-22 17:02 J	362104.14	362104.21	362104.33	0.0136	0.0126
Earth	-3722-05-22 20:38 J	362104.30	362104.36	362104.45	0.0136	0.0129 *
Earth	-3721-05-26 11:02 J	362473.80	362473.96	362474.16	0.0136	0.0096

Moon	-3721-05-26 14:52 J	362473.96	362474.12	362474.30	0.0136	0.0101	*
Moon	-3720-05-30 21:36 J	362843.18	362843.40	362843.65	0.0135	0.0056	
Earth	-3720-05-31 00:57 J	362843.33	362843.54	362843.79	0.0135	0.0063	*
Earth	-3719-06-04 14:09 J	363212.84	363213.09	363213.35	0.0135	0.0029	
Moon	-3719-06-04 18:00 J	363213.01	363213.25	363213.51	0.0135	0.0036	*
Moon	-3718-06-08 23:02 J	363582.20	363582.46	363582.72	0.0135	0.0010	
Earth	-3718-06-09 02:38 J	363582.35	363582.61	363582.87	0.0135	0.0005	*
Earth	-3717-06-12 13:55 J	363951.84	363952.08	363952.34	0.0134	0.0037	
Moon	-3717-06-12 17:31 J	363951.99	363952.23	363952.49	0.0134	0.0036	*
Moon	-3716-06-16 21:21 J	364321.17	364321.39	364321.61	0.0134	0.0068	
Earth	-3716-06-17 00:43 J	364321.33	364321.53	364321.77	0.0134	0.0069	*
Earth	-3715-06-21 11:02 J	364690.80	364690.96	364691.13	0.0134	0.0100	
Moon	-3715-06-21 14:23 J	364690.95	364691.10	364691.26	0.0134	0.0105	*
Moon	-3714-06-25 17:16 J	365060.13	365060.22	365060.31	0.0134	0.0124	
Earth	-3714-06-25 20:52 J	365060.33	365060.37	365060.42	0.0134	0.0131	
Mercury	-3692-02-08 10:04 J	372958.90	372958.92	372958.97	0.0136	0.0130	
Mercury	-3692-05-07 13:11 J	373046.99	373047.05	373047.13	0.0136	0.0112	
Mercury	-3692-08-03 16:33 J	373135.09	373135.19	373135.28	0.0136	0.0093	
Mercury	-3692-10-30 19:40 J	373223.21	373223.32	373223.43	0.0136	0.0075	
Mercury	-3691-01-26 22:33 J	373311.33	373311.44	373311.56	0.0136	0.0057	
Mercury	-3691-04-25 01:40 J	373399.45	373399.57	373399.70	0.0136	0.0039	
Mercury	-3691-07-22 04:48 J	373487.57	373487.70	373487.83	0.0136	0.0021	
Mercury	-3691-10-18 07:55 J	373575.70	373575.83	373575.96	0.0136	0.0004	
Mercury	-3690-01-14 10:48 J	373663.83	373663.95	373664.08	0.0137	0.0016	
Mercury	-3690-04-12 13:55 J	373751.96	373752.08	373752.21	0.0137	0.0034	
Mercury	-3690-07-09 17:02 J	373840.09	373840.21	373840.33	0.0137	0.0052	
Mercury	-3690-10-05 20:09 J	373928.23	373928.34	373928.45	0.0137	0.0070	
Mercury	-3689-01-01 23:02 J	374016.37	374016.46	374016.56	0.0137	0.0089	
Mercury	-3689-03-30 01:55 J	374104.51	374104.58	374104.67	0.0137	0.0107	
Mercury	-3689-06-26 05:02 J	374192.67	374192.71	374192.77	0.0137	0.0125	

Mars	-3689-07-26 18:28 J	374222.95	374223.27	374223.59	0.0137	0.0000
Venus	-3681-04-24 21:50 J	377052.27	377052.41	377052.58	0.0141	0.0097
Venus	-3681-12-07 07:11 J	377278.60	377278.80	377279.01	0.0141	0.0049
Venus	-3680-07-21 16:33 J	377504.98	377505.19	377505.41	0.0141	0.0003
Venus	-3679-03-05 01:55 J	377731.38	377731.58	377731.79	0.0142	0.0048
Venus	-3679-10-17 11:45 J	377957.83	377957.99	377958.15	0.0142	0.0096
Earth	-3678-11-21 16:04 J	378358.05	378358.17	378358.34	0.0143	0.0115
Moon	-3678-11-21 18:28 J	378358.14	378358.27	378358.42	0.0143	0.0119 *
Moon	-3677-11-25 07:55 J	378727.64	378727.83	378728.05	0.0143	0.0075
Earth	-3677-11-25 10:33 J	378727.73	378727.94	378728.15	0.0143	0.0077 *
Earth	-3676-11-30 05:02 J	379097.47	379097.71	379097.96	0.0143	0.0040
Moon	-3676-11-30 07:40 J	379097.57	379097.82	379098.07	0.0143	0.0038 *
Moon	-3675-12-04 21:36 J	379467.15	379467.40	379467.64	0.0144	0.0007
Earth	-3675-12-05 00:43 J	379467.28	379467.53	379467.78	0.0144	0.0003 *
Earth	-3674-12-09 20:23 J	379837.11	379837.35	379837.60	0.0144	0.0038
Moon	-3674-12-09 23:31 J	379837.24	379837.48	379837.72	0.0144	0.0045 *
Moon	-3673-12-13 13:55 J	380206.87	380207.08	380207.30	0.0144	0.0071
Earth	-3673-12-13 17:16 J	380207.02	380207.22	380207.44	0.0144	0.0078 *
Earth	-3672-12-18 14:38 J	380576.98	380577.11	380577.28	0.0145	0.0117
Moon	-3672-12-18 18:14 J	380577.15	380577.26	380577.42	0.0145	0.0122 *
Mercury	-3652-09-05 19:11 J	387778.21	387778.30	387778.42	0.0142	0.0120
Mercury	-3652-12-03 03:50 J	387866.51	387866.66	387866.81	0.0142	0.0089
Mercury	-3651-03-01 12:00 J	387954.83	387955.00	387955.19	0.0142	0.0058
Mercury	-3651-05-28 20:38 J	388043.17	388043.36	388043.55	0.0142	0.0027
Mercury	-3651-08-25 05:02 J	388131.51	388131.71	388131.91	0.0142	0.0004
Mercury	-3651-11-21 13:26 J	388219.87	388220.06	388220.25	0.0142	0.0035
Mercury	-3650-02-17 21:36 J	388308.24	388308.40	388308.59	0.0142	0.0066
Mars	-3650-03-15 15:21 J	388333.93	388334.14	388334.39	0.0142	0.0093
Mercury	-3650-05-17 06:00 J	388396.62	388396.75	388396.91	0.0141	0.0096
Mercury	-3650-08-13 14:38 J	388485.03	388485.11	388485.20	0.0141	0.0127

Mars	-3648-02-14 17:16 J	389035.99	389036.22	389036.48	0.0141	0.0080
Venus	-3642-12-29 08:23 J	391544.69	391544.85	391545.01	0.0137	0.0093
Venus	-3641-08-11 16:33 J	391770.99	391771.19	391771.40	0.0137	0.0048
Venus	-3640-03-26 00:57 J	391997.32	391997.54	391997.76	0.0137	0.0003
Venus	-3640-11-07 08:52 J	392223.66	392223.87	392224.08	0.0137	0.0041
Venus	-3639-06-21 16:19 J	392450.03	392450.18	392450.37	0.0136	0.0085
Venus	-3638-02-03 00:14 J	392676.45	392676.51	392676.59	0.0136	0.0128
Moon	-3638-05-23 01:11 J	392785.47	392785.55	392785.66	0.0136	0.0126
Earth	-3638-05-23 03:50 J	392785.58	392785.66	392785.78	0.0136	0.0125 *
Earth	-3637-05-26 18:28 J	393155.09	393155.27	393155.47	0.0136	0.0092
Moon	-3637-05-26 21:50 J	393155.22	393155.41	393155.62	0.0136	0.0086 *
Moon	-3636-05-31 04:48 J	393524.49	393524.70	393524.94	0.0135	0.0065
Earth	-3636-05-31 08:09 J	393524.62	393524.84	393525.09	0.0135	0.0059 *
Earth	-3635-06-04 21:07 J	393894.13	393894.38	393894.64	0.0135	0.0025
Moon	-3635-06-05 00:28 J	393894.27	393894.52	393894.78	0.0135	0.0018 *
Moon	-3634-06-09 05:45 J	394263.49	394263.74	394264.00	0.0135	0.0004
Earth	-3634-06-09 09:36 J	394263.64	394263.90	394264.16	0.0135	0.0008 *
Earth	-3633-06-12 20:52 J	394633.13	394633.37	394633.62	0.0134	0.0040
Moon	-3633-06-13 00:28 J	394633.28	394633.52	394633.77	0.0134	0.0044 *
Moon	-3632-06-17 04:19 J	395002.47	395002.68	395002.89	0.0134	0.0073
Earth	-3632-06-17 07:40 J	395002.61	395002.82	395003.05	0.0134	0.0072 *
Earth	-3631-06-21 17:31 J	395372.09	395372.23	395372.42	0.0134	0.0104
Moon	-3631-06-21 21:21 J	395372.24	395372.39	395372.59	0.0134	0.0100 *
Mercury	-3608-02-28 17:02 J	403660.18	403660.21	403660.27	0.0136	0.0127
Mercury	-3608-05-27 20:09 J	403748.27	403748.34	403748.43	0.0136	0.0109
Mercury	-3608-08-23 23:31 J	403836.38	403836.48	403836.57	0.0136	0.0091
Mercury	-3608-11-20 02:38 J	403924.50	403924.61	403924.72	0.0136	0.0073
Mercury	-3607-02-16 05:31 J	404012.61	404012.73	404012.85	0.0136	0.0055
Mercury	-3607-05-15 08:38 J	404100.74	404100.86	404100.99	0.0136	0.0036
Mercury	-3607-08-11 11:45 J	404188.86	404188.99	404189.12	0.0137	0.0018

Mercury	-3607-11-07 14:52 J	404276.99	404277.12	404277.25	0.0137	0.0002
Mercury	-3606-02-03 18:00 J	404365.12	404365.25	404365.38	0.0137	0.0019
Mars	-3606-04-18 22:19 J	404439.26	404439.43	404439.66	0.0137	0.0107
Mercury	-3606-05-02 20:52 J	404453.25	404453.37	404453.50	0.0137	0.0037
Mercury	-3606-07-30 00:00 J	404541.38	404541.50	404541.62	0.0137	0.0055
Mercury	-3606-10-26 03:07 J	404629.52	404629.63	404629.74	0.0137	0.0073
Mercury	-3605-01-22 06:14 J	404717.66	404717.76	404717.85	0.0137	0.0092
Mercury	-3605-04-19 09:07 J	404805.81	404805.88	404805.96	0.0137	0.0110
Mercury	-3605-07-16 12:00 J	404893.97	404894.00	404894.06	0.0137	0.0129
Mars	-3604-03-21 22:33 J	405142.17	405142.44	405142.74	0.0138	0.0061
Venus	-3598-12-24 05:45 J	407610.63	407610.74	407610.86	0.0141	0.0119
Venus	-3597-08-06 14:52 J	407836.94	407837.12	407837.32	0.0141	0.0072
Venus	-3596-03-21 00:14 J	408063.30	408063.51	408063.73	0.0141	0.0024
Venus	-3596-11-02 09:36 J	408289.69	408289.90	408290.12	0.0142	0.0025
Venus	-3595-06-16 19:11 J	408516.11	408516.30	408516.48	0.0142	0.0073
Venus	-3594-01-29 04:33 J	408742.59	408742.69	408742.81	0.0142	0.0122
Earth	-3594-11-22 02:23 J	409039.47	409039.60	409039.78	0.0143	0.0110
Moon	-3594-11-22 03:50 J	409039.50	409039.66	409039.85	0.0143	0.0103 *
Moon	-3593-11-25 19:11 J	409409.10	409409.30	409409.51	0.0143	0.0075
Earth	-3593-11-25 20:52 J	409409.16	409409.37	409409.59	0.0143	0.0072 *
Earth	-3592-11-30 15:36 J	409778.91	409779.15	409779.39	0.0143	0.0035
Moon	-3592-11-30 17:45 J	409779.00	409779.24	409779.50	0.0143	0.0037 *
Moon	-3591-12-05 08:38 J	410148.62	410148.86	410149.11	0.0144	0.0009
Earth	-3591-12-05 11:02 J	410148.71	410148.96	410149.21	0.0144	0.0004 *
Earth	-3590-12-10 06:57 J	410518.56	410518.79	410519.03	0.0144	0.0043
Moon	-3590-12-10 10:04 J	410518.68	410518.92	410519.17	0.0144	0.0035 *
Moon	-3589-12-14 01:11 J	410888.35	410888.55	410888.74	0.0144	0.0090
Earth	-3589-12-14 04:04 J	410888.47	410888.67	410888.88	0.0144	0.0082 *
Earth	-3588-12-19 01:40 J	411258.44	411258.57	411258.71	0.0145	0.0121
Moon	-3588-12-19 05:02 J	411258.57	411258.71	411258.86	0.0145	0.0117 *

Mercury	-3568-09-26 02:38 J	418479.50	418479.61	418479.73	0.0142	0.0112
Mercury	-3568-12-23 10:48 J	418567.81	418567.95	418568.12	0.0142	0.0082
Mercury	-3567-03-21 19:26 J	418656.13	418656.31	418656.50	0.0142	0.0051
Mercury	-3567-06-18 03:50 J	418744.47	418744.66	418744.86	0.0142	0.0020
Mercury	-3567-09-14 12:14 J	418832.82	418833.01	418833.21	0.0142	0.0011
Mercury	-3567-12-11 20:38 J	418921.18	418921.36	418921.55	0.0142	0.0041
Mercury	-3566-03-10 05:02 J	419009.55	419009.71	419009.88	0.0142	0.0072
Mercury	-3566-06-06 13:26 J	419097.93	419098.06	419098.20	0.0141	0.0103
Mercury	-3566-09-02 21:36 J	419186.35	419186.40	419186.48	0.0141	0.0133
Mars	-3566-11-08 18:28 J	419252.99	419253.27	419253.57	0.0141	0.0029
Mars	-3564-10-10 15:07 J	419955.13	419955.13	419955.20	0.0140	0.0140
Venus	-3558-08-28 16:04 J	422103.06	422103.17	422103.30	0.0137	0.0115
Venus	-3557-04-11 00:28 J	422329.34	422329.52	422329.72	0.0137	0.0070
Venus	-3557-11-23 08:38 J	422555.65	422555.86	422556.08	0.0137	0.0025
Venus	-3556-07-07 16:48 J	422781.99	422782.20	422782.42	0.0137	0.0020
Venus	-3555-02-19 00:57 J	423008.34	423008.54	423008.73	0.0136	0.0064
Venus	-3555-10-03 08:38 J	423234.73	423234.86	423234.99	0.0136	0.0107
Moon	-3554-05-23 10:04 J	423466.82	423466.92	423467.06	0.0136	0.0118
Earth	-3554-05-23 12:43 J	423466.93	423467.03	423467.17	0.0136	0.0120 *
Earth	-3553-05-27 03:07 J	423836.45	423836.63	423836.85	0.0136	0.0087
Moon	-3553-05-27 06:14 J	423836.57	423836.76	423836.96	0.0136	0.0091 *
Moon	-3552-05-31 13:55 J	424205.86	424206.08	424206.33	0.0135	0.0048
Earth	-3552-05-31 16:48 J	424205.97	424206.20	424206.45	0.0135	0.0054 *
Earth	-3551-06-05 05:45 J	424575.49	424575.74	424576.00	0.0135	0.0020
Moon	-3551-06-05 09:07 J	424575.63	424575.88	424576.14	0.0135	0.0028 *
Moon	-3550-06-09 14:52 J	424944.87	424945.12	424945.38	0.0135	0.0019
Earth	-3550-06-09 18:00 J	424945.00	424945.25	424945.51	0.0135	0.0012 *
Earth	-3549-06-13 05:31 J	425314.48	425314.73	425314.97	0.0134	0.0045
Moon	-3549-06-13 08:52 J	425314.63	425314.87	425315.12	0.0134	0.0043 *
Moon	-3548-06-17 12:43 J	425683.83	425684.03	425684.25	0.0134	0.0077

Earth	-3548-06-17 16:19 J	425683.97	425684.18	425684.40	0.0134	0.0076 *
Earth	-3547-06-22 02:09 J	426053.46	426053.59	426053.76	0.0134	0.0108
Moon	-3547-06-22 06:00 J	426053.61	426053.75	426053.90	0.0134	0.0111 *
Moon	-3546-06-26 08:38 J	426422.83	426422.86	426422.91	0.0133	0.0132
Mercury	-3524-03-21 00:00 J	434361.46	434361.50	434361.56	0.0136	0.0124
Mercury	-3524-06-17 03:07 J	434449.56	434449.63	434449.72	0.0136	0.0106
Mercury	-3524-09-13 06:28 J	434537.67	434537.77	434537.87	0.0136	0.0088
Mercury	-3524-12-10 09:21 J	434625.78	434625.89	434626.01	0.0136	0.0070
Mercury	-3523-03-08 12:28 J	434713.90	434714.02	434714.15	0.0136	0.0052
Mercury	-3523-06-04 15:36 J	434802.03	434802.15	434802.28	0.0136	0.0033
Mercury	-3523-08-31 18:43 J	434890.15	434890.28	434890.41	0.0137	0.0015
Mercury	-3523-11-27 21:50 J	434978.28	434978.41	434978.54	0.0137	0.0004
Mercury	-3522-02-24 00:57 J	435066.41	435066.54	435066.67	0.0137	0.0022
Mercury	-3522-05-23 03:50 J	435154.54	435154.66	435154.79	0.0137	0.0040
Mercury	-3522-08-19 06:57 J	435242.67	435242.79	435242.91	0.0137	0.0058
Mercury	-3522-11-15 10:04 J	435330.81	435330.92	435331.03	0.0137	0.0076
Mars	-3522-12-13 00:14 J	435358.23	435358.51	435358.82	0.0137	0.0048
Mercury	-3521-02-11 13:11 J	435418.96	435419.05	435419.14	0.0137	0.0095
Mercury	-3521-05-09 16:04 J	435507.10	435507.17	435507.25	0.0137	0.0113
Mercury	-3521-08-05 19:11 J	435595.27	435595.30	435595.34	0.0137	0.0131
Mars	-3520-11-15 04:19 J	436061.55	436061.68	436061.84	0.0138	0.0122
Venus	-3513-04-05 22:04 J	438395.28	438395.42	438395.59	0.0141	0.0095
Venus	-3513-11-18 07:26 J	438621.61	438621.81	438622.02	0.0141	0.0047
Venus	-3512-07-02 16:48 J	438847.98	438848.20	438848.41	0.0142	0.0001
Venus	-3511-02-14 01:55 J	439074.39	439074.58	439074.79	0.0142	0.0050
Venus	-3511-09-28 11:45 J	439300.84	439300.99	439301.15	0.0142	0.0099
Moon	-3511-11-17 18:57 J	439351.23	439351.29	439351.39	0.0142	0.0133
Earth	-3511-11-17 18:57 J	439351.27	439351.29	439351.35	0.0142	0.0140 *
Earth	-3510-11-22 12:28 J	439720.86	439721.02	439721.20	0.0143	0.0104
Moon	-3510-11-22 12:57 J	439720.89	439721.04	439721.22	0.0143	0.0110 *

Moon	-3509-11-26 05:16 J	440090.51	440090.72	440090.94	0.0143	0.0064
Earth	-3509-11-26 06:28 J	440090.55	440090.77	440090.99	0.0143	0.0067 *
Earth	-3508-12-01 01:11 J	440460.31	440460.55	440460.80	0.0143	0.0030
Moon	-3508-12-01 02:23 J	440460.36	440460.60	440460.86	0.0143	0.0030 *
Moon	-3507-12-05 18:28 J	440830.03	440830.27	440830.52	0.0144	0.0005
Earth	-3507-12-05 20:52 J	440830.12	440830.37	440830.62	0.0144	0.0009 *
Earth	-3506-12-10 16:48 J	441199.97	441200.20	441200.44	0.0144	0.0048
Moon	-3506-12-10 19:11 J	441200.06	441200.30	441200.54	0.0144	0.0054 *
Moon	-3505-12-14 11:02 J	441569.77	441569.96	441570.18	0.0144	0.0080
Earth	-3505-12-14 14:09 J	441569.89	441570.09	441570.29	0.0144	0.0087 *
Earth	-3504-12-19 11:31 J	441939.88	441939.98	441940.12	0.0145	0.0126
Moon	-3504-12-19 15:21 J	441940.03	441940.14	441940.24	0.0145	0.0131 *
Mercury	-3484-07-20 01:55 J	449092.52	449092.58	449092.64	0.0142	0.0135
Mercury	-3484-10-16 10:04 J	449180.80	449180.92	449181.06	0.0142	0.0104
Mercury	-3483-01-12 18:43 J	449269.11	449269.28	449269.45	0.0142	0.0073
Mercury	-3483-04-11 02:52 J	449357.44	449357.62	449357.82	0.0142	0.0043
Mercury	-3483-07-08 11:31 J	449445.78	449445.98	449446.17	0.0142	0.0012
Mars	-3483-08-01 14:09 J	449470.07	449470.09	449470.17	0.0142	0.0140
Mercury	-3483-10-04 19:55 J	449534.13	449534.33	449534.52	0.0142	0.0019
Mercury	-3482-01-01 04:04 J	449622.49	449622.67	449622.86	0.0142	0.0049
Mercury	-3482-03-30 12:28 J	449710.87	449711.02	449711.19	0.0141	0.0080
Mercury	-3482-06-26 20:38 J	449799.26	449799.36	449799.50	0.0141	0.0111
Mercury	-3482-09-23 05:16 J	449887.71	449887.72	449887.74	0.0141	0.0141
Mars	-3481-07-03 21:07 J	450172.09	450172.38	450172.67	0.0141	0.0034
Venus	-3474-04-28 00:28 J	452661.50	452661.52	452661.57	0.0138	0.0136
Venus	-3474-12-10 08:52 J	452887.72	452887.87	452888.04	0.0137	0.0091
Venus	-3473-07-23 17:02 J	453114.01	453114.21	453114.43	0.0137	0.0046
Venus	-3472-03-07 01:26 J	453340.34	453340.56	453340.78	0.0137	0.0002
Venus	-3472-10-19 09:21 J	453566.68	453566.89	453567.10	0.0136	0.0043
Venus	-3471-06-02 16:48 J	453793.05	453793.20	453793.38	0.0136	0.0088

Venus	-3470-01-15 00:43 J	454019.47	454019.53	454019.59	0.0136	0.0130
Moon	-3470-05-23 20:38 J	454148.24	454148.36	454148.51	0.0136	0.0115
Earth	-3470-05-23 22:48 J	454148.31	454148.45	454148.59	0.0136	0.0114 *
Earth	-3469-05-27 12:28 J	454517.83	454518.02	454518.24	0.0135	0.0082
Moon	-3469-05-27 15:07 J	454517.92	454518.13	454518.36	0.0135	0.0077 *
Moon	-3468-05-31 23:31 J	454887.26	454887.48	454887.72	0.0135	0.0055
Earth	-3468-06-01 02:09 J	454887.36	454887.59	454887.84	0.0135	0.0048 *
Earth	-3467-06-05 14:52 J	455256.87	455257.12	455257.38	0.0135	0.0016
Moon	-3467-06-05 17:31 J	455256.97	455257.23	455257.50	0.0135	0.0009 *
Moon	-3466-06-09 23:45 J	455626.25	455626.49	455626.75	0.0134	0.0012
Earth	-3466-06-10 02:52 J	455626.37	455626.62	455626.89	0.0134	0.0018 *
Earth	-3465-06-13 14:09 J	455995.86	455996.09	455996.34	0.0134	0.0049
Moon	-3465-06-13 17:16 J	455995.99	455996.22	455996.47	0.0134	0.0053 *
Moon	-3464-06-17 21:36 J	456365.22	456365.40	456365.62	0.0134	0.0081
Earth	-3464-06-18 00:43 J	456365.35	456365.53	456365.76	0.0134	0.0081 *
Earth	-3463-06-22 11:02 J	456734.84	456734.96	456735.12	0.0134	0.0112
Moon	-3463-06-22 15:07 J	456734.98	456735.13	456735.28	0.0134	0.0108 *
Mercury	-3440-04-10 06:57 J	465062.74	465062.79	465062.85	0.0136	0.0121
Mercury	-3440-07-07 10:04 J	465150.84	465150.92	465151.01	0.0136	0.0103
Mercury	-3440-10-03 13:11 J	465238.95	465239.05	465239.15	0.0136	0.0085
Mercury	-3440-12-30 16:04 J	465327.06	465327.17	465327.29	0.0136	0.0068
Mercury	-3439-03-28 19:11 J	465415.18	465415.30	465415.43	0.0136	0.0049
Mercury	-3439-06-24 22:19 J	465503.31	465503.43	465503.56	0.0136	0.0031
Mercury	-3439-09-21 01:26 J	465591.43	465591.56	465591.69	0.0137	0.0013
Mercury	-3439-12-18 04:33 J	465679.56	465679.69	465679.82	0.0137	0.0005
Mercury	-3438-03-16 07:40 J	465767.69	465767.82	465767.95	0.0137	0.0024
Mercury	-3438-06-12 10:48 J	465855.82	465855.95	465856.07	0.0137	0.0042
Mercury	-3438-09-08 13:40 J	465943.96	465944.07	465944.19	0.0137	0.0060
Mercury	-3438-12-05 16:48 J	466032.10	466032.20	466032.31	0.0137	0.0079
Mercury	-3437-03-02 19:40 J	466120.24	466120.32	466120.42	0.0137	0.0097

Mercury	-3437-05-29 22:48 J	466208.39	466208.45	466208.53	0.0137	0.0116
Mars	-3437-08-07 00:43 J	466277.21	466277.53	466277.85	0.0137	0.0011
Mercury	-3437-08-26 01:55 J	466296.56	466296.58	466296.62	0.0137	0.0134
Venus	-3430-12-05 04:33 J	468953.58	468953.69	468953.81	0.0141	0.0119
Venus	-3429-07-18 13:26 J	469179.89	469180.06	469180.26	0.0141	0.0072
Venus	-3428-03-01 23:02 J	469406.25	469406.46	469406.67	0.0141	0.0024
Venus	-3428-10-14 08:23 J	469632.64	469632.85	469633.06	0.0142	0.0025
Venus	-3427-05-28 17:31 J	469859.06	469859.23	469859.43	0.0142	0.0074
Earth	-3427-11-18 03:07 J	470032.57	470032.63	470032.72	0.0142	0.0136
Venus	-3426-01-10 03:21 J	470085.54	470085.64	470085.75	0.0142	0.0123
Moon	-3426-11-22 20:09 J	470402.16	470402.34	470402.55	0.0143	0.0093
Earth	-3426-11-22 20:23 J	470402.18	470402.35	470402.54	0.0143	0.0100 *
Moon	-3425-11-26 14:09 J	470771.89	470772.09	470772.31	0.0143	0.0068
Earth	-3425-11-26 14:23 J	470771.89	470772.10	470772.34	0.0143	0.0063 *
Earth	-3424-12-01 09:21 J	471141.65	471141.89	471142.14	0.0144	0.0025
Moon	-3424-12-01 10:33 J	471141.69	471141.94	471142.20	0.0144	0.0026 *
Moon	-3423-12-06 03:50 J	471511.42	471511.66	471511.90	0.0144	0.0016
Earth	-3423-12-06 05:02 J	471511.46	471511.71	471511.96	0.0144	0.0013 *
Earth	-3422-12-11 01:11 J	471881.32	471881.55	471881.79	0.0144	0.0052
Moon	-3422-12-11 03:21 J	471881.40	471881.64	471881.89	0.0144	0.0045 *
Moon	-3421-12-14 20:23 J	472251.18	472251.35	472251.53	0.0144	0.0099
Earth	-3421-12-14 22:33 J	472251.25	472251.44	472251.64	0.0144	0.0091 *
Earth	-3420-12-19 20:09 J	472621.25	472621.34	472621.46	0.0145	0.0130
Moon	-3420-12-19 22:48 J	472621.34	472621.45	472621.60	0.0145	0.0125 *
Mercury	-3400-08-09 08:38 J	479793.80	479793.86	479793.96	0.0142	0.0129
Mercury	-3400-11-05 17:16 J	479882.08	479882.22	479882.36	0.0142	0.0098
Mercury	-3399-02-02 01:40 J	479970.40	479970.57	479970.74	0.0142	0.0067
Mercury	-3399-05-01 10:04 J	480058.73	480058.92	480059.11	0.0142	0.0036
Mercury	-3399-07-28 18:28 J	480147.07	480147.27	480147.47	0.0142	0.0006
Mercury	-3399-10-25 02:52 J	480235.43	480235.62	480235.81	0.0142	0.0025

Mercury	-3398-01-21 11:02 J	480323.79	480323.96	480324.15	0.0142	0.0056
Mars	-3398-03-27 17:45 J	480389.01	480389.24	480389.52	0.0142	0.0076
Mercury	-3398-04-19 19:26 J	480412.16	480412.31	480412.47	0.0141	0.0086
Mercury	-3398-07-17 03:50 J	480500.56	480500.66	480500.78	0.0141	0.0117
Mars	-3396-02-26 21:36 J	481091.21	481091.40	481091.64	0.0141	0.0096
Venus	-3390-08-09 17:16 J	483446.10	483446.22	483446.36	0.0137	0.0112
Venus	-3389-03-23 01:40 J	483672.39	483672.57	483672.77	0.0137	0.0067
Venus	-3389-11-04 09:50 J	483898.70	483898.91	483899.13	0.0137	0.0022
Venus	-3388-06-18 17:45 J	484125.03	484125.24	484125.46	0.0137	0.0023
Venus	-3387-01-31 01:40 J	484351.38	484351.57	484351.76	0.0136	0.0067
Venus	-3387-09-14 09:07 J	484577.76	484577.88	484578.02	0.0136	0.0111
Moon	-3386-05-24 06:28 J	484829.64	484829.77	484829.94	0.0136	0.0109
Earth	-3386-05-24 08:09 J	484829.70	484829.84	484830.01	0.0136	0.0109 *
Earth	-3385-05-27 22:04 J	485199.23	485199.42	485199.65	0.0135	0.0077
Moon	-3385-05-28 00:14 J	485199.30	485199.51	485199.73	0.0135	0.0080 *
Moon	-3384-06-01 09:50 J	485568.67	485568.91	485569.15	0.0135	0.0038
Earth	-3384-06-01 11:45 J	485568.74	485568.99	485569.23	0.0135	0.0044 *
Earth	-3383-06-06 00:28 J	485938.26	485938.52	485938.77	0.0135	0.0011
Moon	-3383-06-06 03:07 J	485938.36	485938.63	485938.89	0.0135	0.0018 *
Moon	-3382-06-10 10:04 J	486307.69	486307.92	486308.18	0.0134	0.0029
Earth	-3382-06-10 12:28 J	486307.77	486308.02	486308.28	0.0134	0.0021 *
Earth	-3381-06-13 23:45 J	486677.26	486677.49	486677.73	0.0134	0.0053
Moon	-3381-06-14 02:38 J	486677.37	486677.61	486677.86	0.0134	0.0050 *
Moon	-3380-06-18 07:26 J	487046.64	487046.81	487047.02	0.0134	0.0087
Earth	-3380-06-18 10:19 J	487046.75	487046.93	487047.15	0.0134	0.0085 *
Earth	-3379-06-22 20:38 J	487416.25	487416.36	487416.50	0.0134	0.0116
Moon	-3379-06-22 23:45 J	487416.38	487416.49	487416.62	0.0134	0.0118 *
Mercury	-3356-04-30 13:40 J	495764.02	495764.07	495764.14	0.0136	0.0119
Mercury	-3356-07-27 16:48 J	495852.12	495852.20	495852.29	0.0136	0.0101
Mercury	-3356-10-23 19:55 J	495940.23	495940.33	495940.44	0.0136	0.0083

Mercury	-3355-01-19 23:02 J	496028.35	496028.46	496028.58	0.0136	0.0065
Mercury	-3355-04-18 02:09 J	496116.47	496116.59	496116.71	0.0136	0.0047
Mercury	-3355-07-15 05:16 J	496204.59	496204.72	496204.85	0.0136	0.0029
Mercury	-3355-10-11 08:09 J	496292.72	496292.84	496292.98	0.0137	0.0012
Mercury	-3354-01-07 11:16 J	496380.84	496380.97	496381.10	0.0137	0.0009
Mercury	-3354-04-05 14:23 J	496468.97	496469.10	496469.23	0.0137	0.0026
Mars	-3354-04-30 03:50 J	496493.44	496493.66	496493.90	0.0137	0.0094
Mercury	-3354-07-02 17:31 J	496557.11	496557.23	496557.35	0.0137	0.0044
Mercury	-3354-09-28 20:23 J	496645.24	496645.35	496645.47	0.0137	0.0063
Mercury	-3354-12-25 23:31 J	496733.38	496733.48	496733.59	0.0137	0.0081
Mercury	-3353-03-23 02:38 J	496821.53	496821.61	496821.70	0.0137	0.0099
Mercury	-3353-06-19 05:45 J	496909.68	496909.74	496909.81	0.0137	0.0117
Mercury	-3353-09-15 08:52 J	496997.86	496997.87	496997.89	0.0137	0.0136
Mars	-3352-04-02 01:55 J	497196.32	497196.58	497196.86	0.0138	0.0072
Venus	-3345-03-17 19:40 J	499738.16	499738.32	499738.48	0.0141	0.0096
Venus	-3345-10-30 04:48 J	499964.49	499964.70	499964.90	0.0141	0.0049
Venus	-3344-06-13 13:55 J	500190.86	500191.08	500191.29	0.0142	0.0001
Venus	-3343-01-25 23:02 J	500417.27	500417.46	500417.67	0.0142	0.0048
Venus	-3343-09-09 08:38 J	500643.71	500643.86	500644.03	0.0142	0.0097
Earth	-3343-11-18 10:04 J	500713.84	500713.92	500714.02	0.0142	0.0132
Moon	-3343-11-18 11:31 J	500713.87	500713.98	500714.10	0.0142	0.0125 *
Moon	-3342-11-23 02:09 J	501083.43	501083.59	501083.79	0.0143	0.0103
Earth	-3342-11-23 03:21 J	501083.46	501083.64	501083.83	0.0143	0.0096 *
Earth	-3341-11-26 21:21 J	501453.16	501453.39	501453.62	0.0143	0.0059
Moon	-3341-11-26 21:21 J	501453.17	501453.39	501453.62	0.0143	0.0055 *
Moon	-3340-12-01 15:36 J	501822.90	501823.15	501823.41	0.0143	0.0024
Earth	-3340-12-01 15:50 J	501822.92	501823.16	501823.41	0.0143	0.0022 *
Moon	-3339-12-06 10:33 J	502192.70	502192.94	502193.19	0.0144	0.0014
Earth	-3339-12-06 11:31 J	502192.73	502192.98	502193.23	0.0144	0.0017 *
Earth	-3338-12-11 07:55 J	502562.60	502562.83	502563.06	0.0144	0.0055

Moon	-3338-12-11 08:38 J	502562.64	502562.86	502563.11	0.0144	0.0062 *
Moon	-3337-12-15 03:21 J	502932.45	502932.64	502932.84	0.0144	0.0088
Earth	-3337-12-15 04:48 J	502932.53	502932.70	502932.91	0.0144	0.0095 *
Earth	-3336-12-20 02:52 J	503302.53	503302.62	503302.73	0.0145	0.0133
Moon	-3336-12-20 05:16 J	503302.66	503302.72	503302.80	0.0145	0.0139 *
Mercury	-3316-08-29 15:07 J	510495.05	510495.13	510495.23	0.0142	0.0124
Mercury	-3316-11-25 23:16 J	510583.34	510583.47	510583.63	0.0142	0.0094
Mercury	-3315-02-22 07:55 J	510671.66	510671.83	510672.01	0.0142	0.0063
Mercury	-3315-05-21 16:04 J	510759.99	510760.17	510760.37	0.0142	0.0033
Mercury	-3315-08-18 00:43 J	510848.33	510848.53	510848.72	0.0142	0.0002
Mercury	-3315-11-14 09:07 J	510936.69	510936.88	510937.07	0.0142	0.0029
Mercury	-3314-02-10 17:16 J	511025.05	511025.22	511025.41	0.0142	0.0060
Mercury	-3314-05-10 01:26 J	511113.43	511113.56	511113.73	0.0141	0.0091
Mercury	-3314-08-06 10:04 J	511201.83	511201.92	511202.03	0.0141	0.0121
Mars	-3314-11-20 17:45 J	511307.95	511308.24	511308.55	0.0141	0.0014
Venus	-3306-04-09 00:14 J	514004.48	514004.51	514004.58	0.0138	0.0134
Venus	-3306-11-21 08:38 J	514230.71	514230.86	514231.04	0.0137	0.0089
Venus	-3305-07-04 17:02 J	514457.01	514457.21	514457.43	0.0137	0.0043
Venus	-3304-02-16 01:26 J	514683.34	514683.56	514683.78	0.0137	0.0002
Venus	-3304-09-30 09:07 J	514909.68	514909.88	514910.09	0.0137	0.0046
Venus	-3303-05-14 16:48 J	515136.04	515136.20	515136.37	0.0136	0.0090
Venus	-3303-12-27 00:00 J	515362.48	515362.50	515362.56	0.0136	0.0133
Moon	-3302-05-24 15:21 J	515511.01	515511.14	515511.32	0.0136	0.0105
Earth	-3302-05-24 16:19 J	515511.03	515511.18	515511.35	0.0136	0.0105 *
Earth	-3301-05-28 06:14 J	515880.55	515880.76	515880.99	0.0136	0.0073
Moon	-3301-05-28 07:11 J	515880.58	515880.80	515881.04	0.0136	0.0070 *
Moon	-3300-06-01 18:00 J	516250.03	516250.25	516250.50	0.0135	0.0046
Earth	-3300-06-01 19:26 J	516250.08	516250.31	516250.57	0.0135	0.0041 *
Earth	-3299-06-06 08:23 J	516619.60	516619.85	516620.12	0.0135	0.0008
Moon	-3299-06-06 10:04 J	516619.65	516619.92	516620.18	0.0135	0.0001 *

Moon	-3298-06-10 18:28 J	516989.02	516989.27	516989.52	0.0134	0.0019
Earth	-3298-06-10 20:38 J	516989.11	516989.36	516989.62	0.0134	0.0025 *
Earth	-3297-06-14 07:55 J	517358.61	517358.83	517359.07	0.0134	0.0057
Moon	-3297-06-14 09:50 J	517358.69	517358.91	517359.16	0.0134	0.0062 *
Moon	-3296-06-18 16:19 J	517728.01	517728.18	517728.39	0.0134	0.0088
Earth	-3296-06-18 18:43 J	517728.10	517728.28	517728.49	0.0134	0.0089 *
Earth	-3295-06-23 05:16 J	518097.61	518097.72	518097.84	0.0134	0.0119
Moon	-3295-06-23 07:55 J	518097.72	518097.83	518097.97	0.0134	0.0117 *
Mercury	-3272-02-21 17:16 J	526377.22	526377.22	526377.25	0.0136	0.0135
Mercury	-3272-05-20 20:23 J	526465.30	526465.35	526465.43	0.0136	0.0117
Mercury	-3272-08-16 23:31 J	526553.40	526553.48	526553.58	0.0136	0.0099
Mercury	-3272-11-13 02:38 J	526641.51	526641.61	526641.72	0.0136	0.0081
Mercury	-3271-02-09 05:45 J	526729.63	526729.74	526729.86	0.0136	0.0063
Mercury	-3271-05-08 08:52 J	526817.75	526817.87	526818.00	0.0136	0.0044
Mercury	-3271-08-04 12:00 J	526905.87	526906.00	526906.13	0.0136	0.0026
Mercury	-3271-10-31 15:07 J	526994.00	526994.13	526994.26	0.0136	0.0008
Mercury	-3270-01-27 18:14 J	527082.13	527082.26	527082.39	0.0137	0.0011
Mercury	-3270-04-25 21:07 J	527170.26	527170.38	527170.51	0.0137	0.0029
Mercury	-3270-07-23 00:14 J	527258.39	527258.51	527258.63	0.0137	0.0047
Mercury	-3270-10-19 03:21 J	527346.53	527346.64	527346.75	0.0137	0.0065
Mars	-3270-12-24 02:38 J	527412.31	527412.61	527412.92	0.0137	0.0035
Mercury	-3269-01-15 06:28 J	527434.67	527434.77	527434.87	0.0137	0.0083
Mercury	-3269-04-12 09:36 J	527522.81	527522.90	527522.98	0.0137	0.0101
Mercury	-3269-07-09 12:28 J	527610.96	527611.02	527611.09	0.0137	0.0120
Mars	-3268-11-26 05:16 J	528115.66	528115.72	528115.82	0.0138	0.0133
Venus	-3262-11-16 01:12 J	530296.46	530296.55	530296.67	0.0141	0.0121
Venus	-3261-06-29 10:19 J	530522.75	530522.93	530523.12	0.0141	0.0073
Venus	-3260-02-10 19:26 J	530749.11	530749.31	530749.53	0.0141	0.0026
Venus	-3260-09-25 04:47 J	530975.50	530975.70	530975.92	0.0142	0.0024
Venus	-3259-05-09 14:09 J	531201.91	531202.09	531202.29	0.0142	0.0072

Earth	-3259-11-18 17:02 J	531395.12	531395.21	531395.33	0.0142	0.0129
Moon	-3259-11-18 18:43 J	531395.23	531395.28	531395.37	0.0142	0.0135 *
Venus	-3259-12-21 23:31 J	531428.39	531428.48	531428.61	0.0142	0.0121
Moon	-3258-11-23 08:52 J	531764.67	531764.87	531765.08	0.0143	0.0085
Earth	-3258-11-23 10:19 J	531764.75	531764.93	531765.13	0.0143	0.0093 *
Earth	-3257-11-27 04:04 J	532134.45	532134.67	532134.91	0.0143	0.0056
Moon	-3257-11-27 05:16 J	532134.52	532134.72	532134.95	0.0143	0.0062 *
Moon	-3256-12-01 22:47 J	532504.19	532504.45	532504.71	0.0143	0.0017
Earth	-3256-12-01 23:02 J	532504.22	532504.46	532504.71	0.0143	0.0019 *
Earth	-3255-12-06 18:43 J	532874.03	532874.28	532874.53	0.0144	0.0020
Moon	-3255-12-06 18:57 J	532874.06	532874.29	532874.54	0.0144	0.0022 *
Earth	-3254-12-11 15:07 J	533243.90	533244.13	533244.36	0.0144	0.0059
Moon	-3254-12-11 15:36 J	533243.92	533244.15	533244.40	0.0144	0.0053 *
Moon	-3253-12-15 11:02 J	533613.81	533613.96	533614.14	0.0144	0.0106
Earth	-3253-12-15 12:00 J	533613.83	533614.00	533614.20	0.0144	0.0097 *
Earth	-3252-12-20 09:36 J	533983.83	533983.90	533984.00	0.0145	0.0136
Moon	-3252-12-20 11:02 J	533983.87	533983.96	533984.09	0.0145	0.0130 *
Mercury	-3232-09-18 21:07 J	541196.29	541196.38	541196.48	0.0142	0.0122
Mercury	-3232-12-16 05:16 J	541284.58	541284.72	541284.88	0.0142	0.0091
Mercury	-3231-03-14 13:55 J	541372.90	541373.08	541373.25	0.0142	0.0061
Mercury	-3231-06-10 22:04 J	541461.24	541461.42	541461.62	0.0142	0.0030
Mars	-3231-08-13 03:50 J	541524.55	541524.66	541524.82	0.0142	0.0127
Mercury	-3231-09-07 06:28 J	541549.58	541549.77	541549.97	0.0142	0.0004
Mercury	-3231-12-04 14:52 J	541637.93	541638.12	541638.32	0.0142	0.0032
Mercury	-3230-03-02 23:02 J	541726.30	541726.46	541726.65	0.0142	0.0063
Mercury	-3230-05-30 07:40 J	541814.68	541814.82	541814.97	0.0141	0.0093
Mercury	-3230-08-26 15:50 J	541903.08	541903.16	541903.27	0.0141	0.0124
Mars	-3229-07-15 13:40 J	542226.80	542227.07	542227.36	0.0141	0.0047
Venus	-3222-07-21 15:21 J	544789.01	544789.14	544789.27	0.0138	0.0111
Venus	-3221-03-03 23:31 J	545015.30	545015.48	545015.69	0.0137	0.0066

Venus	-3221-10-16 07:55 J	545241.62	545241.83	545242.05	0.0137	0.0021
Venus	-3220-05-30 15:50 J	545467.95	545468.16	545468.38	0.0137	0.0024
Venus	-3219-01-11 23:31 J	545694.30	545694.48	545694.68	0.0137	0.0068
Moon	-3219-05-20 07:12 J	545822.74	545822.80	545822.90	0.0136	0.0130
Earth	-3219-05-20 08:09 J	545822.81	545822.84	545822.89	0.0136	0.0135 *
Venus	-3219-08-26 07:12 J	545920.68	545920.80	545920.93	0.0136	0.0111
Earth	-3218-05-24 23:02 J	546192.30	546192.46	546192.64	0.0136	0.0102
Moon	-3218-05-24 23:02 J	546192.31	546192.46	546192.63	0.0136	0.0103 *
Earth	-3217-05-28 13:26 J	546561.84	546562.06	546562.29	0.0136	0.0069
Moon	-3217-05-28 13:26 J	546561.85	546562.06	546562.31	0.0136	0.0072 *
Moon	-3216-06-02 02:23 J	546931.37	546931.60	546931.85	0.0135	0.0032
Earth	-3216-06-02 02:52 J	546931.38	546931.62	546931.88	0.0135	0.0036 *
Earth	-3215-06-06 16:04 J	547300.91	547301.17	547301.43	0.0135	0.0003
Moon	-3215-06-06 17:16 J	547300.96	547301.22	547301.49	0.0135	0.0010 *
Moon	-3214-06-11 03:21 J	547670.40	547670.64	547670.88	0.0134	0.0036
Earth	-3214-06-11 04:19 J	547670.43	547670.68	547670.94	0.0134	0.0029 *
Earth	-3213-06-14 15:36 J	548039.93	548040.15	548040.39	0.0134	0.0061
Moon	-3213-06-14 17:31 J	548039.99	548040.23	548040.48	0.0134	0.0056 *
Moon	-3212-06-19 00:57 J	548409.38	548409.54	548409.73	0.0134	0.0095
Earth	-3212-06-19 02:38 J	548409.44	548409.61	548409.82	0.0134	0.0092 *
Earth	-3211-06-23 13:12 J	548778.97	548779.05	548779.17	0.0134	0.0123
Moon	-3211-06-23 15:21 J	548779.05	548779.14	548779.25	0.0134	0.0123 *
Mercury	-3188-03-14 00:14 J	557078.49	557078.51	557078.55	0.0136	0.0132
Mercury	-3188-06-10 03:36 J	557166.58	557166.65	557166.72	0.0136	0.0113
Mercury	-3188-09-06 06:43 J	557254.69	557254.78	557254.87	0.0136	0.0095
Mercury	-3188-12-03 09:50 J	557342.80	557342.91	557343.02	0.0136	0.0077
Mercury	-3187-03-01 12:43 J	557430.92	557431.03	557431.15	0.0136	0.0059
Mercury	-3187-05-28 15:50 J	557519.04	557519.16	557519.29	0.0136	0.0041
Mercury	-3187-08-24 18:57 J	557607.16	557607.29	557607.42	0.0136	0.0023
Mercury	-3187-11-20 22:04 J	557695.29	557695.42	557695.55	0.0136	0.0005

Mercury	-3186-02-17 01:12 J	557783.42	557783.55	557783.68	0.0137	0.0014
Mercury	-3186-05-16 04:19 J	557871.55	557871.68	557871.80	0.0137	0.0032
Mercury	-3186-08-12 07:12 J	557959.68	557959.80	557959.93	0.0137	0.0050
Mercury	-3186-11-08 10:19 J	558047.82	558047.93	558048.05	0.0137	0.0068
Mercury	-3185-02-04 13:12 J	558135.96	558136.05	558136.16	0.0137	0.0087
Mercury	-3185-05-02 16:19 J	558224.11	558224.18	558224.27	0.0137	0.0105
Mercury	-3185-07-29 19:26 J	558312.26	558312.31	558312.37	0.0137	0.0123
Mars	-3185-08-18 05:45 J	558331.44	558331.74	558332.06	0.0137	0.0025
Venus	-3177-02-27 17:31 J	561081.07	561081.23	561081.38	0.0141	0.0096
Venus	-3177-10-11 02:23 J	561307.40	561307.60	561307.81	0.0141	0.0049
Venus	-3176-05-25 11:45 J	561533.77	561533.99	561534.20	0.0141	0.0002
Venus	-3175-01-06 20:38 J	561760.17	561760.36	561760.58	0.0142	0.0049
Venus	-3175-08-21 06:14 J	561986.62	561986.76	561986.93	0.0142	0.0097
Earth	-3175-11-19 01:55 J	562076.47	562076.58	562076.71	0.0142	0.0124
Moon	-3175-11-19 04:33 J	562076.56	562076.69	562076.83	0.0142	0.0118 *
Moon	-3174-11-23 16:47 J	562446.03	562446.20	562446.41	0.0143	0.0096
Earth	-3174-11-23 19:12 J	562446.11	562446.30	562446.50	0.0143	0.0089 *
Earth	-3173-11-27 13:12 J	562815.82	562816.05	562816.29	0.0143	0.0052
Moon	-3173-11-27 14:38 J	562815.88	562816.11	562816.34	0.0143	0.0046 *
Moon	-3172-12-02 06:14 J	563185.51	563185.76	563186.02	0.0143	0.0018
Earth	-3172-12-02 07:55 J	563185.58	563185.83	563186.08	0.0143	0.0014 *
Jupiter	-3171-11-27 08:38 J	563545.41	563545.86	563546.39	0.0144	0.0053
Earth	-3171-12-07 03:36 J	563555.40	563555.65	563555.90	0.0144	0.0024
Moon	-3171-12-07 04:04 J	563555.43	563555.67	563555.91	0.0144	0.0022 *
Moon	-3170-12-11 23:16 J	563925.25	563925.47	563925.71	0.0144	0.0067
Earth	-3170-12-11 23:45 J	563925.27	563925.49	563925.72	0.0144	0.0062 *
Moon	-3169-12-15 20:09 J	564295.17	564295.34	564295.54	0.0144	0.0095
Earth	-3169-12-15 20:52 J	564295.19	564295.37	564295.55	0.0144	0.0101 *
Earth	-3168-12-20 18:14 J	564665.20	564665.26	564665.34	0.0145	0.0139
Mercury	-3148-10-09 03:07 J	571897.54	571897.63	571897.75	0.0142	0.0119

Mercury	-3147-01-05 11:45 J	571985.84	571985.99	571986.14	0.0142	0.0088
Mercury	-3147-04-03 19:55 J	572074.16	572074.33	572074.52	0.0142	0.0057
Mercury	-3147-07-01 04:19 J	572162.49	572162.68	572162.88	0.0142	0.0027
Mercury	-3147-09-27 12:43 J	572250.84	572251.03	572251.23	0.0142	0.0006
Mercury	-3147-12-24 21:07 J	572339.19	572339.38	572339.57	0.0142	0.0035
Mercury	-3146-03-23 05:31 J	572427.56	572427.73	572427.91	0.0142	0.0066
Mars	-3146-04-08 04:33 J	572443.44	572443.69	572443.98	0.0142	0.0065
Mercury	-3146-06-19 13:40 J	572515.94	572516.07	572516.23	0.0141	0.0097
Mercury	-3146-09-15 22:19 J	572604.35	572604.43	572604.52	0.0141	0.0127
Mars	-3144-03-10 10:19 J	573145.73	573145.93	573146.12	0.0141	0.0106
Venus	-3138-03-20 21:50 J	575347.37	575347.41	575347.47	0.0138	0.0134
Venus	-3138-11-02 06:14 J	575573.60	575573.76	575573.94	0.0137	0.0089
Venus	-3137-06-15 14:38 J	575799.90	575800.11	575800.32	0.0137	0.0044
Venus	-3136-01-27 22:47 J	576026.23	576026.45	576026.67	0.0137	0.0002
Venus	-3136-09-11 06:28 J	576252.57	576252.77	576252.98	0.0137	0.0046
Venus	-3135-04-25 14:09 J	576478.93	576479.09	576479.26	0.0136	0.0090
Moon	-3135-05-20 13:55 J	576504.07	576504.08	576504.13	0.0136	0.0136
Earth	-3135-05-20 15:21 J	576504.07	576504.14	576504.21	0.0136	0.0131 *
Venus	-3135-12-07 21:36 J	576705.37	576705.40	576705.45	0.0136	0.0133
Earth	-3134-05-25 06:14 J	576873.59	576873.76	576873.95	0.0136	0.0098
Moon	-3134-05-25 06:57 J	576873.63	576873.79	576873.98	0.0136	0.0096 *
Moon	-3133-05-28 19:40 J	577243.10	577243.32	577243.57	0.0136	0.0065
Earth	-3133-05-28 20:09 J	577243.13	577243.34	577243.58	0.0136	0.0066 *
Moon	-3132-06-02 10:04 J	577612.68	577612.92	577613.16	0.0135	0.0038
Earth	-3132-06-02 10:19 J	577612.68	577612.93	577613.18	0.0135	0.0032 *
Moon	-3131-06-06 23:16 J	577982.20	577982.47	577982.74	0.0135	0.0006
Earth	-3131-06-06 23:31 J	577982.22	577982.48	577982.73	0.0135	0.0002 *
Moon	-3130-06-11 10:47 J	578351.71	578351.95	578352.20	0.0134	0.0026
Earth	-3130-06-11 11:31 J	578351.74	578351.98	578352.24	0.0134	0.0033 *
Earth	-3129-06-14 23:02 J	578721.25	578721.46	578721.71	0.0134	0.0065

Moon	-3129-06-15 00:14 J	578721.28	578721.51	578721.74	0.0134	0.0070 *
Moon	-3128-06-19 09:21 J	579090.73	579090.89	579091.08	0.0134	0.0093
Earth	-3128-06-19 10:33 J	579090.77	579090.94	579091.13	0.0134	0.0095 *
Earth	-3127-06-23 20:52 J	579460.30	579460.37	579460.48	0.0134	0.0126
Moon	-3127-06-23 22:19 J	579460.36	579460.43	579460.55	0.0134	0.0125 *
Mercury	-3104-04-03 07:12 J	587779.77	587779.80	587779.85	0.0136	0.0129
Mercury	-3104-06-30 10:33 J	587867.87	587867.94	587868.01	0.0136	0.0110
Mercury	-3104-09-26 13:40 J	587955.97	587956.07	587956.16	0.0136	0.0092
Mercury	-3104-12-23 16:47 J	588044.09	588044.20	588044.31	0.0136	0.0074
Mercury	-3103-03-21 19:40 J	588132.21	588132.32	588132.45	0.0136	0.0057
Mercury	-3103-06-17 22:47 J	588220.33	588220.45	588220.58	0.0136	0.0038
Mercury	-3103-09-14 01:55 J	588308.45	588308.58	588308.71	0.0136	0.0020
Mercury	-3103-12-11 05:02 J	588396.58	588396.71	588396.84	0.0136	0.0004
Mercury	-3102-03-09 08:09 J	588484.71	588484.84	588484.97	0.0137	0.0017
Mars	-3102-05-11 13:26 J	588547.82	588548.06	588548.32	0.0137	0.0080
Mercury	-3102-06-05 11:16 J	588572.84	588572.97	588573.10	0.0137	0.0035
Mercury	-3102-09-01 14:23 J	588660.98	588661.10	588661.22	0.0137	0.0053
Mercury	-3102-11-28 17:16 J	588749.12	588749.22	588749.34	0.0137	0.0072
Mercury	-3101-02-24 20:23 J	588837.26	588837.35	588837.45	0.0137	0.0090
Mercury	-3101-05-22 23:31 J	588925.41	588925.48	588925.56	0.0137	0.0108
Mercury	-3101-08-19 02:38 J	589013.56	589013.61	589013.66	0.0137	0.0126
Mars	-3100-04-13 10:04 J	589250.68	589250.92	589251.17	0.0138	0.0085
Venus	-3094-10-28 00:43 J	591639.42	591639.53	591639.65	0.0141	0.0119
Venus	-3093-06-10 09:50 J	591865.72	591865.91	591866.10	0.0141	0.0071
Venus	-3092-01-22 18:57 J	592092.08	592092.29	592092.50	0.0141	0.0023
Venus	-3092-09-06 04:19 J	592318.47	592318.68	592318.90	0.0142	0.0025
Venus	-3091-04-20 13:40 J	592544.89	592545.07	592545.26	0.0142	0.0074
Earth	-3091-11-19 12:14 J	592757.88	592758.01	592758.14	0.0142	0.0120
Moon	-3091-11-19 14:23 J	592758.01	592758.10	592758.23	0.0142	0.0126 *
Venus	-3091-12-02 23:02 J	592771.37	592771.46	592771.58	0.0142	0.0123

Moon	-3090-11-24 02:23 J	593127.41	593127.60	593127.84	0.0143	0.0077
Earth	-3090-11-24 05:02 J	593127.53	593127.71	593127.93	0.0143	0.0085 *
Earth	-3089-11-27 23:16 J	593497.24	593497.47	593497.71	0.0143	0.0047
Moon	-3089-11-28 01:40 J	593497.35	593497.57	593497.80	0.0143	0.0054 *
Moon	-3088-12-02 16:47 J	593866.94	593867.20	593867.46	0.0143	0.0007
Earth	-3088-12-02 18:14 J	593867.02	593867.26	593867.51	0.0143	0.0010 *
Earth	-3087-12-07 13:40 J	594236.84	594237.07	594237.33	0.0144	0.0029
Moon	-3087-12-07 15:21 J	594236.91	594237.14	594237.39	0.0144	0.0029 *
Moon	-3086-12-12 09:21 J	594606.66	594606.89	594607.13	0.0144	0.0062
Earth	-3086-12-12 09:50 J	594606.71	594606.91	594607.15	0.0144	0.0068 *
Earth	-3085-12-16 07:12 J	594976.63	594976.80	594976.98	0.0144	0.0105
Moon	-3085-12-16 07:26 J	594976.67	594976.81	594976.97	0.0144	0.0113 *
Moon	-3084-12-21 04:33 J	595346.62	595346.69	595346.79	0.0145	0.0136
Earth	-3084-12-21 04:33 J	595346.67	595346.69	595346.74	0.0145	0.0143 *
Mercury	-3064-10-29 10:04 J	602598.82	602598.92	602599.05	0.0142	0.0113
Mercury	-3063-01-25 18:43 J	602687.13	602687.28	602687.44	0.0142	0.0081
Mercury	-3063-04-24 03:07 J	602775.45	602775.63	602775.81	0.0142	0.0051
Mercury	-3063-07-21 11:31 J	602863.79	602863.98	602864.17	0.0142	0.0020
Mercury	-3063-10-17 19:55 J	602952.13	602952.33	602952.52	0.0142	0.0010
Mercury	-3062-01-14 04:19 J	603040.49	603040.68	603040.87	0.0142	0.0041
Mercury	-3062-04-12 12:28 J	603128.86	603129.02	603129.20	0.0142	0.0072
Mercury	-3062-07-09 20:52 J	603217.24	603217.37	603217.51	0.0141	0.0102
Mercury	-3062-10-06 05:31 J	603305.66	603305.73	603305.79	0.0141	0.0133
Mars	-3062-12-02 08:23 J	603362.54	603362.85	603363.15	0.0141	0.0003
Venus	-3054-07-02 13:40 J	606131.96	606132.07	606132.21	0.0138	0.0111
Venus	-3053-02-13 22:19 J	606358.24	606358.43	606358.63	0.0137	0.0065
Venus	-3053-09-27 06:28 J	606584.55	606584.77	606584.99	0.0137	0.0020
Venus	-3052-05-11 14:23 J	606810.88	606811.10	606811.32	0.0137	0.0024
Venus	-3052-12-23 21:50 J	607037.23	607037.41	607037.61	0.0137	0.0069
Moon	-3051-05-20 21:50 J	607185.29	607185.41	607185.54	0.0136	0.0120

Earth	-3051-05-20 23:45 J	607185.41	607185.49	607185.60	0.0136	0.0126 *
Venus	-3051-08-07 05:31 J	607263.62	607263.73	607263.87	0.0136	0.0113
Earth	-3050-05-25 14:23 J	607554.94	607555.10	607555.31	0.0136	0.0094
Moon	-3050-05-25 16:19 J	607555.01	607555.18	607555.36	0.0136	0.0096 *
Moon	-3049-05-29 04:04 J	607924.44	607924.67	607924.92	0.0136	0.0062
Earth	-3049-05-29 05:16 J	607924.49	607924.72	607924.95	0.0136	0.0061 *
Earth	-3048-06-02 18:57 J	608294.04	608294.29	608294.55	0.0135	0.0028
Moon	-3048-06-02 19:55 J	608294.09	608294.33	608294.58	0.0135	0.0025 *
Moon	-3047-06-07 07:55 J	608663.57	608663.83	608664.10	0.0135	0.0002
Earth	-3047-06-07 08:09 J	608663.58	608663.84	608664.10	0.0135	0.0005 *
Earth	-3046-06-11 20:23 J	609033.11	609033.35	609033.61	0.0134	0.0037
Moon	-3046-06-11 20:52 J	609033.14	609033.37	609033.61	0.0134	0.0044 *
Moon	-3045-06-15 08:23 J	609402.62	609402.85	609403.10	0.0134	0.0063
Earth	-3045-06-15 08:09 J	609402.63	609402.84	609403.07	0.0134	0.0069 *
Moon	-3044-06-19 18:57 J	609772.14	609772.29	609772.46	0.0134	0.0103
Earth	-3044-06-19 19:26 J	609772.15	609772.31	609772.49	0.0134	0.0099 *
Earth	-3043-06-24 05:45 J	610141.70	610141.74	610141.82	0.0134	0.0130
Moon	-3043-06-24 06:00 J	610141.71	610141.75	610141.85	0.0134	0.0129 *
Mercury	-3020-04-23 14:23 J	618481.06	618481.10	618481.16	0.0136	0.0125
Mercury	-3020-07-20 17:31 J	618569.16	618569.23	618569.32	0.0136	0.0107
Mercury	-3020-10-16 20:52 J	618657.27	618657.37	618657.47	0.0136	0.0089
Mercury	-3019-01-13 00:00 J	618745.39	618745.50	618745.61	0.0136	0.0070
Mercury	-3019-04-11 02:52 J	618833.51	618833.62	618833.75	0.0136	0.0053
Mercury	-3019-07-08 06:00 J	618921.63	618921.75	618921.88	0.0136	0.0034
Mercury	-3019-10-04 09:07 J	619009.75	619009.88	619010.01	0.0136	0.0016
Mercury	-3019-12-31 12:14 J	619097.88	619098.01	619098.14	0.0137	0.0003
Mercury	-3018-03-29 15:21 J	619186.01	619186.14	619186.27	0.0137	0.0021
Mercury	-3018-06-25 18:28 J	619274.15	619274.27	619274.40	0.0137	0.0039
Mercury	-3018-09-21 21:36 J	619362.28	619362.40	619362.52	0.0137	0.0057
Mercury	-3018-12-19 00:28 J	619450.42	619450.52	619450.64	0.0137	0.0076

Mars	-3017-01-04 16:33 J	619466.89	619467.19	619467.51	0.0137	0.0021
Mercury	-3017-03-16 03:36 J	619538.56	619538.65	619538.75	0.0137	0.0094
Mercury	-3017-06-12 06:43 J	619626.71	619626.78	619626.86	0.0137	0.0112
Mercury	-3017-09-08 09:50 J	619714.88	619714.91	619714.95	0.0137	0.0130
Venus	-3009-02-08 17:31 J	622424.08	622424.23	622424.40	0.0141	0.0094
Venus	-3009-09-22 02:52 J	622650.42	622650.62	622650.83	0.0141	0.0046
Venus	-3008-05-06 12:14 J	622876.79	622877.01	622877.22	0.0141	0.0003
Venus	-3008-12-18 21:36 J	623103.20	623103.40	623103.60	0.0142	0.0051
Venus	-3007-08-02 06:57 J	623329.65	623329.79	623329.95	0.0142	0.0100
Earth	-3007-11-19 22:47 J	623439.31	623439.45	623439.61	0.0142	0.0114
Moon	-3007-11-20 01:55 J	623439.44	623439.58	623439.75	0.0142	0.0108 *
Moon	-3006-11-24 12:57 J	623808.86	623809.04	623809.26	0.0143	0.0086
Earth	-3006-11-24 16:04 J	623808.98	623809.17	623809.39	0.0143	0.0079 *
Earth	-3005-11-28 10:19 J	624178.70	624178.93	624179.18	0.0143	0.0042
Moon	-3005-11-28 12:43 J	624178.81	624179.03	624179.28	0.0143	0.0036 *
Moon	-3004-12-03 02:38 J	624548.36	624548.61	624548.87	0.0143	0.0010
Earth	-3004-12-03 05:31 J	624548.48	624548.73	624548.98	0.0143	0.0004 *
Earth	-3003-12-08 00:57 J	624918.30	624918.54	624918.79	0.0144	0.0034
Moon	-3003-12-08 02:38 J	624918.38	624918.61	624918.85	0.0144	0.0033 *
Moon	-3002-12-12 19:40 J	625288.10	625288.32	625288.54	0.0144	0.0076
Earth	-3002-12-12 21:21 J	625288.18	625288.39	625288.61	0.0144	0.0072 *
Earth	-3001-12-16 18:14 J	625658.10	625658.26	625658.42	0.0144	0.0110
Moon	-3001-12-16 18:57 J	625658.13	625658.29	625658.47	0.0144	0.0104 *

3RD MILLENNIUM BCE

This is a list of transits visible from Uranus in the 3rd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	-2980-08-22 09:36 J		633211.85	633211.90	633211.98	0.0142	0.0134	
Mercury	-2980-11-18 18:00 J		633300.13	633300.25	633300.39	0.0142	0.0104	
Mercury	-2979-02-15 02:23 J		633388.44	633388.60	633388.77	0.0142	0.0073	
Mercury	-2979-05-14 10:47 J		633476.77	633476.95	633477.14	0.0142	0.0042	
Mercury	-2979-08-10 19:12 J		633565.11	633565.30	633565.50	0.0142	0.0012	
Mars	-2979-08-25 02:23 J		633579.44	633579.60	633579.81	0.0142	0.0112	
Mercury	-2979-11-07 03:36 J		633653.46	633653.65	633653.85	0.0142	0.0019	
Mercury	-2978-02-03 12:00 J		633741.82	633742.00	633742.19	0.0142	0.0050	
Mercury	-2978-05-02 20:09 J		633830.19	633830.34	633830.51	0.0141	0.0081	
Mercury	-2978-07-30 04:47 J		633918.58	633918.70	633918.82	0.0141	0.0111	
Mercury	-2978-10-26 13:12 J		634007.05	634007.05	634007.06	0.0141	0.0141	
Mars	-2977-07-27 13:12 J		634281.80	634282.05	634282.34	0.0141	0.0061	
Venus	-2970-03-01 22:19 J		636690.39	636690.43	636690.51	0.0138	0.0132	
Venus	-2970-10-14 06:43 J		636916.63	636916.78	636916.97	0.0137	0.0087	
Venus	-2969-05-27 15:07 J		637142.92	637143.13	637143.34	0.0137	0.0041	
Venus	-2968-01-08 23:02 J		637369.24	637369.46	637369.68	0.0137	0.0004	
Venus	-2968-08-23 06:43 J		637595.59	637595.78	637596.00	0.0137	0.0049	
Venus	-2967-04-06 14:38 J		637821.96	637822.11	637822.28	0.0136	0.0092	
Moon	-2967-05-21 07:40 J		637866.73	637866.82	637866.93	0.0136	0.0127	
Earth	-2967-05-21 09:36 J		637866.81	637866.90	637867.04	0.0136	0.0121	*
Venus	-2967-11-18 22:19 J		638048.43	638048.43	638048.44	0.0136	0.0136	
Earth	-2966-05-26 01:12 J		638236.35	638236.55	638236.74	0.0136	0.0088	
Moon	-2966-05-26 03:07 J		638236.44	638236.63	638236.83	0.0136	0.0085	*
Moon	-2965-05-29 13:12 J		638605.82	638606.05	638606.31	0.0135	0.0056	
Earth	-2965-05-29 15:21 J		638605.91	638606.14	638606.38	0.0135	0.0056	*
Earth	-2964-06-03 05:02 J		638975.46	638975.71	638975.97	0.0135	0.0023	

Moon	-2964-06-03 06:14 J	638975.52	638975.76	638976.01	0.0135	0.0027 *
Moon	-2963-06-07 16:47 J	639344.94	639345.20	639345.47	0.0135	0.0015
Earth	-2963-06-07 18:14 J	639345.01	639345.26	639345.52	0.0135	0.0010 *
Jupiter	-2963-09-01 00:28 J	639430.12	639430.52	639430.99	0.0135	0.0072
Earth	-2962-06-12 06:28 J	639714.53	639714.77	639715.02	0.0134	0.0042
Moon	-2962-06-12 06:57 J	639714.56	639714.79	639715.04	0.0134	0.0035 *
Moon	-2961-06-15 17:16 J	640084.03	640084.22	640084.46	0.0134	0.0080
Earth	-2961-06-15 18:00 J	640084.05	640084.25	640084.48	0.0134	0.0073 *
Earth	-2960-06-20 05:02 J	640453.57	640453.71	640453.89	0.0134	0.0104
Moon	-2960-06-20 05:31 J	640453.58	640453.73	640453.91	0.0134	0.0100 *
Earth	-2959-06-24 15:21 J	640823.14	640823.14	640823.18	0.0134	0.0134
Moon	-2959-06-24 15:50 J	640823.16	640823.16	640823.18	0.0134	0.0133 *
Mercury	-2936-05-13 21:36 J	649182.34	649182.40	649182.46	0.0136	0.0121
Mercury	-2936-08-10 00:43 J	649270.45	649270.53	649270.61	0.0136	0.0103
Mercury	-2936-11-06 03:50 J	649358.56	649358.66	649358.76	0.0136	0.0085
Mercury	-2935-02-02 06:43 J	649446.67	649446.78	649446.90	0.0136	0.0068
Mercury	-2935-05-01 09:50 J	649534.80	649534.91	649535.04	0.0136	0.0050
Mercury	-2935-07-28 12:57 J	649622.92	649623.04	649623.17	0.0136	0.0032
Mars	-2935-09-27 04:19 J	649683.58	649683.68	649683.84	0.0136	0.0124
Mercury	-2935-10-24 16:04 J	649711.05	649711.17	649711.31	0.0137	0.0014
Mercury	-2934-01-20 19:12 J	649799.17	649799.30	649799.44	0.0137	0.0007
Mercury	-2934-04-18 22:19 J	649887.30	649887.43	649887.56	0.0137	0.0024
Mercury	-2934-07-16 01:26 J	649975.44	649975.56	649975.69	0.0137	0.0042
Mercury	-2934-10-12 04:33 J	650063.57	650063.69	650063.81	0.0137	0.0060
Mercury	-2933-01-08 07:26 J	650151.71	650151.81	650151.93	0.0137	0.0079
Mercury	-2933-04-05 10:33 J	650239.86	650239.94	650240.04	0.0137	0.0097
Mercury	-2933-07-02 13:40 J	650328.01	650328.07	650328.15	0.0137	0.0116
Mars	-2933-08-29 18:43 J	650385.99	650386.28	650386.60	0.0137	0.0039
Mercury	-2933-09-28 16:47 J	650416.18	650416.20	650416.23	0.0137	0.0134
Venus	-2926-10-09 00:57 J	652982.43	652982.54	652982.66	0.0141	0.0117

Venus	-2925-05-22 10:04 J	653208.73	653208.92	653209.11	0.0141	0.0069
Venus	-2924-01-03 19:12 J	653435.09	653435.30	653435.52	0.0141	0.0022
Venus	-2924-08-18 04:47 J	653661.49	653661.70	653661.91	0.0142	0.0028
Moon	-2924-11-15 12:43 J	653751.01	653751.03	653751.04	0.0142	0.0141
Venus	-2923-04-01 14:09 J	653887.92	653888.09	653888.28	0.0142	0.0077
Venus	-2923-11-13 23:45 J	654114.41	654114.49	654114.60	0.0142	0.0126
Earth	-2923-11-20 08:38 J	654120.72	654120.86	654121.03	0.0142	0.0109
Moon	-2923-11-20 11:45 J	654120.87	654120.99	654121.16	0.0142	0.0115 *
Moon	-2922-11-24 23:02 J	654490.25	654490.46	654490.70	0.0143	0.0066
Earth	-2922-11-25 02:23 J	654490.39	654490.60	654490.82	0.0143	0.0074 *
Earth	-2921-11-28 20:23 J	654860.12	654860.35	654860.60	0.0143	0.0037
Moon	-2921-11-28 23:45 J	654860.26	654860.49	654860.73	0.0143	0.0044 *
Moon	-2920-12-03 13:12 J	655229.79	655230.05	655230.30	0.0143	0.0005
Earth	-2920-12-03 15:36 J	655229.90	655230.15	655230.41	0.0143	0.0003 *
Earth	-2919-12-08 11:16 J	655599.73	655599.97	655600.21	0.0144	0.0038
Moon	-2919-12-08 13:55 J	655599.85	655600.08	655600.32	0.0144	0.0038 *
Moon	-2918-12-13 05:16 J	655969.52	655969.72	655969.96	0.0144	0.0073
Earth	-2918-12-13 07:26 J	655969.61	655969.81	655970.03	0.0144	0.0077 *
Earth	-2917-12-17 04:04 J	656339.54	656339.67	656339.85	0.0145	0.0115
Moon	-2917-12-17 05:45 J	656339.63	656339.74	656339.89	0.0145	0.0122 *
Moon	-2916-12-22 00:57 J	656709.54	656709.54	656709.57	0.0145	0.0145
Mercury	-2896-09-11 17:45 J	663913.16	663913.24	663913.34	0.0142	0.0124
Mercury	-2896-12-09 02:23 J	664001.45	664001.60	664001.74	0.0142	0.0094
Mercury	-2895-03-07 10:33 J	664089.77	664089.94	664090.12	0.0142	0.0063
Mercury	-2895-06-03 18:57 J	664178.10	664178.29	664178.48	0.0142	0.0032
Mercury	-2895-08-31 03:21 J	664266.45	664266.64	664266.84	0.0142	0.0002
Mercury	-2895-11-27 11:45 J	664354.80	664354.99	664355.18	0.0142	0.0029
Mercury	-2894-02-23 19:55 J	664443.16	664443.33	664443.52	0.0142	0.0060
Mars	-2894-04-20 12:28 J	664498.75	664499.02	664499.32	0.0141	0.0046
Mercury	-2894-05-23 04:33 J	664531.54	664531.69	664531.84	0.0141	0.0090

Mercury	-2894-08-19 12:43 J	664619.94	664620.03	664620.14	0.0141	0.0121
Mars	-2892-03-22 19:12 J	665201.19	665201.30	665201.47	0.0141	0.0124
Venus	-2886-06-13 16:04 J	667475.05	667475.17	667475.32	0.0138	0.0107
Venus	-2885-01-26 00:28 J	667701.33	667701.52	667701.73	0.0137	0.0061
Venus	-2885-09-08 08:38 J	667927.65	667927.86	667928.08	0.0137	0.0016
Venus	-2884-04-22 16:33 J	668153.98	668154.19	668154.41	0.0137	0.0029
Venus	-2884-12-05 00:00 J	668380.33	668380.50	668380.70	0.0136	0.0074
Moon	-2883-05-21 18:14 J	668548.12	668548.26	668548.44	0.0136	0.0109
Earth	-2883-05-21 21:21 J	668548.27	668548.39	668548.55	0.0136	0.0115 *
Venus	-2883-07-19 07:40 J	668606.73	668606.82	668606.95	0.0136	0.0117
Earth	-2882-05-26 12:28 J	668917.82	668918.02	668918.23	0.0136	0.0082
Moon	-2882-05-26 15:07 J	668917.94	668918.13	668918.32	0.0136	0.0086 *
Moon	-2881-05-30 00:43 J	669287.29	669287.53	669287.78	0.0135	0.0050
Earth	-2881-05-30 02:52 J	669287.39	669287.62	669287.87	0.0135	0.0050 *
Earth	-2880-06-03 16:47 J	669656.94	669657.20	669657.45	0.0135	0.0017
Moon	-2880-06-03 18:57 J	669657.04	669657.29	669657.54	0.0135	0.0015 *
Moon	-2879-06-08 04:04 J	670026.41	670026.67	670026.94	0.0135	0.0009
Earth	-2879-06-08 05:31 J	670026.48	670026.73	670026.99	0.0135	0.0015 *
Earth	-2878-06-12 17:45 J	670396.00	670396.24	670396.49	0.0134	0.0047
Moon	-2878-06-12 19:26 J	670396.08	670396.31	670396.54	0.0134	0.0054 *
Moon	-2877-06-16 04:04 J	670765.46	670765.67	670765.91	0.0134	0.0072
Earth	-2877-06-16 05:16 J	670765.52	670765.72	670765.94	0.0134	0.0078 *
Earth	-2876-06-20 16:19 J	671135.03	671135.18	671135.33	0.0134	0.0108
Moon	-2876-06-20 16:47 J	671135.08	671135.20	671135.35	0.0134	0.0113 *
Mercury	-2852-03-07 01:26 J	679795.56	679795.56	679795.57	0.0136	0.0136
Mercury	-2852-06-03 04:33 J	679883.63	679883.69	679883.76	0.0136	0.0118
Mercury	-2852-08-30 07:40 J	679971.74	679971.82	679971.91	0.0136	0.0100
Mercury	-2852-11-26 11:02 J	680059.85	680059.96	680060.06	0.0136	0.0082
Mercury	-2851-02-22 13:55 J	680147.97	680148.08	680148.20	0.0136	0.0064
Mercury	-2851-05-21 17:02 J	680236.09	680236.21	680236.34	0.0136	0.0045

Mercury	-2851-08-17 20:09 J	680324.21	680324.34	680324.47	0.0136	0.0027
Mercury	-2851-11-13 23:16 J	680412.34	680412.47	680412.60	0.0137	0.0009
Mercury	-2850-02-10 02:23 J	680500.47	680500.60	680500.73	0.0137	0.0009
Mercury	-2850-05-09 05:31 J	680588.60	680588.73	680588.86	0.0137	0.0028
Mars	-2850-05-23 04:19 J	680602.41	680602.68	680602.96	0.0137	0.0065
Mercury	-2850-08-05 08:23 J	680676.73	680676.85	680676.98	0.0137	0.0046
Mercury	-2850-11-01 11:31 J	680764.87	680764.98	680765.10	0.0137	0.0064
Mercury	-2849-01-28 14:38 J	680853.01	680853.11	680853.22	0.0137	0.0082
Mercury	-2849-04-25 17:45 J	680941.15	680941.24	680941.33	0.0137	0.0100
Mercury	-2849-07-22 20:52 J	681029.31	681029.37	681029.43	0.0137	0.0119
Mercury	-2849-10-18 23:45 J	681117.49	681117.49	681117.50	0.0137	0.0137
Mars	-2848-04-24 22:33 J	681305.24	681305.44	681305.68	0.0138	0.0099
Venus	-2842-06-08 07:55 J	683540.83	683540.83	683540.84	0.0141	0.0141
Venus	-2841-01-20 16:47 J	683767.05	683767.20	683767.37	0.0141	0.0093
Venus	-2841-09-03 02:09 J	683993.39	683993.59	683993.80	0.0141	0.0045
Venus	-2840-04-17 11:45 J	684219.77	684219.99	684220.20	0.0141	0.0004
Moon	-2840-11-15 21:36 J	684432.40	684432.40	684432.45	0.0142	0.0141
Earth	-2840-11-16 01:12 J	684432.52	684432.55	684432.61	0.0142	0.0139
Venus	-2840-11-29 20:52 J	684446.18	684446.37	684446.58	0.0142	0.0053
Venus	-2839-07-14 06:43 J	684672.63	684672.78	684672.93	0.0142	0.0102
Earth	-2839-11-20 18:00 J	684802.09	684802.25	684802.43	0.0142	0.0105
Moon	-2839-11-20 21:36 J	684802.23	684802.40	684802.59	0.0142	0.0098 *
Moon	-2838-11-25 07:55 J	685171.63	685171.83	685172.05	0.0143	0.0076
Earth	-2838-11-25 11:16 J	685171.76	685171.97	685172.20	0.0143	0.0069 *
Earth	-2837-11-29 05:31 J	685541.49	685541.73	685541.98	0.0143	0.0032
Moon	-2837-11-29 08:52 J	685541.63	685541.87	685542.11	0.0143	0.0025 *
Moon	-2836-12-03 21:07 J	685911.13	685911.38	685911.64	0.0144	0.0002
Earth	-2836-12-04 00:43 J	685911.28	685911.53	685911.78	0.0144	0.0006 *
Earth	-2835-12-08 19:55 J	686281.10	686281.33	686281.58	0.0144	0.0043
Moon	-2835-12-08 22:33 J	686281.22	686281.44	686281.68	0.0144	0.0044 *

Moon	-2834-12-13 13:40 J	686650.87	686651.07	686651.28	0.0144	0.0084
Earth	-2834-12-13 16:33 J	686650.98	686651.19	686651.40	0.0144	0.0081 *
Earth	-2833-12-17 12:57 J	687020.92	687021.04	687021.20	0.0145	0.0119
Moon	-2833-12-17 15:21 J	687021.00	687021.14	687021.30	0.0145	0.0113 *
Mercury	-2812-10-02 01:12 J	694614.45	694614.55	694614.67	0.0142	0.0116
Mercury	-2812-12-29 09:50 J	694702.75	694702.91	694703.06	0.0142	0.0086
Mercury	-2811-03-27 18:00 J	694791.08	694791.25	694791.43	0.0142	0.0055
Mercury	-2811-06-24 02:23 J	694879.41	694879.60	694879.80	0.0142	0.0024
Mercury	-2811-09-20 10:47 J	694967.76	694967.95	694968.15	0.0142	0.0006
Mercury	-2811-12-17 19:12 J	695056.11	695056.30	695056.49	0.0142	0.0037
Mercury	-2810-03-16 03:21 J	695144.48	695144.64	695144.82	0.0142	0.0068
Mercury	-2810-06-12 11:45 J	695232.86	695232.99	695233.14	0.0141	0.0098
Mercury	-2810-09-08 20:09 J	695321.27	695321.34	695321.43	0.0141	0.0129
Mars	-2810-12-14 19:55 J	695418.04	695418.33	695418.64	0.0141	0.0020
Venus	-2802-02-11 01:26 J	698033.48	698033.56	698033.65	0.0138	0.0126
Venus	-2802-09-25 09:50 J	698259.73	698259.91	698260.09	0.0137	0.0081
Venus	-2801-05-08 18:00 J	698486.04	698486.25	698486.46	0.0137	0.0036
Venus	-2801-12-21 01:55 J	698712.36	698712.58	698712.80	0.0137	0.0009
Moon	-2800-05-17 20:38 J	698860.33	698860.36	698860.41	0.0137	0.0135
Venus	-2800-08-04 09:36 J	698938.71	698938.90	698939.11	0.0137	0.0054
Venus	-2799-03-18 17:16 J	699165.09	699165.22	699165.39	0.0136	0.0098
Moon	-2799-05-22 05:16 J	699229.61	699229.72	699229.88	0.0136	0.0117
Earth	-2799-05-22 08:52 J	699229.72	699229.87	699230.03	0.0136	0.0110 *
Earth	-2798-05-26 23:45 J	699599.29	699599.49	699599.71	0.0136	0.0077
Moon	-2798-05-27 02:52 J	699599.41	699599.62	699599.83	0.0136	0.0073 *
Moon	-2797-05-30 11:16 J	699968.73	699968.97	699969.23	0.0135	0.0046
Earth	-2797-05-30 14:09 J	699968.86	699969.09	699969.34	0.0135	0.0045 *
Earth	-2796-06-04 03:50 J	700338.41	700338.66	700338.92	0.0135	0.0012
Moon	-2796-06-04 06:00 J	700338.50	700338.75	700339.00	0.0135	0.0016 *
Moon	-2795-06-08 14:09 J	700707.83	700708.09	700708.36	0.0135	0.0025

Earth	-2795-06-08 16:47 J	700707.95	700708.20	700708.46	0.0135	0.0020 *
Earth	-2794-06-13 04:47 J	701077.46	701077.70	701077.94	0.0134	0.0052
Moon	-2794-06-13 06:28 J	701077.54	701077.77	701078.01	0.0134	0.0045 *
Moon	-2793-06-16 14:09 J	701446.91	701447.09	701447.31	0.0134	0.0090
Earth	-2793-06-16 16:19 J	701446.98	701447.18	701447.39	0.0134	0.0082 *
Earth	-2792-06-21 02:38 J	701816.50	701816.61	701816.77	0.0134	0.0113
Moon	-2792-06-21 04:33 J	701816.55	701816.69	701816.84	0.0134	0.0108 *
Mercury	-2768-03-27 08:23 J	710496.83	710496.85	710496.88	0.0136	0.0133
Mercury	-2768-06-23 11:31 J	710584.92	710584.98	710585.06	0.0136	0.0115
Mercury	-2768-09-19 14:38 J	710673.02	710673.11	710673.21	0.0136	0.0097
Mercury	-2768-12-16 17:45 J	710761.14	710761.24	710761.35	0.0136	0.0079
Mercury	-2767-03-14 20:52 J	710849.26	710849.37	710849.49	0.0136	0.0060
Mercury	-2767-06-11 00:00 J	710937.38	710937.50	710937.63	0.0136	0.0042
Mercury	-2767-09-07 03:07 J	711025.50	711025.63	711025.76	0.0136	0.0024
Mercury	-2767-12-04 06:14 J	711113.63	711113.76	711113.89	0.0136	0.0006
Mercury	-2766-03-02 09:21 J	711201.76	711201.89	711202.02	0.0137	0.0012
Mercury	-2766-05-29 12:14 J	711289.89	711290.01	711290.14	0.0137	0.0031
Mercury	-2766-08-25 15:21 J	711378.02	711378.14	711378.26	0.0137	0.0049
Mercury	-2766-11-21 18:28 J	711466.16	711466.27	711466.38	0.0137	0.0067
Mars	-2765-01-16 03:07 J	711521.32	711521.63	711521.95	0.0137	0.0007
Mercury	-2765-02-17 21:21 J	711554.30	711554.39	711554.50	0.0137	0.0085
Mercury	-2765-05-16 00:28 J	711642.44	711642.52	711642.61	0.0137	0.0103
Mercury	-2765-08-12 03:36 J	711730.60	711730.65	711730.71	0.0137	0.0122
Venus	-2758-09-19 23:16 J	714325.36	714325.47	714325.60	0.0141	0.0117
Venus	-2757-05-03 08:23 J	714551.67	714551.85	714552.04	0.0141	0.0069
Venus	-2757-12-15 17:45 J	714778.03	714778.24	714778.45	0.0141	0.0021
Venus	-2756-07-30 03:07 J	715004.42	715004.63	715004.85	0.0142	0.0028
Moon	-2756-11-16 05:31 J	715113.67	715113.73	715113.82	0.0142	0.0134
Earth	-2756-11-16 09:21 J	715113.82	715113.89	715113.97	0.0142	0.0135 *
Venus	-2755-03-13 12:28 J	715230.85	715231.02	715231.21	0.0142	0.0077

Venus	-2755-10-25 22:04 J	715457.34	715457.42	715457.54	0.0142	0.0127
Earth	-2755-11-21 01:40 J	715483.41	715483.57	715483.76	0.0142	0.0101
Moon	-2755-11-21 05:02 J	715483.56	715483.71	715483.89	0.0142	0.0105 *
Moon	-2754-11-25 15:21 J	715852.93	715853.14	715853.39	0.0143	0.0058
Earth	-2754-11-25 19:12 J	715853.09	715853.30	715853.53	0.0143	0.0065 *
Earth	-2753-11-29 13:12 J	716222.81	716223.05	716223.30	0.0143	0.0028
Moon	-2753-11-29 16:47 J	716222.96	716223.20	716223.44	0.0143	0.0036 *
Moon	-2752-12-04 05:02 J	716592.45	716592.71	716592.96	0.0144	0.0014
Earth	-2752-12-04 08:09 J	716592.59	716592.84	716593.09	0.0144	0.0009 *
Earth	-2751-12-09 03:36 J	716962.42	716962.65	716962.89	0.0144	0.0046
Moon	-2751-12-09 06:57 J	716962.56	716962.79	716963.03	0.0144	0.0045 *
Moon	-2750-12-13 20:38 J	717332.16	717332.36	717332.58	0.0144	0.0082
Earth	-2750-12-13 23:31 J	717332.29	717332.48	717332.70	0.0144	0.0085 *
Earth	-2749-12-17 20:23 J	717702.24	717702.35	717702.51	0.0145	0.0122
Moon	-2749-12-17 23:02 J	717702.37	717702.46	717702.59	0.0145	0.0129 *
Mercury	-2728-07-25 23:45 J	725227.48	725227.49	725227.53	0.0142	0.0141
Mercury	-2728-10-22 08:09 J	725315.73	725315.84	725315.97	0.0142	0.0110
Mercury	-2727-01-18 16:33 J	725404.04	725404.19	725404.36	0.0142	0.0080
Mercury	-2727-04-17 00:57 J	725492.36	725492.54	725492.73	0.0142	0.0049
Mercury	-2727-07-14 09:21 J	725580.70	725580.89	725581.09	0.0142	0.0018
Mars	-2727-09-06 08:23 J	725634.64	725634.85	725635.11	0.0142	0.0091
Mercury	-2727-10-10 17:45 J	725669.05	725669.24	725669.44	0.0142	0.0013
Mercury	-2726-01-07 02:09 J	725757.41	725757.59	725757.78	0.0142	0.0043
Mercury	-2726-04-05 10:33 J	725845.78	725845.94	725846.11	0.0142	0.0074
Mercury	-2726-07-02 18:43 J	725934.16	725934.28	725934.42	0.0142	0.0105
Mercury	-2726-09-29 03:21 J	726022.59	726022.64	726022.70	0.0141	0.0135
Mars	-2725-08-08 21:50 J	726337.18	726337.41	726337.67	0.0141	0.0081
Venus	-2718-05-25 17:45 J	728818.11	728818.24	728818.40	0.0138	0.0102
Venus	-2717-01-07 02:09 J	729044.40	729044.59	729044.80	0.0137	0.0056
Venus	-2717-08-20 10:33 J	729270.72	729270.94	729271.16	0.0137	0.0011

Venus	-2716-04-03 18:28 J	729497.06	729497.27	729497.49	0.0137	0.0034
Venus	-2716-11-16 02:09 J	729723.42	729723.59	729723.78	0.0137	0.0078
Moon	-2715-05-22 15:36 J	729910.97	729911.15	729911.33	0.0136	0.0098
Earth	-2715-05-22 18:43 J	729911.14	729911.28	729911.46	0.0136	0.0106 *
Venus	-2715-06-30 09:50 J	729949.83	729949.91	729950.02	0.0136	0.0122
Earth	-2714-05-27 10:04 J	730280.71	730280.92	730281.15	0.0136	0.0072
Moon	-2714-05-27 13:26 J	730280.85	730281.06	730281.27	0.0136	0.0077 *
Moon	-2713-05-30 21:36 J	730650.15	730650.40	730650.66	0.0135	0.0039
Earth	-2713-05-31 00:43 J	730650.29	730650.53	730650.78	0.0135	0.0040 *
Earth	-2712-06-04 14:23 J	731019.84	731020.10	731020.36	0.0135	0.0007
Moon	-2712-06-04 17:31 J	731019.98	731020.23	731020.48	0.0135	0.0006 *
Moon	-2711-06-09 00:28 J	731389.27	731389.52	731389.79	0.0135	0.0020
Earth	-2711-06-09 03:07 J	731389.38	731389.63	731389.89	0.0135	0.0025 *
Earth	-2710-06-13 15:21 J	731758.90	731759.14	731759.37	0.0134	0.0056
Moon	-2710-06-13 17:31 J	731759.03	731759.23	731759.47	0.0134	0.0064 *
Moon	-2709-06-17 00:14 J	732128.31	732128.51	732128.74	0.0134	0.0080
Earth	-2709-06-17 02:23 J	732128.43	732128.60	732128.82	0.0134	0.0087 *
Earth	-2708-06-21 12:57 J	732497.94	732498.04	732498.19	0.0134	0.0117
Moon	-2708-06-21 15:07 J	732498.04	732498.13	732498.24	0.0134	0.0122 *
Mercury	-2684-04-16 15:50 J	741198.12	741198.16	741198.20	0.0136	0.0128
Mercury	-2684-07-13 18:57 J	741286.21	741286.29	741286.36	0.0136	0.0110
Mercury	-2684-10-09 21:50 J	741374.32	741374.41	741374.51	0.0136	0.0092
Mercury	-2683-01-06 00:57 J	741462.43	741462.54	741462.65	0.0136	0.0074
Mercury	-2683-04-04 04:04 J	741550.55	741550.67	741550.79	0.0136	0.0056
Mercury	-2683-07-01 07:12 J	741638.68	741638.80	741638.93	0.0136	0.0038
Mercury	-2683-09-27 10:19 J	741726.80	741726.93	741727.06	0.0136	0.0020
Mars	-2683-10-08 19:12 J	741738.11	741738.30	741738.50	0.0136	0.0106
Mercury	-2683-12-24 13:26 J	741814.93	741815.06	741815.19	0.0136	0.0003
Mercury	-2682-03-22 16:33 J	741903.06	741903.19	741903.32	0.0137	0.0017
Mercury	-2682-06-18 19:26 J	741991.19	741991.31	741991.44	0.0137	0.0035

Mercury	-2682-09-14 22:33 J	742079.32	742079.44	742079.56	0.0137	0.0053
Mercury	-2682-12-12 01:26 J	742167.46	742167.56	742167.68	0.0137	0.0071
Mercury	-2681-03-09 04:33 J	742255.60	742255.69	742255.80	0.0137	0.0089
Mercury	-2681-06-05 07:40 J	742343.75	742343.82	742343.91	0.0137	0.0107
Mercury	-2681-09-01 10:47 J	742431.90	742431.95	742432.00	0.0137	0.0125
Mars	-2681-09-10 07:12 J	742440.52	742440.80	742441.10	0.0137	0.0053
Venus	-2674-05-20 06:28 J	744883.76	744883.77	744883.82	0.0140	0.0140
Venus	-2673-01-01 15:36 J	745110.00	745110.15	745110.33	0.0141	0.0092
Venus	-2673-08-15 00:57 J	745336.34	745336.54	745336.75	0.0141	0.0044
Venus	-2672-03-29 10:19 J	745562.72	745562.93	745563.15	0.0141	0.0006
Venus	-2672-11-10 19:40 J	745789.13	745789.32	745789.53	0.0142	0.0054
Moon	-2672-11-16 15:21 J	745795.08	745795.14	745795.26	0.0142	0.0132
Earth	-2672-11-16 18:43 J	745795.20	745795.28	745795.39	0.0142	0.0131 *
Venus	-2671-06-25 05:02 J	746015.58	746015.71	746015.87	0.0142	0.0103
Earth	-2671-11-21 11:16 J	746164.80	746164.97	746165.16	0.0142	0.0096
Moon	-2671-11-21 14:38 J	746164.94	746165.11	746165.32	0.0142	0.0091 *
Moon	-2670-11-26 00:57 J	746534.33	746534.54	746534.77	0.0143	0.0067
Earth	-2670-11-26 04:19 J	746534.47	746534.68	746534.92	0.0143	0.0061 *
Earth	-2669-11-29 22:19 J	746904.19	746904.43	746904.68	0.0143	0.0025
Moon	-2669-11-30 01:55 J	746904.33	746904.58	746904.83	0.0143	0.0017 *
Moon	-2668-12-04 13:26 J	747273.81	747274.06	747274.31	0.0144	0.0006
Earth	-2668-12-04 17:02 J	747273.97	747274.21	747274.46	0.0144	0.0013 *
Earth	-2667-12-09 12:14 J	747643.78	747644.01	747644.25	0.0144	0.0050
Moon	-2667-12-09 15:36 J	747643.92	747644.15	747644.38	0.0144	0.0052 *
Moon	-2666-12-14 04:47 J	748013.52	748013.70	748013.91	0.0144	0.0090
Earth	-2666-12-14 08:23 J	748013.66	748013.85	748014.06	0.0144	0.0088 *
Earth	-2665-12-18 05:16 J	748383.60	748383.72	748383.85	0.0145	0.0125
Moon	-2665-12-18 08:23 J	748383.72	748383.85	748383.99	0.0145	0.0120 *
Mercury	-2644-08-15 06:28 J	755928.73	755928.77	755928.84	0.0142	0.0136
Mercury	-2644-11-11 14:38 J	756017.00	756017.11	756017.26	0.0142	0.0106

Mercury	-2643-02-07 23:16 J	756105.31	756105.47	756105.64	0.0142	0.0074
Mercury	-2643-05-07 07:40 J	756193.64	756193.82	756194.01	0.0142	0.0044
Mercury	-2643-08-03 16:04 J	756281.98	756282.17	756282.37	0.0142	0.0013
Mercury	-2643-10-31 00:28 J	756370.33	756370.52	756370.72	0.0142	0.0018
Mercury	-2642-01-27 08:52 J	756458.69	756458.87	756459.05	0.0142	0.0048
Mercury	-2642-04-25 17:16 J	756547.06	756547.22	756547.38	0.0142	0.0079
Mars	-2642-05-02 12:43 J	756553.74	756554.03	756554.33	0.0142	0.0028
Mercury	-2642-07-23 01:26 J	756635.45	756635.56	756635.69	0.0142	0.0110
Mercury	-2642-10-19 10:04 J	756723.90	756723.92	756723.95	0.0141	0.0140
Mars	-2640-04-03 20:23 J	757256.35	757256.35	757256.39	0.0141	0.0141
Venus	-2634-01-23 01:40 J	759376.48	759376.57	759376.67	0.0138	0.0123
Venus	-2634-09-06 09:50 J	759602.74	759602.91	759603.10	0.0138	0.0078
Venus	-2633-04-19 18:14 J	759829.05	759829.26	759829.48	0.0137	0.0032
Venus	-2633-12-02 02:23 J	760055.38	760055.60	760055.82	0.0137	0.0013
Earth	-2632-05-18 11:45 J	760222.96	760222.99	760223.07	0.0137	0.0134
Moon	-2632-05-18 16:04 J	760223.08	760223.17	760223.27	0.0137	0.0126
Venus	-2632-07-16 10:19 J	760281.74	760281.93	760282.14	0.0137	0.0058
Venus	-2631-02-27 18:28 J	760508.13	760508.27	760508.42	0.0136	0.0102
Moon	-2631-05-23 00:28 J	760592.38	760592.52	760592.69	0.0136	0.0108
Earth	-2631-05-23 04:19 J	760592.51	760592.68	760592.85	0.0136	0.0101 *
Earth	-2630-05-27 19:26 J	760962.09	760962.31	760962.54	0.0136	0.0068
Moon	-2630-05-27 22:47 J	760962.24	760962.45	760962.69	0.0136	0.0064 *
Moon	-2629-05-31 06:28 J	761331.53	761331.77	761332.03	0.0135	0.0039
Earth	-2629-05-31 10:04 J	761331.68	761331.92	761332.18	0.0135	0.0036 *
Earth	-2628-06-04 23:45 J	761701.23	761701.49	761701.75	0.0135	0.0003
Moon	-2628-06-05 02:38 J	761701.36	761701.61	761701.87	0.0135	0.0006 *
Moon	-2627-06-09 09:07 J	762070.63	762070.88	762071.14	0.0135	0.0033
Earth	-2627-06-09 12:28 J	762070.78	762071.02	762071.28	0.0135	0.0029 *
Earth	-2626-06-14 00:43 J	762440.30	762440.53	762440.76	0.0134	0.0060
Moon	-2626-06-14 03:21 J	762440.42	762440.64	762440.88	0.0134	0.0054 *

Moon	-2625-06-17 09:21 J	762809.72	762809.89	762810.08	0.0134	0.0097
Earth	-2625-06-17 12:00 J	762809.82	762810.00	762810.20	0.0134	0.0091 *
Earth	-2624-06-21 22:47 J	763179.35	763179.45	763179.57	0.0134	0.0120
Moon	-2624-06-22 01:12 J	763179.45	763179.55	763179.70	0.0134	0.0115 *
Mercury	-2600-05-06 22:33 J	771899.40	771899.44	771899.50	0.0136	0.0125
Mercury	-2600-08-03 01:40 J	771987.50	771987.57	771987.66	0.0136	0.0107
Mercury	-2600-10-30 04:47 J	772075.61	772075.70	772075.81	0.0136	0.0089
Mercury	-2599-01-26 08:09 J	772163.73	772163.84	772163.95	0.0136	0.0070
Mercury	-2599-04-24 11:16 J	772251.85	772251.97	772252.09	0.0136	0.0052
Mercury	-2599-07-21 14:23 J	772339.97	772340.10	772340.22	0.0136	0.0035
Mercury	-2599-10-17 17:31 J	772428.10	772428.23	772428.36	0.0136	0.0017
Mercury	-2598-01-13 20:23 J	772516.22	772516.35	772516.49	0.0136	0.0005
Mercury	-2598-04-11 23:31 J	772604.35	772604.48	772604.61	0.0137	0.0020
Mars	-2598-06-03 19:12 J	772657.01	772657.30	772657.60	0.0137	0.0049
Mercury	-2598-07-09 02:38 J	772692.48	772692.61	772692.74	0.0137	0.0038
Mercury	-2598-10-05 05:45 J	772780.62	772780.74	772780.86	0.0137	0.0056
Mercury	-2597-01-01 08:52 J	772868.76	772868.87	772868.98	0.0137	0.0074
Mercury	-2597-03-29 11:45 J	772956.90	772956.99	772957.09	0.0137	0.0093
Mercury	-2597-06-25 14:38 J	773045.05	773045.11	773045.20	0.0137	0.0111
Mercury	-2597-09-21 17:45 J	773133.21	773133.24	773133.29	0.0137	0.0129
Mars	-2596-05-06 10:19 J	773359.78	773359.93	773360.13	0.0137	0.0114
Venus	-2590-08-31 23:16 J	775668.36	775668.47	775668.61	0.0141	0.0115
Venus	-2589-04-14 08:23 J	775894.67	775894.85	775895.05	0.0141	0.0067
Venus	-2589-11-26 17:45 J	776121.03	776121.24	776121.46	0.0141	0.0018
Venus	-2588-07-11 03:07 J	776347.42	776347.63	776347.84	0.0141	0.0030
Moon	-2588-11-17 01:55 J	776476.48	776476.58	776476.69	0.0142	0.0126
Earth	-2588-11-17 04:33 J	776476.60	776476.69	776476.83	0.0142	0.0127 *
Venus	-2587-02-22 12:14 J	776573.85	776574.01	776574.21	0.0142	0.0080
Venus	-2587-10-06 21:50 J	776800.34	776800.41	776800.52	0.0142	0.0129
Earth	-2587-11-21 20:52 J	776846.20	776846.37	776846.58	0.0142	0.0092

Moon	-2587-11-22 00:00 J	776846.33	776846.50	776846.70	0.0142	0.0096	*
Moon	-2586-11-26 10:47 J	777215.73	777215.95	777216.19	0.0143	0.0050	
Earth	-2586-11-26 14:09 J	777215.88	777216.09	777216.33	0.0143	0.0057	*
Earth	-2585-11-30 08:09 J	777585.60	777585.84	777586.09	0.0143	0.0020	
Moon	-2585-11-30 11:31 J	777585.74	777585.98	777586.24	0.0143	0.0028	*
Moon	-2584-12-04 23:31 J	777955.23	777955.48	777955.73	0.0144	0.0023	
Earth	-2584-12-05 02:52 J	777955.38	777955.62	777955.87	0.0144	0.0017	*
Earth	-2583-12-09 22:04 J	778325.20	778325.42	778325.66	0.0144	0.0054	
Moon	-2583-12-10 01:55 J	778325.35	778325.58	778325.82	0.0144	0.0051	*
Moon	-2582-12-14 14:52 J	778694.93	778695.12	778695.32	0.0144	0.0091	
Earth	-2582-12-14 18:14 J	778695.08	778695.26	778695.46	0.0144	0.0091	*
Earth	-2581-12-18 14:52 J	779065.03	779065.12	779065.26	0.0145	0.0129	
Moon	-2581-12-18 18:28 J	779065.19	779065.27	779065.37	0.0145	0.0135	*
Mercury	-2560-09-04 13:55 J	786630.00	786630.08	786630.17	0.0142	0.0129	
Mercury	-2560-12-01 22:04 J	786718.29	786718.42	786718.57	0.0142	0.0098	
Mars	-2559-01-22 22:33 J	786770.42	786770.44	786770.52	0.0142	0.0141	
Mercury	-2559-02-28 06:43 J	786806.61	786806.78	786806.95	0.0142	0.0068	
Mercury	-2559-05-27 14:52 J	786894.94	786895.12	786895.31	0.0142	0.0037	
Mercury	-2559-08-23 23:16 J	786983.28	786983.47	786983.67	0.0142	0.0007	
Mercury	-2559-11-20 07:40 J	787071.63	787071.82	787072.02	0.0142	0.0024	
Mercury	-2558-02-16 16:04 J	787159.99	787160.17	787160.35	0.0142	0.0055	
Mercury	-2558-05-16 00:14 J	787248.37	787248.51	787248.68	0.0142	0.0086	
Mercury	-2558-08-12 08:52 J	787336.76	787336.87	787336.98	0.0142	0.0116	
Mars	-2558-12-26 18:00 J	787472.96	787473.25	787473.54	0.0141	0.0035	
Venus	-2550-05-06 18:14 J	790161.12	790161.26	790161.42	0.0138	0.0099	
Venus	-2550-12-19 02:38 J	790387.42	790387.61	790387.82	0.0137	0.0053	
Venus	-2549-08-01 11:02 J	790613.74	790613.96	790614.18	0.0137	0.0008	
Venus	-2548-03-15 19:12 J	790840.09	790840.30	790840.52	0.0137	0.0037	
Earth	-2548-05-18 22:19 J	790904.35	790904.43	790904.52	0.0137	0.0128	
Moon	-2548-05-19 01:40 J	790904.55	790904.57	790904.62	0.0137	0.0135	

Venus	-2548-10-28 03:07 J	791066.46	791066.63	791066.81	0.0137	0.0082
Moon	-2547-05-23 10:33 J	791273.75	791273.94	791274.14	0.0136	0.0088
Earth	-2547-05-23 14:09 J	791273.93	791274.09	791274.29	0.0136	0.0096 *
Venus	-2547-06-11 10:47 J	791292.88	791292.95	791293.04	0.0136	0.0126
Earth	-2546-05-28 05:45 J	791643.51	791643.74	791643.97	0.0136	0.0063
Moon	-2546-05-28 09:07 J	791643.67	791643.88	791644.11	0.0136	0.0069 *
Moon	-2545-05-31 16:33 J	792012.94	792013.19	792013.45	0.0136	0.0029
Earth	-2545-05-31 20:09 J	792013.09	792013.34	792013.60	0.0136	0.0031 *
Earth	-2544-06-05 09:50 J	792382.65	792382.91	792383.17	0.0135	0.0001
Moon	-2544-06-05 13:26 J	792382.81	792383.06	792383.32	0.0135	0.0003 *
Moon	-2543-06-09 19:12 J	792752.05	792752.30	792752.57	0.0135	0.0029
Earth	-2543-06-09 22:47 J	792752.20	792752.45	792752.70	0.0135	0.0033 *
Earth	-2542-06-14 10:33 J	793121.73	793121.94	793122.18	0.0134	0.0065
Moon	-2542-06-14 13:55 J	793121.88	793122.08	793122.31	0.0134	0.0072 *
Moon	-2541-06-17 18:43 J	793491.11	793491.28	793491.50	0.0134	0.0089
Earth	-2541-06-17 22:04 J	793491.26	793491.42	793491.62	0.0134	0.0095 *
Earth	-2540-06-22 08:52 J	793860.79	793860.87	793860.98	0.0134	0.0124
Moon	-2540-06-22 11:45 J	793860.95	793860.99	793861.06	0.0134	0.0130 *
Mercury	-2516-05-27 06:00 J	802600.70	802600.75	802600.82	0.0136	0.0120
Mercury	-2516-08-23 09:07 J	802688.80	802688.88	802688.98	0.0136	0.0102
Mercury	-2516-11-19 12:28 J	802776.92	802777.02	802777.12	0.0136	0.0083
Mercury	-2515-02-15 15:36 J	802865.03	802865.15	802865.26	0.0136	0.0065
Mercury	-2515-05-14 18:43 J	802953.15	802953.28	802953.40	0.0136	0.0048
Mercury	-2515-08-10 21:50 J	803041.28	803041.41	803041.53	0.0136	0.0030
Mercury	-2515-11-07 00:43 J	803129.40	803129.53	803129.66	0.0136	0.0012
Mercury	-2514-02-03 03:50 J	803217.53	803217.66	803217.79	0.0137	0.0008
Mercury	-2514-05-02 06:57 J	803305.66	803305.79	803305.92	0.0137	0.0025
Mercury	-2514-07-29 10:04 J	803393.80	803393.92	803394.04	0.0137	0.0043
Mercury	-2514-10-25 13:12 J	803481.93	803482.05	803482.16	0.0137	0.0061
Mercury	-2513-01-21 16:04 J	803570.07	803570.17	803570.28	0.0137	0.0080

Mars	-2513-01-28 00:00 J	803576.19	803576.50	803576.82	0.0137	0.0011
Mercury	-2513-04-18 19:12 J	803658.21	803658.30	803658.39	0.0137	0.0098
Mercury	-2513-07-15 22:04 J	803746.36	803746.42	803746.50	0.0137	0.0116
Mercury	-2513-10-12 01:12 J	803834.54	803834.55	803834.59	0.0137	0.0134
Venus	-2506-05-01 08:23 J	806226.81	806226.85	806226.92	0.0140	0.0135
Venus	-2506-12-13 17:31 J	806453.07	806453.23	806453.41	0.0141	0.0088
Venus	-2505-07-27 02:38 J	806679.41	806679.61	806679.83	0.0141	0.0040
Venus	-2504-03-10 12:00 J	806905.79	806906.00	806906.22	0.0141	0.0009
Venus	-2504-10-22 21:21 J	807132.20	807132.39	807132.59	0.0142	0.0058
Moon	-2504-11-17 14:23 J	807158.00	807158.10	807158.25	0.0142	0.0121
Earth	-2504-11-17 16:47 J	807158.09	807158.20	807158.35	0.0142	0.0121 *
Venus	-2503-06-06 06:43 J	807358.65	807358.78	807358.93	0.0142	0.0107
Earth	-2503-11-22 09:21 J	807527.70	807527.89	807528.10	0.0142	0.0086
Moon	-2503-11-22 12:43 J	807527.83	807528.03	807528.24	0.0142	0.0081 *
Moon	-2502-11-26 23:45 J	807897.27	807897.49	807897.72	0.0143	0.0057
Earth	-2502-11-27 02:38 J	807897.38	807897.61	807897.85	0.0143	0.0051 *
Earth	-2501-11-30 20:23 J	808267.11	808267.35	808267.61	0.0143	0.0015
Moon	-2501-12-01 00:00 J	808267.25	808267.50	808267.75	0.0143	0.0007 *
Moon	-2500-12-05 11:45 J	808636.75	808636.99	808637.24	0.0144	0.0015
Earth	-2500-12-05 15:07 J	808636.89	808637.13	808637.39	0.0144	0.0023 *
Earth	-2499-12-10 10:19 J	809006.71	809006.93	809007.17	0.0144	0.0059
Moon	-2499-12-10 13:40 J	809006.86	809007.07	809007.31	0.0144	0.0062 *
Moon	-2498-12-15 02:52 J	809376.45	809376.62	809376.81	0.0144	0.0098
Earth	-2498-12-15 06:43 J	809376.60	809376.78	809376.97	0.0144	0.0096 *
Earth	-2497-12-19 03:21 J	809746.57	809746.64	809746.75	0.0145	0.0134
Moon	-2497-12-19 07:26 J	809746.70	809746.81	809746.92	0.0145	0.0129 *
Mercury	-2476-09-24 21:50 J	817331.31	817331.41	817331.51	0.0142	0.0120
Mercury	-2476-12-22 06:00 J	817419.61	817419.75	817419.91	0.0142	0.0090
Mercury	-2475-03-20 14:23 J	817507.93	817508.10	817508.28	0.0142	0.0059
Mercury	-2475-06-16 22:47 J	817596.26	817596.45	817596.64	0.0142	0.0028

Mercury	-2475-09-13 07:12 J	817684.60	817684.80	817684.99	0.0142	0.0002
Mars	-2475-09-18 10:04 J	817689.67	817689.92	817690.18	0.0142	0.0074
Mercury	-2475-12-10 15:21 J	817772.96	817773.14	817773.34	0.0142	0.0033
Mercury	-2474-03-08 23:45 J	817861.32	817861.49	817861.67	0.0142	0.0064
Mercury	-2474-06-05 08:09 J	817949.70	817949.84	817949.99	0.0142	0.0094
Mercury	-2474-09-01 16:19 J	818038.10	818038.18	818038.29	0.0142	0.0125
Mars	-2473-08-20 23:45 J	818392.28	818392.49	818392.72	0.0141	0.0097
Venus	-2466-01-04 03:36 J	820719.54	820719.65	820719.76	0.0138	0.0119
Venus	-2466-08-18 11:45 J	820945.82	820945.99	820946.19	0.0138	0.0074
Venus	-2465-03-31 20:23 J	821172.14	821172.35	821172.57	0.0137	0.0028
Venus	-2465-11-13 04:33 J	821398.48	821398.69	821398.91	0.0137	0.0018
Earth	-2464-05-19 09:36 J	821585.80	821585.90	821586.03	0.0137	0.0123
Moon	-2464-05-19 13:12 J	821585.93	821586.05	821586.21	0.0137	0.0116 *
Venus	-2464-06-27 12:43 J	821624.83	821625.03	821625.22	0.0137	0.0062
Venus	-2463-02-08 20:23 J	821851.22	821851.35	821851.49	0.0136	0.0107
Moon	-2463-05-23 22:04 J	821955.26	821955.42	821955.62	0.0136	0.0098
Earth	-2463-05-24 01:26 J	821955.39	821955.56	821955.78	0.0136	0.0091 *
Earth	-2462-05-28 16:47 J	822324.98	822325.20	822325.45	0.0136	0.0058
Moon	-2462-05-28 20:52 J	822325.13	822325.37	822325.61	0.0136	0.0052 *
Moon	-2461-06-01 03:36 J	822694.41	822694.65	822694.92	0.0136	0.0030
Earth	-2461-06-01 07:26 J	822694.56	822694.81	822695.07	0.0136	0.0025 *
Earth	-2460-06-05 20:52 J	823064.11	823064.37	823064.63	0.0135	0.0007
Moon	-2460-06-06 00:28 J	823064.26	823064.52	823064.78	0.0135	0.0005 *
Moon	-2459-06-10 05:45 J	823433.51	823433.74	823434.00	0.0135	0.0042
Earth	-2459-06-10 09:50 J	823433.66	823433.91	823434.16	0.0135	0.0038 *
Earth	-2458-06-14 22:04 J	823803.20	823803.42	823803.64	0.0134	0.0069
Moon	-2458-06-15 01:26 J	823803.33	823803.56	823803.78	0.0134	0.0063 *
Moon	-2457-06-18 05:45 J	824172.59	824172.74	824172.91	0.0134	0.0106
Earth	-2457-06-18 09:07 J	824172.72	824172.88	824173.07	0.0134	0.0099 *
Earth	-2456-06-22 19:55 J	824542.28	824542.33	824542.42	0.0134	0.0129

Moon	-2456-06-22 23:31 J	824542.39	824542.48	824542.59	0.0134	0.0122 *
Mercury	-2432-03-20 10:19 J	833213.91	833213.93	833213.96	0.0136	0.0133
Mercury	-2432-06-16 13:26 J	833302.00	833302.06	833302.13	0.0136	0.0115
Mercury	-2432-09-12 16:33 J	833390.10	833390.19	833390.28	0.0136	0.0097
Mercury	-2432-12-09 19:40 J	833478.22	833478.32	833478.43	0.0136	0.0079
Mercury	-2431-03-07 22:47 J	833566.33	833566.45	833566.57	0.0136	0.0061
Mercury	-2431-06-04 01:55 J	833654.46	833654.58	833654.70	0.0136	0.0043
Mercury	-2431-08-31 05:02 J	833742.58	833742.71	833742.84	0.0136	0.0025
Mars	-2431-10-20 18:14 J	833793.05	833793.26	833793.52	0.0136	0.0090
Mercury	-2431-11-27 08:09 J	833830.71	833830.84	833830.97	0.0136	0.0008
Mercury	-2430-02-23 11:16 J	833918.83	833918.97	833919.10	0.0137	0.0012
Mercury	-2430-05-22 14:09 J	834006.97	834007.09	834007.22	0.0137	0.0030
Mercury	-2430-08-18 17:16 J	834095.10	834095.22	834095.35	0.0137	0.0047
Mercury	-2430-11-14 20:23 J	834183.24	834183.35	834183.47	0.0137	0.0066
Mercury	-2429-02-10 23:16 J	834271.38	834271.47	834271.58	0.0137	0.0084
Mercury	-2429-05-09 02:23 J	834359.52	834359.60	834359.69	0.0137	0.0102
Mercury	-2429-08-05 05:31 J	834447.68	834447.73	834447.80	0.0137	0.0120
Mars	-2429-09-22 03:50 J	834495.41	834495.66	834495.96	0.0137	0.0071
Venus	-2422-08-13 01:55 J	837011.46	837011.58	837011.73	0.0141	0.0110
Venus	-2421-03-26 11:02 J	837237.78	837237.96	837238.17	0.0141	0.0062
Venus	-2421-11-07 20:23 J	837464.14	837464.35	837464.57	0.0141	0.0013
Venus	-2420-06-22 05:31 J	837690.53	837690.73	837690.95	0.0142	0.0036
Moon	-2420-11-18 02:09 J	837839.46	837839.59	837839.74	0.0142	0.0116
Earth	-2420-11-18 04:33 J	837839.56	837839.69	837839.84	0.0142	0.0115 *
Venus	-2419-02-03 14:52 J	837916.96	837917.12	837917.30	0.0142	0.0085
Venus	-2419-09-18 00:28 J	838143.47	838143.52	838143.61	0.0142	0.0134
Earth	-2419-11-22 21:07 J	838209.17	838209.38	838209.58	0.0142	0.0081
Moon	-2419-11-22 23:02 J	838209.26	838209.46	838209.68	0.0142	0.0084 *
Moon	-2418-11-27 11:16 J	838578.74	838578.97	838579.21	0.0143	0.0039
Earth	-2418-11-27 14:09 J	838578.86	838579.09	838579.33	0.0143	0.0046 *

Earth	-2417-12-01 08:09 J	838948.59	838948.84	838949.09	0.0143	0.0009
Moon	-2417-12-01 11:02 J	838948.71	838948.96	838949.22	0.0143	0.0017 *
Moon	-2416-12-05 23:31 J	839318.25	839318.48	839318.73	0.0144	0.0034
Earth	-2416-12-06 02:52 J	839318.38	839318.62	839318.87	0.0144	0.0027 *
Earth	-2415-12-10 22:04 J	839688.21	839688.42	839688.66	0.0144	0.0065
Moon	-2415-12-11 01:55 J	839688.36	839688.58	839688.81	0.0144	0.0061 *
Moon	-2414-12-15 15:21 J	840057.97	840058.14	840058.32	0.0144	0.0102
Earth	-2414-12-15 18:43 J	840058.11	840058.28	840058.46	0.0144	0.0102 *
Earth	-2413-12-19 15:36 J	840428.10	840428.15	840428.24	0.0145	0.0139
Moon	-2413-12-19 19:26 J	840428.31	840428.31	840428.33	0.0145	0.0144
Mercury	-2392-07-18 22:04 J	847944.39	847944.42	847944.47	0.0143	0.0139
Mercury	-2392-10-15 06:14 J	848032.65	848032.76	848032.90	0.0142	0.0109
Mercury	-2391-01-11 14:38 J	848120.96	848121.11	848121.28	0.0142	0.0078
Mercury	-2391-04-09 23:02 J	848209.28	848209.46	848209.65	0.0142	0.0048
Mercury	-2391-07-07 07:26 J	848297.62	848297.81	848298.00	0.0142	0.0017
Mercury	-2391-10-03 15:50 J	848385.96	848386.16	848386.35	0.0142	0.0014
Mercury	-2391-12-31 00:00 J	848474.32	848474.50	848474.69	0.0142	0.0044
Mercury	-2390-03-29 08:09 J	848562.69	848562.84	848563.02	0.0142	0.0075
Mars	-2390-05-14 23:45 J	848609.19	848609.49	848609.79	0.0142	0.0008
Mercury	-2390-06-25 16:47 J	848651.07	848651.20	848651.33	0.0142	0.0105
Mercury	-2390-09-22 00:57 J	848739.50	848739.54	848739.61	0.0142	0.0136
Venus	-2382-04-17 22:19 J	851504.29	851504.43	851504.61	0.0138	0.0093
Venus	-2382-11-30 06:57 J	851730.59	851730.79	851731.00	0.0137	0.0047
Venus	-2381-07-13 15:21 J	851956.92	851957.14	851957.36	0.0137	0.0002
Venus	-2380-02-24 23:16 J	852183.27	852183.47	852183.69	0.0137	0.0044
Earth	-2380-05-19 23:02 J	852267.34	852267.46	852267.61	0.0137	0.0116
Moon	-2380-05-20 02:38 J	852267.49	852267.61	852267.73	0.0137	0.0122 *
Venus	-2380-10-09 06:57 J	852409.64	852409.79	852409.97	0.0137	0.0089
Venus	-2379-05-23 14:38 J	852636.08	852636.11	852636.18	0.0136	0.0133
Moon	-2379-05-24 11:31 J	852636.78	852636.98	852637.20	0.0136	0.0076

Earth	-2379-05-24 15:21 J	852636.94	852637.14	852637.34	0.0136	0.0084 *
Earth	-2378-05-29 06:14 J	853006.52	853006.76	853007.00	0.0136	0.0051
Moon	-2378-05-29 09:50 J	853006.67	853006.91	853007.15	0.0136	0.0057 *
Moon	-2377-06-01 16:47 J	853375.94	853376.20	853376.46	0.0136	0.0017
Earth	-2377-06-01 20:23 J	853376.10	853376.35	853376.61	0.0136	0.0019 *
Earth	-2376-06-06 09:50 J	853745.65	853745.91	853746.17	0.0135	0.0013
Moon	-2376-06-06 13:40 J	853745.81	853746.07	853746.33	0.0135	0.0012 *
Moon	-2375-06-10 19:12 J	854115.05	854115.30	854115.55	0.0135	0.0040
Earth	-2375-06-10 22:33 J	854115.20	854115.44	854115.69	0.0135	0.0044 *
Earth	-2374-06-15 10:33 J	854484.73	854484.94	854485.16	0.0134	0.0075
Moon	-2374-06-15 14:09 J	854484.90	854485.09	854485.31	0.0134	0.0082 *
Moon	-2373-06-18 18:14 J	854854.11	854854.26	854854.46	0.0134	0.0098
Earth	-2373-06-18 21:50 J	854854.27	854854.41	854854.59	0.0134	0.0105 *
Earth	-2372-06-23 09:07 J	855223.88	855223.88	855223.88	0.0134	0.0134
Mercury	-2348-04-09 17:45 J	863915.21	863915.24	863915.29	0.0136	0.0128
Mercury	-2348-07-06 20:52 J	864003.30	864003.37	864003.45	0.0136	0.0110
Mercury	-2348-10-03 00:00 J	864091.41	864091.50	864091.60	0.0136	0.0092
Mercury	-2348-12-30 03:07 J	864179.52	864179.63	864179.74	0.0136	0.0074
Mercury	-2347-03-28 06:14 J	864267.64	864267.76	864267.88	0.0136	0.0056
Mercury	-2347-06-24 09:21 J	864355.77	864355.89	864356.02	0.0136	0.0038
Mercury	-2347-09-20 12:28 J	864443.89	864444.02	864444.15	0.0136	0.0020
Mercury	-2347-12-17 15:36 J	864532.02	864532.15	864532.28	0.0136	0.0003
Mercury	-2346-03-15 18:43 J	864620.15	864620.28	864620.41	0.0137	0.0017
Mercury	-2346-06-11 21:36 J	864708.28	864708.40	864708.53	0.0137	0.0035
Mars	-2346-06-15 21:50 J	864712.11	864712.41	864712.72	0.0137	0.0030
Mercury	-2346-09-08 00:43 J	864796.41	864796.53	864796.65	0.0137	0.0053
Mercury	-2346-12-05 03:50 J	864884.55	864884.66	864884.77	0.0137	0.0071
Mercury	-2345-03-02 06:57 J	864972.69	864972.79	864972.89	0.0137	0.0089
Mercury	-2345-05-29 10:04 J	865060.84	865060.92	865061.00	0.0137	0.0107
Mercury	-2345-08-25 13:12 J	865149.00	865149.05	865149.10	0.0137	0.0126

Mars	-2344-05-18 11:45 J	865414.93	865414.99	865415.11	0.0138	0.0132
Venus	-2338-04-12 11:02 J	867569.89	867569.96	867570.05	0.0140	0.0131
Venus	-2338-11-24 20:09 J	867796.17	867796.34	867796.51	0.0141	0.0083
Venus	-2337-07-08 05:02 J	868022.51	868022.71	868022.93	0.0141	0.0035
Venus	-2336-02-19 14:23 J	868248.89	868249.10	868249.32	0.0141	0.0013
Venus	-2336-10-03 23:45 J	868475.30	868475.49	868475.69	0.0142	0.0063
Moon	-2336-11-18 15:07 J	868520.99	868521.13	868521.30	0.0142	0.0108
Earth	-2336-11-18 16:47 J	868521.04	868521.20	868521.36	0.0142	0.0109 *
Venus	-2335-05-18 09:07 J	868701.76	868701.88	868702.02	0.0142	0.0112
Earth	-2335-11-23 08:52 J	868890.67	868890.87	868891.09	0.0142	0.0075
Moon	-2335-11-23 11:16 J	868890.76	868890.97	868891.20	0.0142	0.0071 *
Moon	-2334-11-28 00:00 J	869260.28	869260.50	869260.74	0.0143	0.0046
Earth	-2334-11-28 02:09 J	869260.36	869260.59	869260.84	0.0143	0.0040 *
Earth	-2333-12-01 20:23 J	869630.10	869630.35	869630.60	0.0143	0.0004
Moon	-2333-12-01 23:16 J	869630.21	869630.47	869630.72	0.0143	0.0004 *
Moon	-2332-12-06 12:14 J	869999.77	870000.01	870000.25	0.0144	0.0026
Earth	-2332-12-06 15:07 J	869999.89	870000.13	870000.38	0.0144	0.0033 *
Earth	-2331-12-11 10:33 J	870369.73	870369.94	870370.17	0.0144	0.0070
Moon	-2331-12-11 13:40 J	870369.87	870370.07	870370.30	0.0144	0.0074 *
Moon	-2330-12-16 03:21 J	870739.50	870739.64	870739.83	0.0144	0.0109
Earth	-2330-12-16 07:12 J	870739.65	870739.80	870739.98	0.0144	0.0107 *
Earth	-2329-12-20 04:33 J	871109.68	871109.69	871109.72	0.0145	0.0144
Moon	-2329-12-20 08:09 J	871109.79	871109.84	871109.91	0.0145	0.0140
Mercury	-2308-08-08 06:28 J	878645.70	878645.77	878645.87	0.0143	0.0128
Mercury	-2308-11-04 14:38 J	878733.99	878734.11	878734.27	0.0142	0.0098
Mercury	-2307-01-31 23:16 J	878822.30	878822.47	878822.64	0.0142	0.0067
Mars	-2307-02-04 16:04 J	878826.02	878826.17	878826.37	0.0142	0.0116
Mercury	-2307-04-30 07:26 J	878910.63	878910.81	878911.01	0.0142	0.0037
Mercury	-2307-07-27 16:04 J	878998.97	878999.17	878999.36	0.0142	0.0007
Mercury	-2307-10-24 00:14 J	879087.32	879087.51	879087.70	0.0142	0.0025

Mercury	-2306-01-20 08:23 J	879175.68	879175.85	879176.04	0.0142	0.0056
Mercury	-2306-04-18 16:47 J	879264.05	879264.20	879264.36	0.0142	0.0086
Mercury	-2306-07-16 00:57 J	879352.45	879352.54	879352.67	0.0142	0.0117
Mars	-2305-01-08 12:57 J	879528.78	879529.04	879529.33	0.0141	0.0059
Venus	-2299-12-16 09:07 J	882062.77	882062.88	882063.02	0.0138	0.0111
Venus	-2298-07-30 17:31 J	882289.05	882289.23	882289.44	0.0138	0.0066
Venus	-2297-03-13 02:23 J	882515.38	882515.60	882515.81	0.0137	0.0020
Venus	-2297-10-25 10:19 J	882741.72	882741.93	882742.15	0.0137	0.0026
Earth	-2296-05-20 12:57 J	882948.91	882949.04	882949.21	0.0137	0.0110
Moon	-2296-05-20 16:19 J	882949.02	882949.18	882949.37	0.0137	0.0103 *
Venus	-2296-06-08 18:00 J	882968.07	882968.25	882968.45	0.0137	0.0071
Venus	-2295-01-21 01:40 J	883194.47	883194.57	883194.70	0.0136	0.0115
Moon	-2295-05-25 01:55 J	883318.39	883318.58	883318.79	0.0136	0.0084
Earth	-2295-05-25 04:47 J	883318.50	883318.70	883318.93	0.0136	0.0078 *
Earth	-2294-05-29 19:55 J	883688.09	883688.33	883688.58	0.0136	0.0045
Moon	-2294-05-29 23:16 J	883688.23	883688.47	883688.74	0.0136	0.0040 *
Moon	-2293-06-02 06:43 J	884057.53	884057.78	884058.03	0.0135	0.0017
Earth	-2293-06-02 10:04 J	884057.66	884057.92	884058.18	0.0135	0.0013 *
Earth	-2292-06-06 23:16 J	884427.22	884427.47	884427.73	0.0135	0.0019
Moon	-2292-06-07 02:52 J	884427.37	884427.62	884427.88	0.0135	0.0018 *
Moon	-2291-06-11 08:09 J	884796.61	884796.84	884797.09	0.0135	0.0053
Earth	-2291-06-11 12:00 J	884796.77	884797.00	884797.25	0.0135	0.0050 *
Earth	-2290-06-15 23:45 J	885166.30	885166.49	885166.72	0.0134	0.0081
Moon	-2290-06-16 03:21 J	885166.44	885166.64	885166.87	0.0134	0.0075 *
Moon	-2289-06-19 07:40 J	885535.70	885535.82	885535.95	0.0134	0.0117
Earth	-2289-06-19 11:16 J	885535.84	885535.97	885536.13	0.0134	0.0110 *
Moon	-2288-06-24 02:09 J	885905.55	885905.59	885905.62	0.0134	0.0132
Mercury	-2264-04-30 00:57 J	894616.50	894616.54	894616.60	0.0136	0.0124
Mercury	-2264-07-27 04:04 J	894704.60	894704.67	894704.76	0.0136	0.0106
Mercury	-2264-10-23 07:12 J	894792.71	894792.80	894792.91	0.0136	0.0088

Mercury	-2263-01-19 10:19 J	894880.82	894880.93	894881.05	0.0136	0.0070
Mars	-2263-03-08 18:43 J	894929.18	894929.28	894929.41	0.0136	0.0126
Mercury	-2263-04-17 13:26 J	894968.94	894969.06	894969.19	0.0136	0.0052
Mercury	-2263-07-14 16:33 J	895057.06	895057.19	895057.32	0.0136	0.0034
Mercury	-2263-10-10 19:40 J	895145.19	895145.32	895145.45	0.0136	0.0015
Mercury	-2262-01-06 22:47 J	895233.32	895233.45	895233.58	0.0136	0.0003
Mercury	-2262-04-05 01:55 J	895321.45	895321.58	895321.71	0.0136	0.0021
Mercury	-2262-07-02 04:47 J	895409.58	895409.70	895409.83	0.0137	0.0039
Mercury	-2262-09-28 07:55 J	895497.71	895497.83	895497.95	0.0137	0.0057
Mercury	-2262-12-25 11:02 J	895585.85	895585.96	895586.07	0.0137	0.0075
Mars	-2261-02-08 22:47 J	895631.15	895631.45	895631.77	0.0137	0.0029
Mercury	-2261-03-22 14:09 J	895674.00	895674.09	895674.18	0.0137	0.0093
Mercury	-2261-06-18 17:16 J	895762.14	895762.22	895762.29	0.0137	0.0111
Mercury	-2261-09-14 20:23 J	895850.31	895850.35	895850.39	0.0137	0.0130
Venus	-2254-07-25 03:07 J	898354.51	898354.63	898354.79	0.0141	0.0107
Venus	-2253-03-07 12:14 J	898580.83	898581.01	898581.22	0.0141	0.0059
Venus	-2253-10-19 21:36 J	898807.19	898807.40	898807.62	0.0141	0.0010
Earth	-2253-11-14 10:33 J	898832.89	898832.94	898833.00	0.0141	0.0138
Moon	-2253-11-14 11:02 J	898832.89	898832.96	898833.06	0.0141	0.0133 *
Venus	-2252-06-03 06:43 J	899033.58	899033.78	899033.99	0.0142	0.0039
Moon	-2252-11-19 00:43 J	899202.38	899202.53	899202.70	0.0142	0.0106
Earth	-2252-11-19 01:55 J	899202.43	899202.58	899202.76	0.0142	0.0105 *
Venus	-2251-01-15 16:04 J	899260.01	899260.17	899260.35	0.0142	0.0088
Venus	-2251-08-30 01:26 J	899486.53	899486.56	899486.64	0.0142	0.0138
Earth	-2251-11-23 18:14 J	899572.06	899572.26	899572.49	0.0142	0.0071
Moon	-2251-11-23 19:40 J	899572.10	899572.32	899572.55	0.0142	0.0072 *
Moon	-2250-11-28 09:50 J	899941.67	899941.91	899942.15	0.0143	0.0029
Earth	-2250-11-28 11:45 J	899941.75	899941.99	899942.24	0.0143	0.0035 *
Earth	-2249-12-02 05:45 J	900311.49	900311.74	900311.99	0.0143	0.0002
Moon	-2249-12-02 07:55 J	900311.58	900311.83	900312.09	0.0143	0.0007 *

Moon	-2248-12-06 22:04 J	900681.19	900681.42	900681.66	0.0144	0.0044
Earth	-2248-12-07 00:28 J	900681.29	900681.52	900681.77	0.0144	0.0038 *
Earth	-2247-12-11 20:09 J	901051.14	901051.34	901051.57	0.0144	0.0075
Moon	-2247-12-11 23:31 J	901051.26	901051.48	901051.71	0.0144	0.0070 *
Moon	-2246-12-16 14:09 J	901420.94	901421.09	901421.25	0.0144	0.0113
Earth	-2246-12-16 17:02 J	901421.06	901421.21	901421.37	0.0144	0.0112 *
Mercury	-2224-08-28 14:23 J	909347.01	909347.10	909347.22	0.0143	0.0119
Mercury	-2224-11-24 22:47 J	909435.31	909435.45	909435.61	0.0143	0.0088
Mercury	-2223-02-21 07:12 J	909523.63	909523.80	909523.98	0.0142	0.0057
Mercury	-2223-05-20 15:36 J	909611.96	909612.15	909612.34	0.0142	0.0027
Mercury	-2223-08-17 00:00 J	909700.30	909700.50	909700.69	0.0142	0.0004
Mars	-2223-10-01 05:45 J	909745.47	909745.74	909746.04	0.0142	0.0048
Mercury	-2223-11-13 08:09 J	909788.66	909788.84	909789.04	0.0142	0.0035
Mercury	-2222-02-09 16:33 J	909877.02	909877.19	909877.37	0.0142	0.0065
Mercury	-2222-05-09 00:57 J	909965.40	909965.54	909965.69	0.0142	0.0096
Mercury	-2222-08-05 09:07 J	910053.81	910053.88	910053.98	0.0142	0.0127
Mars	-2221-09-02 21:50 J	910448.28	910448.41	910448.58	0.0141	0.0123
Venus	-2215-08-15 19:26 J	912621.26	912621.31	912621.41	0.0138	0.0131
Venus	-2214-03-30 04:19 J	912847.52	912847.68	912847.87	0.0138	0.0084
Venus	-2214-11-11 12:57 J	913073.83	913074.04	913074.25	0.0138	0.0038
Moon	-2213-05-16 08:23 J	913260.79	913260.85	913260.91	0.0137	0.0133
Earth	-2213-05-16 10:04 J	913260.91	913260.92	913260.98	0.0137	0.0136 *
Venus	-2213-06-24 21:07 J	913300.16	913300.38	913300.60	0.0137	0.0007
Venus	-2212-02-06 04:47 J	913526.51	913526.70	913526.92	0.0137	0.0053
Earth	-2212-05-21 02:23 J	913630.46	913630.60	913630.79	0.0137	0.0104
Moon	-2212-05-21 05:45 J	913630.58	913630.74	913630.89	0.0137	0.0109 *
Venus	-2212-09-20 12:57 J	913752.89	913753.04	913753.19	0.0137	0.0097
Moon	-2211-05-25 15:21 J	913999.93	914000.14	914000.38	0.0136	0.0064
Earth	-2211-05-25 18:28 J	914000.06	914000.27	914000.50	0.0136	0.0072 *
Earth	-2210-05-30 09:21 J	914369.65	914369.89	914370.15	0.0136	0.0039

Moon	-2210-05-30 12:43 J	914369.78	914370.03	914370.28	0.0136	0.0045 *
Moon	-2209-06-02 20:09 J	914739.09	914739.34	914739.60	0.0136	0.0004
Earth	-2209-06-02 23:31 J	914739.23	914739.48	914739.74	0.0136	0.0008 *
Earth	-2208-06-07 12:57 J	915108.79	915109.04	915109.30	0.0135	0.0024
Moon	-2208-06-07 16:19 J	915108.93	915109.18	915109.45	0.0135	0.0024 *
Moon	-2207-06-11 22:33 J	915478.20	915478.44	915478.67	0.0135	0.0052
Earth	-2207-06-12 01:40 J	915478.35	915478.57	915478.82	0.0135	0.0056 *
Earth	-2206-06-16 13:40 J	915847.88	915848.07	915848.28	0.0134	0.0086
Moon	-2206-06-16 17:16 J	915848.05	915848.22	915848.43	0.0134	0.0093 *
Moon	-2205-06-19 21:21 J	916217.27	916217.39	916217.56	0.0134	0.0109
Earth	-2205-06-20 01:26 J	916217.43	916217.56	916217.69	0.0134	0.0115 *
Mercury	-2180-02-21 05:31 J	925229.73	925229.73	925229.73	0.0135	0.0135
Mercury	-2180-05-20 08:23 J	925317.80	925317.85	925317.92	0.0136	0.0118
Mercury	-2180-08-16 11:31 J	925405.90	925405.98	925406.08	0.0136	0.0100
Mercury	-2180-11-12 14:38 J	925494.01	925494.11	925494.22	0.0136	0.0082
Mercury	-2179-02-08 17:45 J	925582.13	925582.24	925582.36	0.0136	0.0064
Mercury	-2179-05-07 20:52 J	925670.25	925670.37	925670.50	0.0136	0.0046
Mercury	-2179-08-04 00:00 J	925758.37	925758.50	925758.63	0.0136	0.0028
Mercury	-2179-10-31 03:07 J	925846.50	925846.63	925846.76	0.0136	0.0010
Mars	-2179-11-01 20:23 J	925848.10	925848.35	925848.64	0.0136	0.0068
Mercury	-2178-01-27 06:14 J	925934.63	925934.76	925934.89	0.0136	0.0008
Mercury	-2178-04-25 09:21 J	926022.76	926022.89	926023.02	0.0136	0.0026
Mercury	-2178-07-22 12:14 J	926110.89	926111.01	926111.14	0.0136	0.0045
Mercury	-2178-10-18 15:21 J	926199.03	926199.14	926199.26	0.0137	0.0063
Mercury	-2177-01-14 18:28 J	926287.17	926287.27	926287.38	0.0137	0.0081
Mercury	-2177-04-11 21:21 J	926375.31	926375.39	926375.49	0.0137	0.0099
Mercury	-2177-07-09 00:28 J	926463.46	926463.52	926463.60	0.0137	0.0117
Mars	-2177-10-04 05:16 J	926550.50	926550.72	926550.97	0.0137	0.0090
Mercury	-2177-10-05 03:36 J	926551.64	926551.65	926551.68	0.0137	0.0135
Venus	-2170-03-24 11:45 J	928912.91	928912.99	928913.09	0.0140	0.0128

Venus	-2170-11-05 20:23 J	929139.19	929139.35	929139.54	0.0141	0.0081
Venus	-2169-06-19 05:45 J	929365.53	929365.74	929365.95	0.0141	0.0032
Earth	-2169-11-14 21:07 J	929514.32	929514.38	929514.49	0.0141	0.0133
Moon	-2169-11-14 21:21 J	929514.36	929514.39	929514.47	0.0141	0.0138 *
Venus	-2168-01-31 14:52 J	929591.90	929592.12	929592.33	0.0141	0.0016
Venus	-2168-09-15 00:14 J	929818.32	929818.51	929818.70	0.0142	0.0065
Moon	-2168-11-19 12:28 J	929883.86	929884.02	929884.21	0.0142	0.0098
Earth	-2168-11-19 12:43 J	929883.87	929884.03	929884.22	0.0142	0.0100 *
Venus	-2167-04-29 09:36 J	930044.78	930044.90	930045.03	0.0142	0.0114
Earth	-2167-11-24 05:16 J	930253.50	930253.72	930253.94	0.0142	0.0066
Moon	-2167-11-24 06:14 J	930253.54	930253.76	930254.00	0.0142	0.0063 *
Moon	-2166-11-28 21:21 J	930623.16	930623.39	930623.63	0.0143	0.0035
Earth	-2166-11-28 22:33 J	930623.19	930623.44	930623.68	0.0143	0.0030 *
Earth	-2165-12-02 16:19 J	930992.93	930993.18	930993.43	0.0143	0.0006
Moon	-2165-12-02 18:14 J	930993.00	930993.26	930993.52	0.0143	0.0013 *
Moon	-2164-12-07 09:07 J	931362.65	931362.88	931363.12	0.0144	0.0035
Earth	-2164-12-07 11:16 J	931362.73	931362.97	931363.21	0.0144	0.0043 *
Earth	-2163-12-12 06:57 J	931732.58	931732.79	931733.00	0.0144	0.0079
Moon	-2163-12-12 09:07 J	931732.68	931732.88	931733.10	0.0144	0.0084 *
Jupiter	-2162-02-24 09:07 J	931806.39	931806.88	931807.41	0.0144	0.0035
Moon	-2162-12-17 00:00 J	932102.38	932102.50	932102.67	0.0144	0.0117
Earth	-2162-12-17 03:07 J	932102.50	932102.63	932102.80	0.0144	0.0117 *
Mercury	-2140-06-21 13:40 J	939960.05	939960.07	939960.10	0.0143	0.0141
Mercury	-2140-09-17 21:50 J	940048.30	940048.41	940048.54	0.0143	0.0111
Mercury	-2140-12-15 06:00 J	940136.60	940136.75	940136.92	0.0143	0.0081
Mercury	-2139-03-13 14:38 J	940224.93	940225.11	940225.29	0.0142	0.0050
Mercury	-2139-06-09 23:02 J	940313.27	940313.46	940313.65	0.0142	0.0019
Mercury	-2139-09-06 07:12 J	940401.61	940401.80	940402.00	0.0142	0.0012
Mercury	-2139-12-03 15:36 J	940489.97	940490.15	940490.34	0.0142	0.0042
Mercury	-2138-03-02 00:00 J	940578.34	940578.50	940578.67	0.0142	0.0073

Mars	-2138-05-27 14:09 J	940664.79	940665.09	940665.40	0.0142	0.0017
Mercury	-2138-05-29 08:09 J	940666.72	940666.84	940666.99	0.0142	0.0104
Mercury	-2138-08-25 16:47 J	940755.14	940755.20	940755.27	0.0142	0.0134
Venus	-2131-11-27 13:12 J	943405.93	943406.05	943406.21	0.0138	0.0104
Venus	-2130-07-11 22:04 J	943632.22	943632.42	943632.62	0.0138	0.0058
Venus	-2129-02-23 06:28 J	943858.56	943858.77	943858.99	0.0137	0.0012
Moon	-2129-05-16 19:40 J	943942.29	943942.32	943942.39	0.0137	0.0135
Earth	-2129-05-16 22:04 J	943942.34	943942.42	943942.49	0.0137	0.0131 *
Venus	-2129-10-06 14:38 J	944084.90	944085.11	944085.33	0.0137	0.0033
Venus	-2128-05-20 22:19 J	944311.26	944311.43	944311.62	0.0137	0.0078
Earth	-2128-05-21 14:09 J	944311.93	944312.09	944312.29	0.0137	0.0099
Moon	-2128-05-21 16:47 J	944312.02	944312.20	944312.41	0.0137	0.0092 *
Venus	-2127-01-02 06:00 J	944537.67	944537.75	944537.86	0.0137	0.0123
Moon	-2127-05-26 03:50 J	944681.47	944681.66	944681.89	0.0136	0.0074
Earth	-2127-05-26 06:14 J	944681.55	944681.76	944682.00	0.0136	0.0067 *
Earth	-2126-05-30 21:21 J	945051.14	945051.39	945051.64	0.0136	0.0034
Moon	-2126-05-31 00:28 J	945051.26	945051.52	945051.78	0.0136	0.0028 *
Moon	-2125-06-03 08:52 J	945420.62	945420.87	945421.12	0.0136	0.0007
Earth	-2125-06-03 11:45 J	945420.73	945420.99	945421.25	0.0136	0.0003 *
Earth	-2124-06-08 01:12 J	945790.30	945790.55	945790.80	0.0135	0.0029
Moon	-2124-06-08 04:19 J	945790.43	945790.68	945790.95	0.0135	0.0029 *
Moon	-2123-06-12 10:47 J	946159.72	946159.95	946160.17	0.0135	0.0063
Earth	-2123-06-12 13:55 J	946159.86	946160.08	946160.32	0.0135	0.0061 *
Earth	-2122-06-17 02:09 J	946529.41	946529.59	946529.79	0.0134	0.0091
Moon	-2122-06-17 05:16 J	946529.54	946529.72	946529.94	0.0134	0.0086 *
Moon	-2121-06-20 10:19 J	946898.86	946898.93	946899.01	0.0134	0.0128
Earth	-2121-06-20 13:40 J	946898.98	946899.07	946899.20	0.0134	0.0120 *
Mercury	-2096-03-13 12:43 J	955931.00	955931.03	955931.07	0.0135	0.0130
Mercury	-2096-06-09 15:50 J	956019.10	956019.16	956019.24	0.0135	0.0113
Mercury	-2096-09-05 18:57 J	956107.20	956107.29	956107.39	0.0136	0.0095

Mercury	-2096-12-02 22:04 J	956195.32	956195.42	956195.53	0.0136	0.0077
Mercury	-2095-03-01 01:12 J	956283.44	956283.55	956283.67	0.0136	0.0059
Mercury	-2095-05-28 04:19 J	956371.56	956371.68	956371.81	0.0136	0.0041
Mercury	-2095-08-24 07:26 J	956459.68	956459.81	956459.94	0.0136	0.0023
Mercury	-2095-11-20 10:33 J	956547.81	956547.94	956548.07	0.0136	0.0005
Mercury	-2094-02-16 13:40 J	956635.94	956636.07	956636.20	0.0136	0.0013
Mercury	-2094-05-15 16:47 J	956724.07	956724.20	956724.32	0.0136	0.0032
Mars	-2094-06-27 23:02 J	956767.15	956767.46	956767.77	0.0136	0.0009
Mercury	-2094-08-11 19:40 J	956812.20	956812.32	956812.45	0.0136	0.0050
Mercury	-2094-11-07 22:47 J	956900.34	956900.45	956900.57	0.0136	0.0067
Mercury	-2093-02-04 01:55 J	956988.48	956988.58	956988.68	0.0137	0.0085
Mercury	-2093-05-02 04:47 J	957076.63	957076.70	957076.79	0.0137	0.0104
Mercury	-2093-07-29 07:55 J	957164.78	957164.83	957164.89	0.0137	0.0122
Venus	-2086-07-06 04:19 J	959697.55	959697.68	959697.84	0.0140	0.0103
Venus	-2085-02-17 13:26 J	959923.86	959924.06	959924.26	0.0141	0.0055
Venus	-2085-09-30 22:33 J	960150.23	960150.44	960150.66	0.0141	0.0007
Moon	-2085-11-15 06:57 J	960195.67	960195.79	960195.93	0.0141	0.0123
Earth	-2085-11-15 07:40 J	960195.73	960195.82	960195.93	0.0141	0.0129 *
Venus	-2084-05-15 07:40 J	960376.62	960376.82	960377.03	0.0141	0.0042
Moon	-2084-11-19 23:02 J	960565.29	960565.46	960565.64	0.0142	0.0098
Earth	-2084-11-19 22:47 J	960565.29	960565.45	960565.65	0.0142	0.0096 *
Venus	-2084-12-27 16:47 J	960603.05	960603.20	960603.38	0.0142	0.0091
Venus	-2083-08-11 02:38 J	960829.58	960829.61	960829.64	0.0142	0.0140
Moon	-2083-11-24 15:07 J	960934.91	960935.13	960935.37	0.0142	0.0061
Earth	-2083-11-24 15:07 J	960934.92	960935.13	960935.37	0.0142	0.0061 *
Moon	-2082-11-29 07:40 J	961304.58	961304.82	961305.06	0.0143	0.0021
Earth	-2082-11-29 08:23 J	961304.61	961304.85	961305.10	0.0143	0.0026 *
Earth	-2081-12-03 02:23 J	961674.36	961674.60	961674.86	0.0143	0.0011
Moon	-2081-12-03 03:36 J	961674.39	961674.65	961674.91	0.0143	0.0003 *
Moon	-2080-12-07 19:40 J	962044.11	962044.32	962044.55	0.0143	0.0054

Earth	-2080-12-07 21:07 J	962044.15	962044.38	962044.63	0.0143	0.0047 *
Earth	-2079-12-12 17:02 J	962414.01	962414.21	962414.41	0.0144	0.0083
Moon	-2079-12-12 19:12 J	962414.09	962414.30	962414.52	0.0144	0.0078 *
Moon	-2078-12-17 11:02 J	962783.85	962783.96	962784.10	0.0144	0.0122
Earth	-2078-12-17 13:26 J	962783.92	962784.06	962784.20	0.0144	0.0120 *
Mercury	-2056-07-11 20:38 J	970661.31	970661.36	970661.44	0.0143	0.0135
Mercury	-2056-10-08 05:02 J	970749.59	970749.71	970749.85	0.0143	0.0104
Mercury	-2055-01-04 13:26 J	970837.90	970838.06	970838.23	0.0143	0.0073
Mars	-2055-02-16 22:19 J	970881.21	970881.43	970881.67	0.0143	0.0094
Mercury	-2055-04-02 21:50 J	970926.23	970926.41	970926.60	0.0143	0.0043
Mercury	-2055-06-30 06:14 J	971014.57	971014.76	971014.96	0.0142	0.0012
Mercury	-2055-09-26 14:38 J	971102.92	971103.11	971103.31	0.0142	0.0019
Mercury	-2055-12-23 23:02 J	971191.28	971191.46	971191.64	0.0142	0.0050
Mercury	-2054-03-22 07:26 J	971279.65	971279.81	971279.97	0.0142	0.0080
Mercury	-2054-06-18 15:36 J	971368.04	971368.15	971368.28	0.0142	0.0111
Mercury	-2054-09-15 00:00 J	971456.50	971456.50	971456.52	0.0142	0.0142
Mars	-2053-01-20 21:21 J	971584.15	971584.39	971584.65	0.0142	0.0080
Venus	-2047-07-27 22:19 J	973964.35	973964.43	973964.53	0.0138	0.0125
Venus	-2046-03-11 07:12 J	974190.62	974190.80	974190.98	0.0138	0.0078
Venus	-2046-10-23 15:21 J	974416.94	974417.14	974417.37	0.0138	0.0033
Moon	-2045-05-17 07:40 J	974623.73	974623.82	974623.94	0.0137	0.0124
Earth	-2045-05-17 09:21 J	974623.79	974623.89	974623.99	0.0137	0.0126 *
Venus	-2045-06-05 23:45 J	974643.27	974643.49	974643.71	0.0137	0.0013
Venus	-2044-01-18 07:55 J	974869.63	974869.83	974870.03	0.0137	0.0058
Earth	-2044-05-22 01:26 J	974993.40	974993.56	974993.77	0.0137	0.0094
Moon	-2044-05-22 03:07 J	974993.46	974993.63	974993.83	0.0137	0.0099 *
Venus	-2044-09-01 15:36 J	975096.02	975096.15	975096.30	0.0137	0.0103
Moon	-2043-05-26 15:21 J	975362.92	975363.14	975363.38	0.0136	0.0055
Earth	-2043-05-26 17:45 J	975363.02	975363.24	975363.48	0.0136	0.0061 *
Earth	-2042-05-31 08:52 J	975732.62	975732.87	975733.13	0.0136	0.0029

Moon	-2042-05-31 11:02 J	975732.71	975732.96	975733.22	0.0136	0.0036	*
Moon	-2041-06-03 20:38 J	976102.11	976102.36	976102.61	0.0136	0.0006	
Earth	-2041-06-03 23:31 J	976102.22	976102.48	976102.74	0.0136	0.0003	*
Earth	-2040-06-08 13:12 J	976471.80	976472.05	976472.30	0.0135	0.0034	
Moon	-2040-06-08 16:04 J	976471.92	976472.17	976472.43	0.0135	0.0033	*
Moon	-2039-06-12 23:16 J	976841.26	976841.47	976841.70	0.0135	0.0063	
Earth	-2039-06-13 01:55 J	976841.38	976841.58	976841.83	0.0135	0.0066	*
Earth	-2038-06-17 14:23 J	977210.93	977211.10	977211.29	0.0134	0.0096	
Moon	-2038-06-17 17:45 J	977211.08	977211.24	977211.43	0.0134	0.0102	*
Jupiter	-2037-01-27 03:07 J	977434.38	977434.63	977434.98	0.0134	0.0110	
Moon	-2037-06-20 23:16 J	977580.36	977580.47	977580.59	0.0134	0.0119	
Earth	-2037-06-21 02:09 J	977580.52	977580.59	977580.70	0.0134	0.0125	*
Mercury	-2012-04-02 20:38 J	986632.31	986632.36	986632.41	0.0135	0.0124	
Mercury	-2012-06-29 23:45 J	986720.41	986720.49	986720.57	0.0135	0.0106	
Mercury	-2012-09-26 02:52 J	986808.52	986808.62	986808.72	0.0136	0.0088	
Mercury	-2012-12-23 06:00 J	986896.63	986896.75	986896.86	0.0136	0.0070	
Mars	-2011-03-21 03:36 J	986984.45	986984.65	986984.85	0.0136	0.0102	
Mercury	-2011-03-21 09:07 J	986984.75	986984.88	986985.00	0.0136	0.0052	*
Mercury	-2011-06-17 12:00 J	987072.88	987073.00	987073.13	0.0136	0.0034	
Mercury	-2011-09-13 15:07 J	987161.00	987161.13	987161.26	0.0136	0.0016	
Mercury	-2011-12-10 18:14 J	987249.13	987249.26	987249.39	0.0136	0.0003	
Mercury	-2010-03-08 21:21 J	987337.26	987337.39	987337.52	0.0136	0.0020	
Mercury	-2010-06-05 00:28 J	987425.39	987425.52	987425.64	0.0136	0.0038	
Mercury	-2010-09-01 03:21 J	987513.53	987513.64	987513.77	0.0136	0.0056	
Mercury	-2010-11-28 06:28 J	987601.67	987601.77	987601.88	0.0137	0.0074	
Mars	-2009-02-21 06:00 J	987686.47	987686.75	987687.05	0.0137	0.0052	
Mercury	-2009-02-24 09:36 J	987689.81	987689.90	987690.00	0.0137	0.0092	
Mercury	-2009-05-22 12:43 J	987777.96	987778.03	987778.11	0.0137	0.0110	
Mercury	-2009-08-18 15:50 J	987866.12	987866.16	987866.20	0.0137	0.0128	
Venus	-2002-03-05 14:09 J	990256.00	990256.09	990256.21	0.0140	0.0123	

Venus	-2002-10-17 23:16 J	990482.29	990482.47	990482.66	0.0141	0.0075
Venus	-2001-05-31 08:09 J	990708.63	990708.84	990709.06	0.0141	0.0027
Moon	-2001-11-15 20:23 J	990877.25	990877.35	990877.46	0.0141	0.0128
Earth	-2001-11-15 20:52 J	990877.27	990877.37	990877.51	0.0141	0.0123 *

2ND MILLENNIUM BCE

This is a list of transits visible from Uranus in the 2nd millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-2000-01-12 17:16 J	990935.01	990935.22	990935.44	0.0141	0.0022		
Venus	-2000-08-27 02:38 J	991161.43	991161.61	991161.80	0.0141	0.0071		
Earth	-2000-11-20 12:28 J	991246.84	991247.02	991247.22	0.0142	0.0090		
Moon	-2000-11-20 13:12 J	991246.88	991247.05	991247.26	0.0142	0.0087 *		
Venus	-1999-04-10 12:00 J	991387.90	991388.00	991388.12	0.0142	0.0120		
Moon	-1999-11-25 04:47 J	991616.47	991616.70	991616.95	0.0142	0.0054		
Earth	-1999-11-25 05:02 J	991616.48	991616.71	991616.94	0.0142	0.0055 *		
Earth	-1998-11-29 22:19 J	991986.18	991986.43	991986.68	0.0143	0.0020		
Moon	-1998-11-29 22:19 J	991986.19	991986.43	991986.67	0.0143	0.0024 *		
Earth	-1997-12-03 16:04 J	992355.93	992356.17	992356.42	0.0143	0.0016		
Moon	-1997-12-03 16:47 J	992355.95	992356.20	992356.46	0.0143	0.0022 *		
Moon	-1996-12-08 09:50 J	992725.68	992725.91	992726.14	0.0143	0.0045		
Earth	-1996-12-08 10:47 J	992725.73	992725.95	992726.19	0.0143	0.0053 *		
Earth	-1995-12-13 06:14 J	993095.58	993095.76	993095.97	0.0144	0.0089		
Moon	-1995-12-13 07:40 J	993095.64	993095.82	993096.03	0.0144	0.0094 *		

Moon	-1994-12-18 00:14 J	993465.40	993465.51	993465.65	0.0144	0.0124
Earth	-1994-12-18 02:23 J	993465.50	993465.60	993465.74	0.0144	0.0125 *
Mercury	-1972-08-01 04:33 J	1001362.61	1001362.69	1001362.79	0.0143	0.0126
Mercury	-1972-10-28 12:57 J	1001450.90	1001451.04	1001451.19	0.0143	0.0095
Mercury	-1971-01-24 21:21 J	1001539.22	1001539.39	1001539.57	0.0143	0.0064
Mercury	-1971-04-23 05:45 J	1001627.55	1001627.74	1001627.93	0.0142	0.0034
Mercury	-1971-07-20 14:09 J	1001715.90	1001716.09	1001716.29	0.0142	0.0003
Mars	-1971-10-13 11:02 J	1001800.66	1001800.96	1001801.26	0.0142	0.0028
Mercury	-1971-10-16 22:19 J	1001804.25	1001804.43	1001804.63	0.0142	0.0029
Mercury	-1970-01-13 06:57 J	1001892.61	1001892.79	1001892.97	0.0142	0.0058
Mercury	-1970-04-11 15:07 J	1001980.99	1001981.13	1001981.29	0.0142	0.0089
Mercury	-1970-07-08 23:31 J	1002069.39	1002069.48	1002069.59	0.0142	0.0120
Venus	-1963-11-08 16:19 J	1004749.04	1004749.18	1004749.34	0.0138	0.0099
Venus	-1962-06-23 00:57 J	1004975.34	1004975.54	1004975.75	0.0138	0.0052
Venus	-1961-02-04 09:21 J	1005201.67	1005201.89	1005202.11	0.0138	0.0007
Moon	-1961-05-17 20:09 J	1005305.24	1005305.34	1005305.46	0.0137	0.0123
Earth	-1961-05-17 20:38 J	1005305.26	1005305.36	1005305.50	0.0137	0.0121 *
Venus	-1961-09-17 17:16 J	1005428.02	1005428.22	1005428.44	0.0137	0.0040
Venus	-1960-05-02 01:26 J	1005654.39	1005654.56	1005654.74	0.0137	0.0084
Earth	-1960-05-22 13:40 J	1005674.88	1005675.07	1005675.27	0.0137	0.0088
Moon	-1960-05-22 14:52 J	1005674.92	1005675.12	1005675.35	0.0137	0.0082 *
Venus	-1960-12-14 08:52 J	1005880.82	1005880.87	1005880.96	0.0137	0.0129
Moon	-1959-05-27 04:19 J	1006044.47	1006044.68	1006044.92	0.0136	0.0063
Earth	-1959-05-27 05:45 J	1006044.51	1006044.74	1006044.98	0.0136	0.0056 *
Earth	-1958-05-31 20:38 J	1006414.12	1006414.36	1006414.63	0.0136	0.0024
Moon	-1958-05-31 23:02 J	1006414.20	1006414.46	1006414.73	0.0136	0.0018 *
Moon	-1957-06-04 09:36 J	1006783.65	1006783.90	1006784.15	0.0136	0.0003
Earth	-1957-06-04 11:31 J	1006783.72	1006783.98	1006784.24	0.0136	0.0008 *
Earth	-1956-06-09 01:12 J	1007153.31	1007153.55	1007153.81	0.0135	0.0040
Moon	-1956-06-09 03:50 J	1007153.42	1007153.66	1007153.92	0.0135	0.0041 *

Moon	-1955-06-13 11:31 J	1007522.78	1007522.98	1007523.21	0.0135	0.0073
Earth	-1955-06-13 14:23 J	1007522.89	1007523.10	1007523.33	0.0135	0.0071 *
Jupiter	-1955-12-20 07:12 J	1007712.43	1007712.80	1007713.19	0.0135	0.0090
Earth	-1954-06-18 02:52 J	1007892.46	1007892.62	1007892.80	0.0134	0.0101
Moon	-1954-06-18 05:45 J	1007892.56	1007892.74	1007892.93	0.0134	0.0096 *
Earth	-1953-06-21 14:38 J	1008262.07	1008262.11	1008262.19	0.0134	0.0130
Mercury	-1928-01-25 01:12 J	1017245.55	1017245.55	1017245.55	0.0135	0.0135
Mercury	-1928-04-23 04:04 J	1017333.62	1017333.67	1017333.74	0.0135	0.0118
Mercury	-1928-07-20 07:12 J	1017421.72	1017421.80	1017421.90	0.0136	0.0100
Mercury	-1928-10-16 10:19 J	1017509.83	1017509.93	1017510.04	0.0136	0.0082
Mercury	-1927-01-12 13:26 J	1017597.95	1017598.06	1017598.18	0.0136	0.0064
Mercury	-1927-04-10 16:33 J	1017686.07	1017686.19	1017686.32	0.0136	0.0046
Mercury	-1927-07-07 19:40 J	1017774.19	1017774.32	1017774.45	0.0136	0.0028
Mercury	-1927-10-03 22:47 J	1017862.32	1017862.45	1017862.58	0.0136	0.0010
Mars	-1927-11-14 07:26 J	1017903.53	1017903.81	1017904.12	0.0136	0.0045
Mercury	-1927-12-31 01:55 J	1017950.45	1017950.58	1017950.71	0.0136	0.0008
Mercury	-1926-03-29 05:02 J	1018038.58	1018038.71	1018038.84	0.0136	0.0026
Mercury	-1926-06-25 07:55 J	1018126.71	1018126.83	1018126.96	0.0136	0.0045
Mercury	-1926-09-21 11:02 J	1018214.85	1018214.96	1018215.08	0.0136	0.0062
Mercury	-1926-12-18 14:09 J	1018302.99	1018303.09	1018303.20	0.0137	0.0080
Mercury	-1925-03-15 17:02 J	1018391.13	1018391.21	1018391.31	0.0137	0.0099
Mercury	-1925-06-11 20:23 J	1018479.29	1018479.35	1018479.42	0.0137	0.0116
Mercury	-1925-09-07 23:31 J	1018567.46	1018567.48	1018567.50	0.0137	0.0134
Mars	-1925-10-16 13:12 J	1018605.90	1018606.05	1018606.26	0.0137	0.0112
Venus	-1918-06-17 08:23 J	1021040.71	1021040.85	1021041.02	0.0140	0.0096
Venus	-1917-01-29 17:31 J	1021267.03	1021267.23	1021267.44	0.0141	0.0048
Venus	-1917-09-12 02:52 J	1021493.40	1021493.62	1021493.83	0.0141	0.0003
Moon	-1917-11-16 08:09 J	1021558.69	1021558.84	1021559.01	0.0141	0.0110
Earth	-1917-11-16 09:50 J	1021558.79	1021558.91	1021559.06	0.0141	0.0117 *
Venus	-1916-04-26 12:00 J	1021719.80	1021720.00	1021720.20	0.0141	0.0049

Earth	-1916-11-21 01:26 J	1021928.37	1021928.56	1021928.77	0.0142	0.0084
Moon	-1916-11-21 02:23 J	1021928.42	1021928.60	1021928.80	0.0142	0.0087 *
Venus	-1916-12-08 21:07 J	1021946.23	1021946.38	1021946.54	0.0142	0.0099
Moon	-1915-11-25 16:33 J	1022297.96	1022298.19	1022298.45	0.0142	0.0049
Earth	-1915-11-25 18:00 J	1022298.02	1022298.25	1022298.49	0.0142	0.0049 *
Earth	-1914-11-30 11:02 J	1022667.72	1022667.96	1022668.21	0.0142	0.0015
Moon	-1914-11-30 11:16 J	1022667.74	1022667.97	1022668.22	0.0142	0.0011 *
Moon	-1913-12-04 05:02 J	1023037.46	1023037.71	1023037.97	0.0143	0.0015
Earth	-1913-12-04 05:02 J	1023037.47	1023037.71	1023037.96	0.0143	0.0022 *
Moon	-1912-12-08 23:31 J	1023407.27	1023407.48	1023407.69	0.0143	0.0065
Earth	-1912-12-08 23:45 J	1023407.27	1023407.49	1023407.72	0.0143	0.0058 *
Earth	-1911-12-13 19:12 J	1023777.12	1023777.30	1023777.50	0.0144	0.0094
Moon	-1911-12-13 20:23 J	1023777.16	1023777.35	1023777.56	0.0144	0.0089 *
Moon	-1910-12-18 14:09 J	1024147.01	1024147.09	1024147.19	0.0144	0.0133
Earth	-1910-12-18 15:21 J	1024147.05	1024147.14	1024147.26	0.0144	0.0130 *
Mars	-1888-07-05 19:55 J	1032017.27	1032017.33	1032017.43	0.0143	0.0138
Mercury	-1888-08-21 12:57 J	1032063.94	1032064.04	1032064.17	0.0143	0.0115
Mercury	-1888-11-17 21:36 J	1032152.25	1032152.40	1032152.56	0.0143	0.0084
Mercury	-1887-02-14 05:45 J	1032240.57	1032240.74	1032240.93	0.0143	0.0054
Mercury	-1887-05-13 14:23 J	1032328.90	1032329.10	1032329.29	0.0142	0.0023
Mercury	-1887-08-09 22:33 J	1032417.25	1032417.44	1032417.64	0.0142	0.0009
Mercury	-1887-11-06 06:57 J	1032505.61	1032505.79	1032505.98	0.0142	0.0039
Mercury	-1886-02-02 15:21 J	1032593.97	1032594.14	1032594.31	0.0142	0.0069
Mercury	-1886-05-01 23:45 J	1032682.36	1032682.49	1032682.63	0.0142	0.0100
Mars	-1886-06-09 01:12 J	1032720.26	1032720.55	1032720.85	0.0142	0.0038
Mercury	-1886-07-29 07:55 J	1032770.77	1032770.83	1032770.92	0.0142	0.0131
Venus	-1879-07-09 02:52 J	1035307.51	1035307.62	1035307.73	0.0138	0.0118
Venus	-1878-02-20 11:31 J	1035533.80	1035533.98	1035534.17	0.0138	0.0072
Venus	-1878-10-04 19:55 J	1035760.12	1035760.33	1035760.55	0.0138	0.0026
Venus	-1877-05-18 04:04 J	1035986.46	1035986.67	1035986.89	0.0137	0.0021

Moon	-1877-05-18 10:04 J	1035986.80	1035986.92	1035987.08	0.0137	0.0113	*
Earth	-1877-05-18 10:33 J	1035986.80	1035986.94	1035987.09	0.0137	0.0114	*
Venus	-1877-12-30 12:14 J	1036212.82	1036213.01	1036213.20	0.0137	0.0066	
Earth	-1876-05-23 03:07 J	1036356.44	1036356.63	1036356.85	0.0137	0.0082	
Moon	-1876-05-23 03:36 J	1036356.46	1036356.65	1036356.87	0.0137	0.0086	*
Venus	-1876-08-13 19:40 J	1036439.22	1036439.32	1036439.47	0.0137	0.0111	
Moon	-1875-05-27 18:00 J	1036726.02	1036726.25	1036726.50	0.0136	0.0043	
Earth	-1875-05-27 19:12 J	1036726.07	1036726.30	1036726.55	0.0136	0.0050	*
Earth	-1874-06-01 10:47 J	1037095.69	1037095.95	1037096.21	0.0136	0.0017	
Moon	-1874-06-01 11:45 J	1037095.74	1037095.99	1037096.26	0.0136	0.0024	*
Moon	-1873-06-04 23:31 J	1037465.24	1037465.48	1037465.73	0.0136	0.0019	
Earth	-1873-06-05 01:26 J	1037465.31	1037465.56	1037465.82	0.0136	0.0015	*
Earth	-1872-06-09 15:07 J	1037834.90	1037835.13	1037835.39	0.0135	0.0047	
Moon	-1872-06-09 17:16 J	1037834.98	1037835.22	1037835.48	0.0135	0.0044	*
Moon	-1871-06-14 02:23 J	1038204.40	1038204.60	1038204.82	0.0135	0.0075	
Earth	-1871-06-14 04:19 J	1038204.49	1038204.68	1038204.91	0.0135	0.0077	*
Earth	-1870-06-18 16:47 J	1038574.06	1038574.20	1038574.37	0.0134	0.0107	
Moon	-1870-06-18 19:55 J	1038574.19	1038574.33	1038574.48	0.0134	0.0112	*
Moon	-1869-06-22 02:23 J	1038943.55	1038943.60	1038943.67	0.0134	0.0130	
Mercury	-1844-02-14 08:52 J	1047946.84	1047946.87	1047946.92	0.0135	0.0128	
Mercury	-1844-05-13 12:00 J	1048034.93	1048035.00	1048035.08	0.0135	0.0111	
Mars	-1844-08-07 17:31 J	1048121.23	1048121.23	1048121.27	0.0136	0.0135	
Mercury	-1844-08-09 15:07 J	1048123.04	1048123.13	1048123.23	0.0136	0.0093	
Mercury	-1844-11-05 18:14 J	1048211.16	1048211.26	1048211.37	0.0136	0.0075	
Mercury	-1843-02-01 21:21 J	1048299.27	1048299.39	1048299.51	0.0136	0.0057	
Mercury	-1843-05-01 00:28 J	1048387.40	1048387.52	1048387.65	0.0136	0.0039	
Mercury	-1843-07-28 03:36 J	1048475.52	1048475.65	1048475.78	0.0136	0.0021	
Mercury	-1843-10-24 06:43 J	1048563.65	1048563.78	1048563.91	0.0136	0.0003	
Mercury	-1842-01-20 09:50 J	1048651.78	1048651.91	1048652.04	0.0136	0.0015	
Mercury	-1842-04-18 12:43 J	1048739.91	1048740.03	1048740.16	0.0136	0.0034	

Mars	-1842-07-10 14:09 J	1048822.79	1048823.09	1048823.41	0.0136	0.0015
Mercury	-1842-07-15 15:50 J	1048828.04	1048828.16	1048828.29	0.0136	0.0051
Mercury	-1842-10-11 18:57 J	1048916.18	1048916.29	1048916.41	0.0137	0.0069
Mercury	-1841-01-07 21:50 J	1049004.32	1049004.41	1049004.52	0.0137	0.0088
Mercury	-1841-04-05 00:57 J	1049092.47	1049092.54	1049092.63	0.0137	0.0106
Mercury	-1841-07-02 04:19 J	1049180.62	1049180.68	1049180.73	0.0137	0.0123
Venus	-1834-02-14 18:57 J	1051599.19	1051599.29	1051599.43	0.0140	0.0115
Venus	-1834-09-29 04:04 J	1051825.49	1051825.67	1051825.87	0.0140	0.0067
Moon	-1834-11-13 12:28 J	1051870.97	1051871.02	1051871.09	0.0141	0.0136
Venus	-1833-05-12 13:12 J	1052051.84	1052052.05	1052052.27	0.0141	0.0019
Moon	-1833-11-16 23:02 J	1052240.33	1052240.46	1052240.61	0.0141	0.0116
Earth	-1833-11-17 00:57 J	1052240.39	1052240.54	1052240.70	0.0141	0.0110 *
Venus	-1833-12-24 22:19 J	1052278.22	1052278.43	1052278.65	0.0141	0.0030
Venus	-1832-08-08 07:40 J	1052504.65	1052504.82	1052505.00	0.0141	0.0079
Earth	-1832-11-21 16:33 J	1052609.99	1052610.19	1052610.40	0.0142	0.0077
Moon	-1832-11-21 18:28 J	1052610.07	1052610.27	1052610.48	0.0142	0.0073 *
Venus	-1831-03-22 17:02 J	1052731.13	1052731.21	1052731.31	0.0142	0.0128
Moon	-1831-11-26 07:55 J	1052979.59	1052979.83	1052980.08	0.0142	0.0042
Earth	-1831-11-26 09:07 J	1052979.64	1052979.88	1052980.12	0.0142	0.0042 *
Earth	-1830-12-01 02:24 J	1053349.35	1053349.60	1053349.85	0.0143	0.0007
Moon	-1830-12-01 03:21 J	1053349.40	1053349.64	1053349.88	0.0143	0.0011 *
Moon	-1829-12-04 19:40 J	1053719.08	1053719.32	1053719.58	0.0143	0.0034
Earth	-1829-12-04 20:24 J	1053719.10	1053719.35	1053719.59	0.0143	0.0028 *
Moon	-1828-12-09 14:38 J	1054088.90	1054089.11	1054089.34	0.0143	0.0058
Earth	-1828-12-09 14:52 J	1054088.91	1054089.12	1054089.35	0.0143	0.0065 *
Earth	-1827-12-14 10:04 J	1054458.76	1054458.92	1054459.12	0.0144	0.0101
Moon	-1827-12-14 10:33 J	1054458.78	1054458.94	1054459.13	0.0144	0.0106 *
Moon	-1826-12-19 04:47 J	1054828.64	1054828.70	1054828.81	0.0144	0.0136
Earth	-1826-12-19 06:28 J	1054828.70	1054828.77	1054828.86	0.0144	0.0136 *
Mercury	-1804-06-14 13:55 J	1062677.02	1062677.08	1062677.17	0.0143	0.0132

Mercury	-1804-09-10 22:19 J	1062765.30	1062765.43	1062765.57	0.0143	0.0101
Mercury	-1804-12-08 06:43 J	1062853.62	1062853.78	1062853.95	0.0143	0.0071
Mars	-1803-03-01 18:00 J	1062936.99	1062937.25	1062937.53	0.0143	0.0068
Mercury	-1803-03-06 15:07 J	1062941.95	1062942.13	1062942.32	0.0143	0.0040
Mercury	-1803-06-02 23:31 J	1063030.29	1063030.48	1063030.68	0.0142	0.0009
Mercury	-1803-08-30 07:55 J	1063118.64	1063118.83	1063119.02	0.0142	0.0022
Mercury	-1803-11-26 16:19 J	1063207.00	1063207.18	1063207.36	0.0142	0.0052
Mercury	-1802-02-23 00:28 J	1063295.37	1063295.52	1063295.69	0.0142	0.0083
Mercury	-1802-05-22 08:52 J	1063383.76	1063383.87	1063384.00	0.0142	0.0114
Mars	-1801-02-02 18:57 J	1063640.11	1063640.29	1063640.51	0.0142	0.0105
Venus	-1795-03-08 13:40 J	1065866.06	1065866.07	1065866.13	0.0139	0.0137
Venus	-1795-10-20 22:33 J	1066092.29	1066092.44	1066092.62	0.0138	0.0090
Venus	-1794-06-04 06:57 J	1066318.60	1066318.79	1066319.01	0.0138	0.0044
Venus	-1793-01-16 15:35 J	1066544.93	1066545.15	1066545.37	0.0138	0.0002
Earth	-1793-05-19 01:12 J	1066668.41	1066668.55	1066668.73	0.0137	0.0108
Moon	-1793-05-19 01:55 J	1066668.44	1066668.58	1066668.74	0.0137	0.0109 *
Venus	-1793-08-29 23:31 J	1066771.29	1066771.48	1066771.70	0.0137	0.0048
Venus	-1792-04-13 07:40 J	1066997.67	1066997.82	1066997.99	0.0137	0.0093
Earth	-1792-05-23 18:14 J	1067038.06	1067038.26	1067038.49	0.0137	0.0075
Moon	-1792-05-23 18:43 J	1067038.06	1067038.28	1067038.52	0.0137	0.0069 *
Earth	-1791-05-28 10:19 J	1067407.69	1067407.93	1067408.19	0.0136	0.0043
Moon	-1791-05-28 10:19 J	1067407.70	1067407.93	1067408.17	0.0136	0.0049 *
Earth	-1790-06-02 01:40 J	1067777.32	1067777.57	1067777.84	0.0136	0.0011
Moon	-1790-06-02 03:07 J	1067777.36	1067777.63	1067777.90	0.0136	0.0004 *
Moon	-1789-06-05 15:21 J	1068146.90	1068147.14	1068147.39	0.0136	0.0016
Earth	-1789-06-05 16:33 J	1068146.94	1068147.19	1068147.45	0.0136	0.0021 *
Earth	-1788-06-10 06:28 J	1068516.53	1068516.77	1068517.01	0.0135	0.0052
Moon	-1788-06-10 08:09 J	1068516.60	1068516.84	1068517.09	0.0135	0.0054 *
Moon	-1787-06-14 17:16 J	1068886.04	1068886.22	1068886.42	0.0135	0.0085
Earth	-1787-06-14 19:12 J	1068886.11	1068886.30	1068886.52	0.0135	0.0083 *

Earth	-1786-06-19 07:40 J	1069255.69	1069255.82	1069255.97	0.0134	0.0113
Moon	-1786-06-19 09:21 J	1069255.76	1069255.89	1069256.07	0.0134	0.0109 *
Mercury	-1760-03-06 16:33 J	1078648.14	1078648.19	1078648.26	0.0135	0.0122
Mercury	-1760-06-02 19:55 J	1078736.25	1078736.33	1078736.41	0.0135	0.0104
Mercury	-1760-08-29 23:02 J	1078824.36	1078824.46	1078824.56	0.0136	0.0086
Mercury	-1760-11-26 02:09 J	1078912.47	1078912.59	1078912.70	0.0136	0.0068
Mercury	-1759-02-22 05:02 J	1079000.59	1079000.71	1079000.84	0.0136	0.0050
Mars	-1759-04-02 19:26 J	1079040.07	1079040.31	1079040.57	0.0136	0.0078
Mercury	-1759-05-21 08:09 J	1079088.72	1079088.84	1079088.97	0.0136	0.0032
Mercury	-1759-08-17 11:16 J	1079176.84	1079176.97	1079177.10	0.0136	0.0014
Mercury	-1759-11-13 14:24 J	1079264.97	1079265.10	1079265.23	0.0136	0.0004
Mercury	-1758-02-09 17:31 J	1079353.10	1079353.23	1079353.36	0.0136	0.0022
Mercury	-1758-05-08 20:38 J	1079441.23	1079441.36	1079441.48	0.0136	0.0040
Mercury	-1758-08-04 23:31 J	1079529.36	1079529.48	1079529.60	0.0136	0.0058
Mercury	-1758-11-01 02:38 J	1079617.50	1079617.61	1079617.72	0.0137	0.0075
Mercury	-1757-01-28 05:31 J	1079705.65	1079705.73	1079705.83	0.0137	0.0094
Mars	-1757-03-04 19:55 J	1079742.09	1079742.33	1079742.61	0.0137	0.0075
Mercury	-1757-04-25 08:38 J	1079793.79	1079793.86	1079793.94	0.0137	0.0112
Mercury	-1757-07-22 11:31 J	1079881.96	1079881.98	1079882.03	0.0137	0.0130
Venus	-1751-10-15 04:47 J	1082157.65	1082157.70	1082157.75	0.0140	0.0135
Venus	-1750-05-29 13:12 J	1082383.90	1082384.05	1082384.23	0.0140	0.0088
Earth	-1750-11-13 22:33 J	1082552.40	1082552.44	1082552.51	0.0141	0.0137
Venus	-1749-01-10 22:19 J	1082610.23	1082610.43	1082610.64	0.0141	0.0040
Venus	-1749-08-24 07:26 J	1082836.60	1082836.81	1082837.03	0.0141	0.0009
Moon	-1749-11-17 10:47 J	1082921.77	1082921.95	1082922.14	0.0141	0.0097
Earth	-1749-11-17 13:26 J	1082921.90	1082922.06	1082922.24	0.0141	0.0104 *
Venus	-1748-04-07 16:33 J	1083063.00	1083063.19	1083063.40	0.0141	0.0057
Venus	-1748-11-20 01:40 J	1083289.45	1083289.57	1083289.73	0.0142	0.0107
Earth	-1748-11-22 05:02 J	1083291.50	1083291.71	1083291.93	0.0142	0.0071
Moon	-1748-11-22 06:43 J	1083291.59	1083291.78	1083292.00	0.0142	0.0075 *

Moon	-1747-11-26 19:26 J	1083661.06	1083661.31	1083661.56	0.0142	0.0035
Earth	-1747-11-26 21:21 J	1083661.16	1083661.39	1083661.64	0.0142	0.0037 *
Earth	-1746-12-01 14:38 J	1084030.86	1084031.11	1084031.36	0.0143	0.0002
Moon	-1746-12-01 15:50 J	1084030.92	1084031.16	1084031.40	0.0143	0.0002 *
Moon	-1745-12-05 07:26 J	1084400.56	1084400.81	1084401.06	0.0143	0.0027
Earth	-1745-12-05 08:24 J	1084400.61	1084400.85	1084401.10	0.0143	0.0034 *
Earth	-1744-12-10 03:07 J	1084770.41	1084770.63	1084770.85	0.0144	0.0070
Moon	-1744-12-10 03:50 J	1084770.46	1084770.66	1084770.86	0.0144	0.0077 *
Moon	-1743-12-14 22:19 J	1085140.26	1085140.43	1085140.63	0.0144	0.0100
Earth	-1743-12-14 22:19 J	1085140.27	1085140.43	1085140.61	0.0144	0.0106 *
Earth	-1742-12-19 18:28 J	1085510.23	1085510.27	1085510.33	0.0144	0.0142
Mercury	-1720-07-04 22:33 J	1093378.35	1093378.44	1093378.56	0.0143	0.0120
Mercury	-1720-10-01 07:12 J	1093466.65	1093466.80	1093466.95	0.0143	0.0089
Mercury	-1720-12-28 15:21 J	1093554.97	1093555.14	1093555.33	0.0143	0.0059
Mercury	-1719-03-27 00:00 J	1093643.31	1093643.50	1093643.69	0.0143	0.0028
Mercury	-1719-06-23 08:24 J	1093731.65	1093731.85	1093732.04	0.0143	0.0004
Mercury	-1719-09-19 16:33 J	1093820.01	1093820.19	1093820.39	0.0142	0.0034
Mars	-1719-10-26 12:57 J	1093856.73	1093857.04	1093857.34	0.0142	0.0001
Mercury	-1719-12-17 00:57 J	1093908.37	1093908.54	1093908.72	0.0142	0.0065
Mercury	-1718-03-15 09:21 J	1093996.75	1093996.89	1093997.04	0.0142	0.0095
Mercury	-1718-06-11 17:31 J	1094085.16	1094085.23	1094085.34	0.0142	0.0127
Venus	-1711-06-20 10:04 J	1096650.78	1096650.92	1096651.06	0.0138	0.0108
Venus	-1710-02-01 18:43 J	1096877.09	1096877.28	1096877.48	0.0138	0.0061
Moon	-1710-05-15 21:35 J	1096980.33	1096980.40	1096980.51	0.0138	0.0130
Earth	-1710-05-15 22:47 J	1096980.41	1096980.45	1096980.54	0.0138	0.0133 *
Venus	-1710-09-16 03:07 J	1097103.42	1097103.63	1097103.85	0.0138	0.0015
Venus	-1709-04-29 11:31 J	1097329.77	1097329.98	1097330.19	0.0138	0.0031
Earth	-1709-05-19 16:33 J	1097350.04	1097350.19	1097350.39	0.0137	0.0101
Moon	-1709-05-19 17:45 J	1097350.07	1097350.24	1097350.42	0.0137	0.0099 *
Venus	-1709-12-11 19:26 J	1097556.14	1097556.31	1097556.50	0.0137	0.0076

Moon	-1708-05-24 08:52 J	1097719.66	1097719.87	1097720.12	0.0137	0.0072
Earth	-1708-05-24 09:35 J	1097719.69	1097719.90	1097720.14	0.0137	0.0068 *
Venus	-1708-07-26 03:21 J	1097782.55	1097782.64	1097782.75	0.0137	0.0121
Moon	-1707-05-29 01:26 J	1098089.32	1098089.56	1098089.81	0.0136	0.0029
Earth	-1707-05-29 01:55 J	1098089.33	1098089.58	1098089.83	0.0136	0.0036 *
Moon	-1706-06-02 17:31 J	1098458.96	1098459.23	1098459.50	0.0136	0.0010
Earth	-1706-06-02 17:16 J	1098458.97	1098459.22	1098459.48	0.0136	0.0004 *
Moon	-1705-06-06 06:57 J	1098828.55	1098828.79	1098829.04	0.0136	0.0033
Earth	-1705-06-06 08:09 J	1098828.58	1098828.84	1098829.09	0.0136	0.0028 *
Earth	-1704-06-10 21:35 J	1099198.18	1099198.40	1099198.64	0.0135	0.0059
Moon	-1704-06-10 23:02 J	1099198.22	1099198.46	1099198.70	0.0135	0.0057 *
Moon	-1703-06-15 09:07 J	1099567.72	1099567.88	1099568.09	0.0135	0.0089
Earth	-1703-06-15 11:02 J	1099567.77	1099567.96	1099568.15	0.0135	0.0089 *
Earth	-1702-06-19 23:02 J	1099937.35	1099937.46	1099937.59	0.0134	0.0119
Moon	-1702-06-20 00:57 J	1099937.46	1099937.54	1099937.66	0.0134	0.0124 *
Mercury	-1677-12-28 21:21 J	1109261.37	1109261.39	1109261.42	0.0135	0.0132
Mercury	-1676-03-27 00:28 J	1109349.46	1109349.52	1109349.59	0.0135	0.0115
Mercury	-1676-06-23 03:35 J	1109437.56	1109437.65	1109437.74	0.0135	0.0097
Mercury	-1676-09-19 06:43 J	1109525.67	1109525.78	1109525.89	0.0136	0.0079
Mercury	-1676-12-16 09:35 J	1109613.79	1109613.90	1109614.03	0.0136	0.0062
Mercury	-1675-03-14 12:43 J	1109701.91	1109702.03	1109702.16	0.0136	0.0044
Mercury	-1675-06-10 15:50 J	1109790.04	1109790.16	1109790.30	0.0136	0.0026
Mercury	-1675-09-06 18:57 J	1109878.16	1109878.29	1109878.43	0.0136	0.0009
Mars	-1675-11-26 23:31 J	1109959.18	1109959.48	1109959.79	0.0136	0.0018
Mercury	-1675-12-03 22:04 J	1109966.29	1109966.42	1109966.55	0.0136	0.0010
Mercury	-1674-03-02 01:12 J	1110054.42	1110054.55	1110054.68	0.0136	0.0028
Mercury	-1674-05-29 04:04 J	1110142.55	1110142.67	1110142.80	0.0136	0.0047
Mercury	-1674-08-25 07:12 J	1110230.69	1110230.80	1110230.92	0.0136	0.0064
Mercury	-1674-11-21 10:04 J	1110318.83	1110318.92	1110319.04	0.0136	0.0083
Mercury	-1673-02-17 13:26 J	1110406.97	1110407.06	1110407.15	0.0137	0.0100

Mercury	-1673-05-15 16:19 J	1110495.12	1110495.18	1110495.25	0.0137	0.0118
Mercury	-1673-08-11 19:26 J	1110583.30	1110583.31	1110583.33	0.0137	0.0136
Mars	-1673-10-29 04:19 J	1110661.67	1110661.68	1110661.73	0.0137	0.0136
Venus	-1666-01-26 23:02 J	1112942.33	1112942.46	1112942.61	0.0140	0.0108
Venus	-1666-09-10 08:09 J	1113168.65	1113168.84	1113169.04	0.0140	0.0061
Earth	-1666-11-14 12:00 J	1113233.92	1113234.00	1113234.09	0.0140	0.0131
Moon	-1666-11-14 14:38 J	1113234.02	1113234.11	1113234.24	0.0140	0.0124 *
Venus	-1665-04-23 17:02 J	1113395.00	1113395.21	1113395.43	0.0141	0.0013
Moon	-1665-11-18 00:00 J	1113603.34	1113603.50	1113603.68	0.0141	0.0105
Earth	-1665-11-18 02:52 J	1113603.44	1113603.62	1113603.80	0.0141	0.0098 *
Venus	-1665-12-06 02:09 J	1113621.38	1113621.59	1113621.80	0.0141	0.0036
Venus	-1664-07-20 11:02 J	1113847.81	1113847.96	1113848.15	0.0141	0.0086
Earth	-1664-11-22 18:00 J	1113973.04	1113973.25	1113973.48	0.0142	0.0066
Moon	-1664-11-22 20:38 J	1113973.16	1113973.36	1113973.60	0.0142	0.0061 *
Venus	-1663-03-03 20:52 J	1114074.31	1114074.37	1114074.44	0.0142	0.0134
Moon	-1663-11-27 08:24 J	1114342.60	1114342.85	1114343.10	0.0142	0.0031
Earth	-1663-11-27 10:19 J	1114342.69	1114342.93	1114343.18	0.0142	0.0031 *
Earth	-1662-12-02 03:21 J	1114712.39	1114712.64	1114712.89	0.0143	0.0005
Moon	-1662-12-02 05:31 J	1114712.49	1114712.73	1114712.97	0.0143	0.0001 *
Moon	-1661-12-05 19:26 J	1115082.07	1115082.31	1115082.56	0.0143	0.0045
Earth	-1661-12-05 20:52 J	1115082.14	1115082.37	1115082.62	0.0143	0.0040 *
Earth	-1660-12-10 15:35 J	1115451.94	1115452.15	1115452.37	0.0144	0.0076
Moon	-1660-12-10 16:19 J	1115451.98	1115452.18	1115452.41	0.0144	0.0069 *
Moon	-1659-12-15 10:04 J	1115821.78	1115821.92	1115822.07	0.0144	0.0117
Earth	-1659-12-15 10:47 J	1115821.81	1115821.95	1115822.12	0.0144	0.0111 *
Moon	-1658-12-20 06:57 J	1116191.79	1116191.79	1116191.79	0.0144	0.0144
Mercury	-1636-04-27 22:47 J	1123991.42	1123991.45	1123991.50	0.0143	0.0139
Mars	-1636-07-18 20:38 J	1124073.16	1124073.36	1124073.57	0.0143	0.0106
Mercury	-1636-07-25 06:57 J	1124079.68	1124079.79	1124079.93	0.0143	0.0109
Mercury	-1636-10-21 15:35 J	1124167.99	1124168.15	1124168.31	0.0143	0.0078

Mercury	-1635-01-18 00:00 J	1124256.32	1124256.50	1124256.68	0.0143	0.0047
Mercury	-1635-04-16 08:24 J	1124344.66	1124344.85	1124345.04	0.0143	0.0017
Mercury	-1635-07-13 16:47 J	1124433.00	1124433.20	1124433.39	0.0143	0.0014
Mercury	-1635-10-10 00:57 J	1124521.36	1124521.54	1124521.73	0.0142	0.0045
Mercury	-1634-01-06 09:35 J	1124609.73	1124609.90	1124610.06	0.0142	0.0076
Mercury	-1634-04-04 17:45 J	1124698.12	1124698.24	1124698.38	0.0142	0.0107
Mars	-1634-06-22 03:50 J	1124776.41	1124776.66	1124776.94	0.0142	0.0068
Mercury	-1634-07-02 02:09 J	1124786.55	1124786.59	1124786.65	0.0142	0.0137
Venus	-1627-02-17 20:24 J	1127209.28	1127209.35	1127209.45	0.0139	0.0127
Venus	-1627-10-02 05:31 J	1127435.55	1127435.73	1127435.91	0.0138	0.0080
Venus	-1626-05-16 13:55 J	1127661.87	1127662.08	1127662.30	0.0138	0.0033
Moon	-1626-05-16 11:02 J	1127661.90	1127661.96	1127662.07	0.0138	0.0130 *
Earth	-1626-05-16 12:57 J	1127661.97	1127662.04	1127662.17	0.0138	0.0127 *
Venus	-1626-12-28 22:19 J	1127888.22	1127888.43	1127888.65	0.0138	0.0013
Earth	-1625-05-20 06:57 J	1128031.62	1128031.79	1128032.00	0.0138	0.0095
Moon	-1625-05-20 08:24 J	1128031.69	1128031.85	1128032.05	0.0138	0.0096 *
Venus	-1625-08-11 06:28 J	1128114.58	1128114.77	1128114.98	0.0137	0.0059
Venus	-1624-03-25 14:38 J	1128340.98	1128341.11	1128341.27	0.0137	0.0104
Moon	-1624-05-24 23:16 J	1128401.24	1128401.47	1128401.73	0.0137	0.0057
Earth	-1624-05-25 00:00 J	1128401.28	1128401.50	1128401.74	0.0137	0.0062 *
Earth	-1623-05-29 16:19 J	1128770.94	1128771.18	1128771.44	0.0137	0.0030
Moon	-1623-05-29 17:16 J	1128770.98	1128771.22	1128771.46	0.0137	0.0036 *
Earth	-1622-06-03 08:09 J	1129140.58	1129140.84	1129141.10	0.0136	0.0003
Moon	-1622-06-03 08:24 J	1129140.58	1129140.85	1129141.12	0.0136	0.0009 *
Moon	-1621-06-06 22:33 J	1129510.20	1129510.44	1129510.69	0.0136	0.0029
Earth	-1621-06-06 22:47 J	1129510.20	1129510.45	1129510.70	0.0136	0.0034 *
Earth	-1620-06-11 12:14 J	1129879.80	1129880.01	1129880.25	0.0135	0.0065
Moon	-1620-06-11 12:57 J	1129879.82	1129880.04	1129880.29	0.0135	0.0067 *
Moon	-1619-06-16 00:00 J	1130249.35	1130249.50	1130249.69	0.0135	0.0097
Earth	-1619-06-16 01:26 J	1130249.39	1130249.56	1130249.75	0.0135	0.0095 *

Earth	-1618-06-20 13:26 J	1130618.99	1130619.06	1130619.18	0.0135	0.0125
Moon	-1618-06-20 14:24 J	1130619.01	1130619.10	1130619.24	0.0135	0.0121 *
Mercury	-1592-01-18 05:02 J	1139962.67	1139962.71	1139962.76	0.0135	0.0125
Mercury	-1592-04-16 07:55 J	1140050.77	1140050.83	1140050.92	0.0135	0.0109
Mercury	-1592-07-13 11:16 J	1140138.87	1140138.97	1140139.07	0.0135	0.0090
Mars	-1592-08-20 09:07 J	1140176.71	1140176.88	1140177.08	0.0135	0.0108
Mercury	-1592-10-09 14:24 J	1140226.99	1140227.10	1140227.21	0.0135	0.0072
Mercury	-1591-01-05 17:31 J	1140315.11	1140315.23	1140315.35	0.0136	0.0055
Mercury	-1591-04-03 20:38 J	1140403.23	1140403.36	1140403.48	0.0136	0.0037
Mercury	-1591-06-30 23:31 J	1140491.36	1140491.48	1140491.62	0.0136	0.0020
Mercury	-1591-09-27 02:38 J	1140579.48	1140579.61	1140579.74	0.0136	0.0003
Mercury	-1591-12-24 05:45 J	1140667.61	1140667.74	1140667.87	0.0136	0.0017
Mercury	-1590-03-22 08:38 J	1140755.74	1140755.86	1140755.99	0.0136	0.0035
Mercury	-1590-06-18 12:00 J	1140843.87	1140844.00	1140844.12	0.0136	0.0053
Mars	-1590-07-23 03:50 J	1140878.38	1140878.66	1140878.97	0.0136	0.0041
Mercury	-1590-09-14 14:52 J	1140932.01	1140932.12	1140932.23	0.0136	0.0070
Mercury	-1590-12-11 17:45 J	1141020.15	1141020.24	1141020.35	0.0136	0.0089
Mercury	-1589-03-08 20:52 J	1141108.30	1141108.37	1141108.46	0.0136	0.0106
Mercury	-1589-06-05 00:00 J	1141196.45	1141196.50	1141196.56	0.0137	0.0124
Venus	-1583-09-26 07:55 J	1143500.77	1143500.83	1143500.94	0.0140	0.0129
Venus	-1582-05-10 17:02 J	1143727.04	1143727.21	1143727.39	0.0140	0.0081
Earth	-1582-11-15 00:00 J	1143915.40	1143915.50	1143915.61	0.0140	0.0126
Moon	-1582-11-15 03:07 J	1143915.57	1143915.63	1143915.71	0.0140	0.0134 *
Venus	-1582-12-23 01:55 J	1143953.37	1143953.58	1143953.79	0.0140	0.0034
Venus	-1581-08-05 10:47 J	1144179.74	1144179.95	1144180.17	0.0141	0.0015
Moon	-1581-11-18 11:02 J	1144284.77	1144284.96	1144285.17	0.0141	0.0086
Earth	-1581-11-18 14:09 J	1144284.92	1144285.09	1144285.29	0.0141	0.0094 *
Venus	-1580-03-19 19:55 J	1144406.14	1144406.33	1144406.53	0.0141	0.0063
Venus	-1580-11-01 05:02 J	1144632.59	1144632.71	1144632.85	0.0141	0.0112
Earth	-1580-11-23 05:31 J	1144654.51	1144654.73	1144654.96	0.0141	0.0060

Moon	-1580-11-23 08:09 J	1144654.63	1144654.84	1144655.07	0.0141	0.0065 *
Moon	-1579-11-27 18:43 J	1145024.03	1145024.28	1145024.53	0.0142	0.0024
Earth	-1579-11-27 21:35 J	1145024.16	1145024.40	1145024.65	0.0142	0.0026 *
Earth	-1578-12-02 14:09 J	1145393.85	1145394.09	1145394.35	0.0142	0.0010
Moon	-1578-12-02 16:33 J	1145393.95	1145394.19	1145394.43	0.0142	0.0011 *
Moon	-1577-12-06 05:45 J	1145763.50	1145763.74	1145763.99	0.0143	0.0038
Earth	-1577-12-06 07:55 J	1145763.59	1145763.83	1145764.07	0.0143	0.0044 *
Earth	-1576-12-11 02:09 J	1146133.39	1146133.59	1146133.80	0.0143	0.0080
Moon	-1576-12-11 03:50 J	1146133.48	1146133.66	1146133.86	0.0143	0.0087 *
Moon	-1575-12-15 19:40 J	1146503.18	1146503.32	1146503.52	0.0144	0.0109
Earth	-1575-12-15 21:07 J	1146503.24	1146503.38	1146503.54	0.0144	0.0115 *
Mercury	-1552-05-18 06:00 J	1154692.69	1154692.75	1154692.84	0.0143	0.0132
Mercury	-1552-08-14 14:38 J	1154780.98	1154781.11	1154781.25	0.0143	0.0101
Mercury	-1552-11-10 22:47 J	1154869.29	1154869.45	1154869.63	0.0143	0.0071
Mercury	-1551-02-07 07:12 J	1154957.62	1154957.80	1154957.99	0.0143	0.0040
Mars	-1551-03-14 08:52 J	1154992.59	1154992.87	1154993.18	0.0143	0.0041
Mercury	-1551-05-06 15:35 J	1155045.96	1155046.15	1155046.35	0.0143	0.0010
Mercury	-1551-08-03 00:00 J	1155134.31	1155134.50	1155134.70	0.0143	0.0022
Mercury	-1551-10-30 08:24 J	1155222.67	1155222.85	1155223.03	0.0143	0.0053
Mercury	-1550-01-26 16:33 J	1155311.05	1155311.19	1155311.36	0.0142	0.0084
Mercury	-1550-04-25 00:57 J	1155399.44	1155399.54	1155399.67	0.0142	0.0114
Mars	-1549-02-15 11:31 J	1155695.89	1155695.98	1155696.12	0.0142	0.0131
Venus	-1543-06-01 14:24 J	1157993.95	1157994.10	1157994.26	0.0139	0.0100
Venus	-1542-01-13 23:02 J	1158220.27	1158220.46	1158220.67	0.0138	0.0053
Moon	-1542-05-16 22:47 J	1158343.33	1158343.45	1158343.60	0.0138	0.0118
Earth	-1542-05-17 00:57 J	1158343.44	1158343.54	1158343.68	0.0138	0.0122 *
Venus	-1542-08-28 07:55 J	1158446.61	1158446.83	1158447.05	0.0138	0.0007
Venus	-1541-04-10 16:19 J	1158672.97	1158673.18	1158673.40	0.0138	0.0040
Earth	-1541-05-20 18:57 J	1158713.11	1158713.29	1158713.51	0.0138	0.0090
Moon	-1541-05-20 20:52 J	1158713.19	1158713.37	1158713.58	0.0138	0.0089 *

Venus	-1541-11-23 00:28 J	1158899.36	1158899.52	1158899.70	0.0137	0.0085
Moon	-1540-05-25 10:33 J	1159082.71	1159082.94	1159083.20	0.0137	0.0060
Earth	-1540-05-25 12:28 J	1159082.80	1159083.02	1159083.27	0.0137	0.0057 *
Venus	-1540-07-07 08:38 J	1159125.81	1159125.86	1159125.94	0.0137	0.0130
Earth	-1539-05-30 05:02 J	1159452.46	1159452.71	1159452.97	0.0137	0.0025
Moon	-1539-05-30 05:45 J	1159452.50	1159452.74	1159452.99	0.0137	0.0018 *
Moon	-1538-06-03 19:55 J	1159822.06	1159822.33	1159822.60	0.0136	0.0001
Earth	-1538-06-03 20:52 J	1159822.11	1159822.37	1159822.63	0.0136	0.0008 *
Earth	-1537-06-07 11:45 J	1160191.74	1160191.99	1160192.24	0.0136	0.0039
Moon	-1537-06-07 11:45 J	1160191.76	1160191.99	1160192.23	0.0136	0.0044 *
Earth	-1536-06-12 01:12 J	1160561.34	1160561.55	1160561.78	0.0135	0.0070
Moon	-1536-06-12 01:12 J	1160561.34	1160561.55	1160561.80	0.0135	0.0068 *
Moon	-1535-06-16 14:09 J	1160930.94	1160931.09	1160931.27	0.0135	0.0100
Earth	-1535-06-16 14:24 J	1160930.94	1160931.10	1160931.29	0.0135	0.0100 *
Earth	-1534-06-21 03:07 J	1161300.56	1161300.63	1161300.70	0.0135	0.0129
Moon	-1534-06-21 03:35 J	1161300.64	1161300.65	1161300.71	0.0135	0.0134 *
Mercury	-1508-02-07 12:57 J	1170663.98	1170664.04	1170664.10	0.0135	0.0118
Mercury	-1508-05-06 16:04 J	1170752.08	1170752.17	1170752.26	0.0135	0.0101
Mercury	-1508-08-02 18:57 J	1170840.19	1170840.29	1170840.40	0.0135	0.0083
Mercury	-1508-10-29 22:04 J	1170928.31	1170928.42	1170928.54	0.0135	0.0065
Mercury	-1507-01-26 01:12 J	1171016.43	1171016.55	1171016.68	0.0136	0.0048
Mars	-1507-04-15 12:57 J	1171095.76	1171096.04	1171096.33	0.0136	0.0050
Mercury	-1507-04-24 04:19 J	1171104.55	1171104.68	1171104.81	0.0136	0.0030
Mercury	-1507-07-21 07:26 J	1171192.68	1171192.81	1171192.94	0.0136	0.0012
Mercury	-1507-10-17 10:33 J	1171280.81	1171280.94	1171281.07	0.0136	0.0006
Mercury	-1506-01-13 13:26 J	1171368.94	1171369.06	1171369.19	0.0136	0.0024
Mercury	-1506-04-11 16:33 J	1171457.07	1171457.19	1171457.32	0.0136	0.0042
Mercury	-1506-07-08 19:40 J	1171545.20	1171545.32	1171545.44	0.0136	0.0059
Mercury	-1506-10-04 22:33 J	1171633.34	1171633.44	1171633.55	0.0136	0.0078
Mercury	-1505-01-01 01:40 J	1171721.48	1171721.57	1171721.67	0.0136	0.0095

Mars	-1505-03-17 10:47 J	1171797.77	1171797.95	1171798.19	0.0136	0.0102
Mercury	-1505-03-29 04:47 J	1171809.63	1171809.70	1171809.77	0.0136	0.0113
Mercury	-1505-06-25 07:55 J	1171897.80	1171897.83	1171897.86	0.0137	0.0131
Venus	-1498-01-08 03:21 J	1174285.49	1174285.64	1174285.79	0.0140	0.0100
Venus	-1498-08-22 12:00 J	1174511.81	1174512.00	1174512.21	0.0140	0.0053
Earth	-1498-11-15 13:40 J	1174596.96	1174597.07	1174597.21	0.0140	0.0121
Moon	-1498-11-15 17:16 J	1174597.09	1174597.22	1174597.37	0.0140	0.0113 *
Venus	-1497-04-04 21:07 J	1174738.16	1174738.38	1174738.59	0.0140	0.0005
Venus	-1497-11-17 05:45 J	1174964.54	1174964.74	1174964.95	0.0141	0.0044
Moon	-1497-11-19 00:57 J	1174966.37	1174966.54	1174966.74	0.0141	0.0095
Earth	-1497-11-19 04:19 J	1174966.50	1174966.68	1174966.89	0.0141	0.0088 *
Venus	-1496-07-01 14:52 J	1175190.97	1175191.12	1175191.29	0.0141	0.0092
Earth	-1496-11-23 19:26 J	1175336.09	1175336.31	1175336.55	0.0141	0.0055
Moon	-1496-11-23 22:47 J	1175336.23	1175336.45	1175336.69	0.0141	0.0049 *
Venus	-1495-02-13 00:00 J	1175417.50	1175417.50	1175417.53	0.0141	0.0141
Moon	-1495-11-28 08:24 J	1175705.60	1175705.85	1175706.11	0.0142	0.0022
Earth	-1495-11-28 11:16 J	1175705.73	1175705.97	1175706.22	0.0142	0.0021 *
Earth	-1494-12-03 03:50 J	1176075.42	1176075.66	1176075.91	0.0142	0.0014
Moon	-1494-12-03 06:43 J	1176075.54	1176075.78	1176076.03	0.0142	0.0012 *
Moon	-1493-12-06 18:43 J	1176445.05	1176445.28	1176445.52	0.0143	0.0054
Earth	-1493-12-06 21:07 J	1176445.16	1176445.38	1176445.63	0.0143	0.0050 *
Earth	-1492-12-11 15:07 J	1176814.95	1176815.13	1176815.35	0.0143	0.0085
Moon	-1492-12-11 17:16 J	1176815.02	1176815.22	1176815.43	0.0143	0.0077 *
Moon	-1491-12-16 08:09 J	1177184.74	1177184.84	1177184.98	0.0144	0.0127
Earth	-1491-12-16 10:19 J	1177184.81	1177184.93	1177185.08	0.0144	0.0120 *
Mercury	-1468-06-07 13:55 J	1185393.99	1185394.08	1185394.19	0.0143	0.0123
Mercury	-1468-09-03 22:33 J	1185482.29	1185482.44	1185482.58	0.0143	0.0092
Mercury	-1468-12-01 06:43 J	1185570.61	1185570.78	1185570.96	0.0143	0.0062
Mercury	-1467-02-27 15:07 J	1185658.94	1185659.13	1185659.32	0.0143	0.0031
Mercury	-1467-05-26 23:31 J	1185747.29	1185747.48	1185747.67	0.0143	0.0000

Mercury	-1467-08-23 07:55 J	1185835.64	1185835.83	1185836.02	0.0143	0.0031
Mars	-1467-11-07 23:02 J	1185912.17	1185912.46	1185912.78	0.0143	0.0026
Mercury	-1467-11-19 16:04 J	1185924.00	1185924.17	1185924.35	0.0143	0.0062
Mercury	-1466-02-16 00:28 J	1186012.38	1186012.52	1186012.68	0.0142	0.0092
Mercury	-1466-05-15 09:07 J	1186100.78	1186100.88	1186100.98	0.0142	0.0123
Venus	-1459-01-29 23:45 J	1188552.38	1188552.49	1188552.60	0.0139	0.0120
Venus	-1459-09-13 08:24 J	1188778.68	1188778.85	1188779.05	0.0138	0.0074
Venus	-1458-04-27 17:31 J	1189005.01	1189005.23	1189005.44	0.0138	0.0027
Moon	-1458-05-17 10:19 J	1189024.82	1189024.93	1189025.07	0.0138	0.0120
Earth	-1458-05-17 13:12 J	1189024.93	1189025.05	1189025.20	0.0138	0.0117 *
Venus	-1458-12-10 01:55 J	1189231.37	1189231.58	1189231.80	0.0138	0.0020
Earth	-1457-05-21 07:26 J	1189394.61	1189394.81	1189395.02	0.0138	0.0084
Moon	-1457-05-21 09:50 J	1189394.72	1189394.91	1189395.12	0.0138	0.0084 *
Venus	-1457-07-23 10:19 J	1189457.74	1189457.93	1189458.13	0.0138	0.0066
Venus	-1456-03-06 18:28 J	1189684.16	1189684.27	1189684.41	0.0137	0.0112
Moon	-1456-05-25 22:47 J	1189764.21	1189764.45	1189764.71	0.0137	0.0047
Earth	-1456-05-26 00:43 J	1189764.30	1189764.53	1189764.78	0.0137	0.0052 *
Earth	-1455-05-30 17:16 J	1190133.97	1190134.22	1190134.48	0.0137	0.0019
Moon	-1455-05-30 19:12 J	1190134.06	1190134.30	1190134.55	0.0137	0.0025 *
Moon	-1454-06-04 08:09 J	1190503.58	1190503.84	1190504.11	0.0136	0.0020
Earth	-1454-06-04 09:07 J	1190503.62	1190503.88	1190504.14	0.0136	0.0013 *
Earth	-1453-06-07 23:31 J	1190873.25	1190873.48	1190873.74	0.0136	0.0045
Moon	-1453-06-08 00:28 J	1190873.29	1190873.52	1190873.77	0.0136	0.0039 *
Moon	-1452-06-12 12:57 J	1191242.84	1191243.04	1191243.27	0.0135	0.0078
Earth	-1452-06-12 13:26 J	1191242.86	1191243.06	1191243.29	0.0135	0.0076 *
Earth	-1451-06-17 02:52 J	1191612.47	1191612.62	1191612.79	0.0135	0.0105
Moon	-1451-06-17 02:38 J	1191612.48	1191612.61	1191612.78	0.0135	0.0106 *
Moon	-1450-06-21 15:07 J	1191982.09	1191982.13	1191982.21	0.0135	0.0131
Earth	-1450-06-21 15:21 J	1191982.13	1191982.14	1191982.18	0.0135	0.0134 *
Mercury	-1425-12-01 17:31 J	1201277.20	1201277.23	1201277.28	0.0135	0.0129

Mercury	-1424-02-27 20:38 J	1201365.30	1201365.36	1201365.44	0.0135	0.0111
Mercury	-1424-05-26 23:45 J	1201453.40	1201453.49	1201453.59	0.0135	0.0094
Mercury	-1424-08-23 02:52 J	1201541.52	1201541.62	1201541.73	0.0135	0.0076
Mercury	-1424-11-19 06:00 J	1201629.63	1201629.75	1201629.87	0.0135	0.0058
Mercury	-1423-02-15 09:07 J	1201717.76	1201717.88	1201718.01	0.0136	0.0040
Mercury	-1423-05-14 12:14 J	1201805.88	1201806.01	1201806.14	0.0136	0.0023
Mercury	-1423-08-10 15:21 J	1201894.00	1201894.14	1201894.27	0.0136	0.0006
Mercury	-1423-11-06 18:14 J	1201982.13	1201982.26	1201982.39	0.0136	0.0014
Mars	-1423-12-09 18:00 J	1202014.95	1202015.25	1202015.57	0.0136	0.0009
Mercury	-1422-02-02 21:21 J	1202070.26	1202070.39	1202070.52	0.0136	0.0031
Mercury	-1422-05-02 00:28 J	1202158.40	1202158.52	1202158.64	0.0136	0.0049
Mercury	-1422-07-29 03:35 J	1202246.53	1202246.65	1202246.76	0.0136	0.0067
Mercury	-1422-10-25 06:28 J	1202334.67	1202334.77	1202334.88	0.0136	0.0084
Mercury	-1421-01-21 09:21 J	1202422.82	1202422.89	1202422.99	0.0136	0.0103
Mercury	-1421-04-18 12:43 J	1202510.97	1202511.03	1202511.09	0.0136	0.0120
Venus	-1415-09-07 13:40 J	1204843.98	1204844.07	1204844.20	0.0140	0.0120
Venus	-1414-04-21 22:33 J	1205070.26	1205070.44	1205070.63	0.0140	0.0072
Earth	-1414-11-16 04:04 J	1205278.54	1205278.67	1205278.82	0.0140	0.0115
Moon	-1414-11-16 07:26 J	1205278.71	1205278.81	1205278.95	0.0140	0.0123 *
Venus	-1414-12-04 07:12 J	1205296.59	1205296.80	1205297.02	0.0140	0.0025
Venus	-1413-07-17 16:04 J	1205522.96	1205523.17	1205523.38	0.0141	0.0024
Moon	-1413-11-19 14:38 J	1205647.91	1205648.11	1205648.34	0.0141	0.0075
Earth	-1413-11-19 18:14 J	1205648.07	1205648.26	1205648.47	0.0141	0.0083 *
Venus	-1412-03-01 00:57 J	1205749.36	1205749.54	1205749.73	0.0141	0.0072
Venus	-1412-10-13 09:50 J	1205975.82	1205975.91	1205976.04	0.0141	0.0122
Earth	-1412-11-24 09:07 J	1206017.65	1206017.88	1206018.12	0.0141	0.0049
Moon	-1412-11-24 12:28 J	1206017.79	1206018.02	1206018.25	0.0141	0.0054 *
Moon	-1411-11-28 21:21 J	1206387.15	1206387.39	1206387.65	0.0142	0.0013
Earth	-1411-11-29 00:57 J	1206387.30	1206387.54	1206387.79	0.0142	0.0015 *
Earth	-1410-12-03 17:16 J	1206756.98	1206757.22	1206757.47	0.0142	0.0020

Moon	-1410-12-03 20:24 J	1206757.11	1206757.35	1206757.59	0.0142	0.0021	*
Moon	-1409-12-07 07:40 J	1207126.59	1207126.82	1207127.07	0.0143	0.0049	
Earth	-1409-12-07 10:33 J	1207126.72	1207126.94	1207127.18	0.0143	0.0055	*
Earth	-1408-12-12 04:47 J	1207496.51	1207496.70	1207496.90	0.0143	0.0090	
Moon	-1408-12-12 06:57 J	1207496.64	1207496.79	1207496.99	0.0143	0.0098	*
Moon	-1407-12-16 21:21 J	1207866.26	1207866.39	1207866.55	0.0144	0.0118	
Earth	-1407-12-16 23:31 J	1207866.37	1207866.48	1207866.61	0.0144	0.0125	*
Mercury	-1384-06-27 21:35 J	1216095.30	1216095.40	1216095.52	0.0143	0.0115	
Mars	-1384-07-31 01:26 J	1216128.31	1216128.56	1216128.81	0.0143	0.0086	
Mercury	-1384-09-24 06:00 J	1216183.60	1216183.75	1216183.91	0.0143	0.0084	
Mercury	-1384-12-21 14:09 J	1216271.92	1216272.09	1216272.28	0.0143	0.0054	
Mercury	-1383-03-19 22:47 J	1216360.26	1216360.45	1216360.64	0.0143	0.0023	
Mercury	-1383-06-16 07:12 J	1216448.60	1216448.80	1216448.99	0.0143	0.0008	
Mercury	-1383-09-12 15:21 J	1216536.96	1216537.14	1216537.33	0.0143	0.0039	
Mercury	-1383-12-09 23:45 J	1216625.33	1216625.49	1216625.66	0.0143	0.0069	
Mercury	-1382-03-08 07:55 J	1216713.71	1216713.83	1216713.98	0.0142	0.0101	
Mercury	-1382-06-04 16:33 J	1216802.12	1216802.19	1216802.27	0.0142	0.0131	
Mars	-1382-07-04 09:35 J	1216831.68	1216831.90	1216832.15	0.0142	0.0089	
Venus	-1375-05-13 17:45 J	1219337.09	1219337.24	1219337.41	0.0139	0.0094	
Venus	-1375-12-26 02:38 J	1219563.41	1219563.61	1219563.82	0.0138	0.0047	
Moon	-1374-05-17 22:04 J	1219706.27	1219706.42	1219706.60	0.0138	0.0107	
Earth	-1374-05-18 01:12 J	1219706.41	1219706.55	1219706.72	0.0138	0.0111	*
Venus	-1374-08-09 11:31 J	1219789.76	1219789.98	1219790.20	0.0138	0.0002	
Venus	-1373-03-22 20:09 J	1220016.13	1220016.34	1220016.55	0.0138	0.0046	
Earth	-1373-05-21 19:12 J	1220076.10	1220076.30	1220076.53	0.0138	0.0079	
Moon	-1373-05-21 22:19 J	1220076.22	1220076.43	1220076.64	0.0138	0.0078	*
Venus	-1373-11-04 04:33 J	1220242.53	1220242.69	1220242.85	0.0138	0.0092	
Moon	-1372-05-26 10:04 J	1220445.68	1220445.92	1220446.18	0.0137	0.0048	
Earth	-1372-05-26 12:43 J	1220445.80	1220446.03	1220446.29	0.0137	0.0047	*
Venus	-1372-06-18 12:43 J	1220469.03	1220469.03	1220469.04	0.0137	0.0137	

Earth	-1371-05-31 05:31 J	1220815.48	1220815.73	1220815.99	0.0137	0.0014
Moon	-1371-05-31 07:26 J	1220815.56	1220815.81	1220816.06	0.0137	0.0007 *
Moon	-1370-06-04 19:12 J	1221185.04	1221185.30	1221185.57	0.0136	0.0012
Earth	-1370-06-04 21:21 J	1221185.14	1221185.39	1221185.65	0.0136	0.0019 *
Earth	-1369-06-08 12:00 J	1221554.77	1221555.00	1221555.25	0.0136	0.0050
Moon	-1369-06-08 13:26 J	1221554.84	1221555.06	1221555.29	0.0136	0.0055 *
Moon	-1368-06-13 00:57 J	1221924.33	1221924.54	1221924.77	0.0135	0.0077
Earth	-1368-06-13 01:55 J	1221924.39	1221924.58	1221924.80	0.0135	0.0081 *
Earth	-1367-06-17 15:07 J	1222294.00	1222294.13	1222294.30	0.0135	0.0111
Moon	-1367-06-17 16:04 J	1222294.05	1222294.17	1222294.33	0.0135	0.0112 *
Mercury	-1341-12-22 01:40 J	1231978.51	1231978.57	1231978.63	0.0135	0.0121
Mercury	-1340-03-20 04:33 J	1232066.62	1232066.69	1232066.78	0.0135	0.0104
Mercury	-1340-06-16 07:40 J	1232154.73	1232154.82	1232154.93	0.0135	0.0086
Mars	-1340-09-02 08:24 J	1232232.62	1232232.85	1232233.11	0.0135	0.0081
Mercury	-1340-09-12 10:47 J	1232242.84	1232242.95	1232243.07	0.0135	0.0069
Mercury	-1340-12-09 13:55 J	1232330.96	1232331.08	1232331.21	0.0136	0.0051
Mercury	-1339-03-07 17:02 J	1232419.08	1232419.21	1232419.34	0.0136	0.0033
Mercury	-1339-06-03 20:09 J	1232507.21	1232507.34	1232507.47	0.0136	0.0015
Mercury	-1339-08-30 23:16 J	1232595.34	1232595.47	1232595.60	0.0136	0.0004
Mercury	-1339-11-27 02:09 J	1232683.46	1232683.59	1232683.72	0.0136	0.0021
Mercury	-1338-02-23 05:16 J	1232771.60	1232771.72	1232771.85	0.0136	0.0038
Mercury	-1338-05-22 08:24 J	1232859.73	1232859.85	1232859.97	0.0136	0.0056
Mars	-1338-08-05 00:57 J	1232934.29	1232934.54	1232934.83	0.0136	0.0068
Mercury	-1338-08-18 11:16 J	1232947.87	1232947.97	1232948.09	0.0136	0.0074
Mercury	-1338-11-14 14:24 J	1233036.01	1233036.10	1233036.20	0.0136	0.0092
Mercury	-1337-02-10 17:31 J	1233124.16	1233124.23	1233124.31	0.0136	0.0110
Mercury	-1337-05-08 20:24 J	1233212.32	1233212.35	1233212.40	0.0137	0.0128
Venus	-1331-05-08 00:57 J	1235402.53	1235402.54	1235402.59	0.0139	0.0138
Earth	-1331-11-12 06:14 J	1235590.75	1235590.76	1235590.79	0.0140	0.0139
Venus	-1331-12-20 09:35 J	1235628.75	1235628.90	1235629.07	0.0140	0.0091

Venus	-1330-08-03 18:28 J	1235855.06	1235855.27	1235855.48	0.0140	0.0043
Earth	-1330-11-16 19:12 J	1235960.17	1235960.30	1235960.48	0.0140	0.0109
Moon	-1330-11-16 22:47 J	1235960.30	1235960.45	1235960.64	0.0140	0.0101 *
Venus	-1329-03-17 03:21 J	1236081.42	1236081.64	1236081.85	0.0140	0.0006
Venus	-1329-10-29 12:14 J	1236307.81	1236308.01	1236308.21	0.0141	0.0053
Moon	-1329-11-20 06:14 J	1236329.57	1236329.76	1236329.97	0.0141	0.0083
Earth	-1329-11-20 09:35 J	1236329.71	1236329.90	1236330.13	0.0141	0.0076 *
Venus	-1328-06-12 20:52 J	1236534.23	1236534.37	1236534.53	0.0141	0.0102
Earth	-1328-11-25 00:43 J	1236699.30	1236699.53	1236699.77	0.0141	0.0042
Moon	-1328-11-25 04:19 J	1236699.45	1236699.68	1236699.93	0.0141	0.0036 *
Moon	-1327-11-29 13:12 J	1237068.80	1237069.05	1237069.30	0.0142	0.0010
Earth	-1327-11-29 16:33 J	1237068.94	1237069.19	1237069.44	0.0142	0.0008 *
Earth	-1326-12-04 08:52 J	1237438.63	1237438.87	1237439.12	0.0142	0.0026
Moon	-1326-12-04 12:14 J	1237438.77	1237439.01	1237439.26	0.0142	0.0025 *
Moon	-1325-12-07 22:47 J	1237808.24	1237808.45	1237808.69	0.0143	0.0066
Earth	-1325-12-08 02:24 J	1237808.38	1237808.60	1237808.83	0.0143	0.0061 *
Earth	-1324-12-12 20:09 J	1238178.17	1238178.34	1238178.54	0.0143	0.0096
Moon	-1324-12-12 23:02 J	1238178.27	1238178.46	1238178.65	0.0143	0.0089 *
Moon	-1323-12-17 12:14 J	1238547.96	1238548.01	1238548.10	0.0144	0.0139
Earth	-1323-12-17 15:21 J	1238548.05	1238548.14	1238548.25	0.0144	0.0131 *
Mercury	-1300-04-20 22:04 J	1246708.37	1246708.42	1246708.51	0.0143	0.0134
Mercury	-1300-07-18 06:43 J	1246796.65	1246796.78	1246796.91	0.0143	0.0103
Mercury	-1300-10-14 14:52 J	1246884.96	1246885.12	1246885.29	0.0143	0.0072
Mercury	-1299-01-10 23:16 J	1246973.29	1246973.47	1246973.66	0.0143	0.0041
Mars	-1299-03-26 23:02 J	1247048.15	1247048.46	1247048.77	0.0143	0.0017
Mercury	-1299-04-09 07:40 J	1247061.63	1247061.82	1247062.01	0.0143	0.0011
Mercury	-1299-07-06 16:04 J	1247149.98	1247150.17	1247150.36	0.0143	0.0020
Mercury	-1299-10-03 00:14 J	1247238.33	1247238.51	1247238.70	0.0143	0.0051
Mercury	-1299-12-30 08:38 J	1247326.71	1247326.86	1247327.02	0.0143	0.0082
Mercury	-1298-03-28 16:47 J	1247415.10	1247415.20	1247415.33	0.0142	0.0113

Venus	-1291-01-11 04:19 J	1249895.57	1249895.68	1249895.82	0.0139	0.0113
Earth	-1291-05-13 20:38 J	1250018.33	1250018.36	1250018.41	0.0139	0.0137
Moon	-1291-05-13 23:45 J	1250018.43	1250018.49	1250018.59	0.0139	0.0131
Venus	-1291-08-25 13:26 J	1250121.87	1250122.06	1250122.26	0.0139	0.0066
Venus	-1290-04-08 22:19 J	1250348.22	1250348.43	1250348.65	0.0138	0.0019
Moon	-1290-05-18 12:14 J	1250387.86	1250388.01	1250388.18	0.0138	0.0109
Earth	-1290-05-18 15:35 J	1250388.00	1250388.15	1250388.33	0.0138	0.0104 *
Venus	-1290-11-21 06:57 J	1250574.58	1250574.79	1250575.01	0.0138	0.0028
Earth	-1289-05-22 09:50 J	1250757.70	1250757.91	1250758.14	0.0138	0.0072
Moon	-1289-05-22 12:57 J	1250757.83	1250758.04	1250758.27	0.0138	0.0071 *
Venus	-1289-07-04 15:21 J	1250800.96	1250801.14	1250801.33	0.0138	0.0074
Venus	-1288-02-15 23:31 J	1251027.39	1251027.48	1251027.60	0.0137	0.0120
Moon	-1288-05-27 00:28 J	1251127.27	1251127.52	1251127.78	0.0137	0.0036
Earth	-1288-05-27 03:07 J	1251127.39	1251127.63	1251127.89	0.0137	0.0040 *
Earth	-1287-05-31 19:55 J	1251497.07	1251497.33	1251497.59	0.0137	0.0007
Moon	-1287-05-31 22:33 J	1251497.19	1251497.44	1251497.69	0.0137	0.0013 *
Moon	-1286-06-05 09:21 J	1251866.64	1251866.89	1251867.16	0.0136	0.0032
Earth	-1286-06-05 11:31 J	1251866.73	1251866.98	1251867.24	0.0136	0.0025 *
Earth	-1285-06-09 01:55 J	1252236.36	1252236.58	1252236.83	0.0136	0.0056
Moon	-1285-06-09 03:50 J	1252236.44	1252236.66	1252236.91	0.0136	0.0050 *
Moon	-1284-06-13 14:38 J	1252605.91	1252606.11	1252606.31	0.0135	0.0090
Earth	-1284-06-13 15:50 J	1252605.98	1252606.16	1252606.38	0.0135	0.0087 *
Earth	-1283-06-18 05:02 J	1252975.61	1252975.71	1252975.87	0.0135	0.0117
Moon	-1283-06-18 06:14 J	1252975.65	1252975.76	1252975.90	0.0135	0.0117 *
Mercury	-1257-10-15 06:14 J	1262591.75	1262591.76	1262591.80	0.0135	0.0132
Mercury	-1256-01-11 09:21 J	1262679.83	1262679.89	1262679.97	0.0135	0.0114
Mercury	-1256-04-09 12:28 J	1262767.94	1262768.02	1262768.12	0.0135	0.0097
Mercury	-1256-07-06 15:50 J	1262856.05	1262856.16	1262856.26	0.0135	0.0079
Mercury	-1256-10-02 18:43 J	1262944.17	1262944.28	1262944.40	0.0135	0.0061
Mercury	-1256-12-29 21:50 J	1263032.29	1263032.41	1263032.54	0.0136	0.0043

Mercury	-1255-03-28 00:57 J	1263120.41	1263120.54	1263120.67	0.0136	0.0025
Mars	-1255-04-28 12:14 J	1263151.71	1263152.01	1263152.31	0.0136	0.0023
Mercury	-1255-06-24 04:04 J	1263208.54	1263208.67	1263208.80	0.0136	0.0008
Mercury	-1255-09-20 07:12 J	1263296.67	1263296.80	1263296.93	0.0136	0.0010
Mercury	-1255-12-17 10:19 J	1263384.80	1263384.93	1263385.05	0.0136	0.0028
Mercury	-1254-03-15 13:12 J	1263472.93	1263473.05	1263473.18	0.0136	0.0046
Mercury	-1254-06-11 16:19 J	1263561.06	1263561.18	1263561.30	0.0136	0.0064
Mercury	-1254-09-07 19:26 J	1263649.20	1263649.31	1263649.41	0.0136	0.0081
Mercury	-1254-12-04 22:19 J	1263737.35	1263737.43	1263737.52	0.0136	0.0099
Mercury	-1253-03-02 01:12 J	1263825.50	1263825.55	1263825.63	0.0136	0.0118
Mars	-1253-03-30 08:52 J	1263853.79	1263853.87	1263854.00	0.0136	0.0129
Mercury	-1253-05-29 04:33 J	1263913.67	1263913.69	1263913.71	0.0137	0.0135
Venus	-1247-08-19 20:24 J	1266187.23	1266187.35	1266187.50	0.0140	0.0110
Moon	-1247-11-12 17:16 J	1266272.15	1266272.22	1266272.34	0.0140	0.0129
Earth	-1247-11-12 20:52 J	1266272.31	1266272.37	1266272.45	0.0140	0.0133 *
Venus	-1246-04-03 05:16 J	1266413.53	1266413.72	1266413.91	0.0140	0.0062
Venus	-1246-11-15 13:55 J	1266639.86	1266640.08	1266640.29	0.0140	0.0015
Earth	-1246-11-17 10:19 J	1266641.76	1266641.93	1266642.10	0.0140	0.0102
Moon	-1246-11-17 13:40 J	1266641.93	1266642.07	1266642.24	0.0140	0.0109 *
Venus	-1245-06-28 22:33 J	1266866.23	1266866.44	1266866.65	0.0141	0.0034
Moon	-1245-11-20 20:52 J	1267011.16	1267011.37	1267011.60	0.0141	0.0062
Earth	-1245-11-21 00:14 J	1267011.31	1267011.51	1267011.74	0.0141	0.0070 *
Venus	-1244-02-10 07:26 J	1267092.64	1267092.81	1267092.99	0.0141	0.0082
Venus	-1244-09-24 16:47 J	1267319.12	1267319.20	1267319.28	0.0141	0.0131
Earth	-1244-11-25 15:07 J	1267380.89	1267381.13	1267381.38	0.0141	0.0036
Moon	-1244-11-25 18:28 J	1267381.04	1267381.27	1267381.52	0.0141	0.0041 *
Moon	-1243-11-30 03:21 J	1267750.39	1267750.64	1267750.89	0.0142	0.0001
Earth	-1243-11-30 06:57 J	1267750.54	1267750.79	1267751.04	0.0142	0.0003 *
Earth	-1242-12-04 23:16 J	1268120.23	1268120.47	1268120.72	0.0142	0.0032
Moon	-1242-12-05 02:38 J	1268120.37	1268120.61	1268120.86	0.0142	0.0034 *

Moon	-1241-12-08 12:57 J	1268489.83	1268490.04	1268490.28	0.0143	0.0062
Earth	-1241-12-08 16:47 J	1268489.98	1268490.20	1268490.42	0.0143	0.0067 *
Earth	-1240-12-13 10:19 J	1268859.78	1268859.93	1268860.13	0.0143	0.0103
Moon	-1240-12-13 13:40 J	1268859.93	1268860.07	1268860.25	0.0143	0.0109 *
Moon	-1239-12-18 02:52 J	1269229.53	1269229.62	1269229.75	0.0144	0.0130
Earth	-1239-12-18 05:45 J	1269229.68	1269229.74	1269229.82	0.0144	0.0137 *
Mars	-1217-12-17 02:24 J	1277264.48	1277264.60	1277264.77	0.0143	0.0126
Mercury	-1216-05-11 06:57 J	1277409.69	1277409.79	1277409.89	0.0143	0.0122
Mercury	-1216-08-07 15:07 J	1277497.99	1277498.13	1277498.28	0.0143	0.0091
Mercury	-1216-11-03 23:16 J	1277586.31	1277586.47	1277586.66	0.0143	0.0061
Mercury	-1215-01-31 07:40 J	1277674.64	1277674.82	1277675.02	0.0143	0.0030
Mercury	-1215-04-29 16:04 J	1277762.98	1277763.17	1277763.37	0.0143	0.0003
Mercury	-1215-07-27 00:28 J	1277851.33	1277851.52	1277851.71	0.0143	0.0031
Mercury	-1215-10-23 08:52 J	1277939.70	1277939.87	1277940.05	0.0143	0.0062
Mars	-1215-11-20 17:45 J	1277967.96	1277968.24	1277968.54	0.0143	0.0051
Mercury	-1214-01-19 17:16 J	1278028.07	1278028.22	1278028.37	0.0143	0.0093
Mercury	-1214-04-18 01:26 J	1278116.47	1278116.56	1278116.66	0.0142	0.0124
Venus	-1208-09-10 14:52 J	1280454.07	1280454.12	1280454.20	0.0139	0.0132
Venus	-1207-04-25 00:00 J	1280680.33	1280680.50	1280680.68	0.0139	0.0085
Earth	-1207-05-14 10:33 J	1280699.87	1280699.94	1280700.05	0.0139	0.0131
Moon	-1207-05-14 14:24 J	1280700.09	1280700.10	1280700.15	0.0139	0.0138
Venus	-1207-12-07 08:52 J	1280906.66	1280906.87	1280907.09	0.0138	0.0038
Moon	-1206-05-19 02:09 J	1281069.42	1281069.59	1281069.80	0.0138	0.0093
Earth	-1206-05-19 05:45 J	1281069.57	1281069.74	1281069.94	0.0138	0.0098 *
Venus	-1206-07-21 17:45 J	1281133.02	1281133.24	1281133.46	0.0138	0.0009
Venus	-1205-03-04 02:24 J	1281359.40	1281359.60	1281359.80	0.0138	0.0055
Earth	-1205-05-22 23:31 J	1281439.27	1281439.48	1281439.73	0.0138	0.0066
Moon	-1205-05-23 02:52 J	1281439.41	1281439.62	1281439.86	0.0138	0.0066 *
Venus	-1205-10-16 10:19 J	1281585.80	1281585.93	1281586.09	0.0138	0.0102
Moon	-1204-05-27 13:40 J	1281808.83	1281809.07	1281809.33	0.0137	0.0035

Earth	-1204-05-27 17:02 J	1281808.97	1281809.21	1281809.47	0.0137	0.0034 *
Earth	-1203-06-01 09:35 J	1282178.65	1282178.90	1282179.16	0.0137	0.0003
Moon	-1203-06-01 12:14 J	1282178.76	1282179.01	1282179.27	0.0137	0.0006 *
Moon	-1202-06-05 22:19 J	1282548.17	1282548.43	1282548.69	0.0136	0.0023
Earth	-1202-06-06 01:12 J	1282548.30	1282548.55	1282548.81	0.0136	0.0031 *
Earth	-1201-06-09 15:35 J	1282917.94	1282918.15	1282918.40	0.0136	0.0062
Moon	-1201-06-09 18:00 J	1282918.04	1282918.25	1282918.48	0.0136	0.0068 *
Moon	-1200-06-14 03:50 J	1283287.47	1283287.66	1283287.87	0.0136	0.0088
Earth	-1200-06-14 06:00 J	1283287.57	1283287.75	1283287.95	0.0136	0.0092 *
Earth	-1199-06-18 19:12 J	1283657.20	1283657.30	1283657.43	0.0135	0.0122
Moon	-1199-06-18 21:07 J	1283657.30	1283657.38	1283657.50	0.0135	0.0123 *
Mercury	-1173-11-04 14:09 J	1293293.05	1293293.09	1293293.14	0.0135	0.0125
Mars	-1172-01-20 03:50 J	1293369.50	1293369.66	1293369.85	0.0135	0.0110
Mercury	-1172-01-31 17:16 J	1293381.15	1293381.22	1293381.30	0.0135	0.0107
Mercury	-1172-04-29 20:24 J	1293469.26	1293469.35	1293469.45	0.0135	0.0089
Mercury	-1172-07-26 23:31 J	1293557.37	1293557.48	1293557.59	0.0135	0.0072
Mercury	-1172-10-23 02:38 J	1293645.49	1293645.61	1293645.73	0.0135	0.0054
Mercury	-1171-01-19 05:45 J	1293733.61	1293733.74	1293733.87	0.0136	0.0036
Mercury	-1171-04-17 08:52 J	1293821.74	1293821.87	1293822.00	0.0136	0.0018
Mercury	-1171-07-14 12:00 J	1293909.86	1293910.00	1293910.13	0.0136	0.0005
Mercury	-1171-10-10 14:52 J	1293997.99	1293998.12	1293998.25	0.0136	0.0017
Mars	-1171-12-22 16:04 J	1294070.88	1294071.17	1294071.47	0.0136	0.0036
Mercury	-1170-01-06 18:00 J	1294086.12	1294086.25	1294086.38	0.0136	0.0035
Mercury	-1170-04-04 21:07 J	1294174.26	1294174.38	1294174.50	0.0136	0.0053
Mercury	-1170-07-02 00:00 J	1294262.39	1294262.50	1294262.62	0.0136	0.0071
Mercury	-1170-09-28 03:07 J	1294350.53	1294350.63	1294350.73	0.0136	0.0089
Mercury	-1170-12-25 06:14 J	1294438.68	1294438.76	1294438.84	0.0136	0.0106
Mercury	-1169-03-22 09:07 J	1294526.84	1294526.88	1294526.94	0.0136	0.0124
Venus	-1163-04-19 07:12 J	1296745.72	1296745.80	1296745.88	0.0139	0.0129
Moon	-1163-11-13 07:12 J	1296953.74	1296953.80	1296953.90	0.0140	0.0133

Earth	-1163-11-13 10:47 J	1296953.86	1296953.95	1296954.07	0.0140	0.0127	*
Venus	-1163-12-01 15:21 J	1296971.97	1296972.14	1296972.32	0.0140	0.0082	
Venus	-1162-07-16 00:00 J	1297198.29	1297198.50	1297198.71	0.0140	0.0035	
Earth	-1162-11-18 00:14 J	1297323.33	1297323.51	1297323.70	0.0140	0.0096	
Moon	-1162-11-18 03:35 J	1297323.46	1297323.65	1297323.85	0.0140	0.0089	*
Venus	-1161-02-27 08:38 J	1297424.65	1297424.86	1297425.08	0.0140	0.0014	
Venus	-1161-10-10 17:31 J	1297651.04	1297651.23	1297651.43	0.0141	0.0062	
Moon	-1161-11-21 10:33 J	1297692.74	1297692.94	1297693.17	0.0141	0.0071	
Earth	-1161-11-21 14:24 J	1297692.88	1297693.10	1297693.32	0.0141	0.0063	*
Venus	-1160-05-25 02:24 J	1297877.48	1297877.60	1297877.74	0.0141	0.0111	
Earth	-1160-11-26 05:02 J	1298062.47	1298062.71	1298062.96	0.0141	0.0030	
Moon	-1160-11-26 08:52 J	1298062.62	1298062.87	1298063.11	0.0141	0.0024	*
Moon	-1159-11-30 17:31 J	1298431.98	1298432.23	1298432.48	0.0142	0.0002	
Earth	-1159-11-30 20:52 J	1298432.12	1298432.37	1298432.62	0.0142	0.0004	*
Earth	-1158-12-05 13:12 J	1298801.81	1298802.05	1298802.30	0.0142	0.0039	
Moon	-1158-12-05 17:02 J	1298801.97	1298802.21	1298802.45	0.0142	0.0037	*
Moon	-1157-12-09 03:21 J	1299171.43	1299171.64	1299171.85	0.0143	0.0077	
Earth	-1157-12-09 06:43 J	1299171.57	1299171.78	1299172.00	0.0143	0.0073	*
Earth	-1156-12-14 00:28 J	1299541.38	1299541.52	1299541.70	0.0143	0.0109	
Moon	-1156-12-14 04:04 J	1299541.50	1299541.67	1299541.85	0.0143	0.0100	*
Earth	-1155-12-18 19:40 J	1299911.32	1299911.32	1299911.37	0.0144	0.0143	
Jupiter	-1154-06-11 10:04 J	1300085.43	1300085.92	1300086.43	0.0144	0.0046	
Mercury	-1132-03-04 06:57 J	1308022.77	1308022.79	1308022.85	0.0143	0.0141	
Mercury	-1132-05-31 15:35 J	1308111.03	1308111.15	1308111.28	0.0143	0.0110	
Mars	-1132-08-13 01:55 J	1308184.31	1308184.58	1308184.89	0.0143	0.0056	
Mercury	-1132-08-27 23:45 J	1308199.34	1308199.49	1308199.66	0.0143	0.0079	
Mercury	-1132-11-24 08:09 J	1308287.67	1308287.84	1308288.03	0.0143	0.0049	
Mercury	-1131-02-20 16:33 J	1308376.00	1308376.19	1308376.39	0.0143	0.0018	
Mercury	-1131-05-20 00:57 J	1308464.35	1308464.54	1308464.73	0.0143	0.0013	
Mercury	-1131-08-16 09:21 J	1308552.70	1308552.89	1308553.07	0.0143	0.0044	

Mercury	-1131-11-12 17:31 J	1308641.07	1308641.23	1308641.40	0.0143	0.0075
Mercury	-1130-02-09 01:55 J	1308729.46	1308729.58	1308729.72	0.0142	0.0106
Mercury	-1130-05-08 10:04 J	1308817.89	1308817.92	1308817.99	0.0142	0.0137
Mars	-1130-07-17 12:43 J	1308887.87	1308888.03	1308888.21	0.0142	0.0118
Venus	-1124-12-23 11:02 J	1311238.82	1311238.96	1311239.12	0.0139	0.0103
Earth	-1123-05-15 02:09 J	1311381.48	1311381.59	1311381.71	0.0139	0.0124
Moon	-1123-05-15 05:16 J	1311381.61	1311381.72	1311381.88	0.0139	0.0118 *
Venus	-1123-08-06 20:09 J	1311465.14	1311465.34	1311465.54	0.0139	0.0056
Venus	-1122-03-21 05:02 J	1311691.49	1311691.71	1311691.93	0.0138	0.0009
Moon	-1122-05-19 16:47 J	1311751.04	1311751.20	1311751.41	0.0138	0.0097
Earth	-1122-05-19 20:52 J	1311751.19	1311751.37	1311751.57	0.0138	0.0092 *
Venus	-1122-11-02 13:26 J	1311917.86	1311918.06	1311918.28	0.0138	0.0038
Earth	-1121-05-23 14:52 J	1312120.89	1312121.12	1312121.36	0.0138	0.0059
Moon	-1121-05-23 18:28 J	1312121.04	1312121.27	1312121.51	0.0138	0.0057 *
Venus	-1121-06-15 21:50 J	1312144.25	1312144.41	1312144.59	0.0138	0.0084
Venus	-1120-01-28 05:45 J	1312370.69	1312370.74	1312370.84	0.0137	0.0130
Moon	-1120-05-28 04:47 J	1312490.45	1312490.70	1312490.97	0.0137	0.0024
Earth	-1120-05-28 08:09 J	1312490.59	1312490.84	1312491.10	0.0137	0.0027 *
Earth	-1119-06-02 00:28 J	1312860.27	1312860.52	1312860.78	0.0137	0.0006
Moon	-1119-06-02 04:04 J	1312860.41	1312860.67	1312860.92	0.0137	0.0002 *
Moon	-1118-06-06 13:12 J	1313229.81	1313230.05	1313230.31	0.0136	0.0044
Earth	-1118-06-06 15:50 J	1313229.93	1313230.16	1313230.42	0.0136	0.0038 *
Earth	-1117-06-10 06:43 J	1313599.56	1313599.78	1313600.01	0.0136	0.0068
Moon	-1117-06-10 09:35 J	1313599.68	1313599.90	1313600.13	0.0136	0.0061 *
Moon	-1116-06-14 18:14 J	1313969.10	1313969.26	1313969.45	0.0136	0.0103
Earth	-1116-06-14 21:07 J	1313969.20	1313969.38	1313969.56	0.0136	0.0098 *
Earth	-1115-06-19 10:19 J	1314338.86	1314338.93	1314339.03	0.0135	0.0127
Moon	-1115-06-19 12:14 J	1314338.94	1314339.01	1314339.10	0.0135	0.0127 *
Mercury	-1089-11-24 21:50 J	1323994.36	1323994.41	1323994.48	0.0135	0.0118
Mercury	-1088-02-21 00:57 J	1324082.46	1324082.54	1324082.64	0.0135	0.0100

Mercury	-1088-05-20 04:04 J	1324170.57	1324170.67	1324170.78	0.0135	0.0082
Mercury	-1088-08-16 07:12 J	1324258.69	1324258.80	1324258.92	0.0135	0.0065
Mars	-1088-09-15 05:02 J	1324288.43	1324288.71	1324288.99	0.0135	0.0052
Mercury	-1088-11-12 10:19 J	1324346.81	1324346.93	1324347.06	0.0135	0.0047
Mercury	-1087-02-08 13:26 J	1324434.93	1324435.06	1324435.19	0.0135	0.0029
Mercury	-1087-05-07 16:33 J	1324523.06	1324523.19	1324523.32	0.0136	0.0011
Mercury	-1087-08-03 19:40 J	1324611.19	1324611.32	1324611.45	0.0136	0.0007
Mercury	-1087-10-30 22:33 J	1324699.32	1324699.44	1324699.58	0.0136	0.0025
Mercury	-1086-01-27 01:40 J	1324787.45	1324787.57	1324787.70	0.0136	0.0042
Mercury	-1086-04-25 04:47 J	1324875.58	1324875.70	1324875.82	0.0136	0.0060
Mercury	-1086-07-22 07:55 J	1324963.72	1324963.83	1324963.94	0.0136	0.0077
Mars	-1086-08-17 21:07 J	1324990.18	1324990.38	1324990.62	0.0136	0.0096
Mercury	-1086-10-18 10:47 J	1325051.87	1325051.95	1325052.05	0.0136	0.0096
Mercury	-1085-01-14 13:55 J	1325140.01	1325140.08	1325140.16	0.0136	0.0113
Mercury	-1085-04-11 16:47 J	1325228.18	1325228.20	1325228.25	0.0136	0.0131
Venus	-1079-08-01 00:57 J	1327530.41	1327530.54	1327530.70	0.0139	0.0102
Moon	-1079-11-13 21:07 J	1327635.25	1327635.38	1327635.51	0.0140	0.0118
Earth	-1079-11-13 23:31 J	1327635.38	1327635.48	1327635.62	0.0140	0.0122 *
Venus	-1078-03-15 09:21 J	1327756.71	1327756.89	1327757.10	0.0140	0.0055
Venus	-1078-10-27 18:14 J	1327983.04	1327983.26	1327983.48	0.0140	0.0007
Earth	-1078-11-18 12:43 J	1328004.85	1328005.03	1328005.23	0.0140	0.0091
Moon	-1078-11-18 16:19 J	1328005.00	1328005.18	1328005.36	0.0140	0.0098 *
Venus	-1077-06-10 02:38 J	1328209.41	1328209.61	1328209.83	0.0140	0.0042
Moon	-1077-11-21 23:45 J	1328374.26	1328374.49	1328374.72	0.0141	0.0051
Earth	-1077-11-22 02:38 J	1328374.40	1328374.61	1328374.85	0.0141	0.0059 *
Venus	-1076-01-22 11:16 J	1328435.82	1328435.97	1328436.15	0.0141	0.0090
Venus	-1076-09-05 20:24 J	1328662.33	1328662.35	1328662.41	0.0141	0.0139
Earth	-1076-11-26 17:16 J	1328743.98	1328744.22	1328744.48	0.0141	0.0026
Moon	-1076-11-26 20:52 J	1328744.13	1328744.37	1328744.62	0.0141	0.0030 *
Moon	-1075-12-01 05:31 J	1329113.48	1329113.73	1329113.98	0.0142	0.0012

Earth	-1075-12-01 09:07 J	1329113.63	1329113.88	1329114.13	0.0142	0.0009	*
Earth	-1074-12-06 01:26 J	1329483.33	1329483.56	1329483.80	0.0142	0.0043	
Moon	-1074-12-06 04:47 J	1329483.47	1329483.70	1329483.95	0.0142	0.0044	*
Moon	-1073-12-09 14:52 J	1329852.92	1329853.12	1329853.35	0.0143	0.0073	
Earth	-1073-12-09 18:43 J	1329853.08	1329853.28	1329853.49	0.0143	0.0078	*
Earth	-1072-12-14 12:43 J	1330222.89	1330223.03	1330223.19	0.0143	0.0112	
Moon	-1072-12-14 16:19 J	1330223.05	1330223.18	1330223.32	0.0143	0.0119	*
Moon	-1071-12-19 04:19 J	1330592.64	1330592.68	1330592.76	0.0144	0.0140	
Mercury	-1048-03-24 14:38 J	1338724.04	1338724.11	1338724.18	0.0143	0.0133	
Mercury	-1048-06-20 22:47 J	1338812.32	1338812.45	1338812.59	0.0143	0.0102	
Mercury	-1048-09-17 07:12 J	1338900.64	1338900.80	1338900.97	0.0143	0.0072	
Mercury	-1048-12-14 15:21 J	1338988.96	1338989.14	1338989.33	0.0143	0.0042	
Mercury	-1047-03-13 00:00 J	1339077.30	1339077.50	1339077.69	0.0143	0.0010	
Mars	-1047-04-08 16:04 J	1339103.86	1339104.17	1339104.48	0.0143	0.0011	
Mercury	-1047-06-09 08:09 J	1339165.65	1339165.84	1339166.04	0.0143	0.0021	
Mercury	-1047-09-05 16:33 J	1339254.01	1339254.19	1339254.38	0.0143	0.0051	
Mercury	-1047-12-03 00:43 J	1339342.39	1339342.53	1339342.70	0.0143	0.0083	
Mercury	-1046-03-01 09:21 J	1339430.78	1339430.89	1339431.01	0.0142	0.0113	
Venus	-1040-08-22 19:55 J	1341797.24	1341797.33	1341797.43	0.0139	0.0124	
Venus	-1039-04-06 05:02 J	1342023.53	1342023.71	1342023.90	0.0139	0.0076	
Earth	-1039-05-15 12:57 J	1342062.93	1342063.04	1342063.19	0.0139	0.0120	
Moon	-1039-05-15 16:47 J	1342063.12	1342063.20	1342063.32	0.0139	0.0127	*
Venus	-1039-11-18 13:55 J	1342249.87	1342250.08	1342250.30	0.0139	0.0029	
Moon	-1038-05-20 04:47 J	1342432.50	1342432.70	1342432.91	0.0138	0.0082	
Earth	-1038-05-20 08:09 J	1342432.65	1342432.84	1342433.05	0.0138	0.0087	*
Venus	-1038-07-02 22:33 J	1342476.23	1342476.44	1342476.66	0.0138	0.0018	
Venus	-1037-02-14 07:12 J	1342702.61	1342702.80	1342703.00	0.0138	0.0064	
Earth	-1037-05-24 02:24 J	1342802.37	1342802.60	1342802.84	0.0138	0.0054	
Moon	-1037-05-24 06:00 J	1342802.52	1342802.75	1342802.99	0.0138	0.0055	*
Venus	-1037-09-27 15:35 J	1342929.02	1342929.15	1342929.28	0.0138	0.0110	

Moon	-1036-05-28 16:04 J	1343171.92	1343172.17	1343172.43	0.0137	0.0024
Earth	-1036-05-28 19:55 J	1343172.08	1343172.33	1343172.59	0.0137	0.0022 *
Earth	-1035-06-02 12:28 J	1343541.76	1343542.02	1343542.28	0.0137	0.0010
Moon	-1035-06-02 15:35 J	1343541.90	1343542.15	1343542.41	0.0137	0.0016 *
Moon	-1034-06-07 00:28 J	1343911.27	1343911.52	1343911.78	0.0136	0.0034
Earth	-1034-06-07 04:04 J	1343911.43	1343911.67	1343911.92	0.0136	0.0042 *
Earth	-1033-06-10 18:57 J	1344281.08	1344281.29	1344281.52	0.0136	0.0072
Moon	-1033-06-10 21:50 J	1344281.22	1344281.41	1344281.63	0.0136	0.0079 *
Moon	-1032-06-15 06:28 J	1344650.60	1344650.77	1344650.96	0.0136	0.0098
Earth	-1032-06-15 09:21 J	1344650.73	1344650.89	1344651.07	0.0136	0.0103 *
Earth	-1031-06-19 22:33 J	1345020.41	1345020.44	1345020.52	0.0135	0.0132
Moon	-1031-06-20 01:26 J	1345020.55	1345020.56	1345020.61	0.0135	0.0134
Jupiter	-1029-05-27 23:16 J	1345728.27	1345728.47	1345728.73	0.0134	0.0120
Mercury	-1005-09-18 02:24 J	1354607.57	1354607.60	1354607.65	0.0135	0.0129
Mercury	-1005-12-15 05:31 J	1354695.67	1354695.73	1354695.81	0.0135	0.0111
Mercury	-1004-03-13 08:38 J	1354783.77	1354783.86	1354783.96	0.0135	0.0093
Mercury	-1004-06-09 12:00 J	1354871.89	1354872.00	1354872.11	0.0135	0.0076
Mercury	-1004-09-05 14:52 J	1354960.01	1354960.12	1354960.25	0.0135	0.0058
Mercury	-1004-12-02 18:00 J	1355048.13	1355048.25	1355048.38	0.0135	0.0040
Mercury	-1003-02-28 21:07 J	1355136.25	1355136.38	1355136.51	0.0135	0.0023
Mars	-1003-05-11 06:43 J	1355207.47	1355207.78	1355208.08	0.0135	0.0006
Mercury	-1003-05-28 00:14 J	1355224.38	1355224.51	1355224.64	0.0135	0.0005
Mercury	-1003-08-24 03:21 J	1355312.51	1355312.64	1355312.77	0.0136	0.0013
Mercury	-1003-11-20 06:28 J	1355400.64	1355400.77	1355400.90	0.0136	0.0031
Mercury	-1002-02-16 09:21 J	1355488.77	1355488.89	1355489.02	0.0136	0.0049
Mercury	-1002-05-15 12:28 J	1355576.91	1355577.02	1355577.14	0.0136	0.0066
Mercury	-1002-08-11 15:35 J	1355665.05	1355665.15	1355665.25	0.0136	0.0084
Mercury	-1002-11-07 18:28 J	1355753.19	1355753.27	1355753.36	0.0136	0.0102
Mercury	-1001-02-03 21:50 J	1355841.35	1355841.41	1355841.47	0.0136	0.0120

1ST MILLENNIUM BCE

This is a list of transits visible from Uranus in the 1st millennium BCE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	-995-03-31 10:47 J		1358088.86	1358088.95	1358089.07	0.0139	0.0121	
Venus	-995-11-12 18:57 J		1358315.12	1358315.29	1358315.49	0.0140	0.0075	
Moon	-995-11-14 09:21 J		1358316.79	1358316.89	1358317.02	0.0140	0.0122	
Earth	-995-11-14 12:14 J		1358316.89	1358317.01	1358317.16	0.0140	0.0117	*
Venus	-994-06-27 03:35 J		1358541.44	1358541.65	1358541.86	0.0140	0.0027	
Earth	-994-11-19 01:12 J		1358686.37	1358686.55	1358686.76	0.0140	0.0086	
Moon	-994-11-19 04:04 J		1358686.47	1358686.67	1358686.89	0.0140	0.0079	*
Venus	-993-02-08 12:14 J		1358767.79	1358768.01	1358768.22	0.0140	0.0020	
Venus	-993-09-21 20:52 J		1358994.19	1358994.37	1358994.57	0.0140	0.0069	
Moon	-993-11-22 12:00 J		1359055.79	1359056.00	1359056.23	0.0141	0.0061	
Earth	-993-11-22 15:07 J		1359055.91	1359056.13	1359056.37	0.0141	0.0054	*
Venus	-992-05-06 05:45 J		1359220.63	1359220.74	1359220.87	0.0141	0.0117	
Earth	-992-11-27 06:00 J		1359425.50	1359425.75	1359426.00	0.0141	0.0020	
Moon	-992-11-27 09:21 J		1359425.63	1359425.89	1359426.14	0.0141	0.0013	*
Moon	-991-12-01 18:14 J		1359795.02	1359795.26	1359795.51	0.0142	0.0011	
Earth	-991-12-01 21:35 J		1359795.15	1359795.40	1359795.65	0.0142	0.0014	*
Earth	-990-12-06 13:40 J		1360164.84	1360165.07	1360165.31	0.0142	0.0048	
Moon	-990-12-06 17:16 J		1360164.99	1360165.22	1360165.47	0.0142	0.0047	*
Moon	-989-12-10 03:21 J		1360534.46	1360534.64	1360534.85	0.0143	0.0087	
Earth	-989-12-10 06:57 J		1360534.59	1360534.79	1360535.00	0.0143	0.0083	*

Earth	-988-12-15 00:57 J	1360904.40	1360904.54	1360904.69	0.0143	0.0117
Moon	-988-12-15 04:19 J	1360904.54	1360904.68	1360904.85	0.0143	0.0110 *
Mars	-965-12-29 12:00 J	1369319.79	1369320.00	1369320.24	0.0144	0.0100
Mercury	-964-04-13 21:50 J	1369425.33	1369425.41	1369425.51	0.0143	0.0125
Mercury	-964-07-11 06:14 J	1369513.62	1369513.76	1369513.91	0.0143	0.0095
Mercury	-964-10-07 14:24 J	1369601.94	1369602.10	1369602.29	0.0143	0.0065
Mercury	-963-01-03 23:02 J	1369690.27	1369690.46	1369690.65	0.0143	0.0033
Mercury	-963-04-02 07:26 J	1369778.61	1369778.81	1369779.00	0.0143	0.0003
Mercury	-963-06-29 15:35 J	1369866.97	1369867.15	1369867.35	0.0143	0.0029
Mercury	-963-09-26 00:00 J	1369955.33	1369955.50	1369955.68	0.0143	0.0059
Mars	-963-12-03 05:02 J	1370023.46	1370023.71	1370023.98	0.0143	0.0076
Mercury	-963-12-23 08:38 J	1370043.71	1370043.86	1370044.01	0.0143	0.0090
Mercury	-962-03-21 16:47 J	1370132.11	1370132.20	1370132.31	0.0142	0.0121
Venus	-956-12-04 13:26 J	1372581.91	1372582.06	1372582.22	0.0139	0.0097
Earth	-955-05-16 00:00 J	1372744.37	1372744.50	1372744.66	0.0139	0.0115
Moon	-955-05-16 03:21 J	1372744.49	1372744.64	1372744.82	0.0139	0.0108 *
Venus	-955-07-18 22:33 J	1372808.24	1372808.44	1372808.65	0.0139	0.0050
Venus	-954-03-02 07:40 J	1373034.60	1373034.82	1373035.04	0.0139	0.0003
Moon	-954-05-20 15:21 J	1373113.95	1373114.14	1373114.35	0.0138	0.0088
Earth	-954-05-20 18:57 J	1373114.10	1373114.29	1373114.51	0.0138	0.0083 *
Venus	-954-10-14 16:04 J	1373260.97	1373261.17	1373261.39	0.0138	0.0044
Earth	-953-05-24 13:12 J	1373483.82	1373484.05	1373484.31	0.0138	0.0050
Moon	-953-05-24 17:02 J	1373483.97	1373484.21	1373484.46	0.0138	0.0047 *
Venus	-953-05-28 00:28 J	1373487.36	1373487.52	1373487.69	0.0138	0.0090
Venus	-952-01-09 08:38 J	1373713.84	1373713.86	1373713.91	0.0138	0.0136
Moon	-952-05-29 03:35 J	1373853.39	1373853.65	1373853.90	0.0137	0.0015
Earth	-952-05-29 06:57 J	1373853.54	1373853.79	1373854.05	0.0137	0.0018 *
Earth	-951-06-02 23:31 J	1374223.23	1374223.48	1374223.74	0.0137	0.0015
Moon	-951-06-03 03:21 J	1374223.38	1374223.64	1374223.90	0.0137	0.0010 *
Moon	-950-06-07 12:14 J	1374592.77	1374593.01	1374593.25	0.0137	0.0053

Earth	-950-06-07 15:21 J	1374592.91	1374593.14	1374593.39	0.0137	0.0047	*
Earth	-949-06-11 06:43 J	1374962.57	1374962.78	1374963.00	0.0136	0.0077	
Moon	-949-06-11 10:04 J	1374962.71	1374962.92	1374963.14	0.0136	0.0070	*
Moon	-948-06-15 17:45 J	1375332.11	1375332.24	1375332.40	0.0136	0.0113	
Earth	-948-06-15 20:52 J	1375332.24	1375332.37	1375332.55	0.0136	0.0108	*
Jupiter	-946-04-19 15:35 J	1376004.77	1376005.15	1376005.60	0.0135	0.0078	
Mercury	-921-10-08 10:19 J	1385308.88	1385308.93	1385308.99	0.0135	0.0122	
Mercury	-920-01-04 13:26 J	1385396.98	1385397.06	1385397.15	0.0135	0.0104	
Mars	-920-02-01 22:04 J	1385425.19	1385425.42	1385425.68	0.0135	0.0081	
Mercury	-920-04-02 16:33 J	1385485.09	1385485.19	1385485.29	0.0135	0.0086	
Mercury	-920-06-29 19:26 J	1385573.21	1385573.31	1385573.43	0.0135	0.0069	
Mercury	-920-09-25 22:47 J	1385661.33	1385661.45	1385661.57	0.0135	0.0051	
Mercury	-920-12-23 01:55 J	1385749.45	1385749.58	1385749.71	0.0135	0.0033	
Mercury	-919-03-21 05:02 J	1385837.58	1385837.71	1385837.84	0.0135	0.0016	
Mercury	-919-06-17 07:55 J	1385925.70	1385925.83	1385925.97	0.0135	0.0005	
Mercury	-919-09-13 11:02 J	1386013.83	1386013.96	1386014.09	0.0136	0.0020	
Mercury	-919-12-10 14:09 J	1386101.97	1386102.09	1386102.22	0.0136	0.0038	
Mars	-918-01-04 09:35 J	1386126.65	1386126.90	1386127.19	0.0136	0.0064	
Mercury	-918-03-08 17:02 J	1386190.10	1386190.21	1386190.34	0.0136	0.0056	
Mercury	-918-06-04 20:24 J	1386278.24	1386278.35	1386278.46	0.0136	0.0073	
Mercury	-918-08-31 23:16 J	1386366.38	1386366.47	1386366.57	0.0136	0.0091	
Mercury	-918-11-28 02:09 J	1386454.53	1386454.59	1386454.68	0.0136	0.0109	
Mercury	-917-02-24 05:31 J	1386542.68	1386542.73	1386542.78	0.0136	0.0126	
Venus	-911-07-13 05:16 J	1388873.56	1388873.72	1388873.88	0.0139	0.0094	
Moon	-911-11-14 23:45 J	1388998.35	1388998.49	1388998.65	0.0139	0.0109	
Earth	-911-11-15 01:55 J	1388998.43	1388998.58	1388998.73	0.0139	0.0112	*
Venus	-910-02-24 13:26 J	1389099.86	1389100.06	1389100.27	0.0140	0.0047	
Venus	-910-10-08 22:04 J	1389326.21	1389326.42	1389326.64	0.0140	0.0003	
Earth	-910-11-19 14:52 J	1389367.91	1389368.12	1389368.32	0.0140	0.0080	
Moon	-910-11-19 17:31 J	1389368.04	1389368.23	1389368.43	0.0140	0.0087	*

Venus	-909-05-22 06:28 J	1389552.58	1389552.77	1389552.99	0.0140	0.0049
Moon	-909-11-23 02:09 J	1389737.36	1389737.59	1389737.82	0.0140	0.0041
Earth	-909-11-23 04:33 J	1389737.46	1389737.69	1389737.93	0.0140	0.0048 *
Venus	-908-01-03 15:35 J	1389778.99	1389779.15	1389779.30	0.0140	0.0097
Earth	-908-11-27 19:12 J	1390107.05	1390107.30	1390107.55	0.0141	0.0015
Moon	-908-11-27 22:04 J	1390107.17	1390107.42	1390107.68	0.0141	0.0021 *
Moon	-907-12-02 07:26 J	1390476.57	1390476.81	1390477.05	0.0141	0.0023
Earth	-907-12-02 10:47 J	1390476.70	1390476.95	1390477.19	0.0141	0.0019 *
Earth	-906-12-07 02:52 J	1390846.39	1390846.62	1390846.86	0.0142	0.0053
Moon	-906-12-07 06:00 J	1390846.52	1390846.75	1390846.99	0.0142	0.0053 *
Moon	-905-12-10 16:19 J	1391215.99	1391216.18	1391216.39	0.0142	0.0083
Earth	-905-12-10 19:40 J	1391216.14	1391216.32	1391216.53	0.0142	0.0088 *
Earth	-904-12-15 13:26 J	1391585.95	1391586.06	1391586.21	0.0143	0.0122
Moon	-904-12-15 17:02 J	1391586.12	1391586.21	1391586.33	0.0143	0.0128 *
Mercury	-880-05-04 04:47 J	1400126.60	1400126.70	1400126.81	0.0143	0.0120
Mercury	-880-07-31 12:57 J	1400214.90	1400215.04	1400215.20	0.0143	0.0089
Mars	-880-08-25 00:00 J	1400239.21	1400239.50	1400239.81	0.0143	0.0035
Mercury	-880-10-27 21:07 J	1400303.22	1400303.38	1400303.57	0.0143	0.0060
Mercury	-879-01-24 05:45 J	1400391.55	1400391.74	1400391.93	0.0143	0.0028
Mercury	-879-04-22 14:09 J	1400479.90	1400480.09	1400480.28	0.0143	0.0003
Mercury	-879-07-19 22:19 J	1400568.25	1400568.43	1400568.63	0.0143	0.0034
Mercury	-879-10-16 06:43 J	1400656.62	1400656.78	1400656.96	0.0143	0.0065
Mercury	-878-01-12 15:07 J	1400745.00	1400745.13	1400745.28	0.0143	0.0096
Mercury	-878-04-10 23:16 J	1400833.40	1400833.47	1400833.58	0.0142	0.0127
Mars	-878-07-29 11:45 J	1400942.94	1400942.99	1400943.11	0.0142	0.0138
Moon	-872-05-11 10:04 J	1403055.90	1403055.92	1403055.98	0.0140	0.0138
Venus	-872-08-03 20:24 J	1403140.25	1403140.35	1403140.47	0.0139	0.0121
Venus	-871-03-18 05:31 J	1403366.56	1403366.73	1403366.93	0.0139	0.0073
Earth	-871-05-16 08:24 J	1403425.72	1403425.85	1403426.03	0.0139	0.0111
Moon	-871-05-16 12:00 J	1403425.88	1403426.00	1403426.15	0.0139	0.0118 *

Venus	-871-10-30 14:38 J	1403592.90	1403593.11	1403593.33	0.0139	0.0026
Moon	-870-05-21 00:28 J	1403795.32	1403795.52	1403795.75	0.0139	0.0073
Earth	-870-05-21 03:35 J	1403795.45	1403795.65	1403795.88	0.0139	0.0079 *
Venus	-870-06-13 23:31 J	1403819.27	1403819.48	1403819.70	0.0138	0.0022
Venus	-869-01-26 07:55 J	1404045.65	1404045.83	1404046.03	0.0138	0.0069
Earth	-869-05-24 22:19 J	1404165.19	1404165.43	1404165.67	0.0138	0.0045
Moon	-869-05-25 01:40 J	1404165.34	1404165.57	1404165.83	0.0138	0.0048 *
Venus	-869-09-08 16:33 J	1404272.07	1404272.19	1404272.32	0.0138	0.0114
Moon	-868-05-29 12:14 J	1404534.76	1404535.01	1404535.27	0.0138	0.0014
Earth	-868-05-29 15:50 J	1404534.91	1404535.16	1404535.42	0.0138	0.0013 *
Earth	-867-06-03 08:38 J	1404904.61	1404904.86	1404905.12	0.0137	0.0019
Moon	-867-06-03 12:14 J	1404904.76	1404905.01	1404905.27	0.0137	0.0024 *
Moon	-866-06-07 20:52 J	1405274.13	1405274.37	1405274.62	0.0137	0.0044
Earth	-866-06-08 00:43 J	1405274.30	1405274.53	1405274.78	0.0137	0.0051 *
Earth	-865-06-11 16:04 J	1405643.98	1405644.17	1405644.39	0.0136	0.0081
Moon	-865-06-11 19:26 J	1405644.13	1405644.31	1405644.52	0.0136	0.0089 *
Moon	-864-06-16 03:21 J	1406013.49	1406013.64	1406013.82	0.0136	0.0106
Earth	-864-06-16 06:43 J	1406013.66	1406013.78	1406013.95	0.0136	0.0112 *
Mercury	-837-08-01 14:52 J	1415922.11	1415922.12	1415922.15	0.0135	0.0133
Mercury	-837-10-28 18:00 J	1416010.19	1416010.25	1416010.32	0.0135	0.0115
Mercury	-836-01-24 21:07 J	1416098.30	1416098.38	1416098.48	0.0135	0.0098
Mercury	-836-04-23 00:14 J	1416186.41	1416186.51	1416186.62	0.0135	0.0080
Mercury	-836-07-20 03:21 J	1416274.53	1416274.64	1416274.76	0.0135	0.0062
Mars	-836-09-27 23:16 J	1416344.18	1416344.47	1416344.78	0.0135	0.0027
Mercury	-836-10-16 06:28 J	1416362.65	1416362.77	1416362.90	0.0135	0.0045
Mercury	-835-01-12 09:35 J	1416450.77	1416450.90	1416451.03	0.0135	0.0027
Mercury	-835-04-10 12:43 J	1416538.90	1416539.03	1416539.16	0.0135	0.0009
Mercury	-835-07-07 15:50 J	1416627.03	1416627.16	1416627.29	0.0136	0.0009
Mercury	-835-10-03 18:43 J	1416715.16	1416715.28	1416715.41	0.0136	0.0027
Mercury	-835-12-30 21:50 J	1416803.29	1416803.41	1416803.54	0.0136	0.0044

Mercury	-834-03-29 00:57 J	1416891.42	1416891.54	1416891.66	0.0136	0.0062
Mercury	-834-06-25 03:50 J	1416979.56	1416979.66	1416979.77	0.0136	0.0080
Mars	-834-08-30 13:26 J	1417045.95	1417046.06	1417046.23	0.0136	0.0121
Mercury	-834-09-21 06:57 J	1417067.71	1417067.79	1417067.89	0.0136	0.0097
Mercury	-834-12-18 10:04 J	1417155.86	1417155.92	1417155.99	0.0136	0.0115
Mercury	-833-03-15 13:12 J	1417244.03	1417244.05	1417244.08	0.0136	0.0133
Earth	-828-11-11 03:07 J	1419310.59	1419310.63	1419310.68	0.0139	0.0136
Moon	-828-11-11 04:19 J	1419310.65	1419310.68	1419310.75	0.0139	0.0136 *
Venus	-827-03-12 15:21 J	1419432.03	1419432.14	1419432.28	0.0139	0.0113
Venus	-827-10-24 23:45 J	1419658.31	1419658.49	1419658.69	0.0139	0.0066
Moon	-827-11-15 13:12 J	1419679.91	1419680.05	1419680.21	0.0139	0.0110
Earth	-827-11-15 15:07 J	1419679.99	1419680.13	1419680.31	0.0139	0.0106 *
Venus	-826-06-08 08:09 J	1419884.63	1419884.84	1419885.06	0.0140	0.0019
Earth	-826-11-20 04:19 J	1420049.48	1420049.68	1420049.90	0.0140	0.0075
Moon	-826-11-20 06:00 J	1420049.55	1420049.75	1420049.99	0.0140	0.0069 *
Venus	-825-01-20 16:47 J	1420110.99	1420111.20	1420111.41	0.0140	0.0029
Venus	-825-09-03 01:26 J	1420337.39	1420337.56	1420337.75	0.0140	0.0077
Moon	-825-11-23 15:35 J	1420418.94	1420419.15	1420419.39	0.0140	0.0050
Earth	-825-11-23 18:14 J	1420419.03	1420419.26	1420419.50	0.0140	0.0042 *
Venus	-824-04-17 10:04 J	1420563.85	1420563.92	1420564.04	0.0141	0.0126
Earth	-824-11-28 09:07 J	1420788.63	1420788.88	1420789.13	0.0141	0.0009
Moon	-824-11-28 11:45 J	1420788.73	1420788.99	1420789.24	0.0141	0.0002 *
Moon	-823-12-02 21:50 J	1421158.17	1421158.41	1421158.66	0.0141	0.0021
Earth	-823-12-03 00:43 J	1421158.28	1421158.53	1421158.77	0.0141	0.0025 *
Earth	-822-12-07 16:33 J	1421527.97	1421528.19	1421528.43	0.0142	0.0059
Moon	-822-12-07 19:55 J	1421528.11	1421528.33	1421528.57	0.0142	0.0058 *
Moon	-821-12-11 06:43 J	1421897.60	1421897.78	1421897.97	0.0142	0.0096
Earth	-821-12-11 09:50 J	1421897.72	1421897.91	1421898.10	0.0142	0.0093 *
Earth	-820-12-16 03:21 J	1422267.54	1422267.64	1422267.76	0.0143	0.0127
Moon	-820-12-16 06:43 J	1422267.66	1422267.78	1422267.93	0.0143	0.0120 *

Mercury	-796-02-25 04:19 J	1430739.66	1430739.68	1430739.72	0.0143	0.0141
Mercury	-796-05-24 12:28 J	1430827.91	1430828.02	1430828.15	0.0143	0.0111
Mercury	-796-08-20 20:52 J	1430916.22	1430916.37	1430916.54	0.0143	0.0080
Mercury	-796-11-17 05:02 J	1431004.54	1431004.71	1431004.90	0.0143	0.0051
Mercury	-795-02-13 13:40 J	1431092.88	1431093.07	1431093.26	0.0143	0.0019
Mars	-795-04-20 16:33 J	1431158.89	1431159.19	1431159.49	0.0143	0.0030
Mercury	-795-05-12 22:04 J	1431181.22	1431181.42	1431181.61	0.0143	0.0012
Mercury	-795-08-09 06:14 J	1431269.58	1431269.76	1431269.95	0.0143	0.0043
Mercury	-795-11-05 14:24 J	1431357.95	1431358.10	1431358.28	0.0143	0.0074
Mercury	-794-02-01 23:02 J	1431446.33	1431446.46	1431446.60	0.0143	0.0104
Mercury	-794-05-01 07:26 J	1431534.76	1431534.81	1431534.88	0.0142	0.0135
Earth	-788-05-11 23:45 J	1433737.47	1433737.49	1433737.55	0.0140	0.0138
Venus	-788-11-15 14:09 J	1433924.94	1433925.09	1433925.26	0.0139	0.0095
Earth	-787-05-16 19:40 J	1434107.17	1434107.32	1434107.50	0.0139	0.0106
Moon	-787-05-16 22:19 J	1434107.26	1434107.43	1434107.63	0.0139	0.0098 *
Venus	-787-06-29 23:16 J	1434151.27	1434151.47	1434151.69	0.0139	0.0047
Venus	-786-02-11 08:24 J	1434377.63	1434377.85	1434378.07	0.0139	0.0002
Moon	-786-05-21 11:31 J	1434476.79	1434476.98	1434477.20	0.0139	0.0079
Earth	-786-05-21 14:52 J	1434476.91	1434477.12	1434477.35	0.0139	0.0073 *
Venus	-786-09-25 17:02 J	1434604.01	1434604.21	1434604.42	0.0138	0.0048
Venus	-785-05-09 01:26 J	1434830.41	1434830.56	1434830.73	0.0138	0.0094
Earth	-785-05-25 09:21 J	1434846.65	1434846.89	1434847.14	0.0138	0.0040
Moon	-785-05-25 12:43 J	1434846.78	1434847.03	1434847.29	0.0138	0.0036 *
Moon	-784-05-29 23:45 J	1435216.23	1435216.49	1435216.75	0.0138	0.0006
Earth	-784-05-30 03:21 J	1435216.38	1435216.64	1435216.90	0.0138	0.0008 *
Earth	-783-06-03 19:55 J	1435586.08	1435586.33	1435586.59	0.0137	0.0025
Moon	-783-06-03 23:45 J	1435586.23	1435586.49	1435586.75	0.0137	0.0020 *
Moon	-782-06-08 08:24 J	1435955.64	1435955.85	1435956.10	0.0137	0.0063
Earth	-782-06-08 12:14 J	1435955.78	1435956.01	1435956.25	0.0137	0.0056 *
Earth	-781-06-12 03:50 J	1436325.46	1436325.66	1436325.86	0.0136	0.0087

Moon	-781-06-12 07:26 J	1436325.61	1436325.81	1436326.03	0.0136	0.0079 *
Moon	-780-06-16 14:38 J	1436695.02	1436695.11	1436695.24	0.0136	0.0123
Earth	-780-06-16 18:14 J	1436695.15	1436695.26	1436695.41	0.0136	0.0117 *
Mars	-753-06-21 17:31 J	1446562.09	1446562.23	1446562.42	0.0135	0.0112
Mercury	-753-08-21 22:47 J	1446623.41	1446623.45	1446623.49	0.0135	0.0126
Mercury	-753-11-18 01:40 J	1446711.50	1446711.57	1446711.66	0.0135	0.0109
Mercury	-752-02-14 04:47 J	1446799.61	1446799.70	1446799.81	0.0135	0.0091
Mercury	-752-05-13 08:09 J	1446887.73	1446887.84	1446887.95	0.0135	0.0073
Mercury	-752-08-09 11:16 J	1446975.85	1446975.97	1446976.09	0.0135	0.0056
Mercury	-752-11-05 14:09 J	1447063.97	1447064.09	1447064.22	0.0135	0.0038
Mercury	-751-02-01 17:16 J	1447152.09	1447152.22	1447152.35	0.0135	0.0021
Mercury	-751-04-30 20:24 J	1447240.22	1447240.35	1447240.48	0.0136	0.0003
Mars	-751-05-24 00:00 J	1447263.22	1447263.50	1447263.81	0.0136	0.0031
Mercury	-751-07-27 23:31 J	1447328.35	1447328.48	1447328.61	0.0136	0.0015
Mercury	-751-10-24 02:38 J	1447416.48	1447416.61	1447416.74	0.0136	0.0033
Mercury	-750-01-20 05:31 J	1447504.61	1447504.73	1447504.86	0.0136	0.0051
Mercury	-750-04-18 08:38 J	1447592.75	1447592.86	1447592.98	0.0136	0.0069
Mercury	-750-07-15 11:45 J	1447680.89	1447680.99	1447681.09	0.0136	0.0086
Mercury	-750-10-11 14:38 J	1447769.04	1447769.11	1447769.20	0.0136	0.0104
Mercury	-749-01-07 18:00 J	1447857.19	1447857.25	1447857.30	0.0136	0.0122
Venus	-744-11-10 01:55 J	1449990.53	1449990.58	1449990.66	0.0139	0.0132
Earth	-744-11-11 16:33 J	1449992.14	1449992.19	1449992.30	0.0139	0.0131
Moon	-744-11-11 18:00 J	1449992.19	1449992.25	1449992.36	0.0139	0.0131 *
Venus	-743-06-24 10:19 J	1450216.76	1450216.93	1450217.10	0.0139	0.0086
Moon	-743-11-16 04:19 J	1450361.52	1450361.68	1450361.86	0.0139	0.0098
Earth	-743-11-16 05:16 J	1450361.56	1450361.72	1450361.91	0.0139	0.0100 *
Venus	-742-02-05 18:28 J	1450443.07	1450443.27	1450443.49	0.0140	0.0039
Venus	-742-09-20 03:21 J	1450669.42	1450669.64	1450669.86	0.0140	0.0009
Earth	-742-11-20 18:14 J	1450731.06	1450731.26	1450731.49	0.0140	0.0069
Moon	-742-11-20 20:24 J	1450731.14	1450731.35	1450731.58	0.0140	0.0075 *

Venus	-741-05-03 12:00 J	1450895.80	1450896.00	1450896.20	0.0140	0.0057
Moon	-741-11-24 06:43 J	1451100.55	1451100.78	1451101.03	0.0140	0.0029
Earth	-741-11-24 08:24 J	1451100.62	1451100.85	1451101.10	0.0140	0.0037 *
Venus	-741-12-15 20:38 J	1451122.23	1451122.36	1451122.51	0.0140	0.0106
Earth	-740-11-28 23:16 J	1451470.22	1451470.47	1451470.72	0.0141	0.0004
Moon	-740-11-29 01:40 J	1451470.31	1451470.57	1451470.83	0.0141	0.0009 *
Moon	-739-12-03 12:00 J	1451839.77	1451840.00	1451840.25	0.0141	0.0035
Earth	-739-12-03 14:52 J	1451839.88	1451840.12	1451840.36	0.0141	0.0031 *
Earth	-738-12-08 06:43 J	1452209.57	1452209.78	1452210.01	0.0142	0.0065
Moon	-738-12-08 09:21 J	1452209.67	1452209.89	1452210.13	0.0142	0.0064 *
Moon	-737-12-11 20:38 J	1452579.18	1452579.36	1452579.55	0.0142	0.0095
Earth	-737-12-11 23:45 J	1452579.32	1452579.49	1452579.68	0.0142	0.0099 *
Earth	-736-12-16 17:02 J	1452949.14	1452949.21	1452949.32	0.0143	0.0133
Moon	-736-12-16 20:09 J	1452949.31	1452949.34	1452949.42	0.0143	0.0139 *
Mars	-712-01-10 13:55 J	1461374.82	1461375.08	1461375.34	0.0143	0.0080
Mercury	-712-03-17 12:14 J	1461440.95	1461441.01	1461441.09	0.0143	0.0132
Mercury	-712-06-13 20:24 J	1461529.23	1461529.35	1461529.49	0.0143	0.0102
Mercury	-712-09-10 04:47 J	1461617.54	1461617.70	1461617.87	0.0143	0.0072
Mercury	-712-12-07 12:57 J	1461705.86	1461706.04	1461706.23	0.0143	0.0041
Mercury	-711-03-05 21:21 J	1461794.20	1461794.39	1461794.59	0.0143	0.0011
Mercury	-711-06-02 05:45 J	1461882.55	1461882.74	1461882.93	0.0143	0.0021
Mercury	-711-08-29 14:09 J	1461970.91	1461971.09	1461971.27	0.0143	0.0051
Mercury	-711-11-25 22:19 J	1462059.28	1462059.43	1462059.60	0.0143	0.0082
Mars	-711-12-15 07:55 J	1462078.62	1462078.83	1462079.08	0.0143	0.0095
Mercury	-710-02-22 06:43 J	1462147.67	1462147.78	1462147.91	0.0142	0.0113
Moon	-704-05-12 08:38 J	1464418.78	1464418.86	1464418.98	0.0140	0.0128
Earth	-704-05-12 10:19 J	1464418.87	1464418.93	1464419.03	0.0140	0.0133 *
Venus	-704-07-15 22:19 J	1464483.33	1464483.43	1464483.57	0.0139	0.0117
Venus	-703-02-27 07:55 J	1464709.64	1464709.83	1464710.02	0.0139	0.0069
Earth	-703-05-17 06:00 J	1464788.59	1464788.75	1464788.95	0.0139	0.0100

Moon	-703-05-17 08:38 J	1464788.71	1464788.86	1464789.04	0.0139	0.0107 *
Venus	-703-10-11 16:47 J	1464935.99	1464936.20	1464936.42	0.0139	0.0021
Moon	-702-05-21 23:16 J	1465158.24	1465158.47	1465158.69	0.0139	0.0061
Earth	-702-05-22 01:26 J	1465158.34	1465158.56	1465158.79	0.0139	0.0068 *
Venus	-702-05-26 01:26 J	1465162.35	1465162.56	1465162.78	0.0139	0.0027
Venus	-701-01-07 09:50 J	1465388.74	1465388.91	1465389.11	0.0138	0.0074
Earth	-701-05-25 19:55 J	1465528.09	1465528.33	1465528.59	0.0138	0.0035
Moon	-701-05-25 23:16 J	1465528.22	1465528.47	1465528.73	0.0138	0.0037 *
Venus	-701-08-20 18:28 J	1465615.17	1465615.27	1465615.39	0.0138	0.0119
Moon	-700-05-30 10:33 J	1465897.69	1465897.94	1465898.19	0.0138	0.0002
Earth	-700-05-30 13:40 J	1465897.81	1465898.07	1465898.33	0.0138	0.0003 *
Earth	-699-06-04 06:43 J	1466267.52	1466267.78	1466268.03	0.0137	0.0029
Moon	-699-06-04 09:50 J	1466267.67	1466267.91	1466268.17	0.0137	0.0034 *
Moon	-698-06-08 18:57 J	1466637.07	1466637.29	1466637.54	0.0137	0.0055
Earth	-698-06-08 23:02 J	1466637.23	1466637.46	1466637.69	0.0137	0.0061 *
Earth	-697-06-12 14:24 J	1467006.92	1467007.10	1467007.30	0.0136	0.0091
Moon	-697-06-12 18:00 J	1467007.08	1467007.25	1467007.43	0.0136	0.0098 *
Moon	-696-06-17 01:12 J	1467376.44	1467376.55	1467376.71	0.0136	0.0116
Earth	-696-06-17 05:31 J	1467376.61	1467376.73	1467376.84	0.0136	0.0121 *
Mercury	-669-09-11 06:28 J	1477324.71	1477324.77	1477324.82	0.0135	0.0120
Mercury	-669-12-08 09:21 J	1477412.81	1477412.89	1477412.98	0.0135	0.0103
Mars	-668-02-14 14:24 J	1477480.85	1477481.10	1477481.39	0.0135	0.0058
Mercury	-668-03-06 12:28 J	1477500.92	1477501.02	1477501.13	0.0135	0.0085
Mercury	-668-06-02 15:35 J	1477589.04	1477589.15	1477589.27	0.0135	0.0068
Mercury	-668-08-29 18:43 J	1477677.16	1477677.28	1477677.41	0.0135	0.0050
Mercury	-668-11-25 21:50 J	1477765.29	1477765.41	1477765.54	0.0135	0.0032
Mercury	-667-02-22 00:57 J	1477853.41	1477853.54	1477853.67	0.0136	0.0014
Mercury	-667-05-21 04:04 J	1477941.54	1477941.67	1477941.80	0.0136	0.0003
Mercury	-667-08-17 07:12 J	1478029.67	1478029.80	1478029.93	0.0136	0.0021
Mercury	-667-11-13 10:04 J	1478117.80	1478117.92	1478118.05	0.0136	0.0039

Mars	-666-01-17 00:43 J	1478182.30	1478182.53	1478182.77	0.0136	0.0086
Mercury	-666-02-09 13:12 J	1478205.93	1478206.05	1478206.17	0.0136	0.0057
Mercury	-666-05-08 16:19 J	1478294.07	1478294.18	1478294.29	0.0136	0.0074
Mercury	-666-08-04 19:12 J	1478382.21	1478382.30	1478382.40	0.0136	0.0092
Mercury	-666-10-31 22:04 J	1478470.36	1478470.42	1478470.51	0.0136	0.0111
Mercury	-665-01-28 01:26 J	1478558.52	1478558.56	1478558.61	0.0136	0.0127
Earth	-660-11-12 05:45 J	1480673.65	1480673.74	1480673.87	0.0139	0.0125
Moon	-660-11-12 06:28 J	1480673.67	1480673.77	1480673.89	0.0139	0.0125 *
Venus	-659-02-21 19:55 J	1480775.21	1480775.33	1480775.49	0.0139	0.0106
Venus	-659-10-06 04:33 J	1481001.50	1481001.69	1481001.89	0.0139	0.0059
Moon	-659-11-16 17:31 J	1481043.06	1481043.23	1481043.40	0.0139	0.0098
Earth	-659-11-16 18:14 J	1481043.09	1481043.26	1481043.46	0.0139	0.0095 *
Venus	-658-05-20 12:57 J	1481227.83	1481228.04	1481228.26	0.0140	0.0012
Earth	-658-11-21 07:26 J	1481412.61	1481412.81	1481413.05	0.0140	0.0063
Moon	-658-11-21 08:38 J	1481412.63	1481412.86	1481413.10	0.0140	0.0057 *
Venus	-657-01-01 21:35 J	1481454.20	1481454.40	1481454.61	0.0140	0.0037
Venus	-657-08-15 06:14 J	1481680.60	1481680.76	1481680.95	0.0140	0.0085
Moon	-657-11-24 19:55 J	1481782.11	1481782.33	1481782.58	0.0140	0.0038
Earth	-657-11-24 21:35 J	1481782.17	1481782.40	1481782.66	0.0140	0.0031 *
Venus	-656-03-29 15:07 J	1481907.08	1481907.13	1481907.21	0.0141	0.0134
Earth	-656-11-29 12:28 J	1482151.78	1482152.02	1482152.27	0.0141	0.0004
Moon	-656-11-29 14:24 J	1482151.85	1482152.10	1482152.36	0.0141	0.0010 *
Moon	-655-12-04 02:09 J	1482521.36	1482521.59	1482521.83	0.0141	0.0033
Earth	-655-12-04 04:04 J	1482521.43	1482521.67	1482521.91	0.0141	0.0037 *
Earth	-654-12-08 19:40 J	1482891.12	1482891.32	1482891.56	0.0142	0.0071
Moon	-654-12-08 22:33 J	1482891.23	1482891.44	1482891.68	0.0142	0.0071 *
Moon	-653-12-12 10:47 J	1483260.79	1483260.95	1483261.11	0.0142	0.0107
Earth	-653-12-12 12:43 J	1483260.88	1483261.03	1483261.22	0.0142	0.0105 *
Earth	-652-12-17 06:28 J	1483630.72	1483630.77	1483630.84	0.0143	0.0138
Moon	-652-12-17 09:50 J	1483630.82	1483630.91	1483631.01	0.0143	0.0131 *

Mercury	-628-04-06 20:38 J	1492142.27	1492142.36	1492142.47	0.0143	0.0121
Mercury	-628-07-04 04:47 J	1492230.56	1492230.70	1492230.86	0.0143	0.0091
Mars	-628-09-06 11:31 J	1492294.67	1492294.98	1492295.29	0.0143	0.0011
Mercury	-628-09-30 13:12 J	1492318.88	1492319.05	1492319.23	0.0143	0.0061
Mercury	-628-12-27 21:35 J	1492407.21	1492407.40	1492407.59	0.0143	0.0030
Mercury	-627-03-26 06:00 J	1492495.55	1492495.75	1492495.94	0.0143	0.0002
Mercury	-627-06-22 14:09 J	1492583.91	1492584.09	1492584.28	0.0143	0.0032
Mercury	-627-09-18 22:19 J	1492672.27	1492672.43	1492672.62	0.0143	0.0063
Mercury	-627-12-16 06:57 J	1492760.65	1492760.79	1492760.94	0.0143	0.0093
Mercury	-626-03-14 15:07 J	1492849.05	1492849.13	1492849.24	0.0142	0.0124
Venus	-620-03-15 08:09 J	1495041.81	1495041.84	1495041.90	0.0140	0.0137
Moon	-620-05-12 21:50 J	1495100.35	1495100.41	1495100.50	0.0140	0.0133
Earth	-620-05-12 23:16 J	1495100.38	1495100.47	1495100.59	0.0140	0.0127 *
Venus	-620-10-27 17:16 J	1495268.07	1495268.22	1495268.40	0.0139	0.0089
Earth	-619-05-17 18:57 J	1495470.12	1495470.29	1495470.50	0.0139	0.0094
Moon	-619-05-17 20:38 J	1495470.17	1495470.36	1495470.58	0.0139	0.0087 *
Venus	-619-06-11 02:38 J	1495494.40	1495494.61	1495494.82	0.0139	0.0041
Venus	-618-01-23 11:31 J	1495720.76	1495720.98	1495721.20	0.0139	0.0006
Moon	-618-05-22 11:45 J	1495839.78	1495839.99	1495840.22	0.0138	0.0068
Earth	-618-05-22 14:09 J	1495839.88	1495840.09	1495840.34	0.0138	0.0062 *
Venus	-618-09-06 19:55 J	1495947.14	1495947.33	1495947.55	0.0138	0.0054
Venus	-617-04-20 04:33 J	1496173.55	1496173.69	1496173.85	0.0138	0.0100
Earth	-617-05-26 08:38 J	1496209.62	1496209.86	1496210.12	0.0138	0.0029
Moon	-617-05-26 11:16 J	1496209.71	1496209.97	1496210.24	0.0138	0.0024 *
Moon	-616-05-30 23:45 J	1496579.23	1496579.49	1496579.74	0.0138	0.0005
Earth	-616-05-31 02:38 J	1496579.35	1496579.61	1496579.87	0.0138	0.0004 *
Earth	-615-06-04 19:12 J	1496949.06	1496949.30	1496949.56	0.0137	0.0036
Moon	-615-06-04 22:33 J	1496949.20	1496949.44	1496949.71	0.0137	0.0032 *
Moon	-614-06-09 08:38 J	1497318.65	1497318.86	1497319.08	0.0137	0.0073
Earth	-614-06-09 11:45 J	1497318.77	1497318.99	1497319.22	0.0137	0.0067 *

Earth	-613-06-13 03:07 J	1497688.46	1497688.63	1497688.82	0.0136	0.0098
Moon	-613-06-13 06:43 J	1497688.60	1497688.78	1497688.99	0.0136	0.0090 *
Moon	-612-06-17 13:55 J	1498058.07	1498058.08	1498058.15	0.0136	0.0134
Earth	-612-06-17 17:31 J	1498058.16	1498058.23	1498058.34	0.0136	0.0127
Mercury	-585-07-05 10:47 J	1507937.93	1507937.95	1507937.97	0.0135	0.0132
Mercury	-585-10-01 13:40 J	1508026.01	1508026.07	1508026.15	0.0135	0.0115
Mercury	-585-12-28 16:47 J	1508114.12	1508114.20	1508114.30	0.0135	0.0097
Mercury	-584-03-26 20:09 J	1508202.23	1508202.34	1508202.44	0.0135	0.0079
Mercury	-584-06-22 23:02 J	1508290.35	1508290.46	1508290.58	0.0135	0.0062
Mercury	-584-09-19 02:09 J	1508378.47	1508378.59	1508378.72	0.0135	0.0044
Mars	-584-10-10 12:14 J	1508399.70	1508400.01	1508400.31	0.0135	0.0002
Mercury	-584-12-16 05:16 J	1508466.59	1508466.72	1508466.85	0.0135	0.0027
Mercury	-583-03-14 08:24 J	1508554.72	1508554.85	1508554.98	0.0136	0.0009
Mercury	-583-06-10 11:31 J	1508642.85	1508642.98	1508643.11	0.0136	0.0009
Mercury	-583-09-06 14:38 J	1508730.98	1508731.11	1508731.24	0.0136	0.0027
Mercury	-583-12-03 17:31 J	1508819.11	1508819.23	1508819.36	0.0136	0.0045
Mercury	-582-03-01 20:38 J	1508907.25	1508907.36	1508907.48	0.0136	0.0062
Mercury	-582-05-28 23:45 J	1508995.39	1508995.49	1508995.60	0.0136	0.0080
Mercury	-582-08-25 02:52 J	1509083.53	1509083.62	1509083.71	0.0136	0.0097
Mercury	-582-11-21 05:45 J	1509171.68	1509171.74	1509171.81	0.0136	0.0115
Mercury	-581-02-17 08:38 J	1509259.85	1509259.86	1509259.90	0.0136	0.0134
Venus	-576-10-22 05:31 J	1511333.65	1511333.73	1511333.83	0.0139	0.0126
Earth	-576-11-12 18:00 J	1511355.14	1511355.25	1511355.39	0.0139	0.0120
Moon	-576-11-12 18:14 J	1511355.15	1511355.26	1511355.41	0.0139	0.0119 *
Venus	-575-06-05 13:55 J	1511559.91	1511560.08	1511560.26	0.0139	0.0079
Moon	-575-11-17 06:43 J	1511724.60	1511724.78	1511724.98	0.0139	0.0087
Earth	-575-11-17 06:57 J	1511724.60	1511724.79	1511724.98	0.0139	0.0089 *
Venus	-574-01-17 22:04 J	1511786.22	1511786.42	1511786.64	0.0140	0.0033
Venus	-574-09-01 06:57 J	1512012.58	1512012.79	1512013.01	0.0140	0.0016
Earth	-574-11-21 19:55 J	1512094.11	1512094.33	1512094.57	0.0140	0.0057

Moon	-574-11-21 20:38 J	1512094.15	1512094.36	1512094.61	0.0140	0.0063 *
Venus	-573-04-14 15:21 J	1512238.96	1512239.14	1512239.35	0.0140	0.0064
Moon	-573-11-25 09:21 J	1512463.65	1512463.89	1512464.13	0.0140	0.0018
Earth	-573-11-25 10:04 J	1512463.68	1512463.92	1512464.17	0.0140	0.0025 *
Venus	-573-11-27 00:28 J	1512465.39	1512465.52	1512465.65	0.0140	0.0112
Earth	-572-11-30 00:43 J	1512833.29	1512833.53	1512833.78	0.0141	0.0009
Moon	-572-11-30 02:09 J	1512833.33	1512833.59	1512833.85	0.0141	0.0002 *
Moon	-571-12-04 14:24 J	1513202.87	1513203.10	1513203.33	0.0141	0.0047
Earth	-571-12-04 16:04 J	1513202.93	1513203.17	1513203.41	0.0141	0.0042 *
Earth	-570-12-09 07:40 J	1513572.63	1513572.82	1513573.05	0.0142	0.0076
Moon	-570-12-09 09:35 J	1513572.69	1513572.90	1513573.13	0.0142	0.0074 *
Moon	-569-12-12 22:04 J	1513942.28	1513942.42	1513942.60	0.0142	0.0107
Earth	-569-12-13 00:43 J	1513942.38	1513942.53	1513942.70	0.0142	0.0110 *
Earth	-568-12-17 18:14 J	1514312.26	1514312.26	1514312.27	0.0143	0.0143
Mars	-545-05-29 01:12 J	1522510.39	1522510.55	1522510.72	0.0144	0.0122
Mercury	-544-04-27 04:04 J	1522843.56	1522843.67	1522843.79	0.0143	0.0114
Mercury	-544-07-24 12:14 J	1522931.87	1522932.01	1522932.18	0.0143	0.0083
Mercury	-544-10-20 20:38 J	1523020.19	1523020.36	1523020.55	0.0143	0.0053
Mercury	-543-01-17 05:02 J	1523108.52	1523108.71	1523108.90	0.0143	0.0022
Mercury	-543-04-15 13:26 J	1523196.86	1523197.06	1523197.25	0.0143	0.0009
Mars	-543-05-03 02:38 J	1523214.32	1523214.61	1523214.90	0.0143	0.0054
Mercury	-543-07-12 21:35 J	1523285.22	1523285.40	1523285.59	0.0143	0.0039
Mercury	-543-10-09 06:00 J	1523373.58	1523373.75	1523373.92	0.0143	0.0070
Mercury	-542-01-05 14:09 J	1523461.97	1523462.09	1523462.24	0.0143	0.0101
Mercury	-542-04-03 22:19 J	1523550.38	1523550.43	1523550.52	0.0142	0.0132
Moon	-536-05-13 09:07 J	1525781.77	1525781.88	1525782.03	0.0140	0.0118
Earth	-536-05-13 09:50 J	1525781.80	1525781.91	1525782.04	0.0140	0.0122 *
Venus	-536-06-27 01:26 J	1525826.44	1525826.56	1525826.71	0.0139	0.0111
Venus	-535-02-08 11:02 J	1526052.76	1526052.96	1526053.15	0.0139	0.0063
Earth	-535-05-18 05:31 J	1526151.55	1526151.73	1526151.94	0.0139	0.0089

Moon	-535-05-18 07:12 J	1526151.62	1526151.80	1526152.00	0.0139	0.0096 *
Venus	-535-09-22 19:55 J	1526279.12	1526279.33	1526279.55	0.0139	0.0015
Venus	-534-05-07 04:47 J	1526505.49	1526505.70	1526505.92	0.0139	0.0032
Moon	-534-05-22 23:45 J	1526521.26	1526521.49	1526521.73	0.0138	0.0050
Earth	-534-05-23 00:57 J	1526521.31	1526521.54	1526521.79	0.0138	0.0057 *
Venus	-534-12-19 13:12 J	1526731.88	1526732.05	1526732.24	0.0138	0.0079
Earth	-533-05-26 19:26 J	1526891.07	1526891.31	1526891.58	0.0138	0.0024
Moon	-533-05-26 22:04 J	1526891.16	1526891.42	1526891.69	0.0138	0.0027 *
Venus	-533-08-01 21:50 J	1526958.33	1526958.41	1526958.51	0.0138	0.0125
Moon	-532-05-31 11:02 J	1527260.71	1527260.96	1527261.21	0.0138	0.0010
Earth	-532-05-31 13:26 J	1527260.80	1527261.06	1527261.32	0.0138	0.0009 *
Earth	-531-06-05 06:14 J	1527630.52	1527630.76	1527631.01	0.0137	0.0040
Moon	-531-06-05 09:07 J	1527630.63	1527630.88	1527631.14	0.0137	0.0044 *
Moon	-530-06-09 19:12 J	1528000.09	1528000.30	1528000.54	0.0137	0.0066
Earth	-530-06-09 22:33 J	1528000.23	1528000.44	1528000.67	0.0137	0.0072 *
Earth	-529-06-13 13:40 J	1528369.92	1528370.07	1528370.26	0.0136	0.0102
Moon	-529-06-13 17:16 J	1528370.06	1528370.22	1528370.38	0.0136	0.0109 *
Moon	-528-06-18 01:12 J	1528739.46	1528739.55	1528739.65	0.0136	0.0125
Earth	-528-06-18 04:47 J	1528739.64	1528739.70	1528739.76	0.0136	0.0131 *
Mars	-501-07-04 02:09 J	1538617.39	1538617.59	1538617.84	0.0135	0.0089
Mercury	-501-07-25 17:45 J	1538639.21	1538639.24	1538639.29	0.0135	0.0128
Mercury	-501-10-21 21:07 J	1538727.31	1538727.38	1538727.46	0.0135	0.0110
Mercury	-500-01-18 00:14 J	1538815.42	1538815.51	1538815.61	0.0135	0.0092
Mercury	-500-04-16 03:21 J	1538903.53	1538903.64	1538903.75	0.0135	0.0075
Mercury	-500-07-13 06:28 J	1538991.65	1538991.77	1538991.89	0.0135	0.0057
Mercury	-500-10-09 09:35 J	1539079.77	1539079.90	1539080.03	0.0135	0.0039
Mercury	-499-01-05 12:43 J	1539167.90	1539168.03	1539168.16	0.0135	0.0022
Mercury	-499-04-03 15:50 J	1539256.02	1539256.16	1539256.29	0.0135	0.0005
Mars	-499-06-05 07:40 J	1539318.56	1539318.82	1539319.12	0.0136	0.0053
Mercury	-499-06-30 18:43 J	1539344.15	1539344.28	1539344.42	0.0136	0.0015

Mercury	-499-09-26 21:50 J	1539432.29	1539432.41	1539432.54	0.0136	0.0032
Mercury	-499-12-24 00:57 J	1539520.42	1539520.54	1539520.66	0.0136	0.0049
Mercury	-498-03-22 03:50 J	1539608.55	1539608.66	1539608.78	0.0136	0.0067
Mercury	-498-06-18 06:57 J	1539696.69	1539696.79	1539696.90	0.0136	0.0085
Mercury	-498-09-14 10:04 J	1539784.84	1539784.92	1539785.01	0.0136	0.0102
Mercury	-498-12-11 12:57 J	1539872.99	1539873.04	1539873.11	0.0136	0.0120
Moon	-492-11-13 04:04 J	1542036.55	1542036.67	1542036.83	0.0139	0.0117
Earth	-492-11-13 05:02 J	1542036.59	1542036.71	1542036.86	0.0139	0.0115 *
Venus	-491-02-02 22:04 J	1542118.29	1542118.42	1542118.59	0.0139	0.0101
Venus	-491-09-17 06:57 J	1542344.59	1542344.79	1542344.99	0.0139	0.0054
Earth	-491-11-17 17:31 J	1542406.04	1542406.23	1542406.44	0.0139	0.0084
Moon	-491-11-17 17:16 J	1542406.05	1542406.22	1542406.43	0.0139	0.0088 *
Venus	-490-05-01 15:21 J	1542570.92	1542571.14	1542571.36	0.0140	0.0006
Moon	-490-11-22 06:28 J	1542775.53	1542775.77	1542776.02	0.0140	0.0048
Earth	-490-11-22 06:43 J	1542775.56	1542775.78	1542776.02	0.0140	0.0053 *
Venus	-490-12-13 23:31 J	1542797.29	1542797.48	1542797.70	0.0140	0.0042
Venus	-489-07-27 08:24 J	1543023.69	1543023.85	1543024.02	0.0140	0.0090
Moon	-489-11-25 20:09 J	1543145.11	1543145.34	1543145.58	0.0140	0.0027
Earth	-489-11-25 20:38 J	1543145.12	1543145.36	1543145.61	0.0140	0.0020 *
Venus	-488-03-10 17:16 J	1543250.19	1543250.22	1543250.27	0.0141	0.0138
Earth	-488-11-30 11:02 J	1543514.72	1543514.96	1543515.21	0.0141	0.0013
Moon	-488-11-30 11:45 J	1543514.74	1543514.99	1543515.25	0.0141	0.0020 *
Moon	-487-12-05 01:26 J	1543884.33	1543884.56	1543884.79	0.0141	0.0042
Earth	-487-12-05 02:09 J	1543884.36	1543884.59	1543884.83	0.0141	0.0047 *
Earth	-486-12-09 18:00 J	1544254.05	1544254.25	1544254.46	0.0142	0.0080
Moon	-486-12-09 19:40 J	1544254.12	1544254.32	1544254.54	0.0142	0.0081 *
Moon	-485-12-13 09:07 J	1544623.75	1544623.88	1544624.03	0.0142	0.0115
Earth	-485-12-13 10:33 J	1544623.80	1544623.94	1544624.10	0.0142	0.0114 *
Moon	-484-12-18 06:14 J	1544993.74	1544993.76	1544993.82	0.0143	0.0141
Mars	-460-01-22 17:45 J	1553429.95	1553430.24	1553430.53	0.0143	0.0056

Mercury	-460-02-18 02:52 J	1553456.58	1553456.62	1553456.68	0.0143	0.0138
Mercury	-460-05-17 11:02 J	1553544.85	1553544.96	1553545.10	0.0143	0.0107
Mercury	-460-08-13 19:12 J	1553633.15	1553633.30	1553633.48	0.0143	0.0077
Mercury	-460-11-10 03:50 J	1553721.48	1553721.66	1553721.84	0.0143	0.0046
Mercury	-459-02-06 12:00 J	1553809.81	1553810.00	1553810.20	0.0143	0.0016
Mercury	-459-05-05 20:24 J	1553898.16	1553898.35	1553898.54	0.0143	0.0015
Mercury	-459-08-02 04:33 J	1553986.51	1553986.69	1553986.88	0.0143	0.0046
Mercury	-459-10-29 12:43 J	1554074.88	1554075.03	1554075.21	0.0143	0.0077
Mars	-459-12-27 13:12 J	1554133.91	1554134.05	1554134.25	0.0143	0.0118
Mercury	-458-01-25 21:21 J	1554163.27	1554163.39	1554163.52	0.0143	0.0107
Mercury	-458-04-24 05:31 J	1554251.69	1554251.73	1554251.79	0.0142	0.0138
Venus	-452-02-24 09:07 J	1556384.83	1556384.88	1556384.97	0.0140	0.0133
Earth	-452-05-13 19:12 J	1556463.18	1556463.30	1556463.46	0.0140	0.0118
Moon	-452-05-13 19:26 J	1556463.20	1556463.31	1556463.43	0.0140	0.0123 *
Venus	-452-10-08 18:43 J	1556611.11	1556611.28	1556611.46	0.0139	0.0085
Earth	-451-05-18 15:21 J	1556832.95	1556833.14	1556833.36	0.0139	0.0085
Moon	-451-05-18 15:50 J	1556832.95	1556833.16	1556833.39	0.0139	0.0078 *
Venus	-451-05-23 03:50 J	1556837.45	1556837.66	1556837.88	0.0139	0.0037
Venus	-450-01-04 12:57 J	1557063.82	1557064.04	1557064.26	0.0139	0.0011
Moon	-450-05-23 09:35 J	1557202.69	1557202.90	1557203.14	0.0139	0.0059
Earth	-450-05-23 11:16 J	1557202.73	1557202.97	1557203.21	0.0139	0.0052 *
Venus	-450-08-18 21:50 J	1557290.21	1557290.41	1557290.61	0.0138	0.0058
Venus	-449-04-01 06:28 J	1557516.63	1557516.77	1557516.92	0.0138	0.0104
Earth	-449-05-27 05:45 J	1557572.49	1557572.74	1557573.00	0.0138	0.0019
Moon	-449-05-27 07:12 J	1557572.53	1557572.80	1557573.07	0.0138	0.0014 *
Moon	-448-05-31 21:35 J	1557942.15	1557942.40	1557942.65	0.0138	0.0013
Earth	-448-05-31 23:31 J	1557942.23	1557942.48	1557942.75	0.0138	0.0014 *
Earth	-447-06-05 16:33 J	1558311.96	1558312.19	1558312.45	0.0137	0.0045
Moon	-447-06-05 19:12 J	1558312.06	1558312.30	1558312.56	0.0137	0.0042 *
Moon	-446-06-10 06:28 J	1558681.58	1558681.77	1558681.98	0.0137	0.0082

Earth	-446-06-10 09:07 J	1558681.67	1558681.88	1558682.10	0.0137	0.0076	*
Earth	-445-06-14 00:14 J	1559051.37	1559051.51	1559051.69	0.0136	0.0107	
Moon	-445-06-14 03:21 J	1559051.48	1559051.64	1559051.84	0.0136	0.0100	*
Earth	-444-06-18 14:52 J	1559421.12	1559421.12	1559421.15	0.0136	0.0136	
Mercury	-417-08-15 01:12 J	1569340.51	1569340.55	1569340.61	0.0135	0.0123	
Mercury	-417-11-11 04:19 J	1569428.61	1569428.68	1569428.77	0.0135	0.0105	
Mercury	-416-02-07 07:40 J	1569516.72	1569516.82	1569516.92	0.0135	0.0087	
Mars	-416-02-26 20:52 J	1569536.08	1569536.37	1569536.66	0.0135	0.0035	
Mercury	-416-05-06 10:33 J	1569604.83	1569604.94	1569605.06	0.0135	0.0070	
Mercury	-416-08-02 13:40 J	1569692.95	1569693.07	1569693.20	0.0135	0.0052	
Mercury	-416-10-29 16:47 J	1569781.08	1569781.20	1569781.33	0.0135	0.0035	
Mercury	-415-01-25 19:55 J	1569869.20	1569869.33	1569869.46	0.0135	0.0017	
Mercury	-415-04-23 23:02 J	1569957.33	1569957.46	1569957.59	0.0135	0.0001	
Mercury	-415-07-21 02:09 J	1570045.46	1570045.59	1570045.72	0.0136	0.0019	
Mercury	-415-10-17 05:02 J	1570133.59	1570133.71	1570133.84	0.0136	0.0037	
Mercury	-414-01-13 08:09 J	1570221.72	1570221.84	1570221.97	0.0136	0.0054	
Mars	-414-01-29 05:31 J	1570237.54	1570237.73	1570237.92	0.0136	0.0107	
Mercury	-414-04-11 11:16 J	1570309.86	1570309.97	1570310.08	0.0136	0.0071	
Mercury	-414-07-08 14:24 J	1570398.00	1570398.10	1570398.20	0.0136	0.0089	
Mercury	-414-10-04 17:16 J	1570486.15	1570486.22	1570486.31	0.0136	0.0107	
Mercury	-414-12-31 20:24 J	1570574.31	1570574.35	1570574.41	0.0136	0.0124	
Venus	-408-10-03 07:26 J	1572676.71	1572676.81	1572676.91	0.0139	0.0121	
Moon	-408-11-13 15:07 J	1572717.99	1572718.13	1572718.31	0.0139	0.0109	
Earth	-408-11-13 16:04 J	1572718.04	1572718.17	1572718.34	0.0139	0.0111	*
Venus	-407-05-17 15:21 J	1572902.97	1572903.14	1572903.33	0.0139	0.0075	
Earth	-407-11-18 04:47 J	1573087.50	1573087.70	1573087.91	0.0139	0.0080	
Moon	-407-11-18 05:45 J	1573087.56	1573087.74	1573087.95	0.0139	0.0080	*
Venus	-407-12-29 23:45 J	1573129.28	1573129.49	1573129.71	0.0139	0.0028	
Venus	-406-08-13 08:24 J	1573355.63	1573355.85	1573356.06	0.0140	0.0020	
Moon	-406-11-22 17:02 J	1573456.99	1573457.21	1573457.47	0.0140	0.0053	

Earth	-406-11-22 17:45 J	1573457.01	1573457.24	1573457.48	0.0140	0.0048	*
Venus	-405-03-26 16:47 J	1573582.02	1573582.20	1573582.39	0.0140	0.0068	
Venus	-405-11-08 01:12 J	1573808.45	1573808.55	1573808.69	0.0140	0.0117	
Earth	-405-11-26 07:26 J	1573826.56	1573826.81	1573827.06	0.0140	0.0016	
Moon	-405-11-26 07:55 J	1573826.59	1573826.83	1573827.07	0.0140	0.0009	*
Moon	-404-11-30 21:50 J	1574196.15	1574196.41	1574196.67	0.0141	0.0011	
Earth	-404-11-30 21:50 J	1574196.16	1574196.41	1574196.66	0.0141	0.0017	*
Moon	-403-12-05 12:00 J	1574565.79	1574566.00	1574566.23	0.0141	0.0056	
Earth	-403-12-05 12:43 J	1574565.80	1574566.03	1574566.27	0.0141	0.0051	*
Earth	-402-12-10 04:19 J	1574935.49	1574935.68	1574935.89	0.0142	0.0084	
Moon	-402-12-10 04:47 J	1574935.50	1574935.70	1574935.92	0.0142	0.0081	*
Moon	-401-12-13 19:40 J	1575305.18	1575305.32	1575305.46	0.0142	0.0116	
Earth	-401-12-13 20:52 J	1575305.24	1575305.37	1575305.52	0.0142	0.0117	*
Mercury	-376-03-10 08:52 J	1584157.82	1584157.87	1584157.95	0.0143	0.0135	
Mercury	-376-06-06 17:31 J	1584246.10	1584246.23	1584246.36	0.0143	0.0104	
Mercury	-376-09-03 01:40 J	1584334.41	1584334.57	1584334.74	0.0143	0.0073	
Mars	-376-09-18 03:07 J	1584349.32	1584349.63	1584349.95	0.0143	0.0007	
Mercury	-376-11-30 09:50 J	1584422.73	1584422.91	1584423.10	0.0143	0.0043	
Mercury	-375-02-26 18:14 J	1584511.07	1584511.26	1584511.45	0.0143	0.0012	
Mercury	-375-05-26 02:38 J	1584599.41	1584599.61	1584599.80	0.0143	0.0018	
Mercury	-375-08-22 10:47 J	1584687.77	1584687.95	1584688.13	0.0143	0.0049	
Mercury	-375-11-18 18:57 J	1584776.14	1584776.29	1584776.46	0.0143	0.0080	
Mercury	-374-02-15 03:21 J	1584864.53	1584864.64	1584864.77	0.0143	0.0110	
Mercury	-374-05-14 11:31 J	1584952.97	1584952.98	1584953.03	0.0142	0.0141	
Earth	-368-05-14 02:24 J	1587144.45	1587144.60	1587144.75	0.0140	0.0114	
Moon	-368-05-14 03:07 J	1587144.49	1587144.63	1587144.79	0.0140	0.0111	*
Venus	-368-06-08 00:43 J	1587169.40	1587169.53	1587169.67	0.0140	0.0109	
Venus	-367-01-20 09:35 J	1587395.72	1587395.90	1587396.11	0.0139	0.0062	
Earth	-367-05-18 22:19 J	1587514.23	1587514.43	1587514.65	0.0139	0.0081	
Moon	-367-05-18 22:19 J	1587514.24	1587514.43	1587514.66	0.0139	0.0088	*

Venus	-367-09-03 18:57 J	1587622.08	1587622.29	1587622.51	0.0139	0.0014
Venus	-366-04-18 03:50 J	1587848.46	1587848.66	1587848.88	0.0139	0.0035
Earth	-366-05-23 17:45 J	1587884.01	1587884.24	1587884.50	0.0139	0.0049
Moon	-366-05-23 18:00 J	1587884.02	1587884.25	1587884.49	0.0139	0.0041 *
Venus	-366-11-30 12:43 J	1588074.86	1588075.03	1588075.21	0.0138	0.0081
Earth	-365-05-27 12:43 J	1588253.78	1588254.03	1588254.29	0.0138	0.0016
Moon	-365-05-27 13:55 J	1588253.82	1588254.08	1588254.35	0.0138	0.0020 *
Venus	-365-07-13 21:35 J	1588301.32	1588301.40	1588301.48	0.0138	0.0128
Moon	-364-06-01 05:31 J	1588623.48	1588623.73	1588623.98	0.0138	0.0019
Earth	-364-06-01 06:43 J	1588623.52	1588623.78	1588624.04	0.0138	0.0017 *
Earth	-363-06-06 00:00 J	1588993.26	1588993.50	1588993.74	0.0137	0.0049
Moon	-363-06-06 01:40 J	1588993.32	1588993.57	1588993.82	0.0137	0.0051 *
Moon	-362-06-10 14:09 J	1589362.88	1589363.09	1589363.30	0.0137	0.0074
Earth	-362-06-10 16:04 J	1589362.98	1589363.17	1589363.39	0.0137	0.0080 *
Earth	-361-06-14 07:26 J	1589732.67	1589732.81	1589732.98	0.0136	0.0110
Moon	-361-06-14 09:21 J	1589732.78	1589732.89	1589733.05	0.0136	0.0117 *
Moon	-360-06-18 19:12 J	1590102.27	1590102.30	1590102.38	0.0136	0.0133
Mars	-334-11-21 13:55 J	1599753.97	1599754.08	1599754.23	0.0135	0.0121
Mercury	-333-09-04 08:38 J	1600041.80	1600041.86	1600041.92	0.0135	0.0118
Mercury	-333-12-01 11:31 J	1600129.90	1600129.98	1600130.08	0.0135	0.0101
Mercury	-332-02-27 14:52 J	1600218.02	1600218.12	1600218.22	0.0135	0.0083
Mercury	-332-05-26 18:00 J	1600306.13	1600306.25	1600306.37	0.0135	0.0065
Mercury	-332-08-22 20:52 J	1600394.25	1600394.37	1600394.50	0.0135	0.0048
Mars	-332-10-22 15:07 J	1600454.84	1600455.13	1600455.44	0.0135	0.0017
Mercury	-332-11-19 00:14 J	1600482.38	1600482.51	1600482.64	0.0135	0.0030
Mercury	-331-02-15 03:07 J	1600570.50	1600570.63	1600570.77	0.0135	0.0014
Mercury	-331-05-14 06:14 J	1600658.63	1600658.76	1600658.90	0.0135	0.0006
Mercury	-331-08-10 09:21 J	1600746.76	1600746.89	1600747.02	0.0136	0.0023
Mercury	-331-11-06 12:28 J	1600834.89	1600835.02	1600835.14	0.0136	0.0041
Mercury	-330-02-02 15:35 J	1600923.03	1600923.15	1600923.27	0.0136	0.0058

Mercury	-330-05-01 18:28 J	1601011.17	1601011.27	1601011.38	0.0136	0.0076
Mercury	-330-07-28 21:21 J	1601099.31	1601099.39	1601099.50	0.0136	0.0094
Mercury	-330-10-25 00:43 J	1601187.46	1601187.53	1601187.60	0.0136	0.0111
Mercury	-329-01-21 03:35 J	1601275.62	1601275.65	1601275.70	0.0136	0.0129
Earth	-325-11-09 15:35 J	1603030.12	1603030.15	1603030.21	0.0138	0.0136
Moon	-325-11-09 17:31 J	1603030.16	1603030.23	1603030.32	0.0138	0.0131 *
Moon	-324-11-14 01:26 J	1603399.41	1603399.56	1603399.73	0.0139	0.0109
Earth	-324-11-14 03:21 J	1603399.50	1603399.64	1603399.82	0.0139	0.0106 *
Venus	-323-01-15 00:00 J	1603461.36	1603461.50	1603461.67	0.0139	0.0096
Venus	-323-08-29 08:24 J	1603687.65	1603687.85	1603688.06	0.0139	0.0049
Earth	-323-11-18 15:35 J	1603768.95	1603769.15	1603769.37	0.0139	0.0075
Moon	-323-11-18 17:02 J	1603769.01	1603769.21	1603769.41	0.0139	0.0077 *
Venus	-322-04-12 16:47 J	1603913.99	1603914.20	1603914.42	0.0139	0.0003
Moon	-322-11-23 03:07 J	1604138.39	1604138.63	1604138.89	0.0140	0.0040
Earth	-322-11-23 04:33 J	1604138.47	1604138.69	1604138.94	0.0140	0.0044 *
Venus	-322-11-25 01:12 J	1604140.35	1604140.55	1604140.76	0.0140	0.0046
Venus	-321-07-08 09:35 J	1604366.75	1604366.90	1604367.07	0.0140	0.0094
Earth	-321-11-26 18:14 J	1604508.02	1604508.26	1604508.52	0.0140	0.0012
Moon	-321-11-26 19:12 J	1604508.06	1604508.30	1604508.54	0.0140	0.0017 *
Moon	-320-12-01 07:40 J	1604877.58	1604877.82	1604878.09	0.0141	0.0030
Earth	-320-12-01 08:24 J	1604877.61	1604877.85	1604878.10	0.0141	0.0022 *
Earth	-319-12-05 23:16 J	1605247.25	1605247.47	1605247.71	0.0141	0.0055
Moon	-319-12-05 23:45 J	1605247.27	1605247.49	1605247.72	0.0141	0.0050 *
Earth	-318-12-10 14:38 J	1605616.94	1605617.11	1605617.33	0.0142	0.0089
Moon	-318-12-10 15:07 J	1605616.95	1605617.13	1605617.35	0.0142	0.0091 *
Moon	-317-12-14 06:57 J	1605986.68	1605986.79	1605986.93	0.0142	0.0122
Earth	-317-12-14 07:26 J	1605986.69	1605986.81	1605986.94	0.0142	0.0121 *
Mars	-293-06-09 10:04 J	1614564.72	1614564.92	1614565.14	0.0144	0.0107
Mercury	-292-03-30 15:50 J	1614859.08	1614859.16	1614859.24	0.0143	0.0130
Mercury	-292-06-27 00:00 J	1614947.36	1614947.50	1614947.64	0.0143	0.0099

Mercury	-292-09-23 08:09 J	1615035.68	1615035.84	1615036.01	0.0143	0.0069
Mercury	-292-12-20 16:19 J	1615124.00	1615124.18	1615124.37	0.0143	0.0039
Mercury	-291-03-19 00:43 J	1615212.34	1615212.53	1615212.72	0.0143	0.0008
Mars	-291-05-14 12:00 J	1615268.74	1615269.00	1615269.28	0.0143	0.0068
Mercury	-291-06-15 08:52 J	1615300.68	1615300.87	1615301.07	0.0143	0.0023
Mercury	-291-09-11 17:16 J	1615389.04	1615389.22	1615389.40	0.0143	0.0053
Mercury	-291-12-09 01:26 J	1615477.41	1615477.56	1615477.72	0.0143	0.0083
Mercury	-290-03-07 09:50 J	1615565.80	1615565.91	1615566.03	0.0143	0.0114
Venus	-284-02-05 06:57 J	1617727.74	1617727.79	1617727.87	0.0140	0.0133
Earth	-284-05-14 09:50 J	1617825.77	1617825.91	1617826.09	0.0140	0.0110
Moon	-284-05-14 11:16 J	1617825.84	1617825.97	1617826.12	0.0140	0.0114 *
Venus	-284-09-19 16:33 J	1617954.02	1617954.19	1617954.37	0.0139	0.0085
Venus	-283-05-04 01:40 J	1618180.37	1618180.57	1618180.79	0.0139	0.0037
Moon	-283-05-19 04:47 J	1618195.49	1618195.70	1618195.95	0.0139	0.0071
Earth	-283-05-19 06:14 J	1618195.56	1618195.76	1618195.99	0.0139	0.0077 *
Venus	-283-12-16 10:47 J	1618406.74	1618406.95	1618407.17	0.0139	0.0011
Earth	-282-05-24 01:55 J	1618565.34	1618565.58	1618565.84	0.0139	0.0044
Moon	-282-05-24 02:09 J	1618565.36	1618565.59	1618565.83	0.0139	0.0051 *
Venus	-282-07-30 19:26 J	1618633.13	1618633.31	1618633.52	0.0138	0.0059
Venus	-281-03-13 04:19 J	1618859.56	1618859.68	1618859.84	0.0138	0.0105
Moon	-281-05-27 20:38 J	1618935.09	1618935.36	1618935.63	0.0138	0.0005
Earth	-281-05-27 20:38 J	1618935.11	1618935.36	1618935.62	0.0138	0.0012 *
Moon	-280-06-01 14:09 J	1619304.84	1619305.09	1619305.34	0.0138	0.0019
Earth	-280-06-01 14:38 J	1619304.86	1619305.11	1619305.37	0.0138	0.0021 *
Earth	-279-06-06 07:40 J	1619674.59	1619674.82	1619675.07	0.0137	0.0053
Moon	-279-06-06 08:52 J	1619674.64	1619674.87	1619675.13	0.0137	0.0051 *
Moon	-278-06-10 22:47 J	1620044.27	1620044.45	1620044.65	0.0137	0.0088
Earth	-278-06-10 23:45 J	1620044.31	1620044.49	1620044.71	0.0137	0.0084 *
Earth	-277-06-14 15:35 J	1620414.02	1620414.15	1620414.30	0.0136	0.0114
Moon	-277-06-14 17:31 J	1620414.08	1620414.23	1620414.41	0.0136	0.0107 *

Mercury	-249-06-28 12:28 J	1630655.01	1630655.02	1630655.06	0.0135	0.0132
Mars	-249-07-16 06:28 J	1630672.53	1630672.77	1630673.04	0.0135	0.0070
Mercury	-249-09-24 15:50 J	1630743.10	1630743.16	1630743.23	0.0135	0.0114
Mercury	-249-12-21 18:57 J	1630831.20	1630831.29	1630831.39	0.0135	0.0096
Mercury	-248-03-19 22:04 J	1630919.32	1630919.42	1630919.53	0.0135	0.0079
Mercury	-248-06-16 01:12 J	1631007.44	1631007.55	1631007.67	0.0135	0.0061
Mercury	-248-09-12 04:19 J	1631095.56	1631095.68	1631095.81	0.0135	0.0043
Mercury	-248-12-09 07:26 J	1631183.68	1631183.81	1631183.94	0.0135	0.0026
Mercury	-247-03-07 10:33 J	1631271.81	1631271.94	1631272.07	0.0135	0.0008
Mercury	-247-06-03 13:40 J	1631359.94	1631360.07	1631360.20	0.0136	0.0010
Mars	-247-06-17 09:50 J	1631373.66	1631373.91	1631374.18	0.0136	0.0071
Mercury	-247-08-30 16:33 J	1631448.07	1631448.19	1631448.33	0.0136	0.0028
Mercury	-247-11-26 19:40 J	1631536.20	1631536.32	1631536.45	0.0136	0.0045
Mercury	-246-02-22 22:47 J	1631624.34	1631624.45	1631624.57	0.0136	0.0063
Mercury	-246-05-22 01:55 J	1631712.48	1631712.58	1631712.68	0.0136	0.0080
Mercury	-246-08-18 04:47 J	1631800.62	1631800.70	1631800.80	0.0136	0.0098
Mercury	-246-11-14 07:55 J	1631888.77	1631888.83	1631888.90	0.0136	0.0116
Mercury	-245-02-10 11:02 J	1631976.94	1631976.96	1631976.99	0.0136	0.0133
Earth	-241-11-10 03:21 J	1633711.57	1633711.64	1633711.73	0.0138	0.0130
Moon	-241-11-10 06:00 J	1633711.72	1633711.75	1633711.80	0.0138	0.0137 *
Venus	-240-09-14 09:21 J	1634019.78	1634019.89	1634020.01	0.0139	0.0117
Moon	-240-11-14 12:57 J	1634080.87	1634081.04	1634081.23	0.0139	0.0098
Earth	-240-11-14 14:52 J	1634080.97	1634081.12	1634081.31	0.0139	0.0101 *
Venus	-239-04-28 17:31 J	1634246.05	1634246.23	1634246.42	0.0139	0.0070
Earth	-239-11-19 03:35 J	1634450.43	1634450.65	1634450.86	0.0139	0.0070
Moon	-239-11-19 05:31 J	1634450.53	1634450.73	1634450.95	0.0139	0.0070 *
Venus	-239-12-11 01:40 J	1634472.36	1634472.57	1634472.79	0.0139	0.0023
Venus	-238-07-25 10:04 J	1634698.71	1634698.92	1634699.14	0.0140	0.0025
Moon	-238-11-23 14:38 J	1634819.87	1634820.11	1634820.36	0.0140	0.0042
Earth	-238-11-23 16:19 J	1634819.95	1634820.18	1634820.43	0.0140	0.0038 *

Venus	-237-03-07 18:43 J	1634925.10	1634925.28	1634925.46	0.0140	0.0072
Venus	-237-10-20 03:07 J	1635151.53	1635151.63	1635151.75	0.0140	0.0121
Earth	-237-11-27 05:45 J	1635189.50	1635189.74	1635190.00	0.0140	0.0006
Moon	-237-11-27 07:26 J	1635189.57	1635189.81	1635190.05	0.0140	0.0001 *
Moon	-236-12-01 18:43 J	1635559.03	1635559.28	1635559.54	0.0141	0.0020
Earth	-236-12-01 20:09 J	1635559.09	1635559.34	1635559.58	0.0141	0.0027 *
Earth	-235-12-06 10:47 J	1635928.73	1635928.95	1635929.18	0.0141	0.0060
Moon	-235-12-06 11:16 J	1635928.77	1635928.97	1635929.20	0.0141	0.0067 *
Moon	-234-12-11 01:40 J	1636298.38	1636298.57	1636298.78	0.0142	0.0089
Earth	-234-12-11 02:24 J	1636298.43	1636298.60	1636298.80	0.0142	0.0094 *
Moon	-233-12-14 18:28 J	1636668.18	1636668.27	1636668.41	0.0142	0.0126
Earth	-233-12-14 18:57 J	1636668.19	1636668.29	1636668.42	0.0142	0.0126 *
Mars	-208-02-03 00:43 J	1645484.24	1645484.53	1645484.84	0.0143	0.0044
Mercury	-208-04-19 22:33 J	1645560.35	1645560.44	1645560.54	0.0143	0.0124
Mercury	-208-07-17 06:43 J	1645648.64	1645648.78	1645648.93	0.0143	0.0094
Mercury	-208-10-13 14:52 J	1645736.95	1645737.12	1645737.30	0.0143	0.0064
Mercury	-207-01-09 23:02 J	1645825.28	1645825.46	1645825.65	0.0143	0.0034
Mercury	-207-04-08 07:26 J	1645913.62	1645913.81	1645914.00	0.0143	0.0003
Mercury	-207-07-05 15:50 J	1646001.97	1646002.16	1646002.35	0.0143	0.0027
Mercury	-207-10-01 23:45 J	1646090.32	1646090.49	1646090.68	0.0143	0.0058
Mercury	-207-12-29 08:09 J	1646178.69	1646178.84	1646179.00	0.0143	0.0088
Mars	-206-01-07 22:04 J	1646188.32	1646188.42	1646188.58	0.0143	0.0129
Mercury	-206-03-27 16:19 J	1646267.09	1646267.18	1646267.30	0.0142	0.0119
Moon	-201-05-09 18:14 J	1648137.22	1648137.26	1648137.34	0.0140	0.0136
Earth	-201-05-09 20:52 J	1648137.34	1648137.37	1648137.43	0.0140	0.0137 *
Earth	-200-05-14 17:45 J	1648507.09	1648507.24	1648507.42	0.0140	0.0105
Moon	-200-05-14 20:09 J	1648507.18	1648507.34	1648507.52	0.0140	0.0103 *
Venus	-200-05-19 23:16 J	1648512.33	1648512.47	1648512.60	0.0140	0.0109
Venus	-199-01-01 08:09 J	1648738.66	1648738.84	1648739.05	0.0139	0.0061
Moon	-199-05-19 12:43 J	1648876.82	1648877.03	1648877.26	0.0139	0.0078

Earth	-199-05-19 14:09 J	1648876.88	1648877.09	1648877.32	0.0139	0.0072	*
Venus	-199-08-15 17:31 J	1648965.01	1648965.23	1648965.45	0.0139	0.0013	
Venus	-198-03-30 02:24 J	1649191.40	1649191.60	1649191.82	0.0139	0.0035	
Earth	-198-05-24 09:21 J	1649246.66	1649246.89	1649247.15	0.0139	0.0040	
Moon	-198-05-24 10:47 J	1649246.72	1649246.95	1649247.21	0.0139	0.0033	*
Venus	-198-11-11 11:16 J	1649417.80	1649417.97	1649418.15	0.0138	0.0082	
Moon	-197-05-28 03:50 J	1649616.40	1649616.66	1649616.93	0.0138	0.0012	
Earth	-197-05-28 04:19 J	1649616.43	1649616.68	1649616.94	0.0138	0.0007	*
Venus	-197-06-24 19:40 J	1649644.26	1649644.32	1649644.42	0.0138	0.0128	
Earth	-196-06-01 22:04 J	1649986.17	1649986.42	1649986.68	0.0138	0.0026	
Moon	-196-06-01 22:19 J	1649986.19	1649986.43	1649986.68	0.0138	0.0029	*
Moon	-195-06-06 15:07 J	1650355.90	1650356.13	1650356.39	0.0137	0.0058	
Earth	-195-06-06 15:07 J	1650355.91	1650356.13	1650356.38	0.0137	0.0057	*
Moon	-194-06-11 06:14 J	1650725.58	1650725.76	1650725.98	0.0137	0.0084	
Earth	-194-06-11 07:26 J	1650725.62	1650725.81	1650726.02	0.0137	0.0088	*
Earth	-193-06-14 22:47 J	1651095.33	1651095.45	1651095.59	0.0136	0.0118	
Moon	-193-06-14 23:31 J	1651095.39	1651095.48	1651095.61	0.0136	0.0123	*
Mercury	-165-07-18 19:40 J	1661356.29	1661356.32	1661356.37	0.0135	0.0128	
Mercury	-165-10-14 23:02 J	1661444.39	1661444.46	1661444.54	0.0135	0.0110	
Mercury	-164-01-11 02:09 J	1661532.50	1661532.59	1661532.69	0.0135	0.0092	
Mars	-164-03-10 22:04 J	1661591.12	1661591.42	1661591.72	0.0135	0.0019	
Mercury	-164-04-09 05:16 J	1661620.61	1661620.72	1661620.83	0.0135	0.0075	
Mercury	-164-07-06 08:24 J	1661708.73	1661708.85	1661708.97	0.0135	0.0057	
Mercury	-164-10-02 11:31 J	1661796.86	1661796.98	1661797.11	0.0135	0.0039	
Mercury	-164-12-29 14:38 J	1661884.98	1661885.11	1661885.24	0.0135	0.0022	
Mercury	-163-03-27 17:45 J	1661973.11	1661973.24	1661973.37	0.0136	0.0004	
Mercury	-163-06-23 20:52 J	1662061.24	1662061.37	1662061.50	0.0136	0.0014	
Mercury	-163-09-20 00:00 J	1662149.37	1662149.50	1662149.63	0.0136	0.0032	
Mercury	-163-12-17 02:52 J	1662237.50	1662237.62	1662237.75	0.0136	0.0050	
Mars	-162-02-10 04:47 J	1662292.59	1662292.70	1662292.84	0.0136	0.0124	

Mercury	-162-03-15 06:00 J	1662325.64	1662325.75	1662325.87	0.0136	0.0067
Mercury	-162-06-11 09:07 J	1662413.78	1662413.88	1662413.98	0.0136	0.0085
Mercury	-162-09-07 12:14 J	1662501.93	1662502.01	1662502.10	0.0136	0.0102
Mercury	-162-12-04 15:07 J	1662590.08	1662590.13	1662590.20	0.0136	0.0120
Earth	-157-11-10 14:24 J	1664393.01	1664393.10	1664393.22	0.0138	0.0125
Moon	-157-11-10 17:16 J	1664393.11	1664393.22	1664393.35	0.0138	0.0120 *
Venus	-156-05-14 18:14 J	1664578.25	1664578.26	1664578.28	0.0139	0.0138
Moon	-156-11-14 23:02 J	1664762.31	1664762.46	1664762.66	0.0139	0.0100
Earth	-156-11-15 02:24 J	1664762.43	1664762.60	1664762.79	0.0139	0.0095 *
Venus	-156-12-27 02:09 J	1664804.44	1664804.59	1664804.76	0.0139	0.0092
Venus	-155-08-10 10:19 J	1665030.74	1665030.93	1665031.15	0.0139	0.0045
Earth	-155-11-19 14:24 J	1665131.89	1665132.10	1665132.33	0.0139	0.0065
Moon	-155-11-19 16:33 J	1665131.99	1665132.19	1665132.42	0.0139	0.0065 *
Venus	-154-03-24 18:57 J	1665257.07	1665257.29	1665257.50	0.0139	0.0003
Venus	-154-11-06 03:07 J	1665483.44	1665483.63	1665483.84	0.0140	0.0051
Moon	-154-11-24 00:57 J	1665501.30	1665501.54	1665501.80	0.0140	0.0030
Earth	-154-11-24 03:21 J	1665501.41	1665501.64	1665501.90	0.0140	0.0033 *
Venus	-153-06-19 11:45 J	1665709.84	1665709.99	1665710.15	0.0140	0.0098
Earth	-153-11-27 17:16 J	1665870.97	1665871.22	1665871.47	0.0140	0.0002
Moon	-153-11-27 19:12 J	1665871.06	1665871.30	1665871.54	0.0140	0.0006 *
Moon	-152-12-02 05:31 J	1666240.49	1666240.73	1666240.99	0.0141	0.0040
Earth	-152-12-02 07:26 J	1666240.57	1666240.81	1666241.05	0.0141	0.0032 *
Earth	-151-12-06 22:19 J	1666610.21	1666610.43	1666610.66	0.0141	0.0065
Moon	-151-12-06 23:45 J	1666610.28	1666610.49	1666610.72	0.0141	0.0059 *
Moon	-150-12-11 12:57 J	1666979.88	1666980.04	1666980.24	0.0142	0.0102
Earth	-150-12-11 13:40 J	1666979.91	1666980.07	1666980.27	0.0142	0.0099 *
Earth	-149-12-15 06:28 J	1667349.69	1667349.77	1667349.87	0.0142	0.0131
Moon	-149-12-15 07:12 J	1667349.72	1667349.80	1667349.91	0.0142	0.0131 *
Jupiter	-146-09-19 16:47 J	1668357.85	1668358.20	1668358.64	0.0143	0.0096
Mercury	-124-05-10 05:45 J	1676261.65	1676261.74	1676261.86	0.0143	0.0117

Mercury	-124-08-06 13:55 J	1676349.94	1676350.08	1676350.25	0.0143	0.0087
Mars	-124-09-29 18:14 J	1676403.96	1676404.26	1676404.57	0.0143	0.0022
Mercury	-124-11-02 22:19 J	1676438.26	1676438.43	1676438.61	0.0143	0.0057
Mercury	-123-01-30 06:43 J	1676526.59	1676526.78	1676526.97	0.0143	0.0026
Mercury	-123-04-28 14:52 J	1676614.93	1676615.12	1676615.31	0.0143	0.0004
Mercury	-123-07-25 23:02 J	1676703.28	1676703.46	1676703.65	0.0143	0.0035
Mercury	-123-10-22 07:26 J	1676791.64	1676791.81	1676791.98	0.0143	0.0065
Mercury	-122-01-18 15:21 J	1676880.01	1676880.14	1676880.30	0.0143	0.0096
Mercury	-122-04-17 00:00 J	1676968.41	1676968.50	1676968.59	0.0142	0.0126
Moon	-117-05-10 03:50 J	1678818.62	1678818.66	1678818.75	0.0140	0.0135
Earth	-117-05-10 07:12 J	1678818.73	1678818.80	1678818.90	0.0140	0.0132 *
Venus	-116-01-17 06:43 J	1679070.73	1679070.78	1679070.87	0.0140	0.0132
Earth	-116-05-15 03:50 J	1679188.50	1679188.66	1679188.86	0.0140	0.0100
Moon	-116-05-15 06:28 J	1679188.61	1679188.77	1679188.95	0.0140	0.0103 *
Venus	-116-08-31 16:19 J	1679297.01	1679297.18	1679297.36	0.0139	0.0084
Venus	-115-04-15 01:40 J	1679523.36	1679523.57	1679523.78	0.0139	0.0036
Moon	-115-05-19 21:50 J	1679558.17	1679558.41	1679558.65	0.0139	0.0061
Earth	-115-05-20 00:28 J	1679558.29	1679558.52	1679558.74	0.0139	0.0066 *
Venus	-115-11-27 10:33 J	1679749.72	1679749.94	1679750.16	0.0139	0.0012
Earth	-114-05-24 19:26 J	1679928.07	1679928.31	1679928.57	0.0139	0.0034
Moon	-114-05-24 20:52 J	1679928.14	1679928.37	1679928.62	0.0139	0.0041 *
Venus	-114-07-11 19:12 J	1679976.11	1679976.30	1679976.51	0.0139	0.0060
Venus	-113-02-23 03:50 J	1680202.54	1680202.66	1680202.81	0.0138	0.0106
Moon	-113-05-28 12:28 J	1680297.76	1680298.02	1680298.29	0.0138	0.0006
Earth	-113-05-28 14:09 J	1680297.83	1680298.09	1680298.35	0.0138	0.0002 *
Earth	-112-06-02 07:40 J	1680667.57	1680667.82	1680668.08	0.0138	0.0031
Moon	-112-06-02 08:38 J	1680667.62	1680667.86	1680668.11	0.0138	0.0027 *
Moon	-111-06-07 00:43 J	1681037.29	1681037.53	1681037.77	0.0137	0.0062
Earth	-111-06-07 00:28 J	1681037.31	1681037.52	1681037.77	0.0137	0.0063 *
Earth	-110-06-11 16:33 J	1681407.02	1681407.19	1681407.40	0.0137	0.0093

Moon	-110-06-11 16:47 J	1681407.04	1681407.20	1681407.39	0.0137	0.0096 *
Earth	-109-06-15 07:55 J	1681776.74	1681776.83	1681776.97	0.0136	0.0123
Moon	-109-06-15 09:07 J	1681776.75	1681776.88	1681777.03	0.0136	0.0116 *
Mars	-82-12-03 14:52 J	1691808.95	1691809.12	1691809.33	0.0135	0.0104
Mercury	-81-08-08 02:52 J	1692057.58	1692057.62	1692057.68	0.0135	0.0124
Mercury	-81-11-04 06:00 J	1692145.68	1692145.75	1692145.84	0.0135	0.0107
Mercury	-80-01-31 09:21 J	1692233.79	1692233.89	1692233.99	0.0135	0.0088
Mercury	-80-04-29 12:28 J	1692321.91	1692322.02	1692322.13	0.0135	0.0071
Mercury	-80-07-26 15:35 J	1692410.03	1692410.15	1692410.27	0.0135	0.0053
Mercury	-80-10-22 18:43 J	1692498.15	1692498.28	1692498.41	0.0135	0.0035
Mars	-80-11-03 14:24 J	1692509.82	1692510.10	1692510.41	0.0135	0.0035
Mercury	-79-01-18 21:50 J	1692586.28	1692586.41	1692586.54	0.0136	0.0018
Mercury	-79-04-17 00:57 J	1692674.41	1692674.54	1692674.67	0.0136	0.0001
Mercury	-79-07-14 04:04 J	1692762.54	1692762.67	1692762.80	0.0136	0.0018
Mercury	-79-10-10 07:12 J	1692850.67	1692850.80	1692850.92	0.0136	0.0036
Mercury	-78-01-06 10:04 J	1692938.81	1692938.92	1692939.05	0.0136	0.0054
Mercury	-78-04-04 13:12 J	1693026.94	1693027.05	1693027.17	0.0136	0.0071
Mercury	-78-07-01 16:19 J	1693115.09	1693115.18	1693115.28	0.0136	0.0089
Mercury	-78-09-27 19:26 J	1693203.23	1693203.31	1693203.39	0.0136	0.0107
Mercury	-78-12-24 22:19 J	1693291.39	1693291.43	1693291.49	0.0136	0.0125
Earth	-73-11-11 00:57 J	1695074.44	1695074.54	1695074.68	0.0138	0.0121
Moon	-73-11-11 04:33 J	1695074.60	1695074.69	1695074.79	0.0138	0.0127 *
Venus	-72-08-26 10:33 J	1695362.83	1695362.94	1695363.08	0.0139	0.0114
Moon	-72-11-15 10:04 J	1695443.73	1695443.92	1695444.12	0.0139	0.0086
Earth	-72-11-15 12:57 J	1695443.86	1695444.04	1695444.24	0.0139	0.0090 *
Venus	-71-04-09 18:43 J	1695589.10	1695589.28	1695589.48	0.0139	0.0067
Earth	-71-11-20 00:57 J	1695813.33	1695813.54	1695813.78	0.0139	0.0060
Moon	-71-11-20 04:19 J	1695813.46	1695813.68	1695813.91	0.0139	0.0060 *
Venus	-71-11-22 03:07 J	1695815.42	1695815.63	1695815.85	0.0139	0.0020
Venus	-70-07-06 11:31 J	1696041.77	1696041.98	1696042.19	0.0140	0.0028

Moon	-70-11-24 11:45 J	1696182.74	1696182.99	1696183.24	0.0140	0.0030
Earth	-70-11-24 14:09 J	1696182.85	1696183.09	1696183.34	0.0140	0.0028 *
Venus	-69-02-17 19:40 J	1696268.15	1696268.32	1696268.52	0.0140	0.0076
Venus	-69-10-01 04:19 J	1696494.60	1696494.68	1696494.80	0.0140	0.0125
Earth	-69-11-28 03:50 J	1696552.41	1696552.66	1696552.91	0.0140	0.0005
Moon	-69-11-28 06:14 J	1696552.52	1696552.76	1696553.01	0.0140	0.0011 *
Moon	-68-12-02 15:35 J	1696921.91	1696922.15	1696922.41	0.0141	0.0031
Earth	-68-12-02 18:00 J	1696922.02	1696922.25	1696922.50	0.0141	0.0038 *
Earth	-67-12-07 08:52 J	1697291.67	1697291.87	1697292.10	0.0141	0.0071
Moon	-67-12-07 10:33 J	1697291.75	1697291.94	1697292.16	0.0141	0.0077 *
Moon	-66-12-11 23:02 J	1697661.28	1697661.46	1697661.65	0.0142	0.0098
Earth	-66-12-12 00:43 J	1697661.38	1697661.53	1697661.72	0.0142	0.0104 *
Earth	-65-12-15 17:31 J	1698031.17	1698031.23	1698031.31	0.0142	0.0136
Moon	-65-12-15 18:14 J	1698031.22	1698031.26	1698031.34	0.0142	0.0138 *
Mars	-41-06-21 05:31 J	1706619.49	1706619.73	1706619.99	0.0143	0.0088
Mercury	-40-03-03 05:02 J	1706874.68	1706874.71	1706874.77	0.0143	0.0140
Mercury	-40-05-30 13:26 J	1706962.94	1706963.06	1706963.18	0.0143	0.0109
Mercury	-40-08-26 21:35 J	1707051.24	1707051.40	1707051.56	0.0143	0.0079
Mercury	-40-11-23 05:45 J	1707139.56	1707139.74	1707139.92	0.0143	0.0049
Mercury	-39-02-19 13:55 J	1707227.89	1707228.08	1707228.28	0.0143	0.0019
Mercury	-39-05-18 22:19 J	1707316.24	1707316.43	1707316.62	0.0143	0.0012
Mars	-39-05-26 09:35 J	1707323.66	1707323.90	1707324.16	0.0143	0.0086
Mercury	-39-08-15 06:28 J	1707404.59	1707404.77	1707404.96	0.0143	0.0042
Mercury	-39-11-11 14:38 J	1707492.95	1707493.11	1707493.28	0.0143	0.0072
Mercury	-38-02-07 23:02 J	1707581.33	1707581.46	1707581.60	0.0142	0.0103
Mercury	-38-05-07 07:12 J	1707669.74	1707669.80	1707669.88	0.0142	0.0133
Moon	-33-05-10 14:09 J	1709499.98	1709500.09	1709500.21	0.0140	0.0124
Earth	-33-05-10 17:02 J	1709500.13	1709500.21	1709500.34	0.0140	0.0127 *
Venus	-32-05-01 00:14 J	1709855.37	1709855.51	1709855.65	0.0140	0.0106
Earth	-32-05-15 13:40 J	1709869.90	1709870.07	1709870.28	0.0140	0.0095

Moon	-32-05-15 17:02 J	1709870.04	1709870.21	1709870.42	0.0140	0.0094 *
Venus	-32-12-13 09:07 J	1710081.69	1710081.88	1710082.09	0.0139	0.0059
Moon	-31-05-20 07:12 J	1710239.59	1710239.80	1710240.05	0.0139	0.0067
Earth	-31-05-20 10:04 J	1710239.69	1710239.92	1710240.16	0.0139	0.0061 *
Venus	-31-07-27 18:28 J	1710308.05	1710308.27	1710308.49	0.0139	0.0010
Venus	-30-03-11 03:21 J	1710534.43	1710534.64	1710534.86	0.0139	0.0037
Earth	-30-05-25 05:02 J	1710609.46	1710609.71	1710609.97	0.0139	0.0029
Moon	-30-05-25 07:26 J	1710609.57	1710609.81	1710610.07	0.0139	0.0022 *
Venus	-30-10-23 11:45 J	1710760.83	1710760.99	1710761.18	0.0138	0.0085
Moon	-29-05-28 21:35 J	1710979.14	1710979.40	1710979.67	0.0138	0.0003
Earth	-29-05-28 23:31 J	1710979.22	1710979.48	1710979.74	0.0138	0.0004 *
Venus	-29-06-05 20:24 J	1710987.29	1710987.35	1710987.43	0.0138	0.0131
Earth	-28-06-02 17:02 J	1711348.97	1711349.21	1711349.47	0.0138	0.0036
Moon	-28-06-02 18:28 J	1711349.04	1711349.27	1711349.52	0.0138	0.0040 *
Moon	-27-06-07 08:24 J	1711718.63	1711718.85	1711719.10	0.0137	0.0065
Earth	-27-06-07 10:04 J	1711718.69	1711718.92	1711719.14	0.0137	0.0067 *
Earth	-26-06-12 01:55 J	1712088.41	1712088.58	1712088.77	0.0137	0.0097
Moon	-26-06-12 02:09 J	1712088.42	1712088.59	1712088.79	0.0137	0.0094 *
Earth	-25-06-15 17:31 J	1712458.14	1712458.23	1712458.33	0.0136	0.0127
Moon	-25-06-15 16:47 J	1712458.15	1712458.20	1712458.28	0.0136	0.0132 *
Jupiter	-21-09-06 04:33 J	1714001.22	1714001.69	1714002.20	0.0135	0.0039